PORT of NEW HAVEN

STRATEGIC LAND USE PLAN

May 2007

Prepared for:

New Haven Port Authority

City of New Haven

Mayor, John DeStefano, Jr.

Prepared by:

PB Americas, Inc.

in association with

Fitzgerald & Halliday, Inc.

Table of Contents

List of Figures

Executive Summary

The City of New Haven, in cooperation with the New Haven Port Authority, engaged PB Americas, Inc. (formerly know as Parsons Brinckerhoff Quade & Douglas, Inc.) to prepare this Strategic Land Use Plan for the Port of New Haven, Connecticut. This report is among the first assignments of the Port Authority, which was established in 2003 to enhance the economic competitiveness of the port community.

Land use is seen as a central pathway to economic development and this report sets forth an analysis of the existing and contemplated operations for the Port of New Haven with particular emphasis on the associated land use issues which need to be incorporated in the planning and management of the Port's growth. Successful treatment of these issues will require a close and sustained working relationship between the Port Authority and the port terminals, as represented in the New Haven Petroleum Cooperative, and the City of New Haven.

Five Key Actions are identified from among 30 recommendations set forth in this Plan, as follows:

- Expand the Land Available for Port-Related Activities
- Develop a Marketing Program for the Port
- Improve the Transportation Network within the Port
- Formulate a Plan for Dredging of the Harbor Channel
- Program Growth and Future Operations in Environmentally Positive Ways

These Key Actions were developed so as to relate directly to the objectives previously set forth in the Port Authority's 2006 Work Plan. The specifics of these relationships are discussed at the beginning of the section of this Plan entitled "Strategies for Future Development".

Many of the recommendations are intertwined, particularly as concerns improvements to the facilities which can contribute positively to both the day-to-day operations as well as to the long term marketability of the Port's services.

NEW HAVEN PORT AUTHORITY
NEW HAVEN, CONNECTICUT

RESOLUTION

WHEREAS, the New Haven Port Authority ("Port Authority") is established under Section 7-329a to 7-329u, inclusive of the Connecticut General Statutes and Ordinance #1322 of the City of New Haven "to stimulate the shipment of freight and commerce through New Haven's port to develop and promote the facilities within the port district and thereby to create jobs and increase the tax base of the City of New Haven, to work with the City of New Haven in maximizing the usefulness of available public funding by consolidating and coordinating efforts to assist the waterfront of the City of New Haven and to cooperate with the state and federal agencies in connection with the maintenance, development, improvement and use of the facilities within the port district;" and

WHEREAS, pursuant to the provisions of Section 7-329c of the Connecticut General Statutes, the Authority shall prepare a comprehensive plan for the development of port facilities in the district " and

WHEREAS, the land use plan identifies seven strategies for future development of the port district which include opportunities to expand port-related land use; improve landside transportation facilities; improve waterway infrastructure; enhance economic competitiveness; strengthen security; improve environmental performance; and build community relations; and

WHEREAS, the plan determines the location of the segment of the proposed trail connecting Forbes Avenue with East Shore Park as required pursuant to Section 10 of the New Haven Code of Ordinances establishing the New Haven Port Authority; and

WHEREAS, the Port Authority and / or its consultant team and city staff held numerous community meetings and plan briefings and held a public hearing on February 1, 2007 and duly considered public comment in the drafting of this plan; and

NOW THEREFORE BE IT RESOLVED, by the New Haven Port Authority that the Strategic Land Use Plan is approved for implementation.

ADOPTED: May 3, 2007

ATTEST: Katharine Goodbody
Secretary

Goals & Objectives for the Strategic Land Use Plan

Methodology

The City of New Haven, in cooperation with the New Haven Port Authority seeks to develop a concise, comprehensive and coordinated Land Use and Strategic Development Plan for the Port of New Haven. The origin of this undertaking was the recognition of the special roles which the New Haven Port Authority and the City play in the viability of the Harbor and their common interest in the continued growth and prosperity of the industrial port district as an important component of the local and regional economy.

The primary objectives of this undertaking are to:

- Promote and encourage development of the port-related economy; and
- Maintain and expand maritime industrial employment and preserve and enhance key port properties for active maritime uses; and
- Provide the landside and waterside public infrastructure to support further growth of the industrial harbor.

In recognition of the larger socio-economic fabric of the City and the Region within which the Port of New Haven operates, this undertaking also seeks to:

- Promote the Port as a key component of the local and regional economy; and
- Provide a strategy for public and private investment; and

- Evaluate the redevelopment potential of portions of the Port for a balanced harbor-wide economy; and
- Develop an action plan for short-term and long-term implementation; and
- Improve environmental performance and relationship with the community.

Work Plan & Schedule

The project work plan was undertaken with the goal of the completing the analysis and findings within approximately a four month timeframe, with completion in the third quarter of 2006. Two sets of interviews have been conducted with terminal operators and transportation service providers. The first interviews were held prior to preparation of a White Paper in June 2006 to develop background data. The second set of interviews was conducted during July – September 2006 to facilitate a follow-up on particular issues of concern.

An initial briefing meeting was held with the Port Authority Board and invitees. A meeting was also held with municipal public works and public safety departments. Meetings were also held with community groups. A presentation of the White Paper findings was made at the Port Authority Board meeting in June 2006. A set of predecessor reports and source documents were also reviewed.

Prior to adoption the Strategic Land Use Plan was presented to the East Shore Management Team on December 12, 2006 and to the City's Plan Commission on December 13, 2006.

A public hearing was held on February 1, 2007 with additional input received and considered until Plan adoption. Many of the public comments pertained to the proposed Harborside Trail, which were considered at and following a site visit on March 20, 2007.

Presentations of Opportunities and Constraints to the Port Authority Board

Field Inspection of Harborside Trail Opportunities in the Port District in the vicinity of Connecticut Avenue with City, Port Authority and Public representatives.

Planning Considerations & Problem Statements

The Port of New Haven is comprised of a group of privately owned facilities which collectively represent a significant component of the local and regional economy. The Port Authority was established by order of the Board of Alderman in February 2003. The Port Authority administers a Port District which is situated on the east side of the Harbor, with most activity focused south of the Interstate 95 highway corridor. In Connecticut, the Port and its related industries annually are responsible for 10,500 jobs and generate economic activity of more than $1.5 billion annually. This economic activity is comprised primarily of petroleum imports, general and bulk cargoes, marine services and transportation.

There are several key challenges and opportunities which will have an impact on the future viability of the Port and its industries which must be addressed in the Land Use Plan:

Land Use: Since land for future expansion is very limited within the Port District, the efficient use of available land for various privately owned facilities, both piers and the so-called backland areas, is essential to improve the Port's operations and revenues. This may entail consolidation of laydown and storage areas, potential use of specific sites located outside of the Port District to support the Port operations, and the possible relocation of some non-port dependent businesses that do not need to be located in the Port District. The ability to expand the District's present 366 acres by contiguous expansion appears limited and, furthermore, there may be competing demands for some of the Port's existing land area. For example, the ongoing expansion of Interstate 95 has absorbed 3.8 acres of land within the Port District and is no longer available to port terminals. The Port District is depicted in its entirety on the shaded area shown on the accompanying Figure 1. By way of comparison, that portion of the Port District land area which is presently used for port or maritime related activity is shown in shading on the accompanying Figure 2. A tabulation of individual properties and attributes is presented in the Appendices of this document.

Transportation: Access to the Port District by sea, highway and rail is essential to its future. The backbone of the Port, the commercial shipping

trade, is entirely dependent on deep water ship channels, good highway access for trucks and - for the future – on rail service with good connections to the regional and national rail network.

Economic Development: Maximizing the economic benefits of the Port through preservation and expansion of viable maritime industrial activities and the development of businesses with growth potential is a core objective of the Land Use Plan. Public and private investment will be required to provide the necessary infrastructure to support growth and enhance New Haven's competitive position. Creation of a favorable business climate will also enhance growth in both jobs and tax revenues.

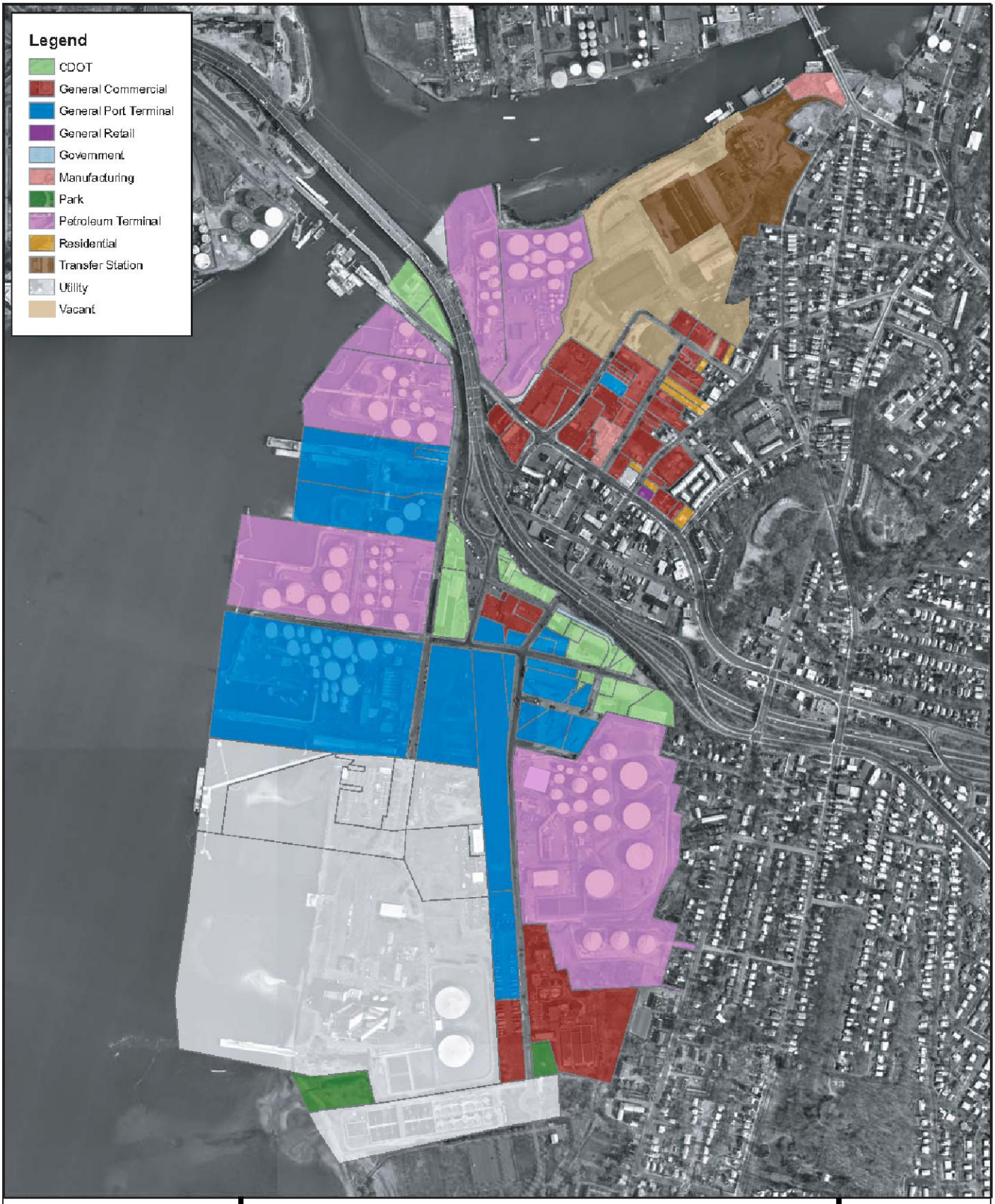
Infrastructure: Significant planned infrastructure improvements will enhance the future development potential of the Port District. These improvements include the reconstruction of Waterfront Street, and Stiles Street, which are part of the Interstate 95 New Haven Corridor Crossing "Q Bridge" project. This project, under its contract "C2" also includes significant modifications to the on- and off- ramps at Exit 50.

Security: Security at the Port is an important issue to be considered in the Land Use Plan. Uncontrolled access to the Port District by trucks, the lack of a unified security plan, and insufficient waterside patrols are among the key issues.

Environmental Considerations: Recommendation of a possible route for extension of the multi-purpose recreational Harborside Trail through the Port area is addressed in this Strategic Plan. The Harborside Trail, which is intended to connect Lighthouse Point Park with the West Haven beaches and Savin Rock, is required under the Port's enabling ordinances and will provide public access to the waterfront. Possible conflicts with businesses and traffic have been considered in identifying a route for the Harborside Trail. In a related planning activity, the Port Authority is assessing the associated air quality impacts and seeking opportunities to improve environmental performance.

0 250 500 1,000 Feet

NEW HAVEN PORT AUTHORITY
STRATEGIC LAND USE PLAN
FEBRUARY 2007
FIGURE 1 – EXISTING PORT DISTRICT



0 250 500 1,000 Feet

NEW HAVEN PORT AUTHORITY
STRATEGIC LAND USE PLAN
FEBRUARY 2007
FIGURE 2 – PORT DISTRICT LAND USAGE

Existing Conditions

Port Activities and Land Use

With a primary channel depth of 35 feet and width of 400 to 800 feet, New Haven Harbor houses the largest deepwater port in Connecticut, the Port of New Haven. From the Entrance Channel from Long Island Sound to just south of the Tomlinson Bridge, the project depth (defined by the U.S. Army Corps Engineers) of the Harbor is 35 feet. In the vicinity of the Tomlinson Bridge and to the north, navigation is more constrained, with a project depth of 16 to 22 feet and minimum channel width of 100 feet.

The Port of New Haven is the highest volume port on Long Island Sound and is considered the busiest port between Boston and New York City. New Haven is the largest deepwater port in Connecticut. In 2002, 10.1 million short tons of waterborne commerce (of a total 18.4 million state-wide) moved through the Port of New Haven. By 2004, according to data published by the American Association of Port Authorities, this number had grown to approximately 10.86 million short tons, ranking New Haven 51st overall among US Ports in total trade. In that same year, the Port was ranked 49th in imports (2.7 million short tons); 68th in exports (368,000 short tons); and 47th in domestic trade (7.8 million short tons). Domestic trade within the port made up approximately 72% of the tonnage figures for that year, with the balance comprising foreign trade (imports and exports). Between 2002 and 2005, port traffic grew at an annual rate of 16.7%.

Within the regional context, the Port of New Haven ranks third among New England ports in total tonnage, behind Portland, Maine and Boston, Massachusetts. The table below summarizes New Haven's regional position with respect to total, foreign, and domestic trade as identified from publicly published data. It should be noted that the data are derived from maritime industry sources and, as such, include activity occurring at facilities situated throughout the entire port area of New Haven, not just within the Port District.

Total Trade	Foreign Trade			Domestic Trade
	Import	Export	Total	
Portland, ME (29.7 million tons)	Portland, ME (27.6 million tons)	Boston, MA (979,480 tons)	Portland, ME (27.8 million tons)	Boston, MA (10.2 million tons)
Boston, MA (28.0 million tons)	Boston, MA (16.8 million tons)	**New Haven, CT (363,263 tons)**	Boston, MA (17.8 million tons)	**New Haven, CT (7.8 million tons)**
New Haven, CT (10.9 million tons)	Providence, RI (4.5 million tons)	Portsmouth, NH (303,307 tons)	Providence, RI (4.8 million tons)	Providence, RI (4.7 million tons)
Providence, RI (9.5 million tons)	Portsmouth, NH (3.6 million tons)	Portland, ME (218,940 tons)	Portsmouth, NH (3.9 million tons)	Bridgeport, CT (3.9 million tons)
Bridgeport, CT (5.7 million tons)	**New Haven, CT (2.7 million tons)**	Fall River, MA (48,099 tons)	**New Haven, CT (3.1 million tons)**	Portland, ME (1.9 million tons)

Notes: 1. Figures derived from data published by American Association of Port Authorities
2. Tonnage figures represent short tons

The Port District benefits from proximity to the regional highway network, which minimizes adverse impacts to surrounding uses, and benefits from deep water channel depths. The configuration of I-95, existing development within the Port District, and the proximity of residential areas combine to intensify demand for available land for Port related activities. The City's Comprehensive Plan recognizes the importance of the Port area as an integral part of the City's freight transportation network and as a component of the local economy. The context for future Port land use planning includes the City's ongoing planning initiatives to sustain adjacent neighborhoods, reclaim and enhance the waterfront area, and provide for public open space and access to the waterfront.

The Port of New Haven primarily handles petroleum products, chemicals, scrap-metal, lumber, metallic products, cement, sand, stone, salt and general break-bulk cargo. The New Haven fuel facilities are part of the US Government's Strategic Petroleum Reserve. Pipeline connections from the port handle jet fuel for Bradley International Airport and for the Massachusetts Air National Guard Base in Westover, Massachusetts. The largest multipurpose terminals are operated by Logistec Connecticut, Inc. and Gateway Terminal (with each operating multiple berths). The following table summarizes key characteristics of the primary facilities operating within the Port.

The history of New Haven is centered largely on its relationship with the Harbor and its adjacent waterways. The original colonial settlers were attracted by the opportunities for transportation, food and recreation which were afforded by the broad navigable harbor and its freshwater tributaries. During the colonial period New Haven became a center for commercial shipping as the Port developed on the western side of the harbor. Steamships from New York began service to the Port by 1815. Railroad connections were in place by the 1850's. The growth in both of these modes established the Port as the shipping and trading center of the region. By the 1870's industry had expanded into the present-day Port District at the eastern side of the harbor, extending northwards along the Quinnipiac and Mill Rivers.

Facility	Location	Berth Characteristics		Primary Cargoes
		Depth	Length	
Gateway Terminal	400 Waterfront Street*	35 feet	1500 feet	Asphalt, petroleum products, cement, steel, miscellaneous bulk products including scrap metal, sand, salt, stone, and limited general cargo
Getty Terminal	85 Forbes Avenue	16-20 feet	260 feet	Petroleum products
Gulf Terminal	500 Waterfront Street	35 feet	735 feet	Petroleum products
Magellan Terminal	280 Waterfront Street	36 ft	730 ft	Petroleum products and ethanol
	85 East Street**	30 feet (heavy oil wharf) 36 feet (light oil pier)	480 ft (heavy oil wharf) 700 ft (light oil pier)	Asphalt and other petroleum products; biodiesel (B100); biodiesel blended diesel fuel; bioheat
	134 Forbes Avenue	16 ft	200 ft	Petroleum products and ethanol
New Haven Terminal* **	100 Waterfront Street	35 – 39 feet	1340 feet at 35-ft depth 700 feet at 39-ft depth	General cargo, petroleum products, petrochemicals, chemicals, copper, zinc, lumber, steel, and waste paper
Motiva Enterprises	481 East Shore Parkway	N/A	N/A	Gasoline, diesel fuel, jet fuel, ethanol
R&H Terminal	120 Forbes Avenue	15-feet	300 feet	Petroleum products
PSEG Harbor Station	1 Waterfront Street	25 feet	400 feet	Occasional fuel oil receipt

Note: Data derived from US Army Corps of Engineers, Institute for Water Resources, Navigation Data Center, Port Series 04 (Ports of Southern New England).

*Gateway also operates numerous off-coast laydown areas, including a large rail transload facility on East Street.

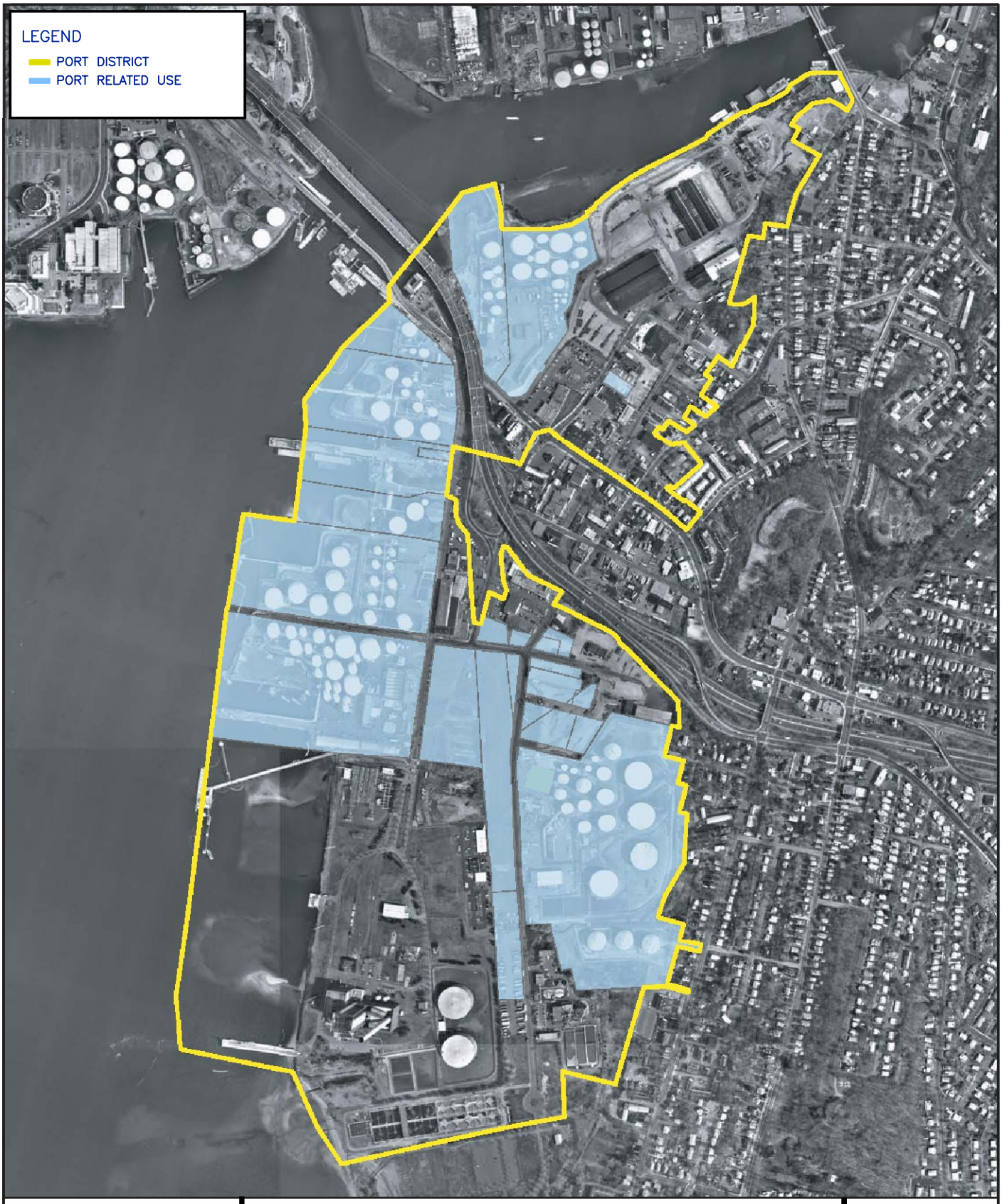
**Magellan's 85 East Street terminal is not located in the Port District.

***New Haven Terminal includes the Coastline Terminal Facility, operated by Logistec, Inc.

A checkerboard pattern of land use within the Port area has developed over the years, largely due to the efforts of private companies seeking to retain and expand their operations at the Port. Land use patterns have developed over many years without a comprehensive plan, resulting in private ownership of multiple, disconnected parcels plus an overall lack of staging and laydown areas. Most of the existing businesses are port related, but some are unrelated to maritime commerce. A depiction of business activity by type within the Port District is depicted on the accompanying Figure 3. The present terminal operators and land owners are:

Facility	Port Related	Multiple Sites	Total Acres
PSEG/Cross Sound Cable			44.4
Motiva Terminal	Yes		32.0
New Haven Terminal	Yes	Yes	24.6[1]
Greater NH WPCA			22.1
United Illuminating		Yes	20.2
Coastline Terminal	Yes	Yes	15.4
Magellan Midstream Partners	Yes	Yes	15.2
Waste Management			15.0
Gateway Terminal	Yes		8.9
Gulf Oil Terminal	Yes		9.3
Getty Oil	Yes		2.1
Colony Hardware			1.4
R&H (Hudson) Companies	Yes		8.3

[1]prior to takings for I-95
[2]usable



0 250 500 1,000 Feet

NEW HAVEN PORT AUTHORITY
STRATEGIC LAND USE PLAN
FEBRUARY 2007
FIGURE 3 – PORT RELATED USAGE

Interviews with the terminal operators indicate a need and desire to expand within the Port District, notably for staging and laydown areas. If such areas are to be located off-site at remote sites, then the associated local hauling costs (termed drayage) are a financial disincentive for the use of the Port. Specifics were not provided, but a typical drayage move in the range of four or five miles can cost in the range of $300 to $400.

Colony Hardware is a construction supply firm operating warehousing and distribution facilities for construction supplies. Colony Hardware occupies approximately 90,000 square feet and employs 90 persons. Although not maritime dependent, Colony is considered an acceptable fit for the City, given the commercial and trucking nature of the Port District.

Over the long term, the planning process must be flexible and also acknowledge the likelihood of changes in ownership and commodities associated with individual terminal properties. By way of example, New Haven Terminal has chosen to focus on petroleum / liquid bulk shipments and has made available land associated with its breakbulk operations to other operators, notably Coastline (operated by Logistec). All of the terminal operators interviewed during the preparation of this Plan commented on the need for land within the Port District which could be used for expansion of their operations.

Some of the terminal operators own or utilize facilities at other ports in the northeast U.S. which perform functions similar to those occurring at New Haven. This can lead to a sharing of such facilities. By way of example, Getty utilizes Gulf's facilities at other locations and, in turn, Gulf uses Getty's tank facilities at New Haven. The decisions to enter into such sharing arrangements are typically driven by market and cost factors which are beyond the purview of this project. However, in planning for future activities and land uses at New Haven it is important to be aware of the synergies which exist among the ports and the operators.

Unfortunately, only a limited amount of additional land within the Port District is available for growth – and expansion of Port District boundaries is not envisioned. The Port District existing operations are largely constrained by the I-95 right-of-way to the north and by

residential properties to the east. The ongoing I-95 Q Bridge Project has resulted in significant land takings from properties in the vicinity of the new roadway alignment, with notable impacts for New Haven Terminal and other adjacent non-port users. However, completion of the highway project is expected to result in the release of a significant portion (approximately eight to ten acres) of the existing I-95 right-of-way by the State for future Port District use. As proposed by the Port Authority, the actual conveyance will be from the State to the Port Authority, with the Port Authority then requesting bids from the interested parties. This process still needs to be memorialized.

The 13.9 acre right-of-way for the East Shore Parkway (ESP) is owned by the City of New Haven. The City now makes the ESP available on a month-to-month basis to Gateway Terminal, Logistec/Coastline Terminals for a laydown area and Westchester Motors for an office and truck yard. A key aspect of the land use plan is the transfer of ESP to the Port Authority, which in turn, will execute long-term leases for port storage and lay-down areas. Colony Hardware also uses a portion of the ESP for parking although no license is on file.

East Shore Parkway Storage Area

North of the I-95 corridor and Forbes Avenue there exists significant opportunity for development of the so-called Northside area. Magellan Terminal operates a pier and tank farm accessed from Forbes Avenue and

Hudson Company owns an adjacent parcel which, although essentially dormant at present, may be developed as a bio-fuel distribution facility in the future. Re-development of a former U.S. Steel site is now underway and this may ultimately serve as a support/staging site for a container feeder barge operation. An additional opportunity for expansion is the site occupied by Waste Management for their transfer station operations. Consisting of approximately 15 acres, use of this site would require relocation of the Waste Management operations to a new, permitted location. At the south end of the District, by contrast, the Greater New Haven Water Pollution Control Authority may need to expand its facilities based on court-mandated requirements to upgrade its treatment processes.

Northside Development Area

Transportation

Roadway access to the Port District is achieved via two main roads, Waterfront Street- and Stiles Street, both of which intersect with Forbes Avenue US Route 1, the main east – west connection traversing the Tomlinson Bridge. There is no designated truck routing, and the movement of trucks within the Port District, with the attendant noise and dust, has a disorganized feel to it. Truck volumes for the entire district have not been calculated, however it is estimated that truck volumes just associated with Gulf, Motiva and Magellan terminals can range upwards of 600 trucks per day.

Parking for employees and visitors to the sites is largely unregulated and undesignated. Estimates of the number of employees parking in the Port District on a daily basis were not immediately available.

Truck activity at Waterfront and Forbes

The use of public transit as an alternative to employee driving and parking does not appear to generate significant interest. The CT Transit Forbes Avenue Route F bus service operates between downtown New Haven and East Haven, providing reasonable transit service to the Port District, with stops along Forbes Avenue.

Rail service is being restored to the Port District proper by virtue of construction of a rail line along the eastern side of Waterfront Street with a series of siding tracks proposed to enter the private property of various terminals. Sidings are being designed for Gulf, New Haven Terminal, Gateway and PSEG. The Port Authority is working with state officials to expedite construction of the spurs soon after the road is reconstructed in 2008. Rail service is provided by the Providence & Worcester Railroad under an operating agreement with the State of Connecticut, which owns the Waterfront Street rail line. The Providence & Worcester is a large regional railroad with lines and trackage rights in Connecticut,

Massachusetts, Rhode Island and New York. Although not directly serving the Port, another large rail carrier, CSX Transportation, provides rail freight service in the New Haven area.

The new Tomlinson Vertical Lift Bridge now carries four lanes of traffic across New Haven Harbor and a single-track freight line owned by the Providence & Worcester Railroad Co. that connects the waterfront with Amtrak's Northeast Corridor line and the CSX rail yard in North Haven. The navigable channel under the bridge has been increased to 240 feet in width.

Water access for commercial shipping is via a channel approach from Long Island Sound with a controlling depth of 35 feet, although deeper water may be available at individual terminals. This channel depth is sufficient for accommodating ships in the range of 20,000 to 40,000 deadweight tons (dwt). The need for greater controlling depth of at least 42 feet and possibly 45 feet has been identified by many users of the Port, who have suggested the need for accommodating vessels in the range of 60,000 to 65,000 dwt. The Harbormaster, a state-appointed volunteer steward of the harbor, is responsible for the various enforcement functions within the Harbor and its mooring fields. At present, the Port does not have the services of either a police boat or a fire boat. The nearest fire boat is based at Milford and West Haven has recently taken delivery of a police boat. The Harbormaster typically coordinates emergency responses with the US Coast Guard, which is located at 120 Woodward Avenue. This is the Long Island Sound headquarters of the Coast Guard. Spill response services are available from private entities such as Sea Support and Miller Marine.

Economic Development

The Port provides a key function in the local and regional economy by virtue of the cargoes handled and the associated employment and tax revenues. However, some of the Port's operations, notably the petroleum facilities, are viewed as having relatively few employment opportunities as compared to the land areas occupied. Consideration is being given to the implementation of a feeder barge service for containers connecting with the intermodal facilities at the Port of New York & New Jersey (PANY&NJ). Formally identified by the PANY&NJ as the Port Inland Distribution Network (PIDN) this is envisioned as a hub-and-spoke network designed to move containers by barge from NY/NJ to water-accessible points such as New Haven. This is envisioned to be an operation whereby containers are transported by barge between the two locales and are lifted onto and off the barges at the terminals.

One of the issues to be recognized as part of the implementation of Strategic Plan is the value of the Port's operations to the local economy in terms of employment and tax revenues generated directly by activities within the Port District as compared to the Port's greater contribution to the region's economy as measured in terms of cargo throughput, critical commodities handled (such as petroleum) and the presence of end users and support facilities. The resulting economic activity measured by payrolls, local purchases of goods and materials and employee spending and taxes has a "multiplier effect" that can result in a substantial increase in the value of port-related economic activity as compared to the on-site port activity.

Therefore, in addition to local benefits generated by on-site activities, the City also stands to benefit from adjacent or nearby Port-related activities such as trucking, truck servicing and repairs, warehousing and freight consolidation facilities. A freight consolidator solicits cargoes from various shippers and then consolidates the loads into trailers and containers for various destinations. The loads are then "unconsolidated" at a receiving facility. Such operations need not be located on-dock, and can also serve shipments which are non-maritime.

There are few if any such facilities in the immediate area and this is one of several reasons why the private sector has not initiated feeder barge service. Still, consolidation facilities are best sited in areas close to a port district. Indeed, part of the Strategic Land Use Plan development is the identification of off-site areas in the vicinity of the Port where Port-related operations can grow.

In addition to freight handling, the port and nearby areas are attractive to warehousing and manufacturing facilities which rely on components shipped in from various locations. Warehousing and/or manufacturing facilities which accommodate international cargoes can be located in Foreign Trade Zones (FTZ's) providing importers and exporters storage, distribution and manufacturing space where cost saving customs procedures may be used. FTZ's allow domestic activity involving foreign items to take place as if it were outside US Customs territory. This offsets the customs advantages of overseas producers who export in competition with US companies. Exporters use the sites to import components, assemble them into end products and then re-export the finished goods. There are no duties or quota charges on re-exports and no customs duties and federal excise tax deferred on imports in FTZ's. Components can enter at the lower duty rate (as part of a finished product) rather than at the higher rate for components – as long as they are exported back out of the zone. Also, foreign and domestic goods held for export are exempt from state and local inventory taxes. An FTZ for the Port of New Haven is presently inactive and under the control of terminal operator Logistec. Reportedly, the five-acre FTZ was originally secured by the Greater New Haven Chamber of Commerce and was designated for support of pharmaceutical manufacturing operations in the greater New Haven area.

Infrastructure

The reconstruction of Waterfront Street is programmed to occur, following the construction of rail sidings to serve businesses within the Port area, and Stiles Street as part of the Q Bridge project. A new sanitary sewer line and a drainage system, which will supplement Connecticut DOT's I-95 Improvement Project drainage improvements, are also planned for the Port area. No other road work is presently planned.

Piers and berthing facilities in the area along Waterfront Street are generally well-maintained by the respective terminals. North of the Q Bridge there has been significant deterioration along the shoreline bulkheads owing to the lack of commercial use. There is continuing work on the Buckeye Pipeline, including soil modification and facility relocation to accommodate I-95 construction.

Security

The operators in the Port area have each prepared a Facility Security Plan (FSP) to comply with the requirements of the Marine Transportation Security Act (MTSA) regulations in 33 CFR Part 105. Security measures include fencing, lighting, camera systems to provide perimeter security and a first line of defense to prevent trespass. The United States Coast Guard (USCG) oversees commercial vessels only and is responsible for patrolling the New Haven Harbor area. The protocol for ships entering New Haven Harbor requires advance notification and screening of safety and security requirements.

It may also prove advisable to establish various zones of land uses, based on the need for reducing or eliminating public access during increased levels of security. This would be identified both in terms of land use and ground transportation network planning.

Spill / Emergency Response

Each facility has its own security plan and its own spill response plan. In addition, the New Haven Petroleum Cooperative has formed a collective spill response procedure, to which each member contributes to purchase and maintain equipment. When spills occur, the operator usually provides the initial response, and is also assisted by the City Fire Department, the USCG and the Connecticut Department of Environmental Protection.

Environmental Performance

The Port is faced with concerns typical of older industrialized areas including "brownfield" sites, storage tank remediation, dust, vehicle emissions and noise. The presence of large amounts of petroleum products gives rise to aromatic signatures in the vicinity of the Port. The latter three items are of particular concern given the Port's proximity to residential and commercial neighborhoods. The City of New Haven is in non-compliance status for PM 2.5. Diesel emissions from Interstate I-95, trucks, off-road vehicles and other port-related activities all contribute to the problem. Likewise there is a Department of Environmental Protection consent order for East Shore Parkway, given the high amount of dust generated from storage / laydown activities. Neighborhood parks can also be accessed from public roadways within the Port District, although the absence of sidewalks and intense trucking activity suggest that these are not appropriate walkways for recreational pedestrians.

Community Considerations

Interviews with community groups (refer to the Appendix) evidenced an appreciation of the Port's role in the local and regional economy. Concerns pertain to emissions and noise from truck traffic on local streets, industrial fumes, possible water contamination, removal of unused facilities – notably tanks - and cleanup of so-called brownfield sites. The heavily utilized active and passive recreational facilities afforded by East Shore Park, Fort Nathan Hale and Nathan Hale Park are viewed as "untouchable" assets of the community. These community resources are protected from development.

Strategies for Future Development

The strategic issues, objectives and strategies presented in this plan are critical in that they significantly affect the ability of the Port to achieve its missions and goals, require the attention of senior management or require significant resources to address. These strategies focus and expand on the objectives set forth in the Port Authority's 2006 Work Plan, albeit with further amplification, as set forth below:

- "Expand the Land Available for Port-Related Activities at the Port District" – *as addressed by this Strategic Land Use Plan this objective focuses on more efficient use of the existing land area and the continuing conversion of land use within the Port District to activities which relate directly to port and maritime activity. As such, this confirms and corresponds directly with the Key Action defined as "Expand the Land Available for Port- Related Activities".*

- "Improve Access to the Port District" – *as evaluated by the Strategic Land Use Plan this objective encompasses various recommended improvements in the landside and waterside transportation access to the Port District, including opportunities to improve roadway and rail systems within the District. This has culminated in two Key Actions defined as "Improve the Transportation Network within the Port" and "Formulate a Plan for Dredging of the Harbor Channel".*

- "Enhance Port Operations and Service Delivery" – *as considered by the Strategic Land Use Plan, improvements to port operations are an overarching objective for all of the recommend actions contained in the plan. The associated topic of service delivery relates directly with the need to provide a port facility and associated services which meet the needs of the Port's user's and which are recognized as being competitive with other facilities in the region. Accordingly, the Plan has sought to relate this market-driven objective to the subject of the Port's competitiveness, image and viability. The associated Key Action is defined as "Develop a Marketing Program for the Port".*

- "Provide Leadership on Community Issues" – *as discussed and evaluated in the Strategic Land Use Plan, this objective has centered on various environmental concerns pertaining to the Port's on-site facilities and operations, and to the impact's of the Port's presence on its neighboring communities. Going forward, the Port is seen as having the opportunity to manage its evolution and growth in a manner which is compatible with community concerns and which can provide an example of good environmental and community stewardship. The resultant Key Action is to "Program Growth and Future Operations in Environmentally Positive Ways".*

Expanded Land Use

Successful port facilities depend upon an adequate supply of land to meet existing and future capacity needs. In addition, transportation dependent industries, which include logistics suppliers and manufacturers, require industrial land to sustain and expand their businesses. Although expansion of the Port District beyond its present boundaries is not contemplated, there are opportunities to increase both the amount and productivity of land available for port-related activities within the District boundary, as described below. The accompanying Figure 4 depicts the anticipated expansion of port-related land use within the present Port District boundary.

Major Parcels

East Shore Parkway (ESP) – this area encompassing 13.9 acres, presently owned by the City and to be conveyed to the Port Authority, is already being used as a "backlands" staging/laydown area for terminal operators situated along the harbor. As such, this area already serves to directly support maritime commerce at the Port. Improvements to the site encompassing better roadway / driveway access, grading and drainage, relocation of lighting and utility poles, and installation of perimeter fencing and gates would improve its overall utility and capacity. The presence of underground utility lines on the ESP land, notably sewer lines, precludes the construction of building foundations and similar subsurface work on this land. In addition, it may be necessary to restrict the loadings associated with at-grade materials storage so as not to increase ground pressure to an extent that could damage the underground utility lines. This issue requires further study. Some of the proposed routings for the Harborside Trail also posed concerns for the use of, and access to, the ESP for port-related commercial activities. However, the Harborside Trail route presented as part of the Strategic Land Use Plan and depicted on Figure 4 "Future Development" avoids any negative impacts to the ESP area.

East Shore Parkway Utilities – Underground Pipeline Marker

North Yard Redevelopment – this privately-owned 8.6 acre former industrial site is in the process of being redeveloped, initially as a trucking and storage facility, with the possibility of future use as a staging and support area for intermodal container services.

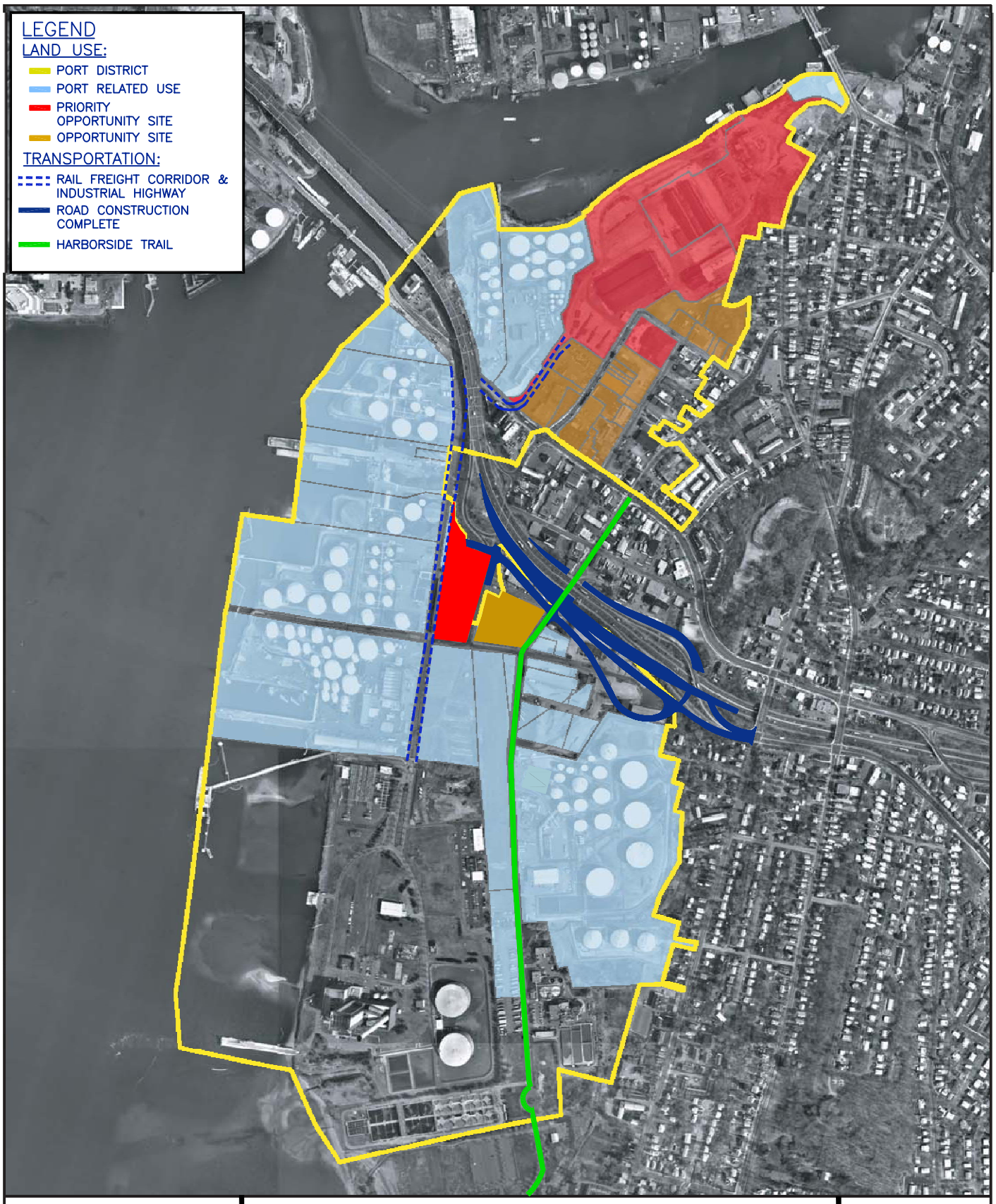
I-95/ Q Bridge Surplus Right-of-Way – this land encompassing eight to ten acres, is being "freed up" by the ongoing Connecticut DOT I-95 / Q Bridge project. The Port Authority has proposed to acquire this land from Connecticut DOT and then, by issuing a Request for Proposals (RFP), to initiate a competitive bidding process based on expressed need and interest.

Special Cases – the presence of two existing entities, the Greater New Haven Water Pollution Control Authority (WPCA) and Colony Hardware will continue within the Port District given their unique requirements.

By virtue of the presence of its receiving, treatment and discharge facilities the WPCA land holdings will remain in place. Situated at the

southern end of the Port District, the WPCA activities are removed for the Port's commercial activity and do not pose any long-term compatibility issues. The WPCA land holdings need to provide for further plant capacity/treatment expansion and this is a provision that is being resolved as part of the finalization of the ESP conveyance between the City and the Port Authority.

Colony Hardware, while not a direct user of maritime services at the Port, arguably provides the most labor-intensive land use within the Port District and its warehousing and trucking activities are entirely compatible with the Port's commercial activities.



NEW HAVEN PORT AUTHORITY
STRATEGIC LAND USE PLAN
MAY 2007
FIGURE 4 – FUTURE DEVELOPMENT

Underutilized Parcels – some smaller parcels of land are not fully utilized at this time and it is incumbent on the Port Authority to encourage more intensive use of property or affect conversion to port use.

Off-site Opportunities – some of the storage and warehousing activities associated with port commercial activities could be developed at off-site locations, with truck and/or rail access providing connections to the Port. Two examples of sites which could be developed as adjuncts to the Port District are a former Stop & Shop regional distribution center in North Haven and the Cedar Hill rail freight yards, large portions of which are available for commercial development. Both locations can be served by rail and truck.

Relocations – some rearranging of land uses could also facilitate the further development of maritime related activities. Adjacent to the North Yard, the site presently occupied by Waste Management Inc. represents an activity which is entirely unrelated to the Port's commercial focus and therefore is a long-range candidate for relocation, especially if the use remains non-water-dependent. In addition, smaller commercial business lots may be appropriate acquisitions if they can be aggregated.

Waste Management Site at North Yard

Recommendations

1) Complete Transfer of East Shore Parkway to the Port Authority – Work with Terminal Operators and Tenants to Improve Use of the Property.
2) Optimize Development of North Yard Area and Work Closely with Property Owners to Provide Efficient Modal Connections and Port-Related Land Use
3) Identify Off-Site Opportunities for Port-Related Distribution and Warehousing – Work with Municipalities and Service Providers to Facilitate Acquisition and Development
4) Identify, on a Continuing Basis, Opportunities for Relocation of Non-Port Related Operations either within or Outside of the District
5) Establish a pre-development / opportunity program to seek out property within the port district when it becomes available by sale, foreclosure, etc.
6) Acquire residual state ROW (6-acres) when released following completion of Interstate 95 project
7) Establish a Port-Zoning District to Facilitate the Expansion of Port-Related Land Uses within the District

Improved Landside Transportation Facilities

Although much of the Port District consists of privately owned and operated facilities, all of these sites are served by public streets, waterways and utilities. The investment of public resources in the upgrading and maintenance of these systems represents the importance with which the Port and its users are viewed by the general public in both a local and regional context. Arguably the largest investment to-date which can benefit the Port is the ongoing I-95 / Q Bridge Project which will result in improved vehicular access for the Port. In addition, the I-95 project is providing for the reconstruction of Waterfront Street, incorporating a series of rail sidings which can serve terminal locations along the street. In addition, the project is providing a new sanitary sewer line and drainage system.

Beyond these ongoing infrastructure improvements, a longer term item is the possible reconfiguration of the internal roadway network to better accommodate new security arrangements, truck layover or staging areas

and the more intense use of the East Shore Parkway storage sites. As part of these roadway modifications and improvements, associated utility systems may also be upgraded. Another infrastructure-related item is the security system which is discussed in more detail subsequently in Section E – "Strengthened Security".

Idling Trucks Along Connecticut Avenue

Most of the landside transportation activity associated with the Port has been, and will continue to be, based on trucks-typically large tractor-trailer rigs-making deliveries to and pick-ups from the Port. Improvements to the traffic flow within the Port area are needed to mitigate the often-circuitous routings and the parking (or layover) of idling trucks while awaiting access to the waterfront terminals or backland storage sites. This is particularly evident along Connecticut Avenue adjacent to the ESP parcel. The suboptimal truck operations represent a cost and productivity disincentive for the Port users as well as contributing to environmental and community concerns.

Truck operations could be improved by provision of a consolidated off-street staging or layover facility, although the exact location of such a site remains elusive in the short term. Use of the North Yard area would seem to provide adequate space for such an operation, but development

of this site is already underway. In the longer term, the Waste Management site may afford a good location for such a facility.

In the longer term, truck activity in the North Yard area will increase if plans to develop a container "feeder barge" operation come to fruition. As noted previously, this would entail the handling of containers on barges in cooperation with the Port of New York & New Jersey. A barge-to-truck modal transfer would occur at New Haven, with the barges docking at a Waterfront Street terminal location. The terminal operator would transport the containers by roadway between the terminal site and the North Yard. Customer drop-off and pick-up of the containers with the associated paperwork would occur at the North Yard. This would result in the need for a "pool" of chassis used to transport the containers, likely to be based in the vicinity of the North Yard.

Rail freight service represents a growing opportunity for the Port, as evidenced by the restoration of rail access along Waterfront Street and the planned construction of rail sidings into terminals adjacent to Waterfront Street. Once the rail line is fully operational, transload space in and around Waterfront Street will be a priority need for the bulk / break bulk terminals.

Rail Service on Waterfront Street

Interest has also been expressed by terminal operators in the provision of a rail spur extending from Forbes Avenue into the North Yard site. This site was at one time served by rail and portions of the former rail spur right-of-way are still identifiable. Rail access to the Northside of the Port District should be protected and eventually provided as development of this area moves forward. Although rail service should not be viewed as being a substitute for truck activity, it does represent an important asset for expanding the Port's operations over the long term.

One further aspect of multi-modal transportation is the potential for reducing automobile traffic, and the need for parking spaces, within the Port District as occasioned by employees driving to and from work. The existing Connecticut Transit bus services do not enter or circulate within the Port District, apart from passing through on Forbes Avenue. A set of public transit services which provided better access to the various terminal sites and which operated on schedules which are suited to the various terminals' operating regimens would be an inducement for some employees to forego the use of personal automobiles. Public transit could also provide access to employment opportunities within the Port for individuals who do not have access to an automobile. In addition to the promotion of public transit services, provision of vanpooling or ridesharing arrangements could also reduce the presence of personal automobiles within the Port District. This could be facilitated by the creation of a transportation management association (TMA) for the Port District, possibly as a joint undertaking between the Cooperative and the Port Authority.

In addition to the functional infrastructure elements, it is also deemed important that the visual identity or "curb appeal" of the Port District be enhanced. This would include aesthetic improvements encompassing general clean-up; removal of unused tanks and facilities; landscape treatment at entrances, at key intersections and signage at entry – welcome message with list of businesses and locations

Recommendations

8) **Improve Traffic Flow within the Port Area – Truck Routing and Off- Street Waiting Facilities**

9) **Continue to Promote the Use of Railroad Services – Provide adequate trans-load space and sidings in and around Waterfront Street and Provide Access for a future Northside Rail Connection**

10) **Provide Incentives for Employee Use of Public Transit**

11) **Work with Terminal Operators to Provide Efficient Landside Connections for Feeder Barge Service**

12) **Analyze the Internal Public Street Network to Better Accommodate Truck Operations and Access to Staging Sites**

13) **Implement a General Site Clean Up and Aesthetic Improvement Program for the Port District**

Improved Waterway Infrastructure

As noted previously, terminal operators have expressed concern with the long-term implications of being served by a shipping channel which has a controlling depth of only 35 feet. (The Port of Providence, for example, now has a main channel depth of 40 feet). There is a need for dredging the New Haven channel to a depth of at least 42 feet and to establish a program for periodic maintenance dredging to maintain that depth. Depending on the development of the North Yard and its environs, dredging of the channel north of the Tomlinson Bridge and repairs to the bulkheads along the east side of the Quinnipiac River may be required. In the near term, a study of the dredging program, including scope costs and impacts, should be prepared. Implementation of a dredging program is considered to be a long-term issue.

Recommendations

14) Develop and Implement a minimum 42-Foot Depth Dredging and Maintenance Program for the Channel

15) Identify Bulkhead Repairs and Possible Dredging Requirements for Channel north of Tomlinson Bridge

Enhanced Economic Competitiveness

As a regional "niche" port, New Haven has been, and will continue to be, in competition with other such ports in southern New England, notably Providence and Bridgeport. These ports have similarities in terms of some of the commodities handled, in the overlapping customer markets that they serve, in their location in older urbanized areas, and in the fact that some of the terminal operators have facilities in two or three of these ports. These facilities have been sized to serve the customer markets, which in New England tend to be stable but with no expectation of major growth. However newer commodities, such as bio-fuels and ethanol for gasoline, can provide opportunities for expanding port volumes. Even the duplication of facilities at the region's ports can provide regional benefits, as witnessed by the Port of New Haven and Bridgeport handling of additional gasoline products following a fire at the Port of Providence in July 2006.

Beyond these synergies there is a continuing need for the ports to distinguish themselves and promote an individual identity. One of the singular opportunities for the Port of New Haven is the potential for establishment of a feeder barge container service operated in conjunction with the Port Authority of New York & New Jersey. As envisioned, this operation would entail the handling of foreign containers being transported by ocean-going vessels at PANY&NJ facilities, with feeder barge connections to New Haven for containers destined for (or originating from) the New England region. The provision of such an internationally visible service, combined with the presence of an FTZ and associated opportunities for customer warehousing and logistics distribution in the New Haven area represent a singular opportunity for economic growth, particularly in an expanded market in the Northeast U.S.

In short, there are three means of "growing the Port."

- Increase the amount of tonnage of existing types of cargo
- Handle new cargo from new or existing customers
- Diversify operations in conjunction with other ports .

While pursuit of these opportunities may be handled by private operators and shippers, there exists a need for the Port Authority to work its private sector partners in identifying those business opportunities that will contribute to job generation, and revenue growth, and which are compatible with the strategic plans of the Port. Moreover, there is a need for the Port Authority to develop an overall marketing plan for the Port as a whole and to implement improvements to the infrastructure elements so as to keep the operations of its various terminals cost-competitive.

Recommendations

16) Maintain Regional, Niche Market

17) Explore Synergies with Port of NY / NJ, Providence, Bridgeport and other Regional Ports

18) Seek Opportunities to Develop International Trade and Utilize the FTZ.

19) Expand and Diversify Market by Identifying New Businesses for Port District that will Contribute to Job Generation ,Tax Revenues, New Market Areas, and Environmentally-Friendly Businesses,

20) Enhance Visibility – Develop Overall "Marketing Plan" and Visibility for the Port

Strengthened Security

In the past, port security generally has been the same type of security afforded by industrial operations – security guards, gates, fire alarm and intrusion alarm systems. In the post-September 11th environment, however, ports and harbors are being viewed as being vulnerable to terrorist attack. The U.S. Congress has passed legislation that requires the implementation of systems and programs that require security

assessments, work identification cards, and a cargo inspection system, primarily focused on containers. For the Port of New Haven's landside facilities, compliance and implementation has been, and will continue to be, the responsibility of the Cooperative and the CAO. The Port Authority and the City will continue to play supportive roles with respect to grant applications and supporting documentation as needed. Apart from the individual terminal properties, a longer range objective that would be implemented as part of the infrastructure improvements would be the establishment of a Port District security perimeter that would encompass the outer boundary of the Port District and which would facilitate controlled access to the District in response to elevated threat levels.

Recommendations

21) Assist the City of New Haven and the Port Terminals to Install Security Systems by (a) Providing Financial and Technical Support on Grant Applications and (b) Participating in Security-Related Planning and Drill Exercise.

22) Conduct a Feasibility Study to Explore Alternative Roadway Configurations with the Focus on (a) Improving Traffic Flow and (b) Better Securing the Port Perimeter.

23) Support the City in its Efforts to Procure an Incident Response Boat, which could be used for Police Department Inspections and/or Fire Department Response As Needed.

Environmental Performance

As a maritime facility with a long history and being located in an urbanized area, the Port of New Haven has many opportunities to contribute to the environmental improvement of its surroundings. Its proximity (1/4 mile) to Interstate 95 allows for much of its vehicular activity to avoid local arterial roads, and its accessibility to railroad and pipeline modes of transport offer further opportunity to grow in volume for some commodities without generating a corresponding increase in vehicular traffic.

Further improvements to the environmental aspect of Port traffic can be achieved by improvements to the internal street network, improved directional signage to keep trucks away from adjacent residential areas and prevent drivers from "getting lost" within the District. As discussed previously, a truck staging or layover area situated away from residential locations will further reduce truck impacts. The creation of truck staging area(s) may also afford the opportunity to implement various idling / emissions control facilities as are now being implemented at truck rest stops along major highways.

The Port also provides an opportunity to provide vastly improved access to waterfront parklands by virtue of having resolved the location of the Harborside Trail, removed from areas of trucking and railroad activity, in cooperation with the Greater New Haven WPCA. Specifically, it is proposed that the Trail access the parklands by using a routing from Woodward Avenue that passes along the undeveloped southern and eastern periphery of the WPCA property at the Port District.

Redevelopment of "brownfield" sites within and adjacent to the Port District, such as the North Yard, provides both an economic and environmental benefit to the community and is a process to be encouraged. This represents part of a larger land use coordination effort with City and State planning for development adjacent to the Port District.

The use of efficient designs in the construction of new or remodeled buildings within the Port District also affords an opportunity to implement good environmental stewardship at the Port of New Haven. These designs can incorporate energy consumption features for heating, lighting and building systems, wastewater and drainage features, and incidental details such as paving and landscaping. Such designs are being pursued under the descriptive headings of "environmental sustainability" and "leadership in environmentally efficient design", and various national and local accreditation programs are now being implemented.

Overall, if the Port is to grow it must do so in a manner which reflects a commitment to managing the on-site environmental impacts and

demonstrates a commitment to improving environmental well being of its neighbors.

Recommendations

24) Continue Work to Reduce Vehicular Impacts in the Port District and Community by (a) Reducing the Amount of Truck Idling Times while Waiting to Deliver or Receive Loads and (b) Improving Roadway Circulation Patterns to Optimize Truck Routings.

25) Install "No Idling" Reminders on City Streets

26) Continue to Work with City, Regional and State Partners in Developing Industrial and Recreational Facilities in a Manner that Reflects the Importance of Environmental Resources in Terms of Land Use, Energy Consumption and Quality of Life.

27) Work with the City and the Greater New Haven WPCA to Implement the Harborside Trail Utilizing a Route which Passes Along the South and East Side of the WPCA Property.

28) Invest in Emissions and Noise Control Technologies within the Port District

Community Relations

By virtue of its location in an urban environment, the Port will have to commit itself to a sustained program of addressing community concerns if it is to be successful in its program of site expansion and economic growth.

Key issues will entail:

- **Noise** – as generated from various vehicles and material handling equipment within the Port District. This may become more of an issue if time-sensitive shipments / operations such as containers take hold at the Port. These shipments typically are handled on a basis whereby containers are unloaded and dispatched as soon as the vessel arrives, irrespective of the time of day. This situation

will need to be monitored closely by the Port Authority in conjunction with the terminal operator(s).

- **Truck Routing –** as occasioned by trucks serving the Port using neighborhood streets and also creating congestion on arterials such as Forbes Avenue. Improvements to street and highway ramp layouts and signage should mitigate this situation, but the Port Authority will need to work closely with terminal operators and their associated trucking companies to ensure that truckers are aware of the need to refrain from using residential streets that are not designed to handle them.

- **Communication –** a continuing dialogue should be maintained with the community to provide information about and allow discussion of the longer range planning initiatives and specific projects, and also with the day-to-day operations of the Port. From the Port Authority's perspective this can serve as a means to address the community's concerns as well as way to further inform and educate the public about the services and economic benefits provided by the Port's activities. This process would be enabled by media such as newsletters and a website.

Visibility of Traffic Signage Should Be Improved

Truck Routing Signage Plan Needs to Be Developed

Presence – an onsite location should be identified and developed as a "front office" for the Port Authority. This space need not be a large facility, possibly consisting only of an office and conference room. This could be incorporated into an expansion of a private terminal or as part of a "front gate" visitor orientation and marketing facility. The key points are that such a facility would: 1) provide the Port Authority with its own presence at the Port; 2) enhance its marketing efforts; and 3) allow for public meetings, etc. to be held without relying on third-party sites.

Recommendations

29) Establish a Visible Presence and Communications Regimen at the Port to Reinforce the Role of the Port Authority and Enhance the Relationship of the Port with its Neighbors, the General Public and the Business Community

30) Develop and Implement a System of "wayfinding" Directional Signage to Guide Trucks to and from Facilities within the Port District with the Added Benefit of Preventing Incursions into Residential Areas

Land Use Concepts

The preceding sets of recommendations are intended to highlight specific actions and responsibilities that are deemed necessary to expand the maritime activity of the Port of New Haven and contribute further to the economic growth of the New Haven region. The underlying foundation of these recommendations is a set of land use concepts that seeks to: facilitate economic development opportunities related to key development parcels; improve roadway circulation particularly for trucks; facilitate use of rail freight service; preserve and enhance open space and recreation opportunities; and identify opportunities to expand the tax base and create new jobs.

Preliminary Land Use Concepts

Development of land uses for planning purposes needs to reconcile the existing fabric of property owners and uses, with the desire to maximize Port/ maritime related activity. The remaining Port District would be established as a Port Zone, thereby allowing Port/Maritime use by right and other industrial but not port-related uses by permit. Certain land uses, as noted below, are special cases and are noted as such on the proposed land use map. The latter would be established with time restrictions so that the land could revert back to port- related uses if and when circumstances so require.

Within the Port District, a sub-set of zones could be established identifying:

- **Multimodal areas** with direct waterfront / pier access and areas with railroad access (in addition to truck). This designation could also encompass sites with direct access to the petroleum pipeline, or this could be a separate sub-zone.

- **Ground Storage areas** ("Land for Logistics") whereby erection of permanent structures would be precluded – this would include areas of the ESP where subsurface easements would preclude such construction. To the extent possible, these areas would be targeted for outdoors material laydown or storage areas and possibly for vehicle storage.

- **Support Facilities** encompassing activities such as materials testing laboratories, truck servicing and repairs, restaurants, etc.

Obtrusive vehicles at Waterfront Street

Although such activities need not be contiguous with the waterfront and key transportation lines, they should be located nearby and their proximity can reduce the associated traffic on area streets. Presumably such activities could be programmed as interim uses until the space is needed for freight handling activities, at which time they could be relocated to available sites nearby the Port.

- **Industrial Roadway / Freight Corridors** identifying roadway and railroad routes which provide connections to individual terminal sites and warehousing areas. These corridors would be expected to serve as the main freight cargo transportation routes into and out of the Port District. As such, they would be expected to experience high traffic volumes and would not be recommended for general vehicular traffic as part of a roadway modification plan. In accommodation of a container feeder barge operation, the industrial route(s) would also be permitted for excess weight roadway movements. These routes would likely include the northern portion of Waterfront Street and an extension north of Forbes Avenue into the North Yard area.

Off-road Materials Handling Equipment on Waterfront Street

- **Secured areas** for those sites whereby access will be controlled by fencing and/or security checkpoints. This would build out from the existing secured terminal sites to some of the staging / materials handling sites.

The plan also identifies large, key future development parcels, including the North Yard and the East Shore Parkway, Interstate 95 right-of-way and other possible acquisitions within the district, particularly north of Forbes Avenue, which would be targeted for specific projects or development needs.

Passive recreational sites would also be identified although the proposed routing of the Harborside Trail along Woodward Avenue and then along the southern periphery of the WPCA property would remove this from immediate impact on the Port District. As part of the land use plan, any further expansion of the WPCA's facilities should be identified, particularly if easements for sewer lines or monitoring equipment through the Port District would be required.

Analysis and Evaluation of Concepts

The above-described approach would perpetuate the existing use of the terminal facilities and provide additional backland areas for these operations. This would not immediately encumber any ongoing planning on the part of property owners pertaining to acquisition and development of sites. This proposed set of land use concepts would allow for such development to occur in an informed manner with respect to maritime uses, and it would confirm and quantify the amount of land which could be given over to such activity in the long term.

These concepts pose a challenge to the Port Authority and to the City because, to be successful, they will require a close working relationship with the private facility operators and will require an appreciation that the betterment of the Port may, in certain circumstances, override individual opportunities.

Overall, the advantages of this approach lie in the ability to:

- Quantify the amount of land to be dedicated to port-related uses in the long term
- Confirm the Port Authority's prioritization of Port District land for maritime-related uses

- Identify areas that have build-out restrictions due to easements and other encumbrances
- Identify primary transportation and utility corridors to be taken into consideration future planning and development
- Explain the growth plans for the Port to the general public in a rational and understandable manner

Implementation Plan

Framework for Implementation

Given the long-term configuration of the Port as a cluster of privately owned and operated facilities, combined with the recently established Port Authority, the advancement of the Strategic Plan will be undertaken in the form of a public-private sector partnership. Indeed, given the resources immediately available to the Port Authority and the expertise and business relationships vested in the private terminal operators, such a partnership is deemed most beneficial.

Role of the Port Authority

In respect of the established private ownership and investment in the Port of New Haven's facilities, the role of the newly-created Port Authority is envisioned to be that of a facilitator and supporter of the Port, rather than an extensive property owner and day-to-day caretaker. The Port Authority, working with the City, is best positioned to guide and monitor the land use and development within the Port District. Working with the private property owners and other real estate interests, the Authority can seek to maximize the maritime-related use of existing sites and, working with the City, can facilitate the acquisition and development of supporting sites in the environs of the District proper. The Port Authority is also tasked with the pursuit of land-ownership opportunities where "contamination, speculation or other non-port drivers inhibit port-related development and use". The role of facilitating development can

also be expanded to include working with other municipalities and regional agencies to jointly identify and guide the development of "remote" sites which can be used by private interests as an adjunct to the Port's operations.

As a public agency, the Port Authority is also well-positioned to work with the private interests in coordinating efforts to identify opportunities, and secure state and federal funding for improvements to the Port's infrastructure and security functions. In its public and coordinating role, the Authority is also best positioned to engage the Port's public neighbors and address any concerns with the present and future operations and developments within the Port District.

Finally, the Port Authority is also in a unique leadership position to promote the benefits of Port in terms of the facilities and services that it offers, both to the end users and to the general public. The ability to function as a "champion" for the Port serves both as a marketing function directed towards the shippers, transportation providers and associated logistics companies and as a means to fully identify the benefits provided by the Port in terms of tax revenues, employment and induced economic benefits.

Role of the Cooperative

The New Haven Harbor Petroleum Cooperative will continue to have a key role in overseeing the operations and facility development of the various private entities which operate within the Port District. The Cooperative will continue its role as the point of coordination among the various terminal operators and will coordinate with the Port Authority and other public agencies with regards to the formulation and implementation of specific actions within the Port District, notably as pertains to infrastructure and security programs.

One key point that should be emphasized is that the creation of the Port Authority and the development of this Strategic Plan should not be construed in any way as weakening or subrogating the decision-making role of the private terminal operators at the Port. Indeed, the purpose of this commitment of public resources to the long-range planning of the

Port District emphasizes the importance associated with the economic and social benefits provided by the Port community's members.

Performance Measures

Performance of the Port facilities would typically be measured in terms of cargo throughput (tonnage or volume) and the dollar values of those commodities. Improvements to the Port's land use and operating efficiencies could be expressed in normalized terms of volume per acre and should show an increase based on landside improvements. Operating efficiencies can also be expressed in terms of the handling cost at the Port, which can be expressed in terms of handling costs per volume of cargo.

Improvements in vehicular operations, notably trucks, can be expressed in terms of miles of travel, hours of operation, or fuel consumption or emissions. In view of the plans for expanded activity and possible inauguration of container service at the Port, these factors should be normalized in terms of cargo volume handled since the amount of vehicular activity will increase.

Key Indicators

	Description	Today	5-Year Objective
Port Land Use	Increase the amount of land used by port terminals.	116 acres	+ 20 acres (17% increase)
Rail Penetration	Increase the amount of cargo shipped by rail,	70,000 gross tons	100,000 gross tons (40% increase)
Economic Performance	Increase indirect economic activity associated with the Port.	400 jobs	450 jobs (12% increase)
Environmental Performance	Address port-related PM 2.5 emissions	120 tons / diesel	Reduce by 20 tons / diesel (16% decrease)

Financial Viability

At present, the financial viability of the Port is measured by the financial well-being of its private companies. To the extent that these private interests are invested in operations at other port facilities, the relationship of their overall financial condition to the Port of New Haven can not be directly discerned. In the near term, the Port Authority's resources are expected to be limited revenue streams accruing from property leases, notably the East Shore Parkway parcel. Additional revenues originating from fees or other mechanisms associated with securing funds from the Port's operations are not contemplated. Indeed, various members of the Port community indicated that the imposition of any fee structure would be detrimental to the cost structure of their existing operations at the Port, given the competitive pressure from other Ports.

However, the financial impacts of implementing some of the mid- and long-term impacts need to be recognized. To that end, supplemental funding should be secured from local, state or federal sources, as well as from public/private partnerships to pay for major capital expenditures with regional impacts.

Three to Five Year Implementation Strategy

For the near term, the Port Authority and its partners can embark on a series of projects that can enhance the Port's marketability, functionality and appearance while continuing to refine the longer range programs that would be implemented as long-term projects:

Based on the previously-cited Recommendations, the activities for the Three to Five Year Period include:

- **Recommendation #1:** Complete Transfer of East Shore Parkway to the Port Authority – Work with Terminal Operators and Tenants to Improve Use of the Property - *to be led by the Port Authority*.

- **Recommendation #2:** Optimize Development of North Yard Area and Work Closely with Property Owners to Provide Efficient

Modal Connections and Port-Related Land Use- *to be led by the Port Authority in cooperation with the City of New Haven and the Cooperative.*

Opportunities for Expansion of Port Activity within the District

- **Recommendation #5**: Establish a pre-development / opportunity program to seek out property within the Port District when it becomes available by sale, foreclosure, etc. – *to be led by the Port Authority*
- **Recommendation #6:** Acquire residual state ROW (8-10 acres) when released following completion of Interstate 95 project – *to be led by the Port Authority*

- **Recommendation #7:** Establish a Port-Zoning District to Facilitate the Expansion of Port-Related Land Uses within the District - *to be led by the City of New Haven in cooperation with the Port Authority.*

- **Recommendation #8:** Improve Traffic Flow within Port Area – Truck Routing and Off- Street Waiting Facilities *to be led by the Port Authority in cooperation with the City of New Haven, Connecticut DOT and South Central Regional Council of Governments*

- **Recommendation #9:** Continue to Promote the Use of Railroad Services – Construct Waterfront Street Spur Lines and Provide Access for a Northside Rail Connection - *to be led by the Port Authority in cooperation with the City of New Haven and Connecticut DOT.*

- **Recommendation #10:** Provide Incentives for Employee use of Public Transit- *to be led by the Cooperative in consultation with the Port Authority and Connecticut DOT*

- **Recommendation #12:** Analyze the Internal Public Street Network to Better Accommodate Truck Operations and Access to Staging Sites- *to be led by the Port Authority in cooperation with the City of New Haven and Connecticut DOT*

- **Recommendation #13:** Implement a General Site Clean Up and Aesthetic Improvement Program for the Port District- *to be led by the Port Authority in cooperation with the City of New Haven and the Cooperative.*

- **Recommendation # 20:** Enhance Visibility – Develop Overall "Marketing Plan" and Visibility for the Port - *to be led by the Port Authority in cooperation with the City of New Haven, the Connecticut Maritime Commission and the Connecticut Department of Economic and Community Development and the Cooperative.*

- **Recommendation #21:** Assist the City of New Haven and the Port Terminals to Install Security Systems by (a) Providing Financial and Technical Support on Grant Applications and (b) Participating in Security-Related Planning and Drill Exercise - *to*

be led by the Port Authority in cooperation with the City of New Haven and the Cooperative.

- **Recommendation #25:** Install "No Idling" Reminder Signs along City Roadways within the Port District to Reduce Pollution from Trucking Activity – *to be led by the Port Authority in cooperation with the City of New Haven.*

- **Recommendation #27:** Work with the City and the Greater New Haven WPCA to Implement the Harborside Trail Utilizing a Route which Passes Along the South and East Side of the WPCA Property -*to be led by the Port Authority in cooperation with the City of New Haven and the Greater New Haven WPCA.*

- **Recommendation #29:** Establish a Visible Presence and Communications Regimen at the Port to Reinforce the Role of the Port Authority and Enhance the Relationship of the Port with its Neighbors, the General Public and the Business Community - *to be led by the Port Authority in cooperation with the Chamber of Commerce and the Cooperative.*

- **Recommendation #30:** Develop and Implement a System of Directional Signage to Guide Trucks to and from Facilities within the Port District with the Added Benefit of Preventing Incursions into Residential Areas - *to be led by the Port Authority in cooperation with the City of New Haven and Connecticut DOT.*

Five to Ten Year Implementation Strategy

For the longer term, the listed projects are more capital intensive, have longer lead times or represent ongoing themes and actions which should extend over the entire time period encompassed by this Plan. The following activities are again keyed to the previously cited Recommendations:

- **Recommendation #3:** Identify Off-Site Opportunities for Port-Related Distribution and Warehousing – Work with Municipalities and Service Providers to Facilitate Acquisition and Development *to be led by the Port Authority in cooperation with the City of New Haven and the Cooperative.*

- **Recommendation #4:** Identify, on a Continuing Basis, Opportunities for Relocation of Port District Operations either within or Outside of the District

- **Recommendation #11:** Work with Terminal Operators to Provide Efficient Landside Connections for Feeder Barge Service - *to be led by the Port Authority*.

- **Recommendation #14:** Develop and Implement a 42 Foot Depth Dredging and Maintenance Program for the Channel - *to be led by the Port Authority in consultation with the Maritime Commission, US Army Corps of Engineers and associated environmental agencies.*

- **Recommendation #15:** Identify Bulkhead Repairs and Possible Dredging Requirements for Channel North of Tomlinson Bridge - *to be led by the Port Authority in consultation with the Maritime Commission, US Army Corps of Engineers and associated environmental agencies.*

- **Recommendation #16:** Maintain Regional, Niche Market - *to be led by the Port Authority.*

- **Recommendation #17:** Explore Synergies with Port of NY / NJ, Providence, Bridgeport and other Regional Ports - *to be led by the Port Authority*

- **Recommendation #18:** Seek Opportunities to Develop International Trade and Utilize the FTZ - *to be led by the Port Authority in cooperation with the City of New Haven and the Chamber of Commerce.*

- **Recommendation #19:** Expand and Diversify Market by Identifying New Businesses for Port District that will Contribute to Job Generation, Tax Revenues, New Market Areas, and Environmentally-Friendly Businesses - *to be led by the Port Authority in cooperation with the City of New Haven and the Chamber of Commerce.*

- **Recommendation #19:** Continue Work to Reduce Vehicular Impacts in the Port District and Community by (a) Reducing the Amount of Truck Idling Times while Waiting to Deliver or Receive Loads and (b) Improving Roadway Circulation Patterns to Optimize Truck Routings.

- **Recommendation #22:** Conduct a Feasibility Study to Explore Alternative Roadway Configurations with the Focus on (a) Improving Traffic Flow and (b) Better Securing the Port Perimeter - *to be led by the Port Authority in cooperation with the City of New Haven and Connecticut DOT*

- **Recommendation #23:** Support the City in its Efforts to Procure an Incident Response Boat, which could be used for Police Department Inspections and/or Fire Department Response as Needed - *to be led by the Port Authority in cooperation with the City of New Haven.*

- **Recommendation #26:** Continue to Work with City, Regional and State Partners in Developing Industrial and Recreational Facilities in a Manner that Reflects the Importance of Environmental Resources in Terms of Land Use, Energy Consumption and Quality of Life - *to be led by the Port Authority*

- **Recommendation #28:** Invest in Emissions and Noise Control Technologies within the Port District - *to be led by the Port Authority*.

APPENDICES

Glossary of Maritime and General Freight Transportation Terms

Note: This glossary is intended to provide the reader with a description of terms contained in this report which pertain to various maritime and freight transportation facilities and functions. The descriptions are generally in conformance with descriptions published by the American Association of Port Authorities and the Association of American Railroads. Further descriptions and information can be viewed at their respective websites.

ABS: The American Bureau of Shipping is a U.S. classification society that certifies if a vessel is in compliance with standard rules of construction and maintenance.

Barge: A large flat-bottomed boat used to carry cargo from a port to shallow draft waterways. Barges typically have no propulsion system and are pushed or pulled by towboats or tugboats. A single, standard barge can hold approximately 1,500 tons of cargo – the equivalent of the carrying capacity of 15 railroad cars or 60 trucks. A typical barge is 200 feet long, 35 feet wide and has a draft of nine feet. Barges can carry dry bulk (grain, coal, lumber, gravel, etc.) and liquid bulk (petroleum, vegetable oils, molasses, etc.). Specially equipped barges can carry railroad cars, truck trailers and containers.

Berth: The wharf space at which a ship docks. A wharf may have two or more berths available, depending on the total length of the wharf and the lengths of the arriving ships.

Bonded Warehouse: A building designated by the U.S. Customs Service for the storage of goods without payment of duties. Payment is made only when the goods are removed.

Breakbulk Cargo: Non-containerized general cargo shipped in boxes, bales, pallets or other units. Examples include steel, lumber, machinery, linerboard and wood pulp.

Bulk Cargo: Loose cargo (dry or liquid) that is loaded (shoveled, scooped, mechanically conveyed or pumped) in volume directly into a ship. Examples include grain, coal, oil and road salt.

Capacity: The available space for, or the ability to handle, freight.

Consignment: A shipment of goods. The buyer of the shipment is called the consignee; the seller of the goods is called the consignor.

Consolidator: The person or firm that consolidates (combines) cargo from a number of shippers into a container or truck trailer that will deliver the goods to several buyers.

Container: A box (shipping container) made of aluminum, steel or fiberglass used to transport cargo by ship, rail or barge. Common dimensions are 20ft x 8ft x 8ft (called a twenty-foot equivalent unit, or TEU) or 40ft x 8ft x 8ft (called an FEU). Ship and railcar capacities are usually expressed in terms of TEUs. Variations are collapsible containers, tank containers, and open-topped containers that are covered by a tarpaulin for oversized cargo that extends above the top of the container.

Container Chassis: A piece of wheeled equipment specifically designed for the movement of containers by highway to and from container terminals.

Containerization: The technique of using a container to store, protect and handle cargo while it is in transit. This shipping method has both greatly expedited the speed at which cargo is moved from origin to destination and lowered shipping costs.

Container on Flat Car (COFC): A container placed directly on a railroad car without using a highway chassis.

Corps of Engineers: The department of the U.S. Army responsible for flood protection and providing safe navigation channels. The Corps builds and maintains the levees, flood walls and spillways that keep major rivers out of low lying communities. The Corps plays a vital role in

keeping navigation channels open by the periodic dredging of sand, silt and gravel that accumulate on river and harbor bottoms.

Customs: A duty or tax on imported goods.

Customs Broker: The person or firm that prepares the needed documentation for importing goods. The broker is licensed by the Treasury Department to clear goods through U.S. Customs. The broker;s duties include documentation, coordination of inland and ocean transportation and dockside inspection of cargo.

Dead Weight Tonnage (DWT): Vessel's carrying capacity, or the difference between the "light" and "loaded" displacements of the vessel.

Draft: The depth of a loaded vessel in the water measured from the level of the waterline to the lowest point of the vessel's hull.

Drayage: The transport of cargo by truck for short distances – typically from dock to warehouse.

Dredging: The process of removing sediment from harbor or river bottoms to allow for safe navigation and to accommodate larger (greater draft) vessels.

Feeder Service: Ocean transport system involving the use of centralized ports to assemble and distribute cargo to and from ports within a geographic area. Commodities are transported between major ports (typically on a global basis) and are the transferred to smaller feeder vessels or barges for final transport to smaller regional and local ports.

Foreign Trade Zone (FTZ): known in some countries as a free zone, an FTZ is a site within the U.S. (in or near a Customs port of entry) where foreign and domestic goods are held until they are ready to be released into international commerce. Merchandise may enter an FTZ without a formal Customs entry or payment of Customs duties or government excise taxes. Within the Zone goods may be stored, tested, sampled, repackaged, relabeled, cleaned, combined with other products, repaired

or assembled. If the final product is imported into the U.S., duties and taxes are not due until the goods are released into the U.S. market.

Freight Forwarder: An individual or company that prepares the documentation and coordinates the movement and storage of export cargoes.

General Cargo: Consists of both containerized and breakbulk goods, in contrast to bulk cargo. General cargo operations produce more jobs than bulk cargo handling.

Gross Tonnage: The sum of the bulk, breakbulk and container tonnage passing through a port facility.

Lift On / Lift Off: Cargo handling technique involving the transfer of cargo to and from a ship using dock cranes or cranes mounted on the ship.

Maritime: Located on or near the sea; more specifically, referring to commerce or navigation by sea. The maritime industry includes people working for: transportation (ship, rail, truck and towboat / barge) companies; freight forwarders and customs brokers; stevedoring companies; warehouses; ship building and repair firms; importers/exporters; pilots associations, etc.

Neo-Bulk Cargo: Uniformly packaged goods, such as wood pulp bales; which can be loaded and stored as solidly as bulk cargo, but which are handled as general cargo.

Niche Port: A Port which specializes in the handling of a specific type (or types) of bulk cargo or general cargo, typically with inland distribution to end users situated within a limited geographic area

Pilot: A licensed navigational guide with a thorough knowledge of a particular section of a waterway whose occupation is to steer ships along a coast or into and out of a harbor. Local pilots board a ship to advise the captain of local navigation conditions including currents, channels and underwater hazards.

Roll On / Roll Off: A method of loading and unloading a ship equipped with ramps that can be lowered onto the dock so that trucks and cars can be driven onto and off the ship without having to be lifted aboard. This expedites the loading of the ship.

Short Ton:

Steamship: Today, ships that transport cargo overseas are powered by diesel / electric propulsion systems instead of steam. Many people still use the term "steamship" but the term for the service is "**ocean carrier**".

Stevedores / Stevedoring: Labor management companies that provide equipment and hire workers to transfer cargo between ships and the docks. Stevedore companies may also serve as terminal operators. The laborers hired by the stevedoring firms are called stevedores or longshoremen.

Terminal Operator: A company that operates cargo handling activities on a wharf. A terminal operator oversees unloading of cargo from ship to dock, checking the quantities of cargoes versus the ships manifest (list of goods), transferring of the cargo into warehouses and storage sites, checking the documents authorizing a trucker to pick up cargo, overseeing the loading/unloading of railcars, etc.

Port District Parcels

Property Ownership and Attributes

ADDRESS	OWNER NAME	Description	Port-Related	Rail	Pipeline	Deepwater	Land Use	AREA
821 EAST SHORE PKWY	15 STILES STREET CORPORATION	Taking??						56,412
34 FULTON ST	20-34 FULTON STREET *	Taking??						47,979
47 LAURA ST	47 LAURA ST ASSOCIATES LLC	Blue Flame Oil Co.	N	N	N	N	General Commercial	5,713
LAURA ST	47 LAURA ST ASSOCIATES LLC	Blue Flame Oil Co.	N	N	N	N	General Commercial	4,379
50 FULTON TER	50 FULTON TERRACE CORP	Warehouse	N	N	N	N	General Commercial	21,408
815 EAST SHORE PKWY	AMENDOLA LUIGI	Taking??						215
57 GOODWIN ST	BILOUS ANNA	Residential	N	N	N	N	Residential	5,635
74 FORBES AV	BOATHOUSE ASSOCIATES	CDOT Taking	N	N	N	N	CDOT	60,471
99 LAURA ST	BONORA	White Hollow Service	N	N	N	N	General Commercial	11,050
LAURA ST	BONORA	White Hollow Service	N	N	N	N	General Commercial	4,933
62 FULTON ST	BUCCITTI RALPH TITLE & CONDELO	Residential	N	N	N	N	Residential	17,973
20 GOODWIN ST	BUCKINGHAM ROUTH COMPANY THE	Routh Company	N	N	N	N	General Commercial	22,100
45 FULTON TER	BURLINGTON REALTY INC	Taking??						17,180
333 WATERFRONT ST	CALIENDO RUTH	CDOT Taking	N	N	N	N	CDOT	40,069
WATERFRONT ST	CALIENDO RUTH	CDOT Taking	N	N	N	N	CDOT	3,077
153 FORBES AV	CANESTRI LOUIS P	Eastern Supply	N	N	N	N	General Commercial	24,766
65 LAURA ST	CANNELLI VICTOR	Cannelli Printing	N	N	N	N	General Commercial	8,307
500 WATERFRONT ST	CATAMOUNT PETROLEUM LIMITED	Gulf Terminal	Y	N	Y	Y	Petroleum Terminal	523,800
LAURA ST	CHIEPPO	Warehouse	N	N	N	N	General Commercial	11,495
85 LAURA ST	CHIEPPO ROBERT J	Warehouse	N	N	N	N	General Commercial	21,239
345 EAST SHORE PKWY	CITY OF NEW HAVEN	East Shore Parkway	Y	N	N	N	General Port Terminal	457,030
345 EAST SHORE PKWY	CITY OF NEW HAVEN	East Shore Parkway	Y	N	N	N	General Port Terminal	99,002
EAST SHORE PKWY	CITY OF NEW HAVEN	East Shore Parkway	Y	N	N	N	General Port Terminal	6,330
ALBIA ST	CITY OF NEW HAVEN	CDOT Taking	N	N	N	N	CDOT	2,532
320 EAST SHORE PKWY	CITY OF NEW HAVEN (TITLE) *	East Shore Parkway	Y	N	N	N	General Port Terminal	127,150
481 EAST SHORE PKWY	COASTLINE TERMINALS OF *	East Shore Parkway	Y	N	N	N	General Port Terminal	279,692
238 FAIRMONT AV	COASTLINE TERMINALS OF CT,INC	Proposed Roadlink Terminal	N	N	N	N	Vacant	837,536
77 WHEELER ST	COASTLINE TERMINALS OF CT,INC.	Proposed Roadlink Terminal	N	N	N	N	Vacant	72,219
270 FORBES AV	COLAFATI FRANK	Automotive	N	N	N	N	General Commercial	20,236
13 FULTON ST	COLAFATI FRANK	Automotive	N	N	N	N	General Commercial	6,704
282 FORBES AV	COLAFATI FRANK SR	Automotive	N	N	N	N	General Commercial	7,269
290 FORBES AV	COLAFATI RALPH JR & ANNA	Residential	N	N	N	N	Residential	13,491
11 FULTON ST	COLE VIRGINIA L	Residential	N	N	N	N	Residential	5,300
161 FORBES AV	CONSOLO BARBARA	scaffold company	N	N	N	N	General Commercial	37,166

ADDRESS	OWNER NAME	Description	Port-Related	Rail	Pipeline	Deepwater	Land Use	AREA
192 FORBES AV	COSENZA CHARLES V & MCCAULLEY	Automotive	N	N	N	N	General Commercial	57,459
47 WHEELER ST	COSENZA CHARLES V & MCCAULLEY	Automotive	N	N	N	N	General Commercial	29,551
GOODWIN ST	CRISCUOLO HENRY W & MASSELLO		N	N	N	N	General Commercial	67,099
55 LAURA ST	D A N JOINT VENTURE *	landscape company	N	N	N	N	General Commercial	31,426
172 FORBES AV	DAHILL ENTERPRISES	Dahill Construction	N	N	N	N	General Commercial	84,385
16 WHEELER ST	DAHILL ENTERPRISES	Dahill Construction	N	N	N	N	General Commercial	20,781
WHEELER ST	DAHILL ENTERPRISES	Dahill Construction	N	N	N	N	General Commercial	73,218
65 STILES ST	DONOFRIO FRED		N	N	N	N	?	4,424
EAST SHORE PKWY	DONOFRIO FRED		N	N	N	N	?	2,350
EAST SHORE PKWY	DONOFRIO FRED	D'Onofrio Construction (CDOT taking??)	N	N	N	N	?	8,195
EAST SHORE PKWY	DONOFRIO FRED		N	N	N	N	?	1,428
EAST SHORE PKWY	DONOFRIO FRED		N	N	N	N	?	686
EAST SHORE PKWY	DONOFRIO THERESA L		N	N	N	N	?	5,079
206 FORBES AV	ELIXIR REALTY, LLC	retail?	N	N	N	N	?	15,797
FAIRMONT AV	FPS HARBOUR HOLDINGS INC	Waste Management	N	N	N	N	Transfer Station	649,961
FORBES AV	GANNETT OUTDOOR CO OF	Billboard	N	N	N	N	Miscellaneous	991
70 FULTON TER	INTERPLEX ELECTRONICS INC	CDOT Taking	N	N	N	N	CDOT	33,076
69 WHEELER ST	LAYDON ELMER F & WILLIAM M		N	N	N	N	General Commercial	57,175
49 WHEELER ST	LAYDON ELMER F JR & WILLIAM M		N	N	N	N	General Commercial	17,920
57 WHEELER ST	LAYDON ELMER F JR & WILLIAM M	Laydon Constrruction and Gateway Storage Yard	N	N	N	N	General Commercial	5,478
33 LAURA ST	LAYDON ELMER F JR WILLIAM M		N	N	N	N	General Commercial	7,126
61 WHEELER ST	LAYDON WILLIAM M & ELMER F		N	N	N	N	General Commercial	5,558
65 WHEELER ST	LAYDON WILLIAM M & ELMER F		N	N	N	N	General Commercial	8,578
WATERFRONT ST	LEX ATLANTIC CORPORATION		Y	N	Y	Y	General Port Terminal	280,273
400 WATERFRONT ST	LEX ATLANTIC CORPORATION	Gateway Terminal	Y	N	Y	Y	General Port Terminal	359,421
410 WATERFRONT ST	LEX ATLANTIC CORPORATION		Y	N	Y	Y	General Port Terminal	14,155
31 FULTON ST	M P C EDUCATIONAL SYSTEMS INC	?	N	N	N	N	?	48,221
234 FORBES AV	MASELLI JOHN JR	automotive	N	N	N	N	General Commercial	16,737
64 GOODWIN ST	MASSELLO LEONARD J &CRISCUOLO*	Lily Transport	N	N	N	N	General Commercial	10,283
46 GOODWIN ST	MASSELLO LEONARD J &CRISCUOLO*	Lily Transport	N	N	N	N	General Commercial	23,215
43 LAURA ST	MILLER DANIEL	?	N	N	N	N	C	5,645
481 EAST SHORE PKWY	MOTIVA ENTERPRISES LLC	Motiva Terminal	Y	N	Y	Y	Petroleum Terminal	1,681,625
30 WATERFRONT ST	NEW HAVEN TERMINAL INC						I	1,138,005
ALABAMA ST	NEW HAVEN TERMINAL INC						I	321,025
ALABAMA ST	NEW HAVEN TERMINAL INC						I	30,958

ADDRESS	OWNER NAME	Description	Port-Related	Rail	Pipeline	Deepwater	Land Use	AREA
25 CONNECTICUT AV	NEW HAVEN TERMINAL INC						I	24,494
165 ALABAMA ST	NEW HAVEN TERMINAL INC						C	7,685
ALABAMA ST	NEW HAVEN TERMINAL INC						I	1,824
EDGEMERE RD	NEW HAVEN TERMINAL INC						I	2,511
COLORADO AV	NEW HAVEN TERMINAL INC						I	896
29 FULTON TER	NEW HAVEN TERMINAL INC						I	20,249
15 FULTON TER	NEW HAVEN TERMINAL INC						I	14,702
ALABAMA ST	NEW HAVEN TERMINAL INC						I	13,259
201 WATERFRONT ST	NEW HAVEN TERMINAL INC						I	99,107
ALABAMA ST	NEW HAVEN TERMINAL INC THE						I	17,428
CONNECTICUT AV	NEW HAVEN TERMINAL INCORPORATE						I	20,772
145 ALABAMA ST	NEW HAVEN TERMINAL INCORPORATE						I	61,417
ALABAMA ST	NEW HAVEN TERMINAL INCORPORATE						I	53,509
ALBIA ST	NEW HAVEN TERMINAL INCORPORATE						I	12,084
170 ALABAMA ST	NEW HAVEN TERMINAL INCORPORATE						I	48,199
EDGEMERE RD	NEW HAVEN TERMINAL INCORPORATE						I	6,406
EAST SHORE PKWY	NEW HAVEN TERMINALS INC.						I	22,884
222 FORBES AV	ONOFRIO'S 222 FORBES AVENUE *	Onofrio's Food	N	N	N	N	Manufacturing	43,466
EAST SHORE PKWY	PARKS DEPT	East Shore Parkway					E	35,356
EAST SHORE PKWY	PARKS DEPT	East Shore Parkway					E	114,941
EAST SHORE PKWY	PARKS DEPT	East Shore Parkway					E	529,693
FORBES AV	PENN CENTRAL	Vacant Rail Spur	N	N	N	N	Utility	10,718
85 FORBES AV	POWER TEST REALTY COMPANY	Getty Terminal	Y	N	Y	N	Petroleum Terminal	146,054
120 FORBES AV	Q RIVER TERMINAL INC	R&H Terminal	Y	N	Y	N	Petroleum Terminal	365,546
14 FULTON ST	RICCITELLI JULIA L U 1/2 &	Residential	N	N	N	N	Residential	4,644
44 LAURA ST	SABRELINE ENTERPRISES LLC	Blue Flame Oil Co.	N	N	N	N	General Commercial	13,461
50 GOODWIN ST	SNIHUROWYCZ MARIA	Residential	N	N	N	N	Residential	68,779
FULTON TER	STATE OF CONNECTICUT	CDOT Taking	N	N	N	N	Government	12,365
FORBES AV	STATE OF CONNECTICUT	CDOT Taking	N	N	N	N	Government	35,036
74 GOODWIN ST	STETZER RICHARD A & ELAINE	Residential	N	N	N	N	Residential	6,131
262 FORBES AV	T S L LAND CORP						C	8,513
70 FERRY ST	TILCON MINERALS INC	Buchanan Marine	Y	N	N	N	Manufacturing	59,941
1 WATERFRONT ST	UNITED ILLUMINATING CO 93/705		N	N	N	N	Utility	483,256
EAST SHORE PKWY	UNITED ILLUMINATING COMPANY TH		N	N	N	N	Utility	21,809
EAST SHORE PKWY	UNITED ILLUMINATING COMPANY TH		N	N	N	N	Utility	202,748

ADDRESS	OWNER NAME		Port-Related	Rail	Pipeline	Deepwater	Land Use	AREA
WATERFRONT ST	UNITED ILLUMINATING COMPANY TH		N	N	N	N	Utility	71,614
WATERFRONT ST	UNITED ILLUMINATING COMPANY TH		N	N	N	N	Utility	153,842
5 GEORGIA ST	UNITED ILLUMINATING COMPANY TH		N	N	N	N	Utility	16,384
WATERFRONT ST	UNITED ILLUMINATING COMPANY TH	UI / Cross Sound Cable	N	N	N	N	Utility	303,993
EDGEMERE RD	UNITED ILLUMINATING COMPANY TH		N	N	N	N	Utility	12,707
3 EDGEMERE RD	UNITED ILLUMINATING COMPANY TH		N	N	N	N	Utility	54,212
EDGEMERE RD	UNITED ILLUMINATING COMPANY TH		N	N	N	N	Utility	17,456
COLORADO AV	UNITED ILLUMINATING COMPANY TH		N	N	N	N	Utility	1,331
CONNECTICUT AV	UNITED ILLUMINATING COMPANY TH		N	N	N	N	Utility	66,108
COLORADO AV	UNITED ILLUMINATING COMPANY TH		N	N	N	N	Utility	39,886
ALABAMA ST	UNITED ILLUMINATING COMPANY TH		N	N	N	N	Utility	14,374
244 FORBES AV	UNITED ILLUMINATING COMPANY TH	Utility Substation	N	N	N	N	Utility	12,097
FORBES AV	UNITED ILLUMINATING COMPANY TH	Utility Substation	N	N	N	N	Utility	29,972
64 FULTON ST	VISCONTI SALVATORE & ANNA	Residential	N	N	N	N	Residential	18,245
280 WATERFRONT ST	WILLIAMS ENERGY VENTURES INC	Magellan Terminal	Y	N	Y	Y	Petroleum Terminal	858,514
134 FORBES AV	WILLIAMS ENERGY VENTURES INC	Magellan Terminal	Y	N	Y	N	Petroleum Terminal	484,114
WATERFRONT ST	WISVEST CONNECTICUT LLC	PSEG Electric Generating Station	Y	N	N	Y	Utility	232,667
5 WATERFRONT ST	WISVEST CONNECTICUT LLC	PSEG Electric Generating Station	Y	N	N	Y	Utility	3,058,553