

Scope of Services

South Capitol Transit Oriented Development (TOD) District Planning Study

Task 1 Project Management

1.1 Project Management Plan

The Kimley-Horn team will prepare a project management plan (PMP) that will include the project description, project team members, communication protocols, quality assurance/quality control, schedule, and document templates. The Kimley-Horn Project Manager will coordinate the implementation of this plan throughout the project duration with the City of Madison Project Manager.

1.2 Project Leadership Team and Design Team Meetings

The Kimley-Horn team will conduct internal consultant leadership team meetings in conjunction with other project related activities to coordinate design decisions and consultant production of the master plan. The Kimley-Horn team will conduct design team workshops to develop concepts for study in the master planning process.

1.3 Progress Reports

The Kimley-Horn team will prepare monthly project progress reports and invoices, establish and maintain a project schedule with key milestones, a contact reporting system, and an issues tracking system.

1.4 Deliverables

- Project Management Plan
- Monthly Process Reports and Invoices

1.5 Information/Actions Provided by Client

- Monthly Report Format
- Client to set up a project page on the City's Website and coordinate posting project documentation on this page.

Task 2 Public Involvement

The Kimley-Horn team will develop a public involvement process that provides a myriad of opportunities for the variety of stakeholders within the community to be educated, engaged in, as well as excited by, the planning process and the project. An innovative and collaborative public participation process can be an opportunity to identify new ideas and assets within a community, build civic capacity and engagement, and lay the foundation of support for the implementation of the recommendations that result from the planning process. The Kimley-Horn team will work with

the City Project Management Team and Ad Hoc Committee to engage and include community leaders, neighborhood issues, city plans, and city processes in order to have a successful project process and outcome.

2.1. Public Involvement Plan

The Kimley-Horn team will employ a public and agency involvement program that is based on our previous experience and tailored based on local feedback from the city and other agencies. Development of the public involvement plan (PIP) will begin with identification of stakeholders. A preliminary list will be prepared for discussion at the project kick-off meeting where input from the city, other governmental agencies, and the Ad Hoc Committee can be collected to expand the list. The PIP also will include goals, objectives, and expected outcome; project committees and roles; anticipated outreach techniques and timing how public involvement efforts will be evaluated. Summaries of public meetings also will be appended to the PIP, so at the end of the project there is a single package illustrating public participation for the project.

2.2. City Project Management Team Meetings

The Kimley-Horn team will help establish the City Project Management Team (PMT) including guiding principles, project goals, design criteria, PMT membership, and meeting timeline. The PMT develops technical ownership of the project and lends additional credibility to project decisions. It is anticipated that the core membership of the PMT will consist of city staff with occasional coordination with critical government agencies, including WisDOT. The Kimley-Horn team will plan and coordinate PMT meetings including meeting preparation, agendas, facilitation, and follow-up to be held in conjunction with other project related activities.

2.3. Ad Hoc Committee

The City will convene an Ad Hoc Committee prior to the commencement of the project. The Ad Hoc Committee will provide City staff and the consultant team with oversight throughout the planning process. The role of the Ad Hoc Committee is to provide policy guidance on the potential activities that may occur as a result of the project recommendations. The policy guidance may include (but is not limited to) recommending:

- Further detailed study and planning for the recommended intermodal transit center site
- Engineering analysis of the Wilson Street concept plan
- Implementation of certain bike path enhancements
- Feasibility analysis of the identified bridge concepts (with potential for further evaluation as part of the Law Park Master Plan process)
- Next steps for impact intersection concepts
- Inclusion of specific recommendations for further analysis in the City's Comprehensive Transportation Master Plan

The Kimley-Horn team will attend Ad Hoc Committee meetings and will assist city staff with meeting agendas, presentations, and facilitation. It is expected that the Kimley-Horn Team will participate in six (6) Ad Hoc Committee meetings, however, many may be staffed by Urban Assets staff alone, with Kimley-Horn or other team members attending only those requiring engineering or technical support.

2.4. Neighborhood Survey

The Kimley-Horn team will conduct a survey of Downtown residents, businesses, students, bicycle advocates, Metro riders, and other interested stakeholders. The purpose of the survey will be to gather initial input on the community's thoughts and priorities for the study area as well as the location and configuration of the Intercity Bus Terminal. The survey will be conducted using Survey Monkey, an efficient and cost effective way of gathering community input. City staff will review and approve the survey questions and methodology

2.5. Public Meetings

The Kimley-Horn team will hold up to three (3) public meetings. The Kimley-Horn team will plan and coordinate the public meetings, including meeting preparation, noticing, agendas, facilitation, and follow-up. The planning, goals and implementation of each public meeting will be coordinated through the PMT and Ad Hoc Committee. The three public meetings will include:

- Education of participants about the project and planning process and gathering of information and data through SWOT and other exercises. One-half day visioning session to be conducted once the data has been collected and preliminary concepts developed from tasks 3 through 8. The purpose will be to present the data and preliminary concepts and to engage participants in exercises to identify and prioritize the key elements, projects and priorities for the TOD plan as well as the location and site design elements for the Intercity Bus Terminal.
- Presentation and discussion of the draft plan.

2.6. Other Public Outreach

The Kimley-Horn team will provide additional outreach to the community as required by the project. These opportunities will be determined working with the PMT and the Ad Hoc Committee. The Kimley-Horn team will coordinate and facilitate any information gathering, discussions, or presentations necessary to ensure the success of the project. It is expected that Kimley-Horn Team will conduct six (6) additional outreach activities.

2.7. Deliverables

- Public Involvement Plan
- Summary Survey Results
- Public Meeting Summary Reports (3)
- Final Public Involvement Plan Report

2.8 Information/Actions Provided by Client

- Client to set up a project page on the City's Website and coordinate posting public involvement notices and documentation on this page.

Task 3 South Capitol Transportation Analyses

The Kimley-Horn team will study the transportation demand and circulation under two scenarios: (1) Wilson Street maintaining operation as a one-way street between Hamilton Street and King Street and (2) Wilson Street reconfigured to allow two-way operation between Hamilton Street and King Street. The Transportation Analyses will consist of travel demand forecasting for both scenarios; conceptual roadway circulation plan; conceptual operations for three intersections: North Shore Drive and John Nolen Drive, Broom Street and John Nolen Drive, and John Nolen Drive/Blair Street and Wilson Street/Williamson Street; bicycle and pedestrian connectivity plans; and a Traffic Impact Analysis (TIA) for both scenarios.

3.1. Data Collection

The Kimley-Horn team will document and inventory planned and existing surrounding transportation conditions. This will include existing conditions for the multiple modes (i.e. pedestrians, bicycles, automobiles, buses, rail, and freight) and how they relate to the subject land use area. The Kimley-Horn team will collect available data from the City and the Madison Area Transportation Planning Board. It is our understanding that existing data available from the City includes:

- Street segment volumes (average weekday volumes)
- Some hourly turning movement counts (a.m. and p.m. peak hours)
- Pedestrian and bicycle counts and maps
- Street and intersection condition diagrams (lane markings, geometrics)
- Traffic signal timings
- Madison Metro bus transit routes and schedules
- Public parking data
- Traffic crash data (police reported)
- Zoning and land use plans

New turning movement data will be collected using video capture of intersection movements and data reduction in a separate lab. Data for pedestrians, bicycles, motor vehicles, and heavy vehicles will be collected. A maximum of 18 two-hour a.m. and two-hour p.m. peak period turning movement counts will be required for analysis:

1. John Nolen Drive and North Shore Drive
2. John Nolen Drive and Broom Street
3. John Nolen Drive/S. Blair Street and E. Wilson Street/Williamson Street

4. W. Wilson Street and S. Bassett Street
5. W. Wilson Street and S. Broom Street
6. W. Wilson Street and S. Hamilton Street and S. Henry Street
7. W. Wilson Street and S. Carroll Street
8. W. Wilson Street and Martin Luther King Jr. Boulevard
9. E. Wilson Street and S. Pinckney Street
10. E. Wilson Street and S. Butler Street and King Street
11. S. Hamilton Street and W. Doty Street and S. Fairchild Street
12. W. Doty Street and S. Carroll Street
13. W. Doty Street and Martin Luther King Jr. Boulevard
14. E. Doty Street and S. Pinckney Street
15. E. Doty Street and King Street and Webster Street
16. S. Webster Street and E. Washington Avenue
17. S. Webster Street and E. Main Street
18. N. Fairchild Street and W. Washington Avenue
19. S. Fairchild Street and W. Main Street

It is assumed that the Madison Area Transportation Planning Board will provide their travel demand model for use in Task 3.2.

3.2. Travel Demand Forecasting

Existing and future traffic volumes under two scenarios will be developed using the travel demand model from the Madison Area Transportation Planning Board. The model will be refined as necessary to reflect the level of detail in the study area. This will include a review of the transportation network, the addition of local streets where appropriate, and a review of traffic analysis zones in terms of zone size and connection to the transportation network to provide realistic trip distribution. Given the existing and planned multi-modal nature of the district, mode split and transit volumes will need to be explicitly considered in the development of the 2035 forecast volumes.

The traffic forecasting will include the development of daily, a.m., and p.m. peak hour turn movement volumes for key segments and intersections for two scenarios: Wilson Street with one-way traffic operations between Hamilton Street and King Street, and Wilson Street with two-way traffic operations between Hamilton Street and King Street. The peak hour volumes will be the foundation of the traffic operations analysis, so accurate forecasts are a critical component of the project development. The process and results of the traffic forecasting will be documented in a traffic forecasting report that will discuss resources used, procedures followed, and forecasts developed. The report will be submitted to the City for review and confirmation.

3.3. Traffic Operations Analysis

Traffic operations analysis will focus on three areas of the South Capitol TOD District: Wilson Street, the two intermodal sites, and the three impact intersections. Volumes from the travel demand forecasting will be used in Synchro/SimTraffic modeling of the proposed alternatives in each of these three areas to evaluate operations under the alternatives, the improvements needed, and the feasibility and potential impacts of the improvements.

a. *Wilson Street*

Wilson Street operations analysis will focus on operation of Wilson Street as a one-way versus two-way roadway. The forecasts for each scenario will be used to determine the capacity needed on Wilson Street, and the roadway geometry to provide that capacity. Operations at intersections on the corridor will be analyzed to provide acceptable level of service. Turning movement volumes at intersections for the two-way scenarios will be determined based on cross street volumes and nearby land uses. Potential impacts of geometry alternatives would need to be coordinated including elevation changes, right-of-way constraints, intersection changes, railroad crossings, and pedestrian and bicycle access.

b. *Intermodal Sites*

For the two identified intermodal sites at W. Washington Avenue and Bedford Street and E. Washington and Butler/Hancock Streets, trip generation for the site will be determined based on its anticipated uses. Bus [transit] schedules and ridership data will be coordinated with Madison Metro and Jefferson Lines; this data will be used along with available mode split data and forecasts to determine approximate volume and timing of transit vehicles, personal vehicles, pedestrians and bicyclists into and out of the facility. Existing volumes may need to be revised to account for the redistribution of these transit-related trips. Final volumes modeled will take into account the various trip generation, trip distribution, and mode split components. These volumes will be input into Synchro/SimTraffic to analyze the impacts of the interactions between these volumes and the traffic on the surrounding roadways.

c. *Impact Intersections*

Three intersections along John Nolen Drive will receive additional analysis in order to development improvement concepts: North Shore Drive and John Nolen Drive, Broom Street and John Nolen Drive, and John Nolen Drive/Blair Street and Wilson Street/Williamson Street. The intersections at North Shore Drive and Broom Street are separated by only approximately 500 feet, with significant congestion as the primary point of entry into the downtown area from the southwest. The intersection at Wilson Street/Williamson Street has curved and skewed approaches as well as several property accesses within 50 feet of the intersection. In addition, the Capitol City Trail provides bike and pedestrian access along the south side of John Nolen Drive through each of these intersections and an active rail corridor runs along the north side of John Nolen Drive. Potential improvements to these intersections will be evaluated for traffic operations, safety, and feasibility based on factors such as right-of-way constraints, topographic conditions, and property access. Results from this analysis will be incorporated into a conceptual design for each intersection.

3.4. TIA

Using the field data and forecast volumes, an existing conditions model will be developed to a high level of detail, and will be calibrated based upon queue length and operations observations collected in the field. This phase of modeling will look at the detailed intersection, queuing, and delay and level of service for all individual traffic movements. Operations during the a.m. peak period and the p.m. peak period will be modeled in Synchro/SimTraffic for the following intersections:

1. John Nolen Drive and North Shore Drive
2. John Nolen Drive and Broom Street
3. John Nolen Drive/S. Blair Street and E. Wilson Street/Williamson Street
4. W. Wilson Street and S. Bassett Street
5. W. Wilson Street and S. Broom Street
6. W. Wilson Street and S. Hamilton Street and S. Henry Street
7. W. Wilson Street and S. Carroll Street
8. W. Wilson Street and Martin Luther King Jr. Boulevard
9. E. Wilson Street and Judge Doyle Square Parking Ramp (SW)
10. E. Wilson Street and S. Pinckney Street
11. E. Wilson Street and Judge Doyle Square Parking Ramp (SE)
12. E. Wilson Street and S. Butler Street and King Street
13. S. Hamilton Street and W. Doty Street and S. Fairchild Street
14. W. Doty Street and S. Carroll Street
15. W. Doty Street and Martin Luther King Jr. Boulevard
16. E. Doty and Judge Doyle Square Parking Ramp (NW)
17. E. Doty Street and S. Pinckney Street
18. E. Doty Street and Judge Doyle Square Parking Ramp (SW)
19. E. Doty Street and King Street and Webster Street
20. S. Webster Street and E. Washington Avenue
21. S. Webster Street and E. Main Street
22. N. Fairchild Street and W. Washington Avenue
23. S. Fairchild Street and W. Main Street

Using the agreed-upon forecast volumes, traffic operations will be modeled for the three additional scenarios: existing volumes with two-way operations on Wilson Street, 2035 volumes with one-way operations on Wilson Street, and 2035 volumes with two-way operations on Wilson Street. The calibrated a.m. peak period and p.m. peak period models developed for the existing conditions analysis will be used with the projected traffic volumes to model each of the roadway concepts. For the alternative build scenarios, the model input will be iteratively fine-tuned to determine the geometric and operations criteria

needed to achieve acceptable operations in the area. The modeling will be used to identify the improvements needed for each scenario to provide acceptable levels of service now and in the future. Improvements identified through the modeling will be used as input for evaluation of the alternatives and development of concept plans.

The results of the future year traffic operations analysis will be critical to the development of the roadway concept sketches. As such, the modeling will be documented in a Traffic Impact Analysis report. Modeling results, graphics, and tables will be provided as part of the TIA documentation.

3.5. Deliverables

- Traffic Forecasting Report
- Traffic Impact Analysis Report
- Model Files

3.6 Information / Actions Provided by Client

- 2035 Madison Area Travel Demand Model

Task 4 Intermodal Transit Center Plan

The City has identified three potential sites within the SCTOD planning district that could serve as a location for an intermodal transit center. Two of the intermodal sites are located at W. Washington Avenue and Bedford Street and at E. Washington and Butler/Hancock Streets. In addition, the City has identified a third site for a potential future passenger rail station located at the State's Department of Administration Building on Wilson Street. The proposed center is envisioned to provide a transfer center for Madison Metro bus services and other transit and transportation modes serving citizens and visitors to Madison. The Kimley-Horn team will evaluate these three potential sites and provide a recommendation for the establishment of an intermodal center. The Kimley-Horn team will also provide planning level functional plans and images for the one preferred site.

4.1. Operational Needs

The Kimley-Horn team, working with City staff and other local transit/transportation resources, will evaluate and establish the operational requirements for an intermodal center to serve the needs of the City and transportation services to be incorporated at the site.

4.2. Site Evaluation

The Kimley-Horn team will conduct an evaluation of the three proposed site locations based on the operation needs established in Task 4.1, the physical limitations of each site, demographic and planning data, and traffic data gathered in Task 3. Based on that evaluation and input gathered from City staff and through the public involvement process, the Kimley-Horn team in coordination with City staff will identify one of the proposed sites as the preferred location for an intermodal center.

4.3. Function Planning

The Kimley-Horn team will develop a planning level concept plan for the preferred site as established in Task 4.2. The functional plan will address the operational needs of the center working within the limitations of the site. Other potential development opportunities will be evaluated for the preferred site and incorporated into the functional plan. One (1) enhanced 3-D image of the preferred site will be developed utilizing the base massing model developed in Task 9.

4.4. Deliverables

- Intermodal Transit Center Plan – Preferred Site
- Intermodal Transit Center enhanced 3-D Image of the Preferred Site developed in Task 9

4.5. Information/Actions Provided by Client

- GIS Information for all proposed sites (including, but not limited to, the following):
 - Parcel property lines
 - Public ROW lines
 - Building footprints
 - Water location
 - Contours/ground plane elevations
- Aerial photographic imagery for all proposed sites
- Site survey drawings/information for all proposed sites
- Roadway/Streetscape record drawings for all adjacent roads and streets (including, but not limited to, the following):
 - Pavement markings
 - Curb locations
 - Dimensions of roadway features (lane widths, curbs, traffic islands, etc.)
 - Dimensions of sidewalk features (planters, tree spacing, lighting elements, etc.)
 - Contours/elevations
- Current land use for each site
- Current zoning for each site
- Contact/coordination with local transit agencies

Task 5 Wilson Street Context Plan

Wilson Street is located primarily within the Downtown Core of Madison in the center of the most dense employment zone of the downtown. It is also a prominent east-west route through the Bassett Neighborhood and provides a route from the Downtown Core to First Settlement. It has been identified within the Downtown Plan for potential future streetscape enhancement and it offers many possible sites for redevelopment. The Kimley-Horn team will conduct an analysis of this east-west travel route from Bedford Street to Blair Street and make recommendations for potential

roadway and streetscape improvements as well as provide a vision for potential redevelopment opportunities within the Wilson Street Context Plan.

5.1. Roadway Analysis

Using the analysis completed in Task 3, the Kimley-Horn team will evaluate alternatives for Wilson Street vehicular travel lane configurations, one-way versus two-way vehicular operations, and overall roadway cross sections that address current and anticipated future traffic volumes - including motor vehicles, bicycles and pedestrians. In conjunction with this effort, the Kimley-Horn team will evaluate and develop concepts for the intersections along Wilson Street within the TOD district. Pedestrian and bicycle connectivity will be a prominent component of this analysis and all travel modes will be addressed in recommended alternatives. Based on this analysis, the Kimley-Horn team will develop an overall Wilson Street plan in Microstation and will develop concept sketches for the intersections and cross-section images.

5.2. Development Analysis

Utilizing urban development and land use recommendations established within the Downtown Plan and additional input from City staff and the public, the Kimley-Horn team will conduct an analysis of potential redevelopment along the Wilson Street corridor. The analysis will identify potential redevelopment sites as well as potential land uses and massing. Conceptual imagery and recommendations for Wilson Street will be incorporated into the base massing model in Task 9. Also in Task 9 an enhanced 3-D image will be developed for a portion of the Wilson Street corridor to illustrate the nature of the overall recommendations.

5.3 Deliverables

- Wilson Street Roadway Concept Plans
- Wilson St. Illustrative Cross Sections and Intersection Sketches
- Enhanced photo images
- Enhanced 3D Model Image for a Select Section of Wilson Street Context Plan developed in Task 9

5.4 Information/Actions Provided by Client

- Current Roadway/Streetscape/Intersection record drawings for Wilson Street from Broom Street to Blair Street (including, but not limited to, the following):
 - Pavement markings
 - Curb locations
 - Dimensions of roadway features (lane widths, curbs, traffic islands, etc.)
 - Dimensions of sidewalk features (planters, tree spacing, lighting elements, etc.)
 - Contours/elevations
- Aerial photographic imagery for Wilson Street and all adjacent parcels

- GIS Information for Wilson Street and all adjacent parcels (including, but not limited to, the following):
 - Parcel property lines
 - Public ROW lines
 - Building footprints
 - Water location
 - Contours / ground plane elevations
- Site survey drawings/information (if available) for all adjacent properties
- Information gathered for the Downtown Plan regarding current land use of adjacent parcels and potential redevelopment sites
- Current land use for each site
- Current zoning for each site

Task 6 Bike Path Enhancements

Providing “very high-quality” pedestrian and bicycle amenities is considered an important component of the Downtown Plan as the City endeavors to increase multimodal transportation choices to places of employment as well as enhance downtown recreation facilities. Enhancements of the existing bike path within the SCTOD District are essential component of that overall plan for downtown. The Kimley-Horn team will evaluate potential enhancements to the existing Capital City Path and, in coordination with Task 5 and Task 7, will evaluate improved connectivity from the Capital City Path to the Downtown Core including Wilson Street and the Capitol Square.

6.1. Cross Sectional Analysis

The Kimley-Horn team will evaluate the existing Capital City Path for potential geometric and landscaping enhancements. The team will utilize input from the public and City staff in combination with current industry practices to provide recommendations that will improve the experience from both cyclists and pedestrians, including separate facilities for cyclists and pedestrians. The Kimley-Horn team will develop up to three (3) conceptual cross section images demonstrating the proposed enhancements at specific points along the Capital City Path, and may include the physical separation of pedestrian and bicycle traffic. Linework, landscaping, and other elements associated with the enhancements will be incorporated into enhanced 3-D images developed for the proposed bike-pedestrian bridges and the impact intersections in Tasks 7 and 8.

6.2. Evaluate Connectivity Points

Using public input gathered in Task 2, analysis from Task 3 and additional input from City staff, the Kimley-Horn team will identify up to six (6) connectivity points from the Downtown Core and surrounding neighborhoods to the Capital City Path. These points will include potential bridge connections over John Nolen Drive consistent with the Downtown Plan which will be studied in Task 8 and will address connectivity through the three impact intersections studied in Task 3 and further reviewed for enhancement

in Task 8. The Kimley-Horn team will endeavor to develop an overall plan for the TOD District that significantly enhances safe pedestrian and bicycle travel routes to points of destination north and south along John Nolen Drive. A Bicycle/Pedestrian District Plan will be developed in CAD line work over aerial imagery to identify the recommended connectivity points and travel routes.

6.3. Deliverables

- Bicycle/Pedestrian District Plan
- Bicycle Path Photo Enhanced Cross Section Images (Up to 3)

6.4 Information/Actions Provided by Client

- Current City Bike Path Standards and Design Guidelines
- Current Bike Path record drawings for Lake Monona shoreline bike path from the Broom Street Gateway to Law Park
- Current record drawings or survey drawings for Broom Street Gateway
- Current record drawings or survey drawings for Law Park
- Aerial photographic imagery for the Lake Monona shoreline bike path
- GIS Information for Broom Street Gateway, Law Park and the Capital City Path (including, but not limited to, the following):
 - Parcel property lines
 - Public ROW lines
 - Building footprints
 - Water location
 - Contours/ground plane elevations

Task 7 Bridge Concepts

With a focus on connectivity from the Capital City Path to the Downtown Core, the Downtown Plan makes recommendations for potential bicycle/pedestrian bridges from the lake front path, across John Nolen Drive to Wilson Street. The Kimley-Horn team will evaluate potential locations for such bridges and develop conceptual design geometry for up to three (3) bridge structures.

7.1. Bridge Site Geometric Analysis

Utilizing existing available aerial imagery, City GIS mapping, and topographic information the Kimley-Horn team will conduct an evaluation of up to three (3) potential bicycle / pedestrian bridge sites, including those identified in the Downtown Plan dated November 2011, between the Broom Street and John Nolen Drive intersection and the John Nolen Drive/Blair Street and Wilson Street/Williamson Street intersection. Sites will specifically be evaluated for adequate horizontal bridge geometry to meet applicable local, state, and

federal codes and design guidelines for pedestrians and bicycles to cross from the Capital City Path to existing City streets or bicycle paths on the north side of John Nolen Drive and the existing railroad. Upon completion of this analysis, the Kimley-Horn team will make recommendations to City staff regarding viable bridge site locations. The City staff and Kimley-Horn team will jointly establish up to three (3) bridge site locations for further conceptual design development.

7.2. Cross Section Concepts

Utilizing information from the Downtown Plan and public input gathered in Task 2, the Kimley-Horn team will develop one (1) cross section concept image for each bridge location identified in Task 7.1. The cross section images will identify recommended spaces (lanes) for bicycle traffic and pedestrian traffic as well as other potential amenities and features. The cross section image will also depict conceptual structural sections in sufficient detail to assist future design and pricing efforts (not included in this scope of services).

7.3. Grade and Profile Analysis

The Kimley-Horn team will provide structural engineering services related to the conceptual evaluation of structural span arrangements. The preliminary horizontal geometric analysis conducted in Task 7.1 will be refined for the bridge concepts in coordination with the conceptual structural span analysis in order to develop plan view images addressing grade and profile characteristics of the bridge crossings. Sites established as conceptual options in Task 7.1 will be further evaluated for adequate bridge vertical geometry to meet applicable local, state, and federal codes and design guidelines, particularly addressing vertical clearance requirements for the railroad and John Nolen Drive. Plan view and profile images will be developed to identify conceptual structural member depths as well as conceptual bridge span relationships to existing site features and structures. The Kimley-Horn team will utilize this information to develop 3-D imagery detailed in Task 9.

7.4. John Nolen Corridor View Shed Analysis

Conceptual imagery and recommendations for the bridge concepts will be incorporated into the base massing model. An enhanced 3-D image will also be developed for each bridge to illustrate the impacts to the John Nolen view shed as part of Task 9.

7.5. Deliverables

- Conceptual bridge design plan view for up to three (3) bridges (Microstation)
- Conceptual bridge cross section images – 1 for each bridge
- Enhanced 3-D Image for each of the bridge concepts which will be developed Task 9
- Grade and profile calculations describing elevations of top of the bridge, structural depth and vertical clearance

7.6. Information/Actions Provided by Client

- Current Roadway/Intersection record drawings for John Nolen Drive (including, but not limited to, the following):
 - Pavement markings
 - Curb locations
 - Dimensions of roadway features (lane widths, curbs, traffic islands, etc.)
 - Dimensions of sidewalk features (planters, tree spacing, lighting elements, etc.)
 - Contour /elevations
- Aerial photographic imagery for John Nolen Drive and all adjacent parcels
- GIS Information for John Nolen Drive and all adjacent parcels within the TOD District (including, but not limited to, the following):
 - Parcel property lines
 - Public ROW lines
 - Building footprints
 - Water location
 - Contours/ground plane elevations
- Current railroad drawings or survey for the track line adjacent to John Nolen Drive within the TOD District
- Site survey drawings/information (if available) for all adjacent properties to John Nolen Drive within the TOD District in potential bridge touch down locations
- Contact/coordination with appropriate local and state railroad and transportation agencies

Task 8 Impact Intersection Concepts

8.1. Intersection Concepts

Using the transportation analysis completed in Task 3, Wilson Street Context Plan, and Bike Path Enhancements, intersection concept plans will be developed for each of the three impact intersections: North Shore Drive and John Nolen Drive, Broom Street and John Nolen Drive, and John Nolen Drive/Blair Street and Wilson Street/Williamson Street. The geometry of the recommended improvements will be evaluated against existing site conditions, including grades and right-of-way constraints, to determine feasibility. Sketch concepts will be developed and reviewed with City staff. The final concept plan for each intersection will be developed in Microstation and will recommend geometry, control, and approximate footprint. The final CAD linework will be incorporated into the base massing model in Task 9. Also in Task 9 an enhanced 3-D image will be developed for each intersection to illustrate the nature of the overall recommendations.

8.2. Tunnel Concept Construction Cost Estimate

Based on concept information to be provided by the City, the Kimley-Horn team will conduct an abbreviated review of a motor vehicle tunnel concept at the John Nolen Drive/Blair Street and Wilson

Street/Williamson Street intersection and develop an order of magnitude construction cost estimate for the concept.

8.3 Deliverables

- Conceptual intersection design plan view in Microstation
- Base massing model for each of the three impact intersection concepts developed in Task 9
- Enhanced 3-D Image for each of the three impact intersection concepts developed in Task 9

8.4 Information/Actions Provided by Client

- Current Roadway/Intersection record drawings for North Shore Drive and John Nolen Drive, Broom Street and John Nolen Drive, and John Nolen Drive/Blair Street and Wilson Street/Williamson Street (including, but not limited to, the following):
 - Pavement markings
 - Curb locations
 - Dimensions of roadway features (lane widths, curbs, traffic islands, etc.)
 - Dimensions of sidewalk features (planters, tree spacing, lighting elements, etc.)
 - Contour /elevations
- Aerial photographic imagery for North Shore Drive and John Nolen Drive, Broom Street and John Nolen Drive, and John Nolen Drive/Blair Street and Wilson Street/Williamson Street and all adjacent parcels
- GIS Information for North Shore Drive and John Nolen Drive, Broom Street and John Nolen Drive, and John Nolen Drive/Blair Street and Wilson Street/Williamson Street and all adjacent parcels within the TOD District (including, but not limited to, the following):
 - Parcel property lines
 - Public ROW lines
 - Building footprints
 - Water location
 - Contours/ground plane elevations
- Current railroad drawings or survey for the track line adjacent to John Nolen Drive within the TOD District
- Site survey drawings/information (if available) for all adjacent properties to North Shore Drive and John Nolen Drive, Broom Street and John Nolen Drive, and John Nolen Drive/Blair Street and Wilson Street/Williamson Street
- Contact/coordination with appropriate local and state railroad and transportation agencies

Task 9 SCTOD District Base Massing (3-D) Model

The Kimley-Horn team will develop a base massing model for critical portions of the defined SCTOD planning district. The model will provide large scale 3-D views of proposed project elements allowing for a comparative review and a working file from which the Kimley-Horn team will develop enhanced 3-D images of specific project elements outlined in the scope descriptions listed below.

9.1. SketchUp (3-D) Model Development

In coordination with the design efforts of the planning tasks listed above, the Kimley-Horn team will develop a base massing model utilizing SketchUp. The model will be constructed using a combination of available aerial image(s) of the downtown, available GIS information (parcel lines, building footprints, water body outlines, etc.), and CAD linework (proposed roadway centerlines, curbs lines, roadway markings, landscaping, hardscape, bridges, etc.). This model will allow for comparative massing evaluations and large scale (low detail) views of the planning district for evaluation during the planning process. This model will also provide a base for constructing enhanced 3-D models of specific planning areas which will provide final deliverable images as outlined in the scope descriptions listed below.

9.2. Deliverables

- Base Massing Model for review and approval by the City.
- Enhanced 3-D image for the Intermodal Transit Center as developed in Task 4
- Enhanced 3-D image for select Wilson Street Context Plan as developed in Task 5
- Enhanced 3-D image for bridge concepts as developed in Task 7
- Enhanced 3-D image for three impact intersection concepts as developed in Task 9

Task 10 Final SCTOD District Planning Study Report

10.1 Report

Following the completion of planning efforts outlined in Task 3 – Task 9 above, the Kimley-Horn team will compile a report document that summarizes the scope of work and the subsequent recommendations for each of the planning study tasks. Deliverables, images, and photographs associated with each task will be incorporated. Other documents associated with the project management and public involvement will also be incorporated. The report will be compiled in a coordinated effort with City staff to produce a report format that meets the needs and expectations of the City staff and anticipates the needs of future readers and designers.

10.2 Deliverables

- Final SCTOD District Planning Study Report

Scope Clarification – “Information/Actions Provided by Client”

The technical work tasks of this project are the development of preliminary or conceptual level planning for the eventual potential construction of infrastructure. Future design phases for such infrastructure projects will require accurate and up-to-date information such as (but not limited to) record drawings of previous construction, property survey and public right-of-way survey/mapping for the completion of final construction documents. The development, preparation or acquisition of all such final design information and existing survey data is not a work task within this current project scope or an expectation of either party. For each technical work task listed above, a list of reasonably necessary information to be provided or actions to be taken by the City for the completion of the work by the Kimley-Horn Team is summarized. The City will make a good faith effort to provide all available information as noted for each work task to meet the needs of the consultant and to provide reasonable access to the evaluated sites for review. In the absence (or inability to provide on the part of the City) of specific requested documentation, the City and Kimley-Horn will coordinate to establish preliminary data on which to base the conceptual level planning elements of the project. The Kimley-Horn team will then conduct the planning study tasks and develop deliverables based on that available data. The City acknowledges that the work of the consultant will be based on the data available at the time of this study. As such, the City acknowledges that the final design of all infrastructure will require up-to-date and accurate survey related data and that preliminary concepts developed by the Kimley-Horn Team may require modification based on changes that may occur in base data that becomes available at a later date.