

BUS PLANS & SHORT RANGE TRANSIT PLANS

TASK DESCRIPTION

Background and Purpose of Bus Plans and Agency Short Range Transit Plans

The task will update the Wake County Bus Plan, create a Durham County Bus Plan, and update the short range transit plans for GoRaleigh, GoCary, GoTriangle, GoWake Access, GoDurham, and GoWake Access.

Background

The original Wake County Transit Plan was commissioned in 2014, developed throughout 2015, and was adopted by governing boards in 2016. The plan defined four big moves, or goals, including connect regionally, connecting all Wake County communities, establishing a frequent and reliable transit network and enhancing access to transit. The 2020 update to the Wake County Transit Plan was adopted by GoTriangle Board of Trustees and CAMPO Board of Directors in April 2021.

The original Durham County Transit Plan was adopted by voters in 2011, updated in 2017, and is anticipated to be updated once again by the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), GoTriangle, and Durham County governing boards in late 2021 or early 2022.

The original Orange County Transit Plan was adopted by voters in 2012, updated in 2017, and is anticipated to be updated once again by the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), GoTriangle, and Orange County governing boards in late 2021 or early 2022.

Purpose

Following the update to the Wake County Transit Plan and the anticipated update of the Durham County Transit Plan and Orange County Transit Plan in FY22, GoTriangle, along with transit partners, will update existing county bus plans and corresponding transit agency-specific, short-range transit plans with these objectives:

1. To define, confirm, or reevaluate bus service investments for FYs 2024-2027
2. To determine the programming of any bus service expansion investments in FYs 2028-2030

While the plan updates may revisit project delivery assumptions and market assumptions that drive transit propensity and redirect priorities for local and regional bus service investments, the plan update will not change the overarching goals defined by the county transit plans.

To inform the county transit plan work plan development for FY 2024,

- The Wake Bus Plan update should be completed and adopted by October 2022.
- The Durham Bus Plan should be completed and adopted by February 2023.

The bus plan updates will kick off in July of 2021 to allow time for it to meet its intended schedule.

Project Development Process

The following steps describe the approach for the development of the Bus Plans and Short Range Transit Plans. Work on Wake Transit tasks will begin immediately, while Durham Bus Plan related tasks will begin following the adoption of the Durham Transit Plan or at the appropriate time as determined by GoTriangle.

1. Define goals and objectives for agency short range transit plans and Wake and Durham Bus Plans
2. Identify travel needs and evaluate service performance to identify gaps in existing/planned services
3. Define service alternatives and capital projects for each transit agency and conduct comprehensive review of all projects to identify service alternatives in key transit corridors (services crossing municipal or county lines, or where service is coordinated between agencies and/or travel markets) to define projects and sponsor. Project timing of work will be determined as part of a separate task, recognizing that Wake, Durham and Orange are on different schedules.
4. Prioritize and program projects by year for operating and capital projects.
5. Conduct public engagement on the draft bus plans and short range transit plans.
6. Revise operating and capital plans and SRTTP to respond to public comment
7. Conduct public engagement on final draft bus plans and short range transit plans
8. Finalize plans for adoption

Scope of Work

Task 1: Project Initiation and Management

1.1 Kick off meeting

The consultant will hold kick off meeting with GoTriangle and partners within 45 days of the NTP to review and refine the scope of work, project schedule and communication protocols. We will also use this opportunity to talk through external communication strategies and needs (branding, webpage, social media strategy, etc.).

1.2 Ongoing Project Meetings

Lead biweekly project administration meetings with GoTriangle and potentially partners; develop and distribute agendas and furnish meeting summaries; furnish biweekly reports including progress updates from prime consultant and sub-consultants in a format acceptable to GoTriangle 1 day in advance of project administration meetings.

1.3 Invoices and Monthly Progress Reports

Furnish monthly progress reports and itemized invoices in a format acceptable to GoTriangle no later than the 20th day of the month following each invoice period. For June invoices (GoTriangle fiscal year close), furnish June invoice amount no later than July 15. Furnish projected expenditure forecast by month within 15 days of NTP; furnish updated forecasts on a quarterly basis thereafter

1.4 Project Execution Plan

Develop and maintain project execution plan for task activities, including identification of the consultant single point-of-contact for communication with GoTriangle, organizational charts, and QA/QC plans and procedures applicable to the prime consultant and sub-consultants. Submit initial documents for GoTriangle review within 15 days of notice to proceed (NTP). GoTriangle and the consultant will use best efforts to finalize these documents no later than 45 days following NTP.

Deliverables:

- ✓ *Kick off Meeting*
- ✓ *Bi-weekly Project Meetings and progress reports*
- ✓ *Monthly invoices and progress reports*
- ✓ *Project execution plan*

Task 2: Regional Service Assessment

The consultant will prepare a detailed assessment of the state of the system regarding transit services in the Triangle Region. The analysis will build upon existing work to create both regional and county-level market analyses. Regional and county-level analyses will use consistent methodologies but be scaled and focused by geography. The analyses will include a performance assessment of individual routes an equity analysis of access to destinations and consider impacts associated with COVID-19 and conduct a gap analysis to identify next steps.

2.1 Market Assessment

The focus of this step will be on preparing a regional and local market assessment to assess transit demand, including population, employment, densities, demographic characteristics, and land uses. The analysis will be based on the work completed in the Wake Transit Plan Update (2021), Durham Transit Plan Update (2021), and Orange County Transit Plan Update (2021). The consultant will generate a transit propensity map for 2035 and 2025 covering Wake, Durham, Orange and northeastern Chatham County in a format agreed upon by GoTriangle and transit partners. The consultant will use this information to create a transit propensity analysis to show both regional and local demand for transit as well as indicate the level of service appropriate given the underlying demand. This analysis will, for example, indicate which areas are likely to support higher capacity, higher frequency fixed route services as compared with lower

frequency fixed route and demand response service; the analysis will also consider sub-area transit demand and opportunity with sufficient detail to provide route level recommendations.

The consultant will complete an equity analysis of the access to destinations that will consider the demographic profiles from recent customer satisfaction surveys, communitywide attitudinal surveys, and other customer surveys.

The analysis will include a transit competitiveness assessment that identifies the transit trips that are or could be competitive with the same trip by car. The competitiveness assessment will identify the top markets that we should be serving?

The consultant may use replica or street light data to identify key attractors. Coordinate with transit partners and staff at the CFA municipality to identify known employment or residential locations that are underserved by transit, or are emerging markets by FY30.

2.2 Route Level Performance Evaluation Report

Assess the performance and productivity of transit services in the Research Triangle for the current year and the past several years (FY17-22). Analysis will consider individual routes operated by GoRaleigh, GoCary, GoTriangle, GoWake Access, GoDurham and GoDurham Access. Analysis will inventory and evaluate route performance based on metrics set by Wake Transit and the Durham Transit Plan, including metrics such as but not limited to passengers per revenue hour, passengers per revenue mile, operating cost per passenger, cost per revenue hour, farebox recovery and on-time performance. Assuming data is available, we will also include route level metrics, such as ridership by segment and time of day.

The consultant will evaluate trends and performance over time as well as current performance given service restrictions and public health concerns. We will use the analysis to evaluate individual route performance by category and evaluate the overall regional transit system performance. This analysis will compare, and contrast measured performance against expected demand (market assessment). For routes that are still in the grace or development period, we will recommend an appropriate methodology for evaluating service performance given public health concerns (see Task 2.3).

2.3 COVID-19 Impact Analysis and Scenario Planning

As part of evaluating the Research Triangle's transit markets and services, the consultant will evaluate the impact of COVID-19 on the demand for transit and recommend strategies for network investments over the short term. Our analysis will look at ridership trends among Research Triangle transit providers during the pandemic. We will do this by analyzing the experience locally and regionally – which riders continued to use transit during the pandemic, where they traveled, and how demand changed over time. For example, the County Transit Plans are heavily focused on peak period investments. Travel demand during COVID has de-emphasized the need for peak services as many office employees and other “white collar” jobs allowed people to work from home. This contrasts with many essential workers, who continued to travel to work,

many of whom started and ended shifts during off-peak times and/or traveled on weekend days.

We will compare the experience in the Research Triangle with other parts of the United States to create a COVID recovery plan with recommendations for adjustment to regional prioritization policies and service evaluation methods (see also Task 1.2). We will look at trends locally within each service area as well as regionally to create a series of travel scenarios that account for different “recovery models”. We will use the scenario plans to consider how the region can plan and adjust services to immediate and shorter-term travel needs.

2.4 Wake County and Regional Service Gap Analysis

The consultant will combine the analyses prepared in previous tasks and compare/contrast existing conditions with the Wake Transit Plan service investments, as well as most up to date planned service investments from Durham and Orange counties for GoTriangle services. We will use this analysis to identify service gaps in the immediate term (FY24-27) and the impacts of these changes in the shorter term (FY 28-29 and longer term (FY30+)).

Once this data is compiled, we recommend holding a workshop with transit agency staff (up to one workshop per transit agency and up to one workshop for all transit partners, depending on interest and need) to discuss findings and The consultant’s preliminary assessment of opportunities to strengthen individual routes and the overall network, such as cases where there is competition between routes and/or opportunities to increase service coordination.

Deliverables:

- ✓ *Market Assessment (regional and for individual counties)*
- ✓ *Route Level Performance Evaluation Report*
- ✓ *COVID-19 Impact Analysis and Scenario Planning*
- ✓ *Wake County and Regional Service Gap Analysis*

Task 3: Service Standards, Measures and Targets

3.1 Wake Transit Service Standards, Measures and Targets Document

The consultant will recommend revisions to Wake Transit service standards and measures based on a combination of peer review data and best practices for service expectations in the post-COVID-19 operating environment. This adjustment will consider, for example, requirements to limit passenger loads to protect social distancing. Our goal will be to align standards to reflect updated goals and values, work towards consistency among service providers and reflect existing conditions.

The consultant will review existing standards and complete a peer review of service and route performance measures used by transit agencies nationally, including route categories for local, regional, on-demand and other experimental services.

3.2 Durham Transit Service Standards, Measures and Targets Document

The consultant will recommend service standards and measures for Durham Transit based on a combination of peer review data and best practices for service expectations in the post-COVID-19 operating environment to consider, for example, requirements to limit passenger loads to protect social distancing. Our goal will be to align standards to reflect Durham Transit Plan goals and objectives, work towards consistency among service providers in the region (including Wake Transit) and reflect existing conditions.

The consultant will review existing standards and utilize the peer review performed in Task 3.1.

Deliverables:

- ✓ *Wake Transit Service Standards, Measures and Targets Document*
- ✓ *Durham Transit Service Standards, Measures and Targets Document*

Task 4: Project Prioritization Policy

4.1 Updated Project prioritization policy

The consultant will update the project prioritization policies used by Wake Transit to ensure policies reflect current conditions and are aligned with the adjusted goals of individual and combined transit plans. Adjustments to the prioritization policies will reflect lessons learned from COVID-19 and expected changes in travel patterns.

Deliverables:

- ✓ *Updated Project Prioritization Policy*

Task 5: Regional Recommendations

5.1 Regional Microtransit Policy Recommendations

The consultant will develop policy recommendations for how the region can best plan, support and implement on-demand microtransit services. This policy will include recommendations for how to identify effective markets (geographic and temporal), how to integrate microtransit with other transit service investments and set guidelines for microtransit cost and productivity.

Other elements of the microtransit policy may include recommendations for marketing, operations, and technology that improve the customer experience or cost effectiveness of service for the providers. The consultant will review input received from community surveys on microtransit – NE Wake, East Durham, Fuquay-Varina, and Morrisville.

Staff from community funding area municipalities and transit partners will be included in the development of the recommendations, especially if the policy will be binding once implemented.

5.2 Regional Design Guidelines for Small Capital Projects

The consultant team will recommend transit and multimodal best practices and design guidelines for small capital projects (i.e. super stops) to address multimodal connections (i.e. bike paths, crosswalks) and application of certain designs based on location (i.e. bus pull-out, transit stop bulb, etc.). Engage with transit partners to determine inclusion of a regional 'red lane study' in the guidelines.

Deliverables:

- ✓ *Regional Microtransit Policy Recommendations*
- ✓ *Guidelines for Regional Design for Small Capital Projects*

Task 6: Wake Operating Plan

6.1 Wake ADA Paratransit Funding Policy

The consultant will work with transit partners to develop a process to calculate the appropriate amount of tax district funds for ADA compatible paratransit service associated with tax district funded service expansion. We will use the analysis to determine expected future funding commitments based on changes to FTA funding.

6.2 Wake Multi-year Operating Plan FY 24-30

The consultant will prepare a multi-year operating plan for the Wake Transit. The bus plans will be based on the service alternatives developed in the short range transit plans and within key transit corridors, where service crosses municipal and county boundaries or overlay/duplicative service is provided (See Appendix A). We will use existing tools and systems (i.e., Wake operating cost model) to recommend annual service investments for Wake Transit, based on updated goals and priorities and working within available financial resources. The final product will include maps, spreadsheets, and a summary describing the impacts of the investments. The consultant update operating plans based on public comments received through the Short Range Transit Planning process and incorporate recommendations into the final operating plans for Wake Transit.

The operating plan will:

- Identify key transit corridors with GoTriangle and transit partners
- Define, prioritize, and program expansion services and services within key transit corridors
- Determine project sponsor and operator for projects in key transit corridors.
- Optimize project details (hours, miles) by considering interlining, vehicle availability, etc.

- Summarize route alignments for service to and between GoRaleigh Station and RUS Bus.
- Prioritize projects using the revised project prioritization policy.
- Program projects by year according to financial constraints
- Quantify impacts to paratransit service using the ADA paratransit funding policy
- Develop maps, spreadsheets, and evaluation metrics for draft operating plan
- Revise operating scenario based on public comments
- Develop maps, spreadsheets, and evaluation metrics for preferred operating plan, including the results of the SRTP

Deliverables:

- ✓ *Wake ADA Paratransit Funding Policy*
- ✓ *Wake Multi-year Operating Plan FY24-30*

Task 7: Wake Capital Plan

7.1 Access to Transit Gap Analysis and Priorities Assessment

For Wake County only, the consultant will identify gaps and deficiencies in walking access to transit:

- The consultant will create a composite score for walking connectivity, safety, demand density, and population composition within a quarter-mile walkshed for transit corridors and a half-mile walkshed for transit stops in priority corridors, including the following scoring:
 - for walking connectivity, the walkshed will be coded by presence of crosswalks and by connecting streets having no sidewalks, one side with sidewalk, and both sides having sidewalks
 - for safety, number of crashes involving people walking will be considered and scored by low safety concern, medium safety concern, and high safety concern
 - demand will be determined through level of population and employment density within each walkshed
 - population composition will score with a composite equity index which could include factors such as % of people of color, level of English proficiency, and level of income
- Use data from local jurisdictions, the U.S. Census and other available data sources together with GIS and project files from the Wake Transit Plan, The consultant will inventory the access to transit gaps and assign gaps based on

- typologies (i.e. sidewalks, crosswalks, etc.). This will provide the basis for the system-wide needs assessment.
- The consultant will combine the inventory of access to transit gaps and the evaluation framework to prioritize and rank projects based on established criteria.
 - The final weigh-ranking of evaluation criteria (connectivity, safety, demand, vulnerability) will be determined in consultation with staff and the consulting team at an internal technical workshop and/or working through existing technical committees (i.e. Core Technical Team or other transit-specific working groups such as Raleigh Transit Authority).
 - Once priority locations are identified, the consultant will evaluate additional prioritization criteria on the top 25-ranked locations respective to estimated cost-feasibility (high-medium-low) incorporating anticipated level of construction costs, potential to procure funding, or ability to implement concurrent with other planned infrastructure enhancements. (These factors will require input from the technical committee.) The consultant will also group the top 25 locations into categories of “access typologies” – categorizing by the nature of connectivity or safety needs across the group (Typologies could include adding a sidewalk and crosswalk, implementing a road diet to add a second sidewalk, etc.) The consultant will then create conceptual plan views for a set of five (5) locations, which will balance both highest need, cost-feasibility, and creating a set of replicable example solutions for resolving differing access improvements.
 - For these five access typology examples, the consultant will create a planning-level cost estimate of making the recommended changes and will summarize them with a bullet list enumerating potential funding sources to realize these solutions.
 - Summarize the level of magnitude need throughout the system.
 - Incorporate the above findings and recommendations into the Wake Transit multi-year capital plan.

7.2 Wake Multi-year Capital Plan FY24-30

The consultant will prepare a multi-year capital plan for Wake Transit. The plan will reflect investments to support service investments recommended in the multi-year operating plan, such as supporting connections and transfers. Prioritized capital projects will also be consistent with the project prioritization policy developed as part of this effort.

We will use existing tools and systems (i.e., Wake capital cost model) to recommend annual capital investments. The capital plan will be designed to work within available financial resources determined in previous efforts such as FY22 work plans and the Wake Transit Plan update. The final product will include maps, spreadsheets, and a summary describing the impacts of the investments. The consultant will refine recommendations based on public comments and incorporate recommendations into the final capital plan.

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The capital plan will:

- Determine projects that must be implemented along with operating projects.
- Identify where connections and transfers between routes serving local and/or regional travel markets (Durham, Orange, and Johnston counties) will occur. As needed, the capital plan will recommend investments to support transfers between services.
- Refine previously estimated scopes, costs, and schedules for large capital projects such as park and rides and transit centers. Estimates will be adjusted to align with the multi-year operating plan and reflect other changes, such as project cost estimates. The projects should identify funding by phase and align with the approved NCDOT State Transportation Improvement Plan (STIP). GoTriangle's Regional Fleet and Facilities Study will define maintenance facility assumptions for GoTriangle.
- Refine scope, cost, and schedule for small capital projects such as bus stop improvements and transfer points to align with the multi-year operating plan (desk analysis). Update "typical" cost estimate / scope to better reflect construction costs and amenity needs (i.e., update the \$25,000 per bus stop and \$55,000/\$80,000 for park and ride improvements). Cost estimates will continue to be planning level estimates.
- Determine project sponsor for identified projects.
- Develop a prioritization methodology for capital projects (park and rides, transit centers, enhanced transfer points).
- Determine eligible project types for Wake Transit funding such as access to transit infrastructure improvements. These are bus stop improvements that also require sidewalk and crosswalk improvements to allow bus stop users to safely access bus stops.
- Define infrastructure maintenance plan with standardized cost assumptions
- Identify potential funding sources – DOE, DOL, FTA, Economic Development Grants, and LAPP, for example. Outline any and all required regulatory compliance items, which will have scope, cost, and schedule impacts. For example, most federal funding sources come with requirements for NEPA, Title VI (for certain facility types), etc. It would be very helpful to have these clearly identified and considered in this plan. Discuss pros and cons of recommendations considering the available funding sources. Identify capital projects types that might be good candidates for each potential funding source. Define funding assumptions for capital plan.
- Program projects by year according to financial constraints and dependency with operating projects

7.3 Wake Multi-year Fleet Plan FY24-30

The consultant will develop a multi-year fleet plan for Wake Transit that is consistent with the operating plan developed as part of Task 6. This fleet plan will:

- Evaluate recent experience with alternative fuels and recommend an appropriate level of investment of Wake Transit funding support for alternate fuel types and associated infrastructure. This analysis will reflect adopted policies and findings and recommendations for GoRaleigh and GoTriangle.
- Update funding levels based on current transit partner's vehicle strategies and processes.
- Develop fleet plan that aligns with the multi-year operating plan that minimizes fluctuations in fleet vehicle needs as major investment services begin service with focus on service implementation before FY30.

7.4 GoRaleigh Station Operational Assessment

The consultant will evaluate GoRaleigh Station to identify and forecast potential capacity issues for internal and on-street facilities based on the recommended bus service and BRT service and infrastructure investments. Our analysis will consider the success and functionality with existing service levels to map out expected impacts as service levels increase.

The consultant will identify potential operations and service management strategies for internal and on-street curb space that could help GoRaleigh, GoTriangle, and GoCary revenue service and supportive service vehicles adjust and respond to changing service levels, in particular in the years before Raleigh Union Station (RUS Bus) is completed (estimated FY2025). Strategies will consider impact of construction of the New Bern BRT facilities at GoRaleigh Station. The consultant will prepare a roadmap to manage and accommodate growth in the immediate term before RUS Bus is operational and for service investments planned through FY30.

7.5 Cary Depot Operational Assessment

The consultant will build the evaluation of Cary Depot on the Multimodal Center study results. The evaluation will identify and forecast potential capacity issues at Cary Depot based on the recommended service investments.

The consultant will identify potential operations and service management strategies to help manage passenger and vehicle volumes programmed to arrive and depart from Cary Depot. Identification of potential on-street locations may need to be considered for services. The consultant will prepare a roadmap to manage and accommodate growth for service investments planned through FY30.

Deliverables:

- ✓ *Wake Access to Transit Gap Analysis and Priorities Assessment*
- ✓ *Wake Multi-year Capital Plan FY24-30*
- ✓ *Wake Multi-year Fleet Plan FY24-30*
- ✓ *GoRaleigh Station Operational Assessment*
- ✓ *Cary Depot Operational Assessment*

Task 8: Short Range Transit Plan

8.1 GoRaleigh Short Range Transit Plan FY24-27

The consultant will prepare a short range transit plan to guide GoRaleigh service investments for the period between FY24 and FY27. We will work with GoRaleigh staff so that service plans reflect agency goals and objectives for the short-term, and coordinate these plans with the Bus Plan.

As part of developing the SRTP, we will develop materials that can be used for community and stakeholder engagement, including presentations, fact sheets, handouts, and videos (Task 9). Final SRTP materials will be sufficiently detailed to guide implementation.

The SRTP will:

- Define goals and objectives.
- Provide service alternatives to improve the overall quality and efficiency of the fixed route service to include but not limited to operational efficiency, service area/ hours/ frequencies, route sequence and path, connections, and transfers within the system and with other systems, and economic impact and benefit of the transit system on the community and surrounding area. Recommendations should be based on transit agency feedback, service performance, and the regional service assessment. See *appendix* for a list of corridors that agencies have expressed interest in reviewing service alternatives.
- Refine service alternatives based on Wake Operating Plan recommendations for project sponsor and operator.
- Identify interim services that address travel needs in the years before the BRT and CRT projects are completed. Define how these projects will be phased out once the major investment project is in place. Focus on Western Blvd, Cary-Morrisville BRT corridor, among others.
- Identify gaps within the system where “High Volume or Super Stop” level passenger amenities are needed due to high transit demand’. Per the Service Guidelines, high ridership, as well as connections/transfers, can justify additional stop amenities. It would be helpful to get this full picture in the gap analysis.

- Define detailed service and capital implementation plan for all routes (funded by transit plan or other sources) for each year during FY24-27. The operating plan will describe route alignments, service frequencies, and revenue hour projections. The capital plan will identify vehicle requirements per route, bus stop improvements (specific locations for FY24 work plan submissions, less detail for later years), small capital projects, and large capital projects (BOMF, etc.) related to the operating projects. The capital plan will also define the independent capital projects.
- Develop a staffing plan that identifies the minimum and target number of operators and service attendants to operate service.
- Develop an agency fleet plan including consideration of spare ratio for fixed route, paratransit, and demand responsive service.
- Complete a Title VI Service equity analysis.

8.2 GoTriangle Short Range Transit Plan FY24-27

The consultant will prepare a short range transit plan to guide service investments for GoTriangle, including services delivered in Durham, Orange, and Wake counties for the period between FY24 and FY27. We will build on previous tasks and work with GoTriangle staff to establish agency goals and objectives for the short-term and use these guiding principles to develop a SRTP.

As part of developing the SRTP, we will develop materials that can be used for community and stakeholder engagement, including presentations, fact sheets, handouts, and videos. Final SRTP materials will be sufficiently detailed to guide implementation.

The SRTP will:

- Define goals and objectives.
- Create agency Service Standards and Performance Measures to support agency goals and objectives. Define the service framework, route design standards, performance measures, targets for each measure. Work on these service standards will be coordinated with work conducted as part of Task 2.
- Provide service alternatives to improve the overall quality and efficiency of the fixed route service to include but not limited to operational efficiency, service area/ hours/ frequencies, route sequence and path, connections, and transfers within the system and with other systems, and economic impact and benefit of the transit system on the community and surrounding area. Recommendations should be based on transit agency feedback, service performance, and the regional service assessment. See *appendix* for a list of corridors that agencies have expressed interest in reviewing service alternatives.
- Develop a recommendation for RTP Connect service that defines the cost, trip purpose, and geographic considerations for implementation. Ensure compliance with regional microtransit recommendations. Identify grants to augment Wake

Transit and other local funding. Ensure coordination with Research Triangle Foundation.

- Refine service alternatives based on Wake Transit Operating Plan recommendations for project sponsor and operator.
- Identify interim services that address travel needs in the years before the BRT and CRT projects are completed. Define how these projects will be phased out once the major investment project is in place. Focus on Raleigh to Durham corridor and Raleigh to Chapel Hill corridor service design, but also Western Blvd, Cary-Morrisville BRT corridor, among others.
- Define detailed service and capital implementation plan for all routes (funded by transit plan or other sources) for each year during FY24-27. The operating plan will describe route alignments, service frequencies, and revenue hour projections. The capital plan will identify vehicle requirements per route, bus stop improvements (specific locations for FY24 work plan submissions, less detail for later years), small capital projects, and large capital projects (BOMF, etc.) related to the operating projects. The capital plan will also define the independent capital projects.
- Develop a staffing plan that identifies the minimum and target number of operators and service attendants to operate service.
- Develop an agency fleet plan including consideration of spare ratio for fixed route, paratransit, and demand responsive service. Coordinate recommendations with multi-year capital investment plan.
- Complete a Title VI Service equity analysis.

8.3 GoCary Short Range Transit Plans FY24-27

The consultant will prepare a short range transit plan to guide service investments for GoCary services for the period between FY24 and FY27. We will build on previous tasks and work with GoCary staff to establish agency goals and objectives for the short-term and use these guiding principles to develop a SRTP.

As part of developing the SRTP, we will develop materials that can be used for community and stakeholder engagement, including presentations, fact sheets, handouts, and videos. Final SRTP materials will be sufficiently detailed to guide implementation.

The SRTP will:

- Define goals and objectives.
- Provide service alternatives to improve the overall quality and efficiency of the fixed route service to include but not limited to operational efficiency, service area/ hours/ frequencies, route sequence and path, connections, and transfers within the system and with other systems, and economic impact and benefit of the transit system on the community and surrounding area. Recommendations should be based on transit agency feedback, service performance, and the

regional service assessment. See *appendix* for a list of corridors that agencies have expressed interest in reviewing service alternatives.

- Refine service alternatives based on Wake Transit Operating Plan recommendations for project sponsor and operator.
- Identify interim services that address travel needs in the years before the BRT and CRT projects are completed. Define how these projects will be phased out once the major investment project is in place. Focus on Western Blvd, Cary-Morrisville BRT corridor, among others.
- Define detailed service and capital implementation plan for all routes (funded by transit plan or other sources) for each year during FY24-27. The operating plan will describe route alignments, service frequencies, and revenue hour projections. The capital plan will identify bus stop improvements (specific locations for FY24 work plan submissions, less detail for later years), small capital projects, and large capital projects (BOMF, etc.) related to the operating projects. The capital plan will also define the independent capital projects.
- Complete a Title VI Service equity analysis.

8.4 GoWake ACCESS Short Range Transit Plans FY24-27

The consultant will prepare a short range transit plan to guide service investments for GoWake ACCESS service for the period between FY24 and FY27. We will build on previous tasks and work with GoWake Access and Wake County staff to establish agency goals and objectives for the short-term and use these guiding principles to develop a SRTP.

As part of developing the SRTP, we will develop materials that can be used for community and stakeholder engagement, including presentations, fact sheets, handouts, and videos. Final SRTP materials will be sufficiently detailed to guide implementation.

The SRTP will:

- Define goals and objectives.
- Provide service alternatives to improve the overall quality and efficiency of the service to include but not limited to operational efficiency, service area/ hours, connections, and transfers within the system and with other systems, and economic impact and benefit of the transit system on the community and surrounding area. Recommendations should be based on transit agency feedback and the regional service assessment.
- Define detailed service and capital implementation plan for services funded by transit plan for each year during FY24-27. The capital plan will identify vehicle requirements, bus stop improvements (specific locations for FY24-24 work plan submissions, less detail for later years), small capital projects, and large capital projects (BOMF, etc.) related to the operating projects. The capital plan will also define the independent capital projects.

Deliverables:

- ✓ *GoRaleigh Short-Range Transit Plan*
- ✓ *GoTriangle Short-Range Transit Plan*
- ✓ *GoCary Short-Range Transit Plan*
- ✓ *GoWake ACCESS Short-Range Transit Plan*

Task 9: Wake Community Engagement

9.1 Community Engagement Plan

The consultant will work with GoTriangle and transit partners to develop a community engagement plan that will guide engagement activities around three separate project phases. The engagement plan will reflect the public engagement policy developed for the Wake Transit Plan. The plan may employ different strategies for different tasks/deliverables based on local preferences, priorities and needs.

We also recognize that engagement activities should balance the need to respect public health concerns with a specific focus and concerted effort towards inclusive and equitable engagement. As part of collaborating with transit partners to reflect existing policies and reflect recent experiences, the consultant will share our experience with strategies such as community ambassador programs, focus groups, project buses, using app-based trip planners to compare service changes and other innovative strategies.

The consultant is open to different approaches to structuring the project team's approach to implementing community engagement to maximize impact and cost-efficiency. One approach may be for the consultant to be responsible for the design and development of engagement materials and GoTriangle and other agency staff to lead the planning and implementation of stakeholder and community engagement activities (recruiting community stakeholders to assist with engagement, making presentations, etc., along with staffing support for outreach activities from a sub-consultant.

The plan will further define the responsibilities of the consultants and transit partners beyond what is identified in this scope of work:

- Crafting engagement message
- Identifying key audiences for each phase and deliverable
- Design and translation of engagement materials, producing and printing all collateral and outreach methods in English and Spanish.
- Summarizing the outreach effort in an executive report, which will include a compilation of input received, participant demographics and impact of engagement findings on planning documents. In addition to generating a position based on feedback received and recommending changes to plans, the consultant team will also evaluate the effectiveness of the engagement effort and recommend changes and adjustments for future efforts. The findings will confirm

methods to bridge gaps in transit utilization and define the methodology and rationale behind proposed changes.

- Recruiting community stakeholders to assist in reaching identified key audiences, in addition to general public outreach.
- Making presentations to community groups, elected officials, and decision makers, with staffing support from prime consultant or a sub-consultant.
- Leading engagement efforts, such as focus groups
- Providing staffing support for engagement activities.
- Closing the loop with participants when the plan is final and approved

Phases of community engagement will be focused around three steps described in Tasks 9.2, 9.3 and 9.4.

9.2 Phase 1 - Access to Transit Gap Analysis and Priorities Assessment

As part of preparing the market analysis and service evaluation, the consultant will identify gaps in the existing system. These gaps may be geographic, temporal or associated with infrastructure. Draft findings should be vetted with transit riders and community members, so they incorporate experiences using the system or trying to use the system.

Engagement will reflect input from people living and working in the areas that have been identified for improvements. The outreach will focus on understanding priorities and values with the goal of using this input to develop criteria for prioritizing projects and improvements.

9.3 Phase 2 - Draft Bus Plans and Short Range Transit Plans

The consultant will share draft bus plans (operating and capital plans) and short range transit plans with transit riders, steering committees, and members of the community. The message will be focused on describing and outlining the overall transit investment plans as well as the specific projects recommended for the short term. We will seek to be as inclusive as possible and work to ensure people affected by the proposed projects have an opportunity to weigh in with their preferences and priorities for the planned investments and service adjustments.

We will summarize the outreach effort to capture specific engagement strategies and a summary of individuals who participated in the process together with a summary of recommendations and reactions.

9.4 Phase 3 - Final Draft SRTP and Bus Plans

The third round of engagement will be targeted towards summarizing how the draft plans were adjusted based on comments received and presenting the final draft plans. We will focus on explaining service changes, including changes to individual routes and changes

to the overall transit network. As stated previously, we will strive to create a process that is inclusive and ensures people affected by the proposed projects have an opportunity to weigh in on service changes that affect their travel.

We will summarize the outreach effort, which will include a compilation of input received, participant demographics and impact of engagement findings on planning documents. In addition to recommending changes to plans, the consultant team will also evaluate the effectiveness of the engagement effort and recommend changes and adjustments for future efforts.

Deliverables:

- ✓ *Community Engagement Plan*
- ✓ *Phase 1 – Access to Transit Gap Analysis and Priorities Assessment*
- ✓ *Phase 2 – Draft Bus Plans and Short Range Transit Plans*
- ✓ *Phase 3 – Final Draft SRTP and Bus Plans*

Task 10: Durham Bus Plan

NOTE: Since the work on the Durham Bus Plan will begin following the finalization of the Durham Transit Plan, further coordination to refine this scope of work included in Task 10 is required before initiating this task. Tasks 10.1-10.9 are intended to be illustrative of the work that is to be completed.

10.1 GoDurham and GoDurham ACCESS Gap Analysis

The consultant will combine the analyses prepared in the Regional Service Assessment task (2.1-2.4) and compare/contrast existing conditions with the Durham Transit Plan service investments. We will use this analysis to identify service gaps in the immediate term (FY24-27) and the impacts of these changes in the shorter term (FY 28-29 and longer term (FY30+)). This analysis will look at gaps in service at the neighborhood level.

Once this data is compiled, we recommend holding a workshop with transit partners (including GoDurham, GoDurham ACCESS, GoTriangle, GoRaleigh, and Chapel Hill Transit) to discuss findings and the consultant’s preliminary assessment of opportunities to strengthen individual routes and the overall network, such as cases where there is competition between routes and/or opportunities to increase service coordination.

10.2 Durham Transit ADA Paratransit Funding Policy

The consultant will work with transit partners to develop a process to calculate the appropriate amount of tax district funds for ADA compatible paratransit service associated with tax district funded service expansion. We will use the analysis to determine expected future funding commitments based on changes to FTA funding.

10.3 Durham Transit Multi-year Operating Plan FY 24-30

BUS PLANS & SHORT RANGE TRANSIT PLANS

The consultant will prepare a multi-year operating plan for the Durham Transit Plan. The bus plans will be based on the service alternatives developed in the short range transit plans, but will consider the results of the regional service assessment in addressing travel in key transit corridors (see appendix). We will use existing tools and systems (i.e., Durham operating cost model) to recommend annual service investments for Durham County, based on updated goals and priorities and working within available financial resources. The final product will include maps, spreadsheets, and a summary describing the impacts of the investments. The consultant will refine recommendations based on public comments and incorporate recommendations into the final operating plans for Durham County.

This task addresses all transit operating projects within Durham County funded by the Transit Plan: GoDurham, GoDurham ACCESS, and GoTriangle, but potentially Chapel Hill Transit and others if appropriate.

The operating plan will:

- Define, prioritize, and program expansion services and projects in key transit corridors (see Appendix)
- Determine project sponsor and operator for key transit corridors
- Optimize project details (hours, miles) by considering interlining, vehicle availability, etc.
- Prioritize and program projects by year according to financial constraints
- Quantify impacts to paratransit service
- Develop maps, spreadsheets, and evaluation metrics for draft operating plan
- Revise operating scenario based on public comments
- Develop maps, spreadsheets, and evaluation metrics for preferred operating plan, including the results of the SRTP

10.4 Durham Transit Multi-year Capital Plan FY24-30

The consultant will prepare a multi-year capital plan for Durham Transit Plan. The plan will reflect investments to support service investments recommended in the multi-year operating plans, such as supporting connections and transfers. Prioritized capital projects will also be consistent with the project prioritization policy developed as part of this effort.

We will use existing tools and systems (i.e., Durham cost models from Tax District) to recommend annual capital investments. The capital plan will be designed to work within available financial resources determined in previous efforts such as FY22 work plans and recent updates to the county transit plans. The final product will include maps, spreadsheets, and a summary describing the impacts of the investments. The consultant

will refine recommendations based on public comments and incorporate recommendations into the final capital plan.

The capital plan will:

- Determine projects that must be implemented along with operating projects.
- Identify where connections and transfers between routes serving local and/or regional travel markets (Wake and Orange counties) will occur. As needed, the capital plan will recommend investments to support transfers between services.
- Refine previously estimated scopes, costs, and schedules for large capital projects such as park and rides and transit centers. Estimates will be adjusted to align with the multi-year operating plan and reflect other changes, such as project cost estimates. The projects should identify funding by phase and align with the approved NCDOT State Transportation Improvement Plan (STIP). Regional Fleet and Facilities Study will define facility assumptions for GoTriangle and GoDurham.
- Refine scope, cost, and schedule for small capital projects such as bus stop improvements and transfer points to align with the multi-year operating plan (desk analysis). Update "typical" cost estimate / scope to better reflect construction costs and amenity needs (i.e., update the \$25,000 per bus stop and \$55,000/\$80,000 for park and ride improvements)
- Determine project sponsor for identified projects.
- Develop a prioritization methodology for capital projects (park and rides, transit centers, enhanced transfer points).
- Define infrastructure maintenance plan with standardized cost assumptions
- Identify potential funding sources – DOE, DOL, FTA, Economic Development Grants, and LAPP, for example. Discuss pros and cons of recommendations considering the available funding sources. Identify capital projects types that might be good candidates for each potential funding source. Define funding assumptions for capital plan.
- Program projects by year according to financial constraints and dependency with operating projects

10.5 GoDurham Short Range Transit Plan FY24-27

The consultant will prepare a short range transit plan to guide service investments for GoDurham service for the period between FY24 and FY27. We will build on previous tasks and work with GoDurham staff to establish agency goals and objectives for the short-term and use these guiding principles to develop a SRTP.

As part of developing the SRTP, we will develop materials that can be used for community and stakeholder engagement, including presentations, fact sheets, handouts, and videos. Final SRTP materials will be sufficiently detailed to guide implementation.

The SRTP will:

- Define goals and objectives.
- Provide service alternatives to improve the overall quality and efficiency of the fixed route service to include but not limited to operational efficiency, service area/ hours/ frequencies, route sequence and path, connections, and transfers within the system and with other systems, and economic impact and benefit of the transit system on the community and surrounding area. Recommendations should be based on transit agency feedback, service performance, and the regional service assessment. See *appendix* for a list of corridors that agencies have expressed interest in reviewing service alternatives.
- Refine service alternatives based on Operating Plan recommendations for project sponsor and operator as well as consideration of financial constraints.
- Identify interim services that address travel needs in the years before the BRT and CRT projects are completed (*note: the Durham Transit Plan is expected to be completed by late 2021 or spring 2022, which will determine if BRT and/or CRT are included in the plan*). Define how these projects will be phased out once the major investment project is in place.
- Define detailed service and capital implementation plan for all routes (funded by transit plan or other sources) for each year during FY24-27. The operating plan will describe route alignments, service frequencies, and revenue hour projections. The capital plan will identify vehicle requirements per route, bus stop improvements (specific locations for FY24 work plan submissions, less detail for later years), and small capital projects related to the operating projects. The capital plan will also define the independent capital projects.
- Develop a staffing plan that identifies the minimum and target number of operators and service attendants to operate service.
- Develop an agency fleet plan including consideration of spare ratio for fixed route, paratransit, and demand responsive service.
- Complete a Title VI Service equity analysis.

10.6 GoDurham ACCESS Short Range Plan FY24-27

The consultant will prepare a short range plan to guide service investments for GoDurham ACCESS service for the period between FY24 and FY27. We will build on previous tasks and work with GoDurham ACCESS staff to establish agency goals and objectives for the short-term and use these guiding principles to develop a SRTP.

As part of developing the SRTP, we will develop materials that can be used for community and stakeholder engagement, including presentations, fact sheets, handouts, and videos. Final SRTP materials will be sufficiently detailed to guide implementation.

- Define goals and objectives.
- Provide service alternatives to improve the overall quality and efficiency of the service. Recommendations should be based on transit agency feedback and the regional service assessment.

- Define detailed service and capital implementation plan for services funded by transit plan for each year during FY24-27. The capital plan will identify vehicle requirements and small capital projects.
- Create all materials for public engagement purposes such as presentations, fact sheets, handouts, etc.

10.7 Durham Community Engagement Plan

The consultant will work with GoTriangle and transit partners to develop a community engagement plan that will guide engagement activities around two separate project phases. The engagement plan will reflect the public engagement policy developed for the Wake Transit Plan and the City of Durham's equitable engagement blueprint. The plan may employ different strategies for different tasks/deliverables based on local preferences, priorities and needs. The plan will address GoDurham, GoDurham ACCESS and GoTriangle (Wake, Durham and Orange counties).

The consultant is open to different approaches to structuring the project team's approach to implementing community engagement to maximize impact and cost-efficiency. One approach may be for the consultant to be responsible for the design and development of engagement materials and GoTriangle and other agency staff to lead the planning and implementation of stakeholder and community engagement activities (recruiting community stakeholders to assist with engagement, making presentations, etc.), along with staffing support for outreach activities from a sub-consultant.

The plan will further define the responsibilities of the consultants and transit partners beyond what is identified in this scope of work:

- Crafting engagement message
- Identifying key audiences for each phase and deliverable
- Design and translation of engagement materials, producing and printing all collateral and outreach methods in English and Spanish.
- Summarizing the outreach effort in an executive report, which will include a compilation of input received, participant demographics and impact of engagement findings on planning documents. In addition to generating a position based on feedback received and recommending changes to plans, the consultant team will also evaluate the effectiveness of the engagement effort and recommend changes and adjustments for future efforts. The findings will confirm methods to bridge gaps in transit utilization and define the methodology and rationale behind proposed changes.
- Recruiting community stakeholders to assist in reaching identified key audiences, in addition to general public outreach.
- Making presentations to community groups, elected officials, and decision makers, with staffing support from prime consultant or a sub-consultant.
- Leading engagement efforts, such as focus groups
- Providing staffing support for engagement activities.
- Closing the loop with participants when the plan is final and approved

10.8 Phase 1 Engagement: Durham Draft Bus Plans and Short Range Transit Plans

The consultant will work with Durham staff to share draft operating and capital plans and short range transit plans with transit riders and members of the community for GoDurham, GoDurham ACCESS and GoTriangle, as well as other transit providers impacted by the plans. The message will be focused on describing and outlining the overall transit investment plans as well as the specific projects recommended for the short term. We will seek to be as inclusive as possible and work to ensure people affected by the proposed projects have an opportunity to understand planned investments and weigh in with their preferences and priorities.

10.9 Phase 2 Engagement: Durham Final Draft SRTP and Bus Plans

The second round of engagement will be targeted towards summarizing how the draft plans were adjusted based on comments received and presenting the final draft plans. We will focus on explaining service changes, including changes to individual routes and changes to the overall transit network. As stated previously, we will strive to create a process that is inclusive and ensures people affected by the proposed projects have an opportunity to weigh in on service changes that affect their travel.

Deliverables:

- ✓ *GoDurham and GoDurham ACCESS Gap Analysis*
- ✓ *Durham Transit ADA Paratransit Funding Policy*
- ✓ *Durham Multi-year Operating Plan FY24-30*
- ✓ *Durham Multi-year Capital Plan FY24-30*
- ✓ *GoDurham Short Range Transit Plan FY24-27*
- ✓ *GoDurham ACCESS Short Range Transit Plan FY24-27*
- ✓ *Durham Community Engagement Plan*
- ✓ *Phase 1 Engagement: Draft SRTP and Bus Plan*
- ✓ *Phase 2 Engagement: Final SRTP and Bus Plan*

Task 11: Coordination with Wake Bus Rapid Transit

The consultant will coordinate with bus rapid transit key stakeholders at three pre-determined timepoints to confirm the schedule and alignment of bus rapid transit projects and ensure any existing bus services transitioning to BRT are reflected in both

short and long range plans. The consultant will develop recommendations through the SRTPs (Task 8) that facilitate coordination between fixed route and BRT services.

Deliverables:

- ✓ *BRT Stakeholder Meetings (3)*
- ✓ *BRT and Bus Service Recommendation*

Task 12: Coordination with Commuter Rail Transit

The consultant will coordinate with commuter rail stakeholders at three pre-determined timepoints to coordinate proposed transit services and investments. The consultant will develop concepts for relevant routes within the commuter rail corridor in anticipation of future rail adoption and implementation.

Deliverables:

- ✓ *CRT Stakeholder Meetings (3)*
- ✓ *Route Concepts for post-CRT Adoption*

Task 13: Coordination with Wake Community Funding Area Program (CFAP)

The consultant will coordinate with CFA municipalities at three pre-determined timepoints during the development of the SRTPs (see Task 8) to ensure any proposed service changes consider connections to CFAP projects.

Deliverables:

- ✓ *CFAP Stakeholder Meetings (3)*

Task 14: Financial Model

The consultant will create a financial model that corresponds with the multi-year operating and capital plans so that service projects and capital investments are phased in over time within constraints of expected funding within each of the three counties. The model will include expected benefits, such as ridership by route, fare revenue and potential federal funds. The model will be developed for multiple years, so will reflect consider changes in costs and investments over time, such as changes in operating costs and capital spending for items like vehicles.

The consultant is open to creating a new financial model or updating previously developed operating cost models (preferred). In either case the financial analysis will be developed using the FY22 recommended work plan. We will coordinate with GoTriangle Tax District Administration staff for *all three counties* to identify unique characteristics that impact financial planning, such as labor agreements, jurisdictional funding constraints or contracting practices.

Revenue projections will be based on existing revenue sources, including federal, state, and local resources plus passenger fares. Our analysis will consider if the region's anticipated funding sources are sufficient to support recommended improvements; if gaps emerge, we will identify the type of funding gap (operating or capital), when they are expected to occur and potential sources of funding.

We will work closely with GoTriangle Tax Administration staff throughout this process, so we can consider a broad range of potential risks and opportunities and ensure that staff has confidence in our assumptions. Collaboration throughout the process also ensures that the staff can continue to benefit from and use the financial model after the project has ended.

Deliverables:

- ✓ *Wake Transit Financial Model*
- ✓ *Durham Transit Financial Model*
- ✓ *Orange Transit Plan Financial Model – GoTriangle projects*

Task 15: Draft Final and Final Plan

The consultant will create a draft and final summary plan that summarizes and ties together the individual deliverables of the planning process. We will submit a table of contents to GoTriangle for review and comment, prepare the draft plan for review and comment, and update the plan based on comments and feedback.

The consultant will also provide GoTriangle and other project partners with all interim deliverables and relevant technical and planning materials (slide decks, GIS files, spreadsheets).

Deliverables:

- ✓ *Table of contents*
- ✓ *Draft and Final Summary Plan*
- ✓ *File with Relevant Project Materials (spreadsheets, GIS files, technical reports etc.)*

Appendix. Corridors of interest for Service Alternative Development

Key Transit Corridors

- Raleigh to Durham corridor via I-40, including RDU Airport
- US 70/Glenwood Ave to Durham
- North Raleigh to UNC
- WRX and Rolesville area to Downtown Raleigh
- NC 54 between Southpoint and RTC
- South Durham – Woodcroft to UNC and Woodcroft to RTC via NC 54
- Raleigh to Cary corridor along Western and Hillsborough

GoTriangle

- Apex-Cary-RTP alignments

GoCary

- New service to West Cary (west of 540), Morrisville and Kildaire Farms between Tryon and Ten-Ted Rd should be considered as service concepts later in the plan horizon to address growth areas.

GoRaleigh

- None mentioned

GoDurham

- To be determined

GoWake ACCESS

- Connections to Johnston County and fixed route service in Wake County

Town of Holly Springs

Suggestions for future route expansion:

- Main to NC 55 to Walmart shopping center at EOL. Build a bay. Thinking of serving this in both directions.
- Holly Springs Towne Center bus stops
- Rex Hospital

Town of Morrisville

Maintain regional service to Perimeter Park