# Project Scope Summary

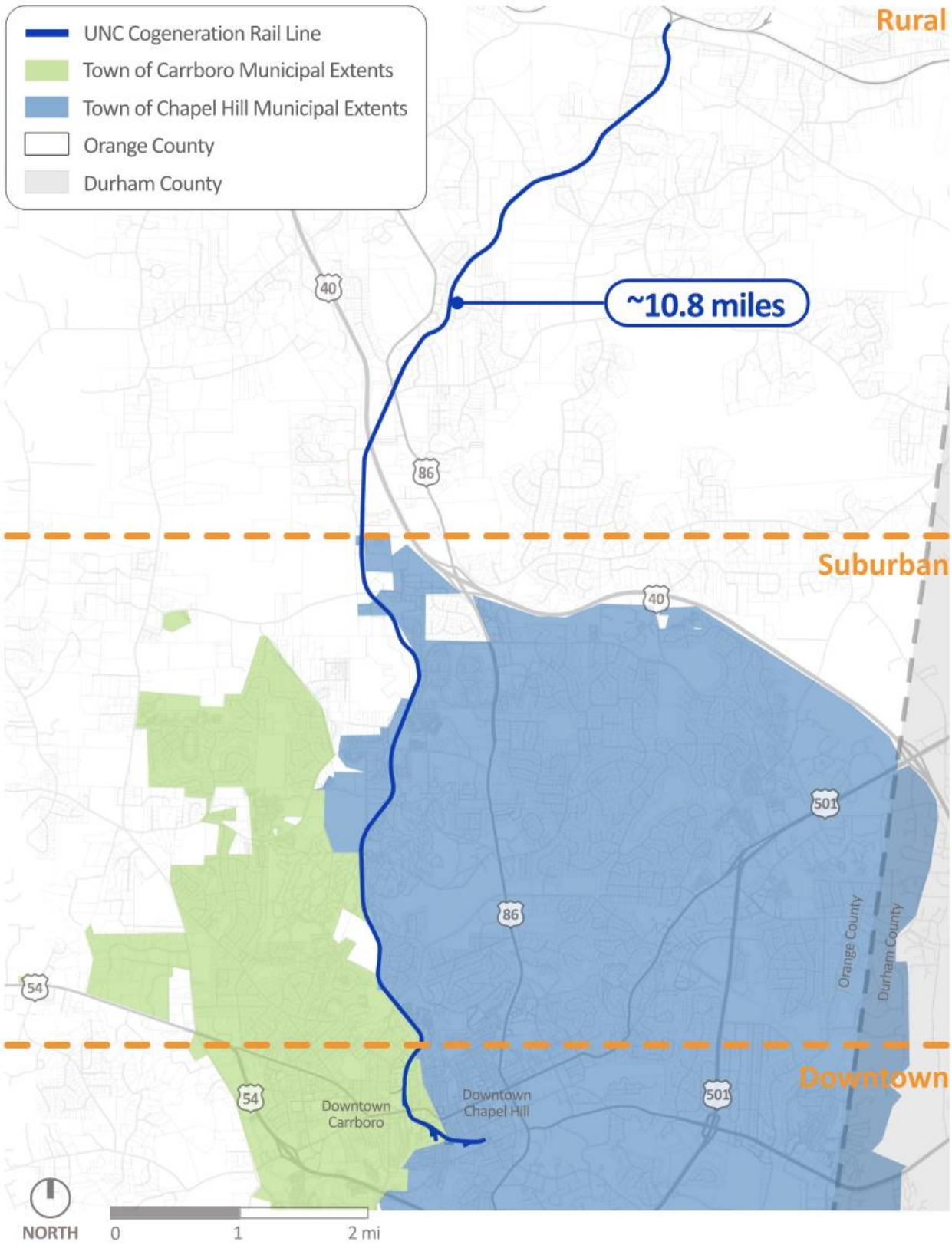
**Partners:** Towns of Chapel Hill and Carrboro, Orange County, the University of North Carolina-Chapel Hill, and the Southern Environmental Law Center, supported by the Durham Chapel Hill Carrboro Metropolitan Planning Organization as part of the Central Pines Regional Council (DCHC MPO).

The DCHC MPO is seeking consultant services to conduct a Feasibility Study to determine the feasibility of converting +/-10.8 miles of the J Branch rail line to a multimodal/multi-use trail. The trail should build upon the existing pedestrian/bike routes, bus transit and local streets to create connections that and provide alternatives to single occupancy car trips for commuters, opportunities for recreation and create local and regional tourism destinations. As part of the scope of services, the consultant will identify the highest and best reuse of the rail line for a greenway, which could include bicycle and pedestrian trails with or without an adjacent transit component such as light rail or pop-up railway or other appropriate passenger vehicle type.

This trail will connect downtown Carrboro through suburban western Chapel Hill to the southeast rural area of Orange County, and so the trail project should be conceived of as a connecting element serving differing populations with different needs.

# Project Area

The project revolves around the transformation of the active J Branch of the North Carolina Railroad, which is used to deliver coal to the University of North Carolina-Chapel Hill (“UNC”) and UNC Health Co-Generation Steam and Power Plants (“Co-Gen Plant”). The line is about 10.8 miles long and spurs off of the NC branch railroad, just south of I-85 in Orange County and runs south through Orange County to the western edge of the Town of Chapel Hill and the eastern boundary of the Town of Carrboro, continuing through downtown Carrboro terminating at the Co Gen Plant on the UNC campus. The project study area will also include parcels adjacent to the J Branch, as well as connecting greenways, bicycle trails, and other pedestrian and road crossings, as well as evaluating the potential for transit or reservation of transit right-of-way.


UNC Cogeneration Rail Line
Town of Carrboro Municipal Extents
Town of Chapel Hill Municipal Extents
Orange County
Durham County
Rural
~10.8 miles
Suburban
Downtown
40
86
501
54
Orange County
Durham County
Downtown Carrboro
Downtown Chapel Hill
NORTH
0
1
2 mi

The project area will include the right-of-way on the map above. Consultant may recommend expansions to the project area based on its analysis with particular focus on and beyond the immediately adjacent parcels.

# Project Budget

A budget range of $400,000 - $600,000 has been programmed for the project.

# Client Project Managers

This project is a collaborative effort with project oversight being handled by the DCHC MPO along with the following entities, as each entity noted below will have a project manager assigned to the project:

a. Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO)
b. Central Pines Regional Council (CPRC)
c. Town of Carrboro (Carrboro)
d. Town of Chapel Hill (ToCH)
e. Orange County (County)
f. University of North Carolina – Chapel Hill (UNC)
g. Southern Environmental Law Center (SELC)

# Proposed Contract Scope

The DCHC MPO is soliciting services of a firm/team for the following proposed contract scope. Note that this scope is not linear but is broken down into the expected tasks for simplicity of organization.

## 1. Project Administration

The consultant shall provide the following required administrative tasks, at minimum, as noted below:

- **Project Team**
    - Designate a Consultant Project Manager.
    - Facilitate bi-weekly check-in meetings with client project managers.
    - Present all draft materials and recommendations to the Project Team for review.

- **Project Work Plan**

    - Develop a Project Work Plan detailing an approach and schedule for completing tasks and deliverables for each element of the scope.

    - Update Project Work Plan as needed with input from client project managers.

- **Monthly Progress Reports and Invoices**

    - Prepare monthly progress reports for project team with updates on project progress, challenges, and upcoming activities.

    - Prepare monthly invoices per format and criteria required by the MPO.

## 2. Initial Data Collection

The consultant is to collect and organize the following spatial data for the study area to support the feasibility study. Spatial data showing the proposed routing must follow NCDOT Pedestrian and Bicycle Infrastructure Network (PBIN) standards. The involved municipalities will provide the following GIS data as a starting point for the project:

- A preliminary linear feature depicting the location of the proposed rail trail corridor in Orange, which aligns with a Norfolk Southern railroad bed, with tax parcel boundaries and ownership information for properties within ½ mile of the corridor. (This can be expanded if other proposed routes deviate significantly from the initial route).

- The proposed J-Line Trail route.

- County and municipal boundaries.

- Roads within the involved municipalities.

- Active railroads within the involved municipalities.

- Existing and future school sites with their associated walk zones.

- An initial list of recreational areas and other public properties within reasonable connection distance to the proposed rail trail.

- An initial list of businesses within reasonable connection distance to the proposed rail trail that might benefit from such a connection.

- Neighborhoods and parcels in the study area that the local jurisdiction recommends for engagement in languages other than English or other nontraditional methods.

- Known historic structures and districts near the proposed rail trail.

- A list of properties within an agricultural district, receiving an agricultural tax exemption, or otherwise identified as being in active agricultural use.
- Identification of areas where a better design could enhance or restore corridor connectivity.
- Water features and streams.
- State and federal wetlands.
- Hydric soils and soils with high water table.
- Flood hazards and soils identified as frequently flooding.
- Elevation, slope, and contours derived from high resolution DEMs (1-meter digital elevation model).
- List of Protected Parcels.
- Brownfield sites.

## 3. Planning Framework

The consultant shall review existing, proposed, and future planning conditions, such as:

- Map and summarize State, County, Town of Carrboro and Town of Chapel Hill land use plans and policies in the study area to understand current and future growth and development patterns.
- Provide a snapshot of full-build out potential over 10, 15, 20, and 25 years in the study area based on current land use plans.
- Assess State, County, Town of Carrboro and Town of Chapel Hill plans regarding transportation investments (technologies, alignments, etc.) affecting the study area and assess how this rail trail can enhance mobility for residents and visitors.
- Incorporate each jurisdictions' Diversity Inclusion and Equity (DEI) Framework in the planning summaries and assessments.

## 4. Physical Feasibility

The consultant shall consider the compatibility of the rail trail with three differing community contexts (downtown Carrboro, suburban Chapel Hill and rural buffer of Orange County) and the landscape and define the key connections/linkages that the

trail could make in the host municipalities. The key work tasks under this item include the following:

- Conduct office and field research to delineate major areas of concern and prepare a physical inventory and assessment of right-of-way.
    - Prepare detailed mapping of the proposed alignment(s) at an appropriate scale, including:
        - **Physiological analysis - identify and map:**
            - The length, dimensions, and right-of-way boundaries existing and proposed needed for rail trail.
            - Steep slopes.
            - Topography.
            - Composition of the railroad bed (materials and integrity).
            - Surrounding land use.
            - Erosion and drainage problems along the route.
        - **Natural Features Inventory - identify and map:**
            - Adjacent or intersecting streams.
            - Significant natural features (lakes, ponds, rock outcroppings, wetlands, floodplains, etc.).
            - Existing vegetation and wildlife analysis. Identify any species of concern or sensitive habitat areas in the project area and/or the existence of aggressive, weedy species/major invasive plants. Document any large areas of existing native species that may need to be taken into consideration with rail trail usage.
            - Provide an assessment of necessary stream crossings with engineering, safety, and hydro assessment.
            - Wildlife Crossing Analysis within the Corridor:
                - Identify and map existing wildlife crossings.
                - Detail any wildlife that may pose a threat to users.

- Detail habitat that would be negatively impacted.

- **Structures within the rail right-of-way -- identify and map:**

  - Identify potential and/or obvious trail encroachments both existing and planned.

- **Infrastructure and Utilities:**

  - Identify and map the location of utilities and local roads in relationship to rail trail and alternative rail trail locations (water, sanitary sewers, electrical and gas lines, telephone, etc.).

  - Determine potential of these utilities to serve rail trail development.

  - Determine instances where the physical location of these utilities may be an impediment to rail trail development.

- **Intersections and Access Points – identify and map:**

  - All existing road crossings, active rail lines, driveways, farm access and/or livestock crossing areas, sidewalks, multi-use paths, and bicycle facilities that both intersect or are within close proximity of the proposed rail trail and note which are at grade or are grade separated.
  - Inventory access points located within the corridor for possible vehicular and pedestrian access to and through the corridor. The inventory will also include potential locations of trailheads with more substantive amenities (parking, wayfinding, emergency beacon, drinking water access, bathrooms, maintenance staging, etc.).

- **Historic and Cultural Features Inventory – identify and map:**

  - Identify and map adjacent and nearby significant historic resources that could contribute to the rail trail experience and generate additional interest in tourism and economic development. Note which are public and which are private.

  - Develop recommendations for incorporating public history and art into the corridor. Examine opportunities to make this trail a “cultural corridor,” using each jurisdictions DEI framework.

- **Environmental Hazards:**
    - Based on preliminary assessments, determine the need for environmental assessment studies relative to toxic waste disposal or other environmental hazards.
    - Identify potential hazards to trail users due to physical conditions, such as embankments.
    - Identify areas prone to flooding under current conditions, and in future based on increased frequency and size of storms.

- Determine the compatibility of trail development with adjacent land uses to identify and address potential impacts. These include public, agricultural, industrial, school facilities, businesses, residences, etc.
- Evaluate options for either constructing transit or reserving right-of-way for 'light' transit as part of a multi-modal transportation network. Options could include dedicated bus routes or streetcar.
- The consultant will identify and evaluate potential trail linkages/connections, including possible:
    - Connections to neighboring developments for both recreational and commuter use by residents and employees.
    - Connections with other existing or proposed recreational trails.
    - Connections to nearby schools, existing parks, streams and rivers, attractions, and local business which can bring economic value to the area.
    - Connections to bus routes and transit lines, future and current.
- Examine ADA accessibility.

## 5. Economic and Community Impacts

The consultant shall evaluate economic and community impacts, such as the following:

- Provide the general demographics of potential trail users.
    - Describe the community character for the diverse and varied communities through which the corridor passes (rural, downtown centers, suburbs, industrial zones, etc.).

- Compile population information and project demographic patterns (current and projected).
- Develop a profile of potential trail users (commuters, tourists, cyclists, pedestrians, equestrians, etc.).

- Provide summary of economic impact of trail.
  - Estimate initial usage levels, including seasonal demand of trail versus year-round for a five-year period
  - Project future use of trail for different sectors, including commuting, recreation, and tourism, etc.
  - Estimate the economic benefits for the communities surrounding the project corridor.
  - Estimate economic benefits of transit.
  - Analyze potential displacement that could arise in the area around the corridor and will develop best practice recommendations for limiting the projects force as a displacing agent.
- Provide a summary of the community benefits, including improvements to community health, reduction of traffic, improved air quality, environmental and racial justice, resiliency, and climate change.

## 6. Trail Concept Plan

The consultant will develop a rail trail concept plan incorporating all data obtained and conclusions reached. The key work tasks under this item include the following:

- Identify the following on the plan map:
  - Trail location and any alternative or spur linkages routes.
  - Proposed location of trailheads and related facilities (restrooms, seating, water, emergency telephone, lighting, parking, maintenance, etc.)
  - Areas with single and/or double tread pathways.
  - Areas for trail barriers and emergency access.
  - Areas in need of flood mitigation.

    - Areas needing natural buffers and/or screening.
    - Potential strategies for increasing shade and/or providing water features to reduce heat.
    - Proposed linkages to parks, schools, neighborhoods, historic resources, and other greenway/trail systems.
    - Proposed linkages, parcels, and connections for existing, proposed, and potential affordable and workforce housing, employment centers and schools.
    - ADA accessible spaces and required facilities.
    - Crossings for adjoining agricultural activities.
    - Existing or new wildlife crossings, with strategies for enhancing effectiveness.
    - Possible locations for art, interactive and educational features.
    - Strategies for incorporating transit into the plan.

- Develop a conceptual plan for making the trail corridor integrated into the cultural and historical landscape, which will include interpretive signage for nearby historic resources.
- Develop conceptual cross sections, including potential transit or reservations of transit right-of-way.
- Develop conceptual designs for mitigating potential conflicts between pedestrians and other proposed trail users (bicyclists, horseback riders, etc.).
- Recommendations for trail surface, lighting, emergency call boxes and other safety features.
- Identify facilities necessary to operate the trail and provide conceptual designs for these areas such as rest areas, parking facilities, fencing or buffer systems, drainage systems, emergency vehicle access, facilities to meet the needs of persons with disabilities.
- Identify and prepare conceptual designs for facilities required to restrict use of the path that utilizes creative access design to discourage unauthorized motorized use, rather than hazardous bollards.
- Provide a phased implementation plan.

## 7. Planning Level Cost Estimates

The consultant shall provide planning level cost estimates as noted below:

- Provide a planning level cost estimate for any required land acquisition or purchase of easements.
- Prepare planning level cost estimates for developing the trail and for proposed facilities, including environmental remediation, if required.
- Prepare planning level cost estimate for possible transit and/or transit reservation options.
- Prepare planning level cost estimates for the phased implementation plan, including PE, ROW, utilities, and construction.
- Provide typical management and maintenance budgets from similar trails.
- Develop a sample budget for staffing and maintenance, including all anticipated cost categories with projections of operating expenses and revenues per project phase.
- Identify the trail section(s) with the least complications.

## 8. Partnership Opportunities and Strategies

The Consultant will guide and assist the Client Project Managers with outlining, describing, and organizing partnership opportunities and strategies, at minimum, as noted below:

- Identify potential sources of funding for trail acquisition, operation and maintenance, including but not limited to, grants, direct municipal contributions, user fees, private sector support, public/private partnerships, etc.
- Evaluate which are the most likely funding sources.

## 9. Public Awareness, Public Consultation, and Stakeholder Engagement

The Consultant will assist the Client Project Managers in a robust public and stakeholder process that will provide awareness to inform the public regarding the ongoing feasibility study, consult with the public regarding the conceptual plan and opportunities, and its progress and engage with the stakeholder group. All public engagement activities shall be done in consultation with and shall meet the Community

Engagement requirements of the Town of Carrboro, Town of Chapel Hill, Orange County and University of North Carolina – Chapel Hill.

Provide an approach that at minimum provides the following:

- Identify property owners and those adjoining the right-of-way, and contact them to describe the project.

- Develop and help distribute **outreach and promotional materials** to inform the public about the study process.

- Develop social media graphics and text (see Bolin Creek Trail Map as example) to announce project. The Client Project Managers will review, approve, and post content on their social media accounts.

- Translate all outreach materials into languages identified by the local jurisdictions including comment forms, handouts, social media posts, and community meeting kit materials.

- Develop, post, and maintain **project website** content and outreach materials throughout the process for online public awareness. Once the project is complete trans ownership and content to project managers.

- Assist the project managers in developing a **public awareness plan** that includes multiple rounds of public awareness activities regarding the feasibility study, its scope and progress, including targeted outreach to historically under-represented communities.

- Develop a public consultation process regarding the Trail Concept Plan, which includes social media graphics and text (see Bolin Creek Trail Map as example) to announce project updates and public consultation opportunities. The Client Project Managers will review, approve, and post content on their social media accounts.

- Prepare, conduct, and attend presentations for elected/appointed officials at two different intervals (to be determined during scoping), with Durham-Chapel Hill-Carrboro MPO Technical Committee and Policy Board, Town of Chapel Hill, Town of Carrboro, UNC Chapel Hill, and Orange County.

- **Document all public** awareness and public consultation efforts conducted, measure people reached. A concise summary of awareness and consultation efforts will be posted on the project website after each round of public interaction is complete.

## 10. Final Products

As a conclusion to the process, the consultant shall provide the following products, written using plain language, or at the very least, including summary information that meets plain language standards:

- **Executive Summary**. Once the participating parties have concurred on the findings of the study, an executive summary will be developed that can be widely disseminated. The executive summary will be designed so that it can serve as a stand-alone document and be the basis of on-going public education and citizen involvement efforts. The consultant will be responsible for preparing the Executive Summary.

- **Draft Feasibility Study**. The consultant will prepare a draft report that describes the study methodology, study finding, and recommendations and provides required mapping. The draft must be approved by the Client Project Managers.

- **Final Feasibility Study**. The final study will record findings as text, illustration, and maps in a format convenient for public dissemination. The Stakeholders will assume ownership of the final study when provided by the consultant.

- **Data files**.

    - GIS/MAPS

        - All spatial data collected or used to produce maps or illustrations for the study will be provided in ESRI file geodatabase format or as a set of shapefiles. Metadata describing the spatial data will at minimum include:

            - The original source and date acquired if it was derived from an existing source.

            - The person or entity that produced the data and the date it was developed if it was generated specifically for this study.

            - The geographic coordinate system used to develop and display the spatial data.

            - A data dictionary that fully describes all the fields and associated values that have been added to any existing dataset or developed for a new dataset.

    - Files and analyses necessary to recreate maps, tables or other outputs from the study.