

**ENVIRONMENTAL ASSESSMENT, 4(f) Evaluation**  
(National Environmental Policy Act)

AND

**DRAFT ENVIRONMENTAL IMPACT EVALUATION**  
(Connecticut Environmental Policy Act)

**PROPOSED**  
**BRIDGEPORT INTERMODAL TRANSPORTATION CENTER**  
**BRIDGEPORT, CONNECTICUT**



Prepared for:

The Federal Transit Administration  
The Connecticut Department of Economic and Community Development  
Sponsoring Agencies

and

The Connecticut Department of Transportation  
Participating Agency

Prepared by:  
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June 17, 2003

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- Appendix A:** Draft Section 4(f) Evaluation
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## Abbreviations

ACM	Asbestos Containing Material
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
AST	Above Ground Storage Tanks
BITC	Bridgeport Intermodal Transportation Center
BTU	British Thermal Units
CBD	Central Business District
CEPA	Connecticut Environmental Policy Act
CEQ	Connecticut Council on Environmental Quality
CFHA	Coastal Flood Hazard Area
CGS	Connecticut General Statutes
CHC	Connecticut Historical Commission
CL & P	Connecticut Light and Power
CO	Carbon Monoxide
CO <sub>2</sub>	Carbon Dioxide
ConnDOT	Connecticut Department of Transportation
CTDEP	Connecticut Department of Environmental Protection
DECD	Connecticut Department of Economic and Community Development
EA	Environmental Assessment
E&S	Erosion and Sedimentation
EIE	Environmental Impact Evaluation
EJ	Environmental Justice
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
FIS	Flood Insurance Study
Ft.	Feet
FTA	Federal Transit Administration
GBRPA	Greater Bridgeport Regional Planning Agency
GBTA	Greater Bridgeport Transit Authority
HCS	Highway Capacity Software
HTL	High Tide Line
IACC	Inter-agency Coordinating Committee
ITC	Intermodal Transportation Center
ITE	Institute of Transportation Engineers
LBP	Lead-Based Paint
LOS	Level of Service
M	Million
MHW	Mean High Water
MOA	Memorandum of Agreement
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NGVD29	National Geodetic Vertical Datum of 1929
NO <sub>2</sub>	Nitrogen Dioxide
OLISP	CTDEP Office of Long Island Sound Programs
O <sub>3</sub>	Ozone
OPM	State of Connecticut Office of Policy and Management
PAHs	Polycyclic Aromatic Hydrocarbons
Pb	Lead
PCBs	Polychlorinated Biphenyls
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter with a diameter of 10 microns or less

PM <sub>2.5</sub>	Particulate Matter with a diameter of 2.5 microns or less
PPM	Parts Per Million
RAP	Remedial Action Plan
RCSA	Regulations of Connecticut State Agencies
RSRs	Remediation Standards Regulations
SHPO	State Historical Preservation Office
SO <sub>2</sub>	Sulfur Dioxide
SPCC	Spill Prevention Control and Countermeasure
STC	State Traffic Commission
SWRPA	Southwest Regional Planning Agency
TSB	Transportation Strategy Board
USDA	U.S. Department of Agriculture
UST	Underground Storage Tank
VMT	Vehicle Miles Traveled
VOCs	Volatile Organic Compounds

# 1 Executive Summary

**Project Name:** Bridgeport Intermodal Transportation Center

**Date:** June 17, 2003

**Sponsoring Agencies:** Federal Transit Administration and Connecticut Department of Economic and Community Development

**Participating Agency:** Connecticut Department of Transportation

**Preparer:** Fitzgerald & Halliday, Inc., 72 Cedar Street, Hartford, Connecticut 06106

## DESCRIPTION OF PROPOSED ACTION AND PURPOSE

The City of Bridgeport, Connecticut, in cooperation with the Federal Transit Administration (FTA), the Connecticut Department of Economic and Community Development (DECD), the Connecticut Department of Transportation (ConnDOT), the Greater Bridgeport Regional Planning Agency (GBRPA), and the Greater Bridgeport Regional Transit Authority (GBTA), is proposing the development of a multi-phased intermodal facility called the Bridgeport Intermodal Transportation Center (BITC) (“action” or “proposed action” or “the project”) (Figure ES-1). The primary purposes of this project are to improve the speed and ease of transfer between transportation modes in downtown Bridgeport by co-locating facilities and providing seamless connections where possible, and to support economic development and land use initiatives in the City.

The proposed action consists of Phase 2A (new bus station), Phase 2B (new train station) and Phase 3 (new parking garage with office/retail space) of the BITC development (Figure ES-2). Phase 1 (new parking garage with underpass to ferry terminal) has already been constructed. The BITC project site is bounded by Main Street, State Street, the Pequonnock River, Water Street, John Street, Middle Street, and Bank Street. The project site encompasses the existing rail and bus stations, their associated parking facilities, and key adjacent parcels (Figure ES-3). The BITC will be designed to physically and functionally integrate a variety of existing and proposed modes of transportation in the heart of Bridgeport’s Central Business District (CBD). The combination of commuter rail, intercity and high-speed rail, ferry, intra- and inter-city bus, taxi, limousine, airport shuttle, automobile, and pedestrian modes in a single facility is expected to be an important transportation and economic development magnet to downtown and the Pequonnock River waterfront.

The proposed action involves the construction of a new bus station (Phase 2A), a new train station replacing the existing train station (Phase 2B), and a parking garage with office/retail space (Phase 3). The improvements and benefits associated with the proposed BITC include the following:

- The existing bus station will be demolished and relocated to the north at the existing commuter parking lot. The new bus station will provide more bus berths, better bus circulation, and more customer friendly amenities.
- A new train station to replace the existing station, which is operationally inefficient, too small to accommodate passenger waiting areas, and connector to the bus terminal is narrow and is perceived by the public as unsafe, dirty and inconvenient.
- A new parking garage to satisfy needs in the future.
- Three elevated pedestrian connectors are proposed to allow for safe and direct connections for passengers between travel modes. One elevated connector will connect the proposed garage to the proposed inbound train station over Water Street, the second will connect the inbound and outbound train stations over the existing tracks, and the third proposed elevated connector will extend from the inbound train station to the proposed bus station along the western edge of the tracks.



- The opportunity for private development above the new parking garage with a design capacity to accommodate parking demand for the private development.
- A water taxi platform area to allow for privately funded water taxis to increase access to Bridgeport's waterfront and downtown without inundating the project vicinity with automobiles.
- Safe pedestrian access to the waterfront by extending and connecting existing boardwalk areas and better connections to transit facilities.
- Provide an alternative to Single Occupancy Vehicle commuter trips and an overall reduction in vehicle miles traveled (VMT) on major highways within the southwest Connecticut corridor, including Interstate 95 and State Route 8.
- Passenger amenities for transit patrons, including heat, air conditioning, toilet facilities, and public drinking fountains.
- Intelligent transportation system (ITS) links between I-95 and various modes of transportation.

In addition to its intermodal uses, the proposed action will provide active pedestrian-friendly retail frontage, commercial and office space, and parking for 1,200 vehicles within the emerging mixed-use Waterfront District. The project also calls for streetscape and landscape improvements, and traffic signal improvements intended to enhance pedestrian safety and access to/from the CBD and waterfront along the Pequonnock River.

## **ALTERNATIVES ANALYSIS**

The process of identifying a feasible proposal for a unified Intermodal Transportation Center (ITC) serving the needs of Bridgeport began officially with the *Bridgeport Intermodal Feasibility Study (Feasibility Study)* (DMJM 1997). For this study, an Inter-agency Coordinating Committee (IACC) was formed to bring public and private interests together in the development of the ITC. Through a series of meetings, the committee outlined goals, design concepts, and particular facility features, based on identified needs. That initial planning process identified that a well-planned intermodal center would tie together the surface transportation modes, promote safe, convenient and efficient transfers among existing transportation services, and encourage new transportation services in Bridgeport. Secondly, the ITC would support economic development and improve quality of life for the City's residents. The alternatives analysis began with that study and continued throughout the subsequent design studies, as outlined in the *Conceptual Design Report* (Wallace Floyd Design Group 2001).

## **IMPACTS EVALUATION SUMMARY**

This subject document evaluates all potential or anticipated impacts associated with all of the phases of the proposed action. The implementation of the proposed action will have minor environmental impacts that can be mitigated. Expected impacts include potential increases in ridership and resultant traffic on local streets around the BITC and impacts to existing cultural and historical resources, including historical barges and buildings. Environmental benefits of the proposed action include providing an alternative to Single Occupancy Vehicle commuter trips, with a goal of reducing Single Occupancy Vehicles on major highways in the Southwest Connecticut Corridor, greater pedestrian access to the waterfront, increased economic development, potential energy savings, improved stormwater quality and management, potential soil remediation, and a potential reduction in mobile source air emissions. Anticipated impacts and corresponding proposed mitigation measures are summarized in Table ES-1.

## **COST BENEFIT ANALYSIS**

The impact evaluation summarized in this document indicates that permanent environmental effects from the proposed BITC will be neutral or positive in regard to physical, social, and natural conditions. The proposed action will fulfill the project purpose and need, does not compromise any planned or

programmed developments or uses, and has no recognized opportunity costs such as from potential alternative development proposals. Of the estimated \$106.5 million (M) total project cost, \$84.8M is proposed from federal funds and \$21.2M is proposed from state and local funds. The net benefits are difficult to quantify individually, but cumulatively represent substantial positive changes for the City of Bridgeport and the Greater Bridgeport region in terms of mobility improvements, economic benefits, and social/quality of life benefits. Furthermore, the BITC project is a cornerstone of the City's economic revitalization initiative and is expected to promote and continue the economic success of all other downtown developments, which have received financial commitments of over \$300M (exclusive of the BITC). From these perspectives, the project costs are both reasonable and outweighed by the substantial benefits.

## **LIST OF POTENTIAL PERMITS, CERTIFICATES, OR APPROVALS**

- Army Corps of Engineers- Section 10 Permit
- City of Bridgeport – Coastal Site Plan Review and Special Use Permit (Planning & Zoning) Floodway Certification (Engineering Department)
- CTDEP- Flood Management Certification
- CTDEP- Special Waste Authorization
- CTDEP- General Permit for Stormwater Discharge Associated with Construction Activities
- CTDEP- General Permit to Construct and/or Operate a New or Existing Emergency Engine
- CTDEP- 401 Water Quality Certification
- CTDEP- New Source Review
- CTDEP- Structures & Dredging Permit
- CTDEP- Coastal Management Consistency Review
- State Traffic Commission (STC) Certificate
- U.S. Coast Guard Review/Approval

## **EARLY COORDINATION AND PUBLIC INVOLVEMENT**

Initially, the City of Bridgeport formed an IACC to bring public and private interests together in the development of the proposed action. Through a series of meetings, the committee outlined goals, design concepts, and particular facility features, based on identified needs. Subsequently, the DECD initiated their Stage 1 Site Review of the proposed action in early 2002, to solicit comments from various state agencies and interested parties. On December 17, 2002, DECD initiated the public scoping process under the Connecticut Environmental Policy Act (CEPA) by issuing a Scoping Notice in Connecticut's Environmental Monitor to further solicit comments from state agency reviewers and other interested parties of the proposed action. No CEPA public scoping meeting was requested or held. A copy of responses received in reply to the Stage 1 Site Review and CEPA Notice are included in Appendix B.

## **CONCLUSION**

The proposed action will provide the benefits of an intermodal transportation center, linking, bus, both inter- and intra-city service, train service, ferry, water taxi, and other transportation resources such as limousines and taxis. The project is crucial to the transportation system of southwest Connecticut and the economy of the City of Bridgeport. The proposed action will impact historical resources and have vehicular traffic. However, there are no outstanding significant impacts as a result of the proposed action, since impacts have been avoided, minimized, and where appropriate, adequate mitigation measures are proposed.

## **REVIEW PERIOD AND COMMENTS**

Review Agencies and other interested parties are offered an opportunity to provide comments and other pertinent information that would help define environmental impacts, interpret the significance of such impacts, and evaluate alternatives.

Written comments on this document and any other pertinent information may be submitted to the below-listed agency contact by July 31, 2003 at 4:00 p.m. A public hearing on the proposed action will be held on July 21, 2003 at 7:00 p.m. at the Bridgeport City Hall, 45 Lyon Terrace, Wheeler Room B, Bridgeport, Connecticut. The submitted materials and responses, along with the EA/EIE, will be attached to a Record of Decision that will be forwarded to the State Office of Policy and Management (OPM) for a determination of its adequacy. The same material, along with OPM's determination, will be sent to the FTA for final determination.

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Greater Bridgeport Regional Planning Agency  
Greater Bridgeport Regional Transit Authority  
U.S. Department of Interior

**Figure ES-1. Project Vicinity and Project Site**

**Figure ES-2. Proposed Site Plan**

**Figure ES-3. Existing Project Site**

**Table ES-1  
Summary of Anticipated Impacts and Mitigation Measures for Proposed BITC**

<b>Resource or Issue</b>	<b>Anticipated Impacts</b>	<b>Proposed Mitigation</b>
Land Acquisitions and Displacements	Acquisition of 2 parcels with existing buildings. Both buildings are currently not occupied.	Compensation to property owners in keeping with the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970 as amended.
Land Use and Zoning	No adverse impacts or inconsistencies. Beneficial upgrade of existing uses. Positive impact on public access to waterfront.	None anticipated.
Consistency with Local and Regional Plans	Project is consistent. No impact.	None anticipated.
Consistency with State Plan of Conservation and Development	Project is consistent. No impact.	None anticipated.
Traffic and Parking	Increased traffic volumes and consequent reduction in LOS at seven intersections. Removal of 540 surface parking spaces at location of proposed bus station location and 50 on-street parking spaces adjacent to existing train station .	Project design calls for intersection signalization, modifications of roadway lanes, and pedestrian crosswalk improvements. Construction of two additional parking decks at Harbor Yard Parking Garage, which will provide an additional 500 parking spaces.
Air Quality	Short-term construction period impacts. No adverse permanent impacts. Beneficial local air quality impacts as result of traffic mitigation.	BMPs during construction.
Noise and Vibration	Short-term construction period impacts. No permanent impact.	BMPs during construction.
Water Quality	Short-term construction period impacts. Beneficial long-term impact resulting from upgraded stormwater quality and management system.	Improved stormwater system. E&S control measures during construction.
Wetlands	No impact.	None anticipated.
Navigable Waterways, Coastal Zone, and Floodplains	No impact to navigation channel. Temporary construction impacts to coastal zone and floodplain. Beneficial long-term impact resulting from upgraded stormwater quality and management, and improved public access to coastal waters.	E&S control measures during construction.
Soils and Geology	No impact.	Possible hazardous materials management plan as warranted by environmental risks.
Environmental Risks / Hazardous Materials	Risk from under- and above-ground storage tanks. Possible site remediation	Leak and spill protection for UST/ASTs; possible development of a Remediation Action Plan (RAP); and possible need for a hazardous materials management plan.
Flora, Fauna and Endangered Species	Short-term construction period impacts. No permanent impact.	None anticipated.
Energy	Minimal increase in energy consumption for the BITC facility. Energy savings with enhanced transit service.	Energy efficient equipment.
Public Utilities and Services	No impact.	None anticipated.
Historic and Archaeological Resources, Parklands, and Section 4(f) Resources	Section 4(f) and historic resource impacts to three submerged barges and one historic building. Positive impact on public waterfront parcel.	Stipulations per Memorandum of Agreement (MOA) including full recordation of demolished buildings and submerged barges and additional documentation for underwater archeological preserve.

Resource or Issue	Anticipated Impacts	Proposed Mitigation
Aesthetics	Significant improvement on account of architectural design, landscaping, and site amenities.	None anticipated.
Environmental Justice (EJ), Socio-economic and Demographic Conditions	Positive impact on EJ and residential populations. Positive long-term social/quality of life and economic impacts. Direct benefits of improved transit connections for transit dependent populations.	None anticipated.
Safety and Security	Positive impact on safety and perceived safety from well-defined pedestrian walkways, signage, lighting, and site layout.	None anticipated.
Secondary Development	Beneficial impact of economic stimulus from transit-oriented development.	None anticipated.
Construction Impacts	Short –term impacts associated with relocation of parking, noise, air quality, coastal resources, flora/fauna, and water quality.	Air, noise and water quality BMPs. Efficient construction scheduling, traffic plan, hazardous materials management plan, and possibly a RAP. Staging of construction at bus station to minimize short-tem loss of parking. Construction of two additional parking decks at Harbor Yard Parking Garage, which will provide an additional 500 parking spaces.



## 2 Description and Need

### 2.1 Introduction

The City of Bridgeport, Connecticut, in cooperation with the Federal Transit Administration (FTA), the Connecticut Department of Economic and Community Development (DECD), the Connecticut Department of Transportation (ConnDOT), the Greater Bridgeport Regional Planning Agency (GBRPA), and the Greater Bridgeport Regional Transit Authority (GBTA), is proposing the development of a multi-phased intermodal facility called the Bridgeport Intermodal Transportation Center (BITC) (“action” or “proposed action” or “the project”) (Figure 2-1). The proposed action consists of Phase 2A (new bus station), Phase 2B (new train station) and Phase 3 (new parking garage with office/retail space) of the BITC development (Figure 2-2). Phase 1 (new parking garage with underpass to ferry terminal) has already been constructed. The BITC project site is bounded by Main Street, State Street, the Pequonnock River, Water Street, John Street, Middle Street, and Bank Street. The project site encompasses the existing rail and bus stations, their associated parking facilities, and key adjacent parcels (Figure 2-3). The proposed BITC will be designed to physically and functionally integrate a variety of existing and proposed modes of transportation in the heart of Bridgeport’s Central Business District (CBD). The combination of commuter rail, intercity and high-speed rail, high-speed ferry, intra- and inter-city bus, taxi, water taxi, limousine, airport shuttle, automobile, and pedestrian modes in an integrated facility is expected to be an important transportation and economic development magnet to downtown and the Pequonnock River waterfront.

### 2.2 History

The City of Bridgeport, in cooperation with the FTA, DECD, ConnDOT, GBRPA, and GBTA, has studied the feasibility of an Intermodal Transportation Center (ITC) in the greater Bridgeport region for many years. In 1996, the *Bridgeport Intermodal Feasibility Study* (DMJM 1997) confirmed the feasibility of developing an ITC in downtown Bridgeport and made initial siting recommendations. To serve the purpose of inter-connecting the existing transportation modes in downtown Bridgeport, the realm of possible project locations was limited to sites relatively close to the existing Amtrak/MetroNorth rail line and the ferry dock on the Pequonnock River. The block bounded by Water, State, John, and Middle Streets was identified as the best location for the ITC, with a potential parking garage located south of I-95 in the evolving sports district.

In June 2000, the GBRPA selected the current BITC project as the locally preferred alternative and included it in their long-range transportation plan. This decision resulted from an open planning process that included numerous meetings and discussions with the Bridgeport City Council, the GBRPA, FTA, Metro-North, Amtrak, ConnDOT, GBTA, intercity bus operators, Connecticut Limo, Bridgeport – Port Jefferson Steamboat Co., taxi operators, the Downtown Special Services District, the Greater Bridgeport Chamber of Commerce, the Bridgeport Regional Business Council, the Bridgeport Economic Development Corporation, local business firms, community development organizations and transit users and general public. The FTA subsequently approved the project to go forward into Preliminary Engineering in April 2001 and the BITC project was authorized in TEA-21 Section 3030I(1)(A).

While planning discussions were being held on the overall BITC project, the Phase I parking garage south of I-95 was constructed, providing 900 spaces with the capacity for two additional levels for an additional 500-car capacity. This phase responded to findings of the 1997 *Feasibility Study* that, “the most significant detriment to Bridgeport Station’s potential success is the severe lack of affordable parking for rail commuters and Amtrak riders” and eliminated four parking-related deficiencies viewed as limitations to access and use of ferry operations. Known as the “Transit Garage at Harbor Yard”, it provided conveniently located parking with safe pedestrian access to both the train station and the ferry terminal.

**Figure 4. Project Vicinity and Project Site**

**Figure 5. Proposed Site Plan**

**Figure 6. Existing Project Site**

## 2.3 Purpose and Need

The need for more accessible transit and intermodal connections is evidenced by the current state of congestion in the overall transportation system in southwestern Connecticut, including Bridgeport. According to the Southwestern Regional Planning Agency (SWRPA) *Vision 2020 Plan* (February 2003), Interstate 95 (I-95) through southwestern Connecticut is, by far, the most chronically congested section of interstate highway in Connecticut, and is arguably one of the worst in the country. To alleviate some of this congestion, the SWRPA *Vision 2020 Plan* recommends upgrading existing transit services in the region to encourage transit use. Specifically, the plan recommends the enhancement of local bus services, the expansion of existing rail station parking, and the improvement of transit linkages at rail stations and water transportation facilities.

The need for more accessible transit and intermodal connections is also recognized by Connecticut's Transportation Strategy Board (TSB). The TSB was established in 2001 to develop statewide strategies to "strengthen and expand the state's transportation system over the next 20 years to enhance Connecticut's prospects for sustainable economic growth and a premier quality of life". The TSB Plan identifies strategic actions and tactics for the fiscal years 2004 through 2013. It includes a strategy, *Establish an Integrated Multi-Modal Transit Network*, and recommends that the Connecticut Department of Transportation, the 17 transit districts in Connecticut, and the municipalities work together to define and implement an integrated multi-modal transit network that uses a common brand identity and that takes into account all forms of bus service.

Currently, in downtown Bridgeport, rail service (Metro-North/Amtrak), bus service, airport shuttles, and the Long Island ferry service each have separate terminals with poor connectivity, which makes transfers between modes difficult, awkward, and time-consuming for the general public, and particularly difficult for handicapped members of the community. To walk from the northbound Metro-North/Amtrak station platform to the nearby bus and ferry terminals, pedestrians must first go through a narrow, poorly-lit pedestrian tunnel and then along a circuitous route through downtown streets. Additionally, from downtown and the bus/rail/ferry terminals, there is no direct shuttle available to airport shuttle services. Passengers must take taxis, cars, or buses two miles to the Connecticut Limo airport shuttle terminal to make this connection.

In addition to a lack of connectivity between transit modes, the existing rail and bus terminals are outdated, operationally inefficient, and incapable of accommodating expanded service levels. The existing bus terminal, for example, is located on the lower level of an aging parking garage located along Water Street. The site is severely limited by its location, poor configuration, and local street congestion. These factors adversely affect bus maneuverability and cannot support expanded local and intercity bus operations.

Downtown Bridgeport has historically been a transportation and commerce center for the region, with the vitality of the downtown linked through history to its strong transportation. Mirroring the deterioration of Bridgeport's transportation facilities has been the weakening of its economy. Economic revitalization has been critical to the City's recent plans and goals, which have called for reinvigorating the CBD and the Pequonnock River waterfront. The CBD is fairly compact and densely developed with commercial and large pockets of institutional and public use. However, many of the buildings in the CBD are underutilized and/or vacant. It is a goal of the City to complement recent economic developments, including the new Ballpark and new Arena at Harbor Yard, with other planned economic developments in the CBD and waterfront area. These economic development goals are believed to hinge on transportation improvements that provide an attractive and functional gateway to Bridgeport's CBD and waterfront.

Based on the identified needs, the primary purposes of this project are to improve the speed and ease of transfer between transportation modes in downtown Bridgeport by co-locating facilities and providing seamless connections where possible, and to support economic development and land use initiatives in the City. The project will thus help to:

- Provide access to alternate modes of transportation designed to increase transit usage.
- Provide improved transportation to and from Bridgeport for those unable to use automobiles.
- Make downtown Bridgeport a more accessible and user-friendly location, thus stimulating much needed economic growth.
- Achieve a variety of City objectives, including increased public access to the waterfront and increased connectivity between downtown and the waterfront.

By efficiently linking all of the various transportation modes in one convenient location, the proposed action will be consistent with the goals and objectives of the SWRPA *Vision 2020 Plan* and will make it easier for commuters to choose mass transit and a quicker, safer, cleaner ride.

## 2.4 Proposed Action Description

The proposed action involves the construction of an Intermodal Center with identifiable component facilities but within an integrated complex that will provide passengers with a safe, logical, and aesthetic transportation experience. The main components of the BITC include a new bus station to replace the existing bus station (Phase 2A), a new train station replacing the existing train station (Phase 2B), and a parking garage with office/retail space (Phase 3). Phase 1 of the overall BITC proposal, the "Transit Center Garage at Harbor Yard", has already been constructed along Water Street south of I-95 and officially opened in the year 2000. This new 900-vehicle garage primarily serves rail and ferry passengers during peak hours. The garage serves patrons of the adjacent Ballpark and Arena at Harbor Yard as an incidental use during non-commuter time periods. The garage was designed and constructed to accommodate pedestrian connections to rail platforms and other components of the proposed action. Additionally, the garage was constructed with potential future expansion capacity, and two additional parking levels will be constructed as a part of Phase 2A on top of the existing structure to provide an estimated additional 500 parking spaces, 250 spaces on each level.

The Intermodal Center will provide a focus in downtown Bridgeport for a broad range of transportation modes including: (a) Metro-North commuter rail service, (b) Amtrak passenger rail service (including 18 Acela Express trains daily), (c) Greater Bridgeport Transit Authority regional bus (17 routes) and paratransit service operated by the Greater Bridgeport Transit District, (d) intercity bus service provided by the Greyhound and Peter Pan bus companies, (e) ferry service to and from Long Island, (f) shuttle bus and van connections to the three major New York area airports and Bradley Airport in Hartford provided by Connecticut Limo, (g) taxis, (h) bicycles, (i) pedestrians and (j) automobiles using park-and-ride and kiss-and-ride facilities. The BITC will connect 623 daily departures of trains, transit buses, airport shuttles and ferry boats carrying over 13,000 daily passenger boardings.

Phase 2A involves construction of the GBTA bus transfer center on the site of the existing 507-car commuter parking lot north on Water Street. The center will have an enclosed waiting area on a center platform to facilitate transfers, and a pedestrian bridge from the bus platform to the northern end of the southbound rail platform. As a mitigation measure, the 500 additional spaces will be built on top of the existing garage.

In addition to the replacement of the existing train station more or less in-situ, Phase 2B includes the construction of a 30-foot wide boardwalk extension along the Pequonnock River. An existing boardwalk is located to the south of the train station in the vicinity of the Bridgeport Port Authority Ferry Terminal. The intent is to extend this boardwalk northward beyond the existing train station to a point just south of the Stratford Avenue Bridge. This boardwalk would also accommodate passenger loading/unloading docks for future water taxi service providing water-borne transport to the east side of Bridgeport Harbor, to the vicinity of the proposed Bridgeport Landing development.

Phase 3 of the project entails the construction of the BITC's gateway connection to downtown via a major entrance (Phase 3) from Main Street through the historic Mechanics and Farmers Bank Building. This Grand Hall will take passengers through a restaurant/food court to the escalators and elevators up to the second floor of the two-story Train Station facing Water Street. The station will house an interior waiting

area for Metro-North, Amtrak, Connecticut (CT) Limo, taxi and some GBTA passengers, along with ticketing, restrooms, and a headquarters for the Metro-North police. A pedestrian bridge will lead across Water Street to the southbound rail platform. A mid-block ground level platform between State and John Streets will serve some GBTA buses, CT Limo, taxis, and pick-up and drop-off. This facility will also include a parking garage for commuters, with ground floor retail space facing John Street. The parking garage will have an initial capacity of 500 vehicles intended to service non-mass transit users and will be constructed to accommodate future expansion to a capacity of 1,200 vehicles as well as to accommodate several stories of future privately developed office space.

Through all the phases, the BITC complex will be unified by urban design elements such as signage, lighting, and pavement markings. The complex also incorporates several open park-like spaces with landscaping. These features will result in an attractive, safe, and coherent transportation activity center.

#### 2.4.1 Funding

The commitment by the City of Bridgeport, FTA, DECD, and ConnDOT to the proposed action is demonstrated in the capital investment plan developed for this project. The plan combines the resources of the State of Connecticut with the New Starts and 5309 Bus Category funding. The GBRPA adopted the proposed capital funding plan for this project on March 14, 2000. Of the estimated \$106.5 million (M) total project cost, \$84.8M is proposed from federal funds and \$21.2M is proposed from state and local funds. To date, \$24M has been spent on prior phases of the project which included Planning, Design, Preliminary Engineering and Construction of the Phase 1 Transit Garage at Harbor Yard. Phase 2A of the project is proposed to cost \$10M with an approximate 80/20 split between Federal and State/Local sources. Phase 2B of the project is estimated to cost \$45M with an approximate with an approximate 80/20 split between Federal and State/Local sources. Phase 3 of the project is estimated to cost \$27.5M with an approximate 80/20 split between Federal and State/Local sources.

#### 2.4.2 Environmental Documentation

This environmental document is being prepared in accordance with the regulations and guidance established by the National Environmental Policy Act (NEPA) of 1969, as amended, as well as the FTA regulations under 23 CFR 771 and associated guidance documents, and is considered an Environmental Assessment (EA). FTA is the lead agency under NEPA. Because the proposed action also involves state funds, it is also being assessed in accordance with the Connecticut Environmental Policy Act (CEPA) (Connecticut General Statutes (CGS) Sections 22a-1 through 22a-1h, inclusive, and where applicable, CEPA regulations Sections 22a-1a-1 through 22a-1a-12, inclusive, of the Regulations of Connecticut State Agencies (RCSA)). Due to recent CEPA law changes, the subject document is considered an Environmental Impact Evaluation (EIE) under CEPA. The Connecticut DECD will serve as the sponsoring agency and the ConnDOT will serve as the participating agency under CEPA. The content and format of this environmental document have been designed to meet both federal and state requirements.

### 3 Alternatives Analysis

#### 3.1 Introduction

The process of identifying a feasible proposal for a unified Intermodal Transportation Center (ITC) serving the needs of Bridgeport began officially with the *Bridgeport Intermodal Feasibility Study (Feasibility Study)* (DMJM 1997). For this study, an Inter-Agency Coordinating Committee (IACC) was formed to bring public and private interests together in the development of the ITC. Through a series of meetings, the committee outlined goals, design concepts, and particular facility features, based on identified needs. That initial planning process identified that a well-planned intermodal center would tie together the surface transportation modes, promote safe, convenient and efficient transfers among existing transportation services, and encourage new transportation services in Bridgeport. Secondly, the ITC would support economic development and improve quality of life for the City's residents. The alternatives analysis began with that study and continued throughout the subsequent design studies, as outlined in the *Conceptual Design Report* (Wallace Floyd Design Group 2001). The following sections document the alternatives evaluation process that culminated in the selection of the proposed action evaluated in this EA/EIE.

#### 3.2 Preliminary Alternatives Development

The *Feasibility Study* made initial siting evaluations. Three alternative sites were explored as possible locations for the ITC: 1) the immediate area of the existing Bridgeport Transportation Center; 2) the old Bridgeport Rail Station on Water Street north of Fairfield Avenue; and 3) a site on Houston Street south of I-95. Each site was evaluated in terms of transportation and operational issues and in terms of the goals and objectives identified by the IACC. The following matrix was used as a method to assist in screening the alternatives considered. Those alternatives that met the project's purpose and need and were least environmentally damaging were subjected to further analysis.

**Table 1. Alternatives Siting Evaluation Matrix**

	SCHEMES			
	Linked Sites 1 (A, B & C)	Post Office 2	State St./John St. 3	Water Street 4 (A, B & C)
ACCESSIBILITY				
• Access from Adjacent Streets	+	+	+	+
• Impact on Traffic Operations	o	o	o	-
• Visibility from Major Streets	+	o	o	+
• Proximity to Major Downtown Destinations - Downtown Commercial - Public Offices: City Hall, Courts, Library - Social Services - Community College - Harbor Yard - Steel Point - Pequonnock Riverfront Development	+	+	+	+
• Quality of Pedestrian Environment and Access - safe, visible, convenient connections - streetscape design - pedestrian crossings	+	+	+/o	-
SITE SIZE AND CONFIGURATION ISSUES				
• Ability to Accommodate Transportation Program Efficiently	+	+	+	-
ENVIRONMENTAL ISSUES				
• Compatibility with Surrounding Land Uses	+	+	o	+
• Compatibility with Surrounding Historic Structures/Districts	+	-	+	+
• Presence of Hazardous Materials	NA	NA	NA	NA
• Air & Noise Impacts	o	o	o	O



	<b>SCHEMES</b>			
	<i>Linked Sites 1 (A, B &amp; C)</i>	<i>Post Office 2</i>	<i>State St./John St. 3</i>	<i>Water Street 4 (A, B &amp; C)</i>
<b>DEVELOPMENT ISSUES</b>				
• Ownership & Ease of Acquisition	o	-	o	o
• Constructability	o	o	o	o
• Ability to phase construction	+	+	-	+
<b>INTERMODAL OPERATIONS &amp; SERVICE ISSUES</b>				
• Ability to encourage new ridership	+	+	+	+
• Facilitates intermodal transfers	o	o	+	o
• Maximizes passenger safety	+	o	o	-
• Ability to serve needs of existing customers	o	o	+	o
• Operating Efficiency: GBTA	o	+	+	-
• Operating Efficiency: Intercity Bus	+	+	+	+
• Operating Efficiency: CT Limo	+	+	+	+
• Operating Efficiency: Taxi	+	+	+	+
• Operating Efficiency: Amtrak	+	+	+	+
• Operating Efficiency: MetroNorth	+	+	+	+
• Operating Efficiency: Ferry	o	o	o	o
<b>ECONOMIC DEVELOPMENT</b>				
• Leverages Joint Development – integrating Structure	+	+	-	+
• Potential for Joint Development/ Economic Development	+	+	-	+
• Compatibility with public land use development policy and planned/ proposed development by others	+	-	-	+
• Ability to phase over time in response to market	+	+	o	+
<b>URBAN DESIGN/DOWNTOWN IMAGE</b>				
• Creates opportunity for high quality pedestrian environment	+	+	-	+/o
• Provides opportunity to create important	+	+	-	+
• Creates positive image for use as marketing tool for transit & economic development	+	+	o	+/-
<b>ACCESSIBILITY</b>	+	+	+ overall - pedestrian environment on State/John	- traffic & pedestrian environment
<b>SITE SIZE &amp; CONFIGURATION</b>	+	+	+	-
<b>ENVIRONMENTAL ISSUES</b>	+ Land Use	+ Land Use - Historic	o	+ Land Use
<b>DEVELOPMENT ISSUES</b>	+ Phasing	+ Phasing - Acquisition	- Phasing	+ Phasing
<b>INTERMODAL OPERATIONS &amp; SERVICE ISSUES</b>	+	+	+ ease of transfers & no disruption to existing	- safety & operating efficiency
<b>ECONOMIC DEVELOPMENT</b>	+ all counts	+ development - compatibility	- all counts	+ all counts
<b>URBAN DESIGN/DOWNTOWN IMAGE</b>	+	+	- pedestrian environment & civic structure	+ Main St. - Water St.
+ Superior rating    o Neutral rating    - Poor rating				

The area of the existing transportation center was the best option of the three sites for all criteria reviewed. It provided the best gateway to downtown and the only connection with the waterfront; it

provided the greatest connectivity between transportation facilities and downtown activities; and it had the least traffic impact on the local street network, being closest to the major access points off I-95 and Route 8/25. This site offered the best and most straightforward track conditions for train boarding platforms and lastly, only this site had the ability to connect the existing ferry terminal into the ITC. The old Bridgeport Rail Station was quite distant from new downtown activity centers such as the community college and planned office development near the south end of downtown, would make connections to the CBD more difficult, had a problematic curve in the rail, and would increase downtown traffic by moving the facility farther from I-95 and Route 8/25. The Houston Street site was isolated from downtown, required major redesign of bus routes to access the facility, would increase downtown traffic, and had the highest probability of hazardous contamination. The old rail station and the Houston Street sites would not meet one or more of the priority goals set by the IACC to meet the purpose and need of the project and were therefore eliminated from further consideration.

The area of the existing transportation center met the main goals for the ITC and had no major transportation or operational issues, so it was carried forward for further analysis. The block bounded by Water, State, John, and Middle Streets was identified as the best location for the ITC, with a potential parking garage located south of I-95 in close proximity to the ferry terminal and train station. The *Feasibility Study* did a preliminary evaluation of alternative layouts for the bus terminal. The study evaluated four alternatives that included two in-street alternatives with bus bays located within Water Street and two off-street alternatives located within the bounds of Water, State, John, and Middle Streets. While all of these alternatives improved bus operations and provided a bus bay for 16 bus routes, each had disadvantages. The in-street alternatives would require, at the least, the elimination of on-street parking and narrowing of traffic lanes on Water Street and at worst, complete closure of Water Street, which is an important link in the state roadway system, as well as an emergency bypass route for I-95. The off-street alternatives were space-constricted, requiring some compromises to accommodate all 16 bus bays. One alternative required the closure of State Street and the other required passengers to cross active busways to make transfers.

### **3.3 Program Development and Design Alternative Analysis**

Wallace Floyd Design Group continued exploring alternative design concepts subsequent to the *Feasibility Study*. The conceptual design study took steps to determine specific operational space and parking requirements for the component transportation modes based on interviews with rail, ferry, bus, limo, and taxi companies, and also prepared ridership demand projections to account for future growth (to year 2020), using a 2 percent annual growth rate. The program requirements for each type of passenger facility, along with their preferred relationships to other program elements, guided the formulation of concepts in terms of size and spatial relationships. With this new information, the space requirements of the BITC were more clearly articulated and four new alternative design concepts were generated. The project boundaries were expanded to accommodate program elements that were deemed essential to meet the project purpose and need.

The alternatives were formulated based on meeting the needs of the various modes, with emphasis on convenience of pedestrian access between them. The major criteria used to evaluate the alternatives were land acquisition and other environmental impacts, operating and maintenance costs specific to each alternative, efficiency afforded by configuration and location, economic development ramifications, land use/development issues, and utility relocation costs. Because the Amtrak/MetroNorth rail line is a major infrastructure that is essentially unmovable and the existing rail station is at an optimal position along the track, all of the alternatives involved a rail station in the same approximate location as the current station.

The four major schemes included the following: Scheme 1 – Linked Sites, featuring a bus facility on City land north of the current bus station; Scheme 2 – Post Office Site featuring the bus station and joint development at a potentially available Post Office site near Golden Hill/Water Streets; Scheme 3 – State Street/John Street, a densely-developed site that attempted to locate the various components of the ITC on a single contiguous site; and Scheme 4 – Water Street, which located the bus operations adjacent to the train platforms and parking, involving a widening of Water Street and bus berths aligned along the street.

The Conceptual Design Report (Wallace Floyd 2001) details the evaluation process for the four alternatives, which involved ranking each site for numerous categories. Scheme 1 – Linked Sites scored well in all categories and was the only alternative that received no negative ratings. This alternative, specifically the sub-alternative with the train lobby on the east side of Water Street, was selected as the preferred alternative and is the basis for the Proposed Action. This scheme had the following features:

- A major bus transfer facility with an elevated, direct pedestrian walkway connector to train platforms on the triangular parcel further north along Water Street, with some bus stops on Water Street.
- Pedestrian connections/transfers are provided by an overpass from the parking garage to the train station and by structured walkway from the bus station to the train station and to Main Street
- An ITC entrance on Main Street through the historic Mechanics and Farmers Bank building, with clear connections to trains.
- Limousine, parking and joint development components accommodated on the block bounded by Main, Water, State, and John Streets, with a pedestrian bridge across Water Street to the rail platform

Scheme 2 was eliminated due to incompatibility with surrounding historic structures and districts. Scheme 3 was generally acceptable for all criteria but more neutral than positive. Scheme 4 resulted in adverse traffic operations, pedestrian conditions, and did not meet the transportation program needs. These schemes were therefore eliminated from further consideration.

### **3.4 Consistency with State Plan of Conservation and Development**

The *Conservation and Development Policies Plan for Connecticut 1998-2003* (State Plan) contains economic development, environmental quality, and public service infrastructure guidelines and goals for the State of Connecticut. According to the plan's Development Locational Guide Map, the study area falls within a *Regional Center*. The highest priority state strategy for a *Regional Center* is to support rehabilitation and revitalization of the economic, social, and physical environment of these urban centers. The proposed action, including all of the conceptual alternatives considered for development of the BITC, is consistent with the goals, objectives, and policies set forth in the State Plan.

### **3.5 Avoidance, Minimization, and Mitigation**

Due to the lack of reasonably available or feasible alternative sites, any practical conceptual alternative would be located on the same site as the proposed action. Consequently, all of the conceptual alternatives can be anticipated to have similar potential environmental impacts comparable to those of the proposed action.

## 4 Existing Conditions and Environmental Consequences

### 4.1 Land Acquisitions and Displacements

#### 4.1.1 Existing Setting

The proposed action involves a number of parcels of land that now hold the existing bus terminal/parking garage, the transit building associated with the train station, a surface parking (commuter) lot having 540 and parking spaces, along Water Street north of Fairfield Avenue, and the Mechanics and Farmers Savings Bank building, and the Bridgeport City Market building. An additional 50 on-street parking spaces will be displaced for the new train station. The existing uses are all urban in nature, supporting the downtown CBD. A City-owned open space on the east side of Water Street offers a small platform overlooking the Pequonnock River northeast of the bus terminal and just north of the rail station facility within the project site.

#### 4.1.2 Direct Impact

The project (Phase 3) is anticipated to require the acquisition of two properties, the Mechanics and Farmers Savings Bank and the Bridgeport City Market buildings. The bank building would be renovated as part of the new public/private mixed-use development and will provide an entrance to the BITC from Main Street. The Bridgeport City Market would be demolished to create space for an enlarged parking structure during Phase 3. Neither of these properties contain active businesses and the storefronts are vacant; therefore, no business displacements will occur. The Phase 2A development of the proposed bus terminal on the City-owned commuter lot will displace 540 commuter parking spaces. Commuters will be able to find alternative parking at the Transit Garage at Harbor Yard, which has an existing capacity of 900 spaces and was constructed to accommodate two additional levels of parking, for a total parking availability of 1,400 spaces. During construction of the train station, an additional 50 on-street parking spaces will be eliminated. This alternate facility is as accessible to the major commuter routes of I-95 and Route 8/25 as the commuter lot. During construction of the Phase 3 parking garage and office/retail complex, commuters needing parking will be advised to use other local alternatives in addition to the Transit Garage at Harbor Yard. Subsequent to the construction of Phase 3, adequate parking for all the uses intended in the project site will be available. Consequently, there will be no adverse impacts from acquisition/displacements due to the project to businesses entities or residences.

There will be no residential displacement or relocation.

#### 4.1.3 Indirect Impacts

There are no indirect impacts anticipated.

#### 4.1.4 Cumulative Impacts

There are no cumulative impacts anticipated.

#### 4.1.5 Mitigation

Construction and subsequent displacement of 507 commuter parking spaces at the location of the proposed bus station, will be mitigated through existing capacity and available additional capacity at the Transit Garage at Harbor Yard, located to the south of the train station. The Transit Garage has an existing capacity of 910 spaces and an approximate daily vacancy rate of 450 spaces. The Transit Garage was designed to accommodate an additional two parking levels, each level with a capacity of 250 spaces. Suggested mitigation is to construct the additional two parking levels (500 spaces), at the Transit Garage, during the initial stages of construction activity at the bus station. This construction, in association with the phasing of parking displacement at the bus station, will provide for overall parking demand to be satisfied.

The City will compensate the property owners for the Phase 3 property acquisitions in keeping with the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970 as amended. Since no existing land uses will be adversely affected on a permanent basis by the proposed action, no additional mitigation measures are proposed.

## **4.2 Land Use, Zoning, and Section 6(f) Properties**

### **4.2.1 Existing Setting**

The project is located in the densely developed urban setting of downtown Bridgeport on the western shore of Bridgeport Harbor. According to mapped land uses by the GBRPA, the project site contains “General Business” and “Vacant/Open Space/Transportation” uses (Figure 4). Specifically, the project site encompasses the existing bus terminal/parking garage, transit building, a commuter parking lot, and railroad station, as well as two vacant buildings. At the eastern boundary of the site is the Pequonnock River. The City-owned Waterfront Park is situated just north of the existing train station and east of Water Street. This park offers a small-isolated boardwalk overlooking the Pequonnock River. Another boardwalk exists along the river south of the train station that terminates under I-95. Directly west of the Mechanics and Savings Bank, on the corner of Main and State Streets, is the City-owned McLevy Park. The project site is largely surrounded by other transportation-related land uses, including several parking lots, parking structures, and the I-95 bridge over the Pequonnock River. However, there are also relatively new entertainment and tourist attractions to the south of the proposed site, including the Bridgeport Bluefish baseball stadium and Arena at Harbor Yard (Figure 1). The CBD of Bridgeport, a mix of office and retail uses, is along the western edge of the site, beyond the bus station.

The project site falls within two zoning districts in Bridgeport. The zoning designation of the proposed Phase 2B and Phase 3 project sites is D-CB for Downtown-Central Business district uses. The zoning designation for the proposed Phase 2A bus station site is D-MU for Downtown-Mixed Use district uses (Figure 5). A variety of uses are allowed as-of-right in the D-CB zone, including offices, short term lodgings, public facilities, schools, and commercial parking. Special Permit uses allowed in this zone include retail sales and services, entertainment, restaurants, medical centers, and passenger terminals such as the bus and train stations. There are also a variety of uses allowed as-of-right in the D-MU zone including offices, colleges and universities, public facilities such as fire stations, and commercial outdoor recreation. Passenger terminals such as the bus station are allowed under a Special Permit. There is a heavy industrial zone southeast of the project site and the sports stadium to the southwest of the project site is specifically zoned for downtown-regional sports and entertainment use. A small pocket of residential zoning is located just outside the project site boundary, at the corner of Bank and Main Streets.

There are several development standards and requirements associated with any proposed development in the D-CB Zone. These include meeting parking requirements for the office and retail uses associated with the project, providing 10 percent usable open space, providing public access to the waterfront for waterfront sites, providing a minimum of 50 percent building coverage, and providing a maximum setback of 10 feet from the street lot line. Development design standards for the D-MU zone include maximum building coverage of 50 percent, no parking allowed between the building and the street, a minimum of 15 percent usable open space where the lot is larger than 7000 square feet in size, and a maximum building setback from the street lot line of 10 feet. Specifically in regard to the proposed action, the City Planning Department has requested a bikeway connection along the east side of Water Street that would link with and continue along Housatonic Avenue past the proposed Superior Court and Center for Juvenile Matters, near Stratford Avenue.

Section 6(f) refers to open space parcels purchased with funds through the Land and Water Conservation Fund Act (LWCFA) (1965). No property acquired or developed with assistance under this Act shall, without approval of the Secretary of the Interior, be converted to uses other than public outdoor recreational uses. Section 6(f) applies to any project that involves right-of-way acquisition and the land

that is being acquired was purchased or developed through the LWCFA. There are no qualifying Section 6(f) properties on or adjacent to the sites for the proposed action.

#### 4.2.2 Direct Impact

Potential direct impacts to land use relate to compatibility of the proposed action with surrounding existing land uses, consistency with existing zoning, and impacts to access to other land uses in the vicinity. The proposed action is consistent with the existing land uses in the immediate area and surrounding properties, and has been designed to meet the necessary zoning requirements. The project is allowed as a Special Permit use in both zones within which the site falls. As municipal buildings and facilities are not exempt from zoning in Bridgeport, the proposed action will be considered for approval by the Bridgeport Zoning Commission. There are no community facilities (schools, churches, institutional/government uses) within or directly adjacent to the project site.

The Phase 2A conversion of the commuter lot to the bus station will maintain its existing use for supporting transportation. This phase will also include set-aside of a landscaped open space. The Phase 2B development of the train station will essentially be an in-kind replacement/upgrade of the existing transportation use. Construction of the boardwalk during this phase will greatly enhance public access to the waterfront. The proposed boardwalk will connect to the north with the existing Waterfront Park boardwalk and to the south, with the other existing boardwalk under I-95 for a continuous pedestrian walkway along the river. The Phase 3 construction will renovate the Mechanics and Farmers Savings Bank and demolish the Bridgeport City Market building. However, these buildings are currently vacant, so no existing uses will be affected. The replacement garage/office/retail facility will return business uses to these parcels, consistent with the City's objectives for the CBD.

The development of the BITC is anticipated to accommodate future joint private-public development and a mix of commercial and transportation uses. In addition, the proposed action is expected to create linkages that will enhance multimodal access to the CBD and the entertainment and recreational resources in the project vicinity. The overall effect is expected to be beneficial on the sustainability of all land uses in the area. The proposed action is an allowed Special Permit use in both the D-CB and D-MU Zones where it occurs and the proposed design elements of the project are in keeping with City Planning Department objectives for the waterfront area. No adverse direct impacts are anticipated to land use as a result of the proposed action.

#### 4.2.3 Indirect Impacts

The proposed action is not anticipated to have any adverse indirect impacts on land use within the project site or in the City of Bridgeport as a whole. Conversely, the proposed action is consistent with future land use goals of the City and is anticipated to have indirect beneficial effects on the adjacent CBD in terms of long-term redevelopment efforts.

#### 4.2.4 Cumulative Impacts

The proposed action is one of a number of redevelopment efforts being encouraged and supported by the City of Bridgeport. The Bridgeport Economic Resource Center notes 18 economic development projects in progress and another six projects planned in the City. The proposed action is anticipated to support these revitalization efforts and have a beneficial cumulative impact overall.

#### 4.2.5 Mitigation

As no adverse impacts on land uses are anticipated, no mitigation measures are proposed.

### **4.3 Consistency with Local and Regional Plans**

There are a variety of local and regional plans and/or planning efforts that encompass the study area. These plans establish goals and objectives intended to guide future development patterns and lead to

desired community and regional character. These plans are summarized below to provide the planning context for the proposed action.

**Municipal Plans:** The most recent plan of conservation and development for Bridgeport is the *Bridgeport Master Plan of Development* (Bridgeport Regional Planning Commission, 1997), which includes a number of goals and objectives relevant to the proposed action. Goal A-1 [Regional Hub] is to have the city serve as an “economic, educational, cultural, and transportation center.” Goal B-3 [Reinvest in the CBD] calls for establishing a multi-modal transportation center in the downtown area and to improve access among various modes of transportation. Goal C-1 [Multi-Modal Alternatives] has one objective that states, “Implement improvement plans for the Bridgeport Transportation Center that will improve accessibility, safety, and efficiency, bring the facility into compliance with the Americans with Disabilities Act (ADA), and enhance links with all components of the center” and another to preserve and maintain all modes of public transit in Bridgeport.

The future land use map for the City of Bridgeport designates the future use of the project site and vicinity as “Waterfront Development”, defined as an “intensive commercial and residential waterfront development not related to heavy port use.” The goal for the waterfront is a mix of uses that will ensure the balanced use of the waterfront and provide for waterfront-related and water-dependent industry, business, and recreation compatible with existing waterfront development and consistent with Bridgeport’s Municipal Coastal Plan.

**Regional Plans:** There is one regional planning effort that directly addresses the development of the transportation system in the region within the context of long-term development, which is the recently completed Southwestern Regional Planning Agency *Vision 2020 Congestion Mitigation System Plan* (Vision 2020 Plan). The Vision 2020 Plan was prepared to provide strategies for southwestern Connecticut to reduce roadway congestion, improve air quality, and strengthen economic growth in the region. One of the essential goals of the Vision 2020 Plan was to offer strategies for achieving transportation options for residents of the region. Proposed strategies included increasing transit services and infrastructure and expanding the transportation system by increasing the number of intermodal hubs in the region.

The proposed action is consistent with the goals, objectives, and plans set forth in local and regional and/or planning efforts.

#### **4.4 Consistency with State Plan of Conservation and Development**

The State Plan contains economic development, environmental quality, and public service infrastructure guidelines and goals for the State of Connecticut. According to the plan’s Development Locational Guide Map, the study area falls within a *Regional Center*. The highest priority state strategy for a *Regional Center* is to support rehabilitation and revitalization of the economic, social, and physical environment of these urban centers. The proposed action is consistent with the goals, objectives, and plans set forth in the State Plan.

#### **4.5 Traffic and Parking**

As part of this project a detailed traffic impact study was completed. The methodology used to assess the potential transportation impacts of the BITC is summarized in this section. A separate *Traffic Impact Report* has been prepared that describes this methodology in detail, including assumptions used, mathematical models applied, data generated on traffic volumes, trip generation and distribution analysis, impact analysis results, parking demand and supply, and recommendations. The study area for the traffic impact study included the local roadway network serving the project site, as defined more specifically below.

**Figure 7. Existing Land Use**



**Figure 8. Existing Zoning**

#### 4.5.1 Existing Setting

##### *Transportation Network*

The primary highway and street network surrounding the proposed BITC includes Interstate 95, Route 8/Route 25, State Street, Main Street and Water Street. Although the I-95 corridor between Florida and Maine provides north-south movement, Interstate 95 provides major east-west access along coastal Connecticut. Route 8/Route 25 provides northerly access for commuters and residents to and from Bridgeport. State Street is a two-lane one-way eastbound directional state roadway, which provides access within the City to the downtown area of Bridgeport. Main Street is a two-lane facility (one lane in each direction) through commercial development providing local north-south access to the downtown area of Bridgeport. Water Street is a four-lane facility (two lanes in each direction) also providing local north-south access to the downtown area. The roadway system in the vicinity of the proposed BITC is illustrated in Figure 6.

**Circulation Patterns:** Travelers arriving from north of Bridgeport primarily use Exit 3 of Route 8/Route 25 to access the train and bus terminals in the downtown Bridgeport area. Exit 3 provides access to Main Street and to Housatonic Avenue/Water Street, which are parallel roadways. Travelers accessing the train station from the north are most likely to use Water Street and park either in the temporary surface lot located on the northeast corner of Water Street and Fairfield Avenue/Stratford Avenue or the Transit Center Garage at Harbor Yard which is adjacent to the intersection of Main Street with South Frontage Road. An alternative route for travelers arriving from north of Bridgeport is to use Exit 2 of Route 8/Route 25 to Courtland Street to access State Street, a one-way eastbound facility to reach the Bridgeport downtown area. Travelers leaving the Bridgeport downtown area to access Route 8 are most likely to use the Rout 8 on-ramps at Exit 2 or Exit 3.

Travelers from east and west of Bridgeport may access the study area from Interstate 95 at Exit 27. Exit 27 provides access to Lafayette Boulevard, which intersects with State Street. From State Street, travelers traverse into the downtown Bridgeport area. Travelers leaving the Bridgeport downtown area to access Interstate 95 are most likely to use Water Street to access North Frontage Road. From North Frontage Road, travelers are directed to Interstate 95.

**Traffic Flow and Operations:** An evaluation of existing traffic operations for intersections that are most likely to be impacted by the proposed development was conducted. The study intersections listed below and shown in Figure 6 were determined through field observations and coordination with the City of Bridgeport officials.

1. Housatonic Avenue at East Washington Street
2. Housatonic Avenue at Congress/Crescent Street
3. Water Street at Golden Hill Street
4. Water Street at Fairfield/Stratford Avenue
5. Water Street at John Street
6. Water Street at State Street
7. Main Street at East Washington Street
8. Main Street at Congress Street
9. Main Street at Golden Hill Street
10. Main Street at Fairfield Avenue
11. Main Street at John Street
12. Main Street at State Street
13. Main Street at North Frontage Road
14. Main Street at South Frontage Road
15. State Street at Broad Street
16. State Street at Lafayette Boulevard
17. Courtland Street at Fairfield Avenue

## Figure 9. Local Roadway System

All of the study intersections are signalized except for the intersection of Water Street with Golden Hill Street. This intersection is two-way stop controlled. Existing traffic data was collected in the field and traffic volume data for the intersection of Main Street and South Frontage Road was extracted from the *Traffic Impact Study Transit Garage at Harbor Yard, Bridgeport, Connecticut, August 1999* report and the *Traffic Impact Study Arena and Transit Garage at Harbor Yard, July 1999*. An annual growth rate of 1.2% per year obtained from ConnDOT was applied to the 1999 traffic count data. The newly collected field data included manual turning movement counts for the morning (7:00 AM – 9:00 AM) and afternoon (4:00 PM – 6:00 PM) peak travel periods. All traffic counts were collected under typical weekday conditions. In general, the current peak hours occur between 8:00 AM- 9:00 AM and 4:30 PM- 5:30 PM. Signal timing and arrival type data were utilized based on the coordination of the signals and/or per field observations.

A level of service (LOS) analysis was conducted for all of the intersections using procedures presented in the *Highway Capacity Manual 2000*, Transportation Research Board. The Highway Capacity Software 2000 (version 4.1c), which implements these procedures, was used to perform the analyses. LOS is a measure of the delay experienced by vehicles at an intersection and is used to describe the operation of signalized and unsignalized intersections. It is expressed in an alphabetic scale, A to F. LOS A represents clear traffic flow and the best conditions. LOS F represents severely congested flow and is considered to be unacceptable. Intersections with long delay times at LOS E or F are less acceptable to most drivers.

Results from the LOS analysis for the 17 study area intersections for both the AM and PM peak hours are reported in Table 2. Four of the seventeen intersections (24%) were identified as locations with critical

**Table 2. Existing Roadway Level of Service Analysis**

Intersection	Overall Intersection LOS	
	Existing Conditions (2003)	
	AM Peak Hour	PM Peak Hour
Housatonic Avenue & East Washington Street	E <sup>1</sup>	F <sup>1</sup>
Housatonic Avenue & Congress Street	B	C
Water Street & Golden Hill Street	E <sup>2</sup>	C
Water Street & Fairfield Avenue/Stratford Avenue	C <sup>3</sup>	E <sup>3</sup>
Water Street & John Street	A	B
Water Street & State Street	B	B
Main Street & East Washington Street	C <sup>4</sup>	D <sup>4</sup>
Main Street & Congress Street	C	B
Main Street & Golden Hill Street	B	B
Main Street & Fairfield Avenue	C	B
Main Street & John Street	B	B
Main Street & State Street	B	B
Main Street & North Frontage Road	B	B
Main Street & South Frontage Road	B	A
State Street & Broad Street	B	B
State Street & Lafayette Boulevard	B	B
Courtland Street & Fairfield Avenue	A	A

Source: Fitzgerald & Halliday, Inc., February 2003

NOTES:

- 1) Housatonic Avenue & East Washington Street- The eastbound right-turn movement and the westbound left turn, thru, and right turn movements operate at LOS E during the AM peak hour. The eastbound left turn and thru movements operate at LOS F during the PM peak hour.
- 2) Water Street & Golden Hill Street- All movements eastbound operate at LOS F during the AM peak hour.
- 3) Water Street & Fairfield Avenue/Stratford Avenue- The westbound left turn movement operates at LOS E during the AM peak hour. The eastbound left turn, thru, and right turn movements and the southbound left turn movement operates at LOS F during the PM peak hour.
- 4) Main Street & East Washington Street- The eastbound left turn movement operates at LOS F during the AM and PM peak hour.

movements currently operating at poor levels of service (LOS E or F). These intersections are listed below:

- Housatonic Avenue at East Washington Street
- Water Street at Golden Hill Street (unsignalized)
- Water Street at Fairfield Avenue/Stratford Avenue
- Main Street at East Washington Street

#### *Transit Service and Operation*

An existing bus terminal in downtown Bridgeport, located at Water Street between John Street and State Street serves as a hub for local and inter-city bus service. The Greater Bridgeport Transit Authority (GBTA) operates seventeen weekday and weekend fixed routes in Bridgeport, Fairfield, Stratford, and Trumbull with total monthly ridership of approximately 350,000 passengers. The service hours range from approximately 5:00 AM to 11:30 PM on weekdays and from approximately 5:30 AM through 9:00 PM on weekends. Of the seventeen routes, twelve directly serve the terminal: Routes 1, 2, 3, 4, 5, 7, 9, 10, 13, 15, 16, and 17. Of these twelve, only routes 3, 4, and 7 do not cross the river. The five routes that do not serve the terminal traverse the downtown network in close proximity to the terminal.

Greyhound and Peter Pan buses provide regional service from the terminal. The main destinations served include Boston, Massachusetts, Hartford, Connecticut, New York, New York, Providence, Rhode Island, and Springfield, Massachusetts.

#### *Rail Service and Operation*

A train station in downtown Bridgeport, located on Water Street, is served by Metro North and Amtrak rail lines. The Metro North New Haven Line provides service from New Haven, Connecticut to the Grand Central terminal in New York City. Connecting service to Waterbury, Connecticut is also provided via the Bridgeport station. Metro North provides 39 weekday inbound (towards New York) commuter rail trips between New Haven, Connecticut and the Grand Central station in New York. Service hours inbound range from approximately 5:00 AM to 11:30 PM. Outbound (towards New Haven, CT) service on the line is comprised of 42 trips with service hours ranging from approximately 6:00 AM departing from Grand Central to the latest evening outbound train arriving in Bridgeport at 3:00 AM. Frequency of service during the AM peak varies but is generally less than 10 minutes between trains. During off peak hours, train frequency varies with evening services spaced approximately one hour apart. Average weekday ridership on the Metro North New Haven line is estimated to be about 50,000 passengers with ridership at the Bridgeport rail station accounting for slightly over 3,000 of those trips.

Amtrak provides rail service at the Bridgeport station through their Vermonter service and through their high-speed regional Acela service. The Vermonter provides one daily inbound and outbound trip at approximately 3:00 PM and 12:00 PM, respectively. The Acela regional service operates only during off peak commuter hours as track rights favor Metro North services during the peak commuter hours. The Bridgeport station serves as Amtrak's transfer point between Amtrak's Shore Line East and their main line. Major destinations on the Amtrak service are Springfield, Massachusetts, Hartford, Connecticut, New York, New York, Philadelphia, Pennsylvania, Washington DC, and Newport News, Virginia. Annual ridership is approximately 52,000 passengers.

#### *Ferry Service and Operation*

The Bridgeport and Port Jefferson Steamboat Company has been crossing the Long Island Sound and providing transportation between Connecticut and New York since 1883. In 1999, the ferry service added an additional vessel and currently has a three-vessel schedule that includes sailings from approximately 6:30 AM to 9:30 PM every day. Each vessel has a maximum capacity of 100 vehicles and 1,000 people.

### *Other Modes*

Other modes of transportation are accessible from the existing terminal and will continue to be prevalent at the proposed BITC. These modes are generally minor compared to those previously discussed and include airport limousine, taxi, kiss and ride, pedestrian, and bicycle. Connecticut Limousine provides airport service to JFK, LaGuardia, Newark, and Bradley Airports. Yellow Cab, Action Cab, and Fairfield Cab provide taxi service. There is also bus service to the casinos in southeastern Connecticut.

### *Parking Availability and Cost*

Existing parking facilities within ¼ mile radius of the study area include parking structures and surface lots on Water Street, Main Street, Fairfield Avenue, and Gold Street. These facilities provide an approximate total of 3,200 parking spaces, however, not all of these parking spaces are available or dedicated for commuter or transit use. It is estimated that 47 percent is actually available/dedicated to commuter/transit use. The parking structures within the study area include, the Transit Garage at Harbor Yard, the Bus at Ferry Terminal Garage, the Park City Plaza Garage, and the Holiday Inn Garage, which range in operation from 5:00 AM to 11:00 PM. The daily parking rate at each of these facilities is \$12.75 but with a Metro North or ferry ticket the rate is dropped to \$7.50. Monthly parking rates are discounted from \$84.80 to \$68.90 with proof of a monthly commuter pass. The Transit Garage at Harbor Yard is less expensive with monthly rates of \$64.00 or \$30.00 with proof of a monthly commuter pass. The City of Bridgeport also provides free parking on weekends and holidays for Metro North or ferry users.

#### 4.5.2 Direct Impact

##### *Traffic Impacts*

Traffic impacts within the study area were determined by evaluating traffic flow and operations as a result of the change in the existing train and bus operations and facilities for the year 2010, the anticipated year the proposed development will be in operation. Background traffic growth, planned and programmed developments, roadway improvements, and trips generated by the proposed development were considered when determining the future traffic volumes. Background traffic growth rates obtained from ConnDOT indicated that background growth is anticipated to increase 1.2 % per year until 2007 and 2% per year from 2007 to 2010.

##### *Planned and Programmed Developments*

The Greater Bridgeport Regional Planning Agency (GBRPA) along with the City of Bridgeport are currently undertaking a circulation study in the downtown Bridgeport area, which includes a signal coordination study to be completed by the build year of the proposed development. Therefore, all analyses conducted in this report for future year 2010 assumed optimized timings during the AM and PM peak hours. The optimized timings were applied in accordance with the intersection's controller type functionality.

The relocation of the Superior Court and Center for Juvenile Matters to Water Street is a planned City of Bridgeport development to be completed by the end of 2003. The proposed Bridgeport juvenile facility consists of approximately 80,000 square feet of building space with provision of 100 parking spaces to be located on-site. The proposed juvenile facility is to be located adjacent to the proposed bus terminal on Water Street. Based on the capacity of the parking lot, it is estimated that the proposed juvenile facility will generate 110 vehicles (100 vehicles inbound, 10 vehicles outbound) and 130 vehicles (30 vehicles inbound, 100 vehicles outbound) during the morning and afternoon peak hour, respectively. Table 3 presents the general traffic distribution applied to the site generated traffic:

**Table 3 Percent Distribution Summary of Trips Generated By The Proposed Bridgeport Juvenile Court Future Build Conditions (2010)**

	Trip Distribution (%)	
	AM Peak	PM Peak
	Hour	Hour
Arrives from and departs to the north	45%	40%
Arrives from and departs to the west	20%	20%
Arrives from and departs to the south	20%	25%
Arrives from and departs to the east via East Washington Street	15%	15%

Source: Proposed Superior Court and Center for Juvenile Matters, Finding of No Significant Impact (September 2001)

These trips were applied to the future traffic volumes, as previously derived, to determine the total background traffic volumes for the year 2010.

**Future No-Build Conditions (2010):** In general, an intersection having a poor level of service under existing conditions will continue to function poorly or will deteriorate further if additional demand from future growth is added and if no improvements are made to the roadway, such as lane additions, restriping pavement, etc. Assuming optimized signal timings, results from the no-build analysis indicate that three of the seventeen (18%) intersections listed below have a critical movement operating at poor levels of service (LOS E or F). These intersections are listed below:

- Water Street at Golden Hill Street (unsignalized)
- Water Street at Fairfield Avenue/Stratford Avenue
- Main Street at East Washington Street

Table 4 summarizes the overall intersection level of service for no build conditions (2010).

**Table 4 Future No Build Roadway Level of Service.**

Intersection	Overall, Intersection LOS			
	Existing Conditions (2003)		No Build (2010)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Housatonic Avenue & East Washington Street	E	F	B	C
Housatonic Avenue & Congress Street	B	C	B	D
Water Street & Golden Hill Street*	F	C	F/(n/a) <sup>1</sup>	F/E <sup>1</sup>
Water Street & Fairfield Avenue/Stratford Avenue	C	E	C	E <sup>2</sup>
Water Street & John Street	A	B	A	B
Water Street & State Street	B	B	B	B
Main Street & East Washington Street	C	D	C	C
Main Street & Congress Street	C	B	C	B
Main Street & Golden Hill Street	B	B	B	B
Main Street & Fairfield Avenue	C	B	C	C
Main Street & John Street	B	B	B	B
Main Street & State Street	B	B	B	B
Main Street & North Frontage Road	B	B	B	B
Main Street & South Frontage Road	B	A	B	A
State Street & Broad Street	B	B	B	B
State Street & Lafayette Boulevard	B	B	C	C
Courtland Street & Fairfield Avenue	A	A	B	B

Source: Fitzgerald & Halliday, Inc., April 2003

NOTES FOR NO BUILD ANALYSIS (2010):

- 1) Water Street & Golden Hill Street (unsignalized)\* - LOS is shown eastbound and westbound (stop-controlled) approaches. All movements eastbound operate at LOS F during the AM peak hour. There is no volume for the westbound approach during the AM peak hour. During the PM peak hour, movements eastbound and westbound operate at LOS F and LOS E, respectively.
- 2) Water Street & Fairfield Avenue/Stratford Avenue – The northbound thru and right movements and the southbound left turn movement operate at LOS F during the PM peak hour.

**Phase 2 Future Build Conditions (2010):** Phase 2 development consists of the construction of a new bus hub/transfer station at the current surface parking lot at the corner of Water Street with Fairfield Avenue/Stratford Avenue and the construction of new train station facility on the site of the existing train station. The proposed bus terminal will replace the existing bus terminal which is located between Main Street and State Street with access points from John Street and State Street. The proposed train station will be constructed on the site of the existing train station. The bus terminal is proposed to have a site entrance north of the intersection of Water Street with Golden Hill Street for the transit buses. Current bus routes are anticipated to change in order to access the proposed bus terminal. Rail ridership is anticipated to increase by the year 2010 and will therefore increase the number of passengers accessing the Bridgeport station. Also, traffic patterns are anticipated to change as rail patrons currently using the surface parking lot will now use the Harbor Yard parking garage. Therefore, the proposed intermodal center is expected to generate more trips than the existing facility.

Typically, estimates of the amount of traffic expected to be generated by a proposed development are made using the Institute of Transportation Engineers (ITE) publication *Trip Generation, 6<sup>th</sup> Edition*. However, the ITE data is not directly applicable for use in determining the trip generation for land uses or building types that are described for the proposed development. Therefore, the net increase in rail passengers that arrive by vehicle was used as the primary basis for determining the number of additional vehicles generated as a result of the proposed development. Vehicles that currently access the existing bus terminal were not rerouted into the transportation network since the percent of passengers per day arriving by vehicle is approximately one percent (1%). Therefore, passengers that arrive by vehicle to the bus terminal were not considered, as the percent of passengers per day arriving by vehicle is approximately one percent (1%) and will not generate significant traffic during the commuter peak hours.

Ridership and growth rate information for Amtrak and Metro North were obtained from the Connecticut Department of Transportation (ConnDOT). Based on ridership information from ConnDOT, Amtrak provides limited service during the commute peak hours. The New York to Boston line provides one train that serves the Bridgeport station during the AM peak hour and two trains that serve the PM peak hour. The net increase in rail ridership during the peak hours is less than 5 passengers per peak hour and will not generate any significant traffic. The Acela regional service (Amtrak's high speed rail service) does not provide any service to the Bridgeport station. Therefore, passengers that arrive for the Amtrak service were not considered.

Based on ridership information from ConnDOT, current Metro North ridership is approximately 1870 passengers during the morning rail peak commute period (5:19 AM – 8:39 AM). This is the total number of passengers embarking and debarking the trains for inbound (towards New York) and reverse (towards New Haven) trips. Approximately eighty-percent (80%) of the passengers get on the train and twenty-percent (20%) get off the train during the peak hour. The data also indicated that approximately thirty-two percent (32%) of the passengers during the rail peak commute period travel during the peak hour. Therefore, the total estimated peak hour ridership is approximately 600 passengers per hour (480 passengers on, 120 passengers off) and from ConnDOT's projected ridership, it is anticipated to increase by 1.7% per year.

A survey of patrons was conducted as part of the *Traffic Impact Study, Transit Garage at Harbor Yard, August 1999*. As part of the survey, passengers were asked their arrival mode. The arrival mode percentages obtained from the survey were applied. The results indicated that approximately twenty-three percent (23%) of the passengers drive alone, sixteen percent (16%) of the passengers are dropped off, two percent (2%) carpool, and four percent (4%) arrive by taxi. The remaining fifty-five percent (55%) arrive by bus, ferry, train, or by walking. It is assumed that the auto-occupancy rate for carpool is 2



passengers/vehicle). Table 5 and Table 6 present the percent arrival mode for rail passengers and the estimated passenger and vehicle trips during the peak hour.

<b>Arrival Mode</b>	<b>Percent Arrival</b>
Drive Alone	23%
Dropped Off	16%
Carpool	2%
Taxi	4%
Local Bus	26%
Ferry	2%
Metro North Train	7%
Amtrak Train	1%
Walked	19%

Source: Fitzgerald & Halliday, Inc., Transfer Survey, 1999

	<b>Passenger and Vehicle Trips</b>		
	<b>Existing (2002)</b>	<b>Future Build (2010)</b>	<b>Net Increase</b>
<b>Passengers</b>			
Passengers/day	3,040	3,480	440
Passengers/peak period	1,870	2,140	270
Passengers/hour	600	690	90
<b>Vehicles (vph)</b>			
Drive Alone	140	160	20
Dropped-Off	100	110	10
Carpool	10	10	0
Taxi	25	30	5

Source: Fitzgerald & Halliday, Inc., April 2003  
 Note: A growth rate of 1.7% per year obtained from ConnDOT is applied to estimate the projections for the year 2010.  
 Estimates are rounded to the nearest 5<sup>th</sup> passenger and vehicle.

Patrons were also asked as part of the survey conducted for the *Traffic Impact Study, Transit Garage at Harbor Yard, August 1999*, which route they arrived by. The distribution percentages obtained from the survey for rail passengers arriving to the rail station, as presented in Table 7 were applied to the site generated traffic.

	<b>Percent of Distribution (%)</b>
<b>Drive and Park at Harbor Yard</b>	
Route 8: Exit 1 to South Frontage Road	19%
Route 8: Exit 2 to Main Street at State Street	4%
Route 8: Exit 3 to Main Street	41%
I-95 SB to Lafayette Boulevard at South Frontage Road	2%
I-95 SB to Lafayette Boulevard to Main Street at State Street	5%
I-95 NB to South Frontage Road	4%
Eastside of Bridgeport to Stratford Avenue	3%
From Park Avenue to Main Street at State Street	4%
From Park Avenue Westside of Bridgeport to South Frontage Road	3%
From upper Main Street	15%
<b>Drop-offs at Train Station</b>	
Eastside of Bridgeport to Stratford Avenue	12%
From Park Avenue to Main Street at State Street	28%
From Main Street to State Street	60%

Source: Fitzgerald & Halliday, Inc., April 2003

Trips generated by the proposed development were added to the 2010 No-Build traffic volumes. Vehicles that were currently using the parking surface lot at the intersection of Water Street & Fairfield Avenue/Stratford Avenue were rerouted to the Harbor Yard Garage.

The anticipated circulation and frequency of transit buses to the proposed terminal obtained from the Greater Bridgeport Transit Authority (GBTA), were also applied to the 2010 No-Build traffic volumes to establish the total 2010 Phase 2 Build peak volumes.

Assuming optimized signal timings, results from the level of service analysis under Phase 2 Build conditions indicate that three of the seventeen (18%) intersections will have individual lane movements that will operate at LOS E or LOS F. These intersections are as follows:

- Water Street at the bus terminal site entrance (unsignalized)
- Water Street at Golden Hill Street (unsignalized)
- Water Street at Fairfield Avenue/Stratford Avenue

Results of the level of service analysis are shown in Table 8.

<b>Table 8 Phase 2 Future Roadway Level of Service</b>				
Intersection	Overall Intersection LOS			
	No Build (2010)		Phase 2 (2010)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Housatonic Avenue & East Washington Street	B	C	C	D
Housatonic Avenue & Congress Street	B	D	A	C
Water Street & Terminal Entrance*	n/a	n/a	C <sup>1</sup>	E <sup>1</sup>
Water Street & Golden Hill Street*	F/(n/a)	F/E	F/F <sup>2</sup>	F/F <sup>2</sup>
Water Street & Fairfield Avenue/Stratford Avenue	C	E	C	F <sup>3</sup>
Water Street & John Street	A	B	A	B
Water Street & State Street	B	B	B	B
Main Street & East Washington Street	C	C	C	C
Main Street & Congress Street	C	B	D	B
Main Street & Golden Hill Street	B	B	B	B
Main Street & Fairfield Avenue	C	C	C	C
Main Street & John Street	B	B	B	B
Main Street & State Street	B	B	B	B
Main Street & North Frontage Road	B	B	B	B
Main Street & South Frontage Road	B	A	A	A
State Street & Broad Street	B	B	B	B
State Street & Lafayette Boulevard	C	C	B	C
Courtland Street & Fairfield Avenue	B	B	B	A

Source: Fitzgerald & Halliday, Inc., April 2003

NOTES FOR PHASE 2 (2010):

1) Water Street & Terminal Entrance (unsignalized) \* - LOS is shown for the westbound (stop-controlled) approach. All movements westbound operate at LOS E during the AM and PM peak hours.

2) Water Street & Golden Hill Street (unsignalized) \* LOS is shown for eastbound and westbound (stop-controlled) approaches. All movements eastbound and westbound operate at LOS F during the AM and PM peak hours.

3) Water Street & Fairfield Avenue/Stratford Avenue – The northbound thru and right movements and the southbound left turn movement operate at LOS F during the PM peak hour.

**Phase 3 Future Build Conditions (2010):** Phase 3 of the project entails the construction of the transportation center with a parking garage on the site of the existing bus station. The center will include 200,000 square feet of office space, 6,000 square feet of retail, and a 3,000 square foot area for Connecticut Limo support space, waiting, and ticketing. The parking garage will have an entrance only site access on State Street and an exit only site access onto John Street. The garage will have an initial capacity of 500 vehicles for use by the proposed office and retail employees and patrons but will be constructed to accommodate future expansion. The future expansion of the garage facility to the capacity of 1,200 vehicles will be a separate project and is not part of the proposed BITC project. Therefore, an evaluation of the additional 700 parking spaces associated with future expansion of the garage facility was not considered in this analysis.

Analysis for the future Phase 3 build conditions assumed that the full build of the project would occur in the year 2010. There is no anticipated growth between Phase 2 and Phase 3.

It is not anticipated that the proposed retail space will generate new trips, as it is assumed that the retail patrons will already be using the transportation center (representing captured trips). Transportation service provided by Connecticut Limousine was not considered, as the net increase in vehicle trips, approximately 2 vehicles per peak hour, will not generate significant traffic during the commute peak hours. Therefore, the Phase 3 trip generation is based on the site's proposed office land use. These trips were estimated using Land Use 710 (General Office Building) referenced in the Institute of Transportation Engineer's (ITE) publication Trip Generation 6<sup>th</sup> Edition.

Under Phase 3, it is expected that the proposed office development, approximately 200,000 square feet, at the transportation center will generate:

- AM Peak Hour – 362 trips (274 entering, 38 exiting)
- PM Peak Hour – 298 trips (50 entering, 248 exiting)

From the *Traffic Impact Study, Transit Garage at Harbor Yard, August 1999*, 75% of the trips will use I95 and Route 8 to access the transportation center and 25% will use Stratford Avenue, Park Avenue, and Main Street. Trip distribution percents presented in Table 6 were then applied to the generated trips. These trips were then added to Phase 2 Build volumes to determine the Phase 3 Build traffic volumes.

Assuming optimized signal timings, results from the level of service analysis under Phase 3 Build conditions indicate that four of the intersections will have individual lane movements that will operate at LOS E or LOS F. These intersections are as follows:

- Housatonic Avenue at East Washington Street
- Water Street at the bus terminal site entrance (unsignalized)
- Water Street at Golden Hill Street (unsignalized)
- Water Street at Fairfield Avenue/Stratford Avenue

Results of the level of service analysis are shown in Table 9.

**Table 9 Phase 3 Future Roadway Level of Service**

Intersection	Overall Intersection LOS			
	No Build (2010)		Phase 3 (2010)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Housatonic Avenue & East Washington Street	C	C	D <sup>1</sup>	F <sup>1</sup>
Housatonic Avenue & Congress Street	B	D	A	D
Water Street & Terminal Entrance*	n/a	n/a	C <sup>2</sup>	E <sup>2</sup>
Water Street & Golden Hill Street	F/(n/a)	F/E	F/F <sup>3</sup>	F/F <sup>3</sup>
Water Street & Fairfield Avenue/Stratford Avenue	C	E	C	E <sup>4</sup>

Intersection	Overall Intersection LOS			
	No Build (2010)		Phase 3 (2010)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Water Street & John Street	A	B	A	C
Water Street & State Street	B	B	B	B
Main Street & East Washington Street	C	C	C	D
Main Street & Congress Street	C	B	C	B
Main Street & Golden Hill Street	B	B	C	B
Main Street & Fairfield Avenue	C	C	C	B
Main Street & John Street	B	B	B	C
Main Street & State Street	B	B	C	B
Main Street & North Frontage Road	B	B	B	B
Main Street & South Frontage Road	B	A	A	A
State Street & Broad Street	B	B	B	B
State Street & Lafayette Boulevard	C	C	C	C
Courtland Street & Fairfield Avenue	B	B	B	A
John Street & Parking Garage Exit	n/a	n/a	A	B

Source: Fitzgerald & Halliday, Inc., April 2003

NOTES FOR PHASE 3 (2010):

- 1) Housatonic Avenue & East Washington Street – During the AM peak hour, the northbound left turn movement operates at LOS F. During the PM peak hour, the northbound left turn movement operates at a LOS F, the eastbound left turn and thru movements operate at a LOS E and all movements westbound operate at LOS E
- 2) Water Street & Terminal Entrance (unsignalized) \* - LOS is shown for the westbound (stop-controlled) approach. All movements westbound operate at LOS E during the AM and PM peak hours.
- 3) Water Street & Golden Hill Street (unsignalized) \* - LOS is shown for eastbound and westbound (stop-controlled) approaches. All movements eastbound and westbound operate at LOS F during the AM and PM peak hours.
- 4) Water Street & Fairfield Avenue/Stratford Avenue – The northbound thru and right movements and the southbound left turn movement operate at LOS F during the PM peak hour.

Transit Service and Operation

The Greater Bridgeport Transit Authority (GBTA) will continue to operate seventeen weekday and weekend fixed routes in Bridgeport, Fairfield, Stratford, and Trumbull. Under Phase 2 and Phase 3 Build (2010) conditions, the transit buses will be boarding from the proposed bus terminal at the corner of Water Street and Fairfield Avenue/Stratford Avenue. According to ridership projections obtained from GBTA, it is anticipated that the monthly transit ridership will increase from 360,000 passengers per month (estimated average for 2003) to approximately 390,000 passengers per month in the year 2010. The site entrance will be located adjacent to Golden Hill Street. Transit buses will be rerouted to access the proposed bus terminal location. Proposed approach and departure routes for GBTA buses are included in the appendix. Greyhound and Peter Pan buses will also provide regional service from the proposed terminal. The proposed facility will allow patrons to easily transfer from one route to another and will ultimately enhance current transit service and operations.

Rail Service and Operation

Metro North and Amtrak will continue to provide rail service under Phase 2 and Phase 3 Build (2010) conditions. The existing morning peak hour ridership is 612/riders per hour. Daily rail ridership is anticipated to increase 1.7% per year, which is estimated to be approximately 3,640 passengers per day in the year 2010. The proposed construction of a new train station will provide a pedestrian connector to the proposed bus terminal, thus providing intermodal connection and enhancing rail service and operations.

## Ferry Service and Operation

Under Phase 2 and 3 Build conditions, capacity on the ferry service is limited by federal regulations during the fall to spring season to 500 passengers per vessel with summer ridership caps increasing to 1,000 passengers per trip.

## Other Modes

Other modes of transportation including airport limousine, taxi, kiss and ride, pedestrian, and bicycle will continue to be accessible under Phase 2 and Phase 3 Build conditions.

## Parking

Based on current Metro North and Amtrak daily rail ridership, it is estimated that the current parking demand is approximately 1,050 vehicles. This is anticipated to increase to 1,200 vehicles based on projected ridership for the build conditions.

Under Phase 2 Build conditions, the proposed development will remove approximately 540 parking spaces at the current surface lot at the intersection of Water Street with Fairfield Avenue/Stratford Avenue and will remove on-street parking (approximately 50 parking spaces) on Water Street. Under Phase 3 Build conditions, the proposed development will provide 500 parking spaces with the potential for future expansion to 1,200 spaces at the transportation center (600 spaces for office parking and 600 spaces for public and commuter parking).

### 4.5.3 Mitigation

## **PHASE 2 MITIGATION**

### *Traffic Flow and Operations*

As background traffic growth and community development continue to intensify, traffic operations will deteriorate if no improvements are made to the affected roadways or intersections. Under Phase 2 build conditions, three intersections were identified as needing mitigation measures. Mitigation measures provided below and in Table 10, such as addition of turning and through lanes, will improve the LOS to acceptable levels in the study area. The mitigation measures outlined in these tables will improve levels of service for traffic operations that will be affected by traffic growth and site generated trips resulting from Phase 2 of the proposed development.

#### Water Street & Bus Terminal Site Entrance

- Signalize the intersection

#### Water Street & Golden Hill Street

- Signalize the intersection

#### Water Street & Fairfield Avenue/Stratford Avenue

- Restripe to change the northbound lane configuration to reflect one shared left turn thru movement, one thru lane, and one right turn lane

Table 10 Phase 2 Summary of Traffic Mitigation Measures						
Intersection	Critical Lane Movement	Suggested Improvement	Critical Movement LOS			
			Phase 2 (2010) without Improvements		Phase 2 (2010) With Suggested Improvements	
Water Street & Terminal Entrance- Westbound	Left	Signalize intersection	C	E	B	B
Water Street & Golden Hill Street- Eastbound	Left-thru-right	Signalize intersection	F	F	B	C
Water Street & Fairfield Avenue/Stratford Avenue- Northbound	Thru-right	Restripe to change the northbound lane configuration to show one shared left-thru lane, one thru lane, and one right turn lane, adjust signal timings during the AM and PM peak hours	B	F	B*	C*
Water Street & Fairfield Avenue/Stratford Avenue- Northbound	Left	Adjust signal timings	C	F	B	D

Note: \* represents approach LOS with suggested land configuration. All movements operate at LOS D or better.  
Source: Fitzgerald & Halliday, 2003.

*Transit Service and Operation*

There are no mitigation measures anticipated under Phase 2 or 3.

*Rail Service and Operation*

There are no mitigation measures anticipated under Phase 2 or Phase 3.

*Ferry Service and Operation*

There are no mitigation measures anticipated under Phase 2 or Phase 3.

*Other Modes*

There are no mitigation measures anticipated under Phase 2 or 3.

*Parking*

Based on the projected daily parking demand of 1,200 vehicles for the build year 2010, there will be insufficient parking if no improvements are made to increase the parking supply. The Harbor Yard Transit Garage currently has 910 spaces with the potential to add 500 additional spaces (250 spaces per deck). The mitigation measures identified below will eliminate the parking supply deficit of 290 parkers under Phase 2 conditions:

- Direct rail passengers that currently use the surface lot and on-street parking on Water Street to use the Harbor Yard Transit Garage
- Expand the Harbor Yard Transit Garage to accommodate the remaining 290 parkers via the construction of the two additional levels of the parking garage at Harbor Yard. This would provide an additional capacity of 500 parking spaces.

**PHASE 3 MITIGATION**

*Traffic Flow and Operations*

Under Phase 3 build conditions, four intersections were identified as needing mitigation measures. Mitigation measures provided below and in Table 11, such as addition of turning and through lanes, will

improve the LOS to acceptable levels in the study area. The mitigation measures outlined in these tables will improve levels of service for traffic operations that will be affected by traffic growth and site generated trips resulting from Phase 3 of the proposed development.

Housatonic Avenue & East Washington Street

- Add a northbound turn lane

Water Street & Bus Terminal Site Entrance

- Signalize the intersection

Water Street & Golden Hill Street

- Signalize the intersection

Water Street & Fairfield Avenue/Stratford Avenue

- Add an eastbound left turn lane
- Add a westbound right turn lane
- Reconfigure the northbound approach to reflect one shared left turn and thru lane, two thru lanes, and two right turn lanes
- Add a southbound left turn lane

Main Street & East Washington Street

- Add a westbound right turn lane to receive traffic from northbound double left at Housatonic Avenue & East Washington Street

*Transit Service and Operation*

There are no mitigation measures anticipated under Phase 3.

*Rail Service and Operation*

There are no mitigation measures anticipated under Phase 3.

*Ferry Service and Operation*

There are no mitigation measures anticipated under Phase 3.

*Other Modes*

There are no mitigation measures anticipated under Phase 3.

*Parking*

There are no mitigation measures anticipated under Phase 3.

**Table 11 Suggested Mitigation Measure for Phase 3.**

Intersection	Critical Lane Movement	Suggested Improvements	Critical Movement LOS			
			Phase 3 (2010)		Phase 3 (2010) With Suggested Improvements	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
<b>Housatonic Avenue &amp; East Washington Street</b>						
Eastbound	Left-thru	Adjust signal timing during the AM and PM peak hours	B	E	B	D
Eastbound	Right	Adjust signal timing during the AM and PM peak hours	C	B	C	B
Westbound	Left-thru-right	Adjust signal timing during the AM and PM peak hours	C	E	C	D
Northbound	Left	Add a left turn lane, adjust signal timing during the AM and PM peak hours	F	F	D	D
<b>Water Street &amp; Terminal Entrance</b>						
Westbound	Left	Signalize the intersection	C	F	A	B
<b>Water Street &amp; Golden Hill Street</b>						
Eastbound	Left-thru-right	Signalize the intersection	F	F	B	C
<b>* Water Street &amp; Fairfield Avenue/Stratford Avenue</b>						
Eastbound		Add a left turn lane	D	D	D	D
Westbound		Add a right turn lane	C	D	D	D
Northbound		Reconfigure and add two lanes to show to one left-thru shared, two thru, and two right turn lanes	D	F	C	C
Southbound		Add a left turn lane	C	D	D	D
<b>Main Street &amp; East Washington Street</b>						
Westbound	Right	Add a right turn lane to receive traffic from northbound double left at Housatonic Avenue & East Washington Street	Free-flow	Free-flow	Free-flow	Free-flow

Source: Fitzgerald & Halliday, Inc., April 2003

NOTE: \*Water Street with Fairfield Avenue/Stratford Avenue LOS results represents approach LOS. All movements under Phase III suggested improvements operate at LOS D or better.

## 4.6 Air Quality

### 4.6.1 Existing Setting

The U.S. Environmental Protection Agency (EPA) has established National Ambient Air Quality Standards (NAAQS) for seven criteria pollutants to ensure the protection of human health and public welfare. NAAQS were established for: carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), lead (Pb), ozone (O<sub>3</sub>), and particulate matter (PM), which now includes PM<sub>10</sub> (PM with a diameter of 10 microns or less) and PM<sub>2.5</sub> (PM with a diameter of 2.5 microns or less). The Clean Air Act of 1970 and subsequent amendments required states to monitor air quality to determine if regions in the state meet the NAAQS. If a region shows violations of any of the NAAQS, that part of the state is classified as nonattainment for that pollutant, and the state must develop an air quality plan, called a State Implementation Plan, that will bring that area into compliance.

For transportation projects, the criteria pollutants of primary concern are CO and O<sub>3</sub>. The NAAQS for CO are a 1-hour average concentration of 35 parts per million (ppm) and an 8-hour average concentration of 9 ppm. The NAAQS for O<sub>3</sub> are a one-hour average of 0.12 ppm and an 8-hour average of 0.08 ppm. Emissions of PM<sub>10</sub> and PM<sub>2.5</sub> are also potential concerns, particularly from diesel engines.



### *Air Quality Attainment Designations*

Project-related air quality impacts are assessed in light of existing ambient air quality and attainment status in the project area. The current air quality attainment designations for the Bridgeport region and Fairfield County are noted below.

CO – The Bridgeport region (and entire state of Connecticut) is designated as attainment for CO. The Bridgeport region was officially redesignated to attainment in 1999 (Federal Register Vol. 64, No. 46, March 10, 1999, p. 12005 – 12015). Prior to that time, the region was a CO nonattainment area. CO emissions controls implemented in the region have reduced measured ambient CO concentrations to levels below the CO NAAQS.

O<sub>3</sub> – The entire state of Connecticut is designated as non-attainment for the 1-hour O<sub>3</sub> standard. The Bridgeport area is part of the New York-New Jersey-Connecticut severe nonattainment area. As such, it has a target attainment date of 2007. In July of 1997, EPA promulgated a new 8-hour O<sub>3</sub> NAAQS. Attainment designations for this NAAQS have been delayed by legal challenges.

PM – Bridgeport and all of Fairfield County are currently in attainment of PM<sub>10</sub>. In July of 1997, EPA promulgated a new NAAQS for PM<sub>2.5</sub>. EPA is currently establishing a nationwide monitoring network for PM<sub>2.5</sub> but will not make attainment designations until at least 2004 (U.S. EPA Green Book, Updated February 2003).

NO<sub>2</sub> – The entire state of Connecticut is in attainment for NO<sub>2</sub>.

Pb – The entire state of Connecticut is in attainment for Pb.

SO<sub>2</sub> – The entire state of Connecticut is in attainment for SO<sub>2</sub>.

#### 4.6.2 Direct Impact

Traffic in the project vicinity and associated emissions are the primary potential sources of local air pollution. The proposed action, at completion of Phase 3, is anticipated to result in an increase of local traffic by 1,420 vehicles per day, due primarily to the proposed private office space development in Phase 3. This increase in projected daily traffic volumes over existing conditions is not anticipated to be substantial enough, given the context of this project in a congested urban setting, to adversely affect the attainment of NAAQS for ozone and PM. The project purpose is not to enable a larger bus fleet or increased frequency of bus or train service but to reconfigure the bus, train, limo and taxi terminals for more efficient, pedestrian-safe, and pedestrian-friendly operations. As such, no increases in fleet size or operations are expected in association with the project, despite small annual increases in projected ridership.

CO is a concern when vehicles are idling and queuing. It is anticipated that CO concentrations generated from idling of buses associated with daily operations at the proposed bus station will not have an impact on attainment of NAAQS for CO, since this facility will be a relocation of existing operations and will not include a substantial increase in number of buses in the fleet. The reconfigured bus station is likely to reduce the queuing and delays associated with the current constrained layout of the existing Transportation Center, thereby reducing emissions to a corresponding degree. CO concentrations can also become a concern and impact air quality at intersections having a LOS of D or less. Intersections that could experience a drop in LOS as a result of the project's increase in traffic are proposed for mitigation.

The proposed action will involve stationary sources of potential air pollution. These sources include boilers, air conditioning units, and emergency generators. The impact of these sources is expected to be minimal since they will comply with all applicable regulatory requirements.

#### 4.6.3 Indirect Impacts

The potential adverse impact of the proposed action, in the context of all statewide and regional sources of air pollution, is not significant. Consequently, the proposed action is not anticipated to have any indirect adverse effect on air quality. However, the City of Bridgeport estimates that annual Carbon dioxide (CO<sub>2</sub>), emissions could be potentially reduced by approximately 550,732,000 tons as a result of the proposed action.

#### 4.6.4 Cumulative Impacts

Cumulative impacts to air quality can result from collective impacts of traffic volume increases, idling buses, long range pollutant transport, and stationary sources, in addition to anticipated ongoing increases in vehicle emissions regionally. The contribution of increased traffic associated with this action is insignificant as a part of the whole collection of sources contributing to the NAAQS in this region of Connecticut.

#### 4.6.5 Mitigation

Any potential CO air quality impacts associated with idling buses at the proposed bus station will be mitigated through compliance with Section 22a-174-18(a)(5) of the RCSA, which requires that idling of mobile sources be limited to three minutes. In addition GBTA will assess the feasibility of utilizing low emission vehicles. Potential localized adverse air quality impacts from decreased LOS at affected intersections will be mitigated through intersection improvements as noted in the *Traffic and Parking* section.

Heating, ventilating, and air conditioning systems will be designed in accordance with Connecticut building codes and standards that are applied to new buildings; and the use of low emission systems will be assessed. CO<sub>2</sub> sensors will be provided in high-occupancy areas as part of a ventilation system that regulates air circulation indoors. Upon further design, the proposed action's stationary sources will be assessed to determine if a Permit to Construct, Title V Operating Permit or a General Permit to Limit Potential to Emit for Stationary Sources is required. Best available technologies to be employed and mitigation, if required, will be specified during the permitting phase.

### **4.7 Noise and Vibration**

#### 4.7.1 Existing Setting

Land uses in the immediate vicinity of the project site are primarily commercial and transportation. Specifically, adjacent land uses include the rail line, a parking garage, and commercial buildings typical of downtown central business zones. These uses are not sensitive receptors for noise and there are no sensitive receptors (residences, churches, schools, and hospitals) located along the access routes to the site or generally close to the project site.

#### 4.7.2 Direct Impact

Since the project site contains an existing rail line, commuter parking lot, and commercial land uses, which all generate existing noise, and since there are no sensitive receptors (land uses) within close proximity to the project site, the proposed action is not anticipated to cause substantive changes in noise and vibration compared to existing conditions or to adversely affect adjacent land uses. However, emergency generators are being proposed during each of the project phases and have the potential to cause an increase in noise levels in localized areas, during routine testing or maintenance and during emergency events where on-site power production is required.

#### 4.7.3 Indirect Impacts

There are no indirect impacts anticipated.

#### 4.7.4 Cumulative Impacts

There are no cumulative impacts anticipated.

#### 4.7.5 Mitigation

Intake and exhaust sound attenuators or acoustic enclosures for the emergency generators will be provided as required to maintain acceptable noise levels. Noise from mechanical and electrical systems associated with the facilities will be located and designed to dampen noise effects. As no other potential noise impacts are anticipated, no other mitigation measures are proposed.

### **4.8 Water Quality**

#### 4.8.1 Existing Setting

The project site is located within the large watershed known as the Lower Pequonnock River, part of the Connecticut West Coast Watershed (Connecticut Department of Environmental Protection [CTDEP] Drainage Basins Map, 1995). Nearly the entire project site is covered by impervious surfaces (i.e., pavement, buildings, sidewalks, etc.). The existing stormwater management for the project site primarily utilizes a piped collection system with no water quality benefits, with some overland flow, that ultimately discharges directly into the Pequonnock River.

According to the CTDEP's Water Quality Standards and Criteria, the Pequonnock River's surface water quality is classified as SC/SB, meaning coastal water (S) with a quality classification of C and a goal of B. The SC classification indicates designated uses for fish, shellfish, and wildlife habitat, certain aquaculture operations, recreational uses, industrial and other legitimate uses, including navigation, but that the water is presently not meeting Water Quality Criteria due to pollution. The water quality goal is achievement of Class SB criteria and attainment of Class SB designated uses, which, in addition to the designated SC uses, includes shellfish harvesting for transfer to a depuration plant or relay (transplant) to approved areas for purification prior to human consumption.

Groundwater in the project site and vicinity is designated by CTDEP as GB. Ground waters of Class B are assumed to be degraded due to a variety of pollution sources and are assumed unsuitable for human consumption without treatment. Such waters are usually within a historically highly urbanized and/or industrial area and where public water supply service is available. GB designated uses include industrial process water and cooling waters, and baseflow for hydraulically connected surface water bodies. There are no public wells near the project. Given these conditions, there are no existing sensitive ground water sources that could be affected by the project.

According to the *Phase I Environmental Site Assessments (ESA)* (GEI Consultants, Inc., 2003), historic and existing activities may have caused a release of hazardous substances or petroleum products such as, petroleum hydrocarbons, metals, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and volatile organic compounds (VOCs) which may have affected groundwater quality. More in-depth site assessment is anticipated as site design progresses to determine the presence of contaminated soils or groundwater and the need for remediation.

#### 4.8.2 Direct Impact

No adverse impacts to water quality are anticipated. The proposed action will result in increased landscaping and green space compared to existing conditions. The resulting decrease in total impervious surface area is anticipated to have a beneficial effect by reducing runoff volumes from the site.

Additionally, the proposed action is anticipated to have additional beneficial impacts on surface and groundwater quality because the project construction will incorporate significant improvements to the stormwater management system. To accommodate stormwater runoff to current state and local standards and improve water quality impacts to the Pequonnock River, the stormwater management system will include the following:

- Oil and grease separators (designed to achieve an 80 percent removal for total suspended solids) to treat water runoff before discharging into the river for all phases of project construction and operation
- Upgrade existing catch basins (to include Type “C” and “C-L”), pipes, and manholes
- The storm drainage system for the interior levels of the proposed parking garage will be directed to the sanitary sewer after treatment
- No new stormwater outlets are anticipated

This system’s collection and pre-treatment of stormwater runoff from this urbanized site will be a direct benefit to the Pequonnock River, which receives the site’s runoff, and ultimately, in small measure, to Long Island Sound.

#### 4.8.3 Indirect Impacts

In the event that remedial action for hazardous/contaminated soils or groundwater is required during construction of the BITC, the project would have a potentially positive indirect impact on groundwater quality through the removal or containment of contaminants.

#### 4.8.4 Cumulative Impacts

There are no cumulative adverse impacts anticipated. The project contributes in a cumulative fashion to water quality improvement on account of the proposed upgraded stormwater management system from existing conditions.

#### 4.8.5 Mitigation

Since no adverse direct or indirect impacts to water quality are anticipated, no compensatory mitigation is proposed, other than the proposed stormwater system will be upgraded and incorporate water quality control devices. A more in-depth site assessment is anticipated as site design progresses to determine the presence of contaminated groundwater and the need for remediation. If significant groundwater contamination is identified, remediation will occur. The proposed parking garage fire suppression system will be provided with a dry sprinkler system and dry standpipe system that will help to minimize runoff water quality impacts during those temporary periods when the system may need to be in operation.

Mitigation for temporary construction impacts from erosion and sedimentation associated with site excavation and/or clearing will be mitigated through application for General Permit for the Discharge of Stormwater Associated with Construction, if project construction activities will expose 5 acres or more.

## **4.9 Wetlands**

### 4.9.1 Existing Setting

Wetlands are generally defined as land areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The presence of wetlands in the project area can be approximately determined under federal guidelines through the presence of hydric soils, one of the major factors defining wetlands under the federal wetland definition. The Connecticut definition, based on soil types designated as poorly drained, very poorly drained, alluvial, and floodplain, can be approximated through the presence of fluvial and alluvial soils in addition to hydric soils.

The Fairfield County Soil Survey (USDA 1981) indicates that there are no hydric, fluvial or alluvial soils within or adjacent to the project boundary. The entire project site is mapped as Urban Land (covered by urban surfaces or buildings). The Pequonnock River is identified as open water. The river's banks have been altered with rip-rap / boulders, concrete piers, or structures. Based on review of the City of Bridgeport *Designated Inland Wetland and Watercourses Map* (December 1993), there are no mapped inland wetlands within the project site. There are no tidal wetlands mapped by CTDEP within the project site.

#### 4.9.2 Direct Impact

There are no direct impacts anticipated.

#### 4.9.3 Indirect Impacts

There are no indirect impacts anticipated.

#### 4.9.4 Cumulative Impacts

There are no cumulative impacts anticipated.

#### 4.9.5 Mitigation

Since no adverse impacts to wetlands are anticipated, no mitigation measures are proposed.

### **4.10 Navigable Waterways, Coastal Zone, and Floodplains**

#### 4.10.1 Existing Setting

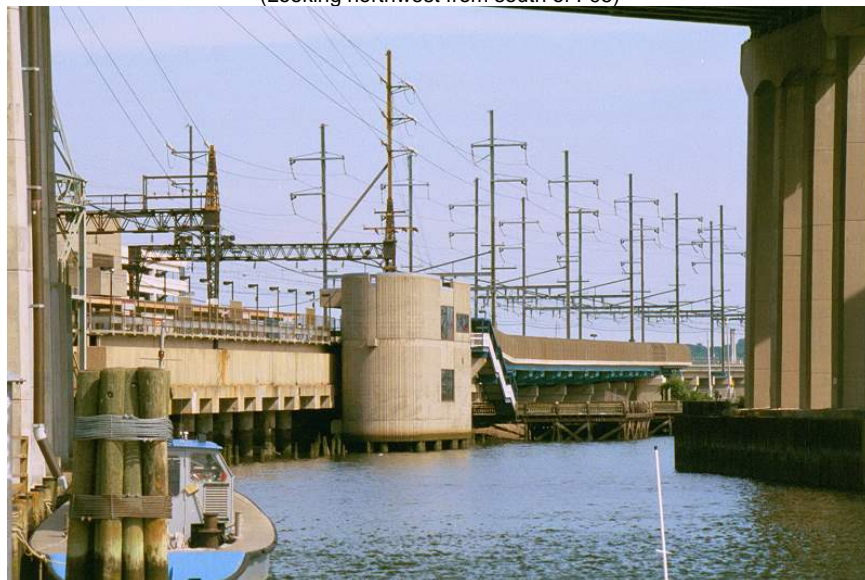
The Pequonnock River borders a portion of the project site to the east and provides access to Bridgeport Harbor and Long Island Sound. The river is navigable and provides access to downtown Bridgeport via the Long Island ferry service from the dock south of I-95. The U.S. Army Corps of Engineers maintains a federal navigation channel in the river.

The proposed action is located entirely within the Connecticut Coastal Boundary and is subject to the Connecticut Coastal Management Act. The following coastal resources occur within or are adjacent to the proposed action: Coastal Flood Hazard Area (CFHA) (100-year floodplain); Coastal Waters and Estuarine Embayments; Developed Shorefront; and Shorelands. This portion of the river is considered an estuarine embayment. The highly engineered developed shorefront is the result of pile structures, within the high tide line (HTL), supporting the existing outbound train station and platform, and boardwalk (see Figure 7).

Shorelands cover the entire project site, excluding land within the CFHA. According to the CTDEP Office of Long Island Sound Programs (OLISP), the HTL elevation for the project site is approximately 6 feet (ft.) per the National Geodetic Vertical Datum of 1929 (NGVD29) and the mean high water (MHW) elevation is 4.1 ft. NGVD29. There are no tidal wetlands or flats within the project site. There is limited and fragmented public access to the waterfront along the project site reach of the Pequonnock River. There are no water-dependent uses within the project site, other than recreational use, such as fishing and walking along the existing and limited boardwalk. As discussed in Section 4.8 Water Quality, the existing stormwater management and system has little to no benefit to the Pequonnock River.

According to the *Flood Insurance Study (FIS)*, *City of Bridgeport* (Federal Emergency Management Agency (FEMA), revised September 6, 1989) and the *Floodway, Flood Boundary and Floodway Map, City of Bridgeport, Connecticut, Fairfield County* (National Flood Insurance Program, community-panel number 090002 0004, March 1, 1984), portions of the project site are located within the 100-year and 500-year

**Figure 7. View of the Existing Outbound Train Station and Platform**  
(Looking northwest from south of I-95)



floodplains and the regulated floodway of the Pequonnock River (Figure 8). According to the FIS, the 100-year floodplain elevation is 10.7 ft. NGVD29, the 500-year elevation is 13.2 ft. NGVD29, and the floodway elevation is 3.6 ft. NGVD29. *(Note: project site plan elevations are based on the City of Bridgeport's datum and require a conversion factor of +13.51 ft. to the above federal and state elevations. Therefore, the 100-year elevation is 24.21 ft., 500-year is 26.71 ft., and the floodway is 17.11 ft.)* While this section of the Pequonnock River adjacent to the project site is tidally influenced and is not subject to riverine flooding, the regulated floodway boundary abruptly terminates underneath the I-95 Bridge.

The existing outbound train station is below the 100-year flood elevation. The lowest-finished floor elevation of the existing outbound train station is 19.65 ft. and the lobby floor elevation is 22.38 ft. The elevation of the existing boardwalk to the north is approximately 22.30 ft. and the boardwalk to the south is approximately 20.8 ft.

#### 4.10.2 Direct Impact

##### **Navigable Waterways**

The proposed boardwalk and water taxi dock have been designed to avoid encroachment on the federal navigation channel. Since the proposed private water taxi functions are anticipated to be limited, they are not anticipated to have a significant impact on congestion in the navigable waterway. Therefore, no direct impacts are anticipated to the navigable waterway as a result of the proposed action.

##### **Coastal Zone**

###### *Coastal Flood Hazard Areas*

Support piles for the proposed outbound train station, boardwalk, and water taxi platform will be located within the CFHA (100-year floodplain). To ensure that hazards to life and property are minimized, the proposed finished floor elevation for the outbound train station will be located at or above the CFHA elevation. The proposed boardwalk will ramp down from the proposed train station elevation to meet the existing boardwalk elevations. Furthermore, any proposed amenities located on the boardwalk will be sufficiently anchored to ensure that floatable or buoyant fixtures will not be carried away during flood events. Since this area of the Pequonnock River is tidally influenced and not subject to riverine flooding,

any minor changes to the CFHA as a result of these structures will be dispersed out over the Long Island Sound watershed, thereby, producing no significant adverse impact to the CFHA up or downstream.

The Phase 2A bus terminal structure will also be located at or above the CFHA elevation. The rest of Phase 2A within the CFHA will maintain approximately the existing grade levels. Phase 3 is not located within the CFHA. Consequently, Phase 2A and Phase 3 of the proposed action will have negligible to no impacts on the CFHA.

#### *Coastal Waters and Estuarine Embayments*

The proposed action will provide beneficial impacts to coastal waters and the estuarine embayment (Pequonnock River) through the construction of an upgraded stormwater management system. The stormwater management system will include: oil and grease separators to treat stormwater runoff before discharging into the river; upgrade of existing catch basins, pipes, and manholes; and the storm drainage system for the interior levels of the proposed parking garage will be directed to the sanitary sewer after treatment. No new stormwater outlets are anticipated. In addition, the proposed action will reduce impervious surfaces within the project site by incorporating landscaped areas, in particular along Water Street and within Phase 2A.

The proposed boardwalk and outbound train station are to extend outward from the existing outbound platform approximately 35 ft. over the river with the support of piles. Since this area of the project site is highly developed, the proposed piles within the river are not anticipated to have a significant impact on water quality or disrupt biological productivity. Therefore, the proposed action is designed to complement the overall management of coastal waters locally and the estuarine embayment to maintain healthy marine populations and patterns of circulation, drainage, and basin configuration.

#### *Developed Shorefront*

Since the project site is a development shorefront, the coastal management policy for such areas is to promote marine-related uses. The proposed action promotes marine-related uses by proposing a water taxi and continuous boardwalk to expand and encourage recreational use of the site. Consequently, the proposed action is anticipated to have a beneficial impact in terms of promoting coastal area management objectives for developed shorefront lands.

#### *Shorelands*

The policy for shorelands is to ensure uses and development within such areas will minimize adverse impacts to adjacent coastal systems and resources. A shoreland policy goal is to appropriately locate development within shorelands. Approximately, 68 percent of the proposed action will occur within shorelands. By concentrating the majority of the project development within this area, introducing landscaped areas to the site, and improving the stormwater management system, the proposed action will minimize any potential adverse impacts upon adjacent coastal systems and resources. Consequently, the proposed project is anticipated to have a beneficial impact in terms of promoting coastal area management objectives for shorelands.

#### *High Tide Line (HTL)*

The proposed boardwalk and outbound train station are to be support by piles and the water taxi platform is to be anchored by piers. This will involve the placement of new structures waterward of the HTL. Upon further design and coordination with OLISP, the proposed structures will be designed, constructed, and maintained to minimize adverse impacts on coastal resources, circulation and sedimentation patterns, and water quality. No fill is being proposed waterward of the HTL.

### *Water-Dependent Uses*

Key components of the proposed action are the water taxi and the boardwalk, which are water-dependent uses. In addition to providing access to coastal waters, the water taxi use will offer an additional means of transportation to other existing or potential Bridgeport waterfront uses without inundating the project vicinity with automobiles. The proposed boardwalk (approximately 550 ft.) will connect two existing boardwalks along the western side of the river, thereby, allowing greater public access to and enjoyment of the Pequonnock River. Furthermore, this boardwalk is a crucial piece of the Pequonnock River Recapture Master Plan by providing a continuous linkage along the western shore of the river. Consequently, the proposed project is anticipated to have a beneficial impact in terms of promoting coastal area management objectives for water dependent uses.

### *Cultural Resources*

The Coastal Management Act requires reasonable mitigation measures if development would adversely impact historical, archaeological or paleontological resources. The proposed action would adversely impact cultural resources within the Coastal Boundary and mitigation measures are proposed. For further information refer to Section 4.16 Historic and Archaeological Resources, Parklands, and Section 4(f) Resources.

### **Floodplains**

The portions of the proposed action within the 100-year floodplain will involve continued transportation uses within the project site. The proposed action is considered an "activity" per CGS Section 25-68b (1) of Connecticut's Flood Management Statutes and is subject to the 100-year floodplain and regulated floodway requirements. As previously stated, support piles for the proposed outbound train station, boardwalk, and water taxi platform will be located within the 100-year floodplain. To ensure that the proposed action will not pose a hazard to human life, health or property in the event of a 100-year event, the proposed finished floor elevation for the outbound train station will be located at or above the 100-year floodplain elevation. The proposed boardwalk will ramp down from the proposed train station elevation to meet the existing boardwalk elevations. Furthermore, any proposed amenities located on the boardwalk will be sufficiently anchored to ensure that floatable or buoyant fixtures will not be carried away during flood events. No actual buildings or fill will be placed within the regulated floodway.

Since this area of the Pequonnock River is tidally influenced and not subject to riverine flooding, it is anticipated that any minor changes to the floodplain, as a result these structures will not impact flood storage capacity or raise the 100-year flood elevation. Such changes would be dispersed out over the Long Island Sound watershed. Therefore, no significant adverse impacts to the 100-year floodplain or the floodway are anticipated.

The proposed bus terminal structure will be located at or above the 100-year elevation. The rest of Phase 2A will maintain approximately the existing grade levels. Phase 3 is not located within the floodplains. Consequently, Phase 2A and Phase 3 of the proposed action will have negligible to no impacts on the CFHA.

#### 4.10.3 Indirect Impacts

Depending upon further site assessments, there may be the potential for mobilization of pollutants resulting from contaminated soil. There are no other indirect impacts anticipated to the navigable waterway, coastal zone resources, or floodplains as a result of the proposed action.

#### 4.10.4 Cumulative Impacts

Since, the project site and the adjacent lands are already developed and have existing utilities, the proposed action will not encourage floodplain development. Therefore, there are no cumulative impacts anticipated.



**Figure 10. Floodplains**

#### 4.10.5 Mitigation

The proposed improved stormwater management system is anticipated to mitigate potential impacts of stormwater runoff on coastal resources. Mitigation measures are proposed for cultural resource impacts (see Section 4.16).

If remediation of contaminated soils is warranted, the extent of contamination will be clearly defined and a remediation action plan (RAP) will be developed to clean up the site in accordance with applicable criteria in the Connecticut Remediation Standards Regulations to ensure pollutant mobility will not indirectly impact coastal resources.

Regarding flood management, any proposed attendant utility or sanitary facilities to be located within the 100-year floodplain will be designed to be watertight. While, the proposed action is anticipated to meet the provisions of the State's flood management Statutes and regulations, any detailed information or mitigation measures will be addressed during the certification process. Prior to construction activities within or affecting the floodplain, flood management certification approval will be required. Any work within the floodway will require certification by a registered engineer or architect to the City of Bridgeport Engineering Department ensuring that the work will not result in any increase to the 100-year flood elevation. Any detailed information or mitigation will be addressed during the floodway certification process. Prior to construction activities within or affecting the floodway, floodway certification approval will be required.

Prior to any construction activity affecting or within the jurisdiction of the U.S. Army Corps of Engineers and/or the U.S. Coast Guard, coordination, review, and any applicable approvals/permits will occur.

### **4.11 Soils and Geology**

#### 4.11.1 Existing Setting

Soils beneath the project site are designated Urban Land, which are non-wetland, non-prime farmland soils per the Fairfield County Soil Survey (USDA 1981). Urban Land is soil where 85 percent or more of the surface is covered by urban structures. Buildings, roads, sidewalks, parking structures and lots, commercial centers, public buildings, and rail infrastructure cover the soils in the project site. The slope of the land is less than 5 percent, which is consistent with coastal geologic environments.

According to the *Draft Geotechnical Report* (Parsons Brinckerhoff Inc., March 2003), the subsurface conditions can be generalized into four soil strata. The soil types identified are:

- Fill, which consists of medium dense to very dense, generally medium dense, sand to silty sand to gravelly sand. Brick, glass, asphalt, roots, cinders, reinforced concrete and shell fragments were noted in various bore samples. These soils are characteristically unsuitable for foundation support.
- Organic Silt/Peat, which consists of very soft to medium stiff gray organic silt. These soils are characteristically unsuitable for foundation support.
- Sandy or Silty Sand, which consists of medium dense to dense, generally medium dense, sand, silty sand, or sand with gravel.
- Till/Gravelly Sand, which consists of dense to very dense, generally very dense, sand or silty sand with gravel.

According to the report, the depth to bedrock varies from 24 to 70.5 feet. The majority of boring samples indicate bedrock to be schist (Cooks Pond Schist), while one sample indicates gneiss (Southington Mountain Formation). Groundwater was typically encountered 6 to 9 feet below grade.

According to the Phase I ESA conducted for the project site, historic and existing activities may have caused a release of hazardous substances or petroleum products such as petroleum hydrocarbons, metals, PAHs, PCBs, and VOCs, which may have resulted in contaminated soil and groundwater.

#### 4.11.2 Direct Impact

Because the project will be constructed in an urban setting with previously disturbed soils and geology, no adverse impacts on natural soils or geologic formations are anticipated. Based on the subsurface conditions, preliminary recommendations for the foundations of the proposed structures are to utilize a pile system versus removing and replacing the substrate material. Therefore, soil disturbance will be minimized for construction of the proposed action.

#### 4.11.3 Indirect Impacts

There are no indirect impacts anticipated.

#### 4.11.4 Cumulative Impacts

There are no cumulative impacts anticipated.

#### 4.11.5 Mitigation

As no adverse impacts associated with soil and geologic conditions are anticipated, no mitigation measures are proposed. If remediation of contaminated soils is warranted, the extent of contamination will be clearly defined and a RAP will be developed to clean up the site in accordance with applicable criteria in the Connecticut Remediation Standards Regulations (RSRs).

### **4.12 Environmental Risk and Hazardous Materials**

#### 4.12.1 Existing Setting

The assessment of environmental risk included the identification of existing or historic land uses in the study area. According to the Phase I ESA, historic and existing activities may have caused a release of hazardous substances or petroleum products such as petroleum hydrocarbons, metals, PAHs, PCBs, and VOCs, which may have affected soil and groundwater.

An asbestos and lead survey was conducted for the existing train station. The survey also included an inspection for PCBs or di-ethylhexyl phthalate containing fluorescent lighting ballasts, mercury vapor lighting tubes, and thermostatic control inspections. Some samples showed the presence of asbestos and small amounts of lead. Asbestos and lead surveys have not been conducted for the existing structures of Phase 3 due to an inability to access the site.

The vicinity of Phase 2A was used as a construction staging area by ConnDOT from the late 1980s to the late 1990s during the reconstruction of the Peck Bridge. According to the Phase I ESA, elevated levels of lead were detected in surficial soil samples, but were addressed.

An environmental records search was conducted for the construction bounds of each phase of construction. None of the areas were identified in available federal or state environmental database records. However, the Phase 3 area contains a registered 5,000-gallon heating oil underground storage tank (UST). The UST was closed-in-place and is no longer in use.

There is no data indicating that the sale of the subject properties would require compliance under the Connecticut Property Transfer Statute (CGS Section 22a-134).

#### 4.12.2 Direct Impact

A Phase II ESA for all three phases of the proposed action will be conducted prior to final design to further identify, and confirm, the presence or absence of potential areas of contamination and any direct impact due to hazardous materials. Depending on the results of the Phase II ESAs, Phase III ESAs may be warranted.

#### 4.12.3 Indirect Impacts

Development Phases 2A, 2B and 3 all include provisions for the storage of petroleum products at the component facilities. Potential adverse impacts associated with storage of petroleum include possible spills that could adversely affect water quality. Storage tanks are proposed to store fuel for boilers and emergency generators as part of the BITC site design. Phase 2A will have an indoor 660-gallon fuel oil aboveground storage tank (AST). Phase 2B will have one 10,000-gallon double wall fiberglass or STIP-3 UST for No. 2 fuel oil to serve the boilers and domestic water heaters and one 6,000-gallon double wall fiberglass or STIP-3 UST for the emergency generators. Phase 3 will have one steel 6,000-gallon, double wall, AST to serve both the Retail and Office Tower emergency generators. This AST will be enclosed in a vault located on Level B2 of the parking garage. As an alternate fuel source for its boilers, Phase 3 will provide four steel 6,000-gallon, No. 2 fuel oil, double wall, and vaulted ASTs are proposed. This vault will also be located on Level B2 of the garage.

Surveys of the existing train station indicate the presence of asbestos containing material (ACM) and lead-based paint (LBP). Site activities, primarily demolition, have the potential to indirectly impact local air quality due to the release and migration of ACM and LBP during construction.

Generation of spent mercury-containing fluorescent bulbs and thermostats during construction/demolition will result in the production of a universal waste. Impacts from generation of this waste type indicate specific requirements for handling, management, and disposal and recycling of this waste stream provided under Section 22a-449I-113 of the RCSA.

#### 4.12.4 Cumulative Impacts

There are no cumulative impacts anticipated.

#### 4.12.5 Mitigation

Preliminary recommendations for the foundations of the proposed structures are to utilize a pile system versus removing and replacing the substrate material. Therefore, soil disturbance will be minimized for construction of the proposed action. If remediation of contaminated soils is warranted, the extent of contamination will be clearly defined and a RAP will be developed to clean up the site in accordance with applicable criteria in the Connecticut Remediation Standards Regulations.

The existing 5,000-gallon UST and its potential soil contamination will be disposed of in accordance with state and federal regulations. All proposed USTs and ASTs will be provided with secondary containment, digital leak detection, overflow protection, and tank gauging systems as a mitigation measure to minimize impacts from any potential spill or leak. Fuel supply and return piping will be double walled non-metallic pipe construction with leak detection. Interior fuel oil piping will be double walled piping with steel primary pipe and non-metallic secondary piping.

Spill impacts may be mitigated through preparation of a Spill Prevention Control and Countermeasure (SPCC) Plan in accordance with federal regulations established under 40 CFR 112. Preparation of such a plan is required if storage of petroleum at a facility is present above certain threshold quantities in above and underground storage containers. The quantities anticipated from the project will be examined during further design stages to determine if a SPCC will be required.

Mitigation measures for asbestos and lead-based paint may include the removal of these materials prior to demolition activities and the implementation of appropriate engineering control practices to prevent air-borne transport of materials during the any demolition or renovation activities.

## **4.13 Flora, Fauna and Endangered Species**

### **4.13.1 Existing Setting**

The CTDEP natural diversity database has indicated the presence of a protected species in the project vicinity (CTDEP correspondence dated February 10, 2003, see Appendix B). The peregrine falcon (*Falco peregrinus*), a state and federally listed endangered species, is known to inhabit high nesting areas in urban settings and CTDEP indicated a known nesting site near the project site, estimated at a distance of approximately 0.1 miles.

The project site is covered in asphalt and concrete and the incidence of flora is rare except for the occurrence of occasional urban street trees. Animals that may occur in the project area would be those typical of urban settings, such as squirrels, pigeons, rats, and mice.

The Fisheries Division of CTDEP has reported that Bridgeport Harbor is used as a spawning and nursery area by resident marine fish species and is used as a nursery and feeding area for species that spawn farther offshore (CTDEP correspondence dated February 21, 2002, see Appendix B.) The Pequonnock River hosts spawning runs of alewife and blueback herring. CTDEP notes that conditions for the spawning runs of these species are expected to improve with various planned improvements in the waterway upriver of the project site.

### **4.13.2 Direct Impact**

The proposed action is not anticipated to have any impact on nearby nesting peregrine falcons, which are already tolerant of urban activity in the project area. Due to the limited encroachment of the proposed support piles for outbound train station, boardwalk, and water taxi within the river, these structures are not anticipated to have any adverse impacts on fishery resources. Potential temporary impacts to fisheries resources from disturbance of substrate, noise and vibration during the outbound train station, boardwalk, and water taxi installation could occur locally.

### **4.13.3 Indirect Impacts**

There are no indirect impacts anticipated.

### **4.13.4 Cumulative Impacts**

There are no cumulative impacts anticipated.

### **4.13.5 Mitigation**

As no significant adverse impacts are anticipated, no mitigation measures are proposed. During the construction period of the boardwalk, potential impacts to fisheries will be minimized through selection of low-impact construction methodologies and other measures identified during project permitting.

## **4.14 Energy**

### **4.14.1 Existing Setting**

The existing transportation uses in the project site utilize energy in a variety of ways, such as to power the transit services themselves as well as to light and operate the terminal buildings, parking areas and parking garages. Transit passengers approaching by car consume energy when they access the existing

facilities. Energy sources associated with these transportation activities are primarily electricity and fossil fuels. Utilities providing energy service in the area include Connecticut Light and Power (CL&P) and Yankee Gas.

#### 4.14.2 Direct Impact

The project entails the replacement of existing bus and train facilities with more spacious facilities that include more site amenities, including lighting, and there will be new office/retail uses associated with Phase 3. However, to offset the potential increases in energy consumption from the new facilities, the project will be designed to utilize energy efficient equipment and the buildings will be designed with energy saving features that the current buildings do not have. Energy consumption associated with the completed facilities is therefore not anticipated to be significantly higher than existing conditions. There are no anticipated changes required in the infrastructure of the energy utilities serving the project site on account of the proposed action. Energy consumption during the construction period is discussed in Section 4.21 Construction Impacts.

#### 4.14.3 Indirect Impacts

The proposed action may result in reduced consumption of fossil fuels associated with local traffic for the following reasons: there is a projected increase in train ridership among commuters living closer to the BITC but who formerly traveled to Fairfield or Stratford stations, which will save overall vehicle miles traveled in the region; the enhanced convenience of mass transit as a transportation option will facilitate longer transit-oriented trips and more participation in public transportation, again reducing overall vehicle miles traveled; improved bus and local traffic flows will result in reduced energy consumption associated with vehicle operation. From these effects, the City of Bridgeport estimates that regional energy consumption could be reduced by as much as 7.2 million British Thermal Units (BTUs).

#### 4.14.4 Cumulative Impacts

There are no cumulative impacts anticipated.

#### 4.14.5 Mitigation

While the project will result in larger facilities overall, potential increases in energy usage will be mitigated through project design. The proposed action will be designed to utilize more energy efficient equipment and the facilities will also be designed with energy saving structures. The governing design code for the proposed action requires the use of energy efficient design and operational practices in the construction of new public facilities. Also, key energy consuming equipment will be designed/used in accordance with the American Society of Heating, Refrigeration and Air-Conditioning Engineers/Illumination Engineering Society standards.

### **4.15 Public Utilities and Services**

#### 4.15.1 Existing Setting

Utilities providing energy service in the project site include Connecticut Light and Power (CL&P) and Yankee Gas. The project site is also served by water and sewer utilities. Water is supplied by Bridgeport Hydraulic Company and sewage is treated at the Bridgeport Water Pollution Control Plant. Under Water Street, an eight-foot sewer line is located.

#### 4.15.2 Direct Impact

The existing utility suppliers have adequate capacity to service the proposed action without adversely affecting the capacity of these services for other users. There are no anticipated significant changes required to the public utility infrastructure of the existing utilities as a result of the proposed action. However, the proposed new facilities will be designed more efficient than the existing-dated facilities.

#### 4.15.3 Indirect Impacts

There are no indirect impacts anticipated.

#### 4.15.4 Cumulative Impacts

There are no cumulative impacts anticipated.

#### 4.15.5 Mitigation

As no significant adverse impacts are anticipated, no mitigation is proposed. Potential temporary disruptions to utilities during construction will be coordinated with the utility provider to minimize disruption to service.

### **4.16 Historic and Archaeological Resources, Parklands and Section 4(f) Resources**

#### 4.16.1 Existing Setting

The project vicinity contains numerous architectural resources that are listed on the National Register of Historic Places. The westernmost portion of the project site includes the eastern segment of the Bridgeport Downtown South Historic District, which was placed on the National Register in 1987. The section of the historic district that falls within the project site boundary includes the Neoclassical-style Mechanics and Farmers Savings Bank (1930) at 930 Main Street and the Colonial-Revival-style Bridgeport City Market (1912) at 98-118 State Street. Both structures have been changed over the years through the construction of additions or refacing of the lower levels with inappropriate claddings. Windows and door openings have been altered. However, both are National Register-listed properties.

To the north of the proposed action are the Bridgeport Downtown North Historic District, the historic Congress Street Bridge, and the soon-to be-demolished historic trolley barns at 55 Congress Street. On the east side of the project site are three submerged barges in the Pequonnock River that were listed on the National Register in 1975: *Berkshire No.7*, *Elmer S. Dailey*, and *Priscilla Dailey*. These barges were examined by divers in 1999 and found to be in poor condition, but they remain on the National Register.

Due to their National Register status, the two buildings and the submerged barges are Section 4(f) properties (Figure 9). The City-owned Waterfront Park is located on the east side of Water Street, featuring a small boardwalk overlooking the Pequonnock River, northeast of the existing bus terminal and just north of the rail station. Directly west of the Mechanics and Savings Bank, on the corner of Main and State Streets, is the City-owned McLevy Park. Due to their limited public use and accessibility at this time, these parks are not considered to be a significant City recreational resource and so do not qualify as a Section 4(f) property.

Archaeologically, the project site is part of an area that could be considered sensitive, based on mapping held by the Connecticut Historical Commission (CHC). However, a review of 19<sup>th</sup> century atlases revealed that the entire shoreline in the vicinity was subjected to major disturbances and filling operations since the 1840s, when rail service was first introduced. The subsequent construction of I-95 and new buildings along the shore has further reduced the likelihood of locating intact archaeological resources from any era, and the State Historic Preservation Office (SHPO) has concurred with this finding. No further archaeological investigations have been requested by SHPO.

#### 4.16.2 Direct Impact

In consultation with the SHPO, it has been determined that the demolition of the Bridgeport City Market will have an adverse effect on the Bridgeport Downtown South Historic District. Specifically, removal of

the building will diminish the present scale and massing of the Historic District, but the spatial integrity of the District from its most important access point, Main Street, will be improved by the rehabilitation of the Mechanics and Farmers Savings Bank.

In the opinion of the City of Bridgeport and the FTA, the project does not meet any of the criteria established in Appendix A to 36 CFR § 800 for Advisory Council involvement in consultation. Section 106 consultation with the SHPO has already begun and mitigation proposed.

#### 4.16.3 Indirect Impacts

No indirect impacts are anticipated.

#### 4.16.4 Cumulative Impacts

No cumulative impacts are anticipated

#### 4.16.5 Mitigation

The SHPO has recommended that the FTA and City of Bridgeport draft a Memorandum of Agreement (MOA) pursuant to the National Historic Preservation Act. Such mitigation is also intended to fulfill Section 4(f) requirements. Mitigation stipulations in the draft MOA include the following:

1. Prior to the commencement any activity that may affect the resource, the Federal Transit Administration and/or the City of Bridgeport shall document the Mechanics and Farmers Savings Bank (930 Main Street) and the Bridgeport City Market (98-118 State Street) to the professional standards of the State Historic Preservation Office. Documentation shall consist of narrative text, unmounted 35mm black and white photographs, an index to photographs and a photographic site plan. Final documentation shall be provided to the State Historic Preservation Office for permanent archiving and public accessibility.
2. The Federal Transit Administration and/or the City of Bridgeport shall provide an opportunity for the State Historic Preservation Office to review and comment upon preliminary design plans for the adaptive use (exterior and interior) of the Mechanics and Farmers Savings Bank (930 Main, Street).
3. Prior to the commencement any activity that may affect the resource,, the Federal Transit Administration and/or the City of Bridgeport shall document the *Berkshire No. 7, Elmer S. Dailey* and *Priscilla Dailey*. Documentation shall include historic and current photographs, technical descriptions, and a historic overview of canal barge use(s) within Bridgeport Harbor and Fairfield County. Final documentation shall be provided to the State Historic Preservation Office and Mystic Seaport Museum for permanent archiving.
4. Prior to any activity that will effect the submerged barges, the Federal Transit Administration and/or the City of Bridgeport shall, in consultation with the State Historic Preservation Office, prepare the appropriate nomination materials for designating three maritime-related archaeological resources for the State Register of Historic Places and State Archaeological Preserve programs. The nomination materials shall include public-oriented State Archaeological Preserve booklets (350 copies each) to the professional standards of the State Historic Preservation Office.
5. Prior to any activity that will effect the submerged barges, the Federal Transit Administration and/or the City of Bridgeport shall prepare a brief history of the *Berkshire No. 7, Elmer S. Dailey* and *Priscilla Dailey*, including pertinent photographs and project-related information, and submit it to the *Society for Industrial Archeology New England Chapters Newsletter*.



**Figure 11. Section 4(f) Resources**

## **4.17 Aesthetics**

### **4.17.1 Existing Setting**

The project vicinity is dominated by the presence of relatively large multistory buildings. The buildings are primarily modern, with few decorative features or adornments, but vary in style, height, and color. Near the existing bus station, buildings are close to one another or, are attached, and occur on both sides of the street, resulting in a dark tunnel-like experience. In other locations (e.g., along Water Street), only one side of the street has buildings, in stark contrast to the broad vacant space on the opposite side. The vacant spaces, including parking lots, have very few signs, vegetation (texture change), or other features to provide interest or definition. The ground level throughout the project area consists of concrete and pavement associated with streets, sidewalks, and parking lots. There have been recent attempts to provide better signage in the vicinity of the study area but this has been of limited success. There are street trees and corner landscaping in a few locations, but these are too small in scale to effectively screen or soften the overwhelming expanse of hard-edged urban streetscape. The waters of the Pequonnock River are not visible from most of the project area, being blocked from view by buildings, the elevated platforms of the train station, and the railroad infrastructure itself, including the extensive overhead power poles/lines. Water views are available only from the elevated train platform and from the small boardwalk on the east side of the train station.

### **4.17.2 Direct Impact**

The proposed action will be designed to enhance the aesthetics of the project site and provide an attractive gateway to Bridgeport's CBD and waterfront area. The proposed structures will be in conformance with local zoning regulations and will be of a size and massing in keeping with and complementary to the surrounding urban fabric. The City has begun to revitalize Water Street/Housatonic Avenue through the introduction of decorative street lamps, the Berkshire Bikeway, and street trees. The proposed action will continue and enhance this effort through use of the same type of fixtures and in addition will provide more landscaping and green space to the project site. The extended boardwalk with its associated amenities and fixtures will also provide a new and visually pleasing public space along the river. Consequently, the proposed action is anticipated to have overall a beneficial impact on aesthetics.

### **4.17.3 Indirect Impacts**

There are no indirect impacts anticipated.

### **4.17.4 Cumulative Impacts**

There are no cumulative impacts anticipated

### **4.17.5 Mitigation**

As only beneficial impacts are anticipated, no mitigation measures are proposed.

## **4.18 Environmental Justice, Socio-economic and Demographic Conditions**

The following discussion provides an overview of socio-economic conditions in the project study area and an assessment of potential environmental justice impacts.

#### 4.18.1 Existing Setting

##### *Environmental Justice and Demographics*

The U.S. Department of Transportation has a policy to insure nondiscrimination under Title VI of the Civil Rights Act of 1964. The specifics of Title VI are that “no person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” Executive Order 12898, Federal Actions to Address Environmental Justice in Minority populations and Low-Income Populations, was issued in 1998. The Order states “each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.”

Demographic data available in the *Bridgeport Master Plan of Development* and from the U.S. Census Bureau (Census 2000) were reviewed to gain a picture of demographic conditions in the project study area. The Census 2000 reported 139,529 residents in the City of Bridgeport, a 1.5 percent decline from 141,686 recorded in 1990, continuing a trend of steady decline since 1970 when the City recorded its highest population of 156,542. The Census statistical area that encompasses the project study area, Census Tract 706, Block Group 1, has a population of 1,125, which is less than one percent of the City's total population. The project site does not contain any residential uses, but there is small pocket of residents living approximately 200 feet to the west, near Middle Street and Fairfield Avenue (Figure 4).

U.S. Census Bureau (Census) data (2000) were also used to determine the presence or concentration of environmental justice (minority and low-income) populations. Data (year 2000) indicating the number and percentage of people classified as minority and living at or below poverty level, as defined by the Census, are shown in Table 12, which compares data for Fairfield County, the City of Bridgeport, and census block Group 1, Tract 706, which includes the project site. As shown, subject Track is similar to the rest of Bridgeport in percent minority but has a substantially higher percentage of residents living at or below the poverty level than the citywide average. As such, the low-income population warrants scrutiny for environmental justice concerns.

**Table 12 Census 2000 Data on Population, Minority Population, and Population at or Below Poverty Level for Fairfield County, City of Bridgeport and Project Vicinity**

Census Area	Total Population	Minority Populations	Population at or Below Poverty Level
Fairfield County	882,567	163,661 (19%)	56,689 (7%)
City of Bridgeport	139, 529	76,511 (55%)	24,920 (18%)
Project Vicinity (Block Group 1 Tract 706)	1, 125	653 (58%)	372 (35%)

Source: US Census Bureau 2000, Summary File 3

Note: Statistics, including numbers and percents, taken directly from Census data

##### *Economic Development Proposals*

There are a number of current economic development or redevelopment proposals in the project vicinity that will support and be supported by the proposed action and will result in potential changes in socio-economic conditions within the project vicinity. These are listed in Table 13 and shown on Figure 10. As shown, there are substantial financial investments that have already been spent or committed with the goal of providing tax revenue to the City, creating jobs, and generating economic activity throughout the business community.

#### 4.18.2 Direct Impact

Due to the absence of a residential population in the project site, potential direct changes to neighborhood character will not occur. The project will provide enhanced transportation choices for local and regional populations. The disadvantaged populations adjacent to the project site will be benefited by

its proximity, since the project will create a cleaner and safer local environment, stimulate economic activity in the vicinity, and offer more convenient public transportation for work or recreational purposes. Construction is not anticipated to cause disruption to the residential community in the project vicinity. Residential areas are outside the project site and are serviced by roadways that will be unaffected during the construction period.

Socio-economic impacts are expected to be direct and positive, although they may accrue slowly and cumulatively as the BITC will play a role in economic development throughout the project vicinity. The BITC, like the other financial investments in the downtown, will create retail/office activity as well as support adjacent economic activity, which is much needed and desired by the City and region. Social/quality of life benefits relating to the transportation functions of the BITC include the following:

- Better access to public transportation for elderly and handicapped members of the community
- Availability of modern, friendly and efficient rail and bus transit facilities
- Increased speed and ease of transfers between transportation modes
- Increased passenger safety and security
- Improved pedestrian links to commercial, educational, governmental, entertainment and cultural activity centers in downtown Bridgeport

**Table 13 Downtown Bridgeport Economic Development Proposals and Status**

**[Note: Corresponding parcel locations shown on Figure 10]**

Parcel	Description	Status
A	Housatonic Community Technical College Master Plan includes renovating 149,000 SF of former Sears store for classroom use	Expect to expand into Sears Building by 2006. \$200,000 State funds. Current annual enrollment growing at 20%
B	300,000 SF office development by Peoples Bank	Pending
C	Read's Building / Artspace Project – Renovation of 25+ years vacant Read's Department Store: 60,000 SF to be converted by City to artist live/work space with ground floor retail and adjacent parking.	\$11.5-12 M Federal/City/Private funds
D	125,000 SF office building	In planning stage
E	Two court buildings and a juvenile detention center totaling 350,000 SF plus 700-car garage planned by state.	Projects in planning and environmental permitting phases. Completion estimated in 2004. Est. \$50M State/City funds
F	Intermodal Center and joint development including 125,000 SF of office space and 50,000 SF of retail space	Proposed action – subject of this EA/EIE. Est. \$106.5M Fed/State/Local funding
G	Parcels purchased by City for redevelopment	No specific plans as of now
H	Parcels will probably be used for expansion by Post Office	No specific plans as of now
I	Parcels likely to be redeveloped	No specific plans as of now
J	Poli Theatre Complex: Restoration of 2,600-seat Majestic Theatre and 3,700-seat Palace Theatre, 7 storefronts and 109-room Savoy Hotel	Design phase underway for Majestic Theatre. Est. \$6.5M City funds
K	Bridgeport Landing: a 12-year, 3 million SF mixed retail/office/housing/marine and conference center development at a cost of \$1.15 billion. State of Connecticut passed Special Act in 1998 authorizing \$200M in public (City and State) financial assistance for project.	Phase 1 begun in 2002 at a cost of over \$250M
L	Housatonic Bikeway – New 1.2 mile bikeway from North Ave. to E. Washington Ave.	Part of \$7.4M Federal/City project
M	Buildings may experience some rehabilitation for higher and better use/tenants	No specific plans as of now
N	Potential small conference/expo center	Feasibility being assessed

**Figure 12. Existing and Proposed Economic Development in Vicinity**

## **4.19 Safety and Security**

### **4.19.1 Existing Setting**

The project area is typical of urban downtown development. Currently the transit and rail facilities provide access at the street level for pedestrians entering from parking facilities or downtown businesses. There are no major impediments to pedestrian travel, nor are there any advanced pedestrian measures (pedestrian signals, lighted crosswalks or reflective paint on signs, etc.) in place to allow for safer crossing of roadways in the project area. Lighting in the project area is consistent with urban lighting and provides for adequate vision in evening hours.

The Bridgeport Fire Department Headquarters is located one block north at 30 Congress Street. The Police Department is located 300 Congress Street which is approximately a quarter-mile away. Bridgeport Hospital is located at 267 Grant Street, approximately 1.3 miles away and St. Vincent's Medical Center is located at 2600 Main Street, which is approximately 2.2 miles away.

The existing facilities currently have a private security firm to handle safety and security concerns.

### **4.19.2 Direct Impact**

The proposed traffic improvements will improve the circulation and not impede emergency response vehicles or personnel. Consequently, no adverse impacts to public safety are anticipated due to the proposed action. Furthermore, advanced pedestrian measures will be in place to allow for safer crossing of roadways in the project area, having a beneficial impact on public safety in the project vicinity.

### **4.19.3 Indirect Impacts**

Since, it is anticipated that the proposed BITC will have a steady increase in users over time, it is assumed that there is a potential for increases in emergency response calls. However, the impact in terms of increased demand on emergency response services and facilities is anticipated to be minimal due to ongoing planning and coordination by the City's public safety agencies and the GBTA.

There are no other indirect impacts anticipated.

### **4.19.4 Cumulative Impacts**

There are no cumulative impacts anticipated.

### **4.19.5 Mitigation**

The project team is currently working with the Bridgeport public safety agencies (police, fire and rescue, etc.) to determine appropriate police and emergency response protocols for the completed BITC. All proposed facilities, when built, will be covered under contract with a private security firm to ensure the public's safety and security.

## **4.20 Secondary Development**

Secondary development is defined as reasonably foreseeable future development elsewhere in the City of Bridgeport or surrounding region that may be induced by the proposed action. The proposed action is a major transportation complex serving downtown Bridgeport and the Greater Bridgeport Region. The proposed investment in the BITC facility is anticipated to enhance transportation and secondarily benefit the growth and vitality of economic development. The City of Bridgeport has numerous ongoing projects, plans, and programs intended to revitalize the City. The completion of the BITC in association with the general trend for redevelopment in Bridgeport may collectively serve to encourage secondary

development in the region. This would be a positive impact, as it would be consistent with the goals of the City for the CBD and downtown Bridgeport.

## 4.21 Construction Impacts

### *Land Acquisitions and Displacement*

As a result of Phase 2A construction, the existing commuter surface parking lot, having 540 parking spaces, will become the future bus station. Commuters using the surface parking lot to park will be directed to utilize the Transit Garage at Harbor Yard, which as discussed in prior sections of this document has an existing capacity of 910 spaces and was designed to accommodate an additional two levels of parking decks, increasing the overall capacity of the Transit Garage to 1,400 parking spaces. It is suggested to mitigate the loss of surface parking, the construction of the additional two levels of parking decks be initiated in concert with the commencement of construction activity at the bus station. During construction of the additional two levels, construction activity should be phased at the bus station to minimize the initial loss of surface parking space until the additional parking decks are completed at the Transit Garage. During Phase 3, commuters using the existing bus station parking garage will be directed to use the Harbor Yard Garage and other available public parking in the vicinity.

### *Traffic and Parking*

During construction there may be impacts to local traffic as construction vehicles and equipment access the project site. These impacts will be temporary and will be mitigated through the implementation of traffic detours, if necessary.

Construction phasing is closely related to rail and traffic operations in terms of traffic and scheduling. Construction activity near active train lines and streets may necessitate off-hour work considerations. Communication and coordination with the proposed action's cooperating agencies will ensure an efficient construction process with minimal impact to traffic.

### *Air Quality*

Demolition and construction activities have the potential to cause air pollution impacts from construction vehicle exhaust and airborne dust associated with removal of paving/soils, excavation, and demolition. Impacts relating to both demolition and construction activity will require the use of BMPs to mitigate potential impacts. The following BMPs may be utilized during demolition and construction to protect air quality:

- Minimization of exposed erodible soil to the extent possible
- Leaving existing paving in place as long as possible to reduce off-site tracking of soils
- Stabilization of exposed soil
- Seeding of temporary soils stockpiles that will remain over one month
- Application of water to stabilize work areas and haul routes
- Cover stockpiled materials
- Use of covered haul trucks, if needed
- Rinsing of construction equipment leaving unpaved areas with water
- Use of anti-tracking pads at entrance/exit of construction sites
- Sweeping of adjacent streets when necessary
- Fugitive dust will also be mitigated through the use of mesh fencing to ensure dust does not cross property lines

The contractor will be required to keep equipment maintained and operating efficiently in a clean manner to mitigate any exhaust impacts. Construction vehicles will also need to comply with the three-minute idling regulation.

### *Noise and Vibration*

While construction noise is exempt under Section 22a-69-1.8(g) of the RCSA, construction documents will need to require the contractor to limit the duration and noise intensity of equipment when feasible and practicable.

Since the proposed outbound train station, boardwalk, and water taxi platform will require piles to be driven into the river bottom, noise and vibration impacts from these activities have a potential to impact migrating fish populations. Potential mitigation measures may include avoiding work within the river during seasonal fish migration periods and/or avoiding work within the river between one hour before sunset and one hour after sunrise. Disturbance of nesting peregrine falcons are not anticipated from construction activities, but coordination with CTDEP during project permitting will be conducted to ensure that impacts are avoided or minimized to an acceptable level.

### *Water Quality*

To minimize temporary construction related water quality and coastal waters impacts, BMPs will be specified and adhered to throughout the period of active construction. While construction in the water will likely entail pile driving rather than excavation, marine enclosures would be proposed to confine any necessary excavation work in and around the Pequonnock River to reduce potential erosion, sedimentation, and water quality impacts. Dewatering facilities would be designed to contain silts and sediments for off-site removal and disposal at approved sites. Throughout the entire proposed project, an erosion and sedimentation (E&S) control plan will be implemented and maintained in concurrence with *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* to protect adjacent waters. Furthermore, a Stormwater Pollution Control Plan is likely to be required for project permitting and will be subject to review and approval by CTDEP.

Project construction staging areas will be designed so that liquids and floatables are secured and not subject to flooding or transport into adjacent water bodies. All fuel storage tanks used during construction will be equipped with secondary containment systems. Other details of project construction will be developed during further stages of design and permitting to ensure the protection of water quality.

### *Navigable Waterways, Coastal Zone, and Floodplains*

The contractor will be required to avoid any construction activities within the navigation channel. Barges may be required for construction/demolition of the train station and boardwalk. Barge obstructions to navigation will be kept to a minimum in frequency, duration, and will be coordinated with the U.S. Coast Guard and U.S. Army Corps of Engineers.

Coastal resources will be impacted as a result of the proposed work waterward of the HTL, including benthic riverine habitat. This proposed work will be subject to review and permitting by the CTDEP OLISP and will require detailed plans and approval of mitigation measures.

Temporary impacts to the 100-year floodplain and floodway of the Pequonnock River will likely occur during construction of the boardwalk and outbound train station. Prior to any work, coordination with CTDEP and the City Engineer will occur to ensure compliance with flood management and floodway certifications. However, the proposed pile-supported structures are not anticipated to have an adverse effect on flood storage capacity or to cause flooding.

### *Soils and Geology*

If soil remediation is warranted, the extent of contamination will be clearly defined and a RAP will be developed to clean up the site in accordance with applicable criteria in the RSRs prior to actual construction.



### *Environmental Risk and Hazardous Materials*

Asbestos, lead, and other hazardous materials will be removed from the structures proposed to be demolished and will be disposed of in accordance with state and federal regulations prior to demolition. No hazardous materials other than fuel for construction equipment will be stored on site during construction. All fuel storage tanks used during construction will be equipped with secondary containment systems.

### *Flora, Fauna, and Endangered Species*

Since the proposed outbound train station, boardwalk, and water taxi platform will require piles to be driven into the river bottom, noise and vibration impacts from these activities have a potential to impact migrating fish populations. Potential mitigation measures may include avoiding work within the river during seasonal fish migration periods and/or avoiding work within the river between one hour before sunset and one hour after sunrise. Disturbance of nesting peregrine falcons are not anticipated from construction activities, but coordination with CTDEP during project permitting will be conducted to ensure that impacts are avoided or minimized to an acceptable level.

### *Energy*

An increase in energy consumption will occur during the construction phases of the project; however, these impacts will be short term and primarily consist of fossil fuel usage associated with construction vehicles and equipment and additional electrical demand for work performed during evening and/or weekend hours. In the long term, the operational energy savings will likely offset the energy requirements expended during construction. Operational energy savings will occur in the form of traffic flow improvements, better bus circulation, and by provide an alternative to Single Occupancy Vehicle commuter trips, with a goal of reducing Single Occupancy Vehicles on major highways (I-95 and Route 8) in the Bridgeport area.

### *Historic and Archaeological Resources, Parklands, and Section 4(f) Resources*

The project directly requires the modification or removal of historic Section 4(f) resources. Other than these direct impacts, no construction-related (indirect) impacts are anticipated to historic, parkland, Section 4(f) or archaeological resources.

### *Public Utilities*

Construction is not anticipated to require relocation, extension, or upgrade of existing public utilities. Temporary disruptions will be coordinated with the relevant utility providers to minimize impacts.

## **4.22 Cost-Benefit Analysis**

### *Costs*

The impact evaluation summarized in this document indicates that permanent environmental effects from the proposed BITC will be neutral or positive in regard to physical, social, and natural conditions. The project site is already committed to transportation uses and the proposed addition of mixed office/retail uses is compatible with the proposed upgraded intermodal facilities as well as with adjacent CBD land use and development goals. The proposed action will fulfill the project purpose and need, does not compromise any planned or programmed developments or uses, and has no recognized opportunity costs such as from potential alternative development proposals.

The level of Amtrak, Metro North, and other transit services to and through the modal terminals will be unaffected by the proposed project, so the cost of operating these services would not change. The operation of the BITC itself would lead to some additional operating costs, but these increases would be extremely small in relation to the total systemwide operating costs. Similarly, the change in passenger

miles anticipated from the project compared to the no build case, while positive, would be very small in relation to the total number of passenger miles on the affected systems. Thus, the proposed project would have no meaningful effect on the operating cost per passenger mile.

Given these facts, the costs of the project are essentially limited to financial investments for construction. Of the estimated \$106.5M total project cost, \$74M is proposed from federal funds and \$32.5M is proposed from state and local funds.

### *Benefits*

The new BITC will connect 623 daily departures of trains, transit buses, airport shuttles and ferry boats that carry over 13,000 daily passenger boardings. However, because the project does not introduce new transit systems, it will not attract a large influx of new riders that could immediately begin to offset the costs of construction. The benefits of the project are more evident in the improvement of transit facilities for all passengers, the contribution to the achievement of regional congestion management goals, and the boost to long-term economic development initiatives that both require and support transportation facilities. At the same time, the new construction will incorporate more energy-efficient, aesthetic, and environment-friendly features than the current site. The net benefits are difficult to quantify individually, but cumulatively represent tremendous positive changes for the City of Bridgeport and the Greater Bridgeport region. The anticipated project benefits can be broadly assigned to the categories of mobility improvements, economic benefits, and social/quality of life benefits.

**Mobility Improvements:** The City of Bridgeport estimates that the Intermodal Center will serve over 13,000 average weekday passengers and will attract 110 daily new riders by 2020. This projected ridership is estimated to result in a reduction of daily vehicle miles traveled (VMT) of 4,620 and an annual travel time savings of 8,250 hours compared to the no build scenario. The efficiencies gained from these improvements translate to less traffic congestion, reduced vehicle emissions, and enhanced quality of life. Utilizing multiplier numbers produced during the recent Southwest Regional Planning Agency Vision 20/20 Congestion mitigation study, the reduction in daily vehicle miles traveled equates to an overall cost savings of \$2,310/day (cost savings of \$0.50/mile) or approximately \$600,000/year. Other mobility improvements on the scale of the individual include:

- Increased speed and ease of transfers between modes
- Updated handicapped-accessible facilities, greatly improving the mobility of elderly and handicapped members of the community
- Continuous pedestrian links to commercial, educational, governmental, entertainment and cultural activity centers in downtown Bridgeport

**Economic Benefits:** Bridgeport is the poorest city in Fairfield County and one of the poorest cities in the country. With a per capita 1998 income of \$17,698 dollars per year, Bridgeport ranks 162<sup>nd</sup> out of Connecticut's 169 cities and towns in per capita income, and 18 percent of the population lives below poverty level (U.S. Census 2000). Other representative socio-economic data for Bridgeport, reflecting the "economic ills of the community" (Bridgeport Master Plan of Development 1997), are as follows:

- Per capita income is only 63 percent of the statewide average and 41 percent of the Fairfield County average
- Unemployment in Bridgeport is typically high; in 1998, it was the fourth highest in the state, at 8.7 percent, while unemployment was 5.8 percent in Stratford and 3.6 percent in Fairfield (Connecticut Department of Economic and Community Development 1998)
- Tax revenues in Bridgeport were \$1,183 dollars per capita in 1998, representing 83 percent of the statewide average and 68 percent of the Fairfield County average (Connecticut Department of Economic and Community Development 1998)

Economic revitalization has become one of the City's major goals and redevelopment efforts have focused on the downtown CBD. The Bridgeport Master Plan of Development, adopted February 24, 1997, gave great importance to the revitalization of the Central Business District. The availability of

transportation is seen as one of the city's strengths and several City goals directly invoke the implementation of the proposed BITC facilities as the means to stimulate economic development. These goals and the objectives seen as key to achieving them are the following:

*Goal: Provide sufficient investment in the CBD and reestablish the downtown as a regional employment, commercial, educational and cultural district. Key objectives to meet this goal are:*

- Improve Downtown's linkage to the waterfront, especially to the ferry terminal at Water Street Dock, by explicit pedestrian and path connections that promote the flow of people into the downtown area from the ferry terminal
- Establish a multi-modal transportation center in the downtown area and improve access between the various modes of transportation.

*Goal: Encourage the reduced usage of the private automobile in favor of alternative modes of transportation. Key objectives to meet this goal are:*

- Provide adequate and safe walkways for pedestrians and enhance the aesthetic quality of existing facilities
- Implement improvement plans for the Bridgeport Transportation Center that will improve accessibility, safety and efficiency, bring the facility into compliance with ADA, and enhance links with all components of the Center
- Preserve and maintain public transit services in Bridgeport including local bus operations, Metro-North commuter rail service, special paratransit services to the elderly and disabled population, and Amtrak and bus opportunities
- Provide a dedicated parking facility for rail commuters and reduce the disparity in the fare structure between Bridgeport and stations immediately to the west.
- Modify zoning regulations to reduce parking requirements in exchange for implementing trip reduction strategies and allow mixed-use developments to reduce the dependence on automobile travel.

*Goal: Develop a pedestrian friendly downtown with an atmosphere that encourages a vast array of activities both during and after working hours. One of the key objectives to achieve this goal is:*

- Create effective, safe, and visually appealing pedestrian links to various sections of downtown.

Since the pedestrian and transportation facilities called for in these objectives will be provided by the BITC project and since they are considered essential to Bridgeport's economic revitalization, the project will cumulatively provide a broad array of economic benefits that will be woven into and mutually dependent upon other developments in the CBD. In addition to this overall and cumulative stimulation of badly needed economic development in and around the CBD, some of the more tangible economic benefits from the project will include the following:

- Immediately complement economic activity associated with the new Ballpark, new Arena and planned Conference Center at Harbor Yard
- Provide approximately 140 construction jobs over a two-year period and 200 long-term jobs
- Facilitate transportation options for the 40 percent of the Bridgeport population (US Census) that is either under 18 or over 65 and therefore potentially transit dependent

**Social/Quality of Life Benefits:** The project will provide modern friendly and efficient transportation facilities in downtown Bridgeport that will raise the quality of life of passengers as well as residents and businesses of Bridgeport, on account of the following:

- Accessibility to the elderly and handicapped members of the community
- Availability of modern, friendly and efficient rail and bus transit facilities
- Increased speed and ease of transfers between modes

- Increased passenger safety and security
- Improved pedestrian links to commercial, educational, governmental, entertainment and cultural activity centers in downtown Bridgeport

### **Summary**

The impact evaluation summarized in this document indicates that permanent environmental effects from the proposed BITC will be neutral or positive in regard to physical, social, and natural conditions. The proposed action will fulfill the project purpose and need, does not compromise any planned or programmed developments or uses, and has no recognized opportunity costs such as from potential alternative development proposals. Of the estimated \$106.5M total project cost, \$84.8M is proposed from federal funds and \$21.2M is proposed from state and local funds. The net benefits are difficult to quantify individually, but cumulatively represent tremendous positive changes for the City of Bridgeport and the Greater Bridgeport region in terms of mobility improvements, economic benefits, and social/quality of life benefits. Furthermore, the BITC project is a cornerstone of the City's economic revitalization initiative and is expected to leverage the economic success of all other downtown developments, which have received financial commitments of over \$300M (exclusive of the BITC). From these perspectives, the project costs are both reasonable and readily outweighed by benefits.

### **4.23 List of Potential Permits, Certificates, or Approvals**

- 1) Army Corps of Engineers- Section 10 Permit
- 2) City of Bridgeport - Coastal Site Plan Review and Special Use Permit (Planning & Zoning) Floodway Certification (Engineering Department)
- 3) CTDEP- Flood Management Certification
- 4) CTDEP- Special Waste Authorization
- 5) CTDEP- General Permit for Stormwater Discharge Associated with Construction Activities
- 6) CTDEP- General Permit to Construct and/or Operate a New or Existing Emergency Engine
- 7) CTDEP- 401 Water Quality Certification
- 8) CTDEP- New Source Review
- 9) CTDEP- Structures & Dredging Permit
- 10) CTDEP- Coastal Management Consistency Review
- 11) State Traffic Commission (STC) Certificate
- 12) U.S. Coast Guard Review/Approval

### **4.24 Early Coordination and Public Involvement**

Initially, the City of Bridgeport formed an Inter-agency Coordinating Committee to bring public and private interests together in the development of the proposed action. Through a series of meetings, the committee outlined goals, design concepts, and particular facility features, based on identified needs. Subsequently, the DECD initiated their Stage 1 Site Review of the proposed action in early 2002, to solicit comments from various state agencies and interested parties. On December 17, 2002, DECD initiated the public scoping process under CEPA by issuing a Scoping Notice in Connecticut's Environmental Monitor to further solicit comments from state agency reviewers and other interested parties of the proposed action. No CEPA public scoping meeting was requested or held. A copy of responses received in reply to the Stage 1 Site Review and CEPA Notice are included in Appendix B.

### **4.25 Conclusion**

The proposed action will provide the benefits of an intermodal transportation center, linking, bus, both inter- and intra-city service, train service, ferry, water taxi, and other transportation resources such as limousines and taxis. The project is crucial to the transportation system of southwest Connecticut and the economy of the City of Bridgeport. The proposed action will impact historical resources and have vehicular traffic. However, there are no outstanding significant impacts as a result of the proposed action, since impacts have been avoided, minimized, and where appropriate, adequate mitigation measures are proposed.

## **5 List of Supporting Documents**

Bridgeport Intermodal Feasibility Study 9/1996 by Daniel, Mann, Johnson, & Mendenhall

ITC Conceptual Design Report Revised 7/2001 by Wallace Floyd Design Group

Preliminary Design Report April 2003 by Wallace Floyd Design Group

Traffic Impact Report June 2003 by Fitzgerald & Halliday, Inc.

## **Appendix A**

### **Section 4(f) Coordination**

**BRIDGEPORT INTERMODAL TRANSPORTATION CENTER (BITC)  
BRIDGEPORT, CONNECTICUT**

**DRAFT SECTION 4(f) EVALUATION**

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    PROJECT NEED ..... 2

**ALTERNATIVES CONSIDERED ..... 3**

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Appendix 1 Coordination Correspondence

## Introduction

Section 4(f) of the Department of Transportation Act of 1966 stipulates that, prior to taking an action that uses land from a significant publicly owned park, recreation area, wildlife or waterfowl refuge, or from a historic property or archeological site on or eligible for the National Register of Historic Places (the National Register), the agency proposing the action must determine the following:

- 1) That there is no feasible and prudent alternative to the use of the land from the property; and
- 2) That the proposed action includes all possible planning to minimize harm to the property resulting from such use.

This draft Section 4(f) statement describes the 4(f) resources affected by the proposed construction of the Bridgeport Intermodal Transportation Center (BITC) in Bridgeport, Connecticut, and provides an estimation of impacts based on preliminary design plans (the proposed action). Avoidance alternatives and measures to minimize and mitigate harm are discussed.

## Project Description

The City of Bridgeport, in cooperation with the Federal Transit Administration (FTA), the Connecticut Department of Economic and Community Development (DECD), the Connecticut Department of Transportation (ConnDOT), the Greater Bridgeport Regional Planning Agency (GBRPA), and the Greater Bridgeport Regional Transit Authority (GBTA), is proposing the development of a multi-phased intermodal facility called the Bridgeport Intermodal Transportation Center (BITC). The proposed BITC will be located on the block bounded by Water, State, John, and Middle Streets in the vicinity of the existing rail and bus station facilities. This new facility will be designed to physically and functionally integrate a variety of existing and proposed modes of transportation in the heart of Bridgeport's CBD.

## Project History

The City of Bridgeport, in cooperation with the above-mentioned agencies, has studied the feasibility of an Intermodal Transportation Center (ITC) in the greater Bridgeport region for many years. In 1996, the *Bridgeport Intermodal Feasibility Study* (DMJM 1997) confirmed the feasibility of developing an ITC in downtown Bridgeport and made initial siting recommendations. The block bounded by Water, State, John, and Middle Streets was identified as the best location for the ITC, with a potential parking garage located south of I-95 in the evolving sports district.

In June 2000, the GBRPA selected the current BITC project as the locally preferred alternative and included it in their long-range transportation plan. This decision resulted from an open planning process that included meetings and discussions with:

- The Bridgeport City Council,
- The GBRPA,
- FTA,
- Metro-North,
- Amtrak,
- ConnDOT,
- GBTA, intercity bus operators,
- Connecticut Limo, taxi operators,



- The Downtown Special Services District,
- The Greater Bridgeport Chamber of Commerce,
- The Bridgeport Regional Business Council,
- The Bridgeport Economic Development Corporation,
- Local business firms,
- Community development organizations
- Transit users
- General public

The FTA subsequently approved the project to go forward into Preliminary Engineering in April 2001 and the BITC project was authorized in TEA-21 Section 3030(c)(1)(A).

## **Project Purpose and Need**

### *Project Purpose*

Based on the identified needs as described below, the primary purposes of this project are to improve the speed and ease of transfer between transportation modes in downtown Bridgeport by co-locating facilities and providing seamless connections where possible, and to support economic development and land use initiatives in the City. This will help to:

- Reduce congestion on I-95 by increasing transit usage,
- Provide improved transportation to and from Bridgeport for those unable to use automobiles, and
- Make downtown Bridgeport a more accessible and user-friendly location, thus stimulating much needed economic growth.

By efficiently linking all the various transportation modes in one convenient location, the proposed action will be consistent with the goals and objectives of the SWRPA *Vision 2020 Plan* and will make it easier for commuters to choose mass transit and a quicker, safer, cleaner ride.

### *Project Need*

The need for more accessible transit and intermodal connections is evidenced by the current state of congestion in the overall transportation system in southwestern Connecticut, including Bridgeport. According to the Southwestern Regional Planning Agency (SWRPA) *Vision 2020 Plan* (February 2003), Interstate 95 (I-95) through southwestern Connecticut is, by far, the most chronically congested section of interstate highway in Connecticut, and is arguably one of the worst in the country. To alleviate some of this congestion, the SWRPA *Vision 2020 Plan* recommends upgrading existing transit services in the region to encourage transit use. Specifically, the plan recommends the enhancement of local bus services, the expansion of existing rail station parking, and the improvement of transit linkages at rail stations.

The need for more accessible transit and intermodal connections is also recognized by Connecticut's Transportation Strategy Board (TSB). The TSB was established in 2001 to develop statewide strategies to "strengthen and expand the State's transportation system over the next 20 years to enhance Connecticut's prospects for sustainable economic growth and a premier quality of life". The TSB Plan identifies strategic actions and tactics for the fiscal years 2004 through 2013. It includes a strategy, *Establish an Integrated Multi-Modal Transit Network*, and recommends that the Connecticut Department of Transportation, the 17 transit districts in Connecticut, and the municipalities work together to define and implement an integrated multi-modal transit network that uses a common brand identity and that takes into account all forms of bus service.

Currently, in downtown Bridgeport, rail service (Metro-North/Amtrak), bus service, airport shuttles, and the Long Island ferry service each have separate terminals with poor connectivity, which makes transfers between modes difficult, awkward, and time consuming for the general public, and particularly difficult for handicapped members of the community. To walk from the northbound Metro-North/Amtrak station platform to the nearby bus and ferry terminals, pedestrians must first go through a narrow, poorly lit pedestrian tunnel and then along a circuitous route through downtown streets. Additionally, there is no direct shuttle available to airport shuttle services from downtown and the bus/rail/ferry terminals. Passengers must take taxis, cars, or buses two miles to the Connecticut Limo airport shuttle terminal to make this connection.

In addition to a lack of connectivity between transit modes, the existing rail and bus terminals are functionally outdated, operationally inefficient, and incapable of accommodating expanded service levels. The existing bus terminal, for example, is located on the lower level of an aging parking garage along Water Street. The site is severely limited by its location, poor configuration, and local street congestion. These factors adversely affect bus maneuverability and cannot support expanded local and intercity bus operations.

Downtown Bridgeport has historically been a transportation and commerce center for the region, with the vitality of the downtown linked through history to its strong transportation system. Mirroring the deterioration of Bridgeport's transportation facilities has been the weakening of its economy. Economic revitalization has been critical to the City's recent plans and goals, which have called for reinvigorating the central business district (CBD) and the Pequonnock River waterfront. The CBD is fairly compact and densely developed with commercial and large pockets of institutional and public use. However, many of the buildings in the CBD are underutilized and/or vacant. It is a goal of the City to complement recent economic developments, including the new Ballpark and new Arena at Harbor Yard, with other planned economic developments in the CBD and waterfront area. These economic development goals are believed to hinge on transportation improvements that provide an attractive and functional gateway to Bridgeport's CBD and waterfront.

## **Alternatives Considered**

The process of identifying feasible alternatives for an ITC serving the Greater Bridgeport region began almost a decade ago. That initial planning process led to the conclusion that the City of Bridgeport was the most logical site for an ITC facility given the preponderance of transportation modes located immediately within or proximate to the City's CBD. Because the existing rail corridor is a major component of the ITC facility, and it would be cost prohibitive to relocate the rail corridor, potential sites for the planned ITC evolved in the area currently occupied by the existing train and bus stations. No other sites were deemed prudent or feasible given the need for proximity to the existing rail corridor. The following sections document the alternatives evaluation process that culminated in the selection of the proposed action evaluated in this EA/EIE.

### *Preliminary Screening Process*

The process of identifying a feasible proposal for a unified Intermodal Transportation Center (ITC) serving the needs of Bridgeport began officially with the *Bridgeport Intermodal Feasibility Study (Feasibility Study)* (DMJM 1997). For this study, an Inter-agency Coordinating Committee (IACC) was formed to bring public and private interests together in the development of the ITC. Through a series of meetings, the committee outlined goals, design concepts, and particular facility features, based on identified needs. That initial planning process identified that a well-planned intermodal center would tie together the surface transportation modes, promote safe, convenient and efficient transfers among existing transportation services, and encourage new transportation services in Bridgeport. Secondly, the ITC would support

economic development and improve quality of life for the City's residents. The alternatives analysis began with that study and continued throughout the subsequent design studies, as outlined in the *Conceptual Design Report* (Wallace Floyd Design Group 2001). The following sections document the alternatives evaluation process that culminated in the selection of the proposed action evaluated in this EA/EIE.

The *Feasibility Study* made initial siting evaluations. Three alternative sites were explored as possible locations for the ITC: 1) the immediate area of the existing Bridgeport Transportation Center; 2) the old Bridgeport Rail Station on Water Street north of Fairfield Avenue; and 3) a site on Houston Street south of I-95. Each site was evaluated in terms of transportation and operational issues and in terms of the goals and objectives identified by the IACC. The following matrix was used as a method to assist in screening the alternatives considered. Those alternatives that met the project's purpose and need and were least environmentally damaging were subjected to further analysis.

**Alternatives Siting Evaluation Matrix**

	<b>SCHEMES</b>			
	<i>Linked Sites</i> 1 (A, B & C)	<i>Post Office</i> 2	<i>State St./John St.</i> 3	<i>Water Street</i> 4 (A, B & C)
<b>ACCESSIBILITY</b>				
• Access from Adjacent Streets	+	+	+	+
• Impact on Traffic Operations	0	0	0	-
• Visibility from Major Streets	+	0	0	+
• Proximity to Major Downtown Destinations - Downtown Commercial - Public Offices: City Hall, Courts, Library - Social Services - Community College - Harbor Yard - Steel Point - Pequonnock Riverfront Development	+	+	+	+
• Quality of Pedestrian Environment and Access - safe, visible, convenient connections - streetscape design - pedestrian crossings	+	+	+/0	-
<b>SITE SIZE AND CONFIGURATION ISSUES</b>				
• Ability to Accommodate Transportation Program Efficiently	+	+	+	-
<b>ENVIRONMENTAL ISSUES</b>				
• Compatibility with Surrounding Land Uses	+	+	0	+
• Compatibility with Surrounding Historic Structures/Districts	+	-	+	+
• Presence of Hazardous Materials	NA	NA	NA	NA
• Air & Noise Impacts	0	0	0	0
<b>DEVELOPMENT ISSUES</b>				
• Ownership & Ease of Acquisition	0	-	0	0
• Constructability	0	0	0	0
• Ability to phase construction	+	+	-	+
<b>INTERMODAL OPERATIONS &amp; SERVICE ISSUES</b>				
• Ability to encourage new ridership	+	+	+	+
• Facilitates intermodal transfers	0	0	+	0
• Maximizes passenger safety	+	0	0	-
• Ability to serve needs of existing customers	0	0	+	0
• Operating Efficiency: GBTA	0	+	+	-
• Operating Efficiency: Intercity Bus	+	+	+	+
• Operating Efficiency: CT Limo	+	+	+	+
• Operating Efficiency: Taxi	+	+	+	+
• Operating Efficiency: Amtrak	+	+	+	+
• Operating Efficiency: MetroNorth	+	+	+	+

	<b>SCHEMES</b>			
	<i>Linked Sites 1 (A, B &amp; C)</i>	<i>Post Office 2</i>	<i>State St./John St. 3</i>	<i>Water Street 4 (A, B &amp; C)</i>
• Operating Efficiency: Ferry	o	o	o	o
<b>ECONOMIC DEVELOPMENT</b>				
• Leverages Joint Development – integrating Structure	+	+	-	+
• Potential for Joint Development/Economic Development	+	+	-	+
• Compatibility with public land use development policy and planned/proposed development by others	+	-	-	+
• Ability to phase over time in response to market	+	+	o	+
<b>URBAN DESIGN/DOWNTOWN IMAGE</b>				
• Creates opportunity for high quality pedestrian environment	+	+	-	+/o
• Provides opportunity to create important	+	+	-	+
• Creates positive image for use as marketing tool for transit & economic development	+	+	o	+/-
<b>ACCESSIBILITY</b>	+	+	+ overall - pedestrian environment on State/John	- traffic & pedestrian environment
<b>SITE SIZE &amp; CONFIGURATION</b>	+	+	+	-
<b>ENVIRONMENTAL ISSUES</b>	+ Land Use	+ Land Use - Historic	o	+ Land Use
<b>DEVELOPMENT ISSUES</b>	+ Phasing	+ Phasing - Acquisition	- Phasing	+ Phasing
<b>INTERMODAL OPERATIONS &amp; SERVICE ISSUES</b>	+	+	+ ease of transfers & no disruption to existing	- safety & operating efficiency
<b>ECONOMIC DEVELOPMENT</b>	+ all counts	+ development - compatibility	- all counts	+ all counts
<b>URBAN DESIGN/DOWNTOWN IMAGE</b>	+	+	- pedestrian environment & civic structure	+ Main St. - Water St.
+ Superior rating    o Neutral rating    - Poor rating				

The area of the existing transportation center was the best option of the three sites for all criteria reviewed. It provided the best gateway to downtown and the only connection with the waterfront; it provided the greatest connectivity between transportation facilities and downtown activities; and it had the least traffic impact on the local street network, being closest to the major access points off I-95 and Route 8/25. This site offered the best and most straightforward track conditions for train boarding platforms and lastly, only this site had the ability to connect the existing ferry terminal into the ITC. The old Bridgeport Rail Station was quite distant from new downtown activity centers such as the community college and planned office development near the south end of downtown, would make connections to the CBD more difficult, had a problematic curve in the rail, and would increase downtown traffic by moving the facility farther from I-95 and Route 8/25. The Houston Street site was isolated from downtown, required major

redesign of bus routes to access the facility, would increase downtown traffic, and had the highest probability of hazardous contamination. The old rail station and the Houston Street sites would not meet one or more of the priority goals set by the IACC to meet the purpose and need of the project and were therefore eliminated from further consideration.

The area of the existing transportation center met the main goals for the ITC and had no major transportation or operational issues, so it was carried forward for further analysis. The block bounded by Water, State, John, and Middle Streets was identified as the best location for the ITC, with a potential parking garage located south of I-95 in close proximity to the ferry terminal and train station. The *Feasibility Study* did a preliminary evaluation of alternative layouts for the bus terminal. The study evaluated four alternatives that included two in-street alternatives with bus bays located within Water Street and two off-street alternatives located within the bounds of Water, State, John, and Middle Streets. While all of these alternatives improved bus operations and provided a bus bay for 16 bus routes, each had disadvantages. The in-street alternatives would require, at the least, the elimination of on-street parking and narrowing of traffic lanes on Water Street and at worst, complete closure of Water Street, which is an important link in the state roadway system, as well as an emergency bypass route for I-95. The off-street alternatives were space-constricted, requiring some compromises to accommodate all 16 bus bays. One alternative required the closure of State Street and the other required passengers to cross active busways to make transfers.

### *Design Alternative Analysis*

Wallace Floyd Design Group continued exploring alternative design concepts subsequent to the *Feasibility Study*. The conceptual design study took steps to determine specific operational space and parking requirements for the component transportation modes based on interviews with rail, ferry, bus, limo, and taxi companies, and also prepared ridership demand projections to account for future growth (to year 2020), using a 2 percent annual growth rate. The program requirements for each type of passenger facility, along with their preferred relationships to other program elements, guided the formulation of concepts in terms of size and spatial relationships. With this new information, the space requirements of the BITC were more clearly articulated and four new alternative design concepts were generated. The project boundaries were expanded to accommodate program elements that were deemed essential to meet the project purpose and need.

The alternatives were formulated based on meeting the needs of the various modes, with emphasis on convenience of pedestrian access between them. The major criteria used to evaluate the alternatives were land acquisition and other environmental impacts, operating and maintenance costs specific to each alternative, efficiency afforded by configuration and location, economic development ramifications, land use/development issues, and utility relocation costs. Because the Amtrak/MetroNorth rail line is a major infrastructure that is essentially unmovable and the existing rail station is at an optimal position along the track, all of the alternatives involved a rail station in the same approximate location as the current station.

The four major schemes included the following: Scheme 1 – Linked Sites, featuring a bus facility on City land north of the current bus station; Scheme 2 – Post Office Site featuring the bus station and joint development at a potentially available Post Office site near Golden Hill/Water Streets; Scheme 3 – State Street/John Street, a densely-developed site that attempted to locate the various components of the ITC on a single contiguous site; and Scheme 4 – Water Street, which located the bus operations adjacent to the train platforms and parking, involving a widening of Water Street and bus berths aligned along the street.

The Conceptual Design Report (Wallace Floyd 2001) details the evaluation process for the four alternatives, which involved ranking each site for numerous categories. Scheme 1 – Linked Sites scored

well in all categories and was the only alternative that received no negative ratings. This alternative, specifically the sub-alternative with the train lobby on the east side of Water Street, was selected as the preferred alternative and is the basis for the Proposed Action. This scheme had the following features:

- A major bus transfer facility with an elevated, direct pedestrian walkway connector to train platforms on the triangular parcel further north along Water Street, with some bus stops on Water Street.
  - Pedestrian connections/transfers are provided by an overpass from the parking garage to the train station and by structured walkway from the bus station to the train station and to Main Street
  - An ITC entrance on Main Street through the historic Mechanics and Farmers Bank building, with clear connections to trains.
  - Limousine, parking and joint development components accommodated on the block bounded by Main, Water, State, and John Streets, with a pedestrian bridge across Water Street to the rail platform
- schemes were therefore eliminated from further consideration.

### **Impacts to Section 4(f) Properties**

There are numerous Section 4(f) properties in the project area including several that may be impacted by the proposed action. To the northwest of project area are the Bridgeport Downtown North Historic District, the historic Congress Street Bridge, and the soon-to be-demolished historic trolley barns at 55 Congress Street. The western portion of the project area includes the eastern segment of the Bridgeport Downtown South Historic District, which was placed on the National Register in 1987. The section of the historic district that falls within the project area includes the Mechanics and Farmers Savings Bank (1930) and the Bridgeport City Market (1912). Bordering the project area on the east are three additional historic resources: *Berkshire No.7*, *Elmer S. Dailey* and *Priscilla Dailey*, three now-submerged barges that were listed on the National Register in 1975.

There are two public parks abutting in the project site, Waterfront Park is located on the east side of Water Street and providing access to the Poquonnock River northeast of the bus terminal and just north of the rail station facility and McLevy Park located directly west of the Mechanics and Savings Bank, on the corner of Main and State Streets. However, these parks are not considered to be a significant recreational resource per 4(f) definitions. No other publicly owned parks, recreation areas, or wildlife or waterfowl refuges would be affected by the project.

#### *Archaeological 4(f) Resources*

In order for archaeological resources to be protected under Section 4(f), they must be listed on or eligible for listing on the National Register and must be considered important to preserve in place. Archaeologically, the project location is part of an area that could be considered sensitive. However, a review of 19<sup>th</sup> century atlases reveals that the entire shoreline was subjected to major disturbances and filling operations since the 1840s, when rail service was first provided to the area. The subsequent construction of I-95 and new buildings along the shore has also reduced the likelihood of locating archaeological resources from any era. Consequently, no adverse effect to any archeological resources protected under Section 4(f) is anticipated.

#### *Historical 4(f) Properties*

The identification of historical Section 4(f) properties in the BITC study area was based on a variety of sources including files located at the Connecticut Historical Commission and site observations.

The western portion of the project area includes the eastern segment of the Bridgeport Downtown South Historic District, which was placed on the National Register in 1987. The section of the historic district that falls within the project area includes the Mechanics and Farmers Savings Bank and the Bridgeport City Market, both of which are eligible for listing on the National Register. The Mechanics and Farmers Savings Bank at 930 Main Street was built in 1930 with an annex added in 1969. The original bank structure is two stories, constructed of marble in the Neoclassical style. The Bridgeport City Market at 98-118 State Street was constructed ca. 1896 with additions or modifications through to 1912. It is a three-story brick structure in the Colonial revival style.

Bordering the project area on the east are three additional historic resources: *Berkshire No.7*, *Elmer S. Dailey* and *Priscilla Dailey*, three now-submerged historic canal barges that were listed on the National Register in 1975. These barges were examined by divers in 1999 and found to be in poor condition, but they remain on the National Register. A copy of the divers' report is attached as an Appendix..

These noted historic 4(f) properties will be directly impacted by the proposed action. As part of Phase 2, the Mechanics and Farmers Savings Bank will be utilized as the new entrance to the facility. In Phase 3, the Bridgeport City Market will be demolished. The three historic barges would impede the proposed water taxi service and may be altered or removed to eliminate them as a navigation hazard and for any piling required to support a new train station.

The State Historic Preservation Office (SHPO), in its correspondence of April 14, 2003, determined that the required demolition of the Bridgeport City Market and adaptive reuse of the Mechanics and Farmers Savings Bank and removal and/or alteration of the three historic canal barges will constitute an adverse effect upon Connecticut's cultural heritage.

### **Efforts to Minimize Harm**

Since it has been determined that there is no reasonable alternative site location for the proposed BITC, it will not be possible to avoid or minimize harm to impacted 4(f) properties for this project. The SHPO has concurred with this assessment that no feasible or prudent alternative exists that would retain the historic and underwater resources while facilitating the proposed development of the intermodal facility. Consequently, the SHPO has recommended that the Federal Transit Administration and City of Bridgeport draft a Memorandum of Agreement (MOA) pursuant to the National Historic Preservation Act that includes the following five mitigative measures:

1. Prior to the commencement any activity that may affect the resource,, the Federal Transit Administration and/or the City of Bridgeport shall document the Mechanics and Farmers Savings Bank (930 Main Street) and the Bridgeport City Market (98-118 State Street) to the professional standards of the State Historic Preservation Office. Documentation shall consist of narrative text, unmounted 35mm black and white photographs, an index to photographs and a photographic site plan. Final documentation shall be provided to the State Historic Preservation Office for permanent archiving and public accessibility.
2. The Federal Transit Administration and/or the City of Bridgeport shall provide an opportunity for the State Historic Preservation Office to review and comment upon preliminary design plans for the adaptive use (exterior and interior) of the Mechanics and Farmers Savings Bank (930 Main, Street).
3. Prior to the commencement any activity that may affect the resource, the Federal Transit Administration and/or the City of Bridgeport shall document the *Berkshire No. 7*, *Elmer S. Dailey* and *Priscilla Dailey*. Documentation shall include historic and current photographs, technical descriptions, and a historic overview of canal barge use(s) within Bridgeport Harbor and Fairfield County. Final documentation shall be provided to the State Historic Preservation Office and Mystic Seaport Museum for permanent archiving.

4. Prior to any activity that will effect the submerged barges, the Federal Transit Administration and/or the City of Bridgeport shall, in consultation with the State Historic Preservation Office, prepare the appropriate nomination materials for designating three maritime-related archaeological resources for the State Register of Historic Places and State Archaeological Preserve programs. The nomination materials shall include public-oriented State Archaeological Preserve booklets (350 copies each) to the professional standards of the State Historic Preservation Office.
5. Prior to any activity that will effect the submerged barges, the Federal Transit Administration and/or the City of Bridgeport shall prepare a brief history of the *Berkshire No. 7*, *Elmer S. Dailey* and *Priscilla Dailey*, including pertinent photographs and project-related information, and submit it to the *Society for Industrial Archeology New England Chapters Newsletter*.

#### **Coordination and Determination of Effect**

Correspondence was sent to the SHPO on February 18, 2003 requesting a determination of effect for the proposed BITC project. The SHPO provided a response in a letter dated April 14, 2003. The SHPO stated that it was understood that construction and operation of the proposed transportation facilities will require the demolition or alteration of the Bridgeport City Market, Mechanics and Farmers Savings Bank, and three historic canal barges. SHPO determined that this would constitute an adverse effect upon Connecticut's cultural heritage, but concurred that no feasible or prudent alternative exists which would retain these resources and facilitate the development of the BITC. The SHPO strongly recommended that an MOA be developed by FTA and the City of Bridgeport to provide mitigation for this adverse effect. The specific mitigation measures recommended by SHPO are detailed in the forgoing section of this Section 4(f) evaluation under *Measures to Minimize Harm*.



**Appendix B**

**Early Coordination and Public Involvement**