

4.2 TRANSIT ELEMENT

Public Transportation

Public transportation is a transportation service provided by either the public or private sector that is available to the public. This section describes existing public transportation services in the area, service gaps or needs and suggested actions for improving service.

Background

Public transportation plays a role in the regional economy, providing access to employment for those who do not drive themselves, due to personal choice, age, income, or disability. *Land use patterns in the region (relatively low residential density and separation of land uses) are incompatible with traditional public transportation, which operates best in areas with high population/development densities and mixed land uses.*

Ridership Trends

The figure below compares transit ridership trends in the Triad with cities around the country that had similar populations in 1982. From 1982 to 1987 transit ridership in the Triad rose from 11.9 million passenger miles per year to approximately 21 million passenger miles per year. Since then transit ridership in the Triad has grown slowly to about 23.5 million passenger miles per year. Other regions in North Carolina have had stronger growth in transit use. However, ridership in peer cities outside of North Carolina has been stagnant or falling (Tim Lomax, David Schrank & Bill Eisele, 2011).

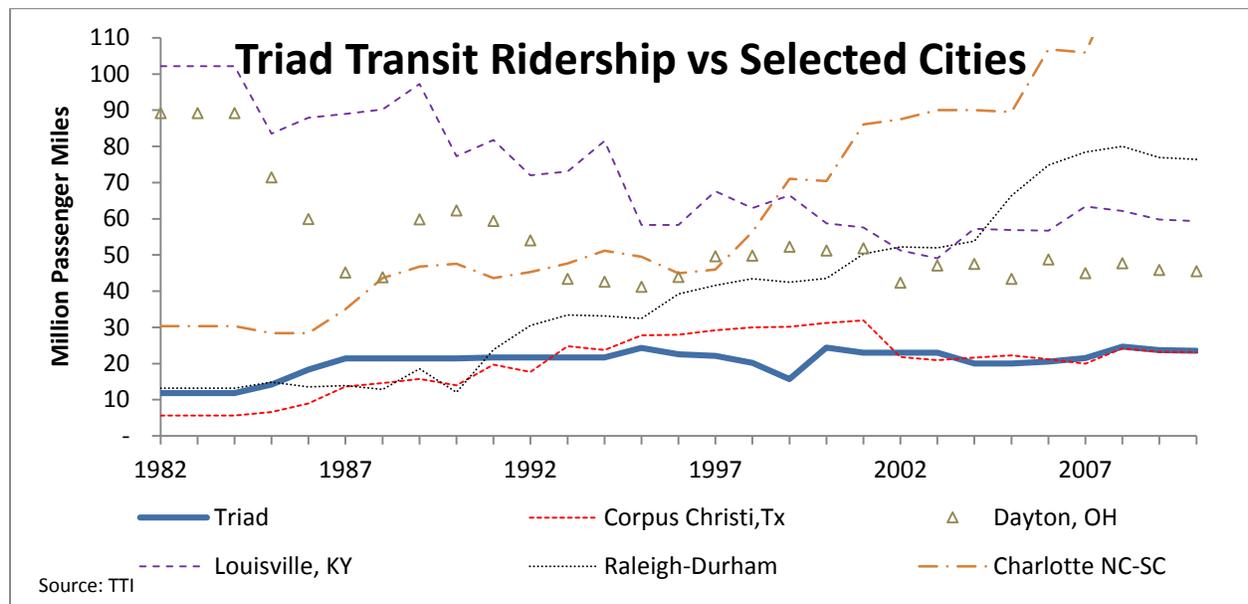


FIGURE 4.2-1 TRIAD RIDERSHIP COMPARED TO PEER CITIES

The next graph shows how transit ridership changed, as a percentage, in the Triad and selected cities. This graph also shows that transit ridership in the Triad appears to have reached a plateau about 1986.

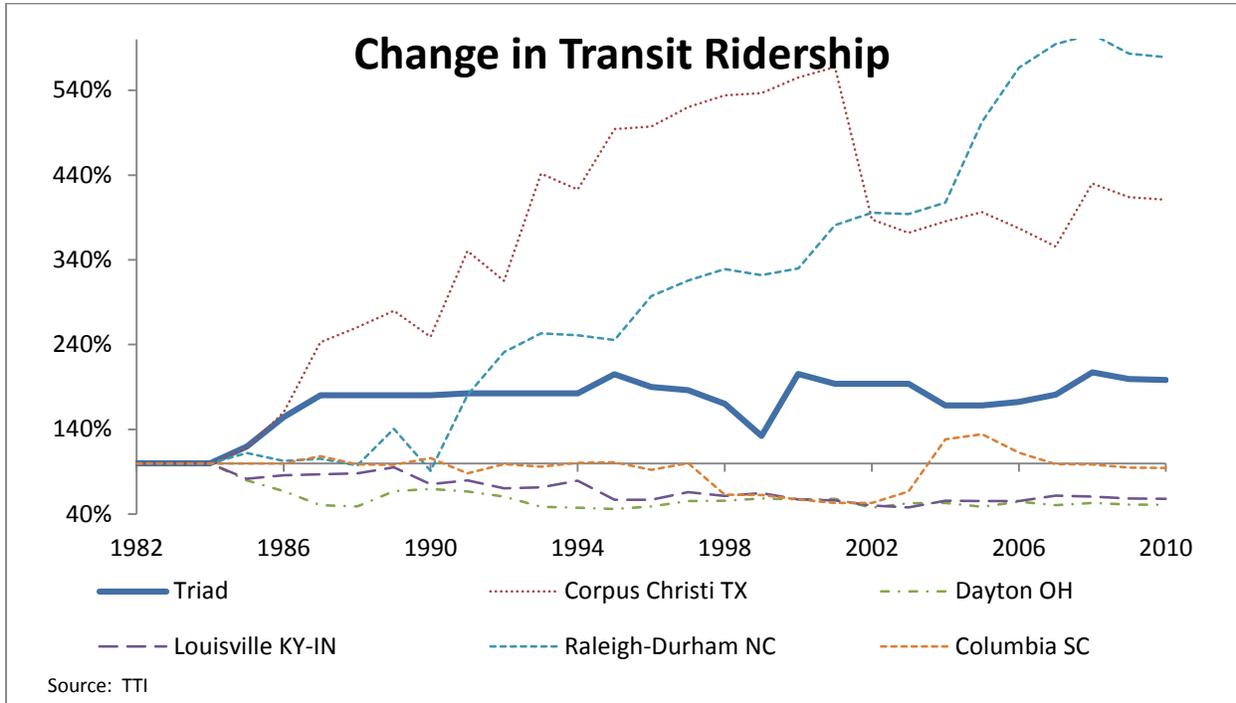


FIGURE 4.2-2 CHANGE IN TRIAD RIDERSHIP COMPARED TO PEER CITIES

Existing Public Transportation Services

In the MPO study area, public transportation is provided by both public and private entities. High Point Transit System, the Piedmont Authority for Regional Transportation (PART), and Davidson County Transportation System (DCTS) are the publicly funded bus systems for the study area. Regional Coordinated Area Transit System (RCATS), Guilford County Transportation and Mobility Services (GC TAMS), and Davidson County Transportation System (DCTS) are the publicly funded human services transportation providers. Two transportation providers (Hi tran, PART and DCTS) offer year-round fixed-route bus service in the MPO study area. Fixed route service operates under a set schedule, traveling between specific origins and destinations.

High Point Transit System

A division of the transportation department of the City of High Point, the High Point Transit System is the city’s primary public transportation system provider, offering transit service to a city with population base of approximately 104,0001 . The population represents a diversified community including local residents, commuters, and college students. With connections to regional transit systems including the Piedmont Authority for Regional Transportation (PART) and Greensboro Transit Authority (GTA), High Point Transit System serves approximately 3,800 weekday riders. High Point Transit System currently operates 13 fixed route bus routes, along with ADA-compliant paratransit service for persons with disabilities, and non-ADA demand-responsive transportation services. Primary destinations currently served by High Point Transit

System include major shopping centers and residential neighborhoods, High Point University, the Jamestown and High Point campuses of Guilford Technical Community College, and downtown High Point.

Governance Structure

High Point Transit System is governed by the Mayor and City Council of High Point. The City of High Point is a charter city with a Mayor-Council form of government. The City Council is composed of one mayor, two at-large members and six ward members. Unlike some transit departments in North Carolina, High Point Transit System does not have a separate advisory board that makes operating, marketing, or other decisions regarding the provision of transit service. Thus, all of the decision-making rests with staff and ultimately the City Council. The City Council is responsible for approving the transit system’s annual operating budget. Typically, the City Council meets twice monthly and is responsible for policy and financial oversight, as well as setting the strategic direction for the High Point Transit System. In addition to the elected officials, a City Manager is responsible for the day-to-day administration of city functions and services. The City Manager’s Office reviews and approves policy and program initiatives; oversees departmental programs and budgets; and makes recommendations on all matters to the Mayor and City Council among other activities. Advising the City Manager and elected leadership are a set of departmental directors who monitor staff to ensure services are being provided in a sound, efficient and effective manner. Day-to-day management of High Point Transit System is carried out by the City’s Transit Manager, who is subsequently assisted by an Assistant Transit Manager and agency staff.

Fixed-Route System

Fixed-route bus service constitutes the largest element of the High Point Transit System service network. As noted, High Point Transit System operates 13 fixed-routes traveling mostly within the City of High Point, with two routes providing service to select stops in the neighboring communities of Jamestown and Archdale. Collectively, these routes combine to offer roughly 950,000 annual unlinked passenger trips, more than 33,000 annual vehicle revenue hours, and almost 470,000 annual revenue miles. A basic route typology structure is used to classify fixed-route services as either local or limited stop service. Of the 13

Route	Corridor Served	Service Type	Annual Weekday Ridership (FY13)
10	North Main Street	Local	126,477
11	South Main Street	Local	185,546
12	West Green Drive	Local	31,242
13	Montlieu Avenue	Local	74,519
14	Westchester Drive	Local	51,252
15	Centennial Street	Local	3,083
16	Leonard Avenue	Local	94,103
17	Washington Drive	Local	60,866
18	East Green Drive	Local	90,739
19	English Road	Local	39,429
20	Kearns Avenue	Local	48,727
21	Industrial Park Flyer	Limited Stop	3,282
25	GTCC/Jamestown	Limited Stop	52,834

fixed-routes in the network, 11 are considered local routes and two are classified as limited stop routes. Local services are those bus routes that operate throughout daylight hours, providing multiple stops along the way, while limited stop service can provide service throughout a day or during specific times of day (e.g. peak travel periods), and serves stops spaced at greater distances.

TABLE 4.2-1 FIXED ROUTE SERVICES BY SERVICE TYPE AND WEEKDAY RIDERSHIP

The High Point Transit System fixed-route network operates as a radial timed-transfer network, meaning that all routes begin and end their service runs at a common origin. Route patterns are specifically

designed to “pulse” from the origin and service return points. The nexus for all routes is the Broad Avenue Terminal in downtown High Point adjacent to the High Point Train Depot. All bus routes converge at this location twice during the hour. With the exception of the Route 10, all routes leave the terminal at 15 and 45 minutes past the hour. Routes operate in either a clock-wise or counter-clock-wise direction, but there are no routes that provide bi-directional service.

All routes in the system operate as interlined pairs; that is, buses arrive at the terminal as one route and depart the terminal as another route. The interlined pairs are:

- Routes 10 & 11 (weekdays and Saturday)
- Routes 12 & 13 (weekdays only)
- Routes 13 & 15 (Saturdays only)
- Routes 14 & 18 (weekdays and Saturday)
- Routes 16 & 17 (weekdays and Saturday)
- Routes 19 & 20 (weekdays and Saturday)

On Saturdays, two pulses occur, with the “A” group routes departing the terminal at 15 past the hour, and a “B” group departing at 45 past the hour. The groups are broken down as follows:

- “A” group: routes 10, 14, 15, 17, and 20
- “B” group: routes 11, 13, 16, 18, and 19

Most routes have one bus assigned to provide the service. The exceptions are routes 10 and 11, which share three buses between them. On Saturdays, each interlined pair shares one bus. This service structure enables the High Point Transit System to maximize area coverage while minimizing operating costs. In addition to local routes, the High Point Transit System provides two limited stop services: Routes 21 and 25. Route 21 provides one round trip in the morning and a second round trip in the evening between the Broad Avenue Terminal and the industrial area off of Surratt Drive. Although there are few designated stops, the bus also makes flag stops. The second limited stop service, Route 25, provides service to the Guilford Technical Community College (GTCC) main campus in Jamestown. The schedule is oriented to heavy class times, and there are limited designated stops between the terminal and the campus. As noted previously, Route 21 is limited to just one round trip each during the AM and PM peak periods. Route 25 offers more frequent service, with hourly headways in the AM peak and an average 90 minute frequency during the midday and PM peak periods (headways vary from one hour to two hours during these periods).

Demand Responsive Service

In addition to the fixed route service, High Point Transit System provides federally-required ADA paratransit service for riders who are mentally or physically unable to use the regular fixed-route bus service provided. Under ADA, High Point Transit System is required to offer complementary paratransit services for eligible individuals who begin and end their trip within a three-quarter-mile distance of a fixed-route during the normal operating hours of the fixed-route system. ADA regulations also limit the fares for complementary paratransit service at not more than twice the adult cash fare for fixed-route service. Additionally, High Point Transit System also provides non-ADA demand-responsive service for age-eligible individuals. Non-ADA demand-responsive service is not restricted to the three-quarter-mile distance, and

is offered city-wide. Both demand-responsive services offer curb-to-curb transportation for eligible High Point residents (visitors must demonstrate proof of eligibility for service). High Point Transit System's demand responsive service is an origin-to-destination advanced reservation transportation service, with an operating schedule that mirrors that of the fixed-route service. There are six cut-away bus vehicles in the fleet. The service must begin and end in the defined service area. If a trip starts or ends outside the High Point Transit System service area, passengers must find a safe place within the service area to be picked up or dropped off to be eligible for the service. The provision of demand responsive service is a challenge as service requests continue to increase and the number of ADA-eligible riders continues to grow in High Point. Additionally, demand responsive service is provided at nearly three times the equivalent cost of local fixed route bus service in the High Point Transit System service area.

Facilities and Vehicle Fleet Characteristics

From the perspective of the passenger, the single most important facility in the High Point Transit System is the Broad Avenue Terminal. This facility is located near Main Street just across from the Amtrak station on land owned by the North Carolina Railroad. Renovated in 2012/2013, the Broad Avenue Terminal features indoor, climate-controlled waiting areas, enhanced customer information and signage, comfortable seating, restrooms, and vending concessions. A first-class facility such as the Broad Avenue Terminal makes a huge difference in the public perception of the transit and makes the system more attractive to choice riders. From the operator's perspective, the facility features ten bus bays beneath an attractive wooden canopy structure with outdoor seating and trash receptacles. A separate lay-by area is located alongside West Broad Avenue.

This auxiliary facility is uncovered, can hold up to five 30-foot buses, and can be used for temporary drop-off parking. The Amtrak station is located directly across the tracks from the Broad Avenue Terminal, and is connected via an overhead pedestrian walkway. Despite the facility's renovation, future challenges face the facility's usefulness. This facility is currently at capacity. Only 10 buses can be under the canopy at one time. The 12 routes are able to use the facility because the Route 10 does not pulse with the other routes, and Routes 21 and 25 do not come into the facility at the same time. Should more routes be added to the system, the only way they could match up with the pulse would be to use the uncovered lay-by bays on West Broad Avenue.

Operations & Maintenance Facility

High Point Transit System's operations and maintenance facility (O&M facility) is located at 716 West Kivett Drive, approximately one half-mile from the Broad Avenue Terminal in downtown High Point. Entrances to the O&M facility are located off West Kivett Drive and Chestnut Drive. There are four bays at this facility: two in-ground lifts, one above ground lift, and one tire bay. All vehicle refueling is conducted at the O&M facility, and transit vehicle maintenance and washing are also performed at this facility. Immediately adjacent to the maintenance facility is the administrative and operations control building. This building houses administrative office spaces, dispatch and security monitoring center, operator break room space, restrooms, conference room facilities, and the operations and call center for demand-responsive services. There is additional room available to expand the O&M facility as needed.

Vehicle Fleet Characteristics

High Point Transit System’s fleet consists of 16 buses measuring 30 feet, one 40-foot bus, six cut-away vans, and six support vehicles. Buses are diesel fueled and vans are gasoline powered. Each bus is equipped with a bicycle rack that holds two bicycles apiece. The average fleet age is 8.7 years for the buses and 2.6 years for the vans. This gives the 30-foot buses another year or so of life and indicates the vans are at the halfway point of their useful life. Fifteen of the buses are scheduled to be replaced in FY 2016, one in 2019, and one in 2022. Three of the vans are scheduled for replacement in 2015 and the other three in 2020. Both limited service routes meet up with the local route pulse at the Broad Avenue Terminal on weekdays, but no service is provided on Saturdays. Given Route 21’s limited schedule, the two routes are able to share one bus. Each weekday morning, the bus makes the first Route 21 run before beginning Route 25 operations, and is able to provide the afternoon trip in-between Route 25 runs to GTCC. High Point Transit System’s vehicles are generally purchased through a combination of funding from federal Section 5309 earmarks or Section 5307 Urbanized Area Formula funding, along with state and local funds typically accounting for the required 20% match.

Fare Structure

The adult one ride fare for fixed-route service is \$1.00. Up to three children under 43 inches in height may ride for free with each fare-paying adult. The High Point Transit System offers a single \$10.00 fare card that may be purchased at the Broad Avenue Terminal. Intra-system transfers are free with proof of a paid

Fare Type	Fare
Base local ride cash fare	\$1.00
Senior Citizens fare	\$0.50
Disabled Person fare	\$0.50
Medicare Cardholder	\$0.50
Children 43" or shorter - limit 3 per paying adult	Free
All Transfers	Free
Regular Fare Ticket (10 ride pass)	\$10.00
Half Fare Ticket (5 ride pass)	\$5.00
Regular Fare 30 day pass	\$40.00
Reduced Fare 30 day pass	\$20.00

fare. Transfers to and from other transit systems connecting with High Point Transit System services require the purchase of a fare from the other provider. As coordination of partnering with other service agencies, it would benefit the passengers to have the ability to transfer between services without the need to purchase a second fare. The High Point Transit System works with PART and accepts the Regional Value Cards.

TABLE 4.2-2 CURRENT FARE STRUCTURE

Transportation Services Related to the International Home Furnishings Market

Market transportation services are discussed separately in the congestion management section.

Davidson County Transportation

Davidson County operates a cross county connector serving Lexington and Thomasville and a circulator route along NC 109

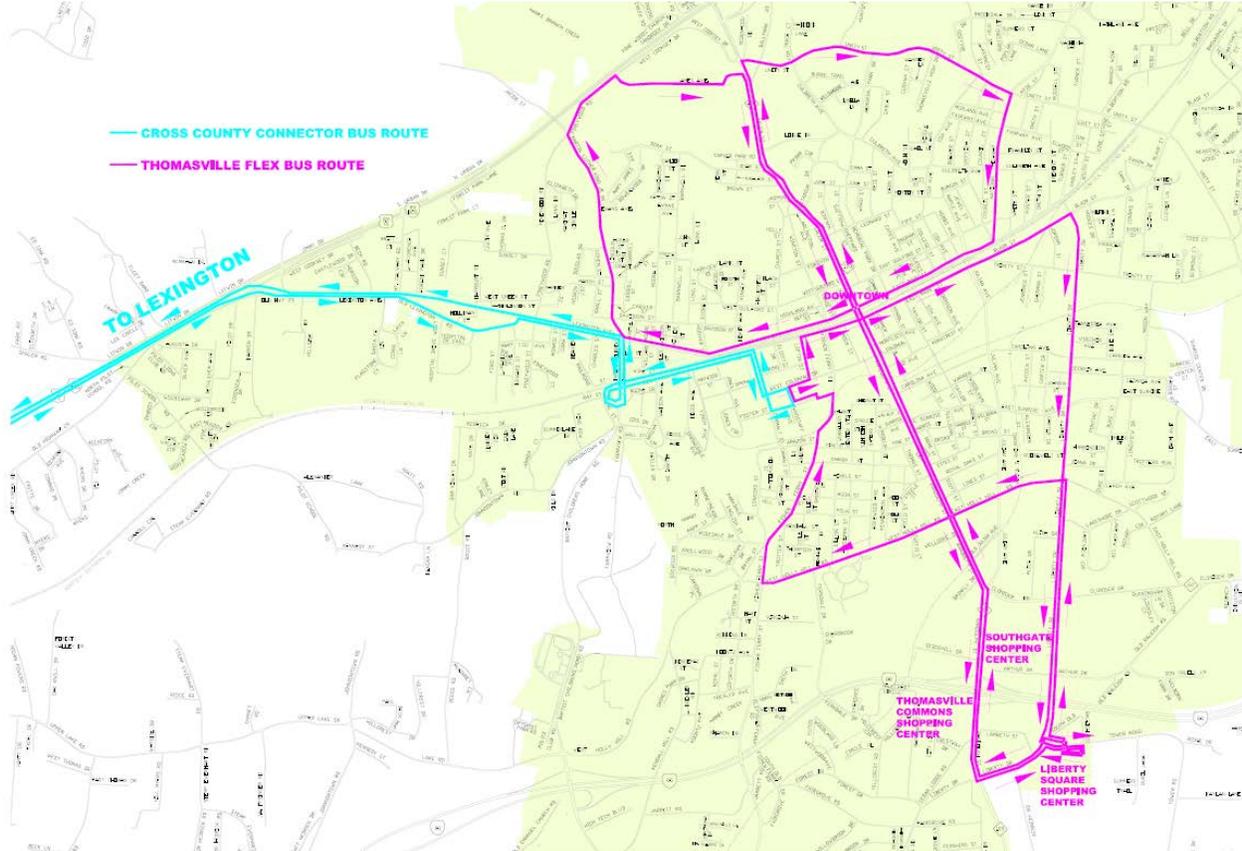


FIGURE 4.2-3 DAVIDSON COUNTY CONNECTOR AND THOMASVILLE EXPRESS

Other Public Transportation Services

In addition to the transportation providers listed above, there are other transportation services available to residents of the High Point MPO communities. These can most easily be differentiated by type of service provided. There are two companies that offer local taxi service and one company that offers shuttle service to and from the Piedmont Triad International Airport. In Guilford, Davidson, Randolph, and Forsyth Counties, four public transportation providers provide transportation services to health and human service agencies as well as the general public, elderly and disabled. Guilford County Transportation and Mobility Services, Davidson County Transportation System, Regional Coordinated Area Transportation System. The health and human service agencies provide transportation to their specific clientele directly or through the local transportation provider.

Inter-modal Transfer Points

Inter-modal connections are shown in Table 4.2-3. Park and Rides, which also serve as intermodal transfer points, are described in detail in Chapter 8. The High Point UZA has several major transfer points at which passengers can transfer from the automobile to public transit routes, to intra- and intercity bus routes, and to passenger rail service. It is important to make all intermodal connection sites accessible to both bicyclists and pedestrians, as well as to cars and buses.

TABLE 4.2-3 TRANSFER POINTS

Town	Location	Connects To
High Point	Broad Avenue Terminal	Hi tran, PART, Amtrak
	Oak Hollow Mall Park & Ride Lot	Hi tran, PART
	N. Main St Park & Ride Lot @ Old Plank Road.	PART
	Hwy 109 & W. Cooksey Drive Park & Ride Lot	PART, Davidson County Transportation System
Thomasville	Ride Lot	PART, Regional Coordinated Area Transportation System
Archdale	Bus 311 & I-85 Park & Ride Lot	Transportation System

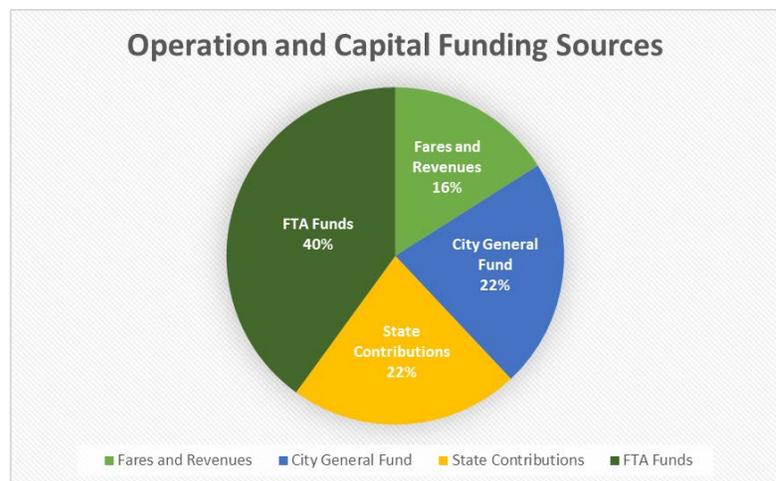
Public Transportation Issues

Several major issues affect the quantity and quality of transit service in the High Point Urbanized Area. The most significant of these are funding related.

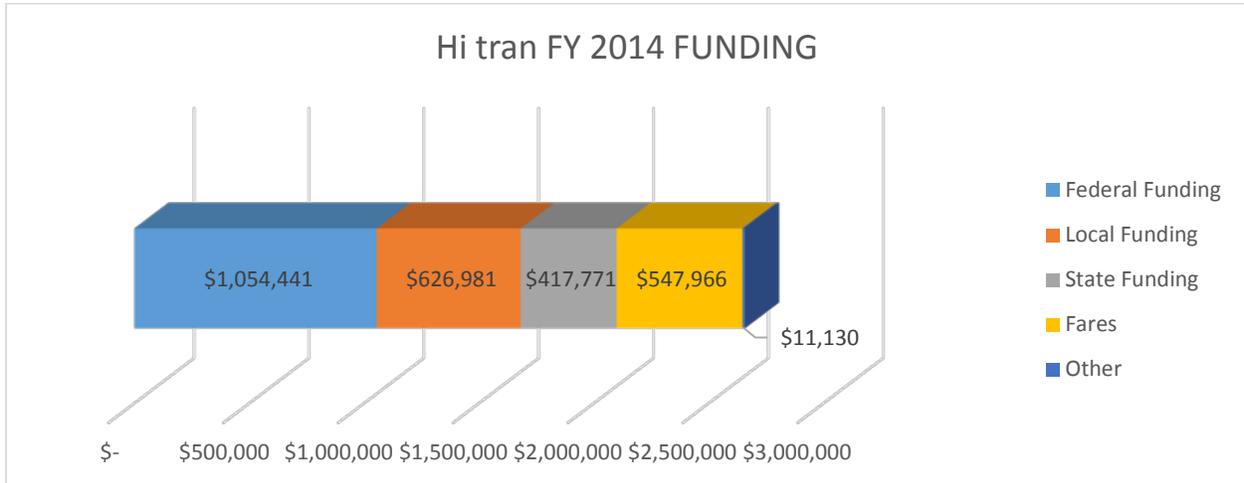
Funding

The High Point Transit System operates on an annual budget of approximately \$4-\$5 million (after fares and other revenues are accounted for). The majority of operating funds cover expenses including driver wages, fuel costs, routine vehicle maintenance, and agency administration costs. Funds for capital improvements are used for the purchase of new transit fleet vehicles, stop infrastructure, or building improvements to High Point Transit System facilities. Funding for High Point Transit System comes from a combination of federal, state, and local sources. Federal funds are provided by the Federal Transit Administration (FTA), distributed on a formula basis, and account for approximately 40% of all operating costs. In addition to federal funds, State of North Carolina contributions are made to the city for the ongoing operation of High Point Transit System, accounting for approximately 22%. Funds appropriated from the City of High Point general fund also contribute approximately 22% to the operating cost of High Point Transit System services. Collectively, federal, state, and local funds contribute approximately 84% of the service operating costs. The remaining 16% of operating costs are covered through a combination of passenger fares and advertising revenues.

The City of High Point funds High Point Transit System through the City's general fund, and as such High Point Transit System has no dedicated funding source other than fares, contracts, and advertisement revenues. With regard to capital funding, nearly 80% of capital expenditures are made using federal funds, either directly appropriated or passed through various state or local agencies. Approximately 12% of High



Point Transit System’s capital funds are made possible by appropriations from the City of High Point, with the remaining 8% coming from state funds.



Land Use

The High Point Urbanized Area includes rural areas to moderately dense residential areas. Currently land uses are segregated creating more need for travel. However, these development patterns make it difficult to serve these areas with fixed route transit.

Coordinating Services

Coordinating transit services improves the performance of individual transportation providers as well as overall mobility within a region. Coordination strategies range from simple sharing of information, to shared route planning, to brokerage systems, to consolidated systems where one agency provides all public transit services in a region. In a brokerage system, one agency serves as a central contact point for scheduling trips on vans run by other agencies. These agencies provide the trips, and then bill the brokerage for the service provided. The brokerage in turn bills funding agencies or funding pools, such as Medicaid, Temporary Assistance for Needy Families (TANF or welfare), FTA funds, etc.

The transit systems operating in the High Point Urbanized Area have been coordinating services to extend mobility, increase efficiency and reduce redundancy of services. The PART Express bus service connects the largest city in the urbanized area with neighboring cities, and provides a needed service along the NC68 corridor allowing High Point residents access to an area that were unreachable by fixed route bus service.

The Community Transportation Systems, Davidson County Transportation, Regional Coordinated Area Transit System, and Guilford County Transportation and Mobility Services, all coordinate trips with PART to transport those needing services to destinations outside the urbanized area for primarily medical reasons, but also employment.

The transit systems have also been coordinating services with transit systems in the neighboring urbanized areas. The systems have been working together since 2000 on a shared technology project where they

all use the same software for scheduling and dispatching paratransit trips, and route and itinerary planning for fixed route services. In the near future, the public will be able to access information on all possible public transportation options in the urbanized area and the Piedmont Triad region by calling any transportation provider or by accessing the shared itinerary planner on the web.

The systems in the urbanized area all participated in the first phase of the Piedmont Triad Seamless Mobility Study. A consulting team interviewed stakeholders and gathered information from the transit systems regarding services, revenues and expenses, expansion plans, and limitations. The consulting team put together a final document that details ways the systems can work together to coordinate, and possibly consolidate, some services.

Marketing and Education

Marketing and education activities targeted at promoting public transportation can help increase ridership, and should be viewed as integral to creating a successful public transportation system. Public and private transit operators need to promote and advertise their services just as other businesses.

In the past, marketing and education of transit has not played a large role in the urbanized area. However, effective marketing of transit can affect the entire future of the service. Transit should be marketed just like any other product, but the task will be more difficult.

Planned Public Transportation Projects

Install more shelters at bus stops (\$6,000 per shelter)

Need bus stop pads (\$2,500 per pad) – install 60” x 96” x 4” pads with a ramp at each bus stop¹

Need more sidewalks (\$100,000 per year for 5 years) – install sidewalk to connect bus stops to each other and destinations near bus stop

Add more frequency during weekdays (Additional \$344,000 per year) - Bus service runs every 30 min. all day.

Extend bus hours during week (\$376,500 per year) – add hourly evening service from 6:30pm until 10:45 pm to include ADA paratransit service

Add more frequency on Saturdays (Additional \$102,000 per year) - Buses every 30 minutes from 8:45am – 5:15pm

Extend service on Saturdays (Additional \$38,500 per year) - Bus service runs hourly & Dial-A-Lift runs from 6:45 am – 6:15pm

¹ \$300,000 in ARRA (Stimulus) funds have been allocated to this project.

Extend service and add more frequency on Saturdays (Additional \$132,000 per year) - Bus service runs every 30 minutes from 6:45am – 6:15pm

Add Sunday service (\$146,000 per year) - Bus service runs hourly & Dial-A-Lift runs from 6:45am - 6:15pm

Add service for NC 68 / Skeet Club Rd / Wendover Ave area (Capital \$240,000 - 3 accessible vehicles plus Operating \$525,000) - 30 minute service from Oak Hollow Mall out to Skeet Club / Wendover areas (5:45 am – 6:15pm)

Add service for NC 68 / Skeet Club Rd / Wendover Ave area (Operating \$189,000) - 30 minute service from 6:15 pm - 10:45pm

Extending the Montlieu & Westchester routes to serve requested areas (\$514,100 per year) - 3 buses running every 30 minutes to serve.

Expansion buses (\$1,000,000) – Purchase additional accessible buses to provide new service and maintain appropriate spare ratio to allow for scheduled and unscheduled vehicle maintenance.

Works Cited

City of High Point Short Range Transit Improvement Plan

Tim Lomax, David Schrank & Bill Eisele. (2011, September). *2011 Annual Urban Mobility Report*.

Retrieved May 2012, from Texas A&M Transportation Institute: <http://mobility.tamu.edu/ums/>