

Scope of Work

The technical approach below is designed to build on a thorough understanding of the existing and potential future services, including their facilities, operations and markets, and to bring together transportation and land use specialists who can identify, screen, evaluate and develop the opportunities that will maximize the efficiency, effectiveness and value of the Regional Intermodal Transportation Center (RITC) in downtown New London at its existing or an alternative location. The Master Plan will not only be designed to enhance the traveler experience and the operator efficiency but to use the RITC as an opportunity for supporting downtown development that would be attracted to the location because of its transportation advantages and be supportive of the transit services. Transit-oriented design and joint development will be key components of the Master Plan concepts. The work will be closely coordinated with the COG Project Manager and staff, the Steering Committee and the public and key stakeholders.

Task 1: Project Initiation

It is critically important that the consultant team be well-versed in past efforts and fully understands the objectives of the study sponsors at the outset. To this end, we will begin the study by reviewing prior studies and meeting with the staff about project goals and the work plan to achieve them.

1.1 Kick-Off Meeting / Development of Goals and Objectives

The project would begin with a kick-off meeting to review the work plan and schedule, the approach to public outreach, and the goals and objectives of the study. A Steering Committee meeting will be held in the first month of the study in order to obtain Committee input early in the study process.

1.2 Review of Prior Studies/Plans/Data and Concurrent Efforts

At the outset of the study, it will be important to obtain and review all relevant information on prior studies and ongoing studies and efforts that relate to transportation facilities and land use development in the vicinity of the existing intermodal hub and the identified candidate alternative sites (this will be coordinated with the work in Task 1A). This information would include, but not be limited to the following:

- Pedestrian Safety and Access Improvements for the RITC
- Previous Overpass and Station Design Plans
- Intermodal Connections Study Southeast, SCCOG
- Regional Plan of Conservation and Development 2007, SCCOG
- Union Station Developer Proposals, Private
- Relevant Transportation Strategy Board Projects, State of Connecticut
- New London New Vision Plan, City of New London
- New London Plan of Conservation and Development, City of New London
- Port of New London Master Plan, CTDOT
- Municipal Development Plan, State Pier, NLDC
- Transportation in Connecticut: The Existing System, CTDOT
- Plans for Shore Line East and recent survey data, CTDOT
- Long Island Sound Waterborne Transportation Plan, MTC
- Relevant information on Fort Trumbull and the Cross Sound Ferry properties that would be considered as alternative sites for the RITC (or any other sites identified as potential candidates)
- Current economic and demographic data
- Documentation of the reasons why the previously proposed overpass was abandoned based on information available including cost information to be provided by the City of New London.

Deliverables: Technical Memorandum – Summary of Goals and Objectives;
Technical Memorandum – Summary of Review of Prior and Ongoing Studies

Task 1A: Identification and Screening Evaluation of Alternative Sites for the RITC

While the current RITC consists of a set of individual facilities in the vicinity of Union Station, in this task, we will identify and conduct a screening evaluation of two alternative sites contrasting the existing site with an alternative site at Fort Trumbull.

The RFQ originally called for the team to address the costs and obstacles associated with use of an alternative site for the RITC. This investigation may serve two purposes. If the costs are high and/or the obstacles insurmountable, the conclusions could make a very strong case to work hard to maintain the current site and invest in the best solutions possible at that site. On the other hand, it could also uncover a new viable alternative. If the current site cannot accommodate all the key services or the proposed enhancements, it could be important to investigate and document the best alternative. The current scope addresses this by conducting a screening analysis of two alternative sites (that is, the existing site and an alternative site at Fort Trumbull) at the outset of the study. In addition, such a screening analysis would be required under the NEPA/CEPA process should any federal and/or state funding be sought for proposed improvements.

The first step of the task will be to identify and agree upon a set of primarily qualitative criteria to rate the candidate sites. Such criteria are likely to include the ability to serve key connections, the capacity to meet the likely demand, the capital cost of the improvements needed, the environmental sensitivity of the sites, the impact of and on other site uses and adjacent uses, public support, economic impact on downtown New London, traffic impacts, and potential for TOD. Since this screening evaluation will be done early in the study, it will be qualitative in nature. It may require however some preliminary work on tasks described later in this scope of work. In particular it is likely that a good part of the work described in Task 8 will need to occur at the time Task 1A is conducted to enable even qualitative assessments to be made.

The second step which may be concurrent with the second will be to identify and assemble available information that can be used in the screening evaluation. The reason to perform this step concurrently with the second step is to anticipate what information will be readily available to be used in the assessment and to make sure the criteria selected are consistent with that level of information availability. It is anticipated that inspection reports on existing facilities at each site will be made available to the consultant team.

The third step will be to conduct additional field reconnaissance/site inspections to aid in the screening evaluation and address information gaps. The goal will be to conduct these activities in a timely way and at an appropriate level of detail for the screening evaluation.

The fourth and final step will be to prepare a summary of the screening evaluation in a technical memorandum and meet with SCCOG to discuss the findings. The technical memorandum will be submitted for review and revisions made as needed. At the conclusion of this task, the COG staff will direct the remainder of the scope of work to focus on a single selected site. The screening of alternatives in this task will be conducted in a manner sufficient to document the selection of the site for the remainder of the scope and for a subsequent NEPA/CEPA phase of study. This would include highlighting the advantages of the selected site and the feasibility of developing an effective hub there.

Deliverable: A technical memorandum on the identification and screening of alternative sites for the RITC.

Task 2: Survey of Existing Physical Conditions

The development of improvement options in the later tasks needs to be founded in a sound understanding of the current conditions of each component of the RITC and its context within the urban fabric. In this task, the team will conduct a survey of all relevant existing physical conditions to establish a firm foundation for understanding the current needs, with a focus on the physical connections between modes and to other uses. This would include the opportunities for and impediments to transfers between modes. URS would lead this task. Drawing upon the record documents contained in the City's archives and URS' vast resource library of plans and documents from past projects the Team will assemble a workbook and photographic log inventory (digital file) of existing conditions for the various transportation facilities and relevant utility infrastructure.

If the site selected in Task 1A is the current site, the work in this task will focus on the physical conditions there. At the current site, the poor linkages between the parking garage and Union Station, the ferries, Waterfront Park and State and Bank Streets will be considerably improved by the Parade Plaza Project and its associated garage access/traffic calming measures.

If the alternative site is the selected site, the work in this task will address the existing physical conditions at the proposed site as well as a limited review of conditions at the current site sufficient to identify the kinds of problems that will need to be avoided at the new site.

Key components of this inventory will be roadway, pedestrian areas, docks, wharfs and bulkheads, ferry docking facilities and servicing infrastructure, existing land use, property ownership and values, etc. Rail station components including platforms, crossings, ticketing area, bus loading and taxi areas will be evaluated. Both public and private parking facilities will be examined for condition and serviceability. Special attention will be paid to ADA compliance and code compliance. Many of the utility companies' major infrastructure and primary service lines are located in and around the existing Transportation Center. A major sanitary sewer pump station is located immediately south of the Water Street Parking Garage. Changes required to this facility will be costly and require long lead time planning. Some changes are already being undertaken to the Garage as part of the Parade project.

The project team will conduct a GIS data and map review of resources in the project study area and will prepare a brief summary memo outlining the environmental issues that will need to be addressed. This task would be led by Fitzgerald & Halliday (FHI). GIS data will be collected from the Connecticut Department of Environmental Protection, the Southeastern Connecticut Council of Governments, UConn's MAGIC website and from the City of New London. The initial data will be field checked and presented on a GIS aerial photo base.

The elements to be reviewed may include:

- Wetlands/Surface Water Resources/ Floodplains
- Groundwater Resources
- Public Water Supply Reservoirs (if any)
- Coastal Resources
- Fish & Wildlife/Endangered Species/Species of Special Concern
- Farmland Soils (if any)
- Cultural Resources
- Zoning/Land Use/Demographics
- Environmental Justice and Title VI
- Noise Sensitive Areas
- Section 4(f) and Section 6(f) Lands
- Environmental Risk Sites
- Air Quality
- Aesthetics/Visual Setting
- Other Unique Features
- Brownfields
- Proposed Aesthetics

- Utilities, Public Facilities and Services
- Security and Safety
- Potential Areas for Acquisition/Displacement
- Land Use
- Vacant/Underutilized Parcels
- Ownership
- Land/Improvement Value

We will describe in both graphic and narrative formats, the existing conditions, planned and proposed improvements, inventory the deficiencies, and flag the opportunities for improvements. The improvements will not focus solely on physical solutions for traffic and pedestrian linkages, but also upon sightlines, wayfinding and the establishment of active pedestrian-friendly sidewalks and public spaces, development opportunities, etc.

Deliverable: Technical Memorandum - Existing Conditions Summary & Findings

Task 3: Analysis of Current Services, Operational Conditions and Needs

The intermodal center is designed to facilitate transfers among a wide variety of modes. In this task, the study team will examine the current operations of each mode and the operational interfaces between them. If the selected site is a location other than the current site, this task will identify current operational conditions and needs that will have to be addressed at the new site and will include a review of any current transportation operations occurring at the new site that need to be taken into account. This task would be led by TranSystems with assistance on surveys and traffic from FHI and on parking from URS.

3.1 Individual Modes

For each individual mode, we will identify the current levels of activity and operational problems. The sources for the analysis will include counts, surveys, interview discussions and direct field observation. The extent of counts and surveys by the consultant team will be determined in final negotiation with SCCOG and will consider budget constraints. Any surveys undertaken would be brief but would include questions on origin and destination of respondents, transfers at the New London hub and attitudes. At a minimum, we would seek to obtain 100 responses per survey effort.

3.1.1 Rail

This subtask involves examining the schedule and utilization of rail services, including both Amtrak and Shore Line East. While schedules are easy to obtain, passenger data will need to be obtained from the providers. It is expected that CTDOT may be able to provide surveys of Shore Line East riders; however, the existing Shore Line East service schedule at New London is very limited and October 2007 counts indicate very few daily riders.

Amtrak is likely to be the focus of review of current rail users. We will contact Amtrak for information on its users, but this may not be made available. If so, counts will be performed for a sample of days. If surveys of passengers have not been conducted by other agencies or are not available, we will conduct surveys of passengers at the station. Assuming permission to conduct a survey can be obtained, we would sample riders on two days, likely one typical weekday and one Saturday. The method would likely involve a short personal interview of waiting passengers. The number of surveys may be constrained by the number of daily riders. The extent of counts and surveys by the consultant team will be determined in final negotiation with SCCOG and will consider budget constraints. The rail surveys would be coordinated with the bus surveys to maximize efficiency. Questions would address origin and destination, home location, trip purpose, type of ticket, information sources, access/egress modes, attitudes towards the Union Station facility and its amenities, most needed improvements, and the influence of connections and facilities on mode choice.

3.1.2 Intercity Bus

This subtask involves examining the schedule and utilization of intercity bus services at Union Station. We will contact the regional manager of Greyhound and discuss available information and obtain Greyhound input on needs. It may also be possible to survey some bus passengers with the cooperation of Greyhound. Assuming permission to conduct a survey can be obtained, we would sample riders on two days – likely one typical weekday and one Saturday. The method would likely involve a short personal interview of waiting passengers. Any surveys by the consultant team will be determined in final negotiation with SCCOG and will consider budget constraints. The intercity bus surveys would be coordinated with the rail and local bus surveys to maximize efficiency.

3.1.3 Local Bus and Shuttles

This subtask involves examining the schedule and utilization of local bus services at Union Station. We will meet with SEAT and obtain relevant information and input on SEAT needs. We may want to survey some bus passengers at the bus stop. If SEAT agrees we will distribute surveys to or interview passengers waiting at the bus stop on Water Street over two days, most likely one weekday and one Saturday.. The surveys of local bus passengers will be coordinated with the intercity bus and rail passenger surveys to maximize efficiency. The extent of counts and surveys by the consultant team will be determined in final negotiation with SCCOG and will consider budget constraints.

3.1.4 Ferries

This subtask involves examining the schedule and utilization of ferry services at the downtown New London waterfront near Union Station. We will meet with Cross Sound Ferry and the Fisher Island Ferry and obtain relevant information and input on their needs. They may have recent survey and count data they can share. We may want to survey a sample of ferry passengers including questions on origin-destination and whether the passenger is traveling with a car or truck or no vehicle. If the ferry operator permits, we will conduct surveys of waiting or boarding passengers during a on a summer Saturday. The goal would be to obtain at least 100 responses from the auto ferry to Long Island, 100 responses from the high speed passenger ferry to Long Island and 100 responses from the Block Island ferry. (No surveys are envisioned on the Fishers Island Ferry which is believed to have fewer passengers.) The extent of counts and surveys by the consultant team will be determined in final negotiation with SCCOG and will consider budget constraints.

3.1.5 Automotive Traffic

This subtask will examine the traffic operating conditions during peak seasons and identify any congestion and safety issues. We will obtain existing traffic and turning counts. (We have determined that 2007 turning counts are available from the Wilbur Smith Associates conducted for the Parade project.) If needed, we will conduct additional counts under summer weekend (Friday and Saturday) peak conditions at no more than 3 locations. This will include curbside pick-up and drop-off activity at the station and at the ferry terminals. It will include review of the traffic calming elements in the Parade Plan to understand how pedestrian and traffic interfaces will be improved. Also to be addressed will be existing traffic operational systems and how they may need to be improved. Input from interviews with various sources such as ferry operators and garage operators, as well as local traffic enforcement officers, will be included in this task. If the selected site is not the existing site, traffic information will be needed for the selected site. FHI will conduct this subtask.

3.1.6 Parking

This subtask will examine the operations of the City of New London Water Street parking garage and nearby surface, structure and on-street parking, including surface lots within one quarter mile of Union Station and the parking garage on the southwest corner of Governor Winthrop Boulevard and Union Street. We will examine operations at the garages, parking lots and other relevant sites via field visits, evaluating entries, exits, payment, queuing, interference

with traffic due to back-ups, etc. URS will interview the manager of the garages. Accumulation, turnover and duration data will be collected by FHI for a typical Saturday during a peak summer weekend. Revenue data for the public facilities will be gathered from the City for a one year period documenting the anticipated revenue for the year. FHI will conduct a survey of parked vehicles at least at the two parking garages placing mailback surveys on windshields of parked cars. These surveys will be done under peak summer conditions on one weekday and one weekend day. The extent of counts and surveys by the consultant team will be determined in final negotiation with SCCOG and will consider budget constraints. Because of the role the existing garage and surface lots play in serving the current RITC, it is expected that the above information will be needed regardless of the site selected for further study. However, if the selected site is other than the existing site, additional information will be required at the proposed site. This may require a shift in resources and the focus of the work in this task.

3.2. Interconnectivity

The most critical part of Task 3 is examining interconnectivity between modes, since this is the function of the RITC. Based on the above data collection methods, and additional analysis, we will evaluate the following:

3.2.1 Performance of Connections - Circulation/Pedestrian Access

In this subtask, we will examine which connections appear to be most important, how these connections are made and which ones perform in a sub-optimal way. The surveys we conduct or obtain should identify how many are connecting to other modes. For example, one critically important connection might be the garage to rail station connection for a leisure traveler using Amtrak. This traveler (at the current RITC site) may need confidence in obtaining a parking space at the garage that is safe for their car, a well-lit and convenient path through the garage and across Water Street to the rail station that is easy to maneuver with luggage. They then need to access schedule information, purchase their ticket, use restrooms and maneuver to the appropriate platform. It is precisely these types of movements between modes that will need to be evaluated. Some connections may not be important. For example, few Greyhound travelers may need to get access to the rail platform unless there are some trips that require transfers between rail and intercity bus.

3.2.2 Information/Wayfinding

One of the most critical aspects of making a transfer seamless is providing good information and wayfinding. Of course, it is best if the design and layout is so natural that the passengers instinctively know where to go. One of the key steps of the assessment will be to assess how easy it is for passengers to negotiate the transfer between modes. Information should be provided for pre-trip planning and en-route as well. This information should inform the traveler of the location, schedule and real-time status of the services, as well as an understanding of the amenities and services that are offered in each part of the intermodal center. Information for the user should be located at several locations and cover all modes so that passengers do not need to shuttle back and forth between locations to compare modes or to clarify how to transfer between modes.

3.2.3 Ticketing/Marketing

To evaluate whether the current New London RITC offers truly seamless connections means evaluating how the services are marketed at the station and elsewhere and how purchase is coordinated and integrated. For example, when travelers book a trip by Amtrak or Greyhound or with the ferry operators, are they provided with information on the availability of connecting services including fares and schedules? Are they able to purchase tickets for this part of the trip? Does advertising by the ferry operators promote the use of other public transportation modes?

3.2.4 Commercial Services

We will review the current commercial services provided at or near the RITC to serve the users. These amenities are a key aspect of the traveler experience at the current center. Opportunities for car rental services will be considered.

3.2.5 Development Related Opportunities

An initial review of the selected site for development related opportunities would be conducted early in the study. New developments can contribute to the interconnectivity of disparate sites in a number of ways. We will explore the opportunities for creating active ground floor uses along important pedestrian paths, opportunities for pedestrian bridges, opportunities to consolidate and/or restrict curb cuts on heavily used sidewalks as well as joint development air rights and transit oriented development (TOD) opportunities. This subtask to be led by BBPC and CSS is further described as part of Task 5.

3.3 Key Advantages of the Current Intermodal Connections at the Current Site

The juxtaposition of modes in downtown New London in the Union Station area is a key asset of the city and region. In this subtask we will summarize the key advantages of the current interface of modes in the Union Station area and, if the current site is the selected site, identify the opportunities for improvements that would capitalize on these advantages. Such improvements would include those that address existing deficiencies for operation of individual modes and for intermodal connections, as well as those that enhance current connections and synergies and facilitate on site development activities and area wide TOD opportunities. It will be especially important to identify opportunities for low-cost, easy-to-implement improvements. If the selected site is not the current site we will identify the importance of preserving specific connections at the new site.

Deliverable: Technical Memorandum – Analysis of Current Operations and Needs and Identification of Opportunities for Improvements

Task 4: Projected Future Service Levels and Impacts on Operations

The Master Plan must consider the needs in the future. In this task, the study team will examine the likelihood of significant changes in the future supply and demand, that is, the quantity of service and ridership on each existing mode as well as the possibility of new modes (such as the tourist-oriented shuttles) operating at the RITC. This will also include an evaluation of transit service levels to support and facilitate TOD as well as transit service demands that may be supported by TOD. Seasonal impacts on transit and parking requirements will also be examined. This task will be led by TranSystems.

The time frame for this projection should be consistent with the nature of the improvements begin discussed. It may be useful to examine a shorter and longer horizon such as 10 and 20 years. The levels of service and demand for transportation at the RITC will be directly related to the residential population in the New London area, the employment level in the downtown, the leisure and tourist industries and opportunities for TOD. It is envisioned that this task will involve synthesis of existing projections from transportation operators, city, state and regional agencies, tourist and convention bureaus and other sources, rather than new primary research. This work will also involve discussions with key representatives of the above organizations and significant guidance from COG staff. This information will then be used to determine how operations of the modes and the interfaces could be affected by the changes.

4.1 Service Levels on Rail, Local Bus, Intercity Bus, Ferry, Taxi and Proposed New Shuttle Transportation

This subtask addresses the quantity of service and the demand on each mode and the impacts on transfers between modes. We will discuss with the relevant agencies and private entities the most likely scenarios for increases (or decreases) in the quantity of service operated, and expected changes in the access and egress modes considering the specific submarkets. We will extrapolate considering any projections of increased development in the downtown area that could impact these estimates as well as potential TOD opportunities. We will consider the addition of the proposed tourist shuttle system. For taxis, we will identify the number of taxi companies and fleet size if available as

well as the available of taxi stands and kiosks. We will identify likely changes to the number of transfers between each pair of modes.

4.2 Impacts on Facilities and Operations

In this subtask, we will examine the impacts of the above changes in service levels and demand on facility requirements and operations. This will include terminal facilities, parking requirements, traffic circulation and other impacts such as organizational and financial impacts.

The need for improved facilities will be determined based on the expected increased volumes of vehicles, transferring travelers, originating passengers and pedestrians. This will include the need for amenities to serve increasing numbers of travelers and expansion of the terminals to accommodate more vehicles and vessels. The increasing demand could require expanded hours and staffing at the facilities.

Parking needs will vary by time of day, day of week and season. The current Intermodal Center garage serves downtown employees, leisure visitors to the downtown and business and leisure travelers on long distance modes. The future parking demand will be projected based on expected changes in each of these markets. We will also consider development related parking needs and opportunities for shared parking.

We will evaluate whether the increased volumes on each mode will create or exacerbate existing operational problems. It will be important to examine this in light of other changes to the roadways and background traffic volumes, particularly during peak conditions (peak seasons and days). If the selected site is other than the existing site, the operational problems that future demand would create at the new site would be addressed instead.

Deliverable: Technical Memorandum - Future Service Levels and Operational Impacts

Task 5: Analysis of Development Potential for Site and Area

In this task, we will examine market development potential at and in the general area around the RITC (within approximately one-quarter mile). Note that preliminary qualitative evaluation of the existing and best alternative site will be input into Task 1A but that work in Task 5 will focus on the selected site after the selection is made at the end of Task 1A. BBPC will lead this task with participation from CSS. We will prepare a market analysis to determine the development potential for land uses and services that would complement the RITC including the opportunity to promote smart growth / transit oriented development in proximity to the transportation center. The analyses will be prepared using an industry standard research process, providing quantitative and qualitative information and data analysis to analyze the market demand and development potential for the site and station area. Our methodology would include the following tasks:

5.1 Review/Update of Market Area History, Data, Plans and Information

We will review previous planning and development planning documents, including recent, under construction and planned/future development, development proposals, plans and other information.

5.2 Business/Real Estate Stakeholder Interviews

We will meet (during a two-day period) with key stakeholders in the study area representative of the business and real estate communities to understand and evaluate current market conditions, trends, opportunities, and market issues impacting the broader study area. This may include input from the first public meeting (in Task 9) which may target such interest groups. BBPC will utilize stakeholder input to identify the study area's strengths, barriers and opportunities including locational, physical, financial, market, regulatory, political, etc. for economic (re)development and transit oriented development. Strategies to overcome identified study area constraints will be outlined.

5.3 Demographic and Economic Overview

A demographic and economic profile of the (to-be-identified) market trade areas will be prepared that will identify current population and household trends, age distribution, race/ethnicity, labor force characteristics, employment and income trends, lifestyle characteristics, community tapestry segments, and retail expenditures by store type. The profile will include identification of potential niche market demand segments.

An economic overview of the study area will be prepared that identifies at-place employment trends and distribution by industry, forecasts employment growth by industry and economic sector, identifies trends and characteristics of population distribution, retail sales, and tourism and visitation patterns. The economic overview will also include evaluation of trends occurring in the regional economy that influence economic conditions in the study area and the potential for smart growth / transit oriented development in the vicinity of the selected site. The demographic and economic profile will help BBPC understand existing and future growth patterns and identify development opportunities/potential in the study area.

5.4 Development Opportunities Analysis

Based on the field work and input obtained from stakeholder interviews, we will identify strategic sites within the study area for smart growth (re)development and identify the amount and types (e.g. housing, office, retail, recreational, institutional) of uses appropriate based on market viability, location and other critical factors to determine the station area's (re)development potential. This evaluation will be based on a number of factors, including but not limited to: relative attractiveness indices, existing site characteristics, development and/or redevelopment potential, existing land use policies, degree of prior investment / (re)development within station area, local government involvement/interaction, available land, public and private sector investment/support, joint development potential, public policy initiatives, level and type of transit services and accessibility.

5.5 Market Analysis

We will evaluate market potential for retail, office, residential, and mixed-use development within the study area, identify relevant market segments, analyze development potential by within the study area based on growth trends and forecasts, and provide order of magnitude estimates for potential new uses by market segment (number and types of dwelling units, square footage and types of retail and office development). We will consider potential promotional tie-ins between businesses and services at the RITC.

The order of magnitude estimates will be informed by analysis of existing and future market conditions within the study area for residential and commercial uses, including existing and future supply and demand, future demand drivers in the market trade area and region, space use mix, occupancy, vacancy rates, lease rates, sales volumes, sources of market demand (including tourism), proximity to users, market capture rates, etc. Market opportunities for support services within the Intermodal Center facility as well as area wide TOD opportunities will be examined.

Projections for absorption of market demand growth by retail type, market segment and market capture for projected new demand as well as an analysis of factors which may impact demand such as transportation issues, competitive market position in the region, absence or presence of major national developers, availability of development incentives, etc. will be performed. Recommendations for any changes that will enhance market appeal and viability for identified (re)development opportunities will be outlined.

As part of the market analysis, we will evaluate the economic viability of existing retail and service businesses in the area, and provide strategies to enhance their competitive market position, including marketing of the area to potential new residents and businesses and development related costs with regard to rehabilitation, new construction, air rights construction and shared parking. Potential impacts of TOD on existing area development and land use activities will also be examined.

5.6 Transit Oriented Design/Smart Growth Opportunities

There are multiple TOD opportunities at and around the intermodal hub, that is at Union Station and in the Union Station/Waterfront/Downtown area ranging from the City-owned parcels adjacent to the garage on Water Street; to historic rehab candidates along State Street; to other parking lots and underutilized parcels within ¼ mile and ½ mile of Union Station and the ferry terminals. Underlying our approach to TOD/Smart Growth Opportunities is a philosophy that TOD projects should not only enhance transit ridership and reduce auto dependency, but should also support the City's economic development initiatives, contribute to the tax base, spur development in underdeveloped districts (for example, State Street) and contribute to the potential for active street life and a beautiful pedestrian environment. Our approach to TOD will be market-based stemming from the results of Task 5.5. Tourism in Southeastern Connecticut may provide some unique TOD opportunities. In addition, we will look for innovative ways to utilize "difficult to develop" parcels.

For example: the City-owned parcels at the south and east sides of the Water Street Garage are approximately 4,500 sq. feet and ½ acre, respectively. The south parcel (adjacent to the new Upper Nathan Hale Plaza) is small for any significant development and the east parcel has an awkward bow-shaped configuration, which is 480 feet long, but only 75 feet deep in the center, tapering to 30 and 40 feet at the south and north ends of the garage. One idea is to combine the smaller south parcel with the southerly one-third of the east parcel and square the building site footprint by utilizing the air rights over the southeast corner of the garage. The air rights would require an independent structural system, but would create a parcel large enough for a mixed use tower at this pivotal location. Wrapping the rest of the garage facing Water Street with a single-loaded corridor low-rise building following the street's curving geometry would create a handsome new street frontage – a new "face" for downtown when approached from the waterfront and, and an active mixed use project that meets all of the traditional TOD objectives. This is just one way to go, but it is emblematic of our approach to find creative TOD solutions that achieve multiple goals.

Note that if the selected site is other than the existing site, the work in this task will focus on the selected site and its environs.

Deliverable: Technical Memorandum - Markets and Opportunities

Task 6: Identification and Evaluation of Potential Intermodal Center Improvements

This task is the crux of the project, when the information from prior tasks is synthesized into a cohesive set of candidate recommendations which will form the basis for the master plan. This task, though led by TranSystems, will involve all of the key disciplines and therefore all key team members. This task includes identifying and screening candidate options and involves a creative process, as described below.

6.1 Identification of Potential Improvements

6.1.1 Charrette on Facility Improvements

We suggest the use of a charrette to generate candidate solutions to the issues and opportunities identified in the prior tasks. Charrettes are often used to solve difficult design problems. This charrette would include consulting team members with some periods of participation by the study sponsors and representatives from relevant agencies and key downtown stakeholders. The charrette would be a one day session whose product would be initial concepts and summary notes. The charrette would focus on two primary topics as described below:

6.1.2 Facility Improvements

In this subtask, the specific improvements needed at the existing hub (set of facilities) -- or alternatively at the selected one of the alternative sites --in order to develop an effective, seamless intermodal center will be identified and fully described. These improvements would address transportation issues but would also be developed to permit

and encourage the maximum development opportunities at the sites and in the adjacent areas. We would consider the possibilities for on-site joint development and TOD in adjacent areas/parcels. The solutions may also build in the synergies of transportation improvements and associated development. Based on the future usage forecasts and the proposed intermodal facility planning, future parking needs will be forecast. Note that cost will be a consideration and that order of magnitude capital and operating and maintenance costs for improvements will be addressed in Task 7 for options that pass through the qualitative screening process in Task 6.

6.2 Other Improvements

6.2.1 Scheduling

Seamless transportation means coordinated and integrated in all respects including temporal respects. While we can strive to create a pleasant environment in which travelers can wait for their next travel mode, any trip that requires long waits is not a seamless transfer. Very long waits also lead to low ridership potential and reliance on the automobile alternatives that most travelers have and all the associated impacts of automobile travel. Scheduling issues that need to be examined include span of service and frequency of service at different times of the day and week. Particular attention needs to be focused on the connections between modes with the highest potential for transfers.

6.2.2 Joint Marketing/Ticket Purchase

Seamless transportation should extend to the purchase of fares/tickets, and the point of purchase is tied closely with marketing intermodal connections. Current joint ticketing and marketing exists for travel to the casinos via Cross Sound ferry and coach bus, which includes casino incentive offers. Amtrak users can book a ticket including a transfer to SEAT local buses to get to Foxwoods, however this intermodal connection has reportedly not attracted many users. Similar rail to coach bus packages are offered by MetroNorth via New Haven Union Station. Opportunities for additional packaging of marketing and ticket purchase will be explored. Surveys of travelers in Task 2 would have explored the demand for integrated travel.

6.2.3 Communications Between Services

Seamless transportation is provided by communicating between the carriers providing for different segments of the trip. Cross Sound Ferry is able to let the coach bus provider know the number of passengers on the high-speed passenger-only ferry well in advance so that the coach bus provider can ensure the necessary capacity. This type of inter-carrier coordination is likely to be an important component of seamless transportation options offered through an enhanced intermodal center. New technologies make inter-carrier communication easier and have led many public transportation agencies to improve the communication of real-time information and trip planning information to the user. TranSystems has a specialty practice in transit ITS which will be very useful in this regard.

6.2.4 Wayfinding/Signage

Our approach to signage and wayfinding is two-fold: (1) signs should be used to orient people only when absolutely necessary. Architecture, architectural symbols, streetscape, and clear unobstructed sightlines between destination points should be the backbone of a wayfinding system; (2) the wayfinding/signage system should be inclusive and should employ graphic symbols as well as lettering and directional arrows. Historic sites throughout downtown, the Bank Street restaurant/retail/entertainment district, and major regional destinations should be folded into the wayfinding/signage system along with the multiple transportation modes. The City of New London would be consulted so that improvement concepts take into account its existing efforts on wayfinding/signage.

6.2.5 On-Site Development/Joint Development

In examining development opportunities we will look for situations in which we can blend transit services/passenger needs, structural systems, public spaces, vertical circulation systems, air rights and TOD in order to maximize and leverage potential Federal and State funding sources.

6.3 Evaluation of Options

The identified options would be subjected to a qualitative screening evaluation using a set of criteria developed in consultation with the COG and the Steering Committee, including qualitative estimates of economic impacts. A limited number of options would advance into the analysis in Tasks 7 and 8 and the Master Plan.

Deliverable: Technical Memorandum - Potential Improvements

Task 7: Economic Impact Analysis

In this task, we will address the costs and economic Impacts of improvements either at the existing site or at a selected alternative site. Note that a qualitative assessment of costs/obstacles associated with potential relocation of the Intermodal Transportation Center would be addressed as part of the Task 1A screening and would have already been taken into account in the site selection.

Costs – Both capital and operating and maintenance costs projections will be developed by URS. Order-of-magnitude capital improvement costs will be forecast to the anticipated construction year. Using URS cost information and industry cost trends, the construction values for proposed public components will be addressed. Special attention will be paid to costs associated with the secondary construction including environmental remediation, utility relocations and temporary improvements.

Economic Viability – The economic viability in terms of capital and operating costs, revenue services and services and uses of capital funds will be examined both from a public (transportation facility) and private (TOD) perspective.

Economic Impacts - The Project Team will conduct analyses that will estimate the impacts associated with the selected development scenarios at/around the multimodal site. Using BBPC's in-house *Economic and Fiscal Impact Model* (based on the Bureau of Economic Analysis RIMS II Input-Output model), the team could measure the economic and subsequent fiscal impacts of potential development programs and TOD opportunities during the construction period and at build-out. Impacts will be measured in direct terms (on-site development impacts) and indirect/induced impacts (spin-off impacts as a result of new investment in an area). These will include:

- residential units
- population/households
- commercial/office space (square feet)
- jobs
- payroll
- retail sales
- retail sales tax revenues
- property values
- property tax
- any special assessment taxes

These impacts will be described at the State, City and opportunity site levels, and may be used to identify value capture opportunities.

Deliverables: Technical Memorandum - Costs and Economic Impacts of Improvements at the Selected Site;

Task 8: Potential Environmental Impacts

A specific analysis of the environmental sensitivity of the Regional Intermodal Transportation Center sites and potential impacts of alternatives under study will be conducted using existing sources. This task will be led by FHI and URS. This is not a full environmental impacts study and will rely on secondary data available in GIS format combined with some field reconnaissance. Parcels within the study boundary with proposed improvements will be scanned for the potential presence of environmental contaminants. A general analysis of potential impacts will be developed for each of the alternative sites early in the study to support Task 1A. Once the site is selected, the remaining work will concentrate on addressing environmental impacts of proposed alternative improvements at the selected site. An alternatives matrix or other illustrative graphic will be prepared for comparative purposes, and an accompanying report will be generated for further use in the study. The report will include the identification of potential permits and approvals that would be triggered by the development of each alternative. A proposed environmental strategy for each parcel will be developed based on reuse proposals and anticipated construction activity.

Deliverable: Technical Memorandum - Potential Environmental Impacts

Task 9: Public Involvement

Public and stakeholder engagement in the development of an intermodal center offers many challenges and opportunities. This task will be led by FHI and TranSystems.

Union Station, the current hub of the proposed transportation center, is privately owned. This owner may not share the same vision of those wishing to develop a seamless transportation hub. Competing interests among transportation providers - road, rail, air and water - may cause barriers to coalescing around a strategy to develop the facility. Yet, development of the intermodal facility may offer an opportunity to provide travelers better connections in the region and increase the viability of Transit Oriented Development in a downtown with very little land to build on.

Similar issues may occur with owners of other parcels that may be considered as potential alternative sites.

The public and stakeholder participation process developed by the consultant will take into account concerns of operators and managers of the transportation system, governmental, advocacy and interest groups and the general public. The consultant will create a process to both give out information and receive information from stakeholders throughout the development of the master plan. Key elements of the outreach effort will include:

9.1 Public/Stakeholder Participation Plan

A Public and Stakeholder Participation Plan will be developed in collaboration with SCCOG at the initiation of the study. This plan will include a list of outreach activities, deliverables and a proposed schedule. The tasks below are anticipated to be part of that Plan.

Deliverable: Public and Stakeholder Outreach Plan

9.2 Steering Committee

In collaboration with SCCOG, a Steering Committee will be developed for this study. Participation will be requested from the City of New London, local, state and federal elected leaders, transportation providers including ferry, economic development, neighborhood and downtown interests. This group will serve in an advisory capacity, providing guidance on issues and strategies as well as feedback on all major findings and documents produced. The Committee will meet four to five times with the following agenda:

- **Meeting 1:** Discuss study goals and objectives, preliminary Purpose and Need statement, and review committee

representation and Public Outreach Plan.

- **Meeting 2:** Review profile of existing transportation services and facilities and the screening evaluation of candidate sites;
- **Meeting 3:** Review development/TOD opportunities and screening of Intermodal Center candidate improvements
- **Meeting 4:** Review economic and environmental impacts of improvement alternatives
- **Meeting 5:** Final Master Plan presentation

Deliverable: List of Steering Committee Members; Summary Report of Steering Committee meetings

9.3 Property Owners

It will be particularly important to recognize that Union Station is privately-owned and the property owner needs to be included in discussion at appropriate times to the extent that this site is considered as the future RITC site. Similarly if one of the other candidate sites is selected, there may be other property owners requiring special coordination. The site property owner stakeholder would need to be coordinated with separately from other stakeholders, in a manner that recognizes their unique interests. This would be handled by TranSystems, the COG and the City of New London.

9.4 Additional Stakeholder Discussions

The consultant will meet one on one with various public agencies and private transportation operators concerned with the viability of a thriving intermodal facility in downtown New London. These meetings will allow participants to have a candid discussion with the Consultant team where they can share opinions or information they would be unwilling to divulge in a more public forum. Such agencies might include: Federal and state agencies such as, Federal Railroad Administration and Homeland Security, Federal Transit Administration, Amtrak, CT Departments of Transportation, Environmental Protection and Economic Development, City of New London officials.

Deliverable: A maximum of ten (10) outreach meetings held; Summary memo of the stakeholder involvement process and results

9.5 Public Meetings

A public meeting would be held during the first half of the study to obtain public comments on needs and opportunities and possibly, comment on the selection of a site (if the latter is desired, then the project schedule must accommodate a very early public meeting and sufficient time to obtain and consider public input before advancing the study). Near the conclusion of the study another public outreach meeting will be held to obtain input and feedback on possible solutions from the local general public. The Consultant team will collaborate with SCCOG and the City of New London to assist with selection of a meeting location and agenda. FHI will work closely with SCCOG to publicize the meetings and provide handout materials. The second public meeting could take place after the presentation to the COG board if desired.

Deliverable: Two (2) public meetings; Meeting Handouts – agenda, fact sheet, summary of findings

9.6 Ongoing Communications Tools

The consultant will be responsible for selecting and providing, in consultation with SCCOG, a menu of communication tools to be used in the study. Communication elements may include:

Newsletter/Fact Sheet: Newsletters, distributed primarily through the internet, provide a low-cost way to communicate news on the development of the Intermodal Facility Plan. FHI will provide one (1) fact sheet at the initiation of the study and one (1) newsletter at the end of the study that summarizes key findings and recommendations.

Deliverable: Two (2) 2-page newsletter/fact sheet documents will be published. (200 copies each)

Website: A free standing website is not recommended for this study given its scope and duration. Yet an increasing percentage of the public receives information from on-line sources. The public has come to expect access to information over the internet. Therefore, the consultant team will work with the webmasters for both SCCOG and the City of New London to coordinate a webpage on the study with links to relevant study documents. The website will include an overview of the plan, project documents and updates, meeting notices and reports and an email address for submitting comments. The public will be able to contact the consultant team through the website, ask questions and submit opinions or provide information.

Deliverable: HTML formatted files for posting on SCCOG and/or City of New London websites.

Stakeholders Contact List: An electronic mailing list of stakeholders will be developed for the period of the plan development.

Deliverable: Stakeholders Contact List

Publicity in Local Media: Press releases will be written and distributed to the media when the project is kicked off and at the study's end.

Deliverable: One (1) press release at project initiation; One (1) press release to announce Plan findings; additional press releases at selected intermediate points where key decisions are being made.

Task 10: Master Plan/Final Report

This task is the preparation of a master plan in final report form. This task includes both a draft plan/report and a final plan/report, as well as a presentation to the COG Board.

10.1 Draft Plan/Report

A draft Master Plan document will be prepared including documentation of the earlier task conclusions. The Master Plan would consist of the following:

1. Executive Summary
2. Current and Future Services and Operational Needs
3. Physical Conditions and Opportunities for Improvement
4. Assessment of Interconnectivity and Potential Improvements
5. Screening Evaluation of Alternative Sites
6. Screening of Improvement Options
7. Economic and Environmental Impacts of Primary Options, including any alternative location
8. Design Concepts
9. Costs of the Recommended Concept(s)

The Master Plan would include both narrative descriptions and graphical illustrations. The graphical illustrations would include site plans, renderings and relevant photographs. Note that the report will include and document multiple concepts explored and presented to the Steering Committee.

10.2 Final Plan/Report

After receiving comments on the draft Master Plan by the COG staff and Steering Committee, a final master plan will be prepared. An Executive Summary will also be prepared.

10.3 Presentation to COG Board

A presentation will be prepared and delivered to the COG at a regular or special meeting. This could be scheduled to be before or after the second public meeting.

Deliverables: Technical Memorandum – Draft Plan/Report (25 copies or the number of members of the Steering Committee), Final Plan/Report (50 copies), Final Presentation