

FY 2023

**USDOT RECONNECTING
COMMUNITIES + NEIGHBORHOODS
GRANT APPLICATION • SEPTEMBER 2023**

GREAT-NC

**Growing Rural Equity and Access
to Transportation in North Carolina**



REGIONAL PARTNERSHIPS CHALLENGE



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Project Type: Regional Partnerships Challenge with Construction Activities

Unique Entity Identifier Number: XSN8A4TT1DY5

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Application + Supplemental Materials: <https://connect.ncdot.gov/resources/RCN2023-IMD/Pages/default.aspx>

GREAT-NC OVERVIEW

FY 2023 USDOT Reconnecting Communities + Neighborhoods Grant Summary

Growing Rural Equity and Access to Transportation in North Carolina (GREAT-NC, or “the Program”) will create a construction-ready pipeline of active transportation facilities and build local capacity for project delivery to address the persistent regional mobility challenge of safe and equitable bicycle and pedestrian access to daily destinations for economically disadvantaged populations in rural North Carolina (NC).



Schedule:

Design Start: Q3 2024

Construction Start: Q4 2026



Funding Amount Requested:

\$67.7 million



Phases: Capacity Building (\$1.38M), Design (\$44.61M), Public Engagement (\$480K), Data Collection/Reporting (\$200K), Construction (\$21.03M)



Miles: Design: 147 miles

Construction: Up to 7.5 miles

PARTNERSHIPS



“GREAT-NC has broad support from participating communities, stakeholders, and other partners across the state. The Program builds on the statewide Great Trails State (GTS) Plan and the expansive GTS Coalition network to unlock access to safe walking and biking facilities for millions of rural North Carolinians.”

~Iona Thomas, Co-Founder of GTS Coalition

REGIONAL CHALLENGES + SOLUTIONS



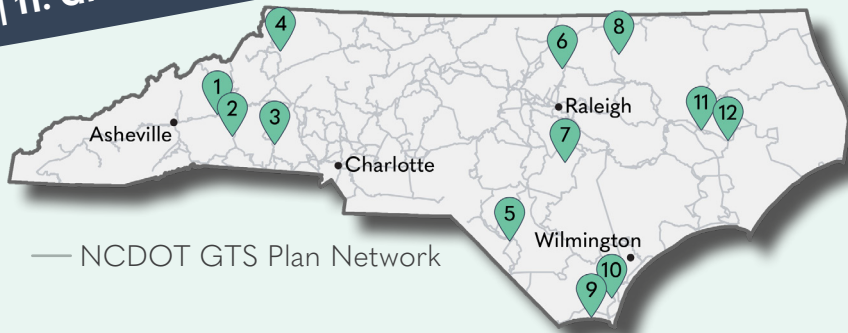
Photo Courtesy of News + Observer

- 1 NC’s rural, disadvantaged communities have limited capacity and resources to deliver Federally-funded projects (see **Regional Context**).
GREAT-NC manages project delivery as a pilot for future NCDOT-delivered multimodal projects and builds capacity through workforce development and GTS Coalition-led activities, to create a network of educated and well-prepared rural communities.
- 2 NC’s rural road system often lacks biking and walking facilities resulting in unsafe conditions and a disproportionate (44%) risk of fatalities and serious injuries for vulnerable road users (see **Access**).
GREAT-NC utilizes a robust safety toolbox to design protected facilities and crossings that reduce risk and protect vulnerable road users.
- 3 NC General Statute prohibits state expenditures on independent bicycle and pedestrian facilities (see **Regional Context**).
GREAT-NC overcomes funding barriers to advance NC’s pipeline of active transportation projects and transform rural corridors into accessible and connected facilities in the communities with the greatest need.
- 4 The average percentage of households in the Program’s study area that lack access to vehicles exceeds the state’s average, limiting connectivity to daily destinations for disadvantaged populations (see **Equity + Environmental Justice**).
GREAT-NC reconnects communities and provides safe, non-motorized, and equitable access to healthcare, schools, and employment to create opportunities for all.

GREAT-NC is a powerful statewide partnership for transformation that aligns closely with NCDOT Integrated Mobility Division’s (IMD’s) core goals to increase access, enhance quality of life, ensure safety, and achieve its long-term vision to create a robust bicycle and pedestrian network.

GREAT-NC PARTICIPATING COMMUNITIES

1. Marion | 2. Glenwood + Union Mills | 3. Lawndale | 4. West Jefferson | 5. Lumberton
 6. Oxford + Butner | 7. Smithfield + Benson | 8. Warrenton, Macon, + Norlina | 9. Southport + Supply
 10. Navassa, Belville, + Old Town | 11. Greenville + Pactolus | 12. Washington + Chocowinity



147 Miles of Dividing + Burdening Facilities

50 Economically Disadvantaged Areas Served

With this investment, USDOT will advance 147 miles of bicycle and pedestrian facilities in NC through design and/or construction, expand capacity of local agencies to deliver infrastructure projects, and improve access to opportunities and services for rural disadvantaged populations.

PROJECT BENEFITS



Equity + Environmental Justice: Addresses systemic negative impacts of historic NC highway design policies, which favored vehicle speed over safe, multimodal connections.



Equitable Development: Incorporates creative placemaking that honors local culture and history and integrates natural elements that reflect the local context of each project.



Access: Creates safe, context-sensitive, and affordable mobility options to improve non-motorized access to daily destinations.



Climate + Environment: Reduces greenhouse gas (GHG) emissions through new active transportation facilities and improves resilience to address disproportionate negative environmental impacts of transportation on disadvantaged communities.



Facility Suitability: Removes barriers to access, mobility, and economic development and addresses vulnerabilities to reconnect the places residents live, work, and play in rural, disadvantaged communities.



Workforce Development + Economic Opportunity: Engages Disadvantaged Business Enterprises (DBEs) in the Program's design and construction activities, and provides training and supportive services to youth and adult workers in GREAT-NC communities.



Community Engagement + Community-based Stewardship, Management + Partnerships: Partners with the GTS Coalition to implement a community-centered approach that engages diverse populations.

PROJECT READINESS: ENVIRONMENTAL RISK

NCDOT will leverage its extensive experience helping communities deliver multimodal projects and administering Federal grant programs to reduce risk and accelerate implementation of GREAT-NC.



Projects developed through statewide + community planning



Projects follow NCDOT right of way (ROW) with minimal acquisition + environmental impacts expected



Feasibility studies for all projects complete or underway

Application + Supplemental Materials:

<https://connect.ncdot.gov/resources/RCN2023-IMD/Pages/default.aspx>

PROJECT DESCRIPTION



GREAT-NC is a transformative statewide program designed to address four persistent regional challenges in NC (see **GREAT-NC Overview**). The Program will develop the state's pipeline of bicycle and pedestrian projects by advancing 12 individual sidewalk and shared-use path projects to retrofit existing NCDOT-owned roads, totaling approximately 147 miles, that **divide** communities with high-speed and high-volume vehicular travel and **burden** them with air and noise pollution and inadequate stormwater treatment. Through Reconnecting Communities and Neighborhoods (RCN) funding, NCDOT will complete 100 percent design and environmental review for these projects, all of which are located along existing NCDOT ROW, and construct up to 7.5 miles of new facilities. NCDOT will lead project delivery in close collaboration with participating communities to guide them through the project development and construction process as a pilot for future NCDOT-delivered active transportation projects. A robust capacity building program led by the GTS Coalition, including resource development and distribution; a coordinator position for the Cities, Towns & Counties for Trails Working Group; and content and speakers on accessing and delivering Federally-funded projects at the Great Trails State annual conference, alongside workforce development activities led by NCDOT's Office of Civil Rights (OCR), will complement these elements to support rural, disadvantaged communities across NC.

PROGRAM PARTNERS



NCDOT: NCDOT provides leadership for safe, affordable, and innovative multimodal transportation in NC and supports local communities to increase access, enhance quality of life, and ensure safety for all. NCDOT will serve as the 2023 RCN Grant Applicant and Recipient, and will assume responsibility for administering the grant, lead project delivery with local involvement, and ensure robust stakeholder and public participation throughout the Program.



GTS Coalition: The GTS Coalition is a diverse coalition of 87 non-profits, municipalities, private firms, and agencies advocating for increased state investment in all forms of non-motorized trails in NC. The GTS Coalition will deliver the Program's capacity-building activities and support public engagement activities.



The *GTS Coalition* was formed in 2020 to advocate for increased state investment in all types of non-motorized trails.



The *GTS Plan*, adopted in 2022 identifies a network of shared-use paths connecting all 100 NC counties to create safe walking and biking, conservation, recreation, health, tourism, and economic prosperity.



Through the work of the GTS Coalition, the NC General Assembly designated 2023 as *Year of the Trail* to celebrate NC's trail network as essential community infrastructure for quality of life, recreation, and community economic development.

GREAT-NC will align with the strategy to provide transportation access for all to improve quality of life and multimodal access to regional jobs and services found in *NC MOVES 2050*, NC's strategic multimodal transportation plan. The Program will also ensure each project is designed and/or constructed in accordance with NCDOT's *Complete Streets Policy*, which requires every project in the State Transportation Improvement Program (STIP) be evaluated for bicycle and pedestrian needs during project development. The design of all projects will align with NCDOT's *Strategic Highway Safety Plan*. By building on these important studies and tools, GREAT-NC will deliver a safe, robust bicycle and pedestrian network to connect rural, disadvantaged populations to daily destinations.

Supplemental Materials are included in the application as attachments and are available on the project website.

REGIONAL CONTEXT

NC's moniker as the *Good Roads State* boosts its economic competitiveness, attracts national and international employers, and drives job growth. Historically, rural road development prioritized linking all 100 county seats and larger destinations, creating today's network of nearly 80,000 miles of state roads catering to vehicle travel.

The unintended result of this focus on "connecting to" is that state roads often cut "through" rural communities, dividing them with high-speed, high-traffic routes that redirect economic activity from main streets and traditional town centers, bisecting communities and excluding biking and walking facilities.

Adding to the challenge, NC lawmakers passed the Strategic Transportation Investments (STI) law, in 2013 which prohibits state funding for independent bicycle and

pedestrian projects. While urban areas are able to leverage tools like bonds and capital improvement funding as match to leverage Federal funds, this is not the case for rural disadvantaged communities, causing them to fall even further behind when it comes to the design and construction of active transportation facilities.

GREAT-NC will address the persistent regional mobility challenges that NC's rural, disadvantaged communities face in retrofitting roads with safe biking, walking, and crossing infrastructure, and builds strong coalitions to benefit the most vulnerable road users. A statewide approach is needed to accomplish this goal and address the burdens and harms caused by past and current policies in NC. These burdens and harms include poor safety outcomes, inadequate local capacity to deliver active transportation projects, and inability to leverage available Federal funding to deliver these projects.



Challenge: Between 2012 and 2021, fatal and serious injury pedestrian and bicyclist crashes in NC rose steadily. Rural areas had a higher likelihood of such crashes than urban areas, with 44 percent of fatal and serious injury pedestrian and bicyclist crashes occurring in rural contexts (NCDOT Pedestrian and Bicyclist Crash Analysis Tool, see **Supplemental Materials**). These risks stem from a lack of separated facilities and safe intersection and midblock crossings, which are especially vital in rural areas given the greater distances between intersections.

Solution: GREAT-NC will design and/or construct projects that retrofit high-speed, high-traffic roads with separated facilities that consider the relationship between land use, activity locations, and distance between crossings, and implement context-appropriate countermeasures like high-visibility crosswalks and refuge islands (see **Access** and **Supplemental Materials**).



Challenge: NC's rural communities face many project delivery challenges, including limited staff and resources, difficulties in securing local match for readily available Federal funds, and restrictions on using State matching funds. Between 2018 - 2023, areas with populations less than 5,000 had \$31.9 million available in Transportation Alternative Program funding, however only \$15.8 million was obligated. Furthermore, the current NCDOT STIP includes only 8 projects (\$4.1 million) in this category, leaving approximately \$12.1 million unallocated for projects (see **Supplemental Materials**).

Solution: By pairing project delivery, capacity building, and construction, GREAT-NC will significantly advance the implementation of the GTS Plan, reduce NC's backlog of the bicycle and pedestrian projects, and establish a network of informed, rural communities that are well-equipped to access Federal funding and to successfully deliver bicycle and pedestrian projects.

II. LOCATION + MAP

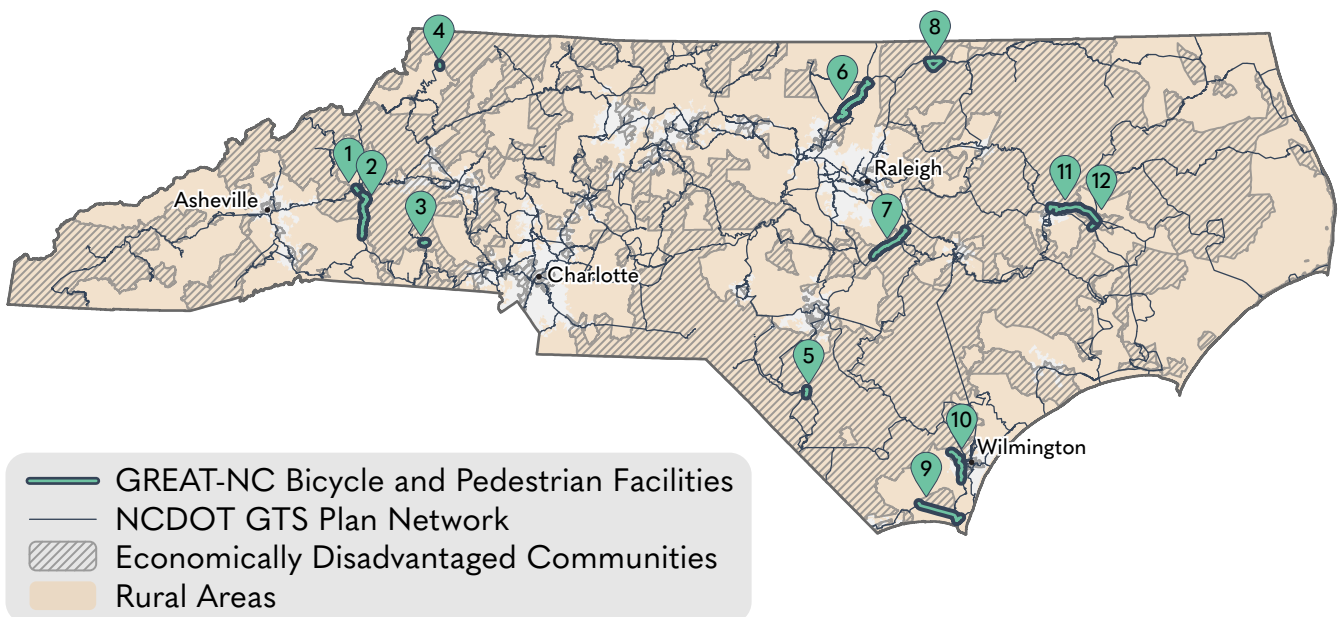
GREAT-NC will deliver 100 percent design for 12 new bicycle and pedestrian infrastructure projects across NC and construct up to 7.5 miles of new facilities that will enhance safety and mobility for residents of rural and economically disadvantaged communities in NC. All of GREAT-NC's proposed facilities will be constructed along existing NCDOT ROW and build on completed or in-progress feasibility studies and planning work. These facilities will connect residents to daily destinations such as grocery stores, schools, and parks; provide safe crossings of bicycle and pedestrian barriers including roadways, water bodies, and railroads; and help complete 88.4 miles of the East Coast Greenway (ECG) and the Mountains-to-Sea Trail (MST), both of which are part of the NC State Trails network.

GREAT-NC's proposed facilities traverse 31 disadvantaged areas as defined by the Climate & Economic Justice Screening Tool (CEJST) and 19 Areas of Persistent Poverty (APP). As shown in the following table, all the proposed facilities are located in economically disadvantaged communities. These projects are located in 8 of NCDOT's 14 Divisions and in 11 counties, 4 of which are among the most economically distressed counties (Tier 1) as

designated by the North Carolina Department of Commerce (NCDOC). Detailed cutsheets provide an in-depth analysis for each of the proposed facilities and their respective communities (see **Supplemental Materials**).



GREAT-NC will equitably improve safety for users of all ages and abilities.



ID	PROJECT NAME	FACILITY TYPE	CURRENT PLANNING/ DESIGN STAGE	GTS PLAN SEGMENT	COUNTY (TIER)	% RURAL	ECONOMICALLY DISADVANTAGED*	
							% CEJST	% APP
1	Marion N Main St Sidepath	Shared-use path	Completed Feasibility Study	13D	McDowell (2)	100%	94.1%	0%
2	Peavine to Thermal Belt Rail-Trail Connector	Shared-use path	Completed Feasibility Study	13I	McDowell (2)/ Rutherford (1)	100%	72.0%	71.6%
3	Lawndale Greenway	Shared-use path	In-Progress Feasibility Study	-	Cleveland (2)	100%	100%	0%
4	West Jefferson Sidewalk Connector	Sidewalk	In-Progress Feasibility Study	11J	Ashe (2)	100%	0%	100%
5	Lumberton Loop	Shared-use path	In-Progress Feasibility Study	-	Robeson (1)	100%	100%	100%
6	Butner to Oxford ECG	Shared-use path	Completed Feasibility Study	5B	Granville (2)	100%	50.7%	23.9%
7	Johnston County ECG (portion of MST)	Shared-use path	In-Progress Feasibility Study	4G	Johnston (3)	100%	100%	15.9%
8	Warren County Loop	Shared-use path	In-Progress Feasibility Study	5D	Warren (1)	100%	100%	98.4%
9	NC-211 ECG	Shared-use path	Completed Feasibility Study	3F	Brunswick (3)	84.3%	71.5%	42.5%
10	Gullah Geechee Heritage Corridor	Shared-use path	In-Progress Feasibility Study	3E	Brunswick (3)	58.1%	51.3%	10.9%
11	Washington-Greenville Greenway ECG	Shared-use path	In-Progress Feasibility Study	2F	Pitt (1)/ Beaufort (2)	96.1%	79.0%	100%
12	Chocowinity-Washington Connector	Shared-use path	In-Progress Feasibility Study	2E	Beaufort (2)	100%	100%	100%

*Economically disadvantaged statistics for each project are based on the percentage of each project alignment that traverses or borders CEJST disadvantaged areas and APPs. Green cells denote economically disadvantaged populations above the 50 percent threshold.

III. RESPONSE TO MERIT CRITERIA

EQUITY + ENVIRONMENTAL JUSTICE



GREAT-NC addresses transportation disparities and barriers to rural mobility related to NC's historical road-building patterns, policies, and laws (see **Program Overview** for an analysis). The burdens created by inadequate project delivery capacity at a local level and poor safety, health, and environmental outcomes directly impact the rural, disadvantaged communities served by the Program. GREAT-NC aligns with the Justice40 Initiative and Executive Order (EO) 13985 by developing NC's pipeline of bicycle and pedestrian projects and building local capacity for project delivery in economically disadvantaged communities across the state.

DEVELOPMENT PATTERN

Roads divide GREAT-NC communities and shift economic activity away from rural main streets

SAFETY

Disproportionate number of fatal and serious injury crashes for bicyclists and pedestrians in GREAT-NC communities

ACCESS TO A VEHICLE

GREAT-NC communities exceed the statewide average for zero-vehicle households

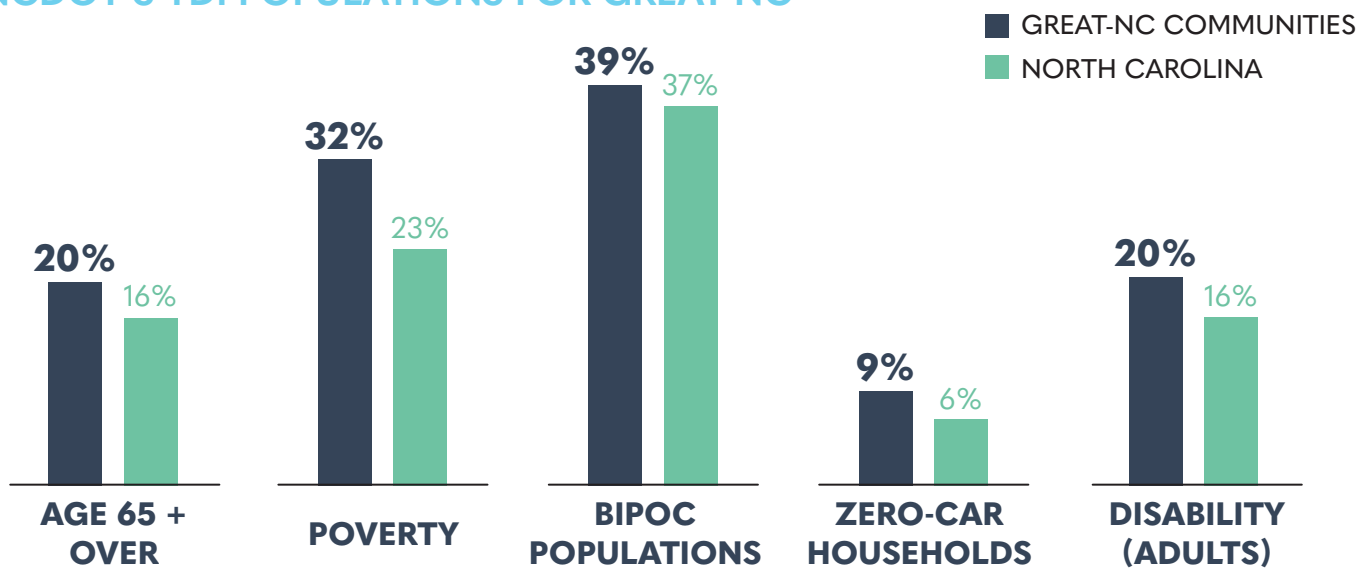
FUNDING + CAPACITY

NC's disadvantaged rural communities struggle to find funding and resources to deliver active transportation projects

As illustrated in **Location + Map**, all of GREAT-NC's projects are located in economically disadvantaged communities. Moreover, all these projects exceed the disadvantaged threshold for the transportation insecurity component and five projects exceed this threshold for multiple components according to the Equitable Transportation Community (ETC) data (see

Supplemental Materials). Populations within three miles of GREAT-NC's proposed facilities exceed state averages for those aged 65 and over, low-income, Black, Indigenous, People of Color (BIPOC), zero-car households, and those with disabilities according to [*NCDOT's Transportation Disadvantage Index \(TDI\) Tool*](#).

NCDOT'S TDI POPULATIONS FOR GREAT-NC



In the communities served by GREAT-NC, there is an immense need for new, safe multimodal connections to daily destinations like schools, medical facilities, and grocery stores. Not everyone has access to an automobile, and the facilities that GREAT-NC proposes to retrofit largely exclude alternative travel modes for even short-distance trips due to the lack of facilities and safe crossing opportunities. GREAT-NC will equitably address this mobility need by completing the design of 147 miles and constructing up to 7.5 miles of new sidewalks and shared-use paths in disadvantaged and underserved communities with zero-vehicle households that exceed the statewide average. GREAT-NC will ensure the needs of those most affected by these projects are considered throughout design and construction by leveraging a robust public engagement program (see **Community Engagement**). GREAT-NC will distribute a host of other benefits to these communities, including:

Improve Access to Greenspace: GREAT-NC will improve access to greenspace by designing and/or constructing bicycle and pedestrian connections to 28 parks across NC and integrating greenspace and vegetation appropriate to each project's context.

Reduce GHG Emissions + Noise Pollution from Automobiles: The implementation of GREAT-NC will design and/or construct facilities that reduce dependence on automobiles for short- and medium-distance trips within rural communities, leading to reductions in vehicular GHG emissions and noise pollution (see **Climate + Environment**).

Improve Resilience: GREAT-NC's design process will identify opportunities to reduce stormwater runoff volumes and remove

pollutants from roadway runoff before it reaches adjacent surface waters. In doing so, GREAT-NC will improve the resilience of rural communities to the increased frequency and severity of precipitation events caused by climate change (see **Climate + Environment**).

Improve Public Health: GREAT-NC will increase opportunities for people to walk, bike, skate, jog, or partake in other activity that has been shown to improve physical and mental health (see **Facility Suitability**).

Improve Safety: By designing and/or constructing a network of separated facilities with safe crossings, GREAT-NC will improve rural bicycle and pedestrian safety (see **Access**).

CONSTRUCTION IMPACTS

GREAT-NC will construct up to 7.5 miles of new active transportation facilities along existing NCDOT ROW. As a result, no construction-related displacement is anticipated. NCDOT will follow its [ROW guidance and procedures](#) to meet or exceed the requirements of the Uniform Relocation Act (URA). GREAT-NC will avoid and minimize other anticipated construction impacts related to noise, air quality, erosion, and stormwater control to the maximum amount practicable and in accordance with construction permits. NCDOT will consult with Federal, state, and local regulatory agencies, as appropriate, to develop mitigation measures for construction impacts that cannot be avoided or minimized and incorporate public input when developing these mitigation measures. Disturbances to historic sites will be avoided, minimized, and mitigated in accordance with the Section 106 process for each individual project. No disruptions to public transportation service are anticipated.



Active transportation provides a wealth of environmental and social benefits to communities.

An estimated one million North Carolinians* live in a house without a vehicle or have other barriers that limit vehicle availability. GREAT-NC will serve these households by improving mobility and creating new multimodal connections to healthcare, employment opportunities, parks and natural areas, and other daily destinations.

*Based on NC State University + Institute for Transportation Research and Education research

ACCESS



GREAT-NC will design and/or construct new affordable transportation options for rural, disadvantaged communities across NC. The Program improves safety, mobility, and connectivity and supports the implementation of context-sensitive solutions through a collaborative design process that incorporates local input. GREAT-NC will support improved multimodal access to daily destinations, including jobs, affordable housing, healthcare, groceries, education, places of worship, parks, and greenspaces to enhance essential aspects of community life. Ultimately, the Program fosters thriving communities by offering transportation choices and ensuring meaningful access to natural areas, thereby contributing to the overall well-being of the communities it serves.

SAFE MOBILITY + CONNECTIVITY

GREAT-NC will improve safe mobility and connectivity for all by designing and/or constructing dedicated active transportation facilities that include robust safety countermeasures to protect vulnerable users. The following table summarizes GREAT-NC’s toolbox of countermeasures and the situations under which they will be considered.

COUNTERMEASURE	APPLICATION	
	<i>Signalized Crossing</i>	<i>Unsignalized Crossing</i>
High-Visibility Crosswalk	All	All
Warning Signs	All	All
ADA Compliant	All	All
Adequate Lighting	All	All
Perpendicular to Roadway	All	All
Grade Separation	High Vehicle + Trail Activity	Speeds 35+MPH; Multilane; High Volume
Refuge Island	Speeds 35+MPH; Multilane; High Volumes	Speeds 35+MPH; 2+ lanes; High Volumes
Rectangular Rapid-Flashing Beacons (RRFB)	N/A	Low Volume, Multilane
Signalization of Pedestrian Hybrid Beacon (PHB)	N/A	Speeds 35+MPH; Multilane; High Volumes
Enhanced Visibility	Poor Visibility; Vegetation; Low Yield Rates	Poor Visibility; Vegetation
Protected Left Turn Phase	Speeds 35+MPH, Multilane; High Volumes; Dual Left Turns	N/A
Leading Pedestrian Interval (LPI)	Heavy Right Turn Volume; Turning Movement Conflict; Long Crossing Distance	N/A
Right Turn on Red Restriction	Low Yield Rates; Poor Visibility	N/A
Reduced Corner Radii	Heavy Right Turn Volume; Turning Movement Conflict; Long Crossing Distance	N/A
Pedestrian Recall	High Pedestrian Activity Levels	N/A
Bicyclist Signal	High Bicyclist Activity Levels	N/A

For project roadways with average daily traffic (ADT) greater than 6,000, GREAT-NC will design and/or construct enhanced safety improvements including new proposed midblock crossings, neighborhood connections, and signalized and unsignalized intersections. Additionally, the GREAT-NC will consider the relationship between land use and activity generators to identify appropriate distance between crossing locations, which may be as little as 300 ft in high activity areas and greater than 2,000 ft in areas with no residential or commercial land use. Some crossings may require unique approaches that apply context-sensitive safety improvements; these will be evaluated on a case-by-case basis and applied to maximize user safety (see **Supplemental Materials**). These improvements align with the Rural Opportunities to Use Transportation for Economic Success (ROUTES) Initiative's safety priority, which uses a Safe Systems Approach to reduce crashes and fatality rates for rural road users, including pedestrians and bicyclists, to reach zero fatalities.

ACCESS TO DAILY DESTINATIONS

GREAT-NC will improve access to numerous daily destinations within the communities it serves. The Program will design and/or construct new bicycle and pedestrian connections that directly and safely connect (within 0.25 miles of project centerlines) to 60 grocery stores, 53 healthcare facilities, 60 places of worship, 23 educational institutions, including K-12 schools and community colleges/universities, 15 affordable housing developments, and 28 parks and recreational facilities. The West Jefferson Sidewalk Connector (Project #4) exemplifies these access improvements by providing a safe and accessible pedestrian connection from the existing downtown sidewalk network along the west side of US 221 Business to the Ingles Grocery shopping center. Other daily destinations along the route include the Leviton manufacturing facility, a bank, hotels, and restaurants, as well as single family and multi-family residential neighborhoods. The feasibility studies completed for each project prior to obligation of funding include detailed analysis of destinations along each alignment and specific recommendations to improve access to these locally significant places.

INTEGRATION WITH SURROUNDING CONTEXT

The design of GREAT-NC's facilities will leverage a context-sensitive solutions (CSS) approach to seamlessly integrate new bicycle and pedestrian facilities with the surrounding character, context, and land use while considering public health (see **Facility Suitability**) and minimizing environmental impacts (see **Climate + Environment**). Following the guidance in [NCHRP Report 480: A Guide to Best Practices for Achieving Context Sensitive Solutions](#), each project's interdisciplinary design team will creatively develop effective and safe mobility solutions while preserving and enhancing scenic, aesthetic, historic, community, and environmental resources. These efforts will build on the collaborative decision-making and stakeholder engagement performed during the planning stage to bring to life the shared vision for each project. Ongoing stakeholder and public engagement through the design process will continue to build project support and improve decision-making.

FOSTERING THRIVING COMMUNITIES

Sidewalks were recognized decades ago by Jane Jacobs as "the main public places of the city" and "its most vital organs" (*The Death and Life of Great American Cities*). The design and/or construction of GREAT-NC's projects will foster thriving communities where individuals can safely access the places they live, work, and play without a vehicle. By creating the choice for individuals to move freely without a car, GREAT-NC promotes social interaction and a sense of community. This is supported by a Portland, Oregon [study](#), which found that residents' sense of community was greater in a pedestrian-oriented neighborhood. The perception of the pedestrian environment was identified as the most significant predictor of a sense of community. Lastly, GREAT-NC's proposed facilities will provide meaningful access to natural areas, both by forming new multimodal connections to parks like Phoenix Park and Brunswick Nature Park (Project #10) and by adding vegetation and greenspace along each corridor appropriate to its context and character.

FACILITY SUITABILITY



GREAT-NC’s regional approach is best suited for overcoming the state’s existing barriers to multimodal access, mobility, and economic development. These barriers have been perpetuated by historic practices and policies (see **Program Overview**). GREAT-NC will design and/or construct projects that retrofit the burdening and dividing facilities for which disadvantaged rural communities lack the capacity and resources to address. In doing so, it also addresses environmental burdens like GHG emissions and stormwater management, while ensuring the uninterrupted flow of goods on GREAT-NC’s facilities. Without GREAT-NC, the communities served will continue to face mobility, access, and economic barriers resulting from vehicle-centric policies and development patterns. The following table outlines these barriers and burdens and GREAT-NC’s solutions.

	BARRIERS/BURDENS	PROJECT SOLUTIONS
Mobility	<p>Vehicle speeds, traffic volumes, and lack of dedicated facilities on GREAT-NC’s roads create unsafe conditions for bicyclists and pedestrians.</p> <p>Historic emphasis on automobile travel and inadequate local capacity to deliver active transportation projects results in unmet bicycle and pedestrian facilities needs.</p>	<p>GREAT-NC will design and/or construct separated bicycle and pedestrian facilities that incorporate proven safety countermeasures (see Access).</p> <p>GREAT-NC helps rural, disadvantaged communities build project delivery capacity and advance the state’s pipeline of active transportation projects to serve zero-vehicle households and create dedicated facilities for users of all ages and abilities.</p>
Economic Development	<p>Current facilities make automobile transportation the safest, most direct form of transportation.</p>	<p>The Program expands transportation alternatives like biking and walking that are safer, more affordable, and grow local economies and spur development (see Equitable Development).</p>
Access	<p>GREAT-NC’s rural communities have inadequate, unsafe, and inaccessible bicycle and pedestrian connections between the places they live, work, and play.</p>	<p>GREAT-NC will help reconnect communities to 239 daily destinations and community services* and create more walkable and bike-friendly communities. NCDOT will ensure compliance with Title VI and ADA/Section 504 policies in the design and construction of GREAT-NC facilities.</p>
Environment (see Climate + Environment for additional details)	<p>Automobile dependence and vehicle miles traveled (VMT) results in GHG emissions and air pollution.</p> <p>Drainage systems along many of GREAT-NC’s roadways do not leverage green stormwater infrastructure (GSI) and are vulnerable to the impacts of climate change.</p>	<p>GREAT-NC will design and/or construct new, zero-emission facilities to help NC meet its GHG emission reduction goals.</p> <p>GREAT-NC will incorporate GSI, as appropriate to the context and needs of each project, to increase resiliency to increasing storm frequency and severity caused by climate change.</p> <p>The design of GREAT-NC facilities will incorporate tree cover and vegetation enhancements that are accessible to drivers, bicyclists, and pedestrians alike.</p>
Safety	<p>There is a high proportion of fatal and serious injury crashes for bicyclists and pedestrians in rural, disadvantaged communities.</p>	<p>GREAT-NC will incorporate solutions from a safety toolbox for protected facilities and safe crossings to reduce incidence of fatal and serious injury crashes.</p>

*Within ¼ mile of proposed facilities

ENVIRONMENTAL BURDENS + VULNERABILITIES

GREAT-NC's design and construction activities will provide solutions to existing environmental burdens and vulnerabilities that threaten future network efficiency, access, public health, and economic growth in rural disadvantaged communities across the state. The Program will address these threats through its design approach and develop CSSs that will create environmental benefits and improve resiliency.

Noise: Early in the design and environmental review for each project, GREAT-NC will combine a desktop analysis with public input to identify sensitive noise receptors and areas of concern in each community. Through the design process, features that buffer and absorb vehicular noise pollution, such as vegetation and sound-absorbing materials, will be strategically incorporated to minimize the disruptive impact of traffic noise to bicyclists, pedestrians, and nearby developments. As more people use GREAT-NC's facilities to access local destinations and recreational opportunities without an automobile, the Program will contribute to reduced noise levels along roads as communities increasingly utilize these pathways for their transportation needs.

Public Health: The [2018 Physical Activity Guidelines for Americans](#) recommends 60 minutes or more per day of moderate or vigorous aerobic activity at least 3 days a week for children and 2.5 to 5 hours of aerobic activity for adults throughout the week. In the [Step it Up!](#) Campaign, walkable communities were promoted as a public health strategy because walking is accessible, easily adaptable to different lifestyles, and multipurpose. GREAT-NC will create a construction-ready pipeline of projects that increase opportunities for people to walk, bike, skate, jog, or partake in other physical, aerobic activities that support a healthy lifestyle, reduce healthcare costs, and improve mental health. These benefits are of great consequence to communities served by the 10 GREAT-NC projects that are located in counties with the poorest health outcomes in the state ([County Health Rankings & Roadmaps \(CHR&R\)](#)).

Greenspace + Stormwater Management:

A 2022 [study](#) on greenspace, air pollution, traffic noise, and mental health throughout adolescence found that exposure to greenspace may be associated with a better mental wellbeing in adolescents. Wherever feasible, the Program will incorporate greenspace, including street trees, native species, and pollinator-friendly plants, into the design of its facilities as informed by community and stakeholder input and local context to improve access to parks and natural areas. These greenspaces will also support reductions in stormwater runoff and improvements in water quality by doubling as stormwater best management practices (BMPs), like filter strips and bioretention cells, to simultaneously improve stormwater management and increase community resilience to the increasing frequency and severity of precipitation events throughout the state.

IMPACTS TO FREIGHT MOBILITY

Four GREAT-NC projects align with key corridors in the [North Carolina Priority Highway Freight Network \(NCPHFN\)](#) — including Projects #2 and #4 (US 221), Project #12 (US 17), and Project #1 (US 70). The NCPHFN is critical to economic activity, goods movement, market access and connectivity, and supporting key industries' supply chains. The roadways that GREAT-NC proposes to retrofit carry, on average, between 7,700 and 16,900 vehicles daily. NCDOT will work collaboratively with localities, stakeholders, and the public through the design process to ensure that any adverse impacts to the movement of goods during construction and operation are avoided and minimized. In doing so, NCDOT will create a pipeline of modern, shovel-ready projects that meet regional and local mobility needs for the movement of both people and goods.

COMMUNITY ENGAGEMENT + COMMUNITY-BASED STEWARDSHIP, MANAGEMENT, + PARTNERSHIPS



Throughout GREAT-NC, NCDOT will work closely with the GTS Coalition and local communities to proactively and meaningfully engage a diverse range of partners, stakeholders, and the public, fostering their participation in the development of solutions for safe and equitable bicycle and pedestrian access to daily destinations in rural, economically disadvantaged communities. GREAT-NC's engagement process is consistent with NCDOT's Title VI Program ([DOT Order 1000.12C](#)) and incorporates specific strategies and actions to engage a broad range of participants, including residents, business owners, advocacy groups, and community members. The GTS Coalition will lead technical assistance and information-sharing activities and engage staff and elected representatives in GREAT-NC's cities, towns, and counties to build project delivery capacity. GREAT-NC's inclusive approach to public engagement, partnership, and collaboration ensures the perspectives of all, particularly those from disadvantaged communities, are considered when designing and constructing each project.

Over each project's lifecycle, NCDOT and the GTS Coalition will accomplish the following goals through the Program's community engagement activities:

- **Education:** Enhancing awareness and understanding of GREAT-NC and the project development process to enable informed involvement and meaningful participation
- **Inclusion:** Engaging stakeholders representing a broad range of interests, values, and opinions
- **Transparency:** Providing information in a clear, transparent, and efficient manner
- **Accountability:** Being visible and accessible to the public and other project stakeholders, as well as considering and responding to their input
- **Responsiveness:** Responding to inquiries in a timely manner

COMMUNITY PARTICIPATION PLAN

Upon execution of the grant agreement, GREAT-NC will use the Community Participation Plan (see **Supplemental Materials**) as a guide to develop a tailored engagement plan for each project that will meaningfully a broad range of parties in the design process and capacity building activities. These plans will articulate specific goals for outreach; identify stakeholders and interest groups; outline specific activities, timelines, materials, and responsible parties essential for executing each project's engagement strategies; and include detailed demographic data on each project's Demographic Study Area (DSA) to identify environmental justice (EJ), Limited English Proficiency (LEP) populations, and other hard-to-access members of the community and targeted outreach strategies to include them in the project. These plans will also outline activities to share information about GREAT-NC's workforce development and subcontracting opportunities. The Community Participation

Plan aligns with [North Carolina's Statewide Public Involvement Plan](#) and nationwide best practices to meaningfully include local residents, property owners, business owners, and visitors, and actively engage a broad range of stakeholders including community-based organizations, Federal, state, and local agencies, and environmental advocacy groups.

The Community Participation Plan identifies various measures of effectiveness for public engagement, including but not limited to:

- Total number of participants
- Demographic characteristics of participants representative of affected and targeted populations
- Survey responses that measure perceptions of influence, impact, transparency, and trust
- Program team's responsiveness to public input
- Adequacy of the Program team's approach relative to project needs and community's desire to be involved

ENGAGEMENT ACTIVITIES

GREAT-NC will build upon the public and stakeholder engagement activities completed during each project's feasibility study, which included steering committee meetings and guidance, public meetings, small group stakeholder engagement, and community surveys. For each GREAT-NC project, NCDOT will take a community-centered approach to engaging targeted and affected communities in the identification of design solutions to reconnect the community and mitigate burdens. GREAT-NC's community engagement activities, documented in project-specific plans, will include:

- Oversight of a steering or representative **community advisory committee** during the design process to reflect community priorities in the decision-making process to redress transportation-related disparities;
- In-person and virtual **public meetings** to share information and solicit feedback;
- **Small group meetings** to facilitate information sharing and input from community groups and allow stakeholders to informally discuss the Program and have their perspectives shared and documented;
- **Program website** to share updates, schedules, and other informational resources as they are developed;
- **Online engagement** platforms to collect input and allow residents with mobility or other limitations, who may be unable to attend in-person events to participate in the Program; and
- Use of **multiple media outlets** to communicate Program information.

The GTS Coalition will support these engagement activities by providing additional research, development and distribution of research and information through the Cities, Towns, & Counties for Trails Working Group and Statewide conference to occur throughout the life of the Program.

PARTNERSHIPS

RCN funding is needed to create a construction ready pipeline of pedestrian and bicycle facilities and address unmet mobility needs in rural, economically disadvantaged communities. The Program is estimated to cost **\$67,700,000** (2023\$), to be fully

GREAT-NC ensures the meaningful participation of diverse populations and hard-to-access community members in rural, disadvantaged communities across NC who face disproportionate environmental burdens of transportation impacts. NCDOT and the GTS Coalition will disseminate information through multiple media outlets and platforms, solicit feedback through both virtual and in-person events, and ensure meeting locations and materials are accessible to those with limited internet access and persons with limited mobility, disabilities, and LEP.

funded with RCN funds due to its location in economically disadvantaged communities (see **Supplemental Materials** for a detailed budget narrative). No other Federal, state, or local funds are committed to the Program. NCDOT has allocated **\$1,382,775** (2023\$) of Program funding for capacity building activities that provide rural, economically disadvantaged communities across the state with enhanced workforce development programs led by NCDOT's OCR (see **Workforce Development + Economic Opportunity**), access to a Cities, Towns & Counties for Trails Coordinator, research and development of trail resources, and a Great Trails State Annual Conference through 2029. The GTS Coalition has a wide-reaching, established network of stakeholders with key interest in multimodal transportation across the state. By leveraging the partnership with the GTS Coalition, NCDOT will build on their efforts and effectively engage the public throughout the Program delivery.

GREAT-NC's letters of support include a wide range of stakeholders, institutions, and community groups that will play a role in GREAT-NC's development and delivery.



NCDOT performed robust community engagement during the development of the GTS Plan

EQUITABLE DEVELOPMENT



NC's rural, disadvantaged communities have many unmet mobility needs due to inadequate project delivery capacity (see **Overview**), and these communities struggle to advance active transportation projects through design and construction. By creating 147 miles of construction-ready projects and constructing up to 7.5 miles of these projects, GREAT-NC will set the stage for equitable economic development through benefits such as lower transportation costs, support of local tourism, main street revitalization, and encouraging investment in rural and disadvantaged areas. GREAT-NC's workforce development elements will lead to additional direct and immediate economic and community development benefits as well (see **Workforce Development + Economic Opportunity**).

INCREASED INVESTMENT

GREAT-NC will encourage public and private investments in 50 rural, economically disadvantaged communities in NC. Users of GREAT-NC's facilities will make purchases that support jobs, business output, and sales tax revenues in grocery, retail, restaurants, and other amenities in the participating communities. Once constructed, the facilities will support local tourism by providing convenient access to amenities and natural areas, while the construction of up to 7.5 miles of new shared-use paths will support jobs in the transportation engineering and construction industry statewide. This increased economic activity, coupled with increases in foot and bicycle traffic within rural towns will attract private investment from developers to build new neighborhoods, restaurants, and retail establishments. GREAT-NC will also reduce transportation cost burdens. In the 2018 report *Evaluating the Economic Contribution of Shared Use Paths in NC*, researchers found that trail users in the communities studied reduced their annual transportation costs by \$1.83 million by having access to safe and more frequent travel by foot or by bike.

COMMUNITY RESTORATION

The construction of new active transportation facilities can result in unintended consequences, such as gentrification, displacement, and further marginalization of disadvantaged and underserved populations. During the design and construction of GREAT-NC's facilities, NCDOT will work collaboratively with local communities to identify appropriate community restoration, stabilization, and anti-displacement strategies from the *North Carolina Strategic Plan for Economic Development* and *NCDOT*

Strategies to Support Affordable Housing, such as inclusionary zoning, tax incentives, job training, and affordable housing to promote equitable development along existing NCDOT corridors and ensure the economic benefits of GREAT-NC are shared by all.

CREATIVE PLACEMAKING

GREAT-NC will create opportunities for effective and creative placemaking through partnerships and community engagement. Engagement with artists and organizations such as the NC Council of the Arts, will identify opportunities to incorporate elements like interpretive and wayfinding signage, art, gathering spaces, and vegetation. These elements will highlight community assets, local history, and local culture to enhance the character of each community and create a safe and welcoming pedestrian environment.

REVENUE GENERATION

For each...
invested
in TRAILS **\$1** **»»»** **\$1.72** in economic
benefits
is **GAINED**

Evaluating the Economic Impact of Shared Use Paths in NC, 2018

With \$17.53 million in construction, GREAT-NC is projected to generate \$30.15 million in economic benefits.

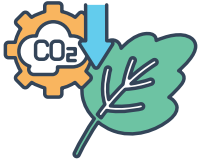
JOB CREATION

For every...
spent
on TRAILS **\$1M** **»»»** **9.6** jobs are
CREATED

Pedestrian and Bicycle Infrastructure: A National Study of Employment Impacts, 2011

With \$66.12 million in design and construction, GREAT-NC is projected to create 635 jobs.

CLIMATE + ENVIRONMENT



The Program provides a range of environmental benefits and reduces environmental burdens. Together, these benefits address the disproportionate negative environmental impacts of transportation on disadvantaged communities and avoids adverse impacts. The following table summarizes GREAT-NC's solutions to environmental challenges:

CHALLENGE	SOLUTION
<p>GHG Emissions: NC's transportation sector accounted for 36 percent of GHG emissions between 2005 and 2018 (<i>North Carolina Department of Environmental Quality's (NCDEQ's) 2022 GHG Inventory</i>). Highway emissions from fossil fuels are projected to reach over 46 million metric tons of carbon dioxide equivalent (MMTCO_2e) by 2025, which equates to 89 percent of the NC transportation sector's total GHG emissions.</p>	<p>GREAT-NC's design and construction activities will provide high-quality choices for lower-carbon walking, cycling, and rolling. By reducing dependence on automobiles and VMT for short- and medium-distance trips within rural communities, the Program will support reductions in vehicular GHG emissions. The 2018 report <i>Evaluating the Economic Contribution of Shared-Use Paths in NC</i> found that the Duck Trail, Brevard Greenway, and Little Sugar Creek Greenway, contributed to an annual decrease of 53.7 million pounds in CO_2 emissions and 686,000 pounds in motor vehicle emissions, which translated into an annual environmental cost savings of \$707,000.</p>
<p>Heat Island Effect: While rural areas are not as prone to this phenomenon, heating of paved surfaces in rural areas can influence local temperatures, which exacerbates the impacts of global warming and climate change (<i>EPA Heat Island Effect</i>).</p>	<p>GREAT-NC's design approach will avoid heat island effect by incorporating greenspace and trees that provide shade. Its pavement treatments will incorporate innovative practices like lighter color surfaces where practicable, which absorb less heat than asphalt pavement.</p>
<p>Greenspace + Natural Areas: Greenspace and natural areas in GREAT-NC's communities are difficult to access without a car.</p>	<p>GREAT-NC will design and/or construct new bicycle and pedestrian connections to 28 parks and open spaces. Wherever feasible, the Program will incorporate greenspace, including street trees, native species, and pollinator-friendly plants, into the design of its facilities as informed by community and stakeholder input and local context to improve access to parks and natural areas.</p>
<p>Climate Resilience + Flood Risk: Drainage systems along many of GREAT-NC's roadways do not leverage GSI and are vulnerable to the increasing frequency and intensity of storms caused by climate change.</p>	<p>The design of GREAT-NC facilities will incorporate innovative GSI, appropriate to the context and needs of each project, to increase the resiliency of Program roads. The design process will integrate natural features like wetlands and floodplains alongside GSI like bioretention cells, rain gardens, and permeable surfaces, to minimize downstream flood risk, reduce stormwater velocity, and improve water quality.</p>
<p>Noise Pollution: According to the EPA, cars moving at around 30 mph on local roads produce sound levels ranging from 33 to 69 decibels. These noises can lead to uncomfortable conditions for bicyclists and pedestrians and have negative impacts to local wildlife.</p>	<p>GREAT-NC will support lower noise levels by designing and/or constructing facilities that will reduce automobile dependence and encourage quieter forms of transportation like walking and biking. GREAT-NC's safety countermeasures will slow vehicle speeds, which will in turn reduce vehicular noise pollution.</p>

Additionally, the Program will avoid adverse impacts to air and water quality, wetlands, endangered species, and sacred or historic sites by retrofitting existing NCDOT roads. The best practices and considerations highlighted above reflect the Program's holistic approach to design active transportation facilities that prioritize the well-being of local residents by creating environmental benefits and avoiding and minimizing environmental impacts.

“GREAT-NC demonstrates NCDOT’s and the GTS Coalition’s commitment to address systemic inequities and reconnect disadvantaged communities statewide that lack multimodal transportation options and suffer disproportionately adverse safety, environmental, and health outcomes.”

**--Ryan Brumfield
Director of Integrated
Mobility Division (IMD)**



A 2021 study followed nearly 2,000 people over time and found that those who switched just one trip per day from car driving to cycling reduced their carbon footprint by about 0.5 tons over a year, representing a substantial share of average per capita CO₂ emissions (*Brand et al., 2021*). GREAT-NC supports NC's statewide climate action plan, including NC [EO 246](#) and the [2020 North Carolina Climate Risk Assessment and Resilience Plan](#), which aim to reduce GHG emissions to 50 percent below 2005 levels.

ADDRESSES DISPROPORTIONATE NEGATIVE ENVIRONMENTAL IMPACTS OF TRANSPORTATION ON DISADVANTAGED COMMUNITIES

The implementation of the Program's new active transportation facilities will serve as a catalyst for uplifting underserved and disadvantaged communities and realizing EJ objectives. The Program's public engagement activities will target low-income, minority, and other populations that are disproportionately impacted by pollution and environmental burdens, to ensure they have a voice in shaping transportation solutions that equitably distribute benefits.

The implementation of GREAT-NC will create the following benefits for disadvantaged communities in the vicinity of the proposed projects:

- Reduced air pollution
- Lower carbon footprint
- Improved physical and mental health
- Safer and more equitable access to jobs, healthcare, and daily destinations
- More affordable transportation choices
- Community empowerment
- Traffic noise reduction
- Greenspace enhancement and new multimodal connections
- Well-equipped rural communities
- Increase local capacity to deliver active transportation projects through new funding, participation project delivery to build expertise, and resources and activities provided by GTS Coalition



GREAT-NC addresses disproportionately negative impacts on underserved communities from past harmful transportation decisions that result in unsafe conditions.

WORKFORCE DEVELOPMENT + ECONOMIC OPPORTUNITY



GREAT-NC will provide inclusive workforce development opportunities, economic benefits, and foster economic prosperity in rural NC, particularly for historically marginalized and underrepresented groups within the transportation sector. GREAT-NC will work to maximize the participation of DBE and Small Professional Services Firms (SPSFs) while expanding and enhancing NCDOT OCR's nationally recognized workforce development programs in the communities served by GREAT-NC. Through these activities, GREAT-NC will support good-paying jobs and strong labor standards in NC. NCDOT will comply with all state and Federal workplace rights, anti-discrimination, and anti-harassment plans and policies during the implementation of GREAT-NC.

NCDOT will encourage participation from DBEs and SPSFs in the delivery of GREAT-NC to support the continued growth of these firms. Moreover, GREAT-NC will support the development of a workforce that is well-trained and well-equipped to complete design, environmental review, public engagement, and construction activities for multimodal projects by expanding and enhancing OCR's current highway-focused programs to provide supportive services, technical assistance, and job training for multimodal projects. These programs include:

Business Opportunity + Workforce

Development (BOWD): This unit provides free or cost-effective supportive services to certified DBE firms through training, education (including programs through NC State University), and one-on-one technical assistance and supportive services.

On-the-Job Training (OJT): Assists minorities, women, veterans, and disadvantaged individuals who have been historically underrepresented in highway construction job opportunities by training and prepares program participants to meet a certain skill level in the highway construction sector. This program is actively involved with community partners and promotes youth engagement and awareness of the highway construction industry. It also provides supportive services such as mentorship and employment counseling to participants.

Highway Construction Trade Academies

(HCTAs): Offers training through HCTAs for adult learners to introduce them to the highway construction industry and earn Occupational Safety and Health Administration (OSHA) and Flagger certifications. Participants are also provided with case management, training allowances, access to hiring fairs, and prime contractors.

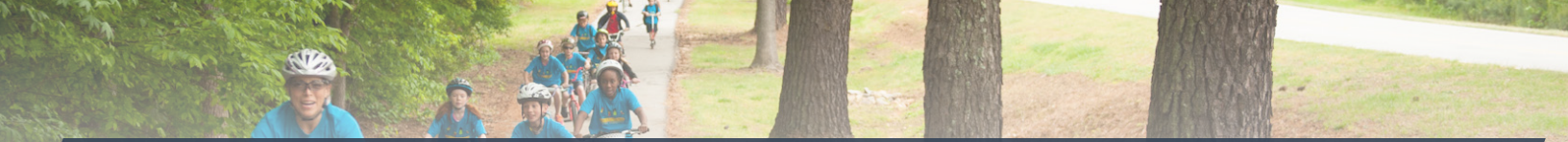
Graduates of these two- to four-week programs will gain access to some of the 600+ local jobs GREAT-NC is estimated to create (see **Equitable Development**).

By contributing to NCDOT's DBE and OJT participation goals and connecting these firms and individuals with training and supportive services in the above-listed programs, GREAT-NC will apply inclusive economic development practices and contribute to the worker training, placement, and retention of local, skilled, and well-paid workers across NC.

NCDOT has robust Minority and Women-owned DBE outreach and certification programs to promote the participation of disadvantaged businesses in NC transportation projects. NCDOT routinely contracts DBEs for transportation projects and conducts quarterly outreach to highlight future projects and to encourage DBE participation. For Federal Fiscal Years 2022- 2024, NCDOT has set a DBE goal of 13 percent, where 10.8 percent is anticipated to be through race conscious measures and 2.2 percent is expected to be through race-neutral measures. NCDOT will promote DBE utilization in GREAT-NC by scoring responses to its construction Request For Proposals (RFPs) on their DBE participation plan and inclusion of local firms.



NCDOT Division 4 + 5 DBE Workshop, July 2023.



IV. PROJECT READINESS: ENVIRONMENTAL RISK

GREAT-NC builds on state and local planning efforts to advance NC’s pipeline of bicycle and pedestrian projects. Delivering multimodal projects is one of NCDOT’s primary functions, and each year, NCDOT manages the receipt and expenditure of over \$1.5B per year in Federal-Aid Highway Program funds under Title 23, United States Code. NCDOT maintains the records and accounting systems that will allow it to comply with RCN’s reporting and administration requirements. Should the Program be approved for funding, NCDOT is ready for obligation as soon as the necessary NAE Grant Agreement can be executed.

The final alignment for each project may deviate from what is shown in the Project Location Map and cutsheets (see **Supplemental Materials**). To the extent that the selected alternative for each project is not located within economically disadvantaged communities, NCDOT will reallocate funding from the design of these facilities to the construction of GREAT-NC facilities that are located in economically disadvantaged areas and are not subject to a match requirement. All constructed segments will be located within NCDOT ROW.

may vary depending on complexity. NCDOT will administer the construction of up to 7.5 miles of facilities upon completion of 100 percent design for those segments, which will be identified prior to funding obligation. Community engagement will occur throughout delivery of the individual projects, demonstrating both NCDOT’s and the GTS Coalition’s commitment to ensuring activities are responsive to each community’s needs and input. Funds will be obligated well in advance of the September 30, 2026, deadline, and all construction activities will be completed by June 30, 2030. Design of the projects selected for construction will be completed by June 30, 2026, prior to the obligation deadline of September 30, 2026. The design schedule for projects not proceeding to construction with RCN funding may extend past the obligation deadline.

SCHEDULE

Upon obligation of funds, NCDOT and the GTS Coalition will initiate capacity building activities, environmental review, and 100 percent design for all 12 projects concurrently, although the schedule for individual projects

	2024				2025				2026				2027				2028				2029				2030	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
RCN Milestones		★		★							★															
Capacity Building + Engagement					★				★				★				★				★					
NEPA																										
Engineering + Design																										
Construction																										

Note(s): Schedule is aggregated for the 12 projects, resulting in overlapping tasks.

★ GREAT-NC Milestones 1: Anticipated Award Date | 2: Grant Agreement Executed | 3: Obligation Deadline

REQUIRED APPROVALS

Local + State Approvals: No legislative approvals are required. All projects are included in the GTS Plan and/or will have feasibility studies completed prior to execution of the grant agreement. The preparation of the GTS Plan and feasibility studies included robust virtual and in-person public engagement and the consideration of public input. Letters of support have been provided on the [GREAT-NC website](#), indicating high level of state and local support for the grant application. NCDOT will work collaboratively with the appropriate Rural Planning Organizations (RPOs) and Metropolitan Planning Organization (MPOs) to amend their respective Transportation Improvement Programs, and subsequently add the Project to the State Transportation Improvement Program upon execution of the grant agreement.

NEPA + Environmental Review: NCDOT anticipates that all facilities qualify as Type 1 Categorical Exclusions (CEs), pursuant to with the Programmatic Agreement between the Federal Highway Administration (FHWA), NC Division, and NCDOT Regarding the Processing of Actions Classified as a CE for Federal-Aid Highway Projects (amended in 2019). Each CE will be processed in

accordance with this guidance, which authorizes NCDOT to approve the documents without additional FHWA approval and streamlines project delivery. All GREAT-NC projects will comply with permitting requirements pursuant to sections 401 and 404 of the Clean Water Act (CWA) as required. The United States Army Corps of Engineers (USACE) holds the final discretion as to what CWA permits will be required to authorize construction. Prior to construction, NCDOT will also obtain National Pollutant Discharge Elimination System (NPDES) permits to ensure stormwater is properly treated and controlled during construction.

ROW: NCDOT anticipates minimal ROW acquisition, likely through partial acquisition of properties or easements adjacent to existing ROW, to accommodate the Program. NCDOT will complete acquisition in accordance with 49 Code of Federal Regulations (CFR) part 24, 23 CFR part 710, and NCDOT policy. No displacements are anticipated.

RISKS + MITIGATION

NCDOT has identified the following potential risks and corresponding mitigation strategies to complete GREAT-NC on schedule and within budget:

	POTENTIAL RISK	MITIGATION STRATEGIES
Project Costs	Included projects have not yet begun detailed design; utility, ROW, structures, and drainage needs could increase construction costs. Material shortages and inflation cause cost volatility in materials and labor.	GREAT-NC’s design activities will refine and confirm ROW, utility, and stormwater management costs. Five percent contingency was included for design, and a 20 percent contingency was included for construction to account for supply chain difficulties and inflation.
ROW Acquisition	ROW acquisition needs are yet to be determined which could affect project schedule and budget.	GREAT-NC is designed to minimize ROW acquisition and is being constructed within existing NCDOT ROW to the maximum amount practicable. Coordination with potentially affected property owners will begin during project design. Program will meet or exceed the requirements of the URA.
Construction Impacts	Construction detours and/or delays may temporarily impact access and travel time. Business access may be impacted. ADA accessible facilities may be temporarily unavailable.	NCDOT will complete construction in a timely manner by ensuring engineering design fully accounts for ROW, utility, and drainage needs. Communicate detours and construction schedules to the community through multiple platforms and in multiple languages. Coordinate with businesses to minimize potential impacts to operations. Address ADA accessibility during construction.

