



HUNTSVILLE TRANSIT STUDY

Final Report

January 2019



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1 EXECUTIVE SUMMARY

STUDY OVERVIEW

The City of Huntsville conducted a comprehensive study of its transit system in 2018 to identify the best approach for optimizing and expanding service over the next five years. The study builds upon the route and schedule improvements implemented as part of a 2011 study that resulted in a 19% ridership increase without any additional service hours.

One of the six elements of the recently completed comprehensive plan, The BIG Picture, is to design a “mobile and sustainable transportation network.” Recommendations of this study support that element by simplifying the route network, reducing rider travel times, increasing frequency on busy corridors, and improving access to employment, educational, and recreational destinations.

This report presents results from the 2018 transit study and includes:

- An **overview of existing conditions** (Chapter 2), including analysis of the transit market in Huntsville, analysis of Huntsville Shuttle and Handi-Ride service performance, and a description of current fare policy;
- A **5-Year Service Plan** (Chapter 3), which outlines detailed service changes year-by-year from 2019 through 2023 along with future considerations;
- A **5-Year Capital Plan** (Chapter 4), with recommendations regarding vehicles, bus stops, transit hubs, pedestrian infrastructure, and rider information;
- **Supporting recommendations** (Chapter 5) regarding performance metrics, service changes, fare policy, paratransit, rideshare service, and branding; and
- A **summary of community outreach** conducted for the study (Chapter 6).

EXISTING CONDITIONS

Huntsville Shuttle ridership increased 80% from 2011 to 2016, while service increased by less than 5%, indicating an increasing demand for transit. Ridership is high along University Drive, at major shopping centers, and in dense, low-income neighborhoods.

Route design varies throughout the system with several loop routes that require riders to travel indirect paths to reach their destinations. Routes are also infrequent, with seven of nine routes operating hourly, and service ends at 6pm or 7pm. Most riders take two buses to reach their destination due to the lack of timed connections outside of the downtown Transfer Center.

Only 17% of bus stops in Huntsville are sheltered and many do not comply with the 2010 Americans with Disabilities Act Standards for Accessible Design. The combination of indirect and infrequent service along with basic bus stop conditions result in long travel times and a less than ideal transit experience for most riders.

Rider feedback obtained through on-board surveys, community meetings, online surveys, and from bus drivers reveal that existing riders overwhelmingly prefer Saturday service, later evening service, and increased frequency over other service and capital investments.

Demand for Handi-Ride paratransit service, which primarily transports seniors to medical and social service destinations, has also increased at a significant rate. Hand-Ride ridership increased by 26% while service increased by 23%, between 2011 and 2016, far outpacing the 10% increase in senior population over the same time period.

5-YEAR SERVICE PLAN

Huntsville Shuttle optimization and expansion recommendations are detailed in a 5-year service plan.

Phase 1 – August 2019

The initial phase of the service plan focuses on restructuring the entire Huntsville Shuttle route network, adding Saturday service, adding later evening service on weekdays, and adding 30-minute service.

- **Saturday service is existing riders' most desired service improvement.** Saturday service improves access to employment, grocery shopping and recreation.
- **Later evening service on weekdays.** Huntsville Shuttle will provide later evening service until 9 p.m. on weekdays.
- **Routes are re-designed to operate as direct as possible.** Loop routes are replaced with two-way service that is more convenient and easier to understand.
- **Underutilized service is reallocated to areas with greater ridership potential.** Mobility is improved in North Huntsville with a new route along Pulaski Pike and a new transit hub at the Showers Recreation Center and Library.
- **Service is increased to employment centers,** such as Bridge Street Town Centre, Research Park, Huntsville Hospital, and Parkway Place.

The approximate incremental annual cost of Phase 1, excluding capital costs, is \$600,000.

Phase 2 – August 2020

The second phase focuses on upgrading the redesigned Route 1 to 30-minute service on weekdays. Route 1 will serve downtown destinations, public senior housing, the Senior Center, Parkway Place, and Walmart on L&N Drive. The approximate incremental annual cost of Phase 2, excluding capital costs, is \$150,000.

Phase 3 – August 2021

The third phase addresses riders' second-most desired service improvement by extending service to 10 p.m. on weekdays and 8 p.m. on Saturdays for all routes. The approximate incremental annual cost of Phase 3, excluding capital costs, is \$200,000.

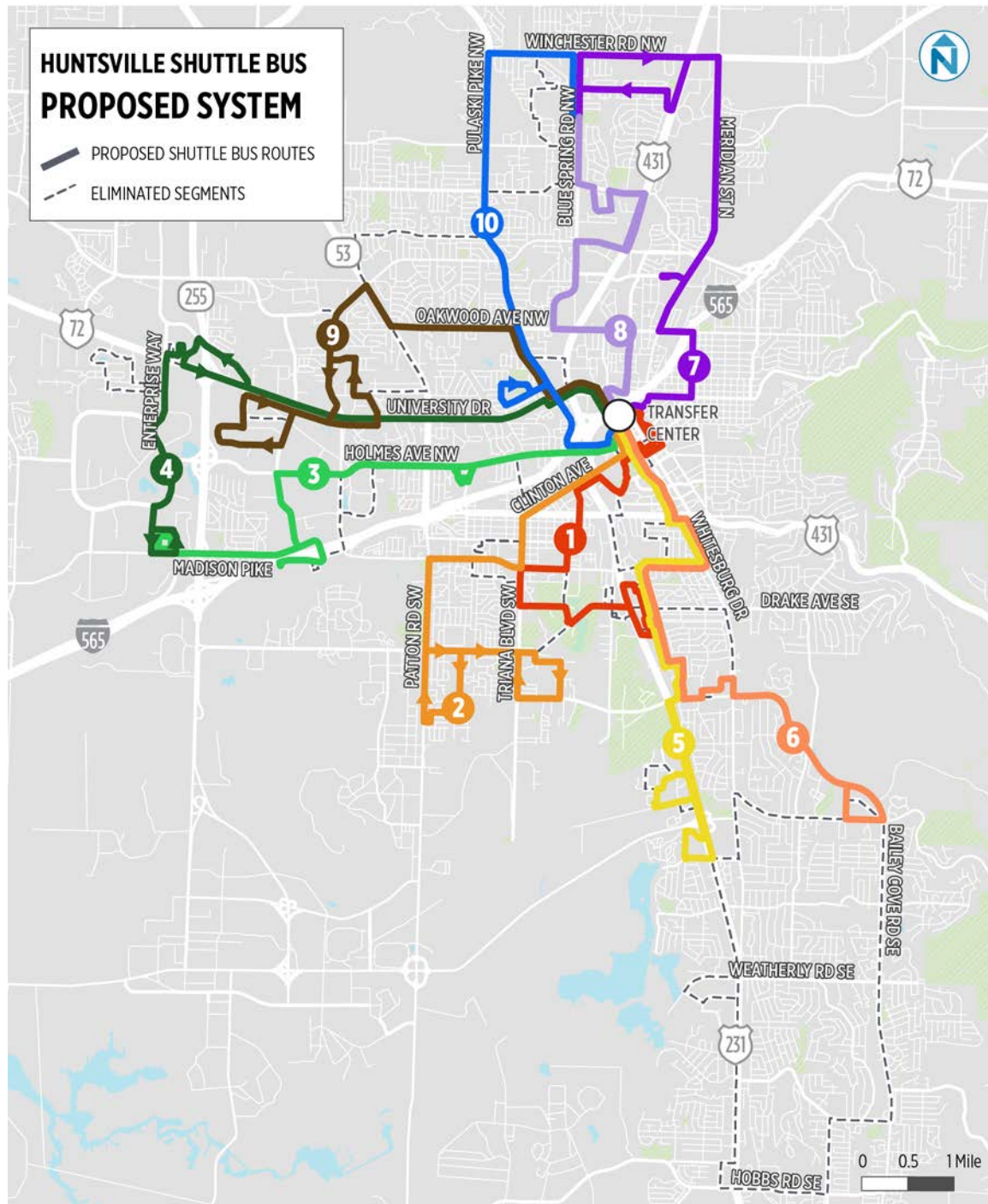
Phase 4 – August 2022

The fourth phase upgrades Routes 3, 7, and 8 to 30-minute service on weekdays to improve systemwide connectivity and improve access to University of Alabama-Huntsville, Alabama A&M University, Calhoun Community College, and Drake State College. The approximate incremental annual cost of Phase 4, excluding capital costs, is \$450,000.

Phase 5 – August 2023

The final phase of the service plan upgrades Route 4 to 15-minute frequency, setting the stage for future BRT implementation. The approximate incremental annual cost of Phase 5, excluding capital costs, is \$300,000.

Figure 1-1 Proposed Route Network



5-YEAR CAPITAL PLAN

Implementation of the 5-year service plan requires several capital investments.

Vehicles

Implementation of the service plan requires six additional buses over the 5-year implementation period. The local share for each bus purchase is approximately \$120,000. The City of Huntsville should consider purchase of higher-capacity 40-foot buses for certain routes. New technology options can be considered for these vehicles, such as electronic fareboxes, automatic passenger counters (APCs), and pre-installed automatic vehicle location systems. APCs can help staff understand ridership patterns and respond to potential overcrowding.

Bus Stops

Most transit systems overlook bus stops as a source of rider information and as an effective marketing tool, particularly when part of a larger re-branding effort. New bus stop signage is recommended to provide essential information, including routes served, contact information, and a unique identification number for trip planning and feedback purposes. The cost of purchasing and installing new signage is approximately \$100,000.

Showers Transit Center

North Huntsville's Showers Center is a vibrant community center featuring a library and multiple recreation options. The service plan recommends increasing transit access at the Showers Center by having it serve as a hub for Routes 7, Route 8, and Route 10. Creating a transit hub at the Showers Center will improve access to the community center, as well as create a safe and inviting connection point for riders that do not need to travel out-of-direction to the downtown Transfer Center.

Pedestrian Infrastructure

Every fixed-route transit rider is a pedestrian, and infrastructure improvements are needed to ensure safe pedestrian access to existing bus stops. As a result, the 5-year capital plan recommends several crosswalks and sidewalk extensions across the city.

Rider Information

Clear and concise transit information is extremely important to existing and potential transit riders. Huntsville Shuttle has the opportunity improve rider information by developing a new rider guide and designing a stand-alone website. In the future, the City of Huntsville should also make its route, schedule, and real-time arrival information publicly accessible to promote the development of additional transit apps that are increasingly appealing to a wider range of riders.

SUPPORTING RECOMMENDATIONS

Several additional policy and non-fixed-route transit recommendations are provided to improve transit efficiency, transparency, equity, and cost-effectiveness.

Performance Metrics

While the 5-year service plan provides a framework for optimization and expansion, the City of Huntsville should closely monitor ridership and on-time performance to determine if route alignment modifications or schedule adjustments are necessary.

Service Changes

Huntsville Shuttle should establish a regular and transparent service change process to continuously improve route alignments, schedules, bus stops, and other capital facilities.

Fare Policy

Several fare recommendations are provided, including more affordable pass options, partnerships with large employers, expanded pass distribution, and mobile ticketing.

Paratransit

The City should clarify existing Handi-Ride service by establishing two brands:

- Huntsville Access – complementary ADA paratransit within $\frac{3}{4}$ mile of the Huntsville Shuttle route network.
- Huntsville Reach – supplemental demand-response service for seniors and persons with disabilities residing beyond $\frac{3}{4}$ mile of the Huntsville Shuttle route network.

Rebranding

The City of Huntsville should re-brand Huntsville Shuttle and Handi-Ride to more accurately describe each service and reflect current terminology. Fixed-route service should be re-branded as Huntsville Transit while Handi-Ride should be replaced with Huntsville Access and Huntsville Reach.

Rideshare

Potential strategies to further promote ridesharing options include establishing designated park-and-ride locations, traffic spot improvements, and targeted community outreach.

Subsidized Taxi/Ride-hailing

The City of Huntsville should evaluate the need and cost of subsidized taxi/ride-hailing service after Huntsville Shuttle evening and Saturday service, which will address many of the service gaps that subsidized private transportation was intended to fill, has an opportunity to mature.

2 EXISTING CONDITIONS

TRANSIT MARKET ANALYSIS

Understanding demographic, socioeconomic, and employment characteristics is essential to planning transit in an urban environment. For example, areas with a high concentration of households with low incomes and limited access to personal vehicle will typically exhibit a higher demand for public transit than high-income neighborhoods.

This section examines transit demand across the City of Huntsville by overlaying the existing Huntsville Shuttle route network with the home or work densities of various segments of the population and workforce, including:

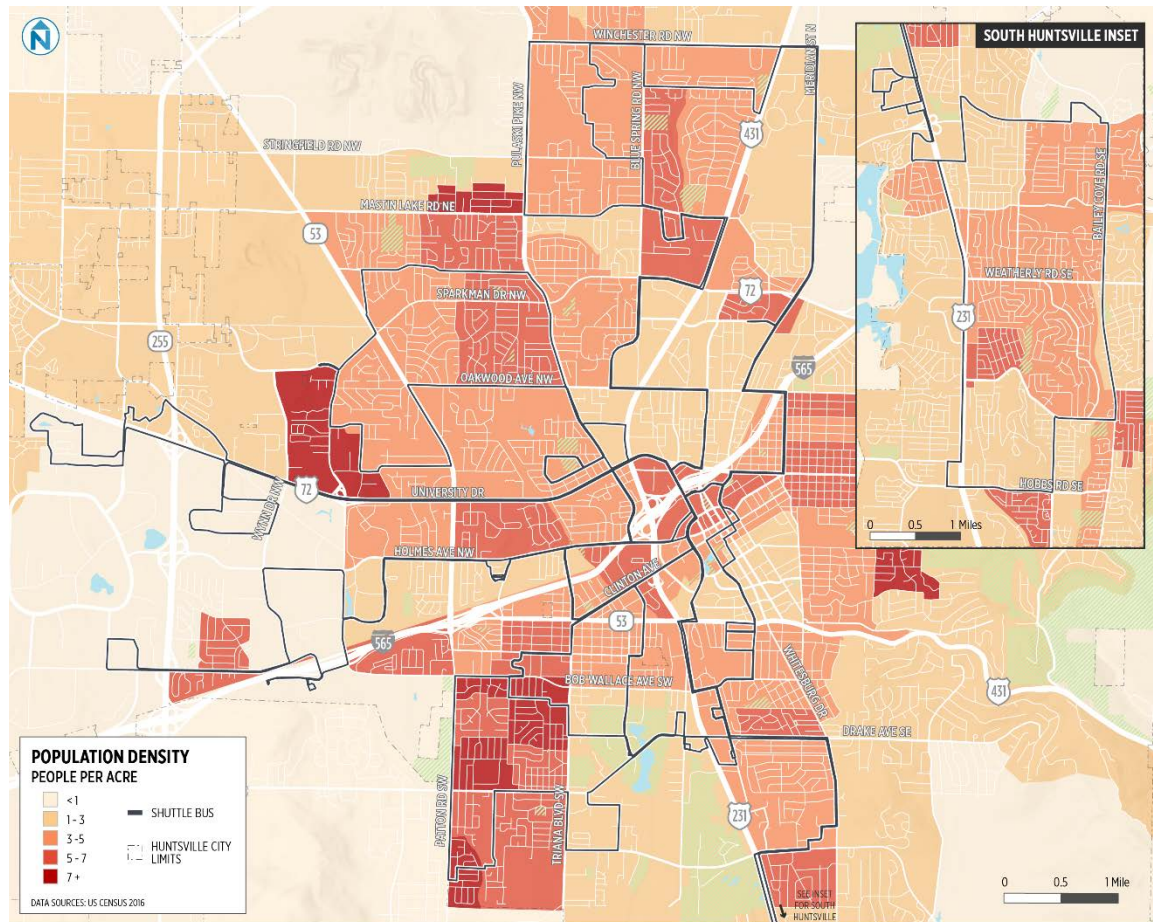
- Demographic characteristics
 - General Population
 - Seniors
 - Young adults
 - People with disabilities
- Socio-economics characteristics
 - Zero-vehicle households
 - Low-income households
 - Renter households
- Employment characteristics
 - Employment density
 - Low-income employment density
 - Downtown Huntsville employees
 - Huntsville Hospital employees
 - University of Alabama-Huntsville employees
 - Alabama A&M University employees

Redstone Arsenal was excluded from the employment analysis due to the Census Bureau not providing complete home location data for Federal employees. In addition, Redstone Arsenal has gate access restrictions that make on-site fixed-route transit infeasible.

Population Density

Contiguous areas of high population density is one of the primary indicators for transit demand. Areas of Huntsville with the greatest population density include southwest Huntsville and the cluster of apartments along Sparkman Drive and Ascent Trail north of University Drive. Population densities in South Huntsville are markedly lower than other areas served by Huntsville Shuttle.

Figure 2-1 Population Density



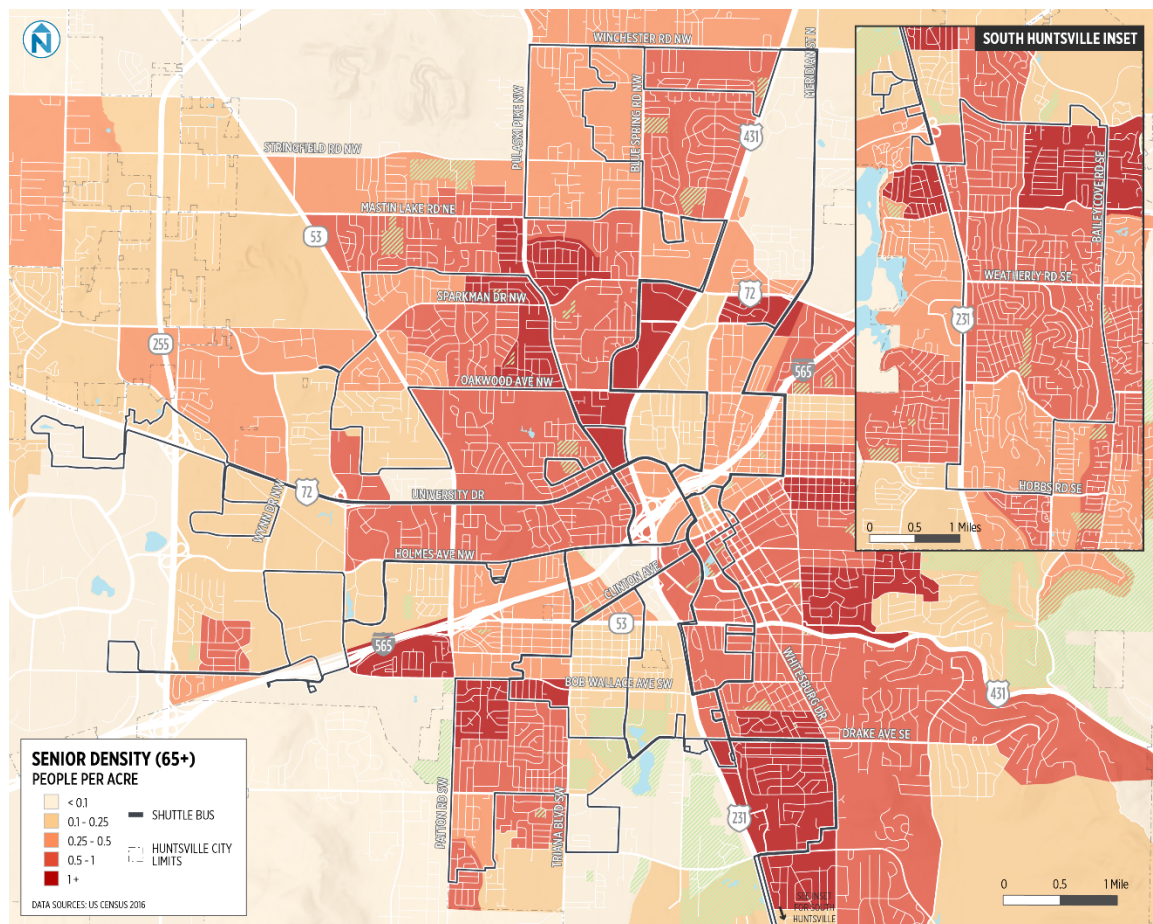
Seniors

Areas with high concentrations of senior residents (age 65 or greater) are widely dispersed across Huntsville. A comparison of senior densities with general population densities reveals that the following areas have a higher proportion of seniors residents:

- Blue Spring Rd south of Sparkman Dr
- Piedmont neighborhood south of Drake Ave
- Bailey Cove Rd between 4 Mile Post Rd and Willowbrook Rd

The City of Huntsville saw an 0.6% increase in the percent of the population over age 65, from 2010 to 2016.¹ This represents an approximately 2,500-person increase in residents over age 65 and a 10% overall increase in seniors.

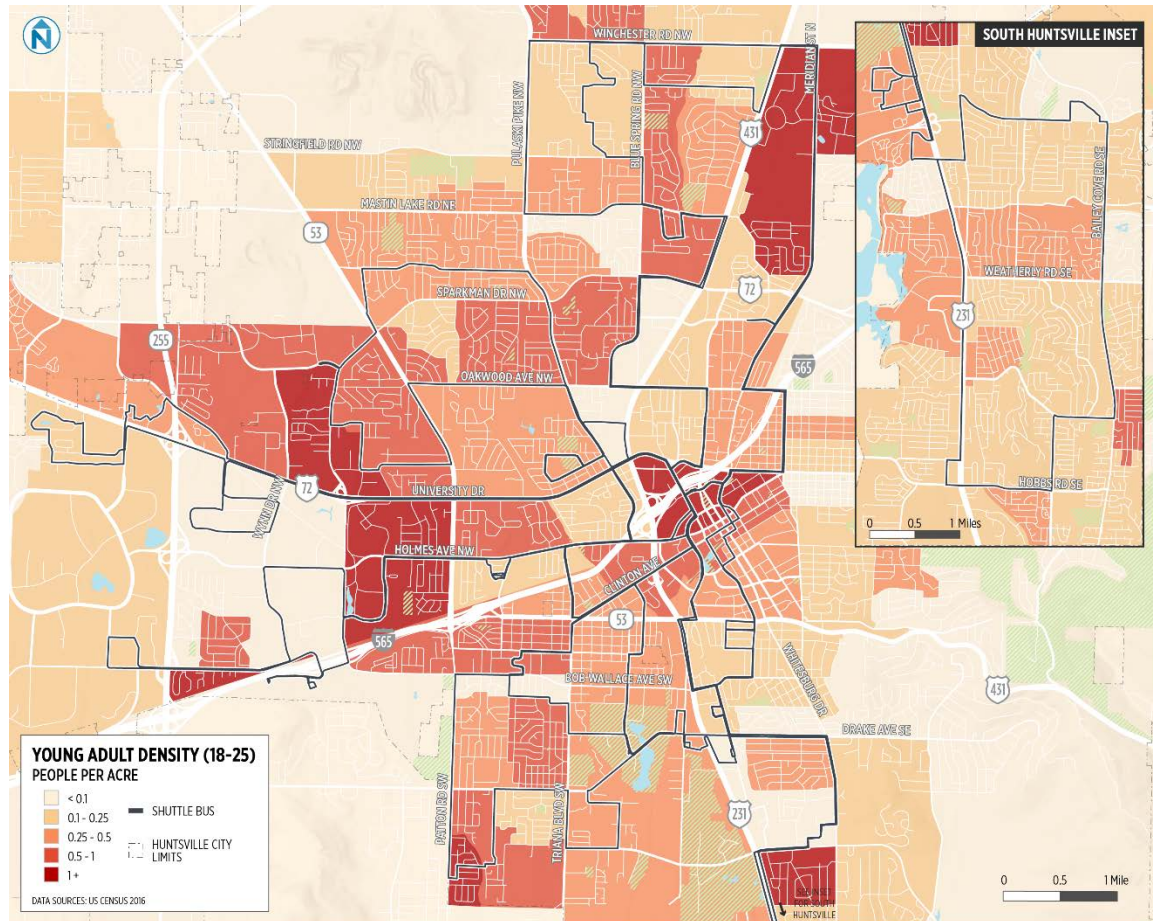
Figure 2-2 Seniors



¹ Based on 2016 ACS 5-year estimates (table S0101; +/- .3%), compared to 2010 Decennial Census SF1.

Young adults (ages 18-25) in Huntsville are most densely concentrated in the areas near Alabama A&M, UAH, Oakwood University, and Searcy Homes public housing just outside the downtown core. Westbury Estates and neighborhoods east of Patton Rd also show high concentrations of young adults.

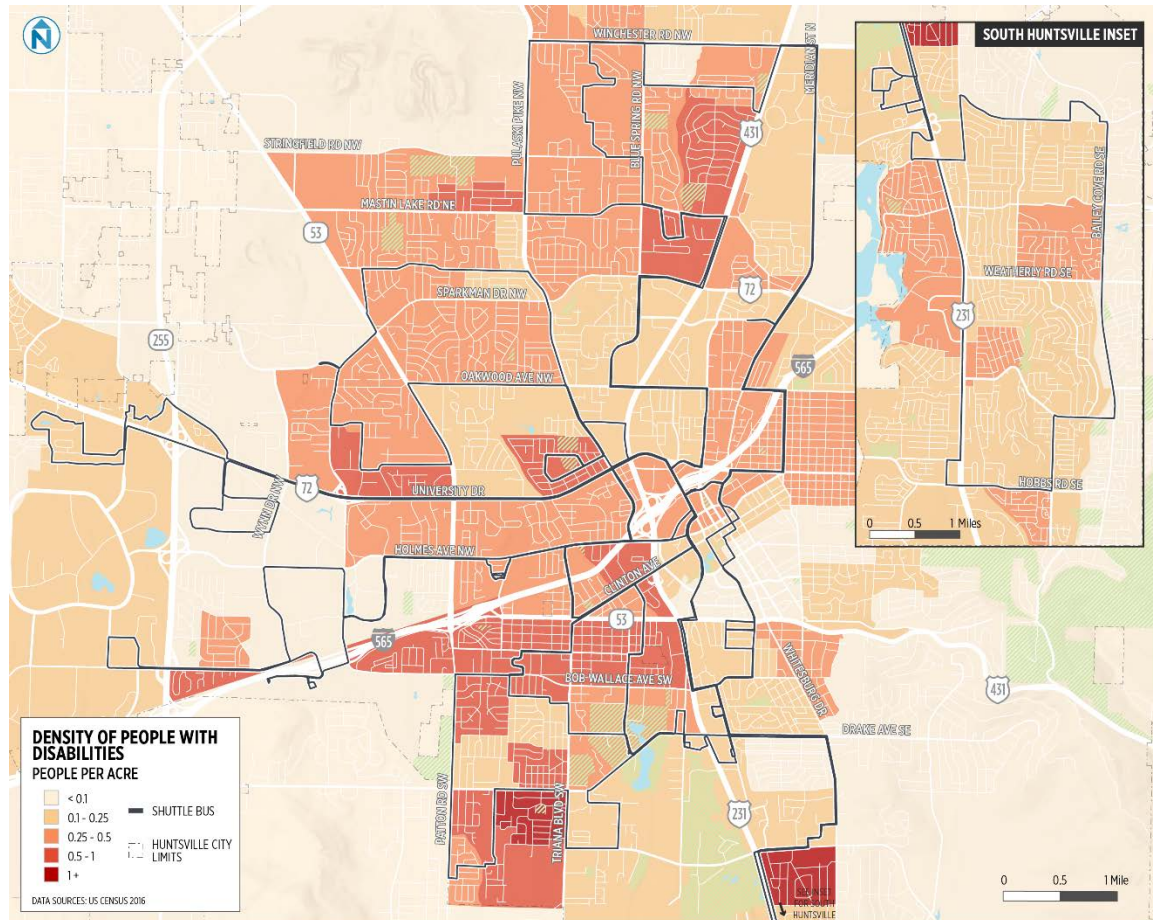
Figure 2-3 Young Adults



People with Disabilities

People with disabilities are most densely concentrated south of Crestwood Hospital and west of Triana Blvd SW. Calvary Hill, First Seventh-Day Adventist Apartments, and high-density housing along University Drive also show relatively high concentrations of people with disabilities.

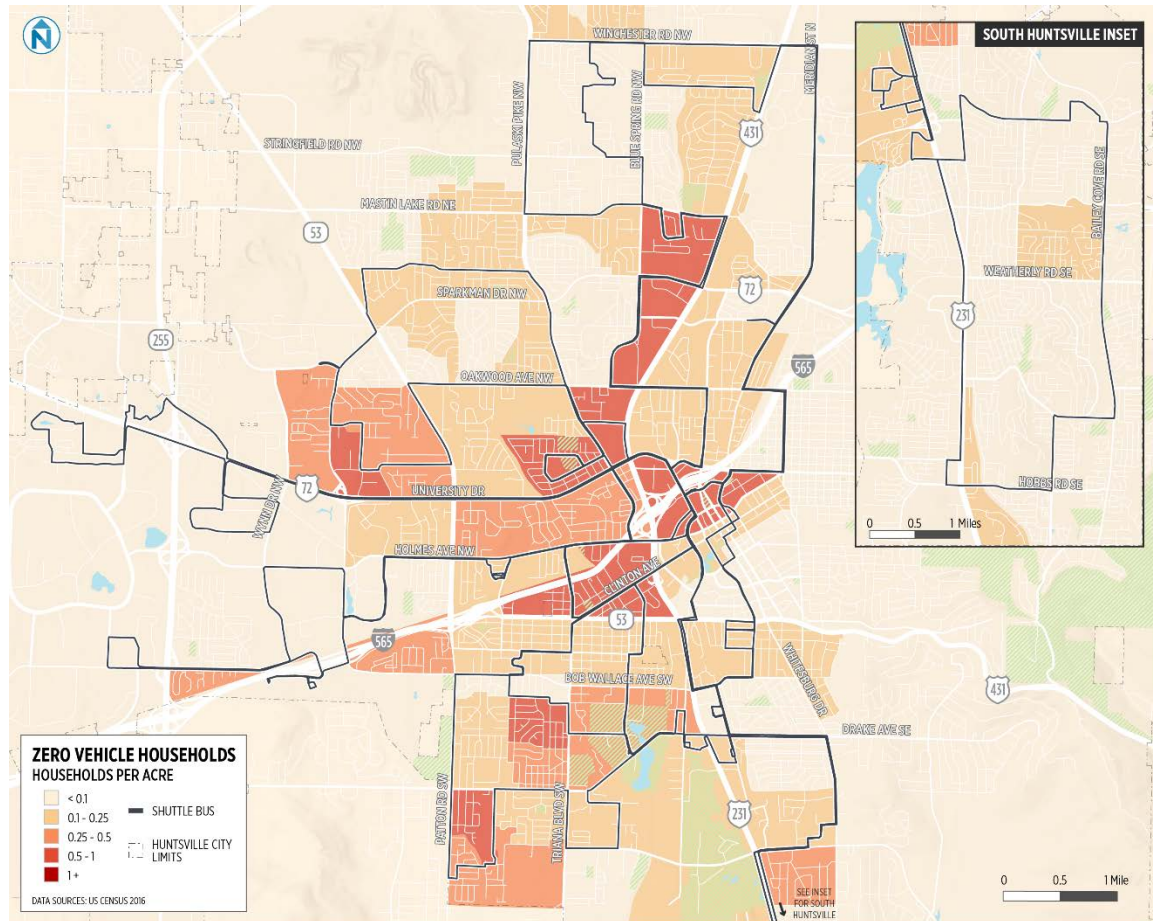
Figure 2-4 People with Disabilities



Zero-Vehicle Households

Zero-vehicle households in Huntsville are most prominent in areas with public housing along Seminole Drive and Dallas Avenue, as well as on Calvary Hill. Neighborhoods along Blue Spring Road, Patton Road and Ascent Trail also show relatively high rates of households without vehicles.

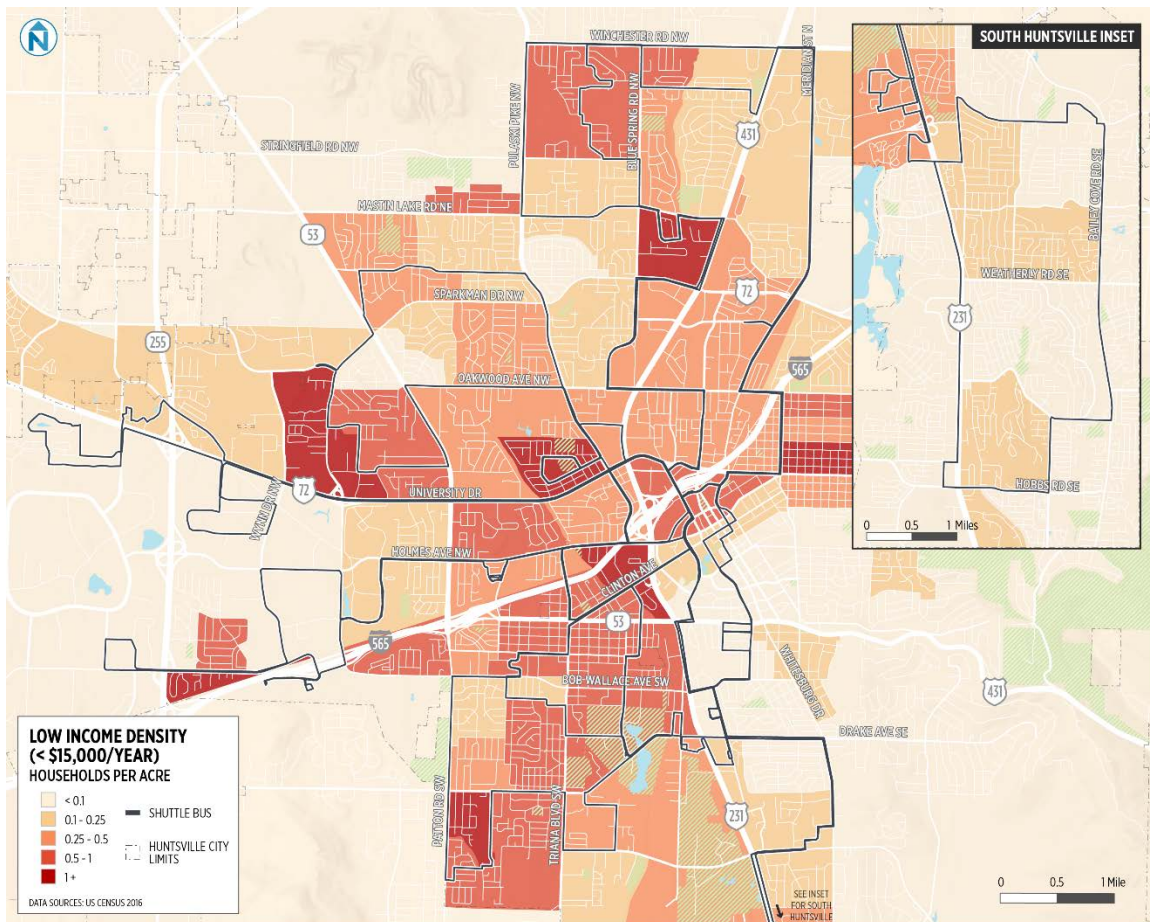
Figure 2-5 Density of Zero-Vehicle Households



Low-Income Households

High concentrations of low-income households correspond with high-density apartments and/or public housing in Venona Ave, Ascent Trail, Seminole Dr, Patton Rd, Madison Pike, and the Calvary Hill neighborhood.

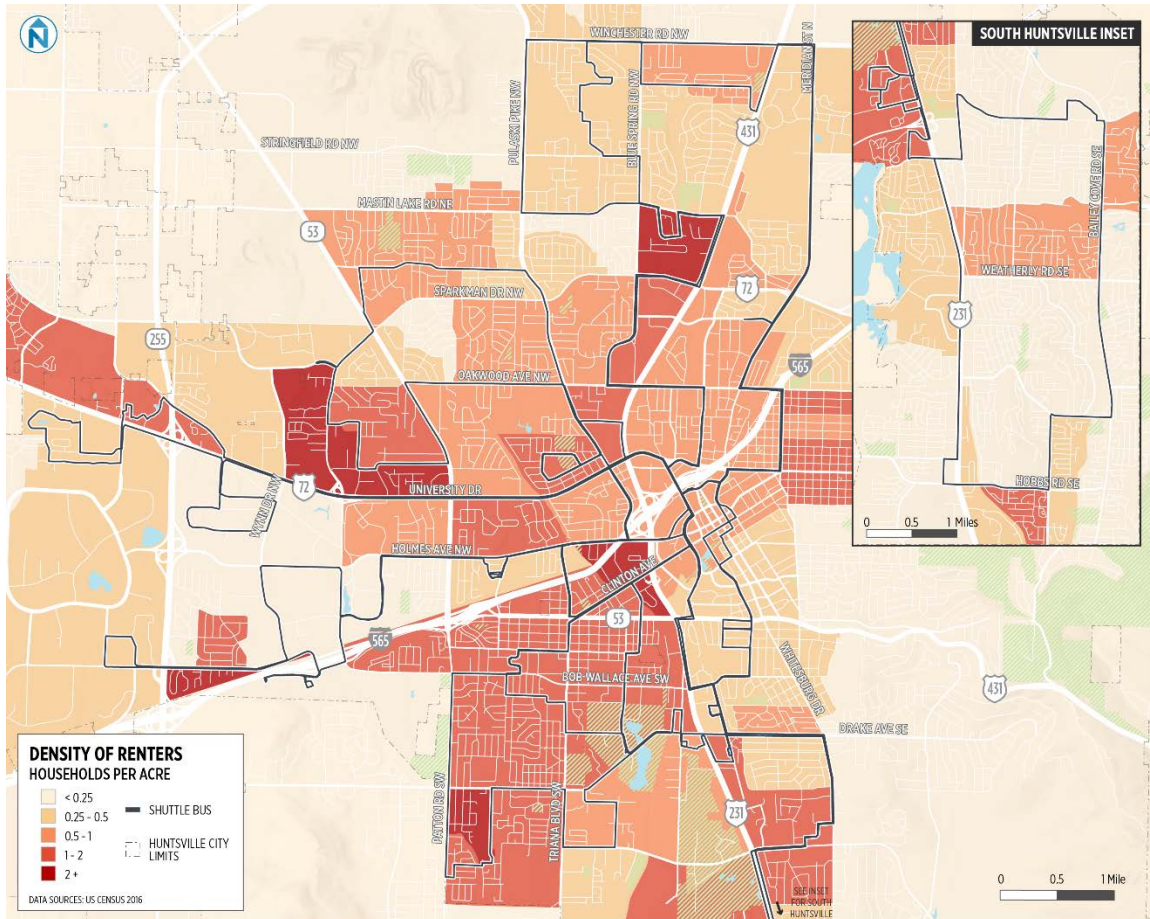
Figure 2-6 Low-Income Households



Renter Households

Renter densities closely mirror low-income household densities with few exceptions.

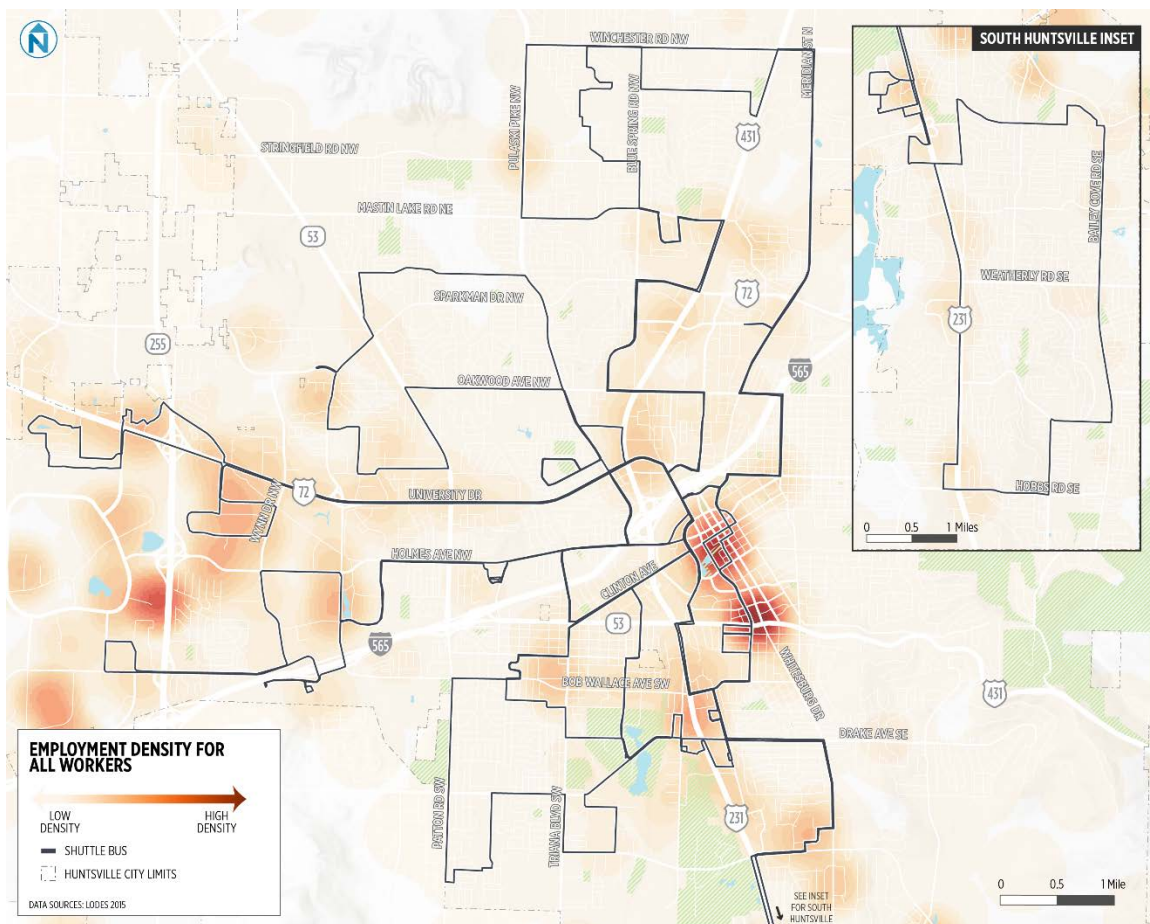
Figure 2-7 Renter Density



Employment Density

Most employment in Huntsville is concentrated in the downtown core of the city, at municipal offices and healthcare facilities, with other concentrations located near Cummins Research Park to the west near Bridge Street Town Centre and UAH.²

Figure 2-8 Employment Density

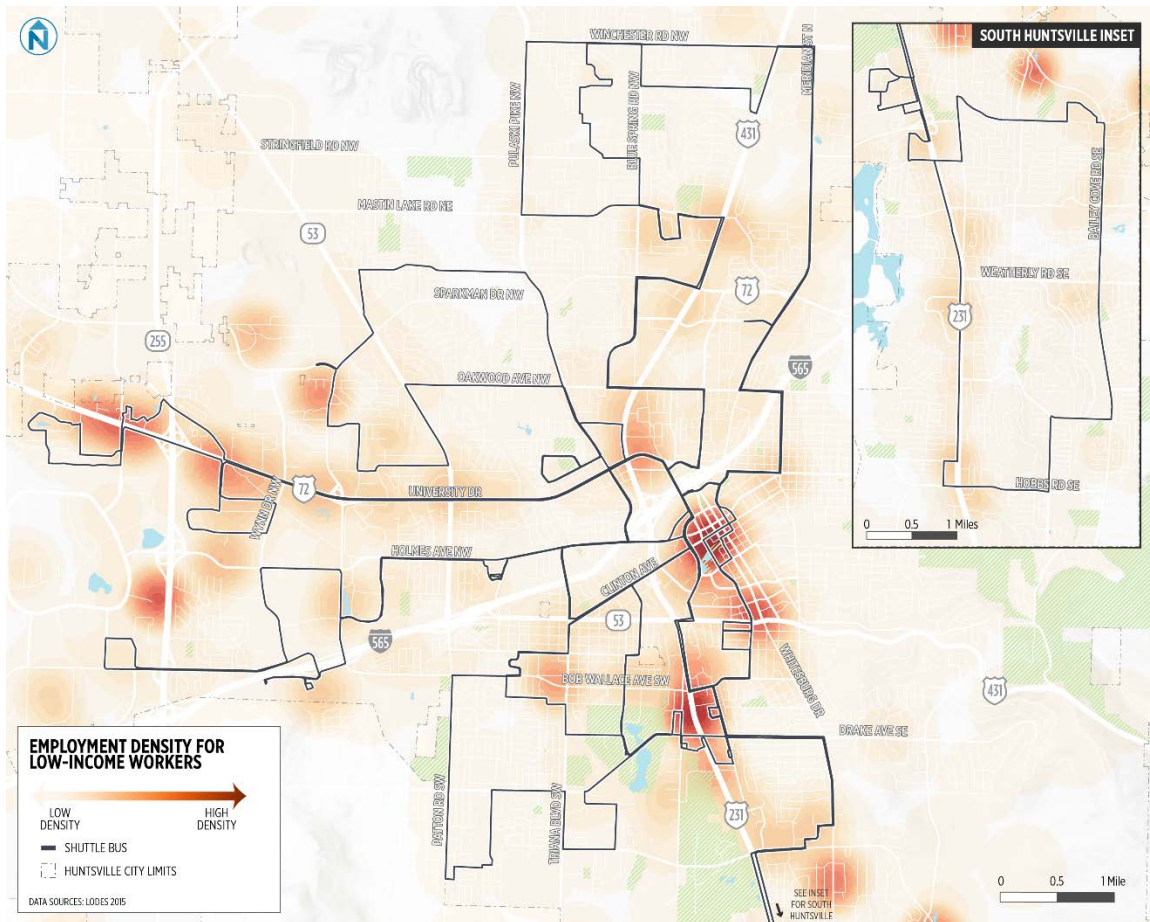


² Redstone Arsenal was excluded from the employment analysis due to the Census Bureau not providing complete home location data for Federal employees. In addition, Redstone Arsenal has gate access restrictions that make on-site fixed-route transit infeasible.

Low-Income Employment Density

Jobs that employ low-income employees (defined as those earning \$1,250 per month or less) are likewise concentrated in the core of Huntsville, although significant concentrations of low-income jobs also exist in the Medical District, around Bridge Street Town Centre, along the University Drive retail corridor, and near Parkway Place shopping center and other retail outlets.

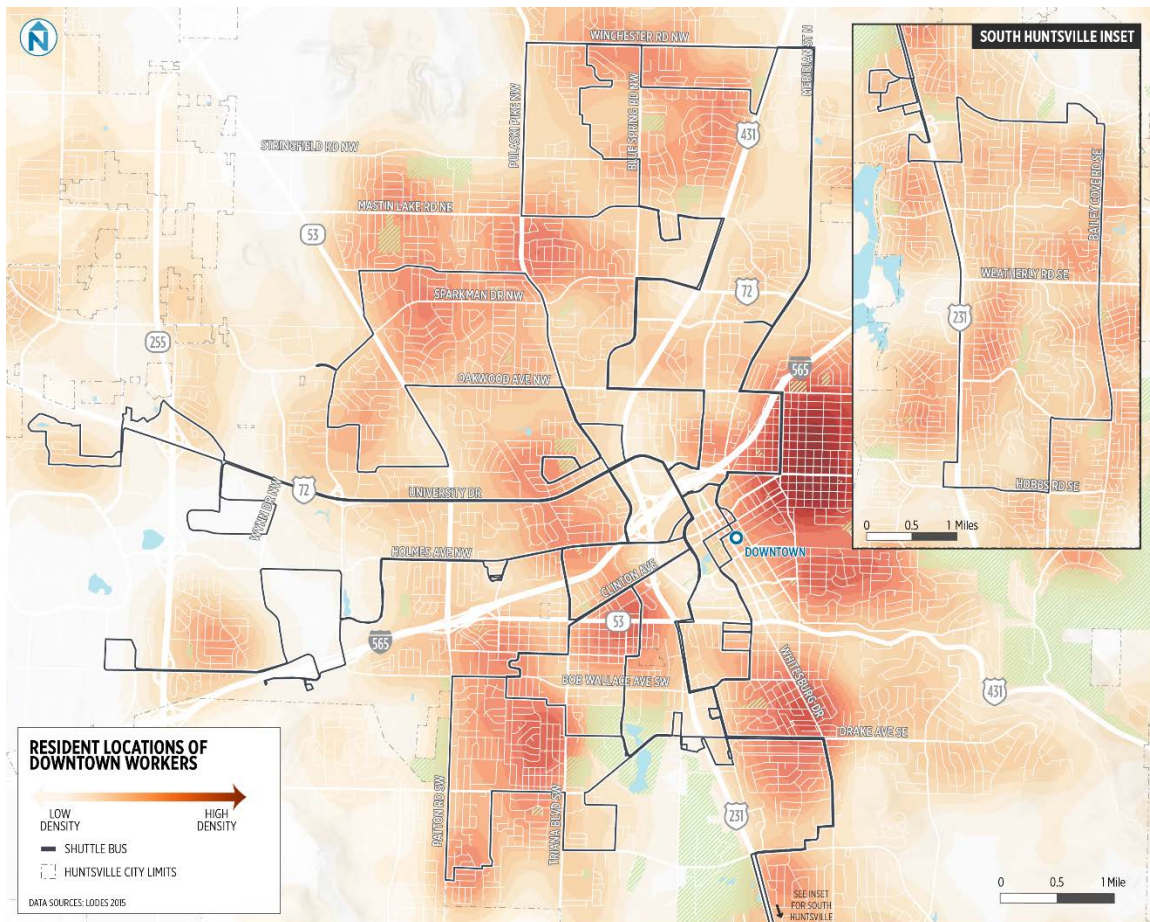
Figure 2-9 Low-Income Employment Density



Home Locations of Downtown Employees

A high concentration of residents employed downtown live in the Five Points neighborhood. Huntsville Shuttle routes serve many neighborhoods with moderate densities of downtown employees.

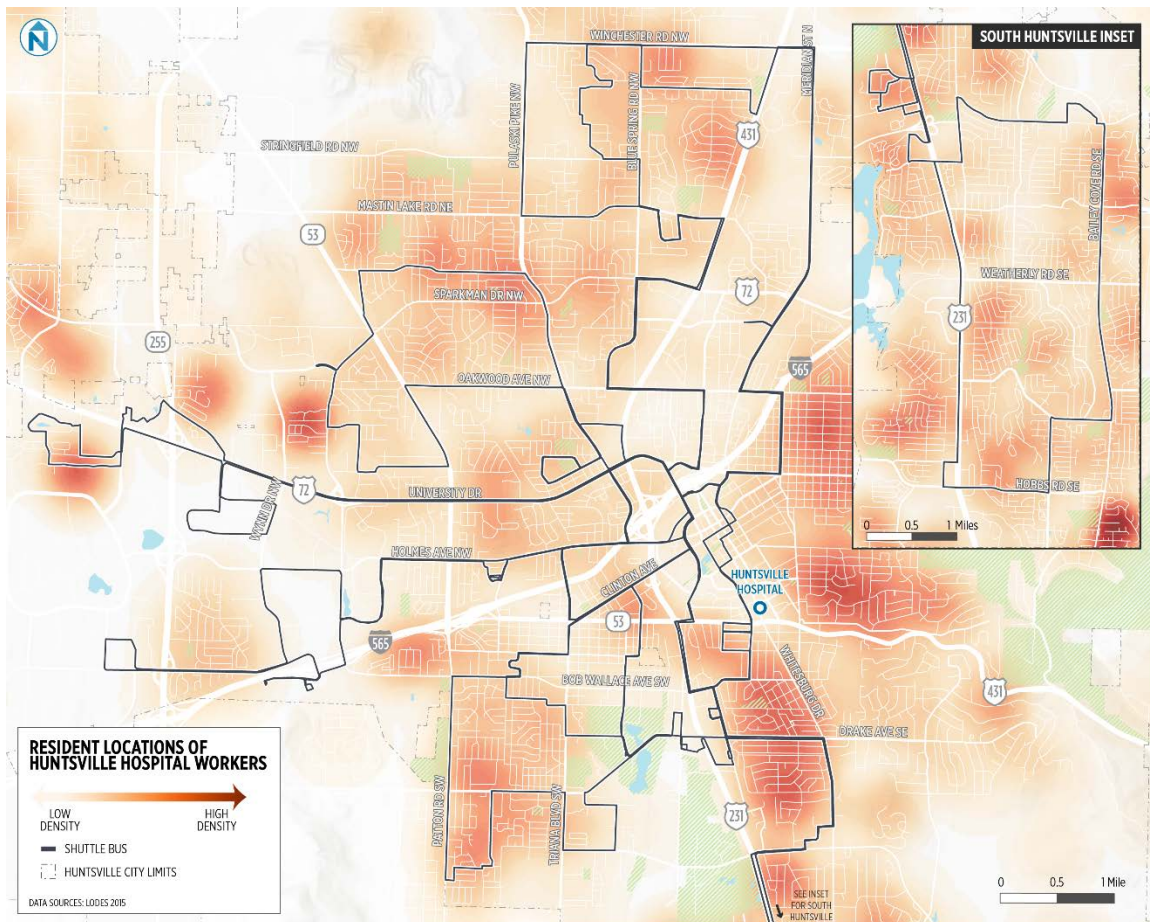
Figure 2-10 Home Locations of Downtown Employees



Home Locations of Huntsville Hospital Employees

Employees at Huntsville Hospital are dispersed throughout the region. Relatively high concentrations of these employees are located in south Huntsville, the Blossomwood neighborhood, and Westbury Estates.

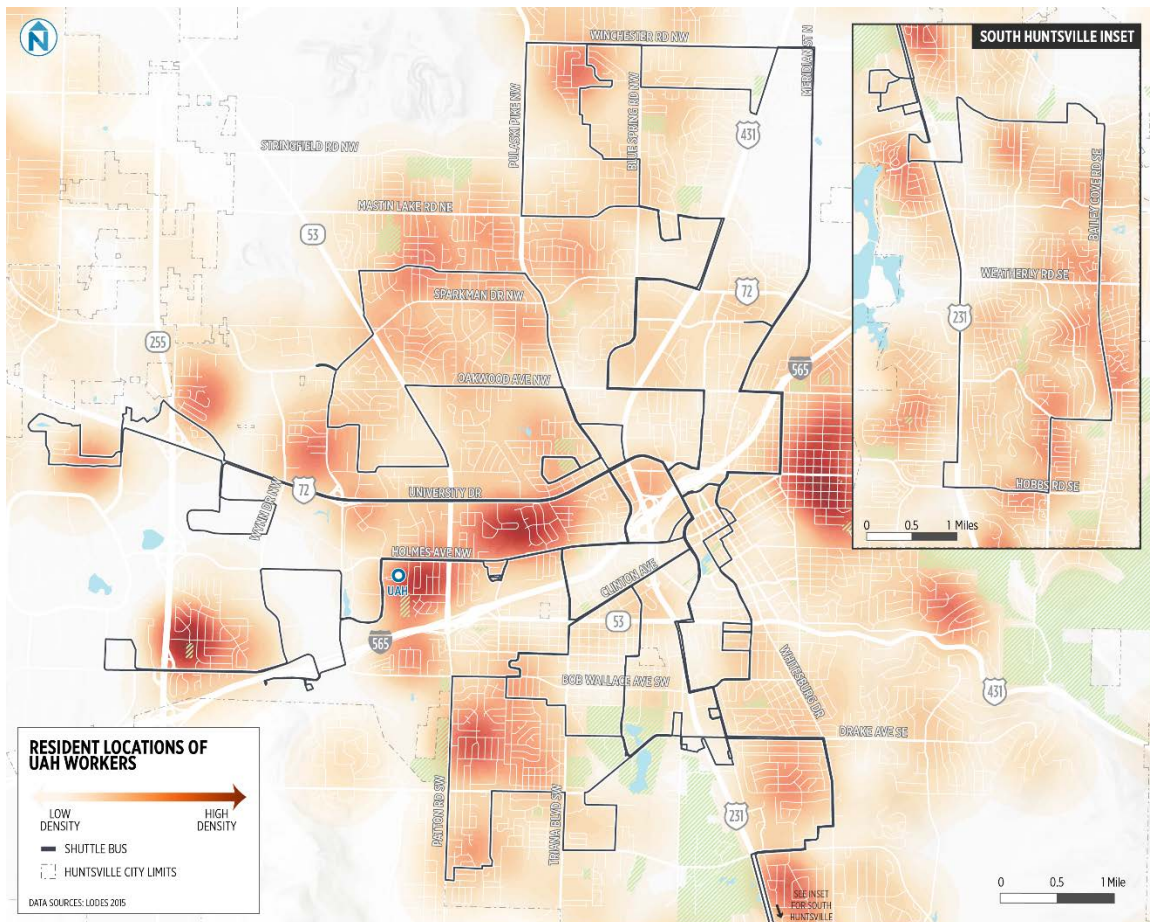
Figure 2-11 Home Locations of Huntsville Hospital Employees



Home Locations of UAH Employees

High concentrations of UAH employees are present in the Five Points neighborhood, as well as neighborhoods immediately east and west of campus. Huntsville Shuttle Route 3 connects these west side neighborhoods with the UAH campus.

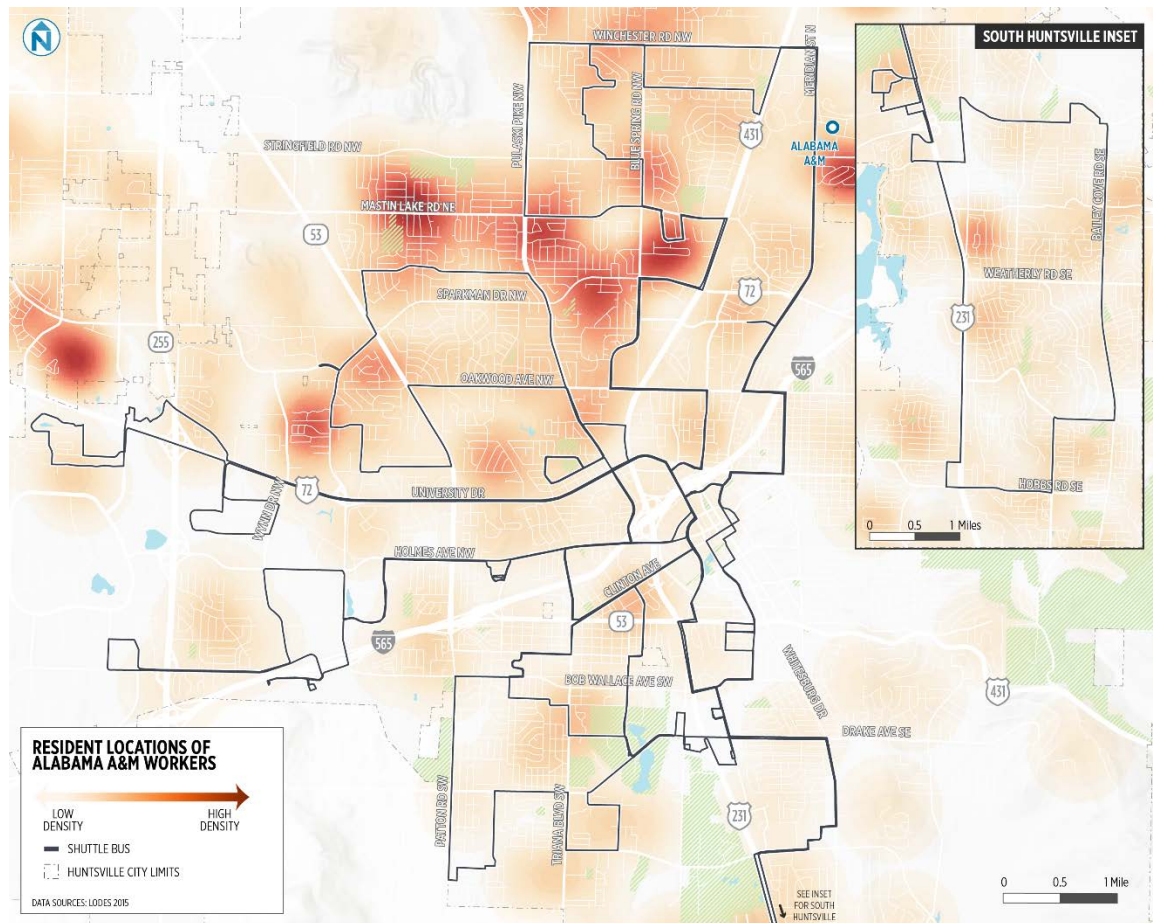
Figure 2-12 Home Locations of UAH Employees



Home Locations of Alabama A&M Employees

Alabama A&M employees are primarily concentrated in north Huntsville. Huntsville Shuttle routes 7 and 8 serve Alabama A&M with hourly frequencies. Notably, Huntsville Shuttle routes do not serve high densities of A&M employees along Mastin Lake Road NE (west of Pulaski Pike) and Sparkman Drive NW (between Pulaski Pike and Blue Spring Road NW).

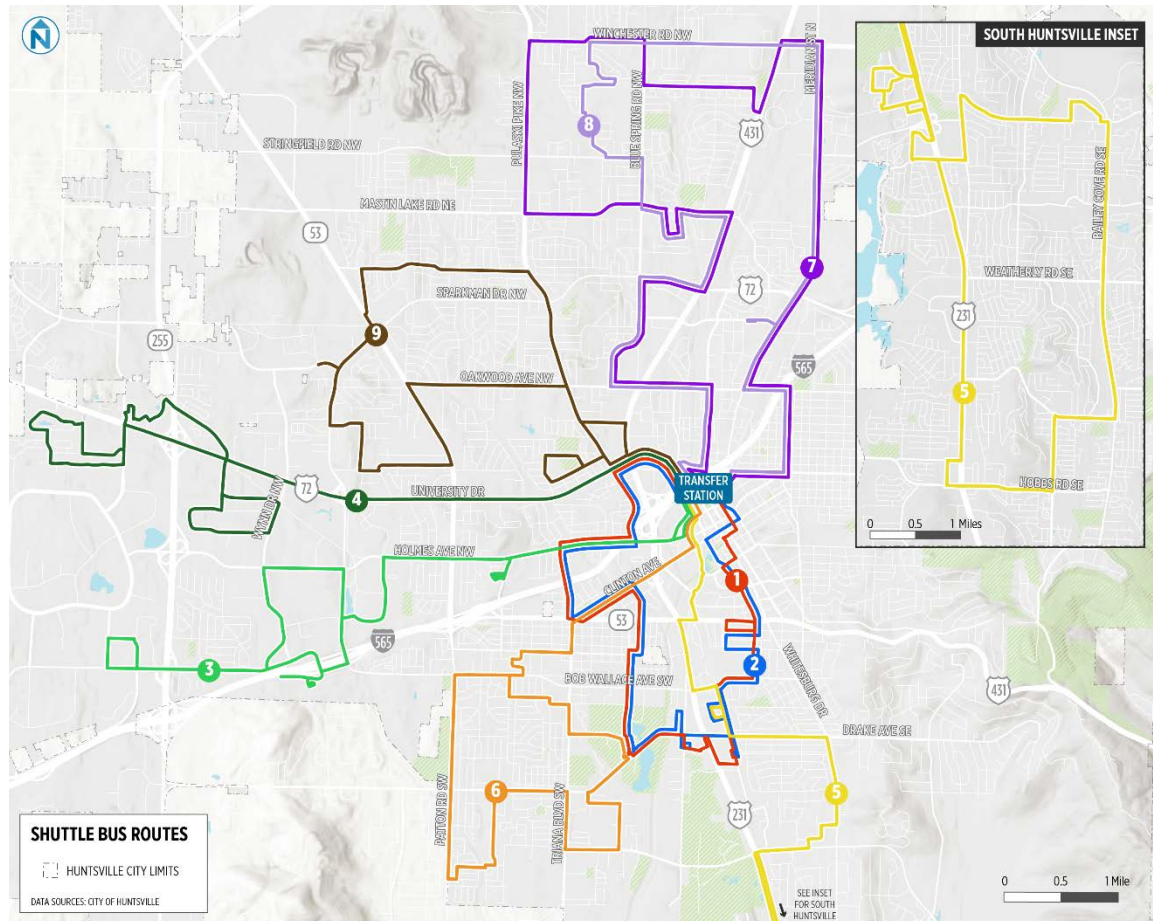
Figure 2-13 Home Locations of A&M Employees



HUNTSVILLE SHUTTLE

Huntsville Shuttle operates nine fixed-routes that radiate from the downtown Transfer Station. Service does not operate on weekends or official city holidays (New Year's Day, Martin Luther King, Jr. Day, Independence Day, Memorial Day, Labor Day, Veteran's Day³, Thanksgiving Day, Christmas Day).

Figure 2-14 Existing System Network



³ Huntsville Shuttle operates regular service when Veteran's Day is observed on a Monday or Friday.

Service Availability

Huntsville Shuttle routes primarily operate between the hours of 6:00 a.m. and 6:00 p.m. Routes 4, 5, 6, and 7 end service approximately one hour later than other routes. Route 6 also begins 45 minutes earlier than other routes. Each route arrives at the Transfer Station just prior to the top of each hour and departs at the top of the hour. Routes 4 and 6 run every 30 minutes while other routes run hourly.

Figure 2-15 Service Span and Transfer Station Departures

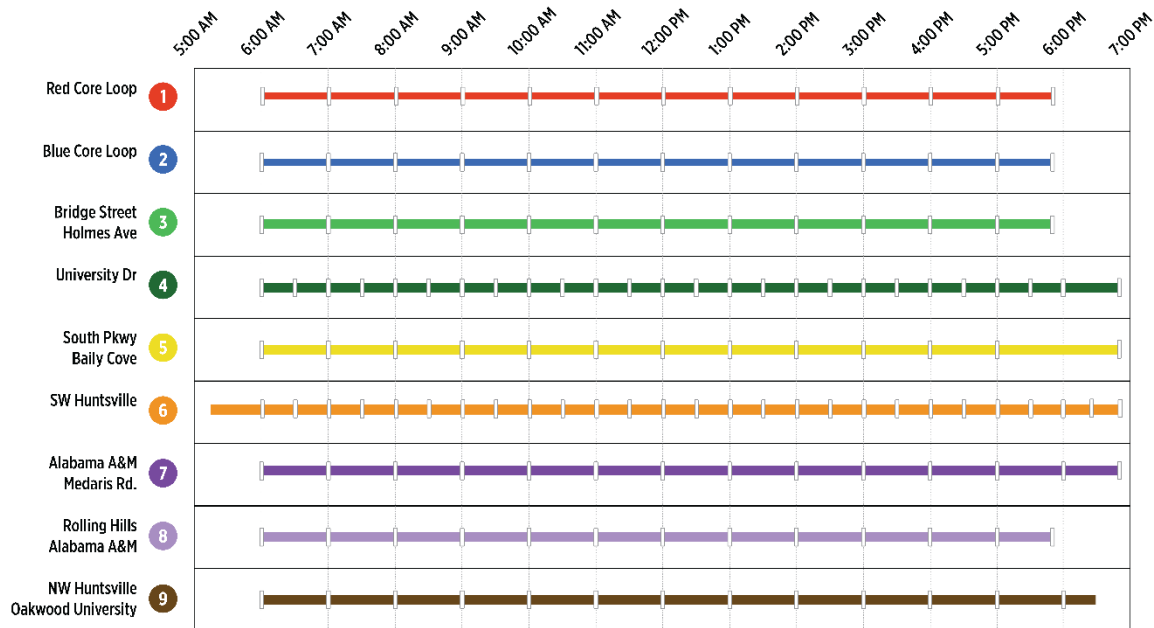


Figure 2-16 Service Hours and Vehicles

Route	Service Hours	Vehicles
1 Red Core Loop	11.8	1
2 Blue Core Loop	11.8	1
3 Bridge St/Holmes Ave	11.8	1
4 University Drive	24.7	2
5 South Pkwy/Bailey Cove	23.5	2
6 SW Huntsville	26.2	2
7 Alabama A&M/Medaris Rd	12.9	1
8 Rolling Hills/Alabama A&M	11.9	1
9 NW Huntsville/Oakwood University	12.5	1
UAH Shuttle	5.3	1

Vehicles

Huntsville Shuttle currently uses a combination of two bus types:

- (6) 32' EZ Rider II low-floor buses
 - 33 seats
 - 12-year, 500K mile life span⁴
- (10) 30' Transmark RE high-floor buses
 - 26 seats
 - 10-year, 350K mile life span⁵

Figure 2-17 Huntsville Shuttle Buses



Figure 2-18 Huntsville Transfer Station



⁴ <https://www.eldorado-ca.com/mid-size-public-bus-transportation>

⁵ <https://www.fleetwiki.net/documents/eldoradotransmark.pdf>

Huntsville Transfer Station

The Huntsville Transfer Station opened in 2004 and serves as the primary connection point for riders transferring between Huntsville Shuttle routes. The Transfer Station also serves as a multimodal hub for intercity Greyhound bus service and taxi service. Huntsville Shuttle routes depart the Transfer Station at the top of each hour. Routes 4 and 6 also depart the Transfer Station at the bottom of each hour.

Figure 2-19 Transfer Station Connections

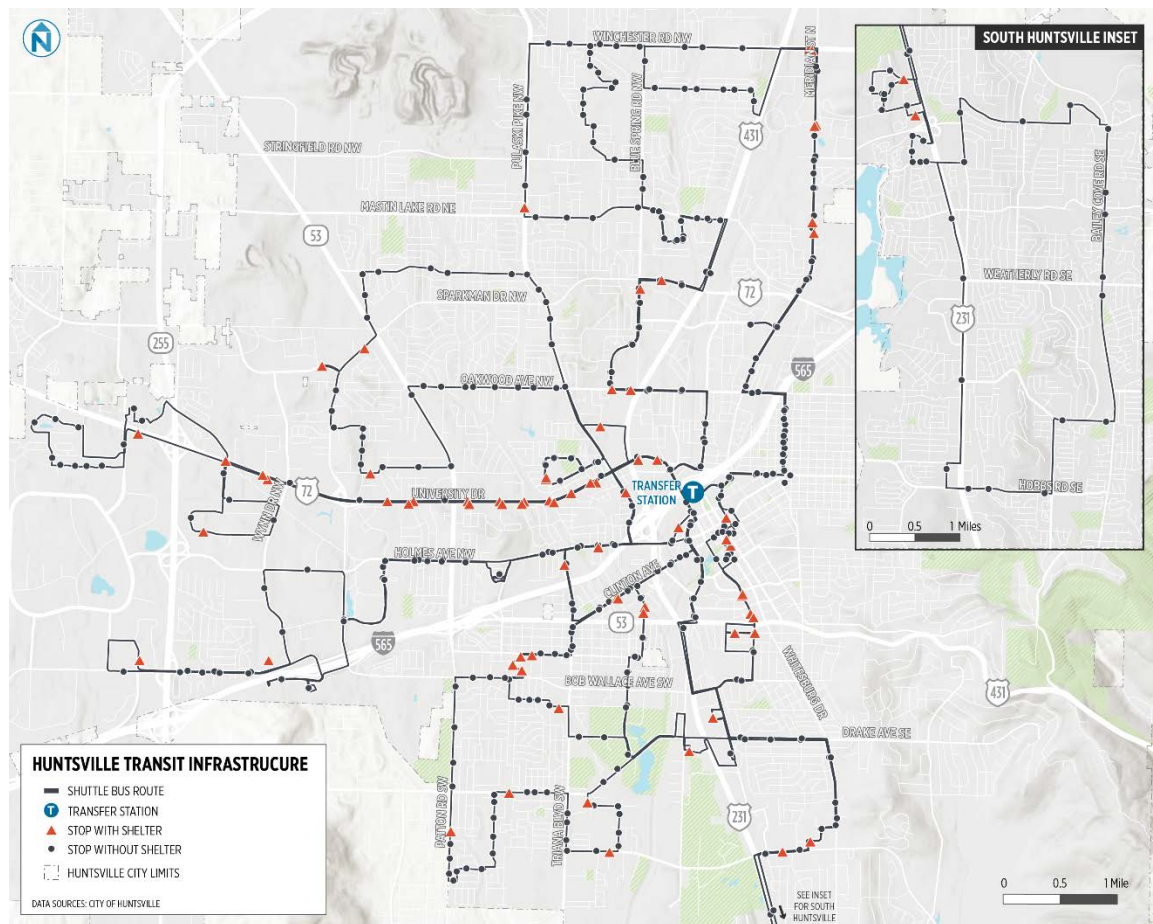
Route	:00	:30
1 Red Core Loop	✓	
2 Blue Core Loop	✓	
3 Bridge St/Holmes Ave	✓	
4 University Drive	✓	✓
5 South Pkwy/Bailey Cove	✓	
6 SW Huntsville	✓	✓
7 Alabama A&M/Medaris Rd	✓	
8 Rolling Hills/Alabama A&M	✓	
9 NW Huntsville/Oakwood University	✓	

The Transfer Station consists of an approximately 5,000 square feet covered outdoor plaza and an approximately 600 square foot air-conditioned indoor waiting area. The outdoor plaza is wrapped by nine sawtooth bus bays designed for vehicles under 35 feet. Outdoor amenities include benches and waste receptacles. Indoor amenities include a vending machine, water fountain, and three restrooms. There are two 15-minute parking spaces for riders purchasing tickets or passes. Although riders are routinely dropped off and picked up at the Transfer Station, there is no dedicated drop off/pickup curb space. The parking lot at the north of the bus bays has three visitor spaces and 21 employee spaces.

Bus Stops

Huntsville Shuttle serves 474 bus stops throughout the city. Nine routes converge at the Transfer Station at the north end of downtown, facilitating connections at the top and bottom of each hour. Approximately 57% of the city's population⁶ is within a quarter-mile walking distance of a Huntsville Shuttle bus stop. Many Huntsville Shuttle bus stops do not have a 5'x8' unobstructed landing pad as required by the 2010 Americans with Disabilities Act Standards for Accessible Design (ADASAD).

Figure 2-20 Bus Stops

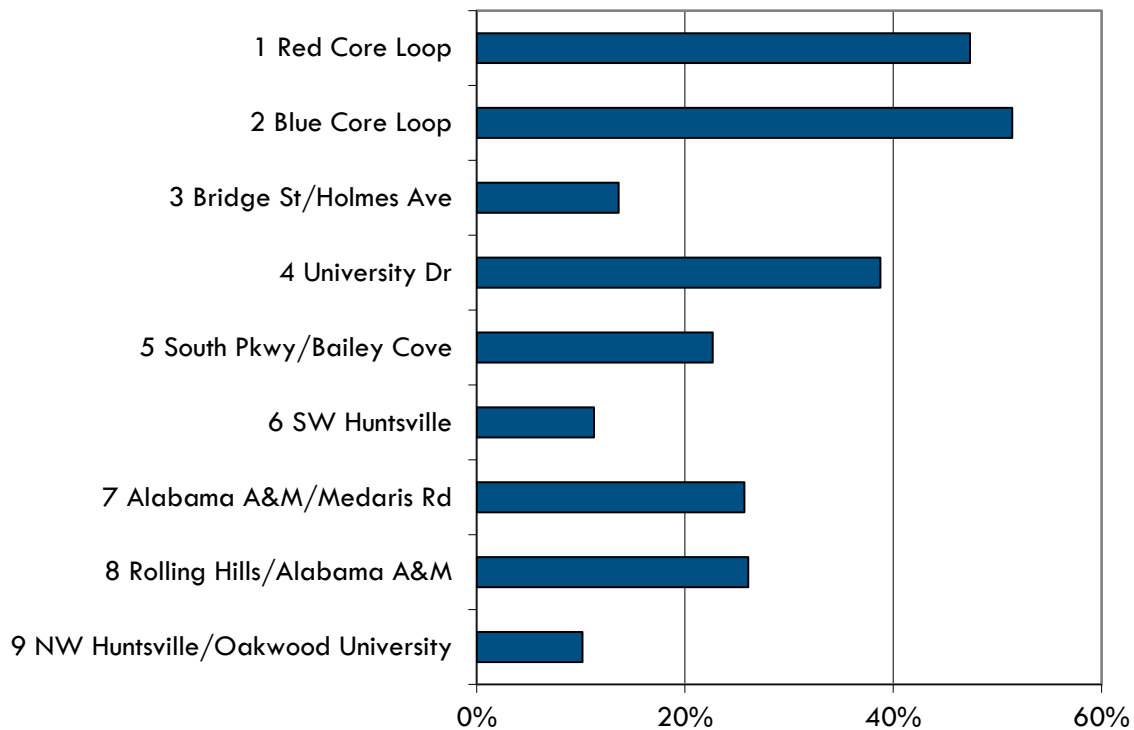


⁶ Based on 2016 ACS estimates and weighted by percent of block group within network distance of stops.

Amenities

Of the 474 bus stops served by Huntsville Shuttle, 82 (17%) have shelters. Route 2 has the highest percentage of sheltered stops (51%), followed by Routes 1 and 4. The average percent of sheltered stops on a Huntsville Shuttle route is 24%.⁷

Figure 2-21 Percent of Stops with Shelters by Route

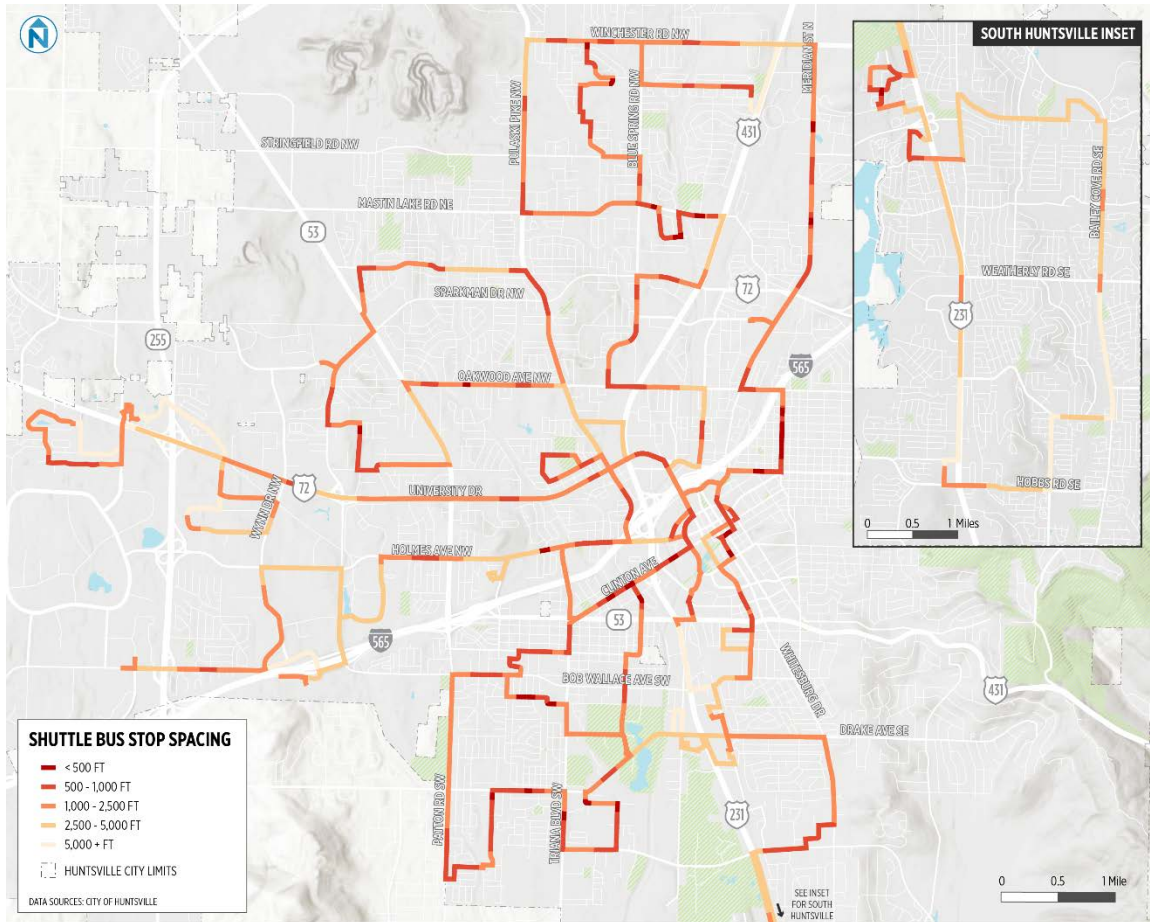


⁷ These data include stops at which shelter presence has not been recorded.

Spacing

Spacing between Huntsville Shuttle bus stops ranges from 500 to 3,000 feet. Stop spacing along Andrew Jackson Way and Clinton Avenue are significantly shorter than the system average, with several stops situated 350 feet apart from each other.

Figure 2-22 Bus Stop Spacing

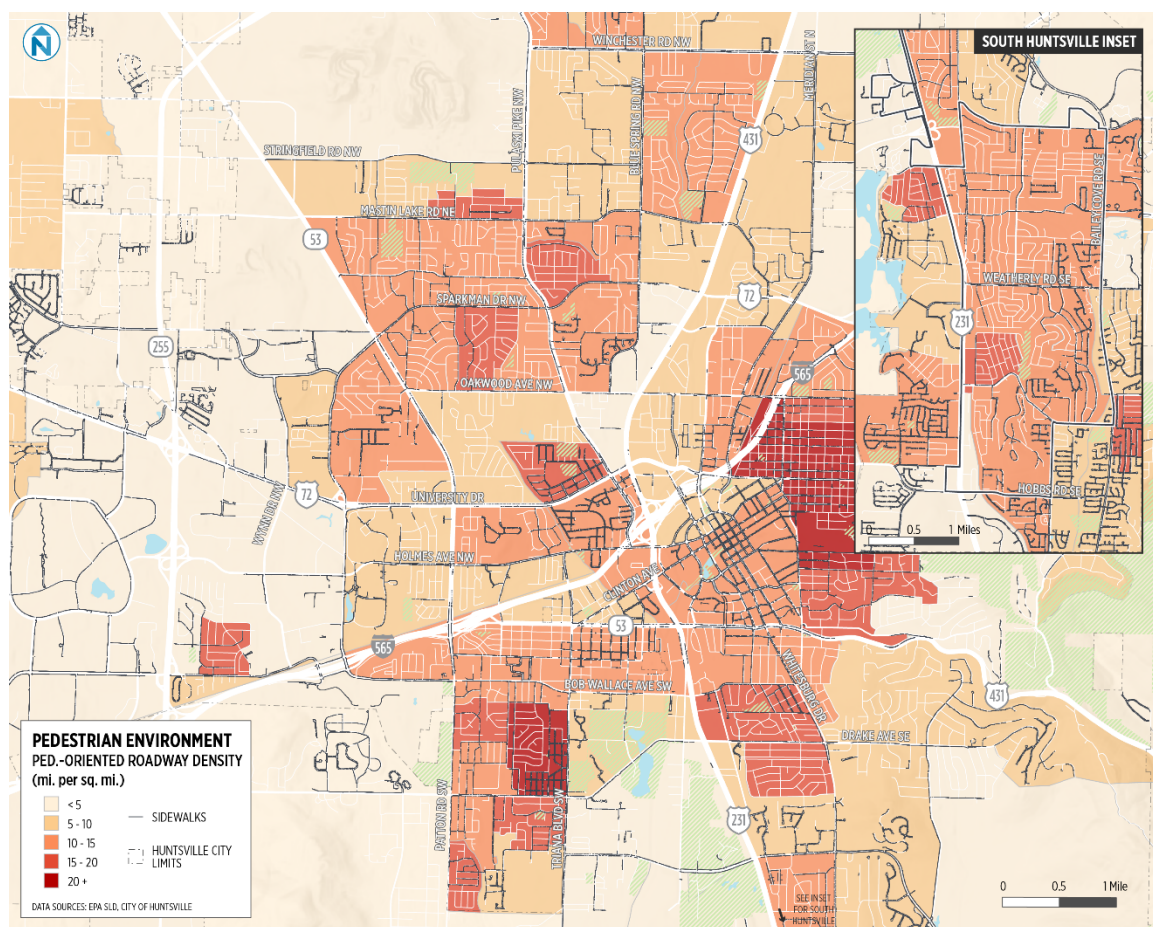


Bus Stop Accessibility

In places where the pedestrian environment is more complete and welcoming, people have better access to transit. In places where the pedestrian network is incomplete or includes major barriers, riding transit is more difficult and a less attractive travel option.

A review of Huntsville's sidewalk network (as of 2014) and a measurement of pedestrian network density as of 2013 reveals that the core of downtown Huntsville, south of I-565 and east of U.S. 431, has the most complete sidewalk network. Areas with the densest concentrations of pedestrian-oriented streets⁸ are the Five Points neighborhood and parts of west Huntsville.

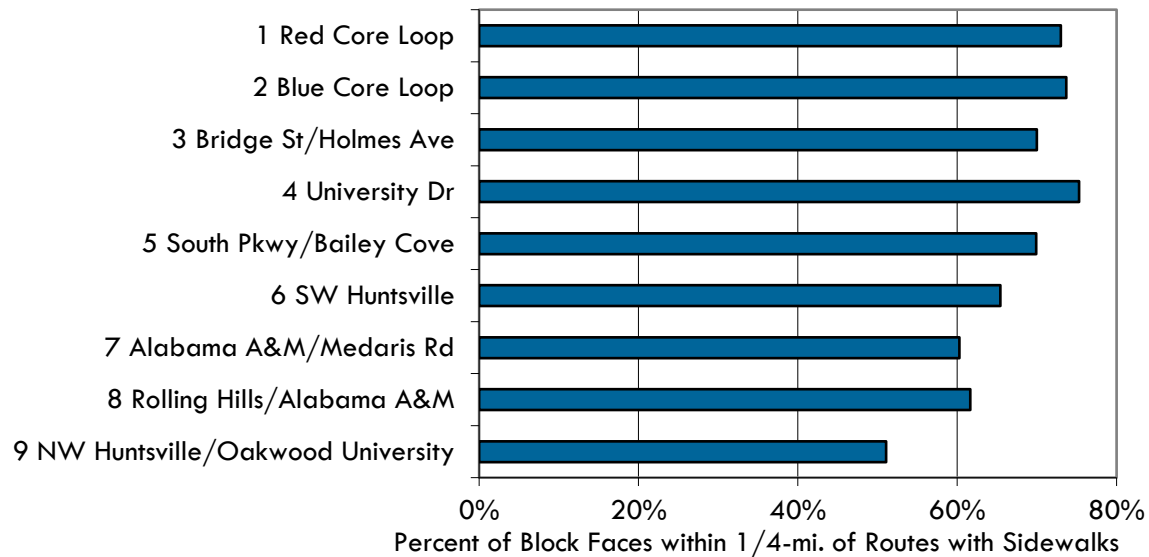
Figure 2-23 Pedestrian Environment



⁸ Defined by the EPA as streets where a pedestrian can travel. This does not necessarily mean there are sidewalks.

Route 9 has the lowest percentage of sidewalk coverage within ¼-mile of the route. The average rate of sidewalk covered (measured as the percent of block faces with sidewalks) is 69%.

Figure 2-24 Sidewalk Coverage by Route

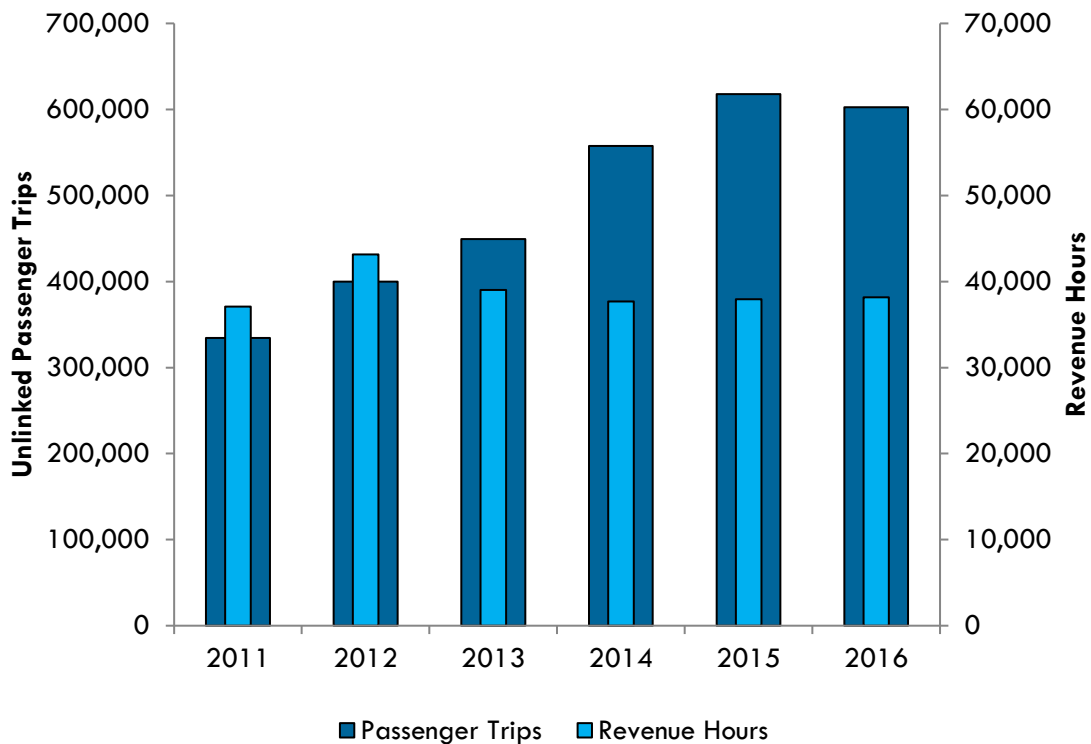


In areas near existing Huntsville Shuttle routes there are some significant pedestrian barriers. Most prominently, highways—including I-565, U.S. 431, U.S. 231, and SR 255—that are either difficult, impossible, or illegal for pedestrians to cross. Waterways, such as Aldridge and Pinhook Creeks, are also significant pedestrian barriers, although they have redeeming environmental and aesthetic values that should be taken into consideration along with their status as pedestrian barriers.

Historical Ridership and Revenue Hours

From 2011 to 2016, Huntsville Shuttle fixed-route ridership increased by a remarkable 80%, from roughly 334,000 to over 600,000 unlinked passenger trips, while revenue hours have increased by only 3%.

Figure 2-25 Unlinked Passenger Trips and Revenue Hours, 2011 to 2016

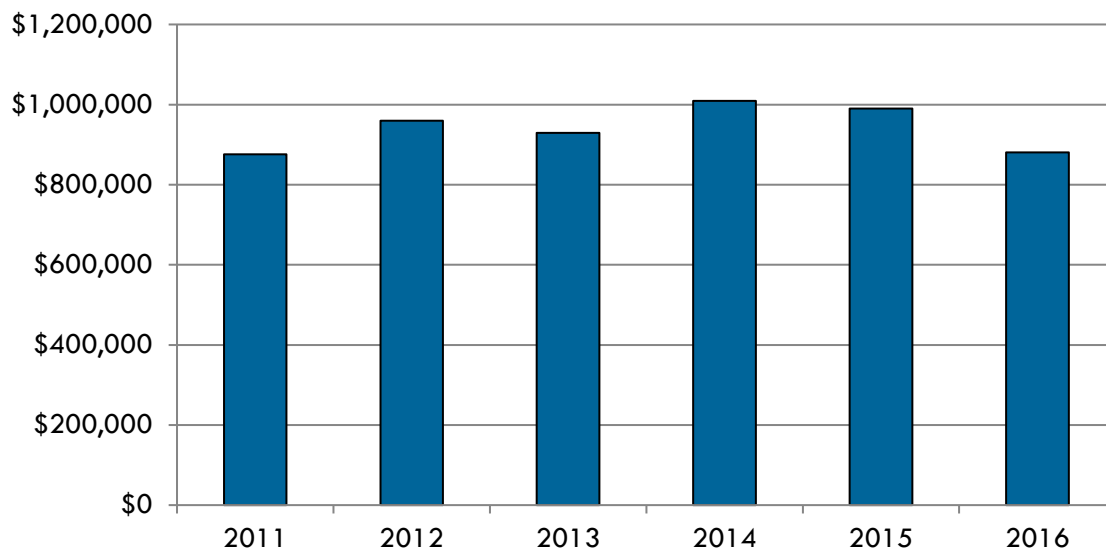


Source: National Transit Database, 2011 to 2016

Historical Operating Expenses

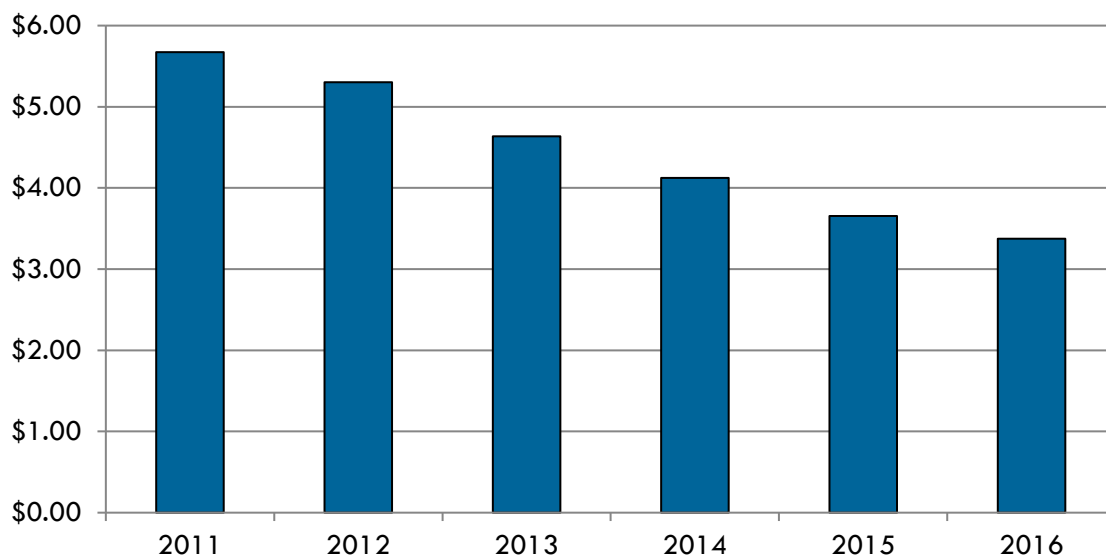
After accounting for inflation, operating expenses have climbed slightly since 2011. However, the efficiency of Huntsville Shuttle has improved as the operating expense per passenger trip has decreased significantly during this period.

Figure 2-26 Operating Expense (inflation-adjusted), 2011 to 2016



Source: National Transit Database, 2011 to 2016

Figure 2-27 Operating Expense per Passenger Trip, 2011 to 2016

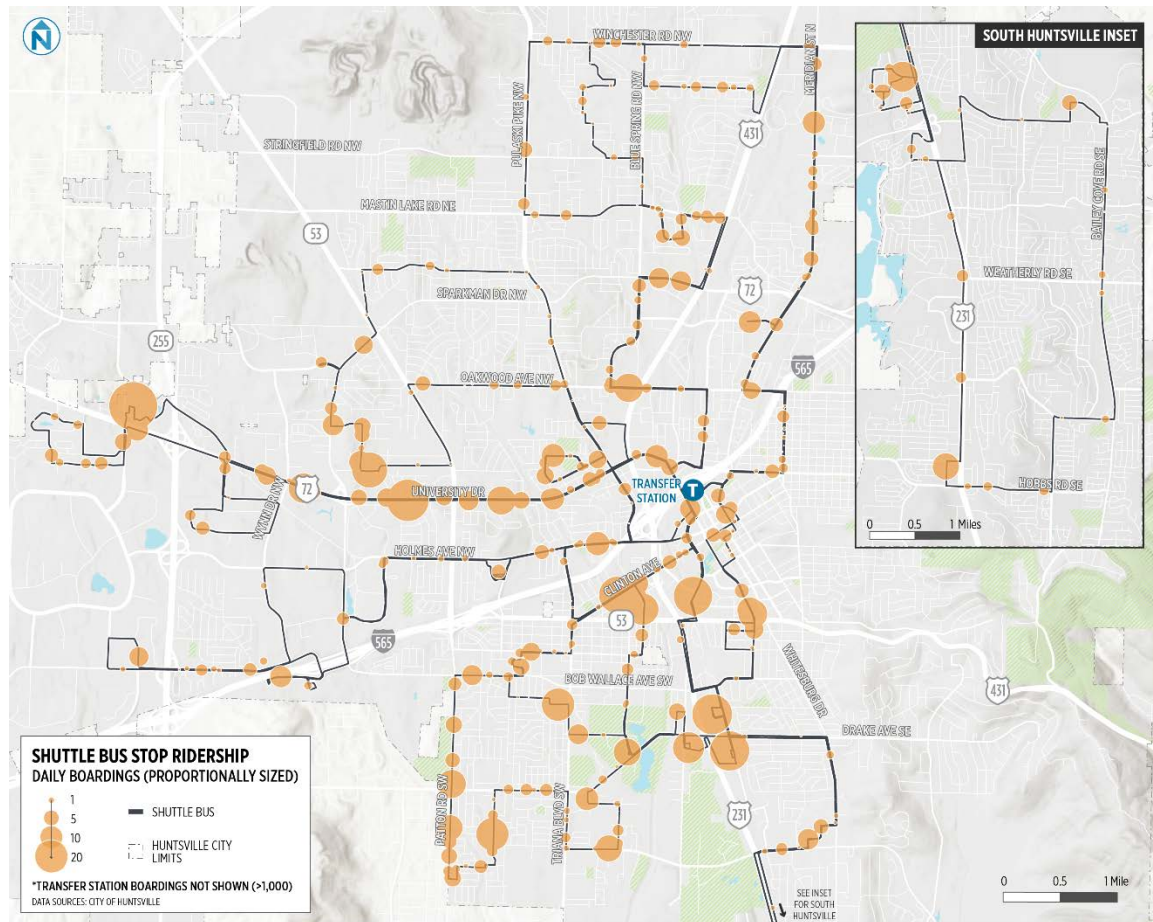


Source: National Transit Database, 2011 to 2016

System Ridership

Huntsville Shuttle averages approximately 2,500 total daily boardings. Ridership is highest along University Drive and high-density residential areas within 4 miles of downtown. The Transfer Station has the highest daily boardings at over 1,000 per day, indicating a high percentage of transferring passengers. Major destinations include multiple Walmart and Kroger stores, Parkway Place shopping center, Huntsville Hospital, and the downtown Huntsville public library.

Figure 2-28 System Ridership



Source: City of Huntsville ridership data, October 2017

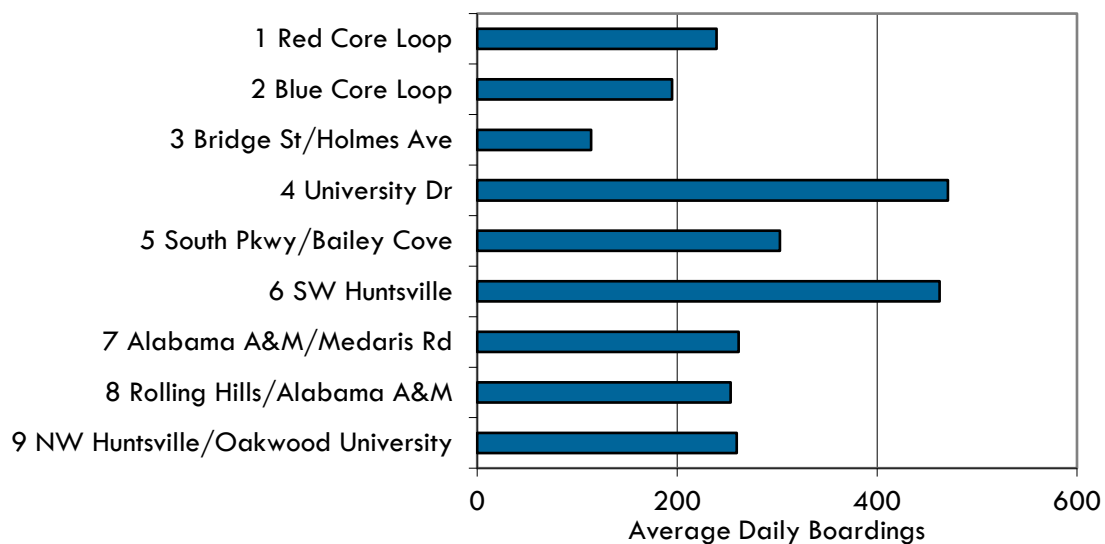
Route Performance

Individual route performance is assessed based on a number of metrics, including total ridership, productivity (ridership normalized by revenue hours), on-time performance, and schedule efficiency.

Ridership

Routes 4 and 6 have the highest average daily boardings in the Huntsville Shuttle system. Amongst the nine regular weekday routes, Route 3 has the lowest average daily ridership.

Figure 2-29 Average Daily Ridership by Route, October 2017

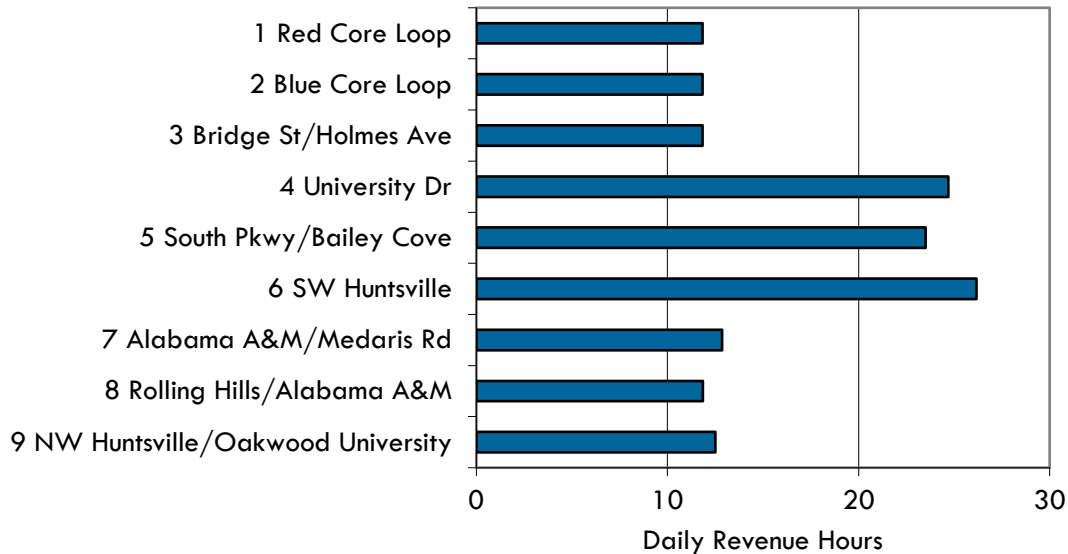


Source: City of Huntsville ridership data, October 2017

Revenue Hours

Most routes operate approximately 12 revenue hours per day. Routes 4, 5, and 6 use two vehicles so operate roughly twice that many revenue hours.

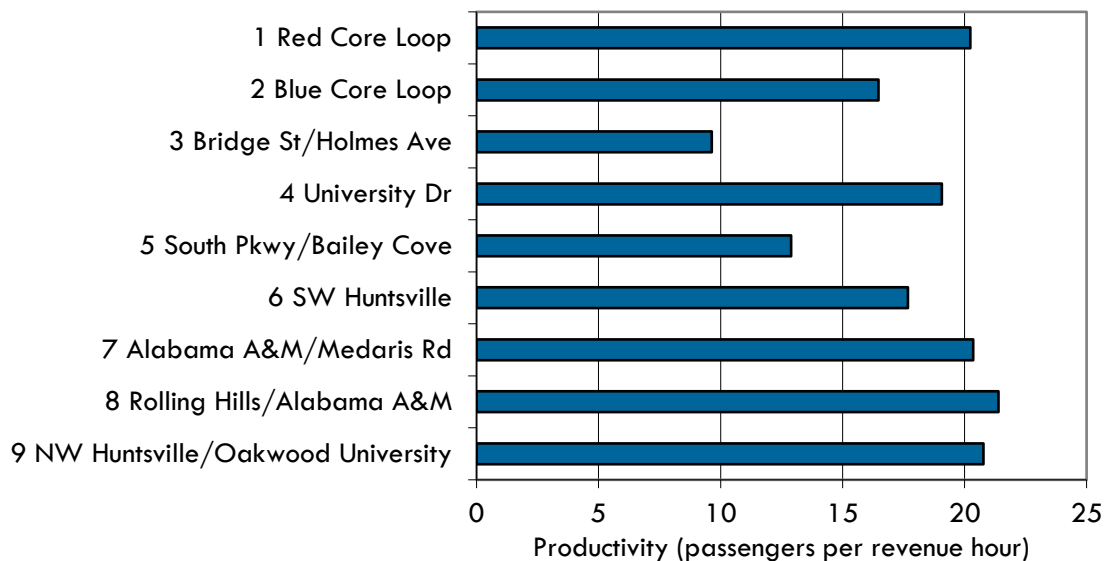
Figure 2-30 Daily Revenue Hours by Route



Ridership Productivity

Routes 1 (the Red Core Loop), 7, 8, and 9 all exceed productivity of 20 passengers per revenue hour. The lowest-performing regularly operated weekday route is Route 3.

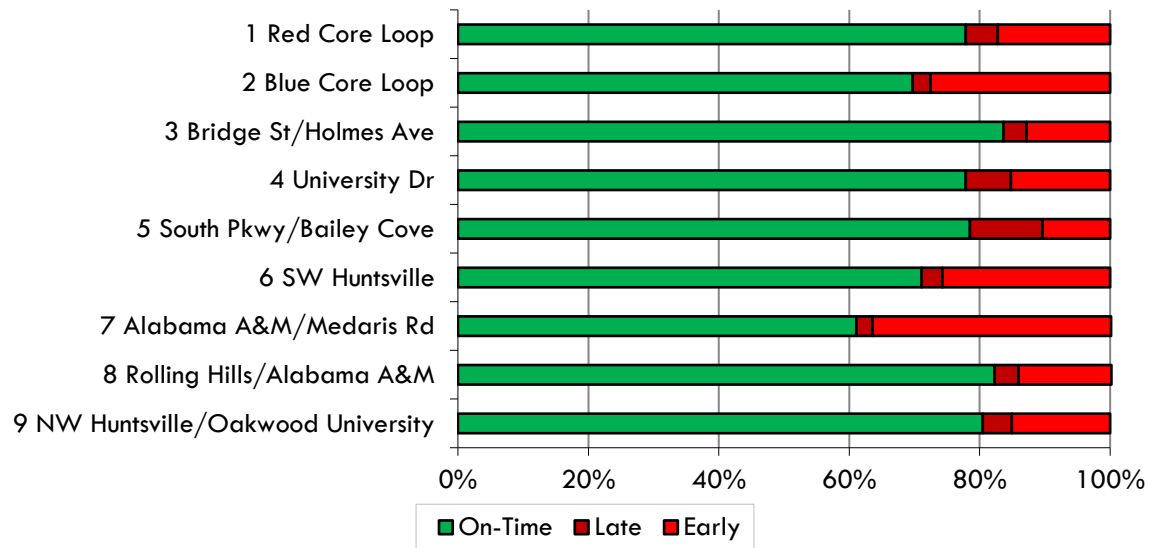
Figure 2-31 Productivity by Route, October 2017



On-Time Performance

On-time performance for all routes is above 60%. All routes, with the exception of Route 5, are more likely to be early to their stops than late. Route 5 likely runs later than the system average due to its long cycle time (2 hours) and operation along South Parkway, which has been under construction since 2015.

Figure 2-32 On-Time Performance by Route, October 2017

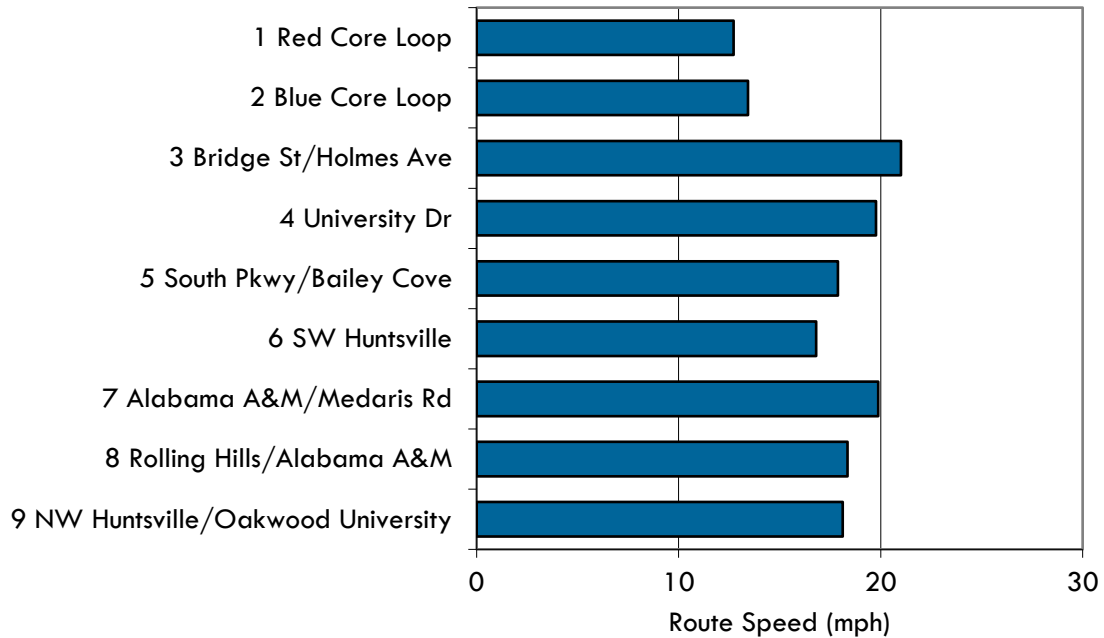


Source: City of Huntsville on-time performance data, October 2017

Speed

Scheduled speed is calculated by dividing the total route distance in miles by the amount of time allocated to make one complete route cycle. The scheduled speed of vehicles on all routes is greater than 10 miles per hour. Only Route 3 exceeds a scheduled speed of 20 miles per hour.

Figure 2-33 Scheduled Vehicle Speed



Schedule Efficiency

Schedule efficiency, defined as the ratio of running time to cycle time, is within the optimal range of 80-90% on all Huntsville Shuttle routes.

Figure 2-34 Schedule Efficiency by Route

Route	Running Time (minutes)	Cycle Time (minutes)	Schedule Efficiency
1 Red Core Loop	50	60	83%
2 Blue Core Loop	50	60	83%
3 Bridge St/Holmes Ave	50	60	83%
4 University Dr	51	60	85%
5 South Pkwy/Bailey Cove	105	120	88%
6 SW Huntsville	50	60	83%
7 Alabama A&M/Medaris Rd	51	60	85%
8 Rolling Hills/Alabama A&M	51	60	85%
9 NW Huntsville/Oakwood University	50	60	83%

Route Summaries

Each route summary includes a description of current service patterns, ridership, route performance, route design, strengths, and weaknesses. Ridership data are from October 2017 and other metrics are current as of June 2018. Ridership maps depict average boardings at each stop during the month of October 2017.

Route 1: Red Core Loop

Route 1 operates as a clockwise loop from the Transfer Station, serving downtown, Huntsville Hospital, the Parkway Place Mall, the Huntsville-Madison County Senior Center, and a number of public housing properties west of US 231. This route is complemented by Route 2 (the Blue Core Loop), which runs a similar, counterclockwise route.

Route 1 serves public housing residents well, providing good access to shopping, healthcare, and educational institutions. It has above-average productivity for Huntsville Shuttle system. On-time performance for the route is above average for the system but remains lower than 80%. The route also produces approximately eight lift deployments per day, which is more than any other route in the system.

The loop alignment forces riders that reside along Seminole Drive to travel significantly out of direction to and from the Transfer Station. Employees and visitors of Huntsville Hospital, Parkway Place and Walmart likely take Route 1 from the Transfer Station and Route 2 to the Transfer Station.

Service Parameters	
Span	6:00 a.m. - 5:50 p.m.
Frequency (minutes)	60
Revenue hours per day	11.8
Trips	12
Vehicles	1
Ridership	
Average daily boardings	239
Boardings per revenue hour	20
Average daily lift deployments	8
Efficiency and Reliability	
Running time	50 minutes
Cycle time	60 minutes
Schedule efficiency	83%
On-time performance	78%

Figure 2-35 Route 1 Boardings per Stop

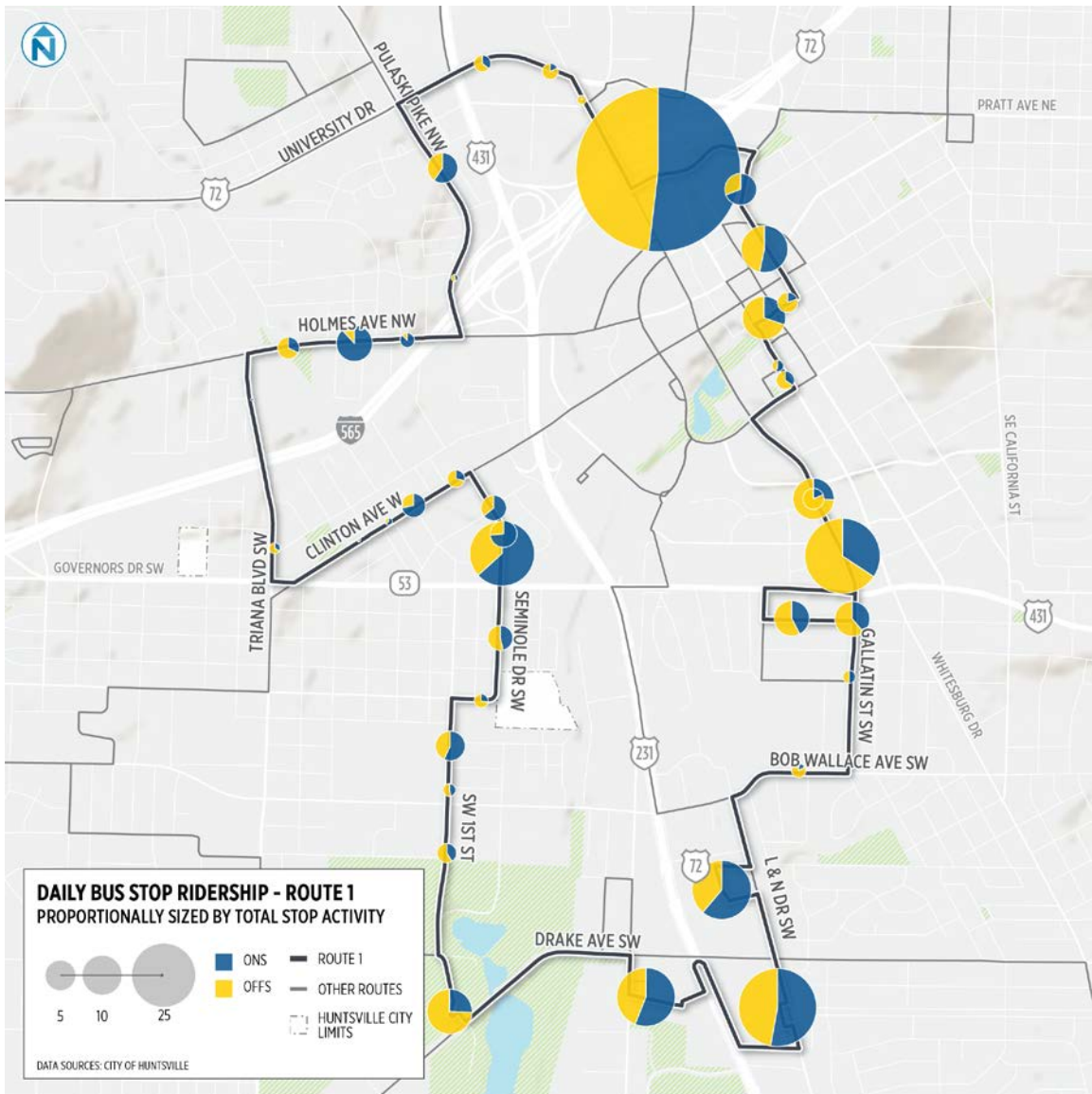
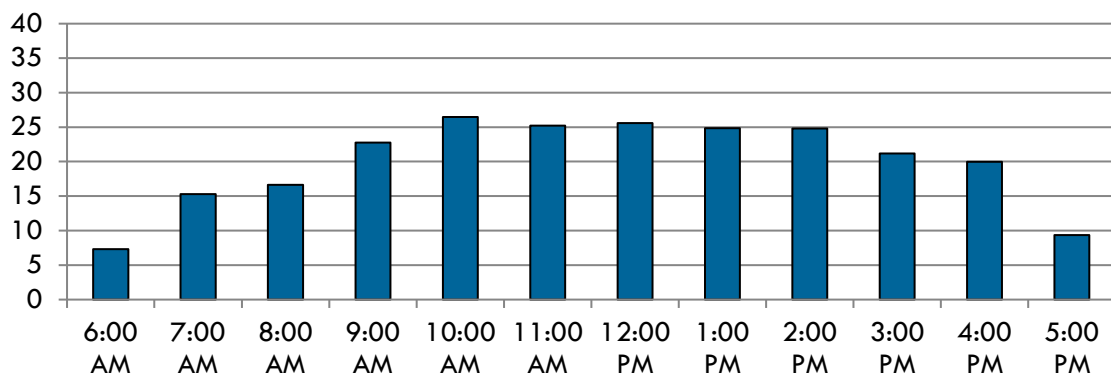


Figure 2-36 Route 1 Boardings per Trip



Route 2: Blue Core Loop

Route 2 operates as a counterclockwise loop from the Transfer Station, serving the public housing developments along Seminole Drive, the Huntsville-Madison County Senior Center, Parkway Place Mall, Huntsville Hospital, Salvation Army, and the Old Town district. The route travels approximately ¼ mile south of Drake Avenue SW to serve the Walmart Supercenter on Memorial Parkway SW.

This route is complemented by Route 1 (the Red Core Loop), which runs a similar, clockwise route.

The lift deployment rate on Route 2 is the same as Route 1, suggesting it is providing a relatively high amount of service for riders with disabilities. The route serves essential destinations—such as grocery shopping, educational institutions, and healthcare—well. It also provides direct service to public housing.

The loop alignment forces riders that reside along Seminole Drive to travel significantly out of direction to and from the Transfer Station. Employees and visitors of Huntsville Hospital, Parkway Place and Walmart likely take Route 1 from the Transfer Station and Route 2 to the Transfer Station.

Service Parameters	
Span	6:00 a.m. - 5:50 p.m.
Frequency (minutes)	60 minutes
Revenue hours per day	11.8 hours
Trips	12
Vehicles	1
Ridership	
Average daily boardings	195
Boardings per revenue hour	16
Average daily lift deployments	7
Efficiency and Reliability	
Running time	50 minutes
Cycle time	60 minutes
Schedule efficiency	83%
On-time performance	70%

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Figure 2-37 Route 2 Ridership Map

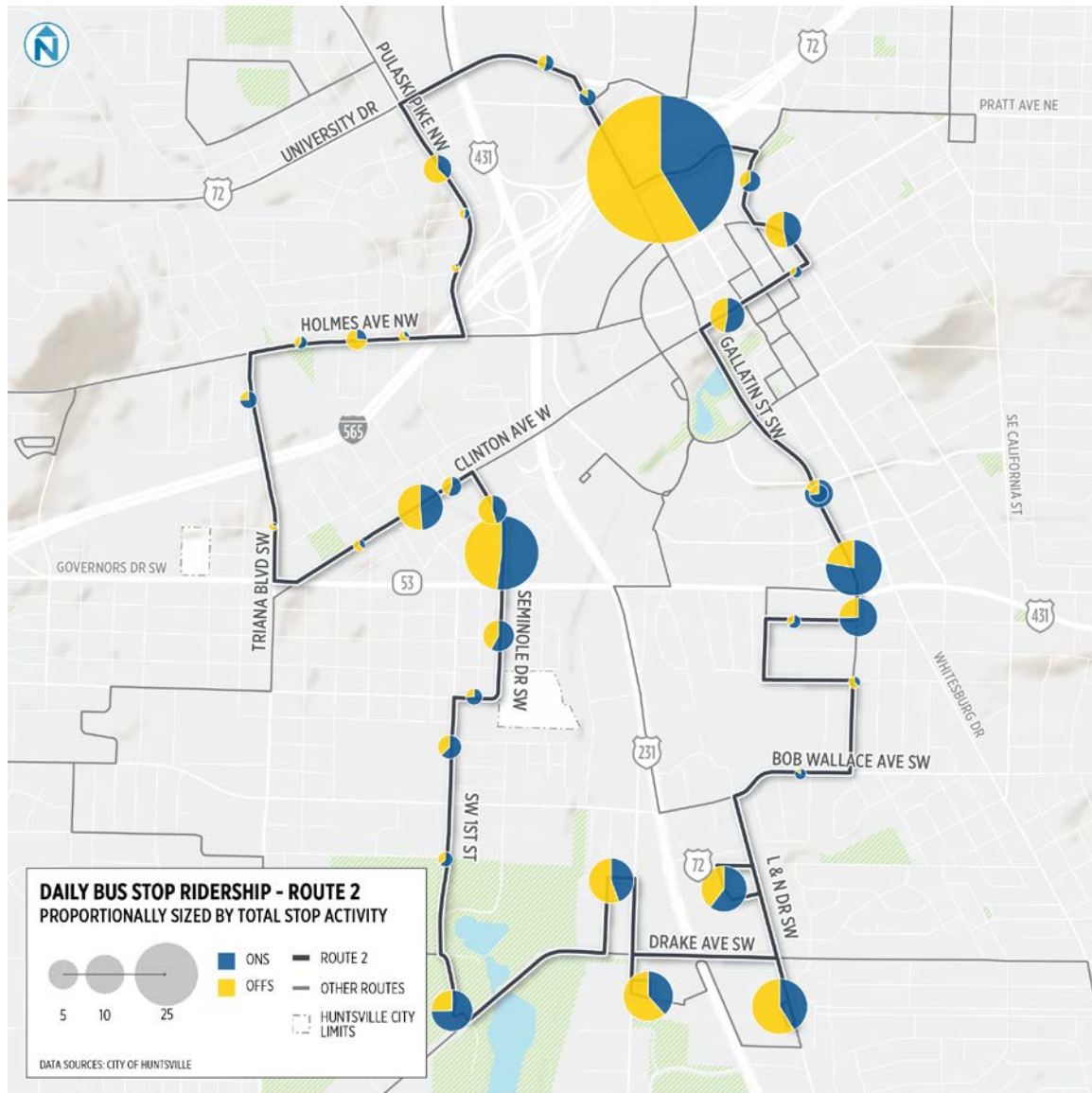
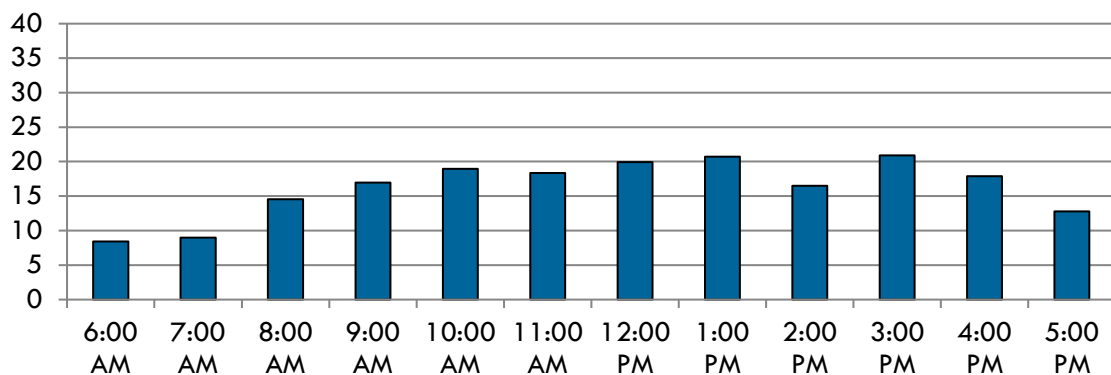


Figure 2-38 Route 2 Boardings per Trip



Route 3: Bridge Street/Holmes Avenue

Route 3 operates primarily as a bi-directional service on Holmes Avenue NW, with deviations to serve the Huntsville Veterans Affairs Clinic and the U.S. Space & Rocket Center. A small terminal loop serves the Bridge Street Town Centre mall. The route also serves UAH. The 7:00 a.m. and 5:00 p.m. trips extend approximately 2.25 miles west of Bridge Street Town Centre to serve the Technicolor facility at 300 Diamond Dr. NW. This extension is a 3-month pilot program that began on October 1, 2018.

Route 3 deviates from its main path of travel to stop at the Huntsville Marriott at the Space & Rocket Center, as well as U.S. Space & Rocket Center.

On-time performance for Route 3 is the highest of any Huntsville Shuttle route, and the scheduled speed of the vehicle is the fastest of any route. The route provides service to the U.S. Space & Rocket Center, which is Alabama's most-visited tourist site.⁹

Productivity on Route 3 is low, despite its bi-directional alignment, strong on-time performance and direct access to UAH and Bridge Street Town Centre.

Service Parameters	
Span	6:00 a.m. - 5:50 p.m.
Frequency (minutes)	60 minutes
Revenue hours per day	11.8
Trips	12
Vehicles	1
Ridership	
Average daily boardings	114
Boardings per revenue hour	10
Average daily lift deployments	2
Efficiency and Reliability	
Running time	50 minutes
Cycle time	60 minutes
Schedule efficiency	83%
On-time performance	84%

⁹ Alabama Tourism Department. January 31, 2018. "U.S. Space & Rocket Center was Alabama's most visited tourism attraction in 2017." Accessed 6/25/18. <<http://tourism.alabama.gov/2018/01/u-s-space-rocket-center-alabamas-visited-tourism-attraction-2017/>>

Figure 2-39 Route 3 Ridership Map

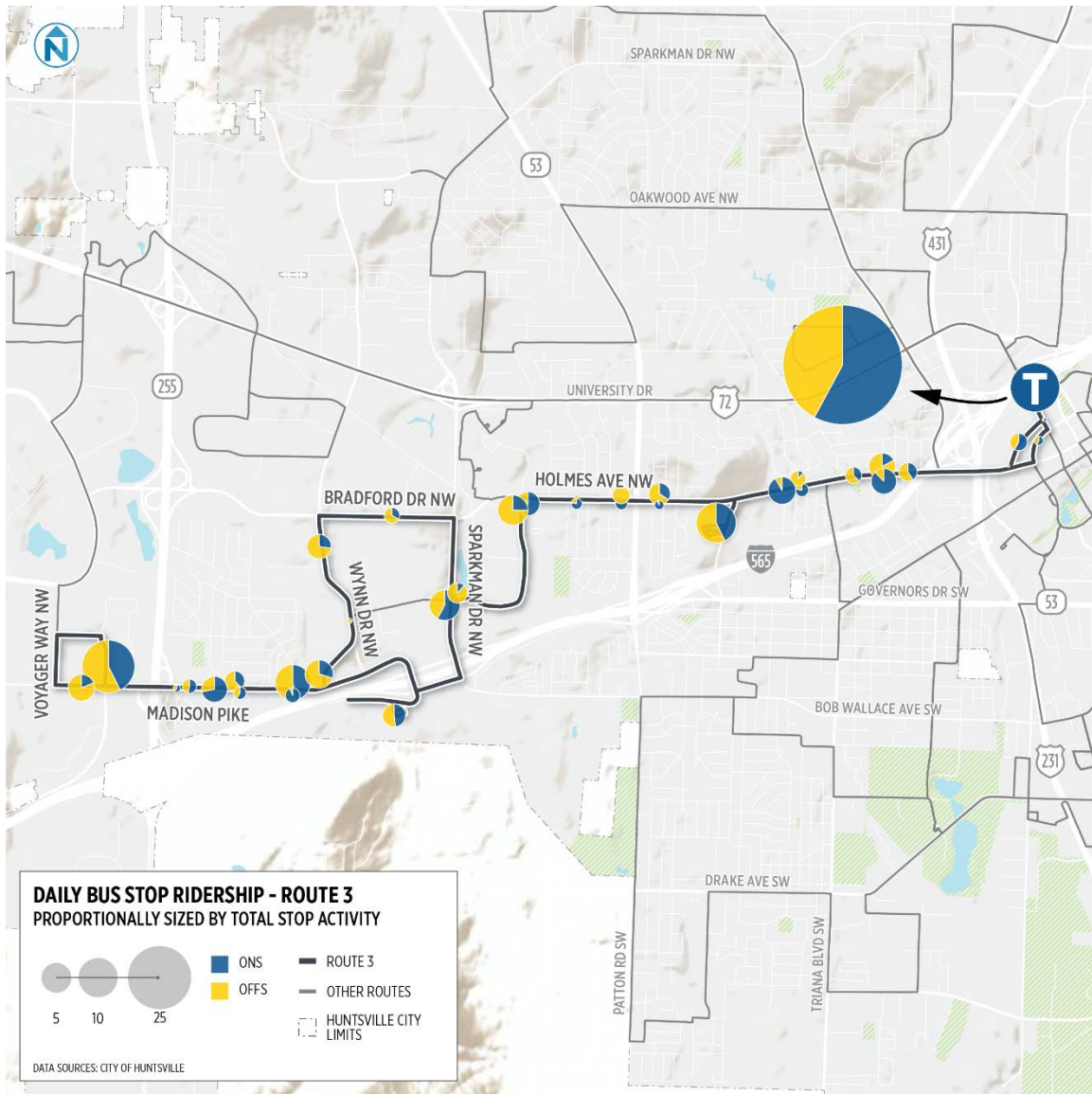
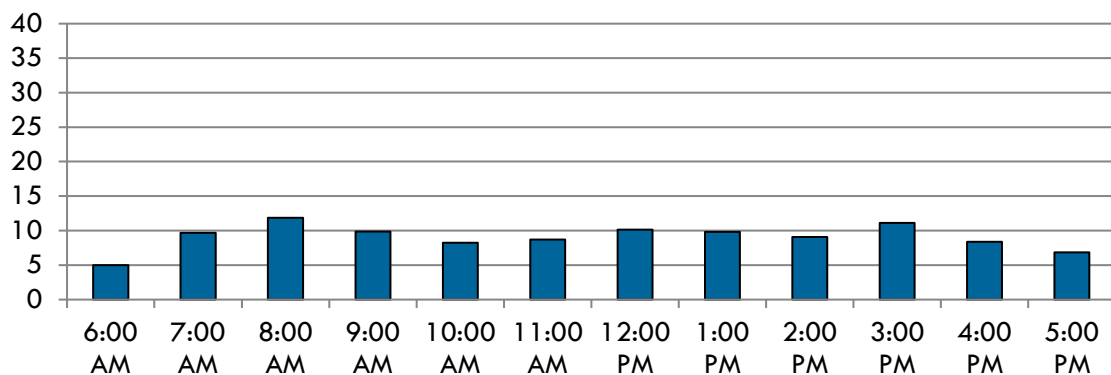


Figure 2-40 Route 3 Boardings per Trip



Route 4: University Drive

Route 4 operates bi-directionally along University Drive with a deviation to the Social Security Administration office on Research Drive NW and a short terminal loop along Rime Village Drive NW.

Route 4 directly serves several high-density housing complexes and commercial destinations along University Drive, including the Walmart Supercenter at Wayne Road.

Route 4 ranks fifth in ridership productivity and provides shorter average trip times than most Huntsville Shuttle routes, due to its bi-directional alignment. Route 4 is one of three routes that operates every thirty minutes throughout the day. It also operates slightly later than most other Huntsville Shuttle routes, with a final stop at 6:51 p.m. In addition to connecting with all Huntsville Shuttle routes at the top of the hour, it also connects with Route 6 at the half-hour mark.

Ridership alternates between high and moderate on every trip. Trips departing the Transfer Station at the top of the hour have higher ridership than trips departing the Transfer Station at the bottom of the hour.

The deviation onto Research Drive NW generates an average of only 15 boardings per day (approximately 3% of the daily total) while adding travel time for passengers headed inbound and/or returning from Walmart.

Service Parameters	
Span	6:00 a.m. - 6:51 p.m.
Frequency (minutes)	30 minutes
Revenue hours per day	24.7
Trips	24
Vehicles	1
Ridership	
Average daily boardings	471
Boardings per revenue hour	19
Average daily lift deployments	7
Efficiency and Reliability	
Running time	51 minutes
Cycle time	60 minutes
Schedule efficiency	85%
On-time performance	78%

Figure 2-41 Route 4 Boardings per Trip

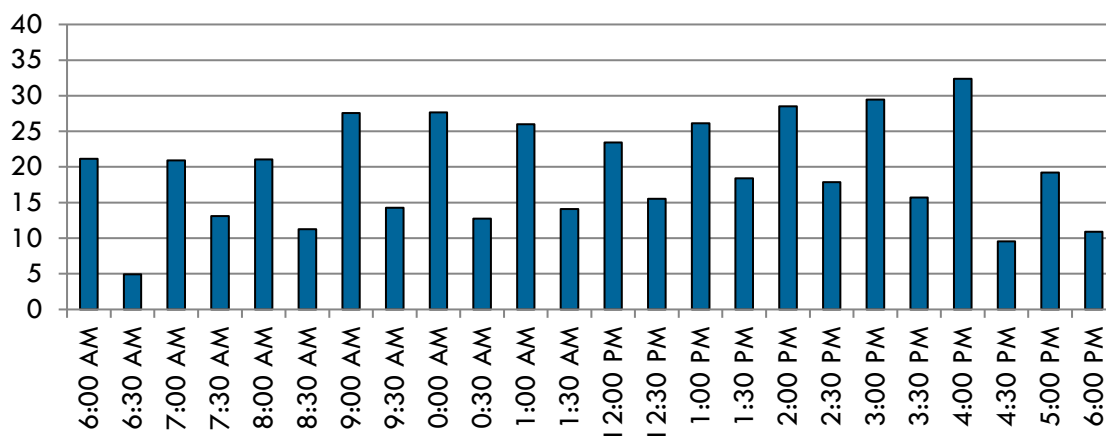
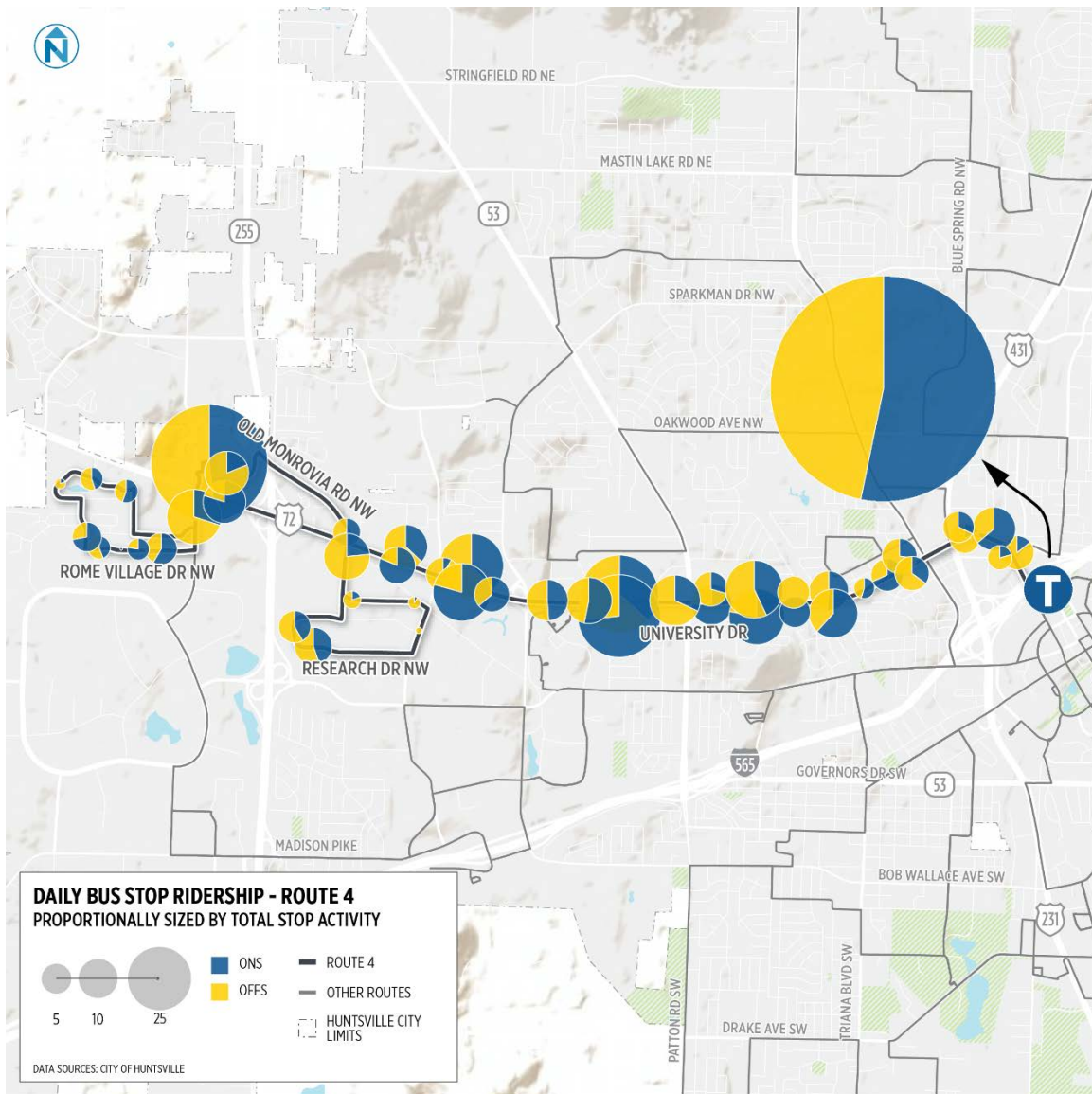


Figure 2-42 Route 4 Ridership Map



Route 5: South Parkway/Bailey Cove

Route 5 is the longest route in the Huntsville Shuttle system, operating as bi-directional line for approximately half of its service area, and as a large counterclockwise loop in south Huntsville. The route serves the Transfer Station, Von Braun Center, Parkway Place Mall, Crestwood Medical Center, and the Walmart Supercenter at Memorial Parkway and Hobbs Road.

Deviations from the arterial path of travel serve apartments along Golf Road and Benaroya Lane. Six trips per day have special deviations to serve Grissom High School.

The scheduled vehicle speed is above average and on-time performance is relatively high compared to other routes, at 78%. The route provides access to a wide variety of destinations.

Route 5 has the longest cycle time of all Huntsville Shuttle routes. The large terminal loop south of 4 Mile Post Road has low ridership along long stretches, including Mountain Gap Road and Bailey Cove Road.

Service Parameters	
Span	6:00 a.m. - 6:45 p.m.
Frequency (minutes)	60 minutes
Revenue hours per day	23.5
Trips	12
Vehicles	2
Ridership	
Average daily boardings	303
Boardings per revenue hour	13
Average daily lift deployments	7
Efficiency and Reliability	
Running time	105 minutes
Cycle time	120 minutes
Schedule efficiency	88%
On-time performance	78%

Figure 2-43 Route 5 Ridership Map

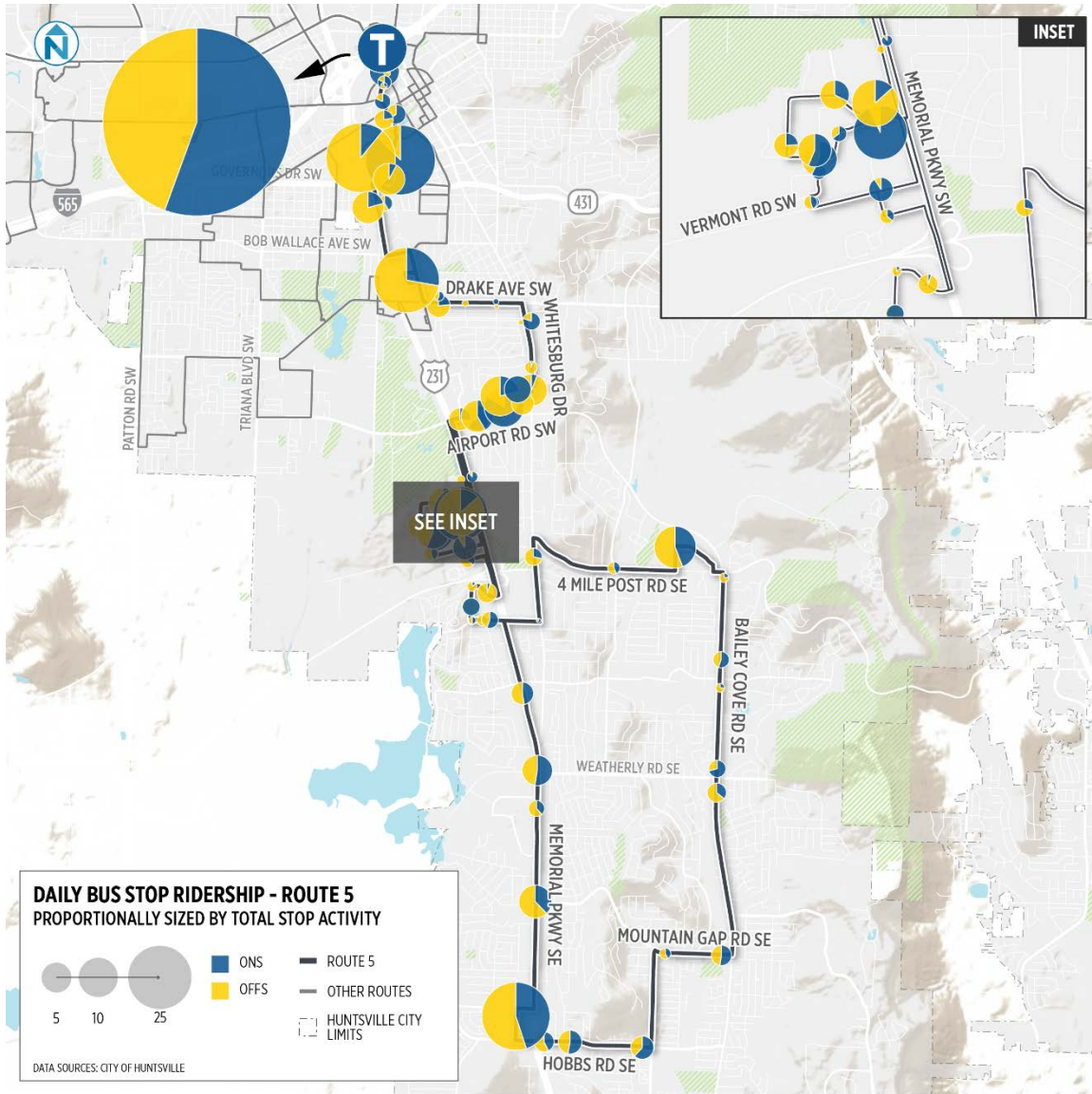
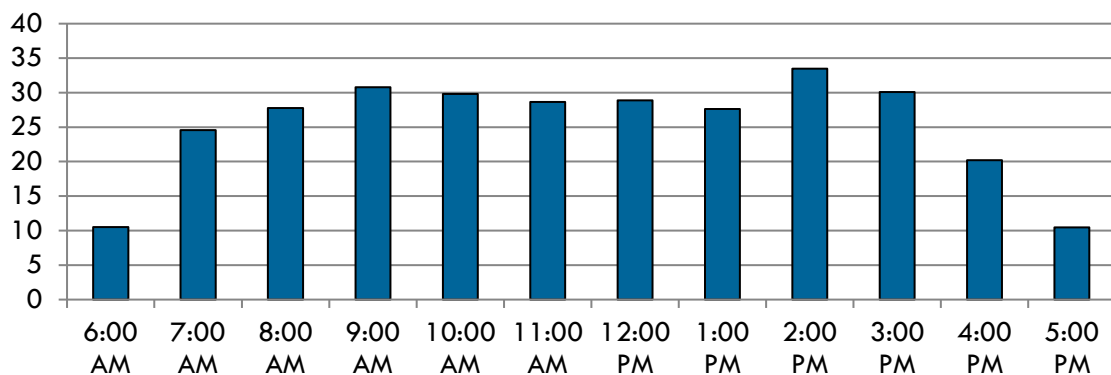


Figure 2-44 Route 5 Boardings per Trip



Route 6: Southwest Huntsville

Route 6 serves Clinton Avenue W bi-directionally and operates a large clockwise terminal loop around the southwest Huntsville neighborhood.

Key destinations on the route are the Transfer Station, public housing developments near Clinton Avenue W, the Shady Grove mobile home community, Huntsville Center for Technology, Huntsville Senior Center, and relatively dense southwest Huntsville neighborhoods.

Route 6 has the longest service span of any Huntsville Shuttle route and its ridership is well distributed along high-density residential corridors.

Ridership alternates between high and moderate on every trip. Trips departing the Transfer Station at the top of the hour have higher ridership than trips departing the Transfer Station at the bottom of the hour.

Route 6 has by far the most stops per mile of route, indicating an opportunity to speed service for riders by prioritizing key stop locations. The large terminal loop also requires riders to travel out of direction in either inbound or outbound trips.

Service Parameters	
Span	5:15 a.m. - 6:50 p.m.
Frequency (minutes)	30 minutes
Revenue hours per day	26.2
Trips	25
Vehicles	2
Ridership	
Average daily boardings	463
Boardings per revenue hour	18
Average daily lift deployments	6
Efficiency and Reliability	
Running time	50
Cycle time	60
Schedule efficiency	83%
On-time performance	71%

Figure 2-45 Route 6 Boardings per Trip

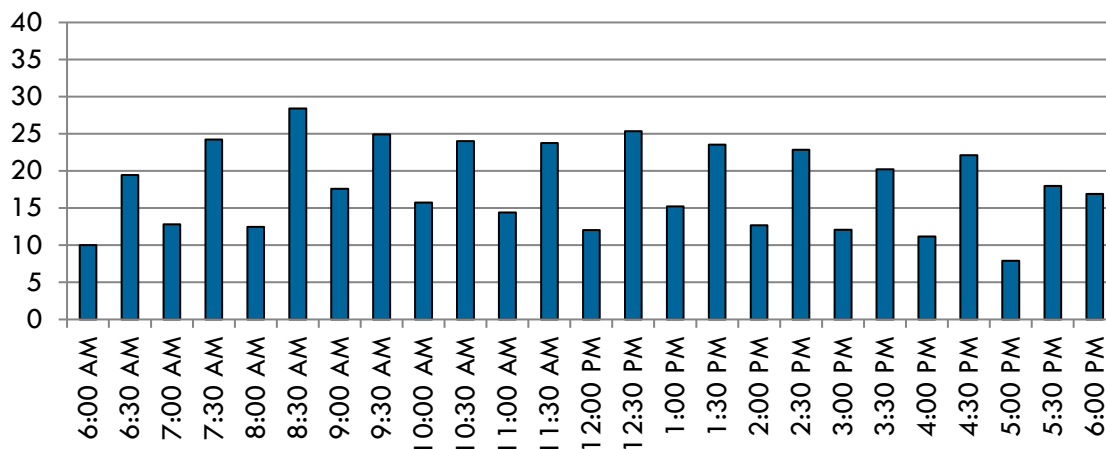
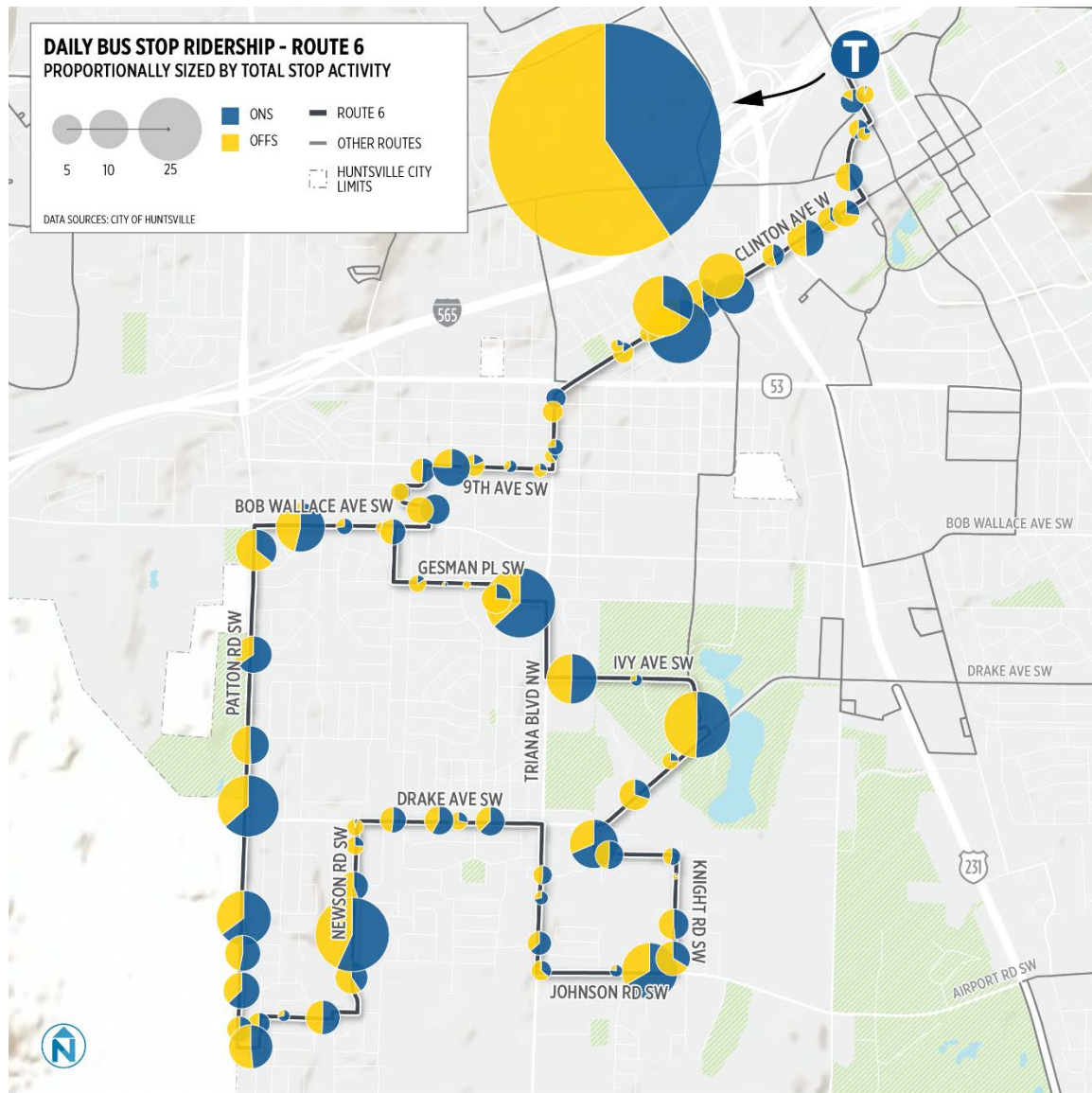


Figure 2-46 Route 6 Ridership Map



Route 7: Alabama A&M/Medaris Road

Route 7 operates as a large counterclockwise loop serving Alabama A&M, north Huntsville, and the Cavalry Hill neighborhood. The route is complemented by Route 8, which serves nearly identical corridors in the opposite direction.

Major destinations along the route include the Transfer Station, Five Points neighborhood, Lee High School, Alabama A&M, College Plaza Shopping Center, and other residential neighborhoods.

Route 7 is one of only two routes to serve Alabama A&M and key destinations in northern Huntsville neighborhoods.

On-time performance for Route 7 is below average, likely due to its above average route length. Although complemented by Route 8, there are areas that are only served in one direction due to differences in alignment between the two routes. Alabama A&M provides more frequent and customized service than Route 7 by operating three primary and two auxiliary shuttle routes, branded as Bulldog Transit.

Service Parameters	
Span	6:00 a.m. - 6:51 p.m.
Frequency (minutes)	60 minutes
Revenue hours per day	12.9
Trips	13
Vehicles	1
Ridership	
Average daily boardings	262
Boardings per revenue hour	20
Average daily lift deployments	4
Efficiency and Reliability	
Running time	51 minutes
Cycle time	60 minutes
Schedule efficiency	85%
On-time performance	61%

Figure 2-47 Route 7 Ridership Map

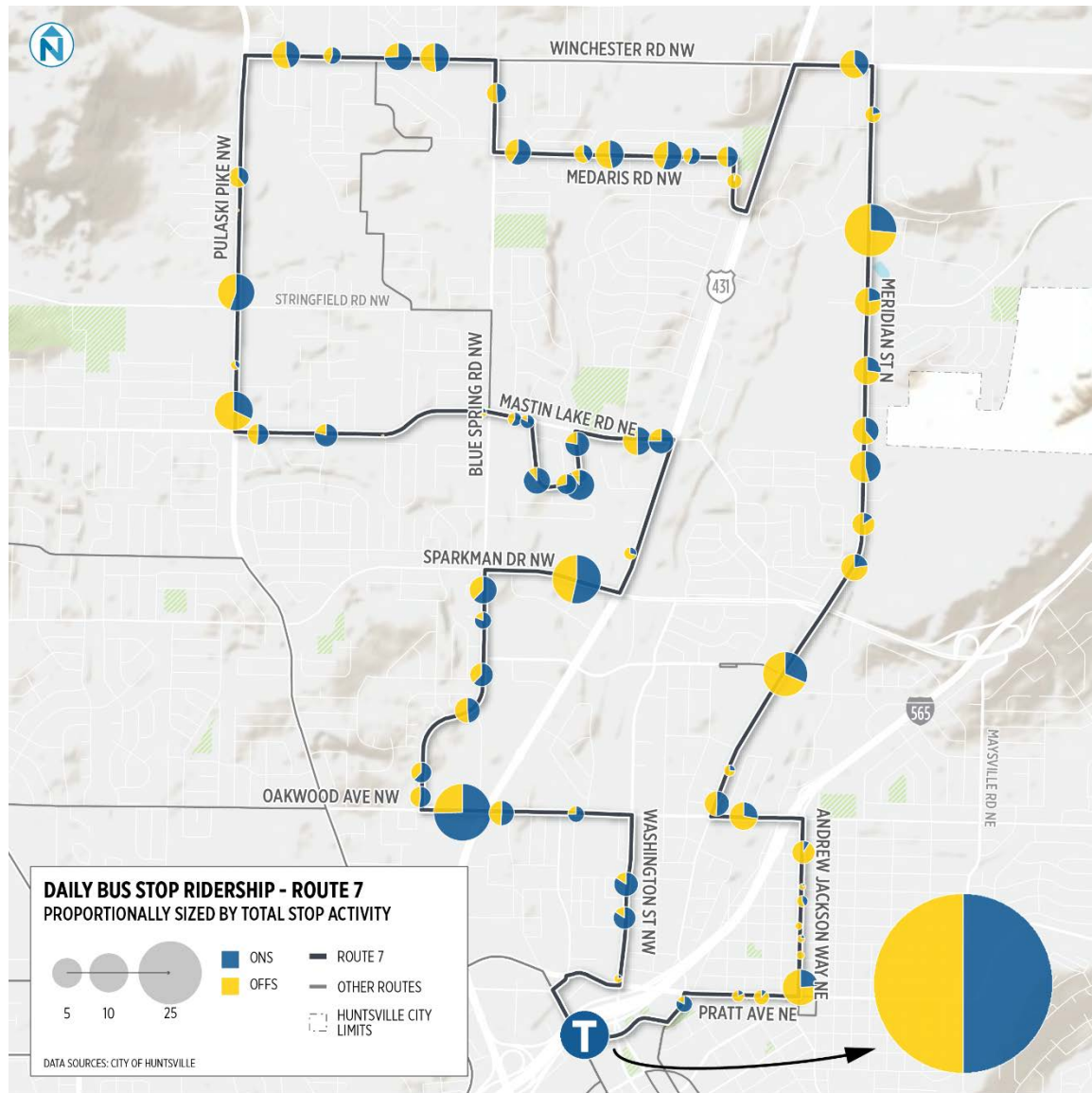
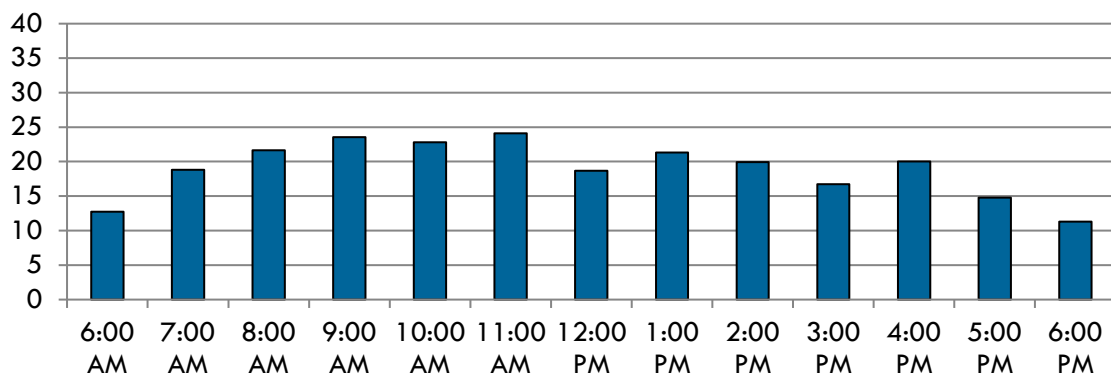


Figure 2-48 Route 1 Boardings per Trip



Route 8: Rolling Hills/Alabama A&M

Route 8 operates as a large clockwise loop serving the Cavalry Hill neighborhood, north Huntsville, Alabama A&M, and Five Points neighborhood. The route is complemented by Route 7, which serves nearly identical corridors in the opposite direction.

Major destinations along the route include the Transfer Station, the Huntsville Bible College, Alabama A&M, Madison County Health Department, and Five Points neighborhood.

Route 8 is the most productive route in the as Huntsville Shuttle system. Its on-time performance is the second-highest in the system, and it is one of only two routes serving the north Huntsville neighborhoods and Alabama A&M.

As with Route 7, there are areas that are only served in one direction due to differences in alignment between the two routes. Alabama A&M provides more frequent and customized service than Route 8 by operating three primary and two auxiliary shuttle routes, branded as Bulldog Transit.

Service Parameters	
Span	6:00 a.m. - 5:51 p.m.
Frequency (minutes)	60 minutes
Revenue hours per day	11.9
Trips	13
Vehicles	1
Ridership	
Average daily boardings	253
Boardings per revenue hour	21
Average daily lift deployments	5
Efficiency and Reliability	
Running time	51
Cycle time	60
Schedule efficiency	85%
On-time performance	82%

Figure 2-49 Route 8 Ridership Map

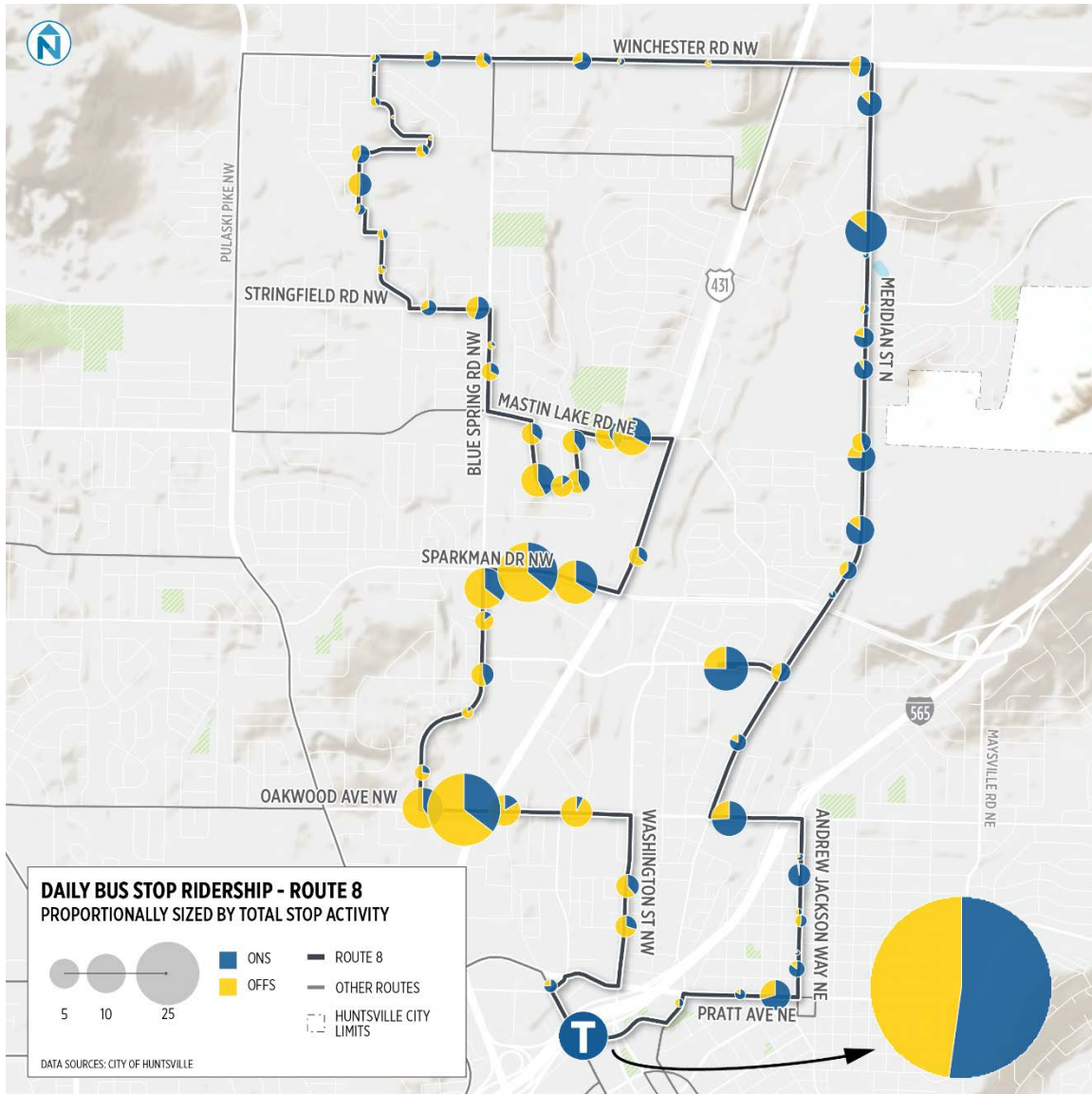
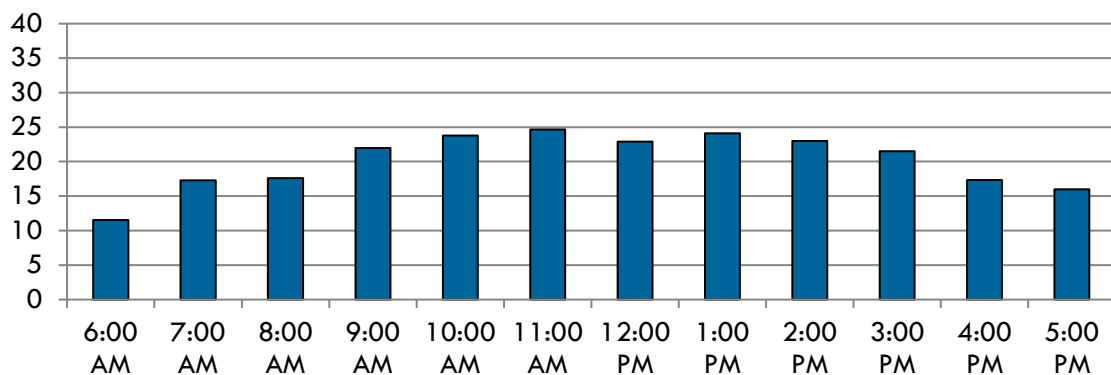


Figure 2-50 Route 8 Boardings per Trip



Route 9: Northwest Huntsville/Oakwood University

Route 9 is a mixed bi-directional/loop route operating in a counterclockwise direction. The route serves the Transfer Station, Cavalry Hill neighborhood, Downtown Rescue Mission, Oakwood University, and various residential and commercial communities in northwest Huntsville.

Route 9 deviates approximately 800 feet from Sparkman Drive NW to board and alight passengers closer to Oakwood University.

On-time performance on Route 9 is high for Huntsville Shuttle system, and the route provides important access to social services via the Downtown Rescue Mission.

Route 9 makes a short deviation (0.4 miles) and U-turn to stop at the edge of Oakwood University that generates only three daily boardings. Oakwood University operates a residential shuttle and a Walmart shuttle service that provide more convenience for students than Route 9.

Service Parameters	
Span	6:00 a.m. - 6:30 p.m.
Frequency (minutes)	60 minutes
Revenue hours per day	12.5
Trips	13
Vehicles	1
Ridership	
Average daily boardings	260
Boardings per revenue hour	21
Average daily lift deployments	4
Efficiency and Reliability	
Running time	50
Cycle time	60
Schedule efficiency	83%
On-time performance	80%

Figure 2-51 Route 9 Ridership Map

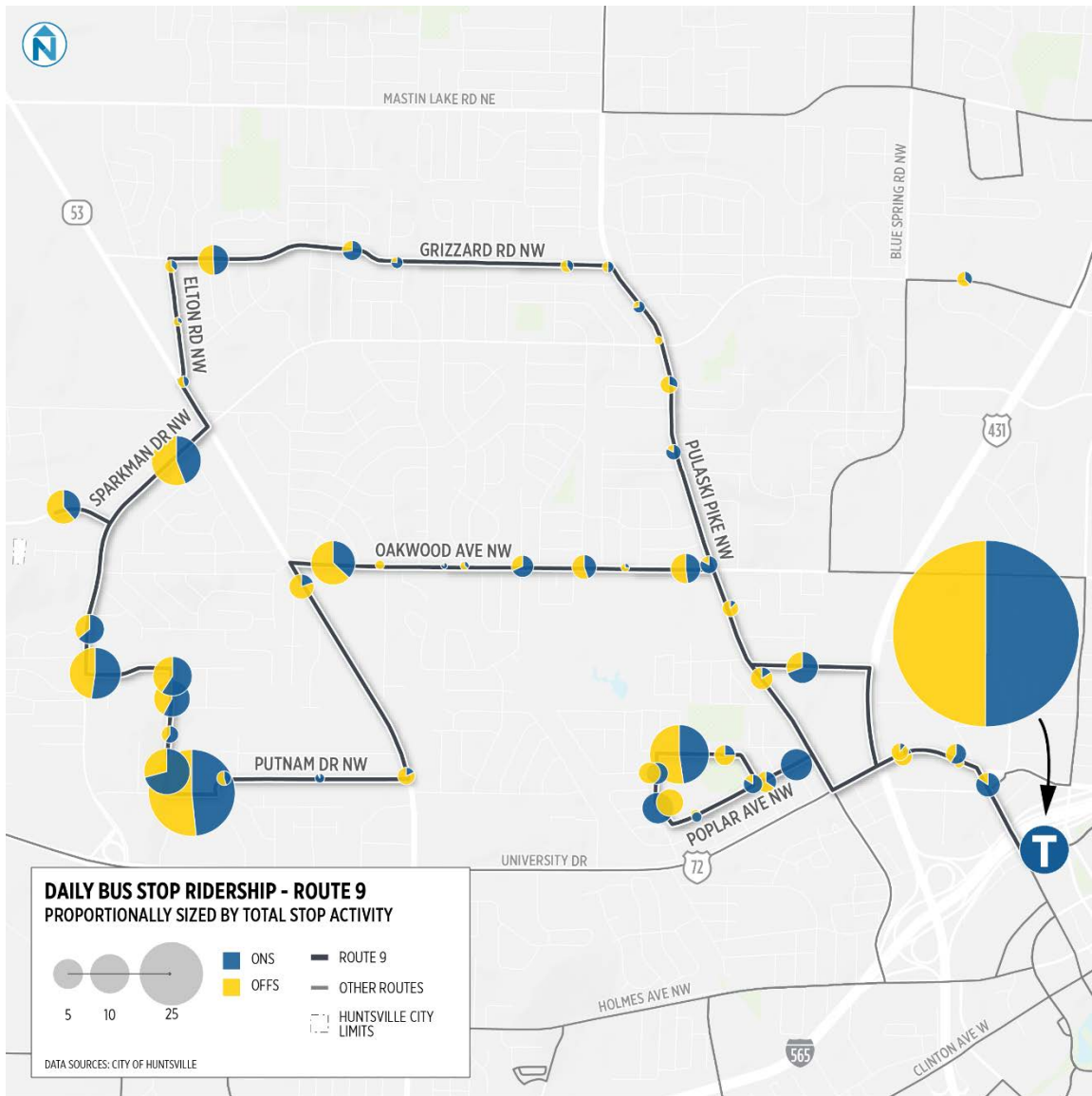
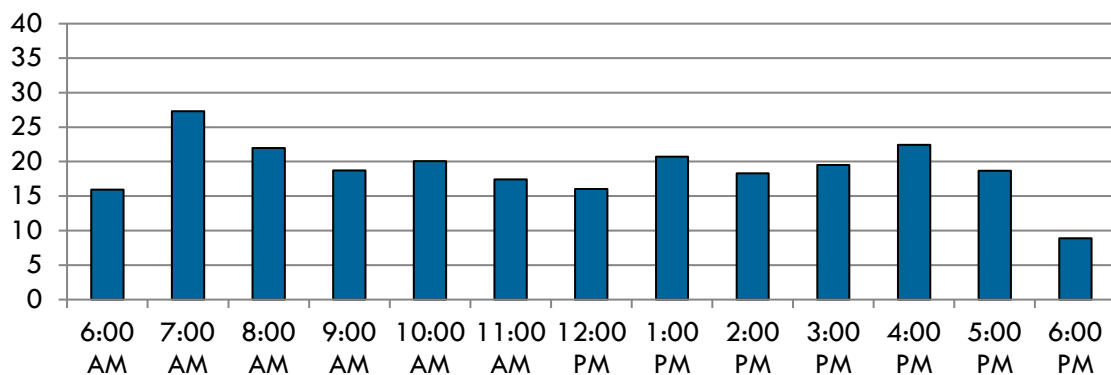


Figure 2-52 Route 9 Boardings per Trip



UAH Shuttle

The UAH Shuttle is a Friday evening-only route intended to serve UAH students' shopping needs. The route is contracted, and open to the general public. The route operates as a large counterclockwise loop, with stops on UAH campus, the University Drive Walmart Supercenter, Target, and Bridge Street Town Centre shopping mall. It does not serve the Transfer Station.

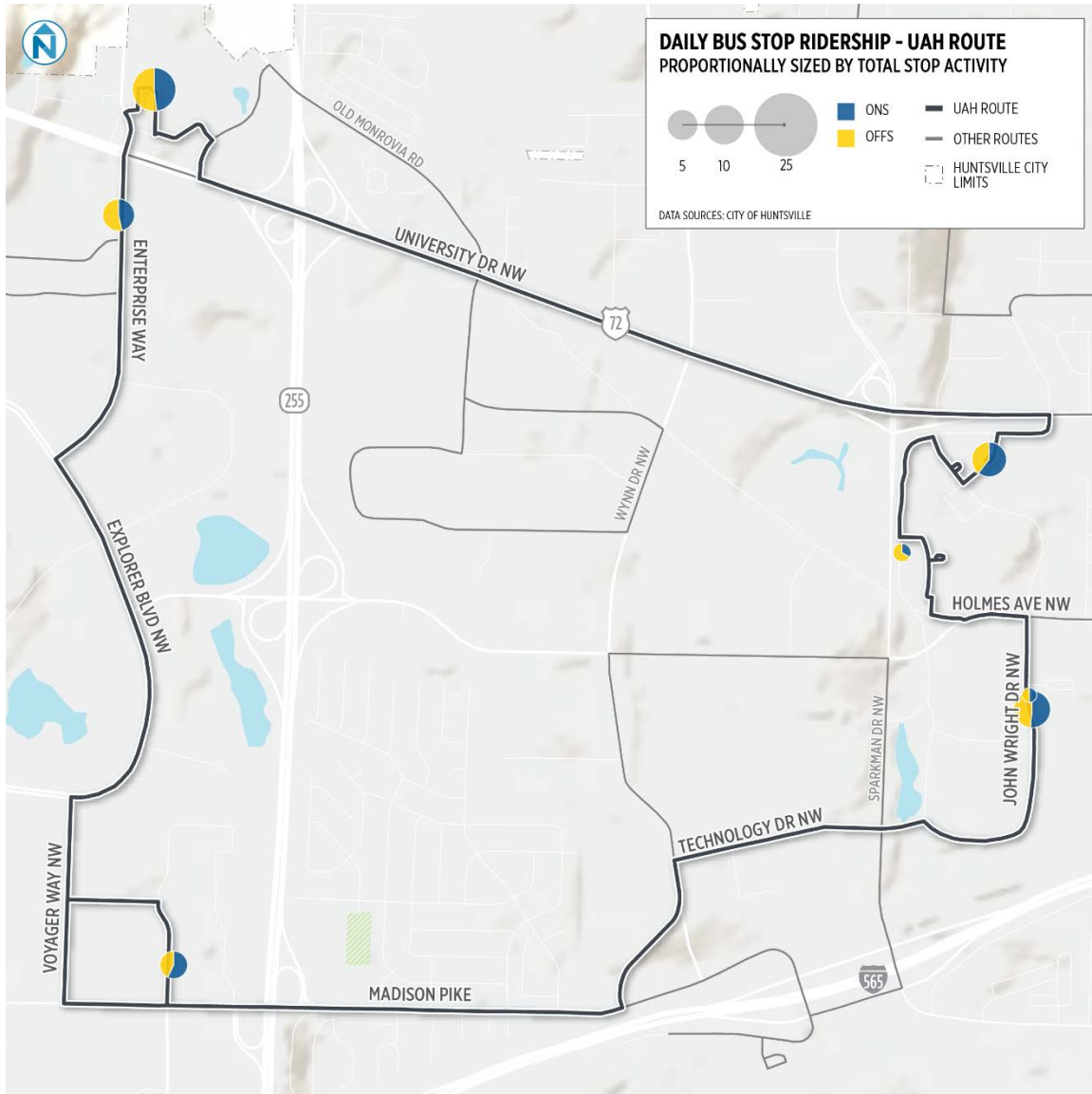
The UAH Shuttle helps fill a nighttime mobility gap for UAH students by effectively extending the western service area of Routes 3 and 4 to 10:15 p.m.

The UAH Shuttle has low productivity and poor on-time performance. The route helps fill shopping needs for UAH students but does not provide them with access to downtown nightlife. It also likely does not serve retail and service employee commute needs well, given its campus-centric routing and limited hours.

Service Parameters	
Span	5:00 p.m. - 10:15 p.m.
Frequency (minutes)	45 minutes
Revenue hours per day	5.3
Trips	
Vehicles	1
Ridership	
Average daily boardings	24
Boardings per revenue hour	5
Average daily lift deployments	0
Efficiency and Reliability	
Running time	40-45
Cycle time	45
Schedule efficiency	89-100%
On-time performance	62%

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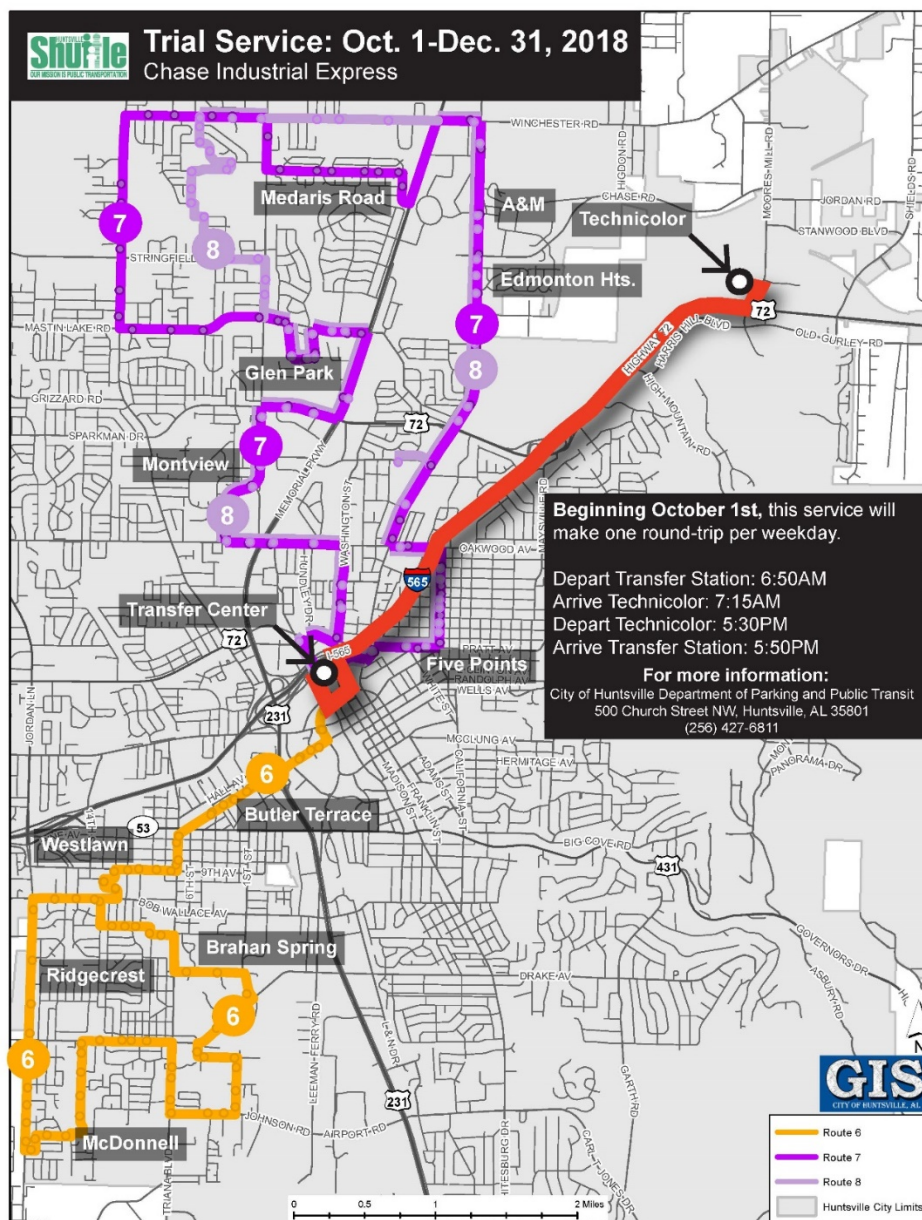
Figure 2-53 UAH Shuttle Ridership Map



Chase Industrial Express

Huntsville Shuttle began operating a pilot express route between the Transfer Station and the Technicolor facility in Chase Industrial Park (4905 Moores Mill Rd. NE) on October 1, 2018. The service uses vans operated by Huntsville Shuttle staff to transport passengers. The service makes one round-trip per weekday, departing the Transfer Station at 6:50 a.m. and arriving at Technicolor 7:15 a.m. In the afternoon, the van departs Technicolor at 5:30 p.m. and returns to the Transfer Station at 5:50 p.m. Riders must purchase a one-way ticket (\$1) or monthly pass (\$38) to use the service. Transfers are free to all Shuttle routes.

Figure 2-54 Chase Industrial Express Alignment and Stops



HANDI-RIDE

Paratransit Eligibility

Handi-Ride is the City of Huntsville's door-to-door, demand-response paratransit service. In accordance with the Americans with Disabilities Act (ADA) of 1990, Handi-Ride is available to persons traveling within $\frac{3}{4}$ -mile of the Shuttle Bus route network (defined as ADA paratransit zone) with a physical, visual or cognitive disabling condition that prevents them from accessing or using Shuttle Bus service.

Additional Eligibility

The City of Huntsville exceeds ADA requirements by making Handi-Ride available, on a limited basis and when space is available, to disabled persons and citizens age 65 or older that reside outside of the ADA paratransit zone but within city limits.

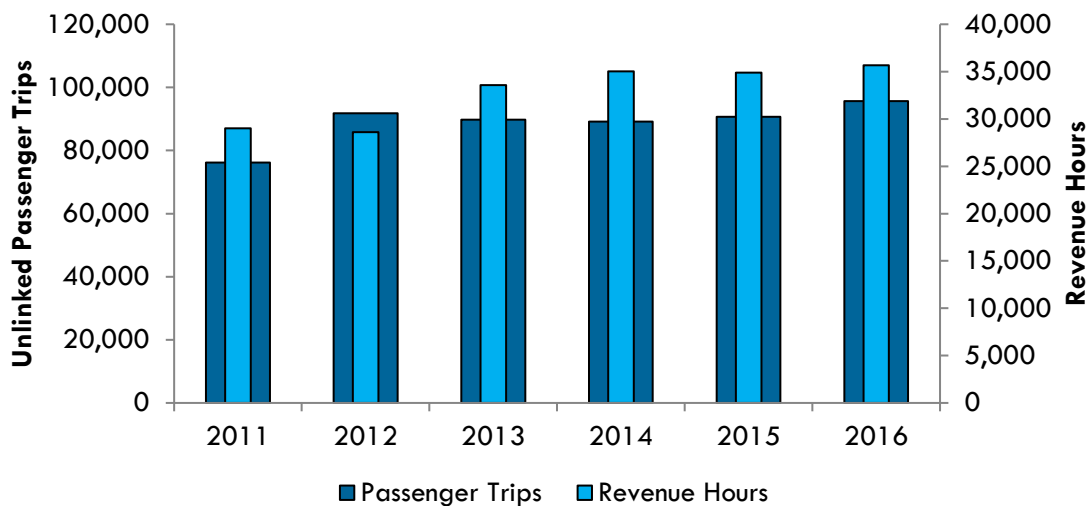
Availability

Handi-Ride operates on weekdays from 6:00 a.m. to 6:00 p.m. Handi-Ride users can schedule rides between 24 hours and one month in advance. Handi-Ride service is extended east of the ADA paratransit zone on Monday, Wednesday and Friday; and west of the ADA paratransit zone on Tuesday and Thursday.

Historical Trends

Demand for Handi-Ride paratransit has increased significantly over the past five years and service provision has followed. Passenger trips have increased by 26% and revenue hours provided have increased 23%.

Figure 2-55 Paratransit Passenger Trips and Revenue Hours, 2011 to 2016

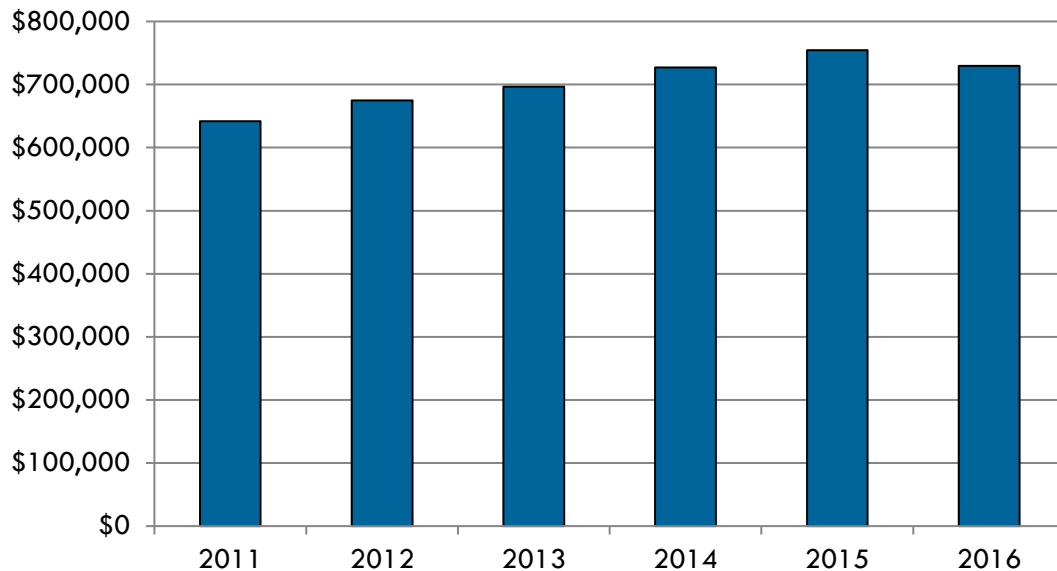


Source: National Transit Database, 2011 to 2016

Historical Operating Expenses

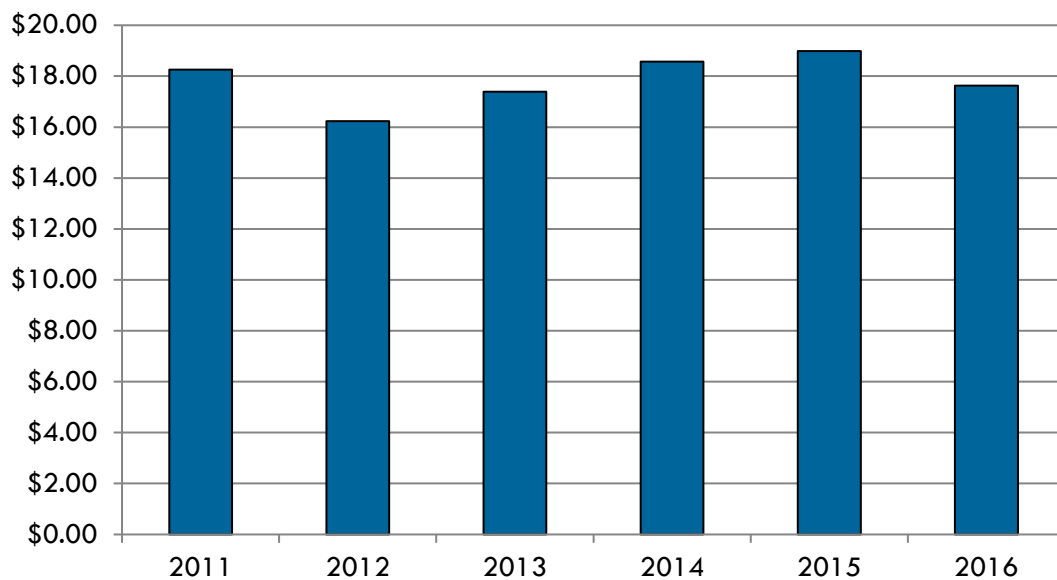
After accounting for inflation, Handi-Ride operating expenses have increased since 2011, while the operating expense per passenger trip have fluctuated slightly.

Figure 2-56 Paratransit Operating Expense (adjusted for inflation), 2006 to 2016



Source: National Transit Database, 2006 to 2016

Figure 2-57 Paratransit Operating Expense per Passenger Trip, 2006 to 2016



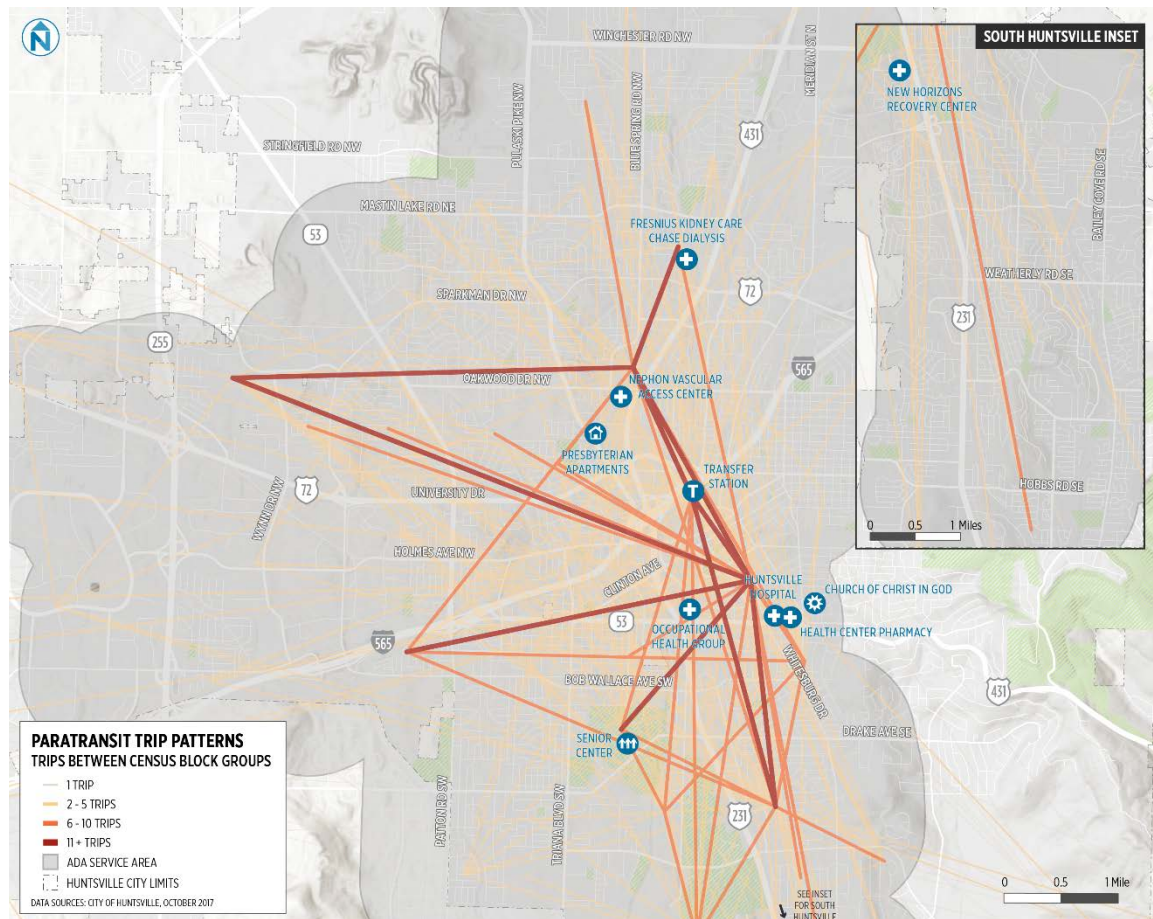
Source: National Transit Database, 2006 to 2016

Trip Patterns

Based on origin-destination trip data from October 2017, Handi-Ride averages 380-400 trips per day with 17 vehicles, or approximately 24 trips per vehicle, per day.

Figure 2-58 shows the largest Handi-Ride trip origin-destination pairs, aggregated up to a block group level. The top ten most commonly requested paratransit addresses are also included as icons on the map. These destinations are primarily social services and/or healthcare-related.

Figure 2-58 Handi-Ride Monthly Trips Flows



FARE POLICY

Current Fare Structure

Huntsville Shuttle has a relatively simple fare structure. There are three main categories for Huntsville Shuttle fixed-route transit fare products, and one category for paratransit fares. Each is described briefly below:

Figure 2-59 Huntsville Shuttle Fare Categories

Category	Description
Adult	Adult fares are a full-fare category and do not require any additional identification beyond valid fare payment. The one-way fare is \$1.00 for fixed-route services.
Reduced	Reduced fares are available for seniors (ages 65 and above), Medicaid/Medicare cardholders, seniors (ages 65 and above), persons with a disability, and students with valid ID. Valid identification is required. The reduced fare is \$0.50 for fixed-route services.
Children	Children under 32" ride free when accompanied by an adult. This is limited to two children per fare.
Paratransit	Paratransit services are available to persons with disabilities who cannot otherwise ride regular city buses and seniors over 65. Riders must be certified. The one-way fare is \$2.00 for paratransit services. One personal care attendant (PCA) may accompany certified riders at no charge.

Transfer Policy

Transfers are issued for free with a valid one-way ticket on fixed-route transit. Transfers are accepted on the next connecting bus, and are not valid for use on the same route in the same or opposite direction. This prevents round-trip travel using one fare.

Fare Products

Huntsville Shuttle offers several fare and pass options for riders. These options are one-way fares, ticket books, unlimited ride passes for fixed-route service, and one-way trip tickets for paratransit service. The current Huntsville Shuttle fare structure is detailed in Figure 2-60.

Regular fare tickets are available in a 20-ticket booklet for fixed-route services only. In addition to providing a convenient method of payment, the 20-ticket booklets provide a 10% discount to regular fare paying riders compared to the cost of purchasing 20 individual fares.

Like many transit agencies, Huntsville Shuttle offers frequent riders a monthly pass. The pass is based on the calendar month. The multiplier—the number of one-way rides that a customer would have to take to break even—for the monthly pass is 38 trips. This means that an employee using transit to travel to work must take, on average, 1.9 rides per day for a pass to break even. Essentially, the cost of the monthly pass would still be worthwhile if a person were to take only one day off per month.

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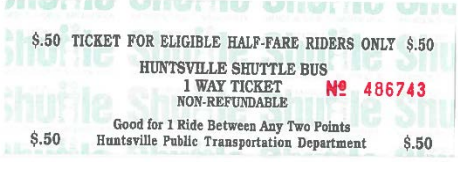
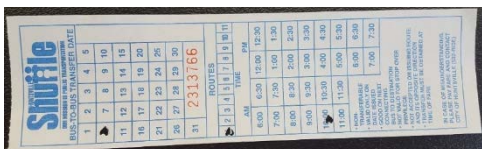


Figure 2-60 Current Fare Structure

Fare Category	Fare	Discount	Uses per Weekday to 'Break Even'
Fixed-Route			
Cash Fare	\$1.00	-	-
Reduced Cash Fare (Seniors, People with Disabilities, Medicare/Medicaid card holders, Students with valid ID, and Children)	\$0.50	50% discount	-
20 Ride Ticket Book	\$18.00	10% discount	0.9
Monthly Pass Valid for a calendar month	\$38.00	-	1.9
Transfers	Free	-	-
Paratransit			
One-way Ticket	\$2.00	-	

Fare Media

Huntsville Shuttle accepts cash payments onboard fixed-route buses and paper media products onboard both fixed-route and paratransit vehicles. Diamond fareboxes onboard fixed-route buses accept cash, coins, and paper tickets. Operators issue paper transfer slips upon request. The following figure summarizes current fare media and distribution.

Figure 2-61 Fare Media and Distribution

Fare Media	Distribution
<p>One-Way Ticket</p> 	<p>Ticket books for fixed-route service are available for purchase in-person at the Public Transit Office. One-way fares can also be paid with cash or coin at the farebox onboard buses.</p>
<p>Reduced One-Way Ticket</p> 	<p>Reduced one-way tickets for fixed-route service are available for purchase in-person at the Public Transit Office. One-way reduced fares can also be paid with cash or coin at the farebox onboard buses.</p>
<p>Transfers</p> 	<p>Paper transfer slips are available onboard fixed-route services and are issued by the driver when a cash or ticket fare is paid. There is no additional charge for a transfer slip.</p>
<p>Monthly Pass</p> 	<p>Monthly passes for fixed-route transit are available for purchase in-person at the Public Transit Office.</p>
<p>Paratransit Single-Ride</p> 	<p>Paratransit tickets must be purchased in advance, either in person at the Public Transit Office or by mail. No cash is accepted onboard paratransit vehicles.</p>

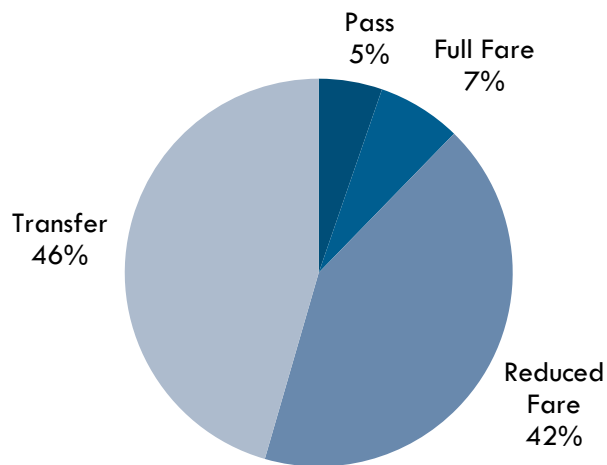
Fixed-Route Revenue and Ridership Trends

The information in the following section is based on FY 2017 data collected from Huntsville Shuttle as well as data reported to the National Transit Database by the agency. This section describes how current fare products are used on the system, and summarize revenue and ridership trends over a ten-year period.

Ridership by Fare Type

Only 7% of fixed-route riders pay a full fare, compared with 42% paying a reduced fare. Nearly half of all riders (45%) board using a transfer slip. The remaining 5% of riders are using a pass product.

Figure 2-62 Fixed-Route Ridership by Fare Type, October 2017

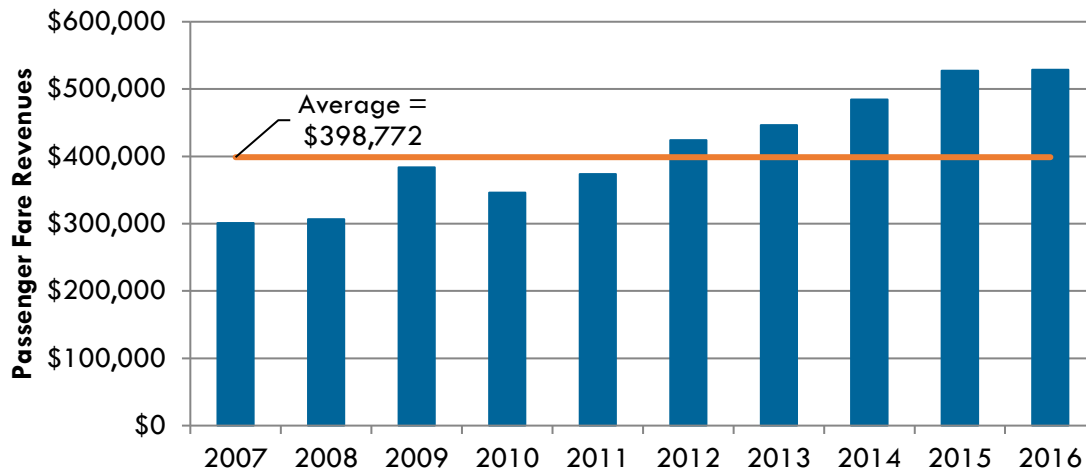


Source: Huntsville Shuttle RouteMatch Report, October 2017

Annual Farebox Revenue

Huntsville Shuttle has seen rising farebox revenues corresponding with increasing ridership since 2010. Farebox revenues topped \$500,000 for the first time in 2015 and stayed above \$500,000 in 2016. These figures include farebox revenue from both fixed-route and paratransit service.

Figure 2-63 Annual Fare Revenues, 2007 to 2016

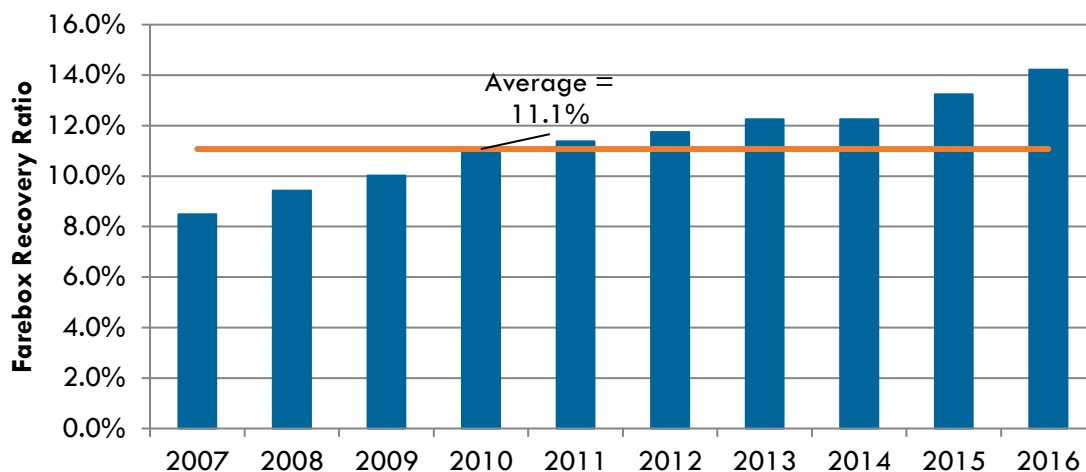


Source: National Transit Database, 2007 to 2016

Farebox Recovery Ratio

Farebox recovery ratio is a measure of the percentage of agency funds that come from fare-paying customers. Huntsville Shuttle's farebox recovery has been increasing since 2010, from 10.9% in 2010 to 14.2% in 2016. This rise reflects the increase in ridership and passenger fare revenues over the same time period.

Figure 2-64 Farebox Recovery Ratio Trends, 2007 to 2016

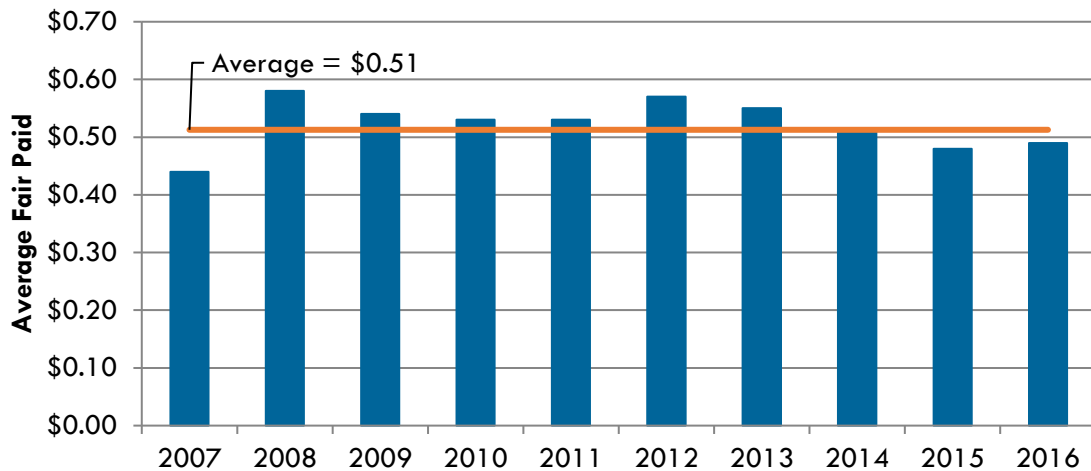


Source: National Transit Database, 2007 to 2016

Average Fare per Passenger

The average fare paid per passenger over a ten-year period for fixed-route transit service is \$0.51. This is unsurprising, as nearly half of all riders are paying a reduced fare. The average fare per passenger declined from 2012 to 2015, and leveled out at \$0.49 in 2016.

Figure 2-65 Average Fare per Passenger, 2007 to 2016

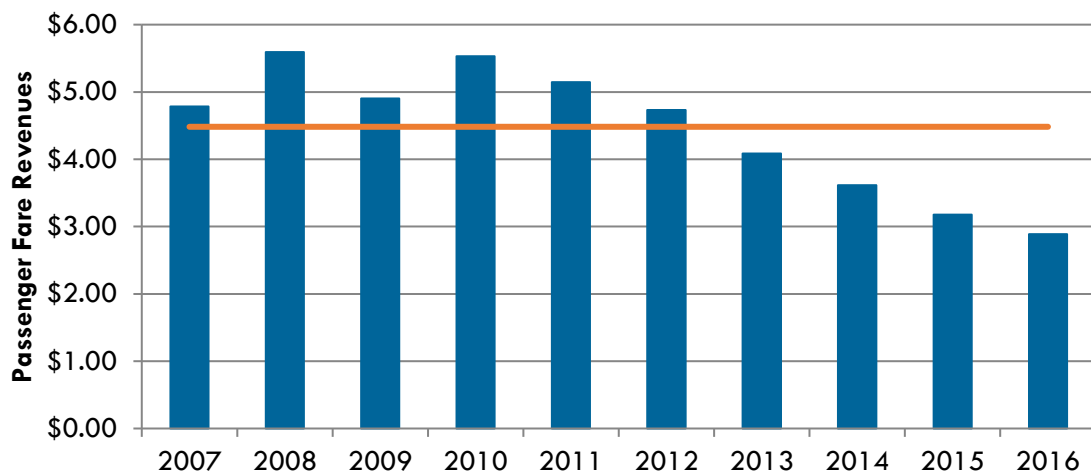


Source: National Transit Database, 2007 to 2016

Average Subsidy per Passenger

The average subsidy per passenger is derived by subtracting the average fare paid per passenger from the average operating cost per passenger trip. As passenger trips have increased since 2012, operating costs have remained relatively steady, resulting in a decline in the average subsidy per passenger.

Figure 2-66 Average Subsidy per Passenger, 2007 to 2016



Source: National Transit Database, 2007 to 2016

Fare Policy Key Findings

- **Revenues and ridership are on the rise.** Huntsville Shuttle has seen rising annual farebox revenues and farebox recovery, corresponding with increasing ridership since 2010.
- **The majority of Huntsville Shuttle riders are eligible for a discounted fare.** On average, just 7% of fixed-route riders pay a full fare, compared with 42% of riders paying a reduced fare.
- **Maintaining free transfers is essential, as the system is designed around key transfer points.** The use of transfers is prevalent among current riders. Nearly half of all riders (45%) board using a transfer slip.
- **Monthly pass pricing is high and usage rates are low.** The monthly transit pass is underutilized; currently only 5% of riders are paying using a pass. The monthly pass is also priced on the high end of the industry standard and is only available for full fare riders, who comprise a smaller share of Huntsville Shuttle's market.
- **Fare distribution options are limited.** Huntsville Shuttle has the opportunity to provide more options for purchasing fares, including online, through a mobile ticketing app, with retail partners, or in partnership with public venues such as libraries and community centers.
- **Existing fareboxes limit fare payment options.** Huntsville Shuttle does not currently accept reloadable cards or other technologies as fare payment. Upgrading fareboxes would enable Huntsville Shuttle to accept a wider range of fare payment media.

3 5-YEAR SERVICE PLAN

PHASE 1 – AUGUST 2019

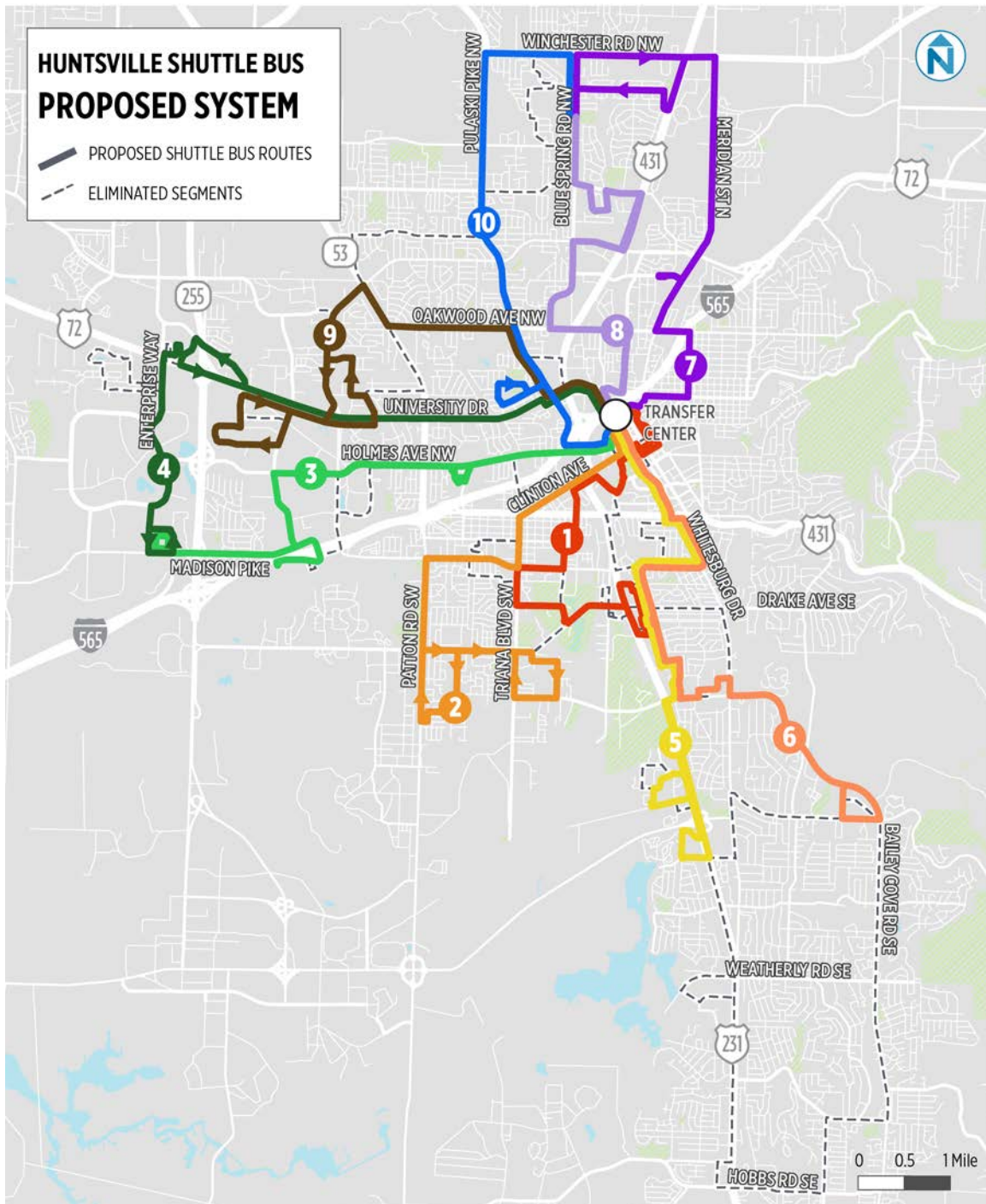
Restructure route network, extend weekday evening service, and add Saturday service

The initial phase of the service plan focuses on restructuring the entire Huntsville Shuttle route network and adding Saturday service and later evening service to all routes. Four loop routes are replaced with bi-directional service. Service span is uniform for all routes on both weekdays and Saturdays. Hours are extended to 9 p.m. on weekdays. Routes are designed to operate as direct as possible with deviations to major ridership generators only. Service is eliminated from low ridership corridors such as Bailey Cove Rd and Hobbs Rd in south Huntsville and Grizzard Rd in north Huntsville. Routes 5 and 6 overlap between the Transfer Station and Airport Rd, creating 30-minute service along that stretch, as Route 6 Jones Valley will depart at the Transfer Station at the bottom of the hour, resulting in a 30-minute offset. The number of routes in north Huntsville is increased from two to three.

Figure 3-1 Phase 1 Service Summary

Route	Weekday				Saturday			
	Span	Frequency	Buses	Hours	Span	Frequency	Buses	Hours
1 Brahan Spring	6am - 9pm	60	1	15	7am - 7pm	60	1	12
2 Patton	6am - 9pm	30	2	30	7am - 7pm	60	1	12
3 Holmes/UAH	6am - 9pm	60	1	15	7am - 7pm	60	1	12
4 University Dr	6am - 9pm	30	2	30	7am - 7pm	60	1	12
5 Byrd Spring	6am - 9pm	60	1	15	7am - 7pm	60	1	12
6 Jones Valley	6am - 9pm	60	1	15	7am - 7pm	60	1	12
7 Meridian/A&M	6am - 9pm	60	1	15	7am - 7pm	60	1	12
8 Blue Spring	6am - 9pm	60	1	15	7am - 7pm	60	1	12
9 Oakwood	6am - 9pm	60	1	15	7am - 7pm	60	1	12
10 Pulaski Pike	6am - 9pm	60	1	15	7am - 7pm	60	1	12
Daily Totals			12	180			10	120
Annual Hours	51,780							

Figure 3-2 Recommended Route Network



PHASE 2 – AUGUST 2020

Increase Route 1 weekday service

A second bus is added to Route 1 Brahan Spring during Phase 2 to improve the frequency from 60 to 30 minutes. Proposed Route 1 serves several important destinations such as the Madison County Courthouse, Big Spring Park, Von Braun Center, Downtown Huntsville Library, the Huntsville-Madison County Senior Center, Parkway Place shopping center and Walmart. Route 1 also serves high-density housing along Seminole Dr and Triana Blvd.

Figure 3-3 Phase 2 Service Summary

Route	Weekday				Saturday			
	Span	Frequency	Buses	Hours	Span	Frequency	Buses	Hours
1 Brahan Spring	6am - 9pm	30	2	30	7am - 7pm	60	1	12
2 Patton	6am - 9pm	30	2	30	7am - 7pm	60	1	12
3 Holmes/UAH	6am - 9pm	60	1	15	7am - 7pm	60	1	12
4 University Dr	6am - 9pm	30	2	30	7am - 7pm	60	1	12
5 Byrd Spring	6am - 9pm	60	1	15	7am - 7pm	60	1	12
6 Jones Valley	6am - 9pm	60	1	15	7am - 7pm	60	1	12
7 Meridian/A&M	6am - 9pm	60	1	15	7am - 7pm	60	1	12
8 Blue Spring	6am - 9pm	60	1	15	7am - 7pm	60	1	12
9 Oakwood	6am - 9pm	60	1	15	7am - 7pm	60	1	12
10 Pulaski Pike	6am - 9pm	60	1	15	7am - 7pm	60	1	12
Daily Totals	-	-	13	195	-	-	10	120
Annual Hours	55,575							

PHASE 3 – AUGUST 2021

Extend night service on all routes

Later service was the second most desired service improvement after the addition of Saturday service based on the on-board and online surveys. As a result, it is recommended that the service span of all Huntsville Shuttle routes be extended to 10 p.m. on weekdays and 8 p.m. on weekends during Phase 3.

Figure 3-4 Phase 3 Service Summary

Route	Weekday				Saturday			
	Span	Frequency	Buses	Hours	Span	Frequency	Buses	Hours
1 Brahan Spring	6am - 10pm	30	2	32	7am - 8pm	60	1	13
2 Patton	6am - 10pm	30	2	32	7am - 8pm	60	1	13
3 Holmes/UAH	6am - 10pm	60	1	16	7am - 8pm	60	1	13
4 University Dr	6am - 10pm	30	2	32	7am - 8pm	60	1	13
5 Byrd Spring	6am - 10pm	60	1	16	7am - 8pm	60	1	13
6 Jones Valley	6am - 10pm	60	1	16	7am - 8pm	60	1	13
7 Meridian/A&M	6am - 10pm	60	1	16	7am - 8pm	60	1	13
8 Blue Spring	6am - 10pm	60	1	16	7am - 8pm	60	1	13
9 Oakwood	6am - 10pm	60	1	16	7am - 8pm	60	1	13
10 Pulaski Pike	6am - 10pm	60	1	16	7am - 8pm	60	1	13
Daily Totals			13	208			10	130
Annual Hours	59,384							

PHASE 4 – AUGUST 2022

Increase weekday service on Routes 3, 7 and 8

Service on Routes 3 Holmes/UAH, 7 Meridian/A&M and 8 Blue Spring is doubled during Phase 4 to improve the frequency of each route from 60 to 30 minutes.

Proposed Route 8 serves several important destinations including Kroger, Department of Human Resources, Alabama Career System, Walmart, and Showers Recreation Center and Library. Route 8 also serves high-density housing along Venona Ave, Elizabeth St, Blue Spring Rd, Washington St.

Collectively, Routes 3 and 8 serve four higher education institutions (University of Alabama in Huntsville, Alabama A&M University, Calhoun Community College, and Drake State Community and Technical College). Although ridership is currently low on both routes, they have the potential for higher ridership as college and university students place a high value on frequency of service. Improving the frequency of both routes at the same time allows Huntsville Shuttle to combine them into one single route that could be branded as the Education Line.

Figure 3-5 Phase 4 Service Summary

Route	Weekday				Saturday			
	Span	Frequency	Buses	Hours	Span	Frequency	Buses	Hours
1 Brahan Spring	6am - 10pm	30	2	32	7am - 8pm	60	1	13
2 Patton	6am - 10pm	30	2	32	7am - 8pm	60	1	13
3 Holmes/UAH	6am - 10pm	30	2	32	7am - 8pm	60	1	13
4 University Dr	6am - 10pm	30	2	32	7am - 8pm	60	1	13
5 Byrd Spring	6am - 10pm	60	1	16	7am - 8pm	60	1	13
6 Jones Valley	6am - 10pm	60	1	16	7am - 8pm	60	1	13
7 Meridian/A&M	6am - 10pm	30	2	32	7am - 8pm	60	1	13
8 Blue Spring	6am - 10pm	30	2	32	7am - 8pm	60	1	13
9 Oakwood	6am - 10pm	60	1	16	7am - 8pm	60	1	13
10 Pulaski Pike	6am - 10pm	60	1	16	7am - 8pm	60	1	13
Daily Totals			16	256			10	130
Annual Hours	71,528							

PHASE 5 – AUGUST 2023

Upgrade Route 4 to 15-minute frequency

Service on Route 4 University Dr is upgraded to a 15-minute frequency during Phase 5 to set the stage for future bus rapid transit (BRT) implementation. Typical attributes of BRT service include

- Frequent service
- Increased stop spacing and speed
- Off-board fare payment
- Transit priority lanes
- Enhanced stops and stations
- Unique vehicles and branding

Increasing corridor ridership to 3,000 average daily boardings and adding Sunday service would greatly improve the chances of securing federal funding. A future BRT feasibility study would be necessary to examine the potential for upgrading Route 4 to a BRT corridor.

Figure 3-6 Phase 5 Service Summary

Route	Weekday				Saturday			
	Span	Frequency	Buses	Hours	Span	Frequency	Buses	Hours
1 Brahan Spring	6am - 10pm	30	2	32	7am - 8pm	60	1	13
2 Patton	6am - 10pm	30	2	32	7am - 8pm	60	1	13
3 Holmes/UAH	6am - 10pm	30	2	32	7am - 8pm	60	1	13
4 University Dr	6am - 10pm	15	4	64	7am - 8pm	60	1	13
5 Byrd Spring	6am - 10pm	60	1	16	7am - 8pm	60	1	13
6 Jones Valley	6am - 10pm	60	1	16	7am - 8pm	60	1	13
7 Meridian/A&M	6am - 10pm	30	2	32	7am - 8pm	60	1	13
8 Blue Spring	6am - 10pm	30	2	32	7am - 8pm	60	1	13
9 Oakwood	6am - 10pm	60	1	16	7am - 8pm	60	1	13
10 Pulaski Pike	6am - 10pm	60	1	16	7am - 8pm	60	1	13
Daily Totals			18	288			10	130
Annual Hours	79,624							

ROUTE RECOMMENDATIONS

Route 1 – Brahan Spring

Route 1 provides bi-directional service along segments currently served by existing Routes 1 and 2. Route 1 serves several important destinations such as the Madison County Courthouse, Big Spring Park, Von Braun Center, Downtown Huntsville Library, the Huntsville-Madison County Senior Center, Parkway Place shopping center, the Salvation Army, and Walmart. Route 1 also serves high-density housing along Seminole Dr and Triana Blvd.

Route 1 is upgraded from 60 to 30-minute service during Phase 2. Route 1 hours are extended during Phase 3.

Figure 3-7 Route 1 Service Summary

Phase	Weekday			Saturday		
	Span	Frequency	Buses	Span	Frequency	Buses
1	6am - 9pm	60	1	7am - 7pm	60	1
2	6am - 9pm	30	2	7am - 7pm	60	1
3	6am - 10pm	30	2	7am - 8pm	60	1
4	6am - 10pm	30	2	7am - 8pm	60	1
5	6am - 10pm	30	2	7am - 8pm	60	1

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Figure 3-8 Route 1 Alignment and Stops



Route 2 – Patton

Route 2 provides bi-directional service in areas of southwest Huntsville currently served by existing Route 6. Route 2 serves several destinations such as Campus 805, Walmart neighborhood market, and Alabama Department of Rehabilitation Services. Route 2 also serves high-density housing along Dallas Ave, Clinton Ave, Bob Wallace Ave, Patton Rd, Hood Rd, Knight Rd, Triana Blvd, and Newson Rd.

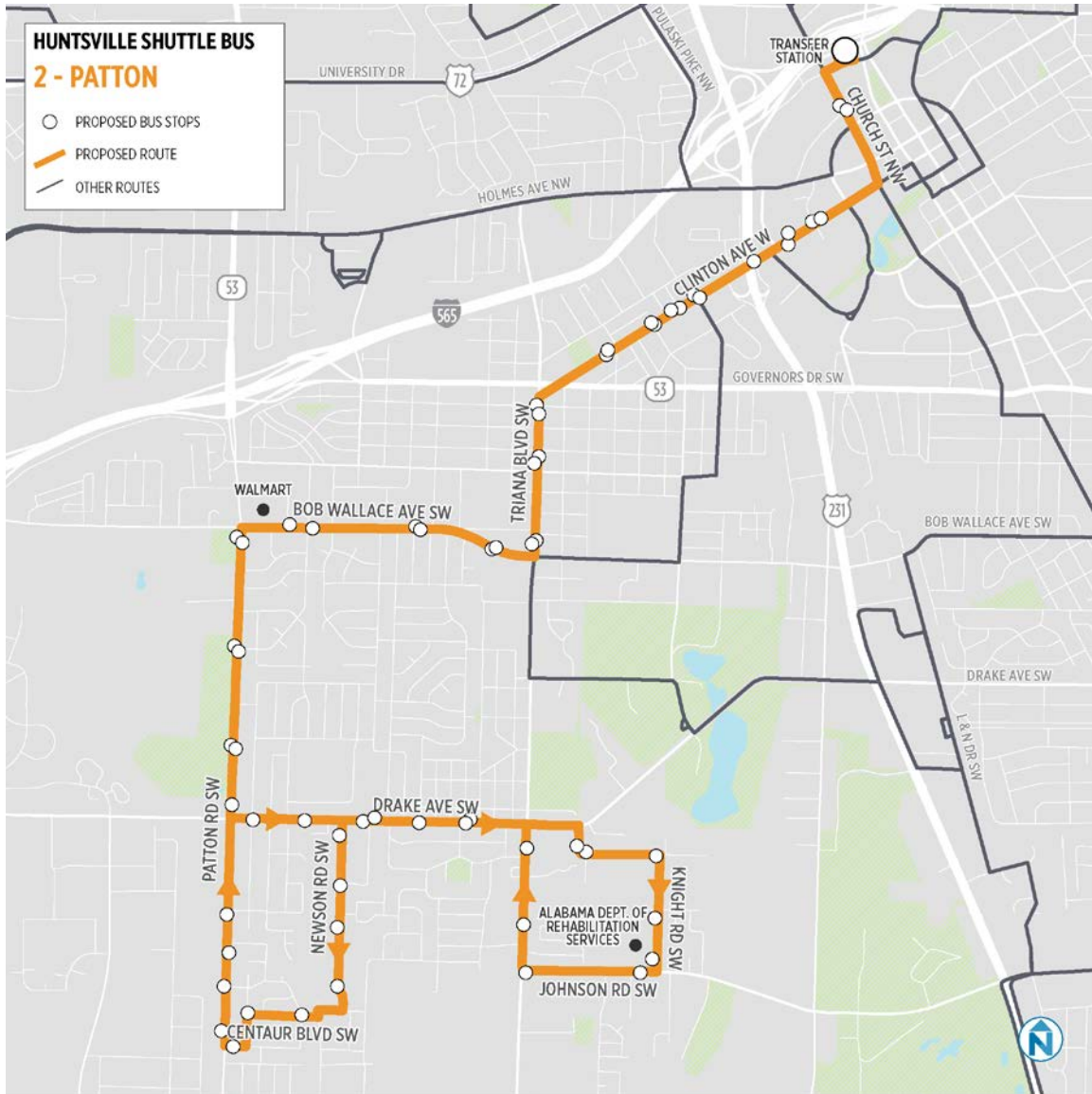
Route 2 hours are extended during Phase 3.

Figure 3-9 Route 2 Service Summary

Phase	Weekday			Saturday		
	Span	Frequency	Buses	Span	Frequency	Buses
1	6am - 9pm	30	2	7am - 7pm	60	1
2	6am - 9pm	30	2	7am - 7pm	60	1
3	6am - 10pm	30	2	7am - 8pm	60	1
4	6am - 10pm	30	2	7am - 8pm	60	1
5	6am - 10pm	30	2	7am - 8pm	60	1

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Figure 3-10 Route 2 Alignment and Stops



Route 3 – Holmes/UAH

Route 3 provides bi-directional service between the Transfer Station and Bridge Street Town Centre, primarily along Holmes Ave and Madison Pike. Route 3 also serves Oscar Mason Library, Veterans Affairs Clinic, University of Alabama in Huntsville, Calhoun Community College, and U.S. Space & Rocket Center. Route 3 serves high-density housing along Dallas Ave, Holmes Ave, and Pulaski Pike. Limited trips on Route 3 are extended to the Technicolor facility on Diamond Drive.

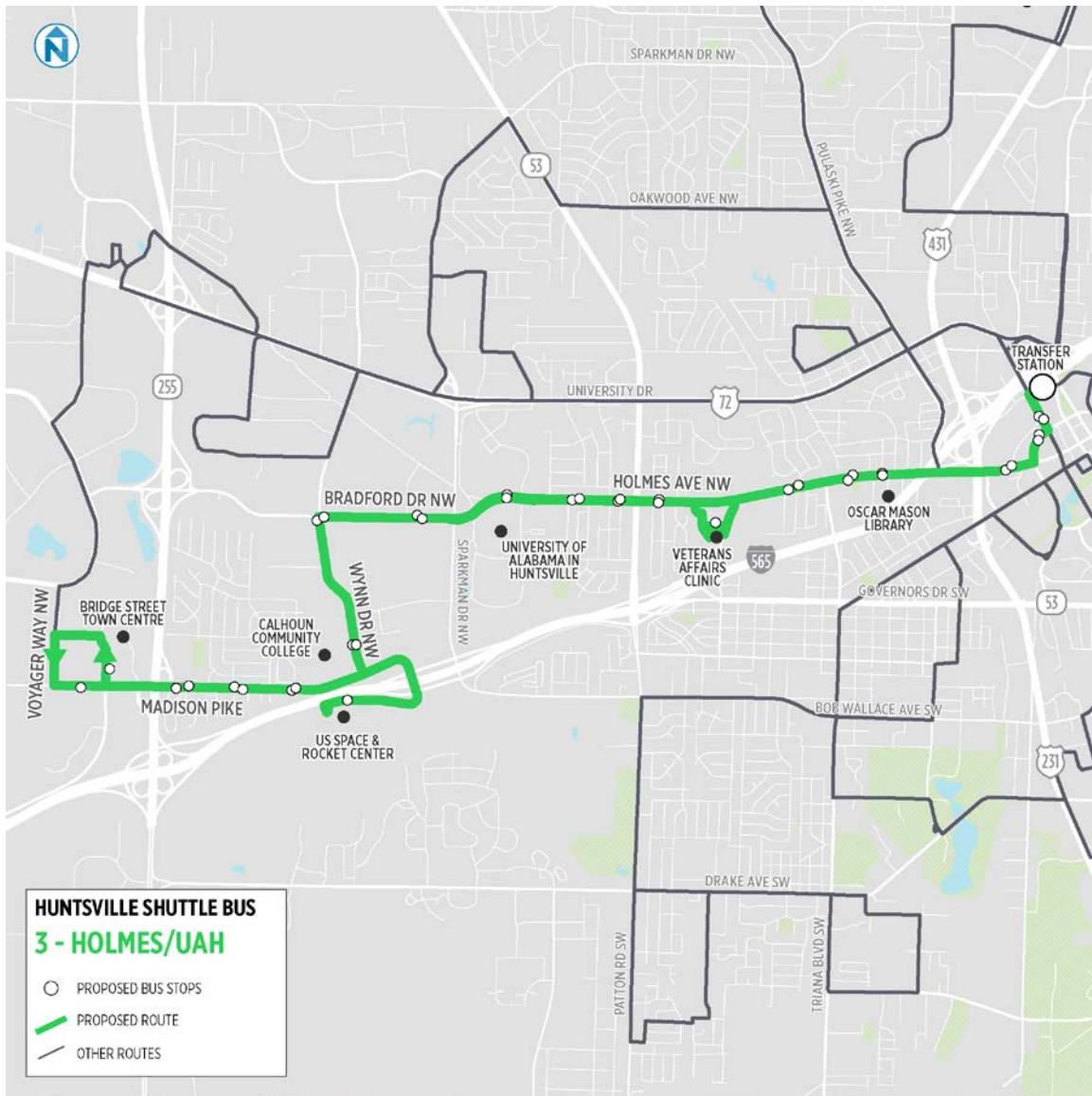
Route 3 hours are extended during Phase 3 and its service frequency is upgraded from 60 to 30 minutes during Phase 4.

Figure 3-11 Route 3 Service Summary

Phase	Weekday			Saturday		
	Span	Frequency	Buses	Span	Frequency	Buses
1	6am - 9pm	60	1	7am - 7pm	60	1
2	6am - 9pm	60	1	7am - 7pm	60	1
3	6am - 10pm	60	1	7am - 8pm	60	1
4	6am - 10pm	30	2	7am - 8pm	60	1
5	6am - 10pm	30	2	7am - 8pm	60	1

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Figure 3-12 Route 3 Alignment and Stops



Route 4 – University Drive

Route 4 provides bi-directional service between the Transfer Station and Bridge Street Town Centre, primarily along University Drive. Additional major destinations along Route 4 include Walmart, Target, Cummins Research Park, and the MidCity Redevelopment. Route 4 serves high-density housing within a block of University Dr and along Rime Village Dr.

Route 4 hours are extended during Phase 3. Frequency improvements to 20 and 15 minutes should be considered within the next 6-10 years as Route 4 serves multiple corridors with high residential and employment transit demand.

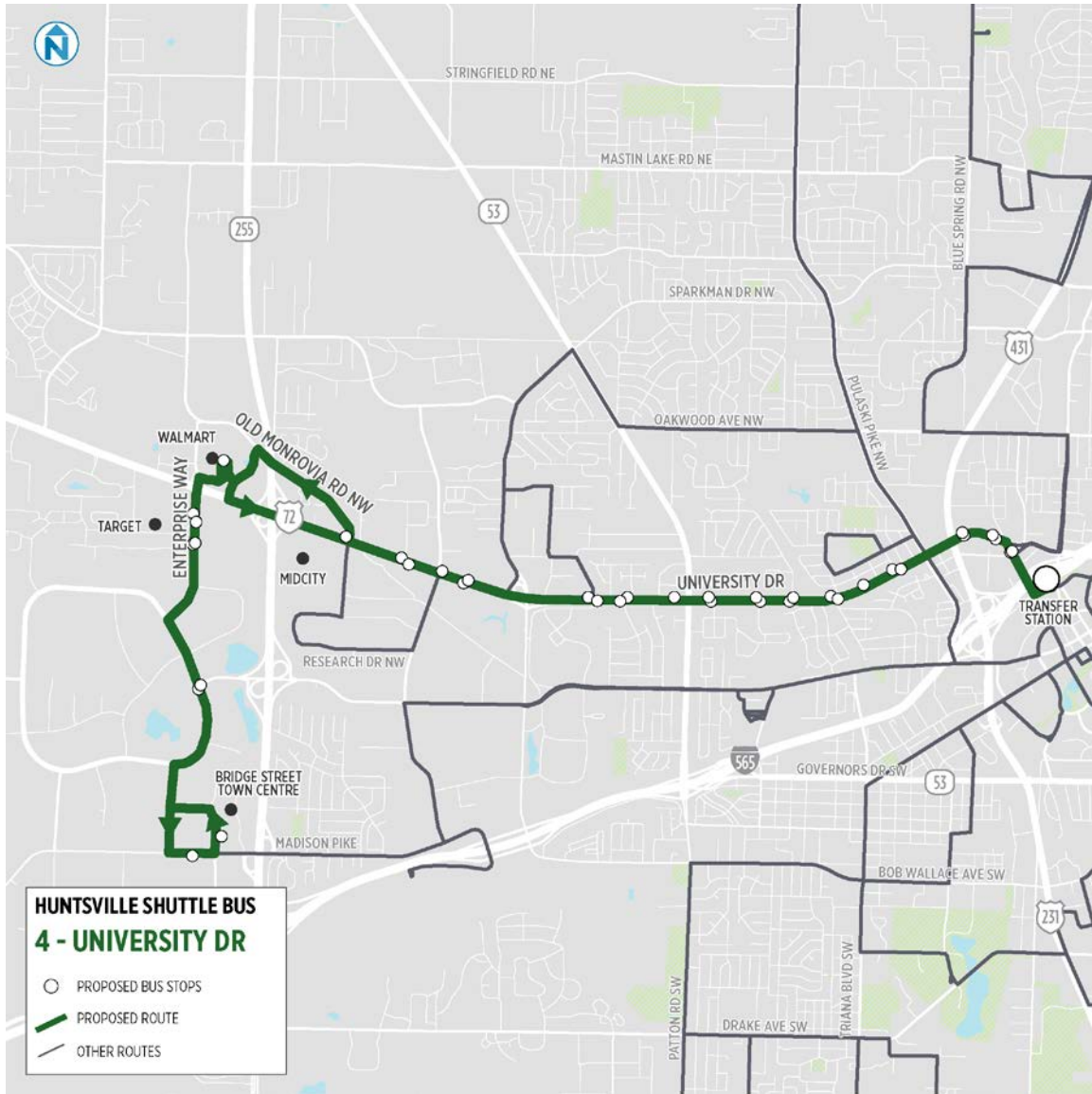
The service frequency of Route 4 is upgraded from 30 minutes to a frequent level of 15 minutes during Phase 5.

Figure 3-13 Route 4 Service Summary

Phase	Weekday			Saturday		
	Span	Frequency	Buses	Span	Frequency	Buses
1	6am - 9pm	30	2	7am - 7pm	60	1
2	6am - 9pm	30	2	7am - 7pm	60	1
3	6am - 10pm	30	2	7am - 8pm	60	1
4	6am - 10pm	30	2	7am - 8pm	60	1
5	6am - 10pm	15	4	7am - 8pm	60	1

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Figure 3-14 Route 4 Alignment and Stops



Route 5 – Byrd Spring

Route 5 provides bi-directional service between the Transfer Station and Byrd Spring Rd. Major destinations along Route 5 include Huntsville Hospital, Parkway Place and Walmart, primarily along Gallatin St, L&N Dr, Airport Rd, and Memorial Pkwy. The latter two destinations should be served directly in both directions as there are no sidewalks along the east side of L&N Dr. Route 5 serves high-density housing along Hunters Ridge Cir, Chris Dr, and Benaroya Ln.

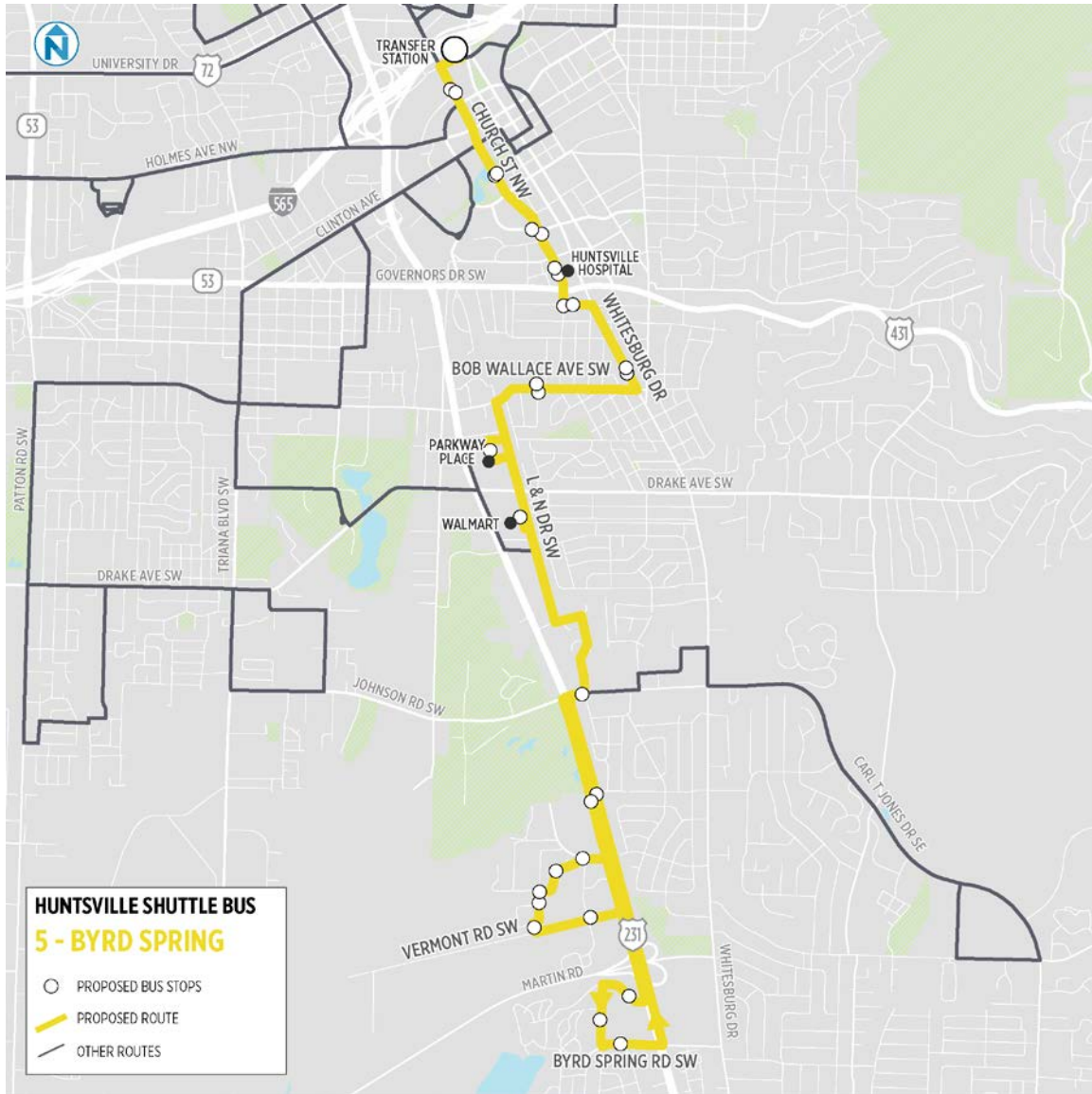
Route 5 will depart the Transfer Station at the top of the hour with all other routes except Route 6. Route 6 will depart the Transfer Station at the bottom of the hour, essentially creating 30-minute service along the segments shared by Routes 5 and 6 between the Transfer Station and Airport Rd.

Route 5 hours are extended during Phase 3.

Figure 3-15 Route 5 Service Summary

Phase	Weekday			Saturday		
	Span	Frequency	Buses	Span	Frequency	Buses
1	6am - 9pm	60	1	7am - 7pm	60	1
2	6am - 9pm	60	1	7am - 7pm	60	1
3	6am - 10pm	60	1	7am - 8pm	60	1
4	6am - 10pm	60	1	7am - 8pm	60	1
5	6am - 10pm	60	1	7am - 8pm	60	1

Figure 3-16 Route 5 Alignment and Stops



Route 6 – Jones Valley

Route 6 provides bi-directional service between the Transfer Station and 4 Mile Post Rd. Major destinations along Route 6 include Huntsville Hospital, Parkway Place, Walmart, Crestwood Medical Center and Target, primarily along Gallatin St, L&N Dr, Airport Rd, and Carl T Jones Rd.

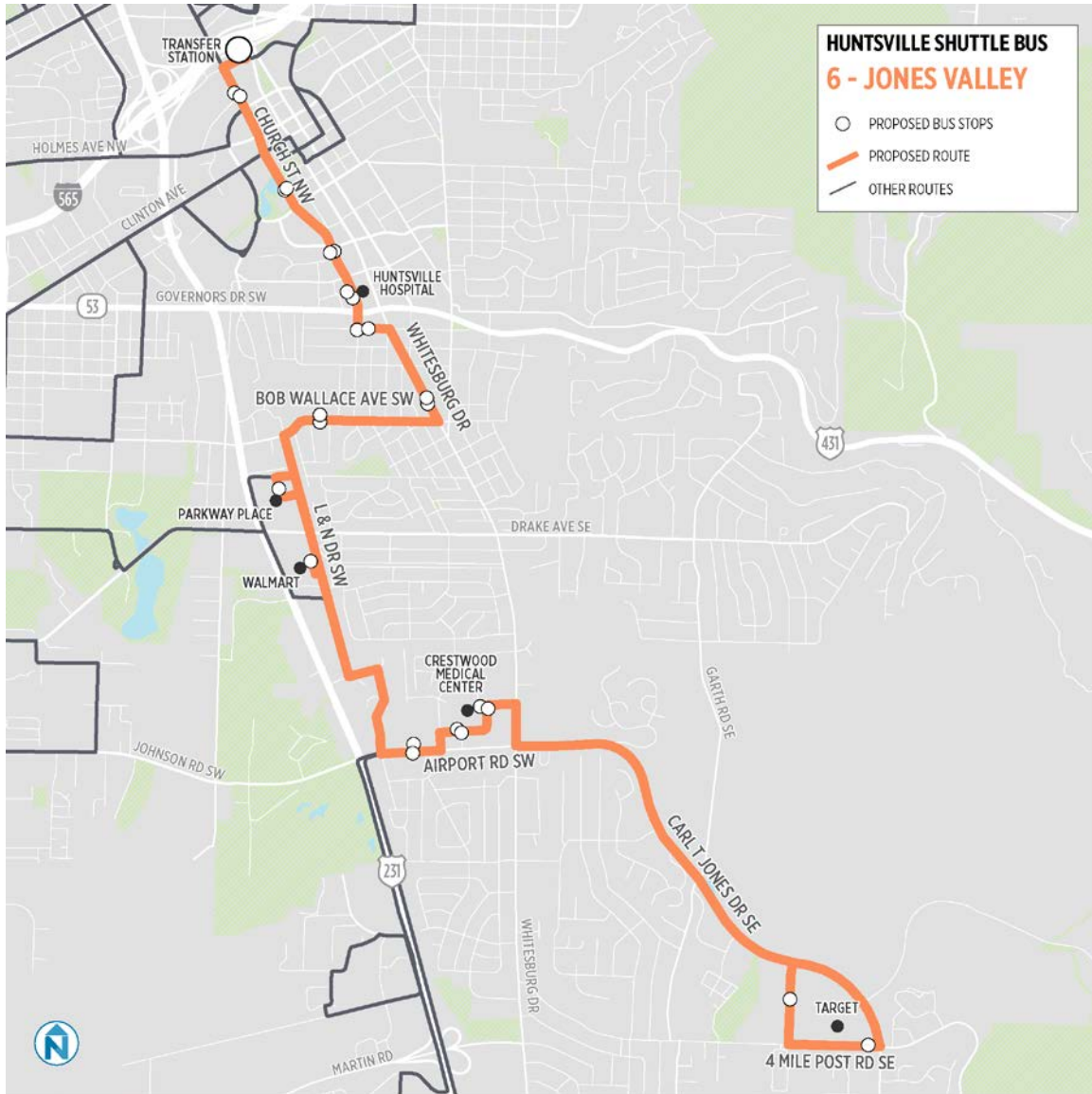
Parkway Place and Walmart should be served directly in both directions as there are no sidewalks along the east side of L&N Dr. Route 6 will depart the Transfer Station at the bottom of the hour to create 30-minute service along the segments shared by Routes 5 and 6 between the Transfer Station and Airport Rd.

Route 6 hours are extended during Phase 3.

Figure 3-17 Route 6 Service Summary

Phase	Weekday			Saturday		
	Span	Frequency	Buses	Span	Frequency	Buses
1	6am - 9pm	60	1	7am - 7pm	60	1
2	6am - 9pm	60	1	7am - 7pm	60	1
3	6am - 10pm	60	1	7am - 8pm	60	1
4	6am - 10pm	60	1	7am - 8pm	60	1
5	6am - 10pm	60	1	7am - 8pm	60	1

Figure 3-18 Route 6 Alignment and Stops



Route 7 – Meridian/A&M

Route 7 provides bi-directional service between the Transfer Station and Showers Recreation Center and Library, primarily along Andrew Jackson Way, Meridian St and Winchester Rd. Additional destinations along Route 7 include Madison County Health Department, Drake State Community College, and Alabama A&M. Route 7 serves high-density general and student housing along Meridian St. Route 7 will have a secondary timed connection at Showers Recreation Center and Library with Routes 8 and 10.

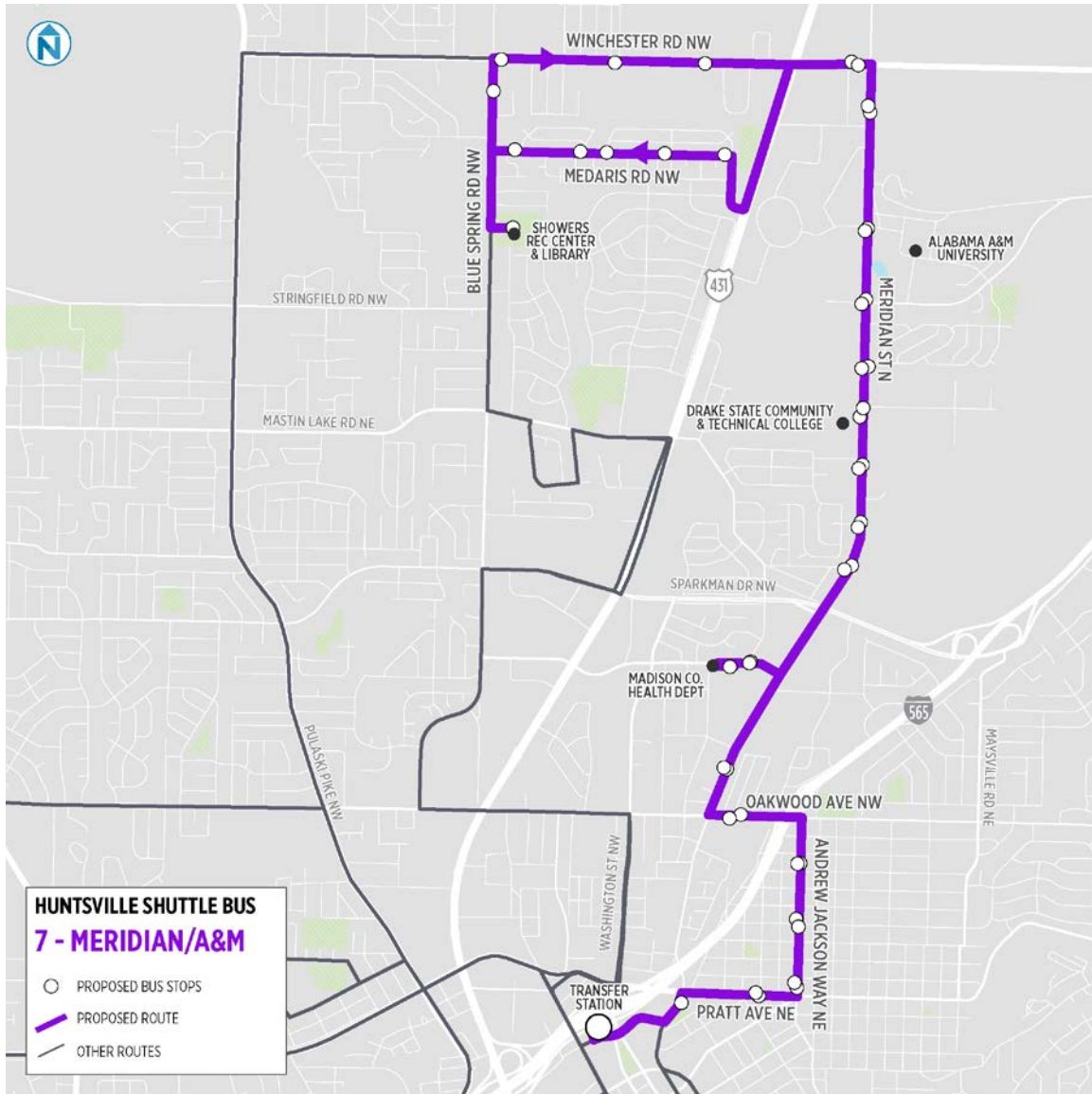
Route 7 hours are extended during Phase 3 and its service frequency is upgraded from 60 to 30 minutes during Phase 4.

Figure 3-19 Route 7 Service Summary

Phase	Weekday			Saturday		
	Span	Frequency	Buses	Span	Frequency	Buses
1	6am - 9pm	60	1	7am - 7pm	60	1
2	6am - 9pm	60	1	7am - 7pm	60	1
3	6am - 10pm	60	1	7am - 8pm	60	1
4	6am - 10pm	30	2	7am - 8pm	60	1
5	6am - 10pm	30	2	7am - 8pm	60	1

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Figure 3-20 Route 7 Alignment and Stops



Route 8 – Blue Spring

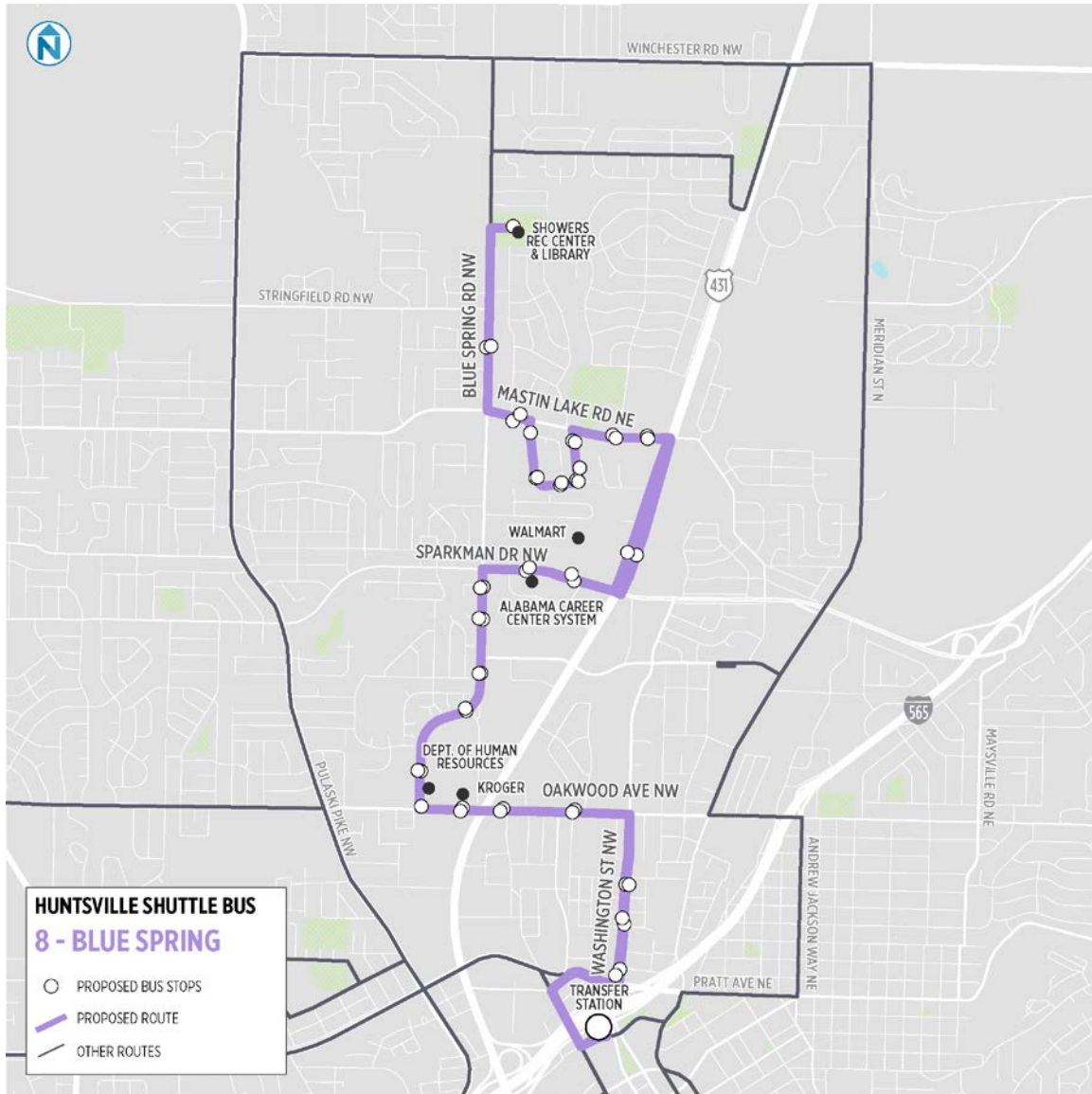
Route 8 provides bi-directional service between the Transfer Station and Showers Recreation Center and Library, primarily along Washington St, Oakwood Ln, and Blue Spring Rd. Additional destinations along Route 8 include Kroger, Department of Human Resources, Alabama Career Center System, and Walmart. Route 8 serves high-density housing along Washington St, Blue Spring Rd, Elizabeth St, and Verona Ave.

Route 8 hours are extended during Phase 3 and its service frequency is upgraded from 60 to 30 minutes during Phase 4 to support the high ridership throughout the route.

Figure 3-21 Route 8 Service Summary

Phase	Weekday			Saturday		
	Span	Frequency	Buses	Span	Frequency	Buses
1	6am - 9pm	60	1	7am - 7pm	60	1
2	6am - 9pm	60	1	7am - 7pm	60	1
3	6am - 10pm	60	1	7am - 8pm	60	1
4	6am - 10pm	30	2	7am - 8pm	60	1
5	6am - 10pm	30	2	7am - 8pm	60	1

Figure 3-22 Route 8 Alignment and Stops



Route 9 – Oakwood

Route 9 provides bi-directional service between the Downtown Transfer Station and the Social Security Office, primarily along Oakwood Ave, Sparkman Dr, and Research Dr. Additional destinations along Route 9 include Oakwood University and the future MidCity redevelopment. Route 9 serves high-density housing along Bonnell Dr, Ascent Trail, Executive Dr, and Sparkman Dr.

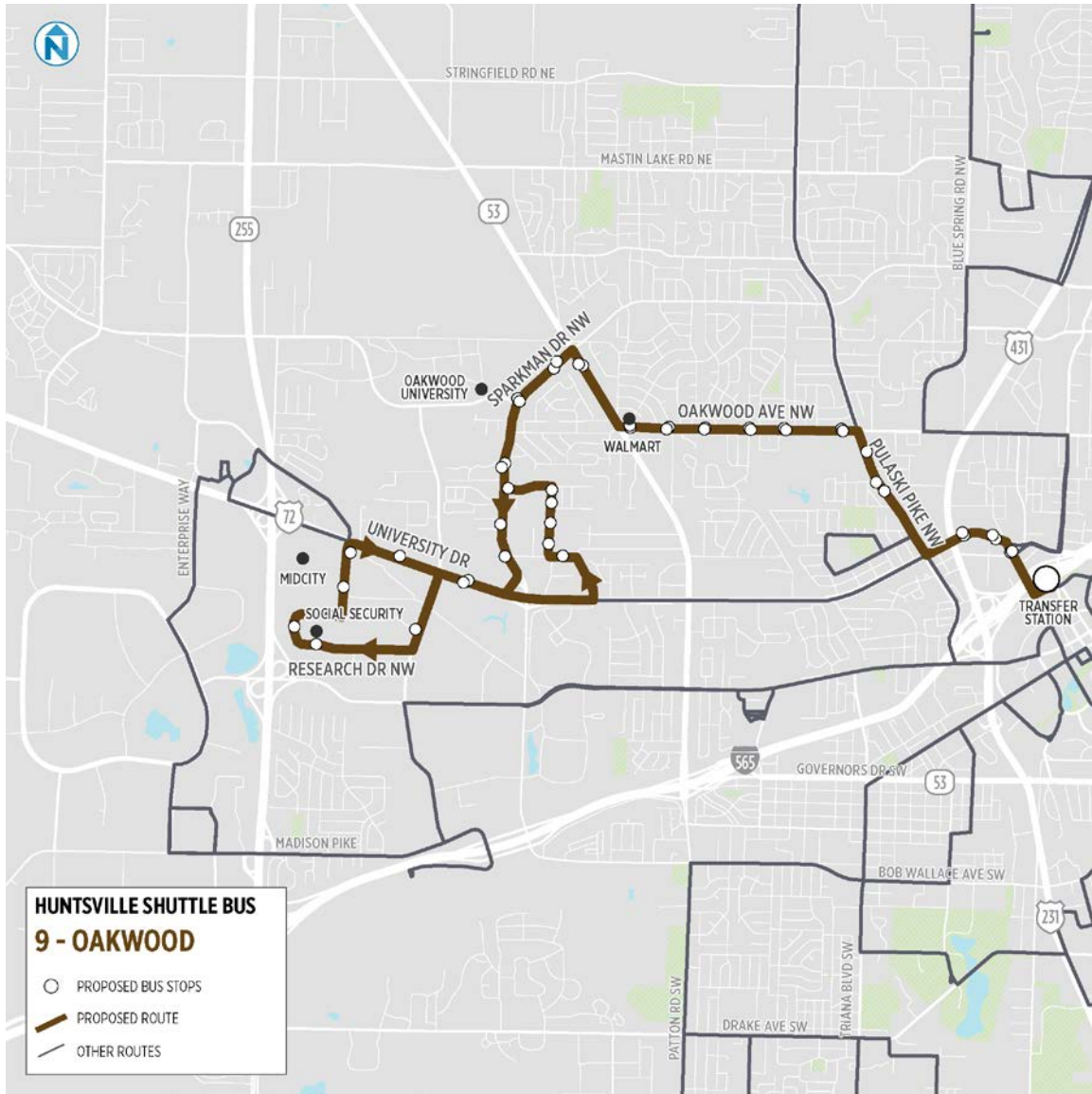
Route 9 hours are extended during Phase 3.

Figure 3-23 Route 9 Service Summary

Phase	Weekday			Saturday		
	Span	Frequency	Buses	Span	Frequency	Buses
1	6am - 9pm	60	1	7am - 7pm	60	1
2	6am - 9pm	60	1	7am - 7pm	60	1
3	6am - 10pm	60	1	7am - 8pm	60	1
4	6am - 10pm	60	1	7am - 8pm	60	1
5	6am - 10pm	60	1	7am - 8pm	60	1

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Figure 3-24 Route 9 Alignment and Stops



Route 10 – Pulaski Pike

Route 10 is a new route that introduces bi-directional service to the Pulaski Pike corridor. The route replaces segments of existing Routes 7, 8 and 9. The bi-directional service along Pulaski Pike improves access to the nearby Sav-A-Lot grocery store. Route 10 includes a mid-route deviation to the Calvary Hill neighborhood in both directions.

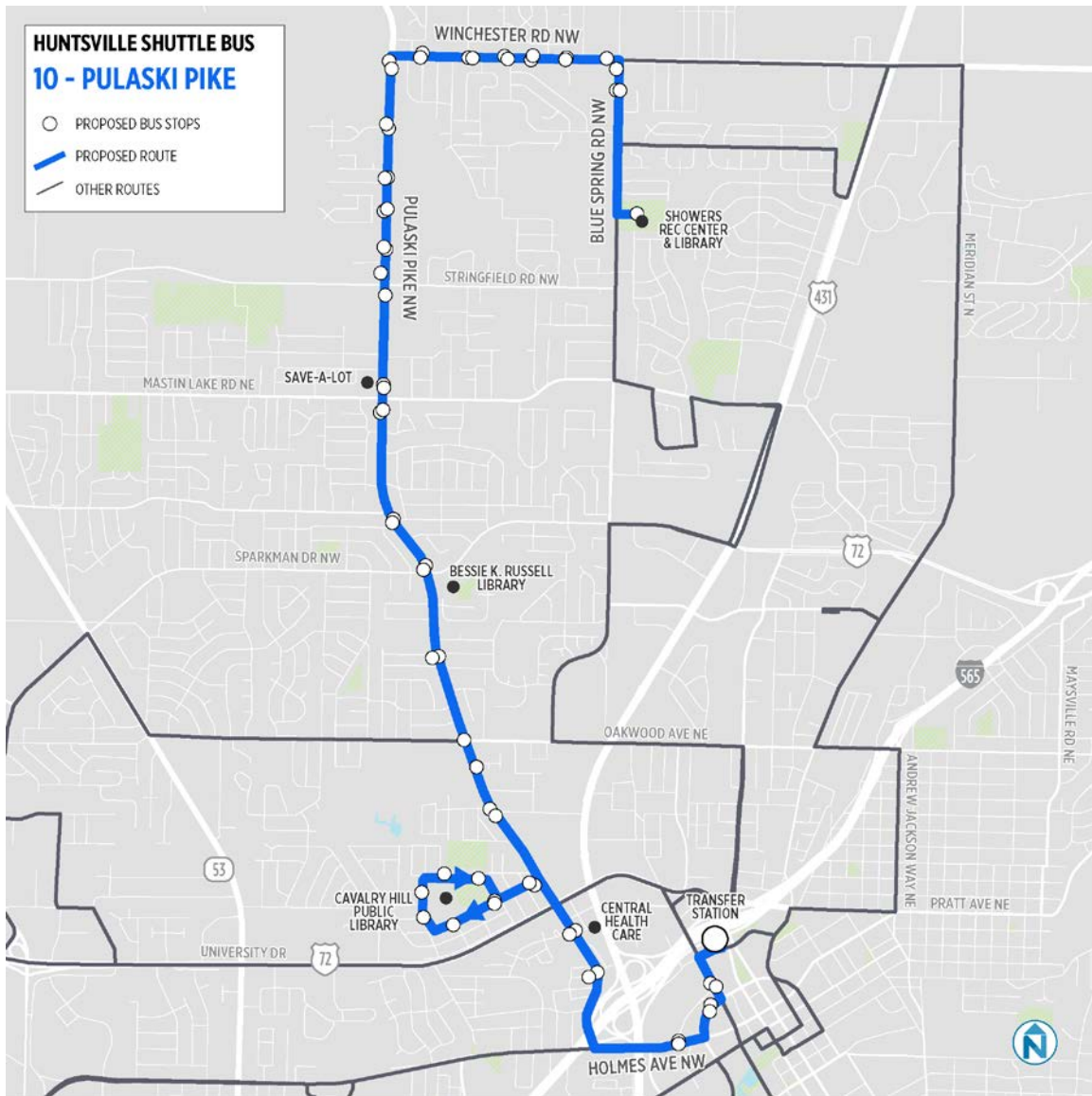
The northern terminal point of Showers Recreation Center and Library will allow Route 10 riders to make timed connections to Routes 8 and 9 outside of the Transfer Station, thereby reducing travel time to Alabama A&M and Drake State Community and Technical College. Route 10 will directly serve three libraries (Calvary Hill, Bessie K. Russell and Showers).

Aside from the Calvary Hill neighborhood, Route 10 has few pockets of high-density residential land use. As a result, Route 10 will not likely generate sufficient ridership to support 30-minute service.

Figure 3-25 Route 10 Service Summary

Phase	Weekday			Saturday		
	Span	Frequency	Buses	Span	Frequency	Buses
1	6am - 9pm	60	1	7am - 7pm	60	1
2	6am - 9pm	60	1	7am - 7pm	60	1
3	6am - 10pm	60	1	7am - 8pm	60	1
4	6am - 10pm	60	1	7am - 8pm	60	1
5	6am - 10pm	60	1	7am - 8pm	60	1

Figure 3-26 Route 10 Alignment and Stops



5-YEAR SERVICE PLAN SUMMARY

Implementing the aforementioned service improvements requires a significant increase in service hours. The service plan assumes a steady increase in service hours over Phases 1-3 with larger increases during Phases 4 and 5. The addition of Saturday service will require the need for additional supervisory, and if necessary, customer service staff.

Figure 3-27 Service Hours Requirements

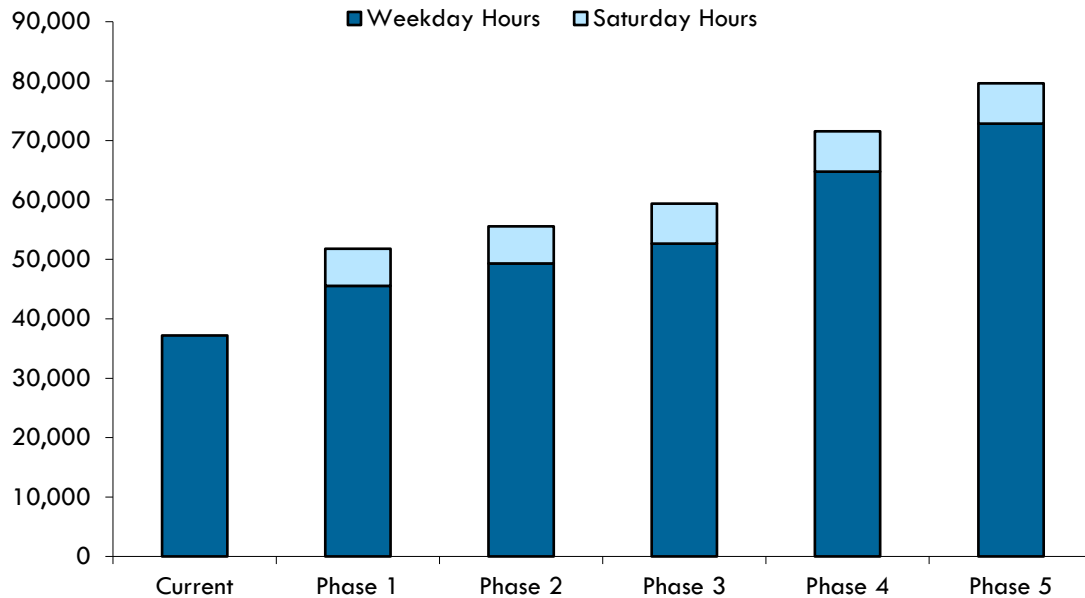


Figure 3-28 5-Year Service Plan Incremental Costs

Phase	Fixed-Route ¹⁰	Complementary Paratransit	Total
Phase 1	\$550,000	\$50,000	\$600,000
Phase 2	\$150,000	-	\$150,000
Phase 3	\$150,000	\$50,000	\$200,000
Phase 4	\$450,000	-	\$450,000
Phase 5	\$300,000	-	\$300,000

¹⁰ Based on \$38/hour estimated incremental hourly cost provided by Huntsville Shuttle staff and peer system

FUTURE CONSIDERATIONS

UAH Shuttle

No changes are recommended to the UAH Shuttle over the next five years. Huntsville Shuttle should continue to monitor development of the recently implemented Chase Industrial Express and upgrade the vehicle size and add a second vehicle should vehicle loads approach full capacity.

South Huntsville Reverse Commute Service

Huntsville Shuttle can consider operating a reverse commute service to areas of South Huntsville that will no longer have fixed-route service. The service would use vans operated by Huntsville Shuttle staff to transport passengers for one or two reverse commute trips from downtown to South Huntsville in the morning, and from South Huntsville to downtown in the afternoon.

Trips could be scheduled at 7:00 a.m. and 9:00 a.m. with scheduled stops at Byrd Springs residential area and Walmart. In the afternoon, the van would return downtown. Riders would purchase a one-way ticket (\$1) or monthly pass (\$38) to use the service. Transfers would be free to all Shuttle routes.

New Employers

Huntsville Shuttle staff should continue to coordinate with new employers to the area such as Toyota and Mazda. Details such as start dates, employment projections by shift time, and projected wages are needed to help plan for transit service for new employees.

Sunday service

The introduction of Saturday service will improve access to employment and shopping while responding to rider requests. New Saturday service in similar cities typically requires 1-2 years to mature to a level of productivity comparable to weekday service.

Once Saturday service reaches 10 boardings per hour system-wide, the City of Huntsville should strongly consider adding Sunday service.

4 5-YEAR CAPITAL PLAN

VEHICLES

Implementation of the service plan requires one additional bus during Phase 2, three additional buses during Phase 4, and two additional buses during Phase 5. Future bus purchases should include the consideration of the following:

- 40' buses with minimum 38 seats and 12-year life-span
- Pre-installed electronic fareboxes
- Pre-installed automatic passenger counters
- Pre-installed automatic vehicle location systems
- Pre-installed video camera system and two-way radios

The following chart and table summarize the 5-year fleet requirements associated with the service plan and the incremental vehicle purchase costs.

Figure 4-1 Peak Vehicle Requirements

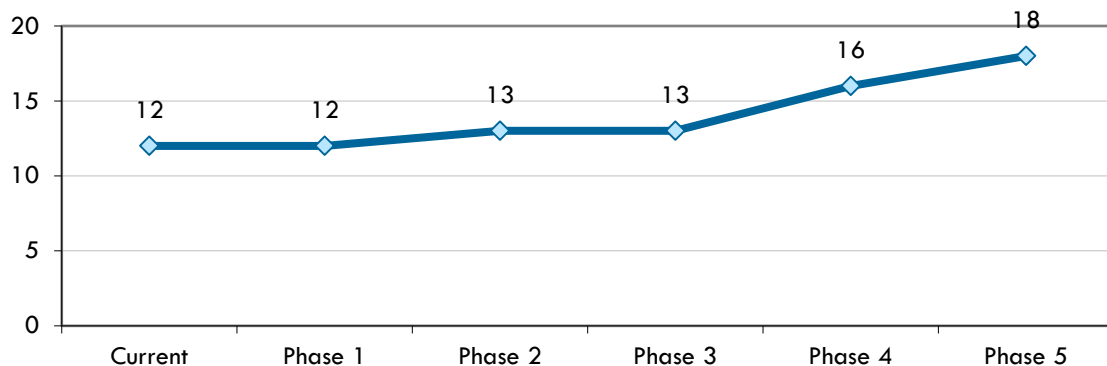


Figure 4-2 5-Year Vehicle Purchase Incremental Costs

Phase	Buses	Estimated Cost	FTA Share	Local Share
Phase 1	0	-	-	-
Phase 2	1	\$600,000	\$480,000	\$120,000
Phase 3	0	-	-	-
Phase 4	3	\$1,800,000	\$1,440,000	\$360,000
Phase 5	2	\$1,200,000	\$960,000	\$240,000

BUS STOPS

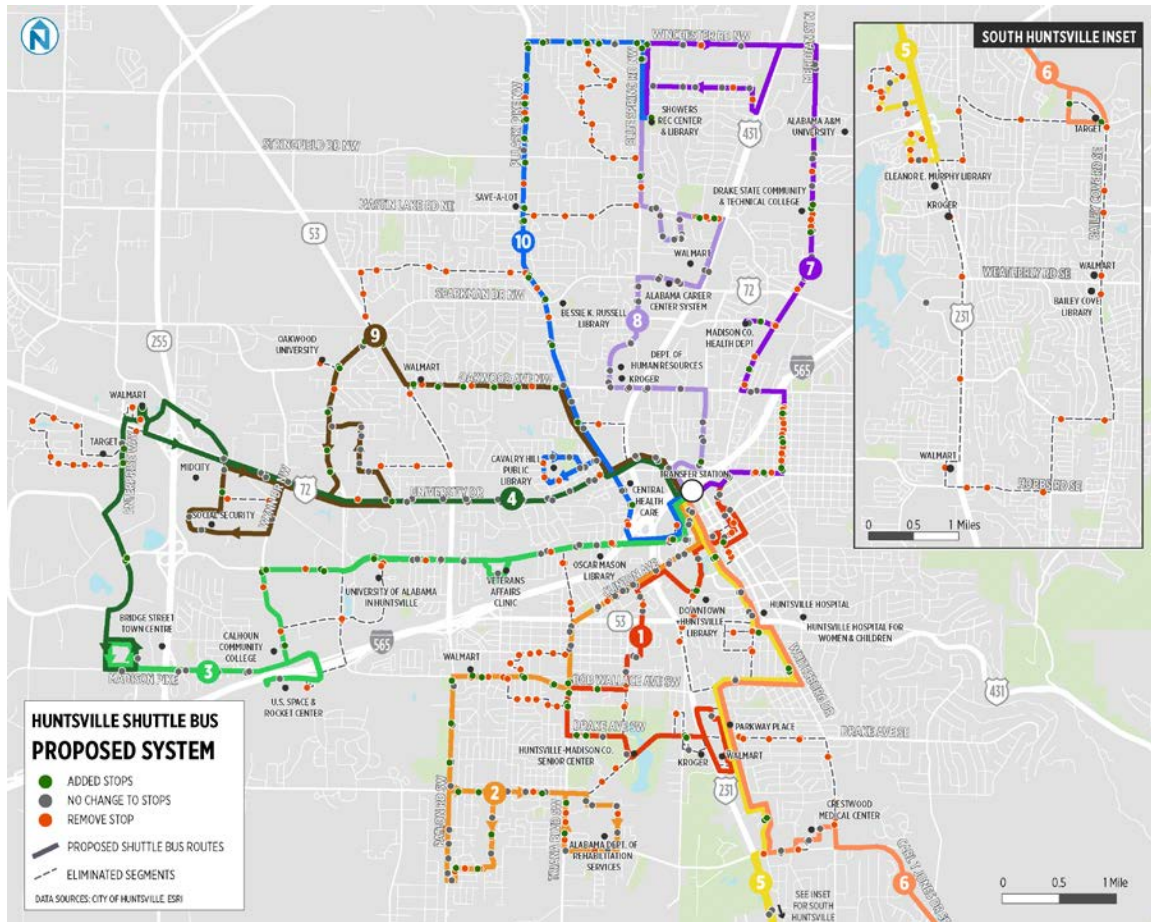
Implementation of Phase 1 requires a significant number of bus stop changes. This effort includes the installation of 121 new stops and the removal of 209 existing stops. 266 existing stops would not be changed, resulting in a total of 387 stops.

The approximate cost for procuring 500 new bus stop poles and signs is approximately \$100,000 or \$200 per pole and sign. Purchasing 500 poles and signs provides the City with additional materials for future expansion and replacement. It is assumed that the General Service department will remove old signage and install new signage, unless an outside company is contracted for advertising and bus stop maintenance.

Figure 4-3 Phase 1 Bus Stop Actions

Existing Stops	Stops Added	Stops Removed	New Stops
475	121	209	387

Figure 4-4 Phase 1 Bus Stop Changes



Bus Stop Shelters

Huntsville has 87 regular bus shelters based on the December 2017 State of Good Repair Performance Target. Additional bus stop shelters are recommended at 12 locations:

- Winchester Rd & West Fork Pinhook Creek (eastbound)
- Pulaski Pike & Mastin Lake Rd (southbound/nearside)
- Pulaski Pike & Mastin Lake Rd (southbound/farside)
- Max Luther Dr & Academy Dr (westbound)
- Oakwood Ave & Chalet Ln (westbound)
- Old Monrovia Rd & Sanderson Rd (northbound)
- Monroe St & Davis Cir (NE corner)
- Triana Blvd & 15th Ave (northbound)
- Triana Blvd & 15th Ave (southbound)
- Bob Wallace & 17th Ave (westbound)
- Wynn Dr & Calhoun Community College (northbound)
- Newson Rd & Rain Tree Apartments (southbound)

The City of Huntsville currently budgets the purchase of five shelters per fiscal year. The recommended shelter locations should be prioritized over the next two years.

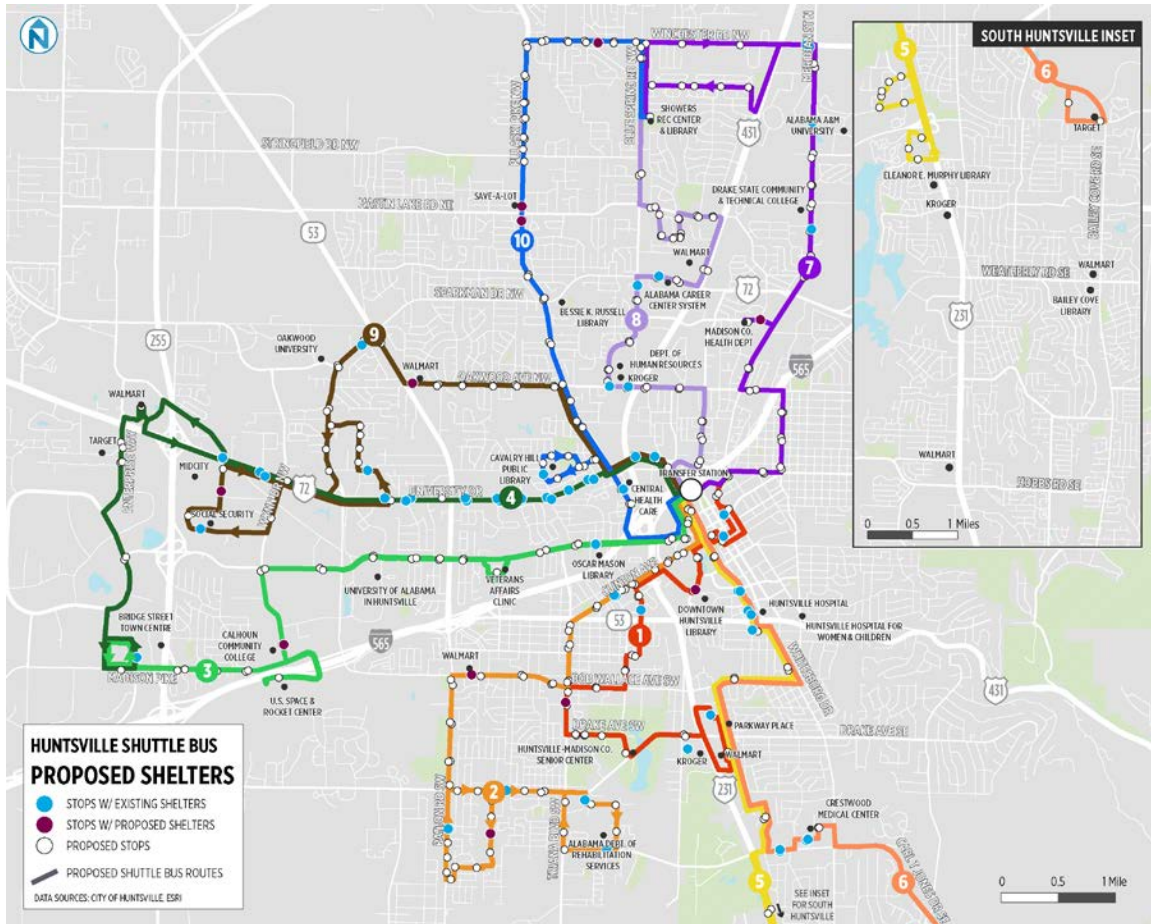
The City of Huntsville should also pursue potential partnerships with advertising agencies that install and maintain “advertisement” bus shelters at high visibility locations and return a share of the advertising revenue to the City. Any agreement with an advertising agency should ensure that the City of Huntsville maintains the right to:

- Approve the design of each shelter
- Approve each shelter location
- Approve advertising content
- Take ownership of the shelter at the end of the contract or after a specified period of time

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Figure 4-5 Recommended Bus Shelters



Bus Stop Signage

Existing Bus Stop Signage

Well-designed bus stop signage has the opportunity to provide useful customer information while simultaneously marketing transit service. Current bus stop signage is inadequate in terms of providing basic information for existing and potential customers.

Existing Huntsville Shuttle signage includes a generic bus icon, the Huntsville Shuttle logo, the word “Stop”, and the customer service number without an area code.

Figure 4-6 Current Bus Stop Signage

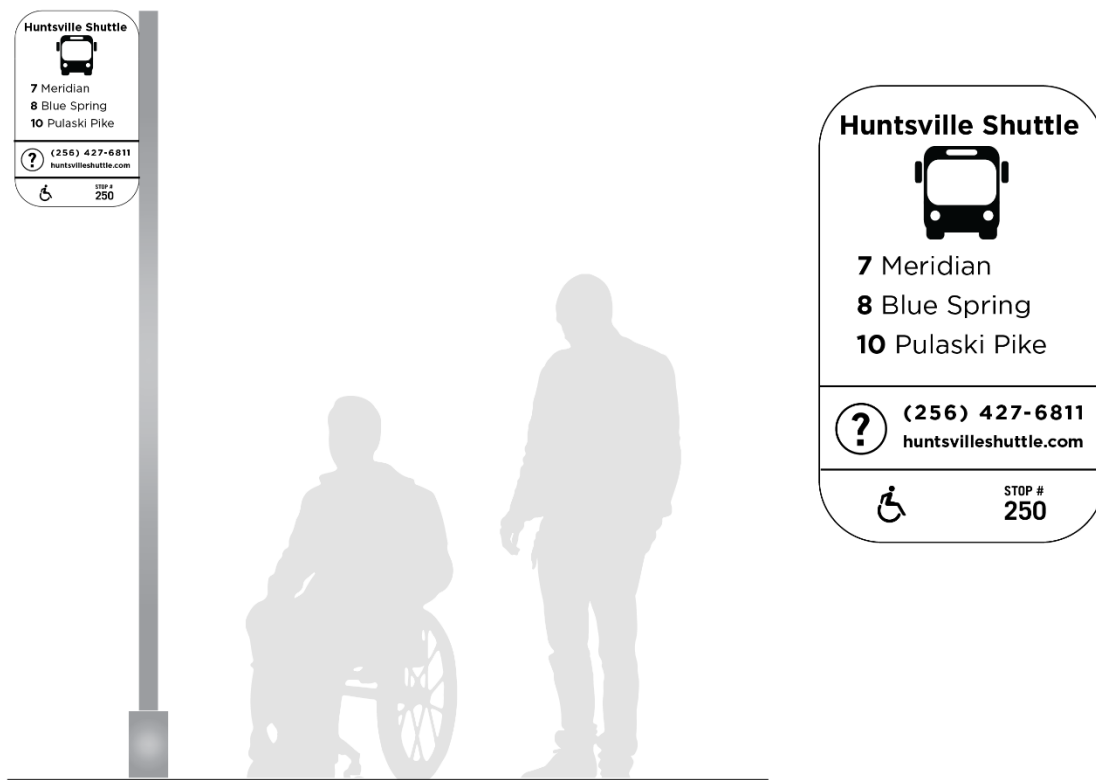


Proposed Bus Stop Signage

New signage should be installed at all Huntsville Shuttle stops. Each sign should include the following:

- Huntsville Shuttle logo
- Unique panels/stickers for each route with route number and name
- Unique identification number, which can be used to access schedule information
- Customer service line and website address
- ADA-accessible symbol indicating that buses are accessible

Figure 4-7 Recommended Bus Stop Signage



SHOWERS TRANSIT CENTER

North Huntsville's Showers Center is a vibrant community center featuring a library, gymnasium, indoor pool, instructional kitchen, classrooms, meeting spaces, splash pad, outdoor basketball courts, soccer field, baseball fields, outdoor pavilions, and outdoor walking track. The service plan recommends increasing transit access at the Showers Center by having it serve as a hub for three Huntsville Shuttle routes: Route 7, Route 8, and Route 10.

Creating a transit hub at the Showers Center will increase the number of Huntsville residents who have access to the community center, as well as create a safe and inviting transfer point, where riders can engage their neighbors and switch routes in a well-lit location with plenty of 'eyes on the street'.

The proposed transit hub should be along the curb located at the northern edge of the Showers Center. Buses would then use the roundabout to turn around and complete their routes. No parking should be permitted along the curb, roundabout or opposite side of the road. Potential pedestrian improvements at the site include a crosswalk across Blue Springs Rd and connecting sidewalk to the Showers Center entrance.

Figure 4-8 Recommended Showers Transit Center



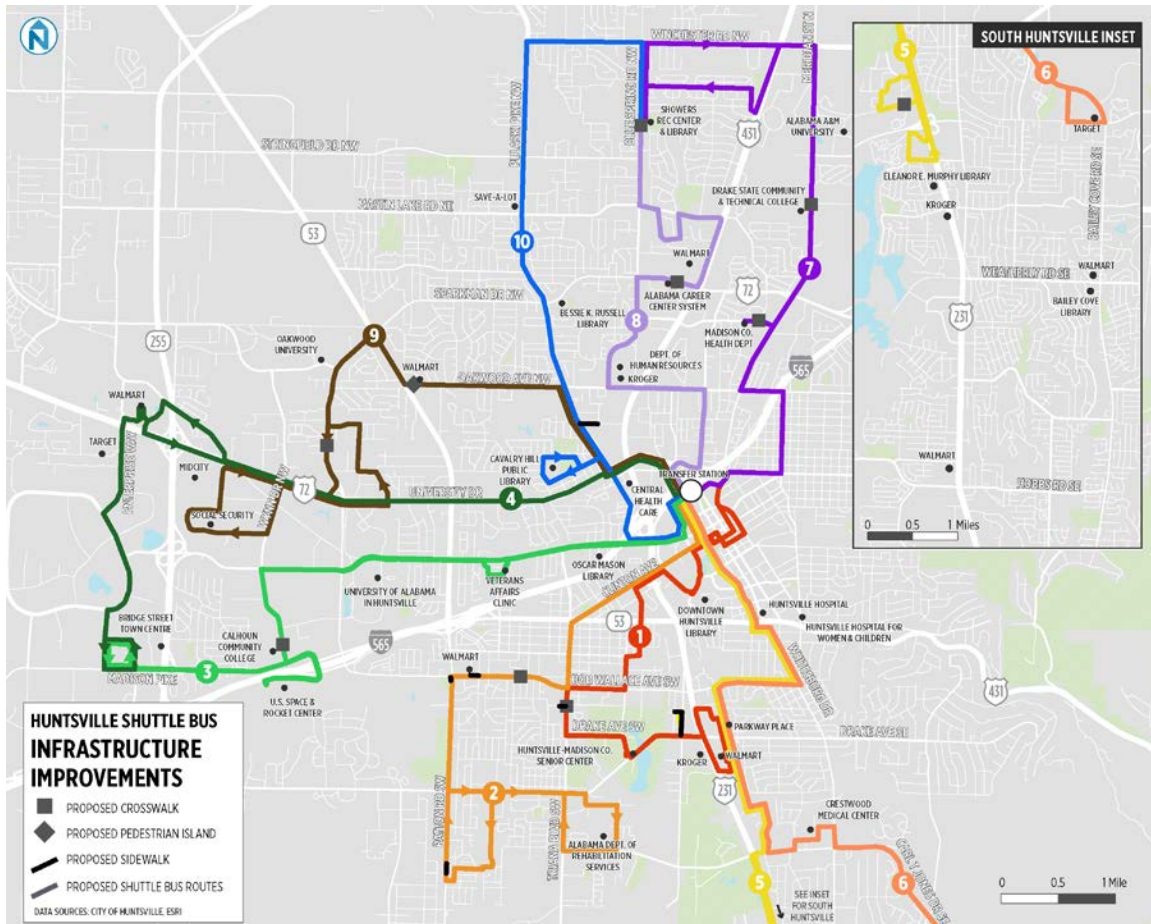
PEDESTRIAN INFRASTRUCTURE

A series of infrastructure improvements should be implemented in conjunction with Phase 1 service changes to enhance pedestrian safety.

- **Crosswalks (7)**
 - Meridian St & Wholesale Ave
 - Sparkman Dr & Walmart
 - Sparkman Dr & Century St
 - Wynn Dr & Calhoun Community College
 - Bob Wallace Ave & Atlantic St
 - Triana Blvd & 15th Ave
 - Vermont Rd & Chris Dr
- **Sidewalk Extensions (4,500 total linear feet)**
 - Max Luther Dr between Madison County Health Department and Meridian St
 - Country Club Ave between Pulaski Pike and Canary St
 - Leeman Ferry Rd between Winner Ave and Drake Ave
 - Dunn St between Garden Cove Apartments and Triana Blvd
 - Bob Wallace Ave between 17th St and Larry St
 - SW corner of Patton Rd and Bob Wallace Ave
 - Patton Rd from Redstone Arsenal Gate 10 to Foster Avenue
- **Pedestrian Island**
 - Oakwood Ave & Walmart

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Figure 4-9 Recommended Infrastructure Improvements



RIDER INFORMATION

Clear and concise transit information is extremely important to existing and potential transit riders. For people to be able to try transit, they must first know that it is there and be able to understand how to use it. Huntsville Shuttle has the opportunity improve rider information in both physical and electronic formats, specifically the following materials:

Rider Guide

Huntsville Shuttle currently offers a printed system map with route schedules on the reverse side. While the system map displays routes to scale and includes all bus stops, it does not include time points or other key information. Expanding the system map to a complete rider guide available both in print and online will improve trip planning for existing and potential riders. Recommended improvements include:

- Complete schedules for each route (the current schedules only list departure times for after the hour for time points)
- Fare and pass options
- Riding rules
- Contact information
- Website
- Holidays
- Effective and end dates

Website

Transit system websites have become the primary source of information for many riders. In addition to information included in rider guides, transit websites can include news regarding service changes, detours, and events; an electronic feedback form; information on Handi-Ride; instructional video on how to properly load/unload a bicycle; etc.

Additional website features that improve customer convenience include mobile and desktop versions, embedded real-time information displaying vehicle locations and predicted arrivals, links to social media pages, and the ability to sign up for e-mail or text alerts.

Huntsville Shuttle webpages are currently buried in the Streets and Transportation section of the City's website. Redesigning the website and publishing it under a unique URL such as HuntsvilleShuttle.org will improve the ease of use for existing and potential riders.

Real-Time Arrival Technology

Recent improvements in GPS and mobile phone technology have made personalized real-time arrival information available to transit riders across the United States. For riders, real-time data make transit more reliable and allow for greater flexibility in their schedule. For non-riders, this same information can reduce the barriers to trying transit and help change their travel behaviors.

A number of private companies now develop apps that use real-time transit data (often converted into GTFS Realtime¹¹ format) in their trip-planning apps. These apps show users when a bus is estimated to arrive at a given stop and recommend routes and trips based on current system network conditions (e.g., if Route 1 is delayed and Route 2 travels to the same location, an app may recommend you take Route 2 for a shorter trip).

The City of Huntsville has recently entered an agreement with RouteMatch to make the RouteShout 2.0 app available in Huntsville, which is a positive step towards an improved rider experience. This app will allow Huntsville Shuttle riders to know when buses are expected to arrive at a stop and when service revisions – such as detours, cancelled trips, and stop changes – are made.

In the future, the City of Huntsville should move towards taking full ownership of their GTFS realtime feed and make it publicly accessible. Open data has historically been the foundation of the most popular web- and app-based transit rider tools, including Google Directions and OneBusAway. Leveraging Huntsville's real-time transit data towards integration with other transit apps will give Huntsville Shuttle riders access to more advanced UX/UI, along with new special features, such as rider-volunteered AVLs¹².

¹¹ Google, Oct. 2018. GTFS Realtime Overview. <<https://developers.google.com/transit/gtfs-realtime/>>

¹² This is a new feature whereby app users that are currently riding a bus can volunteer their phone's GPS locator as an AVL with a much higher refresh rate than on-board vehicle hardware. This feature produces bus locations for other app users that are typically only a few seconds old.

5-YEAR CAPITAL COSTS SUMMARY

A summary of capital costs required to support the 5-year service plan is provided below. The table does not include the purchase of bus stop shelters, vehicle replacement, or real-time information, which are already programmed in the transit capital budget. Pedestrian infrastructure costs are also not included as they should be included in the City's public works budget.

Figure 4-10 5-Year Capital Costs Summary

Phase	Vehicle Purchases	New Bus Stop Signage	Rider Guide ¹³	Website ¹⁴	Total
Phase 1	-	\$100,000	\$10,000	\$10,000	\$120,000
Phase 2	\$120,000	-	-	-	\$120,000
Phase 3	-	-	-	-	-
Phase 4	\$360,000	-	-	-	\$360,000
Phase 5	\$240,000	-	-	-	\$240,000

¹³ Initial start-up costs only; does not include future annual costs for updates and printing

¹⁴ Initial start-up costs only; does not include future annual hosting and/or maintenance costs

5 SUPPORTING RECOMMENDATIONS

PERFORMANCE METRICS

While the 5-year service plan provides a framework for optimization and expansion, the City of Huntsville should closely monitor ridership and on-time performance to identify trends and determine if adjustments to the service plan are necessary.

Route Productivity

The number of passenger boardings per revenue hour measures how well the service is being used. Routes averaging fewer than 10 boardings per revenue hour may require corrective action, such as schedule adjustments or route revisions. Routes averaging more than 25 boardings per revenue hour may indicate the demand for more frequent service.

On-Time Performance

On-time performance measures how closely service adheres to the published schedule. It is an important measure for transit users because it directly impacts service reliability. It is also crucial for timed-transfer systems as buses arriving more than five minutes late at the Transfer Center will likely result in missed connections or delay the entire system. On-time performance is measured by comparing scheduled and actual bus departure and arrival times at fixed time points (bus stops identified in published schedules).

To precisely measure on-time performance, a definition of on-time must be established. The most widely accepted measure of on-time is up to one minute earlier and no more than five minutes later (-1 minute to +5 minutes) than the scheduled arrival time at all time points. Huntsville Shuttle should set a goal of 85% system-wide on-time performance and adjust route schedules that perform below this standard.

SERVICE CHANGES

Huntsville Shuttle should establish a regular and transparent service change process to continuously improve route alignments, schedules, bus stops, and other capital facilities. Each service change should span 5-7 months to allow adequate opportunity for public feedback, revisions, city council approval, capital improvements, and rider information. Service change implementation should coincide with school schedules:

- Minor service changes in early January, prior to the start of spring semesters
- Major service changes in early August, prior to the start of fall semesters

Proposal Development

Service changes provide an opportunity to adjust schedules and route alignments, if necessary, based on performance evaluation findings, rider feedback, operator feedback and land use changes. Service changes also provide an opportunity to implement new services and if necessary, discontinue consistently unproductive route segments or scheduled trips. Route realignment or consolidation should always be explored prior to considering the elimination of an entire route.

Community Involvement

Communicating service change proposals to existing riders and the entire community should include outreach on buses, at the Transfer Center, on social media platforms, and community groups. Press releases are an additional effective of disseminating proposal information to the general public through TV stations, print media and radio.

Proposal Revisions and Approval

After community feedback is obtained for service change proposals, staff should make appropriate revisions and seek City Council approval to proceed with implementation.

Service Change Preparation

This phase of the process will vary based on the magnitude of the specific service changes. However, each schedule revision requires updated work assignments, rider brochures, online schedules and real-time feed. More significant service changes such as route revisions, additions or eliminations typically also require modifications to bus stop signage and amenities, as well as on-board announcements and GIS/AVL/GTFS data.

Rider Information

Prior to the date implementation, it is essential that the City of Huntsville reach out to both existing and potential riders using similar strategies as the initial round of community involvement, however, with an even greater emphasis on the specific markets that are being impacted or benefiting from the service change.

Figure 5-1 Service Change Implementation Steps



FARE POLICY

Fare recommendations are based on the analysis of current conditions, recent trends, national best practices, and discussions with Huntsville Shuttle staff. Recommendations are divided into short-term and long-term implementation timeframes.

Short-Term Fare Recommendations

- **Adjustments to monthly pass pricing.** To make passes a more attractive option for customers and encourage use of pass products instead of cash fares, it is recommended to reduce the monthly pass price from \$38 to \$30.
- **New reduced fare pass options.** Reduced fare options should be offered for 20-Ride Ticket Books and monthly passes at half the cost of the full price options.
- **Expanding pass distribution.** This includes exploring opportunities for third-party retail sales and offering online ticket sales.
- **Mobile ticketing option.** Mobile ticketing can be implemented without upgrading current farebox technology by using a flashpass model. A pilot project should be considered to test the technology.
- **Exploring opportunities to initiate bulk pass programs.** Explore opportunities to create a bulk pass program with large employers, colleges, and universities in Huntsville.

Long-Term Fare Recommendations

- **Consider upgrading fareboxes.** Electronic fareboxes are an investment that can facilitate fare payment and provide the opportunity to implement new fare media such as magnetic swipe cards and/or smartcards that may be necessary for medium and long-term improvements.
- **Consider implementing a two-hour ticket to replace transfers.** Replacing transfers with a “two-hour pass” that allows passengers to use the system for a set amount of time is easier to administer than a transfer but requires magnetic swipe card, mobile ticketing, and/or smartcard technology to implement.
- **Consider implementing fare capping.** Fare capping is an emerging trend that allows passengers to “pay-as-you-go” but that requires mobile ticketing and/or smartcard technology to implement and should be considered over the longer-term.

Fare Products and Pricing

Huntsville Shuttle has the opportunity to offer additional fare products to provide more options for current and future riders. Currently, Huntsville Shuttle has a relatively simple fare structure. There are three main categories for Huntsville Shuttle fixed-route transit fare products—adult, reduced, and children—and one category for paratransit fares. Huntsville Shuttle offers single-ride tickets, 20-ride ticket books, and monthly passes for fixed-route service, and one-way trip tickets for paratransit service.

The implications of offering several new fare products and of adjusting pricing on existing products were evaluated. A simple fare model was developed using national elasticities to calculate the potential revenue and ridership implications of changes to the fare structure. The following sections detail the potential market change of adding or modifying fare products. Overall ridership and revenue impacts of recommendations are anticipated to be minimal.

Base Fare

The fixed-route base fare (\$1.00) is lower than the base fare seen in many similarly-sized transit agencies, but aligns well with the level of service offered. Huntsville Shuttle has seen rising annual farebox revenues corresponding with increasing ridership since 2010, indicating that the agency is successfully balancing ridership and revenue goals. Additionally, as passenger trips have increased, operating costs have remained relatively steady. For these reasons, no changes to the base fare are recommended at this time.

As the agency expands its services, Huntsville Shuttle should periodically reevaluate farebox recovery, inflation, and other revenue-related trends to ensure that fares continue to align with service quality and systemwide goals.

Transfers

Given the existing fare payment options at Huntsville Shuttle and the nature of the route network, no changes to the transfer policy are recommended. Maintaining free transfers is essential as the system is designed around key transfer points. The use of transfers is prevalent among current riders. Nearly half of all riders (45%) board using a transfer slip. Some agencies are moving away from paper transfers to a timed fare, such as a two-hour pass; however, this option is only feasible with swipe cards, smartcards, or mobile ticketing payment options that allow for stored value.

Day Pass

Huntsville Shuttle does not currently offer a day pass. Many transit agencies are offering a day pass, typically sold onboard as well as in advance, for riders making multiple trips in one day. Day passes are also a useful product for social service agencies to be able to provide their clients.

A day pass priced at two times the base fare (\$2.00) would provide Huntsville Shuttle customers an option for unlimited rides in a calendar day, with little impact on the agency's revenue. A day pass priced at two and a half times the base fare would result in a minor (1.3%) increase in fare revenues, and a very minor (0.1%) decrease in ridership.

Huntsville Shuttle faces several challenges to offering a day pass. Existing fareboxes restrict the ability of drivers to sell day passes onboard. Upgraded fareboxes could dispense a day pass without driver involvement. Otherwise, drivers would have to issue the day pass upon customer request. Secondly, the potential market for a day pass is relatively small. In general, the market for a day pass is riders making two or more trips per day. Among current full fare riders, 27% paid with cash and are both transferring and making a round-trip. The potential market for day pass is therefore around 900 monthly trips. However, because Huntsville Shuttle allows free transfers, the number of riders who could benefit from a day pass is likely smaller.

Based on this analysis, introduction of a day pass is not recommended at this time. Future investments in farebox equipment that enable onboard sales or future changes in the transfer policy may warrant reconsideration of a day pass.¹⁵

20-Ride Ticket

As described above, more than 40% of Huntsville Shuttle's riders are eligible for a reduced fare. As such, it is recommended that a Reduced 20-Ride Ticket be offered to provide additional fare options for qualified passengers. Revenue impacts are anticipated to be minimal for offering the Reduced 20-Ride Ticket. Additional pass distribution options to make it easier for passengers to obtain a pass are discussed in the fare media section of this chapter.

¹⁵ There would be similar challenges for other types of passes, such as a Weekly Pass. As such, implementation of additional pass types is not recommended at this time.

Monthly Pass

Huntsville Shuttle has the opportunity to adjust pass pricing to be more competitive. The monthly transit pass is underutilized; currently only 5% of riders are paying using a pass. However, the market for the monthly pass is likely much higher. Results from the onboard survey indicate that 22% of full fare riders and 30% of half fare riders are frequent riders (3-5 days per week) taking a round-trip and paying with cash.

The monthly pass is likely underutilized because of its high price. The monthly pass costs 38 times the one-way regular fare, which is on the high end of the industry standard range. The revenue and ridership implications of reducing the price of the monthly pass to be more in line with industry best practice were evaluated.

Additionally, the majority of Huntsville Shuttle's riders are eligible for a reduced fare. Offering a reduced fare monthly pass would provide a convenient option for over 40% of the agency's current riders. The market for a reduced-fare monthly pass is estimated to be 6,000 monthly trips. Offering a reduced-fare monthly pass, priced at \$16, would result in a 1.7% decline in annual farebox revenue, while increasing ridership by 0.4%.

Owning a monthly pass encourages people to take more trips on transit, increasing ridership. The potential ridership gains from incentivizing the use of the monthly pass are therefore somewhat higher than can be calculated using the fare model. Huntsville Shuttle can also increase monthly pass use by providing new ways to purchase the pass, which is also discussed in the fare media section of this chapter.

Fare Capping

A growing trend in the transit industry is to implement fare capping, a "pay-as-you-go" solution for pass purchases. Essentially, a passenger has the flexibility to pay a single fare for every trip; if they pay enough in a given time period to "earn" a day pass or monthly pass, their payments are "capped" at that level, and they are able to continue riding without paying any additional fare. Fare capping can be a great solution for low-income riders who may not have the full amount available at once to purchase a monthly pass. Note that fare capping requires technological capability to track trips through smartcards and/or mobile ticketing. These technology options are discussed in greater detail in the fare payment options and technology section of this chapter.

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Figure 5-2 Recommended Fare Structure

Fare Category	Existing Fare	Proposed Fare	Discount/Number of Uses to 'Break Even'
Fixed-Route			
Cash Fare	\$1.00	\$1.00	-
Reduced Cash Fare (Seniors, People with Disabilities, Medicare/Medicaid card holders, Students with valid ID, and Children)	\$0.50	\$0.50	-
20-Ride Ticket Book	\$18.00	\$18.00	10%
Reduced 20-Ride Ticket Book (Seniors, People with Disabilities, Medicare/Medicaid card holders, Students with valid ID, and Children)	-	\$9.00	10%
Monthly Pass Valid for a calendar month	\$38.00	\$30.00	30
Reduced Monthly Pass Valid for a calendar month (Seniors, People with Disabilities, Medicare/Medicaid card holders, Students with valid ID, and Children)	-	\$15.00	30
Transfers	Free	Free	-
Paratransit			
One-Way Ticket	\$2.00	-	-

Fare Distribution

Huntsville Shuttle has the opportunity to increase ridership and visibility of their services by widening the fare distribution network. Currently, tickets and monthly passes are only available for advance purchase in-person at the Public Transit Office.

Huntsville Shuttle has the opportunity to provide more options for purchasing fares, such as online, through a mobile ticketing app, with retail partners, or in partnership with public venues such as libraries and community centers, and other social service agencies. Retail partnerships often include include grocery stores, drugstores, etc.

Figure 5-3 Fare Distribution Recommendations

Fare Distribution Type	Recommendation
Online Sales	Develop a web portal for online pass purchases.
Mobile App	Offer mobile ticketing flash pass option.
Retail Partners	Transit agencies often form formal partnerships with third-party retail vendors, such as grocery stores, to provide convenient locations for riders to purchase fares.
Other Partners	Partner with other entities such as libraries, community centers, and social service agencies to offer transit passes.

Fare Payment Options and Technology

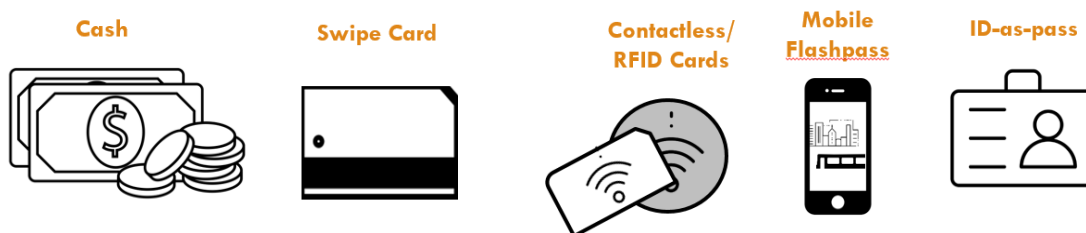
This section discusses fare payment options and new fare technology opportunities for Huntsville. Huntsville Shuttle accepts cash payments on fixed-route buses and paper media products on both fixed-route and paratransit vehicles. Diamond fareboxes on fixed-route buses accept cash, coins, and paper tickets. Operators issue paper transfer slips upon request. Huntsville Shuttle has a long-term desire to upgrade fareboxes, which would enable the agency to offer more fare payment options to customers.

In the U.S., there are a variety of commonly-used options for fare payment, including cash or coins, swipe card, contactless/RFID cards (smartcards), mobile flashpass, and ID-as-pass. The following section describes the benefits and drawbacks of each fare payment option, as well as the near- or long-term feasibility for adoption in Huntsville.

Farebox Considerations

The existing fareboxes on fixed-route buses accept only cash, coins, and paper tickets. These fareboxes present several challenges to fare payment and reconciliation. The boxes cannot accept reloadable cards, smartcards, or other technologies as fare payment. Additionally, the contents of the fareboxes (various paper tickets, transfer slips, cash, and coins) must be manually counted and reconciled, which requires administrative time.

Upgrading fareboxes would enable Huntsville Shuttle to accept a wider range of fare payment media such as swipe cards, as well as offer potential administrative cost savings by streamlining the fare payment reconciliation process. However, updating the fareboxes on Huntsville Shuttle's fleet of 14 peak buses would require significant capital expenditure. Going forward, it will be important for the agency to weigh the benefits and costs of upgrading fareboxes with other agency goals.



Cash

Cash (and coins) is still the dominant method of payment nationwide, whether at a physical location, at a kiosk, or onboard. Despite its popularity, cash fare payments have several drawbacks for transit agencies and passengers.



On average, boarding a bus accounts for one-half to one-third of vehicle (revenue) run time. National research shows that passenger boarding takes 4.5 seconds for cash payments, 3 seconds for token payments, and 2.75 seconds for smartcard. For a single stop, these small delays may seem insignificant. However, over the course of a full route, they can aggregate and create noticeable issues with on-time performance and schedule adherence.

Cash payments result in administrative costs as well. As a rule of thumb, the ongoing costs of cash fare collection and revenue handling are 5 to 10 percent of cash revenues, regardless of agency size.¹⁶

Swipe Card

Magnetic stripe media in fare collection is common around the transit industry and is generally known to be reliable. Magnetic stripe fare products can include unlimited (time-period) passes, multi-ride products, transfers, and change cards. Some of these products require the farebox only to read the media, while others require the farebox to both read and encode media. Figure 5-4 provides a summary of some benefits and drawbacks of magnetic stripe technology.



Adoption of magnetic strip media would require Huntsville Shuttle to upgrade fareboxes on all fixed-route vehicles. In the long-term, should fareboxes be replaced, swipe cards would be a feasible option for the agency.

Figure 5-4 Benefits and Drawbacks of Magnetic Stripe Technology

Benefits	Drawbacks
<ul style="list-style-type: none">▪ Collection of basic fare data▪ Reduces operator interactions/fare enforcement▪ Reduces cash in system▪ Accommodates cash (stored value), passes, and transfers (cannot necessarily do all at once on the same card)▪ Can be purchased pre-loaded (encoded)	<ul style="list-style-type: none">▪ Requires farebox upgrade▪ Fare media can be damaged/deactivated▪ Limited uses of fare media (cannot combine passes and stored value on same card)▪ Reloading can only occur at designated locations (cannot be done automatically)

¹⁶ TCRP Report 94 Fare Policies, Structures and Technologies: Update (2003)

Smartcards

Smartcards have become common at many transit agencies which use a more durable “hard plastic” card. For customers, smartcards carry advantages over magnetic cards, the most significant of which is durability. This attribute allows smartcards to be reloaded on numerous occasions and last for several years without replacement. From an operational perspective, payment with smartcards is faster than both magnetic stripe payment and cash payment. One significant challenge is the need for elaborate back-end systems to manage accounts and balances associated with smartcards to ensure a distribution network for loading/reloading.



Adoption of smartcards would require significant investment by Huntsville Shuttle to upgrade the fareboxes on all fixed-route vehicles, as well as ongoing administrative requirements. In the long-term, should fareboxes be replaced, smartcards may be a feasible option for the agency. However, a cost-benefit analysis should be conducted prior to any smartcard implementation to determine whether the costs are a worthwhile investment for the agency. Figure 5-5 provides a summary of the benefits and drawbacks of smartcards.

Figure 5-5 Benefits and Drawbacks of Smartcards

Benefits	Drawbacks
<ul style="list-style-type: none"> Enhanced data collection capabilities User features like “autoload” and “balance protection” Loading value online or over the telephone Lower on-board transaction times (reduced dwell times) Permanence of cards (single card can be used for months) 	<ul style="list-style-type: none"> Requires farebox upgrade High cost of implementation (back-end systems, value-loading terminals, new equipment, need for on-board vehicle communications equipment) Greater range of fare options may lead to greater levels of confusion for customers and complexity for agency staff

ID-as-Pass

ID-as-Pass is common in systems with specific markets such as universities or major employers. In these systems, student ID or employer ID is used as fare media. There is an opportunity to expand the ID-as-Pass model to faculty and staff at universities, other schools and colleges, and major employers in Huntsville. Expanding the use of ID-as-Pass requires additional partnership and bulk pass agreements.



Mobile Ticketing

Mobile ticketing is an emerging technology option that is rapidly being adopted by transit agencies of all sizes. Mobile ticketing can make the experience of boarding and paying for transit seamless and can lower the barrier of entry for new transit users. Huntsville Shuttle can implement mobile ticketing in the near-term without any upgrades to existing fareboxes. Several mobile ticketing vendors offer apps that can be validated by drivers rather than by the farebox.



However, while digital options like mobile ticketing are an easy option for some riders, it can be intimidating or a non-option for others. Unlike other fare technology options, smartphone payments typically require users to have a linked credit card or banking account. At the same time, smartphones are becoming increasingly prevalent—nearly three-quarters (72%) of riders carry a smartphone.¹⁷ However, since approximately one-quarter (28%) of Huntsville Shuttle riders do not own a smartphone, traditional ticketing options should remain available to accommodate all riders—particularly those with disabilities, older adults, and low-income residents without smartphones.

Figure 5-6 Benefits and Drawbacks of Mobile Ticketing

Benefits	Drawbacks
<ul style="list-style-type: none"> Fare products can be accessed through one's smartphone – no need for separate fare distribution outlets Various means to validate media (visual, scan, proximity) Customers can purchase fare products at any time, and any location Operational savings Reloadable Faster boarding Retains bus tickets if phone is lost or stolen Lower upfront cost for agency and users 	<ul style="list-style-type: none"> Visual validation of fare products could add dwell time. Access issue for those who do not have a smartphone with data plan or a linked credit card/bank account Requires smartphone Requires WiFi or internet to activate ticket

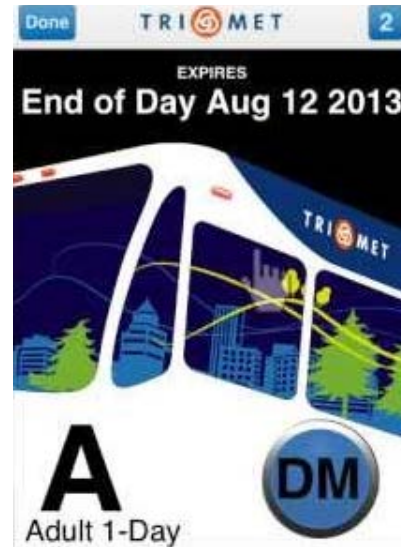
¹⁷ Source: Huntsville Shuttle On-Board Rider Survey 2018.

Mobile Flashpass

The simplest form of mobile ticketing is to allow riders to use their phone as a “flash pass,” an animated ticket that is visually validated by the bus operator when they board the bus. This strategy does not require any additional hardware to be installed on the bus and can be implemented with few other hurdles. The primary drawback is that this method requires additional attention of the operator to validate fare media.

The example shown in Figure 5-7 is from the TriMet system in Portland, which has launched a mobile payment app using a flash pass. Once the rider activates the pass, the smartphone app uses colors, animation, and a date stamp to indicate the pass has been activated.

Figure 5-7 TriMet Mobile Flash Pass



Source: TriMet

Implementation of Mobile Ticketing

Agencies typically take one of two approaches to adopting mobile ticketing platforms—as a pilot program and/or through an official procurement process.

Pilot Program

A pilot program allows the agency a chance to test the market for mobile ticketing in their service area and the mobile ticketing vendor a chance to refine the product. Start-up mobile ticketing companies such as Token Transit and HopThru offer a product that is ready to launch within weeks, making them suitable options for a pilot.

Another option is a Digital Pass Sales Outlet Agreement that authorizes the vendor to sell digital transit tickets. This agreement is similar to what would be signed with a grocery store or other third-party ticket vendor.

The drawback of using a pilot program is that the agency risks having to go through two procurement processes instead of one. Additionally, the agency cannot guarantee that the vendor participating in the pilot will be successful in the competitive bid.

Request for Proposal

To hire a mobile ticketing vendor, Huntsville Shuttle would need to go through the procurement process. Some agencies who release a Request for Proposal (RFP) for mobile ticketing have already conducted a pilot study, while others release the RFP in advance of adopting any new technology. In some cases, the agency releases an RFP to conduct a pilot program.

Bulk Pass Programs

In recent years, growing numbers of transit agencies have teamed with universities, colleges, and employers to provide bulk transit passes. These passes typically provide unlimited rides for low monthly fees, often absorbed entirely by the employer or school.

A bulk pass program provides a participating organization free or deeply discounted transit rides for a financial guarantee. These programs are slightly different than pass sales since they often assume that 100% of an organization's members are eligible for the program whether or not they regularly use public transportation.

Bulk transit passes provide multiple benefits to transit riders, transit agencies, communities, and employees and employers, as discussed in Figure 5-8. While bulk pass programs tend to be affiliated with bus service, in most cases they are part of a broader multimodal transportation strategy that includes improved bike programs, carshare programs, carpooling/vanpooling strategies, and often, increased parking rates.

Figure 5-8 Bulk Pass Program Benefits

Beneficiary	Bulk Pass Benefit
Transit Riders	Free access to transit
	Rewards existing riders, attracts new ones
	For employees who drive, making existing transit free can effectively create convenient park-and-ride shuttles to existing underused remote parking areas
Transit Agencies	Provides a stable source of revenue
	Increases transit ridership, helping to meet agency ridership goals
	Can help improve cost recovery, reduce agency subsidy, and/or fund service improvements
Communities	Reduces traffic congestion and increases transit ridership
	Reduces existing, unmet, and future growth in parking demand
Employees/ Employers	Reduces demand for parking on-site
	Provides a tax-advantaged transportation benefit that can help recruit and retain employees

Source: City of Pasadena Traffic Reduction Strategies Study, 2007

Pricing for Bulk Pass Programs

Bulk pass programs can be implemented in different ways, but the most common financial contribution approaches include the following:

- Contribution determined by current employees, residential units, students, etc. as reported by the participating organization (fee may be different for students, faculty, or staff at a university)
- Contribution determined by ridership
- Annual fixed fee (same price, regardless of institution size or usage)

A review of national bulk transit pass programs found that the annual per-employee fees are between 2% and 33% of the retail price for an equivalent annual transit pass.¹⁸ The principle of employee or residential transit passes is similar to that of group insurance plans—transit agencies can offer deep bulk discounts when selling passes to a large group with universal enrollment, on the basis that not all those offered the pass will actually use them regularly. Key to success is to spread the costs of the trips so that the cost per person remains quite low per person. The reasoning behind the shared cost is that additional transit riders benefit drivers by reducing traffic and parking congestion.

Federal Tax Incentives

There are potential tax benefits for both employers and employees participating in employee pass programs. If employers fund the pass, it can be offered as a benefit that does not require payroll taxes, and it qualifies as a tax-deductible business expense for the company. If the pass is paid for by the employee, the payroll amount reserved for the pass is no longer treated as taxable salary. The IRS limit for the 2018 tax year is up to \$260/month per employee for vanpool, bus, ferry, or rail (all public transportation).

Bulk Pass Opportunities

Huntsville Shuttle has the opportunity to offer a bulk pass program to large employers and other readily identifiable groups in the service area to provide bulk rate passes to employees. Large employers in Huntsville that are served by transit are strong candidates for participants in a potential bulk pass program, which would increase revenue and boost ridership.

Figure 5-9 includes select large Huntsville employers served by transit and representing potential opportunities to offer a bulk pass program.

Figure 5-9 Large Employer Bulk Pass Program Partnership Opportunities

Company	Industry	Employees
Huntsville Hospital	Health Care	6,341
City of Huntsville	Government	2,206
University of Alabama in Huntsville	Education	1,660
Technicolor Compact Disc	Manufacturing	1,450
Madison County Commission	Government	1,242
Alabama A&M University	Education	1,207

Source: Huntsville/Madison County Chamber, February 2018

¹⁸ Sources: King County Metro ORCA Passport Program; AC Transit EasyPass; Denver RTD EcoPass

PARATRANSIT

Handi-Ride service today is actually a blend of two services:

- Complementary ADA paratransit service for persons with disabilities residing within $\frac{3}{4}$ -mile of the Huntsville Shuttle route network (ADA paratransit zone). This service is available during the same hours as Huntsville Shuttle.
- Demand-response service exceeding ADA requirements for seniors and persons with disabilities residing outside of the ADA paratransit zone but within city limits. This service is available to areas east of the ADA paratransit zone on Monday, Wednesday, and Friday; and to areas west of the ADA paratransit zone on Tuesday and Thursday, on a limited basis (3 round trips), when space is available.

Recommendations focus on establishing a unique brand for each service and differentiating eligibility, hours of operation, fares, and service zones.

Huntsville Access

The City of Huntsville should re-brand ADA paratransit service as Huntsville Access to avoid negative connotations associated with the prefix, “Handi-.” Huntsville Access service should be limited to ADA paratransit-eligible riders traveling between origins and destinations located within $\frac{3}{4}$ -mile of the Huntsville Shuttle route network. Hours of operation should match the earliest start time and latest end time of Huntsville Shuttle. The base fare should not exceed twice the fare of Huntsville Shuttle.

Huntsville Reach

The City of Huntsville should continue to provide supplementary demand-response aimed at improving mobility to areas outside of the ADA paratransit zone. This service should be branded as Huntsville Reach to distinguish it from Huntsville Access and describe its purpose of providing mobility outside of urban core.

Eligibility and Service Zone

Huntsville Reach should be limited to seniors and persons with disabilities (meeting the same eligibility requirements as Huntsville Access) residing outside of the Huntsville Shuttle ADA paratransit zone but within city limits.

Service Span

Huntsville Reach should be limited to weekdays only from 9:00 a.m. to 5:00 p.m. to manage costs while providing mobility during primary travel periods. Different parts of the City should have alternate days of service (e.g. South Huntsville and Hampton Cove on Monday, Wednesday, and Friday; West Huntsville on Tuesday and Thursday) to maximize efficiency.

Fare

As a supplemental, curb-to-curb service operating in suburban areas with longer average trip distances, Huntsville Reach should have a higher fare than Huntsville Access.

Vehicles

While Huntsville Reach could operate with the same cutaway vehicles as Huntsville Access, vans or sedans could be used on trips transporting ambulatory seniors to minimize cost.

Reservations

While reservations should be necessary for Huntsville Reach, there is no requirement to accommodate additional trips once the service is at capacity. When capacity is reached, the City may decline trip requests and/or negotiate travel times. In addition, Huntsville Reach would not be subject to the ADA's response time requirements.

Figure 5-10 Comparison of Recommended Fixed-Route, ADA Paratransit and Demand-Response Services

Characteristic	Huntsville Shuttle	Huntsville Access	Huntsville Reach
Service Type	Fixed-Route	ADA Paratransit	Supplemental Demand-Response
Eligibility	General public	Persons with disabilities	Persons with disabilities Seniors 65 years and over
Service Zone	N/A	Within 3/4 mile of Huntsville Shuttle route network	Beyond 3/4 mile of Huntsville Shuttle route network; within city limits
Service Span	M-F 6:00 a.m.-9:00 p.m. Sat 7:00 a.m.-7:00 p.m.	M-F 6:00 a.m.-9:00 p.m. Sat 7:00 a.m.-7:00 p.m.	M-F 9:00 a.m.-5:00 p.m.
Base Fare	\$1.00	\$2.00	\$4.00

Future Paratransit Considerations

The city should conduct a detailed paratransit study that includes a rider survey to explore the possibility of incentivizing the use of fixed-route service by making travel on fixed routes free for riders eligible for ADA paratransit. The goal of this change would be to encourage existing paratransit users to use fixed-route service and free up capacity on Huntsville Access. Cities providing this incentive to people who qualify for ADA paratransit service include Kansas City, Phoenix, Chicago, and Sandusky, Ohio.

REBRANDING

Branding is about creating an image for a product or service—making it easy to understand and recognize. This applies not only to consumer products but also to services like transit systems.

The City of Huntsville should re-brand its fixed-route service to become more recognizable as a transit system and avoid the implication that it is only a “shuttle” service. Huntsville Transit (or something similar) would be a simpler and more intuitive brand.

Paratransit service should be re-branded as Huntsville Access, and supplemental suburban demand-response service branded as Huntsville Reach.

In tandem with a service rebranding, the logo and visual identity should ideally be updated to reflect local culture, local colors, or other community assets.

RIDESHARE

The City of Huntsville encourages commuting residents to rideshare by offering a free online ride-matching service and information regarding incentives and subsidies. The City partners with Enterprise Rideshare to provide and maintain vans for ridesharing commuters. Enterprise Rideshare partnerships have been successful in many cities within the United States. Potential strategies to further promote the program include:

- Designated park-and-ride or meet-up locations
- High-occupancy lanes at bottleneck locations such as intersections or ramps
- Outreach events at major employment centers
- Advertising along high-traffic corridors
- Outreach to neighborhood groups in outlying areas, such as Hampton Cove

SUBSIDIZED TAXI/RIDE-HAILING

Over the past year, the City of Huntsville has explored the possibility of providing subsidized taxi or ride-hailing (e.g. Uber/Lyft) service at times when Huntsville Shuttle does not currently operate – on weeknights after 6:00 p.m. and on weekends. This concept, known internally as Freedom Pass, would allow participants to have unlimited rides on Huntsville Shuttle and Handi-Ride, as well as discounted taxi/ride-hailing trips, after purchasing a monthly pass.

While the Freedom Pass concept would provide a significant expansion of mobility choices, the upcoming Huntsville Shuttle evening and Saturday service expansion will address many of the service gaps the Freedom Pass was intended to fill.

Cities and local governments have been contracting with taxi companies for decades. Implementing subsidized private transportation, provided by taxi companies or app-based providers such as Lyft/Uber, should be considered within the next 2-5 years, after the expanded Huntsville Shuttle service has an opportunity to mature. The following sections describe the current state of ride-hailing, which may be of interest to the City of Huntsville should it decide to pursue a partnership in the near future.

Type of Services Offered

The major ride-hailing services offer varied levels of service depending on the market they serve. These tiers of service target specific customers from shared ride service for the value conscious, to more costly premium luxury vehicles. For most public sector partnerships with ride-hailing companies, the focus is on the lower cost shared and non-shared curb-to-curb service. These services are provided by traditional 5-passenger vehicles, usually sedans. When operated as a shared car pool, like in UberPool or Lyft Shared, the riders are pooled with other riders going in the same direction. Pooling reduces the cost for the driver and results in less expensive trips for riders.

Operational Challenges

Equal Access to Service

A core value of paratransit programs in the United States is that people of all ages and abilities deserve equal access to transportation service. According to the Pew Trust, only 46% of Americans over 65 have access to a smartphone.¹⁹ Another population left behind by ride-hailing are persons without access to a credit or debit card. The Federal Deposit Insurance Corporation estimates that 18.7% of US households are either under or unbanked.²⁰ Partnerships with ride-hailing companies offer the potential for increased

¹⁹ Mobile Fact Sheet, Pew Research Center, 2018 <http://www.pewinternet.org/fact-sheet/mobile/>

²⁰ FDIC National Survey of Unbanked and Underbanked Households, Federal Deposit Insurance Corporation 2018 <https://www.fdic.gov/householdsurvey/2017/2017execsumm.pdf>

mobility for riders, but special consideration must be taken to ensure the benefits of increased mobility are available to as many riders as possible.

Wheelchair Accessibility

Ride-hailing services rely on the drivers to provide vehicles and do not typically offer equivalent wheelchair accessible service. While Uber and Lyft drivers are expected to accommodate folding wheelchairs, scooters, canes, walkers, and other small assistive devices, they only offer motorized wheelchair-accessible rides in limited markets. Further, they cannot assist riders in getting into or out of the vehicle.

One way of addressing the lack of accessible ride-hailing vehicles could be similar to the approach that some cities have taken in addressing taxi fleets that have an insufficient number of wheelchair accessible vehicles (WAVs). Cities have provided taxi companies with WAVs and could do the same for ride-hailing companies, or could contract with an accessible service provider and/or individual accessible taxi owner/operators.

Recently Uber began adding wheelchair accessible vehicles to their service through a contract with a large paratransit service provider. Uber aims to expand this program to other regions in the future.²¹ The timing of the expansion of ride-hailing accessible vehicles is unknown, but this option opens up the possibility of more partnerships and lower cost transportation options for persons with wheelchairs and other mobility devices.

Unbanked and Non-Smartphone Populations

Partnerships with a service that requires smart phones and credit cards are viewed as discriminatory because of the impact they have against persons (low-income and others) who cannot obtain a phone or a credit card. In contrast to taxis, ride-hailing services are cashless and typically require the use of smart phones and credit cards. Lyft and Uber now offer concierge services that enable people to call to request a ride on their service; some partnerships have leveraged this solution in addition to the ride service itself.

One way cities provide service to people without bank accounts or credit cards is to provide a “ghost card.” A ghost card is a card issued by a bank that customers/agencies can deposit cash into, but can only be used to pay for a specific service. A ghost card does not require customers to qualify for a credit card, and minimizes risk for sponsoring agencies, but does have an administrative burden to set up and maintain. Another option is to offer pre-paid debit cards, onto which customers can load cash.

²¹ Wheelchair-accessible Uber service comes to D.C. and five other cities, expanding mobility options for people with disabilities Washington Post <https://www.washingtonpost.com/transportation/2018/11/20/uber-launches-wheelchair-accessible-service-dc-five-other-cities>

Safety and Security

Public partnerships with ride-hailing companies are very different from traditional partnerships with established transportation providers. Cities must be aware of the challenges of liability, indemnification, and rider safety when dealing with ride-hailing companies. Existing taxi and shuttle services are normally provided by a for-profit operator with specific liability insurance and well defined policies in place to protect cities and riders. The arm's length arrangement of ride-hailing companies requires more caution in negotiating partnership agreements.

Liability

Drivers are required by law and both Uber and Lyft to have their own driver insurance. Partnership programs have disclaimers regarding liability, usually in the application process or on the project website if there is no sign up involved.

Vehicle Inspections and Driver Screening

The state of Alabama requires vehicle inspections before drivers are permitted to operate on a ride-hailing service platform. Inspections must be done by a licensed Automotive Repair facility and conducted annually.

Concierge Services

Ride-hailing concierge platforms enable program sponsors to provide ride-hailing trips (on Lyft and Uber) to individuals without smart phones, and offer organizations the opportunity to request on-demand or pre-scheduled rides on behalf of their clients, which can be billed to one central account or to customers directly.

Concierge service costs depend on the platform and the level of subsidy for rides. Demand and cost can be managed by limiting trip purpose (e.g. medical trips) or the number of available trips per person in a certain period. A pilot or phased rollout would be advisable to determine demand.

Lyft Concierge is a Lyft product and relies on the Lyft network of drivers to provide curb-to-curb service. Similar to Concierge, Uber Central relies on the Uber network of drivers. Lyft Concierge and Uber Central charge no fee beyond the ride fares, which vary by product and market and are based on a combination of trip distance and time. Additional third party services can arrange rides through providers like Uber and Lyft, typically with an additional fee applied.

GoGoGrandparent is a national concierge program for ride-hailing companies and taxis that enables older persons and their families to schedule trips. GoGoGrandparent allows a person without a smartphone to schedule trips via Interactive Voice Response (IVR) or by directly speaking with a representative. GoGoGrandparent monitors in progress trips as well as ensuring the vehicle and the driver can accommodate the rider. Through the

service, text alerts are used to ensure that family members are informed of trip progress. GoGoGrandparent charges a \$.27 per minute fee in addition to the fare the ride-hailing service charges the customer. GoGoGrandparent, requires a major credit or debit card to use the service.²² Unlike other Concierge services GoGoGrandparent is open 24 hours and 7 days a week.

Arrive is a concierge program for ride-hailing service that enables users to schedule trips with operator over the telephone. Arrive's hours of operation are from 9 am to 6pm PST. The service does not offer an IVR, which may be attractive for some riders and all calls are answered by a person. Arrive charges a \$10 a month membership fee, along with a flat \$5 fee in addition to the fare. For travel outside of hours of operation the fee is 10\$ in addition to the fare.²³

²² GoGoGrandparent, <https://gogograndparent.com/#services-section>

²³ Arrive Rides <https://arriverides.com>

6 COMMUNITY OUTREACH

PUBLIC MEETINGS

As part of the transit study's community outreach, City of Huntsville and Nelson\Nygaard team members conducted three events that were open to the public on August 28th, 2018:

- 9:00 a.m. public meeting at the Huntsville Senior Center
- Public outreach from 11:00 a.m. to 1:00 p.m. at the Transfer Station
- 4:00 p.m. public meeting at the Dr. Richard Showers Center

At all three events, posters showing proposed route changes were on display. At the two public meetings, Nelson\Nygaard and City of Huntsville staff made short presentations about the proposed changes, after which project team members answered questions and heard comments in a one-on-one and small group setting.

During the Transfer Station outreach, City of Huntsville and Nelson\Nygaard staff spoke with riders before and after their bus trips, answering questions and hearing comments.

Figure 6-1 Community Member Outreach, Huntsville Senior Center



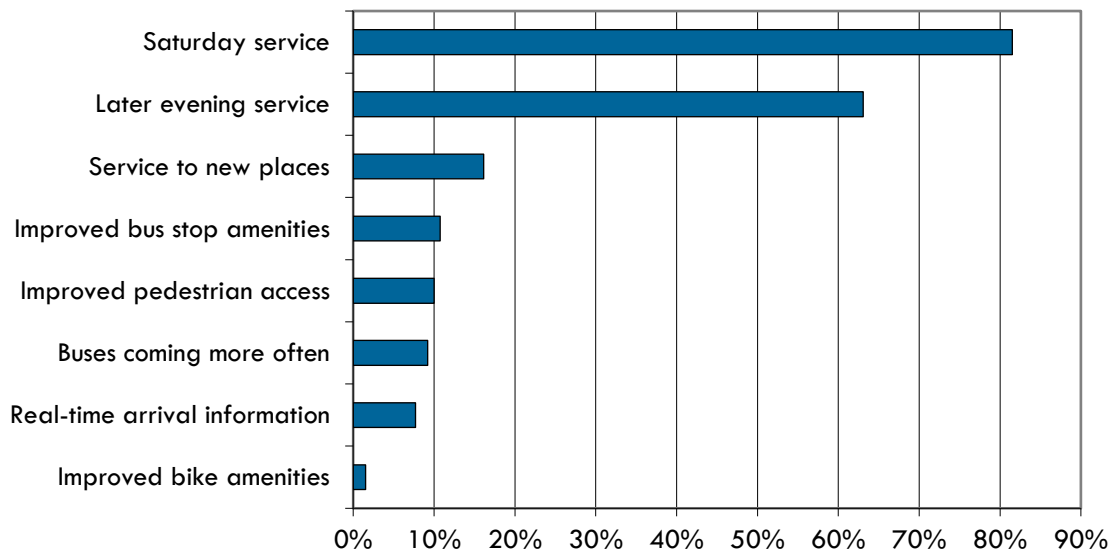
Source: WHNT

Attendees at the public meetings were largely supportive of the proposed route changes, citing the benefits of increased frequency, two-way service, and a new route to North Huntsville. Some community members were concerned about the proposed shifting of stops that family members used. Community members at the afternoon public meeting expressed displeasure with communication leading up to the meeting and requested that future invitations be more aggressive and reach more people. Some community members supported the idea of developing a transfer point at the Showers Center.

These events were advertised to the public via City of Huntsville e-newsletters, flyers posted at the transit center, and flyers taped to the windows of all buses.

At all three events, a 'bus bucks' poster was on hand. Meeting attendees were given two 'bus bucks' (pretend dollar bills representing transit investment) that they could drop into envelopes to represent the types of transit improvements they wanted to see. Meeting attendees voted overwhelmingly for Saturday service and later evening service.

Figure 6-2 Transit Improvements Desired as Percent of Bus Bucks Voters



Note: Percents do not sum to 100 because voters were each given two bus bucks.

STAKEHOLDER AND OPERATOR OUTREACH

Outreach to key stakeholders (social service providers, college/university administrators, religious leaders, disability community advocates, and real estate developers, among others) was conducted on August 29th at two meetings:

- 10:00 a.m. meeting at Campus 805
- 7:30 p.m. meeting at the Downtown Library

Key stakeholders were identified by City of Huntsville staff and invited via e-mail and phone. Huntsville Shuttle bus operators were invited to the afternoon meeting, which allowed for operator feedback on proposed changes and input on what types of investment would be most important. At both meetings, the bus bucks and proposed route redesign posters were displayed.

Figure 6-3 Operator Outreach, Downtown Library



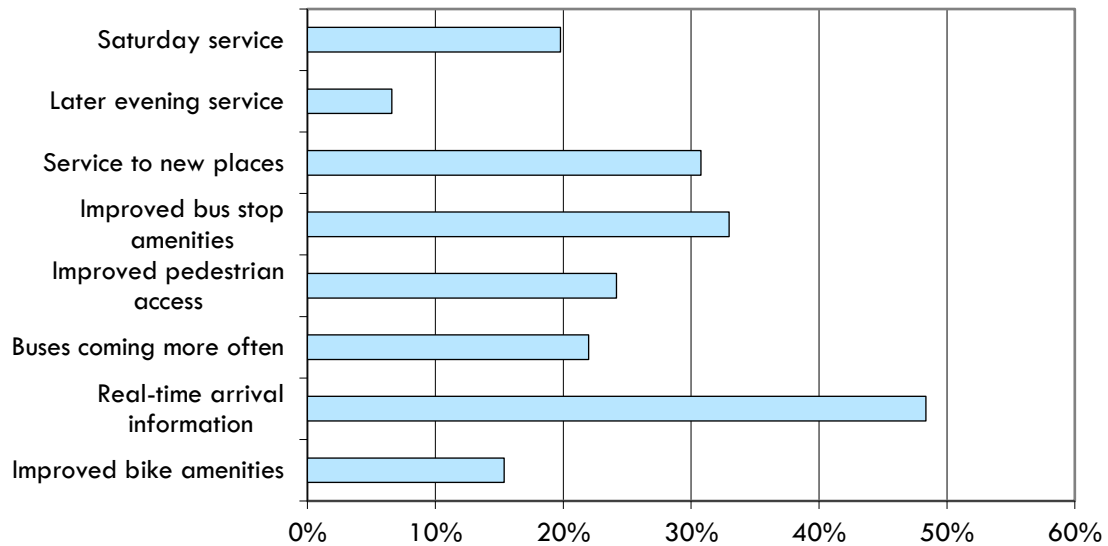
Source: Nelson\Nygaard

Key stakeholders were largely supportive of proposed changes. Most positive feedback was based on the addition of two-way service and increased frequency. Some stakeholders supported the idea of developing a transfer point at the Showers Center. Other stakeholders stressed the need to add transit service to major employers in the Huntsville area, most of which are located outside the current service area. University stakeholders reported students would like later-night service, and social service providers stressed the importance of low fares.

Operators were largely supportive of the proposed changes but expressed concern with the proposed interlining at the Showers Center and a proposed northbound stop on L and N Drive Southwest, which they felt would be dangerous. They also reported that stops serving Huntsville Hospital should expect to see high numbers of lift deployments to board riders with mobility aids.

In contrast to riders and other community members, operators and key stakeholders were most interested in real-time arrival information, improved bus stop amenities and service to new places.

Figure 6-4 Transit Improvements Desired as Percent of Bus Bucks Voters



Note: Percents do not sum to 100 because voters were each given two bus bucks.

ON-BOARD SURVEY

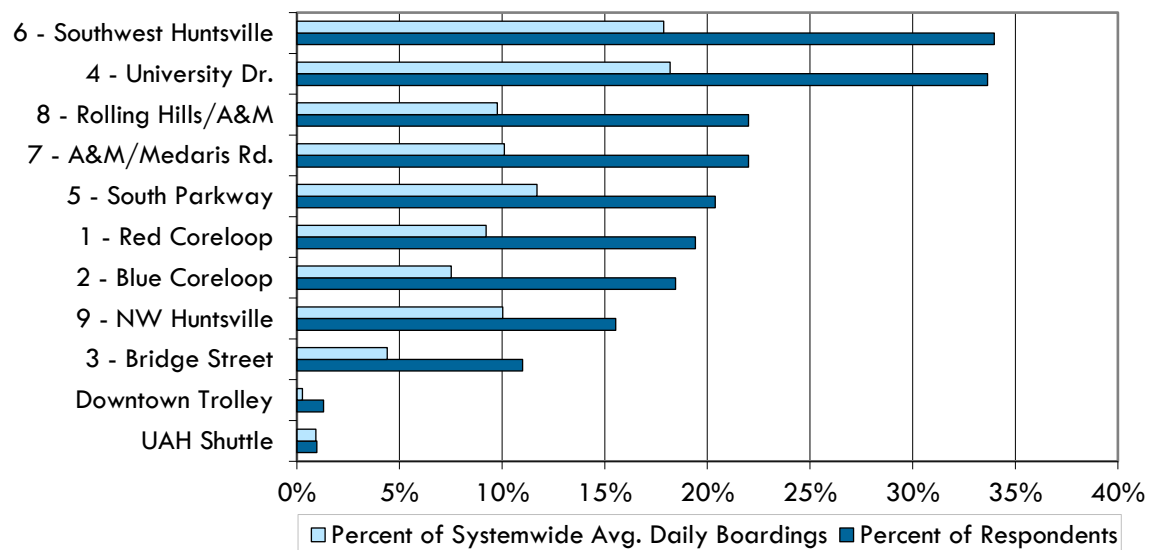
To learn about current rider behaviors, demographics, and desired changes, the City of Huntsville project team conducted a paper-and-pencil onboard survey from late July through August of 2018. A copy of the survey instrument is in Appendix A. A total of 314 respondents completed the survey but not every respondent answered every question. The survey was offered in both English and Spanish; two respondents used the Spanish version.

The onboard survey was an important tool for gathering basic demographic and travel behavior data on existing Shuttle Bus riders. Overall, Huntsville Shuttle Bus riders are:

- Middle-aged, lower-income, and not employed
- Not students
- Smartphone owners
- Regular riders that use more than one route, take round trips, and transfer
- Using the bus for work, shopping, and other non-recreational trips
- Paying regular or senior/disabled fare without using a pass
- Interested in seeing Saturday service and later-night service

Surveys were well-distributed across the routes, at proportions similar to the distribution of systemwide average daily ridership.

Figure 6-5 Onboard Survey Respondents by Route Used, Compared to Ridership ($n=309$)

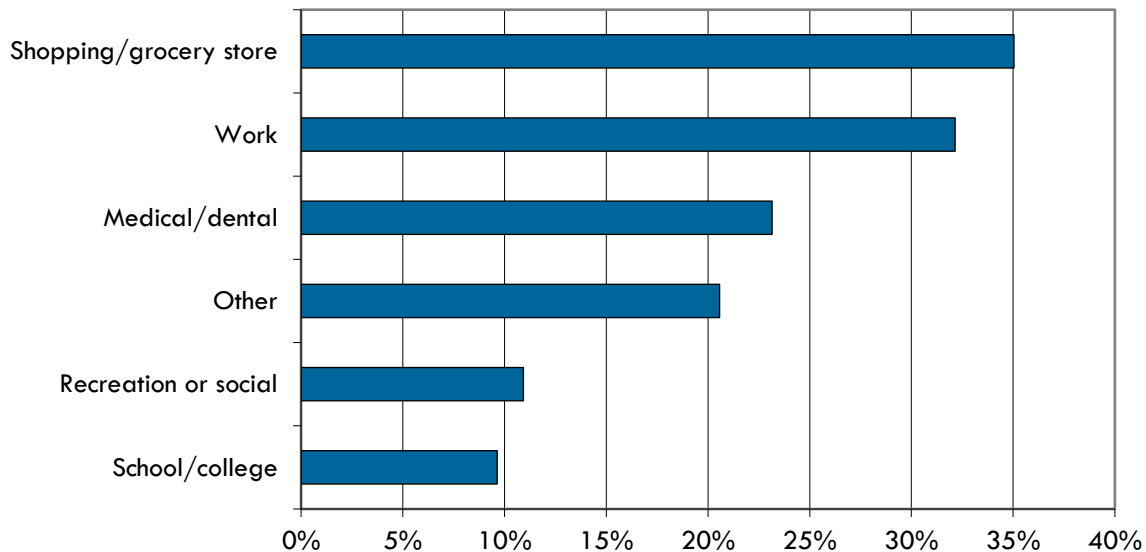


Note: Percent of respondents does not total to 100% because most respondents selected more than one route.

Trip Purpose

Most respondents reported being on a shopping or work-related trip, although more than 20% identified themselves as taking a medical/dental or 'other' trip. Respondents who selected 'other' identified locations such as volunteering, home, library, shelter, or bank. Fewer than 10% of respondents reported traveling to or from school/college.

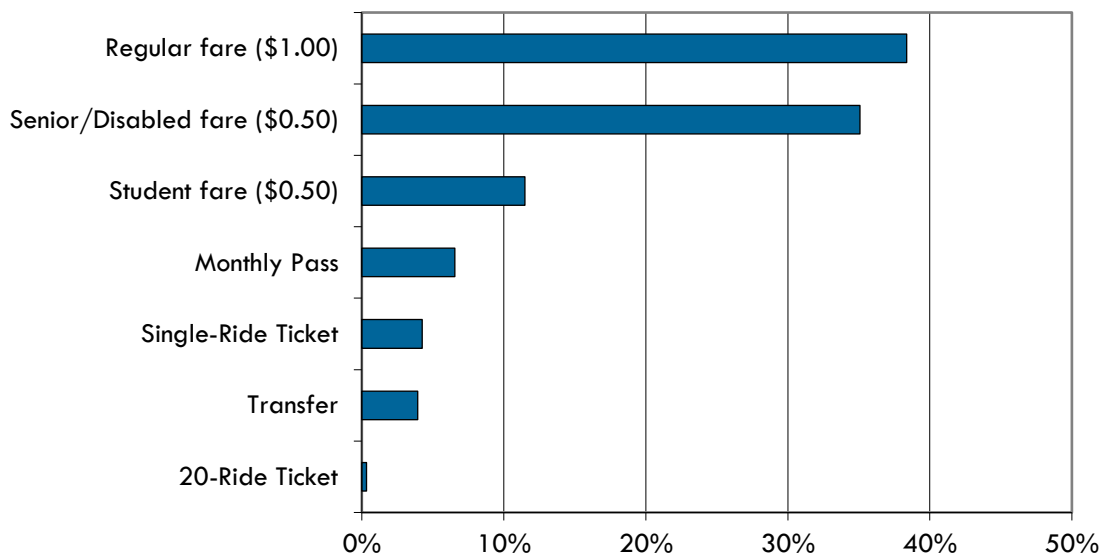
Figure 6-6 Locations Respondents Were Traveling to or From (n=311)



Fare Type

Most respondents reported paying for their trip with a regular fare but nearly as many reported using senior/disabled fare. Very few respondents used 20-ride tickets.

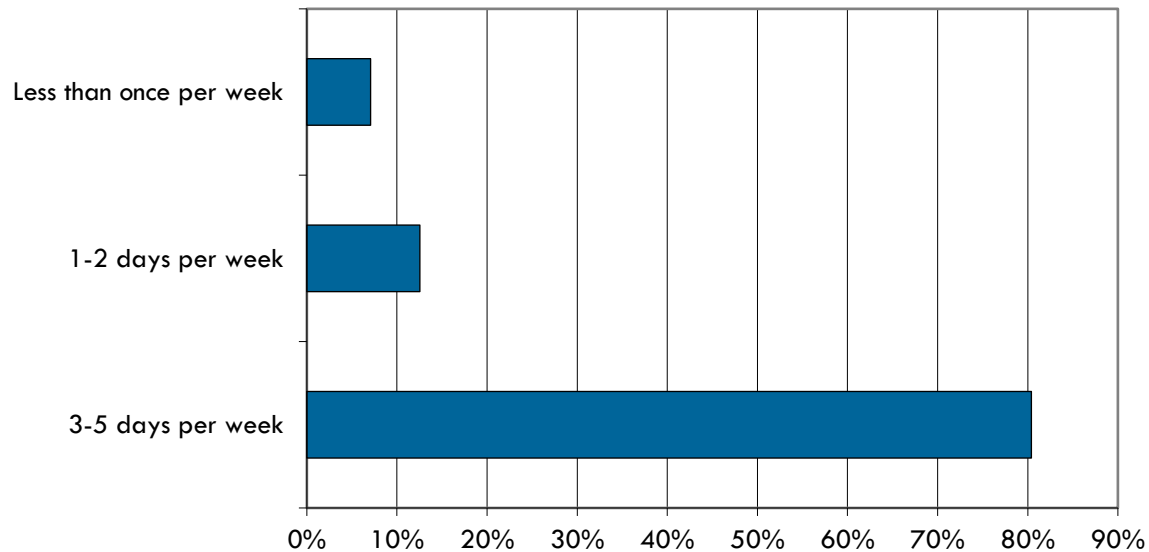
Figure 6-7 Respondent Fare Type for Current Trip (n=305)



Frequency of Use

The vast majority of respondents use the Shuttle Bus three to five days per week. Fewer than 10% of respondents reported using the bus less than once per week.

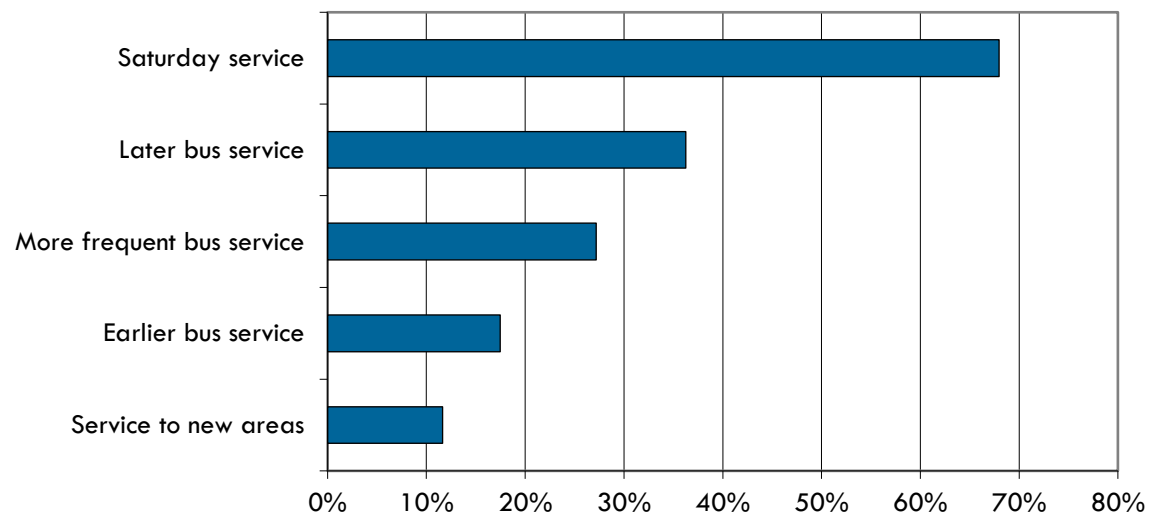
Figure 6-8 Respondent Frequency of Huntsville Shuttle Use (n=311)



Preferred Service Improvements

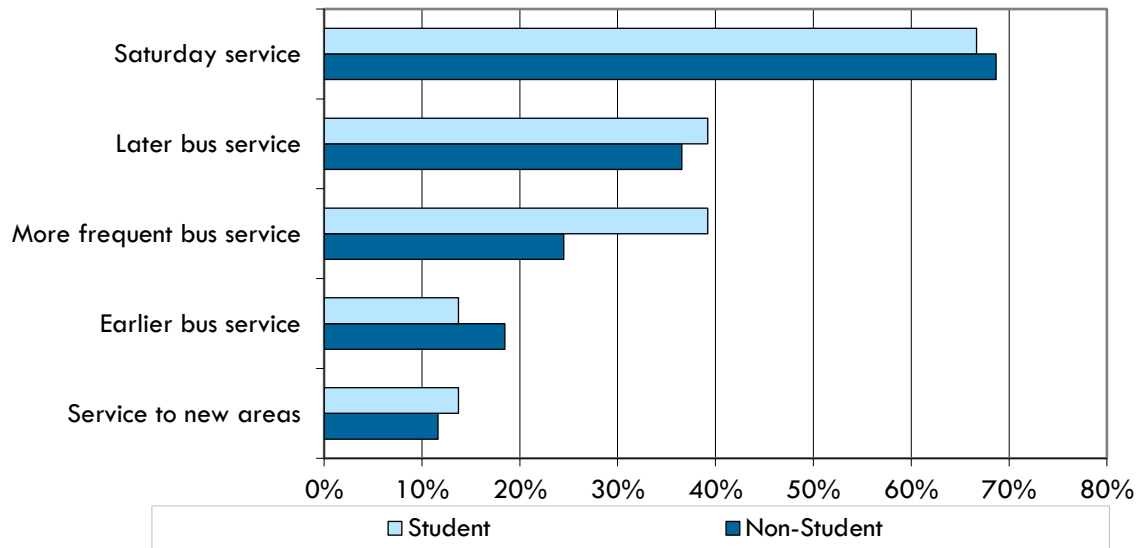
Survey respondents were overwhelmingly in favor of Saturday service as their improvement of choice. Later bus service and more frequent bus service were also selected by more than 25% of respondents. Service to new areas was the least popular potential improvement. Those respondents that did choose this option primarily requested service in Moores Mill, Madison, and outlying industrial parks.

Figure 6-9 Most Important Service Improvements (n=309)



The only major difference in desired service improvements between student and non-student riders was frequency of service. Student respondents were 15% more likely than non-student respondents to value more frequent service.

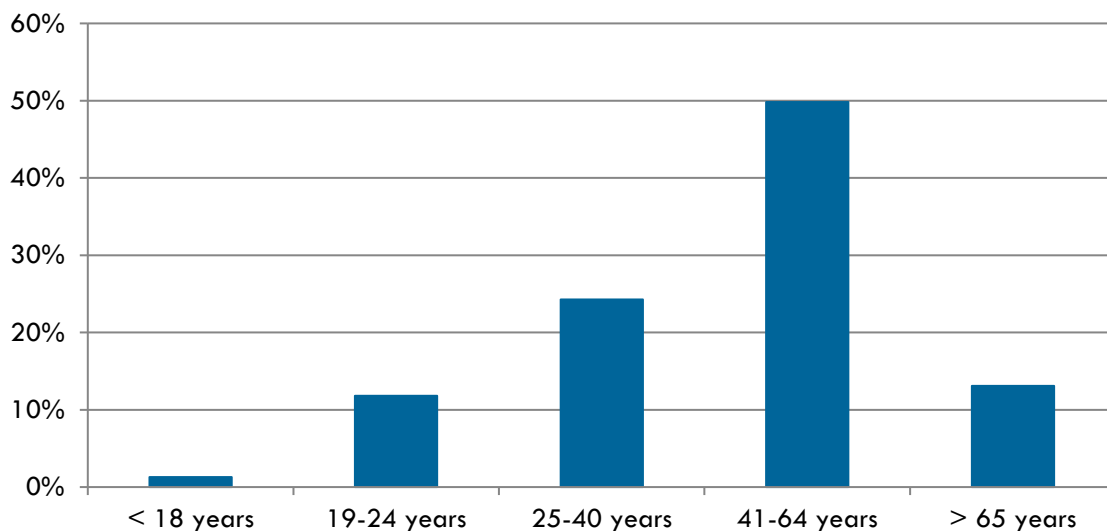
Figure 6-10 Most Important Service Improvements by Student Status (n=300)



Age

Half of the respondents were in the 41-64 age range and nearly 25% were in the 25-40 range. Very few respondents (~1%) were under the age of 18 and only 13% were over the age of 65.

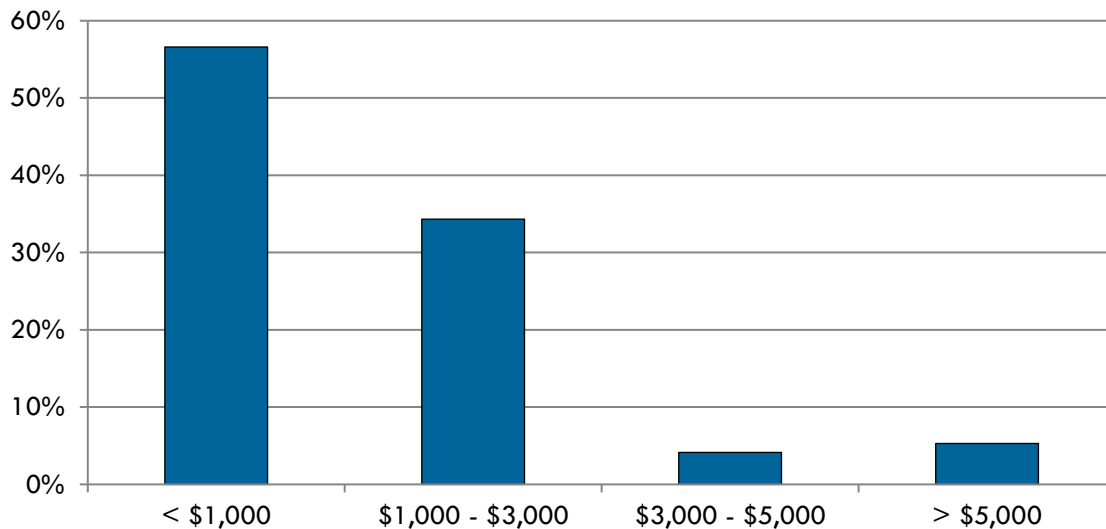
Figure 6-11 Respondent Age (n=305)



Household Income

Most respondents reported a monthly household income under \$1,000 and nearly a third reported a monthly household income of between \$1,000 and \$3,000. Fewer than 10% of respondents reported household monthly earnings of more than \$3,000.

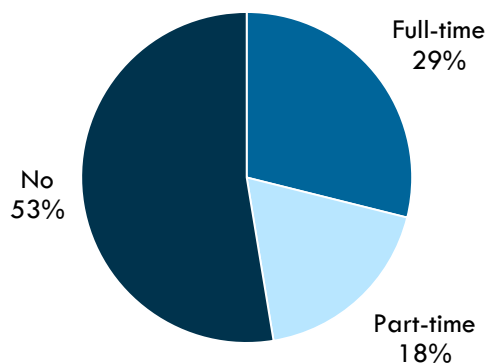
Figure 6-12 Respondent Monthly Household Income (n=265)



Employment Status

Most respondents reported themselves as not employed. Of the total respondents, 29% identified themselves as having full-time jobs, and 18% as having part-time jobs.

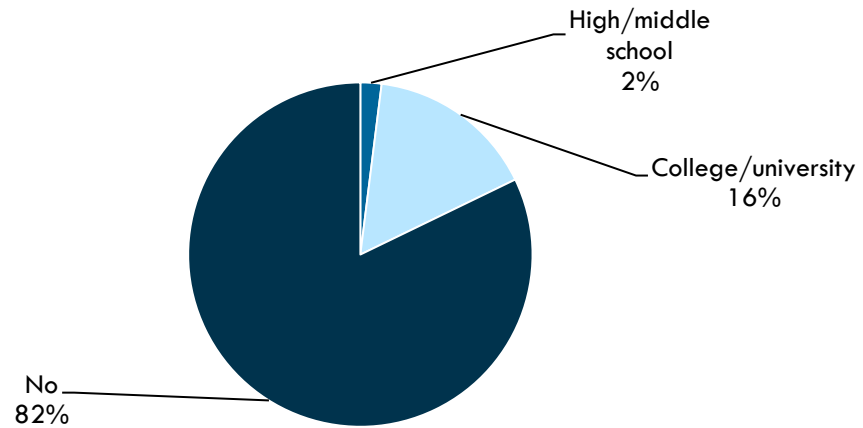
Figure 6-13 Respondent Employment Status (n=308)



Student Status

Respondents were mostly not students. Only 2% of respondents were in middle or high school.

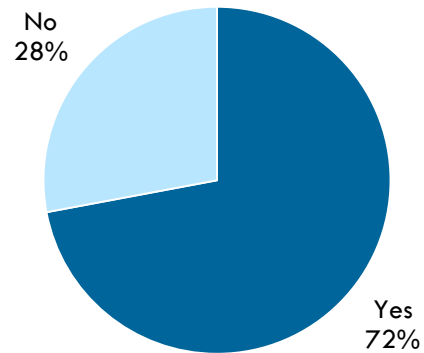
Figure 6-14 Respondent Student Status (n=303)



Smartphone Ownership

Smartphone ownership was common among respondents (72% reported having a smartphone).

Figure 6-15 Respondent Smartphone Ownership (n=297)



Open-Ended Comments

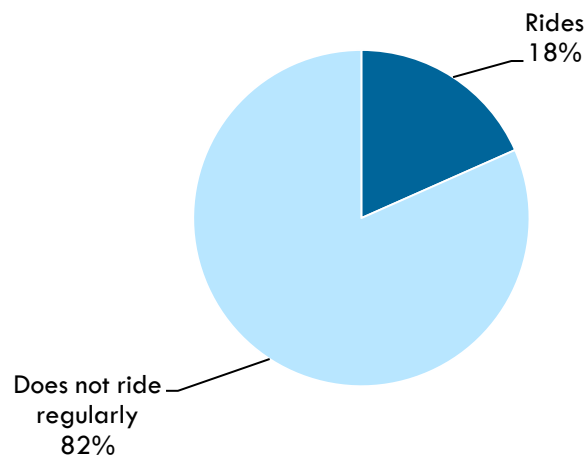
Survey respondents were also given the option to write an open-ended comment with a suggestion, complaint, or other thought regarding Huntsville Shuttle Bus service. All 129 of the collected comments are included in Appendix A.

ONLINE SURVEY

The City of Huntsville and Nelson\Nygaard project team conducted an online survey that was available to the public from August 24 to September 28, 2018. The survey was shared with Huntsville residents and bus riders via e-newsletters and social media. Because of the proposed changes to Route 5 in South Huntsville, the South Huntsville Business Association e-mailed a link to its members, which produced an overrepresentation of Route 5 riders²⁴ in the results.

There was a total of 953 responses to the survey, 18% of which were from people who reported riding the bus regularly. This section of the report splits the responses to the online survey into rider respondents (those who reported riding Huntsville Shuttle Bus regularly) and non-rider respondents (those who reported not riding ever or riding irregularly).

Figure 6-16 Respondent Ridership Status (n=953)

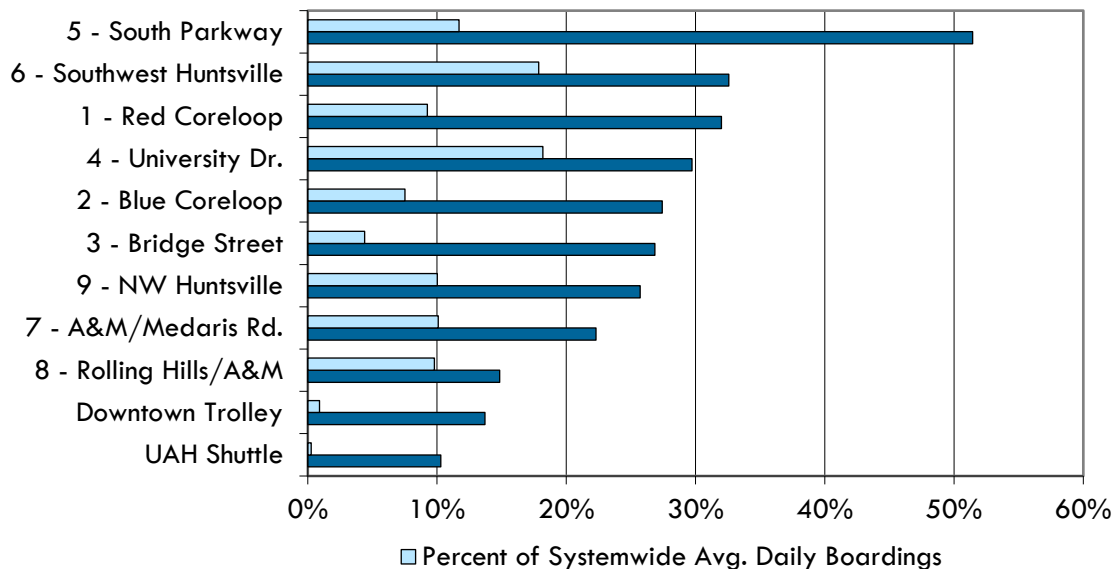


²⁴ South Huntsville residents are likely overrepresented, as well. A home location question was not asked, however, so this cannot be proven.

Riders

This section of the report analyses only the 175 responses supplied by those who regularly ride the Shuttle Bus. Compared to the distribution of riders across the Shuttle Bus system, the Downtown Trolley (discontinued during the development of the transit study) and the UAH shuttle were the most over-represented in the survey responses, while riders of Route 8, 4, and 6 were the most well-represented. Route 5 riders were particularly over-represented in the survey, likely due to community interest in proposed changes to that route.

Figure 6-17 Online 'Rider' Survey Respondents by Route Used, Compared to Ridership (n=175)

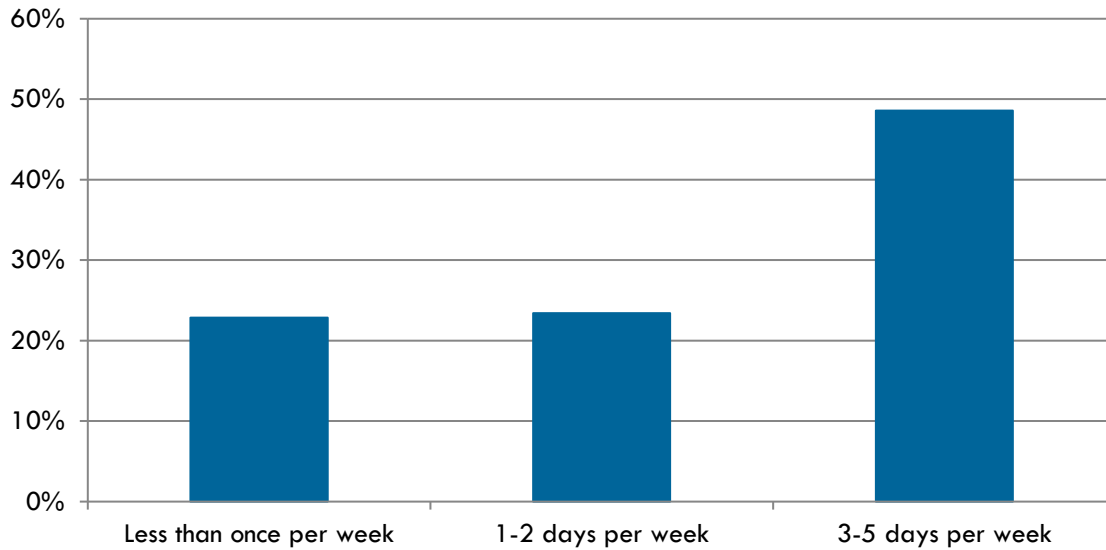


Note: Percent of respondents does not total to 100% because most respondents selected more than one route.

Frequency of Use

Nearly half of all rider respondents use the Shuttle Bus three to five days per week. Nearly a quarter ride the bus less than once per week.

Figure 6-18 Rider Frequency of Use (n=175)



Preferred Network

Survey-takers were shown images of both the proposed and current route networks and asked to choose which they preferred. Among rider respondents, support for the existing vs. proposed network concepts was essentially split 50-50. That being said, most of the riders who prefer the current network are Route 5 riders. Amongst riders who do not ride Route 5, 79% preferred the proposed network.

Figure 6-19 Route 5 Rider Preferred Route Network ($n=54$)

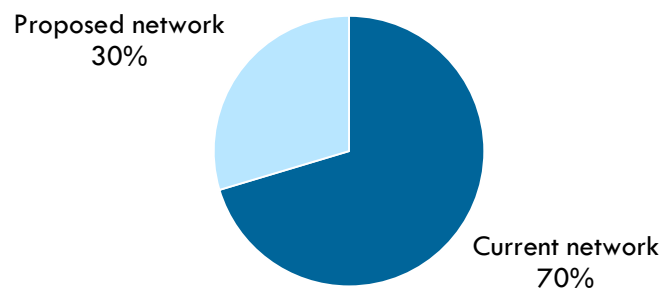
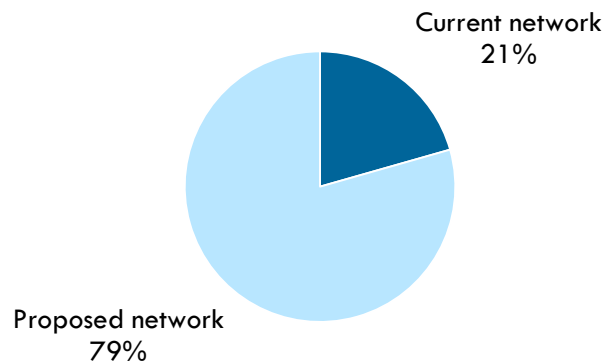


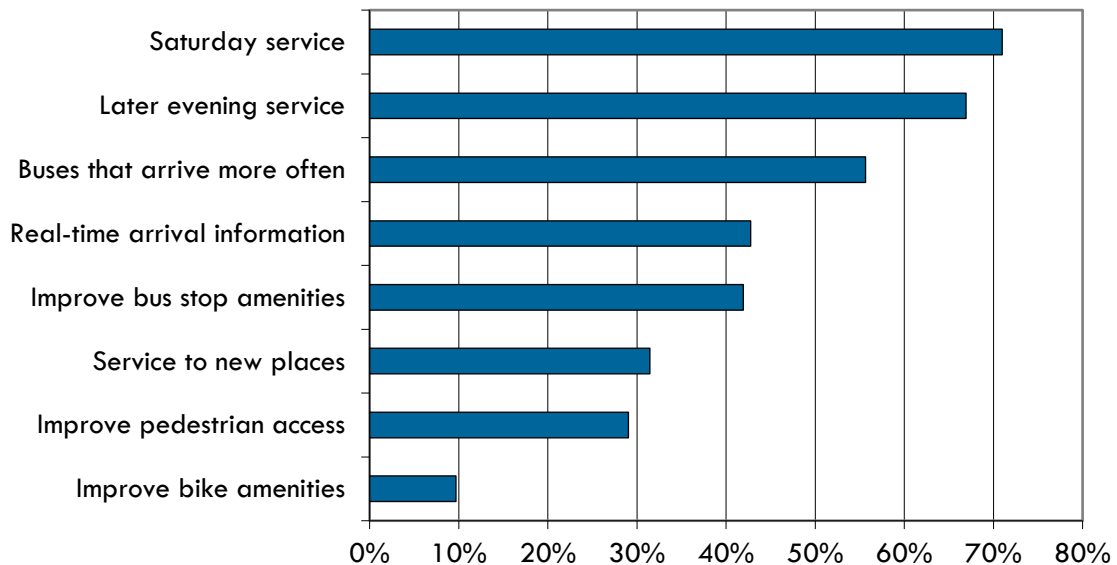
Figure 6-20 Non-Route 5 Rider Preferred Route Network ($n=54$)



Preferred Transit Investments

When asked what transit investments they would like to see, most riders chose Saturday service and later evening service; these results are consistent with the onboard survey findings. Very few rider respondents were interested in improved bike amenities.

Figure 6-21 Rider Desired Transit Investments (n=124)

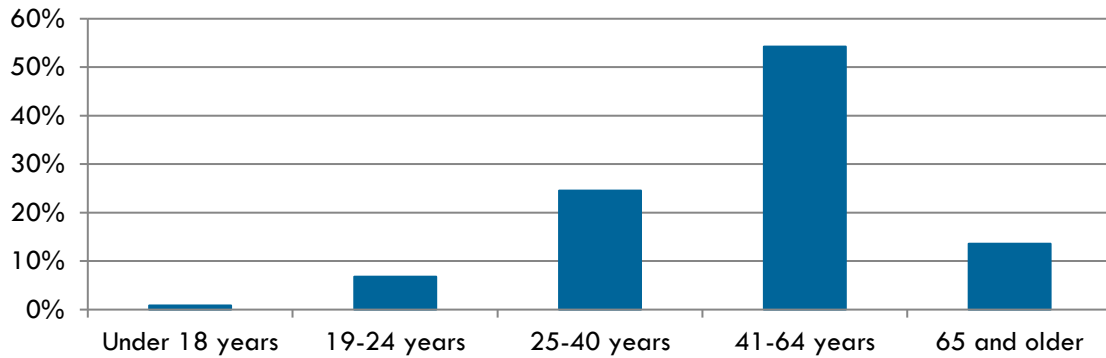


Note: Percent of respondents does not total to 100% because most respondents selected more than one improvement.

Age

Over half of all rider respondents were in the 41-64 age range. Only one respondent was under the age of 18 and 16 respondents (14%) were 65 or older.

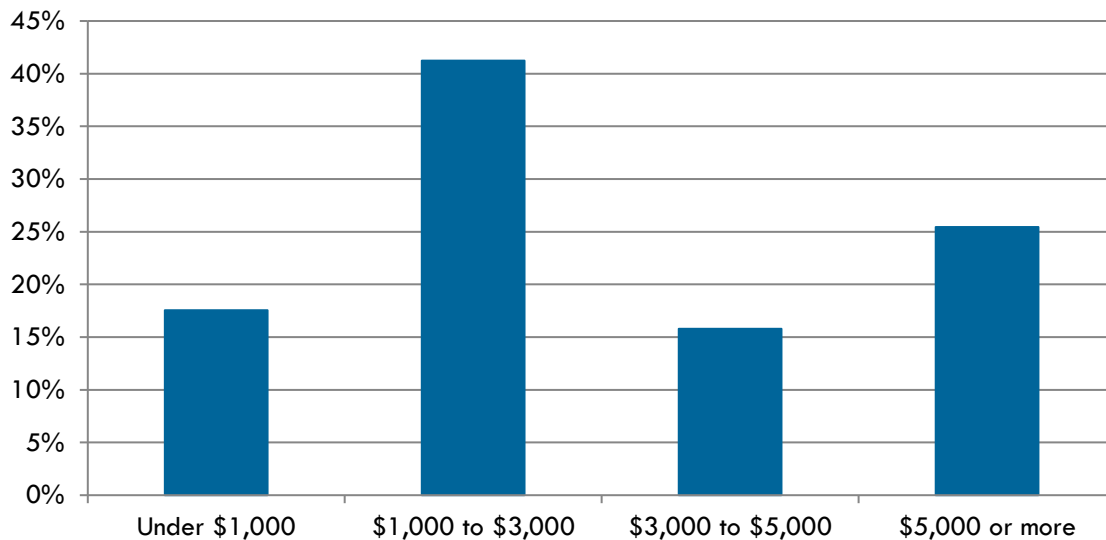
Figure 6-22 Rider Age (n=118)



Household Income

Most rider respondents reported a monthly household income of between \$1,000 and \$3,000. Approximately $\frac{1}{4}$ of rider respondents reported monthly household incomes of more than \$5,000.

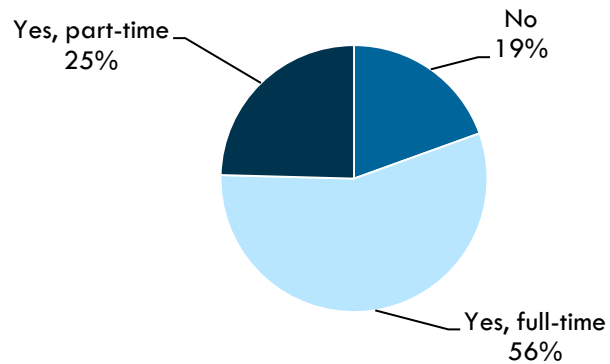
Figure 6-23 Rider Monthly Household Income (n=114)



Employment Status

Survey respondents were also given the opportunity to provide demographic information. Answering these questions was not required to complete the survey. Slightly more than half of rider respondents were employed full-time, and approximately 20% were not employed.

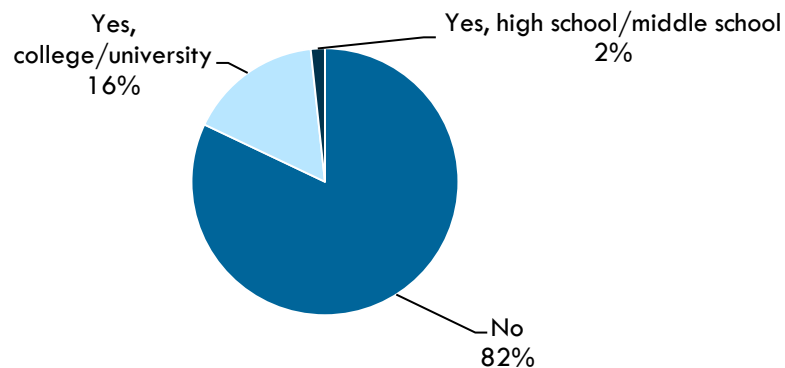
Figure 6-24 Rider Employment Status (n=118)



Student Status

The majority of rider respondents were not students. A total of 18% identified as a student in middle school, high school, college, or university.

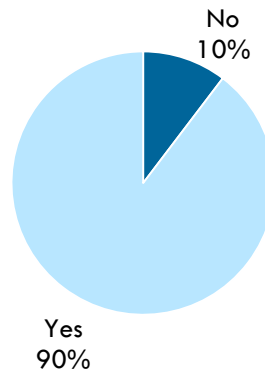
Figure 6-25 Rider Student Status (n=117)



Smartphone Ownership

The vast majority of riders (90%) reported owning smartphones.

Figure 6-26 Rider Smartphone Ownership ($n=116$)

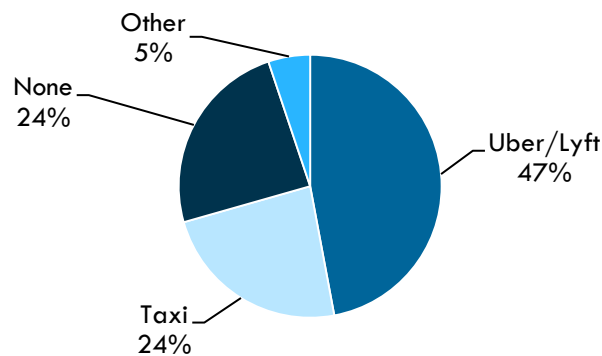


Riders were given the opportunity to provide open-ended comments on Huntsville Shuttle Bus service, all of which are included—verbatim—in the appendix.

E-Hailing or Taxi Use

Nearly 75% of rider respondents reported using e-hailing or taxi services in the past six months.

Figure 6-27 Rider Private Transportation Use ($n=115$)



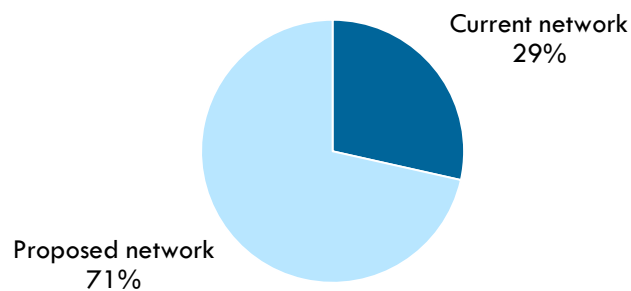
Non-Riders

Although 778 total non-riders responded to the survey, many of them answered only enough questions to identify themselves as non-riders, and answered few other questions (much of the survey was optional). Because of this, the functional sample sizes of most non-rider cross-tabulations shown here are in the 200-400 respondent range.

Preferred Route Network

Most (71%) non-riders preferred the proposed network.

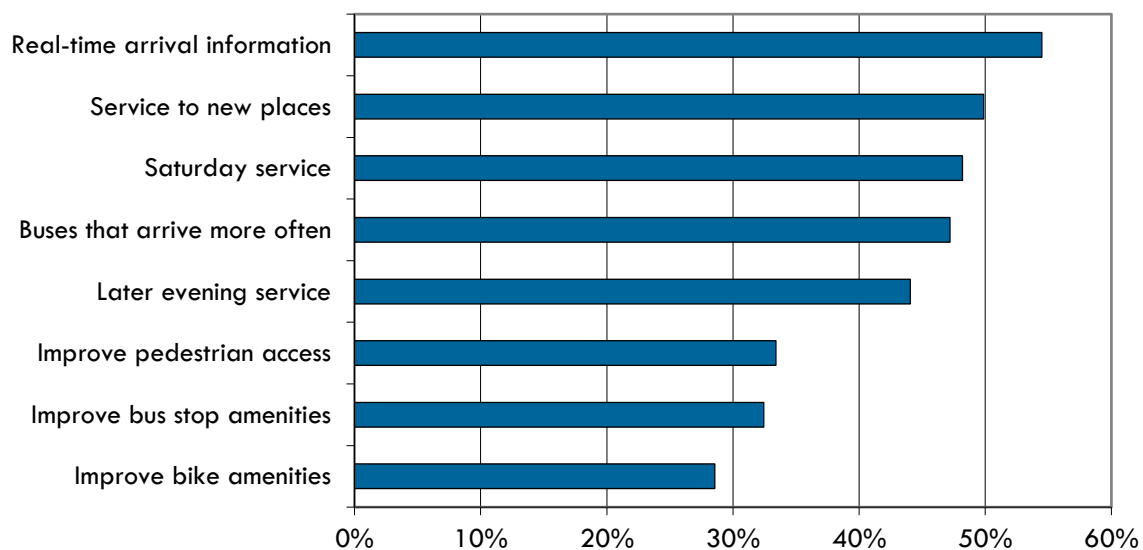
Figure 6-28 Non-Rider Preferred Route Network (n=235)



Preferred Transit Investments

Non-riders' desired transit investments were markedly different from those of riders. Most non-riders want real-time arrival information and service to new places. Like the rider respondents, the least popular investment for non-riders was improving bike amenities.

Figure 6-29 Non-Rider Desired Transit Investment (n=413)

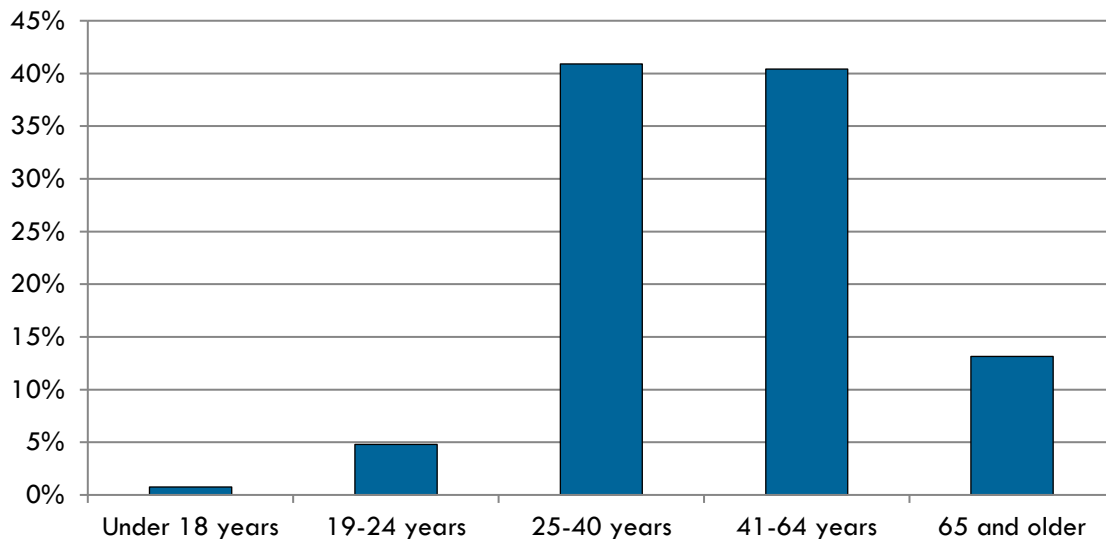


Note: Percent of respondents does not total to 100% because most respondents selected more than one improvement.

Age

Non-rider respondents were more likely to be in the 25-40 age range than rider respondents, although the majority of respondents were middle-aged. Only three non-riders reported being under the age of 18.

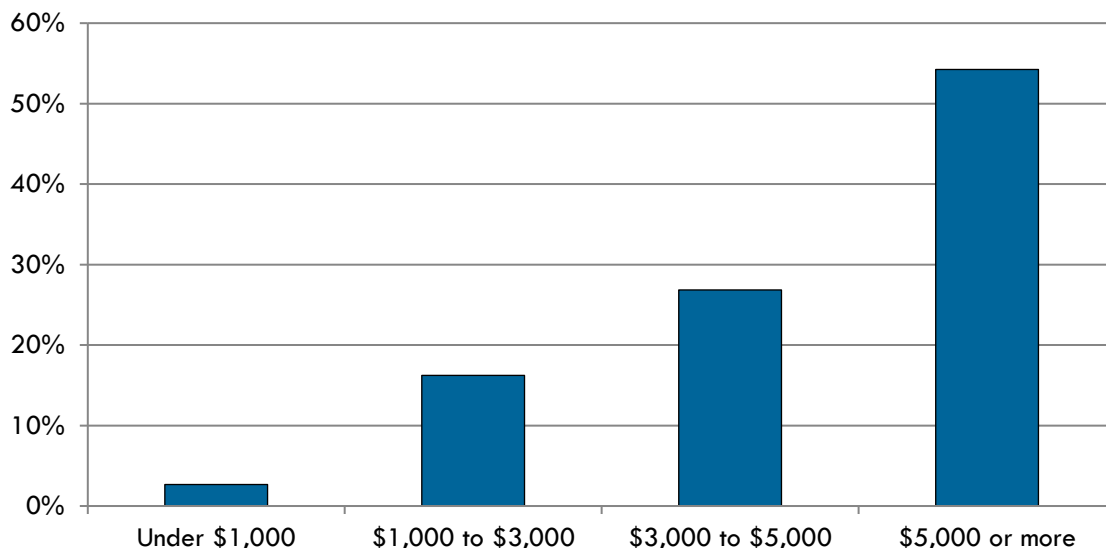
Figure 6-30 Non-Rider Age (n=396)



Household Income

Non-rider respondents reported significantly higher incomes than rider respondents. Over half of all non-riders reported monthly household incomes of over \$5,000, while only 10 non-riders (3%) had monthly household incomes of under \$1,000.

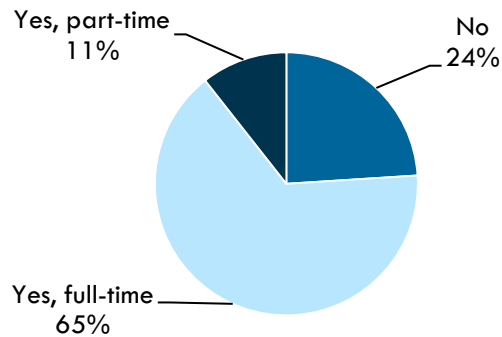
Figure 6-31 Non-Rider Monthly Household Income (n=376)



Employment Status

Most non-rider respondents were employed full-time. Approximately one-quarter of non-rider respondents identified as not employed.

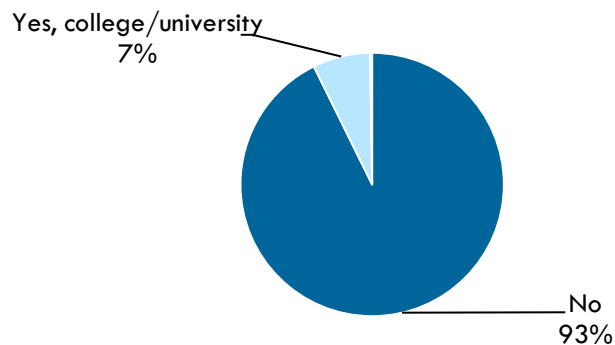
Figure 6-32 Non-Rider Employment Status (n=396)



Student Status

Non-rider respondents were more likely to be non-students than rider respondents. Nearly all (93%) of non-riders did not identify as students, and only one respondent reported themselves as a middle school or high school student.

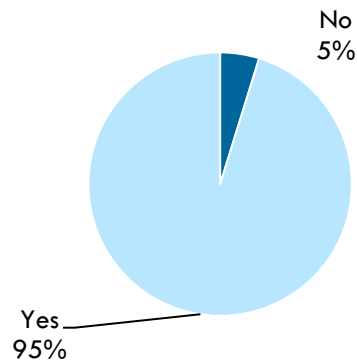
Figure 6-33 Non-Rider Student Status (n=397)



Smartphone Ownership

As was the case with rider respondents, non-rider respondents overwhelmingly owned smartphones. Only 5% did not own a smartphone.

Figure 6-34 Non-Rider Smartphone Ownership ($n=397$)

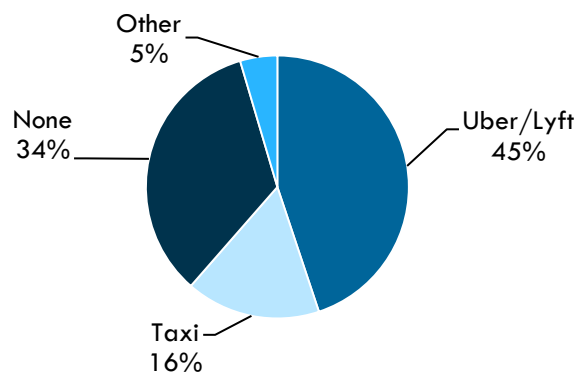


Non-riders were given the opportunity to provide open-ended comments on Huntsville Shuttle Bus service, all of which are included—verbatim—in the appendix.

E-hailing or Taxi Use

Non-rider respondents were less likely than rider-respondents to have used e-hailing and taxi services in the past six months; 61% of non-riders reported having done so.

Figure 6-35 Non-Rider Private Transportation Use ($n=396$)



Community Outreach Key Findings

- Existing riders overwhelmingly prefer Saturday service, later-evening service, and increased frequency over other service and capital investments
- Non-riders desire real-time arrival information and service to new places
- 79% of non-Route 5 riders prefer the proposed network over the current network
- 71% of non-riders prefer the proposed network over the current network

APPENDIX A - ON-BOARD SURVEY INSTRUMENT



Mire el reverso para encuesta en español



Please tell us about the trip you are taking today.

<p>1. Which bus routes did you (or will you) ride to complete your trip? <i>check all that apply</i> ✓</p> <table border="0"><tr><td><input type="checkbox"/> Route 1 Red Coreloop</td><td><input type="checkbox"/> Route 7 A&M/Medaris Rd.</td></tr><tr><td><input type="checkbox"/> Route 2 Blue Coreloop</td><td><input type="checkbox"/> Route 8 Rolling Hills/A&M</td></tr><tr><td><input type="checkbox"/> Route 3 Bridge Street/Holmes Ave.</td><td><input type="checkbox"/> Route 9 NW Huntsville</td></tr><tr><td><input type="checkbox"/> Route 4 University Dr.</td><td><input type="checkbox"/> Downtown Trolley</td></tr><tr><td><input type="checkbox"/> Route 5 South Parkway</td><td><input type="checkbox"/> UAH Shuttle</td></tr><tr><td><input type="checkbox"/> Route 6 Southwest Huntsville</td><td></td></tr></table> <p>2. Did you or will you transfer between buses today?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>3. Where are you traveling to or from? <i>check one or more</i> ✓</p> <table border="0"><tr><td><input type="checkbox"/> Work</td><td><input type="checkbox"/> Shopping/Grocery store</td></tr><tr><td><input type="checkbox"/> School/College</td><td><input type="checkbox"/> Medical/Dental</td></tr><tr><td><input type="checkbox"/> Recreation or social</td><td><input type="checkbox"/> Other _____</td></tr></table> <p>4. Are you making a round trip on the bus today?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>5. How did you pay your fare for this trip? <i>check one</i> ✓</p> <table border="0"><tr><td><input type="checkbox"/> Regular fare (\$1.00)</td><td><input type="checkbox"/> Monthly Pass</td></tr><tr><td><input type="checkbox"/> Senior/Disabled fare (\$0.50)</td><td><input type="checkbox"/> Ticket</td></tr><tr><td><input type="checkbox"/> Student fare (\$0.50)</td><td><input type="checkbox"/> Transfer</td></tr><tr><td><input type="checkbox"/> 20-Ride Ticket</td><td></td></tr></table> <p>6. How often do you normally ride the bus? <i>check one</i> ✓</p> <p><input type="checkbox"/> 3-5 days per week <input type="checkbox"/> Less than once per week</p> <p><input type="checkbox"/> 1-2 days per week</p> <p>7. Listed below are potential improvements to Shuttle service. Please select (✓) the improvement that is most important to you. <i>check one</i> ✓</p> <p><input type="checkbox"/> More frequent bus service</p> <p><input type="checkbox"/> Earlier bus service</p> <p><input type="checkbox"/> Later bus service</p> <p><input type="checkbox"/> Saturday service</p> <p><input type="checkbox"/> Service to new areas (Please tell us where: _____)</p>	<input type="checkbox"/> Route 1 Red Coreloop	<input type="checkbox"/> Route 7 A&M/Medaris Rd.	<input type="checkbox"/> Route 2 Blue Coreloop	<input type="checkbox"/> Route 8 Rolling Hills/A&M	<input type="checkbox"/> Route 3 Bridge Street/Holmes Ave.	<input type="checkbox"/> Route 9 NW Huntsville	<input type="checkbox"/> Route 4 University Dr.	<input type="checkbox"/> Downtown Trolley	<input type="checkbox"/> Route 5 South Parkway	<input type="checkbox"/> UAH Shuttle	<input type="checkbox"/> Route 6 Southwest Huntsville		<input type="checkbox"/> Work	<input type="checkbox"/> Shopping/Grocery store	<input type="checkbox"/> School/College	<input type="checkbox"/> Medical/Dental	<input type="checkbox"/> Recreation or social	<input type="checkbox"/> Other _____	<input type="checkbox"/> Regular fare (\$1.00)	<input type="checkbox"/> Monthly Pass	<input type="checkbox"/> Senior/Disabled fare (\$0.50)	<input type="checkbox"/> Ticket	<input type="checkbox"/> Student fare (\$0.50)	<input type="checkbox"/> Transfer	<input type="checkbox"/> 20-Ride Ticket		<p>8. Are you currently employed? <i>check one</i> ✓</p> <p><input type="checkbox"/> Yes, full-time</p> <p><input type="checkbox"/> Yes, part-time</p> <p><input type="checkbox"/> No</p> <p>9. Are you a student? <i>check one</i> ✓</p> <p><input type="checkbox"/> Yes, high school/middle school</p> <p><input type="checkbox"/> Yes, college/university</p> <p><input type="checkbox"/> No</p> <p>10. What is your age? <i>check one</i> ✓</p> <table border="0"><tr><td><input type="checkbox"/> Under 18 years</td><td><input type="checkbox"/> 41 – 64 years</td></tr><tr><td><input type="checkbox"/> 19 – 24 years</td><td><input type="checkbox"/> 65 and older</td></tr><tr><td><input type="checkbox"/> 25 – 40 years</td><td></td></tr></table> <p>11. What is your monthly household income? <i>(for everyone in your household) check one</i> ✓</p> <table border="0"><tr><td><input type="checkbox"/> Under \$1,000</td></tr><tr><td><input type="checkbox"/> \$1,000-\$2,999</td></tr><tr><td><input type="checkbox"/> \$3,000-\$4,999</td></tr><tr><td><input type="checkbox"/> \$5,000 or more</td></tr></table> <p>12. Do you own a smartphone? <i>check one</i> ✓</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>13. Have you taken any of the following private transportation services in the past six months? <i>check one or more</i> ✓</p> <table border="0"><tr><td><input type="checkbox"/> Uber/Lyft</td><td><input type="checkbox"/> Other (_____)</td></tr><tr><td><input type="checkbox"/> Taxi</td><td><input type="checkbox"/> None</td></tr></table> <p>14. Are there any other comments you would like to share regarding Huntsville Transit?</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> Under 18 years	<input type="checkbox"/> 41 – 64 years	<input type="checkbox"/> 19 – 24 years	<input type="checkbox"/> 65 and older	<input type="checkbox"/> 25 – 40 years		<input type="checkbox"/> Under \$1,000	<input type="checkbox"/> \$1,000-\$2,999	<input type="checkbox"/> \$3,000-\$4,999	<input type="checkbox"/> \$5,000 or more	<input type="checkbox"/> Uber/Lyft	<input type="checkbox"/> Other (_____)	<input type="checkbox"/> Taxi	<input type="checkbox"/> None
<input type="checkbox"/> Route 1 Red Coreloop	<input type="checkbox"/> Route 7 A&M/Medaris Rd.																																								
<input type="checkbox"/> Route 2 Blue Coreloop	<input type="checkbox"/> Route 8 Rolling Hills/A&M																																								
<input type="checkbox"/> Route 3 Bridge Street/Holmes Ave.	<input type="checkbox"/> Route 9 NW Huntsville																																								
<input type="checkbox"/> Route 4 University Dr.	<input type="checkbox"/> Downtown Trolley																																								
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<input type="checkbox"/> \$3,000-\$4,999																																									
<input type="checkbox"/> \$5,000 or more																																									
<input type="checkbox"/> Uber/Lyft	<input type="checkbox"/> Other (_____)																																								
<input type="checkbox"/> Taxi	<input type="checkbox"/> None																																								

Thank you for participating!

HUNTSVILLE TRANSIT STUDY | FINAL REPORT
City of Huntsville



HUNTSVILLE SHUTTLE ENCUESTA DE PASAJEROS

See other side for survey in English



Por favor cuéntenos sobre el viaje que está tomando hoy.

1. ¿Cuáles rutas de autobús tomo hoy o va a tomar para su viaje? (Elija todas las que apliquen) ✓

- | | |
|---|---|
| <input type="checkbox"/> Ruta 1 Red Coreloop | <input type="checkbox"/> Ruta 7 A&M/Medaris Rd. |
| <input type="checkbox"/> Ruta 2 Blue Coreloop | <input type="checkbox"/> Ruta 8 Rolling Hills/A&M |
| <input type="checkbox"/> Ruta 3 Bridge Street/Holmes Ave. | <input type="checkbox"/> Ruta 9 NW Huntsville |
| <input type="checkbox"/> Ruta 4 University Dr. | <input type="checkbox"/> Downtown Trolley |
| <input type="checkbox"/> Ruta 5 South Parkway | <input type="checkbox"/> UAH Shuttle |
| <input type="checkbox"/> Ruta 6 Southwest Huntsville | |

2. ¿Transbordó o transbordará de otro autobús para cumplir este viaje?

- ☐ Sí ☐ No

3. ¿De dónde viene o a dónde va en este viaje? (Elija uno)

- | | |
|--|---|
| <input type="checkbox"/> Trabajo | <input type="checkbox"/> Compras/tienda |
| <input type="checkbox"/> Universidad o escuela | <input type="checkbox"/> Cita médica |
| <input type="checkbox"/> Recreación o social | <input type="checkbox"/> Otro _____ |

4. ¿Tomo Ud. un viaje de ida y vuelta por autobús hoy?

- ☐ Sí ☐ No

5. ¿Cómo pago la tarifa para este viaje? (Elija uno)

- | | |
|--|--|
| <input type="checkbox"/> Tarifa regular (\$1.00) | <input type="checkbox"/> Pase mensual |
| <input type="checkbox"/> Tarifa para mayores/descapitados (\$0.50) | <input type="checkbox"/> Boleto individual |
| <input type="checkbox"/> Tarifa de Estudiante (\$0.50) | <input type="checkbox"/> Transbordo |
| <input type="checkbox"/> Boleto de 20-viajes | |

6. ¿Con qué frecuencia viaja en autobús? (Elija uno)

- ☐ 3-5 días por semana
- ☐ 1-2 días por semana
- ☐ Menos de una vez por semana

7. Por favor considere las mejoras potenciales al servicio de Huntsville Transit y elija la más importante para Ud. (Elija uno)

- ☐ Servicio más frecuente
- ☐ Servicio más temprano por la mañana
- ☐ Servicio más tarde por la noche
- ☐ Servicio los sábados
- ☐ Servicio a nuevas áreas (¿Dónde: _____)

8. ¿Cuál es su condición de empleo? (Elija uno)

- ☐ Empleado a tiempo completo
- ☐ Empleado a tiempo parcial
- ☐ No

9. ¿Es usted estudiante? (Elija uno)

- ☐ Sí, escuela secundaria/intermedia
- ☐ Sí, universidad
- ☐ No

10. ¿Cuál es su edad? (Elija uno)

- | | |
|--|--|
| <input type="checkbox"/> 18 años o menos | <input type="checkbox"/> 41 – 64 |
| <input type="checkbox"/> 19 – 24 | <input type="checkbox"/> 65 años o mayor |
| <input type="checkbox"/> 25 – 40 | |

11. ¿Cuál es su ingreso familiar mensual? (para todos que viven en su hogar) (Elija uno)

- ☐ Menos de \$1,000
- ☐ \$1,000-\$2,999
- ☐ \$3,000-\$4,999
- ☐ \$5,000 o más

12. ¿Tiene usted un Smartphone (telefono inteligente)?

- ☐ Sí ☐ No

13. ¿Cuáles servicios de transporte privado ha usado en los últimos 6 meses? (Elija todas las que apliquen)

- | | |
|------------------------------------|---------------------------------------|
| <input type="checkbox"/> Uber/Lyft | <input type="checkbox"/> Otro (_____) |
| <input type="checkbox"/> Taxi | <input type="checkbox"/> Ninguno |

14. ¿Tiene usted comentarios adicionales?

¡Gracias por su participación!

APPENDIX B - ON-BOARD SURVEY OPEN-ENDED COMMENTS

Survey respondents were also given the option to write an open-ended comment with a suggestion, complaint, or other thought regarding Huntsville Shuttle Bus service. All 129 of the collected comments are shown here.

Figure 0-1 Open-Ended Comments (n=129)

Comments
10 PM Nightly
A. Good drivers, B. access to industrial parks, C. schedules to plan start to end beyond 6 AM. 6 PM D. Homeless And drm + Sally no access to Carber Center
Available on weekends
Bus driver is very rude!
Bus needs to run later as well
Bus rides are good, but could be better if they were frequent and some on Saturday
Buses run on the weekend
Charging ports
Dawson school Chapman School Madion
Disable, and really need Saturday services, go back to when it used to take us to where we needed to go to or be dropped off
Don't like riding on #1. Drivers unsafe and don't care about customers, Mean!
Don't stop the service
Earlier
Earlier, later plus Sunday
Enjoy services
Extend the routes
God bus service and always on time
Good safe drivers doing a good job already
Good service
Great bus service clean and cool
Great service
Great service and drivers are outstanding
Have later bus service, M-F until 9 and Saturday at least 7 or 8-5. Also more accesible ways to obtain monthly or weekly passes, such as gas stations or banks
Having electrical outlet plugs to charge phones, maybe WiFi
I like having public transportation
I like to use the bus

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I love the service, very nice and kind drivers
I love the shuttle bus, it is helpful for me to work
I love the shuttle bus, it is affordable and friendly drivers
I think the shuttle system covers tremendous areas of Huntsville/Madison City. It is very much needed
I would like for the bus to run more frequently (me gustaría que el camión trabajara los horarios mas seguidos)
I would like to see Saturday service and more routes
Keep up the good work!
Large service and drivers need to kneel buses down for dsable and elder people
Late & weekends
Late hours & weekends
Later
Later
Later hours
Later runs
Later runs, more frequent
Later service would make a huge difference, [personally-identifiable information redacted]
Later services
Less riding time
Make some runs on Saturday
Mobile App
Moore's Mills Rd.
More bus runs on the weekend
More buses to run at shopping stores
More frequent
More frequent and later runs
More frequent bus service
More room for the walker on the buses
More routes
Most drivers are nice
More bus stops
Need a bench at All Nation's Church
Need more covered bus stops including Wholefoods and across from Wholefoods to include the old Parkway lanes (Arby's Beaugards)
Need Sunday Service
Need to cover more of Huntsville

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Need to cover more of Huntsville and Madisons County
Need to put up signs near the Whiteburger Church, not safe without a sign
New areas, Saturday service
No, just want to say thanks for the ride Satsha
On board charging ports would be very nice
Open up for the weekend. Bus routes always running on time
Other improvements, to have longer run times and to run on weekends so people can work weekends
Please extend your schecule to weekend and nights
Please have the buses run on both weekend days
Please lower the bus down for seniors
Public transportaion is a wonderful thing and we all love it. Thanks so much
Retired
Run 7 day week service
Run every 30 minutes
Run later afternoon, run weekends
Saturday
Saturday and late runs
Saturday runs
Saturday service and evening service would be great!
Saturday service and later service would be a greeat addition the Hunstville shuttle
Schedule runs too early and too late. Passengers use more seats and causes lateness
Service for weekends
Shorter routes and more buses
Start rides on the weekend or later on the weekdays
Sunday and later runs
Sundays
Target Distribution Center
Thanks for your service
The bus needs to run on the weekend
The lady was very nice
The service is good, but I feel that there should be weekend routes. Thank you!
This is the best transit team I have ever met in my life. Thank you all for your servie, [personally-identifiable information redacted], Sgt. US Army
This service has come a long way, I've riding from the start off and on
Timing is always good

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Toyota plant
Very good bus service
Very good drivers
Wants weekends
We have to work or pay bills everyday, we need to be able to get there. Thank you. We work everyday
We need bus services during the weekend
We need extended service, Thank you
Weekend, Saturday service please
Weekend
Weekend bus rides
Weekend route
Weekend route
Weekend routes. The drivers are great
Weekend service
Weekend service and 5-9 routes
Weekend service will increase ridership and economy
Weekend service would be helpful to go to work
Weekends
Weekends would be nice, I have no car
When Saturday bus services and late night, more routes
Will be good if they would run on the weekend
Will there be weekend transportation in the future?
Wish you would run later and earlier in the day
Would like services 7 days a week and bus service to Madison
Would like shorter rides to the South side and Trumeter at public on Airport
Would love Saturday
Yes, I've got a dog that is in service
You are all good drivers
You are doing a good job

APPENDIX C - ONLINE SURVEY OPEN-ENDED COMMENTS

Rider Open-Ended Comments

Rider Comments
A Trolley system following the Parkway from A&M to Ditto's Landing and 565 from GreenBrier to Hampton Cove would help our city attract more companies and people.
Alternate fuel buses
Be own time
Can not stress enough for the 3 choices I clicked on.
Do not abandon South Huntsville routes. Many people need this route to get to work and to necessity services.
Elderly people that can longer operate a vehicle have an extremely difficult time getting to necessary destinations in this town
Evening routes Weekend routes
Excited about what may happen and hoping for weekend service along with longer hours per day of travel.
Having a high speed rail from Madison on 72 going directly to downtown Huntsville bus transit center would cut the traffic on 72 and improve the access for those communiting. You could then cut the 72 line with shuttles that go between the metro and other lines with smaller shuttles with more frequent arrivals.
Huntsville Shuttle SUCKS
I am very disappointed with the proposed route changes. Unless this survey is taken, I doubt 90% if SE Huntsville residents even know about it. One day the bus service would just go away with no recourse to those using the service other than extremely expensive (and inheritantly unsafe) private services. Shame on you!
I like to buses and I do not want it to stop on route 5
I prefer the transit system over any other system as i feel safer
I would like it to contenenun to route for South Huntsville because I do not have a car to take me places
I would like it to continue it to go on south parkway this is the only transportation that I have to get around
I would like to see an added route to Stringfield Road. I am a radio deejay at a radio station at 7226 Stringfield Road, it's near the Jordan Lane side of Stringfield. Or, I would like to see the Huntsville Shuttle 15 passenger van be used for "Special Trips" maybe call it an E-Ride, Emergency Ride, charge a fee similarl to Handi Ride.
I would like to see service extended to 7 days per week as it is my transportation to and from work.
I would really like being after to have late evening pickup
Improve bus routes or shuttles to major places of employment in Huntsville. I believe this would help the economy and environment. Less cars on the roads, and better access to employment for the car-less population.
It is a joke! It's basically a last resort. This city will run into problems if it keep expanding without regard to transit!
It is a low scale Public Transportation system and yet sidewalks are not where it is needed to encourage walking, biking and other modes of transportation.
Its a great service
Make purchasing the monthly passes easier, and reloadable, possibly via web. Make them go for 30 days from purchase.
Metro to the airport!

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More frequently arrive
More options needed downtown
More routes exclusively for University in 72. And a route just for the parkway.
Need Bus To Pick Up Ever 10 mins Busy Routes And Other Routes Pick Up 20 min or 30mins
Need to feel safe on the Bus!
offer high quality public transportation system this is very important for the economy of the city, include weekends yes, even Sundays , weekend is the time when people have fun they go out, and yes the service should be until 9 pm at least those close to universities
On the previous page I had chose "improve amenities at bus stops" because I feel we need covered stops at all stops. There have been too many days I've had to stand in rain where there wasn't a covered stop.
Please do not eliminate the south Huntsville route
please extend the service hours and route area to farther out in the Huntsville area, farther down hwy 72 west towards Madison,
Please increase the number of buses, points of pickup/drop-off, and availability of reliable transportation for our residents. We are a growing city and most of us would love to reduce our carbon footprint...but in ways fair to all of us.
Please make sure bikes can be loaded onto buses. Anything requiring a smartphone is useless. Thank you.
Please make transport a priority.
Rail system from Hampton cove or downtown to airport. With stops along the way for attractions.
Safety drivers, Not driving fast, not paying attention to speed bumps and ect.
Senior citizens and low income individuals need transportation and it needs to be easier and more assessible.
Thank you for asking for input before rooll-out.
Thank you for finally getting around to this.
The curbs and lack of sides are dangerous for wheelchair riders trying to get to bus stop locations...extremely dangerous. I've witnessed this myself.
The service needs to expand.
Utilize the train tracks from the River to Downtown for public transportation
We need public transportation make it better not less
WiFi on the bus?
Would love to have this implemented as soon as possible.
Would love to see some evening or weekend Transportation options yes. We are stranded on the weekends because there is no weekend transportation service and we cannot always afford to take Uber or Lyft

Non-Rider Open-Ended Comments

Non-Rider Comments
* Perhaps we could have a reloadable bus pass card (can be reloaded online or in person) like they have in other big cities -- we could even have a contest to design and name the card that will be used). With an easily reloadable card, we could go online and reload them for family members who may not have their own money to do so. Also, with a card, might try to find a way to have a machine that could be set up in a place like Calhoun Community College (located along the most popular route and full of students who sometimes walk to Bridge Street). I'm definitely not suggesting to totally get rid of the ability to pay with cash, though. * Could have Shuttle bus perks -- sometimes have redeemable coupons or offers from local businesses offered to people who ride the bus. * As suggested, being able to track where the bus is in real-time (either on a computer or on our phones) would help with those riders who currently have to stand in our hot, humid weather, or in rain, or in the extreme cold (like we have in January). * As changes come, have week where a surprise giveaway happens for lucky riders on the Shuttle bus. Kind of to leave the impression that you never know the good things that could happen for you on our Shuttle.
A custom late night option should be available to take people home from bars for a low cost to reduce the amount of DWIs
A growing City and County need you. Don't stop!
A light rail/train system to compliment the bus system would be fantastic. East/West line from Madison through MidCity and the new baseball stadium and North/South to South Huntsville.
A train system can go a long way in a city like Huntsville which is very spread out.
After using Seattle and San Francisco bay area transit, I am very discouraged.
Airport! Airport! Airport!
All the things are desperately need from the pick top three question. The bus service is so inefficient it is not very useful. I feel sorry fir thise without a car in this city. More bike mire crosswalks and sidewalks needed.
Better service to those in need
Bike commuting is growing. I love what the city is doing to encourage this but please look into speeding up the planned projects such as dedicated bike lanes and greenways. I currently commute on bike and think it could work well in tandem with shuttle improvements.
BUILD LIGHT RAIL. MAKE THE DECISION TO BE A REAL CITY.
Bus Rapid Transit corridors would connect neighborhood circulators much more efficiently and make those circulator routes much tighter and more useful themselves. Nobody needs three and four different routes converging on the same few stops downtown. Getting up and down the major axes of travel through the city in a reasonable amount of time, though... that would actually be useful. Or just shut the whole system down except downtown and start over on rail for the suburbs, whatever it takes to make a system that works BETTER than single-passenger cars instead of just inflicting pain on the desperate.
Bus stops need covered areas and maps of routes inside. Police can stop by and visit, regularly to keep vagrants from congregating. Maybe have help like 211 resources posted too. Not a junky look, but fresh, modern and relevant. Not ads.
Bus stops should have Park and Ride areas also.
City officials keep talking about how much we are growing, and how we'll be the biggest city in Alabama, so isn't it time for our public transit to reflect that? Oh and build some light rails!
Cutting out South Huntsville just guarantees that no one down here will ride public transit. Expanding public transit in South Huntsville (including better hours, more reliable/frequent routes, etc.) is a much better direction than cutting it completely.
Dedicated bike and bus lanes de-escalate traffic conflicts and drive more utilization. There are corridor opportunities for bus or bike commuters; likely to require significant incentives to start. Could also enlist non-profit assistance to build out Uber/Lyft-like program for working poor in need of transportation. Better yet, provide Lyft debit cards for validated needs and help people get where they need to go when they need to get there.

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don't bite off more than u can chew! the more land annexed, the more building permits granted, the more area that needs to be serviced. forethought...!!
Get a subway/train system
Get Light Rail or Mag Lev in our area. Work with Existing Track infrastructure and have north south tracts at Stations along the way. Downtown HSV, Redstone Arsenal/ Research Park, Madison, Airport, Green Briar and west to Decatur. Have a transfer point at each stop noted above where you would take a light rail or train to your next stop North and South of the location. For Example I could catch the Rail Line Downtown East or west then get off at a stop along the way. IF it was feasible have a Express Rail line for the Airport and Arsenal Only from Decatur area to Huntsville East maybe event up to Scottsboro. I would work with the local rail companies about adding and widening local Track Routes to Accommodate high Speed Rail, Light Rail here in North Alabama. I could get on Downtown at the climate controlled terminal for my train, shuttle bus and greyhound all under one roof or area. Then head East or West to shop, work, catch a flight etc. Their would be a light Rail Terminal north of the airport to easily transfer to a rapid light rail to the airport terminal to catch your flight and or a shuttle bus, uber etc. as options. Maybe even have a parking area for carpooling, all under one roof. Something to think about.
Grow It!😊
Have we considered a backbone of light rail with bus feeder routes?
Hours of operation are absolutely critical. Right now they are atrocious. People who don't work a perfect 9-5 basically have no options, and heaven forbid you want to get a drink and take the bus home... We definitely need extended hours, weekend hours, and an app.
how much did the survey cost
Huntsville has many events downtown on the weekend. I would absolutely take the bus to get there from South Huntsville if I could. Currently no service on Saturday, and you are planning to eliminate a large part so I will never use it!
Huntsville needs reliable public transportation, it always has. Obviously there needs to be a larger dollar investment than has currently been placed in public transport because what has been done thus far seems half-hearted. High profile buses should travel to large employment centers like RSA to combat the large amounts of traffic we're now seeing. Buses need to be visible and perceived as reliable and there need to be more points that are visible as well. There should be bus stands that are clearly marked with bus schedules affixed to them.
Huntsville should do a light rail transportation study. Just a study to start, but the possibilities are huge. To start It could be a straight shot from the airport to downtown. Similar to what Atlanta or St. Louis have. Or it could go through research park, and UAH with stops around Redstone stop, and Madison stop if they want to be involved. This type of transport would make the area appealing to those form cities with light rail already in existence, and would continue to set the city apart from a normal Alabama city as well as a normal southern city.
huntsville transit is lacking transportation on weekends and not all routes are very accessible to everyone. many people work on weekends and have no way of getting to work. others have to go to dialysis on Saturdays and are having a hard time getting there
Huntsville Transit is mostly useless. I've looked at routes to get to the other side of town. I understand that it should take longer, but I've generally seen that a 20 minutes car drive turns into an over 2 hour bus ride. This is unacceptable.
Huntsville, Madison & Madison County seriously need to consider a regional transit model NOW while the metro area is starting to grow so that the infrastructure is in place to handle future growth early at a much lower cost. (See Atlanta) Having service from major residential areas to big employers areas like the Arsenal, Research Park, Toyota, LG and other manufacturing plants, plus the airport will cut down substantially on traffic, tame unplanned sprawl, reduce the future costs to maintain and expand roadways and encourage a healthier walking/biking population. Note that the most attractive metros nation and worldwide have excellent transit systems. Think about the future NOW!
I am at an age where driving will soon not be an option for me and it is very degrading to have to ask someone to drive me places.
I am the only driver in my household and it would be much easier on me if my husband and son were able to use public transportation to get to their jobs or school events.

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I do not personally use Huntsville Transit, but I work with the populations that do, and the services can greatly affect them and their ability to take care of personal business like going to doctor's appointments.
I don't use it often, but like to know that it is an option. Eliminating a big chunk of S. Huntsville is not a viable option.
I feel this is a great amenity to this great city we live in.
I google "Huntsville Transit Map" and I don't get what was just shown. Searching "Huntsville bus map" doesn't work either. Not even the current route popped up. Please make your bus routes more searchable. I finally found https://maps.huntsvilleal.gov/PublicTransit/ but the map is too big and compressed and grainy. This is a major reason why I feel people don't feel comfortable riding the bus. They can't figure out where it is going and thus the group of people who do know where it is going end up becoming an exclusive club of sorts. A search of "Amsterdam Bus Map" leads to a page which allows one to download a .pdf of the whole route map in Amsterdam. https://en.gvb.nl/reizen/plattegronden While Amsterdam is a much larger city with much more public transportation infrastructure, that's no reason to not use it as a baseline. After writing this up, I can confidently say that I know more about Amsterdam's bus routes and schedules than I do about Huntsville's.
I grew up in Nashville and the bus service there is great. It saved me a lot of dough in parking fees by being able to take the bus from my home. My son even rode the Nashville bus to the airport and was there on time. I wish our service was as good or better than Nashville's.
I have zero idea how much it costs and bus route times
I know it's probably really hard and complicated to change the system or do any kind of planning so I would like to say thank you for taking the time to try to improve on the system but please listen to the people who live here. There are a lot of us like myself who don't have a car, usually because we can't afford it. The current bus situation makes it very hard for me to get where I need to go. Many of us work at night or on the weekends. So it would be nice to be able to use the bus for those nights that I can't find a ride home. Or those weekends that I need to work. having reliable transportation is very important.
I like knowing that the SERVICE is there if I need it!
I like the idea of taking something like a monorail or the metro like what Washington DC has to get to work. I think the city should invest in stations and then metro routes around the city. Keep buses for downtown but to get to hospital, uah, and red stone put in a metro type of route. If there was a metro stop near hampton Cove it would cut down on four mile post and governors traffic
I love that you are being active to make it better!
I love the idea of public transit but have only done so in bigger cities. Traffic and parking is what forces most people to change from a personal car to public transit.
I loved using public transportation when I lived in bigger cities... it would be awesome for us to have better public transportation here!!
I never see anybody riding the bus. Wouldn't it be cheaper to just give those who might use it a taxi cab voucher?
I really wish I didn't have to use my car here, I've given up on public transit.
I see old and young hard working people waiting on buses. Pregnant women after work waiting in the rain on BaileyCove and elsewhere there are no covers or benches for these people. Our city SHOULD provide covers and benches for those people who depend on buses for a way to work. Our city provides venues for art, entertainment etc. yet has little no consideration for the working poor..
I suggest buses run from 5 am till 11pm seven days a week and connections in Decatur, Athens, Florence and come in Providence.
I think it would be helpful to promote it to people of a higher income/education level
I think public transport is a key part to developing throughout the city and provides key access for many residents in less desirable locations.

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I travel frequently to Europe, and constantly compare their mass transit systems to ours.....I think there are alot of things we can do to improve Huntsville's mass transit, which would benefit everyone.
I use Transit phone app in other cities. It's one of the best apps I have. Suggest hook up with that... Any chance we can put light rail on the L&N line? Already lots of high-density housing along the run, a big park at one end, near the library, hospital, VBC complex at the other, near Redstone (maybe a spur?) and other employers.
I was raised in a city using public transportation and a bicycle. I expect to need buses and taxis as I get older and may not be able to drive at night.
I would abolish it. You'd spend the money better if you just gave out taxi vouchers.
I would like to see a public transportation (i.e. train) between Huntsville Airport and Birmingham Airport, just like in Europe. There is so much business going on between the two cities, but unfortunately the daily drive makes it really hard for even bigger economical growth between the two cities and the State of Alabama. Better yet, a train going from Huntsville to Decatur to Birmingham to Montgomery to Mobile, with two shorter segments connecting Tuscaloosa to Birmingham and Auburn to Montgomery will exponentially increase the State's economics and would make it easier for Alabama to become a true futuristic state.
I would love to see Huntsville Transit grow to accommodate more buses and more routes...making transit more efficient travel. Right now it's hard to justify transit travel with a car--because I don't have the time to ride the bus route.
I would prefer to take public transportation vs. driving. I wish HSV would study other cities with a transit system and put something beneficial in place. Public transportation isn't (and shouldn't) be just for those who cannot afford to drive.
I'm sorry, but for those who don't live "downtown", it's a joke. It does not exist. The market around Redstone is ignored. Space and Rocket Center? Botanical Gardens? Work? Schools? Ignored.
If bus service were more frequent I would use it more instead of a car. Also, if there were a bus to the airport, that would be useful
If routes were more frequent and later in the evening, it might be more utilized for working individuals.
If there were advertisement regarding replacing uber/lyft. We used public transportation after an evening out at the bars, it was great. Maybe this could be a plus for lots of folks not to drink and drive.....
I'm from a big city and Huntsville needs expand to other communities,you have people that work all over and different hours and this is their only way of getting around.The same for Saturdays and Sundays.
Improve access to Hampton Cove, research park, and the Arsenal.
Improve bicycle infrastructure please.
Improving bus stop amenities is also very important. Several stops are not even covered and people just stand outside or sit on the curb. Room for bicycle storage on the bus is also very helpful. No one will every complain about buses running too often. Security is always a concern for later evening bus services. How do we improve security? I never see much information regarding public transit here. Make that information for readily available and advertise it. Many stops aren't even well marked.
Invest in this system. For as many people who live in the HSV metro area that are familiar with transit (having moved here from DC or Cali for work on the base) it is embarrassing that we don't have a better system. The current system seems to be focused only on 'captive riders' - which is a very important service to offer; but it completely ignores choice riders. This plan is good, but doesn't go far enough. We should be providing metro area express routes, with park and rides; Saturday service; Sunday service; evening service. Find the money - it's out there. Buy more buses - one hour headways are a joke; and 30 minute headways on just a few routes are not any better. The HSV Shuttle System seems to have a bad reputation due to their leadership's unwillingness to expand or invest meaningfully in the system. New leadership is needed and the system needs to be more incorporated into the Big Picture HSV marketing. Market the system redesign to everyone not just current users. Make your leadership actually use the system they have designed.
It would be nice if Handi-Ride operated on the weekends.

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It would be nice if public transportation connected high-traffic areas, such as Downtown, Campus 805, and Bridgestreet. Also, it would be nice to have public transportation from these venues to the baseball stadium for games. When the VBC is done with construction, it would be nice if it could have public transportation to/from these areas as well.
It would be nice to have a park and ride lot in the Hampton cove area to aid in van pools that people may set up while construction is taking place on Cecil Ashburn. Additionally, it would be nice if Huntsville had the moterized bicycles that Uber has and moterized scooters that are part of ride share companies.
It's not great!
Just doesn't seem to be a viable weekend use.
Just make it exist.
keep the transit moving and often and it might promote easier travel
Keep Uber in Huntsville. Need modern city tram system/mass transit including Hampton Cove to Arsenal
Keep up the good work
Let's just make sure Road congestion does not stunt city growth and economic prosperity.
Light rail along a couple key major arterial routes would be good. I know someone discussed such a system from Ditto Landing to downtown or along Holmes Ave from Research Park to Downtown. That along with bikeshare could cut down on traffic in town. Also, and I know really not practicable, but boaring a tunnel through the mountain and having rail service from Hampton Cove to Downtown/ Medical District would cut down on traffic over the mountain.
Light Rail service please
Linking the bus to active transportation opportunities would be great. It would help with my health and carbon footprint.
Lots of loop routes cause longer riding routes, availability and length of ride are key to higher ridership
Lower-income people are dependent on bus service. Many of them work odd hours and multiple jobs. Extending hours of service would help people get to work.
Make Huntsville more cycling friendly and the people will come... if you build it they will come!)
Make it happen!
Mass transit from Hampton Cove into downtown
More bike roads and connect the greenways
More coverage in South East Huntsville. Past MARTIN Rd covering Fleming Hills Wearherly Rd. area. Bus would take you and pick you up hourly from this area to downtown Huntsville. The transit system has never cared for SE Huntsville. This goes back to 1965.
More frequent buses would help. Also use of smart technologies to know when buses are coming will reduce the amount of time people use waiting.
More frequent turnaround. Security on the buses. Later time. Even real time arrival at stops. Go in more busy neighborhoods
More is always better. More routes. More stops. More options. What about a route that just does the parkway that other routes meet up with?
More services in south Huntsville
Need better bus stop waiting facilities - roofs, benches, even charging stations! I would pay more taxes for it.
Need more options
No, just keep up the good work guys and the ones who retired, we still love you, just keep up the work and keep the public happy and the public will make it happen for you

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Park and rides and service in SE Huntsville
Partner with local high tech companies to make something really unique and special that will make people want to ride.
Please add a route to and from Madison
Please bring public transit to the Cove!
Please extend service to Hampton Cove area or at least Monte Sano.
Please invest in public transit in Huntsville in a way that Huntsville can truly be able to be a world class city.
Please see my suggestions.
Please think of visitors without rental cars as well. They need Saturday *and* Sunday shuttle services, as well as weekends.
Question #6 is BASED on a FALLACY -- that I would "improve" transit in 3 of the offered ways. I would ABOLISH IT!!! SO much for the objectivity of this survey!
Really disappointed this survey doesn't include anything about Handicapped riders. I volunteer for an agency that many of our clients are disabled and the HandiRide service is a joke. You need to focus on making all your buses handicap accessible instead of isolating some of your riders that depend on your services the most. I would also like to mention that the HandiRide schedulers need a lesson in customer service. I hate calling them because they are often rude and often are disrespectful of their riders.
Right now the bus service I would take to get home from work has it's last pick-up at 4:30 p.m. I would be able to use the bus if the last pic-up was 5:30 p.m.
Safe bus/shuttle stops, parking to support "park and ride", operating hours that support to/from work places, Arsenal access and service to major Organizations.
Safer bike paths, which includes public education and awareness.
Serve citizen and not just the privileged few!
service is anemic and the bus system is basically a last resort for people with no other options. Better service would drive demand. A way to commute to the arsenal would greatly alleviate traffic during rush hour. Why not try something like a **local** rideshare service (subsidized or owned by the city) for areas with low density, this could connect to transit nodes to increase service which would increase ridership.
Setting aside dry logic and now looking at the heart domain, i think that for our citizens who can't own a car due to some reason like old age or low income, the buses provide greatly needed ability to remain part of the community, which is an encouragement
Some rapid/no stop options between downtown and places where tons of people work (research park, for example) would get more people on public transportation I think. I'm not going to ride the bus for 45 min- hour when I can drive in 10.
Something needs to be done about the upcoming closure of Cecil Ashburn, especially if they plan to replace parts ov Governor's Drive at the same time. Madness. Absolute madness.
Special routes for big events (rocket city brewfest, redstone oktoberfest, etc) would be a big plus if properly advertised.
Thank you guys for actually wanting our opinions, and LATER bus times and Weekend routes very much wanted.
Thanks for asking and improving.
Thanks for looking into improving this service. This is one way that the City of Huntsville can set itself apart in competing with Madison and unincorporated areas for residents.
Thanks for offering the poll online. However, please ensure you poll using methods that will reach your critical stakeholders!
The bus service should facilitate the working Poor's ability to get to work. These jobs are not generally 9 to 5. There are too many women walking unaccompanied from place of employment or the downtown transfer to their homes after hours.

HUNTSVILLE TRANSIT STUDY | FINAL REPORT
City of Huntsville

The buses seen in South Huntsville are too big, loud, and filthy looking on the outside. There is nothing appealing on the outside to encourage one to ride them. Huntsville should have much cleaner and more attractive public transportation. Smaller and more attractive buses reflecting the city's rocket city image would be more appealing and appropriate. Public transportation should enhance an area, not lower its value or desirability .
The city feels very disconnected for a college student. I am very limited in the things I can do, because of the bus routes I can easily access. Making it easier to get anywhere with no car, would be my ultimate goal. I currently take a Lyft twice a week to get me to my doctors appointments, because I have no car in Alabama.
The city is growing and public transport is vital. The buses must run more often and both ways to make transitions easier. There should be a bus terminal north and south of the city.
The city needs to invest quite a lot of money into improving our access to public transit options. The headways are far too long to be reliable and useful, which means we need more buses. BRT would be great, but needs serious investment. If we continue to treat public transit as a "nice to have" instead of as a requirement, then conditions will never improve.
The commute is terrible. I was born and raised in Huntsville and now I live in the county. The folks moving her drive like idiots. I wish some people could take public transportation from county to city. ADOT cannot 4 lane every road. It makes driving more difficult when people are speeding and driving like morons from county to county.
The Huntsville metro is more than what is within the official city limits. Major desitinations are throughout the county, including Hampton Cove, Madison, Redstone, bedroom communities like Monrovia, etc. Until there is a unified network of bike lanes, greenways, and other means for accessing the alternative methods of transportation, use of the network as a whole will suffer.
The L&N rail line running parallel to Memorial Parkway serves as a cheap, viable opportunity to implement a commuter rail segment that can reduce congestion on the Parkway with low capital investment, yet this is something that I've never once seen discussed in these surveys
The main issue is stops not being visible or having no shelter/seating.
The map was so small, I could not read the map. Not interested in a bus coming or going to Hampton Cove. Not interested in widening Cecil.
The survey does not mention Handi-Ride.
The Trolley system works well for the tours. Would like to see it expanded as a hop on hop off service on weekends or for special events (e.g., concerts in the park or on the docks). Would be nice to be able to pick up at Star Market and ride to campus 805 and back.
There feels like no incentive to use it over other forms of transportation. There's so much of a time cost to using Huntsville's current system that any money saved in gas or vehicle maintenance costs that any savings or convenience is long lost. If this system wants to thrive, it needs to look at how to improve those factors.
There needs to be a sidewalk along Clinton Ave that links where the sidewalk stops Downtown near the VBC to the other side of the parkway that leads to Campus 805. There's a small stretch on Clinton that does not have a sidewalk and it would be such little effort to improve biking and walking from the VBC to Campus 805 if the stretch of sidewalk was added to connect the two sides.
This doesn't apply to me because the bus doesn't come to Hampton Cove
This should be a regional system, not just City of Huntsville. Please identify park & ride locations as well as regular stops. All end of the line and high ridership stops should have covered shelters, benches, and appropriate pedestrian access. A real-time display w/ anticipated wait time would be fantastic. (Well, all stops should have these things, but gotta start somewhere.)
This study seems based on the premise that a few bus routes is enough for a growing city like Huntsville. This is not enough, even for a spread out city. Please consider adding additional transit options and bringing HSV into the modern era.
To me and many others , public transportation is a critical part of a growing city, and must be expanded to provide the best routes for those that have no other way to get around.

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Train system would be beneficial and get ahead of the growth curve that is expected to continue in Huntsville. Would help reduce traffic in Madison and in Hampton cove traveling over Cecil ashburn ans 431
Try to partner with Madison and do a metro transit maybe you would get more riders this way. Also to more industry along 565 to help cut down traffic
We do not need any more traffic on these roads. Define you don't need anymore bike or pedestrian accommodations, they cause enough close calls and wrecks as is since most pay zero attention to traffic and traffic laws.
We have an aging population that needs affordable and convenient transportation to doctor's appointments, shopping and entertainment
We need a system that works efficiently and is rider friendly. And all areas should have access to it!
We need leaders who will advocate and push for a regional transit system
weekend bus schedules are needed
Whole transit system is targeted towards those too poor to own their own vehicles. No service to Redstone or Research park. Were it convenient some workers would welcome an alternative to driving themselves to work every day.
Why are there no trains/subways? Why is the bus system so limited? It is 2018 and the United States is terribly behind the rest of the world with respect to public transportation. We wouldn't need to drive as much, or need as many cars, if the public transportation system were more usable.
Why is SE Huntsville the only area in the city being denied bus service?
Wi-Fi Need to be available and weekend services and cleaner buses
With such a growing area and the many annexes into other counties, it would be nice if the transit was really upgraded to encompass more counties to develop an overall greener step to making this place a wonderful place to live. Opening up a bigger transit system allows even the poorest members of society get to that job they can't afford to loose even if they can't afford a car. Transit systems work in a lot of major cities in this country, it is about time it is here and reach out even further than just Huntsville. Decatur, Athens, and beyond would get a great opportunity to inspire people from all around the country to move here because this is already in place every else.
Would like to feel safe like bus service in Huntsville was in the past
Would like to have real bus service available to me
Would love for the city to provide better funding for shorter headways and additional routes. Any options for funding from the new Alabama Public Transportation Trust Fund?
Yes, please do not forget about the low income people. When the city moves them out, they will need to be able to still get to work, grocery store, etc.. Let's not just throw them to the curb and hope they can figure it out. That isn't right and that isn't the Huntsville I know Huntsville to be. Our leaders are much better than that.
You need shelters at the bus stops to protect passengers from sun, rain, etc. Most every city I have been to have shelters at the bus stops.
You should have a way for disabled people to use the special bus for times they cannot drive. Not all disabilities preclude one from driving all the time- some have periods you cannot drive.