

**EXHIBIT A**  
**SCOPE OF WORK**  
**SOUTHERN GATEWAY CORRIDOR STUDY**

**OVERVIEW**

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The study area will focus on planning and analysis from Martin Luther King Boulevard, on the Southside of Downtown to the intersection of South Wilmington/South Saunders Street and Tryon Road and includes properties on both sides of South Saunders Street and South Wilmington Street. The width of the study area, while encompassing a large area between Hammond Road, Lake Wheeler and Renaissance Park is not intended to investigate alternatives for those corridors but rather serve as a land use and neighborhood context boundary. More typically, the study area will focus on physical improvements one "block" or large parcel deep along South Saunders and Wilmington Streets while planning to enhance accessibility and connectivity to the surrounding neighborhoods. For the purpose of this study, the corridor will be subdivided into approximately 3 sub-areas to help focus in on a detailed analysis of the character areas largely defined by key roadways/neighborhood edges.

The scope of this study will include a detailed study and analysis of alternatives to shape the documented vision plan for the future of the corridor within the proposed study area. A visioning workshop was held in June 2012 to develop a vision for the character of the roadways and adjacent land uses into the future.

The information gathered during the workshop has been compiled into two documents: (1) The Briefing Book and; (2) The Draft Summary Report, both of which will provide a framework of data, observations, and community input that will guide this detailed corridor study effort.

**SCOPE OF WORK**

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The scope proposed below follows a traditional planning trajectory: inventory and analysis, public outreach and visioning, plan preparation and refinement, and adoption.

**PHASE 1: INVENTORY AND ANALYSIS**

The Inventory and Analysis phase is intended to provide the factual and analytical basis for the remainder of the planning effort. It will cover the major physical systems comprising the study area. Sources for the inventory are existing maps, plans and studies, interviews with officials at NCDOT and elsewhere; and Wake County property records. The City will provide digital base information contained in the briefing book and summary report from the 2012 initiative. Selected City G.I.S. base information will also be provided to the consultant team.

The consultant team will summarize the data collection and inventory of mapping in the Issues, Opportunities, and Constraints Report. A digital presentation of this summary will also be prepared for use in the public meeting and project web site.

### **Task 1.1: Environmental Conditions**

Environmental conditions will be summarized in narrative and map form. These will include the extent of floodplains, hydrology, and any known or suspected contaminated sites, tree canopy, ecology and habitat.

### **Task 1.2: Infrastructure**

Maps of water, sewer and stormwater infrastructure will be provided by the City for incorporation by the consultant team. The narrative will discuss any known deficiencies as well as planned or needed projects.

### **Task 1.3: Urban Design Inventory**

The consultant will produce a qualitative assessment of urban design features in the study area, including public realm inventory, landscape typology, viewshed, cultural and historic resources, cognitive mapping, and built environmental characteristics.

### **Task 1.4: Demographic Summary**

The Consultant will prepare a summary of selected demographic information including age, ethnicity, income and other data points for the project study area. The information will be sourced during the market assessment effort and will be presented in tabular and graphic formats.

### **Task 1.5 Transportation Assessment**

#### **Task 1.5.a: Transportation Conditions**

Although the focus of this study is on future conditions and opportunities, a thorough understanding of existing conditions is needed to accurately recognize current and future transportation problems, and to develop effective solutions, including models to evaluate the performance of range alternatives. Fortunately, an extensive data set of recent traffic counts and crash statistics is available for the study area, minimizing the need for additional data collection.

#### **Task 1.5.b: Compile & Conduct Traffic and Travel Data Surveys**

To establish a baseline for existing conditions assessment and for future year forecasts, the consultant will collect peak-period turning movement counts, as well as pedestrian, bicycle, heavy vehicle, and bus volumes at up to six (6) intersections, using consultant count staff and/or our MioVision camera system. Vehicle queues will also be monitored. 48-hour tube counts will be conducted at up to six (6) locations, collecting data on daily traffic volumes, time-of-day variations, directional distributions, lane usage, vehicle classifications, and spot speeds.

In addition to accounting for heavy vehicles in classification and intersection turning-movement counts, major generators of truck traffic will be inventoried.

## Exhibit A: Scope of Work: Southern Gateway Corridor Study

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This set of data, combined with recent and historic counts at these and other locations, will enable consultant to cost-effectively develop a robust and comprehensive set of traffic data that accurately represents actual conditions, and which facilitates future year forecasts.

While travel-time studies could provide useful information on traffic conditions and for validating analysis models, such surveys have significant limitations, and obtaining a statistically-rigorous set of such runs may be beyond the scope and budget appropriate for this task. Instead, review and analysis of INRIX traffic data available to the City will yield greater benefits at less expense, providing comprehensive traffic speed and density data for major facilities in the corridor. AirSage data used in the TRM model development process can provide additional insight into travel demand patterns affecting the study area.

### City Inputs:

1. Approval of data collection locations, times, and survey types
2. Available traffic counts and related data (covering last 5 years)
3. Transit service and ridership data (including school buses)
4. Relevant transportation plans and studies
5. Guidance and approval in identifying major freight traffic generators
6. Access to relevant INRIX and AirSage datasets and analyses

### Consultant Deliverables:

1. Peak-period (AM, midday, & PM) intersection turning movement counts at up to six (6) locations. Data to be collected includes:
  - a) Total traffic
  - b) Trucks/heavy vehicles
  - c) Bicycles and pedestrians
  - d) Queuing problems
2. 48-hour tube (or equivalent) counts at up to six (6) locations. Data to be collected:
  - a) Heavy vehicle classification counts
  - b) Directional distributions
  - c) Time-of-day variations
  - d) Lane utilizations
  - e) Spot speeds
3. Freight and goods movements
  - a) Heavy vehicle classification counts (as part of previous deliverable)
  - b) Major truck traffic generators in study area
  - c) Train activity at relevant grade-level crossings

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4. Interpretation of available and relevant AirSage data and analysis
  - a) South Wilmington Street, South Saunders Street and Lake Wheeler Roads
  - b) Tabular, graphic, and narrative summary by facility and segment, considering time-of-day, day-of-week, and time-of-year variations, as well as recent trends

#### **Task 1.5.c: Compile and Analyze Crash Data**

Starting with TEAAS strip study for subarea segments, the consultant will review and analyze historic crash data along the corridor, and will conduct high-level safety audits for targeted locations. Safety issues involving pedestrians, bicyclists, transit, aging populations, truck traffic, and at-grade rail crossings are also relevant to this study and will be assessed, both quantitatively and through qualitative field observations.

#### City Inputs:

- Significant safety concerns, perceived problem locations, and mitigation measures previously attempted or considered.

#### Consultant Deliverables:

- Summary and analysis of crash history (narrative, tabular, and graphic) for all travel modes, including bicycle and pedestrian.

#### **Task 1.5.d: Assess Corridor Geometrics and Network Integrity**

Access management and roadway geometrics obviously play major roles in both highway safety and capacity, so consultant will identify critical intersections, driveway locations, and vertical/horizontal alignment attributes, (curves, grades, etc.) with respect to possible constraints on speed, sight distance, and capacity. The surrounding transportation network and its functional hierarchy will be assessed for continuity, efficiency, and resilience. Special attention will be paid to factors that adversely affect bicycle and pedestrian mobility and transit access. Bus and truck movements, emergency vehicle accessibility, and relevant at-grade rail crossings will also be assessed.

*NOTE: Geometric field survey work is not included in this scope of services.*

#### City Inputs:

1. Perceived problem areas
2. Available base mapping and layers
3. Signalized intersection timings & designs
4. Any other relevant design, ROW, utility, or other plans or drawings

#### Consultant Deliverables:

1. Planning-level corridor mapping and summary descriptions

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- a) Qualitative assessment of major facility alignments and geometrics
  - Grade and vertical curve issues that could affect pedestrians, bicycles, passenger vehicles, trucks, and buses
  - Critical horizontal curves (speed and visibility constraints)
  - Typical cross-sections
  - Geometrics of major intersections (including physical constraints on any mode)
- b) Traffic control devices
- c) At-grade rail crossings (based on FRA inventory and field review)
- d) High-conflict segments (especially those involving significant access management issues; pedestrians and bicyclists; CATS & school bus routes; and truck traffic)
- e) Bridges, culverts, overpasses, retaining walls, guardrails, and other relevant structures
- f) On-street parking locations
- g) Bus routes and stops (including school buses)
- h) Truck routes and restrictions
- i) Network gaps or discontinuities (for all modes, especially bicycle and pedestrian)

#### **Task 1.5.e: Build and Validate Traffic Models**

The first step in this process is deriving a comprehensive, smoothed, and balanced set of peak-period, base year traffic volumes for the study area. These volumes will be developed by combining newly-collected data with other recent and historic counts, and with regional travel model results, as appropriate.

The consultant will work with the City to select the most appropriate platform for traffic modeling and analysis, define the extent of the model, and determine critical parameters and assumptions, including treatment of transit and non-motorized travel. Candidate analysis tools include HCS, Synchro, SimTraffic, TransModeler, and LOSPLAN, among others.

Even before data collection is complete, the study team will begin constructing the network-based model for analyzing and displaying traffic conditions. Once the model succeeds in replicating existing peak-period traffic conditions to an acceptable level of precision, it will be provided (along with draft documentation) for review and approval by the City.

*NOTE: Detailed traffic simulation of the entire corridor is not included in this scope of services; however, limited simulation at 3-4 critical intersections can be provided.*

#### City Responsibilities:

1. Review and approval of methodology and results

#### Consultant Deliverables:

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1. Base year peak-period traffic volumes, with documentation of methodology and results
2. Existing transportation network with relevant geometric and operational attributes
3. Validated base-year model with supporting documentation of methodology and results

#### **Task 1.5.f: Analyze Existing Transportation Conditions (Deficiency Analysis)**

The consultant will summarize the operation and function of the current transportation system for all modes of travel, on daily and peak-period bases, applying the analytical models and tools developed in Task 1.5.e. A major element of this task will be an assessment of traffic conditions, as represented by appropriate performance measures including delay, LOS, average speed or travel times, and queue lengths. Results (obtained from the models described above, as well as by direct observation) can be aggregated as appropriate. A range of visualization techniques will be employed to help communicate these findings. It is assumed that some performance measures could be refined based on stakeholder input.

The safety and reliability of all travel modes will be assessed for deficiencies. Identifying capacity bottlenecks and access constraints will be a priority. The consultant will address existing and anticipated conditions for bicyclists and pedestrians, emphasizing gaps, barriers, discontinuities, and sub-standard facilities, while considering impacts on vehicular traffic. Existing greenway and sidewalk systems will be examined for deficiencies, particularly at crossings. The level of available transit service and its accessibility will be addressed. Other factors to be considered include truck routing, emergency vehicle access, and at-grade railroad crossing issues. Refinement of performance measures typically occurs as a result of their initial application to the Existing Conditions analysis. The findings of this task will be summarized in an Existing Conditions memorandum (ultimately part of the final report), and in presentation format for the Client.

*Note: While level of service for traffic will be expressed quantitatively, other modes will be described in more qualitative terms, emphasizing barriers to accessibility or connectivity, rather than deficiencies resulting from demands exceeding capacity.*

#### City Responsibilities:

1. Review, feedback, and approval

#### Consultant Deliverables:

1. Explanation of candidate performance measures (MOEs)
2. Summary of existing conditions (deficiency analysis) in text, table, and diagram formats, as input for Task 1.8: Issues and Opportunities Report
  - LOS (volume/capacity ratios, congestion delay)
  - Queuing
  - Crashes/safety
  - Pedestrian and bicycle connectivity, including quality/level-of-service analysis (HCS or equivalent, as determined with Client)

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- Transit service, including quality/level-of-service analysis (HCS or equivalent, as determined with Client)
- Accessibility analysis for appropriate destinations and services, across relevant modes

### **Task 1.6: Economic and Market Assessment**

A snapshot of recent and current market conditions will be prepared. These will include an analysis of 2008 property valuations, a review of recent transaction data, and summaries of recent development activity.

#### **Task 1.6.a: Regional Overview & Southern Gateway Corridor Regional Positioning**

To better understand the corridor's position within the larger Raleigh region consultant will collect and analyze key data points by asset class/land use (residential, retail, office, etc.) for Raleigh's major submarkets. From this work will emerge corridor opportunities, constraints, and key differentiators from a regional market perspective.

#### **Task 1.6.b: Southern Gateway Corridor Market Potentials**

1. Regional Growth Estimates & Projections -- consultant will use regional population and employment projections from several third party sources to estimate potential demand by land use category for the Raleigh region. Potential data sources include but are not limited to Woods & Poole Economics, Inc., Moody's Analytics, and the City of Raleigh.
2. Demand – to assess demand potentials consultant will analyze demographic and economic growth characteristics for the Raleigh region in general, and for the corridor specifically, by land use type. Demographic and economic factors will include, but may not be limited to:
  - Household growth patterns and projections by age and income.
  - Employment growth patterns and projections.
  - Building permit trends by category (single- and multi-family) and year.
  - Rental rates for rental apartments, retail, office and industrial uses.
  - Residential real estate transaction data for for-sale residential.
  - Public school quality as assessed by North Carolina Department of Education (or Wake County Public School District, whichever is most relevant).
3. Supply – to assess supply consultant will analyze existing and planned inventory within the corridor by land use category.
4. Corridor Market Potentials -- assess the corridor's current "fair share" for each land use and provide preliminary estimates of potential market capture increases under theoretical inducement scenarios.

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5. Identification of "soft-sites" - consultant will use a combination of property data and field surveys to identify "soft sites", including under-built sites, vacant sites, and sites occupied by vacant and/or deteriorated buildings. We assume this work will be highly iterative and require collaboration with City staff.

Market input will be provided to assess a range of development scenarios: base case, moderate, and high in which each scenario operates under a different set of development assumptions regarding mix of land uses, intensity of development, and level of transportation/transit investment. The market input would be calibrated to each scenario's capacity to meet market demand and optimize development potential and would be reflected in both rental rate differentials and absorption. Analysis of up to three development scenarios (base case, moderate, and aggressive) for up to three identified soft sites will be completed. Alternatively, depending on how geographies are identified, consultant could develop and analyze three scenarios—base case, moderate and aggressive—for the entire corridor.

#### **Task 1.6c.: Cargill Industrial Site Research**

The City is interested in understanding the potential redevelopment opportunities associated with the approximately 10-acre site should the industrial facility be relocated from its current location. Relocating and redeveloping existing industrial sites is a complicated and potentially politically sensitive endeavor, one that will ultimately require its own project-specific appraisal and development feasibility analysis.

The consultant will explore Cargill's corporate position regarding potential relocation of the existing facility and a baseline understanding market supportable uses if the site were to be redeveloped. We will meet with Cargill ownership to understand Cargill's corporate position regarding relocating the existing facility. This interview (or series of interviews) could be done privately, with City representatives and/or with key members of the Southern Gateway Corridor consultant team. Working within the framework of demand potentials established in the Market Assessment, consultant will develop a market-based theoretical redevelopment program for the reuse of the site.

#### **Task 1.7: Mobile Information Workshops**

The purpose of the smaller scale Mobile Information Workshops will be to explain the scope of the project, summarize the findings of the 2012 City vision exercise and to explore the strengths, weaknesses, and visions for each of the three community sub-areas within the study area. Each workshop will document the specific sub-area community regarding physical form, issues, and vision for the study area. Depending on the preference of the City, these workshops can be convened on consecutive weekday evenings or during the work day and selected workshops will be led and administered by City staff. Both resident populations and business community leaders will be targeted. This effort will be complemented with selected stakeholder interviews with an emphasis on business leaders.

This form of community outreach is intended to engage neighborhoods and community members who did not participate in the 2012 public workshop and re-engage with community members who participated earlier. This

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population may need a more incisive effort of activation and engagement. Consultant would work to develop a master attendance list to encourage future engagement from the focus community in the Public Meeting.

### **Task 1.8: Issues and Opportunities Report**

A report summarizing the Tasks 1.1 – 1.6 will be produced. Based on the inventory results, a set of issues, opportunities, and constraints will be identified. This report will be the Phase 1 work product.

#### *Phase I: Deliverables*

*Meetings: Two (2) working group meetings, Mobile Information Workshops- Issues, Opportunities, and Constraints Report, Executive Summary of Market Assessment with Supporting Data Tables and Graphic Charts.*

## **PHASE 2: DESIGN ALTERNATIVES**

At the conclusion of the Inventory and Analysis phase, the consultant team will begin working on a set of conceptual land use and transportation solutions for the corridor. Three categories of solutions are anticipated: short-term, low-cost actions; mid-term changes; and expensive, long-term undertakings.

A special “brainstorming” workshop with City staff will be facilitated by the consultant team. The internal workshop will begin with a summary presentation of the issues, opportunities, and constraints report. UDC staff and consultant team participants will be organized into a breakout groups to discuss potential land use and transportation improvements and other key solutions for the corridor. A special emphasis will be placed on the three community sub areas. Base maps, aerial photos, and trace paper will be available for sketching. City staff and the consultant team will reconvene and present their recommendations to the other attendees. The workshop will advance key ideas to be further refined for presentation by the consultant team at the Public Meeting.

### **Task 2.1: Land Use Scenarios**

Using the currently adopted Future Land Use designations as a point of departure, more detailed land use scenarios will be developed for the study area. These will include redevelopment scenarios for the soft sites identified in Phase 1. The scenarios will address use mix, proposed building heights, frontages, zoning, and parking policies. Build-out estimates of the scenarios will be prepared, in terms of numbers of units and square feet of commercial.

For this phase, the consultant will test design alternatives at two levels of detail. The first is to identify specific opportunity sites that are ripe for redevelopment. These would correspond to the areas and sites that are of highest priority for the City and stakeholders. The second level of detail involves creating a series of tools and design solutions that can be implemented over time by private interests along the corridor. These interventions would serve to transform the image and character over time, in incremental ways. The following items would be created at this stage:

1. Concept illustrative plans of key districts (up to 3)—Subarea 1: Downtown to I-40; Subarea 2: I-40 to Peach Road; Subarea 3: Peach Road to Tryon Road.

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2. Design tool kit for typical design problems and development transformations throughout the corridor (ex. Options for transforming strip development over time, ways to implement access management, providing for other modes of transport, streetscape/beautification, parking strategies, or nodal development)
3. A key component to the study will be redevelopment design alternatives.
4. A major mixed use intersection, a non-performing retail center redevelopment site and a medium to high density housing site redevelopment scenario will be prepared based on the internal market assessment completed by the consultant. This will allow key strategies to be explored which could then be transferred to other similar sites along the corridor. Additionally, the team will work with the City to study current housing initiatives including market rate and affordable housing. As these initial ideas and sketches are vetted in the public meeting process, we would confirm that recommendations were reflective of earlier input and desired vision.

### **Task 2.2: Transportation Improvements**

A package of roadway improvements and transit enhancements will be prepared based on revised travel demand estimates from the land use scenarios. The transportation options will address the following goals:

#### **Task 2.2.a: Develop 2040 Travel Forecasts**

The VHB team will work closely with the City to develop traffic forecasts that reflect the impacts of land use changes, background traffic growth, and transportation system improvements for the desired design year. Future traffic volumes will be estimated using a combination of historical trends, ITE Trip Generation rates, other relevant forecasts, and the Triangle Regional Model (TRM), and will incorporate relevant information from earlier tasks.

Estimates of pedestrian, bicycle, transit, truck, and rail trips in the corridor will be derived from trend analysis and the TRM, combined with input from the Client, stakeholders, and other relevant plans and forecasts. Client approval will be obtained for all forecast assumptions, methodologies, and results.

Extensive use of the TRM is not anticipated. The TRM will be used to help establish baselines and target growth ranges, and to develop networks for other corridor-level analytical models, forecasts, analysis. Modified land uses and networks will not be coded directly into the TRM to perform alternate model runs.

Careful coordination with City staff will be needed to ensure accurate definition of "Committed" projects for consideration in future conditions analysis.

#### **City Input:**

1. Known and anticipated land use changes
2. Known and anticipated future year transportation system projects and conditions, including detailed definition of "committed" project assumptions
3. Other relevant forecasts
4. Review, feedback, and approval

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Consultant Deliverables:

1. Forecasts of future year peak-period traffic volumes, with documentation of methodology and results, including assumed land use changes
2. E+C (Existing + Committed) future year transportation network reflecting known or anticipated geometric and operational changes
3. Future year, peak-period traffic assignments to E+C network, with supporting documentation of methodology and results
4. Estimates of travel demand for other modes at critical locations

**Task 2.2.b: Assess Future Transportation Conditions (Deficiency Analysis)**

Once future build-out conditions have been established, a deficiency assessment consistent with the Existing Conditions analysis in Task 3 will be conducted. This "No Build" or "Trend" scenario will establish a "business as usual" base case for comparing against alternative improvement scenarios. The performance measures developed earlier in the project will be applied to both Existing and Trend scenarios and compared; further refinements are possible, yielding a cohesive set of carefully designed criteria and visualizations that will help tell the story of this project. Consistent, objective, and easily understandable descriptions of both problems and potential improvements will be employed, with the goal of quantifying trade-offs, eliminating bias, and fairly and accurately representing the desires of the community. The results of this task will provide the basis for developing and evaluating alternate transportation and land use scenarios. Analysis results will be summarized at a variety of appropriate levels, including regional, study area, three subareas, and individual critical locations.

City Responsibilities:

1. Review, feedback, and approval

Consultant Deliverables:

1. Possible revisions to performance measures (MOEs)
2. Summary of future ("Trend") conditions (deficiency analysis) in text, table, and diagram formats:
  - LOS (volume/capacity ratios, congestion delay)
  - Queuing
  - Crashes/safety
  - Pedestrian and bicycle connectivity, including quality/level-of-service analysis (HCS or equivalent, as determined with Client)
  - Transit service, including quality/level-of-service analysis (HCS or equivalent, as determined with Client)

Accessibility analysis for appropriate destinations and services, across relevant modTask 2.2.c: **Develop and test alternate scenarios**

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In response to various land-use scenarios, previously-identified deficiencies, and public input, an integrated, comprehensive package of transportation infrastructure, operational, and service improvements will be developed, tested, and refined according to the methodology described below.

The first level of improvement options will focus on optimizing the efficiency of traffic operations. These strategies involve less expensive, smaller-scale projects that can be implemented in a shorter timeframe. Such projects usually require little or no new rights-of-way, and have minimal potential for environmental or community impacts.

The menu of solutions to be considered in this step includes improved signal timing and coordination; modified intersection approaches or lane designations; enhanced signs and marking; pedestrian crossing treatments; turning movement restrictions; ITS/ATMS enhancements; and improved access management. Truck traffic and transit service will also be assessed, and safety considerations will be paramount. Results and recommendations will be depicted with a comprehensive set of tabular summaries, conceptual designs and diagrams, and visualizations of performance metrics.

If the operational improvements developed above cannot adequately address identified deficiencies or if they do not accomplish the objectives expressed by the public and stakeholders, more capital-intensive infrastructure projects may be warranted. Alternatives will be generated and evaluated with respect to the performance measures established to achieve the objectives of this study, while remaining consistent with broader community goals. Trade-offs associated with each proposal will be expressed as clearly and objectively as possible.

It is anticipated that some analysis of the following will be required:

- A more compact urban design for the MLK Jr Boulevard interchange with US 70
- Reconfiguration of the MLK Jr Boulevard intersection with S Salisbury and S Wilmington Streets (including possible re-connection of S Fayetteville Street)
- Conversion of South Street to 2-way operation
- Improvement and extension of Lake Wheeler Road to West Street (as the major movement at S Saunders Street intersection)
- Redesign of S Saunders/S McDowell Street y-intersection
- Changes to the character of the 2-lane segment of "old" South Saunders Street (retail, parking, and pedestrian elements)
- Signalization of Waterworks Street at S Saunders Street
- Double-tracking of rail line
- Re-design of S Wilmington Street as transit corridor
- Reconfiguration of S. Wilmington/S. Saunders Street interchange to provide access to the west (possibly at-grade)
- Improved east-west connectivity (for all modes)
- Enhanced bicycle and pedestrian connectivity

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- Revised transit service and strategies
- Access management at various locations
- Truck access and circulation
- Rail conflicts
- Potential “super-street” treatments and interchanges in the corridor’s southern segment
- Land use impacts of potential new development/redevelopment, including Dorothea Dix property

Alternatives to be developed and compared could include additional intersection approach lanes, or innovative intersection/interchange treatments, such as quadrant intersections, roundabouts, or diverging diamond interchanges. Road widenings, alternative median treatments, turn restrictions, and new connections will also be considered, along with potential driveway consolidation and shared parking opportunities. Traffic calming or other restrictions to discourage traffic from diverting along inappropriate routes may warrant consideration. Traffic impacts on (and from) pedestrian, bicycle, and transit trips will be evaluated. Both sidewalks and off-street pedestrian facilities will be assessed. Special focus will be placed on road crossings (both at intersections and mid-block) to identify hazards and deficiencies. Bicycles will be treated similarly, with a thorough understanding of needs, user groups, destinations, and site conditions helping inform the choice of alternatives and ultimate recommendations.

VHB will develop a set of cross-sections and associated guidelines for existing and future transportation facilities in the study area, along with conceptual designs for improvement alternatives. Cross-sections will include recommendations for utility and streetscape improvements. Context-sensitive design elements will reflect the social, environmental, historical, and economic context of the surrounding land uses, as captured through the public outreach effort.

Being focused on implementation, the consultant will coordinate with Staff to develop functional, practical designs that respect existing conditions and constraints while promoting vitality, sustainability, and aesthetic quality. Key considerations will include safety; multimodal circulation, access, and capacity/demand relationships; build-to lines or setbacks; urban form; grading and drainage; landscape/hardscape criteria; architectural character; and signage and wayfinding. Recommendations will be drawn from NCDOT and local standards, including NCDOT’s Complete Street Guidelines and various ITE and ASHTO guidelines. VHB will also consult the National Association of City Transportation Officials: NACTO Urban Bikeway Design Guide and NACTO Urban Street Design Guide; the Living Streets Manual (<http://www.modelstreetdesignmanual.com/>); and other appropriate references.

### City Responsibilities:

1. Summaries of candidate operational strategies and project concepts
2. Review, feedback, and approval

### Consultant Deliverables:

1. Typical cross-sections

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2. Conceptual designs of alternatives
3. Design guidelines
4. Set of proposed operational improvements and candidate projects, including text and graphic descriptions (as appropriate) of:
  - Project need and purpose
  - Anticipated project performance, summarized using adopted MOEs

### **Task 2.3: Estimate Probable Costs**

For transportation projects, the consultant will work closely with the Client to develop planning-level estimates incorporating probable costs attributable to engineering and environmental work; construction; and (where applicable) operations and maintenance. The cost estimation methodology used, as well as assumptions about project design and scheduling, will be thoroughly documented. All costs estimates will be expressed in current dollars. Weight will also be given to ease of implementation, and to the relative certainty of costs and benefits.

#### City Responsibilities:

1. Guidance on local project cost history or any special considerations, especially ROW
2. Review, feedback, and approval

#### Consultant Deliverables:

1. A table of planning-level probable costs, broken down by key components
2. A narrative summary of assumptions, results, and sensitivities

### **Task 2.4: Prepare Transportation Implementation Plan**

The consultant will develop detailed descriptions for each recommended transportation project or policy, summarizing its purpose and need, costs and benefits, prioritization, contingencies, and other impacts and uncertainties. Each recommendation will be presented with an appropriate map or other graphic on a single, easy-to-read sheet compatible with the standard format used by CAMPO/City of Raleigh.

To facilitate implementation, the consultant will help the City establish appropriate performance standards and "project triggers." By monitoring these indicators, responsible agencies can more effectively determine when to initiate which project or program, based on objective, measurable criteria.

Working with the City, consultant will identify potential funding sources for recommended transportation projects. Successful and innovative strategies used in other communities will be identified. Special focus will be directed to opportunities for obtaining funding from multiple sources. VHB will apply metrics from MAP-21 and NCDOT's SPOT/STI program to evaluate and optimize the prioritization potential of each project, and for the plan as a whole.

This task will develop and outline realistic, step-by-step strategies to achieve transportation policy goals and to carry out recommended transportation improvements and programs. In close cooperation with the City, consultant will

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develop an implementation plan that outlines recommendations; assigns timeframes; designates potential funding sources; lists regional and local partners (both public and private); identifies responsible parties; and notes significant contingences. This plan will be summarized in a matrix format that serves as a convenient reference or educational document throughout project programming. The consultant will also assist in developing a package of integrated policy recommendations (including land use and access management regulations and guidelines) designed to preserve and enhance the corridor, facilitate implementation, and maximize potential funding sources.

A key element of this effort will be identifying performance thresholds that would act as “triggers” to initiate longer-range improvement projects requiring significant capital investment. This set of metrics would help determine when short-range, low-cost, low-impact operational improvements (such as signal optimization/coordination or dedicated turn lanes) are no longer adequate, and substantial widening (or even an interchange) might be required.

#### City Responsibilities:

1. Review, feedback, and approval

#### Consultant Deliverables:

1. Summary explanation of proposed MOEs and performance “triggers” relative to the plan
2. Detailed implementation plan, including assessment of prioritization factors
3. Prioritized list of near term, mid-term and long-term improvements (matrix format, also referencing issues addressed, type of improvement, and project maps)
4. Set of performance metric thresholds that would trigger initiation of long-range improvement projects

#### **Task 2.5: Environment, Open Space and the Public Realm**

This task will explore options for connecting to the greenway in the study area, and opportunities for public realm enhancements. It also will explore the potential for environmental enhancements related to water quality improvement, and stormwater management utilizing low impact development strategies. The creation of a continuous open space system, network of parks, passive open space areas and trail connections will be further refined and integrated into the preferred Corridor plan alternatives.

#### **Task 2.6: Public Meeting / Design Alternatives**

The design team will work together to develop design alternatives for the Corridor in a studio on site or in the Urban Design Center. The studio will be accessible to stakeholders, interested citizens, and city staff during the one day workshop format. This allows the design team to work closely with the City and stakeholders at the most formative and critical period in the design process. The design alternatives will set framework alternatives for future land uses, infrastructure improvements, and open space systems. The workshop will culminate in a closing presentation summarizing the meeting.

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Three public meetings will be held during a single day to present the various options to each of the sub-area communities. For each meeting, the consultant team will present the visioning statement, refined concept plan alternatives, transportation, open space, implementation strategies, and potential phasing. The options will be presented as three groupings consisting of minimal, moderate, and maximal intervention. Small group discussions will be supplemented by survey forms to gather input on which of the alternatives has the most support, and whether specific elements of each alternative need modification. This will be a digital presentation with plans, diagrams, perspectives, and charts.

After the Public Meetings, the consultant team will meet with the City to review the results of the meeting and set the direction for preparation of the draft report. Based on input received at the public meeting, a preferred land use scenario and set of public improvements will be finalized for the final report.

*Phase 2: Deliverables:*

*Meetings: Two (2) working group meetings, one to brainstorm the options, one to review the results of the public workshop; one governmental stakeholder meeting to present draft options, and three public meetings convened on a single day.*

*Deliverables: Maps, drawings, PowerPoint presentation*

### **PHASE 3: IMPLEMENTATION**

#### **Task 3.1: Implementation Options**

In concert with the development of the land use, transportation, and public realm options, a suite of implementation tools also will be explored to ensure that the proposed regulations and public investments are feasible, including zoning tools for implementation, sources of funding to offset the costs of transportation investments, and public realm improvements. Additionally, opportunities for public private partnerships will be highlighted. Preliminary cost estimates for capital improvements will be identified along with a cost benefit analysis of alternatives. These initial explorations will be further refined by the consultant team, lead by Permar, and prepared in close consultation with the City.

#### **Task 3.2: Phasing Options**

As the District plan is refined, at least one catalytic project and a series of actions will be identified for early implementation. These might include institutional expansions, private development projects, and public infrastructure improvements. These early projects are critical for the success of the plan and desirability of this district for future redevelopment. Based on private and public implementation schedules, these initiatives can be visualized as a series of coordinated phases where public investment supports private development.

*Phase 3: Deliverables:*

*Meeting: One working group meeting*

*Implementation and Phasing plans and recommendations.*

## **PHASE 4: RECOMMENDATIONS AND FINAL REPORT**

### **Phase 4.1: Draft Report:**

The final phase of the project will result in an executive summary and a detailed report summarizing all the work and findings from the prior four phases. The report will set forth a concept plan for the study area, but may also include more specific recommendations necessary to move the concept plan forward, such as the following items:

- Process Description
- Land Use Scenarios
- Future transportation/transit studies and projects
- Open space recommendations
- Identification of other important capital projects
- Zoning recommendations
- Urban design, form and place-making strategies – public realm and streetscape
- 3D Renderings and sketches of proposed improvements and development scenarios
- A list of desired regulatory changes and policy changes at the local and State level
- Related Comprehensive Plan amendments, including changes to the Future Land Use Map, Streets Manual
- A digital presentation.

The final report will be presented to the City Council for approval. The Council may refer the report to the Planning Commission for review and recommendation. As the report is not a formal policy plan, a public hearing is not anticipated. However, a 30-day public commenting period has to be factored in prior to Planning Commission report. The specific Comprehensive Plan amendments and any future City-initiated rezonings, however, would go through the normal public hearing process.

**Task 4.2: Report Review Meeting:** The consultant team will meet with the City to review the draft report and recommended edits. The draft report will be presented in conjunction with City staff to the Planning Commission and City Council.

### **Task 4.3: Final Report**

The consultant team will prepare the Final Report. Report will include up to five perspective images three ground level and two aerials perspectives.

*Phase 4: Deliverables:*

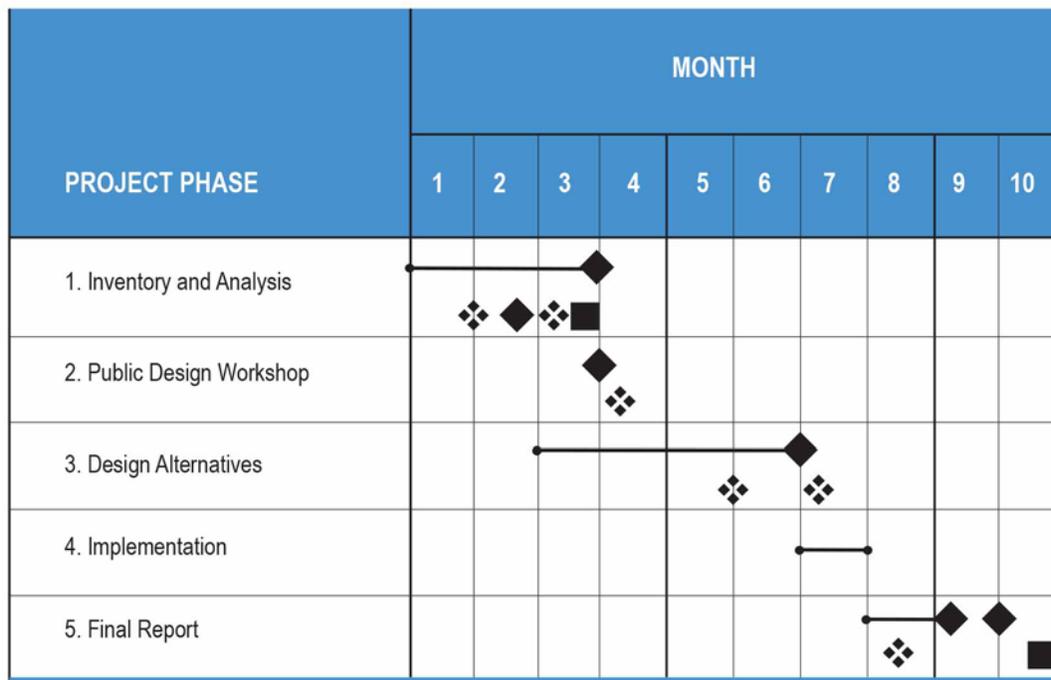
- a) *Meetings: One UDC staff meetings. Presentation to Planning Commission and City Council.*

b) *Final Report with Executive Summary (pdf and InDesign versions)*

### PROJECT TIMELINE

A period of fifteen months is proposed to complete the study, from project initiation to delivery of a draft report to the City Council and Planning Commission. Our expectation and goal will be to complete the project in ten months in accordance with the project schedule below. The proposed time frame for this study should permit ample time for both the production by the consultant and outreach to the public and affected property owners.

With several other UDC planning studies in the works, the kick-off for this effort should be timed so as to avoid meeting overload of City staff.



- ◆ Denotes External Meeting
- ◆◆ Denotes Internal Meeting
- Denotes Deliverable

## **CITY STAFFING**

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The Raleigh Urban Design Center will be the lead agency on the project. This will be a large and complex study, and will require a full complement of staff resources to complete it on schedule. An inter-departmental working group will include staff experts from divisions of Transportation, Long Range Planning, Public Utilities, Public Works, Stormwater, Parks, Recreation and Cultural Resources, Community Development, Office of Budget and City Administration. City staff will provide baseline GIS data and base sheets. The City staff will facilitate the public communication on websites and public meeting announcements and well as assisting in the identification and contact of key stakeholders and community leaders. City staff will coordinate Spanish language interpreters at meetings selected by the City staff. City staff will assist directly organization and management of the Mobile Information Workshops with direct involvement of selected consultant team members.