

CITY OF MADISON: SUSTAINABLE MADISON TRANSPORTATION MASTER PLAN

Draft Scope of Work

PRELIMINARY REVIEW DRAFT (7-12-12)

Background

The City of Madison's population is growing. It is the second-fastest growing Midwest city (with a population of at least 200,000). In addition, the City faces unique geographic challenges, primarily due to the fact that the Central Area of the City is physically constrained (due to Lakes Mendota and Monona, and the isthmus of land between them). In addition, Madison is experiencing peripheral growth similar to other American cities: growth that is more suburban and auto-oriented. The City hopes to develop in a manner that supports a range of business- and residential-supporting neighborhoods with an advanced, multimodal transportation system that provides numerous transportation choices throughout the city.

In order to help facilitate the City's desired future, expected growth, and ensure a high quality of life, the City has identified a need for a comprehensive **Sustainable Madison Transportation Master Plan**. This Plan must first identify a clear land use/community growth vision for the entire City, identify how the realization of that land use/community growth vision will help support a multimodal transportation system, and develop/refine clear goals and objectives to accomplish that land use/transportation system vision –to better serve its businesses and residents.

The Sustainable Madison Transportation Master Plan process must then (utilizing clear goals and objectives) identify specific land use recommendations that will directly support increased transportation options throughout the city, identify how the various modes of transportation interconnect and work together, and identify, where appropriate, ways to more fully integrate all modes of passenger and freight transportation (i.e., auto, bicycle, public transportation, pedestrian, freight rail and truck, high-capacity transit, air, etc.), , and develop a clear plan and implementation strategy to accomplish the desired land use/transportation vision for the City. The planning process must also identify how the City's numerous plans, policies and implementation practices/procedures support the vision (and be enhanced by it) or place limits or barriers toward achieving this vision – and finally develop a financing and implementation strategy to accomplish this.

The City has identified a goal to use transportation investments to support economic development (i.e., business and job growth) and enhance Madison's role as an economic and cultural center. Many businesses (and their employees) desire to locate in cities that have balanced transportation systems – those that provide a range of desirable transportation options and have lower transportation costs. The City of Madison recognizes that where development is located also impacts transportation investment. To this end, part of the land use/community growth vision should provide a clear plan and implementation strategy for growth that will maximize the use of alternative modes of transportation (i.e. transit, bicycling and walking).

Madison also has a goal to utilize land use objectives and policies that improve the residential quality of life for urban neighborhoods and improve mobility/access options for all Madison area residents and visitors to the City. The coordination and integration of Madison's transportation and

land use plans, policies and practices will help keep Madison vibrant and attractive to businesses, visitors and residents.

Consistent with the City's Comprehensive Plan objectives and vision, this Transportation Master Plan must be prepared in a manner that facilitates a transportation system that:

- improves air quality;
- increases the use of public transit, bicycling, walking and carpooling, as alternatives to single-occupancy vehicles;
- improves access and circulation within the existing capacity of the street system (with consideration for all modes of transportation);
- improves transit, bicycle and pedestrian mobility and accessibility throughout the City;
- provides strong transportation linkages to inter-city modes of transportation, such as air and inter-city bus and rail transportation;
- supports existing and new development in accordance with City of Madison land use policies, by emphasizing the importance of developing housing and attracting key businesses that will benefit each area of the City;
- creates transportation infrastructure and promotes land use patterns that encourage the sustainable use of resources and reduces demands on natural resources;
- minimizes, or attempts to balance, the negative impacts of transportation on existing and future neighborhoods; and;
- minimizes the demand for automobile parking, without negatively impacting development opportunities (i.e., manage long- and short-term parking demand and provide incentives to encourage the use of alternative transportation modes).
- expands the reach and frequency of transit service by planning and implementing a land use vision that can create significant transit ridership

Purpose of Transportation Master Plan

The purpose of the Transportation Master Plan is to guide transportation and related decisions in the City of Madison (and coordinate the City's decisions with those of the greater larger metropolitan area – e.g., WisDOT, Madison Area MPO/TPB, Dane County and other area communities), in order to help make Madison a more transit-oriented, walkable, bikeable and livable city.

The Plan will help to create and strengthen livable neighborhoods - both in new development areas and in already-developed areas. The Plan will also focus on movement between neighborhoods and around the City, with an emphasis on creating transportation choices (especially walking, bicycling and public transportation). The Plan should define and evaluate transportation system alternatives that will make the City more accessible and attractive to employers, visitors and residents.

This Transportation Master Plan will create a future vision for a livable City of Madison - and build upon/refine existing land use plans, transportation plans and other adopted City plans to help achieve that vision. The Plan will integrate and harmonize existing plan recommendations, and make new recommendations where necessary. It will cover the entire City and future growth areas, and a major emphasis will be placed on recommendations for implementation and funding.

This Plan will identify the strategies and implementation recommendations necessary to connect all elements of the City's transportation system (providing clear connections to the regional transportation system), and will include a realistic, strategic implementation plan for the City to follow for the next 25 years, and beyond. This plan will identify what existing transportation systems (and plans) need to be improved and what new systems need to be put into place, in order to achieve a safe, efficient and effective multi-modal transportation system.

Transportation Master Plan Oversight Committee and City Staff

The work of the Consultant will be guided and advised by a “Transportation Master Plan Oversight Committee” - which will be comprised of elected officials and citizens.

The Transportation Master Plan Oversight Committee will provide guidance and advice in the preparation of the Transportation Master Plan. At the conclusion of the planning process, the Transportation Master Plan Oversight Committee will submit its recommendations to the Mayor and Common Council, for their consideration.

Staff from several agencies will participate in the process, including the Department of Planning and Community and Economic Development’s Planning Division (including the Design Team, as needed), Traffic Engineering, City Engineering, Metro Transit and other agencies, as needed - with the Planning Division serving as the lead agency.

City Staff will assist the consultant by providing access to City documents and data (where available), and will meet with the Consultant Team to provide guidance in carrying out the scope of work.

Scope of Work

Scope of Work

The following is an overview of a proposed scope of work. The scope includes both general and specific descriptions of tasks which respondents should build on, adding or altering tasks as deemed appropriate, and proposing more detailed subtasks. The Consultant selected for this project will have a high level of experience performing similar work and should feel free to propose alternative methods and techniques, where appropriate.

At a minimum, the Consultant must propose a scope of work describing individual work tasks, and summarizing the work products and deliverables associated with each task. The Consultant should follow the format described herein, to the greatest extent possible. However, the Consultant should also feel free to demonstrate their unique abilities, creativity, and/or experience to perform the various work tasks. Further, the Consultant may wish to expand upon certain work tasks and identify additional deliverables (showing how such alternative approaches would be beneficial to the process).

Respondents to this Request for Proposals (RFP) are invited to propose on the overall project, and may form a consortium of firms to complete the various public participation, engineering, technical planning, design and analysis parts of the scope of work. In all cases, the tasks, deliverables, personnel and budget assigned to the project development, public participation and technical portions of the work must be clearly identified and separated out in separate sections.

A thorough and comprehensive public participation process must be developed at the beginning of the project and carefully implemented throughout. The public participation element must drive the overall planning process, and the technical planning and design activities must be integrated into this process.

The Consultant must be prepared to demonstrate flexibility with the scope of work, recognizing the fact that amendments and modifications to the work scope may be necessary (as agreed to by the City of Madison and the Consultant), at various points throughout the project. Throughout the project process, all work products and deliverables will be submitted to the Transportation Master Plan Oversight Committee and City Staff for review and comment. The Consultant will also be prepared to coordinate its planning activities with those of other planning entities in the region, such as the Madison Area Transportation Planning Board (TPB) - which serves as the region's Metropolitan Planning Organization (MPO) - the Capital Area Regional Planning Commission (CARPC), and the Wisconsin Department of Transportation (WisDOT).

Throughout the solicitation process, the City of Madison reserves the right to suggest to any or all proposers that such proposers form or reform into teams of consulting firms or organizations deemed to be advantageous to the City in performing the scope of work. The City of Madison also reserves the right to contract for all or only parts of the work described in this RFP.

The goal of the City of Madison is to complete all work defined in this scope within 18 months of the Consultant being given notice to proceed. The current budget for this project is approximately \$500,000.

The scope of work is described below.

Work Task 1: Project Management Plan

Based on consultations with the Transportation Master Plan Oversight Committee and City Staff, the Consultant shall prepare a detailed Project Management Plan for the project. The Management Plan will refine the contract scope of work and be used to guide and monitor the project. The Project Management Plan will specify the roles and responsibilities of the Consultant and other project participants, identify specific work tasks, sub-tasks, and review/comment points, and provide a detailed schedule of work – including major milestones that must be met before further work can be authorized.

The Consultant will need to plan for presentations to be made to the city staff members, advisory committees, resource agencies, neighborhoods and other stakeholder groups and the Transportation Master Plan Oversight Committee. The Project Management Plan must identify a well-defined and meaningful public participation process designed to engage the public in all phases of this project, including project milestones, schedules and work products (described further in Work Task 2).

Work Task 1 Deliverables:

- Detailed Project Management Plan

Work Task 2: Public Participation Plan

The Consultant shall develop a Public Participation Plan, one of the most important ongoing work elements of the Transportation Master Plan project. The Public Participation Plan will be a major component of this entire planning process (i.e., it will be an integral element of all Work Tasks described in this scope of work). The Public Participation Plan will include extensive outreach to affected interest groups (i.e., business groups, neighborhoods, local elected officials, focus groups and City advisory committees). The Oversight Committee will also be an important part of the public participation process.

The Transportation Master Plan must be prepared in a manner that allows for interactive and continuing public involvement process, and the Public Participation Plan that's developed to guide the process must include participation from a wide cross-section of community interests and organizations. The Public Participation Plan must also show how the Consultant's planning activities will be coordinated with the work of other regional planning entities, such as the Madison Area TPB (MPO) and CARPC. Public participation must be started at the outset and last throughout the entire Transportation Master Plan project. The Public Participation Plan must also be geographically broad in scope, covering all areas of the City of Madison.

The Consultant must be able to demonstrate their understanding of the importance of an informed, interactive public discussion throughout the entire planning process. A variety of public participation methods, tools and techniques may be considered, as appropriate, for the various stages/work tasks of the Transportation Master Plan process.

The components of the Public Participation Plan may include (but are not limited to) the following activities:

- Focus groups, to include individuals with the following interests or expertise:
 - Development and real estate professionals;
 - Human service professionals representing the interests of elderly/disabled populations and other groups;
 - Individuals representing the interests of low-income individuals and other transit-dependent populations;
 - UW-Madison Campus (employer, employees and students);
 - Neighborhood association leadership;
 - Individuals representing the interests of bicyclists;
 - Individuals representing the interests of public transit users;
 - Different types of employers (including a mix of small, large, private and public employers), located in different areas of the City;
- Ongoing management of a project website (to be hosting on the City of Madison web page) – which will include regular posting of public meeting notices, technical documents, project schedule updates, etc.;
- Project newsletters to be mailed to a list of interested project participants (list of participants to be maintained and updated by the Consultant);
- A series of public meetings/open houses, to be held at various points on the planning process (and in different geographic parts of the City);
- News releases announcing the public meetings/events;
- A series of presentations to the Common Council and various City advisory committees; and,
- Any other public participation activities recommended by the Consultant.

A schedule or Transportation Master Plan project timeline must be developed that shows how the public participation program interrelates with each of the various work tasks of the project. The public participation plan elements are to be carefully integrated into the project timeline. All public participation work must be closely coordinated and integrated with the related technical activities on an ongoing basis throughout the project.

Consistent with the Public Participation Plan, the Consultant will make arrangements for, and participate in, meetings with the Transportation Master Plan project participants, and document feedback obtained at these meetings. The Consultant will also participate in a number of

presentations, at defined milestones, to appropriate committees or policy boards. The exact number of presentations may vary, depending on the specific needs and stage of the project.

For all public participation meetings, events, and exercises included in the Public Participation Plan, the Consultant will be required to:

- prepare and disseminate advertisements/announcements of public events;
- prepare presentation materials and graphical displays;
- assist in conducting/staffing public involvement events, including presentations;
- document feedback obtained at these public events; and,
- prepare responses to the feedback (as necessary) throughout the Transportation Master Plan project.

Work Task 2 Deliverables:

- Public Participation Plan
- Detailed Project Schedule/Timeline
- Public participation materials (as identified in the Plan – e.g., newsletters, fact sheets, graphical displays and materials for events, meeting minutes/summaries, etc.)

Work Task 3: Preparation of Sustainable Madison Community/Land Use Vision; Comprehensive Review of Madison Land Use Plans and Policies

The main purpose of Work Task 3 will be the development of a Sustainable Madison Community/Land Use Vision. This Vision will help move City land use patterns, urban form and new development toward more walking, bicycling and use of public transit. This Vision will form the basis for the preparation and evaluation of the all-mode transportation system plan alternatives, described in more detail in subsequent Work Tasks. This Community/Land Use Vision must place a major emphasis on making Madison a more walkable, bikeable and livable city – helping to create and strengthen neighborhoods in new development areas and already-developed areas. This Vision must allow for a mix of land uses and densities throughout the City and create an environment that is favorable for maximizing the use of pedestrian, bicycle and public transit modes of transportation. Extensive outreach to affected interest groups (i.e., business groups, neighborhoods, and City advisory committees) must be a key component of this process.

An important and necessary step in developing this Sustainable Madison Community/Land Use Vision, the Consultant must conduct a comprehensive evaluation of existing City of Madison neighborhood plans, special area plans and land use policies – identifying the near-term, mid-term and long-range development potential of the land uses included in these plans. To help inform this evaluation, the Consultant will utilize diverse focus groups (including real estate/development professionals), consult with affected elected officials and work closely with City of Madison Planning Division staff. The City of Madison (Department of Planning & Community & Economic Development) will provide land use and demographic information, as appropriate. Plans to be evaluated shall include, but are not limited to:

- City of Madison Comprehensive Plan (Land Use Chapter);
- City of Madison Downtown Plan;
- Adopted Neighborhood Plans (in Central Area of the City);
- Special Area Plans, e.g., East Washington Capitol Corridor Gateway Plan and East Rail Corridor Planning Project;
- Other Adopted Neighborhood Plans (as appropriate);

- Madison, WI: The Healthy City (Model for a Forward Economy; *May 2004*)
- Housing and Commercial Market Study to be conducted as part of the Capital Region Sustainable Communities Initiative (CARPC; *est. completion late 2012*); and,
- The Madison Sustainability Plan: Fostering Environmental, Economic and Social Resilience (Madison; *est. adoption summer 2012*)

Based on the evaluation of near-term, mid-term and long-range development potential identified in these existing plans and policies, the Sustainable Madison Community/Land Use Vision will be developed.

This recommended Community/Land Use Vision will evaluate the possibility of trends for higher densities (including the central area of Madison and near transit corridors), which can encourage higher transit use in the future. This Community/Land Use Vision will also evaluate higher levels of infill/redevelopment than has occurred in the past - particularly in areas outside the downtown. This Vision will be used to generate system-level travel demand forecasts (which will be used to develop and evaluate a limited range of multi-modal transportation system alternatives in subsequent Work Tasks). This Vision will also form the basis for the transportation system alternatives evaluated in subsequent Work Tasks. This work task will include meetings with development community professionals, in order to better understand where the Community/Land Use Vision may conflict with market realities that will be present when development occurs. This information will be used in later work tasks to prepare the Plan's Development Compatibility Report (see Work Task 6).

In order to summarize the recommended Community/Land Use Vision, the Consultant will prepare a report. The report should summarize the recommended Community/Land Use Vision and document the process used to develop it. The report must also describe and illustrate infill/redevelopment typologies, reflecting a range of land use and development intensities as described in the Vision. The Consultant will also provide examples sketches of how these infill/redevelopment typologies might look. Further, the report must also include a set of year 2035 population, housing and employment forecasts (at the traffic analysis zone, or TAZ, level), in order to reflect a mid-term development scenario for the recommended Community/Land Use Vision. The Consultant will generate travel demand forecasts based on this mid-term development scenario for the Vision (reflecting year 2035). The regional travel demand forecasting model will be provided to the Consultant (by Madison Area TPB/MPO staff) for their modification and use in developing the forecasts.

Work Task 3 Deliverables:

- Sustainable Madison Community/Land Use Vision Summary Report - detailing the recommended Vision (*to be used in Work Tasks 4-6*) and including year 2035 population, housing and employment forecasts for this vision (at the TAZ level)

Work Task 4: Comprehensive Review and Evaluation of Existing City of Madison Adopted Transportation Goals, Objectives and Policies

Utilizing the recommended Sustainable Madison Community/Land Use Vision developed in Work Task 3 as a benchmark, the Consultant will conduct a review and evaluation of existing City of Madison adopted transportation goals, objectives and policies contained in the Comprehensive Plan.

- City of Madison Comprehensive Plan, Transportation Chapter (City of Madison Planning Division, 2006)

<http://www.cityofmadison.com/planning/ComprehensivePlan/dplan/v2/chapter3/v2c3.pdf>

This evaluation must identify any goals, objectives or policies in the document that conflict with the recommended Community/Land Use Vision. Based on this review and evaluation, the Consultant will reconfirm (or recommend modifications to) the Comprehensive Plan, Transportation Chapter – in order to ensure consistency with the recommended Community/Land Use Vision.

This evaluation must also identify goals, objectives and policies that may be generally in conflict with the economic realities of development. For those goals, objectives and policies that conflict with the economic realities of development, this work task must identify what is needed to facilitate development given the development constraints. These goals, objectives and policies will form the basis for the transportation system alternatives evaluated in subsequent Work Tasks.

Work Task 4 Deliverables:

- Report that summarizes transportation goals, objectives and policies contained in the Comprehensive Plan - including recommendations for modifications (to ensure consistency with the recommended Sustainable Madison Community/Land Use Vision)

Work Task 5: Travel Demand Forecasts, Preparation of Performance-Based Standards and Evaluation of Existing Transportations Plans and Recommendations

As a first step in preparing the Transportation Master Plan, the Consultant must *identify system-level travel demand* (based on the specific set of land use assumptions). The Consultant will prepare system-level travel demand forecasts, using the model provided by the Madison Area TPB/MPO. As part of this modeling effort, the Consultant will be required to modify some of the land use assumptions included in the travel demand model, to reflect the Sustainable Madison Community/Land Use Vision (*as developed in Work Task 3*). The Consultant must demonstrate proficiency using TP+/CUBE travel demand forecasting software. The results of the modeling should be reported in a technical memorandum, with appropriate mapping.

Second, the Consultant will *develop a range of transportation system performance measures (for use in establishing mode-specific performance standards)*. These standards must be established in a manner that fully reflects the recommended Sustainable Madison Community/Land Use Vision (*as developed in Work Task 3*), as well as the transportation goals, objectives and policies in the Transportation Chapter of the Comprehensive Plan (*as reviewed in Work Task 4*).

Performance measures (both quantitative and qualitative) to be developed and utilized by the Consultant may include (but are not limited to) the following:

- System-wide vehicle miles of travel (VMT);
- Capital, operating and maintenance costs;
- Transportation mode split (e.g., auto, transit, bicycle); an example for mode share would be 20% work trips by year 2020;
- Transit ridership (corridor/system-wide);
- Average travel time between select origins and destinations (for automobile, public transit and bicycle travel);
- Roadway, bicycle and pedestrian Level of Service (LOS);

- Crash data at specific locations (e.g., intersections);
- Transit service frequency (for select corridors and/or time period);
- Geographic proximity of residences or businesses to high frequency transit;
- Continuity and completeness of the bicycle route system and network;
- System-wide transportation-related emissions.

Finally in Work Task 5, the Consultant will conduct a review and *evaluation of existing adopted transportation system plans and recommendations* (both within the City and relevant plans in the metropolitan area). As part of this evaluation, the Consultant will evaluate the consistency and compatibility of these existing transportation system plans with: (1) the recommended Sustainable Madison Community/Land Use Vision (*as developed in Work Task 3*); (2) the transportation goals, objectives and policies in the Transportation Chapter of the Comprehensive Plan (*as reviewed and evaluated in Work Task 4*); (3) system-level travel demand forecasts, and (4) the performance-based standards developed in this Work Task.

From this evaluation, the Consultant will develop specific transportation system recommendations to be further evaluated in Work Task 6 (as part of subsequent multi-modal transportation system alternative evaluation).

Existing transportation plans (and concurrent transportation planning processes) to be evaluated shall include, but are not limited to:

- Regional Transportation Plan (RTP) 2035: Madison Metropolitan Area and Dane County (Madison Area TPB/MPO, 2006 and 2012 Update);
- East Side Arterial/Collector Roadway Needs Study (Madison Area TPB/MPO, 2002);
- Downtown Plan for the City of Madison (November 2011);
- East Johnson Street Traffic Study (City of Madison; prepared by Strand Associates March 2012);
- Bicycle Transportation Plan for the Madison Urban Area and Dane County (Madison Area TPB/MPO, 2000; *update beginning in late 2012*) and Regional Bikeway Plan (as a component of the RTP);
- Report of the Platinum Bicycle Committee for the City of Madison (2008);
- Pedestrian Transportation Plan for the City of Madison (1997);
- Madison Sustainability Plan: Fostering Environmental, Economic and Social Resilience (2011);
- Final Report of the City of Madison Long-Range Metro Transit Planning Ad-Hoc Committee (June 2008);
- Transit Corridor (Bus Rapid Transit, or BRT) Study, to be conducted as part of the Capital Region Sustainable Communities Initiative (CARPC; *est. completion late 2012*);
- Draft Transit Development Plan (TDP) for the Madison Urban Area, 2013-2017 (Madison Area TPB/MPO and Metro Transit, *est. completion mid-2012*);
- Transport 2020 Draft Environment Impact Statement document and New Starts Application (2008);
- RTA Plan for Transit (Dane County Regional Transit Authority; *draft 2010*); and,
- Madison Streetcar Preliminary Feasibility Study (2007).

Work Task 5 Deliverables:

- Report that: (1) summarizes the system-level travel demand forecasts; (2) summarizes the evaluation of adopted transportation system plans and recommendations; (3) documents the establishment of performance-based measures and standards; and, (4) identifies specific

recommendations to be included in subsequent multi-modal transportation system alternative evaluation (*see Work Task 6*)

Work Task 6: Development and Evaluation of Multi-Modal Transportation System Alternatives

The Consultant will *develop and evaluate a limited range of mode-specific transportation system alternatives* in Work Task 6. The multi-modal system alternatives must reflect the system-level travel demand forecasts, the recommended Sustainable Madison Community/Land Use Vision and the transportation goals, objectives and policies (*reviewed in Work Task 4*).

The range of multi-modal system alternatives must also utilize the performance-based standards established in Work Task 5. The alternatives should reflect various levels of investment in the individual transportation modes and must incorporate specific recommendations from adopted transportation system plans, as appropriate (*see Work Task 5*). The performance-based evaluation of alternatives must clearly demonstrate the potential benefits, costs, impacts and mobility improvements (including sketch- or plan-level estimates of usage) for each of the multi-modal system alternatives.

Specific geographic areas within the City may require more detailed, targeted evaluation, as deemed appropriate by the committee. The evaluation will place special emphasis on the inter-connectivity among transportation modes, identifying where gaps may exist, and developing recommendations to address them.

In developing and evaluating the alternative transportation system plans in Work Task 6, the Consultant will be expected to conduct the following planning activities and exercises:

Arterial and Collector Street Network

- Working with City Staff and Madison Area TPB/MPO, evaluate system-wide automobile travel demand model output for all arterial and collector streets in the City of Madison (*see Work Task 5*). Using this evaluation as a resource, develop a range of roadway facility recommendations – incorporating “complete streets” design principles where appropriate. Through this evaluation, streets showing a high travel demand should be assessed for increased alternative modes, efficient traffic management, capacity expansion, and other strategies to alleviate traffic demand.
- Evaluate and recommend potential Intelligent Transportation System (ITS) technologies and Transportation Systems Management (TSM) measures that can be used to improve the safety and operations of arterial and collector streets in the City.

Central Area Traffic Circulation

- Working with City Staff, evaluate street circulation within specific subareas of the Central Area¹ of the City. This evaluation shall include the potential to convert various streets from one-way to two-way operation in some areas – and the impacts of such street circulation changes to City and regional traffic movements. This evaluation will identify any lane deficiencies (i.e., left turn lanes, and options to address where feasible), as well as the

¹“Central Area” of the City refers to the geographic area bounded by First Street, Lake Monona, Lake Mendota, Proudfit Street, Regent Street and University Bay Drive.

potential impacts on affected homes and businesses. The Consultant will review the street circulation recommendations contained in the Downtown Plan for the City of Madison (November 2011) as part of this evaluation. In addition, the Consultant will review (but not further study) the results of the East Johnson Street Traffic Study, prepared by Strand Associates and accepted by the Madison Common Council on May 15, 2012. Where appropriate, the Consultant will model traffic flow (including intersection operation) and will utilize existing City of Madison SYNCHRO 7 traffic model resources (to the extent possible). However, additional intersection data collection may be required. Specific street circulation recommendations will be developed, as a result of this evaluation.

Pedestrian Facilities

- Working with the City Engineering sidewalk database, compile an inventory of existing public pedestrian facilities in the City. Identify and map existing barriers to pedestrian mobility, identify where key pedestrian linkages are missing, and prioritize locations where new facilities are most needed. The analysis should also determine how to better serve existing and future major office and retail centers.

Bicycle Facilities

- Working with City Engineering and Traffic Engineering, compile an inventory of existing off-street and on-street bicycle facilities in the City.
- Using the Sustainable Madison Community/Land Use Vision and system-level travel demand forecasts, create a bicycle transportation vision for the City. Utilize the existing Bicycle Transportation Plan for the Madison Urban Area and Dane County, Regional Bikeway Plan (a component of the RTP), City of Madison Neighborhood Plans and City Neighborhood Development Plans as resources in developing this vision. Also as part of this planning process, bicycle corridors should be inventoried and classified for their function in providing bicycle mobility. Both on-street bicycle facilities and off-street bicycle paths should be included in this evaluation. The Consultant will work closely with City staff to identify barriers to bicycle mobility within the City, identify where key linkages are missing, and prioritize locations where new facilities are most needed. The analysis should also identify specific state-of-the-art technologies and innovative facilities, where appropriate. The analysis should also determine how to better serve existing and future major office and retail centers.
- Create a multi-layered GIS-based mapping tool to identify bicycle network continuity issues and recommendations. This mapping tool must also be available for City staff to use in the future to create a variety of graphic products for planning, budgeting and presentation purposes.

Public Parking Facilities

- Working with the Madison Parking Utility, conduct a comprehensive inventory of public parking facilities and major private parking facilities in the Central Area of Madison. Identify ways to improve intermodal connectivity at these parking facilities.
- Evaluate public and private parking relationships (for different types of development) in the City of Madison.
- Evaluate and recommend potential Intelligent Transportation System technologies that can be used to improve the usage and operations of parking facilities.

Public Transit Facilities and Services

Note: A specific component of the public transit system plan development process – including the evaluation of previous/current plans and recommendations listed below - should be the use of transit system performance standards (such as in-vehicle travel times between select origins and destinations, etc.).

- Working with Metro Transit, Review and evaluate the public transit system recommendations contained in the City of Madison Long-Range Metro Transit Planning Ad-Hoc Committee and the Transit Development Program (TDP).
- Review and evaluate the recommendations of the CARPC Transit Corridor (Bus Rapid Transit) Study, which will recommend roadway corridors to focus high-capacity transit services (and supporting infrastructure), such as bus rapid transit, supporting shared-ride taxi service, other express bus services and potential shuttle services (such as an airport shuttle).
- Using existing planning documents and concurrent planning processes as resources, identify and evaluate potential locations for future regional and intercity public transit stations and terminals (e.g., intercity bus terminals, intercity passenger rail stations, regional rail stations, bus rapid transit terminals, etc.).
- Utilizing the Madison Streetcar Preliminary Feasibility Study as a guide, conduct a review and evaluation of a Central Area circulator route (including recommendation of an appropriate transit technology).
- Review and evaluate the recommendations of Transport 2020, which recommended initiating rail-based high-capacity transit linkages throughout the City and region.
- Evaluate and recommend potential Intelligent Transportation System technologies that can be used to improve the usage and operations of public transit services.
- Depending on specific transit facility and vehicle fleet recommendations, evaluate the recommendations contained in the Metro Transit Facility Expansion Report (2006).

Taking all of this information into consideration, recommend corridors where through increased density and redevelopment (as part of the land use vision) increased transit could serve these areas over time – thereby expanding the reach of transit (from the urban core), the frequency of service, and hours of service

Development Compatibility Report

- With input from several development community professionals, a report shall be produced that evaluates these recommendations and their impact on potential development. The report shall indicate where these recommendations enhance and where they may hinder future development. For those recommendations that hinder future development, the report shall indicate what needs to be in place to allow development to occur given the recommendation.

Work Task 6 Deliverables:

- Reports and technical memoranda summarizing the evaluation of transportation system alternatives (including maps, exhibits and presentations of system alternatives, to be used in public participation activities)
- GIS-based mapping tool (for bicycle system planning)
- Development Compatibility Report

Work Task 7: Preparation of *Draft Sustainable Madison Transportation Master Plan - Maps and Recommendations*

Utilizing the results of the technical evaluation in Work Task 6, considering public and stakeholder input, and incorporating recommendations of previous Work Tasks - the Consultant will prepare a comprehensive, multi-modal **Draft Sustainable Madison Transportation Master Plan.**

Individual components of the *Draft Plan* will include mode-specific system maps, as well as specific infrastructure and operations recommendations. Specific implementation and programmatic recommendations are also to be included in the *Draft Plan*, and are discussed further in Work Task 8.

Specifically, the Consultant will:

- Provide the Sustainable Madison Community/Land Use Vision Summary Report - detailing the recommended Vision (*to be used in Work Tasks 4-6*) and including year 2035 population, housing and employment forecasts for this vision
 - Including recommendations for modifications of the City Comprehensive plan (and related plans) (to ensure consistency with the recommended Sustainable Madison Community/Land Use Vision)
- Prepare a detailed street/roadway system plan map for all arterials and collectors in the City of Madison (including roadway facility recommendations, as appropriate).
- Develop a GIS-based bicycle system plan map and recommendations for the City of Madison, including both on-street and off-street routes and facilities.
- Prepare a detailed public transit system plan map for the City of Madison, building upon the review and evaluation of existing public transit recommendations and plan documents and aligns with the community growth/land use vision. Potential public transit facilities services to be included in the system plan may include (but are not limited to):
 - Enhanced Metro Transit bus service (i.e. express bus service, increased frequency, increased reach from urban core and increased hours of service) through increased riders that are the result of increased development and density along key transportation corridors (i.e. TOD's but also redevelop along key corridors that could potentially increase transit ridership thereby expanding the reach, frequency, and hours of service.
 - Bus Rapid Transit facilities and services;
 - Regional express bus service to other Dane County communities;
 - New downtown circulator and/or shuttle services (incl. shuttle service to the Dane County Regional Airport);

- Park-and-ride facilities and other transfer opportunities at the termini of regional bus services and additional locations within the transit service area.

- Develop a park-and-ride/park-and-bike plan map and recommendations for the City of Madison (to show the inter-connectivity among the various modes).
- Develop a map identifying potential locations for future high-capacity public transit stations and terminals (e.g., intercity bus terminals, intercity passenger rail stations, regional rail stations, bus rapid transit terminals, etc.).
- Develop a map for identifying potential corridors for future higher-capacity public transit (e.g. roadways that could accommodate more transit and could also increase residential and commercial density along the corridor that transit could serve.)

Work Task 7 Deliverables:

- *Draft* Sustainable Madison Transportation Master Plan – maps and recommendations
- Street/roadway system plan map and facility recommendations
- Bicycle system plan map, facility recommendations (incl. GIS database)
- Public transit system plan map, facility recommendations and service recommendations
- Park-and-ride/park-and-bike system plan map and facility recommendations
- Map of potential locations for future transit stations and terminals (e.g., intercity bus terminals, intercity passenger rail stations, regional rail stations, bus rapid transit terminals, etc.) and facility recommendations
- Map of potential corridors for future public transit.

Work Task 8: Preparation of *Draft* Sustainable Madison Transportation Master Plan - Implementation and Financial Plan

The Consultant will prepare a comprehensive implementation, programming and financial plan for the multi-modal ***Draft Sustainable Madison Transportation Master Plan.***

This implementation and financial plan must provide the strategies and implementation steps necessary to connect all elements of the City’s transportation system, as recommended in Work Task 7. This implementation and financial plan must provide clear connections to the regional transportation system, and will include a realistic, strategic implementation plan for the City to follow for the next 25 years, and beyond.

In preparing the implementation, programming and financial plan in Work Task 8, the Consultant will be expected to conduct the following activities (based on the list of infrastructure and service recommendations included in Work Task 7):

- Develop a comprehensive list of specific Transportation Master Plan implementation recommendations - including ***estimated capital costs and operating/maintenance costs*** for various infrastructure and service improvements. Budget ranges may be provided for some recommendations, as appropriate.
- Indicate ***implementation priorities*** by developing a specific list of project recommendations, within each general implementation timeframe:
 - Short-term (0-10 years)
 - Medium-term (10-25 years)

- Long-term (25 years and beyond)

- Develop a comprehensive list of *potential federal, state, regional and local funding sources* for the various Transportation Master Plan recommendations (with an emphasis on local and regional funding options). Potential local funding options may include the use of business improvement or other districts, special assessments and/or development impact fees.
- Provide a list of potential *public transit governance options* (e.g., regional transit or transportation authority, other types of transit service delivery districts, etc.).

Further, in order to help accomplish the goals and objectives of this Plan, realize the Sustainable Madison Community/Land Use Vision, and maximize the utilization of public transit, walking and bicycling in the City, the following specific programmatic and implementation mechanisms will be evaluated and, where deemed appropriate, developed by the Consultant:

- Conduct a review and evaluation of existing City of Madison adopted implementation ordinances, rules, agency procedures and design practices. This evaluation should make recommendations and suggest best practices from other cities and metropolitan areas, where applicable. The review of City practices may included (but are not limited to):
 - Bicycle and pedestrian facility design standards and implementation practices
 - Street/roadway and subdivision design standards - including lane widths, , turning radii, design criteria, etc.
 - Traffic law enforcement
 - Incentives and/or requirements for TDM measures
 - Development Review Process
- Develop prototype employer-based Transportation Demand Management (TDM) programs, in order to help enhance the desirability of non-automobile transportation modes. The example TDM programs must consider the application of various TDM measures in a variety of situations and circumstances - such as (1) different geographic locations of the City, (2) differing employer types and employee/customer trip-making characteristics, (3) availability of transportation choices for transportation system users, and (4) special events. As such, the prototype TDM programs should include a variety of measures and techniques, tailored to the unique circumstances. This prototype should be developed using best-practices from other cities and should emphasize creative marketing materials/techniques that can be implemented at low cost.
- Develop a prototype Transportation Management Association (TMA) operational structure, for application in a specific area of the City (such as the Central Area of Madison or a specific office park) - as a mechanism to organize individual employers and administer TDM initiatives. This prototype should be developed using best practices from other city and should emphasize creative marketing materials/ techniques that can be implemented at low cost.

Work Task 8 Deliverables:

- *Draft* Sustainable Madison Transportation Master Plan - implementation, programming and financial plan
- Prototype Transportation Demand Management (TDM) programs
- Prototype Transportation Management Association (TMA)

Work Task 9: Preparation of *Final* Sustainable Madison Transportation Master Plan – Document and Implementation Plan

Incorporating recommendations and analysis of previous Work Tasks - and considering all public, stakeholder and City staff input - the Consultant will prepare a preliminary **Final Sustainable Madison Transportation Master Plan**.

This preliminary *Final* Sustainable Madison Transportation Master Plan will be presented to the Madison Common Council for its review, potential modification and adoption.

As a final step in the plan development process, Work Task 9 will document the planning process, community involvement, technical analyses and decision-making processes undertaken. This Work Task will also describe the mobility, economic and environmental benefits of the preliminary *Final* Sustainable Madison Transportation Master Plan.

Work Task 9 Deliverables:

- *Final* Sustainable Madison Transportation Master Plan Document and Implementation Plan
- Reports, exhibits and visual aids summarizing the *Final* Plan

Note: All documents and files are to be provided to the City of Madison (in file formats to be determined by the City), and will be owned by the City of Madison at the end of the project.