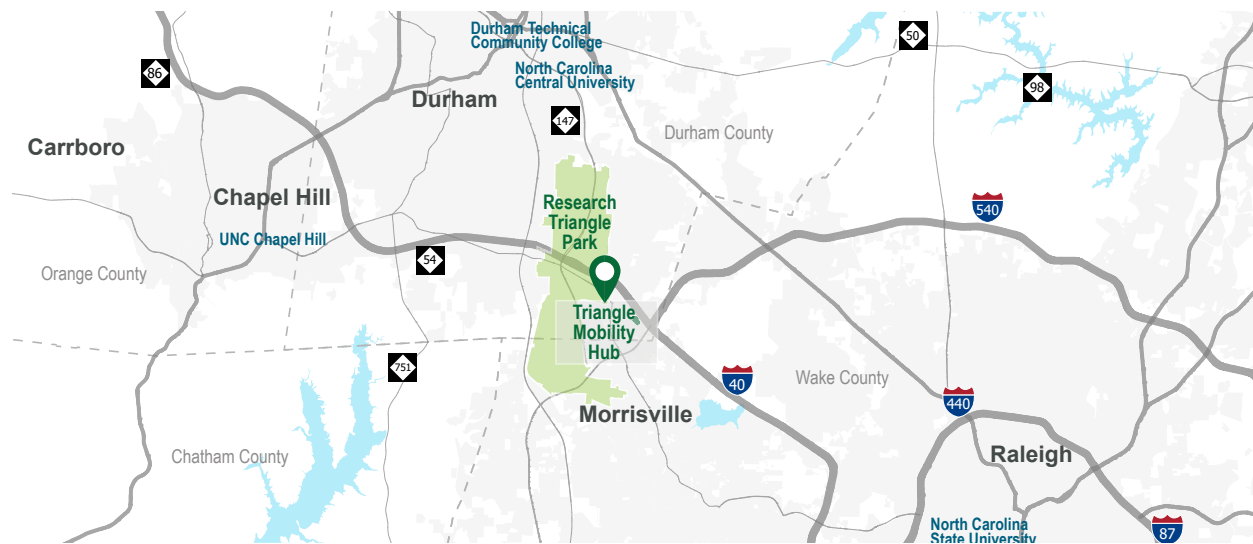


## Introduction

The Research Triangle Regional Public Transportation Authority (GoTriangle), is requesting federal RAISE grant funding to construct the **Triangle Mobility Hub**. <https://gotriangle.org/rtc>

The Triangle Mobility Hub will be a multi-modal transportation center, positioned in the heart of a new transit-oriented district in North Carolina's Research Triangle Park (RTP). It will link bus service, paratransit, and micro-transit with future bus rapid transit, passenger rail, and a regional multi-use path (Triangle Bikeway). The project will support frequent and high-quality transit by providing a safe, convenient, and accessible place to transfer seamlessly between transportation modes.



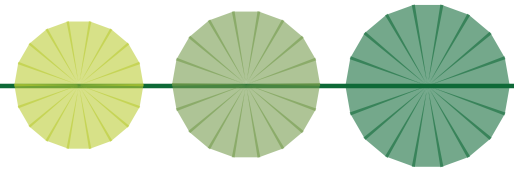
▲ Figure 1: Regional Context Map

The Triangle Mobility Hub is key to unlocking new levels of rapid transit service and multimodal connectivity for the Research Triangle, one of the fastest growing regions in the country. When the Mobility Hub opens in 2028, it will anchor a transit service expansion known as **SPOKE: Sustainable, Prompt transit connections to Opportunities for Knowledge and Employment**. The SPOKE network will more than double transit service, improving access to education and job opportunities across Wake, Durham, and Orange Counties. The project includes battery-electric buses and charging infrastructure to support the sustainable delivery of this service.

This project has committed local funding through a partnership among Wake, Durham, and Orange Counties, the Capital Area Metropolitan Planning Organization (CAMPO), the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), and GoTriangle. The project will be delivered in close partnership with the North Carolina Department of Transportation (NCDOT) and the property owner, Research Triangle Foundation, the steward of RTP.

This project site is in a **Census-designated Urban Area** and is **not located in an Area of Persistent Poverty or a Historically Disadvantaged Community**.<sup>1</sup>

<sup>1</sup>Transit services provided by GoTriangle through this project do serve both Areas of Persistent Poverty and Historically Disadvantaged Communities in the City of Durham, but those service areas do not meet RAISE grant criteria for this designation because the physical project site is not in neighborhoods with those designations.



## Project Description

### Project Purpose and Need

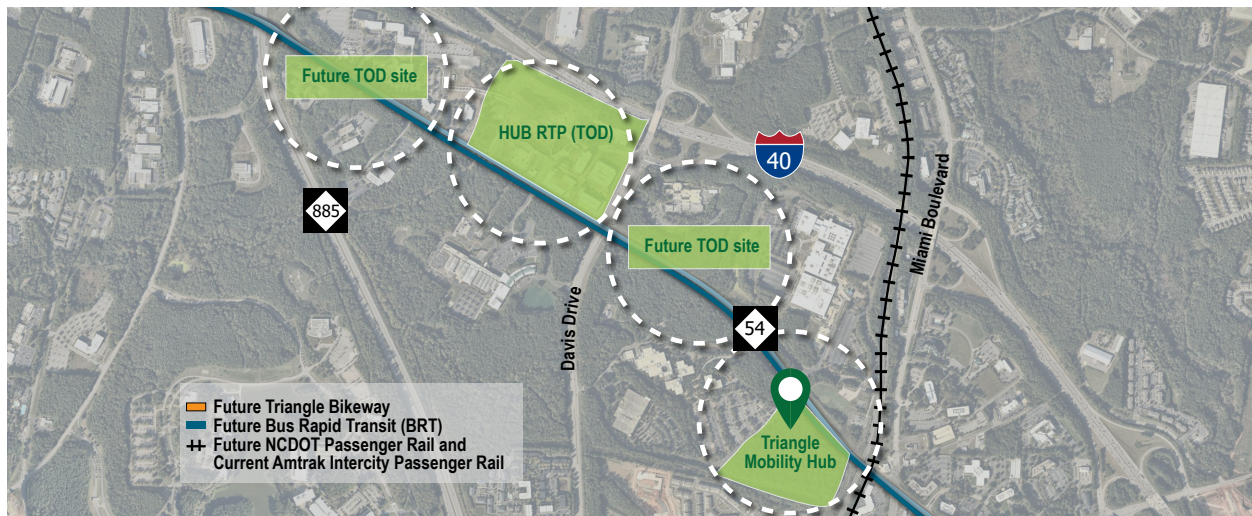
#### Context: Rapid Population Growth and New Investments in Transit

North Carolina's RTP, centered between Raleigh, Durham, and Chapel Hill, is home to 300+ companies and 65,000+ workers in bio-science, technology, and micro-electronics.

The population of the Triangle region grew 23% between 2010-2020, and the areas directly surrounding RTP have seen some of the greatest growth.<sup>2</sup> Rapid population growth is fueling high demand for new housing and mobility options to combat congestion and greenhouse gas emissions.

To support this growth, the region is investing in transit and proactively upzoning key nodes and corridors to transit-supportive densities. Voters in Durham, Orange, and Wake Counties approved a half-cent sales tax to support expanded bus service, new bus rapid transit, micro-transit, and improved passenger facilities. The state and region are also investing in improved passenger rail service and a new 17-mile regional bikeway. **The Triangle Mobility Hub is the key to connecting all these investments** (Attachment A6: 2050 Metropolitan Transportation Plan).

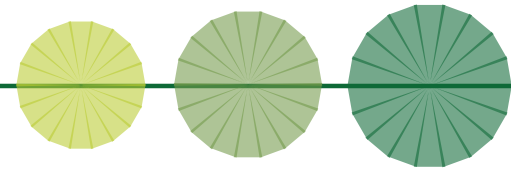
RTP's auto-centric office park design reflects its establishment in 1959. Today, nearly 20% of the 7,000 acres are surface parking. As the region has evolved, so has the vision for RTP, and the Research Triangle Foundation is leading an effort to transform the NC 54 corridor into a network of transit-oriented, mixed-use destinations connected by transit and greenways (Attachment A7: RTP 3.0 Fact Sheet). This effort builds upon the \$1.5 billion HUB RTP development, currently under construction less than a mile from the Triangle Mobility Hub.



▲ Figure 2: TOD Opportunities in Research Triangle Park

**With a quickly growing population, expanding economic base, new funding streams for transit, and increasing density, the region needs convenient and sustainable ways to move residents between destinations and across modes. The Triangle Mobility Hub is a catalytic investment in transit capacity and connections at a pivotal moment.**

<sup>2</sup>The Research Triangle of NC, the combined Durham and Raleigh MSAs, were the third-fastest growing region in the country over 1 million, between 2010-2020. Source: 2010 and 2020 Decennial Census Files, and 2023 MSA boundaries.



### The Need: 16 Years in a Leased Temporary Facility with No Multi-Modal Connection

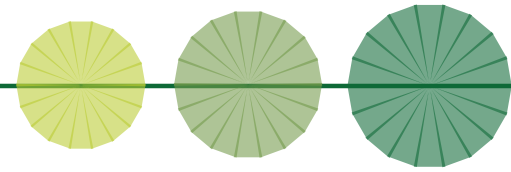
The Triangle Mobility Hub will replace a temporary facility located in a parking lot surrounded by light industry. The existing facility has operated on leased land for 16 years. Since the facility opened in 2008, ridership and service have doubled. Today, it serves 500,000 annual transit trips, seven fixed routes, two microtransit services, paratransit, and park-and-ride, and is severely in need of expansion to better accommodate this growth.

The existing facility is isolated, lacks pedestrian connections and is not proximate to retail, services, or rider amenities beyond an on-site trailer with bathrooms and a customer service window. GoTriangle is operating 40-foot buses in bays designed for 35-foot buses, and the limited station platforms are often crowded. The current lease agreement inhibits routine maintenance and small capital projects like repaving and improving lighting. Overhead high-voltage transmission prevent the installation of bus charging infrastructure for new battery-electric buses or overhead cover to shield waiting passengers from the elements.



▲ Figure 3: Existing Temporary Bus Facility Location

The existing site has no opportunities to expand or connect to new bus rapid transit or passenger rail. The existing location is operationally inefficient; transit routes connecting east and west must detour by up to two miles to access the site. This makes transit trips longer, less reliable, and less convenient for riders (Attachment A2: Regional Transit Center Relocation Feasibility Study).



## Project Description

### The Opportunity: Catalytic Connections in an ETOD-Ready Location

The Triangle Mobility Hub will seamlessly integrate transportation choices with equitable transit-oriented development (ETOD) to enhance regional accessibility and quality of life. The Triangle Mobility Hub is planned for an operationally efficient site adjacent to a proposed future passenger rail station. This site will support **fast, frequent, and reliable transit service** with direct access onto a major transportation corridor (NC 54) and faster access to regional connections via I-40 and I-885. The site is adjacent to a future bus rapid transit line and the Triangle Bikeway.

As a new gateway into RTP, the Triangle Mobility Hub will anchor a new mixed-use district, serving riders and the broader community with safe pedestrian connections to retail amenities, housing, and employment. The proposed site is less than a mile down NC 54 from HUB RTP, the new downtown district for the Research Triangle Park, and the synergies between the two will catalyze new mixed-use and transit-supporting densities in the center of this growing region.

The new transit center at the hub will support SPOKE, GoTriangle's planned service expansion, to double hours of service across the GoTriangle network (Attachment A4: GoTriangle Short-Range Transit Plan). New electric vehicle charging infrastructure at the Triangle Mobility Hub and 10 new electric buses will advance GoTriangle's transition to a zero-emission Battery Electric Bus fleet (Attachment A9: GoTriangle Zero Emission Transition Plan).

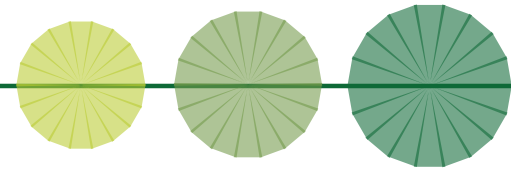
### Project Location

The Triangle Mobility Hub is located near the southwest quadrant of NC 54 and S Miami Boulevard near I-40, at 4135 E NC 54 in Research Triangle (Figure 2). The 19.4-acre site is owned by Research Triangle Foundation and is located in Durham County, North Carolina (Durham County Parcel Identification Numbers: #0747-36-2290 and #0747-36-4637).

In 2019, GoTriangle initiated a feasibility study for a new transit center with enhanced functionality, connectivity, and opportunities to expand service (Attachment A2). In 2022, GoTriangle partnered with Research Triangle Foundation, the owner of the proposed site, on developing a shared vision for the site and testing a variety of TOD and Mobility Hub concepts. In August 2023, the Research Triangle Foundation passed a resolution approving the siting of the Triangle Mobility Hub on the proposed property and supporting TOD in the surrounding area (Attachment A1: RTF Board Resolution).

### Community Engagement and Related Regional Planning Efforts

During planning phases, GoTriangle has engaged transit riders to document needs and goals for the Triangle Mobility Hub and future transit improvements. These efforts include a digital survey of riders focused on facility constraints and future needs, in 2020, and robust public engagement as part of the Wake, Durham, and Orange Transit Plans, which were updated in 2022 (Attachment A6).



## Project Description

### Statement of Work, Technical and Engineering Considerations

#### Mobility Hub Connections

The new Triangle Mobility Hub will anchor a significant expansion to the region's transit network, and offer seamless connections to future regional passenger rail, bus rapid transit, and the Triangle Bikeway, micro-transit, paratransit, and regional bus service.

#### Reduced Greenhouse Gas Emissions

The new facility will include battery electric bus chargers and 10 Battery Electric Buses, advancing GoTriangle's plan to reduce carbon emissions.

#### Transit Equity and Equitable Transit-Oriented Development

The facility will serve as the foundation for future ETOD on site, led by private partners and adjacent property owners investing in the mixed-use development of the surrounding Research Triangle Park.

#### Technical Considerations

GoTriangle has a detailed understanding of the technical requirements for the Triangle Mobility Hub, developed during planning phases. The facility includes a transit center with 12 bus bays, serving both 40-foot and 60-foot buses. Passenger amenities will include seating and shelter, an indoor climate-controlled waiting area and customer service center, public restrooms, public Wi-Fi, and device charging stations for riders. Multi-modal connections within the site will greatly improve safety for transit users, pedestrians, and cyclists, with connections to the adjacent bikeways, nearby destinations, and a signalized and protected pedestrian crossing of NC 54. The facility will include a park and ride facility with 100 spaces and EV charging opportunities for private vehicles, to serve riders transferring from private vehicles to transit.

#### Engineering Considerations

**GoTriangle is ready to deliver this critical transportation infrastructure project for the region.**

GoTriangle has completed feasibility and suitability analysis, developed a program and preliminary scope of work, conducted third party coordination and public engagement, commissioned a topographic site survey, and conducted initial environmental screening for the proposed project.

The agency has support from the existing property owner, Research Triangle Foundation, to construct the project at the proposed site location. Local, regional, and state transportation partners are supportive of this project—as demonstrated in the Letters of Support—and the project is programmed in local, regional, and state plans and with committed local funding (Attachment A3: TIP/STIP).