

APPENDIX A: TDM STRATEGIES MENU

The purpose of this Appendix is to provide a menu of potential TDM strategies to guide the launch and future direction of a TDM Program hosted by Centralina Regional Council (Centralina). Each TDM strategy is assigned a relative priority for implementation focus based on the applicability of that strategy to:

- the TDM program goals,
- the diversity of Community Character Types across the 10-County planning region, and
- the role that Centralina plays within the region.

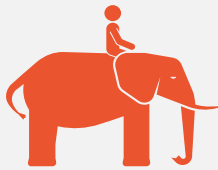
This menu is delivered as a reference tool within the Implementation Guidebook of the Centralina Regional TDM Plan. Centralina staff may also elect to use this menu as a dynamic tool for tracking implementation and outcomes of various TDM strategies over time.

“Cut sheets” for the highest priority TDM strategies are also included in this appendix.

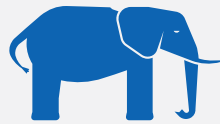
UNDERSTANDING BEHAVIOR CHANGE

Successful TDM programs shift behavior away from driving in single-occupancy vehicles and toward more sustainable forms of transportation. Since shifting travel behavior is an important goal of transportation demand management, effective TDM programs may draw upon research in psychology and behavioral science to nudge people's transportation decisions.

One way to picture the inner workings of behavior change is through an analogy developed by the psychologist Jonathan Haidt: human decision-making is influenced by the **elephant**, the **rider**, and the **path**.¹ The “elephant” represents the emotional, social, and instinctual side of people, while the “rider” represents the rational side. The “path” refers to the obstacles that the elephant and rider might face wherever they decide to go. If the elephant is cooperative and the path is clear, the rider can easily guide things along toward a lasting change. But if either the elephant or the rider gets in the way, people may well decide not to change their behavior even if it makes rational sense.



DIRECT THE RIDER



MOTIVATE THE ELEPHANT



SHAPE THE PATH

A commonly used framework for tapping into the behavioral (“elephant” and “path”) components of decision-making is **EAST**: *Easy, Attractive, Timely, and Social*.² According to the EAST framework, people are more likely to adopt a new behavior if:

- The behavior is **easy**, convenient, and hassle free.
- The behavior is **attractive**, attention-grabbing, and worth the time.
- The behavior plays into **social** norms and expectations.
- The behavior is asked for in a **timely** manner, that is, at an opportune time.

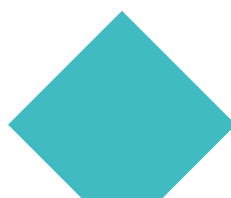
Behavioral research has the potential to help guide the implementation of specific TDM strategies through randomized controlled trials (RCTs) that measure the effectiveness of specific interventions by comparing outcomes between a control group and a test group. This allows program managers to pilot and evaluate TDM strategies before a broader rollout.³

Understanding what motivates behavior change is a key component to operating an effective TDM program. It isn't necessary for TDM program managers to be behavioral psychologists, but they should have some basic fluency in behavior change theory. Perhaps most importantly, TDM program managers should be eager to learn from and collaborate with experts in the fields of behavioral psychology and communications to help craft an effective program and message.

¹ *The Happiness Hypothesis*. Jonathan Haidt, 2018.

² *Applying Behavioral Insights to Transportation Demand Management*. (pg. 8). Translink. 2018.

³ *Applying Behavioral Insights to Transportation Demand Management*. (pg. 8). Translink. 2018.



CHARLOTTE'S TDM REQUIREMENTS

Motivated by the adoption of the Charlotte Future 2040 Comprehensive plan (2021) the City of Charlotte established new regulations that are changing the way the City and its development community approach transportation demand management. One of the key goals of the comprehensive plan is supporting “safe and equitable mobility.” That goal sets the foundation for Charlotte’s transportation policy, including the Strategic Mobility plan and the subsequent TDM ordinance. The Strategic Mobility plan includes two guiding aspirations:

- **Safe (Vision Zero) – eliminate traffic deaths and injuries by 2040.**
- **Equitable (50/50 mode split) – half of commute trips made through non-SOV modes by 2040.**

The purpose of Charlotte’s TDM regulations is to support these community goals and aspirations.

Charlotte’s TDM regulations are implemented through two primary tools, the Charlotte Unified Development Ordinance (UDO) and its Street Manual/Comprehensive Transportation Review (CTR).

TDM in Charlotte’s Streets Manual/Comprehensive Transportation Review (CTR) Process

The Charlotte Streets Manual (Adopted in 2023) provides guidance to developers for incorporating transportation improvements necessary for the design and approval of land development projects in Charlotte. The Streets Manual specifies a Comprehensive Transportation Review (CTR) Process which is the City’s primary method for enforcing TDM requirements in new development.

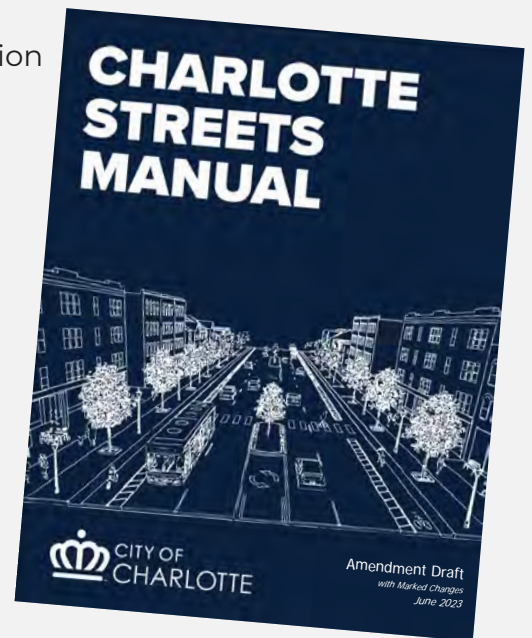
Charlotte’s previous approach for reviewing transportation improvements in new development was based solely on car impacts and applied only in limited situations (conditional rezonings & TOD districts). The new CTR approach considers all modes of travel, applies to all zoning districts, and establishes a context-based assessment system that requires developers to achieve a certain number of “mitigation points” to manage the transportation impacts of new development.

The number of mitigation points required is based on the zoning district for the development and the estimated number of multimodal trips it will generate. There are three types of assessments for which developments must achieve mitigation points:

- **TDM Assessment** – focused on implementing trip reduction strategies;
 - **Multimodal Assessment** – focused on implementing pedestrian mitigations; and
 - **Traffic Impact Studies** – focused on implementing vehicular improvements. (The mitigations associated with this assessment are emphasized in lower-intensity zoning districts, while the two previous assessments are emphasized in higher-intensity zoning districts.)
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Each assessment includes an extensive menu of transportation improvement options from which developers may choose how to achieve their required number of mitigation points. Examples of TDM improvement options include:

- TDM education, marketing outreach strategies;
- Installing pedestrian and/or bicycle facilities above and beyond minimum requirements;
- Providing on-site childcare;
- Providing transit fare subsidies to residents/tenants;
- Parking supply reductions from maximum;
- Shared parking strategies; and
- Providing a bike share station, among many others.



TDM in Charlotte's Unified Development Ordinance (UDO)

There are also regulations in Charlotte's new UDO (adopted in 2023) that support TDM

- The minimum sidewalk width requirement was increased to six feet.
- The UDO expanded requirements for transit stop improvements and bicycle parking.
- By right development is now required to move existing curb lines to accommodate required transportation improvements (typically for pedestrian and bicycle infrastructure, especially in-street bike facilities). This had been done through conditional rezoning previously, but is now required by right.
- Most importantly, the UDO includes a citywide Streets Map that enforces development setbacks from future curb lines to protect the right-of-way needed to support multimodal improvements on all arterial streets in Charlotte.

Next Steps & Application to Centralina's Region

These TDM regulations are very new, and Charlotte staff are still in the process of monitoring and evaluating the outcomes of the regulations. One particular area of interest is identifying which trip reduction strategies developers are used most frequently to satisfy the new TDM requirements; and, which trip reduction strategies seem to be having the most significant impact on the transportation network and behaviors.

Charlotte's TDM regulations provide a thoughtful and thorough model for other municipalities in the region to consider. As the host agency for the new regional TDM program, and a leader in supporting the development of innovative policy and regulatory solutions across the region, Centralina is especially well-suited to help. Charlotte's ongoing experience will be a useful example as Centralina and their partner municipalities look to implement TDM ordinances elsewhere.

PRIORITY STRATEGIES FOR EARLY IMPLEMENTATION

Each strategy in the TDM Strategy Menu is assigned a relative priority for implementation. Strategies were evaluated for relative priority based on the following screening criteria:

High Priority TDM Strategies should be those that:



Support the TDM plan goals: Sustainable, Affordable, Accessible, Known, Convenient



Align with Centralina's organizational authority/capacity: Strategies need to be feasible for Centralina staff to implement based on the unique role Centralina's organization plays within the region.



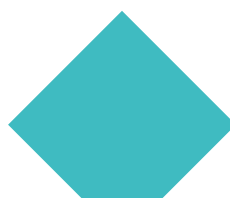
Can be applied across a broad range of communities: Centralina's TDM program should provide a range of programs and strategies that are applicable in rural, suburban, and urban areas.



Align early efforts with pilot project opportunities: For example, Centralina received funding for a TDM pilot project through Charlotte Regional Transportation Planning Organization (CRTPO)'s Discretionary Projects Program. The grant will focus on identifying pilot projects through key partners, ideally located within previously identified "TDM Hot Spots." Partners would be engaged in the development of TDM toolkits that could be rolled out to the broader region. Partners may also be involved in the development of district-scaled Transportation Management Associations. Strategies that would be well suited to support these types of pilot projects were considered a higher priority.

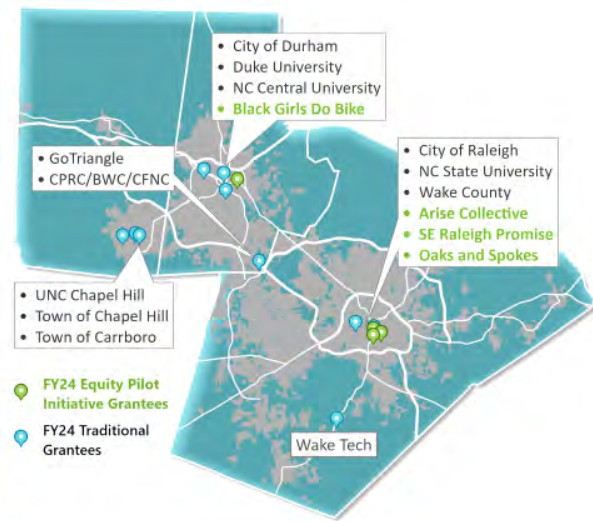


Respond to feedback from Steering Committee & Project Management Team (PMT): Strategies that were discussed in meetings throughout the project were considered more heavily.



PURSUE DEDICATED FUNDING AND GRANTS

Applicability to Community Character Types



Triangle Transportation Choices Grant Program

Pursuing sustainable funding is a critical TDM Program Strategy. Without a sustainable funding mix - one that is not heavily reliant on competitive yearly grants - a regional TDM program will not mature to have adequate staff support and broad influence. Centralina will pursue dedicated funding set-asides and low-match grant opportunities to support its regional TDM activities. Centralina will collaborate with potential program funders including NCDOT, regional MPOs/RPOs, USDOT, local governments, etc. to demonstrate the value the TDM program can bring to their shared goals.

Applicability to TDM Program Goals

- CONVENIENT
- KNOWN
- ACCESSIBLE
- AFFORDABLE
- SUSTAINABLE

Regional Organizations Most Likely to Implement

- | | |
|------------|---------------------------|
| Centralina | MPOs/RPO |
| NCDOT | Transit Service Providers |

✓ Benefits

Increases quality and breadth of program when there is reliable funding; Consistent funding can increase staffing the program

✗ Challenges

May have restrictions on what money can be used for; time constrained funding

Successful Examples



Potential Funding Sources

- | | |
|-----------|---------------------------------|
| Partners | NCDOT |
| Employers | STBG |
| CMAQ | Congestion Relief Grant Program |
| FTA 5307 | |

FORM A REGIONAL TDM ADVISORY COMMITTEE

Applicability to Community Character Types



Centralina will form and manage a regional TDM Advisory Committee. The TDM Advisory Committee should be a working group charged with:

- Collaborating with other regional boards/working groups (like the Transit Providers Working Group) to coordinate regional TDM activities;
- Convening stakeholders, similar to the Centralina Clean Fuels Coalition’s standing board meetings, to promote a common regional TDM vision;
- Using its membership and industry relationships to facilitate the participation of major employers and the development of Transportation Management Associations (TMA); and
- Helping advise staff on the policy direction, overall focus, and messaging for the TDM program.

Applicability to TDM Program Goals



Regional Organizations Most Likely to Implement

Centralina

✓ Benefits

Engages with a diverse group of stakeholders who help guide the program

✗ Challenges

Setting aside time to be a part of the TDM Advisory Committee may be a challenge for some individuals

Successful Examples

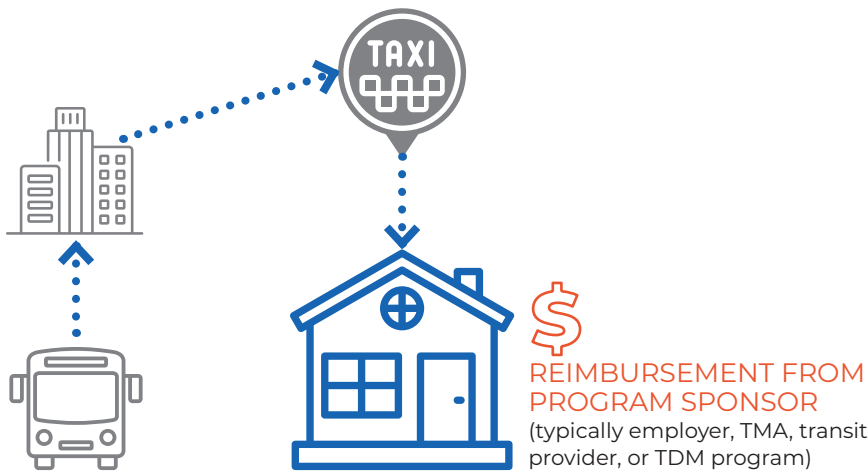


Potential Funding Sources

SS4A

SUPPORT EXPANSION OF THE EMERGENCY RIDE HOME PROGRAM

Applicability to Community Character Types



The Emergency Ride Home program offered through ShareTheRideNC is currently not available within the Centralina region. Centralina will encourage participation from employers in the Emergency Ride Home Program and engage transit providers and other organizations in conversations about supporting (financially and administratively) broad regional coverage, similar to the Triangle area.

Applicability to TDM Program Goals

- CONVENIENT
- KNOWN
- ACCESSIBLE
- AFFORDABLE
- SUSTAINABLE

Regional Organizations Most Likely to Implement

- | | |
|------------------|-------------------------|
| Centralina | Employers/
Worksites |
| CATS | |
| NCDOT | TMA's |
| Transit Agencies | |

✓ Benefits

Boosts interest in transportation options outside of SOV.

✗ Challenges

Program could be costly.

Successful Examples



Potential Funding Sources

- | | |
|-----------|-------|
| Employers | NCDOT |
| CMAQ | |

SUPPORT THE DEVELOPMENT OF TMAS

Applicability to Community Character Types



Centralina will target key areas for the development of Transportation Management Associations (TMA) and provide education and technical resources to areas/organizations interested in starting a TMA. The multi-centric greater Charlotte region is well-suited to the development of TMAs that focus on district-scaled strategies championed by large employers and existing municipal service districts. With the right coordination and outreach, places like Uptown/SouthEnd (i.e. Center City Charlotte), UNCC/University City, Ballantyne, South Park, Charlotte Douglas International Airport, Downtown Gastonia, and other activity centers are positioned to influence the large number of employees and trips taken in/out of their areas.

Applicability to TDM Program Goals



Regional Organizations Most Likely to Implement

Centralina
Employers/
Worksites

Municipal
Service
Districts

✓ Benefits

Tailors TDM efforts to district-scaled strategies Engages employers/worksites in a more targeted manner

✗ Challenges

Only works if organizations are invested in working together.

Successful Examples



Potential Funding Sources

Partners Employers

DEVELOP A TRAVEL OPTIONS/ TDM PROGRAM WEBSITE

Applicability to Community Character Types



Centralina will develop and maintain a new TDM program website that provides a central hub of information where commuters and employers can find detailed information about all travel options in the region (what the CONNECT Beyond plan refers to as the region’s “Total Mobility Network”). The website will aggregate information about existing non-SOV travel options from transit providers, ShareTheRideNC, non-profits (e.g. Carolina Thread Trail), local governments, MPOs/RPOs, and NCDOT in one, easy-to-use resource.

Applicability to TDM Program Goals

- CONVENIENT
- KNOWN
- ACCESSIBLE
- AFFORDABLE
- SUSTAINABLE

Regional Organizations Most Likely to Implement

Centralina

✓ Benefits

Having a “one-stop-shop” makes it easier for people to understand their options and choose non-SOV modes

✗ Challenges

The website will only be useful if it is marketed well so that people know about its resources

Successful Examples



Potential Funding Sources

- CMAQ
- NCDOT

PROVIDE WORKPLACE TRAVEL RESOURCES & PLANNING

Applicability to Community Character Types



Centralina will partner with major employers (e.g. healthcare providers and university campuses) to conduct needs assessments and develop a toolbox of strategies for employers to engage their employees. Centralina will support employers in providing commuter education and provide resources/advice to employers and employees on transportation options available at their worksite.

Applicability to TDM Program Goals



Regional Organizations Most Likely to Implement

Centralina	Economic Development Organizations
TMA's	
Employers/ Worksites	

✓ Benefits

Encourages active and public transit options.

✗ Challenges

Relies on organizational and staff commitment to implement.

Successful Examples



Potential Funding Sources

CMAQ	Partners
NCDOT	

PROMOTE CARPOOL MATCHING

Applicability to Community Character Types



ShareTheRideNC is the best existing statewide resource for facilitating carpool matching and coordinating new vanpools. Centralina will use the education and marketing activities of its TDM program to promote ShareTheRideNC to partners, employers, and commuters through pop-up events, sign-up drives, promotional campaigns/contests, and other communications.

Applicability to TDM Program Goals


CONVENIENT


KNOWN


ACCESSIBLE


AFFORDABLE


SUSTAINABLE

Regional Organizations Most Likely to Implement

Centralina	Employers/ Worksites
Transit Service Providers	TMA's
NCDOT	

✓ Benefits

A platform would provide more opportunities for people to connect for carpooling.

✗ Challenges

People may be wary to ride with someone they do not know.

Successful Examples



Potential Funding Sources

CMAQ	NCDOT
Employers	Partners

PROMOTE VANPOOL MATCHING

Applicability to Community Character Types



ShareTheRideNC is the best existing statewide resource for facilitating carpool matching and coordinating new vanpools. Centralina will use the education and marketing activities of its TDM program to promote ShareTheRideNC to partners, employers, and commuters through pop-up events, sign-up drives, promotional campaigns/contests, and other communications.

Applicability to TDM Program Goals



Regional Organizations Most Likely to Implement

Centralina	NCDOT
Transit Service Providers	Employers / Worksites
TMA's	

✓ Benefits

A platform would provide more opportunities for people to connect for carpooling.

✗ Challenges

People may be wary to ride with someone they do not know.

Successful Examples



Atlanta, GA



Potential Funding Sources

CMAQ	NCDOT
Employers	Partners

Primary Target Audience	Strategy Category	Strategy - Name	Strategy - Brief Description	Example(s) of Successful Application (Place/Region & TDM Program)	Source	Regional Organizations Most Likely to Implement	Priority (1 = highest priority / most immediate)	Potential Funding Source(s)	Applicability to CONNECT Beyond Community Character Types						Applicability to TDM Plan Goals				
									Rural Crossroads	New Community	Suburban Retrofit	Town Main Street	Regional Main Street	City Infill	Sustainable	Affordable	Accessible	Known	Convenient
Commuters, Major Employers	Education & Marketing	Develop a Travel Options / TDM Program Website	Centralina will develop and maintain a new TDM program website that provides a central hub of information where commuters and employers can find detailed information about all travel options in the region (what the CONNECT Beyond plan refers to as the region's "Total Mobility Network"). The website will aggregate information about existing non-SOV travel options from transit providers, ShareTheRideNC, non-profits (e.g. Carolina Thread Trail), local governments, MPOs/RPOs, and NCDOT in one, easy-to-use resource.	Get there ATX, Georgia Commute Options	Austin TDM	Centralina	1 = focus for immediate implementation	NCDOT, CMAQ	X	X	X	X	X	X	X	X	X	X	X
Commuters	Education & Marketing	Promote Carpool Matching	ShareTheRideNC is the best existing statewide resource for facilitating carpool matching and coordinating new vanpools. Centralina will use the education and marketing activities of its TDM program to promote ShareTheRideNC to partners, employers, and commuters through pop-up events, sign-up drives, promotional campaigns/contests, and other communications.	Georgia Commute Options and Austin TDM, Georgia Commute Options, GoCoast, and Austin TDM	Georgia Commute Options and Austin TDM, Georgia Commute Options and Austin TDM, GoCoast, and Austin TDM	Centralina, NCDOT, Transit Service Provider, Transportation Management Association, Employer / Worksite	1 = focus for immediate implementation	NCDOT, CMAQ, Employers, Partners	X	X	X	X	X	X		X	X	X	X
Commuters	Education & Marketing	Promote Vanpool Matching		1 = focus for immediate implementation	NCDOT, Partners, Employers, CMAQ	X	X	X	X	X	X		X	X	X	X	X	X	X
Major Employers	Education & Marketing	Provide Workplace Travel Resources & Planning	Centralina will partner with major employers (e.g. healthcare providers and university campuses) to conduct needs assessments and develop a toolbox of strategies for employers to engage their employees. Centralina will support employers in providing commuter education and provide resources/advice to employers and employees on transportation options available at their worksite.	Georgia Commute Options, goDCgo	Georgia Commute Options	Centralina, Employer / Worksite, Transportation Management Association	1 = focus for immediate implementation	NCDOT, Partners, CMAQ		X	X	X	X	X		X	X	X	X
Commuters	Education & Marketing	Launch a Regional Marketing Campaign	Centralina will conduct a region-wide marketing campaign to help promote their TDM program and educate residents/employers about the resources available for non-SOV travel in the region.	Get there ATX, Georgia Commute Options		Centralina, Transportation Management Association, Transit Service Provider	1 = focus for immediate implementation	Partners, Event Sponsors, CMAQ, NCDOT	X	X	X	X	X	X		X		X	X
Major Employers, Local Governments, Transit Providers	Regional Partnerships & Coordination	Pursue Dedicated Funding & Grants	Pursuing sustainable funding is a critical TDM Program Strategy. With a sustainable funding mix - one that is not heavily reliant on competitive yearly grants - a regional TDM program will mature to have adequate staff support and broad influence. Centralina will pursue dedicated funding set-asides and low-match grant opportunities to support its regional TDM activities. Centralina will collaborate with potential program funders including NCDOT, regional MPOs/RPOs, USDOT, local governments, etc. to demonstrate the value the TDM program can bring to their shared goals.	Portland Regional Travel Options, Capital Area MPO (CAMPO)	Portland Regional Travel Options	Centralina, Transit Service Provider, NCDOT, MPO/RPO	1 = focus for immediate implementation	Partners, Employers, NCDOT, STBG, CMAQ, FTA 5307, Congestion Relief Grant Program	X	X	X	X	X	X		X	X	X	X
Major Employers, Local Governments, Private Partners	Regional Partnerships & Coordination	Support the Development of TMA's	Centralina will target key areas for the development of Transportation Management Associations (TMA) and provide education and technical resources to areas/organizations interested in starting a TMA. The multi-centric greater Charlotte region is well-suited to the development of TMAs that focus on district-scaled strategies championed by large employers and existing municipal service districts. With the right coordination and outreach, places like Uptown/South End (i.e. Center City Charlotte), UNCC/University City, Ballantyne, South Park, Charlotte Douglas International Airport, Downtown Gastonia, and other activity centers are positioned to influence the large number of employees and trips taken in/out of their areas.	Georgia Commute Options, Southern California Association of Governments (SCAG)	Georgia Commute Options	Centralina, Employer / Worksite	1 = focus for immediate implementation	Partners, Employers			X	X	X		X	X	X		
MPOs, Cities, Transit Agencies. Extend to private partners?	Regional Partnerships & Coordination	Form a Regional TDM Advisory Committee	"Centralina will form and manage a regional TDM Advisory Committee. The TDM Advisory Committee should be a working group charged with: <ul style="list-style-type: none"> Collaborating with other regional boards / working groups (like the Transit Providers Working Group) to coordinate regional TDM activities; Convening regional stakeholders, similar to the Centralina Clean Fuels Coalition's standing board meetings, to promote a common regional TDM vision; Using its membership and industry relationships to facilitate the participation of major employers and the development of TMAs; and Helping advise staff on the policy direction, overall focus, and messaging for the TDM program." 	Georgia Commute Options, Go Coast, Triangle Transportation Choices	Georgia Commute Options	Centralina	1 = focus for immediate implementation	School Districts, SS4A	X	X	X	X	X	X	X	X		X	
Commuters	Regional Partnerships & Coordination	Support Expansion of the Emergency Ride Home Program	The Emergency Ride Home program offered through ShareTheRideNC is currently not available within the Centralina region. Centralina will encourage participation from employers in the Emergency Ride Home Program and engage transit providers and other organizations in conversations about supporting (financially and administratively) broad regional coverage, similar to the Triangle area.	Georgia Commute Options	Georgia Commute Options	NCDOT, Centralina, Transit Service Provider, Employer / Worksite, Transportation Management Association	1 = focus for immediate implementation	NCDOT, Employers, CMAQ	X	X	X	X	X	X	X	X	X	X	X
Local Governments	Education & Marketing	Promote Bicycle Transit Integration	On the Travel Options website, Centralina will share videos about how to use bicycle options (e.g. bike racks, bike share options) at transit stations, as well as the ability to bring bicycles on transit through bus bike racks or bicycle areas on rail lines.	Los Angeles Metro provides Bike Hubs at five of their rail stations. Hubs provide secure bike parking and repair stations for bicyclists who want to ride their bikes to and from Metro rail.	SCAG Toolkit	MPO/RPO, Municipality, Transit Service Provider	2 = high priority for early implementation (years 0-2)	NCDOT	X	X	X	X	X	X	X	X	X	X	X
Commuters	Education & Marketing	Promote Micromobility	Centralina can promote micromobility options such as bicycles or scooters through the Travel Options app and website. These modes are available to individuals to either rent for a fee or reserve for free. Some sharing programs require that vehicles be taken from and returned to docking stations, while other programs allow customers to drop off vehicles at the end of their journey.	Charlotte Bicycle, VeoRide at UNC Wilmington, Gotcha Scooter in Raleigh	NCDOT VMT Toolkit	NCDOT, MPO/RPO, Municipality, Employer / Worksite	2 = high priority for early implementation (years 0-2)	Partners				X	X	X	X				
Schools	Education & Marketing	Support Safe Routes to School/ Commute to School	Through the Travel Options website, Centralina will provide toolkits and resources, such as a active transportation network map, to educate the teachers, students, and families on how they can travel more safely. Centralina will develop and hold educational and fun campaigns, programs, and activities to encourage students to bike and walk to school.	Portland Regional Travel Options, Triangle Transportation Choices, Georgia Commute Options	Portland Regional Travel Options, Triangle Transportation Choices, Georgia Commute Options	Centralina, Municipality, Employer / Worksite	2 = high priority for early implementation (years 0-2)	Congestion Relief Grant Program, CMAQ, Congestion Relief Grant Program				X	X	X		X	X		X
Major employers	Incentives & Facilitation	Promote Commuter Tax Benefits	Federal code (Section 132(f) of the Internal Revenue Code) allows employers to provide tax-exempt funds to commuters for parking, transit and vanpool. These are considered to be tax-free benefits rather than employee wages, so employers also save on payroll taxes. Centralina could promote these benefits to major employers and work with transit agency staff to help businesses sign up for pre-tax transit benefits.	Los Angeles Metro sponsored state Assembly Bill 2548 which requires Los Angeles County employers with 50-249 employees to provide a commuter benefit to their employees. This bill will likely increase the use of the Commuter Tax Benefit among employers in Los Angeles County.	SCAG Toolkit	Employer / Worksite	2 = high priority for early implementation (years 0-2)	Employers	X	X	X	X	X	X		X			

Primary Target Audience	Strategy Category	Strategy - Name	Strategy - Brief Description	Example(s) of Successful Application (Place/Region & TDM Program)	Source	Regional Organizations Most Likely to Implement	Priority (1 = highest priority / most immediate)	Potential Funding Source(s)	Applicability to CONNECT Beyond Community Character Types						Applicability to TDM Plan Goals				
									Rural Crossroads	New Community	Suburban Retrofit	Town Main Street	Regional Main Street	City Infill	Sustainable	Affordable	Accessible	Known	Convenient
Commuters	Education & Marketing	Provide Individualized/Personalized Marketing	Individualized marketing involves targeting travelers who are most likely to change their behavior and encouraging them to participate in a program or use a mode to travel. Centralina can develop talking points or marketing geared specifically toward those groups.	A major employer in the SCAG Region used zip code data to target the employees who would pilot their new commute program, complete with fully subsidized transit passes. They invited employees who lived along a major transit line to participate, as those employees would likely benefit most from their transit subsidy.	SCAG Toolkit	Transportation Management Association, Employer / Worksite, Non-profit	3 = consider for early implementation (years 0-2) depending on staff/partner capacity	Partners	X	X	X	X	X	X					X
Commuters	Incentives & Facilitation	Offer Personalized Travel Planning	Centralina will offer an "ambassador" service to anyone who reaches out via an online form requesting advice. A viable car-free or car-light commuting option will be tailored to individual needs.	GoCoast	GoCoast	NCDOT	3 = consider for early implementation (years 0-2) depending on staff/partner capacity	Partners	X	X	X	X	X	X				X	X
Commuters	Education & Marketing	Promote Active/Public Transportation Events	Through the Travel Options website, social media, and partner interactions Centralina will promote active/public transportation events - like Bike to Work Week and Walk to School Day - to encourage healthy living and non-SOV travel. For example, when ozone levels are expected to reach levels that are "unhealthy for sensitive groups," social media posts may highlight different options for traveling that day.	Austin TDM	Austin TDM	Centralina	3 = consider for early implementation (years 0-2) depending on staff/partner capacity	Partners, Employers, CMAQ	X	X	X	X	X	X				X	X
Non-profits, Commuters	Education & Marketing	Support Biking Events, Advocacy, Engagement, and Education	Centralina will coordinate with local jurisdictions and advocacy groups to host bike riding, training, and bike repair events, and promote the purchase and installation of bike racks and pop-up bike lanes.	Triangle Transportation Choices via Oaks & Spokes	Triangle Transportation Choices via Oaks & Spokes	Municipality, Non-profit	3 = consider for early implementation (years 0-2) depending on staff/partner capacity	Partners, CMAQ, Developers, Congestion Relief Grant Program	X	X	X	X	X	X				X	X
Major Employers	Education & Marketing	Host/Co-Host Organizational Recognition	Centralina will provide public relations exposure in local media and annual awards program spotlighting an organization's positive impact on commute options. Recognition could be awarded in different categories (outstanding employers, non-profit partners, etc.).	Georgia Commute Options	Georgia Commute Options	Centralina, Employer / Worksite	3 = consider for early implementation (years 0-2) depending on staff/partner capacity	Partners	X	X	X	X	X	X				X	X
Commuters	Incentives & Facilitation	Offer Clean Commute Incentives	Through the Travel Options website, Centralina will allow participants log trips (i.e., travel mode and distance) and earn points for fuel-efficient commutes. They can redeem these points for discounts at local businesses. Prizes can also be offered to participants who track the most non-SOV trips during a specific time period.	Georgia Commute Options, GoCoast	Georgia Commute Options	Centralina	3 = consider for early implementation (years 0-2) depending on staff/partner capacity	School Districts, SS4A, CMAQ, Partners	X	X	X	X	X	X				X	X
Commuters, Students	Regional Partnerships & Coordination	Support TNC Reimbursement for Emergency Ride Home	Centralina could serve as a conduit for pass through grants that support Emergency Ride Home services through Transportation Network Companies (TNC) like Uber any Lyft. Centralina will encourage employers to offer TNC reimbursement for Emergency Ride Home if other options are not available.	Orange County	Orange County	Employer / Worksite	3 = consider for early implementation (years 0-2) depending on staff/partner capacity	Employers, Partners	X	X	X	X	X	X	X			X	X
Commuters, Students	Regional Partnerships & Coordination	Support Expansion of District / First & Last Mile Shuttles	District / First & Last Mile shuttles assist transit riders in reaching their final destination. Centralina could facilitate conversations with transit agencies, employers, and private entities to explore ways to implement this strategy.	Atlantic Station, Atlanta, GA	Georgia Commute Options	Transit Service Provider, Employer / Worksite, Non-profit	3 = consider for early implementation (years 0-2) depending on staff/partner capacity	Employers	X	X	X							X	X
Major Employers	Regional Partnerships & Coordination	Promote Hospital / Campus Shuttles	Centralina can facilitate conversations between employers and service providers regarding implementing campus shuttle options.	Aero TMA, Atlanta, GA	Georgia Commute Options	Employer / Worksite	3 = consider for early implementation (years 0-2) depending on staff/partner capacity	Employers			X							X	X
Transit Riders	Regional Partnerships & Coordination	Coordinate Regional Transit Service	Prioritizing user experience over jurisdictional and service boundaries can be done through coordination across regional transit service providers. Centralina can play an important role in convening conversations about coordinated transit service delivery through their established relationships with regional transit service providers and the existing Transit Providers Working Group. "Coordination" can mean a range of things, each with a unique set of organizational challenges to overcome. Possibilities for "coordination," in likely order of easiest to most difficult strategy to achieve, are listed below. - Coordinated education and outreach campaign across transit service providers - Coordinated route planning and operations across existing boundaries - Development of a coordinated fare structure, single payment system, and streamlined app that incorporates all of the transit services in the region as well as private mobility operators (i.e. Mobility as a Service (MaaS) platform). - Creation of a single regional transit service provider with a taxing authority and operational footprint that includes all of the communities within the 10-county region.	San Diego, CA Coordinated Plan	Connect Beyond	Transit Service Provider	3 = consider for early implementation (years 0-2) depending on staff/partner capacity	NCDOT, FTA 5307	X	X	X	X	X	X				X	X
Seniors, People with disabilities	Regional Partnerships & Coordination	Convene Microtransit Discussions	Centralina can convene transit working groups to foster partnerships for implementing innovative microtransit options.	GoWake Access	NCDOT VMT Toolkit	Transit Service Provider, Employer / Worksite, MPO/RPO, Municipality, NCDOT	3 = consider for early implementation (years 0-2) depending on staff/partner capacity	Partners	X	X	X	X	X	X				X	
Commuters	Regional Partnerships & Coordination	Convene Affordable Housing Discussions	Centralina can convene sessions to bring together professionals in both the transportation and housing space to consider how to integrate affordable housing with transportation.	San Diego	NCDOT VMT Toolkit	Employer / Worksite, Municipality	3 = consider for early implementation (years 0-2) depending on staff/partner capacity	Partners	X	X	X	X	X	X				X	

Primary Target Audience	Strategy Category	Strategy - Name	Strategy - Brief Description	Example(s) of Successful Application (Place/Region & TDM Program)	Source	Regional Organizations Most Likely to Implement	Priority (1 = highest priority / most immediate)	Potential Funding Source(s)	Applicability to CONNECT Beyond Community Character Types						Applicability to TDM Plan Goals				
									Rural Crossroads	New Community	Suburban Retrofit	Town Main Street	Regional Main Street	City Infill	Sustainable	Affordable	Accessible	Known	Convenient
Commuters	Technical Assistance	Write Gas Tax Increase White Papers	In North Carolina, the gas tax varies with state population and energy prices. Some states allow local governments to levy additional fuel taxes. Many states are now revising the definition of fuel to include non-gas alternative fuels. This strategy requires legislation. Centralina can develop policy white papers to show the value and effectiveness of gas tax as a TDM tool for consideration by local/state governments.	North Carolina changed the state gas tax to consider inflation and state population – General Assembly of North Carolina Session Law 2015-2 Senate Bill 20.	NCDOT VMT Toolkit	NCDOT	5 = strategy of interest, low priority for implementation	Partners	X	X	X	X	X	X					X
Commuters	Technical Assistance	Research VMT Fee or Tax through Case Studies	Vehicle Mileage Traveled (VMT) fees are levied based upon the average mileage that a vehicle is driven in a set period of time (year) and are envisioned as a replacement for gas taxes. Centralina could provide case studies on different options for partners looking to implement this strategy.	NC Clean Energy Technology Center	NCDOT VMT Toolkit	NCDOT	5 = strategy of interest, low priority for implementation	Partners	X	X	X	X	X	X					X
Commuters	Technical Assistance	Develop Wayfinding Upgrade Toolkit	Wayfinding is crucial to ensuring travelers can get where they need to go. It is particularly important to have thorough signage within transit stations and mobility hubs. On-street signage and mobile information can improve the visibility of transit, bicycle and pedestrian amenities. Centralina can provide a toolkit of wayfinding examples.	The City of Santa Monica has provided window clings to local businesses highlighting the time required to reach major attractions by foot, reminding travelers they might be able to comfortably walk to their destinations.	SCAG Toolkit	Municipality, Transit Service Provider	5 = strategy of interest, low priority for implementation	Partners				X	X	X				X	

APPENDIX B: REGIONAL TDM ASSESSMENT





Centralina Regional TDM Assessment Report



March 2024



Prepared for Centralina Regional Council, NCDOT, and their partners by RS&H and Kittelson & Associates, Inc.

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EXECUTIVE SUMMARY

This Regional Existing Conditions and Hot Spot Assessment Report is the first step in the development of a Regional Transportation Demand Management (TDM) Plan. The need for a Regional TDM Plan arose from [CONNECT Beyond](#), a regional mobility plan that sets the vision for how to better connect communities in the region.

The Study Area for the TDM Assessment covers the 10 North Carolina counties included in CONNECT Beyond.

Study Area



The Existing Conditions portion of the report details high-level regional trends and includes a multi-modal assessment of needs and challenges facing the region. It evaluates a variety of factors including socioeconomic patterns; equity considerations; trip attractors; traffic, congestion, and other road network characteristics; existing and future active transportation and transit infrastructure and facilities; land use; and existing TDM programs and activities.

The Assessment resulted in 7 key takeaways:



Driving is the easiest and most convenient way to get around the region. (It's not close.)



TDM efforts to date have been fragmented and lack geographic coverage.



The multi-centric region lends itself to Transportation Management Associations (TMAs)* that focus on district-scaled strategies.



The next frontier in supporting affordable living for more people is access to high-quality, non-single occupancy vehicle (SOV) transportation choices.



Rural areas are the most challenging to reach. TDM strategies here will require creativity and strategic partnerships.



TDM is about more than work commutes. The types of trips people take, and the way they are taking them, is changing.



The public transit landscape is changing (microtransit, micromobility, demand-responsive service, autonomous shuttles, Mobility as a Service (Maas), cleaner fuels and technologies, etc.). TDM should help people in the region understand options and support increased coordination across service providers and service types.

**TMAs are member-controlled non-profit organizations focused on managing the movement of people and goods in particular area. They can vary significantly in size, geography, membership, structure, and approach. They have been used effectively in other regions to support district-scaled strategies for influencing travel behavior.*

Because the 10-county Study Area is so large (4,750 square miles), it will be necessary for the Centralina Regional Council to determine where and how to focus their early TDM implementation efforts. The Hot Spot Assessment provides some preliminary guidance for early TDM program focus.

The identified Hot Spots are a combination of Places and Corridors.

PLACES: Determined through a data-driven screening of the potential mobility hubs identified in CONNECT Beyond

CORRIDORS: The primary SOV commuting corridors across the 10-county region

(For more information on the Hot Spot Assessment see pages 40-41 and Appendix A).

The Hot Spots are simply a snapshot, using the best available regional data. They are the locations in the Study Area that have demonstrated a propensity toward future mode shift away from SOVs and where Centralina Regional Council may elect to focus early TDM implementation efforts. They are NOT intended to limit where and how Centralina Regional Council responds to future TDM implementation opportunities or spends future TDM program funding.

For example, the Centralina Regional Council should be opportunistic by engaging with employers and key partners who demonstrate interest in participating in a regional TDM program, whether or not those partners are located in a Hot Spot.

The map shows the TDM Hot Spots identified in the Study Area.

Potential Hot Spots



The Hot Spot Assessment recognizes the geographic diversity of the 10-county Study Area by identifying potential TDM Hot Spots across a variety of contexts – rural, suburban, and urban. The assessment is calibrated to the Community Character Types (CCT) from Connect Beyond and identifies potential TDM Hot Spots within each of the 6 CCTs and within each county. This document includes profiles for 6 of these hot spots (one in each CCT). The profiles include a map and associated description of the land uses and existing infrastructure within the hot spot. They detail the characteristics of the CCT, the greatest mobility needs and challenges facing that CCT, potential TDM partners, and the most applicable TDM strategies.

The information in the Centralina Regional TDM Report will guide the development of the TDM Program and associated strategies.

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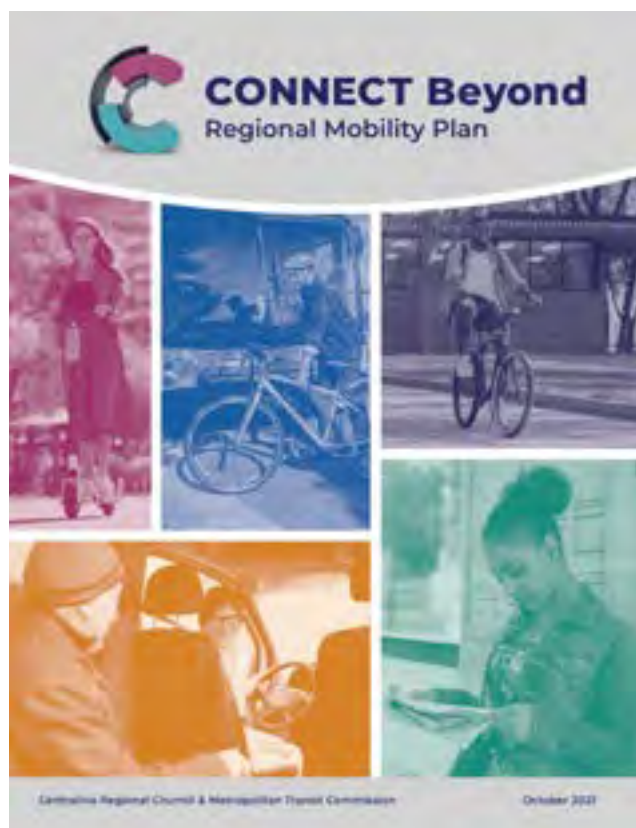
INTRODUCTION

Our region is expected to grow exponentially, adding over 1.6 million people between 2018 and 2050. In order to accommodate the anticipated growth, it is essential that we identify strategies to increase mobility and transportation efficiency.

In October 2021, the CONNECT Beyond Regional Mobility Plan (CONNECT Beyond) was completed, which establishes a vision for how to better connect the region. The plan includes recommendations, strategies, and implementation steps to transform the way residents and visitors travel throughout the region.

One of the key recommendations from CONNECT Beyond is to develop a Regional Transportation Demand Management (TDM) Plan and program that provides information, incentives, and resources to encourage the use of alternative mobility options.

The first step in the development of a Regional TDM Plan is a multi-modal assessment of existing transportation conditions. Building on the information in the CONNECT Beyond plan, the assessment identifies needs and challenges, discusses high level trends, and documents TDM strategies currently being employed in the region.



Look for key conclusions and lessons, formatted like this, in the following pages. These key conclusions will be important for the development of future TDM strategies in the greater Charlotte region.

STUDY AREA

The Study Area for the Regional TDM Plan covers the 10 North Carolina counties (and their associated municipalities) included in CONNECT Beyond.¹ These counties include the following:

- Anson
- Cabarrus
- Cleveland
- Gaston
- Iredell
- Lincoln
- Mecklenburg
- Rowan
- Stanly
- Union

There are a wide variety of geographies in the Study Area. It consists of rural areas, suburban communities, and an urban city each with its own unique transportation needs and challenges.

Study Area

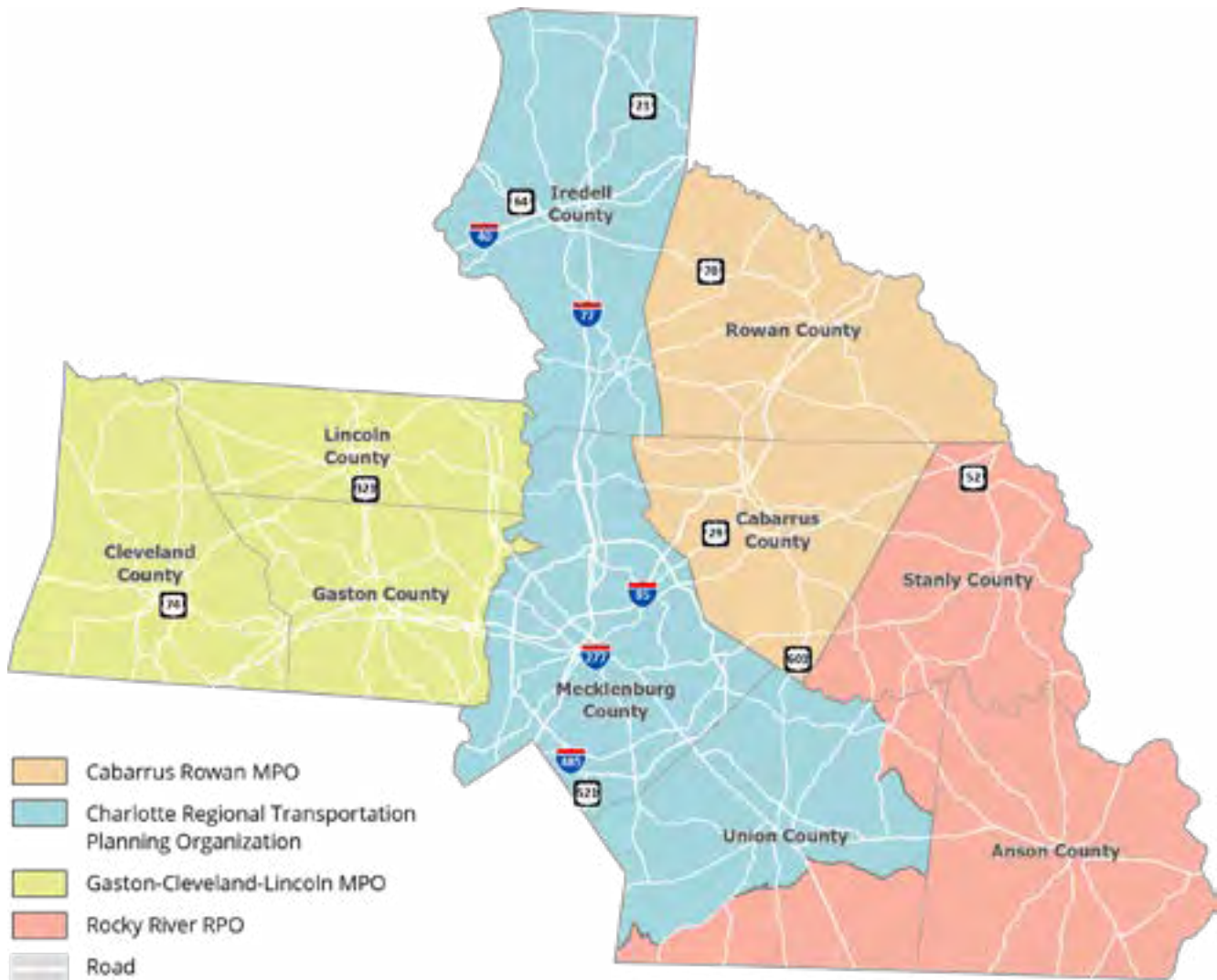


Source: NCDOT, NC DEQ, U.S. Census, Esri

¹ Since NCDOT is a major funder, the Regional TDM Plan is North Carolina focused. South Carolina CONNECT Beyond partner counties remain potential future locations for TDM expansion, as determined locally. All of the findings from this plan will be coordinated and communicated across the entire CONNECT Beyond project geography and among all plan partners.

The Study Area is comprised of three Metropolitan Planning Organizations (MPOs) and one Rural Planning Organization (RPO) who carry out transportation planning processes and help develop and establish policies and priorities for their respective member jurisdictions. MPO's with populations greater than 200,000 are designated as Transportation Management Areas (TMAs). TMAs are subject to special planning and programming requirements, but they also receive additional benefits. In the Study Area, the Charlotte Regional Transportation Planning Organization (CRTPO) and the Cabarrus Rowan MPO are TMAs.

Local Planning Organizations



Source: NC OneMap

SOCIOECONOMIC PATTERNS

2018 Population Density

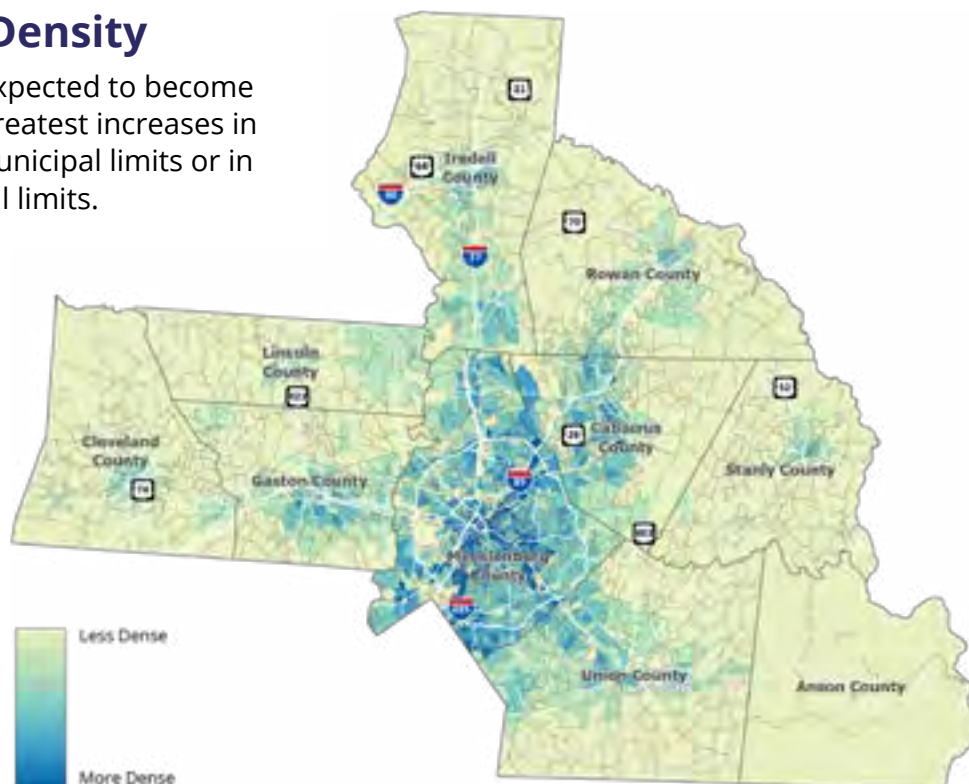
Population density varies throughout the Study Area, with the highest densities within Mecklenburg County and the City of Charlotte. In counties other than Mecklenburg, population densities are highest in municipal limits including Concord, Gastonia, and Statesville.



Source: Metrolina Regional Model (MRM), Anson County - NCDOT Statewide Model (2017)

2050 Population Density

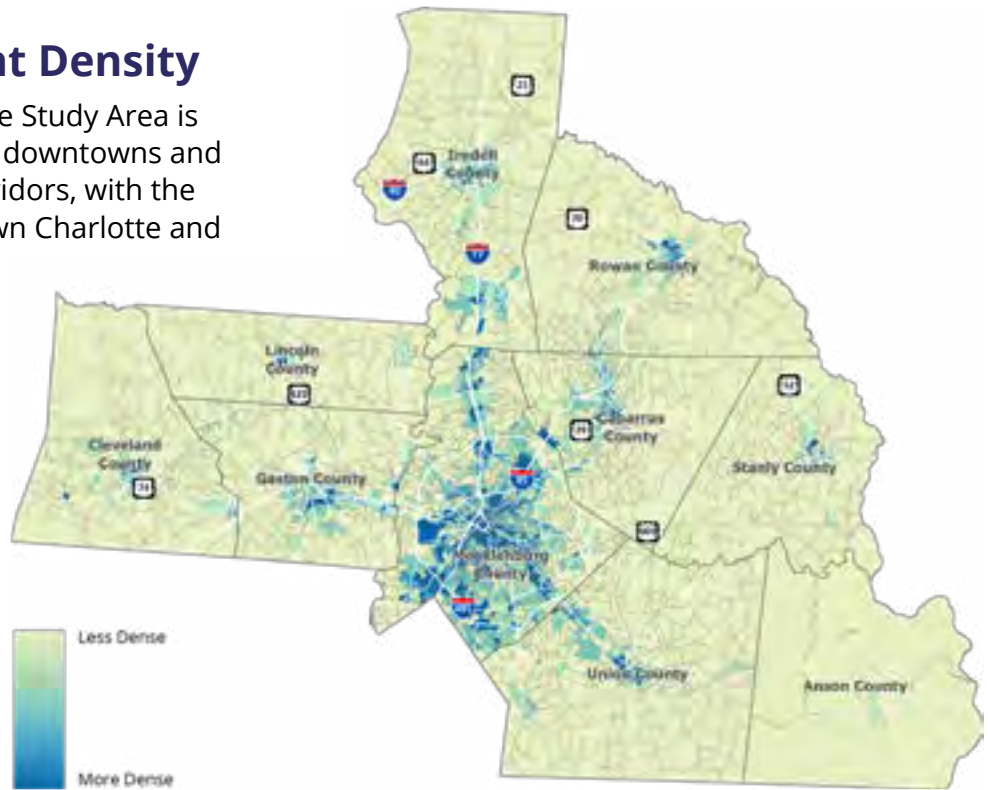
The Study Area overall is expected to become denser by 2050, with the greatest increases in density occurring within municipal limits or in areas adjacent to municipal limits.



Source: Metrolina Regional Model (MRM), Anson County - NCDOT Statewide Model (2045)

2018 Employment Density

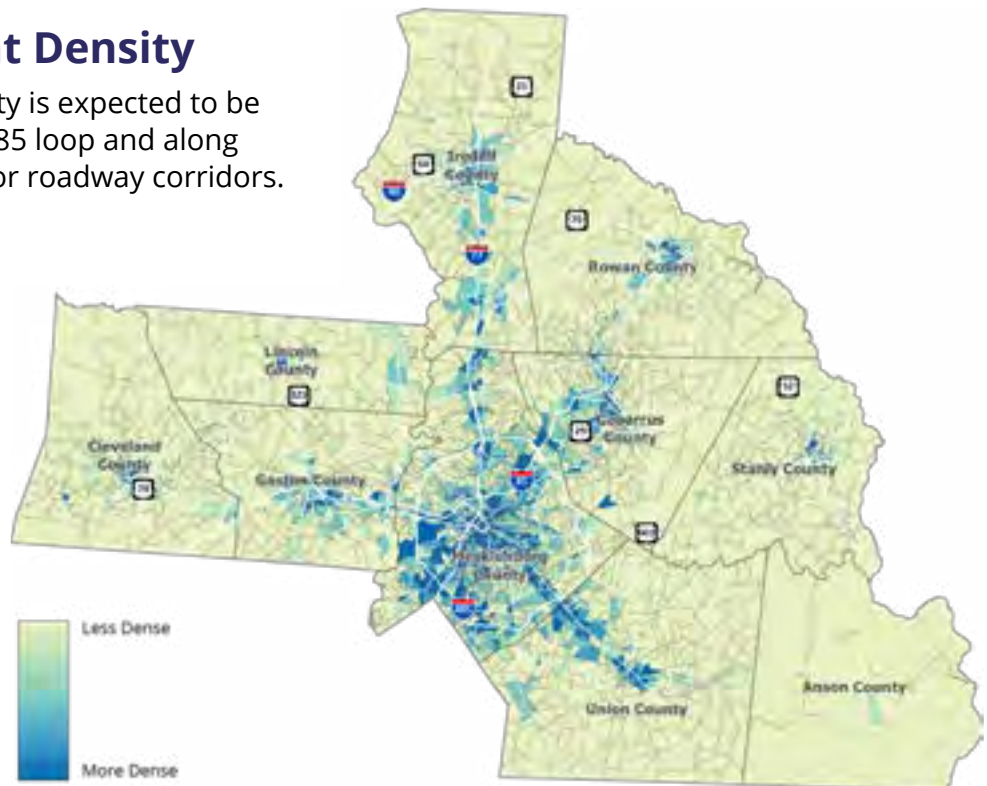
Employment density in the Study Area is generally concentrated in downtowns and along major roadway corridors, with the highest densities in Uptown Charlotte and along I-77 and I-85.



Source: Metrolina Regional Model (MRM), Anson County - NCDOT Statewide Model (2017)

2050 Employment Density

Future employment density is expected to be the greatest within the I-485 loop and along interstates and other major roadway corridors.



Source: Metrolina Regional Model (MRM), Anson County - NCDOT Statewide Model (2045)

Employment is more clustered around corridors and activity centers than homes. Non-Single Occupancy Vehicle (SOV) connections and TDM strategies that support mobility options along key corridors will be increasingly important in serving expected job growth and development patterns.

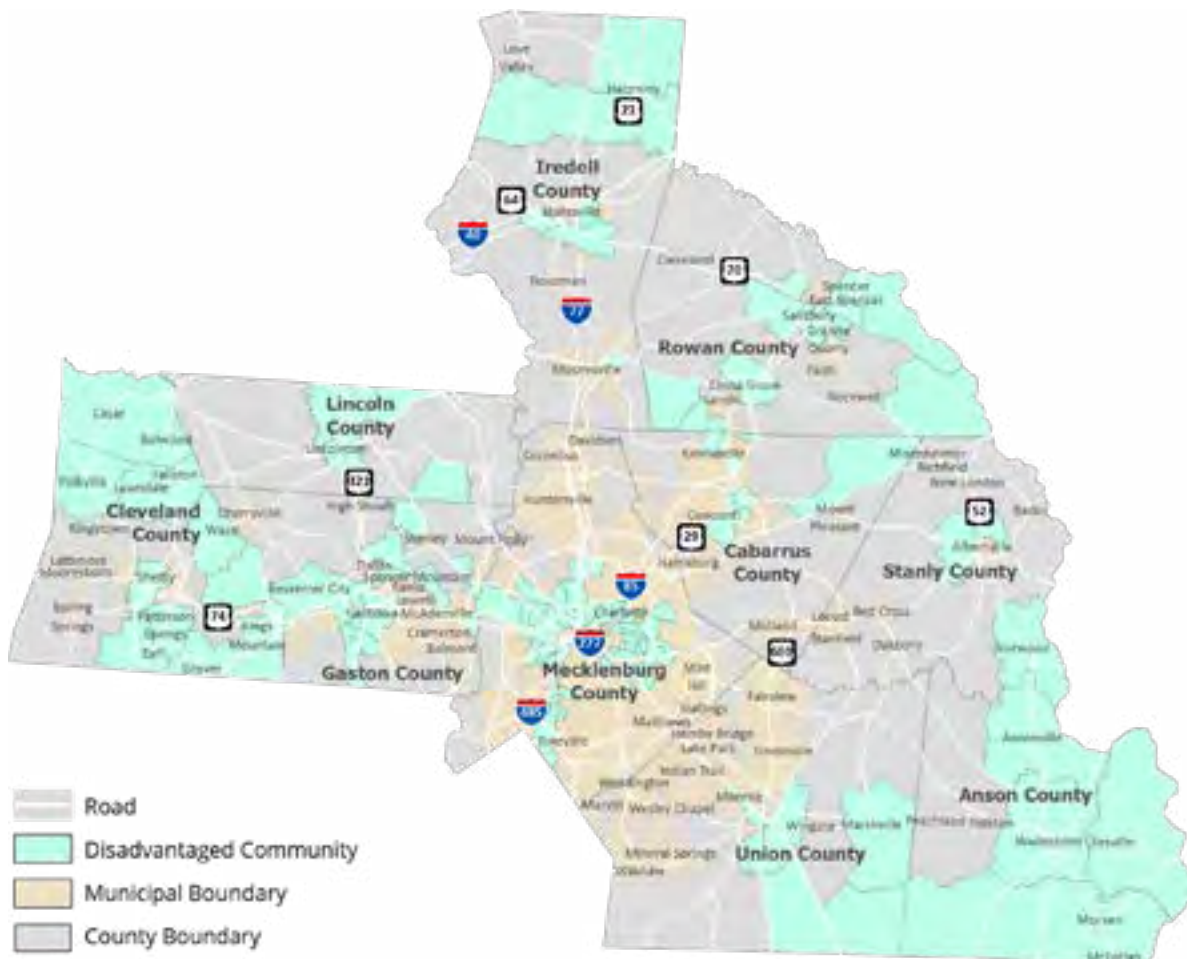
EQUITY CONSIDERATIONS

Federal and state agencies have established indexes to help identify disadvantaged communities throughout the United States. These indexes, as well as an index used in CONNECT Beyond, were utilized to identify disadvantaged communities in the Study Area.

U.S. DOE Disadvantaged Communities

The U.S Department of Energy (DOE) defines disadvantaged communities as those that experience disproportionately high and adverse economic, human health, climate-related, environmental, and other cumulative impacts. The DOE developed a mapping tool, the Climate & Economic Justice Screening Tool, that identifies disadvantaged communities by census tract, based on 36 burden indicators. These indicators fall within the following categories: energy burden (5), environmental and climate hazards (10), socio-economic vulnerabilities (19), and fossil fuel dependence (2).

In the Study Area, U.S. DOE Disadvantaged Communities are present in many municipal limits and along major interstates. Notable concentrations of disadvantaged communities include I-77 from the South Carolina State Line to south of Uptown Charlotte; to the east, north and west of Uptown Charlotte (known locally as the “Arc”); most of Anson County and southeast Union County; Gaston County along I-85; significant portions of Cleveland County; northern Iredell County; and areas surrounding Salisbury, Albemarle, Lincolnton, and Statesville.



Source: U.S. Department of Energy, [Climate and Economic Justice Screening Tool](#)

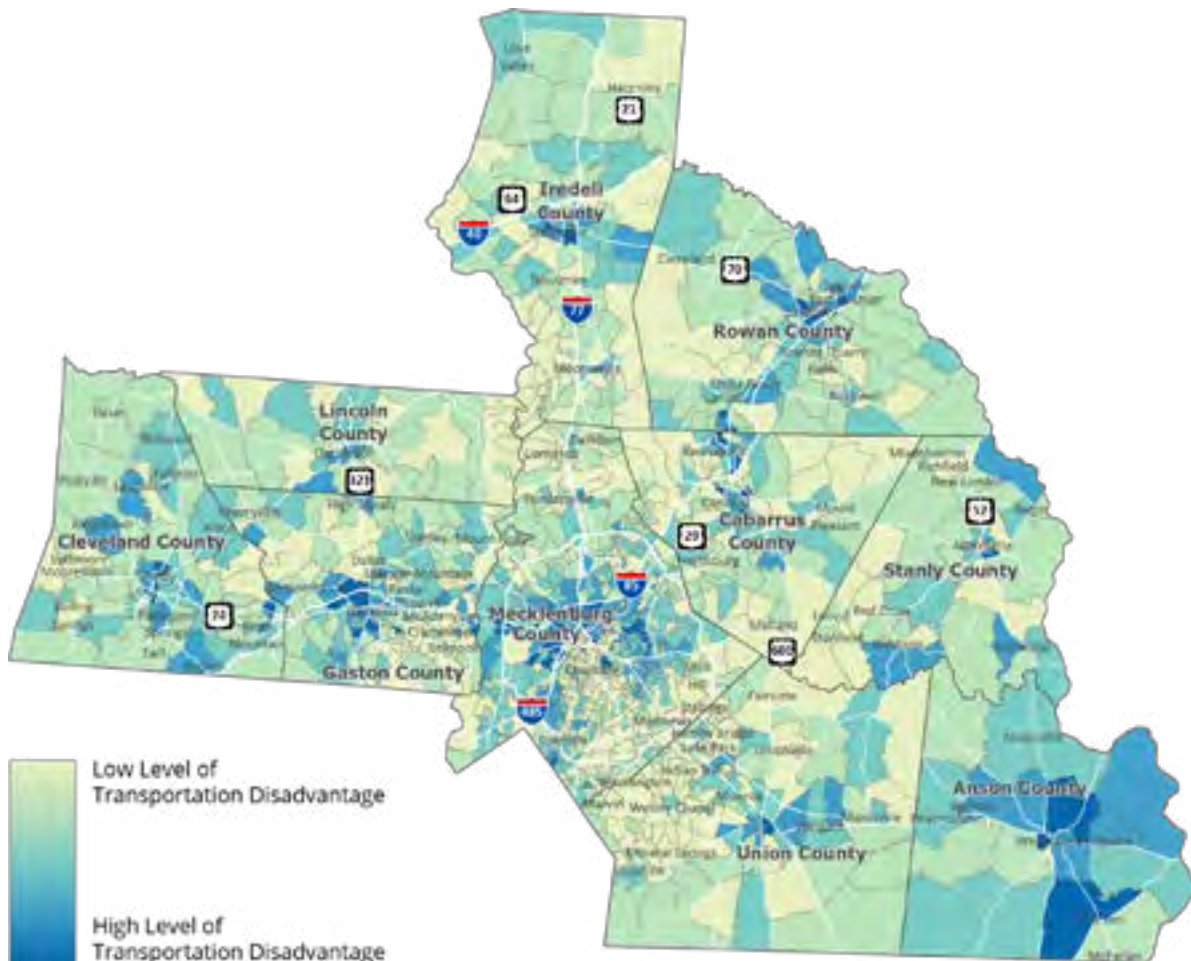
NCDOT Transportation Disadvantage Index

NCDOT's Transportation Disadvantage Index (TDI) identifies concentrations of populations (block groups) that face barriers to accessing transportation. Each block group is assigned a composite score based on the relative concentration of the following 7 indicators of potential transportation disadvantage as compared to regional (statewide, MPO/RPO, NCDOT Division, or county) averages:

1. Age 15 and Under
2. Age 65 and Over
3. Poverty
4. Minority
5. Zero-Car Households
6. Disability Prevalence (Adult Population)
7. Limited English Proficiency

For this plan, block groups were compared to the statewide averages. Higher scores convey a greater level of transportation disadvantage.

The NCDOT Disadvantaged Communities generally align with the U.S. DOE Disadvantaged Communities identified on page 6.



Source: [NCDOT N.C. Equity and Transportation Disadvantage Screening Tool](#)

NCDOT Environmental Justice Index

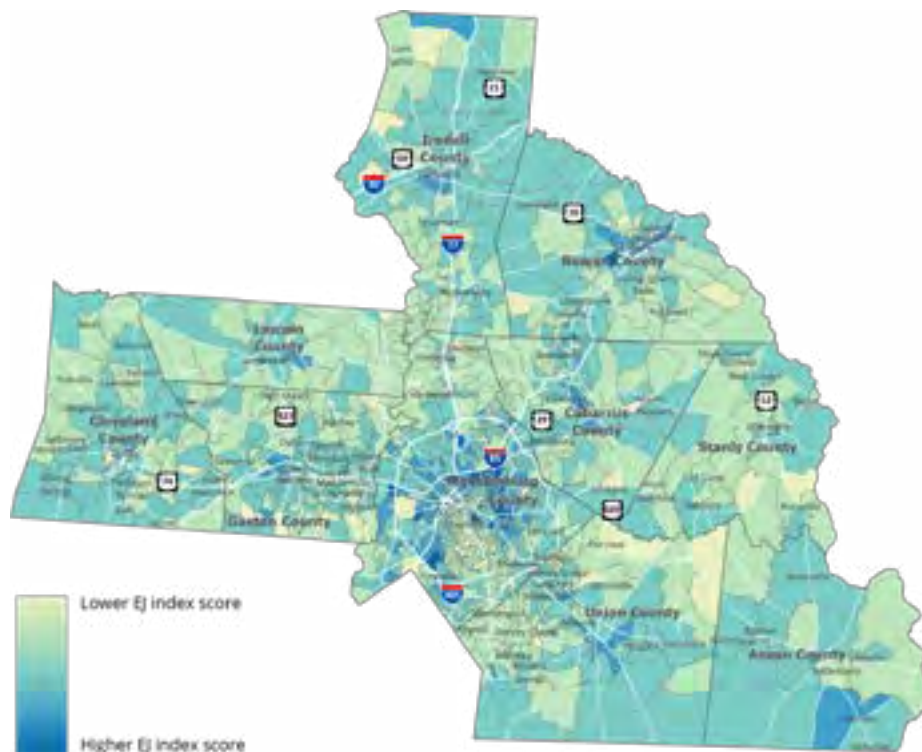
The Environmental Protection Agency (EPA) defines environmental justice (EJ) as the fair treatment and meaningful involvement of all people regardless of race, color, national origin or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies.²

For NCDOT, EJ focuses on identifying and addressing potentially disproportionately high and adverse human health or environmental effects from transportation projects on minority and low-income populations.

The NCDOT Environmental Justice Index identifies areas with higher proportions of protected populations. Each block group is assigned an EJ index score based on the relative concentration of the following three population groups as compared to regional (statewide, MPO/RPO, NCDOT Division, or county) averages:

- Racial minorities
- Ethnic minorities (Hispanic or Latino origin)
- People with low incomes

For this plan, block groups were compared to the statewide averages. Higher scores convey greater concentrations of protected populations.



Source: [NCDOT N.C. Equity and Transportation Disadvantage Screening Tool](#)

Lack of access to affordable modes of transportation contributes to inequity in the Study Area. TDM strategies should consider places where vulnerable populations need help accessing critical needs.

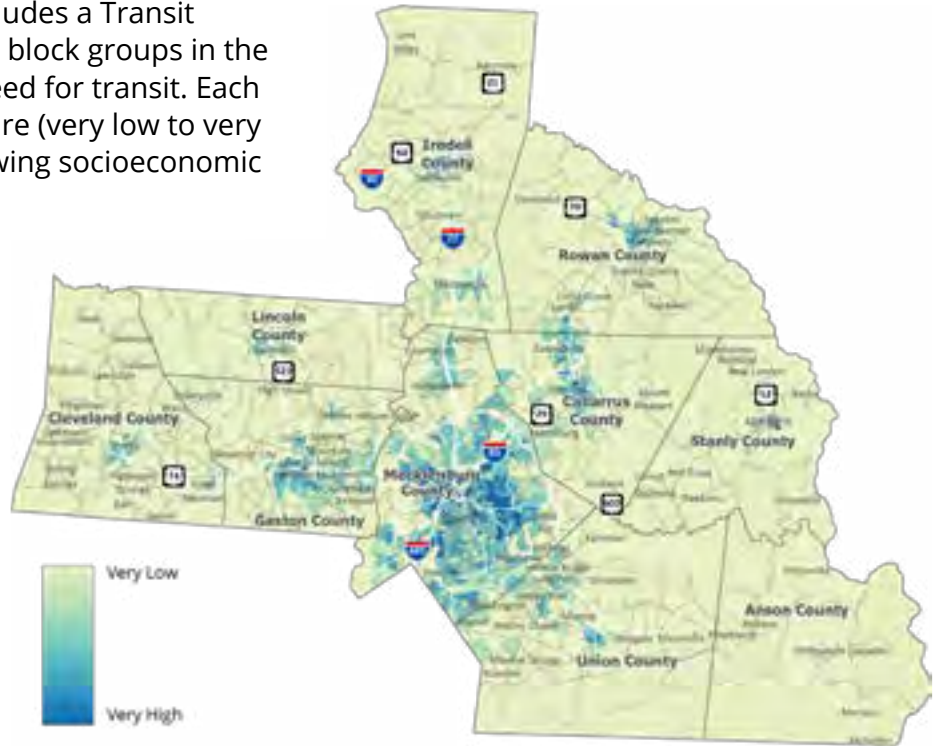
2 <https://www.epa.gov/environmentaljustice/learn-about-environmental-justice>

CONNECT Beyond Transit Propensity Index

The CONNECT Beyond plan includes a Transit Propensity Index that identifies block groups in the Study Area with the greatest need for transit. Each block group was assigned a score (very low to very high) after combining the following socioeconomic characteristics:

- Youth
- Elderly
- Minority
- Low Income
- Disabled
- Zero and one vehicle households

The areas with the highest propensity for transit are found in Mecklenburg County and near larger cities throughout the Study Area.

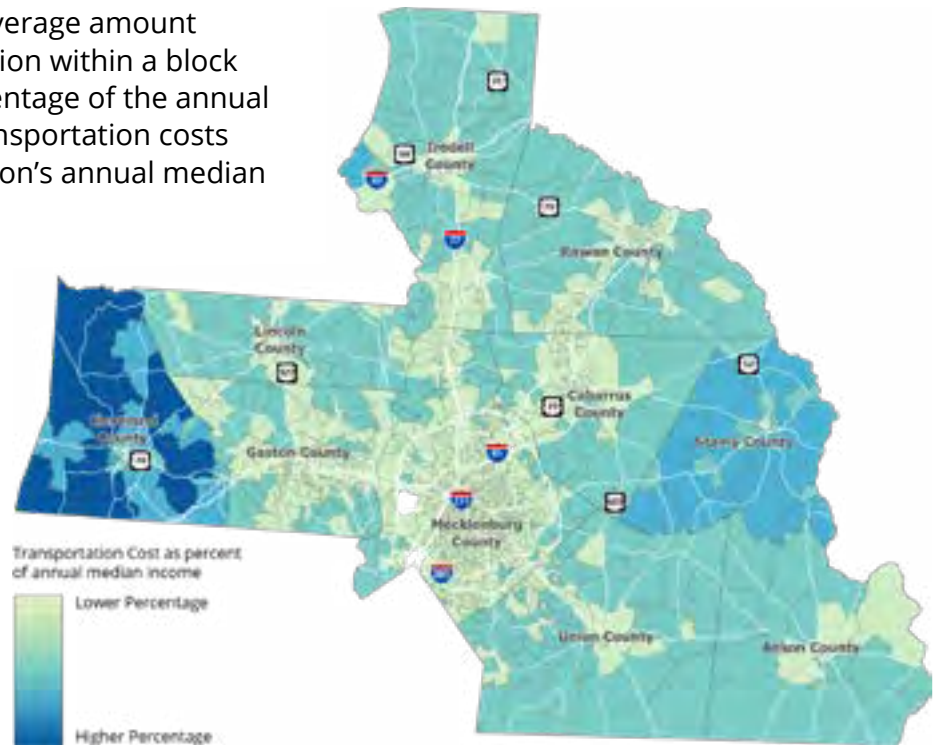


Source: Centralina Regional Council

Transportation Costs

Transportation Costs are the average amount residents spend on transportation within a block group. It is displayed as a percentage of the annual median income. In general, transportation costs should be 15% or less of a person's annual median income to remain affordable.

In the Study Area, areas with high Transportation Costs are predominantly located throughout Cleveland and Stanly counties. Areas with lower Transportation Costs are located in Charlotte and along major roadway corridors.



Source: The Center for Neighborhood Technology (CNT)

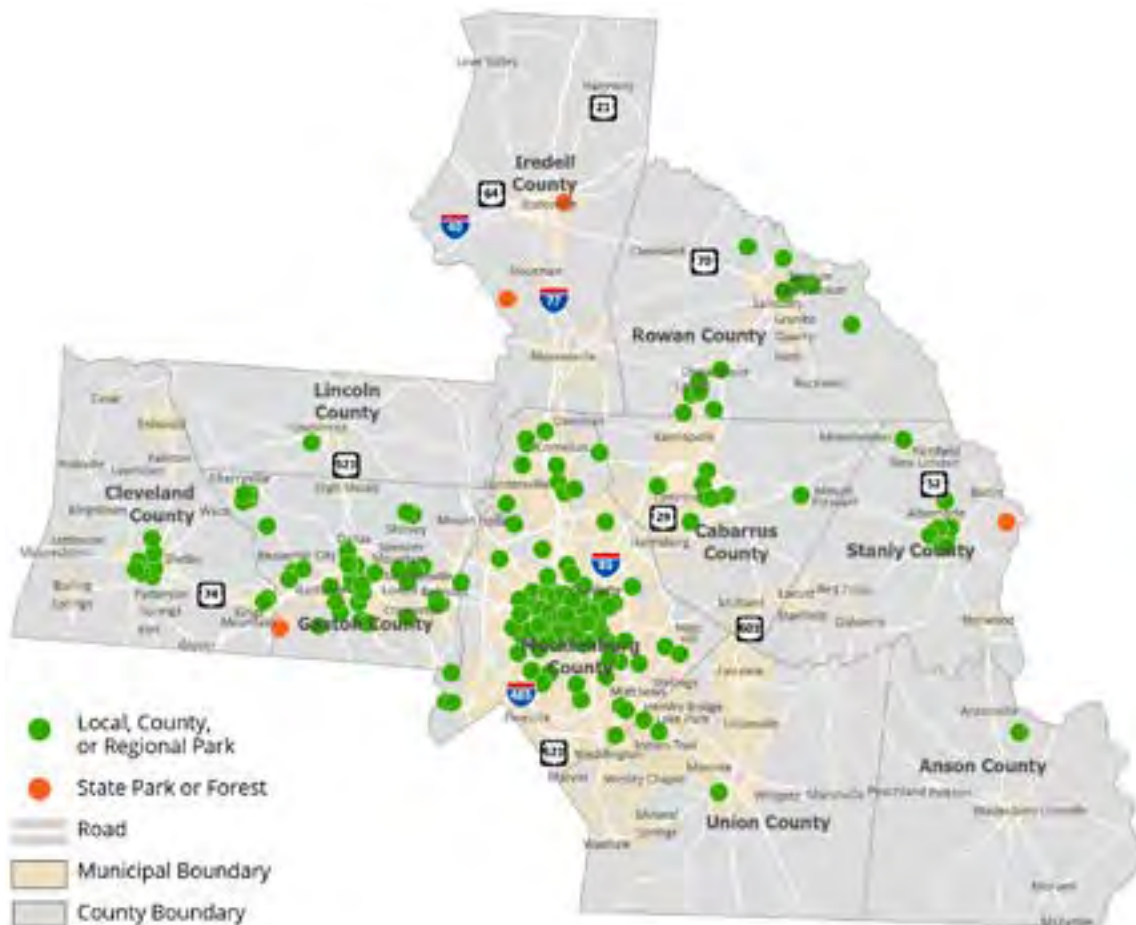
TRIP ATTRACTORS³

Trip attractors are the locations people travel to within the Study Area for various activities. They include parks, schools, medical facilities, pharmacies, grocery stores, shopping venues/centers, major event centers, downtowns, employment campuses, colleges/universities, and regional activity centers.

Some activities like work and school recur on a regular schedule. While most trips are not work/school trips, these trips are peaked in nature and tend to be longer in both distance and travel time than other trips. Some shopping and medical trips, like grocery shopping and dialysis, are more regular in nature, while many others occur on a less frequent basis.

Parks

Parks are a high generator of recreational trips in the Study Area. How frequently parks are visited and how many visitors a park receives on a given day varies depending on location, classification, amenities, and number and type of events hosted. The larger the park and the more amenities available, the larger the draw.



Source: Esri

³ The maps that are presented on the following pages are subject to the limitations in quality/accuracy/completeness of available data as of November 2023. As such, these maps should not be regarded as exhaustive.

Colleges/Universities

Public and private schools as well as higher-educational institutions (universities and colleges) all generate recurring trips within the Study Area. School trip traffic for public and private schools varies, with heavy traffic during school pick up and drop off times when school is in session. Public and private schools are located throughout the Study Area. Higher-educational institutions typically have higher enrollments which creates more trips. Many also have sporting and other events that attract visitors outside of school hours.

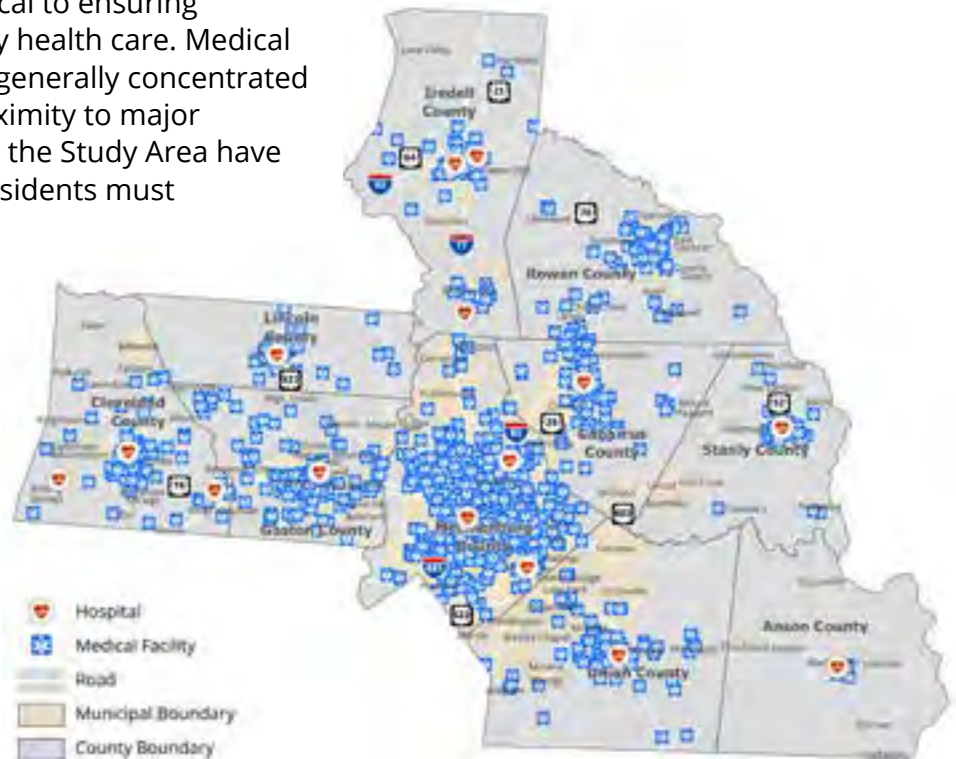


Source: NC OneMap

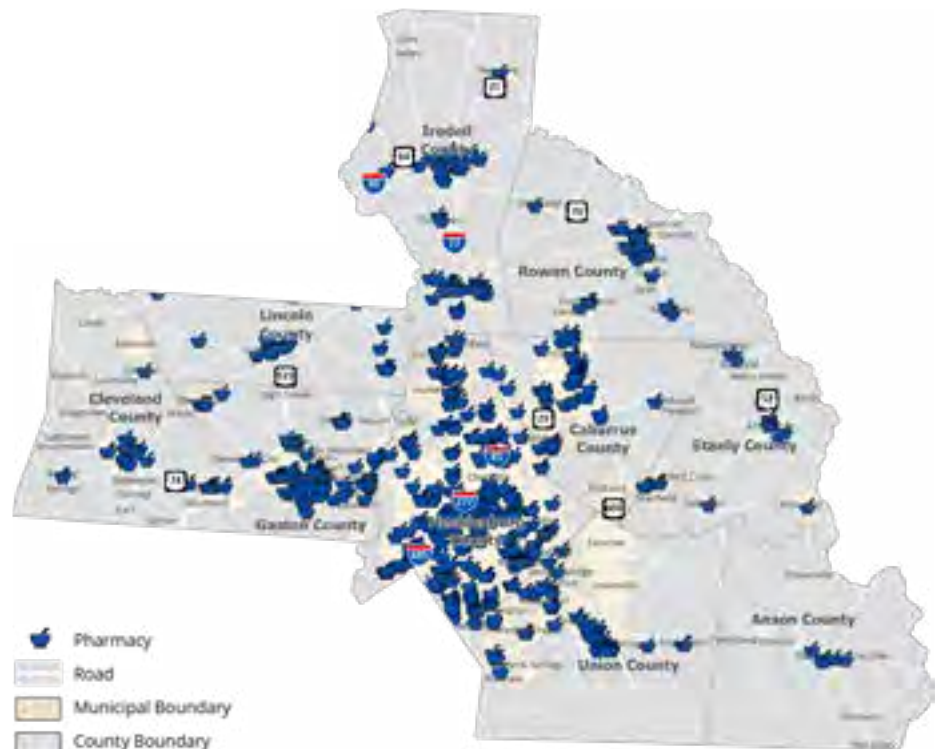
Medical Facilities and Pharmacies

Medical transportation is critical to ensuring residents do not miss or delay health care. Medical facilities and pharmacies are generally concentrated in municipal limits and in proximity to major roadways. Several counties in the Study Area have limited medical facilities so residents must travel far distances for medical needs.

The largest medical trip generators in the Study Area are hospitals. Other medical facilities include nursing homes, family care facilities, mental health facilities, rehabilitation centers, and surgery centers.



Source: NC OneMap



Source: NC OneMap

Event Centers

Event centers are venues used for the purposes of public performances, sporting events, business meetings, or similar events, and include concert halls, stadiums, sports arenas, racetracks, coliseums, and convention centers. These venues are typically used for special events and attract large crowds on select dates throughout the year.

Event centers are located in various contexts across the Study Area. They range from major event centers in urban areas like the Bank of America Stadium in Uptown Charlotte, to other more suburban and rural event centers like the Cabarrus Area & Event Center in Concord and the Cleveland County Fairgrounds in Shelby.



Source: RS&H

Downtowns

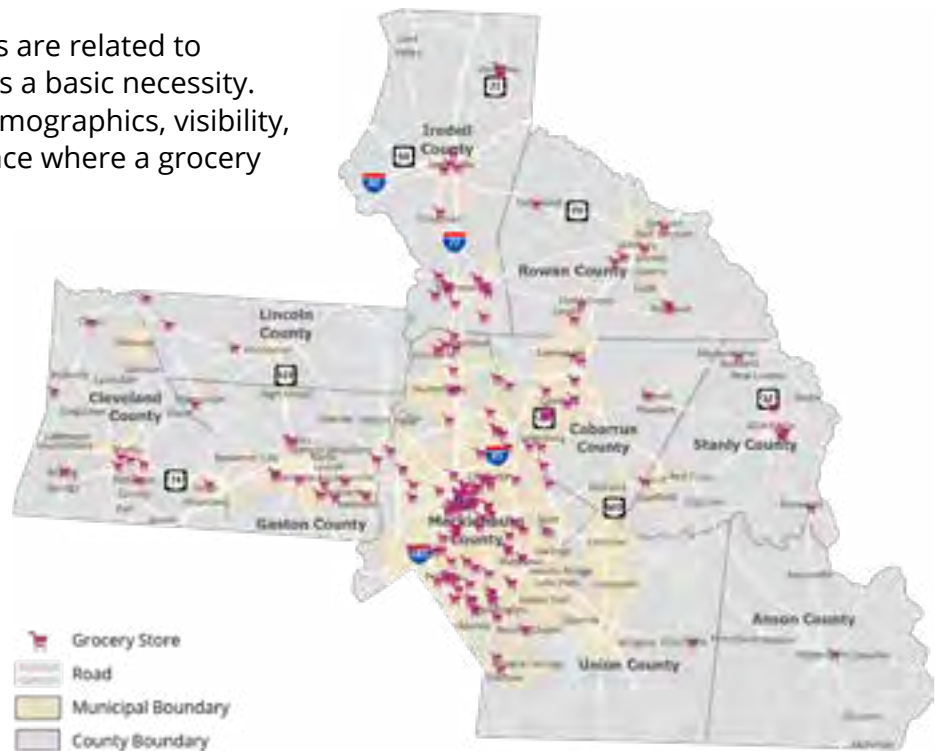
Downtowns are the heart of cities and towns in the Study Area. They are often centrally located and contain a mix of commercial, office, institutional, residential, and recreational uses and support a variety of transportation modes (cars, pedestrians, bicyclists, transit). For purposes of this study, downtowns were determined using comprehensive plans and local zoning ordinances (if a community had a denoted downtown or central business district it was included on the map). The size and scale of the downtowns in the Study Area vary from large urban centers like Uptown Charlotte to small town historic and business districts like downtown Wadesboro.



Source: RS&H

Grocery Stores

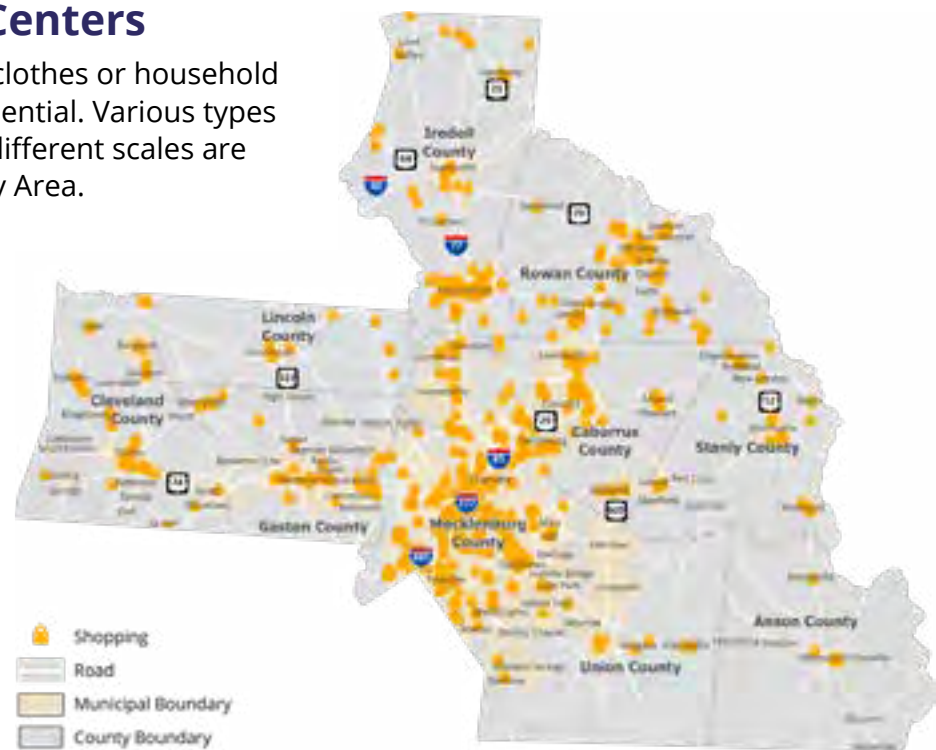
The majority of shopping trips are related to grocery shopping since food is a basic necessity. Population, neighborhood demographics, visibility, and traffic volumes all influence where a grocery store is sited. Areas with higher densities, incomes, and traffic typically have more grocery stores than others. In the Study Area, the highest concentration of grocery stores is in Mecklenburg County and within municipal limits.



Source: OpenStreetMap

Shopping Venues/Centers

Shopping trips for items like clothes or household goods are considered nonessential. Various types of nonessential shopping at different scales are present throughout the Study Area.



Source: OpenStreetMap

Regional Activity Centers

Regional activity centers are clusters of office, retail, and industrial employment uses that draw visitors from greater distances, many times from outside the Study Area. Regional activity centers in the Study Area include airports, industrial parks, medical parks, large educational institutions, and sizeable shopping malls/centers.

These major activity centers are identified through the regional Metrolina Travel Demand Model update cycle and serve a broad range of economic, entertainment, and community activities. Activity centers can draw traffic from the local community and/or can include large, mega-centers that can draw from the region. This data layer was developed by Centralina Regional Council and a combination of factors were used to determine the location of future activity centers, including a community's adopted long-range plans, the planned future road network, future sewer and water service areas, and historical growth trends.



Source: Centralina

The Charlotte Douglas International Airport (CLT) is one of the largest employers in the Charlotte region. More than 20,000 people work for the airport and its business partners in a range of employment categories including airline, retail, food and beverage, security, and customer service.

It is one of the world's busiest airports with an average of 1,400 arrivals and departures and 118,000 people traveling to, from, and through CLT each day.* CATS operates a Sprinter service (Route 5 Airport) between Uptown Charlotte and CLT, and Route 60 Tyvola Road which travels to the airport from the LYNX Tyvola Station. Both routes operate every 30 minutes. The airport is also a key connection on the future LYNX Silver Line.

* <https://www.cltairport.com/airport-info/about-clt/>

ROAD NETWORK

2018 Traffic Volumes

Annual average daily traffic (AADT) is the total volume of vehicle traffic on a roadway for a year divided by 365 days. It is used to measure how busy a road is. Interstates carry the highest traffic volumes, followed by other freeways and principal arterials. Local roads carry the lowest traffic volumes.

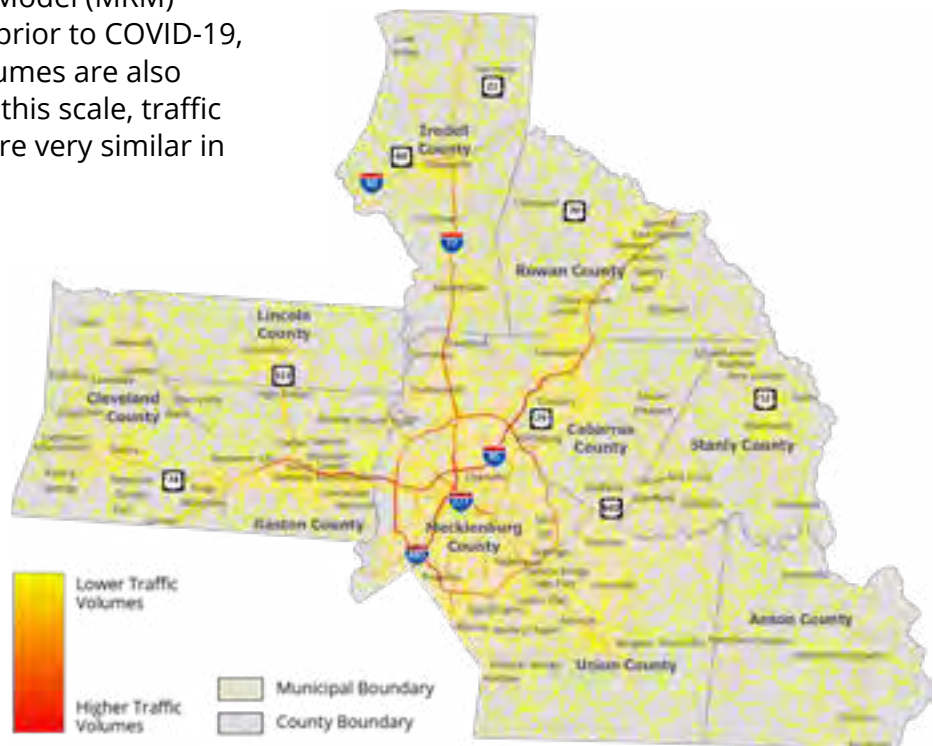
Traffic volumes in the Study Area are highest on I-85, I-77, and I-485.



Source: Metrolina Regional Model (MRM), Anson County - NCDOT Statewide Model (2017)

2022 Traffic Volumes

Since the Metrolina Regional Model (MRM) base year is 2018, which was prior to COVID-19, more recent (2022) traffic volumes are also provided as a comparison. At this scale, traffic volumes in the Study Area were very similar in 2018 and 2022.

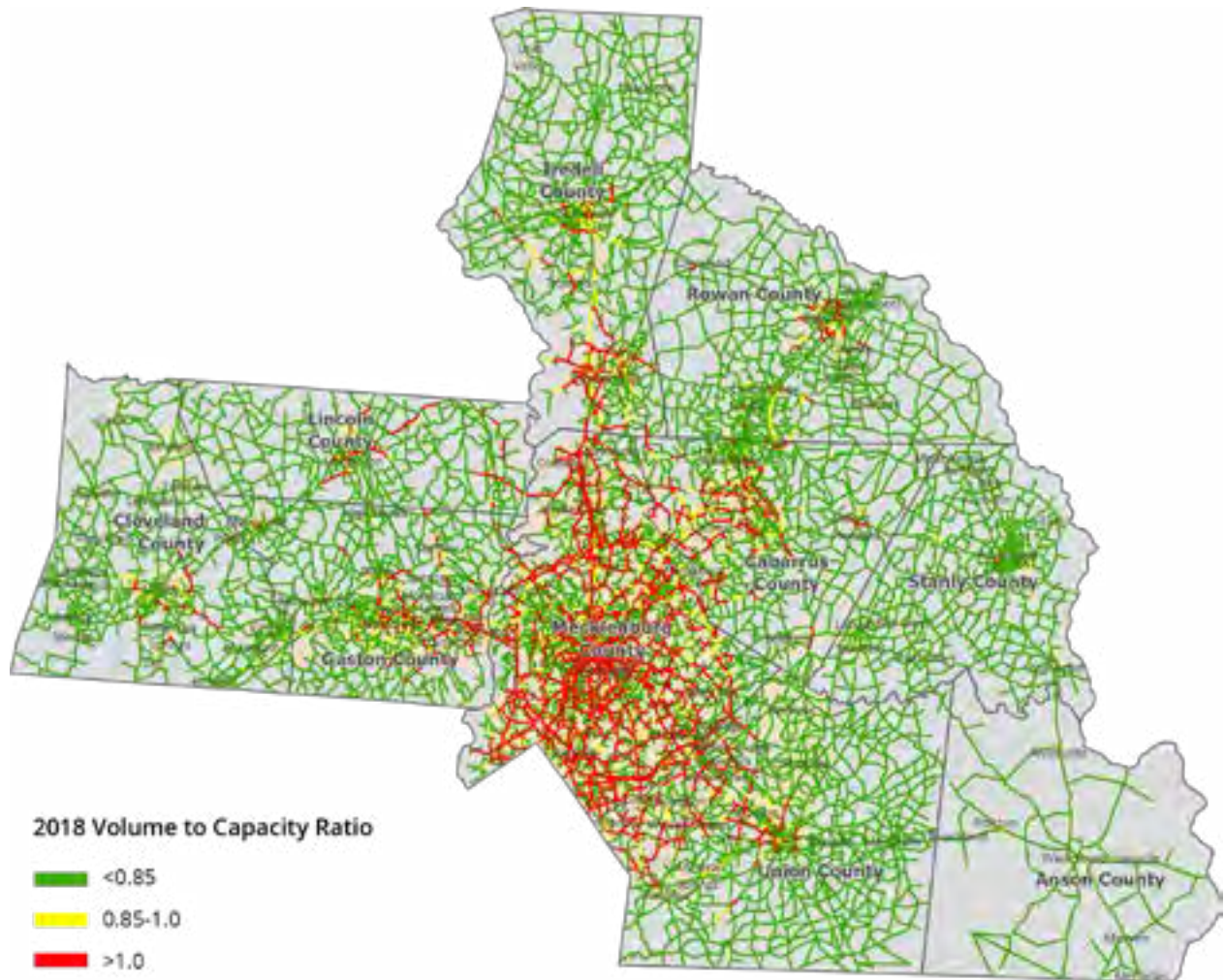


Source: NCDOT

2018 Congestion

Volume to capacity (V/C) ratios are commonly used to measure congestion. V/C ratios can vary from a low of near zero (free flow of traffic) to greater than one, where the demand volume exceeds the capacity of the roadway (heavy congestion). Typically, a V/C ratio of less than 0.85 indicates that vehicles likely will not experience significant delays.

Note: 2022 congestion information is not available through the MRM.



Source: Metrolina Regional Model (MRM), Anson County - NCDOT Statewide Model (2017)

As a region, we need to rethink our response to traffic congestion. Widening major roads is not likely to ease traffic congestion, but is likely to reduce safety and degrade the public realm. TDM strategies should recognize traffic congestion as a primary deterrent to driving alone. *

* Duranton, Gilles and Turner, Matthew (2009) "The Fundamental Law of Road Congestion: Evidence from US Cities," National Bureau of Economic Research.

Handy, Susan and Boarnet, Marlon, G., (2014) "Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions," California Environmental Protection Agency, Air Resources Board.

CRTPO Congested Corridors

As noted on page 3, the CRTPO and the Cabarrus Rowan MPO are designated as TMAs and are subject to special planning and programming requirements. One such requirement is development of a Congestion Management Process (CMP). The 61 corridors identified as congested in the CRTPO CMP are shown on the map (files from the Cabarrus Rowan MPO were not available).

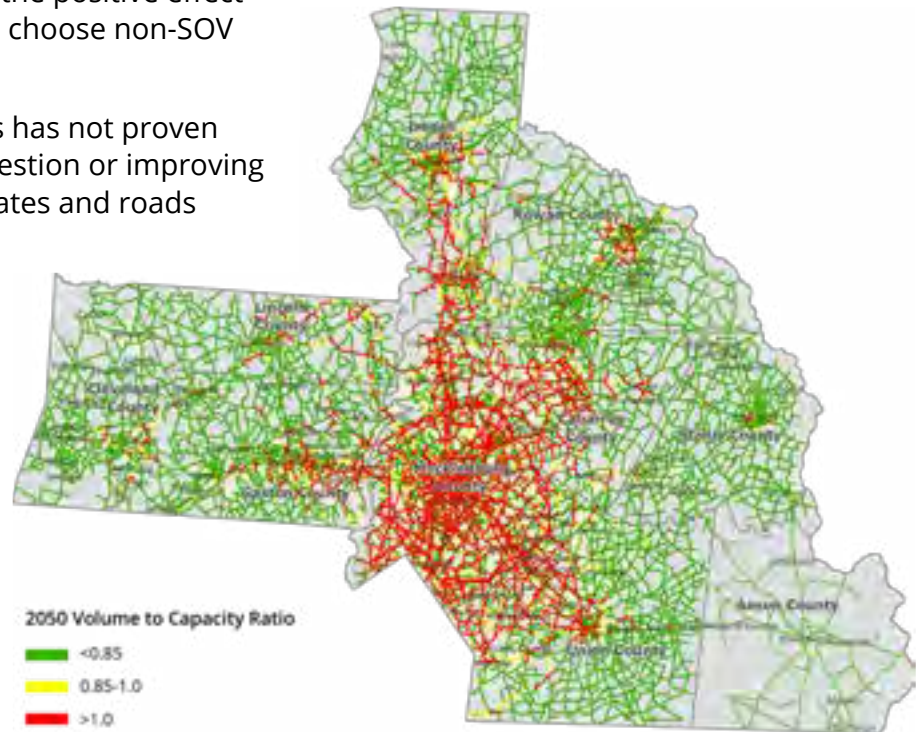


Source: CRTPO CMP (2021)

2050 Congestion

Traffic congestion is expected to increase across the region over the next 35 years. With the right regional transportation/land use policy and infrastructure investment framework, that increased congestion will have the positive effect of encouraging more people to choose non-SOV modes of travel.

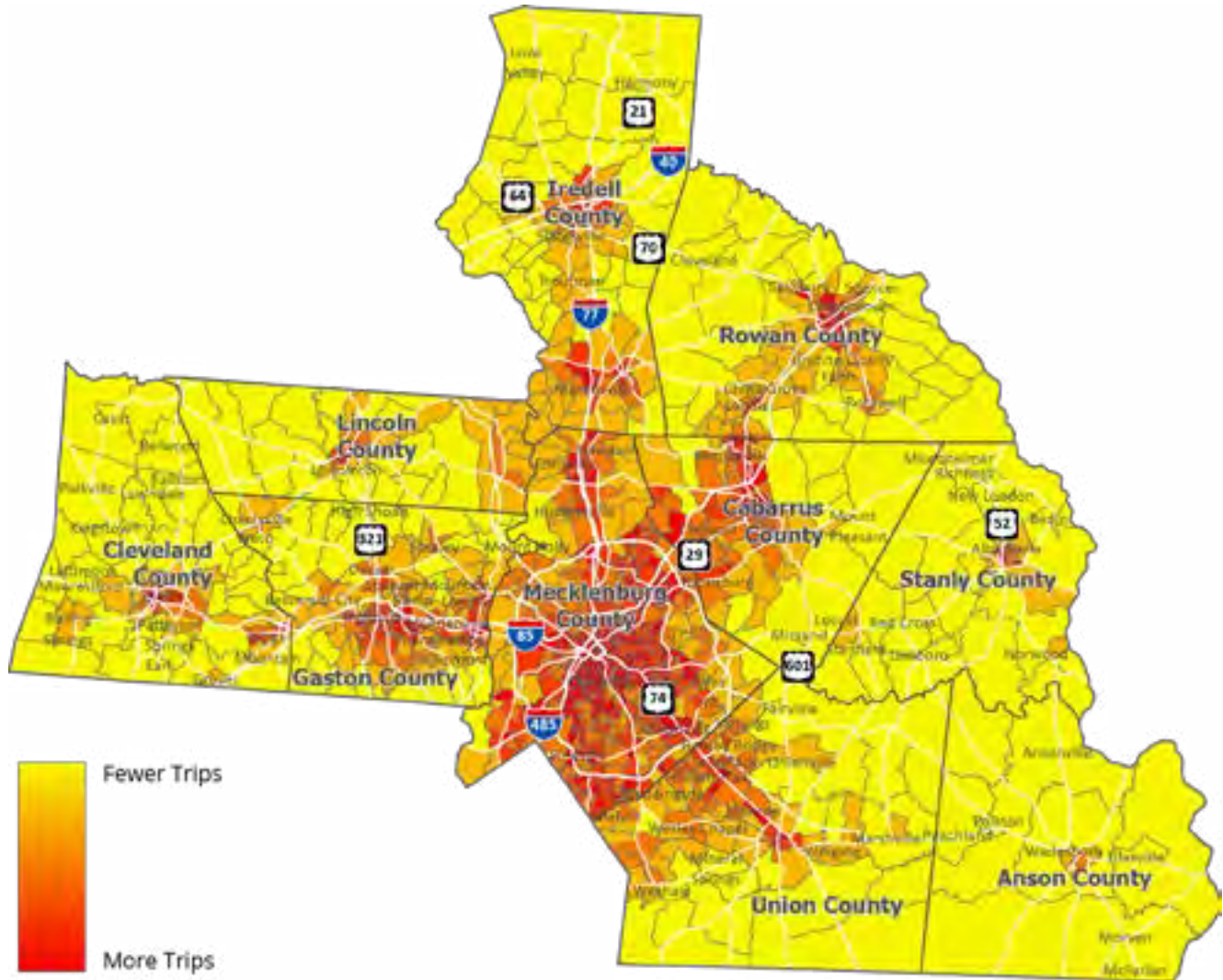
Widening interstates and roads has not proven effective for easing traffic congestion or improving safety. In fact, widening interstates and roads causes more people to drive creating more urban sprawl and traffic congestion. This is a phenomenon called “induced demand” that has been well documented for decades in urban areas across the country. TDM strategies - like transit, bicycling, walking, and telework/flex-work - are tools for easing traffic congestion and effectively managing growth.



Source: Metrolina Regional Model (MRM), Anson County - NCDOT Statewide Model (2045)

Trip Origins

A significant amount of trips in the Study Area originate from the edges of Mecklenburg County or from portions of other counties in proximity to Mecklenburg County, particularly in larger cities near interstates or major roadways.

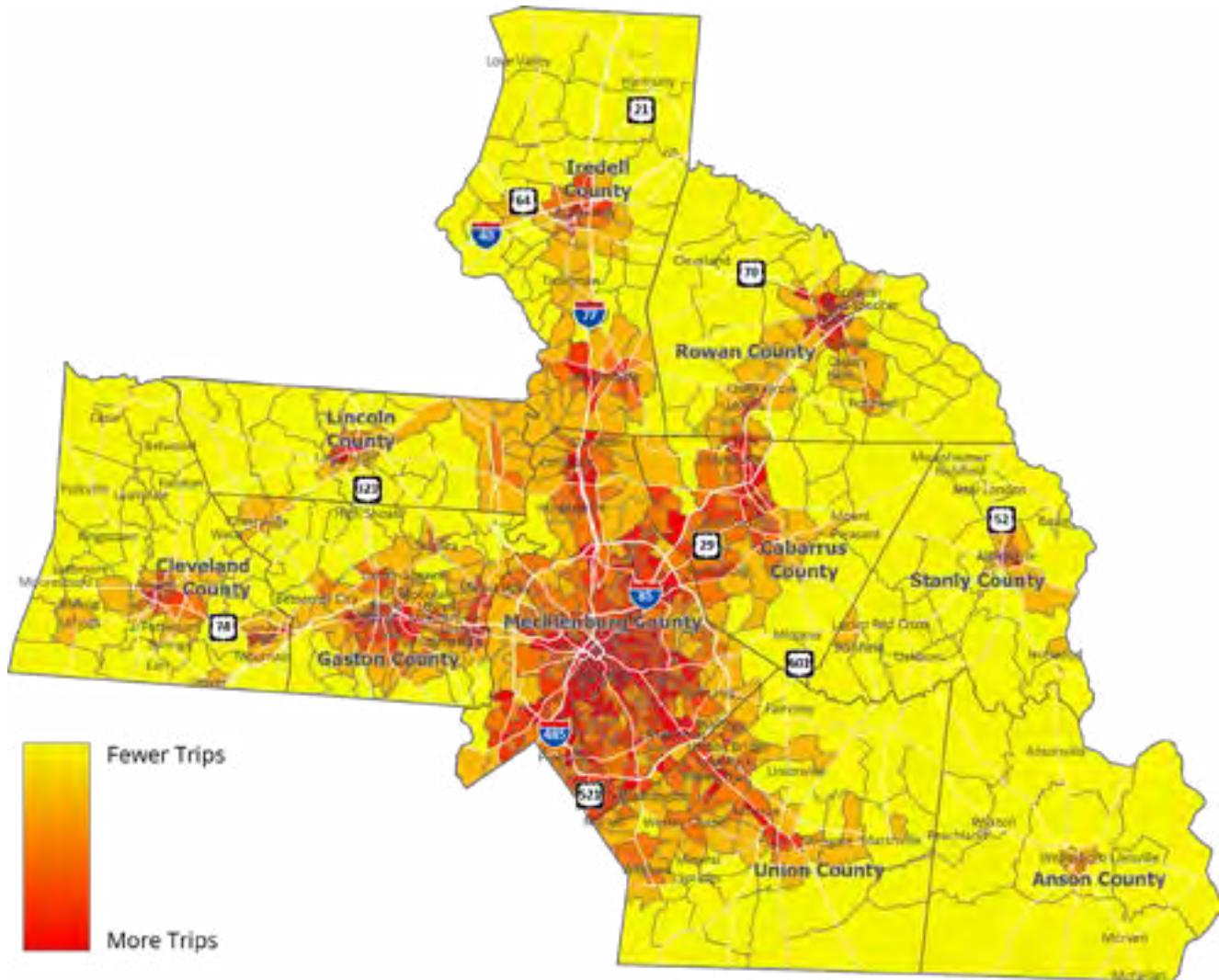


Source: Replica; Fall 2022, Average Weekday

Trip Destinations

Not surprisingly, the most common trip destinations in the Study Area are regional activity centers (see map on page 15) and other areas with high concentrations of employment and trip attractors.

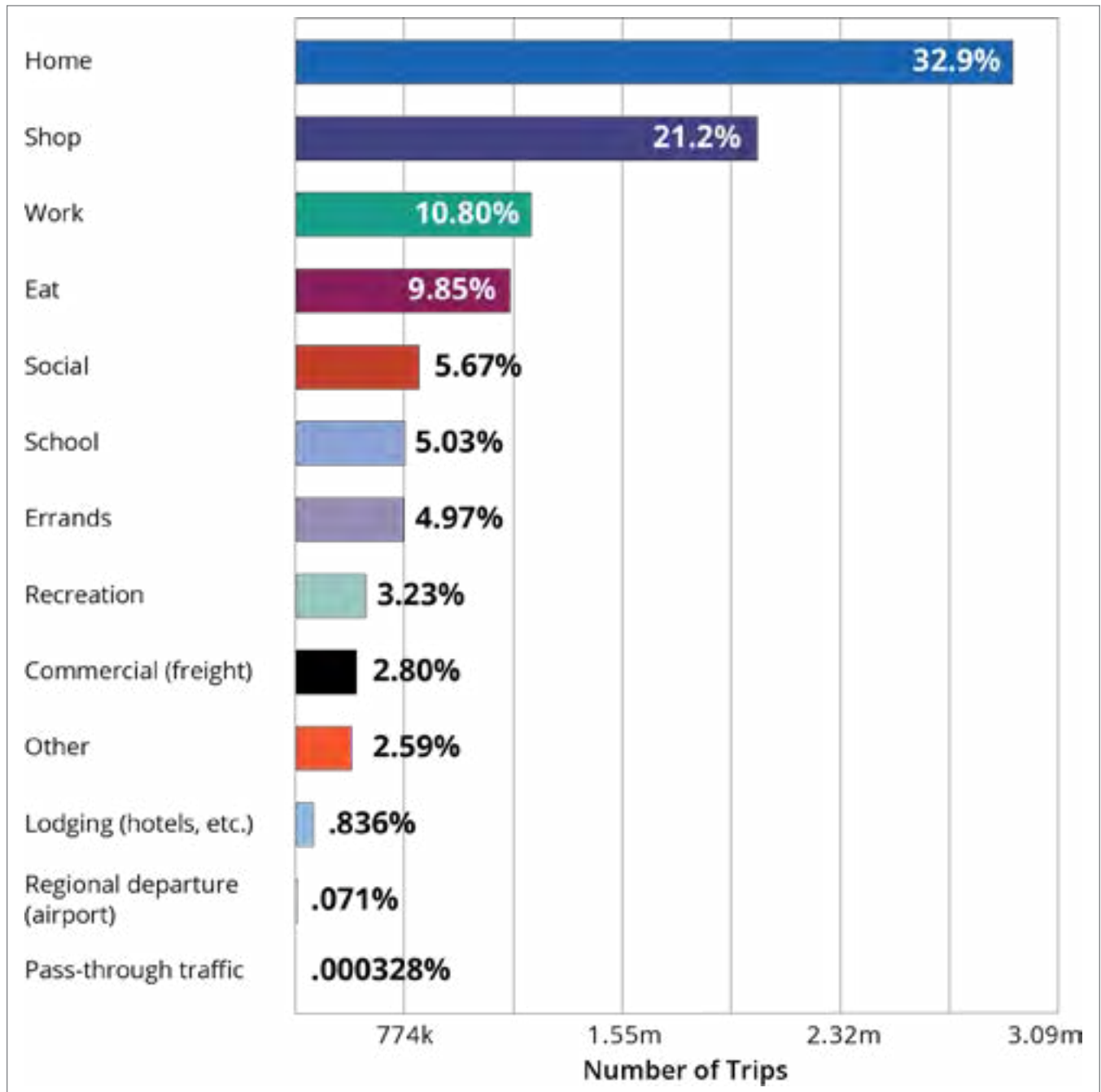
The Trip Origins and Trip Destinations Maps appear identical. While there are slight differences to these maps, they are not visible at this scale.



Source: Replica; Fall 2022, Average Weekday

Trip Purpose

Approximately one-third of trips in the Study Area end at home. Almost two-thirds of all trips starting and ending in the Study Area fall into one of four categories: home (32.9%), shop (21.2%), work (10.8%), and eat (9.85%). The remaining 25% come from categories such as social, school, errands, recreation, commercial, etc. The details on how a trip is defined and what is included in each trip type is included in Appendix B.



Source: Replica, Fall 2022, Average Weekday

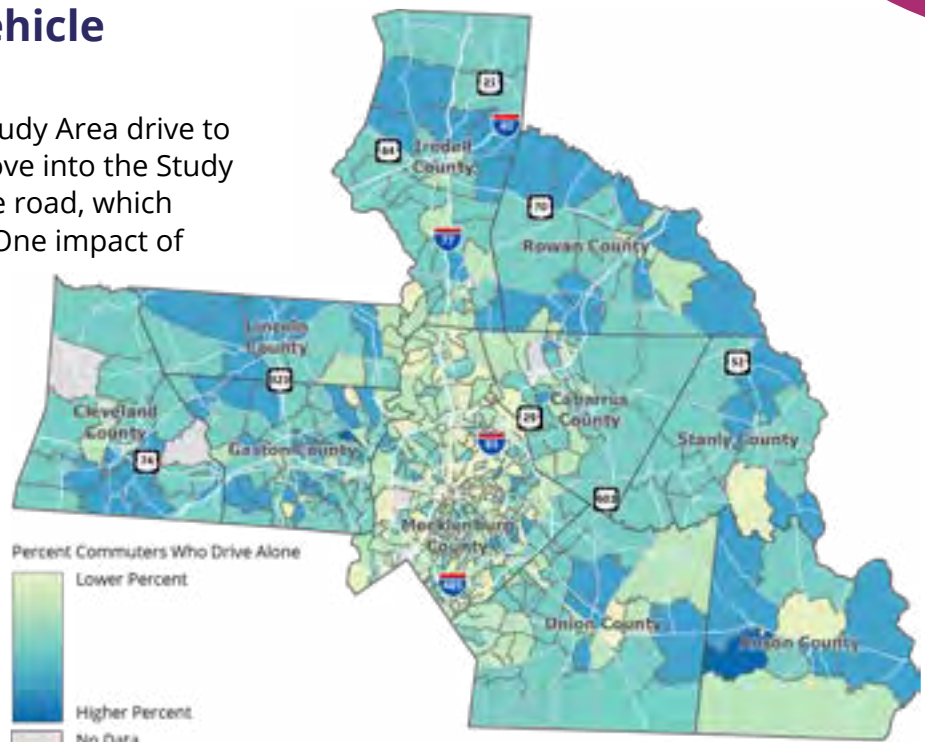
There are many types of trips beyond work commutes. TDM strategies in the region should not be limited to commute trips.

Single Occupancy Vehicle (SOV) Distribution

The majority of people in the Study Area drive to work alone. As more people move into the Study Area there are more cars on the road, which leads to increased congestion. One impact of congestion is increased delay for commuters.

Additionally, the farther people live from employment centers and regional activity centers, the more they drive alone to work, the fewer their alternative mobility options, and the higher their transportation costs.

Areas with lower percentages of commuters driving alone to work correlate with census tracts with higher percentages of households without access to vehicles and higher availability of other mode choices.

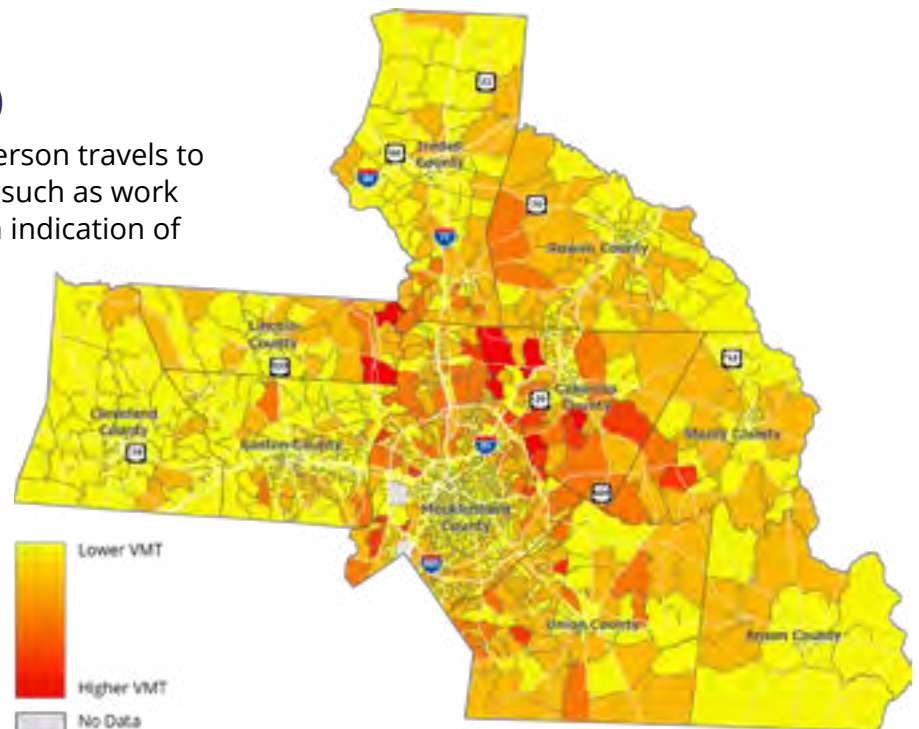


Source: 2021 5-Year American Community Survey Estimates

Residential Vehicle Miles Traveled (VMT)

Residential VMT is the miles a person travels to get to routine, necessary places such as work and the grocery store. VMT is an indication of access to economic and social opportunity, with lower VMT areas requiring less driving and generally providing better access to daily destinations. Decreasing VMT can directly improve air quality and the health of the population.

Residential VMT is highest in Cabarrus County, northern and western Mecklenburg County, and the portions of counties adjacent to the border of Mecklenburg County.

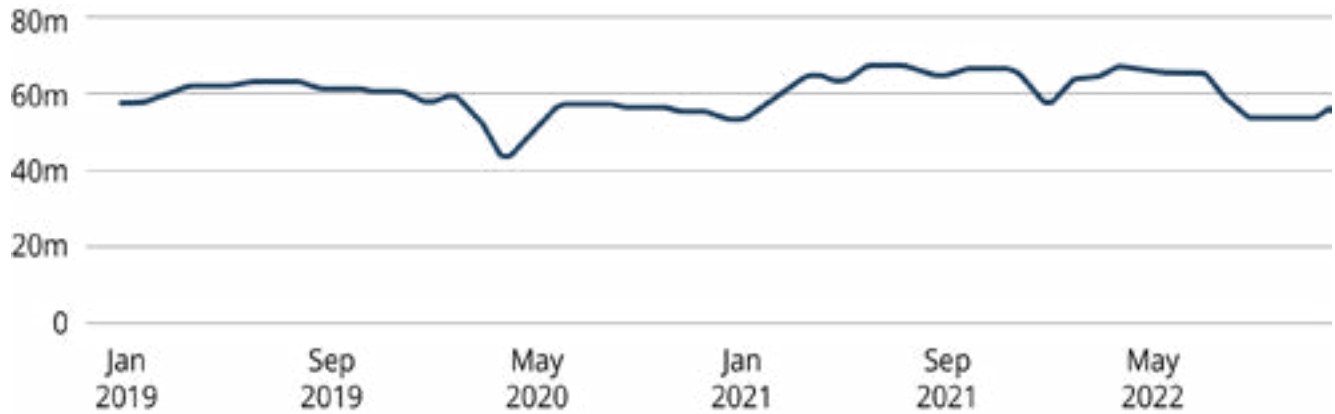


Source: Replica; Fall 2022, Average Weekday

Encouraging non-SOV trips will be most challenging on the suburban and rural periphery of the Study Area. In these vital places, TDM will require unique strategies and partnerships to overcome longer distances and lack of access to non-SOV modes.

Short- and Long-Term Impacts of COVID-19

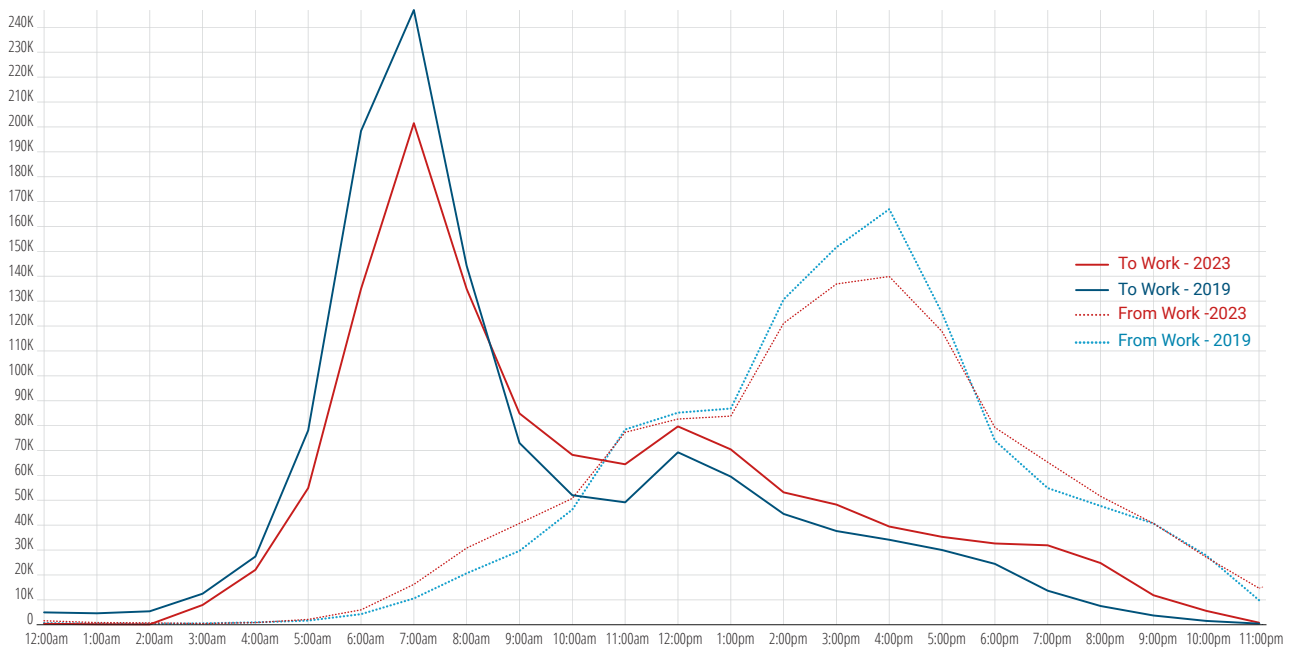
Prior to COVID-19, the average residential VMT in the Study Area was between 58-63 million per month (January 2019-February 2020). During the heart of COVID-19 (April 2020), residential VMT reduced dramatically to 44 million per month. Residential VMT has fluctuated, but generally has risen since April 2020. As of December 2022, the average residential VMT was 56 million, lower than pre-COVID levels.



Source: Replica (Jan 2019-Dec 2022)

Regional commute patterns are changing due to work and transportation behavior shifts from the COVID-19 pandemic. This graph illustrates trips made to/from work at different times of day in 2019 (pre-COVID) and 2023 (post-COVID). Morning and afternoon rush hours are not as severe, as more drivers are commuting outside of peak hours. This post-COVID phenomenon is known as “peak-spreading.”

Charlotte Region To/From Work Trips Count



Source: Replica – 2019 and 2023 To/From Work Trip Data

There are 2 significant takeaways for transportation behavior and TDM in the Study Area.

1. “Peak-spreading” should give us more license and urgency to focus on

transportation equity: The morning and afternoon rush hours are not as severe as they used to be. This is a post-COVID phenomenon, called “peak-spreading,” that is occurring in the Study Area (and many other areas as well). Flex work and work-from-home schedules mean that fewer people are driving to work on a daily basis, and when they do, they are choosing to make those commute trips at different times. While differences for each part of the day are small as percentages, those differences add up to large numbers of people shifting their work trips to different times across the Study Area.

Traditional transportation planning has focused on designing roadways to manage peak car demand, to the detriment of safety and accessibility for other modes of travel.

TDM strategies should encourage state and local governments to think differently about how they build and maintain transportation infrastructure – prioritizing safety and accessibility for other modes of transportation over antiquated traffic engineering standards focused on designing roadways for peak car traffic. It may be possible to reallocate road space (a.k.a. road diet) away from car lanes to support greater transportation equity by installing things like bus-only lanes, bike lanes, and/or sidewalks or sidepaths. Road diet projects that have been rejected in the past should be reconsidered.

TDM programs can play a role by encouraging state and local traffic engineers, who may be hesitant to abandon old, car-focused philosophies, to think differently and more equitably.

2. More diverse travel patterns can benefit from more diverse land uses. Travel patterns have become less rigid and more diverse. Increased work flexibility has resulted in an increase in mid-day trips across the Study Area. Workers are taking advantage of newfound flexibility to make short trips during the day to the grocery store, a child’s school performance, a doctor’s appointment, etc. ***These opportunistic, mid-day trips could be prime candidates to be shifted from car trips to walking and biking trips.***

Making that shift requires the right land-use mix, with worksites and neighborhoods located closer to one another, to schools, to grocery stores, to medical offices, etc. TDM strategies should focus on building “10-minute neighborhoods” where all households have access to essential amenities, goods, and services within a comfortable 10-minute walk, bike, or transit trip ([see Charlotte Future 2040 Comprehensive Plan](#)). That may require changing things like school district policies that result in new schools being built in un-walkable locations, zoning that prevents corner stores within neighborhoods, and inflated minimum parking requirements that makes development more expensive and more spread out. ***TDM programs can play a role by helping local governments understand the link between our shifting travel behaviors and the need for a more balanced mix of land uses across our communities.***

Clean Transportation

Clean transportation supports TDM goals of managing urban transportation impacts and controlling pollution. Electric vehicle (EV) infrastructure, both corridors and charging stations, contribute to a cleaner and more resilient transportation system.

There are several EV corridors in the Study Area. These EV corridors are designated alternative fuel corridors by the Federal Highway Administration (FHWA), meaning they are EV ready. The EV corridors in the Study Area are interstates and major road corridors including I-77, I-40, I-85, I-485, and US 74. Charging stations are concentrated along these roadways as well as in select locations within municipal limits.

NCDOT has developed a [Clean Transportation Plan](#) that identifies near-term strategies and actions to prepare for a clean transportation future that are applicable in the Study Area.

NCDOT has also developed a statewide [Electric Vehicle \(EV\) Infrastructure Deployment Plan](#) and has applied for Round 1 funding through the National Electric Vehicle Infrastructure (NEVI) Program to develop 11 electric vehicle charging stations at various locations across the state. Each location is a “cluster” of one more exits along alternative fuel corridors. One cluster, M-1, is within the Study Area (north of Charlotte and south of Huntersville).⁴



Source: Alternative Fuels Data Center, USDOT Bureau of Transportation Statistics (BTS)

4 <https://www.ncdot.gov/initiatives-policies/environmental/climate-change/Pages/national-electric-vehicle-infrastructure-program.aspx>

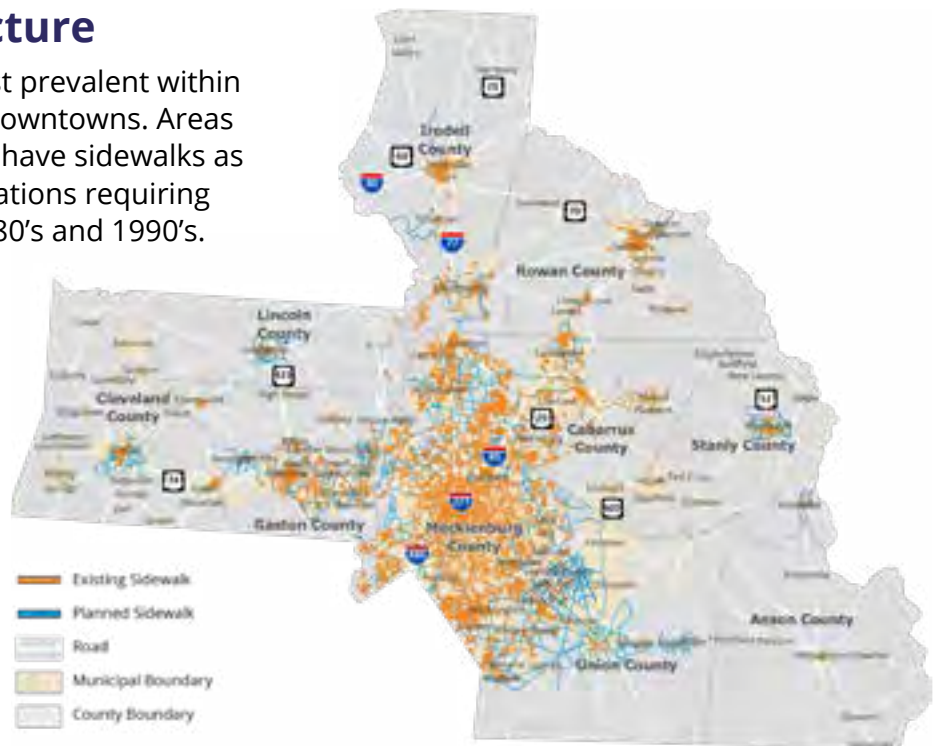
ACTIVE TRANSPORTATION

The Partnership for Active Transportation defines active transportation as a means of getting around that is powered by human energy, primarily walking and bicycling.⁵ Other forms of active transportation include using wheelchairs, skateboarding, and rollerblading. Communities can exist without active transportation networks, but a more balanced transportation system results in healthier places and healthier people. A robust active transportation network provide another means for people to reach desired destinations without a car. Some people choose active transportation options for environmental or health reasons. Others, like children, elderly, those with physical impairments or challenges, or low income populations, rely on active transportation infrastructure to get around. Like most places, land use and transportation decisions in the Study Area have been centered around the automobile which has exacerbated car dependence and increased vulnerabilities of those who do not drive. Expanding active transportation infrastructure, especially to the most desirable destinations, is a key strategy for improving regional mobility.

DISCLAIMER – The Active Transportation maps on the following pages are based on data from the NCDOT Pedestrian and Bicycle Infrastructure Network (PBIN). There are limitations to the data as the PBIN is not comprehensive and relies on municipalities to submit their own information to the statewide geodatabase. As a result, there are inconsistencies in the reporting and quality of data. Despite these limitations, the PBIN is the best source of information on existing and planned active transportation infrastructure across the large scale of the 10-county Study Area. Improvements to the collection, verification, and maintenance of this data are needed to support better planning and evaluation of infrastructure investment and TDM strategies.

Sidewalk Infrastructure

Sidewalk infrastructure is most prevalent within municipal limits, particularly downtowns. Areas with newer development also have sidewalks as a result of development regulations requiring sidewalks beginning in the 1980's and 1990's. Sidewalk gaps exist in some areas and in other locations, sidewalks may need to be repaired or replaced to provide a safe, comfortable, and realistic mobility option. Comprehensive Transportation Plans (CTPs) and pedestrian plans have been adopted that indicate where new sidewalks are planned or proposed.



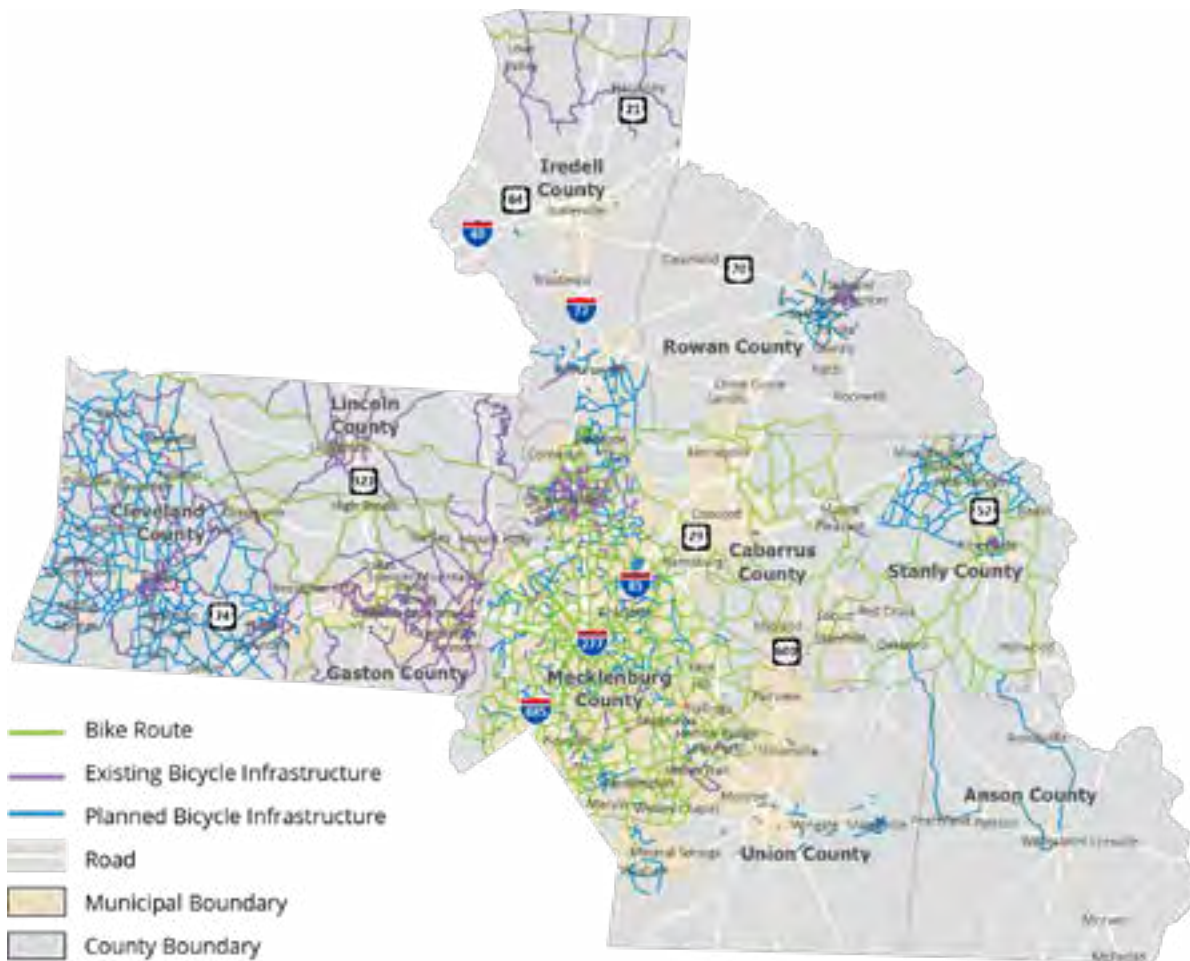
Source: NCDOT Pedestrian and Bicycle Infrastructure Network (PBIN)

⁵ <https://www.railstotrails.org/partnership-for-active-transportation/>

Bicycle Infrastructure

There are several state and locally designated bicycle routes in the Study Area used by more experienced bicyclists. The majority of bicyclists are less experienced, and ride more for recreation or leisure. Some of these riders will ride if some bicycle infrastructure is in place, but the majority only feel comfortable riding if high-quality bicycle infrastructure is in place. Bicycle infrastructure is limited in the Study Area.

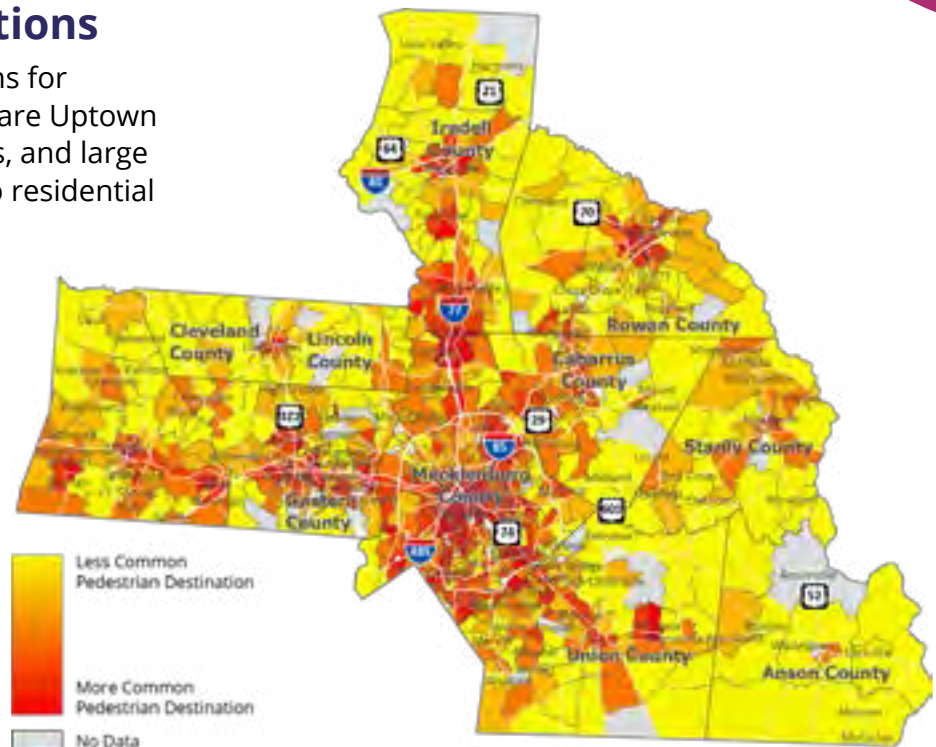
Carolina Thread Trail



Source: NCDOT Pedestrian and Bicycle Infrastructure Network (PBIN)

Pedestrian Destinations

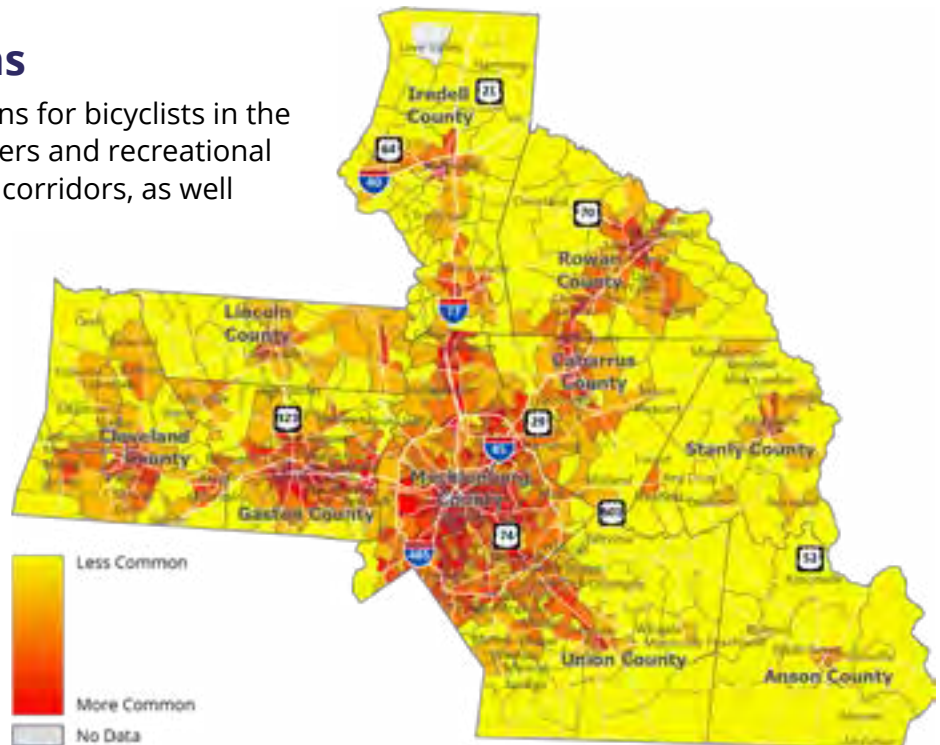
The most common destinations for pedestrians in the Study Area are Uptown Charlotte, colleges/universities, and large shopping areas in proximity to residential neighborhoods.



Source: Replica; Fall 2022, Average Weekday

Bicycle Destinations

The most common destinations for bicyclists in the Study Area are shopping centers and recreational centers along major roadway corridors, as well as areas with established bicycle routes.



Source: Replica; Fall 2022, Average Weekday

People who walk and bike are the most vulnerable people on the roadways, and often the most ignored – in terms of infrastructure funding allocation and roadway design. Supporting walking, biking, and first/last-mile connections to other modes will be integral to a successful regional TDM program.

Shared use paths and greenways are designed to accommodate a variety of users including pedestrians and bicyclists. Shared use paths are typically parallel to a roadway, but physically separated from vehicular traffic while greenways typically run along creeks, parks, and rail corridors. Shared use paths and greenways serve both a safe transportation purpose (like commuting to work/school) and a recreational purpose.

All counties in the Study Area have adopted [Carolina Thread Trail Master Plans](#) that identify planned and proposed trail/greenway segments (shown on the map below).

Many jurisdictions and organizations in the Study Area also have adopted CTPs and greenway plans that indicate where new trails and greenways are planned or proposed. Additionally, NCDOT adopted [The Great Trails State Plan](#) that identifies a network of shared-use paths and trails across the state.



Source: Carolina Thread Trail

TRANSIT

Transit Centers

Existing

A transit center is a transit hub served by several bus or rail lines where riders can transfer routes. They vary in terms of size, amenities, and modes accommodated. The largest transit center in the Study Area is the Charlotte Transportation Center (CTC) in Uptown Charlotte. There are three other smaller transit centers in Mecklenburg County, one in Gaston County, one in Rowan County, and one in Cabarrus County.

Future

The Charlotte Gateway Station (CGS) is a multi-modal transit center currently under development in Uptown Charlotte. It will serve both long-distance travelers and daily-commuters connecting passengers to employment, entertainment, and cultural centers as well as other transportation services including Amtrak, CATS local and express bus services, the CityLYNX Gold Line streetcar, and taxi and ridesharing services.

ICATS is currently evaluating properties for a transit center in Iredell County.



Source: CATS, CK Rider, City of Salisbury, Gastonia Transit

Regional Light Rail/Commuter Rail

Existing

CATS operates a light rail line known as the LYNX Blue Line. The total north-to-south route is roughly 19 miles with 26 stations, including 11 park-and-ride locations from I-485/South Boulevard to UNC-Charlotte.

CATS also operates the CityLYNX Gold Line, a streetcar line in Uptown Charlotte. The existing streetcar (Phases 1 and 2) is a 4-mile route with 17 stops and connects to numerous CATS bus routes and the LYNX Blue Line.

Both of these services are located in Mecklenburg County.



Source: CATS

Future

Proposed CATS services include a 5.5 mile, five station, LYNX Blue Line Pineville-Ballantyne Extension; a 29 mile, 31 station, 12 park-and-ride location LYNX Silver Line from Belmont in Gaston County to Indian Trail in Union County; a 25 mile commuter rail corridor known as the LYNX Red Line with 10 stations and nine park-and-ride locations; and Phase 3 of the CityLYNX Gold Line which will add another 6 miles and 18 stops to the current route.

While these transit routes will be concentrated in Mecklenburg County, service would extend into Gaston, Iredell, and Union counties.

The CONNECT Beyond plan also identifies strategic mobility corridors throughout the Study Area. These include four initial commuter rail corridors, three long term commuter rail corridors, 24 emerging mobility corridors, and 13 high-capacity transit corridors.



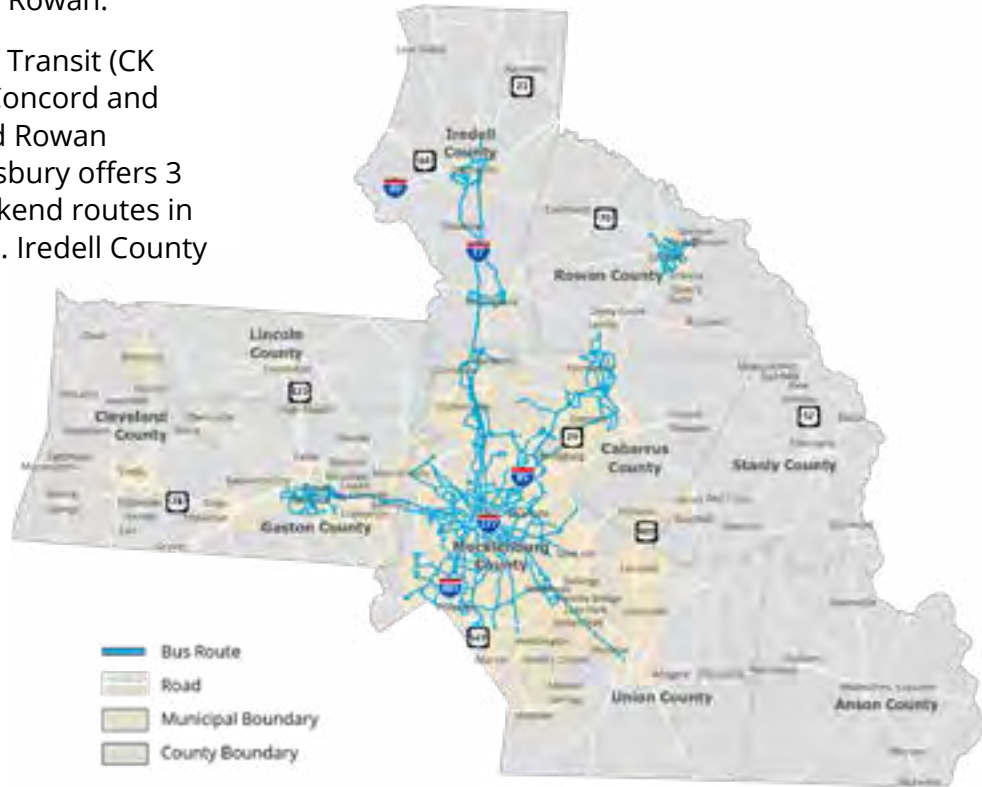
Source: CATS, CONNECT Beyond

Bus

Existing Fixed Route

Fixed route bus service is offered in 5 of the 10 counties in the Study Area: Cabarrus, Gaston, Iredell, Mecklenburg, and Rowan.

Concord Kannapolis Area Transit (CK Rider) offers 8 routes in Concord and Kannapolis (Cabarrus and Rowan counties). The City of Salisbury offers 3 regular routes and 2 weekend routes in Salisbury (Rowan County). Iredell County Area Transportation System (ICATS) offers 1 route in Statesville, 1 in Mooresville, and a Commuter Express route from Statesville to Uptown Charlotte. Gastonia Transit offers 6 routes in Gastonia (Gaston County). Finally, CATS offers over 60 routes throughout Mecklenburg County including 6 express routes into surrounding counties.



Source: CATS, City of Gastonia, City of Salisbury, CK Rider, ICATS

Existing Demand Response Service

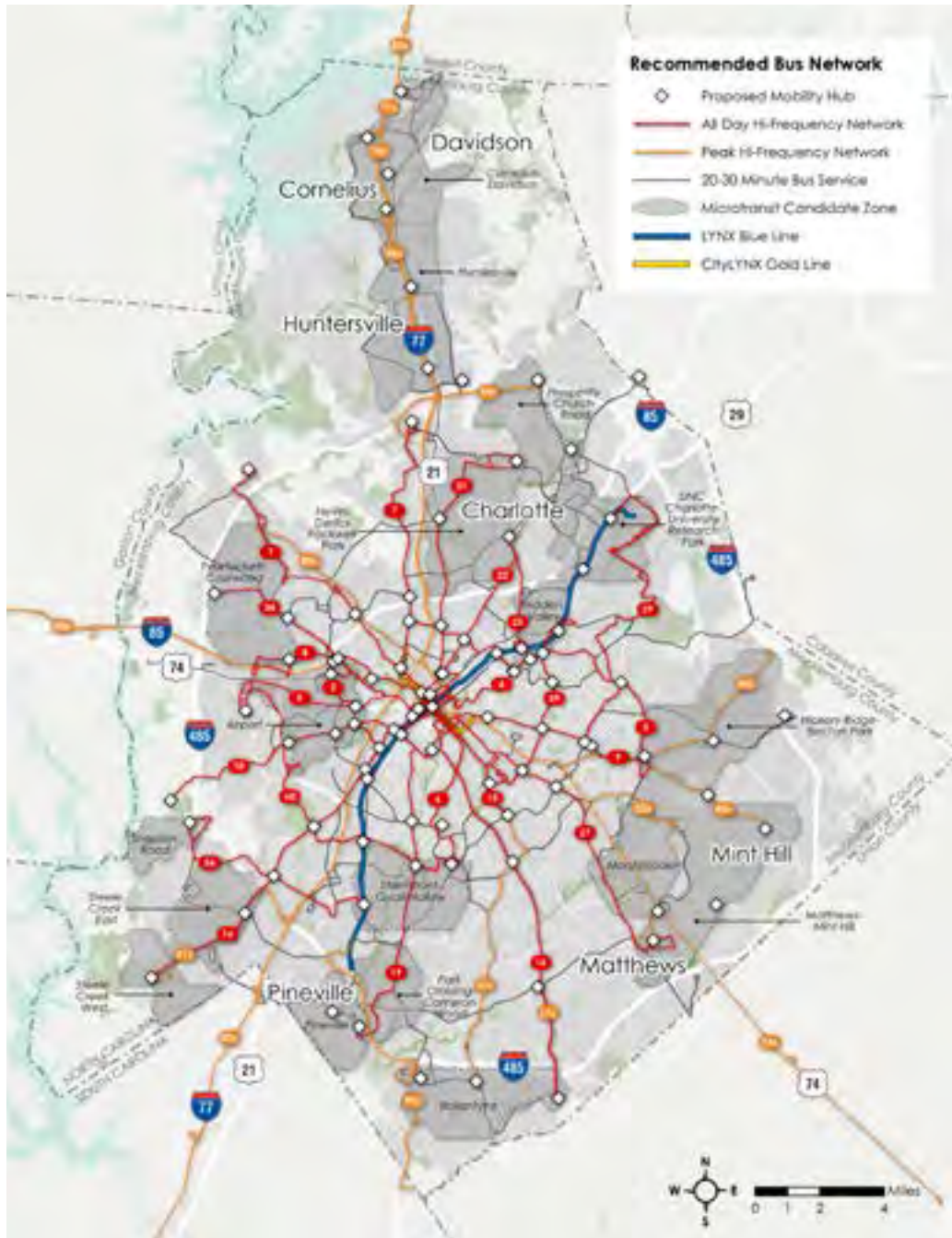
The FTA defines demand response as any non-fixed route system of transporting individuals that requires advanced scheduling by the customer, including services provided by public entities, nonprofits, and private providers. **Demand response resources are offered in all counties in the Study area** and are available for the elderly, disabled, veterans, welfare recipients and low income persons seeking to obtain/maintain employment, and others with mobility needs (particularly in rural areas).

CATS also operates a pre-scheduled, shared-ride, origin to destination paratransit service through its Special Transportation Service (STS) program.

Coordination among transit service providers and integration with other modes of travel are key components of a regional TDM strategy.

Future Bus Service

In 2022 CATS published the Envision My Ride study to guide future enhancements to their bus service, including building a high-frequency bus network with 15-minute service or better. (See map below.) Other CATS bus planning efforts, including the MetroRAPID Improvements Planning Study and the Better Bus initiative, focus on improving bus rapid transit corridors, and restructuring the local bus network to improve frequency, access, and travel time.



Source: CATS, *Envision My Ride Bus Priority Study*, July 2022

Park and Ride Lots

Existing

There are over 60 CATS park and ride lots in the Study Area. The majority are in Charlotte, but there are a handful in other municipalities where express bus services are offered.

There are 2 ICATS park and ride lots in Iredell County.

Future

There are 5 proposed CATS park and ride lots in the Study Area. All are within Mecklenburg County.



Source: CATS, ICATS

Carpool/Vanpool

NCDOT has a statewide website, Share the Ride NC, to help commuters form carpools and vanpools. Interested parties are matched to nearby commuters with similar schedules who they can contact about carpool options.

As a part of the Share the Ride NC program, CATS operates a multi-county vanpool program for work trip origins/destinations in Mecklenburg County.

Microtransit

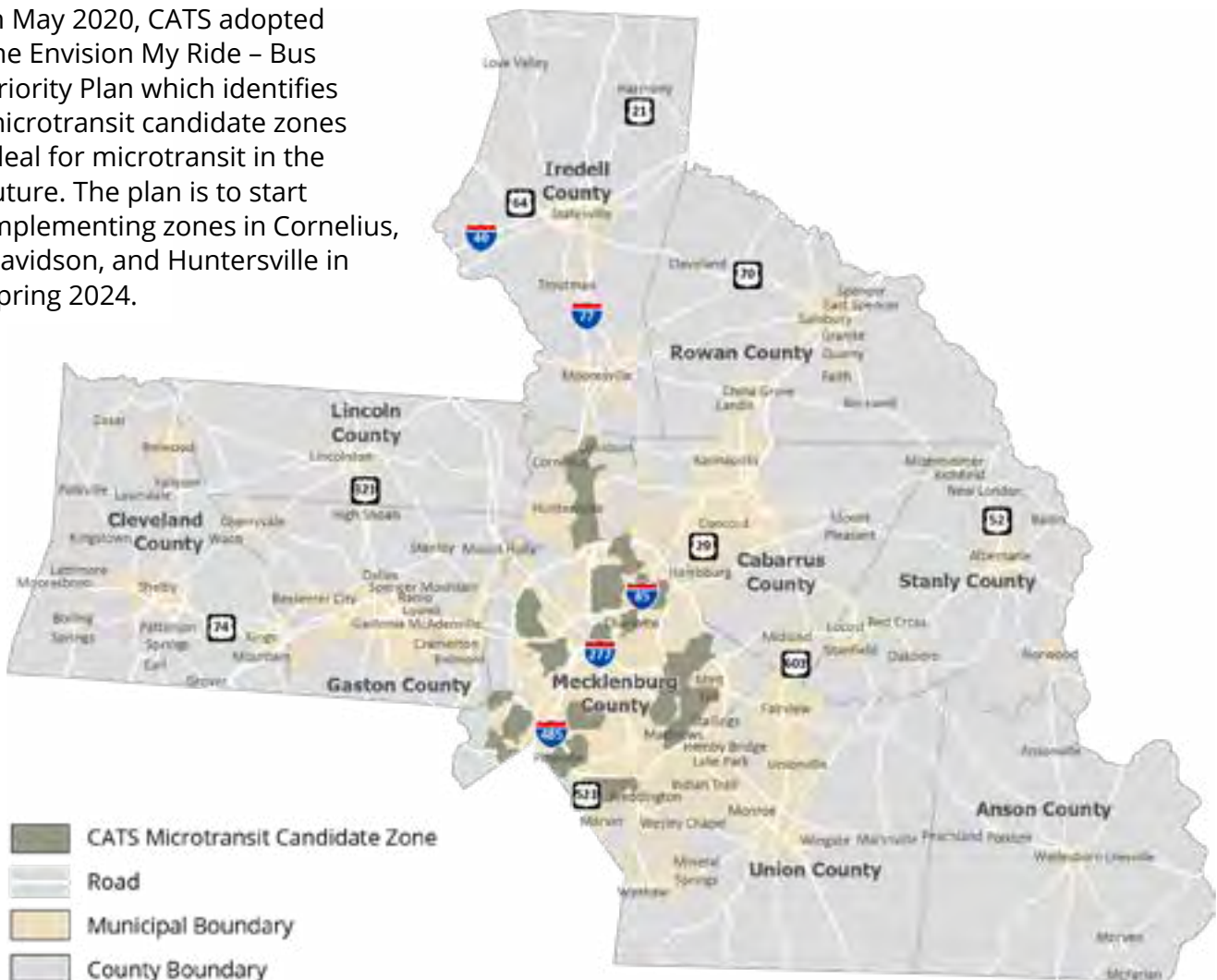
Microtransit is a convenient, on-demand transit option, similar to Lyft or Uber, that uses smaller vehicles or even small buses to provide service within designated zones.

Existing

Several areas are considering microtransit, but no microtransit services are currently offered in the Study Area.

Future

In May 2020, CATS adopted the Envision My Ride – Bus Priority Plan which identifies microtransit candidate zones ideal for microtransit in the future. The plan is to start implementing zones in Cornelius, Davidson, and Huntersville in Spring 2024.



Source: CATS

Micromobility

Micromobility is the use of lightweight vehicles, operated at slower speeds, and driven by users personally. Micromobility devices include bicycles, electric bicycles, electric scooters, electric skateboards, and shared bicycle fleets.

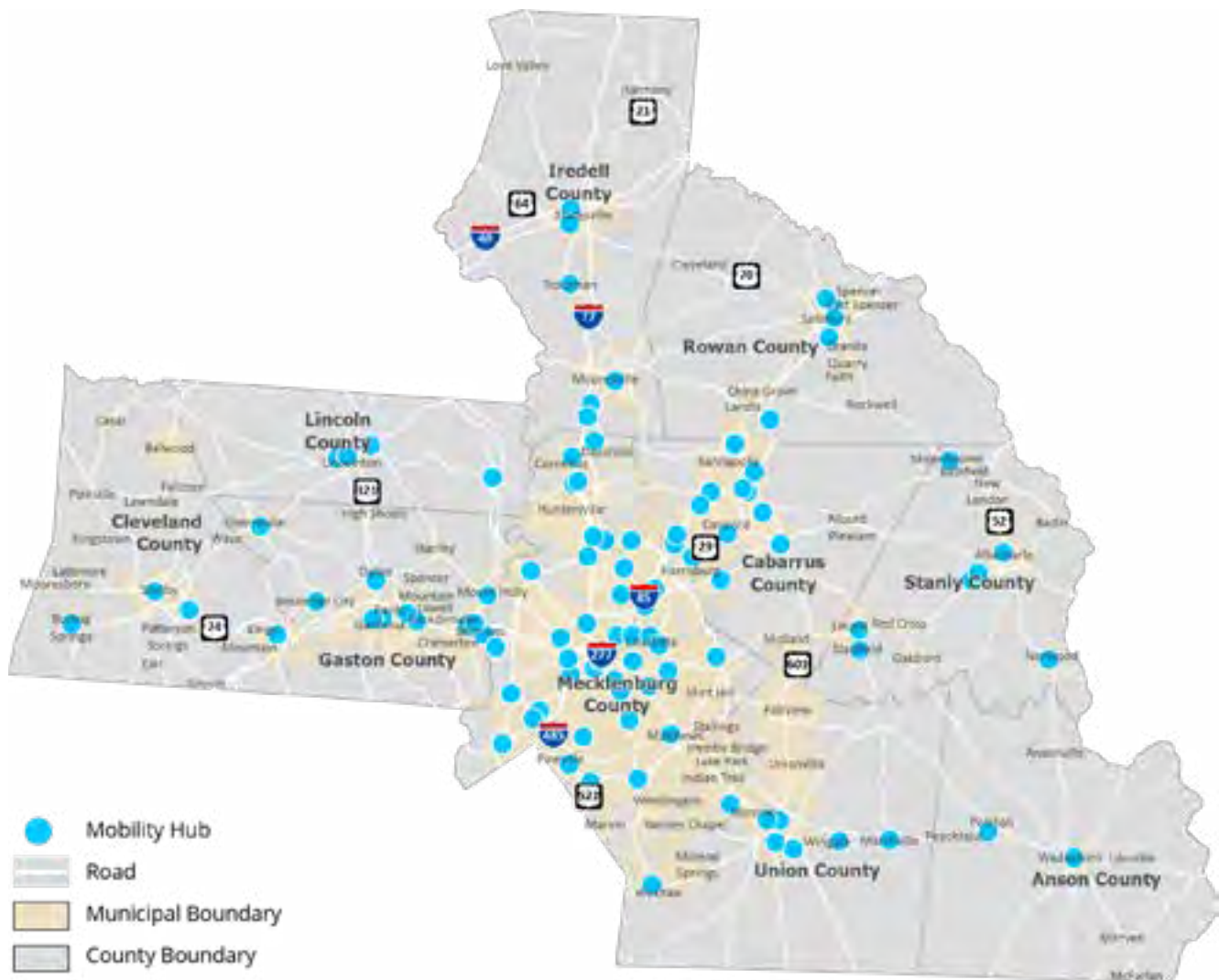
The City of Charlotte operates a Shared Mobility Program that includes e-scooters and bikes, and the City of Gastonia operates an e-scooter program.

PROPOSED MOBILITY HUBS

Mobility hubs are places of connectivity where different travel modes converge and people can conveniently access various alternative mobility options. CONNECT Beyond identified 68 potential mobility hub locations across the Study Area. CATS identified 35 additional potential mobility hub locations within its' service area (primarily Mecklenburg County) for a total of 103 locations where mobility hubs might be implemented in the Study Area.

For more information about CONNECT Beyond's Mobility Hub Framework see: https://connect-beyond.com/docs/CONNECT_Beyond_Mobility_Hub_Framework_Final.pdf

For more information about Mobility Hubs identified by CATS see: <https://www.charlottenc.gov/CATS/Transit-Planning>



Source: CONNECT Beyond, Centralina Regional Council

LAND USE

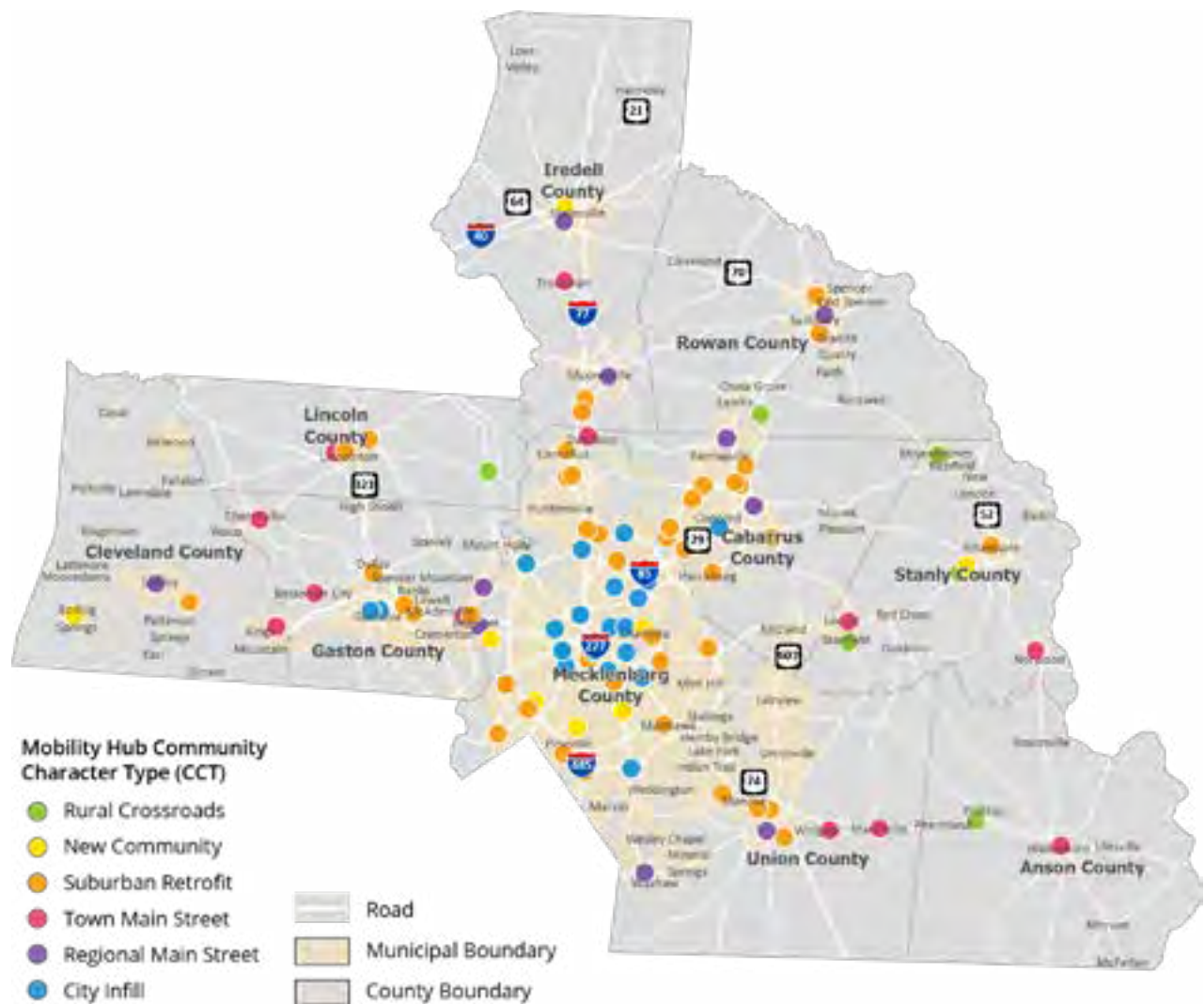
The CONNECT Beyond plan identifies *Community Character Types (CCT)* to represent different land use and development patterns, community characteristics, and transportation systems in the Study Area.

The 6 CCTs include:

The needs and challenges in each CCT are different, and are based on density and intensity

- City Infill
- Regional Main Street
- Town Main Street
- Suburban Retrofit
- New Community
- Rural Crossroads

of population and employment, existing land uses, street patterns, type and availability of parking, existing transportation infrastructure, and design characteristics.



Source: Centralina Regional Council

EXISTING TDM PROGRAMS AND ACTIVITIES

While this is the region's first TDM plan, several agencies are actively initiating (or have initiated in the past) TDM programs and activities.

CATS, the largest transit provider in the Charlotte region, is 1 of 5 statewide TDM Partners recognized by the NCDOT for its Employee Transportation Coordinator (ETC) Program. The ETC program is a resource for local employers to assist organizations in offering transit information and benefits to their employees and allows employers to sell transit passes to employees with a 10% discount off standard rates. CATS also participates in Share the Ride NC, a statewide website created to help form carpools and vanpools.

Existing TDM Strategy: Discounted Transit Fares

Charlotte Area Hotel Association (CAHA) represents some of the largest hotels doing business in Charlotte. CAHA was created in 2002, partly in response to an invitation to participate in an ETC program sponsored by CATS. The program allows eligible hotels to purchase and provide bus passes to their employees at a 10% discount. CAHA is the conduit for the program, purchasing bus passes from CATS and distributing them to the hotels, which in turn make them available to their employees. Purchases made by CAHA generate approximately \$6,000 a month in savings for between 530 and 550 hotel employees. CAHA coordinates monthly purchases for participating hotels, distributes the passes directly to HR staff at each hotel, and manages all the accounting and administration activities, saving the hotels valuable staff time and money. Each hotel then makes the passes available to workers, either through payroll deductions or by reselling them at the discounted rate.

Centralina Regional Council has a Mobility Management program that helps coordinate transit vehicles across county lines to transport older adults and adults with disabilities. It has also emphasized TDM in regional planning efforts including CONNECT Our Future and CONNECT Beyond, along with hosting an educational seminar on TDM.

CRTPO has identified congestion management strategies that include numerous TDM activities, conducted a study of TDM best-practices, and documented TDM strategies in its 2050 Metropolitan Transportation Plan (MTP).

The City of Charlotte has incorporated TDM into plans and policies including the Charlotte Strategic Mobility Plan, Charlotte Future 2040, and the [*Unified Development Ordinance \(UDO\)*](#). The City replaced its current Traffic Impact Study (TIS) requirements with new Comprehensive Transportation Review (CTR) guidelines that incorporate assessments related to multi-modal transportation and TDM implementation for certain sites. The City also requires noteworthy developments to submit TDM Work Plans for review and approval.

Charlotte Center City Partners developed a framework for growth in Charlotte's Center City through their City 2040 Vision Plan. One of the goals of the plan is to provide multiple, convenient, safe and affordable travel options for getting to and around Center City. Charlotte Center City Partners has specifically been focused on making Center City more walkable and bikeable.

In 2017, **Sustain Charlotte** launched Way2Go CLT, a region-wide transportation initiative with the goal of reducing one million SOV commutes between March – October 2017. The regional tracking and incentive program offered individuals or teams the ability to log alternative commutes for the opportunity to win monthly prizes and recognition. CATS adopted Way2Go CLT after Sustain Charlotte’s grant period ended in October 2017 and continues to administer the program.

Sustain Charlotte continues to host initiatives, like Biketoberfest (hosted annually), that encourages participants to travel the city using alternatives modes of transportation.

NCDOT has a statewide [TDM Plan](#) and program of work and supports TDM programs across the state. The TDM plan includes a current scan of TDM strategies being implemented in various parts of the state, including Charlotte.

REGIONAL TDM ASSESSMENT KEY TAKEAWAYS



Driving is the easiest and most convenient way to get around the region. (It's not close.)



TDM efforts to date have been fragmented and lack geographic coverage.



The multi-centric region lends itself to Transportation Management Associations (TMAs)* that focus on district-scaled strategies.



The next frontier in supporting affordable living for more people is access to high-quality, non-single occupancy vehicle (SOV) transportation choices.



Rural areas are the most challenging to reach. TDM strategies here will require creativity and strategic partnerships.



TDM is about more than work commutes. The types of trips people take, and the way they are taking them, is changing.



The public transit landscape is changing (microtransit, micromobility, demand-responsive service, autonomous shuttles, Mobility as a Service (Maas), cleaner fuels and technologies, etc.). TDM should help people in the region understand options and support increased coordination across service providers and service types.

**TMAs are member-controlled non-profit organizations focused on managing the movement of people and goods in particular area. They can vary significantly in size, geography, membership, structure, and approach. They have been used effectively in other regions to support district-scaled strategies for influencing travel behavior.*

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HOT SPOT ASSESSMENT

The Hot Spot Assessment provides Centralina Regional Council preliminary guidance for early TDM program focus. The assessment results in the identification of TDM “hot spots.” TDM hot spots are a combination of Places and Corridors:

PLACES: Determined through a data-driven screening of the potential mobility hubs identified in CONNECT Beyond

CORRIDORS: The primary SOV commuting corridors across the 10-county region

The Hot Spots are simply a snapshot, using the best available regional data. They are the locations in the Study Area that have demonstrated a propensity toward future mode shift away from SOVs and where Centralina Regional Council may elect to focus early TDM implementation efforts. They are NOT intended to limit where and how Centralina Regional Council responds future TDM implementation opportunities or spends future TDM program funding. For example, the Centralina Regional Council should be opportunistic by engaging with employers and key partners who demonstrate interest in participating in a regional TDM program, whether or not those partners are located in a Hot Spot.

The methodology can be described in three steps:

- Step 1: Establish the Universe of Candidate Hubs
- Step 2: Assign Typology to Hub Candidates
- Step 3: Screen Hub Candidates

Full details on the Hot Spot Methodology are available in Appendix A.

RESULTS

This map summarizes the results of the Hot Spot Assessment. It shows the locations that have demonstrated a propensity toward future mode shift away from SOVs and where Centralina Regional Council may elect to focus early TDM implementation efforts.

Potential Hot Spots



This Hot Spot Assessment is intended as an internal tool to provide early guidance for TDM program focus. In the future, Centralina may decide to update the methodology/data behind the assessment and generate new results. It is not anticipated that this will not be necessary within the first 3 years of the Centralina TDM Program operation. Centralina may determine, based on future program performance and partners, that it is not necessary to repeat this analysis.

HOT SPOT PROFILE SHEETS

As a part of the Regional TDM Plan, Hot Spot Profile Sheets were developed for 1 hot spot in each of the 6 CCTs. These Profile Sheets guide initial TDM outreach efforts and serve as a model for development of future hot spot profiles.

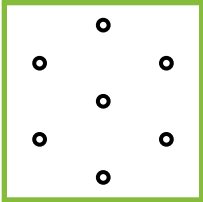
Each Hot Spot Profile Sheet includes the CCT and associated characteristics, a map showing existing development and infrastructure within the hot spot, a written description of how the hot spots will be used, the mobility needs and challenges facing the hot spot, potential TDM partners, and applicable TDM strategies.

NOTE (Nov. 2023) - the “Applicable TDM Strategies” section for each Hot Spot Profile has been intentionally left blank until further work is completed to identify and tailor appropriate TDM strategies to each CCT.

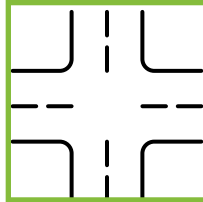
Rural Crossroads

PFEIFFER UNIVERSITY - MISENHEIMER

CONNECT BEYOND CHARACTERISTICS:



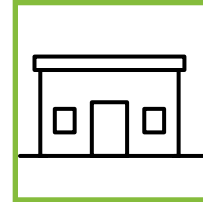
Low Intensity of jobs and population



Scattershot development near major road junction



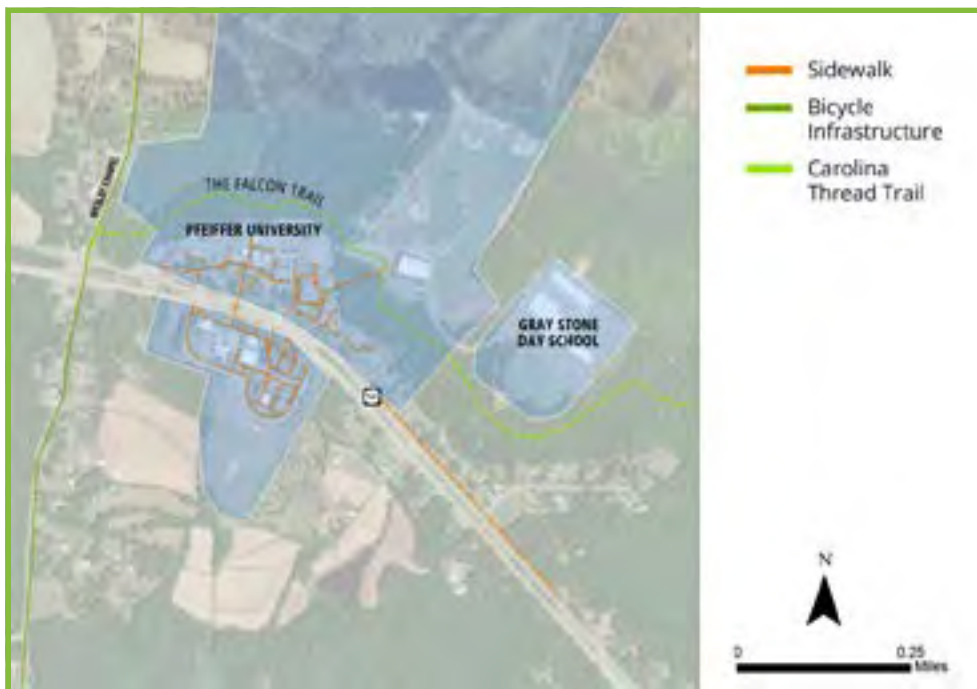
Range of uses including industrial and agricultural



Buildings one to two stories



Buildings set back from streets



The Misenheimer Hot Spot is in the incorporated Village of Misenheimer in northern Stanly County. It is home to Pfeiffer University and Gray Stone Day School. The rest of the Hot Spot is predominantly rural residential and agricultural land uses. Sidewalk infrastructure is limited to within the Pfeiffer University campus and a small stretch of NC 52 southeast of the University. Stanly County bike route 2 connects the perimeter of the county with a portion of the route located on Wesley Chapel Road.

The Falcon Trail, which is part of the Carolina Thread Trail, runs behind the University along Curl Tail Creek. No fixed route bus service is available.

MOBILITY NEEDS AND CHALLENGES

- Lack of transit/Limited transportation services
- Limited pedestrian and bicycle infrastructure outside of the Pfeiffer University campus
- Safety and infrastructure issues (due to lack of investment and increasing use)
- Long distances between housing and other destinations

POTENTIAL TDM PARTNERS

- Pfeiffer University
- Gray Stone Day School
- Friends of North Stanly Trails and Parks
- Village of Misenheimer
- Stanly County
- Carolina Thread Trail
- NCDOT

APPLICABLE TDM STRATEGIES

- Carpool / vanpool matching
- Campus shuttle to/from mobility hub or park-and-ride
- Emergency ride home program
- Travel options / TDM program website
- Clean commute incentives
- Personalized travel planning

Note – For a more comprehensive list of applicable TDM strategies for this Community Character Type, see the CONNECT Centralina TDM Strategies Matrix

New Community

QUAIL CORNERS

CONNECT BEYOND CHARACTERISTICS:



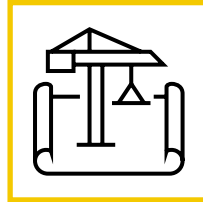
Intensity should be planned with the desired transit service in mind



Greenfield sites with transportation access



Often large sites



Range from blank canvas to partially built out



Range from residential-only to planned mixed use



Opportunity to plan mobility-supportive development



The Quail Corners Hot Spot is located in southern Mecklenburg County. It includes a 19 acre undeveloped site on the corner of Gleneagles Rd and Sharon Rd W and a commercial shopping center surrounded by residential neighborhoods, schools, a church, and the Quail Hollow Club (golf course). Parking is available at the shopping center and schools. Bicycle and pedestrian infrastructure is primarily concentrated on major roadways. The Hot Spot is served by CATS bus service (routes 19, 20, and 43). The Little Sugar Creek Greenway (and associated parking) is located just west of the Hot Spot.

MOBILITY NEEDS AND CHALLENGES

- Speeding
- Fragmented bicycle and pedestrian infrastructure
- Limited crossing opportunities on Park Rd, Sharon Rd, and Gleneagles Rd
- Lack of density
- Limited connectivity between residential neighborhoods and shopping and schools
- Engaging businesses, schools, and other potential partners

POTENTIAL TDM PARTNERS

- Quail Hollow Middle School
- South Mecklenburg High School
- Smithfield Elementary School
- Mecklenburg County Parks and Recreation (Little Sugar Creek Greenway)
- Quail Hollow Presbyterian Church
- Quail Hollow Club
- CATS
- CDOT
- NCDOT
- Quail Corners Shopping Center
- Southminster Retirement Community
- Neighborhood/Homeowners Associations

APPLICABLE TDM STRATEGIES

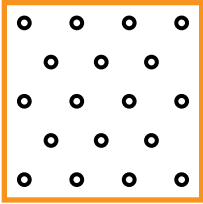
- Coordinate transit connection to Blue Line station and XCLT trailhead
- Bicycle transit integration
- Travel options / TDM program website
- Promote commuter tax benefits
- Clean commute incentives
- E-bike subsidy / voucher

Note – For a more comprehensive list of applicable TDM strategies for this Community Character Type, see the CONNECT Centralina TDM Strategies Matrix

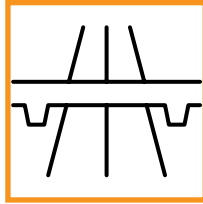
Suburban Retrofit

BELMONT

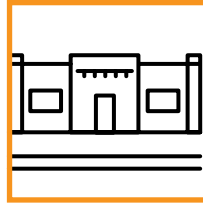
CONNECT BEYOND CHARACTERISTICS:



Intensity varies: typically medium intensity of jobs and population



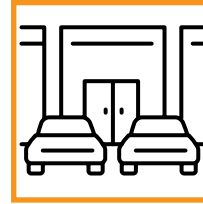
Served by high speed/capacity roads



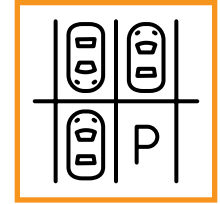
Single-use and strip development patterns



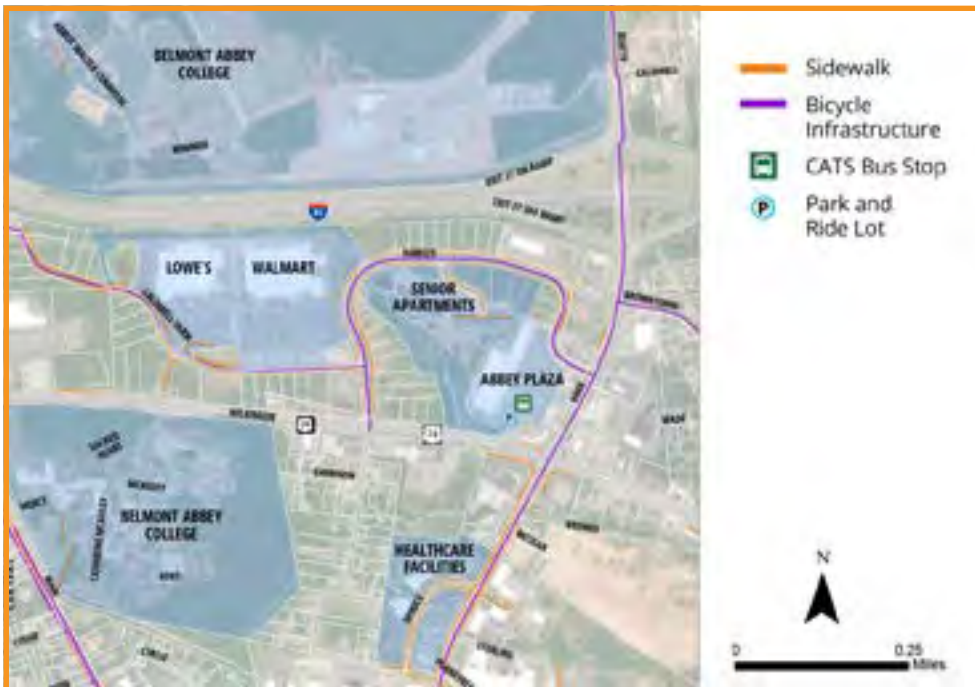
Buildings typically one story



Buildings front parking



Surface parking



The Northern Belmont Hot Spot is located between Charlotte and Gastonia, just west of the Mecklenburg County/Gaston County line. It consists of a mix of big box development, commercial strip centers, senior apartments, restaurants, and hotels. Belmont Abbey College and several medical/healthcare facilities are on the outskirts of the Hot Spot. It includes two major roadways, I-85 and US 74/US 29. Sidewalk and bicycle infrastructure is limited. The CATS 85X Gastonia Express bus route has a park and ride stop at the Abbey Plaza Shopping Center with connections to both the Gaston Transit Center and the Charlotte Transportation Center. The LYNX Silver Line Locally Preferred Alternative includes a future station in the Hot Spot.

MOBILITY NEEDS AND CHALLENGES

- Development/Design caters to the automobile
- I-85 and US 74/US 29 create barriers for bicyclists and pedestrians
- First and last mile connections to bus stop
- Lack of density/Limited transit
- Coordination among transit providers in Gaston and Mecklenburg counties
- Engaging employers and business owners

POTENTIAL TDM PARTNERS

- Belmont Abbey College
- City of Belmont
- Gaston County
- CATS
- NCDOT
- Healthcare facilities
- Abbey Plaza Shopping Center Businesses
- Walmart
- Lowe's

APPLICABLE TDM STRATEGIES

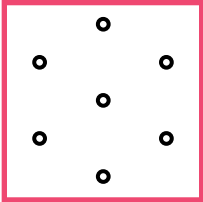
- Advertise / expand park and ride lot (85X at Abbey Plaza Shopping Center)
- Local land use policy guidance
- Regional marketing campaign
- Carpool / vanpool matching
- Promote mobility hub
- Emergency ride home program

Note – For a more comprehensive list of applicable TDM strategies for this Community Character Type, see the CONNECT Centralina TDM Strategies Matrix

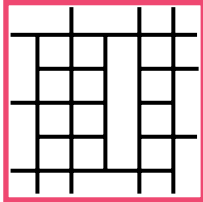
Town Main Street

DOWNTOWN LINCOLNTON

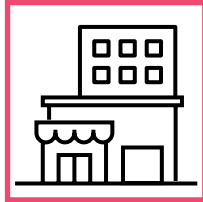
CONNECT BEYOND CHARACTERISTICS:



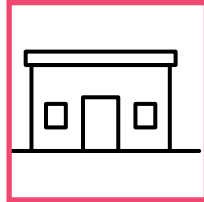
Low to Medium Intensity of jobs and population



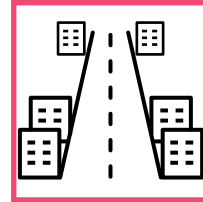
Traditional downtown with grid or single corridor



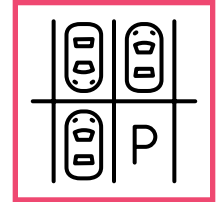
Mostly retail with some vertical mixed-use



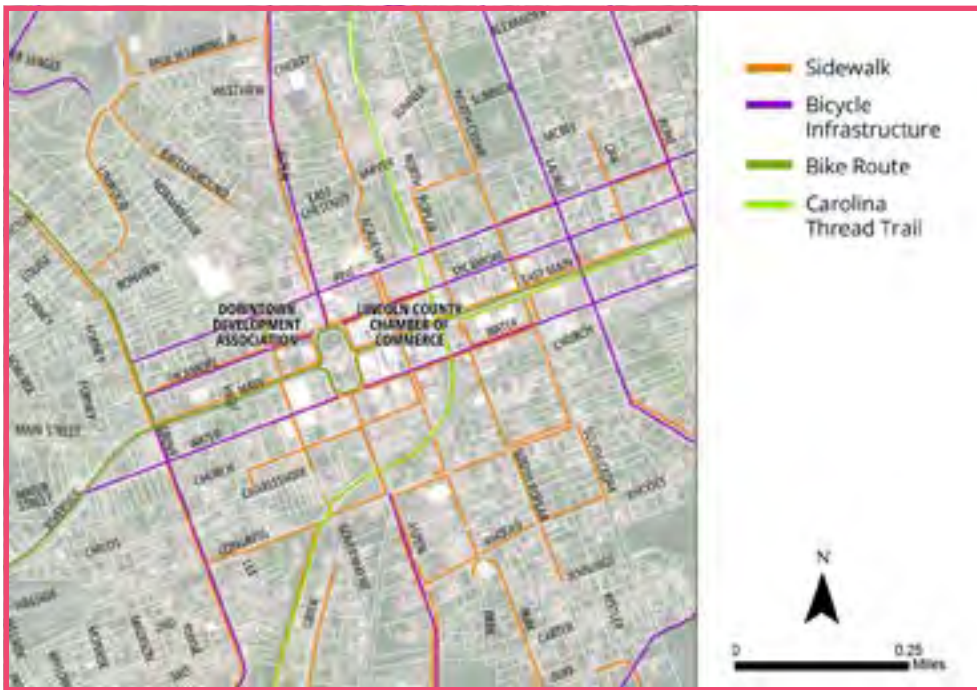
Buildings one to two stories



Density tapers within 1/10 to 1/4 mile



Surface parking



The Downtown Lincolnnton Hot Spot is anchored by the historic Lincoln County courthouse and is home to local businesses, shops, restaurants, and churches. It has a robust sidewalk network and numerous striped crosswalks. The Marcia H. Cloninger Rail-Trail (known locally as the Lincolnnton Rail-Trail and part of the Carolina Thread Trail) connects the downtown and residential areas. Downtown Lincolnnton has state bike routes NC 6 (Piedmont Spur) and NC 8 (Southern Highlands) as well as bike lanes throughout the area. There is a mix of on-street parking and surface parking lots.

MOBILITY NEEDS AND CHALLENGES

- Increasing traffic volumes
- Speeding
- Fragmented/Aging infrastructure
- Parking inefficiencies
- Balancing mobility while preserving the community's cultural heritage
- Placemaking
- Engaging downtown business and property owners

POTENTIAL TDM PARTNERS

- Downtown Development Association of Lincolnnton
- City of Lincolnnton
- Lincoln County
- Lincoln County Chamber of Commerce
- Business and Property Owners in Downtown Lincolnnton
- Carolina Thread Trail
- NCDOT

APPLICABLE TDM STRATEGIES

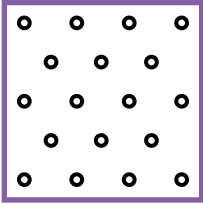
- Development of a Transportation Management Association (TMA)
- Workplace travel planning resources
- Form regional TDM Advisory Committee
- Travel options grants
- Transit fare and vanpool subsidies

Note – For a more comprehensive list of applicable TDM strategies for this Community Character Type, see the CONNECT Centralina TDM Strategies Matrix

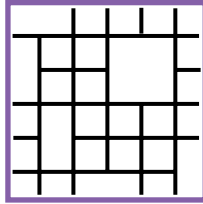
Regional Main Street

DOWNTOWN SALISBURY

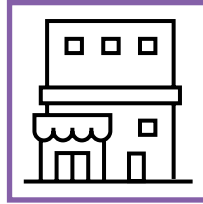
CONNECT BEYOND CHARACTERISTICS:



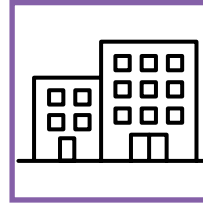
Medium Intensity of jobs and population



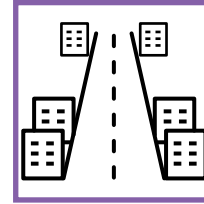
Traditional downtown with grid pattern streets



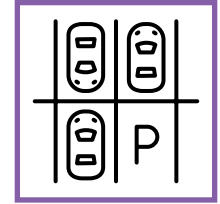
Offices and housing above retail



Buildings typically five stories or less



Density tapers within 1/4 to 1/2 mile



Surface and structured parking



The Downtown Salisbury Hot Spot is home to local businesses, shops, and restaurants. It has a robust sidewalk network (the portion on Innes St is part of the Carolina Thread Trail), sidewalk amenities, and decorative crosswalks. There is a mix of on-street parking and surface parking lots. The Hot Spot is served by Salisbury Transit bus service (routes 1, 2, and 3) and Amtrak.

MOBILITY NEEDS AND CHALLENGES

- Increasing traffic volumes
- Speeding
- Fragmented/Aging infrastructure
- Parking inefficiencies
- Balancing mobility and quality of place
- Placemaking
- Engaging business and property owners
- Railroad crossings (trains block crossings when stopped and crossings present safety concerns for bicyclists and pedestrians)

POTENTIAL TDM PARTNERS

- Downtown Salisbury, Inc.
- Rowan Public Library
- Bell Tower Green
- City of Salisbury
- Rowan County Chamber of Commerce
- Historic Salisbury Foundation
- Rowan County Tourism & Visitors Bureau
- Rowan County Economic Development Commission
- Carolina Thread Trail
- Salisbury Transit
- Amtrak
- NCDOT
- Business and Property Owners in the Downtown Municipal Service District

APPLICABLE TDM STRATEGIES

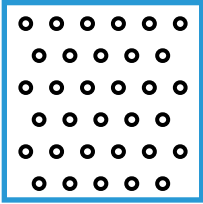
- Coordinate regional transit service
- Promote micromobility
- Employer parking cash-out program
- Development of a Transportation Management Association (TMA)
- Promote mobility hubs
- Carpool / vanpool matching
- Regional marketing campaign

Note – For a more comprehensive list of applicable TDM strategies for this Community Character Type, see the CONNECT Centralina TDM Strategies Matrix

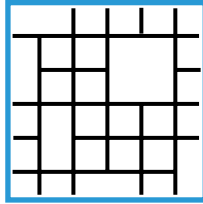
City Infill

CLANTON ROAD / S TRYON STREET

CONNECT BEYOND CHARACTERISTICS:



Medium to High Intensity of jobs and population



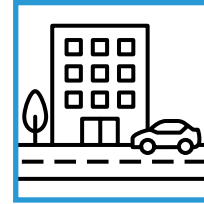
City neighborhood with grid pattern streets



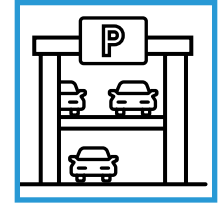
A mix of development uses (vertical and horizontal)



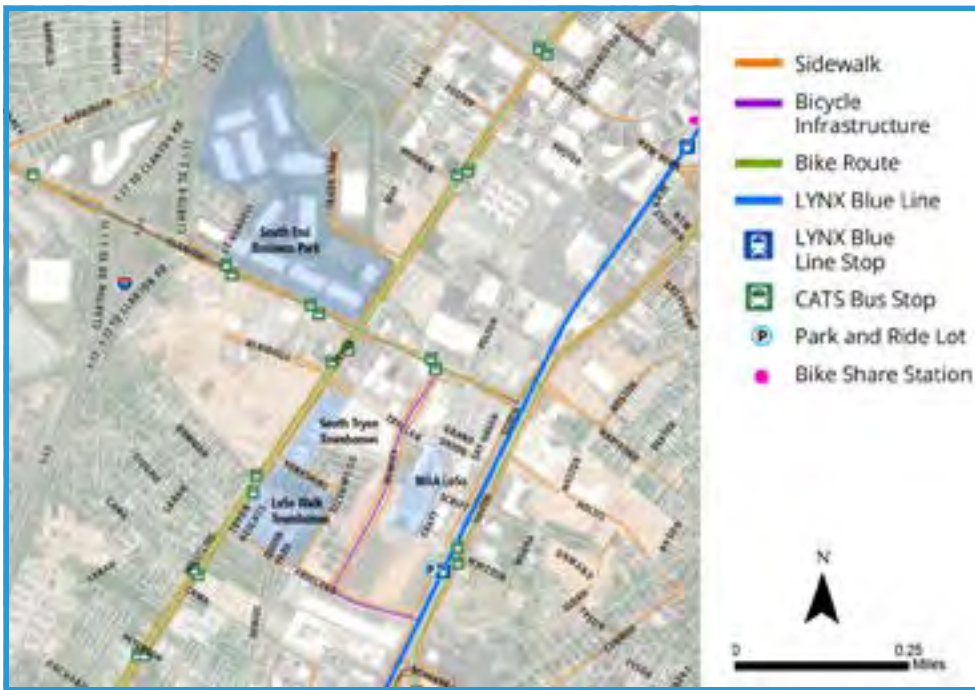
Many buildings five stories and taller



Buildings front the street



Structured parking behind/under buildings



The Clanton Road/S Tryon Street Hot Spot is located southwest of Uptown Charlotte, just east of the I-77/Clanton Rd interchange. It consists of a mix of land uses including commercial, business park, civic, townhomes, and apartments. Sidewalks are present on major roads and a bicycle lane exists on Dewitt Lane. This area is served by CATS bus service (routes 2, 12, 16, and 30) and is in proximity to both the Lynx Blue Line New Bern and Scaleybark stations. The Charlotte Rail Trail runs adjacent to the Lynx Blue Line.

MOBILITY NEEDS AND CHALLENGES

- Traffic congestion
- Limited/Aging infrastructure
- First and last mile connections to bus stops and light rail
- Parking difficulties
- Mode competition for use of right of way
- Engaging employers and residents as new development occurs

POTENTIAL TDM PARTNERS

- City of Charlotte
- CATS
- Charlotte Center City Partners
- Sustain Charlotte
- CDOT
- NCDOT
- Electric scooter and bike share companies
- Transportation Network Companies
- South End Business Park
- Apartment complexes/associations
- South Tryon Townhomes

APPLICABLE TDM STRATEGIES

- TDM policies / development regulations
- Promote micromobility
- Clean commute incentives
- Emergency ride home program
- Bicycle transit integration
- Promote mobility hubs (at Lynx Blue Line stations)
- Workplace travel planning resources

Note – For a more comprehensive list of applicable TDM strategies for this Community Character Type, see the CONNECT Centralina TDM Strategies Matrix

Appendix A

Hot Spot Assessment Details



HOT SPOT ASSESSMENT

The Hot Spot Assessment provides Centralina Regional Council preliminary guidance for early TDM program focus. The assessment results in the identification of TDM “hot spots.” TDM hot spots are a combination of Places and Corridors:

PLACES: Determined through a data-driven screening of the potential mobility hubs identified in CONNECT Beyond

CORRIDORS: The primary SOV commuting corridors across the 10-county region

The Hot Spots are simply a snapshot, using the best available regional data. They are the locations in the Study Area that have demonstrated a propensity toward future mode shift away from SOVs and where Centralina Regional Council may elect to focus early TDM implementation efforts. They are NOT intended to limit where and how Centralina Regional Council responds future TDM implementation opportunities or spends future TDM program funding. For example, the Centralina Regional Council should be opportunistic by engaging with employers and key partners who demonstrate interest in participating in a regional TDM program, whether or not those partners are located in a Hot Spot.

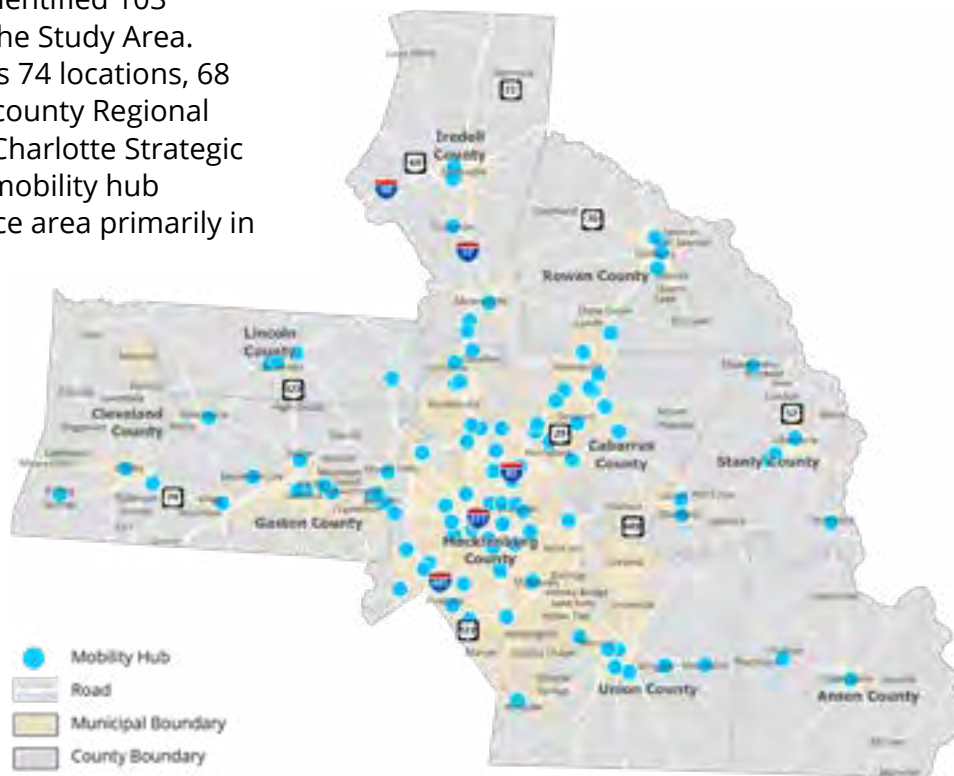
The methodology can be described in three steps:

- Step 1: Establish the Universe of Candidate Hubs
- Step 2: Assign Typology to Hub Candidates
- Step 3: Screen Hub Candidates

Step 1: Establish the Universe of Candidate Hubs

Previous planning efforts identified 103 potential mobility hubs in the Study Area. CONNECT Beyond identifies 74 locations, 68 of which are within the 10-county Regional TDM Plan Study Area. The Charlotte Strategic Mobility Plan identifies 35 mobility hub locations within CATS service area primarily in Mecklenburg County.

These mobility hubs serve as the universe of candidate locations used in the hot spot assessment. Table 1 shows the number and percentage of candidate mobility hubs within each county in the Study Area and the map shows the location of these hubs within the Study Area.



Source: CONNECT Beyond, Centralina Regional Council

Table 1. Candidate Mobility Hubs by County

County	Number of Mobility Hubs	County	Number of Mobility Hubs
Anson	2	Lincoln	4
Cabarrus	15	Mecklenburg	40
Cleveland	4	Rowan	5
Gaston	12	Stanly	7
Iredell	6	Union	8

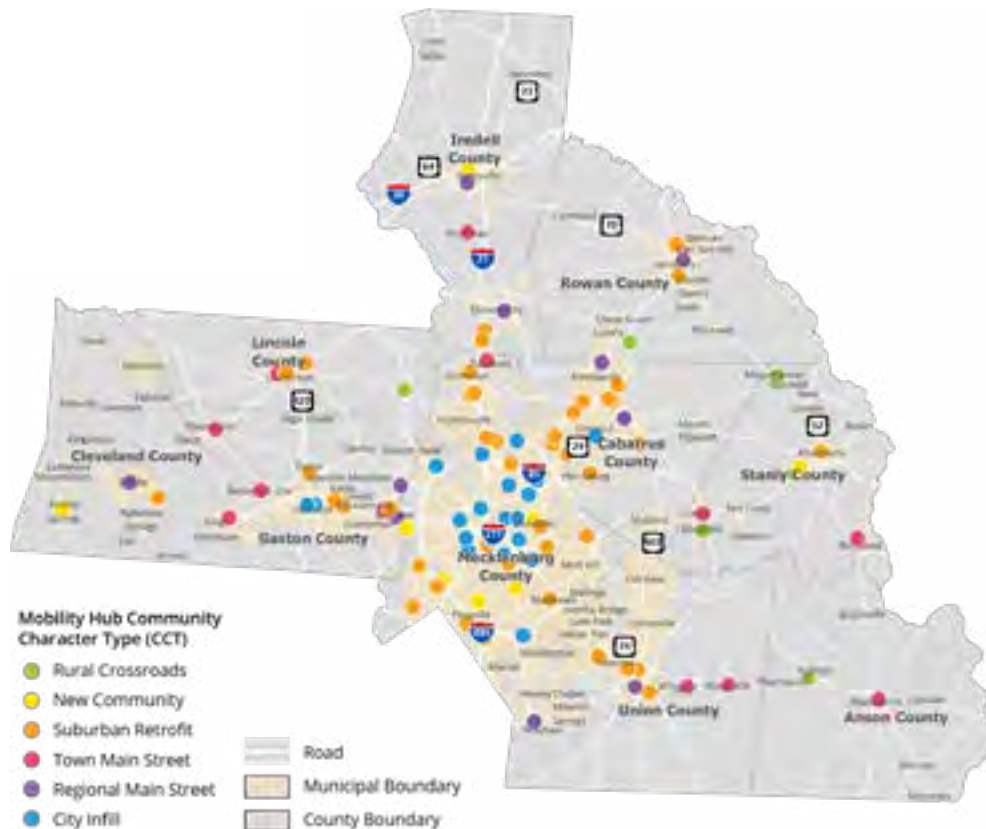
Step 2: Assign Typology to Hub Candidates

After defining the universe of candidate mobility hubs, the hub locations were assigned a character context and associated mobility hub framework.

The character context was determined using the CONNECT Beyond Community Character Type (CCT).

The CCTs are as follows:

- City Infill
- Regional Main Street
- Town Main Street
- Suburban Retrofit
- New Community
- Rural Crossroads



Source: Centralina Regional Council

Table 2 shows the number and percentage of candidate mobility hubs within each CCT in the Study Area and the map depicts the CCT of each candidate mobility hub within the Study Area.

For more information on the CCTs, review the CONNECT Beyond final plan.

Table 2. Candidate Mobility Hubs by Community Character Type (CCT)

Community Character Type	Number of Mobility Hubs
City Infill	20
Regional Main Street	12
Town Main Street	12
Suburban Retrofit	45
New Community	8
Rural Crossroads	6

A mobility hub framework was then assigned to each CCT using the CONNECT Beyond Mobility Hub Framework. The framework indicates the context characteristics and the required and recommended elements for each mobility hub. The framework includes eight different mobility hub types organized into four different size scales as shown in Figure 1 (3A and 3B have the same name and context characteristics, but different scales).

Figure 1. CONNECT Beyond Mobility Hub Framework



The recommended mobility hub types for each CCT are shown in Table 3.

Table 3. Recommended Mobility Hub Types by Community Character Type (CCT)

Community Character Type (CCT)	Recommended Mobility Hub Types
City Infill	0B: Community Connector Hub 1B: Metro Bus Stop 2B: Metro District Hub 3A: Regional Hub 3B: Regional Hub
Regional Main Street	2A: Community District Hub 2B: Metro District Hub
Town Main Street	1A: Community Bus Stop 2A: Community District Hub
Suburban Retrofit	0B: Community Connector Hub 1A: Community Bus Stop 1B: Metro Bus Stop 3A: Regional Hub 3B: Regional Hub
New Community	0A: Rural Connector Hub 0B: Community Connector Hub
Rural Crossroads	0A: Rural Connector Hub 1A: Community Bus Stop

For more information on the CONNECT Beyond Mobility Hub Framework, including the required and recommended elements for each mobility hub type, review the [CONNECT Beyond](#) final plan.

Step 3: Screen Hub Candidates

Step 3 uses a data-driven screening to assign a score to each of the candidate hub locations based on data indicators tied to regional objectives. It is a framework to rank the mobility hub candidates by their ability to achieve hub objectives. Ultimately, this analysis will help Centralina Regional Council, MPOs/RPOs, jurisdictions, and implementation partners identify investment priorities for the mobility hub network and focus mobility investments.

REGIONAL OBJECTIVES AND WEIGHTING

Regional objectives were determined based on CONNECT Beyond Guiding Principles and policy direction and priorities reflected in the Regional TDM Plan Vision Statement endorsed by the Project Management Team (PMT) and Steering Committee:

“ The greater Charlotte region is a place where *sustainable* and *affordable* travel options are *accessible, known, and convenient* for all. ”

The three major objectives are as follows:

- Improve Regional Connectivity
- Create Mobility Choice
- Advance Equity

Weighting objectives is an essential element of the prioritization framework because it defines the importance of each data indicator when ranking candidate hub locations. The weighting listed in Table 4 reflects CONNECT Beyond recommendations and stakeholder conversations held throughout the development of the Regional TDM Plan.

Table 4. Objective Weighting

Objective	Objective Name	Weight
A	Improve Regional Connectivity	33%
B	Create Mobility Choice	32%
C	Advance Equity	35%

INDICATORS AND WEIGHTING

Indicators were determined for each regional objective based on data availability and reliability. These indicators were used to identify locations that best meet regional objectives.

Each indicator was first assigned a binary score of 0 or 100 points. 100 points was awarded if the candidate mobility hub met the criteria, and 0 if it did not.

Then the indicator was weighted based on its relevance to the objective. The indicator's overall weighting is limited by the weight assigned to the regional objective, reflecting regional priorities. For example, the sum of the individual weights tied to Outcome A objectives must be equal to 33% (Objective A overall weighting).

The indicators for each objective, and their associated criteria, scoring, and individual weights, are shown in Tables 5-7.

Objective A: Improve Regional Connectivity

The transportation network should connect people to places where they need to go and want to be. The most suitable mobility hubs will be those that generate or are the destination of many trips.

Table 5. Objective A (Improve Regional Connectivity) Data Indicators

Indicator	Scoring & Criteria	Individual Weight
Regional Activity Centers (RACs)	Candidate hub within ½ mile of a RAC = 100 points Remaining candidate hubs = 0 points	6%
Parks	Candidate hub within ½ mile of a park = 100 points Remaining candidate hubs = 0 points	3%
Higher Education Facilities (colleges and universities)	Candidate hub within ½ mile of a higher education facility = 100 points Remaining candidate hubs = 0 points	3%
Shopping	Candidate hub within ½ mile of a shopping venue/center = 100 points Remaining candidate hubs = 0 points	3%
Grocery Stores	Candidate hub within ½ mile of a grocery store = 100 points Remaining candidate hubs = 0 points	3%
Medical Facilities	Candidate hub within ½ mile of a medical facility = 100 points Remaining candidate hubs = 0 points	3%
Pharmacies	Candidate hub within ½ mile of a pharmacy = 100 points Remaining candidate hubs = 0 points	3%
Areas with Higher Employment Density	Candidate hub within the highest two classes* = 100 points Remaining candidate hubs = 0 points	3%
Major Event Centers	Candidate hub within ½ mile of a major event center = 100 points Remaining candidate hubs = 0 points	3%
Downtowns	Candidate hub within ½ mile of a downtown = 100 points Remaining candidate hubs = 0 points	3%

* The indicator was divided in GIS into five classes using manual breaks. The highest two classes received 100 points and the remaining three classes received 0 points.

Objective B: Create Mobility Choice

Mobility hubs should give people better (and more) options that compete with driving alone. They should provide convenient, accessible, and intuitive connections to and between modes.

Table 6. Objective B (Create Mobility Choice) Data Indicators

Indicator	Scoring & Criteria	Individual Weight
Existing Transit Center	Candidate hub within ½ mile of an existing transit center = 100 points Remaining candidate hubs = 0 points	4%
Existing Transit Route	Candidate hub within ½ mile of an existing transit route = 100 points Remaining candidate hubs = 0 points	4%
Existing Transit Stop	Candidate hub within ½ mile of an existing transit stop = 100 points Remaining candidate hubs = 0 points	4%
Existing Bus Route	Candidate hub within ½ mile of an existing bus route = 100 points Remaining candidate hubs = 0 points	4%
Existing Bus Stop	Candidate hub within ½ mile of an existing bus stop = 100 points Remaining candidate hubs = 0 points	4%
Existing Pedestrian Network*	Candidate hub within ½ mile of an existing sidewalk = 100 points Remaining candidate hubs = 0 points	3%
Existing Bicycle Network*	Candidate hub within ½ mile of a bike lane, bike route, sharrow (shared lane marking), or paved shoulder = 100 points Remaining candidate hubs = 0 points	3%
Existing Shared Use Path (SUP)/Greenway Network*	Candidate hub within ½ mile of an existing SUP or existing Carolina Thread Trail (CTT) greenway = 100 points Remaining candidate hubs = 0 points	3%
Existing Park and Ride Lot	Candidate hub at an existing park and ride lot = 100 points Remaining candidate hubs = 0 points	3%

* *DISCLAIMER – The Pedestrian Network, Bicycle Network, and Shared Use Path/Greenway Network data is from the NCDOT Pedestrian and Bicycle Infrastructure Network (PBIN). There are limitations to the data as the PBIN is not comprehensive and relies on municipalities to submit their own information to the statewide geodatabase. As a result, there are inconsistencies in the reporting and quality of data. Despite these limitations, the PBIN is the best source of information on sidewalk and bicycle infrastructure across the large scale of the 10-county Study Area.*

Objective C: Advance Equity

Mobility hubs should improve access to equitable and affordable transportation options to help minimize disparities in mobility and enhance access to opportunities.

Table 7. Objective C (Advance Equity) Data Indicators

Indicator	Scoring & Criteria	Individual Weight
Zero and One Car Households	Candidate hub within the highest two classes* = 100 points Remaining candidate hubs = 0 points	5%
Low Income Populations	Candidate hub within the highest two classes* = 100 points Remaining candidate hubs = 0 points	5%
Housing + Transportation Costs	Candidate hub within the highest two classes* = 100 points Remaining candidate hubs = 0 points	5%
Disabled Populations	Candidate hub within the highest two classes* = 100 points Remaining candidate hubs = 0 points	5%
Youth Populations	Candidate hub within the highest two classes* = 100 points Remaining candidate hubs = 0 points	5%
Senior Populations	Candidate hub within the highest two classes* = 100 points Remaining candidate hubs = 0 points	5%
Minority Populations	Candidate hub within the highest two classes* = 100 points Remaining candidate hubs = 0 points	5%

* The indicator was divided in GIS into five classes using natural breaks. The highest two classes received 100 points and the remaining three classes received 0 points.

RESULTS

Step 3 prioritizes the candidate mobility hubs to determine the “hot spots” in the Study Area. To ensure geographic distribution, the two highest scoring mobility hubs in each CCT and the two highest scoring mobility hubs in each county were identified as hot spots. The remaining hot spots were determined based on highest overall score.

The map depicts the TDM hot spots in the Study Area.

After feedback from the Steering Committee, primary SOV commuting corridors - I-77, I-85, and US 74 (including a one mile buffer) - were added to the map. The intent is that any area within these key corridors should also be considered for early TDM program focus.

Potential Hot Spots by Community Character Type



RESULTS

This map summarizes the results of the Hot Spot Assessment. It shows the locations that have demonstrated a propensity toward future mode shift away from SOVs and where Centralina Regional Council may elect to focus early TDM implementation efforts.

Potential Hot Spots



This Hot Spot Assessment is intended as an internal tool to provide early guidance for TDM program focus. In the future, Centralina may decide to update the methodology/data behind the assessment and generate new results. It is not anticipated that this will not be necessary within the first 3 years of the Centralina TDM Program operation. Centralina may determine, based on future program performance and partners, that it is not necessary to repeat this analysis.

Appendix B

Technical Supporting Documentation



MAP DOCUMENTATION

The majority of data included in the Regional TDM Assessment Report was provided by Centralina. The full list of data is available from Centralina upon request. Any data obtained from other sources and the date of the data used is noted in the table below. The majority of data was used as provided. Data was only modified for two reasons: 1) at the request of the Steering Committee or 2) to improve the accuracy of the hot spot assessment. Modifications made, and the reason for the modification, are noted in the table below.

Map Information	Source/Date of Data	Modifications/Reason
2018 and 2050 Population Density	Metrolina Regional Model (MRM22v2.0) (provided by CDOT in October 2023) Anson County data from the North Carolina Statewide Model (NCSTM) (provided by NCDOT) upon request in August 2023)	
2018 and 2050 Employment Density	Metrolina Regional Model (MRM22v2.0) (provided by CDOT in October 2023) Anson County data from the North Carolina Statewide Model (NCSTM) (provided by NCDOT) upon request in August 2023)	
EQUITY CONSIDERATIONS		
U.S. DOE Disadvantaged Communities	U.S. DOE, Climate and Economic Justice Screening Tool (November 2022)	
NCDOT Transportation Disadvantage Index	N.C. Equity and Transportation Disadvantage Screening Tool (October 2022)	<ul style="list-style-type: none"> The Limited English Proficiency indicator was added to the Index after the hot spot assessment was completed. It is included in the report but not in the hot spot assessment.
NCDOT Environmental Justice Index	N.C. Equity and Transportation Disadvantage Screening Tool (October 2022)	
Transportation Costs	The Center for Neighborhood Technology (2022)	

TRIP ATTRACTORS		
Regional Activity Centers	Centralina (2022)	<ul style="list-style-type: none"> Old Charlotte Coliseum and Eastland Mall were removed from the shapefile (not shown on the map or included in the hot spot assessment) since they no longer exist.
Colleges/ Universities	NC OneMap (2023)	<ul style="list-style-type: none"> Colleges and Universities noted in the Regional Activity Centers shapefile were added to the map. These were only counted as a Regional Activity Centers in the screening so as not to double count. Additional Central Piedmont Community College (CPCC) campuses were added to the map at the request of the Steering Committee during final review but were not included in the hot spot assessment.
Grocery Stores	OpenStreetMap (2022)	<ul style="list-style-type: none"> Data was filtered from OpenStreetMap Shops layer. For this report, a grocery store means a bakery, butcher, deli, health food, seafood, and supermarket.
Shopping	OpenStreetMap (2022)	<ul style="list-style-type: none"> Shopping points noted in the Regional Activity Centers shapefile were added to the map. Shopping centers that were included in the Regional Activity Centers shapefile were only counted as Regional Activity Centers in the hot spot assessment so as not to double count.
Medical Facilities	NC OneMap (2023)	<ul style="list-style-type: none"> Medical Facilities noted in the Regional Activity Centers shapefile were added to the map. These were only counted as a Regional Activity Centers in the hot spot assessment so as not to double count. Novant Health Matthews Medical Center was added to the map at the request of the Steering Committee during final review but was not included in the hot spot assessment.

Event Centers	RS&H (2023)	<ul style="list-style-type: none"> The Event Centers shapefile was created by RS&H to improve the accuracy of the hot spot assessment. Other event centers were added to the map at the request of the Steering Committee during final review. Only major event centers were included in the hot spot assessment.
Downtowns	RS&H (2023)	<ul style="list-style-type: none"> The Downtown shapefile was created by RS&H to improve the accuracy of the hot spot assessment. The shapefile was created using comprehensive plans and local zoning ordinances. If a community had a denoted downtown or central business district in their plan or ordinance, it was included on the map.
ROAD NETWORK		
2018/2050 Traffic Volumes and Congestion	<p>Metrolina Regional Model (MRM22v2.0) (provided by CDOT in October 2023)</p> <p>Anson County data from the North Carolina Statewide Model (NCSTM) (provided by NCDOT upon request in August 2023)</p>	
2022 Traffic Volumes	NCDOT (2022)	
Trip Origins/Trip Destination/Trip Purpose/Residential VMT/Ped and Bike Destinations/COVID 19 Data	Replica (Fall 2022; average weekday)	
Single Occupancy Vehicle Distribution	American Community Survey (2021 5-Year Estimates)	

ACTIVE TRANSPORTATION		
Bicycle and Pedestrian Infrastructure	NCDOT Pedestrian and Bicycle Infrastructure Network (PBIN) (2021)	<ul style="list-style-type: none"> Concerns regarding the quality and accuracy of the PBIN data were discussed with Centralina. Despite the data limitations, the PBIN was determined the best source available. Per instruction from Centralina the following modifications were made: <ul style="list-style-type: none"> <i>For existing infrastructure: All records marked as “existing” and, where “existing” and “proposed” are both filled in, defer to “existing”.</i> <i>For records with no values under “existing” or “proposed”, treat “null” as “existing”.</i>
Carolina Thread Trail	Carolina Thread Trail (2022)	<ul style="list-style-type: none"> Concerns regarding the quality and accuracy of the PBIN data were discussed with Centralina. Centralina instructed RS&H to only include Carolina Thread Trail data (instead of PBIN shared-use path, trail, and greenway layers) on the map and in the hot spot assessment.

TRIP PURPOSE

Trip purpose data was pulled from Replica. More detail on how a trip is defined and what is included in each trip type is defined below.

- **Home** includes all trips to a person’s own home.
- **Work** includes all trips that end at a person’s workplace (for example, return trips from lunch), not just commute trips.
- **Eat** includes all trips to restaurants.
- **Social** includes all trips to visit someone else’s home.

- **Shop** includes all trips to:
 - *Automobile dealers*
 - *Gas stations*
 - *Grocery stores*
 - *Postal service*
 - *Pharmacies and Drug Stores*
 - *Retail shops*
- **Recreation** includes trips to recreational destinations, including:
 - *Amusement parks and arcades*
 - *Gyms/Fitness centers*
 - *Casinos*
 - *Museums*
 - *Parks and swimming pools*
 - *Spectator sports*
 - *Golf courses and country clubs*
 - *Movies*
 - *Note: Replica does not include looping trips without a destination, such as walking the dog, or jogging.*
- **School** includes all trips to a person’s school or college.
- **Errands/Maintenance** includes trips to:
 - *Auto shops*
 - *Banks*
 - *Church/Religious organizations*
 - *Daycare services (childcare drop-off)*
 - *Dentist*
 - *Doctor’s office*
 - *Dry cleaning and laundry services*
 - *Hairdressers*
 - *Hospitals*
 - *Nail salons*
 - *Nursing care facilities*
 - *Post Office*
 - *Storage facilities*
- **Commercial** includes all trips by medium and heavy trucks for deliveries and other commercial purposes.
- **Lodging** includes all trips by visitors to overnight accommodations such as a hotel.
- **Region departure** includes all trips by visitors to a “port-of-exit”, such as an airport, or major train station.
- **Pass-through traffic (also referred to as “stage”)** refers to trips made by non-residents that start and end outside the region. These trips can include short stopovers within the region.
- **Work from home:** Includes trips where a resident is returning home to work (specifically for residents working from home on the modeled day). For example, if a person who is working from home goes out to lunch during the work day, their return trip home will be labeled “work_from_home”
- **Other:** Includes all trips not included in any of the above categories.



Centralina Regional TDM Assessment Report

March 2024



APPENDIX C: CASE STUDIES





CENTRALINA
REGIONAL COUNCIL

CENTRALINA REGIONAL TDM PLAN/PROGRAM

TDM PROGRAM CASE STUDIES

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ACKNOWLEDGMENTS

The information in these case studies was gathered through interviews with 5 peer agencies and via additional follow up research. We would like to thank the following people for their time and sharing insight into these programs:

Triangle Region, NC - Triangle Transportation Choices

Sean Flaherty, Transportation & Energy Program Manager

Julio Rosado, Transportation & Energy Planner I

Jenna Kolling, Senior Program Analyst

Josh Michael, Transportation Program Analyst

Wilmington, NC - Go Coast

Carolyn Caggia, TDM Coordinator

Vanessa Lacer, Senior Transportation Planner

Atlanta, GA - Georgia Commute Options

Sabrina Green, Project/Project Administrator

Jill Goldberg, Marketing and Communications Director

Kurl Gustave-Cason, Senior Program Project Analyst

Portland, OR - Regional Travel Options

Daniel Kaempff, Principal Transportation Manager

Noel Mickelberry, School and Community Travel Options Coordinator

Marne Rowland Duke, Commute Program Coordinator

Austin, TX - Regional TDM Program

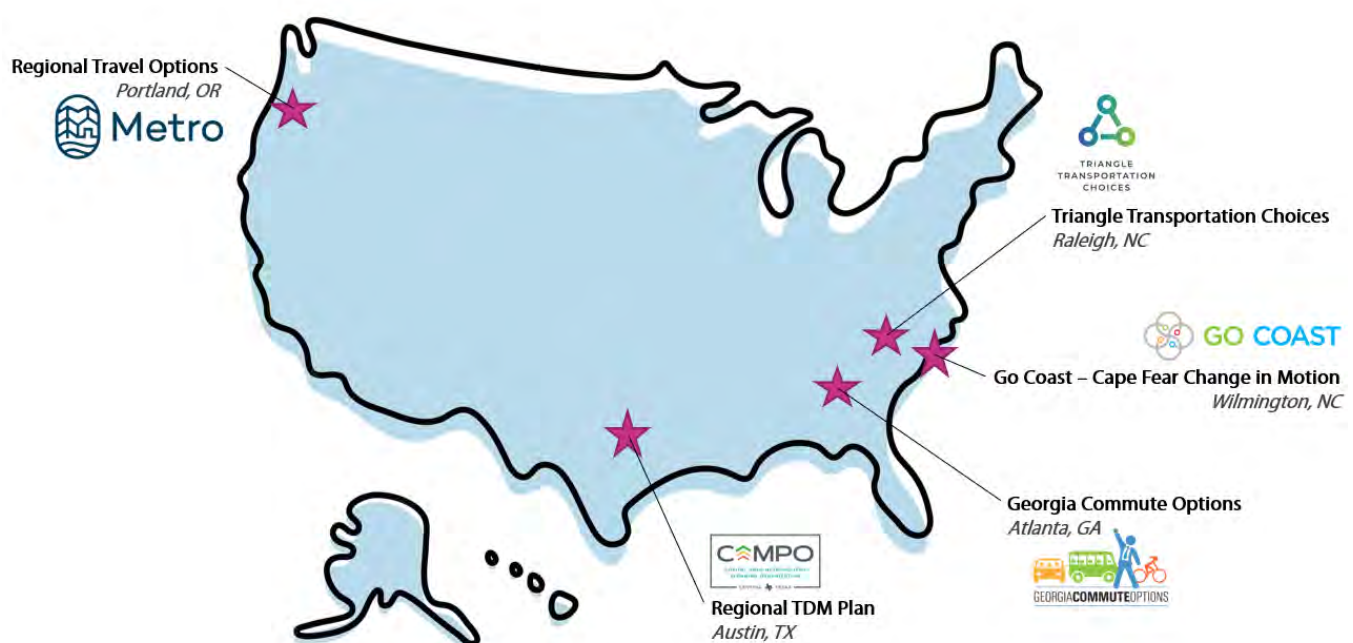
Nirav Ved, Data and Operations Manager

EXECUTIVE SUMMARY & KEY LESSONS

The purpose of this TDM Program Case Studies Report is to inform the development of a TDM program for the greater Charlotte region by documenting important characteristics and key lessons from TDM programs across the country. Five TDM programs are profiled in this report (see graphic below).¹ These five programs were selected by Centralina Regional Council and its partners because:

- They provide a useful snapshot of TDM activities within North Carolina and across the country;
- They help illustrate some key differences in the funding and management of TDM programs hosted by different types of agencies; and
- They represent a diversity of program sizes, geographies, and TDM implementation strategies.

Each case study provides details on the geography, background, goals, structure, and management (including funding) for the selected TDM programs. These case studies are an early part of a larger planning process to support Centralina Regional Council, NCDOT, and their partners as they collaborate to develop and launch a new TDM for the greater Charlotte region.



¹ Graphic Creator: Kittleson & Associates; Logo Creators: Oregon Metro, CAMPO, Atlanta Regional Commission, Wilmington MPO, and Central Pines Regional Council.

CASE STUDY PROGRAMS OVERVIEW

Program Name	Host Agency	Program Focus	# of Full-Time Staff
Georgia Commute Options	Metro Area Planning & Development Commission	Funding for local service providers	24* + Consultants
Triangle Transportation Choices	Council of Governments	Funding for local service providers	3.05
Regional TDM Program - Austin	MPO	Planning, funding, provides services	1.5 staff + 1 consultant
Go Coast - Wilmington	MPO	Marketing outreach, education	1
Regional Travel Options - Portland	MPO	Funding & marketing	4.75

*Based on [available information](#), GCO has 24 staff members (part time or full time).

Primary Funding	Total Funding	How are funds used?	Match
CMAQ	\$12,250,000	Admin, Consultants, Programs	80/20
NCDOT & CMAQ	\$1.5-2 mill.	Grant Programs	50/50 & 80/20
Carbon Reduction Program	\$1 mill.	Admin, Marketing, Incentives, Programs	80/20
STBG	\$100,000	Admin, Operations	80/20
ODOT & STBG	\$3.45 mill.	Admin, Grants, Direct Services	~90/10

KEY LESSONS FROM CENTRAL PINES

- Consider having MPO boards jointly adopt and prioritize [TDM policies](#). This may strengthen funding applications.
- Having dedicated staffing is a critical component of making a TDM program successful. Central Pines recommends employing a Program Manager, Data Analyst, Communication Expert, and Finance Specialist.
- Patience is critical. Start with something focused and manageable. Gradually introduce new programs, policies, and reporting metrics to build up the program over time.

KEY LESSONS FROM WMPO

- Consider funding options that have a low local match such as federal STBG funding.
- Avoid overreliance on NCDOT funds to support a TDM program. The heavy match requirement and difficulty with consistent invoicing can make the use of NCDOT funds challenging.
- Understand how your funding sources impact how you measure success. For example, NCDOT has specific requirements for reporting metrics that impact TDM program goals and reporting.
- Diversify programs outside of employer-based options. Major employers can come and go, or their priorities can shift with changes in leadership. It's important to have TDM programs/policies that transcend these types of changes.

KEY LESSONS FROM ARC

- Strong, consistent branding (e.g., Georgia Commute Options) can increase awareness and support a successful TDM program.
- Don't try to do it all on your own. Working with TMAs spreads out the work, provides geographic focus, and allows for localized solutions.
- Understand the strings attached to your primary funding sources. Consider the restrictions on federal funding sources such as CMAQ.

KEY LESSONS FROM METRO

- Explore funding flexibility. STBG funding is more flexible for TDM than other sources.
- Provide leadership and guidance regarding grant scopes and evaluation metrics.
- Strengthen the program by focusing on equity & what the community needs.

KEY LESSONS FROM CAMPO

- Consider using the federal Carbon Reduction Program to increase funding.
- Consider providing school pool services through a commuter solutions website.
- Take on a centralized approach to TDM through branding and shared use agreements with towns.

OVERALL LESSONS

- TDM Programs are successfully hosted by a variety of different organizations (like MPOs, MSDs, and COGs). Since regional councils of governments do not have taxing authority, nor do they control transportation funds, TDM programs hosted by COGs depend heavily on sustained financial support from MPO partners and state DOTs
- Consider structuring the program using grants or pass-through funding to service providers/organizations that will support TDM programming/services/incentives.
- Spread the work across many hands – may include dedicated Centralina staff, TMA's, partner orgs, consultant support, etc.
- Consider the audience you want to reach. Is it a commuter focused TDM program or does it extend beyond work trips?
- Consider structuring the program towards the community with an equity focus – What does the community need and how can Centralina provide support to meet those needs?

KEY TAKEAWAYS

Takeaway 1: Jumpstart Your Program

- **Take advantage of key federal and state funding programs.**
- Find an entry level services program that can be supported by partnerships with other regional agencies (e.g. Safe Routes to School or School Pool).
- Have a clear brand and message.

Takeaway 2: Coordination & Collaboration

- Regional programs work best when the **host agency coordinates closely and collaborates often with its partners.**
- Rely on partners to support communication and implementation → large employers, municipalities, transit agencies, non-profit organizations, business associations, and Transportation Management Associations (TMAs).

Takeaway 3: What is your role?

- Don't be everything to everyone → Focus Centralina's efforts on **one or two programs/areas** that respond to what the region needs.
- The most successful programs are clear about their roles in the region, whether it's funding local municipalities, providing missing services, outreach.

Takeaway 4: Funding

- **Set asides are critical** → It's difficult to build a sustainable program on competitive yearly grant cycles.
- Funding "cocktails" will likely be required to **align money to geography** → 10-county region crosses boundaries of likely funders (except NCDOT) → Most likely sources: NCDOT, TPOs, Municipalities, Transit Providers, Major Employers.
- **Low match is important** → 50/50 match requirement is probably not "good money" for Centralina Regional Council → Confirm that NCDOT will provide match-free admin funds (like they do for Central Pines).



CENTRALINA
REGIONAL COUNCIL

CENTRALINA REGIONAL TDM PLAN/PROGRAM

TRIANGLE REGION

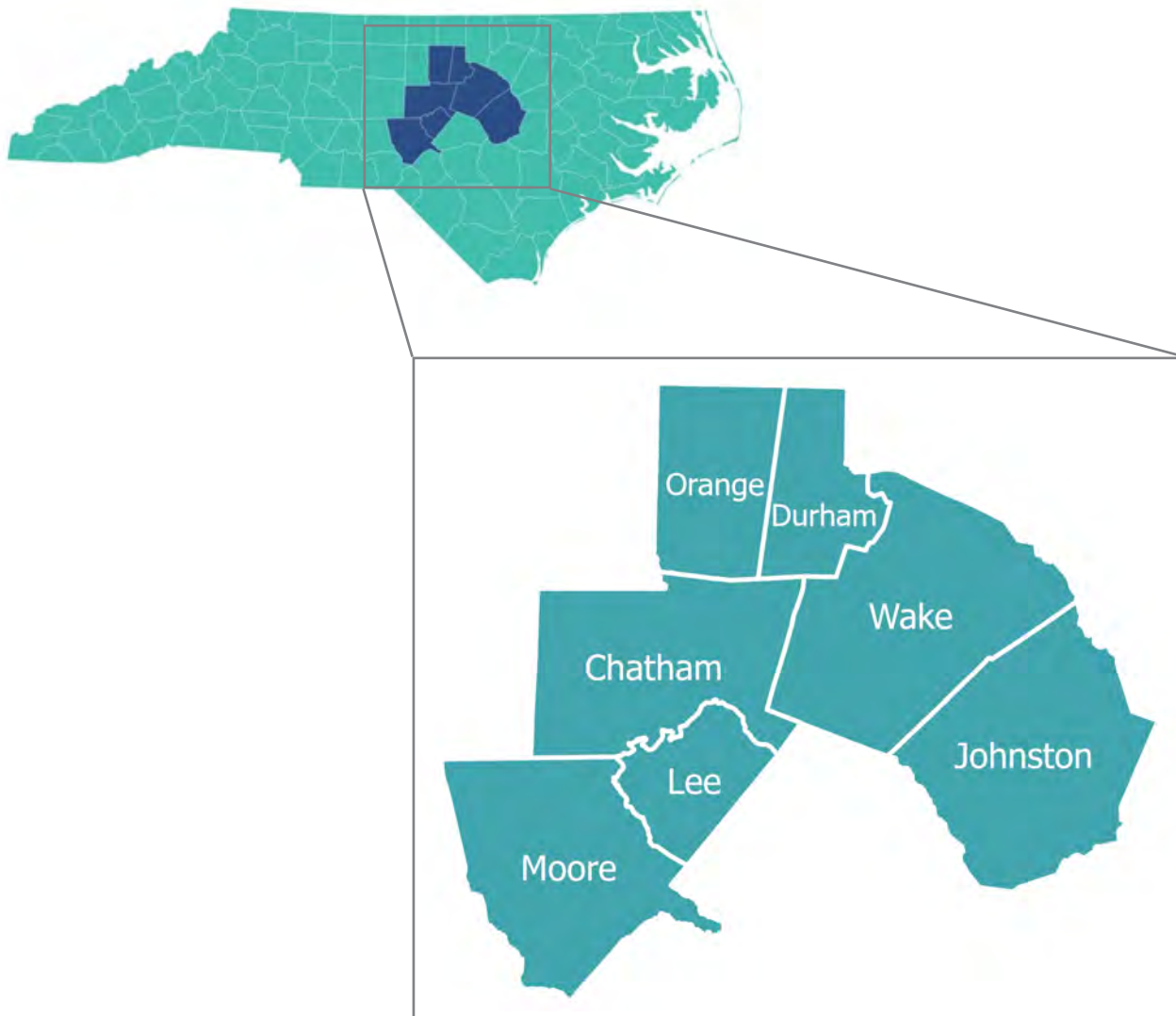
TRIANGLE TRANSPORTATION CHOICES

INTRODUCTION

In 2007, Central Pines Regional Council (formerly TJCOG) brought together the Durham-Chapel Hill-Carrboro MPO, the Capital Area MPO, and the regional transit service, GoTriangle, to create the Triangle Region 7-Year Long Range Travel Demand Management Plan (TDM). By 2008, the development of a TDM program was underway with Central Pines serving as the program administrator. Central Pines is currently undergoing a plan update to evaluate the impacts of regional TDM programming and to outline five new goals. As part of the update, the program was recently rebranded as Triangle Transportation Choices.

Main Contact: Jenna Kolling, Senior Program Analyst

Figure 1. North Carolina counties that make up Central Pines.



PROGRAM GEOGRAPHY

Central Pines’s jurisdiction includes seven counties in North Carolina (Chatham, Durham, Johnston, Lee, Moore, Orange, and Wake) and thirty-nine municipalities.¹ Below are several comparisons between Centralina and Central Pines (see Table 1, Figure 2, and Figure 3).²

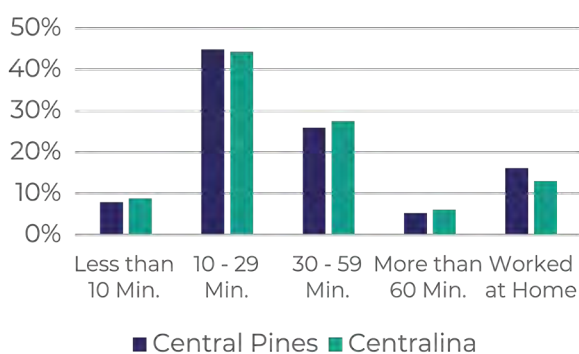
Table 1. Demographic and geographic data comparing Centralina and Central Pines.

GEOGRAPHY AND DEMOGRAPHIC COMPARISON	CENTRAL PINES	CENTRALINA
Total Population	2,028,089	2,382,833
Population Density (Per Sq. Mile)	514.1	512.9
Land Area (Sq. Miles)	3,945.21	4,645.99
Average Household Size	2.5	2.6
Median Household Income	\$78,204	\$67,963
BIPOC Population	36.2%	36.6%

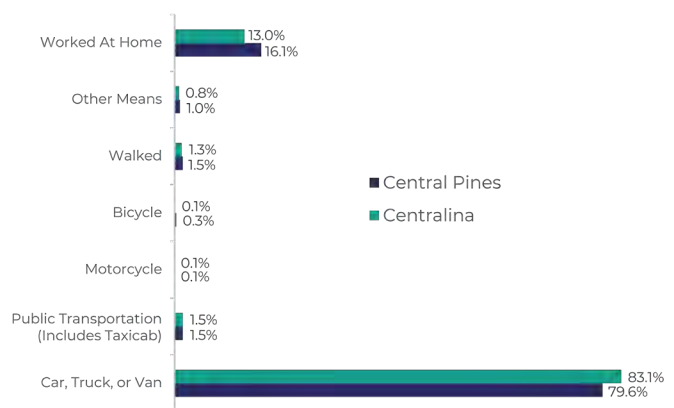
Figure 2. Travel time to work comparing Centralina and Central Pines.

Figure 3. Means of transportation to work comparing Centralina and Central Pines.

Travel Time to Work for Residents in Central Pines vs Centralina



Means of Transportation to Work



¹ Graphic Creator: Central Pines - “Our Members.” 2023. Triangle J Council of Governments (TJCOG). <https://www.tjcog.org/about/our-members>; Modified by: Kittelson & Associates; Original Data: “County 2019 US SL050 Coast Clipped.” Social Explorer, n.d. Web. June 8, 2023. (Based on data from U.S. Census Bureau; old website before rebranding to Central Pines)

² “Total Population; Population Density; Land Area; Race; Average Household Size; Median Household Income; Means of Transportation to Work; Travel Time to Work for Workers 16 Years and Older, ACS 5-Year 2017-2021.” Social Explorer, n.d. Web. June 8, 2023. (Based on data from U.S. Census Bureau)

PROGRAM BACKGROUND AND GOALS

REGULATORY BACKGROUND

In 1999, the NC State legislature passed the Ambient Air Quality Improvement Act (SB 953) with a goal to reduce the growth of commuter Vehicle Miles Traveled (VMT) by 25% by July 1, 2009. Some communities encouraged TDM strategies, but they were not fully integrated into regional zoning and development processes.¹ With disjointed TDM initiatives scattered around the region, Central Pines, along with local Metropolitan Planning Organizations (MPOs) and GoTriangle, came together to develop a 7-year regional TDM plan to increase coordination, develop strategic programming, and strengthen the link between land use policies and TDM policies through their [TDM program](#).²

VISION AND GOALS

The 7-Year Plan's main goal was to "reduce regional growth in Vehicle Miles Traveled (VMT) by 25% between 2007 and 2015 through a moderate package of TDM strategies that encourage **alternative mode usage**."³ This overarching goal was to support NCDOT in meeting the legislative mandate of SB 953.⁴ In 2019, a broader set of goals was created along with specific outcomes and relevant activities.⁵

- **Goal 1:** Refine and enhance program evaluation methods
- **Goal 2:** Align funding cycles with performance
- **Goal 3:** Expand program marketing and outreach
- **Goal 4:** Get innovative
- **Goal 5:** Integrate with local and regional planning efforts

¹ "Triangle Region 7-Year Long Range TDM Plan." June 2007. Central Pines. Print. p. 22.

² "Clean Cities Coalition Webinar." October 2020. TJCOC. PowerPoint. Slide 3.

³ "Triangle Region 7-Year Long Range TDM Plan." June 2007. Central Pines. p. 6.

⁴ "Triangle Region 7-Year Long Range TDM Plan." June 2007. Central Pines. p. 10.

⁵ "Draft: Triangle TDM Update Plan." 2019. Central Pines. Print. p. 9.

STRUCTURE AND MANAGEMENT

GOVERNANCE STRUCTURE

The 7-Year Plan structured program governance into five performance areas: 1) planning, 2) program administration, 3) services and operations, 4) branding and marketing, and 5) outreach. NCDOT, MPOs, Central Pines, GoTriangle (regional transit), and Local Service Providers (typically local governments, local transit agencies, or universities) serve roles within these areas to implement the program. In addition, NCDOT, Capital Area MPO (CAMPO), and Durham-Chapel Hill-Carrboro MPO (DCHC MPO) serve as voting members of Central Pines's Oversight Committee while Central Pines and NC Department of Environmental Quality (NCDEQ) serve as advisors.

ROLES AND RESPONSIBILITIES

Central Pines Oversight Committee:¹

- Manages annual Requests for Proposals process
- Approves program and sub-recipient budgets
- Strategizes direction and priorities of the TDM program
- Oversees TDM plan updates

NCDOT:

- Supplies the overall TDM policy framework
- Provides state funding
- Gives fiscal oversight

Metropolitan Planning Organizations:

- Provides federal Congestion Mitigation and Air Quality Improvement Program funding

Central Pines:

- Administers the TDM program
- Monitors and evaluates reporting of TDM activity impacts
- Supports long range planning
- Coordinates regionally
- Secures program funding

Go Triangle (Regional Service Provider):

- Implements and coordinates regional TDM services and operations (i.e., Bike to Work Week)
- Leads regional marketing and outreach initiatives

Local Service Providers:

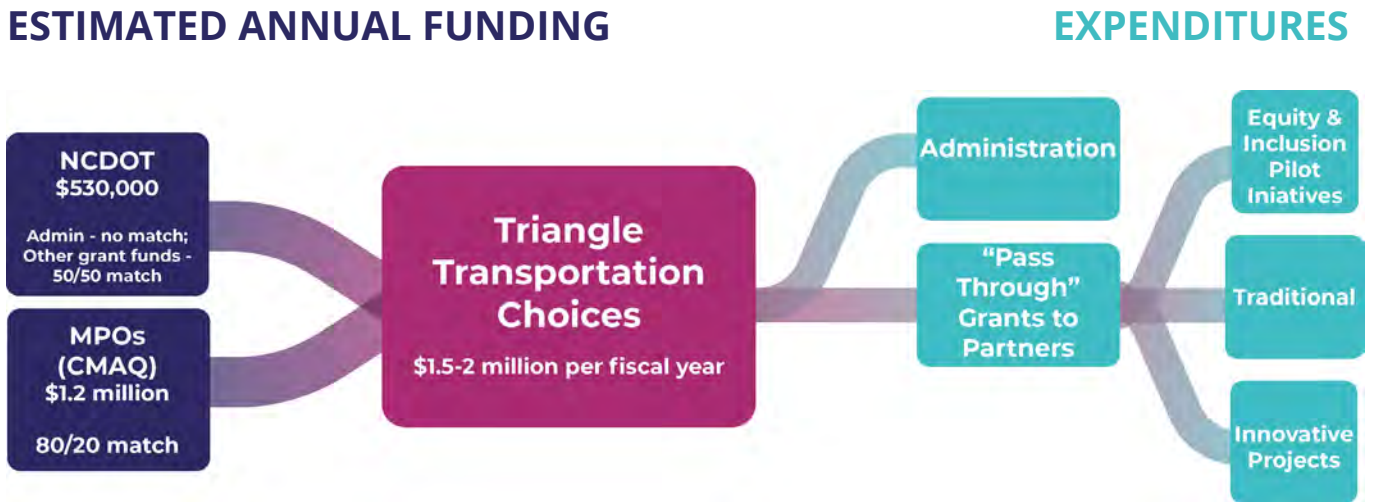
- Leads the development and implementation of campaigns within local focus areas

¹ "Triangle TDM Grant Program Roles and Responsibilities." n.d. Central Pines. p. 1

PROGRAM AND FUNDING

Central Pines rebranded the TDM Program in 2021 to the Triangle Transportation Choices Program which provides funding opportunities for regional and local service providers to implement TDM programs.¹ When applying for funding, providers use Central Pines’s maps called Transportation Choice Hubs and REINVEST Neighborhoods to identify local areas of focus for employment or residential-based TDM outreach.² REINVEST stands for the maps indicators which are: Race/Ethnicity, Income, Vehicle Availability, and Housing/Economic Development Status. The funds support various types of services from websites to transit passes.³ Central Pines receives funding from both NCDOT and the MPOs. As discussed in the Capital Area and Durham Chapel-Hill Carrboro MPO’s joint [2050 Metropolitan Transportation Plan \(MTP\)](#), CMAQ funds suballocated to MPOs are “based on the amounts in the current federal transportation funding bill, the Infrastructure Investment and Jobs Act, and grow at an annual rate derived from that law.”⁴

Figure 4. Funding sources and expenditures. Estimated annual numbers are based on best available information and are subject to change.



“Pass Through” funding via Triangle Transportation Choices can cover a variety of project types. Below are several examples of how funds have been used.

Carpool and Vanpool	Active Transportation	Websites
<ul style="list-style-type: none"> GoTriangle Share TheRideNC NC State WolfTrails Carpools Duke Carpool Program 	<ul style="list-style-type: none"> UNC Chapel Hill CAP Bike and Walk Program Duke Bike Benefit Program 	<ul style="list-style-type: none"> NC Central Transportation & Parking Research Triangle Foundation GoRTP Transportation Options

¹ “Triangle Transportation Choices.” 2023. TJCOG. <https://www.tjco.org/focus-areas-mobility-transportation/triangle-transportation-choices> (old website before rebranding to Central Pines)

² “Triangle Choices Program Overview: Kittelson & Central Pines Interview.” June 2023. Central Pines. PowerPoint. Slides 11-13.

³ “Annual Impact Report: FY 2021-2022.” n.d. Central Pines. Print. p. 29.

⁴ “2050 MTP.” 2023. CAMPO. Print. p. 74.

STAFFING

The Triangle Transportation Choices program has 3.05 Full Time Equivalent (FTE) staff.

- Program Administration = 1.05 FTEs
- Finance = 0.40 FTEs
- Evaluation and Monitoring = 0.95 FTEs
- Best Workplace for Commuters/Commuter Friendly NC = 0.65 FTEs

Those 3.05 FTEs are spread across five positions:

- 1) Transportation and Energy Program Manager:
- 2) Senior Planner and Grants Administrator:
- 3) Senior Program Analyst:
- 4) Transportation Program Analyst:
- 5) Transportation Planner II:

KEY LESSONS

LAUNCH AND IMPLEMENTATION STEPS

The 7-Year Plan outlined specific performance elements and corresponding activities for each of the five performance areas (planning, program administration, services and operations, marketing and branding, and outreach). The plan also identified responsibilities, schedules, staffing, and FY 2007- FY 2014 budgets for each task.¹

OBSTACLES

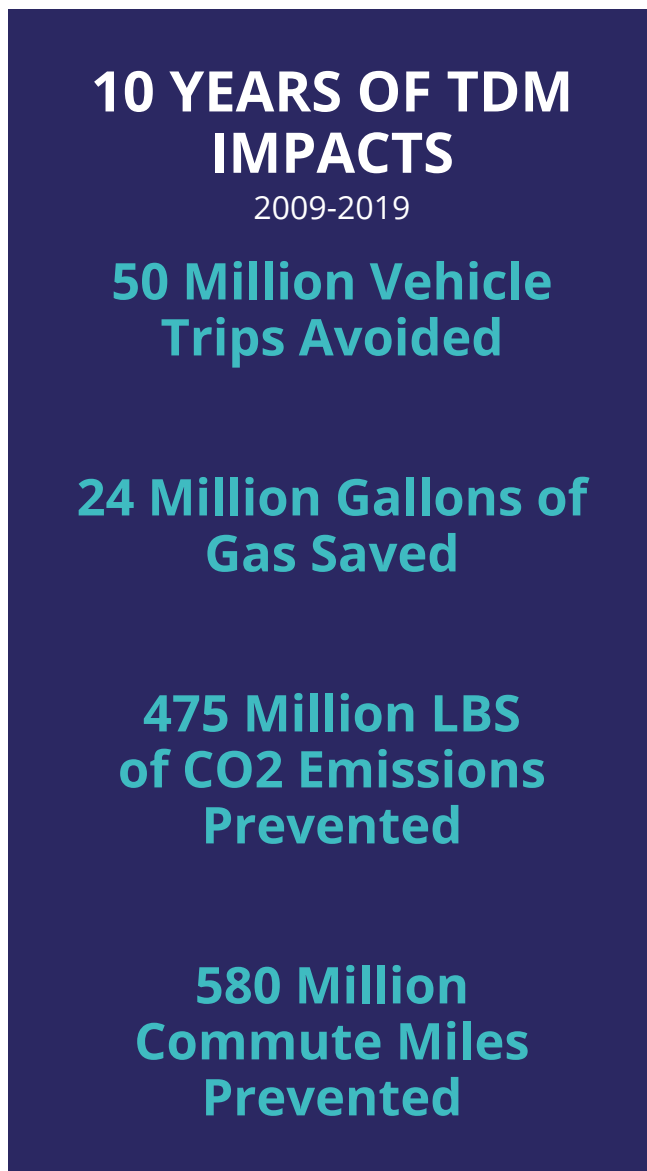
One of the main obstacles Central Pines has seen is maintaining the balance between local partners wanting to maintain their own brand but also sharing and coordinating regional TDM efforts. Additionally, Central Pines originally created about 60 high employment concentration hotspots, based on the regional travel demand model, where service providers focused their services. However, the term “hotspot” was confusing and at times limiting for service providers. Additionally, hotspots did not take into account non-work-related trips. Central Pines has since pivoted to employment and residential based maps called Transportation Choice Hubs and REINVEST Neighborhoods.

¹ “Triangle Region 7-Year Long Range TDM Plan.” June 2007. Central Pines. Print. p. 71; 175-179.

STRENGTHS, SUCSESSES, AND ACCOMPLISHMENTS

Achieving a 25% reduction in VMTs was the key accomplishment of the 7-Year Plan. Central Pines measures VMT through surveys.² Additionally, the region saw 4 major impacts from 2009 to 2019.

Figure 5. TDM Impacts.³



One of the main takeaways from this program’s current success is that the MPO boards jointly adopted TDM as a top policy priority in the [Transportation Policy Priorities for the Triangle Metro Region](#). That shared recognition of TDM as a top policy priority among the various MPOs helps strengthen Central Pines’ application for grant funds and is a useful precedent for Centralina to consider.

FINAL OBSERVATIONS AND FINDINGS

Forming a TDM program is all about relationship building - from consistently coordinating with NCDOT regarding invoicing, to forming a program oversight committee and task force. Furthermore, having dedicated staffing is also a critical component of making the program successful. Central Pines recommends employing a Program Manager, Data Analyst, Communication Expert, and Finance Specialist. In order to support a project based program with “pass through” funding options for local service providers, consistent funding is crucial to the program’s success. Lastly, patience is critical and gradually introducing new programs, policies, and reporting metrics helps build up the program.

² “Annual Impact Report FY 2020-2021.” 2022. Central Pines. Print. p. 21

³ Graphic Creator: Central Pines - “Draft: Triangle TDM Update Plan.” 2019. Central Pines. Print. p. 8. Modified by: Kittelson & Associates

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CENTRALINA
REGIONAL COUNCIL

CENTRALINA REGIONAL TDM PLAN/PROGRAM

WILMINGTON

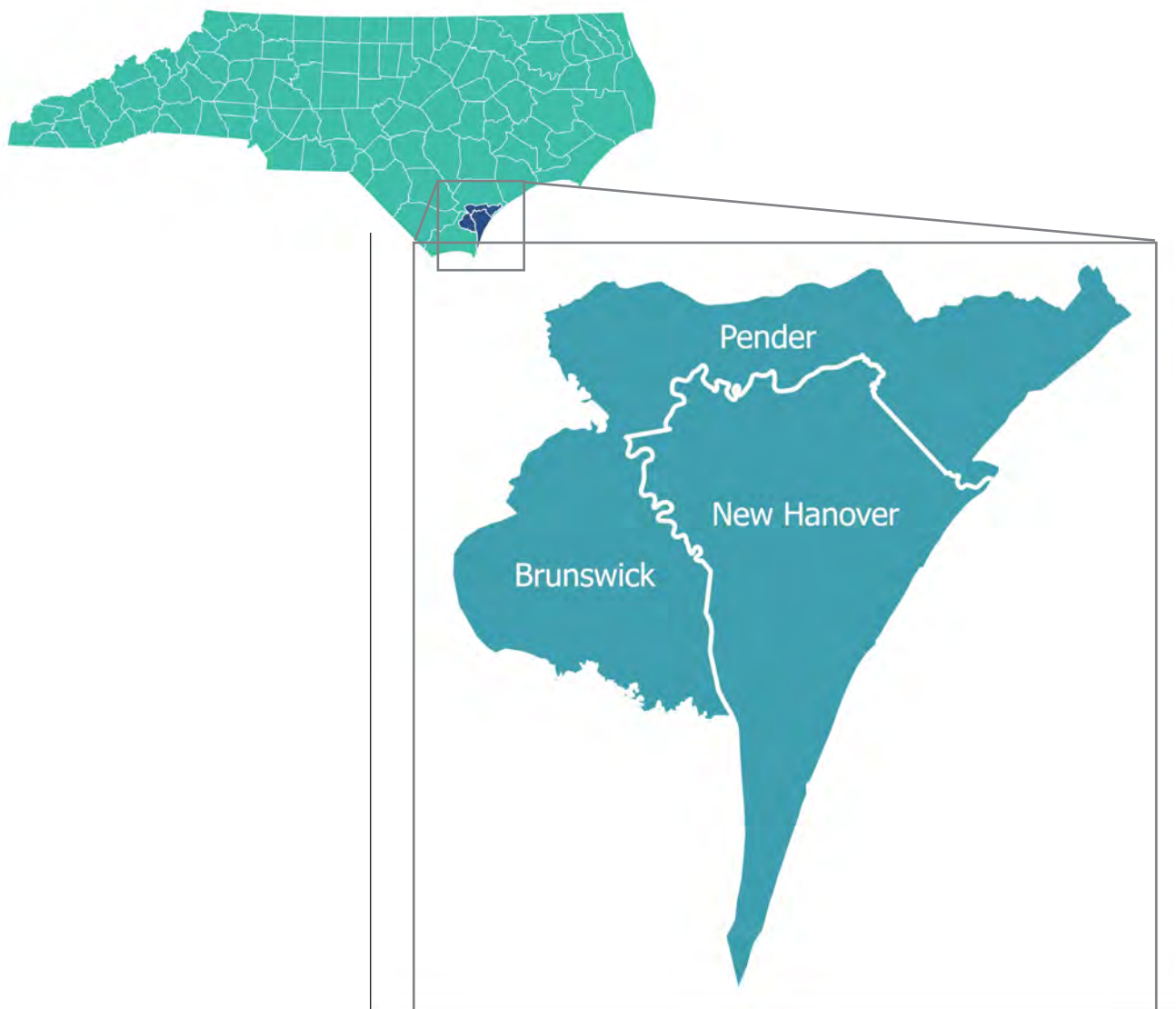
GO COAST

INTRODUCTION

In 2020, the Wilmington Urban Area Metropolitan Planning Organization (WMPO) led the development of the region's updated Transportation Demand Management (TDM) plan. The TDM plan identifies specific goals for short-range TDM strategies and supports the region's TDM program, called Go Coast. These strategies are a part of a larger planning effort through their Metropolitan Transportation Plan (MTP). The TDM planning process was driven by the Go Coast Committee which was made up of WMPO member jurisdiction staff, major employers, and community groups.¹

Main Contact: Carolyn Caggia, Associate Transportation Planner / TDM Coordinator

Figure 1. North Carolina counties that make up WMPO.



¹ "Cape Fear Change in Motion: Short-Range TDM Plan 2021-2025." 2020. Go Coast. Print. p. 1-2.

PROGRAM GEOGRAPHY

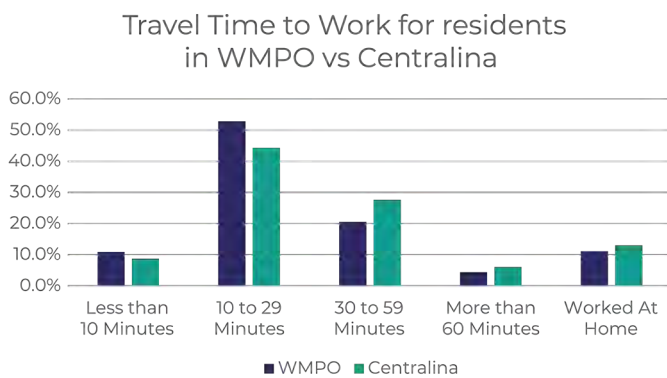
WMPO is in the lower Cape Fear Region of southeastern North Carolina. New Hanover County, parts of Brunswick and Pender Counties, and 7 municipalities make up WMPO (see Figure 1).¹ The MTP only pertains to the WMPO planning boundary since some of Brunswick County falls within Grand Strand MPO. Below are several comparisons between Centralina and WMPO (see Table 1, Figure 2, and Figure 3).²

Table 1. Demographic and geographic data comparing Centralina and WMPO.

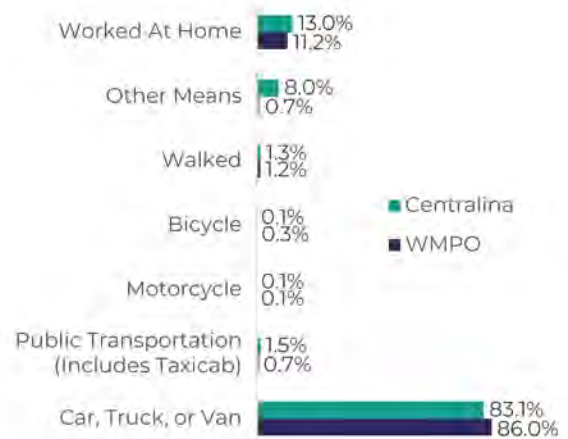
GEOGRAPHY AND DEMOGRAPHIC COMPARISON	WMPO	CENTRALINA
Total Population	418,928	2,382,833
Population Density (Per Sq. Mile)	848.03	512.9
Land Area (Sq. Miles)	2312.57	4,645.99
Average Household Size	2.3	2.6
Median Household Income	\$63,167	\$67,963
BIPOC Population	19.6%	36.6%

Figure 2. Travel time to work comparing Centralina and WMPO.

Figure 3. Means of transportation to work comparing Centralina and WMPO.



Means of Transportation to Work, ACS 5-Year 2017-2021



¹ Graphic Creator: WMPO - "Cape Fear Change in Motion: Short-Range TDM Plan 2021-2025." 2020. Go Coast. Print. p. 8.; Modified by: Kittelson & Associates; Original Data: Original Data: "County 2019 US SL050 Coast Clipped." Social Explorer, n.d. Web. June 8, 2023. (Based on data from U.S. Census Bureau)

² "Total Population; Population Density; Land Area; Race; Average Household Size; Median Household Income; Means of Transportation to Work; Travel Time to Work for Workers 16 Years and Older, ACS 5-Year 2017-2021." Social Explorer, n.d. Web. June 8, 2023. (Based on data from U.S. Census Bureau)

PROGRAM BACKGROUND AND GOALS

REGULATORY BACKGROUND

In 2005, the City of Wilmington established TDM programming as a citywide program. An NCDOT grant provided an opportunity to expand the program to a broader regional focus. At this point, WMPO took over as the host agency for the TDM program and in 2015, a regional TDM plan was created called Work Cape Fear. Later the program was rebranded as *Go Coast*.

In 2020, WMPO identified short, medium, and long-range strategies for supporting TDM as part of its 5-year update to Cape Fear Moving Forward 2045, WMPO's federally-mandated Metropolitan Transportation Plan. To guide the development of the TDM Program and highlight strategies, WMPO created a specific short-range TDM plan called Cape Fear Change in Motion 2020.¹ NCDOT played a role in influencing the TDM plan. Since the program initially used NCDOT dollars, the program followed the NCDOT's TDM Scorecard, which outlines goals and objectives that state-funded TDM programs are expected to meet.

VISION AND GOALS

The TDM Plan's vision is to "To provide WMPO Area residents with the resources and offer motivation to choose healthy, sustainable, and efficient multimodal transportation to reduce stress on the road network and increase alternative means of mobility." **The main goal is to "reduce Vehicle Miles Traveled (VMT) by 10% between 2021 and 2025" with secondary goals of mitigating traffic congestion and diversifying mode use.**²

¹ "Cape Fear Change in Motion: Short-Range TDM Plan 2021-2025." 2020. Go Coast. Print. p. 1-2.

² "Cape Fear Change in Motion: Short-Range TDM Plan 2021-2025." 2020. Go Coast. Print. p. 3-4.

STRUCTURE AND MANAGEMENT

GOVERNANCE STRUCTURE

There are several entities that serve in specific roles to implement the TDM program.

ROLES AND RESPONSIBILITIES

WMPO member jurisdictions:

- Participate in the TDM Program through Go Coast Committee membership
- Provide funding

WMPO:

- Administer the TDM program
- Lead regional marketing and educational initiatives
- Monitors TDM activity impacts
- Supports long range planning

Go Coast Committee (local businesses and community organizations):

- Assist the development of an annual schedule of actionable steps
- Review program progress

Wave Transit (Wilmington Service Provider):

- Implements TDM services and operations

Commuter Friendly Employers:

- Offers transportation services to employees
- Promote TDM programs and initiatives including regional events

PROGRAM AND FUNDING

Go Coast's TDM plan outlined 7 strategy areas for TDM programming. The COVID-19 pandemic-related stay at home orders made program implementation difficult. Go Coast is currently restructuring and finding new avenues for programming that are relevant in a post-pandemic transportation context. For example, Go Coast decided to shift away from consulting for telecommuting. However, there are several ongoing programs which work with partners such as employers and Wave Transit to promote mobility options and provide educational materials.

Commuting

- Commuter Friendly Employer program
- Personalized Commuter plans

Carpool

- Share the RideNC (ride matching)
- 3 Park-and-Ride lots

Fostering a Bicycle and Pedestrian Friendly Culture

- *Be a Looker* Campaign
- Educational information – Rules of the Road, Bike on the Bus
- Providing interactive maps and related clubs

From Fiscal Year (FY) 2016-2021, around \$100,000 in grant funding for the Go Coast program was provided by NCDOT, with a 50% local match requirement.¹ Since 2022, the program has switched to federal Surface Transportation Block Grant Program (STBG) funding, which only requires a 20% local match. WMPO receives STBG money and takes 10% for administrative costs. Then the MPO board approves a portion of the money for the TDM program. This amount stays consistent each time the board approves TDM funding allocations. Using STBG funds preserves ~\$42,000/year in local dollars since there is a lower local match. Using STBG funds instead of NCDOT funds also allows Go Coast to explore switching from the NCDOT Scorecard metrics to regional metrics that better fit the local context.

¹ "Cape Fear Change in Motion: Short-Range TDM Plan 2021-2025." 2020. Go Coast. Print. p. 45.

Figure 4. Funding sources and expenditures. Estimated annual numbers are based on best available information and are subject to change. TDM funding via WMPO is an annual allocation.

ESTIMATED ANNUAL FUNDING

EXPENDITURES



STAFFING

Go Coast has one full-time staff member. Other WMPO staff provide support, including a GIS analyst, a senior accountant/executive assistant, a transportation planner, and a technical staff member for design expertise. These staff make up a total of 1.3 FTEs dedicated to TDM. Funding for staff gives the program the resources to implement the TDM plan. Staff makes sure metrics from the TDM plan regional scorecard are achieved. More details of staff roles include:

- GIS Analyst - ArcGIS Story Maps and outreach (3 hrs/wk)
- Senior Accountant - Purchasing/budgeting (2 hrs/wk)
- Executive Assistant - Purchasing/meeting set up (1 hr/wk)
- Transportation Planner - Supports events, bike rides, and campaigns (6 hrs/wk)
- TDM Coordinator - Oversees the program and does graphic design (40 hrs/wk)

KEY LESSONS

LAUNCH AND IMPLEMENTATION STEPS

Even though the TDM plan update was completed in 2020, staff treat the plan as a living document as regional conditions lead to the need to pivot and adapt. The pandemic is a key example of the need to be flexible when rolling out and building up a TDM program.

OBSTACLES

Once the program began, it became clear that there was misalignment between the NCDOT Scorecard and local context. Statewide metrics did not always fit the local context, but time and resources had to be spent to report on them. This limited the program's ability to focus on local priorities. For example, Wilmington's average commute time is less than the state average. When it came to reporting about carpooling, the program didn't meet scorecard goals such as new/expanded carpool programs. The decision to change from NCDOT funds to STBG allowed Go Coast to tailor TDM goals to their local context instead of prescribed goals by the state.

Furthermore, the pandemic has been the biggest obstacle for TDM programming. For example, the plan's strategy for teleworking is no longer as relevant since employers adapted to be more supportive of teleworking due to the pandemic's stay at home orders. However, there could still be a role for TDM programs to support

partners in developing hybrid schedule policies. The program is looking to rebuild partners and expand beyond employers. Overall, Go Coast finds adapting car-centric design to multimodal goals to be an ongoing challenge.

STRENGTHS, SUCCESSES, AND ACCOMPLISHMENTS

Go Coast hosts two annual bike rides, the River to Sea Bike Ride and the Brunswick Heritage Riverside Ride, which attract several hundred people each year. On the educational awareness side, the *Be a Looker* Campaign is a source of pride for WMPO. This program is launched and marketed April through October every two years. Individuals sign a pledge to look out for each other whether they are driving, walking, or biking. Since April 2023, there have been 147 pledges. Staff have promoted the *Be a Looker* Campaign through attendance at 8 events, social media, press releases, media interviews, and printed brochures.

NEXT STEPS

Go Coast is working to find new avenues for programming and redefine their reporting metrics. As a part of this process, Go Coast will continue to focus on "carrots" rather than "sticks." Additionally, Go Coast is trying to expand outside of employer-

based programming and explore options within tourism and specific populations such as senior citizens. Lastly, Go Coast hopes to add a communications specialist in the future who would assume some of the supporting duties that MPO staff currently assist with.

FINAL OBSERVATIONS AND FINDINGS

Funding is an important consideration that Go Coast staff discussed. Staff recommended considering how NCDOT funding may impact Centralina's TDM goals and reporting. Also, low match options, such as STBG funding, can free up local dollars. Lastly, when considering programmatic focus, it may be helpful to diversify the program outside of only employer-based options in case employers no longer are interested in participating.

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CENTRALINA
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CENTRALINA REGIONAL TDM PLAN/PROGRAM

ATLANTA

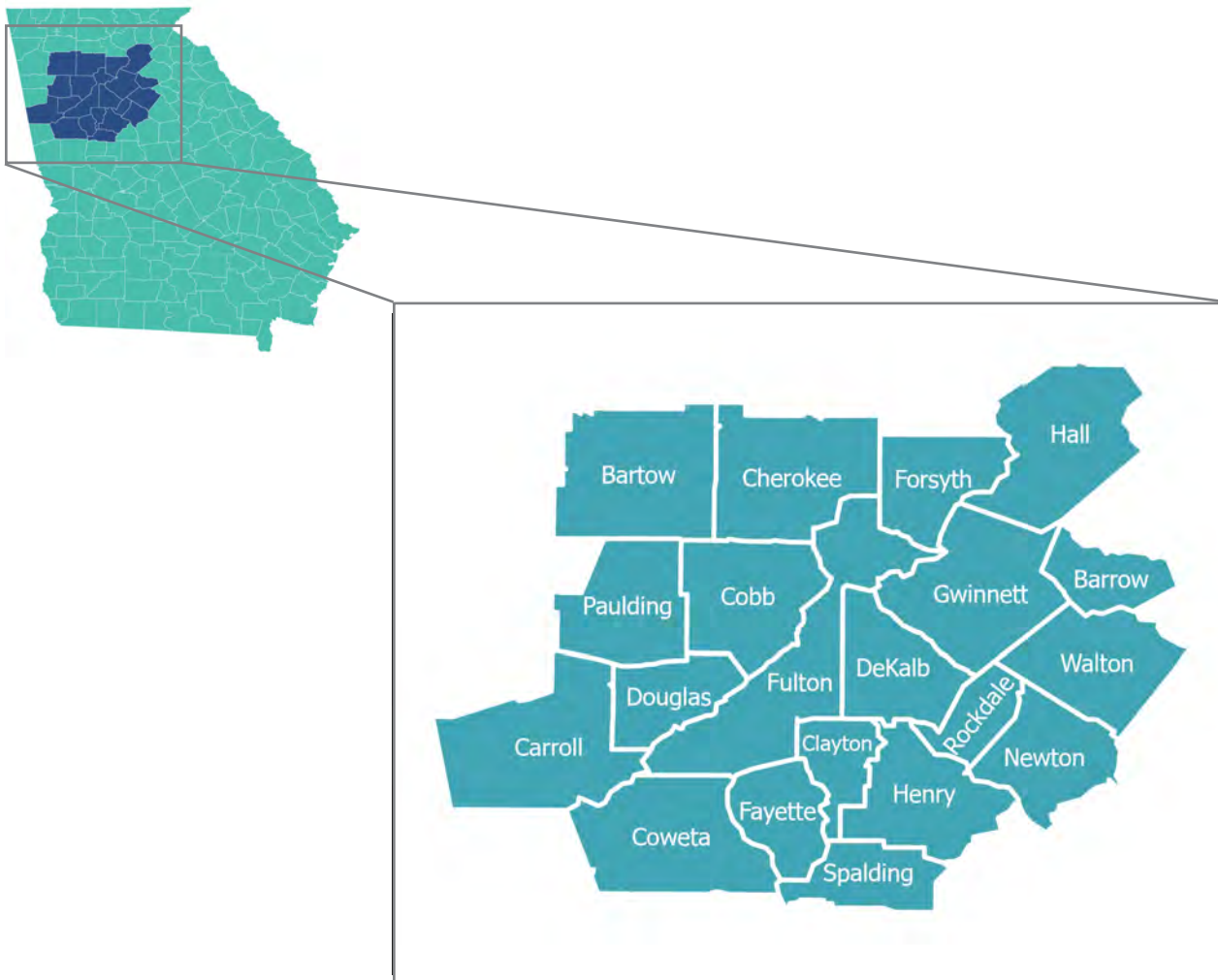
GEORGIA COMMUTE OPTIONS

INTRODUCTION

The Atlanta Regional TDM Program is managed by the Atlanta Regional Commission (ARC) with oversight by the Georgia Department of Transportation (GDOT). In the mid-1990s, GDOT managed TDM programming and ARC had a ride matching program. The full program moved to ARC in the mid-2010s since departments at ARC such as Workforce, Aging, Transportation Planning, and Community Development already worked closely with TDM. ARC developed a regional TDM Plan in 2013 that aligned with their 2040 long-range transportation plan, PLAN 2040.¹ The regional TDM plan provides a framework for partners to leverage existing programs and build on TDM concepts within PLAN 2040. The program was rebranded in 2018 and is now called Georgia Commute Options (GCO). ARC is currently in the process of publishing an updated TDM plan.

Main Contact: Sabrina Green, Program/Project Administrator

Figure 1. Counties in Atlanta that make up the Georgia Commute Options TDM Program.



¹ "Atlanta Regional Transportation Demand Management Plan." 2013. ARC. Print. p. 1.

PROGRAM GEOGRAPHY

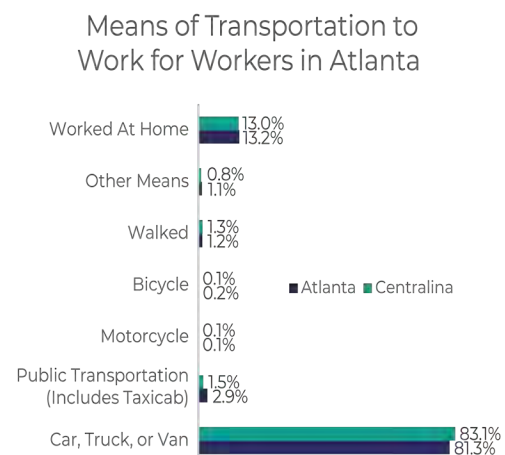
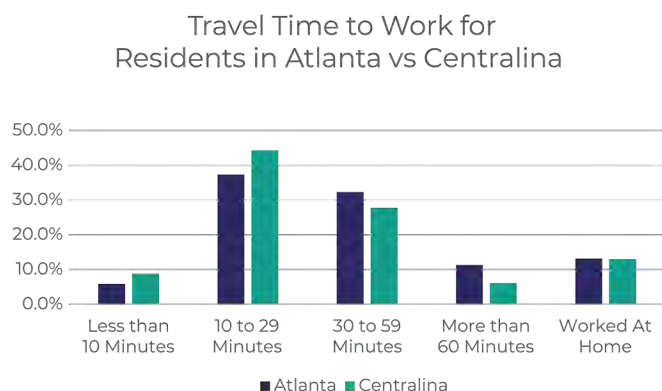
ARC is designated as a Metropolitan Planning Organization (MPO). The TDM program includes all or parts of 20 counties across the metro-Atlanta region: Barrow, Bartow, Carroll, Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Hall, Henry, Newton, Paulding, Rockdale, Spalding, and Walton (see Figure 1).¹ Below are several comparisons between Centralina and TJCOG (see Table 1, Figure 2, and Figure 3).²

Table 1. Demographic and geographic data comparing Centralina and ARC.

GEOGRAPHY AND DEMOGRAPHIC CHARACTERISTICS	ATLANTA	CENTRALINA
Total Population	6,011,279	2,382,833
Population Density (Per Sq. Mile)	960.6	512.9
Land Area (Sq. Miles)	6,258	4,645.99
Average Household Size	2.7	2.6
Median Household Income	\$75,485	\$67,963
BIPOC Population	50%	36.6%

Figure 2. Travel time to work comparing Centralina and ARC.

Figure 3. Means of transportation to work comparing Centralina and ARC.



¹ Graphic Creator: ARC - "Regional TDM Inventory Baseline Report." 2012. Atlanta Regional Commission; "About the Atlanta Regional Commission." 2023. ARC. <https://atlantaregional.org/about-arc/>; "Who We Are." 2023. ARC. <https://gacommuteoptions.com/about-us/who-we-are/>; Modified by: Kittelson & Associates; Original Data: "County 2019 US SL050 Coast Clipped." Social Explorer, n.d. Web. June 8, 2023. (Based on data from U.S. Census Bureau)

² "Total Population; Population Density; Land Area; Race; Average Household Size; Median Household Income; Means of Transportation to Work; Travel Time to Work for Workers 16 Years and Older, ACS 5-Year 2017-2021." Social Explorer, n.d. Web. June 8, 2023. (Based on data from U.S. Census Bureau)

PROGRAM BACKGROUND AND GOALS

REGULATORY BACKGROUND

The context for ARC's Regional TDM Plan inventory is rooted in federal, state, and regional legislation and policies. In 1984 the state amended the constitution to include services for public transportation through Community Improvement Districts (CIDs), which led to the creation of Employment Service Organizations (ESOs)¹. Following this, the Commuter Connections Program was established in 1994 by ARC. After the 1996 Olympics, programs like the Voluntary Ozone Action Program, Clean Air Campaign and Partnership for a Smog Free Georgia formed. These programs, which provided federal and state subsidized commuting alternatives for local employees, aimed to address the worsening air quality in the region. In 2012, failure to pass a regional transportation funding referendum placed a renewed emphasis on maximizing efficiency of the existing transportation network since large funds for capacity-adding projects were no longer financially feasible. Thus, ARC came up with a comprehensive regional plan to coordinate existing TDM plans, programs, and operations in Atlanta.²

¹ "Regional TDM Inventory Baseline Report." 2012. ARC. Print. p. 16.

² "Regional TDM Inventory Baseline Report." 2012. ARC. Print. p. 16.

VISION AND GOALS

The Atlanta region's 2013 TDM Plan aimed to go above and beyond traditional TDM plans by incorporating broader concepts, including livability, sustainability, transit, walking and biking, systems operations, transportation planning, economic development, climate change, healthy communities, and active aging.³ ARC sought to formalize this broader approach through the TDM Plan. The plan identified five objectives:⁴

1. Improve customer convenience and user experience
2. Increase transportation connectivity, mode choice, and access
3. Streamline regional coordination of policies, programs, services, and investments
4. Leverage and diversify funding sources for program sustainability
5. Pursue continuous performance and operations improvements

Consolidating into a single regional program already was showing benefits by the end of 2013. ARC had 1) recorded 5,434 new commuters in their regional database, 2) 2,242 guarantee ride home requests (trip distance over 20 miles), and 3) provided CMAQ funding to 6 ESOs for incentive programs and outreach.⁵

³ "Regional TDM Inventory Baseline Report." 2012. ARC. Print. p. 18.

⁴ "Atlanta Regional Transportation Demand Management Plan." 2013. ARC. Print. p. 3.

⁵ "Transportation Fact Book." 2014. ARC. Print. p. 30-31.

STRUCTURE AND MANAGEMENT

GOVERNANCE STRUCTURE

There are several entities that serve in specific roles to implement the TDM program.

ROLES AND RESPONSIBILITIES¹

ARC:

- Manages the region's TDM program, Georgia Commute Options
- Coordinates and oversees TDM service implementation
- Supports long range planning

GDOT:

- Provides funding
- Gives program oversight

Seven Transportation Management Associations (TMA):

- Customizes and targets TDM services to the employers and commuters who do business there

Regional Service Providers:

- Provides transportation/transit services

TDM Advisory Committee:

- Gives input to the funding agencies on the implementation of TDM strategies

¹ "Atlanta Regional Transportation Demand Management Plan." 2013. ARC. p. 19.

PROGRAM AND FUNDING

Georgia Commute Options (GCO) is the regional TDM program administered and staffed by ARC's Mobility Services Division. It has a specific emphasis on commuter programming serving 20 counties in the metro-Atlanta area.¹ GCO partners with seven Transportation Management Associations (TMAs) and transit providers to provide commuter incentives and information.² Collectively, GCO and the TMAs are known as Employer Service Organizations (ESOs). These TMAs include:

- Airport Employee Ride Options (AERO)
- Atlantic Station Access Program (ASAP)
- Clifton Corridor TMA (CCTMA)
- Livable Buckhead
- Midtown Transportation
- Perimeter Connects

Georgia Commute Options has seen strong growth over the years. The program has over 600 participating employer/property manager partners who amplify GCO's impacts through TDM support and building TDM programs at their jobsites.

¹ "Georgia Commute Options." 2023. ARC. <https://atlantaregional.org/glossary/georgia-commute-options/>

² "GCO Annual Report." 2022. ARC. <https://storymaps.arcgis.com/collections/f7055e845fcc4996b60fb03c3e559d0c?item=1>

Figure 4. Funding sources and expenditures. Estimated annual numbers are based on best available information and are subject to change.

ESTIMATED ANNUAL FUNDING

EXPENDITURES



Table 2. Examples of TDM Services

SERVICE EXAMPLES ¹	
Airport Employee Ride Options (AERO)	Connects airport employees with information and affordable and efficient services to get to work
Clifton Corridor TMA (CCTMA)	Provides custom commute planning assistance and promotes a variety of mobility options along the Clifton Corridor in Emory Area
Georgia Commute Options – Georgia Commute Schools	Creates school travel programs, K-12 Air Quality curriculum, promotional events, and resources

¹ "Our Transportation Partners." 2023. Georgia Commute Options, <https://gacommuteoptions.com/about-us/who-we-are/>; "Georgia Commute Schools." 2023. ARC. <https://atlantaregional.org/glossary/georgia-commute-schools/>

STAFFING

GCO has 8 ARC Mobility Services Leadership staff: 1) Managing Director, 2) Innovation & Partnerships Director 3) Marketing & Communications Director, 4) Program/ Project Administrator, 5) Data Analysis Administrator, 6) Schools Manager, 7) Outreach Manager, and 8) Marketing Manager. Also, there are 7 Mobility Services staff, 5 worksite advisors, and 4 outreach specialists. ARC hires consultants for outreach, education, ride matching management, and Salesforce (customer relationship management software) implementation. Each TMA has 6-14 employees implementing TDM initiatives and services. Even though TMA staff are not employed by ARC, ARC supports TMA salaries through TDM program funding. TMAs have separate work plans from ARC, but may have requirements to meet per the ARC contract.

KEY LESSONS

LAUNCH AND IMPLEMENTATION STEPS

The 2013 TDM Plan outlined seven priority strategies for organizations to implement as the plan was rolled out. These include building upon the Georgia Commute Options rebranding, connecting regional systems such as ride matching, and developing metrics to evaluate programs.¹ Today, branding is cohesive. GCO has an app and desktop platform that is run through [Agile Mile](#) (a private TDM cloud-based web and app platform), and the annual reporting covers 4 standard topics for evaluation.

OBSTACLES

The main obstacle staff mentioned was that CMAQ funding limits some of the implementation of the TDM plan. These restrictions include: 1) Purchase of transit passes, food and drink, and capital expenses 2) Labor for entertainment activities, carbon footprint assessment, and Leadership in Energy and Environmental Design. To overcome this obstacle, they are hoping to receive supplemental money through the Carbon Reduction Program.

STRENGTHS, SUCCESSES, AND ACCOMPLISHMENTS

The TDM program had several notable accomplishments through the height of the COVID-19 pandemic. Their program's strong marketing focus has continued to increase since the pandemic. Furthermore, currently and during the

height of the pandemic, the program successfully has provided the business community support by assisting them in developing, implementing, and enhancing flexible work policies via ARC's FlexWork program.² Overall, ARC has led the region in the growth and development of a robust TDM Network made up of Transportation Management Associations (TMAs), Employers, Proper Managers, Local Governments, Universities, CIDs, Chambers, and other community partners.

Furthermore, the TDM program is strong in terms of funding and employing a substantial team of staff and consultants to carry out the many facets of work. Staff have expertise in program management & administration, technology, evaluation, outreach & engagement, and marketing & communications. In addition, they have a strong [TDM Evaluation Framework](#) that incorporates data from the efforts of GCO and TMA partners.

FINAL OBSERVATIONS AND FINDINGS

ARC's TDM Program collaboratively works across organizations to provide many types of localized transportation options and incentives. Having staff from ARC, TMAs, and consultants provides bandwidth to implement these options. The strong marketing focus paired with direct provision of services such as vanpool, shuttle service, ride matching, etc. allows the program to be successful. Lastly, ARC's distributed funding model, which funds specific programs and allocates pass-through funding to TMAs, allows for a larger impact.

¹ "Atlanta Regional Transportation Demand Management Plan." 2013. ARC. p. 54-69.

² "Atlanta Regional Transportation Demand Management Annual Report." 2022. ARC. <https://atlantaregional.org/transportation-mobility/transportation-planning/transportation-demand-management-annual-report/>



CENTRALINA
REGIONAL COUNCIL

CENTRALINA REGIONAL TDM PLAN/PROGRAM

PORTLAND

REGIONAL TRAVEL OPTIONS

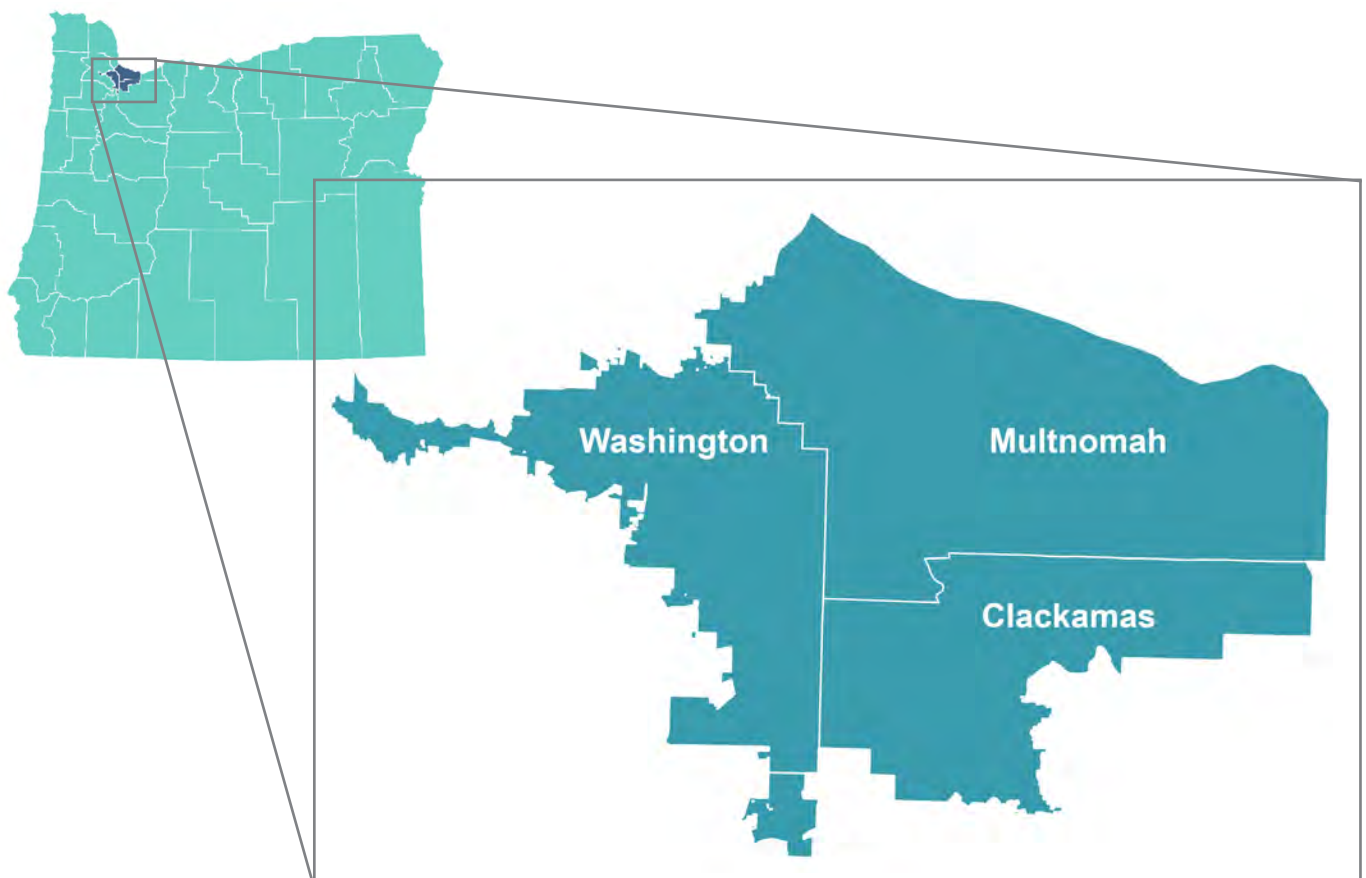
INTRODUCTION

Oregon Metro, referred to as Metro, is a regional government with taxing authority, and is also the designated MPO for the Oregon portion of the Portland-Vancouver region. Metro's TDM program, the Regional Travel Options (RTO) program, has been serving the region for over twenty-five years and aims to reduce demand for driving alone and promote sustainable travel options. The RTO program accomplishes this through grants, event sponsorship, policy guidance, regional coordination, and technical assistance. The program provides grant awards for government agencies, colleges, universities, public school districts or schools (K-12), and non-profit organizations.¹

Successful grant applicants demonstrate that their program or agency increases access to and use of travel options and advances the goals of the 2018 Regional Transportation Plan and the Regional Travel Options Strategy. The RTO program and the 2018 RTO Strategy document and its impact will be the focus of this case study.

Main Contact: Daniel Kaempff, Principal Transportation Planner & Regional Program Manager, Oregon Metro; Daniel.Kaempff@oregonmetro.gov

Figure 1. Oregon counties that make up Metro.



¹ Metro. "Regional Travel Options Program." Accessed August 2023: <https://www.oregonmetro.gov/tools-partners/grants-and-resources/regional-travel-options-program>

PROGRAM GEOGRAPHY

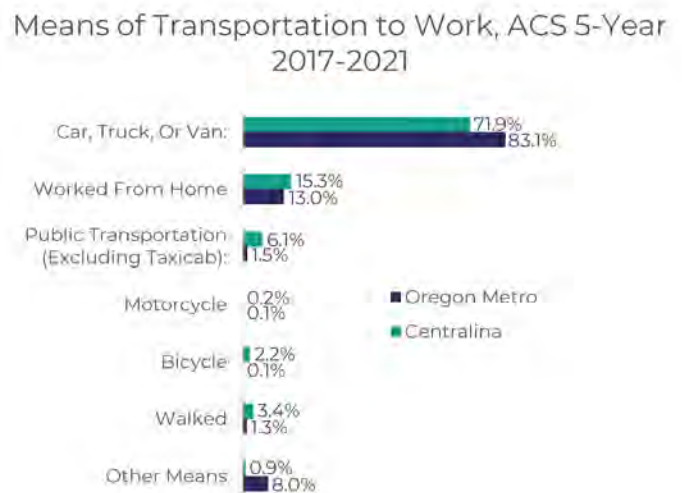
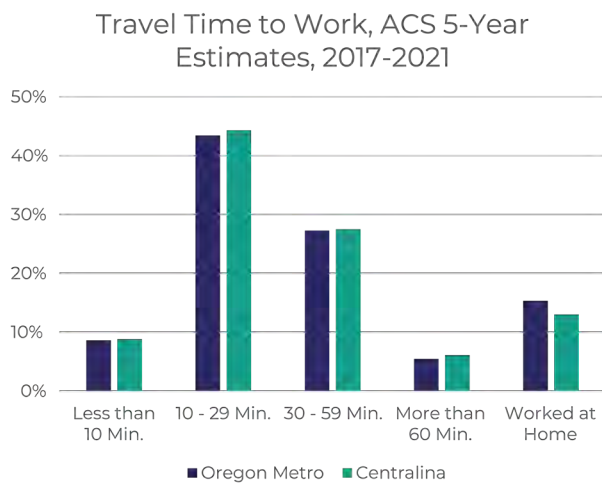
The governmental and MPO boundaries for Metro are very similar, including the majority of three counties and twenty-four cities within them (Figure 1).¹ Portland, Oregon is the region's largest city. Below are several comparisons between Centralina and WMPO (see Table 1, Figure 2, and Figure 3).²

Table 1. Demographic and geographic data comparing Centralina and Oregon Metro.

GEOGRAPHY AND DEMOGRAPHIC COMPARISON	OREGON METRO COUNTIES	CENTRALINA
Total Population	1,825,557	2,382,833
Population Density (Per Sq. Mile)	603.3	512.9
Land Area (Sq. Miles)	3,026	4,645.99
Average Household Size	2.5	2.6
Median Household Income	\$82,799	\$67,963
BIPOC Population	24.4%	36.6%

Figure 2. Travel time to work comparing Centralina and Oregon Metro.

Figure 3. Means of transportation to work comparing Centralina and Oregon Metro.



¹ "County; Metro Boundary; State Boundary" Oregon Geospatial Enterprise Office, 2023. Web. June 8, 2023. (Based on data from U.S. Census Bureau)

² "Total Population; Population Density; Land Area; Race; Average Household Size; Median Household Income (in 2021 Inflation Adjusted Dollars); Means of Transportation to Work; Travel Time to Work for Workers 16 Years and Older, ACS 5-Year 2017-2021." Social Explorer, n.d. Web. June 8, 2023. (Based on data from U.S. Census Bureau)

PROGRAM BACKGROUND AND GOALS

REGULATORY BACKGROUND

The State of Oregon has enacted several pieces of legislation specific to the Metro and Portland region. Among them is the Employee Commute Options (ECO) program, administered by the Department of Environmental Quality.¹ This legislation requires large employers (public, private, and not-for-profit with 100+ employees at one location) within the Portland Air Quality Maintenance Area to participate in the ECO program. The ECO program provides TDM incentives to these employers and requires them to conduct regular employee mode choice surveys and track progress toward reducing single occupancy vehicle commute trips and vehicle miles traveled per capita.

The Metro TDM program benefits from this unique regulatory background, the State's ECO program, and the mode choice surveying and tracking reports produced by large employers in the region. Metro uses that data to inventory TDM assets and analyze commuter efforts and programs. The Metro TDM program provides communities and organizations with opportunities to fund local TDM programming and direct services. Participants can apply for assistance via one of three tracks: general, core and emerging partners, and small grants.

¹ Oregon Secretary of State. "Oregon Administrative Rules 340-242-0010 through 0290." Accessed August 2023: <https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=1554>

VISION AND GOALS

The vision for the Regional Travel Options program is to "make the Portland Metro Region a great place by working with local and regional partners to promote travel options that support economically vibrant communities, increase active transportation use, are environmentally sustainable, and benefit all greater Portland metro area residents."²

The vision is supported by the following goals outlined:

- **Goal 1:** Increase access to and use of travel options to reduce vehicle miles traveled
- **Goal 2:** Reach existing and new participants more effectively by expanding the RTO program and working with new partners
- **Goal 3:** Encourage Families to walk and bicycle to school safely implementing a regional Safe Routes to School (SRTS) program
- **Goal 4:** Measure, evaluate, and communicate the RTO Program's impacts to continually improve the program

² Oregon Metro. "2018 Regional Travel Options Strategy." Pg. 15. Accessed August 2023: https://www.oregonmetro.gov/sites/default/files/2018/07/18/Metro_2018_RTO_Strategy_FINAL_0A.pdf

STRUCTURE AND MANAGEMENT

AGENCY AND PROGRAM GOVERNANCE STRUCTURE

The Metro Council, elected by voters, consists of a president who is elected regionwide and six councilors, each representing a unique geographic district, who run every four years. The Council appoints a chief operating officer who is charged with managing Metro's varied operations and employees to carry out council policies.

Following the adoption of the RTO Strategy document in May 2018, Metro staff worked with the Transportation Policy Alternatives Committee (TPAC) to develop a funding allocation methodology and work plans based on the direction provided in this Strategy update.

TPAC has 19 voting members and 6 non-voting members.

ROLES AND RESPONSIBILITIES

Transportation Policy Alternatives Committee:

- Provides technical input to the Joint Policy Advisory Committee for Metro's transportation planning and funding priorities for the region

Metro:

- Coordinated regionally
- Offers grants to service providers
- Operates direct services

ODOT:

- Provides funding

PROGRAM AND FUNDING

Most of the funding for the RTO program comes from federal sources. The MPO has \$3.25 million allocated to the RTO program through the Surface Transportation Block Grant (STBG). Two-thirds of that is dedicated to grants and direct services and one-third is allocated to overhead and staff salaries. ODOT also provides \$200,000 annually for the RTO program. ODOT allocates funding for TDM to MPOs across Oregon which uses a formula based on population and employment. Although ODOT funds specify the funds be used for SOV commute trip reduction programming, there is some discretion for TDM program implementation. Since the MPO and ODOT funds are federal dollars, there is a 10.27% match rate.

Grants make up a significant portion of the RTO program. Per the RTO website, \$9.14 million have been awarded for the 2023-2026 grant cycle including funding for Safe Routes to School (SRTS) programs.¹ The RTO program funds TDM programming and incentives and does not fund capital projects, but they do fund small infrastructure projects such as bicycle parking, wayfinding signage, and other on-street wayfinding elements that make it easier for people to find and use safe routes.² The grantee typically pays the match for awarded grant funds. However, there is a small category of grant funding for which Metro pays the match.

In addition to administering a competitive grant program and developing research and data tools, the MPO launched SRTS in 2019, a region wide service. This program allows school districts to voluntarily opt-in through the RTO funding and has found success in suburban areas. This accomplishment aligns with their second and third goal statements in the 2018 RTO Strategy document.

Metro coordinates meetings at a regular interval with partner organizations they are funding. Funded organizations use these meetings to request support and share resources. Metro also provides grantees with a translation portal in which they can access Metro's on-call contract with translation providers. During the height of the COVID-19 pandemic, Metro put together documents and toolkits for how organizations can pivot regarding the SRTS programs.

Metro also runs a marketing campaign called "Get There Oregon" through a transportation management platform called RideAmigos. The campaign provides a carpool matching tool, vanpool, running challenges, and incentive programs.

Outside of the RTO, Metro also funds capital projects and has started to require TDM engagement as part of these contracts.

¹ Metro. "Students and commuters among those supported by \$9 million in Metro travel options grants." Published June 6, 2023. Accessed August 2023: <https://www.oregonmetro.gov/news/students-and-commuters-among-those-supported-9-million-metro-travel-grants>

² Oregon Metro. "2018 Regional Travel Options Strategy." Pg. 2. Accessed August 2023: https://www.oregonmetro.gov/sites/default/files/2018/07/18/Metro_2018_RTO_Strategy_FINAL_0A.pdf

Figure 4. Funding sources and expenditures. Estimated annual numbers are based on best available information and are subject to change.

ESTIMATED ANNUAL FUNDING*

EXPENDITURES



*2/3 of funds are reserved for grants and direct services; 1/3 of STBG funds support admin.

STAFFING

Currently there are 4.75 full time equivalent staff (FTE) members who help to run the RTO program at Metro. Metro would like to have around 5.5 FTE members to staff the program more fully. For example, they would like to see 1 FTE dedicated to program management, but there have been other MPO duties taking precedence.

- .25 Section Manager
- .5 Program Manager (Program Policy and Planning; Issues related to funding)
- 1.0 Commute Program Lead (grant management)
- 1.0 Community Program and Safe Routes to School Lead (grant management)
- 1.0 Evaluation and grant support
- .5 General Administrative support
- .5 Financial Analyst

KEY LESSONS

LAUNCH AND IMPLEMENTATION STEPS

The RTO program has a long history of administering grants for communities. The RTO began to provide local grants and has slowly expanded to fund services and small infrastructure projects. Metro opted to use STBG funding for the program because it was found to be more flexible for TDM work than Congestion Migration and Air Quality (CMAQ) funding.

OBSTACLES

One of the main challenges of the RTO program is grantee programming grows at a faster rate than available funding. Metro has extended funding programs to four-year grant cycles in an effort to create longer-term impact and funding stability for small partners.

STRENGTHS, SUCCESSES, AND ACCOMPLISHMENTS

One of the strengths of the RTO program is the amount funding dedicated to TDM programs and the regional convening and resource sharing that is coordinated by the MPO for grantees. The grant program allows Metro to provide tools, resources, and TDM solutions in a targeted manner. As the program grows, the MPO can provide marketing, carpooling, and SRTS services. The SRTS program is a low-barrier, easy entry for TDM initiatives in the suburbs and has been a success since its launch in 2019. It also allowed the MPO to expand its impact beyond cities and more heavily urbanized areas.

The regulatory environment created by state legislation for the Portland metropolitan region has also benefited and influenced the RTO program. Having large employers automatically engage in TDM programs allows the RTO program to focus on other stakeholders and non-work trip purposes.

Additionally, Metro has taken steps to address equity in travel options and incorporate a larger equity framework into their TDM efforts. This has been accomplished through the [Metro Regional Travel Options Racial Equity Strategy](#), published July 2022.

FINAL OBSERVATIONS AND FINDINGS

Metro's dedication to funding government, nonprofit, and educational institutions has created ongoing programming at the local level and provided practical avenues for local community partners to provide TDM services. As grant administrators, Metro can specify grant requirements and goals. This flexibility allows Metro to be responsive to the needs of the community of specific community, government, and educational partners.



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CENTRALINA REGIONAL TDM PLAN/PROGRAM

AUSTIN

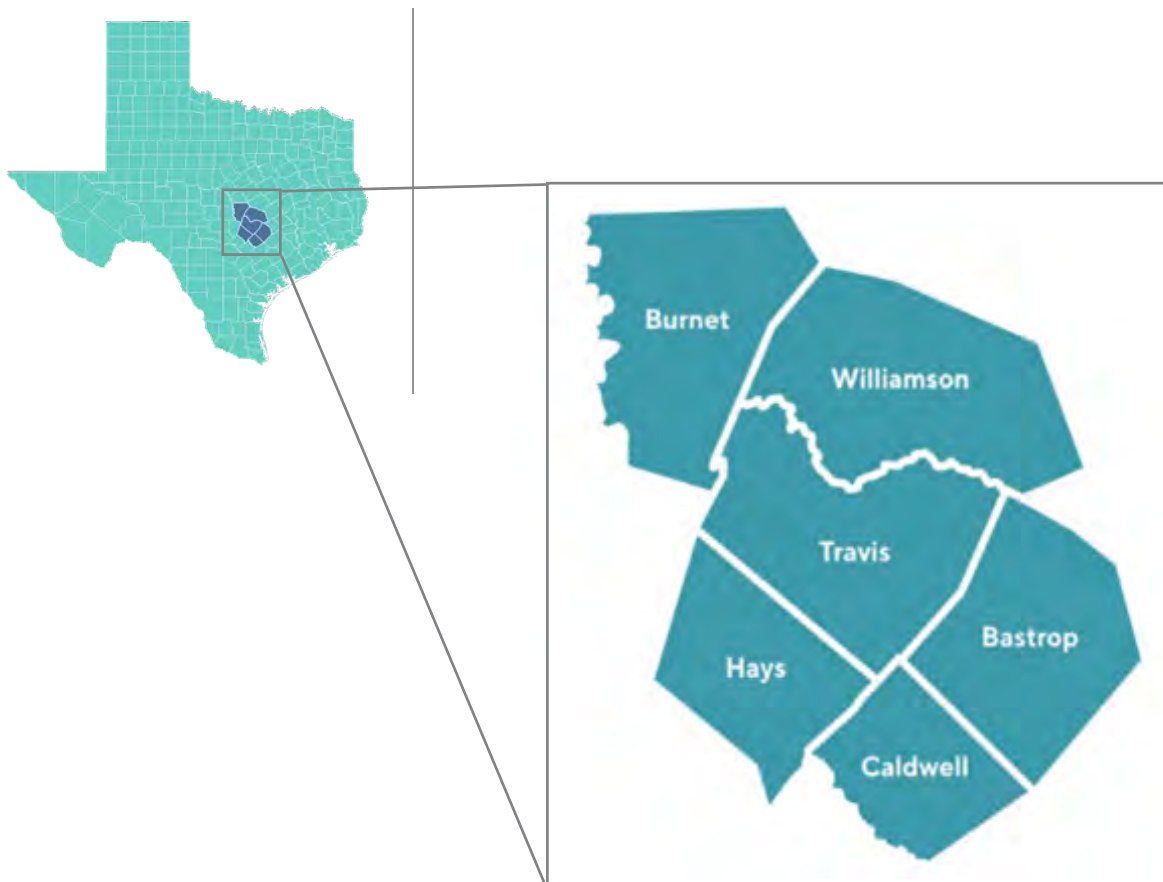
REGIONAL TDM PROGRAM

INTRODUCTION

TDM programming and activities occurred in the greater Austin region for many years at the local levels, but there was not a regional approach until CAMPO (Capital Area Metropolitan Planning Organization) adopted the Regional Transportation Demand Management Plan in September 2019.¹ The Plan, published in August 2019, lays out a centralized programmatic and marketing approach to TDM efforts across the region.

Main Contact: Nirav Ved, Data and Operations Manager, CAMPO

Figure 1. Texas counties that make up CAMPO.



¹ CAMPO. "Regional Transportation Demand Management Plan." Published August 2019. Accessed July 2023: <https://www.campotexas.org/wp-content/uploads/2019/09/FINAL-Regional-TDM-Plan.pdf>

PROGRAM GEOGRAPHY

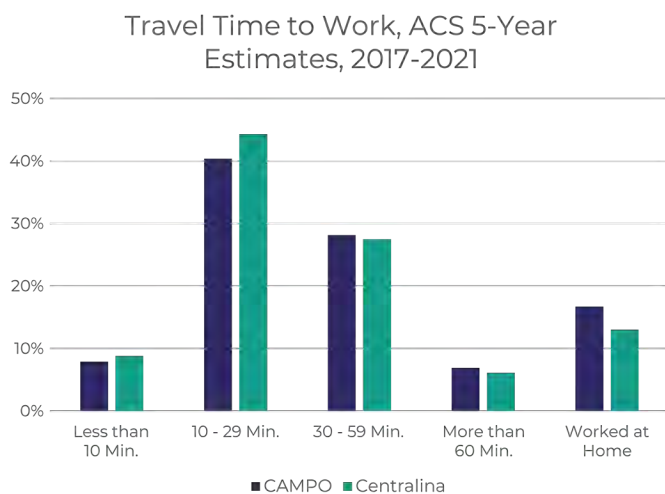
CAMPO is the metropolitan planning organization for six counties in central Texas: Bastrop, Burnet, Caldwell, Hays, Travis, and Williamson Counties (Figure 1).¹ Austin, TX is in Travis County and is the largest city in the MPO. Below are several comparisons between Centralina and WMPO (see Table 1, Figure 2, and Figure 3).²

Table 1. Demographic and geographic data comparing Centralina and CAMPO.

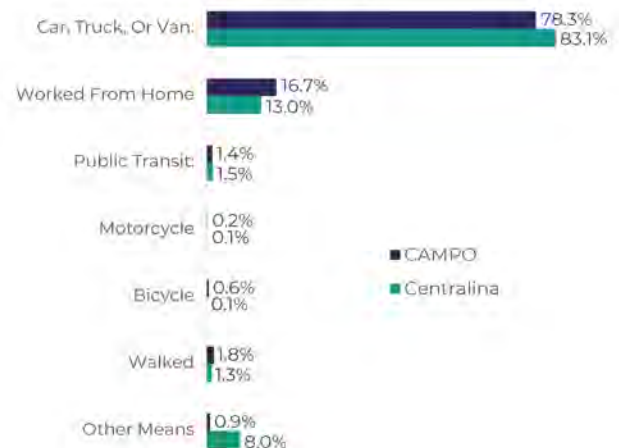
GEOGRAPHY AND DEMOGRAPHIC COMPARISON	CAMPO	CENTRALINA
Total Population	2,282,724	2,382,833
Population Density (Per Sq. Mile)	437.8	512.9
Land Area (Sq. Miles)	5,214.33	4,645.99
Average Household Size	2.5	2.6
Median Household Income	\$84,015	\$67,963
BIPOC Population	30.9%	36.6%

Figure 2. Travel time to work comparing Centralina and CAMPO.

Figure 3. Means of transportation to work comparing Centralina and CAMPO.



Means of Transportation to Work, ACS 5-Year 2017-2021



¹ "Open Data Portal." Texas Department of Transportation, n.d. Web. July 2023. <https://gis.txdot.opendata.arcgis.com>. (Based on data from U.S. Census Bureau)

² "Total Population; Population Density; Land Area; Race; Average Household Size; Median Household Income (in 2021 Inflation Adjusted Dollars); Means of Transportation to Work; Travel Time to Work for Workers 16 Years and Older, ACS 5-Year 2017-2021." Social Explorer, n.d. Web. June 8, 2023. (Based on data from U.S. Census Bureau)

PROGRAM BACKGROUND AND GOALS

REGULATORY BACKGROUND

Since CAMPO is an MPO, the Regional Transportation Plan is one of the primary avenues for implementing the federal and state transportation planning requirements while also addressing local goals and priorities. At the state level, House Bill 20 requires performance-based transportation planning and programming that is used by the Texas Department of Transportation (TxDOT) to evaluate projects and programs in long range plans and by metropolitan planning organizations in the state to develop ten-year plans.¹

VISION AND GOALS

The Regional TDM Plan is one part of CAMPO 2045, the MPO's long range comprehensive transportation plan that forecasts the region's needs for the next twenty years and is updated every 5 years. The purpose of the wider regional transportation plan (RTP) is to "coordinate regional transportation planning activities, prioritize a comprehensive list of projects, activities and programs, and develop a fiscal constraint analysis that estimates the region's capacity to fund projects in the Plan."²

CAMPO also developed five primary goals within the Regional TDM Plan to support the vision for the region and to inform the project selection criteria, in order of importance:

1. Regional coordination
2. Incorporate TDM into the transportation planning process
3. Provide education and outreach
4. Improve the transportation multimodal transportation system, especially during peak periods
5. Increase Mobility Choices for Travelers: Provide a range of transportation options throughout the region

¹ CAMPO. "2045 Regional Transportation Plan." Adopted May 2020. Accessed July 2023: <https://www.campotexas.org/regional-transportation-plans/2045-plan>

² Ibid

CAMPO then laid out how they would implement these goals by:

- Incorporating a revised scoring criteria to select and fund TDM projects through calls for project proposals
- Integrating a regional view of TDM throughout the CAMPO region
- Recommending the establishment of TDM subcommittee within CAMPO's Technical Advisory Committee to advance TDM in the region
- Supporting the CAMPO 2045 planning effort to advance TDM in the region

The vision for the Regional TDM Plan is to provide a general framework of priorities that "identify projects, programs, policies, and strategies to manage congestion as population and employment growth put additional pressure on the regional transportation network."³

³ CAMPO. "Regional Transportation Demand Management Plan." Published August 2019, Adopted September 2019. Accessed July 2023: <https://www.campotexas.org/regional-transportation-plans/2045-plan/transportation-demand-management-plan>

STRUCTURE AND MANAGEMENT

AGENCY AND PROGRAM GOVERNANCE STRUCTURE

CAMPO is governed by a 21-member Transportation Policy Board and a 24-member Technical Advisory Committee (TAC). A member of the Policy Board advocated for the funding allocation for a regional transportation demand management plan, which resulted in an initial \$400,000 funding for the TDM Regional Plan.

The TDM Subcommittee, which was formed within the TAC as a result of the Regional TDM Plan, has eight stakeholders and meets every other month. The subcommittee is comprised of CAMPO, Capital Area Rural Transportation System (CARTS), Capital Metropolitan Transportation Authority, TxDOT, City of Round Rock, City of Bastrop, City of Pflugerville, and Travis County (smaller cities representative). The subcommittee reports to the TAC which reports to the CAMPO Policy Board.

ROLES AND RESPONSIBILITIES OF TDM SUBCOMMITTEE

CAMPO:

- Provides regional coordination and is the lead convener for the subcommittee
- Fulfills a funding and grant-provider role

TxDOT:

- Provides grants for CAMPO, counties, and other government agencies
- Supports transportation planning,

implementation, and facilities maintenance at the state level

Subcommittee Cities:

- Implements TDM at the local level

Capital Area Council of Governments (CAPCOG):

- Supports coordination across member governments and provides funding/programming for the Austin Metropolitan Area
- Promotes TDM activities via social media marketing, advertising and outreach
- Provides services including the MyCommuteSolutions.com platform and an emergency ride-home program

Capital Area Rural Transportation System (CARTS):

- Provides fixed route and on-demand rural transit services in nonurbanized areas and beyond the CAMPO region

Capital Metropolitan Transportation Authority

- Provides transit services in Travis and Williamson counties, and is located in Austin, TX

PROGRAM AND FUNDING

A member of the Policy Board advocated for the funding allocation for a regional transportation demand management plan, which resulted in the initial \$498,720 total STBG funding for the TDM Regional Plan. This allowed CAMPO to include the regional TDM Plan as part of the larger 2045 Plan.

The TDM program at CAMPO has been funded at \$250,000 annually through the Surface Transportation Block Grant (STBG) program. Recently, the CAMPO Board has approved around \$1 million per year in funding through the Carbon Reduction Program, most of which will be used to provide grants for local municipalities and agencies, project implementation, and marketing transit services. There is a 20% local match which they fund through [Transportation Development Credits](#). Five percent of the budget will be allocated for administration but will not be used for funding staff salaries. \$4 million has been allocated for FY 2024-2027. The next cycle of funding could be a different amount and source based on board approval.

It is important to note that a few months after the plan was adopted in September 2019, the COVID-19 pandemic occurred (March 2020). The subcommittee to implement recommendations paused due to programming and funding uncertainty caused by the pandemic. To adapt to a changing transportation landscape during 2020 and 2021, CAMPO planners adopted a bottom-up approach to developing program services. CAMPO began to target programming for essential employees such as transit incentives. Since the launch of

the plan, CAMPO has:

- Created a regional branding and marketing strategy under the “Get There [Town/City]” umbrella brand
- Developed TDM solutions for essential employees
- Formed a TDM subcommittee within CAMPO’s TAC to advance TDM in the region through policy and programmatic recommendations

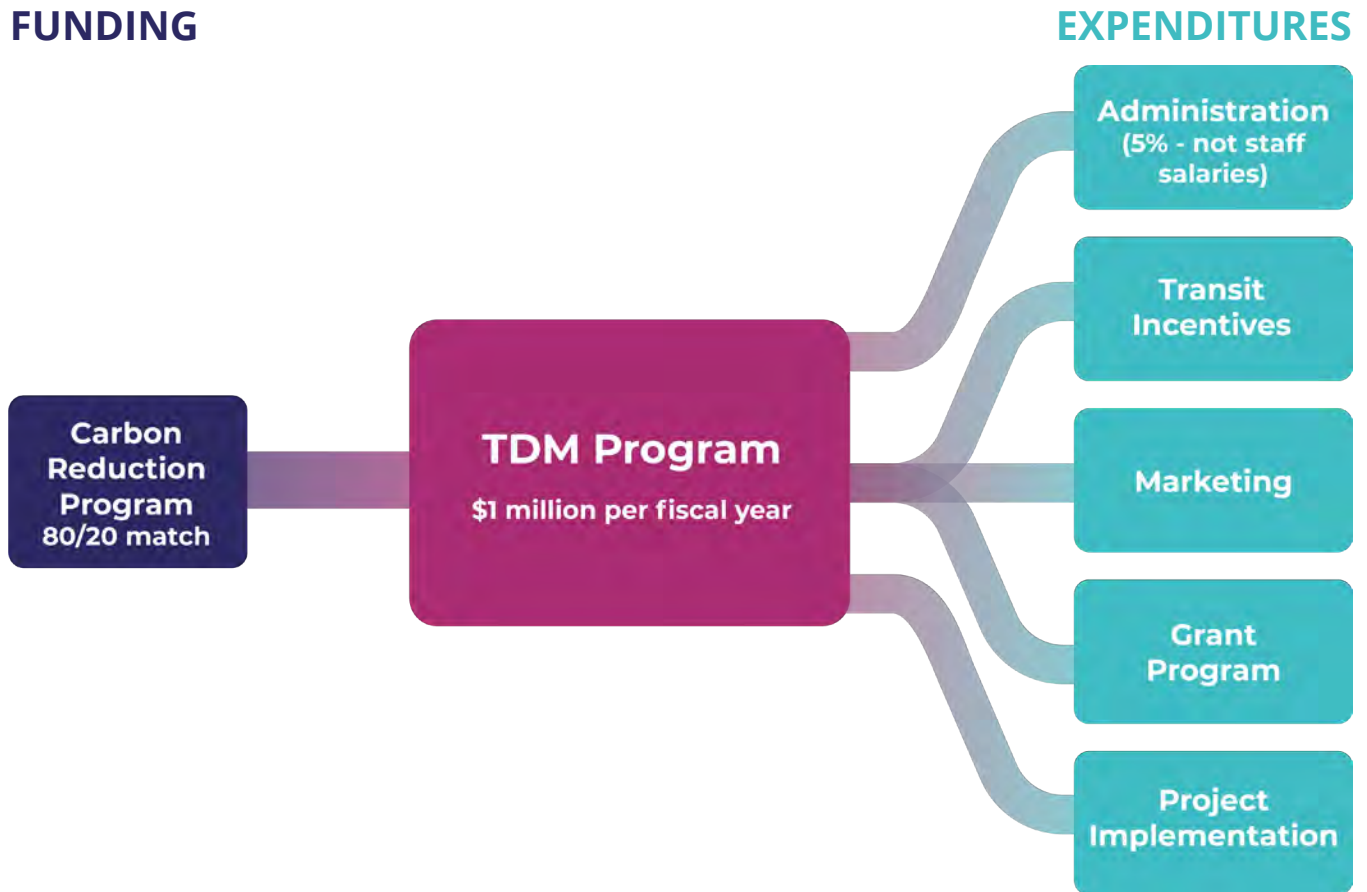
CAMPO is working on next steps and plans to launch region-wide TDM services including:

- School pool through a transportation management platform called RideAmigos
- TDM Solutions for essential employees including transit incentives
- Emergency ride home
- “Ozone Awareness” Days
- “Get There Central Texas” Campaign

Municipalities can sign a memorandum of understanding to adopt the “Get There [Town]” branding for their local town/city. The marketing license is free for any town to use but is housed in CAMPO.

Figure 4. Funding sources and expenditures. Estimated annual numbers are based on best available information and are subject to change. CAMPO funds TDM by allotting money over a multi-year cycle (current allotment - FY 24-27).

FUNDING



STAFFING

CAMPO has 1.5 full-time equivalent (FTE) staff dedicated to TDM. TDM staff are supported by UrbanTrans, a consulting company based out of Atlanta, GA. The equivalent of 1 FTE staff member from UrbanTrans focuses on education and marketing aspects of CAMPO's programming.

- Program Administration = 1 FTE
- Data Analyst = 0.5 FTE
- Education = 1 FTE (Urban Trans consulting)

KEY LESSONS

LAUNCH AND IMPLEMENTATION STEPS

The Regional TDM Plan was adopted by CAMPO as of September 2019. The TDM Subcommittee was formed shortly thereafter and focuses on programmatic implementation and project funding. After pausing due to the pandemic, the Subcommittee began to take steps to implement region wide programs that focused on two aspects: infrastructure and behavior change.

CAMPO is currently working with the subcommittee to further refine performance metrics on how to measure project impact.

OBSTACLES

One of the main obstacles that CAMPO has seen was the COVID-19 pandemic. The original plan for TDM focused on 9-5 commuters. That approach quickly lost its relevance in light of the pandemic's stay at home orders, and CAMPO was forced to reassess and pivot.

STRENGTHS, SUCCESSES, AND ACCOMPLISHMENTS

One of the main takeaways from the MPO's experience was the ability to pivot their TDM programming in light of the recent pandemic. TDM programming shifted from the 9-5 commuters to essential employees who often included underserved commuters. CAMPO provides transit incentives and services for essential employees. This shifted the larger framework to consider all trips in TDM programming not just work trips.

The school pool program is another service that CAMPO is working on launching and addresses a need in suburban and rural communities. This program will use the platform RideAmigos which provides ride matching services to schools. Schools will have the option to participate which then allows students and parents to connect to rides.

FINAL OBSERVATIONS AND FINDINGS

The TDM Subcommittee is an official part of the TAC; incorporating it into the governance structure of CAMPO ensures that the MPO continues to consistently coordinate stakeholders and to continue progress on TDM funding and programming.

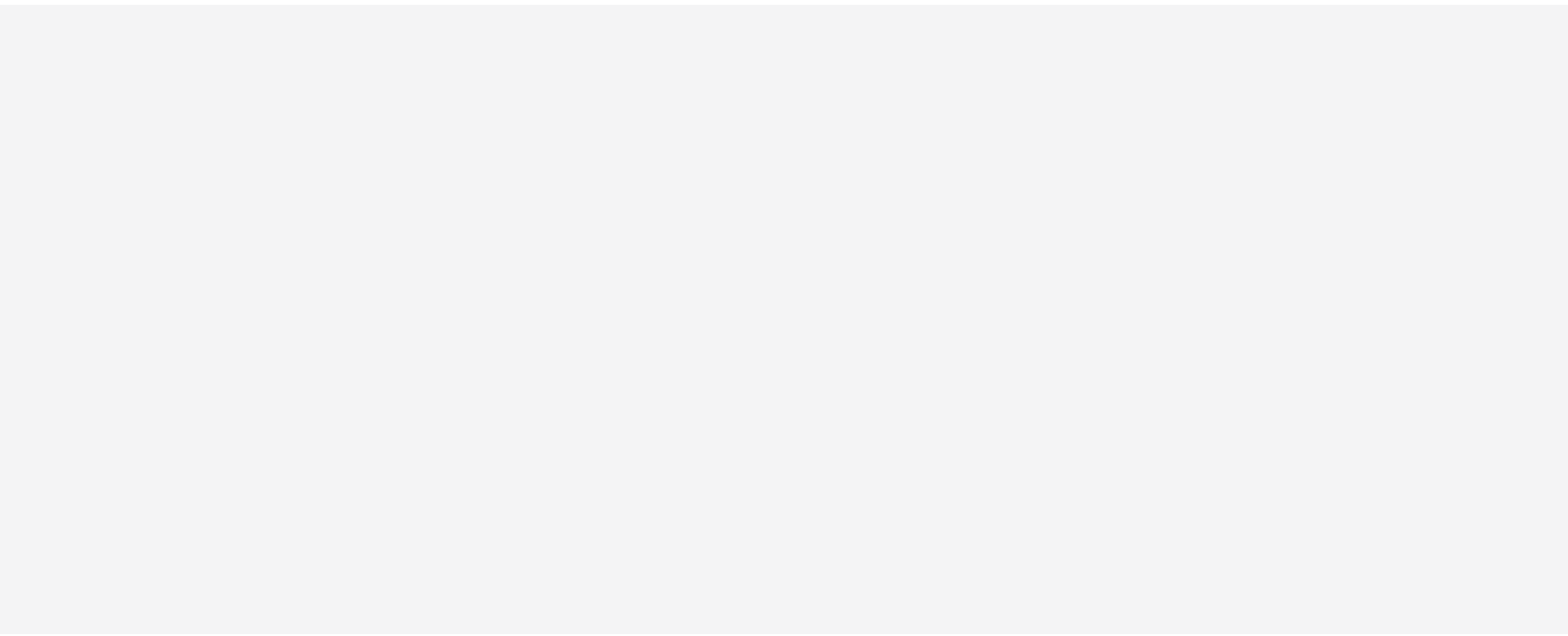
Centralizing TDM in the region at CAMPO allows CAMPO to respond to issues and needs in the region in a way that smaller stakeholders may not be able to tackle on their own.


CAMPO took the first opportunity they had for funding supported by the Policy Board to produce the TDM Regional Plan, incorporating a wider TDM framework within both the governance structure and the long-range transportation plan for the region.

Finally, CAMPO's ability to pivot to the needs of local communities and municipalities has strengthened their programming and funding since the height of the pandemic.



CENTRALINA
REGIONAL COUNCIL





APPENDIX D: BRANDING & COMMUNICATION STRATEGY

HOW WILL WE ENGAGE OUR DIVERSE AUDIENCES?

Centralina's TDM program aims to improve the health of residents and the safety of the greater Charlotte region's roadways by encouraging transit use and active transportation. To realize the program's vision of a more connected, safer, and active region, the TDM Program should craft a thoughtful and comprehensive communications strategy for its launch.

OBJECTIVE

To provide information, advice, and guidance to decision-makers and individuals to prompt changes in individual transportation behaviors that reduce the number of Single Occupancy Vehicle (SOV) trips and shift to more efficient and sustainable transportation modes.

Communication efforts will engage major stakeholder audiences with messaging that highlights the benefits of multimodal and transit transportation.

WHO IS OUR AUDIENCE?

Individual residents:

Individuals make travel decisions every day.

Local elected officials:

Local leadership will turn to Centralina's TDM program to inform policy decisions, support funding efforts, and marshal talking points for public interactions. By aligning themselves with the TDM program, elected officials are aligning themselves with the values of sustainability, health, safety, and community.

Regional, state, and federal transportation Partners:

These important partners make decisions about funding and implementing transportation programs. Along with NCDOT, MPOs/RPOs, and other regional councils, Centralina is a key regional transportation voice in the state of North Carolina. Collaboration with these other transportation authorities is a core Centralina value. As an organization, Centralina works to implement initiatives that create a more interconnected, coherent transportation network throughout the state. Engaging these transportation peers will be essential to the program's initial launch and to future widespread adoption throughout the region.

Other key stakeholders:

Representatives from advocacy and community groups, neighborhood associations, and other stakeholders can amplify the program’s message.

- **Communities and neighborhood associations** make decisions about shared space, available modes, and services that impact the transportation options and network.
- **Local businesses** are often negatively impacted by congestion and parking issues; their support can lead patrons and employees to adopt TDM strategies.

WHAT IS OUR BRAND?

This design presents a modern, two-tone option for a “CONNECT Centralina” campaign. A camouflage motif insets the letterform with pedestrians, bicyclists and transit. The design can take on additional elements as desired, including a second, nested C (to visually represent the “CONNECT Centralina” alliteration), or stand cleanly on its own.



#aa2d71



#44bbc2



#2d2963



**CONNECT
CENTRALINA**

This is the primary logo that will be used in most applications. It demonstrates the multimodal connectivity of the “CONNECT Centralina” campaign.



CONNECT
CENTRALINA

This simplified logo focuses on pedestrians and bicyclists, accentuated by flowing pathways and can be used for active transportation deliverables.



CONNECT
CENTRALINA

This simplified logo combines various transportation modes, such as bus, vanpool and lightrail and can be used for transit-related deliverables.



CONNECT
CENTRALINA



CONNECT
CENTRALINA

Use this logo for smaller scale deliverables where details are difficult to see. Use the grayscale logo for grayscale deliverables.

PRINCIPLES OF COMMUNICATION:

Actionable:

- What is the behavior or action you want audiences to take?
- Does the target audience require assistance to act? If so, does the message provide information on available support or resources?

Relevant:

- Does your target audience see the information or guidance as applicable to them, their families, or others they care about or are responsible for?
- Have you included the benefits and implications of participation in your program? (what's in it for them)

Consistent:

- Are you using consistent phrasing and messaging?
- Are elements consistent in look and feel so they all appear a part of the same campaign?

Understandable/accessible:

- How familiar is your audience with the topic?
- Does your message clearly state the action you want the audience to take?
- Are you following plain language guidelines in your written materials?
- Are there other languages you need to translate your materials into?
- Do you have multiple ways to communicate the same message?
- Do you have accessible (508/ADA) communication materials?
- Are you using language that is familiar to the target audience?

BRAND LAUNCH

Audiences connect to storytelling. Introducing the TDM program and its goals in a narrative form will prove essential to building a dedicated audience over the first year. Consider the following branding elements through the lens of the campaign's story.

Campaign name/slogan: A campaign name presents the ideas and goals of the communications initiative to audiences in a way that is memorable and easy to understand. This can also be developed as an action-oriented slogan – a brief phrase that describes the desired action and supports the overall program name/brand.

Key messaging points: Develop messaging points around the major goals of the campaign. Ideally, these points will frame the goals of the campaign from the audience's standpoint; that is, they will frame the campaign's goals in a way that aligns with the interests and expectations of the campaign's audience.

Imagery: The program should lean on visual communication that reinforces its values of multimodalism and equitable access – including access for people with different physical abilities, different socio-economic realities, and different living contexts (rural, suburban, and urban).

The imagery included in the campaign should reflect and celebrate the diversity of the program's audience – diversity in terms of people and places (rural, suburban, and urban). Practicing inclusive imagery throughout the campaign will offer all individuals the opportunity to visualize themselves walking, biking, rolling, or riding transit in their neighborhood or throughout the Charlotte metro area.

Tone: A calibrated “voice” creates consistency across a campaign’s written materials, hones the messaging of a campaign, and helps audiences to connect with the information. An active, approachable, and positive tone should be cultivated, emphasizing themes of movement and bringing people together to make the community better for everyone’s benefit.

Branding: Branding goes beyond a logo and establishes a visual identity, voice, and messaging to provide a cohesive, consistent, and recognizable foundation to a program. The TDM program should develop supplemental guidance for incorporating the TDM program name and brand within the “CONNECT Beyond Brand & Identity Guidelines.”

Related Efforts: Some audiences may already be familiar with related efforts that can help them understand the goals of the TDM program. For example, it may be beneficial to relate TDM to concepts such as:

- [Complete Streets](#)
- [Vision Zero](#)
- [Watch for Me NC](#)

Different audiences will have different degrees of familiarity with these existing policies and their associated communication efforts. As with all communication and outreach, it will be important to tailor any messaging (or co-messaging) to the audience.

SAMPLE COMMUNICATION TOOLKIT

SUPPLEMENTAL BRAND GUIDANCE

The “CONNECT Beyond Brand & Identity Guidelines” serve as the primary branding resource for the implementation of CONNECT Beyond, including the regional TDM effort. Because the TDM program will have its own name, logo, and communications, supplemental brand guidance should be developed to ensure appropriate alignment of the TDM program within the CONNECT Beyond and Centralina brands. The supplemental branding guidance should clearly outline how the TDM program name, logo, color palette, tag lines, voice, tone, messaging, and toolkit of visual elements (like icons, images, graphics, etc.) will be integrated with the CONNECT Beyond and Centralina brands. This will guide the development of individual communication tools and be a key early piece in the development of the TDM program’s voice.

WEBSITE

A dedicated resources website can attract a range of potential audiences by providing a comprehensive catalogue of transit options (see Case Study: “Get there ATX” on page 26C). A website can also act as a landing pad for audiences to familiarize themselves with the goals and tone of the program. Ideally, the copy on the website will create an urgency around the program’s goals and will involve visitors in its success. All website content should meet accessibility standards for people with disabilities.

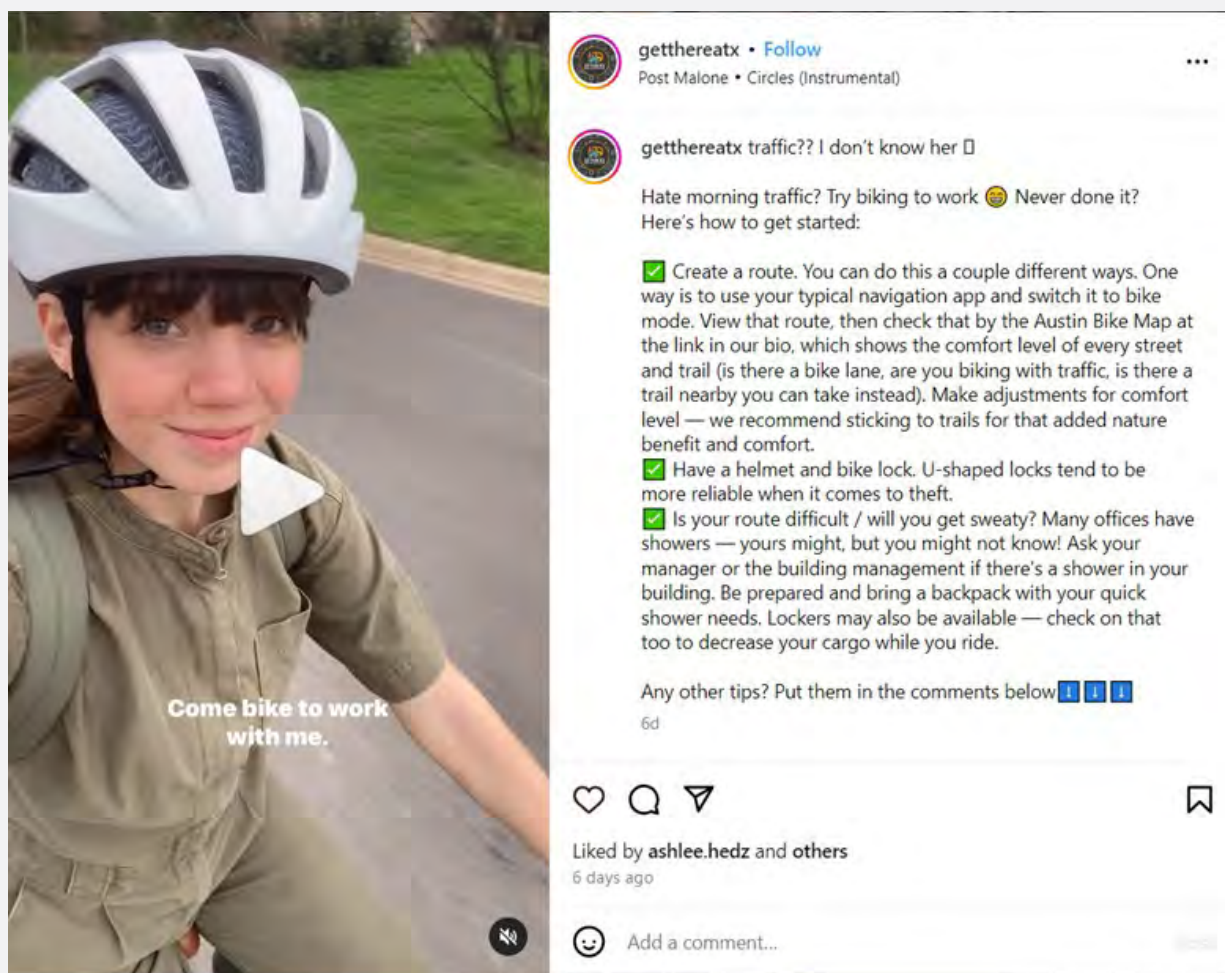
A robust website may incorporate the following:

- Vision or purpose of program
- Program goals
- User experience (UX) options that create multiple intuitive routes to key information
- Resources that call site visitors to action

SOCIAL MEDIA CHANNELS

If the TDM program website functions as an informational bedrock, the program can use Centralina's main social media channels to provide real-time updates and tips to audiences, and to interact with audiences directly. Content must be given several weeks in advance to accommodate scheduling.

Social platforms will also enable the TDM program to situate its goals and objectives into popular trends, which in turn can increase the visibility of the program's messaging.



["Get There ATX" Instagram post - this post puts an active transportation spin on the "Get Ready with Me" viral trend to humanize a bicycle-based work commute.](#)

Maintaining a regular presence on social media is key to building audience engagement. During the month immediately preceding and the month immediately following the program's launch, **the campaign should strive to update their social platforms three times a week.**

- Although basic messages can and should be repeated, each content post should be unique.
- Content does not only have to hew to core campaign messaging; feel free to engage with ongoing social media trends to broaden offerings to audiences.
- Although content can be amplified through paid posts and advertisements, social media offers communications opportunities at a range of budgets.
- The medium of platformed content can also influence engagement. For example, video content performs well on platforms like Instagram and YouTube.

PROGRAM SLIDE DECK

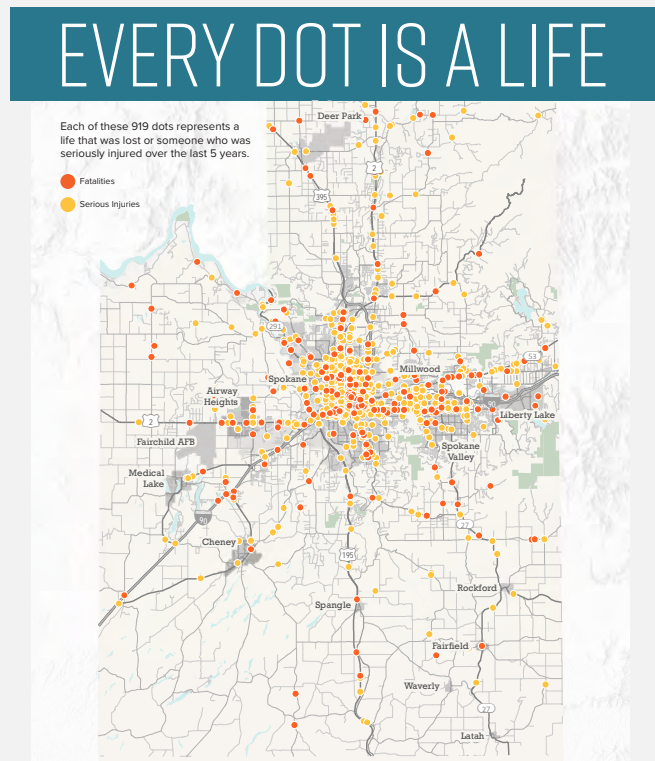
A slide deck can be used to provide key stakeholders with an overview of the program's mission, goals, and initiatives. Slide decks can be developed to serve different purposes/audiences.

- **Presentations by Others:** The TDM program should develop a slide deck that is simple, accessible, and intuitive enough for non-technical partners to deliver. The goal with this deck should be broad – equipping potential partners to deliver the key information and messages about the TDM program to their own audiences.

- **Presentation by TDM Program Staff:** The TDM program might also develop a more robust slide deck for technical audiences. The goal of this deck should be narrow – equipping TDM program staff to deliver more complicated and nuanced information about TDM program operations, performance metrics, funding, etc.

HARD COPY MATERIALS

These may include posterboards, yard signs, brochures, transit guides, or informational flyers. The public engagement poster board below seeks to communicate crash data on fundamentally human terms, reminding viewers that each data point represents a life lost or forever changed by a crash. The flyer provides a QR code for audiences to extend their engagement with the campaign.



WE WANT TO HEAR FROM YOU!
srtc.org/rsap
 Making our streets safer for people who drive, bike, walk, or ride the bus.



Ground/Floor graphics, like the one below, turn unused, frequently traveled spaces into opportunities to provide information, suggest alternative transportation or routes, and link to websites.



VIDEO MATERIAL

Videos can be more time-consuming and expensive to produce than static imagery, but they tend to perform better on social media platforms and websites. Consider creating the following video assets to introduce audiences to the program's brand and mission:

- **“Explainers”:** Short online explanatory videos can familiarize audience with singular topics like benefits, options, goals, processes. They can be posted on your website, live on YouTube, shared in social media posts, and run on displays in local municipal buildings or (if approved by the business) in waiting rooms. They are also easily shareable between audience members.

Example: https://youtu.be/k0OOCyFc9-8?si=sc9TfhrIR8my_90u

- **Project or Service Spotlights:** These videos can encourage audiences to participate in active and transit transportation by drawing their attention to a change or new route, service, trail, or program in their area.

Collecting video footage using a variety of techniques—from interviews to drone capture—can create a library of content that can serve various narrative purposes throughout a campaign.

INTERPERSONAL AND COMMUNITY NETWORKS

People often seek advice from family, friends, healthcare practitioners, co-workers, teachers, counsellors, and faith leaders. Engaging with these groups can help disseminate campaign information, which in turn can encourage audiences to adopt desired behaviors. Consider holding informational events at schools, community health centers, businesses, health fairs, places of worship, or farmers markets.

MASS MEDIA CHANNELS

Mass media outlets are good for promoting general awareness of the campaign. Consider the following mass media assets:

- Public Service Announcement (PSA)
- Community billboards
- Posters on public transportation
- Vehicle wraps (including bus, light rail, and streetcar vehicles)

CASE STUDY: “GET THERE ATX” TDM PROGRAM WEBSITE

“Get There ATX” is a public-facing campaign designed to encourage multimodal and transit transportation in and around Austin, TX. The campaign’s website delivers a concentrated quantity of information in a way that is approachable and easy to navigate.



The website’s homepage immediately presents several elements:

1

The site foregrounds the campaign name, which is short and framed with the interests of the campaign’s biggest audience (the public) in mind. By pairing the name “Get There ATX” with a logo of characters walking, bicycling, and riding transit, the campaign centers the concept that these transportation modes, far from being cumbersome to the everyday individual, can help them live their life to the fullest.

2

The site's User Experience (UX) presents visitors with two ways of engaging with the information. They can access information by:

- a. Purpose (Is the site visitor an employer seeking ways to provide their employees with an easier, subsidized commute? Is the site visitor a tourist planning a trip to Austin and wanting to familiarize themselves with ways to get around?); or
- b. By mode (Does the site visitor want information on how to walk around Austin? Where are the best bicycle paths? Etc.).

3

The site presents links to its social media accounts, potentially extending user engagement.

4

The site banner includes an inclusive video montage of Austinites using multimodal transportation to socialize, work, and play.

The "Get There ATX" website has a vertical orientation, inviting the user to scroll down to seek additional program information. The additional spotlighted information includes **a measurable goal** (50/50 mode share, which is directly influenced by the [broader policy foundation for the program](#)) and a unique **perspective on the problem**.

OUR GOAL

Currently, seventy-four percent of all work trips in Austin consist of one person driving alone in their personal vehicle. A 50/50 mode share goal challenges half of our population to use sustainable transportation options in order to manage congestion as our community grows.



WE ARE NOT SITTING IN TRAFFIC, WE ARE TRAFFIC

The personal transportation choices we make today are key to ensuring our city stays vibrant, accessible, and sustainable in the future. Why get stuck in a congestion rut when you can switch up how you commute to rediscover Austin from a new

APPENDIX E: PERFORMANCE METRICS MONITORING

This Appendix provides a methodology for annual monitoring of the performance metrics identified in Chapter 4 of the CONNECT Centralina TDM Plan.

INTRODUCTION

Performance metrics allow TDM program staff to evaluate program activities and progress against broader TDM program goals. They also allow program staff to demonstrate the value of TDM programs to potential partners and funders.

This Appendix outlines a methodology to guide program staff in the annual monitoring of the CONNECT Centralina TDM Program. To the extent possible, the methodology relies on readily available data sources and simple calculations. In some instances, more complex manipulation of data may be required.

Per the recommendations of Chapter 4 – “An Evolving Approach for Measuring Success,” the memo outlines an annual monitoring methodology for both:

- **Recommended TDM Program Performance Metrics:** important performance measures that Centralina should use to evaluate success in the early years (years 1-2) of the program’s operation; and
- **Future Program Performance Metrics to Consider:** performance metrics that Centralina may choose to add in later years (years 3+) of the program’s operation if more resources become available for data tracking/analytics, region-wide surveys, and staff support

This Appendix also establishes a baseline (current year / 2024) value for each of the Recommended TDM Program Performance Metrics. The geography used for the baseline values is the 10-county CONNECT Centralina TDM Program geography in place at the time of this plan’s preparation. This includes Mecklenburg, Gaston, Cleveland, Lincoln, Union, Cabarrus, Stanly, Anson, Iredell, and Rowan Counties.

It is important to note that program staff may need to track and report on additional performance metrics in order to satisfy the requirements of specific grant programs. The metrics recommended in this plan are not presumed to satisfy all potential funding sources and grant requirements.

RECOMMENDED TDM PROGRAM PERFORMANCE METRICS

RECOMMENDED METRIC	DATA AVAILABILITY		PRIMARY TDM GOAL	OTHER RELATED TDM GOALS
	DATA	SOURCE/ RESPONSIBILITY FOR UPDATING		
1. FUNDING SOURCES	Calculated total - Percentage of grant funds vs. dedicated funds	Centralina	Sustainable	Accessible, Known
2. DEDICATED STAFF SUPPORT	Calculated total - Number of FTEs dedicated to the program	Centralina	Sustainable	Accessible, Known
3. PROGRAM COST-EFFECTIVENESS	Overall expenditures divided by number of program participants	Centralina	Affordable	Convenient, Sustainable
4. FINANCIAL INCENTIVES REACH	Estimate of the number of people taking advantage of some sort of financial incentive for utilizing non-SOV modes – Calculated total from Transit Service Providers (TSP) programs (Discounted transit passes) + employer/TMA programs (parking cashout, bikeshare subsidy, free transit passes, guaranteed ride home, etc.)	Transit Service Providers, Employers, TMAs	Affordable	Accessible, Convenient
5. COMMUTE MODE SHARE	Number or % of commute trips by mode of transportation	US Census, ShareTheRideNC, Centralina	Accessible	Known, Convenient
6. EQUITY POPULATIONS REACH	Number or % of ShareTheRideNC users located in areas with high NCDOT Transportation Disadvantage Index (TDI) rating; and/or Number or % of partner organizations working in areas with high NCDOT Transportation Disadvantage Index (TDI) rating <i>(NOTE – could also benchmark to NCDOT Environmental Justice Index instead of TDI)</i>	NCDOT, Centralina, ShareTheRideNC	Accessible	Known, Convenient
7. PROGRAM EVENTS REACH	Number of TDM events held annually; Total events in each county; Attendance; Level of Engagement at events	Centralina	Known	Accessible, Convenient
8. DIGITAL COMMUNICATIONS REACH	Website & Social Media Traffic - Total Page Views, New Visitors/Users, Average Session Duration, Total Followers/Impressions	Centralina	Known	Accessible, Convenient
9. PARTNERSHIPS REACH	Number of organizations involved as key partners OR Number of counties/municipalities with key partners	Centralina	Convenient	Sustainable, Accessible
10. COMMUTERS REACH	Number of commuters represented by partner organizations; Reported totals from partners	Centralina	Convenient	Affordable, Known



1. FUNDING SOURCES

- **Data Sources:** CONNECT Centralina TDM Program annual revenue budget (grant funds and other dedicated funding sources)
- **Methodology:** “Dedicated funding” refers to non-competitive funds, ideally allocated on a multi-year basis. Divide the amount of dedicated funding over the total funding. A high proportion of dedicated funding suggests that the TDM program is more financially sustainable.
- **Baseline (2024) Value:** 0.

2. DEDICATED STAFF SUPPORT

- **Data Sources:** CONNECT Centralina TDM Program staff budget (number of FTE staff from within Centralina + any external contractors)
- **Methodology:** Count all full-time staff members dedicated to supporting the TDM program. Survey staff who contribute to the TDM program on a part-time basis, asking for the average number of hours spent per week and dividing 40 to get a per-employee FTE measure. Add the total number of part-time FTEs to the full-time staff count. A higher number of FTEs helps make the TDM program more effective and sustainable in the long run.
- **Baseline (2024) Value:** 0.

3. PROGRAM COST-EFFECTIVENESS

- **Data Sources:** Program’s finances (CONNECT Centralina TDM Program annual expense budget); registered or actively involved participants
- **Methodology:** Calculate the cost in program expenditures per participant, dividing overall expenditures by the number of registered or active participants. (Staff will need to define who counts as a “participant,” based on the type of programming conducted that year (e.g. users on the Share The Ride NC platform + attendees at TDM program events + employees of participating businesses, etc.))
- **Baseline (2024) Value:** 0

4. FINANCIAL INCENTIVES REACH

- **Data Sources:** Program’s finances; Transit Service Providers’ (TSP) discount program data; employer or program sponsored incentives (parking cashout, bikeshare subsidy, free transit passes, guaranteed ride home, etc.) utilization data
- **Methodology:** Estimated total number of financial incentives users = TSP Program Users + Employer/TMA Program Users.
- **Baseline (2024) Value:** Unknown (Staff will need to create a database that tracks financial incentives offered by TSPs and employers in the region. This could be challenging for employers, and staff may want to limit to only those employers who are defined as “partners” in accordance with their involvement/affiliation with the TDM program.)

5. COMMUTE MODE SHARE

- **Data Sources:** Census Bureau commuting mode share data from American Community Survey 1-year and 5-year estimates ([ACS table S0802](#)) at the county level
- **Methodology:** Measure the drive alone vs. non-SOV mode share for the Centralina region.
 - ◆ % of commuters that drive alone
 - ◆ % of non-SOV commuters (carpool, public transportation, walk, bike, other)
- **Baseline (2024) Value:** According to the most recent ACS data (2022), 71% of workers in the Metrolina region commute to work by driving alone.

6. EQUITY POPULATION REACH

- **Data Sources:** [NCDOT TDI \(Transportation Index\)](#) and/or [EJ \(Environmental Justice\) Index Score](#); data on registered or actively involved participants
- **Methodology:** Identify areas which are traditionally underserved by establishing a threshold for a “high” TDI/EJ Score within the Centralina region. Note that TDI includes metrics such as zero car households, income, age, and race, while EJ focuses on the human health and environmental effects of from transportation projects
 - ◆ % of participants residing in areas with “high” TDI/EJ rating. (Staff will need to define who counts as a “participant,” based on the type of programming conducted that year (e.g. users on the Share The Ride NC platform + attendees at TDM program events + employees of participating businesses, etc.))OR
 - ◆ % of partner organizations working in areas with “high” NCDOT TDI rating/ high EJ rating. (This metric is likely less desirable as it would require a survey of partner organizations to understand the “footprint” of their work within the region.)
- **Baseline (2024) Value:** 0.

7. PROGRAM EVENTS REACH

- **Data Sources:** CONNECT Centralina TDM Program event tracking database (Defined below: Number of events held annually; location of events, by county; attendance at each event; event Level of Engagement category)
- **Methodology:** Measure both the breadth (number of events, geographic reach) and depth (attendance and level of engagement) of in-person program events. Metrics can be broken out by county or area in order to ensure broad geographic reach.
 - ◇ **Number of Events** = the total number of events attended per year by Centralina TDM
 - ◇ **Geographic Reach** = the number of counties or municipalities in which TDM events were hosted
 - ◇ **Level of Engagement:**

Category 1: Passive engagement (i.e., tabling event, no participation required from attendee)

Category 2: Interactive engagement (i.e., survey or questionnaire)

Category 3: Intentional interactive engagement (i.e., helmet giveaway, bike rodeo, free transit to vote)
 - ◇ **Attendance** = the total number of people at CONNECT Centralina TDM events
- **Baseline (2024) Value:** 0

8. DIGITAL COMMUNICATIONS REACH

- **Data Sources:** Website visitor analytics; social media page visitor analytics; digital ad impressions and clicks
- **Methodology:** Measure the number of visits to and level of engagement with Centralina TDM's website and social media pages.
 - ◇ **Number of Visits** = total website visits + total social media page visits
 - ◇ **Number of New Visitors** = total new website visits + total new social media page visits
 - ◇ **Number of Followers** = total number of followers across all social media pages + total number of email newsletter subscribers
 - ◇ **Digital Ad Impressions** = total number of digital ad impressions for Centralina TDM programs
- **Baseline (2024) Value:** 0

9. PARTNERSHIPS REACH

- **Data Sources:** List of partner organizations that Centralina TDM has worked with in the past year
- **Methodology:** Measure the number and geographic reach of Centralina’s partnerships with other organizations. (See “Chapter 6 - Implementation Action Plan – Develop a Partnership Structure”)
 - ◆ **Number of Partner Organizations** = total number of partnerships active within the past year
 - ◆ **Partner Organizations per county** = total number of partnerships broken down by county
- **Baseline (2024) Value:** 0

10. COMMUTERS REACH

- **Data Sources:** Data from partner organizations on the number of commuters represented
- **Methodology:** Measure the number of commuters reached through partner organizations. Identify key partners which represent large groups of commuters.
 - ◆ **Commuters Represented** = Total number of commuters represented by all partner organizations
 - ◆ **Largest Partner Organizations:** Identify the partner organizations which represent the largest number of commuters
- **Baseline (2024) Value:** 0

FUTURE PROGRAM PERFORMANCE METRICS TO CONSIDER

POTENTIAL FUTURE METRIC	DATA AVAILABILITY		PRIMARY TDM GOAL	OTHER RELATED TDM GOALS
	DATA	SOURCE/ RESPONSIBILITY FOR UPDATING		
1. GREENHOUSE GAS EMISSIONS (GHG) EMISSIONS REDUCED	Calculated total from household travel survey responses and other sources	ShareTheRideNC, Centralina, Replica	Sustainable	Known, Convenient
2. VMT REDUCED	Calculated total from household travel survey responses and other sources	ShareTheRideNC, Centralina, Replica	Sustainable	Known, Convenient
3. PARTNER AFFORDABILITY	Partner cost per participant	Centralina, Partner organizations	Affordable	Accessible, Convenient
4. HOUSEHOLD COST-EFFECTIVENESS	Proportion of household income spent on transportation	ShareTheRideNC, Replica	Affordable	Accessible, Convenient
5. TDM ORDINANCE ADOPTION	Number or % of jurisdictions that have integrated TDM requirements into local zoning or regulations. (NOTE - could include parking unbundling requirements)	Municipalities, Centralina	Accessible	Sustainable, Affordable
6. LAND USE INTEGRATION	Number or % of jurisdictions with land use policies/regulations that support mixed-use and transit-oriented development	Municipalities, Centralina	Accessible	Sustainable, Known
7. TOTAL SHARETHERIDENC TRIPS	Logged trips (by mode – carpool, vanpool, other logged trips)	ShareTheRideNC	Known	Accessible, Convenient
8. TOTAL SHARETHERIDENC USERS	Active registered users, New accounts created, Change in total registered users over time	ShareTheRideNC	Known	Sustainable, Convenient
9. NON-SOV SERVICE COVERAGE	Percent of region served by non-SOV modes/services; Land area within 1/2 mile of non-SOV access points (bus stops, park and ride, bikeshare stations, greenways) vs. total land area	Centralina, Transit Service Providers, NCDOT	Convenient	Sustainable, Accessible
10. NON-COMMUTE TRIPS BY MODE	Number or % of non-commute trips by mode of transportation	Replica, ShareTheRideNC, Centralina	Convenient	Known, Accessible



HOUSEHOLD TRAVEL SURVEY

Several of the proposed long-term performance metrics would rely on data collected from a household travel survey conducted across the Centralina region. Such a survey would ask respondents to provide a record of all trips made over the course of a few days. Respondents would ideally be able to provide information on the distance, duration, mode, origin, and destination of each trip, along with the dollar amount spent on transportation as a proportion of household income. Respondents would also report the TDM programs which they participate in, if any. In order to make the process of recording and reporting trips as easy as possible, the travel survey would ideally be integrated into an app or other digital platform, and incentives might be offered to survey respondents.

Other regions with established TDM programs have conducted household travel surveys as a way to measure program performance, including the North Carolina Triangle region and the Puget Sound region¹ in Washington State.² These previous surveys can serve as models for a future survey in the Centralina region.

A household travel survey sent to a large and representative sample presents several important benefits over alternative data sources such as a transportation model or the American Community Survey (ACS).

- Compared to model output, a travel survey is less reliant on assumptions about transportation behavior and is therefore better able to capture behavioral changes. A travel survey can also identify participants in specific TDM programs and measure their transportation choices in a way that a generalized model cannot.
- Compared to ACS data from the Census Bureau, a travel survey is more comprehensive in the types of trips captured, measuring not only commuting trips to and from work but also trips made to stores, restaurants, and other destinations. Moreover, the ACS does not ask respondents to identify whether they participate in TDM programs, making it difficult to attribute any observed changes in behavior to TDM program success.

One survey method to consider is that of a longitudinal panel, in which members of a representative study group respond to the travel survey multiple times over a period of several years. The results from a longitudinal survey can provide powerful insights into the behavioral changes of individual households in response to the rollout of TDM programs. Further, longitudinal survey data allows for the identification of the groups which are most and least responsive to specific TDM programs, providing important guidance for future TDM investments. If conducting a longitudinal survey is not possible, an alternative would be to ask survey respondents participating in a TDM program to self-report their changes in transportation behavior. Such a survey method is used by the North Carolina Triangle region to measure the effectiveness of their TDM program. While a survey method based on self-reporting may be easier to execute, it relies on the ability of respondents to accurately recall their past transportation behavior, introducing a possible source of error particularly when it comes to measuring changes in non-routine, non-commute trips.

¹ <https://www.triangletravelsurvey.com/>

² <https://www.psrc.org/our-work/household-travel-survey-program>

1. GREENHOUSE GAS EMISSIONS REDUCED

- **Data Sources:** Household travel survey responses; FHWA CMAQ Emissions Calculator Toolkit
- **Measurement Strategy:** Consult with air quality experts to develop an appropriate methodology for estimating the reduction in greenhouse gas emissions using the available data. One possible approach is to use longitudinal survey data from respondents who decide to join a TDM program, comparing their travel behavior from before and after TDM participation to estimate the reduction in vehicle miles travelled (VMT). Then convert the change in VMT to a change in emissions using established methodologies from the Federal Highway Administration's Congestion Mitigation and Air Quality Improvement (CMAQ) program.¹ Alternative methodologies can be developed as necessary based on data from ShareTheRideNC, and subscription services like Replica, among others.
- **Possible Limitations:** Obtaining a highly accurate estimate of greenhouse gas emissions is difficult and may not be possible without highly detailed data on vehicle miles traveled and vehicle mix in the Centralina region. As a result, any estimate obtained from the proposed measurement strategies would likely have a high margin of error. More complex methodologies may also be necessary to capture changes in indirect greenhouse gas emissions from transportation beyond emissions from burning fuel, including emissions from vehicle manufacturing and infrastructure construction.

2. VEHICLE MILES TRAVELED REDUCED

- **Data Sources:** Household travel survey responses
- **Measurement Strategy:** Aggregate and analyze trip logs submitted by household travel survey respondents to calculate the total change in vehicle miles traveled over time across the Centralina region. Determine if vehicle miles traveled is lower for a TDM participant than for a non-TDM participant with similar characteristics. If panel survey data are available, measure the change in vehicle miles traveled for individual participants who decide to join a TDM program during the study period. Ideally it would be possible to estimate an annual VMT reduction for each participant in the TDM program, then extrapolate that value to a total VMT reduction estimate for the program by multiplying by the overall number of program participants.
- **Possible Limitations:** Improper sampling, small sample size, and measurement error from the household travel survey could skew or attenuate the results.

¹ https://www.fhwa.dot.gov/environment/air_quality/cmaq/toolkit/

3. PARTNER AFFORDABILITY

- **Data Sources:** Partner organizations
- **Measurement Strategy:** Ask partner organizations to estimate their cost to advertise and implement TDM programs (incremental cost on top of existing programming). This estimate may be zero if TDM-related programs simply redirect existing transportation subsidies, or negative if TDM-related programs are more affordable than pre-existing alternatives. Gather information on the number of commuters represented by each partner organization to estimate per-commuter program cost. Consider also surveying or conducting a focus group with partner organization leaders on their perceptions of TDM program affordability.
- **Possible Limitations:** In some cases, partner organizations may be unable or unwilling to provide TDM program cost estimates. Qualitative data from surveys and focus groups may compensate for this limitation. Because of the significant differences in scale / programming / budgets across different partners organizations it may not be practical or useful to estimate a program-wide value for cost per participant. Instead Centralina staff may decide to divide partner organizations into different categories based on the total annual revenue of the organization or another appropriate factor to acknowledge the relative size/scale of the partner organization.

4. HOUSEHOLD COST-EFFECTIVENESS

- **Data Sources:** Household travel survey responses; Census data
- **Measurement Strategy:** Include questions on the household travel survey which ask respondents to estimate the amount they spend on transportation as a proportion of their household income. Ideally, spending information would be broken down by mode, i.e., amount spent on a public transportation pass, amount spent on gasoline and car maintenance, etc. Aggregate and analyze survey responses to determine the overall change in proportion of household income spent on transportation over time. Census data on household income can be used to supplement household travel survey data.
- **Possible Limitations:** Households may not fully account for certain transportation-related costs, such as wear-and-tear / depreciation on a vehicle. Survey results may need to be adjusted to account for these omissions.

5. TDM ORDINANCE ADOPTION

- **Data Sources:** Local jurisdictions in the Centralina region
- **Measurement Strategy:** Establish a standardized set of criteria to define local ordinances which qualify as “TDM ordinances” because of how they support TDM programs or are in line with TDM requirements (e.g. multimodal trip mitigation requirements in land development ordinances or parking unbundling requirements). Ask local municipalities to provide information on ordinances which fulfill the TDM criteria. Alternatively, assign staff to review local ordinances and assess their compliance with TDM criteria.
- **Possible Limitations:** Developing and applying the criteria identifying an ordinance as TDM-compliant may be a complex and iterative process. A manual review of municipal ordinances may be expensive and time-consuming for staff.

6. LAND USE INTEGRATION

- **Data Sources:** Local jurisdictions in the Centralina region
- **Measurement Strategy:** Establish a standardized set of criteria to identify zoning and land use policies which support TDM programs or are in line with TDM requirements, such as transit-oriented development (TOD) overlays and maximum parking limits. Ask local municipalities to provide information on zoning and land use policies which fulfill the TDM criteria. Alternatively, assign staff to review local ordinances and assess their compliance with TDM criteria.
- **Possible Limitations:** Developing and applying the criteria identifying a zoning or land use policy as TDM-compliant may be a complex and iterative process. A manual review of municipal land use regulations may be expensive and time-consuming for staff.

7. SHARETHERIDENC TRIPS

- **Data Sources:** ShareTheRideNC
- **Measurement Strategy:** Using trip logs from ShareTheRideNC, calculate the total number of trips completed using the platform. Trip counts can be broken down by mode (carpool, vanpool, other) for more specific insights. A successful TDM program should support additional trips being completed using ShareTheRideNC.
- **Possible Limitations:** The accuracy and utility of this metric depends upon the consistent engagement and trip reporting of ShareTheRideNC users. Users that participate only intermittently will undercount their non-SOV trips. This metric will also fail to capture the impact through participants who engage with other TDM programs but not ShareTheRideNC. For these reasons, this metric is likely to be an underrepresentation of the TDM program impact.

8. SHARETHERIDENC USERS

- **Data Sources:** ShareTheRideNC
- **Measurement Strategy:** Using data from ShareTheRideNC, monitor the number of active registered users, the rate of new account creation, and the total number of accounts. Determine if the number of active users increases and stays at a high level as TDM program rollout continues.

9. NON-SOV INFRASTRUCTURE COVERAGE

- **Data Sources:** Local, county, and state GIS data; transit agency GIS data; census data
- **Measurement:** Conduct a GIS analysis of non-SOV service coverage in urban and suburban areas of the Centralina region. Import spatial data on non-SOV transportation infrastructure and apply an appropriate buffer around each facility to determine its coverage area. Infrastructure types should include (but are not limited to):
 - ◆ Bus, streetcar, and light rail stops (½-mile buffer)
 - ◆ Passenger rail stations (2-mile buffer)
 - ◆ Park and ride locations (2-mile buffer)
 - ◆ Bikeshare locations (½-mile buffer)
 - ◆ Dedicated bike lanes and multi-use paths (½-mile buffer)
 - ◆ Greenways (½-mile buffer)

The final list of infrastructure types and the size of service area buffers can be adjusted over time to best capture TDM program results. Then, using GIS data on infrastructure combined with demographic data, analyze the land area and population which is served by one or more forms of non-SOV infrastructure. The results can be used to measure the geographic spread of non-SOV infrastructure over time and can serve as a tool to ensure equitable access.

- **Possible Limitations:** This metric and methodology relies upon consistent and comprehensive GIS data across the region. Because of differences in the way different agencies/municipalities collect and maintain non-SOV modal data, the regional dataset necessary for this likely does not exist. (Also see “Appendix A – TDM Strategies Menu – Develop a Coordinated Ped/Bike Data Warehouse.”)

10. NON-COMMUTE TRIPS BY MODE

- **Data Sources:** Household travel survey data
- **Methodology:** Aggregate and analyze trip logs from the household travel survey, focusing specifically on non-commute trips which are not between a residence and a workplace. Calculate the share of trips made using non-SOV modes as a proportion of all non-commute trips. Track non-SOV mode share among non-commute trips over time to measure the TDM program's performance in changing transportation behavior.
- **Possible Limitations:** Survey respondents may be less accurate or less willing to report their non-commute trips.

APPENDIX F: RECOMMENDED STAFF ROLES & JOB DESCRIPTIONS

This Appendix includes more detail on the recommended roles and responsibilities for future CONNECT Centralina TDM Program staff.

Seven job descriptions from peer agencies are also included in this Appendix. These are examples that Centralina can draw upon when drafting their own job descriptions for TDM program staff.

For more TDM job description examples, explore the [Association for Commuter Transportation's Career Hub](#).

RECOMMENDED TDM PROGRAM STAFF ROLES & RESPONSIBILITIES

TDM PROGRAM MANAGER

- Oversee TDM plan strategies and implementation
- Develop and manage budgets and program expenditures
- Chair the TDM Advisory Committee
- Serve as the primary TDM program representative and champion to external organizations – partners and potential funders
- Supervise TDM program staff and projects
- Identify and secure TDM partners and program opportunities
- Assist grant administrator to identify and secure program funding
- Assist in the development of grant applications

COMMUNICATIONS & OUTREACH SPECIALIST

- Oversee marketing campaigns and external communications
- Oversee the development and maintenance of a TDM program/ regional travel options website
- Lead the development of communications toolkits/resources for program partners
- Coordinate with program staff to create content for digital and print media
- Lead education & outreach programs and special events
- Develop a partner recruitment strategy and lead communications/outreach to potential partners
- Review all written documentation for internal and external audiences

GRANT WRITER/ ADMINISTRATOR

- Coordinate with program manager to secure and manage grant funding
- Identify opportunities for funding – set-asides and competitive grants – and collaborate with program manager and Centralina leadership to determine strategy/priority for pursuing different funding sources
- Develop and oversee a program funding calendar coordinated with expected availability of grant funds
- Lead grant writing and proposal prep to potential funders
- Provide administration & oversee required reporting for the grant process throughout all stages
- Interact with federal, state, and local agencies to ensure the grand projects comply with program guidelines for expender, funding, and accountability
- Provide financial/grant support services to other Centralina programs

DATA/GIS ANALYST

- Assist staff in collecting and preparing data for various planning projects
- Collect and analyze data required for performance metrics and grant reporting
- Assist in the identification and update of potential TDM “Hot Spots” including updates to the Hot Spot identification methodology
- Produce maps and graphics necessary to assist in program communications, education, and coordination
- Maintain and update GIS database with necessary spatial information to support program activities and grant reporting
- Maintain and update a database for tracking program partners/participants and coordinate with
- Coordinate with program manager to oversee and produce an annual program report card using TDM performance metrics
- Conduct basic administrative functions as needed

PLANNING STAFF/ADDITIONAL PROGRAM SUPPORT

(additional support from existing planning staff may be necessary to assist with the following)

- Coordinate TDM activities across the planning area
- Provide technical assistance to member governments and TDM program partners
- Assist in public outreach and special events
- Develop maps, reports, communications tools, or provide other program support as needed



Job Description

JOB TITLE: Regional Planner	REPORTS TO: Data and Operations Manager
FLSA STATUS: Exempt	JOB OPEN DATE: August 22, 2022
TRAVEL: 20% within CAMPO region	JOB CLOSE DATE Until Filled

About the Opportunity:

CAMPO is seeking a self-motivated and well-rounded Regional Planner to assist in managing the Regional Data, Safety, Transportation Demand Management, and Transportation Incident Management Programs in CAMPO’s six-county region. Additionally, the Regional Planner will assist in the development of local and regional plans and studies. The ideal candidate will have excellent problem-solving skills and data analysis capabilities; a keen eye for graphical presentation; the ability to support in developing public and stakeholder outreach; and strong verbal and written communication skills.

The Regional Planner will focus on acquiring, maintaining, and analyzing large transportation-related datasets to assist in evaluating the state of the region’s surface transportation system and to aid in short- and long-term transportation planning efforts for local communities and the region. Work will also include assisting with or leading efforts such as developing the State of Safety Report, the Congestion Management Process, the Transportation Demand Management Program and various plans and studies such as multimodal corridor studies, subarea studies, short- and long-range project prioritization, and components of the regional long-range transportation plan. Work is performed under general supervision of the Data and Operations Manager with latitude for self-direction based on professional education and previous experience.

Responsibilities:

- Assist with acquiring, maintaining, and analyzing large transportation-related datasets.
- Coordinate with CAMPO staff, local agency staff, stakeholders, committees, and the public to gather input on data needs for programs and projects.
- Develop the State of Safety Report on an annual basis.
- Assist with managing the Safety, Transportation Demand Management, and Transportation Incident Management Programs.
- Assist in the development of plans and studies for local communities or the region.
- Prepare reports and present to various audiences including the CAMPO Technical Advisory Committee, Transportation Policy Board, the CAMPO Executive and Deputy Executive Directors, elected officials, member-government staff, stakeholders, and

- the public.
- Stay current with federal and state transportation policy, priorities, and funding requirements.
 - Conduct required background research and data collection to support recommendations for system development, support on planning studies and pilot projects, state/federal grant applications, and related reports.
 - Assist with planning-level analysis related to traffic flow, multimodal performance, travel patterns/behavior, forecasting, conceptual design, and safety.
 - Provide support in developing scopes of work and schedules, related budget cost controls, technical analysis and coordination, quality control, and general project delivery.
 - Coordinate interagency activities for specific planning efforts and/or projects.
 - Provide support for development and maintenance of CAMPO's Regional Transportation Plan, Transportation Improvement Program, Unified Planning Work Program, and required annual federal reports.
 - Create infographics, graphs, tables, and other forms of static and dynamic data displays in a way that communicates complex information clearly
 - Prioritize and organize work assignments consistent with internal and external deadlines.
 - Take initiative to perform other duties as assigned to maintain CAMPO operations.

Required Qualifications:

- Education and experience in the field of transportation and regional planning.
 - **Regional Planner** – Graduation from an accredited four (4) year college or university with a degree or major coursework in planning, urban design, geography, civil engineering, environmental science, public policy, or a related field or discipline, plus a minimum of one (1) year of related job experience. A master's degree in urban planning (or a related field) and/or relevant internship experience may substitute for the required one (1) year of job experience.
- Proficiency in core MS Office products (Excel, Word, PowerPoint, Access).
- Working knowledge of one or more product in the Adobe Creative Cloud (e.g. Illustrator, InDesign, Photoshop).
- Working knowledge of ESRI ArcGIS or QGIS products for analysis and graphic design.
- Strong written, visual, and verbal communication skills.
- Knowledge of multimodal transportation planning methods, techniques, and strategies and the ability to communicate those principles both graphically and in writing.
- Familiarity with the MPO planning process, the rules and regulations pertaining to the process, and regionalism in transportation.
- Experience in researching, evaluating, and interpreting complex information and analyzing, preparing, and organizing technical/statistical reports and documents.
- Knowledge of public outreach methods and strategies for the planning process.
- Ability to multi-task and re-prioritize tasks due to changing events and to set and meet deadlines with limited supervision.
- Ability to coordinate the efforts of small groups and act as project lead when required.

- Ability to solve problems and think critically by researching and suggesting appropriate alternatives and implementing solutions.
- Ability to establish and maintain cooperative working relationships with those contacted during work, both internally and externally.
- Access to reliable transportation to and from work related functions.
- Work samples from the applicant:
 - A writing sample that demonstrates strong written communication skill; **and/or**
 - A portfolio that demonstrates strong visual communication or graphic design capabilities.

Preferred Qualifications:

- A Master’s Degree in Urban Planning or a related field
- Proficiency in or working knowledge of a programming language such as Python or R
- Experience working with elected officials and government officials.
- Demonstrated ability to develop material for and deliver presentations to elected officials, regional leaders, and the public.
- Knowledge of capital and comprehensive planning and programming.
- Work experience in the development of regional transportation plans, sub-regional master plans/studies, and multimodal corridor plans/studies.
- Knowledge of transportation systems, plans, and policies within the six-county CAMPO region.
- Project management experience in the development of regional and local plans, including the management of staff and overall adherence to project scope, budget, and schedule.

Salary:

Salary is \$52,235 - \$75,683 annually (DOQ). This position also includes paid holidays and the accrual of paid vacation and sick time. Benefits such as health, vision, dental, and other insurance plans are available.

How to Apply:

Please send a cover letter, resume, writing sample, and/or portfolio to Nirav Ved, Data and Operations Manager at careers@campotexas.org. Writing sample and/or portfolio should highlight original work authored/created solely by candidate. If the sample was created for a group/team project, please identify the portion developed by the candidate. Candidates will not be considered until cover letter, resume, and work sample are provided. Work samples completed as students are acceptable for applications for the Regional Planner position.

CAMPO is an Equal Opportunity Employer. In compliance with United States Equal Employment Opportunity guidelines and the Americans with Disabilities Act, CAMPO provides reasonable accommodation to qualified individuals with disabilities and encourages both prospective and current employees to discuss potential accommodations with the employer. CAMPO is a Drug Free & Tobacco Free Workplace.



CITY OF WILMINGTON
invites applications for the position of:

Associate Planner - Transportation

SALARY: \$46,540.00 - \$58,188.00 Annually

OPENING DATE: 02/08/18

CLOSING DATE: 03/02/18 11:59 PM

DESCRIPTION:

Note: This is a grant funded position. Continued funding and employment is dependent on annual renewal of the grant.

Perform transportation planning services for the Wilmington Urban Area MPO and the MPO's member jurisdictions. This position will be responsible for the implementation of the Transportation Demand Management (TDM) program and will serve as the TDM Coordinator. The position will conduct planning studies for TDM activities; research, collect, and analyze data; prepare informational materials, presentations, and reports; participate in public outreach and agency coordination activities; analyze and interpret federal and state law; and oversee consultant work. The position prepares for and attends staff and policy board meetings and meetings with staff from local, state, and federal agencies. The position also develops and implements reliable technical tools; supports various committees, public outreach, and events including developing marketing and educational outreach materials. Additional duties may include: oversight of consultant staff; preparing and reviewing memorandums, letters, documentation, articles, executive summaries and technical reports; drafting technical and policy recommendations related to regional transportation planning and policy; assists with emergency operations; and performs other duties as assigned.

JOB DUTIES:

This position will be responsible for implementation of the TDM strategies recommended in *Work Cape Fear: Expanding Commuter Options in the Cape Fear Region*. The primary tasks include promoting all TDM strategies to regional employers and organizations. These tasks include but are not limited to:

- Develop Park & Ride lots
- Promote carpool and vanpool opportunities
- Increase carpool and vanpool participation
- Provide guidance in the development of a TDM marketing plan for the region
- Work with regional employers to establish and improve alternative work schedule policies
- Improve and promote existing bicycle and pedestrian infrastructure

Implementation of this TDM program requires extensive public outreach and education, marketing, promotion, and event planning.

REQUIRED QUALIFICATIONS:

Education: Bachelor's Degree or higher in transportation planning, urban & regional planning, marketing, public administration or a closely related field.

Experience: Minimum 1 year of related planning, marketing or government experience.

Other Requirements: Valid NC Driver's License

Notes: Driving history check is required. The selected candidate will also be required to complete a post-offer drug screen.

PREFERRED QUALIFICATIONS:

Knowledge of MPO planning processes and experience with Adobe Creative Suite is preferred. Proficient in Microsoft Office Suite, strong critical -thinking and problem-solving skills. Considerable knowledge of the principles and practices with Transportation Demand Management and long range transportation planning efforts. Prior experience in public outreach and education, marketing, promotion, and event planning.

APPLICATIONS MAY BE FILED ONLINE AT:
<http://www.wilmingtonnc.gov/jobs>

PO Box 1810
115 N. 3rd Street, 5th Floor
Wilmington, NC 28402
910-341-7840

Employment@wilmingtonnc.gov

Position #18-00010
ASSOCIATE PLANNER - TRANSPORTATION
CR



Westside Transportation Alliance

Outreach & Program Manager

This is a new position that will lead an expansion of employer focused activities in Washington County, Oregon with the goal of increasing the number of trips made using transportation options, including transit, carpooling, vanpooling, bicycling, walking, and remote work.

About Westside Transportation Alliance (WTA)

WTA is a 501(c)(6) non-profit organization that delivers customized programs and services in partnership with private employers and public agencies to increase transportation options usage in Washington County and the Portland metro region. WTA believes that an engaged alliance of partners working together can encourage more people to use transportation options, resulting in healthier communities and stronger businesses.

By increasing the use of transportation options, WTA helps get cars off the road, which improves air quality, relieves congestion, and promotes healthy behavior through active transportation options. Employers that partner with WTA to encourage their employees to use transportation options support HR goals by making it easier to recruit and retain high-quality employees, support sustainability goals by reducing the negative impacts of employee commute trips, and demonstrate their commitment to making local communities better places to work and live.

Position Description

The Outreach & Program Manager will lead WTA's expansion of supportive programming and services to employers in Washington County that enable them to provide basic commute benefits to their employees. The position will lead an enhanced communications strategy to engage businesses and will help develop and deliver services. This work will result in more businesses supporting basic commute benefits to their employees, more people using transportation options, and will strengthen WTA's relationships with the business community leading to an increase in memberships.

Planned responsibilities include, but are not limited to:

- Expand communications to employers to promote the services available and the advantages of supporting employee commute benefits
- Partner with Washington County jurisdictions to keep them engaged and informed of opportunities to influence and support programs
- Develop and deliver services to employers in Washington County to increase the number supporting basic commute benefits to their employees
- Develop and deliver information and resources for employees to increase the number of trips made using transportation options
- Foster relationships with businesses leading to an increase in WTA memberships
- Create and maintain database of employer contacts and interactions
- Collaborate with other WTA staff and staff from regional partners including Metro, ODOT, and TriMet to effectively coordinate activities
- Manage online content, including website, newsletters, and social media
- Develop marketing and communications plans and materials
- Other duties as assigned

Work Schedule and Location

WTA staff works remotely with regularly scheduled in-person team meetings. Candidates should be comfortable working in a remote environment. The work is expected to require frequent in-person and remote interactions with Washington County businesses, jurisdictions, and other partner organizations. Candidates should be located in or near Washington County with a willingness to participate in these activities. There may be occasional evening and weekend commitments based on activities.

Qualifications

Candidates should be comfortable both working independently and within a small team environment (currently 3 FTE). An ideal candidate has a background that may include:

- Experience with marketing, communications, and/or efforts to foster behavior change
- Familiarity with and passion for transportation options and their beneficial outcomes and/or related sustainability topics
- Familiarity with Washington County communities
- Comfort with (or willingness to learn) Weebly, MailChimp, Canva, and Salesforce platforms
- Comfort and proficiency with social media and experience managing professional social media accounts
- Ability to represent WTA professionally to businesses, partners, and the community
- An effective communicator and creative problem solver with a customer service mindset

Position Details

This is an hourly, full-time position that will be supported by grant funding through June 30, 2026. The position may extend beyond this date pending the identification of funding. Planned starting pay range is \$24-\$26 per hour. Other benefits include a TriMet pass, health insurance stipend, employer paid retirement contribution, paid holidays, and annual paid time off allocation.

To Apply

Interested candidates should submit a cover letter and resume via email to Jeff Pazdalski, Executive Director, jeff@wta-tma.org.

*Priority given to applications received by 5PM on Friday, December 22, 2023.
Applications will be reviewed on a rolling basis.*

For questions, please contact Jeff Pazdalski at the above email address.

Westside Transportation Alliance
12725 SW Millikan Way, Suite 300
Beaverton, OR 97005
(503) 489-8520
wta-tma.org



Westside Transportation Alliance

Date of Posting: April 30, 2019

Application Deadline: Priority given to applications received on or before Tuesday, May 28, 2019

Company: Westside Transportation Alliance
12725 SW Millikan Way, Suite 300, Beaverton, OR 97005
wta-tma.org

Position: **Transportation Options/Business Outreach Program Manager**

Compensation: Includes TriMet pass, retirement contribution, monthly stipend to support healthcare, paid holidays, and annual paid time off allocation. Salary is commensurate with experience.

About Westside Transportation Alliance (WTA)

WTA is a non-profit organization that works with private employers and public agencies to reduce single occupancy vehicle commute trips in Washington County, Oregon. WTA partners with these groups to deliver workplace programs that educate employees and promote transportation options. WTA also works to expand the breadth of transportation choices available to commuters.

Washington County is an economic hub for the Portland Metro region and Oregon. The number of jobs and residents in the county is projected to demonstrate continued growth, bringing the potential for more commute trips and traffic congestion. By promoting transportation options to employees and providing targeted programs, WTA can help get cars off the road, which relieves congestion, improves air quality, promotes healthy behavior, and helps employers recruit and retain high-quality employees.

Position Description

The Transportation Options/Business Outreach Program Manager will develop, implement, and oversee programs and projects that promote transportation options usage for commute trips. This position is WTA's point of contact for member organizations and for outreach efforts to new members. An ideal candidate will be an effective communicator, creative problem solver, and will possess a customer service mindset. Ideal candidates will be self-starters who have the ability to understand priorities and complete assignments with minimal oversight. Candidates must be comfortable working independently and within a team environment. WTA is a small organization that serves a large geographic area and a diverse mix of members and interests. Therefore, it is very important for applicants to have an "all-hands-on-deck" mentality, a willingness to be flexible when developing strategies to accomplish goals, and the ability to meet specific program and project deadlines.

Responsibilities include but are not limited to the following:

- Deliver, create, and evaluate workplace promotions, programs, and projects to engage employees of member organizations in transportation options for commute trips
 - Lead WTA's presence at workplace events and activities
 - Develop and coordinate local incentive programs
 - Direct transportation options programs (e.g. bike shares)
- Build and maintain strong relationships with member organizations and help recruit new members and partners
 - Conduct employee surveys in accordance with Oregon DEQ's ECO rule, and create summary reports and recommendations for members based on results
 - Plan and direct workshops, trainings, and networking opportunities for members
 - Develop compelling outreach materials and lead relationship building to recruit new members
- Represent WTA at events to promote transportation options and on local and regional committees and work groups
- Other duties as assigned

This is a regular, full-time, hourly position. Primary hours are Monday-Friday, 9am-5pm. Occasional morning, evening, or weekend commitments outside these hours will be required, however hours are flexible on these weeks and are not expected to exceed forty hours.

Qualifications

An ideal candidate will have a background that includes:

- A Bachelor's degree (minimum), in marketing, communications, public administration, non-profit management, business, urban and regional planning, or other relevant degree
- Familiarity with and passion for transportation options and their outcomes
- Ability to identify challenges/opportunities and design programs or projects to address them
- Ability to represent WTA professionally to businesses and partners
- Ability to work with diverse stakeholders in a suburban environment
- Two years of relevant work experience; experience or interest in non-profit work is a plus
- Proficiency with Word, Excel, and social media
- Proficiency with Adobe Creative Suite (particularly InDesign and Illustrator) is a plus

To Apply

Interested candidates should submit a cover letter and resume via email to Jeff Pazdalski, Executive Director, jeff@wta-tma.org.

For questions, please contact Jeff Pazdalski at the above email address.



TriMet

Representative, Transportation Options

SALARY	See Position Description	LOCATION	Suite 700, OR
JOB TYPE	Non-Union Regular Full-Time	JOB NUMBER	23-00180
DEPARTMENT	Communications and Public Affairs	DIVISION	Communications
OPENING DATE	10/13/2023	CLOSING DATE	11/3/2023 1:49 PM Pacific

Description

TriMet is seeking a results-oriented Transportation Options Representative with a keen understanding of the B2B landscape and a passion for advocating for sustainable solutions. Join our team and be a driving force for change in the world of corporate transportation. In this role, you will not only forge strong business-to-business relationships but also play a vital role in educating employers on the environmental advantages of embracing public transportation as a means to significantly reduce CO2 emissions. If you are ready to make a meaningful impact by promoting eco-friendly alternatives within the transportation sector, we invite you to be part of our mission and help shape a greener, more sustainable future.

Assist with development, sales, and coordination of marketing programs and services to promote transportation options, including employer programs. Create and maintain partnerships to build bus and MAX ridership at employer sites and within the greater community. Address sensitive service delivery issues.

Ensure a commitment to safety through consistent and professional behaviors in performance of job requirements that demonstrate safety is a fundamental value that guides all aspects of our work. Perform related duties as required.

Serve as a good steward of TriMet by regularly utilizing our transit system to maintain a strong and current understanding of customers' experiences and of TriMet's product and service offerings.

Essential Functions

1. Assess market potential and develop sales/marketing plans to achieve maximum penetration in target markets. Assist with developing and monitoring results of new products, services, and programs based on market need, transportation grant specifications, and TriMet's ability to fulfill the terms of the program.
2. Implement a territory-based contact management strategy to include identifying prospects and customers with which to employ specific and measurable sales/marketing objectives. Utilize sales systems and reports, as appropriate, as aids to develop plans and actions in order to achieve desired results.
3. Work with identified employers, TMAs, colleges and universities, and related organizations in implementing comprehensive transportation programs, including transit and carpool subsidies, internal promotions, carpool incentives, and matching programs. Coordinate implementation of employer pre-and post-surveys.

4. Develop and maintain agency partnerships organize special projects and events with external partners to achieve visibility and increase ridership. Coordinate product delivery and related TriMet participation. Trouble-shoot sensitive service delivery issues and smooth conflicts. Oversee budgets and monitor contracts.
5. Actively build and strengthen partnerships with external groups in order to facilitate the service planning process and increase ridership along specific routes. Communicate with constituencies through presentations, workshops and other means to solicit concerns and comments, educate and inform, and build ridership.
6. Generate promotional materials in cooperation with Manager, Marketing & Outreach Services and graphic artists, including drafting and editing copy, developing graphic treatment, and developing and monitoring program budgets.
7. Plan, organize and staff co-promotions, carpool/transit fairs, carpool match parties and community events.
8. Provide support services to external transportation coordinators and other partners, including motivational programs, mailings, telemarketing, writing and producing newsletters, and responding to questions.

Position Requirements

A minimum of a Bachelor's Degree is required.

Bachelor's degree in Marketing, Communications, Public Relations is preferred.

A minimum of two (2) years total credited experience.*

Two (2) years of experience in sales/marketing, advertising or promotional work is required.

Two (2) years of experience in rideshare and/or public transportation marketing is preferred.

One (1) year of experience with the Metro area employer market is preferred.

Or any equivalent combination of experience and training.

*The amount of credit a candidate receives for prior years of experience is based on the relevancy of that experience to the required or preferred prerequisites of the job description. Experience is prorated based on hours worked. LRHR assigns and validates the "credited experience".

Selection Criteria

Type of Position / Grade / FLSA

Grade 11, Exempt, Non-Union, Full-Time

Salary Range

Minimum: \$63,146.00

Maximum: \$94,720.00

Salary offers will be determined by a candidate's education, training and relevant experience. Any final offer of employment will fall within the range stated above. For transparency, we choose to list the full available grade range, however, TriMet's

salary administration process will ultimately determine the final salary offered.

Selection Process

Candidates will be selected based at a minimum on the result of:

1. Application Review (please include: Cover Letter and Resume)
2. Panel Interview
3. Reference Check

Supplemental Information

Make sure you describe in detail how your education, training and work experience fit with this role. You are encouraged to attach a resume, cover letter, training certificates and/or letters of recommendation with your application. You are permitted five attachments of less than 5MB each.

Internal applicants: Information in your personnel file will not be used in lieu of information requested on your application. Incomplete applications will not be considered. A work record review process is conducted for each TriMet union employee when they apply for an internal position (including non-union positions) at TriMet. The work record review covers one full year of work history and two years of preventable accident history, beginning with the closing date on the job announcement, and reviews time loss, oversleeps, supervisor observation reports (rule violations), and disciplinary actions.

If you are a qualified veteran and would like to apply for veterans' preference points, you will need to reflect your status on the application and attach supporting documentation at the time of application submission.

If you need accommodation under the Americans with Disabilities Act for any part of the application process, contact our Human Resources staff at 503-962-7505, or the TTY line at 7-1-1. Note that we require a minimum of two workdays' notice prior to the need for accommodation.

TriMet is an equal opportunity employer, committed to developing an organization that is reflective of and sensitive to the needs of the diverse community we serve, including veterans, the elderly, and individuals with disabilities.

ADA Statement

As applied to the workplace, applicants and employees must be qualified to perform the essential functions of the job with or without reasonable accommodation. Essential functions may include required job functions performed infrequently as well as production standards related to the quality and quantity of work.

If a person with a disability could meet job qualifications with a reasonable accommodation, TriMet will work with the employee to accommodate the need. If TriMet's accommodation is effective in allowing the employee to perform the essential functions of the job, it need not be the employee's preferred accommodation.

Agency

TriMet

Address

101 SW Main St.
Suite 700
Portland, Oregon, 97204

Phone

(503) 962-7505

Website

<https://trimet.org/careers>



Job Opening: Outreach and TDM Program Manager

Go Lloyd is a nonprofit association promoting transportation options for employees and residents in Portland's Lloyd neighborhood. For more information, visit golloyd.org.

JOB DESCRIPTION

The Transportation Demand Management (TDM) and Outreach Program Manager oversees several programs that encourage Lloyd employees and residents to choose transit, biking, walking, or ridesharing for their commute. This role calls for a flexible and adaptive approach to job responsibilities, and the list of duties below is not exhaustive.

OUTREACH

Employer/Employee/Resident/Visitor

The Program Manager markets Go Lloyd's programs and services to businesses, agencies, and residential buildings. A background in sales or customer service may be helpful here.

The Program Manager represents our organization and advocates on behalf of employees and residents at community events and in public meetings and forums. The Program Manager coordinates with the City to direct livability concerns to appropriate parties.

Mobility Committee

The Program Manager staffs Go Lloyd's Mobility Committee, recruiting and retaining volunteers, guiding meetings and projects, and planning and coordinating walking and biking events throughout the year. This includes supervision of volunteers, interns, and other staff.

Communications/Transportation Coordinators

The Program Manager works with other staff to keep our constituents informed through our Transportation Coordinator network, as well as through newsletters, email alerts, social media, etc.

The Program Manager responds to inquiries and prepares site-specific information for employers. Experience in developing marketing materials will be an asset in this position.

TDM PROGRAMS

Transportation Demand Management

The Program Manager develops, markets, and manages TDM programs and services, including personalized commute planning, commuter incentives, encouragement events, and educational workshops.

Pedestrian Program

The Program Manager actively advocates for people who walk in and through our neighborhood. The Program Manager oversees projects approved by the board of directors to improve the pedestrian

environment and public infrastructure.

Bicycle Program

The Program Manager works with our partners and with property owners to expand access to secure bike parking, prevent bicycle theft, and improve bicycle infrastructure.

Regional Transportation Options (RTO) Program

The Program Manager participates in monthly RTO meetings with Metro, and administers the Commuter Rewards program. The Project Manager oversees Lloyd Links, which provides customized commute plans for Lloyd employees and residents.

Enhanced Services District

Go Lloyd is a program of the Lloyd Enhanced Services District, and the Program Manager provides administrative assistance to the organization. Duties include basic bookkeeping, accounts payable/receivable, supporting the board of directors, and participating in strategic planning.

Grant Management

The Program Manager is responsible for deliverables and reporting for grants that fund Go Lloyd's programs, including Metro RTO grants.

Deliverables include Go Lloyd's Equity Roadmap, which tracks the reach of programs and services to identified underserved populations in accordance with established equity goals.

Project Management

The Program Manager is responsible for delivering pedestrian and bicycle infrastructure projects, as well as additional projects assigned by the Executive Director or board of directors. This may include materials and installation, communication with partner organizations, reporting, and all other aspects of Go Lloyd's investments in the neighborhood.

QUALIFICATIONS AND EXPERIENCE

The successful applicant will have a passion for transportation issues and sustainability, and a strong commitment to promoting transportation options to support livability and growth in Portland's Central City. The ideal candidate will possess a friendly yet professional demeanor, project management and group facilitation skills, and an understanding of the collaborative nature of nonprofit work.

Minimum qualifications:

- A Bachelor's degree, ideally in a relevant discipline
- Proficiency in all applications of Microsoft 365
- Experience with community outreach, meeting facilitation, event planning, and/or marketing, ideally in a nonprofit setting
- Knowledge of transportation systems and issues in Portland; familiarity with public partners (e.g., TriMet, PBOT, Metro)
- Outstanding written and verbal communication, organizational, and time management skills

Preferred qualifications:

- Experience in urban planning, public transportation, project management
- Experience with data collection and analysis
- Experience with QuickBooks, Squarespace, MailChimp, Survey Monkey, Salesforce
- Established relationship with PBOT
- Familiarity with committees and working groups including the Bicycle Advisory Committee, Pedestrian Advisory Committee, Transportation Wallet, RTO group, Central City in Motion

SALARY & BENEFITS

Starting salary range is \$53,500 to \$61,500, based on education, skills, and experience. Benefits include paid holidays, paid time off, comprehensive health care coverage, IRA matching contributions, an annual transit pass, and secure indoor bike parking. This position is eligible for a retention bonus after two years of employment. Our office is centrally located and easily accessible by MAX, streetcar, and bus.

TO APPLY

Submit a resume and cover letter as separate PDF or Word documents to Jenny Taylor at jenny@golloyd.org. The subject line of your email should be "Application for Program Manager". Please include your full name in the file name of both documents. Deadline for submissions is Thursday, February 22nd by 5:00 PM.



VACANCY ANNOUNCEMENT

Program/Project Coordinator (Outreach & Engagement Manager, Georgia Commute Options) Mobility Services / Center for Livable Communities

OPEN DATE: ASAP

CLOSE DATE: Open until filled

POSITION SUMMARY:

The Atlanta Regional Commission (ARC) is the regional planning and intergovernmental coordination agency that focuses on issues critical to the region's success, including growth and development, transportation, water resources, services for older adults and workforce solutions. ARC is dedicated to unifying the region's collective resources to prepare the metropolitan area for a prosperous future. This is done through professional planning initiatives, the provision of objective information, and the involvement of the community in collaborative partnerships.

The Mobility Services Department (MSD) has an opening for an energetic, self-starting Program/Project Coordinator responsible for the successful completion of Transportation Demand Management (TDM) projects related to outreach for the Georgia Commute Options (GCO) program. GCO is the regional TDM program that provides customized worksite assistance, ridematching services, and incentive programs to help commuters, employers, property managers, community partners and schools with solutions for a better commute. GCO incentivizes commuter behavior change from single occupant vehicles to cleaner options such as carpool, vanpool, transit, bike, walk, and/or telework.

The selected candidate will serve as an ARC subject matter expert on TDM issues and alternative, clean commute modes of transportation, collaborating internally and regionally for the planning and implementation of commute options programs, promotions, trainings, summits, and special events. They will assist with strategic planning and be responsible for the day-to-day management of the GCO Outreach & Engagement team activities and deliverables. This includes GCO partner outreach; technical assistance; commuter engagement; industry analysis; sales strategy development; equity analysis and planning; TDM program planning; programmatic research; and evaluation.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Oversees the day-to-day work of GCO Outreach & Engagement consultants/contractors providing services across the Atlanta region;
- Assists in the coordination of all aspects of program administration including budget administration, contract administration, outreach, tracking and monitoring progress, collaborating with partners and stakeholders;
- Develops and implements strategies, goals, and deliverables; creates and implements new projects and initiatives; troubleshoots program issues; adjusts existing programs/projects to achieve objectives;
- Collaborates with Mobility Services team members, other ARC groups, and external stakeholders as needed to ensure the successful implementation of GCO outreach activities;

- Assists in partnership development and collaboration with regional transit operators, local governments, employers, property managers and various community partner organizations;
- Plans, convenes, facilitates and/or presents at meetings as needed to further the work of GCO and Mobility Services;
- Prepares complex reports and documents; gathers and analyzes data; monitors legislation and regulatory changes; makes presentations regarding reports and activities;
- Develops project scopes and objectives for Requests for Proposals and contracts;
- Reviews monthly invoices and progress reports submitted from contractors;
- Supervises staff and/or contractors including conducting performance evaluations, coordinating training, and implementing hiring, discipline, and termination procedures; or coordinates enterprise-wide functions, as assigned;
- Resolves issues arising from operations and requiring coordination with other departments, escalating issues to management as needed; and
- Performs other duties of a similar nature and level as assigned.

REQUIRED KNOWLEDGE, SKILLS, ABILITIES AND COMPETENCIES:

- Basic data analysis and evaluation skills;
- Experience in managing programs, projects, contractors and consultants;
- Advanced communications skills to include public speaking, presenting, facilitating, moderating or managing public engagements (meetings and trainings);
- Highly developed interpersonal skills to interact effectively with internal staff, the ARC Board, contractors and a broad range of active stakeholders;
- Ability to coordinate and deliver through a matrix management structure;
- Knowledge of regional transportation planning processes and Transportation Demand Management concepts;
- Understanding and willingness to conduct work and demonstrate behaviors in line with ARC's Guiding Principles;
- High-level time management skills and ability to work independently and in groups;
- Proficiency in standard office equipment, MS Office, and related software applications;
- Experience with Asana or other task management/collaboration software;

MINIMUM QUALIFICATIONS (equivalent combination acceptable):

- Master's degree in business or public administration, human services or directly related field; and
- Five years of program administration experience.
OR
- An equivalent combination of education and experience sufficient to successfully perform the essential duties of the job such as those listed above, unless otherwise subject to any other requirements set forth in law or regulation.

PREFERED QUALIFICATIONS:

- Master's degree in business, public administration, human services, or a combination of education and related experience in community outreach, stakeholder engagement and partnership development;
- Demonstrated professional competency in TDM (e.g., TDM-CP), regional transportation planning processes, and/or mobility and equity;
- Skills in program planning, project management, critical thinking, data analysis and program evaluation;
- Experience managing programs and projects delivered by contractors/consultants;
- Advanced interpersonal and communications skills to include public speaking, presenting, facilitating, moderating, or managing meetings, trainings, and public engagements;
- High-level time management skills and ability to work independently and in groups;
- Proficiency in standard office equipment, MS Office, and related software applications;
- Experience with Asana or other task management/collaboration software; and
- Experience with Salesforce or other customer relationship management software.