

**ORANGE COUNTY**  
SHORT RANGE TRANSIT PLAN

**Appendix A:**  
**Existing Conditions**

October 2024



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# 1 INTRODUCTION

The Orange County Short Range Transit Plan (SRTP) guides the improvement of transit services in Orange County through 2030.

Orange County Transportation Services (OCTS) provides fixed-route bus, demand response, and microtransit services throughout Orange County, NC. The changing conditions in the county—including new developments, rising population and jobs, and limited budgets—present an opportunity for OCTS to refine how transit investments are made. The SRTP will analyze existing service performance and markets, evaluate strategies for improving transit, and recommend a transit investment program through Fiscal Year (FY) 2030. The SRTP will also guide future long range planning efforts as the region continues to grow.

The Existing Conditions report is the first piece of the Orange County SRTP. The report consists of five key chapters:

1. A review of previous plans and projects that impact transportation in Orange County,
2. An analysis of the underlying market conditions in Orange County,
3. An analysis of the current services provided by OCTS,
4. A review of current and potential funding for OCTS services, and
5. A synthesis of the gaps and opportunities that can be addressed through the SRTP.

The focus of this Existing Conditions report is on the areas of Orange County outside of the municipalities of Chapel Hill and Carrboro, which are served by Chapel Hill Transit. The analysis will look at Hillsborough, Mebane, and the more rural areas of the county, identifying the opportunities and challenges in providing transportation services outside the Chapel Hill area. Analyses will also include up to 10 miles outside of the Orange County borders, which marks the fullest extent of OCTS's service area and includes destinations in Durham and other surrounding counties.

Key findings for the Existing Conditions include:

- Orange County is growing and is focused on ensuring planning efforts are inclusive of residents throughout the entirety of the county.
- There is potential demand for fixed route transit both within and between Hillsborough and Mebane.
- OCTS fixed route bus ridership has not fully recovered since the COVID-19 pandemic.
- Program-based demand response service fills a critical need in connecting rural residents with medical, employment, and shopping opportunities, but is limited by eligibility requirements and high cost per rider.
- Microtransit expands access to transit for the general public but is currently underutilized.

There are opportunities to leverage existing funding sources more efficiently and identify new funding sources for improving transit.

## 2 REVIEW OF PAST PLANS AND PROJECTS

Past plans establish a baseline understanding of transit projects and programs considered or planned for Orange County and the region.

Reviewing past plans and projects is a critical first step to guiding existing conditions work. The previously published plans and policies reviewed included transit plans, climate plans, funding studies, and more, all of which focused on Orange County and/or the surrounding region. The review focused on both specific transit service recommendations and higher-level funding and goals.

This review sets the stage for the existing conditions analysis by providing a baseline and history of projects, changes, and future visions. The following section provides a brief overview of the plans reviewed and the information that is directly relevant to the SRTP effort. The full review can be found in Appendix A.

### **Orange County Transit Plan (2017) and Update (2022)**

The Orange County Transit Plan from 2017 and its subsequent update in 2022 provide an overview of the county's transit goals through a single funding source. It includes information on service improvements that are planned to be funded through the County's transit tax for OCTS, GoTriangle, and Chapel Hill Transit.

### **Burlington-Graham MPO (BGMPO) Comprehensive Transportation Plan (2022)**

BGMPO's Comprehensive Transportation Plan is the MPO's long-range plan that identifies major transportation needs and solutions through 2050. The recommendations in this plan are not funded or fiscally constrained, unlike other regional comprehensive plans. The plan includes recommendations for transit infrastructure and service improvements for the Burlington, Graham, and Mebane areas, with a few recommendations for Orange County. These recommendations consist of creating a Mebane Connector; a Mebane to Hillsborough Commuter Rail; enhancing service on the Orange-Alamance Connector; and improving and adding new park and rides.

### **BGMPO 2045 Metropolitan Transportation Plan (2020)**

The BGMPO 2045 Metropolitan Transportation Plan is the transportation plan for the Burlington-Graham region, which consists of the cities and towns of Burlington, Graham, Mebane, Elon, Gibsonville, Green Level, Haw River, Whitsett, Alamance; Alamance County; and parts of Guilford and Orange Counties. This plan identifies the transportation needs over the next two decades and provides multimodal recommendations for improvements.

### **BGMPO Regional Transit Feasibility Study (2024)**

The BGMPO Regional Transit Feasibility Study is an ongoing project that has recently completed its Operations and Fiscal Impact Analyses. This report contains recommendations and opportunities for transit funding at the local and consolidated level and an assessment of transit tax's government structure and funding.

### **Orange County Climate Action Plan (2023)**

The Orange County Climate Action Plan is the guiding document for county-wide greenhouse gas reduction. This document offers a comprehensive set of strategies that are in line with state regulations. Transit-specific strategies revolve around increased on-demand service and converting the existing vehicle fleet to an all-electric fleet.

### **Connect 2050: The Research Triangle Region's Metropolitan Transportation Plan (2022)**

Connect 2050 is the long-range transportation plan for the Capital Area Metropolitan Planning Organization (CAMPO) and the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO). The transit-related components of this plan focus on improvement of local and regional transit facilities and services and improving accessibility and ease of use of transit for all users.

### **Orange County's Complete Streets and Vision Zero Policies (2022)**

Orange County's Complete Streets and Vision Zero Policies were adopted in October 2022. The Vision Zero Policy states that the locality will aim to meet the state's safety targets of a 50% reduction of fatalities and serious injuries by 2035, and a 100% reduction by 2050. The Complete Streets Policy, which was adopted in tandem with the Vision Zero plan, strives to encourage the design and construction of safer and more equitable streets and shift towards multi-mobility.

### **Orange County Transportation Services Title VI Plan (2022)**

Orange County Transportation Services Title VI Plan overviews the Title VI standards and processes that OCTS must abide by. The document includes transit service standards for OCTS, including that all fixed-route services have between 30- and 45-minute headways with plans to reduce these to between 15- and 30-minutes.

### **Orange County Transportation Services ADA Paratransit Plan (2022)**

The Orange County Transportation Services ADA Paratransit Plan outlines the standards that OCTS must meet to provide sufficient ADA and paratransit services. OCTS currently exceeds the required service standards for coverage and abides by all federally mandated standards.

**GoTriangle Short-Range Transit Plan (2023)**

GoTriangle's SRTP recommends a series of transit service improvements for the Triangle region up to FY2028. The recommendations included simplification of routes (including the 420 and ODX) and expansion of 15-minute all-day routes.

**Chapel Hill Short-Range Transportation Plan (2020)**

Chapel Hill Transit's 2020 SRTP provides a roadmap for transit improvements in Chapel Hill and Carrboro for the next ten years. Recommendations include service expansion and demand-response zone additions.

**DCHC MPO Comprehensive Transportation Plan (2017)**

The DCHC MPO Comprehensive Transportation Plan is a long-range transportation plan that covers the region and outlines plans to be implemented through 2040. The modes that the plan covers are highway, public transportation, rail, bicycle, and

pedestrian changes. For Orange County, major public transportation recommendations include the Durham-Orange Light Rail Transit and the North-South Corridor Bus Rapid Transit—a rapid transit route that runs along NC-86 and US 15-501 from Eubanks to Southern Village.

**City of Mebane Comprehensive Transportation Plan (2018)**

The City of Mebane's Comprehensive Transportation Plan is a multi-modal plan that covers roadway, public transportation, and bicycle and pedestrian travel. The Plan recommends a circulator bus route for Mebane, which would run through the main part of the City, covering key destinations, such as parks, schools, community centers, and commercial destinations along the route. There is additional demand for service to Alamance Community College and to have connections to other regional routes.

### 3 MARKET ANALYSIS

This chapter explores the underlying demand for transit and transportation services in Orange County using the region’s geography, demographics, and built environment.

The Market Analysis consists of four components:

- **Transit Demand:** Looking at where people live and work, both currently and as the region grows
- **Equity and Transit Need:** Identifying the socioeconomic characteristics that influence transit use and where those characteristics are more common
- **Travel Flows:** Mapping how people travel to, from, and within Orange County
- **Activity Centers:** Identifying key destinations and trip generators for transit

Key takeaways from the Market Analysis include:














- Population density and transit demand is greatest in the Carrboro, Chapel Hill, Hillsborough, and Mebane areas. The rest of the county is rural, where demand-response services may be more suitable than fixed-route transit.
- Most of the employment density is located within towns and cities and along major corridors. Service jobs make up the largest share of jobs in the county.

- Based on an analysis of travel patterns amongst all modes of transportation, most trips take place within municipalities. There is also relatively strong travel demand along the Mebane-Hillsborough corridor.

### TRANSIT DEMAND

A main factor in determining the demand for transit is density: where people live and work, and how those areas are concentrated. As shown in Figure 1, population and employment density may be used to indicate an appropriate level of transit service. Areas that are higher density may be able to support more frequent fixed route transit, while areas with lower density may be better suited for demand response services.

Figure 1: Transit Supportive Land Use Table

LAND USE			TRANSIT	
Land Use Type	Residents per Acre	Jobs per Acre	Appropriate Types of Transit	Frequency of Service
 Mixed Neighborhoods	10-15	5-10	  Local Bus    Micro-transit	 30-60 minutes
 Low Density	2-10	2-5	   Micro-transit    Rideshare Volunteer Driver Pgm	 60 mins or less or On Demand
 Rural	<2	<2	  Rideshare    Volunteer Driver Pgm	 On Demand

Source: Thresholds based on research by Nelson\Nygaard.

These densities broadly indicate demand across contiguous areas, and act cumulatively to drive demand for transit. Clusters of



density throughout an area or along a corridor are strong indicators of demand, while an isolated pocket of high density alone in a rural area would not produce sufficient demand itself. To represent the distribution of people and jobs more accurately, this analysis uses “developed acres” to calculate density, which is defined as the area within a quarter-mile buffer from roadways.

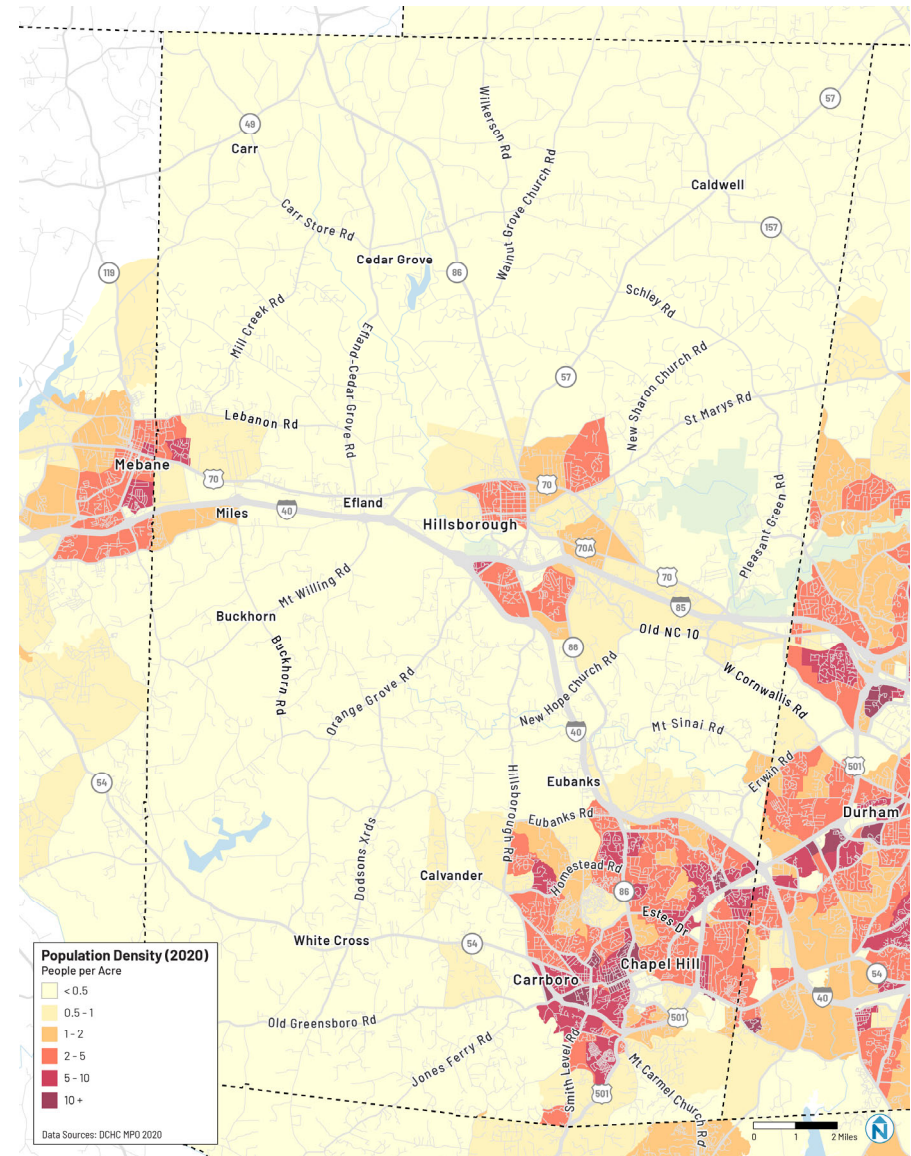
Data for transit demand was sourced mainly from DCHC MPO, which forecasted population and employment data as part of the 2050 Metropolitan Transportation Plan (MTP), including estimates for the 2020 base year and 2030 interim year, at the Traffic Analysis Zone (TAZ) level. However, more recent population data is available from the 2022 American Community Survey, which is used as a reference for growth. Additional data on development was provided by Orange County and Mebane agencies.

## Where People Live

As shown in Figure 2, population density in Orange County in 2020 was concentrated in the municipalities of Chapel Hill, Carrboro, Mebane, and Hillsborough:

- In Hillsborough, denser areas are not clustered together, but located throughout the municipality with less dense areas between them.
- Mebane’s population density is mainly concentrated in Alamance County, with some higher density pockets in Orange County.
- Density changes sharply at the county border with Durham, likely due to differing zoning and development histories.

Figure 2: Population Density



## Where People Work

The geographic distribution of job density in Orange County in 2020 (Figure 4) is largely similar to population density, with the highest density areas in Mebane, Hillsborough, and Chapel Hill-Carrboro:

- Employment in Hillsborough is densest in the southeast area of the town.
- Mebane employment density is clustered along I-40, in the southern portion of the municipality. There are few jobs outside of these areas.

Jobs not only generate demand from the employees that travel there to work, but also from the potential customers, clients, and patients that visit a business. Jobs in the service and retail sectors tend to generate travel demand at higher rates than industry or office jobs. In 2020, 59% of Orange County jobs were in service and retail sectors (Figure 3).

Figure 3: Orange County Jobs by Sector

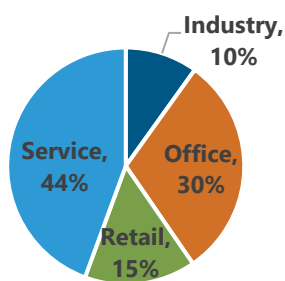
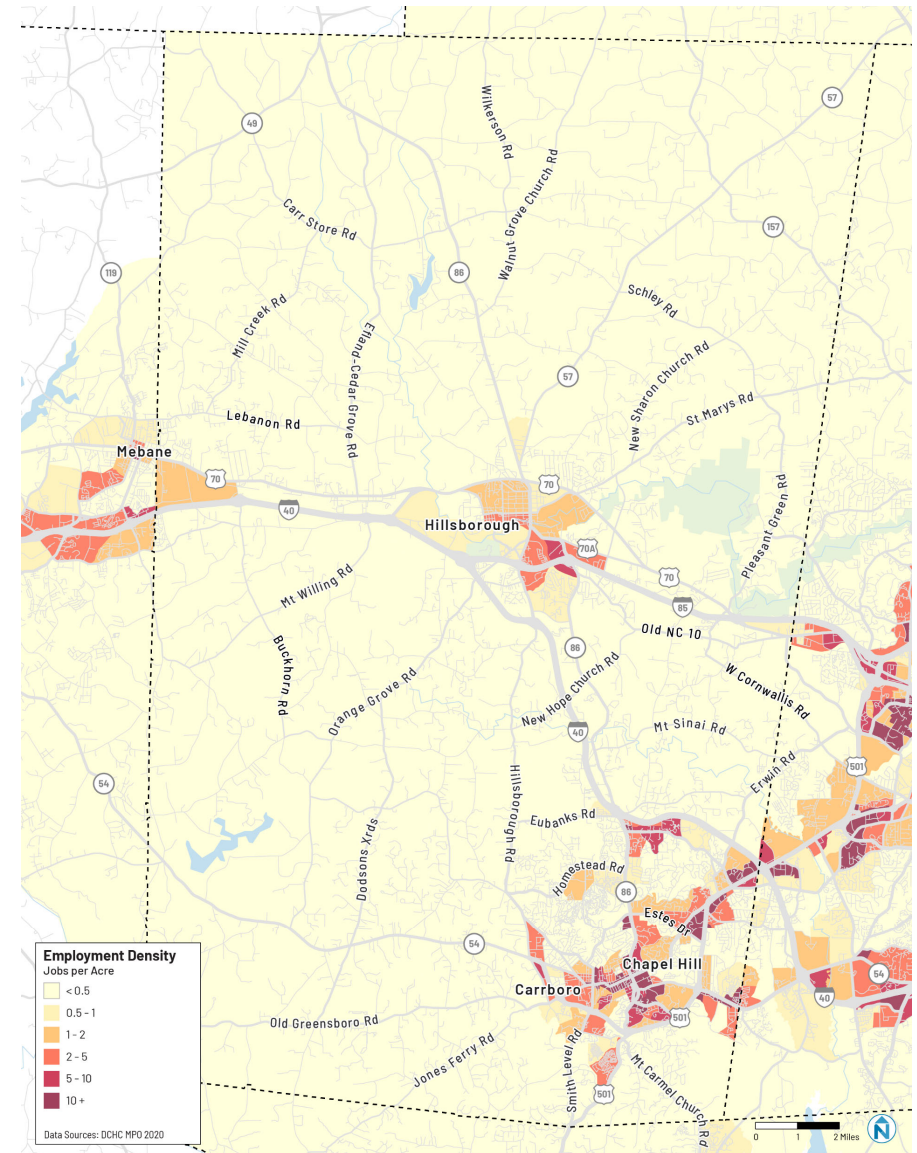


Figure 4: Employment Density



## Population and Employment Density Together

Together, population and employment density give a more complete picture of potential demand for transit. Figure 5 shows the combined population and employment densities by TAZ. Blue areas on the map signify areas with high employment density but lower population density, while orange represents areas with higher population density and lower job density. Darker brown areas have high densities of both employment and population.

Areas with both high population and employment density include:

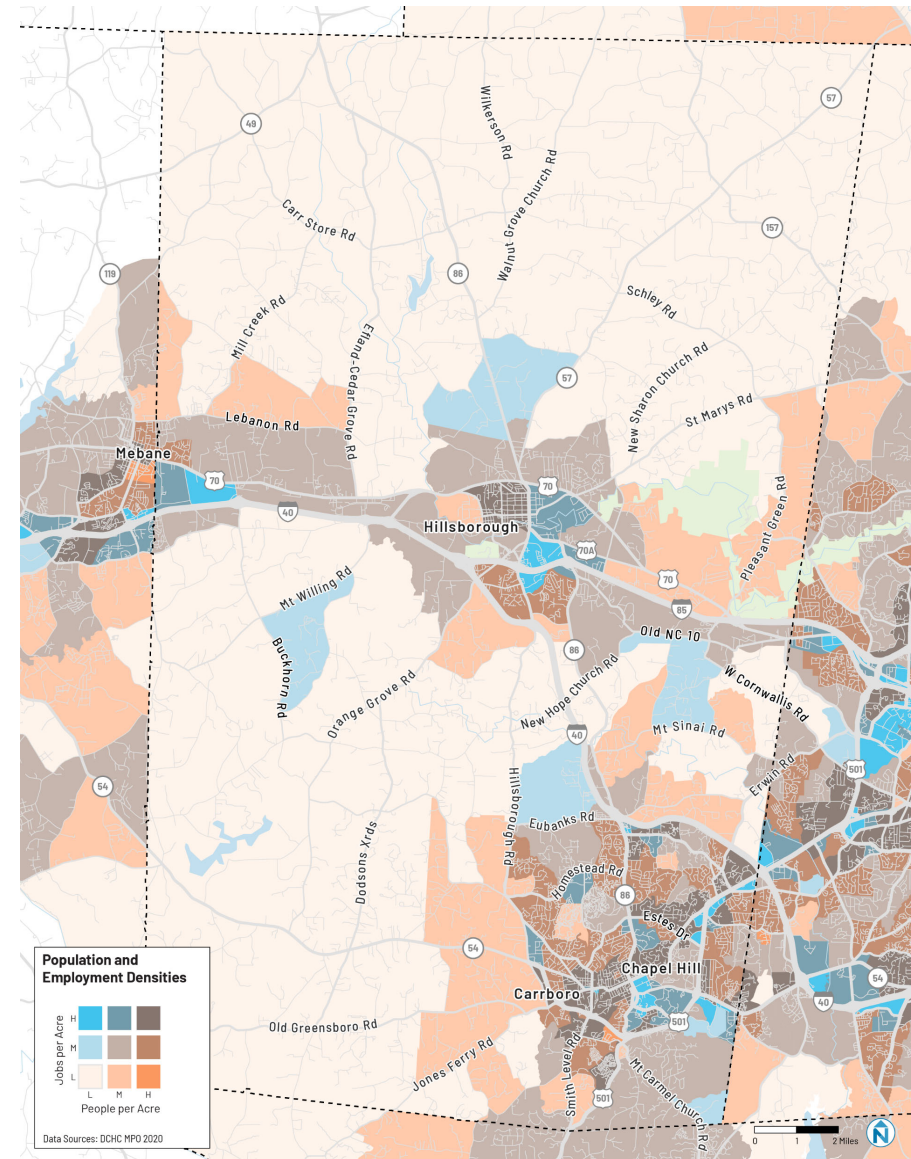
- Downtown Hillsborough
- Southwest Mebane
- I-40 and I-85 corridors

Areas of high employment and population density do not always align, with pockets of high employment density further from the downtown cores and some isolated areas of residential density.

Areas with mismatched densities include:

- Employment density in Hillsborough is concentrated in many of the pockets of lower population density.
- Downtown Mebane has greater population density, while employment is concentrated along I-40.

Figure 5: Population and Employment Densities



## Regional Growth

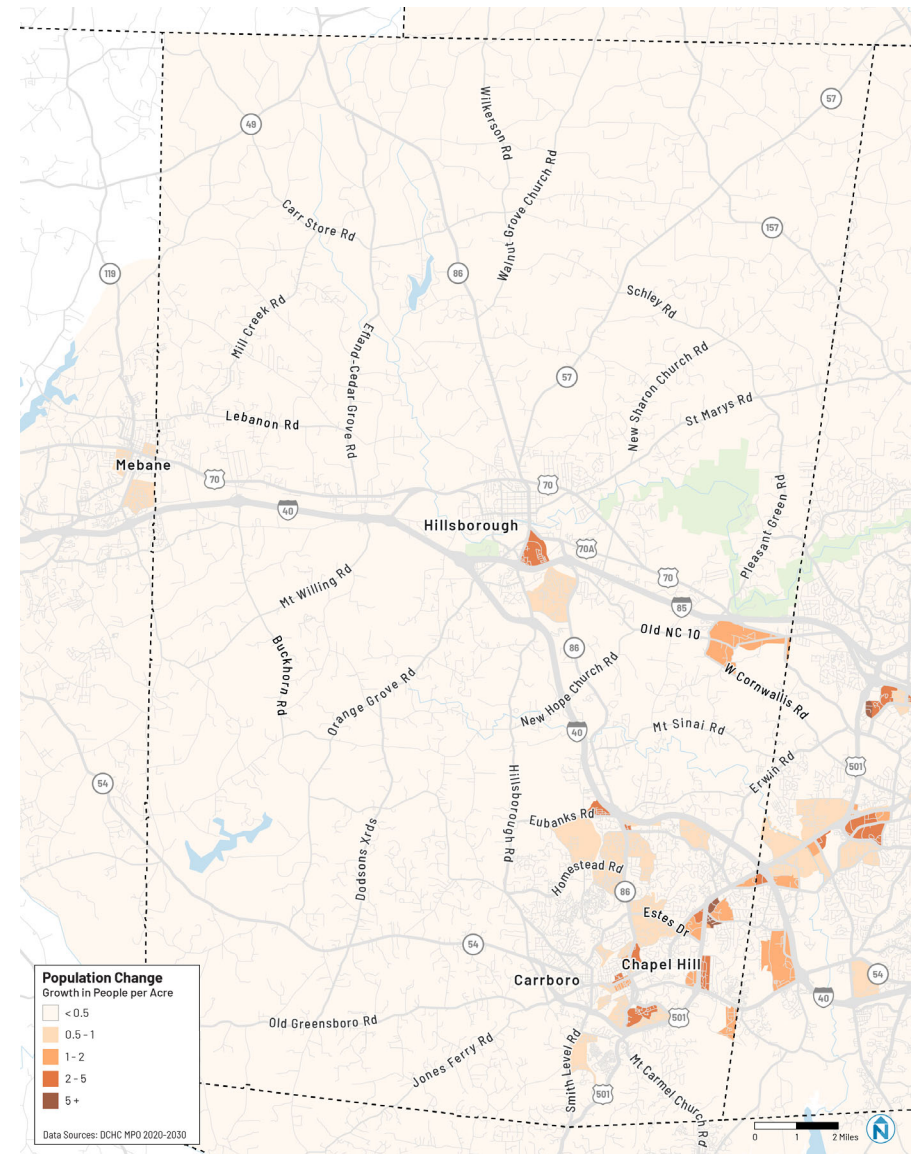
The Triangle Region is growing rapidly, with new housing, mixed-use developments, and job centers being planned and approved throughout Orange County. Using the Triangle Regional Model's 2030 projections, based on the 2020 base year, the Market Analysis can identify areas likely to see significant growth of demand for transit within the SRTP timeframe.

## Population Change

The Triangle Regional Model projected an 11% increase in population between 2020 and 2030 in Orange County, growing to just over 150,000 residents. According to 2022 American Community Survey Data, the population has already surpassed that number, with the county as a whole growing at a faster rate than the Chapel Hill municipality.

Figure 6 shows the growth in number of people per acre. Outside of Chapel Hill, there is growth of greater than 0.5 more people per acre in southern Hillsborough, downtown Mebane, and between Hillsborough and Durham along NC-10. Because this map reflects change in density, it does not reflect the rate of growth throughout the different regions of the county, and may obscure the impact of developments in large TAZs.

Figure 6: Population Density Change, 2020-2030

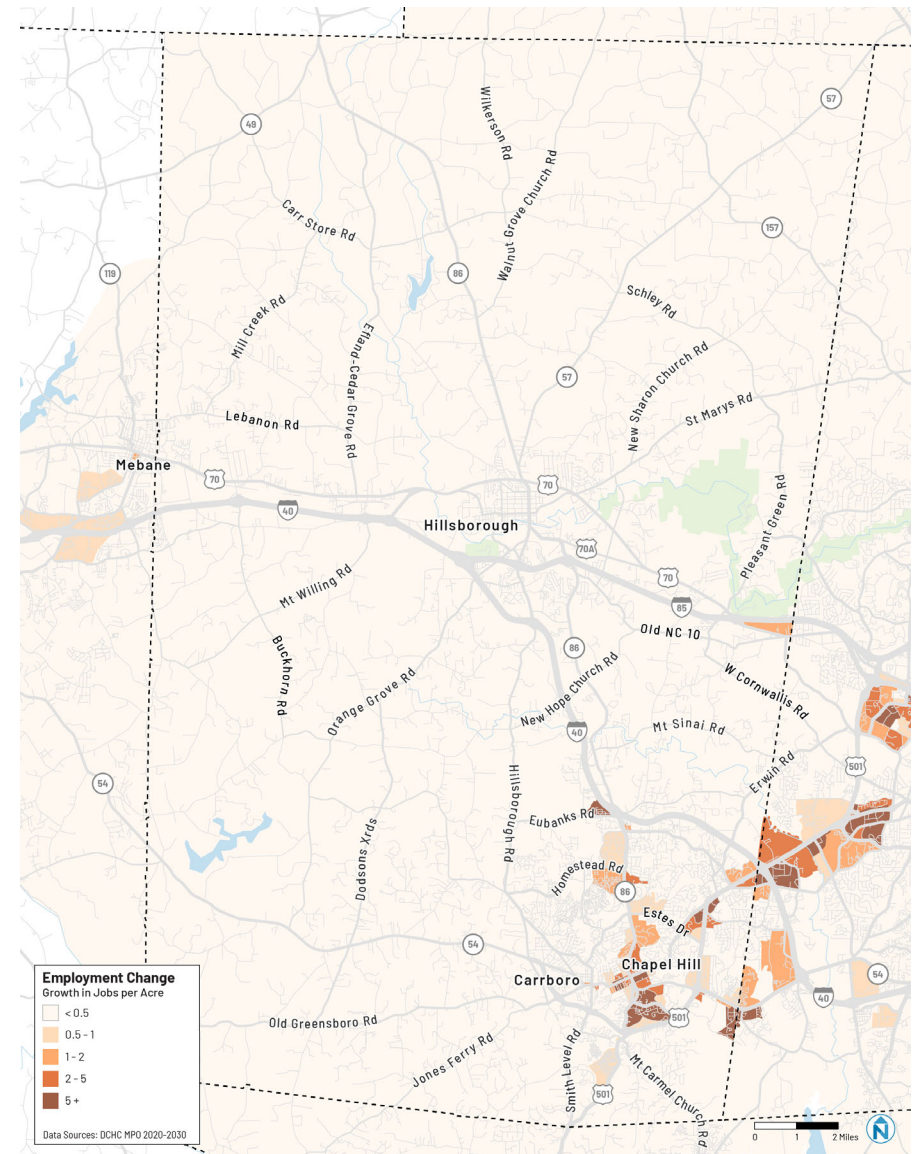


## Employment Change

Based on the Triangle Regional Model, employment is projected to increase at a greater rate than population, with a 19% increase in jobs in Orange County between 2020 and 2030 to about 89,000 jobs. Newer data from the US Census estimates a greater number of jobs than the Triangle Regional Model.

As seen in Figure 7, most of this growth is likely to be concentrated near the UNC Chapel Hill campus and hospitals, and between Chapel Hill and Durham. Southern Mebane is also expected to see an increase in employment density, while most of Orange County will likely not see a large increase in employment density. Similar to the population density change map, not all job growth is reflected in the density map.

Figure 7: Employment Density Change, 2020-2030

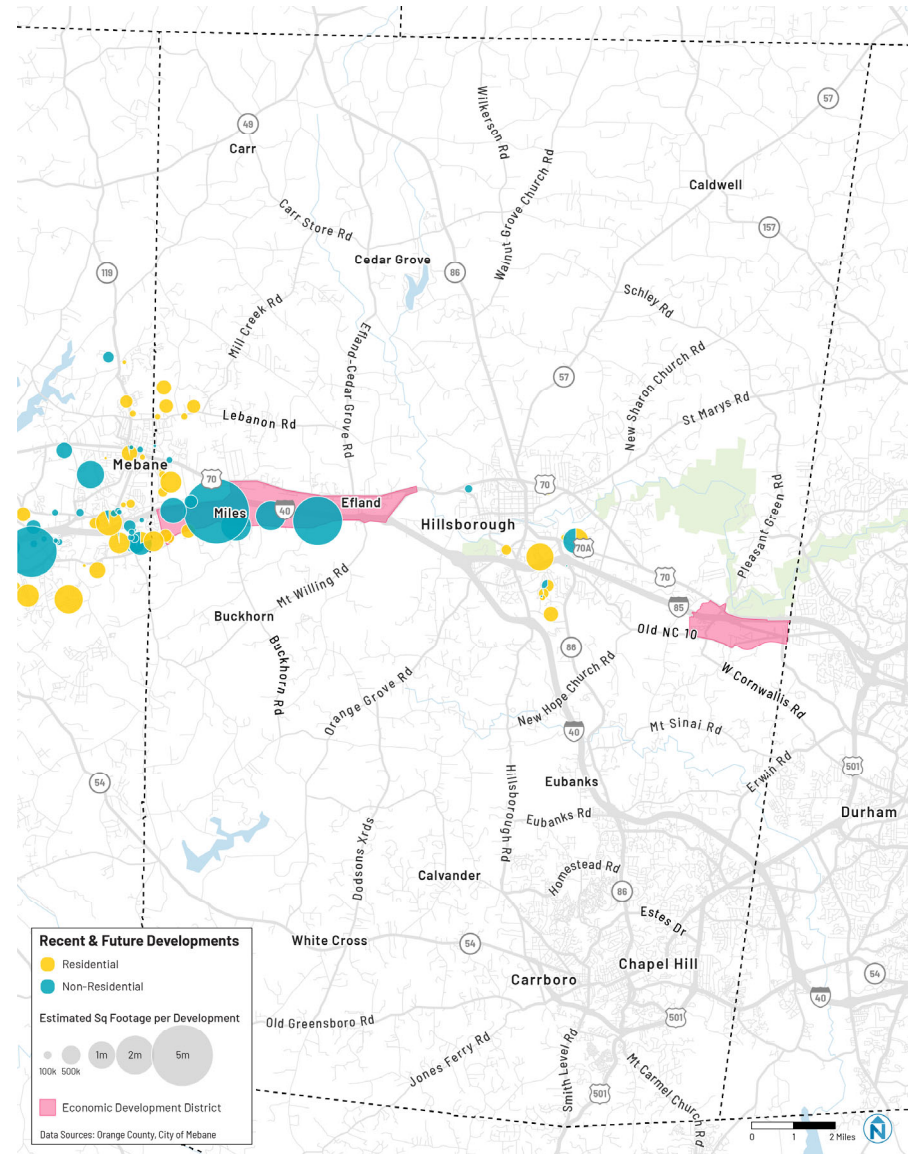


## Planned Developments

Along with the MPO and Census data, planned developments show where population and employment growth will likely occur over the course of the SRTP timeframe. Figure 8 shows the location and size of key economic and residential developments in Mebane and Orange County, including districts with economic development plans.

Mebane expects to see a high number of both residential and non-residential developments, and residential developments are planned for southern Hillsborough as well. The I-40 corridor between Hillsborough and Mebane is also likely to see large non-residential developments and is zoned to encourage continuing economic growth.

Figure 8: Recent & Future Developments



## EQUITY AND TRANSIT NEED

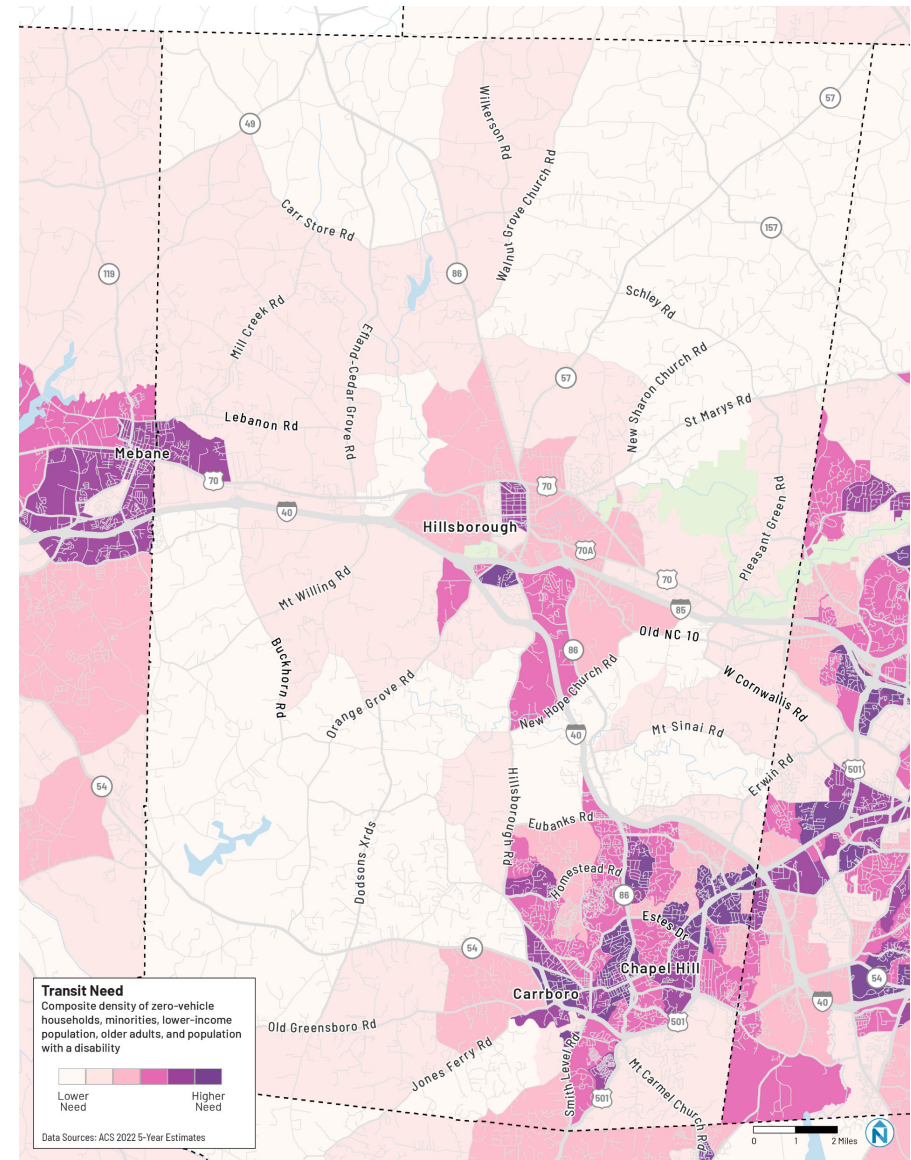
While total population and employment density are crucial to understanding transit demand, the demographics and socioeconomic characteristics of the population are also a key component in identifying the need for transit services. Many population groups, often those historically and currently marginalized, rely on transit more than the general public. To plan transit equitably, transit agencies should focus their investments on areas with high populations of these communities.

There are multiple ways to identify and measure equity needs for transit, and this report uses two distinct approaches: a Transit Needs Index and Environmental Justice Communities of Concern. The Transit Needs Index looks at the *population and density* of key demographic groups, while the Environmental Justice analysis looks at *percentages*, leading to different areas of emphasis in each analysis. In addition, the Environmental Justice analysis is based on an existing dataset from the DCHC MPO and focuses solely on Orange County, while the Transit Needs Index has a wider geographic focus and was calculated for the purpose of this Market Analysis.

### Transit Needs Index

The Transit Needs Index measures the density of socioeconomic groups that would most benefit from improved transit services for both fixed route and demand response. To calculate the index, census block groups are assigned a score of 1 to 5 for each of the following groups, based on the relative density of that group in Orange County, and summed for a final composite score:

Figure 9: Transit Need



- Zero vehicle households
- Racial and ethnic minorities
- People with low incomes (below federal poverty level)
- Older adults (65+)
- People with disabilities

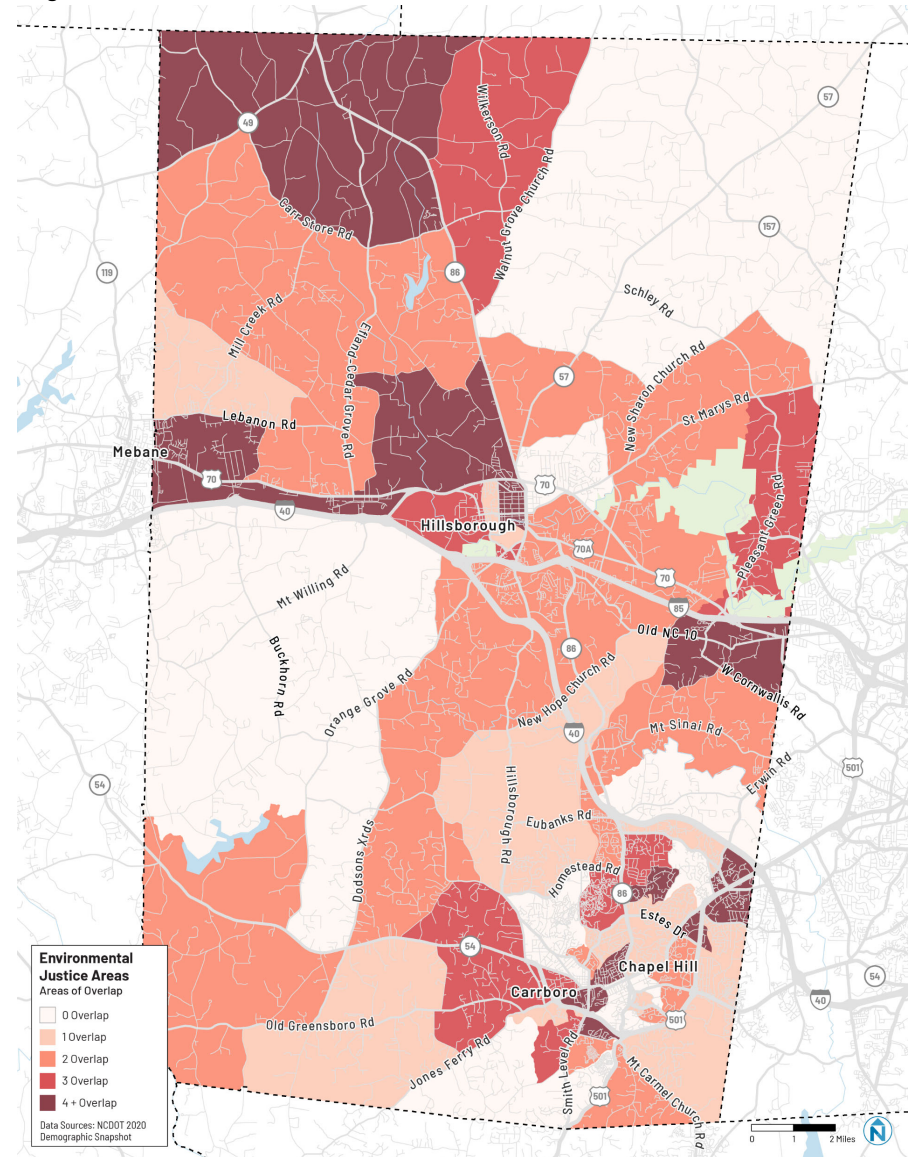
Figure 9 shows areas of high potential transit need, with darker colors indicating higher than average densities of multiple target populations. Areas with the highest transit need include most of Chapel Hill and parts of Carrboro, downtown and southern Hillsborough, and most of Mebane.

## Environmental Justice

The DCHC MPO incorporates Environmental Justice (EJ) into all aspects of its planning process, working to ensure the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income.<sup>1</sup> The MPO identifies specific Environmental Justice Communities of Concern to target:

- Racial and Ethnic Minorities
  - Black Population
  - Hispanic Population
- People with Low Incomes (below Federal Poverty Level)
- Older Adults (65+)
- Zero Vehicle Households
- Population with Limited-English Proficiency

**Figure 10: Environmental Justice Communities of Concern**



<sup>1</sup> <https://www.dchcmo.org/work-with-us/environmental-justice-ej>



The environmental justice analysis identifies Communities of Concern based on County thresholds for the percentage of certain socioeconomic groups within each area. These thresholds focus on percentage of a population, rather than density, highlighting the presence of environmental justice communities in the more rural areas of the county.

As shown in Figure 10, Communities of Concern are located throughout Orange County, especially in the northwest and east, as well as in the denser municipalities. While the rural areas may not have the density to support fixed route transit services, there are still communities that may need access to public transportation.

## TRAVEL FLOWS

Using data from Replica that models average daily traffic patterns of trips on all modes of transportation, the following maps show general flows of travel between census tracts in Spring 2023.

On an average weekday, the strongest travel flows were typically within the municipalities, with weaker flows across longer distances (Figure 11). Key travel flows outside the municipalities include:

- Trips to the center of Hillsborough from surrounding areas
- Thousands of trips occur each day from the communities between Mebane and Hillsborough (such as Efland and Buckhorn) into Mebane and Hillsborough, where much of the previously discussed developments are located

- Trips between Eubanks and Chapel Hill stand out during the peak commute times

As shown Figure 12, Saturday travel flows are slightly more locally contained than weekday, and lower overall, but follow similar patterns to the weekday travel flows. Strong travel flows occur between:

- Mebane and the tracts on the western edge of Orange County, including the communities of Buckhorn and Efland
- Northeast Orange County and Hillsborough
- Downtown Hillsborough and surrounding communities

Many of the existing transit services in Orange County, operated by both OCTS and GoTriangle, only operate for parts of the day. As shown in Figure 13 and Figure 14, travel patterns during the morning peak and mid-afternoon on weekdays differ only slightly.

During the morning peak, between 7 and 9 AM, travel patterns are mostly similar to the travel flows of the full day, with strong trip links within Chapel Hill and Hillsborough (Figure 13). Unlike full day travel patterns, there are some stronger long-distance connections, including Durham to Chapel Hill and Chatham County to Chapel Hill. Travel flows are slightly lower during the midday period (Figure 14) than in the morning. Mebane to Buckhorn continue to see strong travel flows. Trips to and from Durham are concentrated more in the north of Chapel Hill, rather than to and from UNC. Flows on the US 70 and I-40 corridor between Hillsborough and Mebane remain strong.

Figure 11: Weekday Trips, All Day

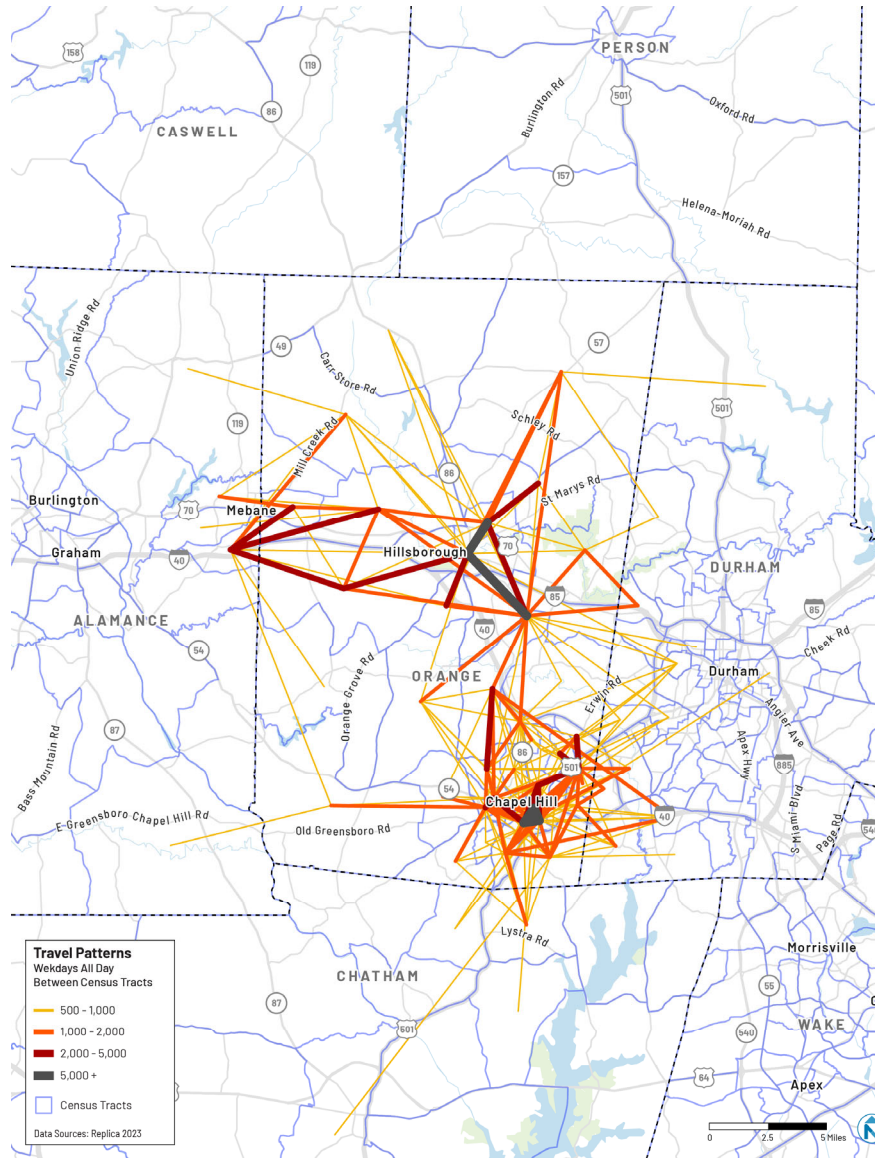


Figure 12: Saturday Trips, All Day

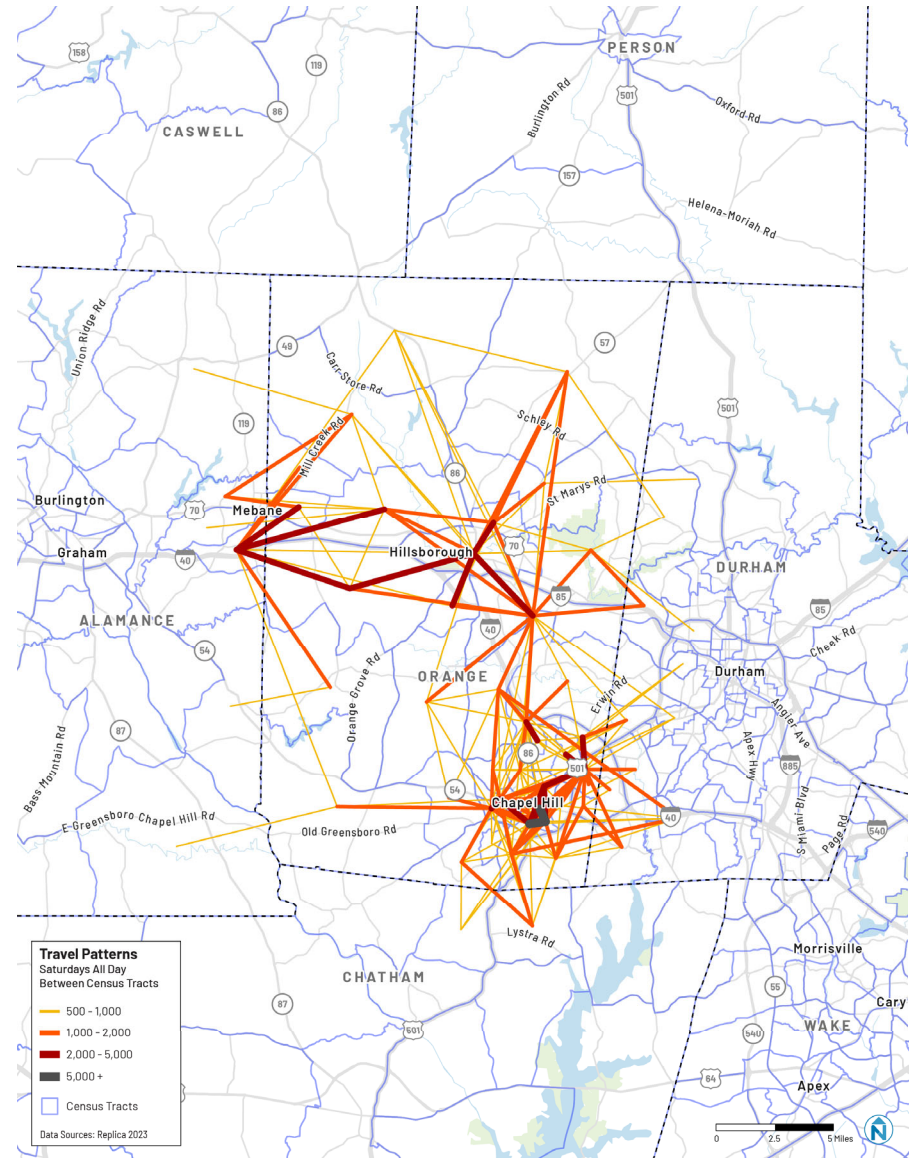


Figure 13: Weekday Trips, AM Peak

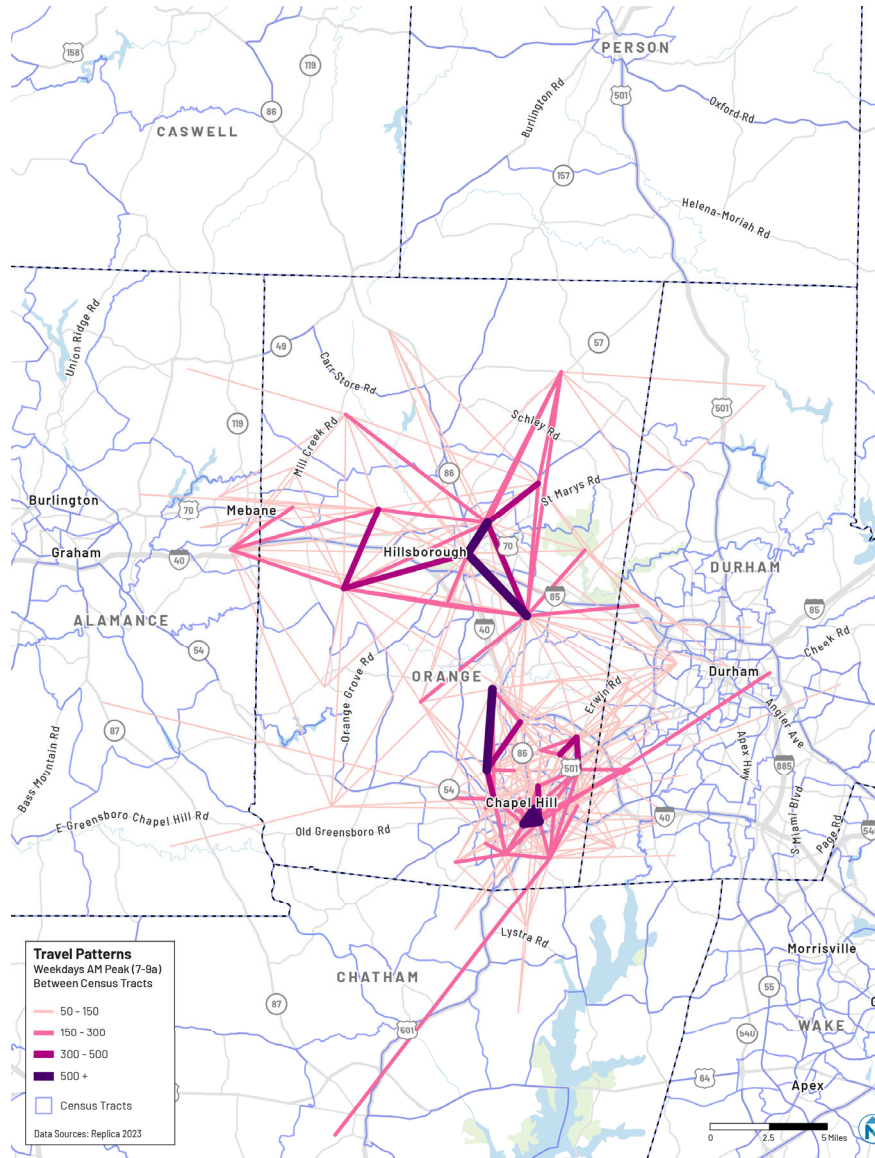
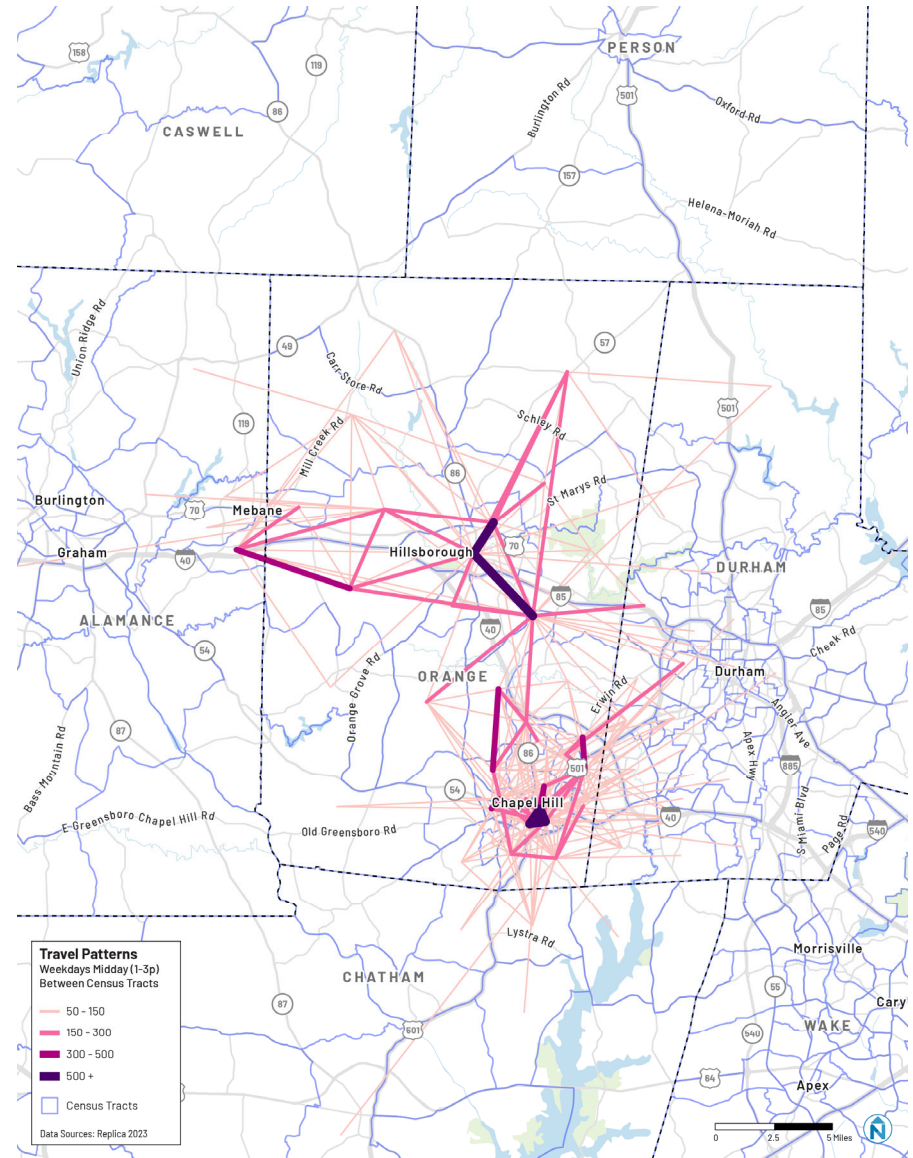


Figure 14: Weekday Trips, Mid-Afternoon



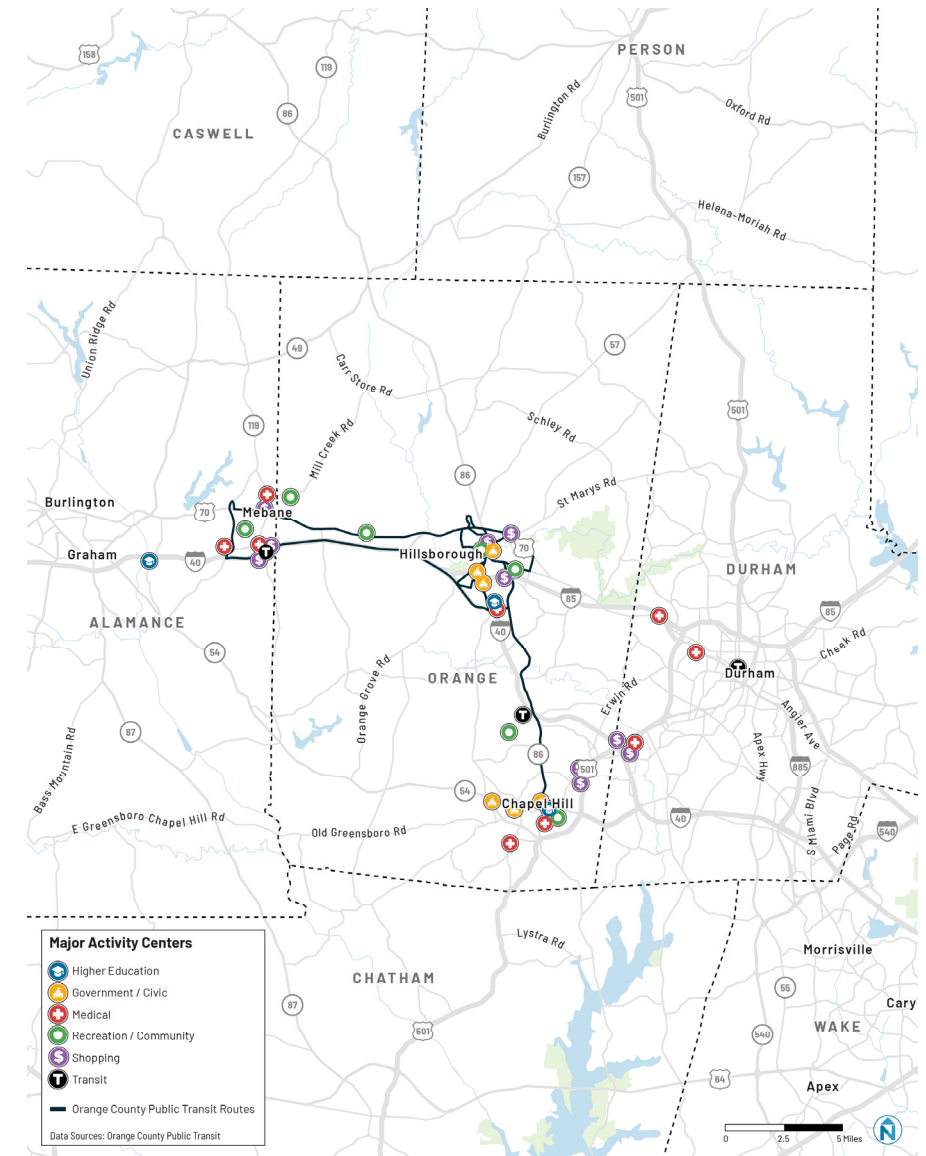
## ACTIVITY CENTERS

Some activity centers generate additional demand for transit that are not captured by the previous density analyses. As shown in Figure 15, major activity centers and points of interest in the Orange County service area include:

- **Higher Education** campuses, including UNC Chapel Hill and Durham Technical Community College in Hillsborough
- **Government/Civic** institutions, such as social services departments, town halls, and DMV locations
- **Hospitals and Dialysis**, including UNC Hospitals in Chapel Hill and Hillsborough, and multiple dialysis centers
- **Recreation/Community** centers, including parks, stadiums, senior centers, and recreation centers, such as the Passmore Center
- **Shopping** destinations, including shopping centers such as Patterson Place and Tanger Outlets, as well as destinations like Walmart Supercenters
- **Transit** facilities, including the Eubanks Park and Ride

Many of these activity centers are clustered in more densely populated areas, such as downtown Hillsborough and Chapel Hill, or along key travel corridors. However, with the distributed rural population of Orange County, residents often need to travel longer distances from less dense areas to the areas of more concentrated activity to access healthcare, grocery stores, and social services.

Figure 15: Activity Centers



## 4 EXISTING SERVICE ASSESSMENT

The Existing Service Assessment looks at the current state of transportation services offered by OCTS, identifying trends in service delivery and usage.

This analysis consists of two key components, a System Overview, which explores OCTS's services as a holistic network, and Service Profiles, which delves deeper into each individual service offered by OCTS.

Some key takeaways from the existing service assessment are:

- OCTS offers service in the form of three fixed routes—Hillsborough Circulator, Orange-Alamance Connector, and Orange-Chapel Hill Connector—and demand response.
- Ridership on OCTS's fixed route and demand response services has not recovered from the decrease due to the COVID-19 pandemic.
- The Hillsborough Circulator is OCTS's highest performing fixed route. Utilizing only one vehicle, the route runs hourly as that is the time it takes for the vehicle to complete the loop, ultimately resulting in the route frequently running late.
- The Orange-Alamance connector is currently partially suspended and covered by demand response service.

- The Orange-Chapel Hill Connector runs between Hillsborough and Chapel Hill during the middle of the day when Chapel Hill Transit's Route 420 is not running. There could be opportunities to improve efficiency by ensuring there is no duplicate service.
- OCTS's on-demand service is underutilized, possibly due to the rider registration process and lack of information available directly on OCTS's website.

## SYSTEM OVERVIEW

### Services Available

OCTS operates the following services:

- Three fixed routes: Hillsborough Circulator, Orange-Alamance Connector, Orange-Chapel Hill Connector
- Rural Demand Response Service
- Mobility on Demand microtransit service
- ADA Complementary Paratransit

Each OCTS route and service has different hours of operation, though all fixed route buses are scheduled to operate hourly throughout their service period. Figure 16 depicts the service span and frequency for the three fixed route services as well as the two demand response service types.

Figure 16: OCTS Service Span and Frequency

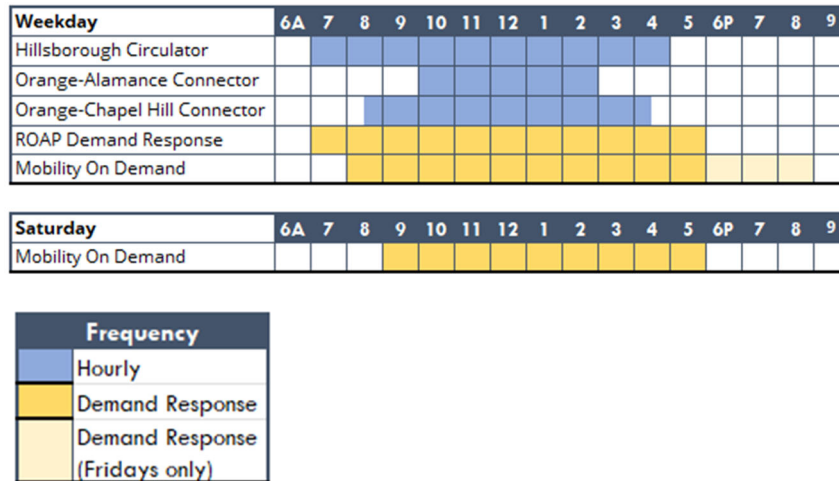
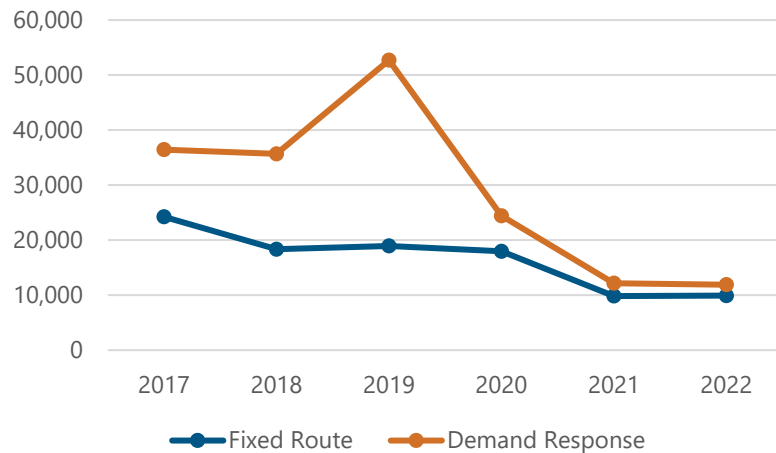


Figure 17: Annual Unlinked Passenger Trips by Service Type



Source: FTA NTD

## Service Performance

Ridership on OCTS’s demand response services declined significantly in 2020 due to the COVID-19 pandemic and continued to decline in 2021. Fixed route ridership did not see the same steep decline in 2020 but decreased in 2018 and again in 2021 (Figure 20).

The pandemic and resulting changes to commute patterns, paired with vehicle and driver shortage challenges at the agency, have led to significant on-the-ground changes to the services being offered in recent years. These changes include route suspensions and service hour changes, often without significant advertisement to the public. These challenges and changes make exact comparisons over time difficult on the level of an individual route or service.

## Neighboring Transit Services

Along with OCTS, three other transit agencies operate bus routes in Orange County: Piedmont Authority for Regional Transportation (PART), GoTriangle, and Chapel Hill Transit. OCTS also operates in neighboring Alamance County, which is served primarily by Alamance County Transportation Authority (ACTA) and Link Transit.

PART operates transit service in the counties to the west of Orange and runs one route that extends into Orange County. PART Route 4 offers service from UNC Chapel Hill to Mebane Cone Health Park and Ride, and to Graham, Burlington, and Greensboro.

GoTriangle serves Durham, Orange, and Wake Counties with six all-week and all-day routes, four peak-only routes on weekdays, and 7 regional express routes that run during peak hours all week. Two routes serve similar corridors to OCTS routes: the ODX and the 420. The ODX is an express route that serves Hillsborough, Efland, Mebane, and Durham during mornings and evenings. This route runs hourly at peak times, with three trips in the morning and three in the afternoon. Route 420 is a peak-only regional route that runs from UNC Chapel Hill to Hillsborough.

Chapel Hill Transit is a fare-free radial transit service based around the UNC Chapel Hill campus. Chapel Hill Transit operates 20 fixed routes, 9 of which operate all week and the other 11 operate on weekdays only. These routes facilitate local travel within Chapel Hill and Carrboro.

## Transit Amenities and Facilities

OCTS's bus stop amenities vary based on the size of the bus stop and nearby amenities. Working with GoTriangle, the two transit providers have made stop improvements in Orange County and the greater region. GoTriangle actively updates their Stop Improvement Map on their website with completed and in-progress bus stop amenity improvements.

Shelters vary in size depending on the location, with larger shelters typically being placed at the end-of-line and park-and-rides and smaller shelters being placed at high volume ridership locations mid-route where space allows. The style of bench can also vary, with larger benches being placed inside of or nearby shelters and smaller seats located on the bus stop pole.

OCTS serves the Mebane Cone Health Park-and-Ride and the Durham Tech OCC Park-and-Ride on the Orange-Alamance Connector, and the Durham Tech OCC Park-and-Ride by the Orange-Chapel Hill Connector.

**Figure 18 Durham Tech OCC Park-and-Ride Bus Stop**



# SERVICE PROFILES

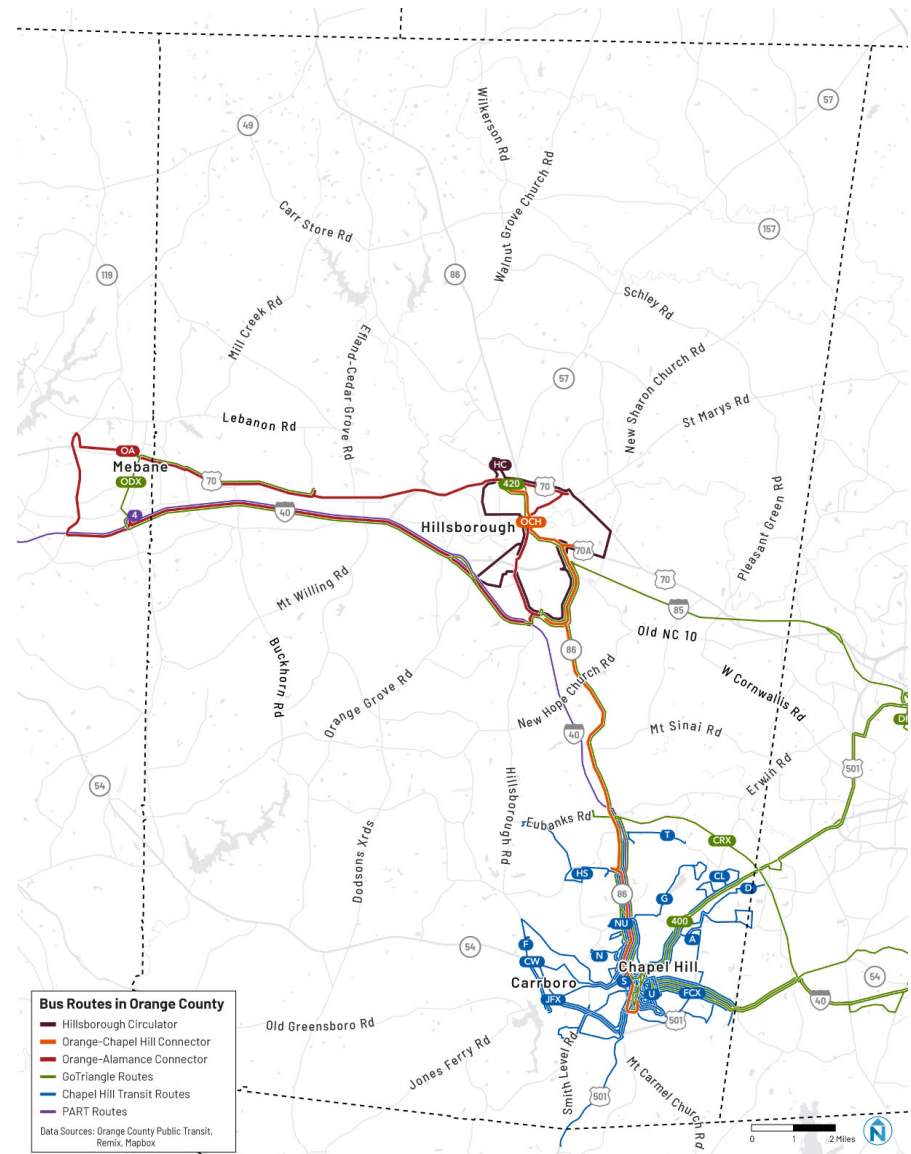
## Fixed Route

OCTS provides both regional and local service with its fixed route buses, shown in Figure 19. The Hillsborough Circulator is a local route serving key destinations in Hillsborough. Two regional connector routes, the Orange-Alamance Connector and the Orange-Chapel Hill Connector, connect Hillsborough with other regional destinations and fill a midday gap for peak-only GoTriangle bus routes, with additional local service stops.

Fares are charged for the two connector routes, at a cost of \$2.00 for the general public, \$1.00 for students between ages 6 and 17, and free for seniors (older than 60), children (younger than 5), persons with disabilities (ADA certified from OCTS or another transit agency). Fares must be paid using UMO Pass or a Passenger ID card. Cash is not an option for fare payment on OCTS routes. The Hillsborough Circulator is free to ride.

Analysis focuses on data from October 2019 and October 2023 where available, but technological and operational difficulties were limiting factors to the robustness of the ridership and trip data. On-time performance is only available as an estimate for the Hillsborough Circulator, and there is limited recent ridership data for the Connector routes. Improving data collection would support a more robust analysis in future studies.

Figure 19: OCTS and Regional Fixed Route Bus Service





# Hillsborough Circulator

## Route Description

The Hillsborough Circulator is a one-way loop that serves major destinations in the town of Hillsborough, operating hourly Monday through Friday from 7 am to 5 pm. The route operates with one vehicle, taking one hour to complete each loop. No fare is charged to ride the Hillsborough Circulator.

## Route Performance

Ridership on the circulator has recovered to approximately 78% of pre-pandemic levels, with 1,042 boardings in October 2023 compared to 1,342 boardings in October 2019. As seen in Figure 20, boardings in 2023 are more evenly distributed throughout the day, with higher activity in the midday, compared to a previous AM and afternoon peak in 2019.

Figure 20: Average Daily Boardings by Hour, October

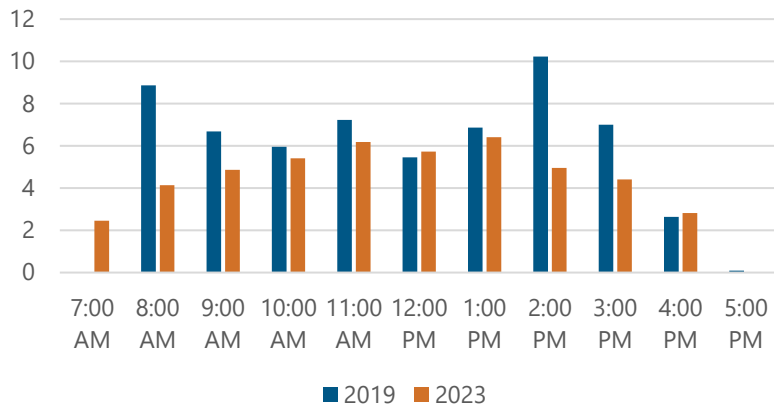


Figure 21: Hillsborough Circulator Boardings

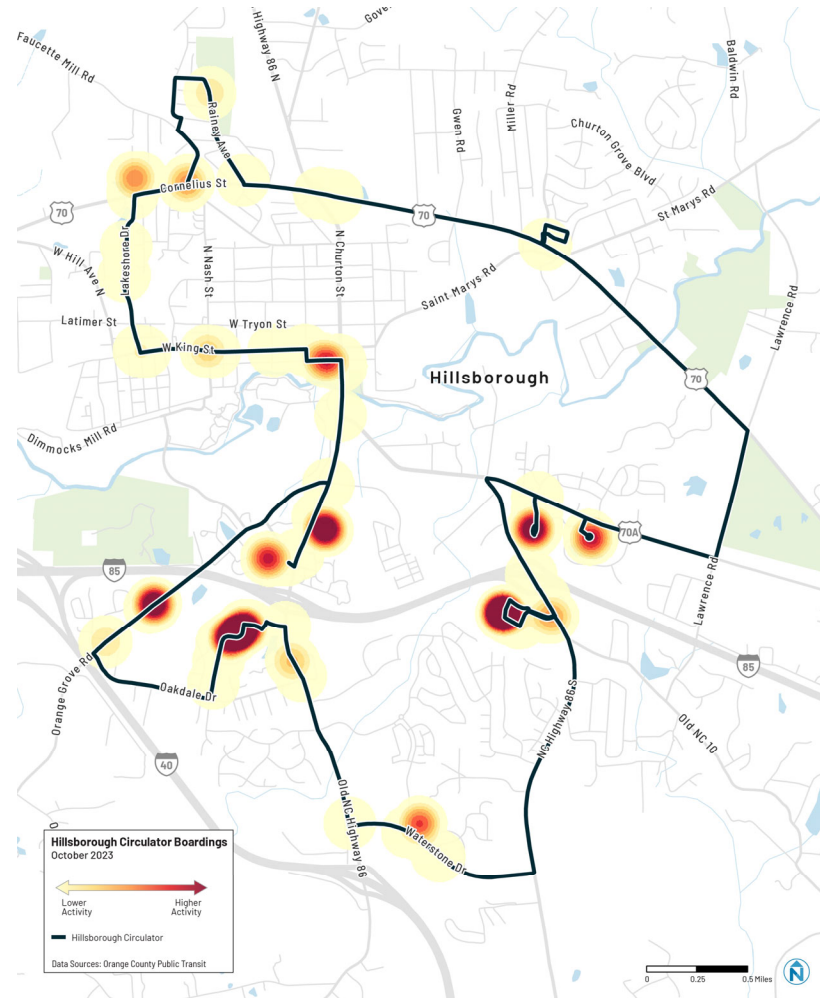


Figure 21 shows where boardings are concentrated along the Hillsborough Circulator. High ridership areas include:

- Large apartment complexes, including Gateway Village and Coachwood apartments on Cheshire Drive and Eno Haven Apartments
- Key shopping destinations, including the Hillsborough Walmart and Rebecca Drive Food Lion
- Triangle Sportsplex and Passmore Center

There are distributed boardings along the downtown portions of the route, and some limited ridership at other key stops. At key timepoint stops, 16% of trips arrived more than 5 minutes after their scheduled times.

## Opportunities

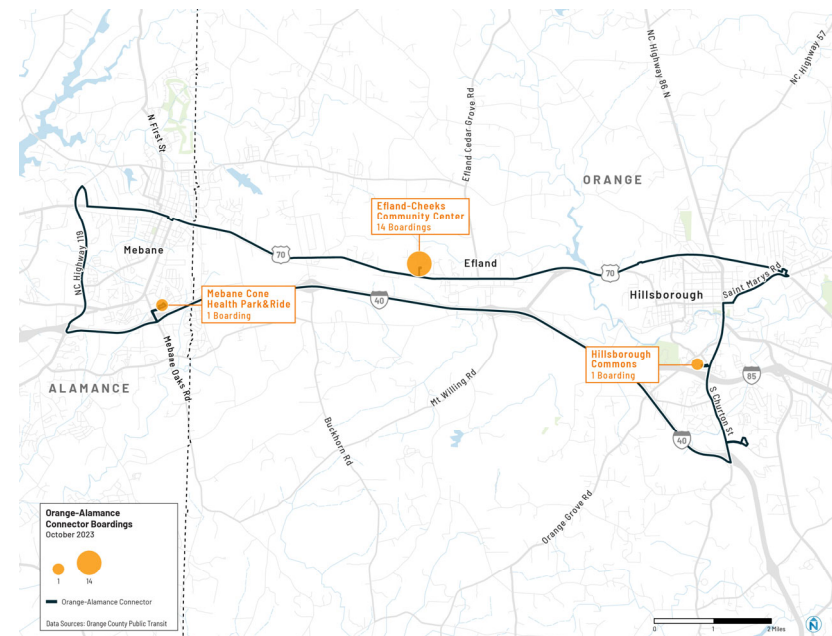
The Hillsborough Circulator connects the denser downtown environment, apartment complexes, and major shopping destinations, but operates in a challenging built environment outside of these main destinations. Ensuring the route takes the most direct path possible to the key ridership areas is essential in improving reliability and on-time performance. Return trips are made less direct by the nature of a one-way loop, especially when the route operates only hourly. A counter-loop with expanded service hours is planned for the upcoming fiscal year, providing shorter travel times and more flexibility.

## Orange-Alamance Connector

### Route Description

The Orange-Alamance Connector is a fixed-route service that connected activity centers in Hillsborough, Efland, and Mebane during the weekday midday period when the peak-only GoTriangle Orange-Durham Express (ODX) is not operating. Due to low ridership, the route is currently operating as an on-demand service, where riders would call the County to receive a ride along the fixed alignment. When in full operation, the Orange-Alamance Connector ran bi-directional hourly service between 10 AM and 3 PM Monday to Friday.

Figure 22: Orange-Alamance Connector Boardings, October 2023



## Route Performance

The Orange-Alamance Connector was the lowest performing OCTS fixed-route service pre-pandemic, with 45 total boardings in October 2019. In October 2023, operating as an on-demand service, 16 trips were attributed to the Orange-Alamance Connector. As shown in Figure 22, all but two of those boardings were at the Efland-Cheeks Community Center.

## Opportunities

The Orange-Alamance Connector has limited service hours, operating outside of core travel times, with potentially confusing differences from the peak-period service offered by the GoTriangle ODX. While the route is not operating on the ground, the OCTS website does not show it as suspended or replaced by demand response. Midday service along this corridor may be better served by demand response or microtransit service, integrating the trips into the already existing alternatives and better advertising the service to the public.

Mebane is a growing area with strong pockets of density that may be supportive of fixed route transit service, but even when the Orange-Alamance Connector is fully operational, there is limited bus service available locally.

## Orange-Chapel Hill Connector

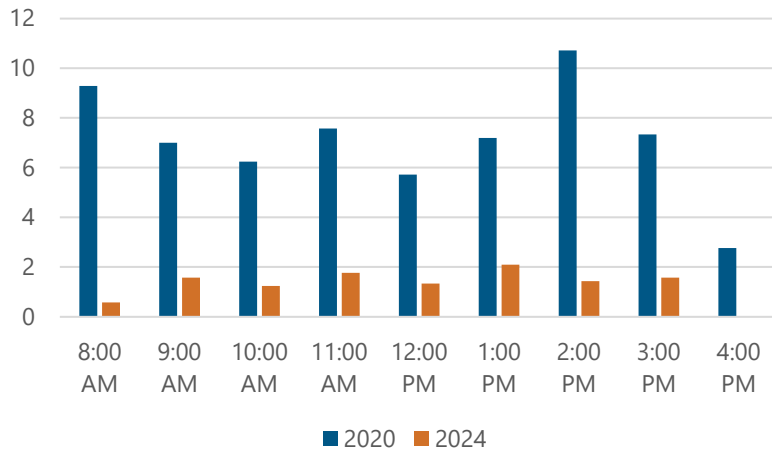
### Route Description

The Orange-Chapel Hill Midday Connector (OCH), also known as the “Hill to Hill”, connects Hillsborough and Chapel Hill during the weekday AM peak and the midday period when the peak-only GoTriangle Route 420 is not operating. The OCH operates along Hwy 86, serving downtown Hillsborough, UNC Hospital Hillsborough Campus and Durham Tech Community College, Eubanks Park and Ride, and key destinations in Chapel Hill, as well as additional local stops. The route operates Monday to Friday from 8:30 AM to 4:30 PM.

### Route Performance

Due to data collection complications, accurate October 2023 ridership information is not available for the OCH, so the analysis looks at February data from 2020 and 2024. In February 2024, there were 243 boardings for the route total, compared to 546 boardings in February 2020. 64% of the recent boardings occurred on southbound trips, and northbound trips were more common in the late morning to early afternoon, whereas southbound trips were distributed evenly across the day. Figure 23 shows the distribution of average daily boardings by hour for the Orange-Chapel Hill Connector for February 2020 and February 2024.

Figure 23: Average Daily Boardings by Hour, February

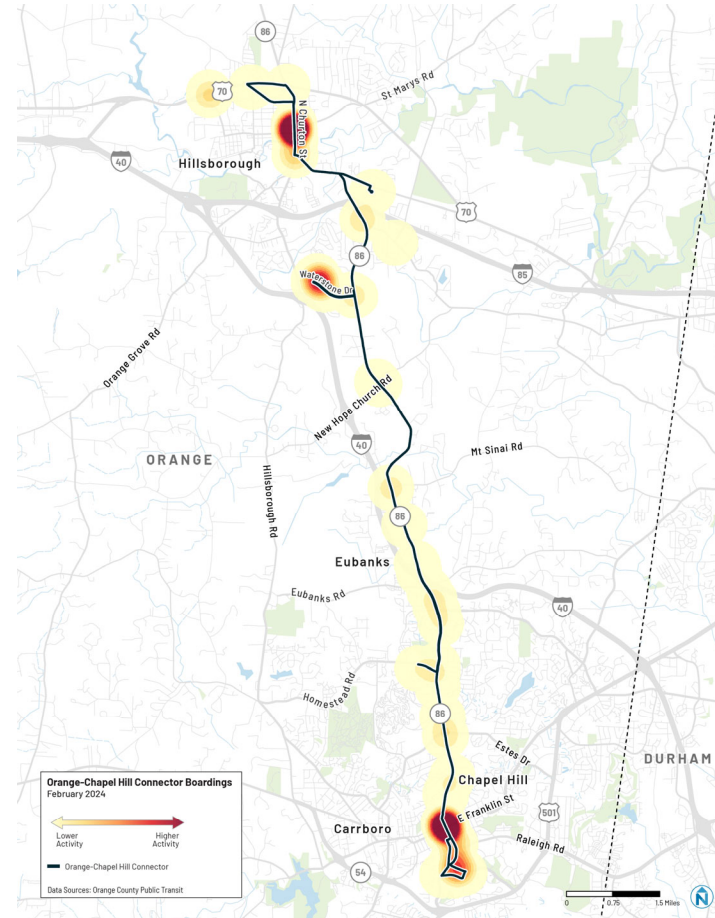


As seen in Figure 24, boardings are most common at UNC Chapel Hill, in downtown Hillsborough, and at UNC Hospital Hillsborough Campus, with low ridership along the rest of the route.

### Opportunities

The Orange-Chapel Hill Connector serves to fill the midday service gap of Route 420 as well as provide service to local stops during the AM period while the 420 is operating. Given the imbalance in northbound and southbound boardings, it is likely that riders are taking the OCH in one direction and the 420 in the other. Strong coordination between OCTS and GoTriangle is essential in serving those riders, as well as potential riders who may not know that is an available option. Identifying if there are unnecessary or duplicative trips between the OCH and 420 would also streamline service and potentially save money for either agency.

Figure 24: Orange-Chapel Hill Connector Boardings, February 2024



## Demand Response & Microtransit

Along with the paratransit provided within 3/4 mile of fixed route service as required by the Americans with Disabilities Act, OCTS provides two types of non-fixed route service: program-based rural demand response service and a publicly available microtransit service called Orange County Mobility on Demand (MOD). Both service types operate throughout all of Orange County, and serve key destinations in Mebane and Durham. In addition, both Chapel Hill Transit and GoTriangle operate paratransit services within their respective service areas: EZ Rider and GoACCESS. A guide to the different service types from the Orange County Department of Aging is shown in Figure 25. The following sections will detail the programs under rural demand response as well as the MOD program.

Customers typically use these services roundtrip. Orange County records trips separately for each direction. For mapping purposes, trip origins are defined as residential locations or the starting point of a trip between two non-residential locations. Trip destinations are defined as non-residential locations or the end point of a trip between two non-residential locations.

Figure 25: Orange County Public Transit Options

### Public Transit in Orange County, NC



## Rural Demand Response

### Service Description

Rural Demand Response service in Orange County consists of multiple disparate programs that provide door-to-door service based on location and eligibility: the Elderly and Disabled Transportation Assistance Program (EDTAP), the Employment Transportation Assistance Program (EMPL), the Department of Social Services Work First Program (DSS), and Rural General Public (RGP). These services are marketed to the public based on eligibility, not grouped together by funding as they are for the purposes of this analysis.

Demand Response service is available Monday through Friday from 7 AM until 5 PM, and trips must be booked two days in advance by 5 PM. Trip funding is based on the eligibility of the rider and trip purpose. EDTAP-eligible riders include Orange County elderly (60+) or disabled residents travelling for the following eligible trip purposes:

- Job interviews, job fairs, job readiness activities/ training, GED classes, transportation to work, Group field trips/ tours to community special events
- Human Services agency appointments, public hearings, committee meetings
- Medical appointments, pharmacy pick-ups, shopping, personal care, banking etc.

The Employment Transportation Assistance Program (EMPL) and DSS Work First Program provide trips for the following purposes:

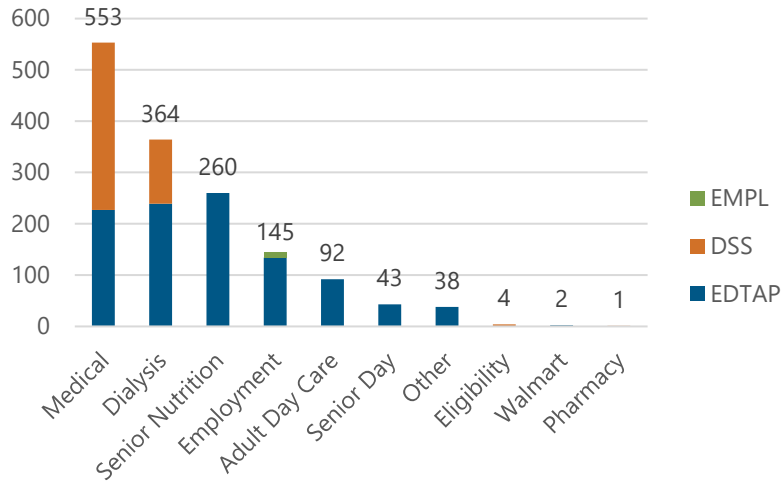
- Transport to work or training for DSS clients transitioned off TANF or Work First within 12 months, Workforce Development Program participants, “disadvantaged public” and or general public.
- Job interviews, job fairs, job readiness activities/ training, GED classes, transportation to work (scheduled by passenger),
- Children of working parent transported to child care.

RGP services are available to any member of the public, and are advertised on the OCTS website, but no trips were taken via that program during the study period.

### Service Performance

In October 2023, OCTS provided 1,502 completed demand response trips through the project categories. EDTAP funded 1,035 of those trips, DSS was the funding source for 456 trips, and EMPL funded 11 trips. Due to the nature of eligibility-based services, each trip’s purpose is recorded, and Figure 26 shows the number of trips taken for each eligible purpose, broken down by funding source.

**Figure 26: Demand Response Trips by Purpose, October 2023**



**Figure 27: Demand Response Average Daily Trips Per Hour, October 2023**

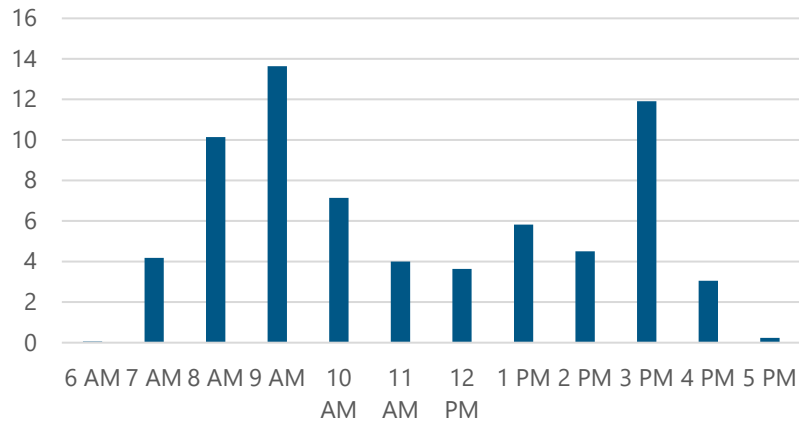


Figure 27 shows the average daily Demand Response trips per hour, with clear peaks in demand from 8 to 10 AM and from 3 to 4 PM. Figure 28 shows the home and destination locations of all

Demand Response trips in October 2023, with larger dots indicating more trips to or from that location. Demand Response riders tend to travel from disparate home locations in less dense areas to concentrated destinations in the municipalities, in particular:

- Carolina Dialysis, in Carrboro and Mebane
- Hillsborough Recovery Solutions
- Passmore Senior Center
- Downtown Hillsborough

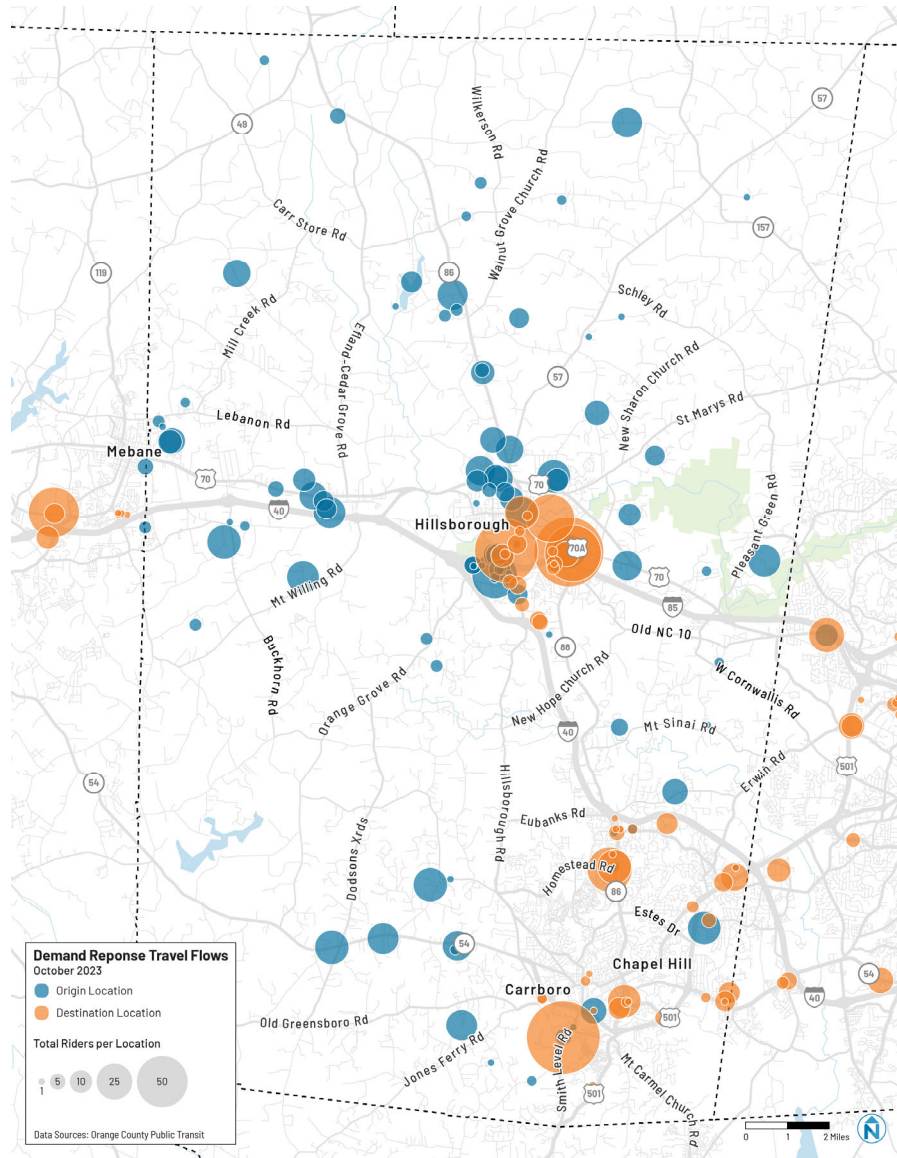
36% of Demand Response trips picked up their passengers within 10 minutes of the scheduled pick-up time.

### Opportunities

Demand Response services are fragmented, with multiple funding sources and different flows of customer information. It can be hard, especially for new riders, to identify which service they may be eligible for, where each one operates, or how to book a trip. The website, Rider’s Guide PDF, and backend data do not all match, and this could discourage potential users. This also complicates funding and reimbursement, in particular for Medicaid-eligible trips.

For current users, Demand Response services are not consistently on time, and require significant advance notice, lowering their convenience compared to traditional fixed-route transit or other transportation options. Improving response time and on-time performance could attract new users as well as improve the experience of current riders.

Figure 28: ROAP Demand Response Trips, October 2023





## Mobility on Demand

### Service Description

Orange County MOD (Mobility On Demand) is an on-demand microtransit service available to the general public within Orange County and with service extending to Mebane and downtown Durham. MOD service operates Monday to Thursday 8 am – 5 pm, Fridays 8 am – 9 pm, and Saturdays from 9 am – 5 pm. Trip fares are \$5 per zone travelled through, with the zones and service area shown in Figure 29.

### Service Performance

In October 2023, service was available on weekdays only, and 29 trips were completed with an average of fewer than 2 trips per day. Trips were most commonly taken during the AM peak and at noon (Figure 30).

Due to the limited number of home locations, only destinations are shown in the ridership map in (Figure 31). The Seymour Center on Homestead Road was the most popular MOD destination. 52% of MOD trips complete their pick-up within 10 minutes of the scheduled pick-up time.

Figure 29: MOD Service Area

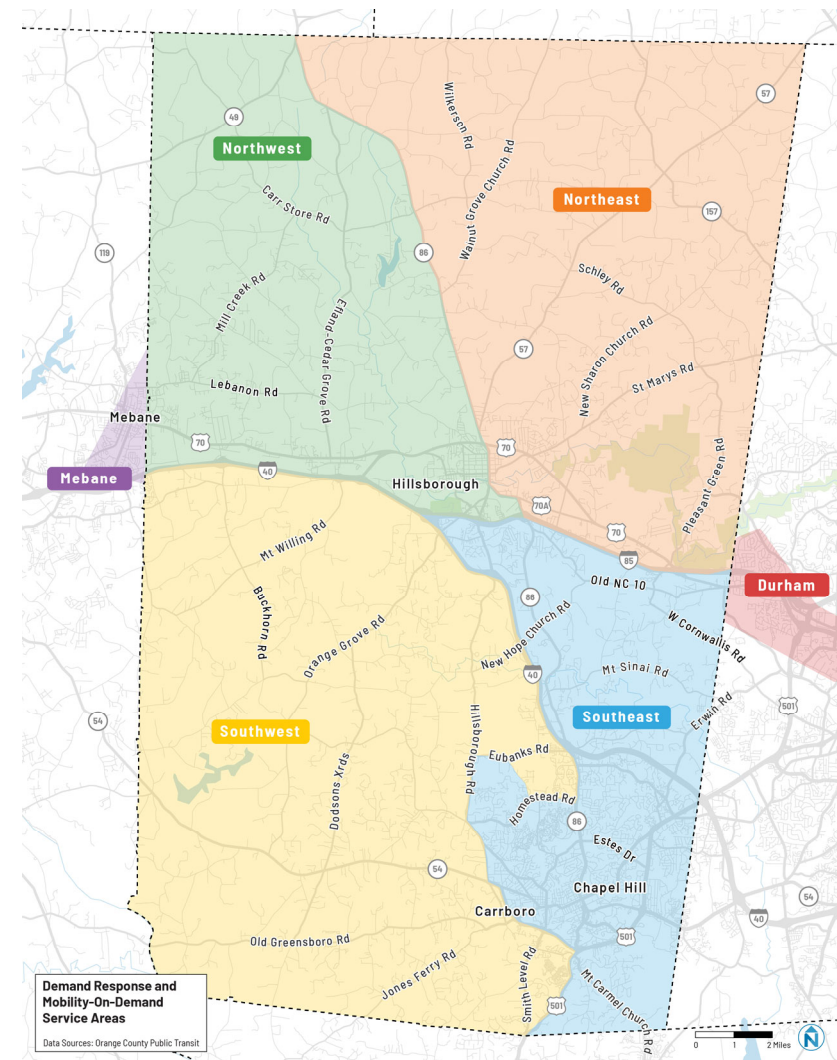
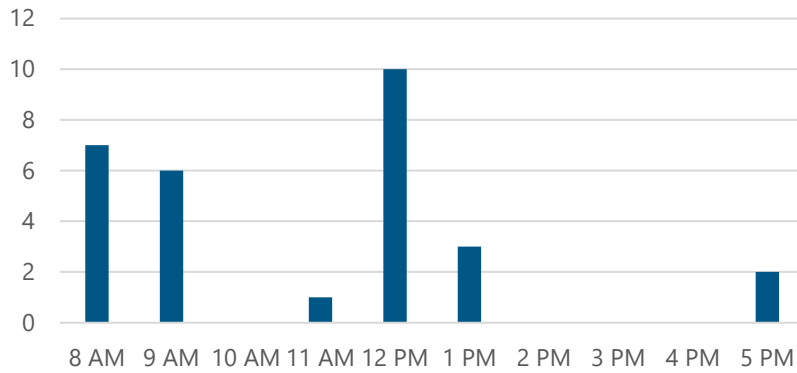


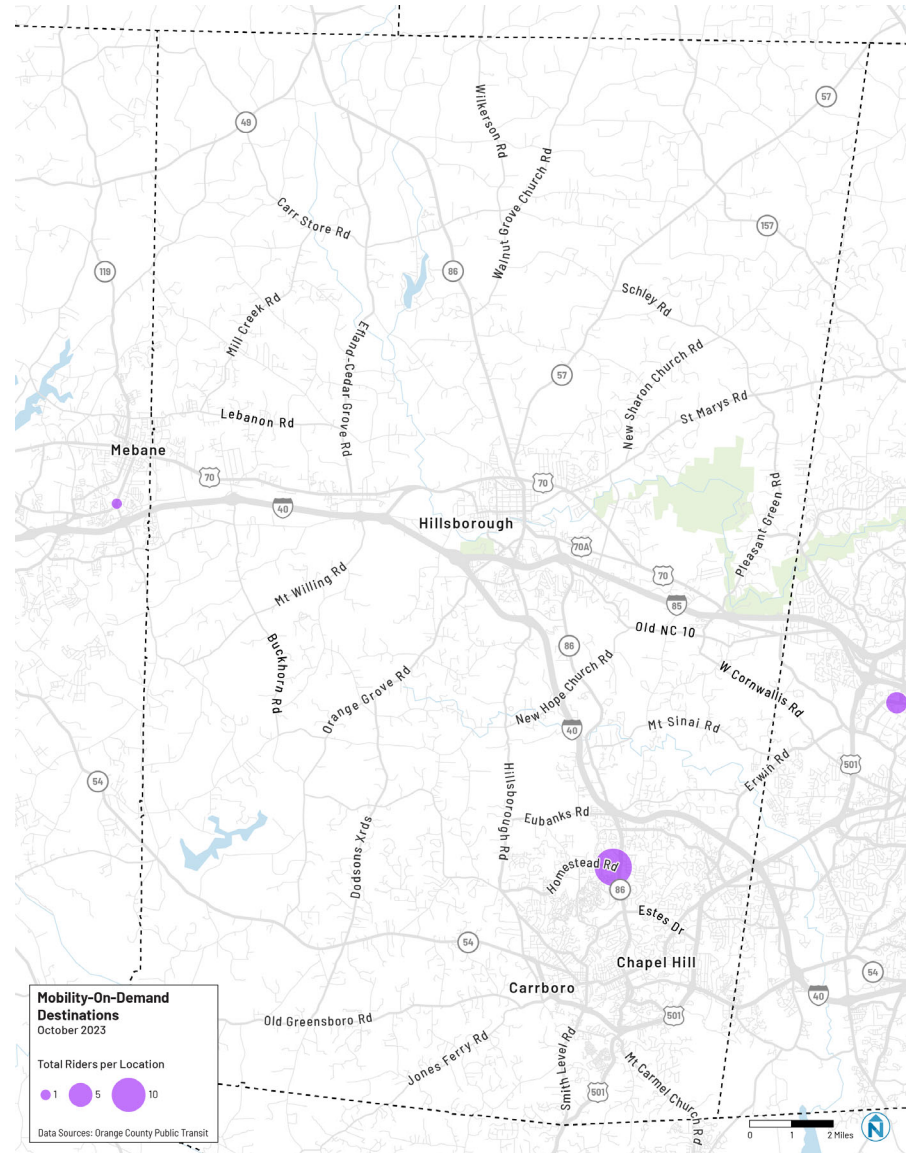
Figure 30: All Trips by Hour, October 2023



### Opportunities

Orange County MOD is significantly underused, given the potential demand within the service area. Much of Orange County is not suited to fixed-route transit, and demand response service requires longer waiting periods and can face eligibility constraints. There is not currently a service area map available on the OCTS website for MOD – a potential rider must first register online or via app with a third party to see the full extent of service offered through MOD, which adds an unnecessary barrier to ride. Cost and payment may also pose barriers to potential riders compared to the more subsidized Rural Demand Response services and the technology requirements for booking and payment. Identifying other barriers to use through public engagement will help shape the advertising and service characteristics of MOD to ensure that the funding is being put to the best use for Orange County.

Figure 31: Mobility On Demand Destinations, October 2023



## 5 TRANSIT FUNDING

Funding drives the amount of transit service and capital projects Orange County can provide its residents, workers, and visitors.

This chapter review OCTS's annual expenses and revenues, including a look at the agency's current federal, state, and local funding mechanisms. It also begins to explore other potential funding sources for future transit improvements. Key takeaways include:

- OCTS's expenses exceed revenues, creating a funding gap that makes it difficult to provide needed transit services.
- OCTS utilizes federal, state, and local funding sources. Over 75% of funds come from local sources, including the Orange County Transit Tax and other county funds.
- There are other federal, state, and local funds that OCTS can utilize to increase its revenues.

**Figure 32: FY2022 and FY2023 OCTS Expenses**

Category	FY2022			FY2023		
	Demand Response	Fixed Route	Total	Demand Response	Fixed Route	Total
Administrative	\$186,733	\$80,028	\$266,761	\$338,612	\$207,789	\$546,401
Operating	\$591,229	\$253,384	\$844,613	\$944,214	\$513,389	\$1,457,603
Capital	\$4,766	\$2,042	\$6,808	\$0	\$192,434	\$192,434
Personnel	\$978,338	\$244,585	\$1,222,923	\$1,184,426	\$296,106	\$1,480,532
<b>Total Expenses</b>	<b>\$1,761,066</b>	<b>\$335,454</b>	<b>\$2,341,105</b>	<b>\$1,282,826</b>	<b>\$913,612</b>	<b>\$3,676,970</b>

## EXPENSES AND REVENUES

In Fiscal Year (FY) 2022, OCTS spent approximately \$2.3 million on all its expenses, for both fixed route and demand response services (Figure 32). Partly due to inflation, expenses in FY2023 totaled approximately \$3.7 million. For both years, personnel costs were highest, followed by operating costs. Capital purchases made up the smallest proportion of the total expenses.

As shown in Figure 33, OCTS made approximately \$2.2 million in revenues in FY2022 and \$2.5 million in FY2023. About 13% of revenues came from the federal government, with a mix of 5307 and 5311 funds. Just under 10% came from North Carolina's Rural Operating Assistance Program (ROAP). Over 75% of funds came from local sources, including Orange County government funds, Orange County Transit Plan transit tax reimbursements, fares, and charges for services. Fares made up about 1% of OCTS revenues.

Figure 33: FY2022 and FY2023 OCTS Revenues

Source	FY2022		FY2023	
	Amount	% of Total	Amount	% of Total
<b>Federal</b>				
5307 Urbanized Area Formula	\$133,787	6.17%	\$141,102	5.60%
5311 CTP Funds	\$154,976	7.14%	\$184,580	7.33%
<b>Federal Total</b>	<b>\$288,763</b>	<b>13.31%</b>	<b>\$325,682</b>	<b>12.94%</b>
<b>State</b>				
ROAP Funds	\$197,845	9.12%	\$211,284	8.39%
<b>State Total</b>	<b>\$197,845</b>	<b>9.12%</b>	<b>\$211,284</b>	<b>8.39%</b>
<b>Local</b>				
Transit Tax*	\$765,987	35.31%	\$948,482	37.68%
Local Government Funds	\$767,112	35.37%	\$952,896	37.85%
Fares	\$12,419	0.74%	\$27,610	1.39%
Charge for Services	\$136,888	6.31%	\$51,493	2.05%
<b>Local Total</b>	<b>\$1,682,406</b>	<b>77.57%</b>	<b>\$1,980,481</b>	<b>78.67%</b>
<b>Total Revenue</b>	<b>\$2,169,014</b>		<b>\$2,517,447</b>	

\*Note: The Orange County Transit Tax is a reimbursement of Local Government Funds and does not include funds set aside for the Transit Plan Update process.

## FUNDING SOURCES

OCTS's annual expenses exceed its revenues, and additional investments are needed to fulfill the level of transit need identified in Orange County. To increase its revenues, OCTS can work to fully utilize existing funding sources, including the Orange County Transit Tax, and tap into new ones. The following is a non-exhaustive list of the funding sources available at the federal,

state, and local levels. This list builds upon work completed through the BGMPO Regional Transit Feasibility Study.

## Federal Sources

### Section 5307

Section 5307 is FTA's Urbanized Area Formula Program. These funds are available for transit agencies that operate within a

census-designated urbanized area. Section 5307 funds can be used towards up to 80% of capital costs and 50% of operating costs. These funds are distributed through MPOs with a set allowance per transit agency.

### **Section 5310**

Section 5310 is formula funding targeted towards transportation needs of older adults and people with disabilities. The federal share is up to 80% for capital projects and 50% for operating assistance. Example uses of eligible Section 5310-funded activities include the purchase of buses and vans, wheelchair lifts and ramps, mobility management programs, travel training and transit-related information technology systems, including scheduling, routing, and one-call systems. Section 5310 funds are reserved for agencies with locally coordinated human service plans.

### **Section 5311**

Section 5311 is a formula grant program for rural areas, providing capital, planning, and operating assistance. The federal share is up to 80% for capital projects, 50% for operating assistance and 80% for Americans with Disabilities Act (ADA) non-fixed route paratransit service.

### **Section 5339**

Section 5339 is FTA's Bus and Bus Facilities Program. This program funds replacement, rehabilitation and purchase of buses and related equipment, and construction of bus-related facilities.

The federal share is not to exceed 80 percent of the net project cost.

### **Carbon Reduction Program**

The Carbon Reduction Program is a new funding source through the Bipartisan Infrastructure Law. Funds are administered through the NCDOT. The program provides funds for projects that reduce carbon dioxide (CO<sub>2</sub>) emissions from the transportation sector.

### **Congestion Mitigation and Air Quality**

The Congestion Mitigation and Air Quality (CMAQ) Improvement Program is a long-standing source of grant funding for transportation programs that reduce air pollution and vehicle miles travelled. It is often used by transit agencies for upfront capital costs, like the acquisition of on-demand vehicles.

## **State Sources**

### **Rural Operating Assistance Program**

The Rural Operating Assistance Program (ROAP) is a state-funded public transportation program administered by the North Carolina DOT's Integrated Mobility Division. Formula-based programs that fall under ROAP include:

- Elderly and Disabled Transportation Assistance Program (EDTAP)
- Employment and Transportation Assistance Program (EMPL)
- Rural General Public Program (RGP)

A local match is not required for EDTAP and EMPL, but a minimum 10% local match is required for RGP. ROAP funds can also be used to leverage FTA Section 5310 and 5311 funds.

### **State Maintenance Assistance Program**

The State Maintenance Assistance Program (SMAP) provides state funds designed to assist urban, small urban, and regional transit service providers with funding the non-federal share of operational expenses. Funds are allocated annually through a formula. Funds can be used only for FTA Section 5307-eligible operating costs and cannot exceed the amount of the local fund match.

### **Transportation Demand Management**

Public organizations responsible for the promotion of Transportation Demand Management (TDM) activities may apply for matching funds for strategies that promote the use of transportation options other than single-occupancy vehicles. The program funds up to 50% of the total expenses associated with TDM programs, including the creation of a new TDM Plan for an agency.

## **Local Sources**

### **Orange County Transit Plan**

Originally adopted in 2012 as the Bus and Rail Investment Plan, the Orange County Transit Plan was updated in 2017 and provides for funding to OCTS, GoTriangle, and Chapel Hill Transit for improvements to transit services. The Plan was updated again

in 2022, with funding for MOD and other transit services in Orange County.

The Plan is funded through a series of Orange County taxes and fees approved by voters:

- Half-Cent Sales and Use Tax
- 5% Vehicle Rental Tax
- \$3 increase to the GoTriangle Regional Vehicle Registration Fee
- \$7 County Vehicle Registration Fee

### **Medicaid Transportation**

Non-emergency medical transportation provided by OCTS is funded by Orange County's Department of Social Services, which gets reimbursed from the state's Medicaid program. North Carolina expanded access to Medicaid in December 2023, so OCTS may be able to provide more medical trips soon.

### **Fares**

OCTS charges a variety of fares for its services. For fixed routes, the Hillsborough Connector is free of charge, while the Orange-Alamance Connector and the Orange-Chapel Hill Connector are \$2 for the general public. Demand response services range from fare-free to \$12.75, depending on eligibility and type of service. The Mobility on Demand service is \$5 one way. Changes to the fare structure can influence the funding available for transit service in Orange County, though fares are a small piece of total revenue.

## 6 OPPORTUNITIES

OCTS serves essential transportation needs in Hillsborough and rural Orange County through a patchwork of fixed route, rural demand response, and MOD services, coordinated with multiple transit and human services agencies throughout the region, and connects rural residents to all urban areas in and around the county. The SRTP will build upon the identified gaps and opportunities when recommending improvements to transportation in Orange County.

Based upon the findings of the Existing Conditions report, OCTS can continue to improve transportation and grow alongside the communities of Orange County by focusing on making it easier to ride existing services, making it easier to pay for transportation, improving the operations of existing services, exploring the development of new services, and better leveraging currently available funding. Key opportunities under each of these improvement categories include:

### **Make Services Easier to Use**

- Communicate with the public about available services, including better advertising for all services, particularly MOD, and clarifying the on-demand status of the Orange-Alamance Connector
- Invest in better bus stop amenities
- Improve pedestrian and bike access to transit
- Coordinate services with regional providers, including GoTriangle, Chapel Hill Transit, PART, ACTA, and Link Transit

### **Improve Existing Services**

- Invest in Demand Response outside of main towns and corridors
- Strengthen the Hillsborough Circulator, focusing on on-time performance, travel time, and service hours
- Improve performance by expanding the fleet and continuing to recruit operators.

### **Explore New Service Opportunities**

- Explore options for free and low-cost service to grocery stores, social services, and senior centers
- Increased access to employment opportunities, including non-traditional work hours
- Invest in a Mebane circulator in partnership with other transit providers
- Identify potential capital improvements to improve speed and reliability, such as transit emphasis corridors.

### **Better Leverage Available Funding**

- Balance available resources to favor more productive and needed services
- Ensure Medicaid-eligible trips are being reimbursed to the fullest extent possible
- Explore ways to leverage additional transit tax and federal dollars

### **Improve Fare Payment**

- Streamline fare payment methodology across services
- Explore possibility of subsidized passes for MOD

These findings will be supplemented by robust public outreach to understand what current and potential riders want most from OCTS, and integrated into proposals for further review at a later stage of the SRTP.



# APPENDIX A1: REVIEW OF PAST PLANS

Reviewing past plans and projects sets the stage for the existing conditions analysis by providing a baseline and history of projects, changes, and future visions. The project team reviewed plans and projects relevant to transit in Orange County and the surrounding region, including transit plans, climate plans, funding studies, and multimodal transportation plans. The plans reviewed are listed below.

- Orange County Transit Plan (2017) and Update (2022)
  - Burlington-Graham Metropolitan Planning Organization (BGMPO) Comprehensive Transportation Plan (2022)
  - BGMPO 2045 Metropolitan Transportation Plan (2020)
  - BGMPO Regional Transit Feasibility Study (2024)
  - Orange County Climate Action Plan (2023)
  - Connect 2050: The Research Triangle Region's Metropolitan Transportation Plan (2022)
  - Orange County's Complete Streets and Vision Zero Policies (2022)
  - Orange County Transportation Services Title VI Plan (2022)
  - Orange County Transportation Services ADA Paratransit Plan (2022)
  - GoTriangle Short Range Transit Plan (2023)
  - Chapel Hill Short Range Transit Plan (2020)
- Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) Comprehensive Transportation Plan (2017)
  - City of Mebane Comprehensive Transportation Plan (2021)

The review of each plan focused on both transit-based elements such as routes, services, and corridors that have been identified for transit investments, along with higher level elements, such as funding and county-wide goals. A summary of each plan is as follows.

## Orange County Transit Plan Update (2022)

The Orange County Transit Plan Update (2022) allocates transit tax district revenues for the next 20 years based on community needs, values, and priorities, and includes both previously programmed and new projects. The Orange County transit tax is 1/2-cent sales tax that is also collected during vehicle rentals and registration. In 2022, revenues for this tax were nearly \$9M. These revenues go towards Orange County Public Transportation, Chapel Hill Transit, and GoTriangle, along with funding infrastructure-related transit improvements.

The plan's goals and values include promoting greater quality of life through facilitating travel in the region, easing access to the

region's wealth of colleges and universities, and ensuring transit service for as many residents as reasonably possible.

Relevant Findings:

- The 2012 Interlocal Agreement for Orange County distributes transit tax revenues to the three transit agencies: 64% for Chapel Hill Transit, 24% for GoTriangle, and 12% for Orange County Public Transportation
- Transit tax revenues make up 34% of OCPT's budget, compared to 13% for CHT and 4% for GoTriangle.
- Mobility On-Demand Service Expansion is funded through transit tax revenues. The expansion is slated to be completed in two phases—2022 and 2024—and will cost approximately 1.1M to complete.
- In addition to the On-Demand Service Expansion, transit tax revenues have been slated to fund projects from the 2012 or 2017 Orange County Transit Plans. For OCPT, these projects are 15 OCPT bus stop signs, Hillsborough Park-and-Ride, AVL, and Planning for the new OCPT Transit Plan.
- The revenue generated by the transit tax district is not enough to fund all projects, so OCPT has a list of seven identified 'unfunded priorities'. These are identified in the case of additional funding becoming available so that there is already a list of potential uses for such funds. OCPT's unfunded priorities do not include cost estimates.
  - Vanpool Subsidy Program
  - Improvements to the Hillsborough Circulator, including expanded hours and a counter-direction loop
  - Hillsborough-Durham Midday Connector
  - New peak-only fixed route services: a Cedar Grove Peak Connector and a White Cross Commuter Service
  - Transit amenities in Hillsborough, including a new transit center and park and ride facility

Figure A: OCPT MOD Project Sheet

58
05
projects.

# MOD

ORANGE COUNTY PUBLIC TRANSPORTATION

SERVICE IMPROVEMENT

**OCPT's Mobility-on-Demand (MOD) service provides life-line service in difficult to serve locations currently lacking transit options.**

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**Route:** Orange County Public Transportation MOD

**Improvements:** Two (2) phases extending service hours and coverage

**Description:**  
*Phase 1:* Expand hours of service and coverage area;  
*Phase 2:* Improve coverage area, expand hours and days of service

**Cost:** \$438,741 (*Phase 1*) increasing to \$650,588 (*Phase 2*)

**Net New Revenue Hours:** 4,400

**Implementation Year:** 2024 (*Phase 1*), 2026 (*Phase 2*)

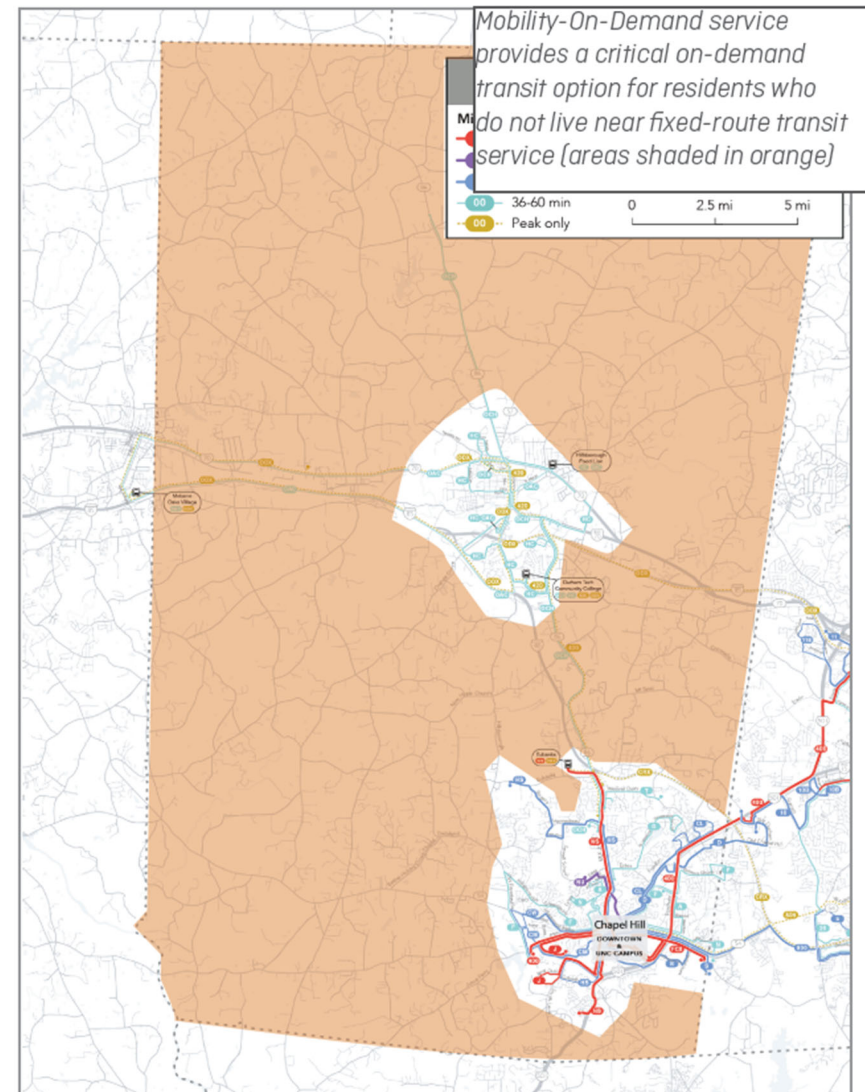
The Mobility-On-Demand service provides a critical on-demand transit option for Orange County residents living in areas that lack fixed-route transit service. This projects expands the days and hours when this affordable transportation option is available for ALL residents of Orange County in two phases.



**core values.**

- Equity:** Provides transit service in locations that currently have little to no service, including lower income, rural communities.
- Affordable and Attainable Quality of Life:** Provides an affordable life-line transportation option for all.
- Transportation and Access for All:** Provides a transit service option reaching all residents of Orange County.

Figure B: OCPT MOD Service Area



## **Burlington-Graham MPO (BGMPO) Comprehensive Transportation Plan (2022)**

BGMPO's Comprehensive Transportation Plan is the MPO's long-range plan that identifies major transportation needs and solutions through 2050. The recommendations in this plan are not funded or fiscally constrained, unlike other regional comprehensive plans. The plan includes recommendations for transit infrastructure and service improvements for the Burlington, Graham, and Mebane areas, with a few recommendations for Orange County. The relevant recommendations consist of:

- A Mebane Connector, which would cover the City of Mebane and connect to the proposed Mebane - Hillsborough Commuter Rail via the Downtown Mebane rail station.
- A Mebane to Hillsborough Commuter Rail, which would run for 13 miles from Downtown Mebane Station to Hillsborough and potentially beyond.
- Enhanced service on the Orange-Alamance Connector by increasing headways
- Improving and adding new park and rides in Orange County, Graham, and Mebane.

Note that there are additional recommendations for Graham and Mebane that would not have any interaction with Orange County Public Transit that are not listed here. The fiscally unconstrained recommendations here would provide greater connectivity and

transit services in areas that either lack transit services today or would benefit from improvements to existing services.

## **BGMPO Metropolitan Transportation Plan 2045 (2020)**

The BGMPO Metropolitan Transportation Plan for 2045 is the region's transportation plan, which consists of the cities and towns of Burlington, Graham, Mebane, Elon, Gibsonville, Green Level, Haw River, Whitsett, Alamance, and the counties of Alamance and parts of Guilford and Orange. This plan identifies the region's transportation needs over the next twenty years.

Relevant OCPT Findings:

- The Alamance County Transportation Authority (ACTA) recommended two fixed routes for Mebane: the Mebane Circulator and the ACC to Mebane Connector. These both fall under the MTP 2045 Unfunded List, which was compiled by transit agency staff and the Steering Committee. These were both classified as 'Medium' regarding the funding feasibility in the 2020-2045 timeframe. Both the Mebane Circulator and the ACC to Mebane Connector would have an estimated capital cost for vehicles during the first 10 years of operations of \$160,000, and each would have an annual operating cost of \$48,863 and \$48,878, respectively.
- Refers to the recommendation of other plans for improved on-demand service hours and vehicles across Orange County

Figure C: Mebane Connector Option 1

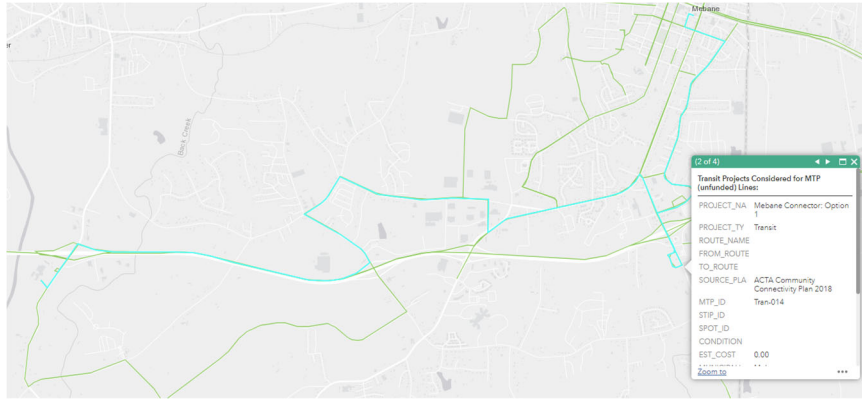


Figure E: Mebane Connector Option 3

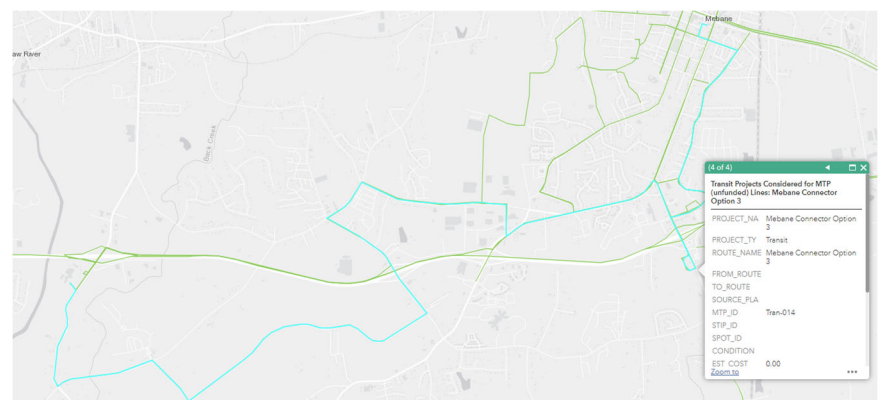
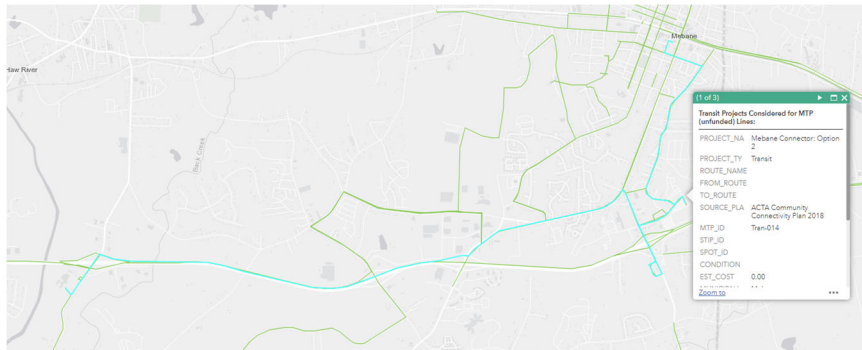


Figure D: Mebane Connector Option 2



## BGMPO Regional Transit Feasibility Study (2024)

The BGMPO Regional Transit Feasibility Study focused on identifying opportunities to better coordinate and expand transit service in the region. There are proposals that include agency consolidation or partnerships that do not include OCPT as an impacted/consolidated organization, but OCPT would be indirectly impacted as the agency would still coordinate with the larger agency on regional transit needs.

The study also presents an overview of funding available funding opportunities, including those that are currently utilized and potential local funding opportunities. Available federal funding programs include:

- Section 5307
- Section 5310
- Section 5311
- Section 5339
- The Carbon Reduction Program

Available state funding programs include:

- Rural Operating Assistance Program
- State Maintenance Assistance Program

Potential new local funding sources include:

- Vehicle registration fee
- 1/4 -cent sales tax

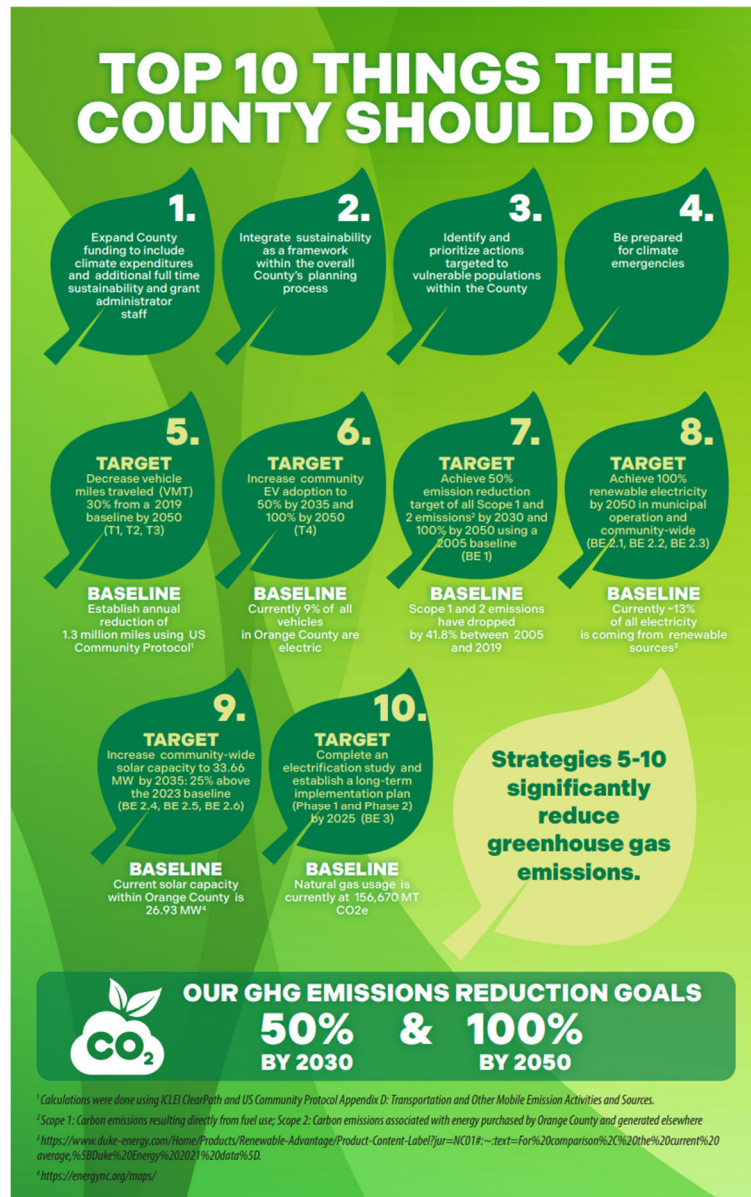
## Orange County Climate Action Plan (2023)

The Orange County Climate Action Plan (CAP) is the guiding document towards greenhouse gas reductions, looking to act as a comprehensive strategy guide that is in line with state regulations. As a holistic Climate Action Plan, transit strategies are just a subset of the outlined strategies for greenhouse gas reduction by 2030 and 2050. Transit-specific strategies revolve around increased on-demand service and converting to an electric fleet.

Relevant Findings:

- Extend service hours by 3% and coverage by 6% by 2030
- Implement changes to address gaps in Northern and Southern Orange County by 2030.
- OCTP's transit fleet accounts for just 1% of carbon emissions created by the county government and its operations
- Transitioning to smaller, energy-efficient buses or vans is a priority to make progress by 2050
- Expansion of Orange County mobility on Demand is a priority and part of the strategy of exploring innovative public transportation options
- Increase in registered zero-emission vehicles in North Carolina to be 1,250,000 by 2030, and 50% of new vehicle sales to be zero emissions.

Figure E: Climate Action Plan



## Connect 2050: The Research Triangle Region's Metropolitan Transportation Plan (2022)

Connect 2050 is the long-range transportation plan for the two organizations that oversee transportation planning in the Research Triangle Region: The Capital Area Metropolitan Planning Organization (CAMPO) and the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO). This plan describes analysis and public engagement that resulted in a set of planned investments. The transit-related components of this are: local and regional transit facilities and services, including rapid bus and rail lines; transportation demand management marketing and outreach efforts that increase the use of alternatives to peak period solo driving; technology-based transportation services and using advanced technology to make transit and road investments more effective.

- Adopted regional transit project for high frequency bus service on the Orange-Chapel Hill Connector by 2050 in the form of a High Capacity or Express Bus.
- Transit is an emphasis, but there is not much focus on OCPT-related transit.
- Points to the 2022 Orange County Transit Plan Update for more information regarding OCPT-specific transit plans.
- Summarizes funding, transit, demographics, and transit demand from other plans.

## **Orange County's Complete Streets and Vizion Zero Policies (2022)**

Orange County's Complete Streets and Vizion Zero Policies were adapted in October 2022. The Vizion Zero Policy states that the locality will aim to meet the state's safety targets of a 50% reduction of fatalities and serious injuries by 2035, and a 100% reduction by 2050. To do so, Orange County strives to improve safety by developing a Transportation Safety Plan, create safer streets, and deliver equity-driven transportation projects.

This goes hand-in-hand with the Complete Streets Policy, which was adopted in tandem with the Vision Zero plan. The complete streets policy strives to encourage the design and construction of safer and more equitable streets.

## **Orange County Transportation Services Title VI Plan (2022)**

Orange County Transportation Services Title VI Plan overviews the Title VI standards and processes that OCTS must abide by. Included in this document are also transit service standards that OCTS has stated, including that all fixed-route services have between 30- and 45-minute headways with plans to reduce these to between 15 and 30 minutes.

This plan additionally includes guidelines surrounding Title VI analysis and Environmental Justice analysis prior to system

changes or new facility construction. This plan also provides guidelines on public engagement.

## **Orange County Transportation Services ADA Paratransit Plan (2022)**

The Orange County Transportation Services ADA Paratransit Plan outlines the standards that OCPT must meet to provide sufficient ADA and paratransit services. OCPT currently exceeds the required service standards for coverage and abides by all federally mandated standards. Orange County operates ADA service within  $\frac{3}{4}$ -mile of each side of fixed route corridors 5 days a week from 8:00 AM to 5:00 PM. Users must schedule their ride at least a day in advance in order to receive this service.

In addition to ADA service, OCTP offers MOD services, which do not require advanced scheduling, and can pick up a passenger as quickly as 30 minutes from the time of reservation.

## **GoTriangle Short Range Transit Plan (2023)**

GoTriangle's Short Range Transit Plan (S RTP) provides a comprehensive assessment of the transit environment, service, and performance of regional transit in Durham, Orange, and Wake Counties, and offers a set of recommendations up to FY28. The recommendations included simplification of routes, strengthening all-day regional connections, and adjusting peak-



only services to reflect changing travel patterns. Relevant findings to Orange County are:

- Ridership on the ODX and 420 have not recovered to pre-pandemic levels.
- ODX ridership is heavily peak oriented, with nearly all passengers riding to Durham in the morning and from Durham in the afternoon.
- To improve speed and reliability for riders, route alignment changes were recommended for both the ODX and 420, with the potential for future service frequency and span improvements beyond the time period of the SRTP.

## Chapel Hill Short-Range Transportation Plan (2020)

Chapel Hill Transit's 2020 SRTP provides a roadmap for transit improvements in Chapel Hill and Carrboro for the next ten years. Recommendations include service expansion and demand-response zone additions. Additionally, Chapel Hill Transit wants to ensure simple, direct, and consistent transit by minimizing route deviations, operating along more direct paths and utilizing major arterials, and simplifying passenger facing materials. Recommendations in this SRTP that are particularly relevant to OCPT is the consolidation of paratransit services where they overlap and continuing to look for effective ways to serve commuter demand between service areas.

## DCHC MPO Comprehensive Transportation Plan (2017)

The DCHC MPO Comprehensive Transportation Plan is a long-range transportation plan that covers the region and outlines plans to be implemented through 2040. The modes that the plan covers are highway, public transportation, rail, bicycle, and pedestrian changes. For Orange County, major public transportation recommendations include the Durham-Orange Light Rail Transit and the North-South Corridor Bus Rapid Transit—a rapid transit route that runs along NC-86 and US 15-501 from Eubanks to Southern Village. Both of these routes would serve routes that have been identified as key commuter paths, relieving the need for automobile transit to job centers and other key destinations.

## City of Mebane Comprehensive Transportation Plan (2018)

The City of Mebane's Comprehensive Transportation Plan is a multi-modal plan that covers roadway, public transportation, and bicycle and pedestrian travel. The City of Mebane does not currently run any form of local transit and is reliant on surrounding transit agencies to cover the needs of their residents. To change this, the plan recommends a circulator bus route for Mebane, which would run through the main part of the city, covering key destinations, such as parks, schools, community centers, and commercial destinations along the route. This route would provide a needed form of transit for Mebane residents to

travel within the city, as opposed to destinations outside of the city. Additionally, there is demand for service to Alamance Community College and to have connections to other regional routes.