

Transportation Demand Management (TDM) Pilot Project

Needs Assessment and Recommendations

September 2025

CRTPO
CHARLOTTE REGIONAL
TRANSPORTATION PLANNING
ORGANIZATION

CENTRALINA
REGIONAL COUNCIL

Introduction

According to NC Department of Transportation's (NCDOT) 2018 Statewide Transportation Demand Management Plan, the Charlotte region has the most congestion and could benefit the most from a Transportation Demand Management (TDM) program. TDM refers to a program of education and incentives that are meant to complement existing transportation infrastructure to allow travelers to better understand and increase the use of transportation choices, such as flexible work schedules, bike/walking, carpooling and riding transit. TDM programs help to increase the efficiency of existing infrastructure and ensure travelers can meet their daily needs through a variety of transportation choices. To date, TDM activities in the region have been limited to specific programs and geographic areas.

CONNECT Centralina Regional TDM Plan Development

Centralina Regional Council is a lead sponsor and implementer of the CONNECT Beyond Regional Mobility plan (2021) for the greater Charlotte area. A key recommendation in the CONNECT Beyond plan is to develop a regional TDM plan and program. The plan identified Centralina as the lead in this effort along with statewide and regional partners.

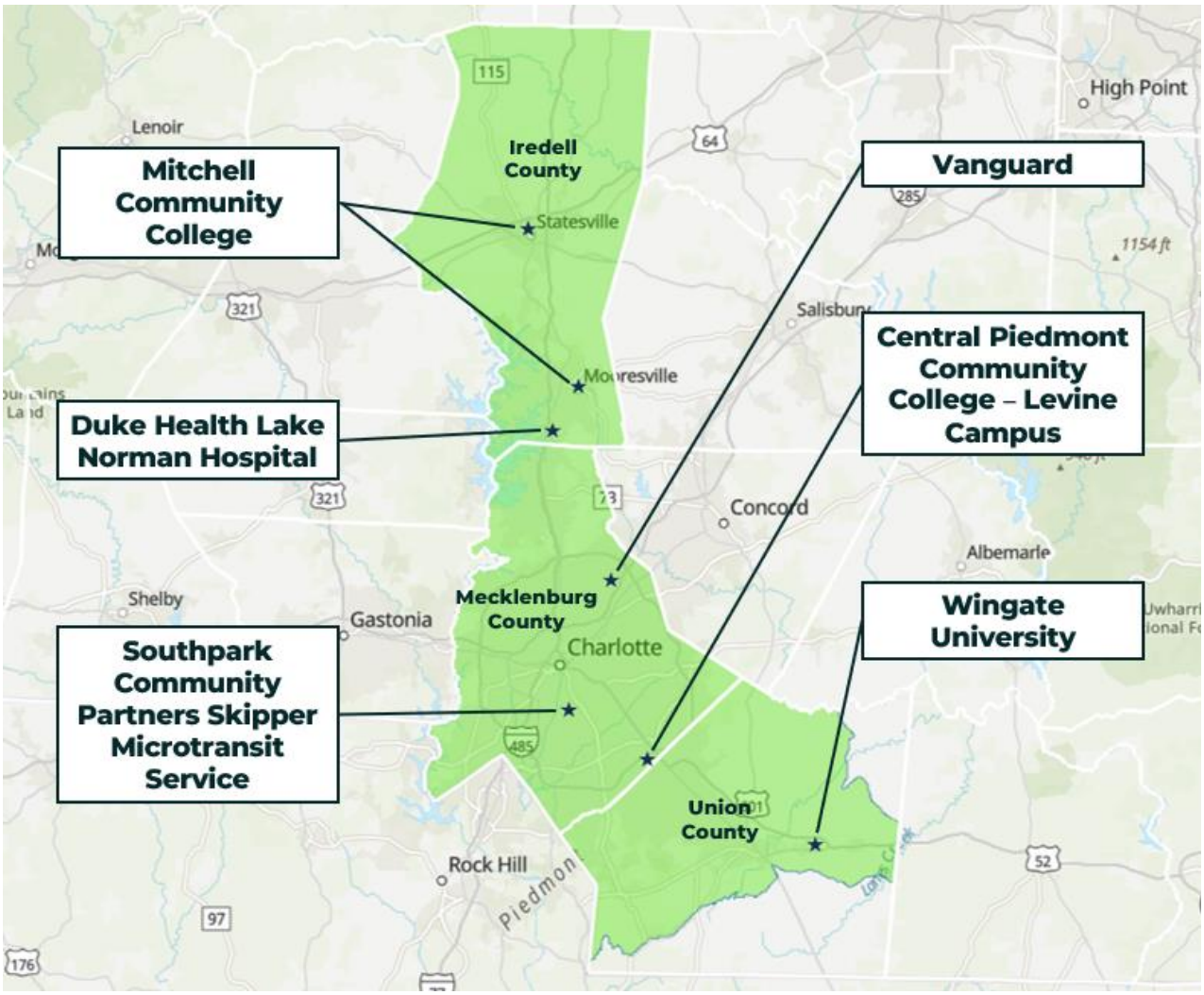
Key partners included NCDOT's Integrated Mobility Division, Charlotte Regional Transportation Planning Organization, City of Charlotte, Gaston-Cleveland-Lincoln Metropolitan Planning Organization and the Charlotte Area Transit System. Kittelson & Associates was selected as the lead consultant on the project.

The 14-month plan development process included the convening of a TDM steering committee with representatives from a broad array of organizations and geographies to help advise throughout the process. In addition to the steering committee, the planning process included engagement with key stakeholder groups from business and planning communities, as well as learning from peer TDM programs. A regional TDM assessment was also conducted to check our region's readiness for a TDM program by evaluating existing travel behaviors, transportation networks, demographic data and spatial data. Centralina's Executive Board endorsed the CONNECT Centralina TDM Plan in September 2024.

Funding for TDM Pilot Projects

Through the TDM plan development process, Centralina identified working with major employment/education/healthcare centers, municipal service districts (MSDs), and transportation management associations (TMAs) as a key focus for the TDM program. Before rolling out a broad regional program, Centralina received funding through CRTPO's Discretionary

Grant program to conduct a series of pilot projects in the CRTPO planning area to develop a toolbox of TDM strategies/activities and that can be rolled out in the future to a broader geography. Centralina focused its pilot project efforts on employers, education institutions, MSD partnerships and healthcare providers with a significant presence in the region along major corridors in Iredell, Mecklenburg and Union counties.



For each pilot project Centralina conducted a needs assessment to identify the transportation barriers and develop recommended TDM activities to address these needs. The following pages summarize the needs assessment for each pilot project participant.

Central Piedmont Community College

Levine Campus

Background

The Levine campus of Central Piedmont Community College is a growing education center offering students classes in general education, automotive, nursing/medical and many other fields of study. The campus also serves over 200 high school (middle college) students who can obtain college credits while still in high school. The campus location is a short distance from downtown Matthews and is close to the Mecklenburg/Union county boundary.

Existing Transportation to Campus

The Levine campus has ample parking available, and many students drive a vehicle to campus. The campus is also serviced by the Charlotte Area Transit System (CATS) via an extension to NC Route 51. The service is limited with infrequent headways, focused around a morning, midday and afternoon schedule. CATS has surveyed middle college students to try to optimize the existing service. Union County residents may be able to receive transportation through Union County Transportation (UCT).

Transportation Needs

Centralina convened a series of meetings of representatives from the college, CATS and UCT, to discuss transportation needs. The needs identified included:

- Need to increase utilization of existing CATS service
- With significant student body residing in Union County (close to 40% of student body based on heat map analysis of home zip codes), there is a need to provide these students with public transportation to campus
- Travel between campuses is important for students who need to take classes not offered at the Levine campus
- Transportation needs are not limited to students as there are many employees at campus, including service and maintenance employees that have shift schedules

Central Piedmont Community College

Levine Campus

TDM Activity Recommendations

Based on discussions around transportation needs, the following TDM activities were identified:

- Increase awareness of existing services for both CATS and UCT. This would include improving transportation information for students on the website, such as exact bus stop location on campus, linking directly to the NC Route 51 schedule and provide Union County students with more information about UCT services
- Explore Share the Ride NC (carpool matching service) to help students find rides to and travel between CPCC campuses



SouthPark Community Partners

Skipper Microtransit Service

Background

SouthPark is a retail, commercial and employment center that is included within the 1-square mile of the SouthPark Municipal Service District (MSD). SouthPark Community Partners provides management services for the MSD. In 2024, SouthPark Community Partners developed a vision for the MSD, SouthPark Forward, that included expanding mobility options with the goal of becoming a "park once" place. To expand transportation options in the district, SouthPark Community Partners pursued a microtransit pilot to offer free shared ride services within the district.

Existing Transportation

The SouthPark MSD is served by several bus routes in the Charlotte Area Transit System (CATS), several of which stop at a transit center located in the garage level of the SouthPark Mall. There are sidewalks on most major roadways in the district, and several major intersections have received crosswalk improvements to make the area more pedestrian friendly. A 3-mile urban trail, called The Loop, is under development to improve connectivity.



In November 2024, SouthPark Community Partners launch the SouthPark Skipper, a free ride share service within the district (See map of the service area). The all-electric fleet is operated by Freebee and is accessed via an app or by phone.

SouthPark Community Partners

Skipper Microtransit Service

Transportation and Project Needs

Centralina began meeting with SouthPark Community Partners just after the Skipper's launch and identified that the pilot could benefit from input from key stakeholders from CATS and the City of Charlotte's Department of Transportation (CDOT). The three areas for input and coordination included:

(1) Data analysis of Skipper rides as related to existing transit and bike/ped infrastructure
(2) Survey question development and analysis
(3) Identifying funding opportunities for long-term viability of program

Centralina convened a monthly work group of interested stakeholders to work on these identified needs, as well as provide peer research and GIS data analysis assistance.

TDM Activity Recommendations

- Use GIS analysis to help to make the case to potential funders to continue the Skipper services – this analysis includes mapping key demographics and identifying origin/destination "hot spots"
- Seek input from stakeholders to identify potential co-location of bike/ped infrastructure and transit improvements that could complement the Skipper service
- Continue to survey customer base to understand purpose of customer rides, price elasticity and to improve service
- Conduct peer research to develop potential funding models to continue pilot program
- Develop key takeaways and lessons learned for other MSDs to consider if wanting to develop a similar microtransit service



Mitchell Community College

Background

Mitchell Community College is located in Iredell County and has two campus locations – one in Statesville and one in Mooresville. Mitchell Community College offers a wide variety of classes and programs, partnering with local businesses and industries to ensure the demand is met for highly skilled workers in Iredell County. Mitchell has experienced a recent growth in enrollment with over half of its students in early college programs (high school students).



Existing Transportation to Campuses

Both Mitchell Community College campuses have limited access to public transportation. The Statesville campus is located on Iredell County Area Transportation System's (ICATS) deviated fixed route service, the Statesville Bloom, which runs a loop in the downtown area. Similarly, the Mooresville campus is located on the Mooresville Main. These bus routes have limited frequencies and often do not connect students to where they live. Some intellectual and developmentally delayed students, who qualify, receive ICATS transportation through their demand response service. Additionally, Mitchell previously had a contract with ICATS to provide shuttle services to students but did not feel like many students were taking advantage of service.

Mitchell Community College

Transportation Needs

Centralina met several times with Mitchell Community College staff and identified the following student transportation needs:

- Need to increase existing ICATS service and utilization of this service
- Travel between campuses is important for students who need to take classes not offered at their home campus. The campuses are located 20 miles apart. The college is looking to make sure both campuses offer general education and other key classes to limit this need
- The college is aware of Share the Ride NC, and even have an account set up, but has not promoted the service due to some safety concerns for students

TDM Activity Recommendations

Based on discussions around transportation needs, the following TDM activities were identified:

- Student survey was developed and conducted in late Fall 2024 to look at student transportation and scheduling needs. Centralina assisted with the development of the student survey which can be used with other colleges in the region
- Increase awareness of existing services for ICATS deviated fixed routes in both Statesville and Mooresville, making sure to have the most up to date schedule
- Explore Share the Ride NC (carpool matching service) to help students find rides and, if comfortable with service, promote more in student communications. Centralina was able to set up a meeting between Mitchell Community College and several colleges in the Triangle area that were using Share the Ride NC to discuss student safety concerns

Wingate University

Background

Wingate University is an independent college located in Union County with over 2,500 students. Wingate recently started a program in partnership with Julia's Learning (a Charlotte, NC based non-profit) to provide education for young adults with intellectual and developmental disabilities (IDD). The 2025-26 school year is the program's first year, serving 4 students in the Fall semester and adding 2 more for the Spring. Part of the curriculum for this program will be for students to learn to manage their own transportation and to engage in part-time employment.



Existing Transportation to Campus

Wingate University has limited public transportation service. The University's IDD students are served by demand response transportation through Union County Transportation (UCT). This service requires IDD students to arrange transportation in advance, booking their trip either online or through calling UCT. Additionally, there is a CATS Park and Ride located in Indian Trail, NC (Union County) that provides an express route into downtown Charlotte, NC.

Wingate University

Transportation Needs

For this project, Wingate University was seeking assistance with travel training for IDD students so that these students could gain the experience and skills to schedule transportation to employment and other destinations. This would increase the independence of these students. To meet this unique need and provide qualified travel training, Centralina contacted Disability Rights & Resources, a Charlotte non-profit that works with people to overcome barriers in independence, including transportation barriers. Disability Rights can provide travel training for Wingate's IDD students to:

- Provide travel training that meetings the unique needs of each IDD student
- Incorporate both classroom instruction about buses, access and travel behavior, as well as practical training where students ride together with an instructor for real world experience

TDM Activity Recommendations

Based on discussions around the transportation needs of Wingate's IDD students, the following TDM activities were identified:

- Incorporate Disability Rights & Resources' travel training into Wingate's Fall 2025 curriculum for its IDD students. The Fall curriculum would focus on general travel training for buses and demand response service, and specific training for riding CATS' bus system. The Spring curriculum will build on this training to include traveling on UCT's system
- Students will have both classroom and practical experiences as part of travel training. Examples of practical field trips include riding to the library or ImaginOn in Uptown Charlotte

Duke Health Lake Norman Hospital

Background

Duke Health Lake Norman Hospital (formerly Lake Norman Regional medical Center) is located in southern Iredell County, not far from Exit 33 on Interstate-77. Duke Health's campus includes the main hospital as well as several adjacent medical and professional buildings. It is common for staff and patients to park at the hospital and use the crosswalk on Medical Park Road to access other healthcare providers.



Existing Transportation

Duke Health is not located near any fixed route public transportation but is located within Iredell County served by the Iredell County Area Transit System (ICATS). ICATS is a Community Transportation Program that serves human service customers and the general public. Demand response service is available to residents who qualify under certain grants – transportation for people over 65 and people with disabilities is available for $1 per boarding with advanced reservations. The hospital is also served by private rideshare and taxi companies.

Duke Health Lake Norman Hospital

Transportation Needs

The hospital has limited public transportation options so currently around 25-40 patients a month are lacking transportation home. The hospital has been arranging transportation using rideshare or taxis for these patients but will only provide transportation up to 25 miles away. These patients also struggle to find transportation to a pharmacy to fill prescriptions.

Additionally, there is some concern for employee and patient safety when using the crosswalk on Medical Park Road. Encouraging people to walk between facilities saves vehicle miles traveled, encourages active transportation and reduces congestion.

TDM Activity Recommendations

Based on discussions around transportation needs, the following TDM activities were identified:

- ICATS presented to hospital staff, including case management staff who are involved in patient discharge and transportation. The purpose of this presentation was to familiarize staff with ICATS services and to consider setting up a contract with ICATS for patient transportation. ICATS has similar contracts with other private hospitals and healthcare providers
- If ICATS will be providing increased service, it would be beneficial for the hospital to implement some wayfinding for drivers. An example of this would be numbering the entrance doors to the hospital so patients and drivers can be clear about their meeting place
- Raise awareness of safety concerns to the City of Mooresville and NCDOT about the crosswalk on Medical Park Road. These entities are encouraged to evaluate low-cost options to improve safety at this site

Vanguard

Background

Vanguard is a major employer in the greater Charlotte area with more than 2,400 professionals in the region. Vanguard recently acquired a 91-acre campus located in University Research Park. Vanguard is consolidating several workplaces in the region to the University campus location in the spring of 2025. Vanguard wants to assist employees navigating changes in their commutes, as well as support employees who wanted to take advantage of more sustainable commute options to the new location.



Existing Transportation

University Research Park (URC) is a thriving employment center located near the University of North Carolina's Charlotte campus. URC is located just off I-85 northwest of Uptown Charlotte. Vanguard's campus location within URC is several miles from the Charlotte Area Transit System's (CATS) Lynx Blue line, which is a light rail line connecting the University Area to Uptown

Charlotte, Southend corridor and I-485 near Pineville. Several CATS bus routes connect the Lynx Blue line to Vanguard's new location, but the time and frequency of the service is limited. Greenways provide bike and pedestrian connections between the light rail and the new campus location.

Transportation Needs

With the move scheduled in the spring of 2025, Vanguard needed to develop a commute options package to help its employees make the transition to the new location. The new campus provided plenty of commute options, however, providing a frequent first/last mile connection to the Lynx Blue line was an important part of the commute options for employees. In addition to the light rail, Vanguard also wanted to understand all the commute options available at the new location. Centralina convened a small group of stakeholders, including CATS and University City Partners, to support Vanguard's efforts.

TDM Activity Recommendations

To develop its commuter package, Vanguard engaged in the following:

- Surveyed its employees to better understand employees' commute preferences, including time of day, mode and hybrid schedule
- Investigated first/last mile solutions to provide employees' connectivity to the Lynx Blue Line, including a shuttle service optimized for employees' schedules
- Explored carpool and vanpool options for employees, including the use of Share the Ride NC's carpool matching tool and the ability for carpools to ride free in managed lanes on I-77
- Created a matrix of all commute options available and communicated this information to employees well in advance of the move