National Park Service
Cultural Landscapes Inventory

2006

Revised: 6/2025



Charlestown Navy Yard

Boston National Historical Park

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Introduction

The Cultural Landscape Inventory (CLI)

The Cultural Landscape Inventory (CLI) is a comprehensive inventory of all cultural landscapes in the National Park System. Landscapes that are listed, or eligible for listing, on the National Register of Historic Places, or are otherwise managed as cultural resources and in which the National Park Service has, or plans to acquire, legal interest are included in the inventory. The CLI identifies and documents each landscape's location, size, physical development, landscape characteristics, character-defining features, and condition. Cultural landscapes have approved CLIs when concurrence with the findings is obtained from the park superintendent and all required data fields are entered into the Cultural Resources Information System (CRIS-CL) database. In addition, for landscapes not currently listed on the National Register and/or without adequate documentation, concurrence is required from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or the Keeper of the National Register.

Scope of the CLI

The information contained within the CLI is compiled from primary and secondary sources and through on-site surveys of the landscape. The level of investigation is dependent upon scoping the need for information. The baseline information collected provides a comprehensive look at the historical development and significance of the landscape. Documentation and analysis of the existing landscape identifies character-defining characteristics and features and allows for an evaluation of the landscape's integrity and an assessment of the landscape's condition. The CLI also includes historic maps, drawings, and images; photographs of existing conditions; and a site plan that indicates major features. The CLI documents the existing condition of park landscape resources and identifies impacts, threats, and measures to stabilize condition. This information can be used to develop strategies for improved stewardship. Unlike a Cultural Landscape Report (CLR), the CLI does not provide management recommendations or treatment guidelines for the cultural landscape, but it may identify stabilization measures.

The Cultural Resources Information System (CRIS)

CRIS is the National Park Service's database of cultural resources on its lands, consisting of archeological sites, historic structures, ethnographic resources, and cultural landscapes. Cultural Resources Inventory System (CRIS) replaces three legacy inventory systems: ASMIS (archeology), CLI (cultural landscapes), and LCS (historic structures); and it reinstates the former ERI (ethnographic resources). This Cultural Landscape Inventory document reflects the information in a corresponding CRIS Cultural Landscape record.

Statutory and Regulatory Foundation

The legislative, regulatory, and policy directives for conducting and maintaining the CLI within CRIS are:

- National Historic Preservation Act (NHPA) of 1966 (16 USC 470h-2(a)(1)) Sec. 110
- Executive Order 13287: Preserve America, 2003. Sec. 3 (a and c)
- Secretary of the Interior's Standards and Guidelines for Federal Agency Historic Preservation Programs
- Pursuant to the National Historic Preservation Act, 1998. Std. 2
- Cultural Resource Management Guideline, 1997, Release No. 5, page 22; issued pursuant to Director's Order #28 (DO-28)

The NHPA requires the identification, evaluation, and nomination of historic properties to the National Register of Historic Places and the maintenance and expansion of an inventory of cultural resources. DO-28 requires a cyclic assessment of the current condition of cultural landscapes based on an assessment interval, with a default of six years.

Use

Beyond fulfilling legal and policy requirements, park staff can use the Cultural Landscape Inventory in the following ways:

- To learn about park cultural landscapes (all staff)
- To inform management decisions (park managers)
- To inform project planning and development (park managers, facility managers, project managers, compliance specialists)
- To monitor the condition of the cultural landscape and take measures to protect its significance and integrity (cultural resource managers, facility managers)
- To recognize the stabilization and treatment needs of landscape features and plan work within cultural landscapes to address the needs (facility managers, cultural resource managers)
- To understand the cultural value of natural systems in a cultural landscape (natural resource managers)
- To create programming and educational materials based on site history (interpretation and education specialists)
- To recognize impacts within cultural landscapes and enforce protection measures (visitor and resources protection staff)

General Information

Property Level and CLI Numbers

Inventory Unit Name: Charlestown Navy Yard

Resource Classification: Cultural Landscape

CLI Identification Number: 650020

Parent Landscape: 650020

Inventory Status: Complete

Park Information

Park Name: Boston National Historical Park

Alpha Code: BOST

Park Organization Code: 1720

Park District: BOST

Region: Northeast

Restricted: No

Landscape Description:

This CLI encompasses the 30-acre western portion of the Boston Naval Shipyard owned by the National Park Service, the Charlestown Navy Yard unit of Boston National Historical Park. It is located at the confluence of the Charles and the Mystic Rivers at the head of Boston Harbor in Charlestown, Massachusetts (a neighborhood of the City of Boston since 1874) in Suffolk County. The yard's location offers a protected marine setting with a deep shipping channel. Once a tidal marsh, the waterfront is now bounded by piers and seawalls over extensive fill. The topography of the yard is nearly level with a gentle rise along the northern edge where the Quarters G (Commandant's House) and Building I (Marine Barracks) are sited prominently.

The broad east-west roads of the yard's grid are named “Avenues” in numerical order from south to north, while the narrower roads running north-south are named “Streets” in numerical order from west to east. The yard is divided into three general areas or zones: the upper yard; waterfront, and lower yard. The Boston NHP portion includes all of the upper yard, the western part of the waterfront, and Building 58 (Ropewalk), Building 60 (Public Works Storage), Building 105 (Forge), and Building 107 (Public Works Shop) within the lower yard. Historically the upper yard was residential and ceremonial, while today it hosts NPS functions and serves recreational, visitor use, and interpretational needs for the park. The waterfront was historically industrial with piers, dry docks, and related buildings and structures, while today it includes the berths of USS Constitution and USS Cassin Young (DD-793) and associated visitor facilities. The lower yard was also historically industrial but with larger manufacturing buildings, while today the park's few interests here support park offices or are vacant.

While the shoreline setting that influenced the location of the Navy Yard remains, the setting surrounding the yard has changed greatly over time. The surroundings today reflect modernization of the twentieth century and include views to the Tobin Bridge and the skyline of Boston. The setting within the yard itself has also changed over time with technological advancements and reduced vegetation. Waterfront views remain the most significant given the site’s role in American history and include views southwest to Downtown Boston across Boston Harbor and northern views of the Bunker Hill Monument, the Tobin Bridge, and the park-like setting of the upper yard. The buildings and structures reflect the historical development of the yard with Federal and Classical styles of the nineteenth century. Within the park property, most of the historic prominent buildings remain with the exception of Building 97 (Main Gate),

Building 198 (Supply Department Storage), and Building 136 (Marine Corps Administration). The lawns, trees, shrubs, and hedges of Building 265 (Married Officers Quarters B-F), Quarters G (Commandant's House), Building I (Marine Barracks), and Shipyard Mall in the upper yard evoke a sense of this area's historic park character. First and Second Avenues lack the grand street trees that once arched over them. The historic core of the yard, the upper yard's open, turf-covered space continues to provide recreational space to residents and visitors alike. Conversely, the hardscape of the piers, devoid of any vegetation, reflects their industrial character with cranes, USS Cassin Young (DD-793), USS Constitution, support structures, and small-scale features, such as capstans, bollards, keel blocks, steam lines, and shipbuilding supply pipes.

Historic Condition
The Charlestown Navy Yard was established in 1800 as one of this nation's six original Navy yards, and the site consisted of pastures, house lots, and marsh. Following the initial development, the early yard increased production during the War of 1812 and witnessed the start of shipbuilding. Some of the earliest building constructed include Quarters G (Commandant's House), portions of Building I (Marine Barracks), and Building 5 (Bachelor Officers Quarters / Open Mess).

Loammi Baldwin's 1828 master plan guided the yard's growth during the second quarter of the nineteenth century and beyond with its tree-shaded east-west avenues and north-south streets and large rectangular buildings. The Navy built many granite buildings designed by Alexander Parris and Samuel Pook. Parris's Building 58 (Ropewalk) and Baldwin's Dry Dock 1 are two examples of state of the art engineering and industrial masterworks. The Navy lined new avenues with elms, maples, and ornamental trees. The Quarters G (Commandant's House) grounds were well manicured with shade and fruit trees, ornamental shrubs, flowerbeds, and a vegetable garden. The level, turf Marine Barracks Parade Ground provided green and open space for the drilling of soldiers, while a vegetable garden to the southeast provided food. Large trees shaded and hedges lined the front lawn of Building 265 (Married Officers Quarters B-F), while the back yards provided garden space.

During mid-nineteenth century, the yard adapted as the Navy evolved from wind and wood to steam and iron with new facilities that serviced the modernizing fleet. The yard's civil engineer, Joseph Billings, perpetuated Parris's classical vocabulary as the yard began to handle steam-powered vessels. The Civil War brought ironclad vessels and railroad tracks into the yard. While core structures and ceremonial spaces were retained, a new layer of infrastructure was introduced to the yard including rail lines and a water distribution system. Larger vessels necessitated the extension of Dry Dock 1. The 1890 Navy Appropriations Act led to partial modernization of the yard to build, repair, and outfit steel ships. At this time, the upper yard was graced with an abundance of mature elms and other shade trees. With the removal of the shot and guns from the Shipyard Mall, this turf-covered and tree-shaded area provided recreation space to the yard's residents. The yard was very much a park, and residents and visitors delighted in its beauty.

The Spanish American War and World War I further encouraged the Navy to continue the major modernization campaign, including the start of steel shipbuilding and the yard's primary role in supplying and outfitting vessels. The addition of crane and train rails and asphalt road surfaces and parking areas enhanced the industrial appearance of the waterfront. Tennis courts were introduced to the yard's ceremonial core adding to the recreational use of this area. In 1926, yard workers invented dielock chain which all Navy ships soon began to use. The Navy only produced the chain here at Building 105 (Forge). This production reinforced the value of the yard as a manufacturing and supply center for the Navy. Stock piles of yard manufactured rope and chain dotted the landscape.

From 1935 until the early 1940s, the Works Progress Administration (WPA) renovated many of the yard's buildings, and many street trees were removed to allow for road widening and paving. With World War II on the horizon and a declaration of national emergency in 1939, the Navy revived shipbuilding with the yard building many of the escort vessels and tank-landing ships used in the war. The Navy constructed numerous new facilities, increased its numbers of workers (especially female and minority), and established large stockpiles for building and supply distribution.

Following World War II, through the Korean and Vietnam Wars, until its closing in 1974, the yard played a major role during the Cold War in developing missiles, radar, and sonar systems. The yard outfitted many ships during this time, and the 1950s were particularly a time of modernization. The Navy added additional asphalt paving, Light Towers (Structures 238, 239, and 240), Grit Hoppers (Structures 259 and 273), the Saluting Battery (Structure 261), and Building 272 (Saluting Battery Ammunition Bunker. Unabated building construction during the twentieth-century wars led to the loss of open, planted spaces. Dutch Elm Disease and hurricanes of the 1950s decimated the few remaining trees along the avenues and Flirtation Walk. The Navy maintained the park character of the Shipyard Mall and surrounding the Quarters G (Commandant's House), Building 265 (Married Officers Quarters B-F), and Building I

(Marine Barracks). Ornamental plantings and parking lots were added by tourist amenities near Gate 1 by the 1960s

Significance Summary
The period of significance for the Charlestown Navy Yard—one of the six original United States Navy Yards— extends from the yard's establishment in 1800 to its deactivation in 1974. The 1978 draft nomination form found the Charlestown Navy Yard to be eligible under National Register Criteria A, C, and D under the areas of maritime and military history and associated social movements, technological innovations, distinctive architecture, and remarkable engineered features. The Charlestown Navy Yard also met Criteria Consideration G: Properties That Have Achieved Significance Within the Last Fifty Years, because the period of significance extends to within the past fifty years and the property has achieved "exceptional importance." The park's 2004 draft Historic Resource Study recommends that revised National Register forms be prepared and that all four significance criteria are applicable for its period of significance. The property is significant under Criterion A for its association with 174 years of the U.S. Navy's war and peacetime efforts. The Charlestown Navy Yard is significant for its role in the construction, repair, and servicing of vessels of the United States Navy for its entire period of active naval service. It is also significant as the site of one of the first two naval dry docks in the United States, the location of the Navy's only ropewalk, and for technical innovations such as the invention and production of die-lock chain. The yard evolved throughout its history to meet changing needs and naval technologies, and the current site contains resources from all periods of its existence. Additionally, the property is significant under Criterion B for its association with historically significant naval officers including Commandants William Bainbridge and Isaac Hull. The property is also significant under Criterion C for the design of its distinctive historic residences, manufacturing facilities, piers, and dry docks as well as associated open space critical to the yard's operation. Much of the yard's grid, open space, and buildings can be attributed to the significant planning and design of Loammi Baldwin and Alexander Parris, while engineers such as Baldwin created structural feats such as Dry Dock 1. Additional significance is ascribed under Criterion D for the potential of the property's buildings and structures to yield important historical information. Although much of the current acreage of the yard is filled land, this fill and intact soils beneath fill layers may contain archeological resources related to Native American, colonial and later historic uses of the area prior to its purchase by the federal government as well as those related to its use by the Navy. The archeological resources associated with the yard may be significant, but beyond the scope of this study.

Analysis and Evaluation Summary
With a 174-year long period of significance ending at the closure of the yard in 1974, almost every characteristic and feature inherited by the park service from the Navy contributes to the property's historic significance. The park's General Management Plan states that "…the Navy Yard's appearance will be managed to reflect the final period of Navy occupancy dating to 1974 (GMP, 1997). The yard has been substantially altered, however, since the Historic American Engineering Record (HAER) photographs were taken in 1977. The demolition of certain buildings and additions, the neglect of structures such as the Marine Railway, the reconfiguration of some streets, and the reintroduction of some street trees illustrate a few of the changes. Yet the design intent—guided by the yard's overall plan and building scale and largely influenced by Loammi Baldwin, Alexander Parris and other early yard architects and engineers—is still strongly evident.

The integrity of individual resources in the Navy Yard varies. Yet as a whole, the yard retains all seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association, especially with respect to the National Historic Landmark criteria regarding its association with "events that have made a significant contribution to, and are identified with, or that outstandingly represent, the broad national patterns of United States history from which an understanding and appreciation of those patterns may be gained."

It is a challenge to restore or even rehabilitate the yard's landscape to a specific time period other than 1974 without damaging or erasing earlier or subsequent layers; however, with such a long period of significance, subdividing the period proves useful in understanding issues of significance and integrity. The Charlestown Navy Yard cultural landscape retains sufficient integrity to convey its significance throughout its 174 years of active military use. The yard's landscape still reflects the early to mid-nineteenth century planning (design) with its grid of avenues and streets and massing of buildings. The upper yard area of the park retains integrity of materials and feeling associated with the nineteenth-century landscape at Building 265 (Married Officers Quarters B-F), Quarters G (Commandant's House), and Building I (Marine Barracks) with their trees, shrubs, and lawns. The twentieth century brought many landscape changes to the Navy Yard. Most of the yard's street trees disappeared, and much of the yard was paved with asphalt. The bulkhead shifted further and further south into the harbor as the yard expanded, and ship and yard materials and workmanship modernized. The Shipyard Mall, historically covered with shot and guns, became an area of recreation. Applying the seven aspects of integrity, the Charlestown Navy Yard cultural landscape does retain integrity to much of

the twentieth century through 1974, retaining integrity with respect to location, workmanship, and association and at least one other aspect. World Wars I & II necessitated intense additions that compromised the yard's park-like character. By the end of World War II, few street trees remained much like today. Compromised aspects of integrity include design, setting, materials, and feeling. After World War II, the Navy removed many of the stockpiles needed for the war effort. The park and Boston Redevelopment Authority (BRA) later removed some of the World War II era buildings and structures. Overall, Charlestown Navy Yard's cultural landscape retains integrity, with respect to all seven aspects (location, design, setting, materials, workmanship, feeling, and association). Most non-contributing, post-1974 park features do not detract from the landscape's integrity.

Landscape Condition
The Charlestown Navy Yard landscape is currently in "good" condition. It shows no clear evidence of major negative disturbance and deterioration by natural and/or human forces. Its cultural and natural values are as well preserved as can be expected under the given environmental conditions. No immediate corrective action is required to maintain its current condition.

Landscape Hierarchy Description:

The Charlestown Navy Yard is one of three identified cultural landscapes within Boston National Historic Park. The other two are Bunker Hill and Dorchester Heights.

Landscape Type:

Historic Site

Other Names:

Other Name:	Charlestown Navy Yard	**Other Name Type:**	Both Current And Historic
Other Name:	Boston Navy Yard	**Other Name Type:**	Historic
Other Name:	Boston Naval Shipyard	**Other Name Type:**	Historic
Other Name:	Main Yard	**Other Name Type:**	Historic

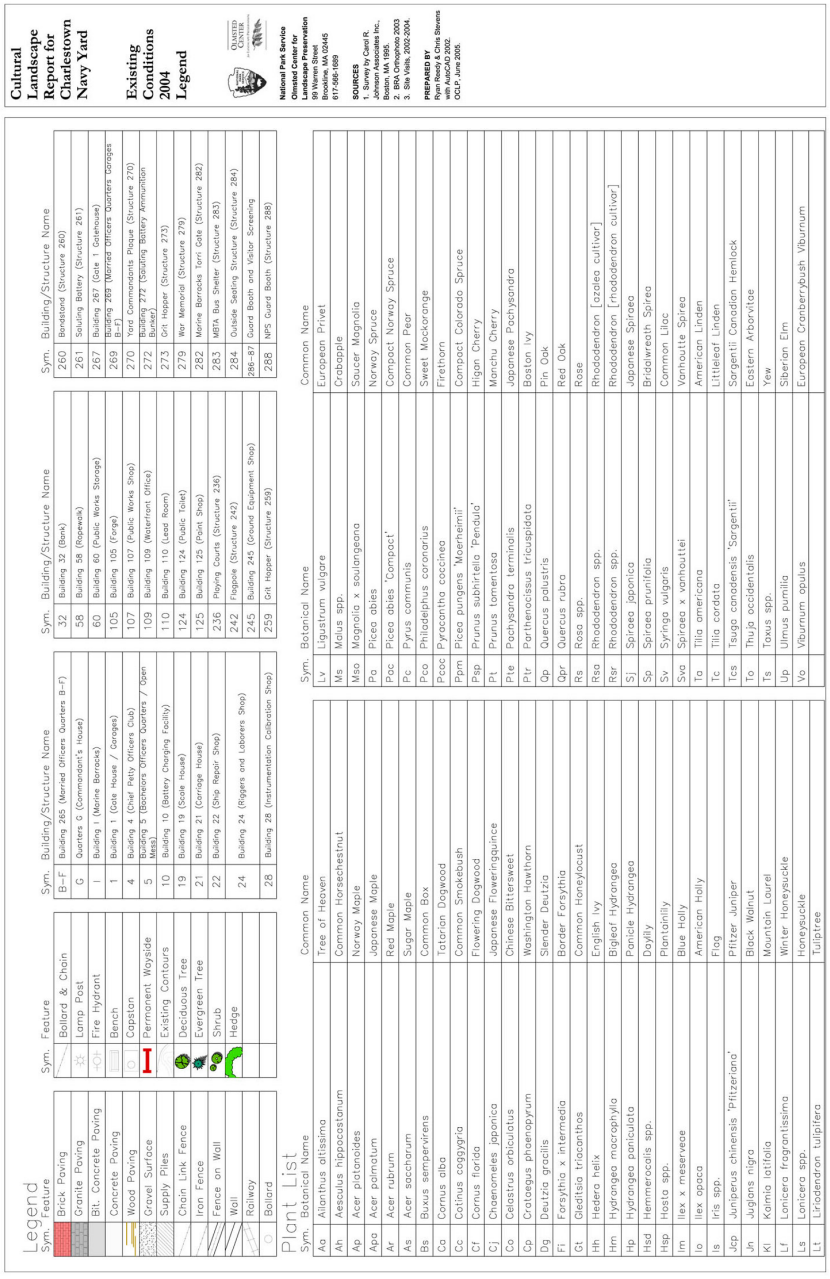
Site Plan



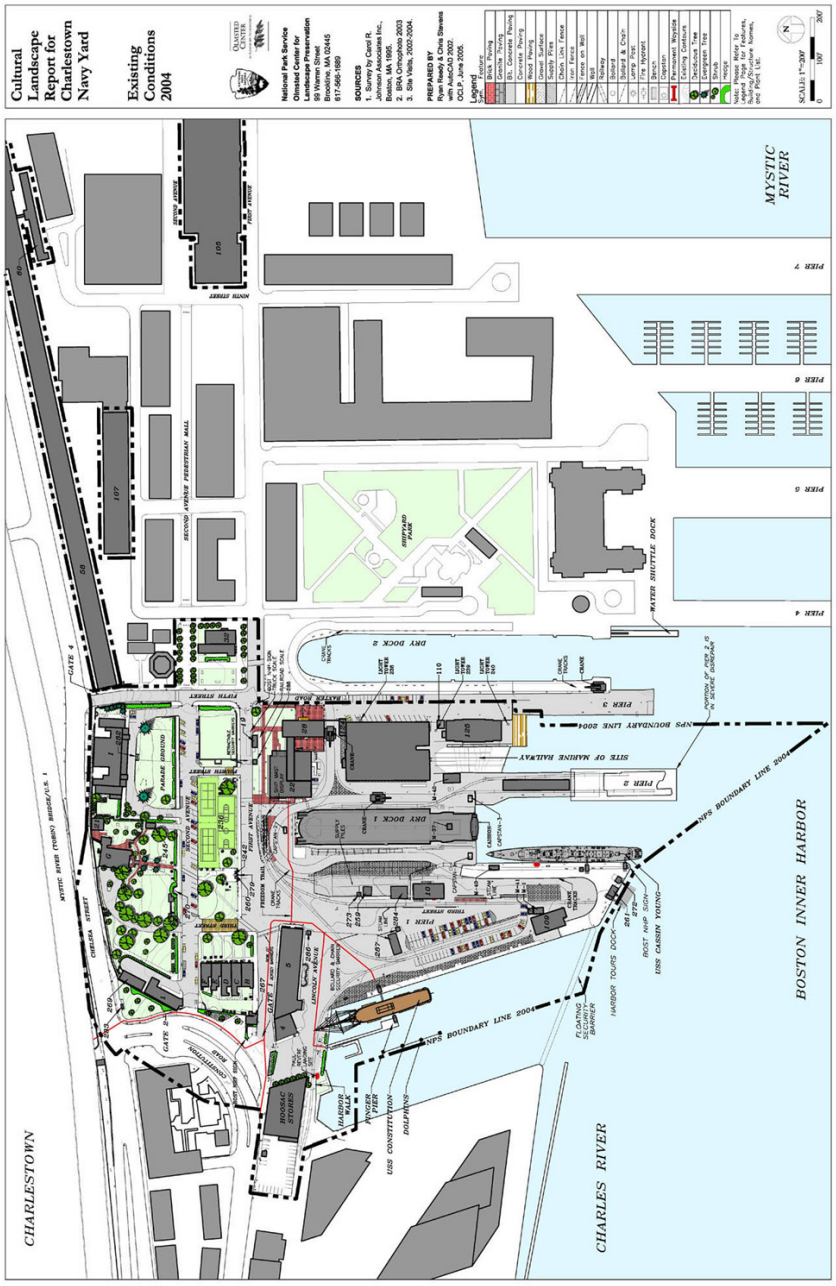
Existing Conditions 2004 Vegetation Plan (Cultural Landscape Report for Charlestown Navy Yard, Olmsted Center for Landscape Preservation, 2005).



Existing Conditions 2004 Enlarged Vegetation Plan (Cultural Landscape Report for Charlestown Navy Yard, Olmsted Center for Landscape Preservation, 2005).



Existing Conditions 2004 Legend (Cultural Landscape Report for Charlestown Navy Yard, Olmsted Center for Landscape Preservation, 2005).



Existing Conditions 2004 (Cultural Landscape Report for Charlestown Navy Yard, Olmsted Center for Landscape Preservation, 2005).

Concurrence Information

Concurrence Status:

Park Superintendent Concurrence: Yes

Park Superintendent Date of Concurrence: 08/11/2006

Completion Status Explanatory Narrative:

Concurrence Graphic Information:

Attachment File Path

component of the NPS inventory effort that also includes cultural resource inventories for historic structures, archeological sites, ethnographic resources, and museum objects. For example, the NPS List of Classified Structures (LCS) inventory includes structural features of cultural landscapes, but the CLI takes a more encompassing approach to the properties, inventorying all above-ground features in each park in which the NPS has a legal or mandated interest.

The U.S. Secretary of the Interior designated the Boston Naval Shipyard as a National Historic Landmark on November 15, 1966. The National Historic Landmark designation included the entire 130-acre Boston Naval Shipyard within Charlestown, Massachusetts. The act of Congress that established Boston National Historical Park on October 1, 1974, designated the approximately 30-acre western portion of the yard as an area of the park naming it "Charlestown Navy Yard" (Public Law 93-431). It includes Building 58, Building 60, Building 107, Building 105, and Building 32 east of Fifth Street. In 1978, Edwin Bearss of the National Park Service prepared a National Register Nomination Form to document the National Historic Landmark. The form was submitted to the National Register Office in 1979 but never formally accepted. The Keeper returned the form to the National Park Service without formally reviewing it, citing an in-progress National Historic Landmark Boundary Study. A draft National Historic Landmark Boundary Study, consisting of a revised form, was prepared under the aegis of the Preservation Planning Division of the Mid-Atlantic Region, in 1984-86, but not approved.

The period of significance for the Charlestown Navy Yard—one of the six original United States Navy Yards—extends from the yard's establishment in 1800 to its deactivation in 1974. The 1978 draft nomination form found the Charlestown Navy Yard to be eligible under National Register Criteria A, C, and D. The Charlestown Navy Yard also met Criteria Consideration G because the period of significance extended to within the past fifty years and the property has achieved "exceptional importance." The park's 2004 draft Historic Resource Study recommends that revised National Register forms be prepared and that all four significance criteria are applicable for its period of significance. The property is significant under Criterion A for its 174 year role in the construction, repair, and servicing of vessels of the United States Navy during both war and peace. The property derives additional significance under Criterion B for its association with Commandants William Bainbridge and Isaac Hull. The property is also significant under Criterion C, design, for the plan laying out the yard, and the buildings and structures. The yard possess significance under Criterion D for the potential of the property's buildings and structures to yield important information related to Native American, colonial, and later historic use of the area prior to its purchase by the federal government as well as those related to its use by the Navy.

The USS Constitution, an individually designated National Historic Landmark within the park, is also included as part of the park's 1974 listing on the National Register, although it is still owned and maintained by the Navy. It is significant under National Register Criterion A, for its association with military and political events. The USS Cassin Young (DD-793), another individually designated National Historic Landmark, acquired by the park in 1978, is significant under National Register Criterion A for its association with World War II military events. Designated a landmark in 1986 less than forty-three years after her construction, the ship was also found to meet Criteria Consideration: G for properties that have achieved significance

Circulation	
Fourth Street	LCS 040337
Commandant's House Brick Walkways	LCS 040339
Baxter Road	LCS 040345
First Avenue	LCS 040354
Second Avenue	LCS 040355
Third Street	LCS 040357
Commandant's House Drive	LCS 040358
Ground Equipment Shop Drive	
Chelsea Street	
Fifth Street	
Marine Barracks Drive	
Married Officers Quarters B-F Walkways	
Buildings and Structures	
Building 198 (Supply Department Storage Foundation Walls)	LCS 040053
Track Scale (Structure 234)	LCS 040057
Truck Scale (Structure 235)	LCS 040058
Playing Courts (Structure 236)	LCS 040060
Saluting Battery (Structure 261)	LCS 040066
Dry Dock 1 Caisson	LCS 040087
Bandstand (Structure 260)	LCS 040134
Building 272 (Saluting Battery Ammunition Bunker)	LCS 040135
Finger Pier	LCS 040139
Building M-1 (Electrical Substation)	LCS 040335
Curtain Gate	LCS 040342
Protection Dolphins (Structure 289)	LCS 482009
Building 204 (Garage Wall Remnant)	LCS 040054
Railroad Gate	LCS 040341
Gate 4 gate (Structure 244)	
Marine Barracks Parade Ground Retaining Walls	
Underground Pipe Conduit (Structure 280)	
Small-Scale Features	
Capstan 1	LCS 040127
Capstan 2	LCS 040129
Capstan 3	LCS 040131
War Memorial (Structure 279)	LCS 040330
Marine Barracks Torii Gate (Structure 282)	LCS 040334
Bollards	LCS 040351
Aboveground Steam Line (Structure 281)	LCS 040352
Freestanding Signs	LCS 040359 TBD
Freestanding Lights	LCS 040359 TBD
Flagpole (Structure 242)	LCS 040064
Anchors	

British Landing Site Plaque
Paul Revere Landing Site Plaque
Cannons
Chain
Commandant's House Concrete Planters
Commandant's House Iron Railing
Dry Dock 1 Concrete Lamppost
Dry Dock 1 Dedication Inscription
Keel Blocks
Safety Sign on Grit Hopper (Structure 259)
Ship Mast
Shipbuilding Supply Piles
Shot
Trash Cans

Vegetation

Commandant's House Flowerbeds (bulbs, annuals, and perennials)
Commandant's House Hedge
Commandant's House Lawn
Commandant's House Shrubs
Commandant's House Trees
Curtain Gate Parking Trees and Shrubs
Fifth Avenue Pin Oaks
Finger Pier Shrubs
Gate 1 Vegetation
Marine Barracks East Garden (yews, lawn)
Marine Barracks Parade Ground Hedge
Marine Barracks Parade Ground Lawn
Marine Barracks West Garden (Ornamental trees and shrubs and lawn)
Married Officers Quarters B-F Lawn
Married Officers Quarters B-F Shrubs
Married Officers Quarters B-F Trees
Saluting Battery Ammunition Bunker Grass
Building 32 (Bank) Street Trees
Shipyard Mall Lawn
Shipyard Mall Shrubs
Shipyard Mall Trees

Views and Vistas

View down First Avenue
View down Second Avenue
View from Waterfront to Downtown Boston
View from Quarters G (Commandant's House) to Boston Harbor
View from Quarters G (Commandant's House) to USS Constitution
View From Gate 1

The Commonwealth of Massachusetts
William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

January 18, 2007

Laurie Matthews
CLI Coordinator
Olmsted Center for Landscape Preservation
Charlestown Navy Yard
Quarters C
Charlestown, MA 02129

RE: Charlestown Navy Yard landscape resources

Dear Ms. Matthews:

I am writing in response to your letter seeking Massachusetts Historical Commission concurrence with the National Park Service findings of the status—contributing or noncontributing--for additional resources and associated features identified in the Cultural Landscapes Inventory for the Charlestown Navy Yard area of the Boston National Historical Park.

The staff of the Massachusetts Historical Commission continues to agree with the park's 2004 draft Historic Resource Study, which recommended that the 1978 draft National Register nomination for the Charlestown Navy Yard be finalized. We agree with your recommendation that the overall landscape of the Charlestown Navy Yard would be a contributing site in the nomination. We also agree that the buildings, structures, and objects detailed on list I.B of the Cultural Landscape Inventory ("Recently Evaluated by NPS for which We Request MHC Concurrence: Buildings and Structures" and "Small-Scale Features"), all of which appear to fall within the period of significance (1800-1974), would contribute to the significance of the Charlestown Navy Yard. Please note that for National Register purposes, we do not count topographic features, vegetation, views, or vistas as contributing features of the landscape, although we would recommend taking note of them in the documentation, should a National Register nomination be completed. MHC also recommends that the circulation system and spatial organization be counted as two distinct contributing sites; the gardens associated with the Commandant's House and Marine Barracks could also be counted as contributing sites. The buildings, structures, and objects detailed on list II all appear to postdate the period of significance and we would concur that they are noncontributing to the significance of the Charlestown Navy Yard.

Thank you with providing us with the opportunity to comment. These comments are offered to assist in compliance with Section 106 and Section 110 of the National Historic Preservation Act of 1966, as amended. Please do not hesitate to contact Betsy Friedberg of this office if you have questions or need further assistance.

Sincerely,

Brona Simon
State Historic Preservation Officer
Executive Director
Massachusetts Historical Commission

Cc: Terry Savage, Superintendent, Boston National Historical Park

220 Morrissey Boulevard, Boston, Massachusetts 02125
(617) 727-8470 • Fax: (617) 727-5128
www.sec.state.ma.us/mhc

SHPO concurrence letter, January 18, 2007 (10 pages).

H30 (NER-RS&S OCLP)

Ms. Brona Simon
Deputy State Historic Preservation Officer
Massachusetts Historical Commission
220 Morrissey Boulevard
Boston, MA 02125-3314

Dear Ms. Simon:

Enclosed you will find a copy of the Cultural Landscapes Inventory (CLI) for the Charlestown Navy Yard area of the Boston National Historical Park. We seek you concurrence on the additional resources and associated features identified in this CLI. The CLI also includes previously evaluated resources. This CLI encompasses the portion of the Boston Naval Shipyard located in Charlestown owned by the National Park Service. This CLI has been prepared by a team of historical landscape architects working with the National Park Service Olmsted Center for Landscape Preservation. The CLI program and the enclosed report continue the NPS efforts to update our cultural resource inventories.

Through the CLI program, the NPS is currently in the midst of a nationwide effort to inventory its cultural landscapes. The CLI is conducted in accordance with Section 110 of the National Historic Preservation Act of 1966 (as amended). It is an inventory of baseline information for all historically significant cultural landscapes within the national park system, and it examines multiple landscape features that contribute to the significance of historic properties. The CLI process includes gathering information from existing secondary sources and conducting on-site reconnaissance of the existing landscape. The information collected provides a comprehensive look at the historical development and significance of the landscape, placing it in context of the property's overall significance. For landscapes found potentially eligible for the National Register of Historic Places (NR), the evaluation describes their character-defining features and assesses the landscape's overall historical integrity. It also raises questions about the landscapes that need further study.

It is important to note that the CLI reports are not intended as comprehensive inventory reports for any one property, although for some properties they provide fuller documentation than for others. For example, the reports do not include a full architectural description of structures, but document structures as elements of the overall landscape, and similarly documents other characteristics such as vegetation, spatial organization, and views and vistas. The CLI is one

within the last fifty years. The draft Historic Resource Study recommends that the Cold War Era significance be evaluated and the National Historic Landmark nomination form be amended if appropriate, since the ship is being preserved and interpreted as a user of the yard facilities.

The Hoosac Stores 1 & 2 building was separately listed in the National Register on August 14, 1985 after the National Park Service acquired it in 1981 since historically it was unassociated with the yard. It is significant at the state level under National Register Criterion A for its association to the historic commerce, industry, and transportation along Boston Harbor during the late-nineteenth and early-twentieth centuries. It also derives significance under Criterion C, architecture. It was never owned by the US Navy nor was it part of the historic Navy Yard (1800-1974). The building's imposing presence, however, has been part of the yard's views and vistas since its construction in 1895.

Two previously evaluated resources, included in the List of Classified Structures (LCS) for which you concurred on January 30, 1995, have been removed. They are Temporary Shed (*park structure nos. 037)* and Historical Plaque *(USS Constitution plaque).* The plaque is now in the museum collection.

Until this time, the landscape characteristics and features of Boston National Historical Park's Charlestown Navy Yard had not been evaluated. This CLI encompasses the area owned by the NPS, which comprises the western quarter of the National Register district and those buildings noted above to the east of Fifth Street. With a 174-year long period of significance, today's Navy Yard represents an amalgam of building styles, technological innovations, and landscape features and spaces, all which reflect evolving ideals and functional needs. All 1974 period resources acquired by the national historical park from the Navy contribute to the property's historic significance. The design intent—guided by the yard's overall plan and building scale and largely influenced by Loammi Baldwin, Alexander Parris and other early yard architects and engineers—is still evident. In addition to those buildings, structures, and objects that are included in the List of Classified Structures (LCS), this CLI finds that the overall landscape contributes to the significance of the site and retains integrity. We call your particular attention to the Inventory Unit Summary (page 5), the National Register Information (page 22), Statement of Significance (page 24), and the Analysis and Evaluation of Integrity Summary (page 139) in the enclosed CLI Park Report.

Based on the enclosed CLI Park Report, we seek your concurrence on the following, which should supplement eventual NR documentation:

- In addition to those buildings and structures that have been deemed contributing through the List of Classified Structures, the landscape as a countable site retains integrity to the period of significance from the Navy Yard's establishment in 1800 to its deactivation in 1974.

- The enumerated cultural landscape resources of Charlestown Navy Yard retain integrity and contribute to the historic character of the Charlestown Navy Yard. (See attached list).

If you concur with our evaluation for the Charlestown Navy Yard landscape resources, we ask that you please sign on the space provided and return this letter to Laurie Matthews, CLI Coordinator (Address: Olmsted Center for Landscape Preservation, Charlestown Navy Yard, Quarters C, Charlestown, MA 02129) within thirty days.

Thank you for your attention to these reports. Should you have any questions, please feel free to contact Ms. Matthews at 617-241-6954 ext. 266.

Sincerely,

Mary A. Bomar
Regional Director
Northeast Region

Enclosure

cc: Superintendent, Boston National Historical Park

I concur with the above-stated findings, regarding this property, including contributing and non-contributing landscape resources of Charlestown Navy Yard, Boston National Historical Park.

_____ _____
Massachusetts State Historic Preservation Officer Date

Cultural Landscapes Inventory

Charlestown Navy Yard
Boston National Historical Park

Boston National Historical Park concurs with the findings of the CLI for Charlestown Navy Yard including the following specific components:

MANAGEMENT CATEGORY: Must Be Preserved and Maintained

CONDITION ASSESSMENT: Good

Good: indicates the inventory unit shows no clear evidence of major negative disturbance and deterioration by natural and/or human forces. The inventory unit's cultural and natural values are as well preserved as can be expected under the given environmental conditions. No immediate corrective action is required to maintain its current condition.

Fair: indicates the inventory unit shows clear evidence of minor disturbances and deterioration by natural and/or human forces, and some degree of corrective action is needed within 3-5 years to prevent further harm to its cultural and/or natural values. If left to continue without the appropriate corrective action, the cumulative effect of the deterioration of many of the character defining elements, will cause the inventory unit to degrade to a poor condition.

Poor: indicates the inventory unit shows clear evidence of major disturbance and rapid deterioration by natural and/or human forces. Immediate corrective action is required to protect and preserve the remaining historical and natural values.

The Cultural Landscapes Inventory for Charlestown Navy Yard is hereby approved and accepted.

8-11-06

Superintendent, Boston National Historical Park Date

Park concurrence form, August 11, 2006.

NPS CULTURAL LANDSCAPES INVENTORY
List of Contributing and Non-Contributing, Characteristics and Associated Features
Charlestown Navy Yard, Boston National Historical Park
August 2006

I. CONTRIBUTING LANDSCAPE CHARACTERISTICS & ASSOCIATED FEATURES

The following landscape characteristics and associated features contribute to the district's historic character, though not all are considered countable resources according to the National Register of Historic Places.

A. Previously Evaluated by NPS for which MHC Concurred January 30, 1995

(Note: Format of feature names may have been updated since 1995)

Buildings and Structures

Building 1 (Gate House / Garages) [Chauffer's Qtrs.]	LCS 040032
Building 4 (Chief Petty Officers Club)	LCS 040033
Building 5 (Bachelor Officers Quarters / Open Mess) [Officer's Club]	LCS 040034
Quarters G (Commandant's House)	LCS 040035
Building 10 (Battery Charging Facility) [Shipyard Galley]	LCS 040036
Pier 1	LCS 040037
Pier 2	LCS 040038
Marine Railway [Marine Railway 11]	LCS 040039
Building 19 (Scale House)	LCS 040040
Building 21 (Carriage House)	LCS 040041
Building 22 (Ship Repair Shop) [Constitution Museum]	LCS 040042
Building 24 (Riggers and Laborers Shop)	LCS 040043
Building 32 (Bank) [Bank and Credit Union]	LCS 040044
Building 58 (Ropewalk)	LCS 040045
Building 60 (Public Works Storage) [Tar House]	LCS 040046
Building 105 (Forge) [Chain Forge]	LCS 040047
Building 107 (Public Works Maintenance Shop)	LCS 040048
Building 109 (Waterfront Office)	LCS 040049
Building 110 (Lead Room)	LCS 040050
Building 124 (Public Toilet) [Latrine]	LCS 040085
Building 125 (Paint Shop)	LCS 040051
Underground Oil Storage Tank (Structure 220) [Underground Oil Tank]	LCS 040055
Underground Water Storage Tank (Structure 221) [Water Storage Reservoir]	LCS 040056
Flood Light Tower (Structure 238)	LCS 040060
Flood Light Tower (Structure 239)	LCS 040061
Flood Light Tower (Structure 240)	LCS 040062
Building 245 (Ground Equipment Shop) [Gardener's Shed]	LCS 040064

Grit Hopper (Structure 259) [Abrasive Grit Hopper]	LCS 040065
Building 265 (Married Officers Quarters B-F)	LCS 040067
Building 267 (Gate 1 Gatehouse)	LCS 040069
Building 269 (Married Officers Quarters Garages B-F)	LCS 040077
Dry Dock 1	LCS 040078
USS Constitution	LCS 040079
Granite Boundary Wall [Granite Wall]	LCS 040086
USS Cassin Young (DD-793)	LCS 040088
Hoosac Stores 1 & 2	LCS 040092
Portal Crane 62	LCS 040132
Portal Crane 65	LCS 040133
Grit Hopper (Structure 273) [Abrasive Grit Hopper]	LCS 040136
Building I (Marine Barracks)	LCS 040138
Gate 2	LCS 040339
Gate 4	LCS 040346
Portal Crane 30	LCS 040356
Gate 1	LCS 040360
Building 28 (Instrumentation Calibration Shop)	LCS 040412
Building M-39 (Steam Box Shed) [Temporary Park Structure nos. 083]	LCS 040344

Circulation

Railroad Tracks	LCS 040084
Crane Tracks	LCS 040130

Small-Scale Features

Yard Commandants Plaque (Structure 270) [Memorial Plaque]	LCS 040070

B. Recently Evaluated by NPS for which We Request MHC Concurrence

Natural Systems and Features / Topography
- Commandant's House Terrace
- Location between the Charles and Mystic Rivers facing Boston Harbor
- Marine Barracks Parade Ground
- Marine Barracks East Garden Terraces
- Marine Barracks West Garden Terraces
- Pilings, Quays, and Fill (Over marsh and tidal areas)
- Upper Yard Hill (Commandant's House & Marine Barracks)

Spatial Organization
- Building Massing
- Compartmentalization of the Yard
- Grid Circulation Pattern
- Shipyard Mall

View From Gate 4
View from Building I (Marine Barracks) to Boston Harbor
View from Building I (Marine Barracks) to USS Constitution
View from Waterfront to Bunker Hill Monument
View of Quarters G (Commandant's House) from yard
View of Building I (Marine Barracks) from yard
View of Tobin Bridge
View of Yard from Waterfront

II. NON-CONTRIBUTING LANDSCAPE CHARACTERISTICS & ASSOCIATED FEATURES

Circulation
- Constitution Road
- Freedom Trail

Buildings and Structures
- Commandant's House Gate
- Security Structures
- Building M-41 (Storage Shed)
- Building M-40 (USS Cassin Young Workshop)

Small-Scale Features
- USS Boston Memorial
- Benches
- Dry Dock 1 Flagpoles
- Interpretive / Park Signs

Vegetation
- Building 32 (Bank) Flowerbeds
- Building 32 (Bank) Rose Bushes
- USS Constitution Museum Vegetation

III. UNDETERMINED LANDSCAPE CHARACTERISTICS & ASSOCIATED FEATURES

Buildings and Structures
- Hoosac Stores 1&2 Boilerhouse

IV. REMOVED LANDSCAPE CHARACTERISTICS & ASSOCIATED FEATURES

Buildings and Structures
- Historical Plaque (USS Constitution Plaque)

Small-Scale Features
- Temporary Shed (park structure nos. 037)

Cultural Landscapes Inventory
Condition Reassessment
2012

Boston National Historical Park
Charlestown Navy Yard

Boston National Historical Park concurs with the condition reassessment for the Charlestown Navy Yard, including:

CONDITION ASSESSMENT: Good

Good: indicates the inventory unit shows no clear evidence of major negative disturbance and deterioration by natural and/or human forces. The inventory unit's cultural and natural values are as well preserved as can be expected under the given environmental conditions. No immediate corrective action is required to maintain its current condition.

Fair: indicates the inventory unit shows clear evidence of minor disturbances and deterioration by natural and/or human forces, and some degree of corrective action is needed within 3-5 years to prevent further harm to its cultural and/or natural values. If left to continue without the appropriate corrective action, the cumulative effect of the deterioration of many of the landscape characteristics will cause the inventory unit to degrade to a poor condition.

Poor: indicates the inventory unit shows clear evidence of major disturbance and rapid deterioration by natural and/or human forces. Immediate corrective action is required to protect and preserve the remaining historical and natural values.

The condition reassessment for the Charlestown Navy Yard at Boston National Historical Park is hereby approved and accepted.

Superintendent, Boston National Historical Park — Date: 8/30/12

Condition reassessment form, August 30, 2012.

Cultural Landscapes Inventory
CLI Update Certification Form
2025

Boston National Historical Park
Bunker Hill Monument, Charlestown Navy Yard, Dorchester Heights NHS

Boston National Historical Park concurs with the updates for the following CLIs, including:

CONDITION ASSESSMENT: Good – Bunker Hill Monument
Good – Charlestown Navy Yard
Good – Dorchester Heights National Historic Site

Good: indicates the inventory unit shows no clear evidence of major negative disturbance and deterioration by natural and/or human forces. The inventory unit's cultural and natural values are as well preserved as can be expected under the given environmental conditions. No immediate corrective action is required to maintain its current condition.

Fair: indicates the inventory unit shows clear evidence of minor disturbances and deterioration by natural and/or human forces, and some degree of corrective action is needed within 3-5 years to prevent further harm to its cultural and/or natural values. If left to continue without the appropriate corrective action, the cumulative effect of the deterioration of many of the character defining elements, will cause the inventory unit to degrade to a poor condition.

Poor: indicates the inventory unit shows clear evidence of major disturbance and rapid deterioration by natural and/or human forces. Immediate corrective action is required to protect and preserve the remaining historical and natural values.

The CLI Updates at Boston National Historical Park are hereby approved and accepted.

SIMONE MONTELEONE Digitally signed by SIMONE MONTELEONE
Date: 2025.06.11 16:16:34 -04'00'

Superintendent, Boston National Historical Park Date

Park concurrence form, June 11, 2025.

Revision:

Revised By	Type of Revision	Revision Date	Revision Narrative
Jeff Killion	Change in Condition	08/30/2012	Condition reassessment completed as scheduled
Jeff Killion	CLI Update	06/11/2025	Three levels of effort have been developed for CLI Updates: A, B, and C. Level C is limited to a condition reassessment of the landscape; Level B includes C and is a targeted update of select data fields; Level A includes C and is a comprehensive update of all data fields. This 2025 update to the Charlestown Navy Yard CLI has been conducted at a Level C effort. See Landscape Documents in CRIS-CL for correspondences with park

Geographic Information

State and County:

State	County

Size (Acres): 30

Land Tract Number(s)

Boundary Description:

According to the 1974 Congressional Act that established Boston National Historical Park, "The Charlestown Navy Yard shall include the United States Ship Constitution and the lands generally depicted on the map entitled Boundary Map: Charlestown Naval Shipyard – USS Constitution. Boston National Historical Park" (Public Law 93-431). Since 1974, construction of the Chelsea-Water Street Connector in 1980-81 necessitated the relocation of much of the yard's granite boundary wall to the south reducing the size of the Quarters G (Commandant's House) grounds. During the 1980s, Congressional legislation amended the original boundary by adding four buildings outside park boundaries to the park; Building 58 (Ropewalk), Building 60 (Public Works Storage), Building 105 (Forge), and Building 107 (Public Works Shop). These buildings, now part of the park's noncontiguous legislative boundary, remain officially in BRA ownership except for Building 107, which has been deeded back to the United States as part of an exchange of real property. Other post-1974 park boundary expansions include acquisition of the former Henley, Wapping, and Water Streets along with some associated lands (all were replaced with the later construction of the Constitution Road) and the Hoosac Stores 1 & 2 property including a parking lot to the west and some waterfront to the south.

Charlestown Navy Yard's existing boundary encompasses 30+/- acres and begins about 80 feet west of the berth of USS Constitution, where it heads due west to Hoosac Pier generally following the pier's eastern edge to the southwest corner of Hoosac Stores 1 & 2 building. Here the boundary turns west, north, and then east following the outer edges of the Hoosac Stores 1 & 2 parking lot to the front/center of the Hoosac Stores 1 & 2 building. Next the boundary turns north and northeast encompassing Constitution Road and part of the Massachusetts Turnpike Authority developed property to the northwest. The boundary crosses and follows the northern edge of Chelsea Street until it crosses back north of the Quarters G (Commandant's House). Here the boundary follows the granite boundary wall and crosses Fifth Street at Gate 4. Then the boundary follows the eastern edge of Fifth Street to Second Avenue where it turns east and follows the latter's northern edge to Sixth Street. Here it turns south following Sixth Street's western edge to First Avenue. The boundary turns west at First Avenue following this road's southern edge to the eastern edge of Baxter Road, where it turns south, following its eastern edge to the base of Pier 3. From here the boundary generally follows the western edge of Pier 3 continuing past the tip of the pier about 400 feet due south into Boston Harbor. From this point, the boundary heads northwest to the southeast corner of Pier 1, follows the southern edge of the pier, and then generally proceeds 160 feet northwest from the pier's southwest corner. From this point, the boundary line heads northwest to the starting point west of USS Constitution.

The yard is located at the confluence of the Charles and the Mystic Rivers at the head of Boston Harbor in Charlestown, Massachusetts, a neighborhood of the City of Boston since 1874, in Suffolk County. This location offers a protected marine setting with a deep shipping channel. Once a tidal marsh, the waterfront is now bounded by piers and seawalls over extensive fill. The topography of the yard is nearly level with a gentle rise along the northern edge where the Quarters G (Commandant's House) and Building I (Marine Barracks) are sited prominently. The Navy's practice in considering that First Avenue ran true east to west and not northeast to southwest has been continued by Boston NHP to simplify the geographical orientation and allow for consistency between contemporary and historic plans. The yard's grid is divided into three general areas or zones: the upper yard; waterfront, and lower yard. The Boston NHP portion includes all of the upper yard, the western part of the waterfront, and Buildings 58, 60, 105, and 107 within the lower yard as explained above. Historically the upper yard was residential and ceremonial, while today it hosts NPS functions and serves recreational, visitor use, and interpretational needs for the park. The waterfront was historically industrial with piers, dry docks, and related buildings and structures, while today it still services USS Constitution and USS Cassin Young (DD-793) in addition to offering visitor use and interpretation. The lower yard was also historically industrial but with many large, rectangular manufacturing buildings, while today the park's interests here support park offices or are vacant.

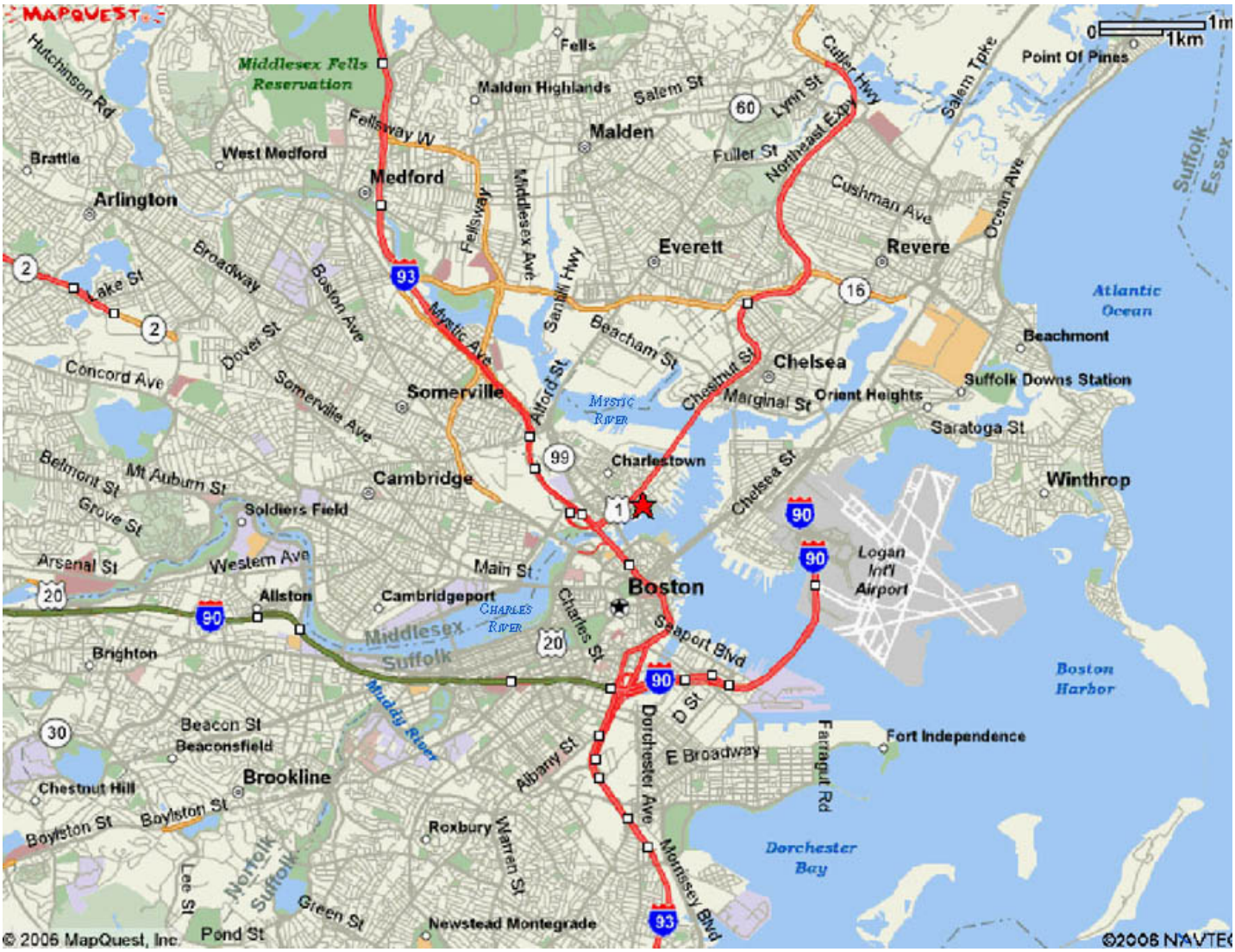
Boundary Coordinates

Source	Type of Point	Latitude	Longitude	Narrative
USGS Map 1:24,000	Point	-71.0569368717967	42.3738416108943	

Location Map:



Charlestown Navy Yard is located along the east coast of the northeastern United States in the State of Massachusetts (Mapquest, 2006). The yard is denoted with a red star.



Charlestown Navy Yard is located in Boston Massachusetts along Boston Harbor north of the downtown between the mouths of the Charles and Mystic Rivers (Mapquest, 2006). The yard is denoted with a red star.

Regional Landscape Contexts:

Management Information

General Management Information

Management Category: Must be Preserved and Maintained

Management Category Date: 08/11/2006

Management Category Explanatory Narrative:

The management category was determined in consultation with the park and is based on its designation as a National Historic Landmark.

Management Agreements:

Type of Agreement: Concession Contract/Permit

Management Agreement Expiration Date:

Management Agreement Explanatory Narrative:

Boston Culinary Group for food service at Navy Yard Galley - Building 10

Type of Agreement: Cooperative Agreement

Management Agreement Expiration Date:

Management Agreement Explanatory Narrative:

USS Constitution Museum

Type of Agreement: Cooperative Agreement

Management Agreement Expiration Date:

Management Agreement Explanatory Narrative:

Boston Marine Society

Type of Agreement: Special Use Permit

Management Agreement Expiration Date:

Management Agreement Explanatory Narrative:

Tour boats for use of barge at end of Pier 1

Type of Agreement: Special Use Permit

Management Agreement Expiration Date:

Management Agreement Explanatory Narrative:

Numerous special use permits are issued throughout the year for events on Pier 1 and Quarters G (Commandant's House) lawn for such things as historical reenactments, corporate events, and weddings.

Type of Agreement: Interagency Agreement

Management Agreement Expiration Date:

Management Agreement Explanatory Narrative:

Agreement with the United States Navy. The founding legislation authorizes the National Park Service to permit the Navy to use buildings and facilities necessary for the preservation and maintenance of the USS Constitution.

Type of Agreement: Memorandum of Understanding

Management Agreement Expiration Date:

Management Agreement Explanatory Narrative:

Boston Redevelopment Authority (BRA) (access and parking on Pier 3)

Type of Agreement: Memorandum of Understanding

Management Agreement Expiration Date:

Management Agreement Explanatory Narrative:

Massachusetts Environmental Police (use of Pier 3 for police boats)

Type of Agreement: Memorandum of Understanding

Management Agreement Expiration Date:

Management Agreement Explanatory Narrative:

1812 Marines (use of garage space for storage)

Type of Agreement: Other

Management Agreement Expiration Date:

Management Agreement Explanatory Narrative:

Cooperating Association: Eastern National / Amelia Occasions (Commandant's House events/rentals)

Legal Interests:

Type of Interest: Fee Simple

Narrative: Fee Simple for the 30 acres under NPS ownership

Type of Interest: Less Than Fee Simple

Narrative: Less than Fee Simple for Building 58 (Ropewalk) and Building 105 (Forge)

Located in managed wilderness?: Unknown

Adjacent Lands Information

Do Adjacent Lands Contribute? Yes

Adjacent Lands Narrative:

National Register Information

National Register of Historic Places

Documentation Status: Entered Inadequately Documented

Documentation Narrative Description:

The U.S. Secretary of the Interior designated the Boston Naval Shipyard as a National Historic Landmark on November 15, 1966. This designation automatically placed the yard on the National Register of Historic Places, a program established under the authority of the National Historic Preservation Act of 1966 (NHPA). The National Historic Landmark nomination noted that "…the Boston Naval Shipyard…has been found to possess exceptional value in commemorating or illustrating the history of the United States…"

The National Historic Landmark designation included the entire 130-acre Boston Naval Shipyard within Charlestown, Massachusetts. The act of Congress that established Boston National Historical Park on October 1, 1974, designated the 30-acre western portion of the yard as an area of the park naming it "Charlestown Navy Yard" (Public Law 93-431).

In 1978, Edwin Bearss of the National Park Service prepared a National Register Nomination Form to document the National Historic Landmark. The form was submitted to the National Register Office in 1979 but never formally accepted. The Keeper returned the form to the National Park Service without formally reviewing it, citing an in-progress National Historic Landmark Boundary Study. A draft National Historic Landmark Boundary Study, consisting of a revised form, was prepared under the aegis of the Preservation Planning Division of the Mid-Atlantic Region, in 1984-86, but not approved. The 1978 draft document found the Charlestown Navy Yard to be eligible under National Register Criteria A, C, and D. The Charlestown Navy Yard also met Criteria Consideration G: Properties That Have Achieved Significance Within the Last Fifty Years, because the period of significance extends to within the past fifty years and the property has achieved "exceptional importance." The park's 2004 draft Historic Resource Study recommends that revised National Register forms be prepared and that all four criteria (A,B,C,D) are applicable to the yard for the period of 1800-1974 in the areas of maritime and military history and associated social movements, technological innovations, distinctive architecture, and remarkable engineered features. Several notable naval officers, architects and engineers are included as well as the physical evidence of their work. In addition, the property contains many archeological resources. The Charlestown Navy Yard has never been evaluated within the context of a military/industrial complex nor examined in the context of contemporary navy yards.

The Secretary of the Interior designated USS Constitution a National Historic Landmark on December 19, 1960. The ship is also included as part of the park's 1966 listing on the National Register, although it is still owned and maintained by the Navy. It is significant under National Register Criterion A for its association with military and political events. USS Cassin Young (DD-793) was designated a National Historic Landmark on January 14, 1986. It is significant under National Register Criterion A for its association with World War II military events, and it meets Criteria Consideration G: Properties That Have Achieved Significance Within the Last Fifty Years. The park acquired the ship in 1978.

The Hoosac Stores 1 & 2 building was separately listed on the National Register on August 14, 1985 after the National Park Service acquired it in 1981, since historically it was unassociated with the yard. It is significant at the state level under National Register Criterion A for its association to the historic commerce, industry, and transportation along Boston Harbor during the late-nineteenth and early-twentieth centuries. It also derives significance under Criterion C, design. It was never owned by the US Navy nor was it part of the historic Navy Yard (1800-1974). Its imposing presence, however, has been part of the yard's views and vistas since its construction in 1895. The adjacent Hoosac Stores 1&2 Boilerhouse, built during the 1930s, was not included in the National Register documentation and has not been evaluated

On January 30, 1995, the Massachusetts Historical Commission concurred with the National Park Service determinations of eligibility for the List of Classified Structures resources, with the additional recommendation that the streets that are part of the Loammi Baldwin's 1828 master plan contribute as a single structural system or grid.

Since the MHC concurrence in 1995, two resources included in the LCS evaluations have been removed. These are the Temporary Shed (park structure nos. 037) and Historical Plaque (USS Constitution Plaque). The base of the plaque has been removed, and the plaque is now in the museum collection.

Eligibility: Eligible -- SHPO Consensus Determination

Concurrence Eligibility Date: 01/18/2007

Concurrence Narrative:

Significance Level: National

Contributing: Individual

Classification: District

Statement of Significance for National Register of Historic Places:

The period of significance for the Charlestown Navy Yard—one of the six original United States Navy Yards— extends from the yard's establishment in 1800 to its deactivation in 1974. The Charlestown Navy Yard is significant for its role in the construction, repair, and servicing of vessels of the United States Navy for its entire period of active naval service. It is also significant as the site of one of the first two naval dry docks in the United States, the location of the Navy's only ropewalk, and for technical innovations such as the invention and production of die-lock chain. The yard evolved throughout its history to meet changing needs and naval technologies, and the current site contains resources from all periods of its existence. The yard is also associated with historically significant naval officers including Commandants William Bainbridge and Isaac Hull, as well as with a number of individuals who are significant in the fields of architecture and civil engineering such as Loammi Baldwin and Alexander Parris. Although much of the current acreage of the yard is filled land, older portions of the yard may potentially contain archeological resources related to Native American and colonial use of the area prior to its purchase by the federal government as well as those related to its use by the Navy.

Both the 2004 draft Historic Resource Study and 1978 draft nomination form ascribe significance under the areas of maritime and military history and associated social movements, technological innovations, distinctive architecture, and remarkable engineered features and cite four primary themes to evaluate all extant buildings and features of the yard:

1. History of the American Navy (Shaping the Political Landscape)
2. History of Technology (Expanding Science and Technology)
3. History of American Architectural Design and Planning (Expressing Cultural Values)
4. History of Social and Worker Movements (Creating Social Institutions and Movements)

These four themes are evident in National Register Criteria A, B, C, and D. The 1978 draft nomination form found the Charlestown Navy Yard to be eligible under National Register Criteria A, C, and D. The Charlestown Navy Yard also met Criteria Consideration G: Properties That Have Achieved Significance Within the Last Fifty Years, because the period of significance extends to within the past fifty years and the property has achieved "exceptional importance." The park's 2004 draft Historic Resource Study recommends that revised National Register forms be prepared and that all four significance criteria are applicable for its period of significance. The property is significant under Criterion A for its association with 174 years of the U.S. Navy's war and peacetime efforts. Additionally, the property is significant under Criterion B for its association to significant naval figures including Commandants William Bainbridge and Isaac Hull. The property is also significant under Criterion C for the distinctive design of its historic residences, manufacturing facilities, piers, and dry docks as well as associated open space critical to the yard's operation. Much of the yard's grid, open space, and buildings can be attributed to the planning and design of Loammi Baldwin and Alexander Parris. Additional significance is ascribed under Criterion D for the potential of the property's buildings and structures to yield important historical information. Although much of the current acreage of the yard is filled land, this fill and intact soils beneath fill layers may contain archeological resources related to Native American, colonial and later historic uses of the area prior to its

purchase by the federal government as well as those related to its use by the Navy. The archeological resources associated with the yard may be significant, but beyond the scope of this study.

With a 174-year long period of significance, today's Navy Yard represents an amalgam of building styles, technological innovations, and landscape features and spaces, all which reflect evolving ideals and functional needs. As part of the cultural landscape analysis, the primary themes and areas of significance listed above for the property are highlighted in the eight subperiods below. The yard retains overall integrity for all post-1920 subperiods. The subperiods of the 1800-1974 period of significance also represent eight sections of this document's Physical History and are slight variations of the subperiods identified by the draft Historic Resource Study (Carlson, 2004).

1. 1800-1828 Establishment of the Navy Yard
This subperiod reflects the 1800 founding of the Charlestown Navy Yard that followed the establishment of the U.S. Navy in 1798. Following the initial development, the early yard increased production during the War of 1812 and witnessed the start of shipbuilding. By 1828, the Navy removed both the Army and Marine Hospital reservations for yard expansion. The Navy constructed the Quarters G (Commandant's House), portions of Building I (Marine Barracks), and Building 5 (Bachelor Officers Quarters / Open Mess) during this time. These buildings and the spatial relationships created by their placement with respect to each other are still evident. Today's yard only retains integrity of location and association for this subperiod.

2. 1828-1853 Early Nineteenth-century Growth
Loammi Baldwin's 1828 master plan guided the yard's growth during the second quarter of the nineteenth century and beyond with its tree-shaded east-west avenues and north-south streets and large rectangular buildings. The Navy built many granite buildings designed by Alexander Parris and Samuel Pook. Parris's Building 58 (Ropewalk) and Baldwin's Dry Dock 1 are two examples of state of the art engineering and industrial masterworks. The circulation system, building massing, several distinctive buildings, and Dry Dock 1 are still evident. Today's yard only retains integrity of location, design (Baldwin and Parris), and association for this subperiod.

3. 1853-1869 Development in the Age of Steam
During this subperiod the yard adapted as the Navy evolved from wind and wood to steam and iron with new facilities that serviced the modernizing fleet. The yard's civil engineer, Joseph Billings, continued to design within the classical vocabulary of his predecessor, Alexander Parris, as the yard began to handle steam-powered vessels. The Civil War brought ironclad vessels and railroad tracks into the yard. The optimistic 1869 master plan marked the end of this period of growth, which followed with a time of relative inactivity. While core structures and ceremonial spaces were retained, a new layer of infrastructure was introduced to the yard including rail lines and a water distribution system. Larger vessels necessitated the extension of Dry Dock 1. Today's yard only retains integrity of location, design, and association for this subperiod.

4. 1869-1898 Post Civil War
The end of the Civil War brought inactivity and efforts to close the yard during the 1880s. The 1890 Navy Appropriations Act led to partial modernization of the yard to build, repair, and outfit steel ships. With the beginning of the Spanish American War in 1898, the Navy authorized the construction of Dry Dock 2. This massive engineering project contrasted with the relatively calm ceremonial core of the yard, which was graced with an abundance of mature elms and other shade trees. Some of these trees are still evident, others have been replaced in kind, but most elms were subsequently lost to Dutch Elm Disease. Today's yard only retains integrity of location, design, and association for this subperiod.

5. 1898-1920 Yard Resurrected
The Spanish American War and World War I further encouraged the Navy to continue the major modernization campaign begun with the 1890 Navy Appropriations Act. This subperiod reflects the start of steel shipbuilding and the yard's primary role in supplying and outfitting vessels. The Navy Yard began to expand to South Boston at this time. The completion of Dry Dock 2, the addition of crane and train rails, and the presence of cranes enhanced the industrial appearance of the yard's waterfront as is still evident. The introduction of tennis courts to the ceremonial core altered the use of the central ceremonial area, as is still evident. Today's yard only retains integrity of location, design, and association for this subperiod.

6. 1920-1934 The Stagnant 1920s
This subperiod reflects an inactive time in the yard and the beginning of the Great Depression. In 1926, yard workers invented dielock chain which all Navy ships soon began to use. The Navy only produced the chain here at Building 105 (Forge). This production reinforced the value of the yard as a manufacturing and supply center for the Navy. The stock piles of rope and chain from this time are not currently evident. Today's yard retains overall integrity for this subperiod with integrity of location, design, materials, workmanship, and association.

7. 1934-1945 The Yard Revitalized and World War II
This subperiod began with the first government orders for destroyer construction and the Works Progress Administration (WPA) modernization of the yard and closes with the end of World War II. The WPA renovated many of the yard's buildings during this time and many street trees were removed to allow for road widening and paving. The Building 1 (Gate House / Garages), the sunporch on the Quarters G (Commandant's House), as well as the added kitchen and butler's pantry date to this period. With World War II on the horizon and a declaration of national emergency in 1939, the Navy revived shipbuilding with the yard building many of the escort vessels and tank-landing ships used in the war. The Navy constructed numerous new facilities, increased its numbers of workers (especially female and minority), and established large stockpiles for building and supply distribution. The Navy developed the South Boston Annex during the war and redesignated the yard as the Boston Naval Shipyard. The Navy constructed many new buildings and additions during this time. However, one of the largest structures built within the park area, Building 198 (Supply Department Storage), was subsequently removed as were the enormous stockpiles of supplies and the many temporary structures. Today's yard retains overall integrity for this subperiod with integrity of location, setting, workmanship, and association. Much of the design and materials added during World War II have since selectively been removed, while those contributed by the WPA remain.

8. 1945-1974 Cold War Era
Following World War II, through the Korean and Vietnam Wars, until its closing in 1974, the yard played a major role during the Cold War in developing missiles, radar, and sonar systems. The yard outfitted many ships during this time, and the 1950s was particularly a time of modernization. Features still evident from this period include additional asphalt paving, Light Towers (Structures 238, 239, and 240), Grit Hoppers (Structures 259 and 273), the Saluting Battery (Structure 261), and Building 272 (Saluting Battery Ammunition Bunker. Today's yard retains overall integrity for this subperiod with integrity of location, design, setting, materials, workmanship, feeling, and association.

Based on the findings of this CLI we recommend the following issues be addressed when the National Register documentation is completed:

1. Much of the cultural landscape resources of Charlestown Navy Yard retain integrity and contribute to the historic significance of the Charlestown Navy Yard (Boston National Historical Park portion of the Boston Naval Shipyard).

2. Those landscape characteristics and features that are contributing to the significance of the property should be documented (see analysis and evaluation section). As a district, several landscape features less than fifty years old may be identified as contributing.

Additional Significance:
USS Constitution, an independently designated National Historic Landmark within the park owned and maintained by the Navy, is significant under National Register Criterion A for its association with military and political events. The ship, designed by Philadelphia shipbuilder Joshua Humphreys, is the oldest commissioned ship afloat and the only US sailing ship still in commission. One of six ships constructed to protect America's growing maritime interests in the 1790s, she soon earned widespread renown for her success against French privateers in the Caribbean and Barbary pirates in the Mediterranean. The ship earned her nickname "Old Ironsides" during the War of 1812 for her strength under fire surviving the enemy's worst broadsides. USS Cassin Young (DD-793), another independently designated a National Historic Landmark within the park, is significant under National Register Criterion A for its association with World War II military events. It represents Fletcher class destroyers built by the yard exemplifying the

intense military-industrial effort on the home front during World War II. Cassin Young earned four battle stars and Navy Unit Commendation at Okinawa. She was the target of the last kamikaze attack of World War II. Designated a landmark in 1986 less than forty-three years after her construction, the ship was also found to meet Criteria Consideration G: Properties That Have Achieved Significance Within the Last Fifty Years. The draft Historic Resource Study recommends that the Cold War Era significance be evaluated and the National Historic Landmark nomination forms be amended if appropriate, since the ship is being preserved and interpreted as the shipyard customer she was in the 1950s. Hoosac Stores 1 & 2, never part of the historic Navy Yard and separately listed on the National Register, is eligible at the state level under National Register Criterion A for its association to the historic commerce, industry, and transportation along Boston Harbor during the late-nineteenth and early-twentieth centuries. The building also derives significance under Criterion C, design. Its imposing presence has been part of the adjacent Navy Yard's views and vistas since its construction by the Fitchburg Railroad in 1895. The six-story, red brick warehouse located west of USS Constitution is unique architecturally, specifically designed as a storehouse with its austere facades and utilitarian slit windows. It represents a disappearing Boston Harbor scene of once thriving nineteenth and early-twentieth century warehouses, docks, wharves, and related structures. The railroad right-of-way, where tracks used to carry freight to and from the warehouse, is located a few feet south of the building.

National Register Significance Criteria:

A - Associated with events significant to broad patterns of our history

B - Associated with lives of persons significant in our past

C - Embodies distinctive construction, work of master, or high artistic values

D - Has yielded, or is likely to yield, information important to prehistory or history

Area of Significance:

Area of Significance Category: Architecture

Area of Significance Subcategory: None

Explanatory Narrative:

Area of Significance Category: Archeology

Area of Significance Subcategory: Historic-Non-Aboriginal

Explanatory Narrative:

National Register Criteria Consideration:

National Register Periods of Significance (with Historic Context Themes):

Time Period: CE 1800 - CE 1974

Historic Context Theme	Subtheme	Facet	Other Facet
Creating Social Institutions and Movements	Social and Humanitarian Movements	Labor Organizations	
Creating Social Institutions and Movements	Ways of Life	Industrial Life Of The Last Half Of The 19th Century	
Expanding Science and Technology	Technology (Engineering and Invention)	Military (Fortifications, Weapons, And War Vehicles)	Tools and Machines Industrial Processes
Expressing Cultural Values	Landscape Architecture	The Early National Period	Urban Planning in the Nineteenth Century
Shaping the Political Landscape	Political and Military Affairs 1783-1860	The Army And Navy	
Shaping the Political Landscape	Political and Military Affairs After 1945	The "Cold War" With The Soviet Union	
Shaping the Political Landscape	The Civil War	The Industrial North	
Shaping the Political Landscape	World War II	The Home Front	
Transforming the Environment	The Industrial Revolution	Industrial Innovations	

Area of Significance Category: Engineering

Area of Significance Subcategory: None

Explanatory Narrative:

Area of Significance Category: Industry

Area of Significance Subcategory: None

Explanatory Narrative:

Area of Significance Category: Invention

Area of Significance Subcategory: None

Explanatory Narrative:

Area of Significance Category: Maritime History

Area of Significance Subcategory: None

Explanatory Narrative:

Area of Significance Category: Military

Area of Significance Subcategory: None

Explanatory Narrative:

Area of Significance Category: Social History

Area of Significance Subcategory: None

Explanatory Narrative:

Area of Significance Category: Transportation

Area of Significance Subcategory: None

Explanatory Narrative:

NRIS Information:

NRIS ID:	66000134
Other Name:	Boston Naval Shipyard
Primary Certification Date:	11/15/1966

State Register Documentation:

National Historic Landmarks:

National Historic Landmark? Yes

Theme:

Contributing:

NHL ID:

NHL URL:

Date:

Statement of Significance for National Historic Landmark:

World Heritage Site:

World Heritage Site? No

Category:

WHS ID:

WHS URL:

Date:

Is Resource within a designated National Natural Landscape: No

Chronology and Physical History

Chronology:

Year	Event	Major Event Narrative
CE 1500 - 1600	Inhabited	Members of the Algonquin linguistic group, possibly part of the Massachuset or Pawtucket Tribes, occupy the Charlestown area calling it "Mishaumut" or "Mishawum," translated as “Great Spring.”
CE 1625	Established	Thomas Walford establishes the first English settlement in Charlestown.
CE 1629	Colonized	Members of the Massachusetts Bay Company arrive at Charlestown or “Cherton” in 1629.
CE 1629	Planned	The Company’s engineer, Thomas Graves, plans the town with streets around Town Hill.
CE 1629	Established	On July 4, King Charles of England charters the settlement as an independent town.
CE 1629	Platted	Residents are allocated two-acre lots to plant upon and to fence in common.
CE 1630	Established	John Winthrop, the designated Governor of the Massachusetts Bay Colony, selects Charlestown as the seat of government.
CE 1630	Abandoned	After two months of sickness and inadequate food and water, Winthrop and many colonists move to the Shawmut peninsula, renamed Boston.
CE 1630 - 1640	Farmed/Harvested	A great “Cornfield” on the east side of Town Hill, likely includes land that later became the Charlestown Navy Yard.
CE 1631	Established	The General Court establishes a ferry between Boston and Charlestown.
CE 1700 - 1800	Developed	Most of the peninsula’s timber has been harvested, leaving open views to Boston, Noddles Island (later East Boston), and Chelsea.
CE 1700 - 1800	Settled	Charlestown settlement thrives with about 400 buildings and several shipyards and merchants, engaging in commerce and trade with the West Indies and Europe.
CE 1700 - 1800	Developed	The area that would become the Charlestown Navy Yard is largely open pasture and marsh fronting on tidal flats with only a few buildings on the extreme west corner.
CE 1774	Exploited	In June, the British-imposed Boston Port Bill effectively shuts down Charlestown, suspending maritime trade, precipitating economic decline, and spurring Charlestown delegates to bear an active part in patriotic councils.
CE 1775	Military Operation	June 17, General Gage orders British artillery on Copp’s Hill in Boston to open fire on Charlestown, and the Town Hill portion of Charlestown burns.
CE 1775	Military Operation	April 18, Paul Revere lands along the Charlestown shore, at a point now at the western end of the yard, and begins his ride to Lexington to bring news of British General Gage’s dispatch of troops to destroy the rebel stores in Concord.

Year	Event	Major Event Narrative
CE 1775	Military Operation	June 17, nearly 3,000 British troops march from two landing sites, within the current Charlestown Navy Yard, toward the American redoubt, and the Battle of Bunker Hill ensues.
CE 1780 - 1790	Built	Charlestown is rebuilt.
CE 1785	Settled	151 buildings and nearly 1000 residents occupy the Charlestown peninsula.
CE 1794	Military Operation	Congress enacts legislation authorizing the construction, equipping, and manning of six frigates, establishing the foundation of the US Navy.
CE 1797	Established	October, USS Constitution launched from Hartt’s Yard near Copp’s Hill in Boston.
CE 1798	Established	April 30, Congress establishes a separate Navy Department during the administration of President John Adams.
CE 1800	Planted	In the location of the future Charlestown Navy Yard, a great lawn with trees stretches from Aaron Putnam's Federal-style mansion towards the "lane" (Chelsea Street).
CE 1800	Built	3 small buildings occupy the flats below the “lane" (Chelsea Street) on John Harris’ tract.
CE 1800	Platted	Much of the pasture parcels are separated by post and rail fence, and the Navy agrees to erect fences along the new boundary.
CE 1800	Purchased/Sold	The Navy purchases about ten additional tracts of land including Ebenezer Breed’s “Point Pasture,” “Dam Pasture," and "Marsh,” as well as parcels from William Calder, Richard Boyeston, Catherine Henley, Aaron Putnam, John Larkin, John Harris, Samuel Swan, and Nathaniel Gorham’s heirs.
CE 1801	Developed	Four Charlestown roads traverse the property: Battery (Water) Street; Meeting (Henley) Street; the “Lane to Brick Yards”; and Proprietor’s Way.
CE 1802	Built	Necessary improvements to the Charlestown yard include the construction of sheds for storage of oak and pine timbers, a blacksmith shop, carpenter shop, and a temporary wooden storehouse.
CE 1802	Established	A Congressional investigation concludes that the yards at Charlestown and Norfolk were the most eligible for receiving and repairing ships.
CE 1802	Planned	Carleton Osgood completes a plan for the yard dividing the grounds into three tracts, the waterfront area, a residential and workshop area in the upper yard, and a pasture area in the lower yard.
CE 1805	Built	The Navy constructs the Quarters G (Commandant's House), a three-story brick structure.
CE 1823	Planted	The Navy plants 200-300 elms within the yard.
CE 1823	Built	Bainbridge directs laborers to construct a spruce-post picket fence paralleling the Salem Turnpike.

Year	Event	Major Event Narrative
CE 1829	Built	Contractors construct one road between new building ways linking the two ends of the yard, later named First Avenue.
CE 1829	Graded	Contractors use the spoil from leveling the turnpike to fill the marsh east of Building I (Marine Barracks).
CE 1857 - 1860	Expanded	Dry Dock 1 is extended, adding 65 feet to a floor length of 368 feet, and an overall length of 393 feet.
CE 1865	Maintained	First Avenue serves as the major axis of supply and production.
CE 1905	Built	The Navy constructs an eight-foot diameter subsurface culvert that running from Dry Dock 1, under Dry Dock 2, to Building 123 (Pump House).
CE 1941	Altered	Due to security concerns, the Navy filled in the gate in front of the Quarters G (Commandant's House) with granite blocks and mortar atop a concrete footing and cuts down the exedra walls in front of the house to half height.
CE 1775	Military Operation	April 19, the British Regulars retreat to the Charlestown peninsula andoccupy Bunker Hill.
CE 1775	Military Operation	June 16, American troops fortify Breed?s Hill.
CE 1800	Settled	349 buildings and 2750 residents occupy the Charlestown peninsula.
CE 1800	Established	The Charlestown site is designated as one of six Navy yards, with the otherslocated in Kittery, Maine; New York; Philadelphia; Washington, D.C.; andNorfolk, Virginia.
CE 1800	Purchased/Sold	The US Government acquires a 24.5-acre tract in Charlestown that includesMoultons Point Field, theADjacent marsh area, a portion of Moultons Hill,and extensive tidal flats, and begins constructing the Charlestown NavyYard.
CE 1810	Built	The Marine Corps constructs a new barracks and parade ground east of theQuarters G (Commandant's House) and south of the Salem Turnpike.
CE 1812	Neglected	The yard's condition is neglected and its fences and wooden buildings are indisrepair as relations with Great Britain deteriorate.
CE 1812	Military Operation	President James Madison declares war with Britain on 12 June.
CE 1813	Built	The Navy constructs a wharf, a nearby new Blacksmith shop, and a NavyStore (Building 5).
CE 1813 - 1822	Built	The Navy lays down hulls for three 74-gun ships (Independence, Vermont,and Virginia).
CE 1814	Destroyed	A violent July windstorm destroys the Independence shiphouse, but theNavy salvages ironwork and planking and used these materials forconstruction of a pile wharf in front of the blacksmith shop.
CE 1814	Built	The Navy completes its first vessel at the yard, USS Independence.
CE 1814	Built	The Navy installs guards, gun batteries, and cannon to protect the yard?sentrance from the British.

Year	Event	Major Event Narrative
CE 1814 - 1821	Moved	The Navy stores USS Constitution at the yard.
CE 1816	Planted	The Navy plants fast-growing Lombardy poplar trees along a walkway fromthe Quarters G (Commandant's House) to the waterfront.
CE 1817	Built	The Navy builds a combination guardhouse and two-story brick Porter?sQuarters (Quarters A) at the Main Gate at Water Street and relocates aframe building to be used as quarters for the gunner.
CE 1818	Established	Laborers establish a gunpark to store armament.
CE 1818	Built	The Navy constructs Shiphouse 1 to house USS Vermont.
CE 1818	Built	The Navy constructs the Timber Shed between the commandant?s gardenand Henley Street.
CE 1818	Reconstructed	The Navy replaces the temporary shed, which had been destroyed by an1815 fire.
CE 1818	Built	Workmen install a permanent pair of shears, for raising masts, at the head ofthe pile wharf near the shiphouse and the wharf becomes known as theShear Wharf, eventually part of Pier 1.
CE 1819	Planned	In November 1819, Commandant Hull proposes a wall to enclose the mostvaluable parts of the yard to replace the aging wooden fences.
CE 1820	Built	The Navy constructs temporary sheds along the new western boundary toshelter pine planks, beams, and ledges.
CE 1820 - 1830	Purchased/Sold	The Navy expands beyond the old Harris tract at the western end of the yardand claims several inholdings.
CE 1823	Built	Bainbridge directs laborers to construct a spruce-post picket fenceparalleling the Salem Turnpike.
CE 1824	Designed	Alexander Parris designs a granite block wall that defines the boundary ofthe upper yard from Building 5 (Bachelor Officers Quarters / Open Mess) toand along the Salem Turnpike.
CE 1824	Designed	Alexander Parris designs the granite Building 21 (Carriage House) as partof the boundary wall to the northeast of the Quarters G (Commandant'sHouse).
CE 1824	Built	The Navy constructs Shiphouse 3 (later known as Shiphouse I and Building71) to contain the 74-gun Virginia.
CE 1825	Built	The Navy constructs Shiphouse 2 (later known as Shiphouse H or Building68), between a new timber dock and new wharf, to house construction ofthe 44-gun frigate Cumberland.
CE 1825	Planned	The Board of Naval Commissioners approves plans and estimates submittedby Alexander Parris for gates and iron fencing for the granite boundarywall.
CE 1826	Planted	The Navy plants an unspecified number of fruit trees to enhance the yard?slandscape.
CE 1826	Built	The Navy straightens the northern boundary of the yard along with part ofthe Salem Turnpike and completes the boundary wall in October.

Year	Event	Major Event Narrative
CE 1827	Planned	Congress directs President John QuincyADams to have master plansprepared for the nation's six navy yards, and Colonel Loammi Baldwin isnamed to prepare the plans.
CE 1827 - 1833	Built	The Navy constructs Dry Dock 1 for shipbuilding and repairs under thesupervision of Chief Engineer Laommi Baldwin with Captain AlexanderParris as the assistant engineer.
CE 1828	Built	Workers replace the old saluting battery with a new gun battery in the loweryard.
CE 1828	Planned	The Board of Naval Commissioners approve the yard's master plan thatimposes a classical grid of streets, with five broad avenues running west toeast and seven cross streets, to be referenced when improvements wereauthorized.
CE 1828	Planned	Under the supervision of the Navy?s Chief Engineer Loammi Baldwin, theAssistant Engineer and Architect Alexander Parris oversees implementationof Baldwin's completed plan.
CE 1828	Planned	The master plan shows Main (Second) Avenue, the yard's major axis,following an earlier east-west roadbed.
CE 1828	Planned	The master plan proposes an alle, of trees along the Main (Second) Avenueacross the entire yard.
CE 1830 - 1840	Built	The NavyADds and reorganizes waterfront structures near the drydock toaccommodate new operations there.
CE 1830 - 1840	Established	The yard is chosen to supply the Navy with rope as Boston is one of theleading ports trading in hem with the necessary skilled workers as amajor center of textile innovation.
CE 1830 - 1840	Built	Several buildings are constructed to supply the ropemaking facility.
CE 1832	Designed	Alexander Parris designs Building 22 (Ship Repair Shop).
CE 1833	Built	The Navy constructs a new five-unit rowhouse for officers, Building 265(Married Officers Quarters B-F).
CE 1833 - 1835	Built	Commandant Jesse D. Elliott authorizes the laying out of stone runners inthe enlarged gun and shot parks of sufficient depth to be beyond the reachof frost, brick-bordered above ground with a plate of cast iron four incheswide and one and a half inch thick.
CE 1833 - 1835	Planted	Commandant Jesse D. Elliott authorizes the setting out of trees.
CE 1837	Built	The Ropewalk (Buidling 58), designed by Alexander Parris, is completed.
CE 1839	Planted	A local newspaper article praises the ?spacious avenue, which runsthe?length of the yard, bordered with young and thriving elms."
CE 1840 - 1850	Established	Charlestown ranks among the Navy?s three most important yards.
CE 1840 - 1850	Expanded	The Navy extends the boundary wall toward the tide water mark, nearShiphouse G at the western edge of the yard.

Year	Event	Major Event Narrative
CE 1840 - 1850	Paved	Workers grade Main (Second) Avenue, pave it with gravel, andADd gutters.
CE 1842	Built	The Bunker Hill Monument is completed and dominates the Charles Riverskyline along with massive wooden shiphouses.
CE 1842 - 1845	Built	Commandant John Nicholson constructed builds a greenhouse on thegrounds of the Quarters G (Commandant's House).
CE 1844 - 1845	Built	The Navy erects several coal sheds, including one near the Dry Dock on thelot east of Building 24 (Riggers and Laborers Shop).
CE 1845	Established	Deteriorating relations with Mexico spur increased repair and outfittingactivities at Charlestown.
CE 1847 - 1849	Built	The Navy builds a long granite building, Building 24 (Riggers and LaborersShop), south of First Avenue and east of Dry Dock 1.
CE 1848	Built	The last all sail-powered warship constructed at the yard, the Vermont,slides down the ways but never sees service as a commissioned warship.
CE 1849	Maintained	The ammunition in shot park is stacked in forty pyramids of one thousandballs each, or twenty beds of two thousand balls.
CE 1849	Built	The Navy installs of tracks in gun park to serve as wheel runners.
CE 1850 - 1860	Planted	The Quarters G (Commandant's House) gardens are densely planted withmany varieties of ornamental plants, and the slope at the south side of thehouse is covered with shrubbery.
CE 1850 - 1860	Maintained	Several fence styles, including wood and wrought iron, define the walkwaysand garden areas near the Quarters G (Commandant's House).
CE 1850 - 1860	Maintained	An arbor covers the walkway leading from the Quarters G (Commandant'sHouse) to the waterfront.
CE 1850 - 1860	Maintained	Anchor park contains numerous anchors neatly organized in rows includingthe largest anchors for men-of-war.
CE 1850 - 1860	Maintained	The Marine Barracks Parade Ground is shaded with elm trees.
CE 1850 - 1860	Graded	The Marine Barracks Parade Ground is regraded and acesspool isADded to drain rain water away from the building.
CE 1851	Paved	Workers pave the frontage road (First Avenue).
CE 1852 - 1853	Built	The Navy builds Building 10 (Battery Charging Facility) on pilesdriven into the peat muck on the Shear Wharf, allowing the yard to expandwaterfront operations further into the harbor.
CE 1852 - 1853	Built	The Navy constructs Building 31 (Muster House), an octagonal brickbuilding with a surrounding porch.
CE 1853	Established	The Navy opens Gate 4 along Chelsea Street and establishes a guardhouseat the west end of the Ropewalk to accommodate the growing stream ofworkers.

Year	Event	Major Event Narrative
CE 1856	Altered	Natural gas began illuminating three converted oil lamps and three newlights at the end of each shiphouse, extending working hours and the yard?sproductive capacity.
CE 1857 - 1860	Expanded	Dry Dock 1 is extended,ADding 65 feet to a floor length of 368 feet, and anoverall length of 393 feet.
CE 1860 - 1870	Demolished	The Navy dismantles the greenhouse constructed in the 1840s.
CE 1860 - 1870	Maintained	The manufacture of cordage, sails, and other canvas goods continues atCharlestown.
CE 1861 - 1863	Built	The original one-story central portion of Building I (Marine Barracks)is demolished and replaced by a three-story building.
CE 1861 - 1865	Military Operation	The Civil War increased production at the yard with the construction,outfitting, and repair of cruisers, steam sloops-of-war, ironclad monitors,small gunboats, and double-end sidewheeler gunboats.
CE 1864	Expanded	Yard employment increases to almost 5,000 workers.
CE 1865	Military Operation	After the Civil War ends, Secretary of the Navy Gideon Welles begins apartial demobilization of the naval fleet selling half of the Navy?s 671 shipsand much of its surplus stores with some of the auctions occurring at theyard.
CE 1865	Expanded	The Fitchburg Railroad extends the Charlestown Branch Railroad, runningalong Water Street, into the yard primarily for munitions delivery.
CE 1865	Built	The yard's railroad system becomes operational.
CE 1865	Maintained	First Avenue serves as the major axis of supply and production.
CE 1869	Maintained	The yard has 1,417 yards of rail trackage, including spurs to the wharves.
CE 1870 - 1890	Maintained	The yard is open to visitors every day but Sunday with residents coming topicnic, walk along the elm-lined streets, andADmire the commandant'sgardens, which are popular for their selection of ornamental trees andshrubs, flowerbeds, and winding paths.
CE 1870 - 1880	Maintained	Street trees, verdant open space, and gardens mark much of the upper yard.
CE 1870 - 1880	Built	The Navy constructs nine new buildings at the yard.
CE 1870	Expanded	The Navy has tripled the yard's original size of 24.5 acres, mostly throughthree decades of expansion over tidal flats beyond the granite quay.
CE 1873	Built	The Navy constructs the new Building 19 (Scale House) for weighingwagons.
CE 1874	Established	Boston annexes Charlestown.
CE 1877	Neglected	The yard?s civil engineer reports a general state of disrepair throughout theyard.
CE 1880 - 1890	Maintained	An alle, of trees lines ?Flirtation Walk,? the boardwalk that ran along thesouth wall of Building 58 (Ropewalk).

Year	Event	Major Event Narrative
CE 1880 - 1890	Neglected	The yard is an important manufacturing and repair facility, but facilities aredeteriorating.
CE 1880 - 1890	Demolished	Workmen remove 18 buildings, mostly decayed wooden sheds.
CE 1882	Neglected	A newspaper article references the yard's waterfront as ? Rotten Row.?
CE 1883	Maintained	All work at the yard is suspended except for the manufacturing of rope andsails.
CE 1883 - 1897	Neglected	Dry Dock 1 is in disuse for long periods of time because of lack of work atthe yard.
CE 1887	Maintained	The yard is officially only to be used as a general manufacturing yard forarticles of equipment.
CE 1890 - 1900	Altered	The Navy converts part of shot park into a tennis court, beginning arecreation trend.
CE 1890 - 1900	Altered	The production of anchors and anchor chain is shifted to Boston.
CE 1890	Planned	Congress authorizes an appropriation of $152,000 for new machine toolsand modernization of the yard.
CE 1890	Neglected	The Navy turns away the steel cruiser Chicago for repair due to theinadequate and deteriorating Dry Dock.
CE 1890	Maintained	The yard is the only naval shipyard producing rope, chain, anchors, andsails.
CE 1891	Altered	Yard workers replace the granite block paving between Building 5(Bachelor Officers Quarters / Open Mess) and Building 22 (Ship RepairShop), along the roadway fronting the gun park.
CE 1895 - 1900	Altered	Electric lights, powered by Building 28 (Instrumentation Calibration Shop),replace gas illumination in the yard.
CE 1897 - 1900	Built	Congress authorizes theADdition of a fourth story to Building I (MarineBarracks), which is completed by 1902.
CE 1897	Moved	USS Constitution is towed to Boston to celebrate her centennial.
CE 1898	Maintained	Mature elms and other tree species arch over the yard?s oldest buildingssuch as the Quarters G (Commandant's House), Building I (MarineBarracks), Building 265 (Married Officers Quarters B-F), andBuilding 5(Bachelor Officers Quarters / Open Mess).
CE 1898	Altered	Workers reconstruct the yard?s railway track system from the yard entranceto the head of Dry Dock 2 and from the Shear Wharf to Building 67(Sawmill).
CE 1898	Military Operation	The United States declares war on Spain to bolster Cuban independence.
CE 1898	Military Operation	The war requires naval fleets in both the Caribbean and the Pacific andincreases repair activities at the yard with the workforce growing from 500to 1,500 workers.
CE 1898 - 1920	Military Operation	The yard undergoes expansion and modernization in response to theSpanish-American War, World War I, and the mounting tension in Europe.

Year	Event	Major Event Narrative
CE 1900 - 1910	Maintained	An elaborate arbor and a gated wooden fence backed by shrubs separate thecommandant?s yard from Main Avenue and a nearby guardhouse.
CE 1900 - 1910	Maintained	Many trees planted nearly a century earlier are in decline and requiredreplacement, thus the rows of trees along First and Second Avenues are amix of mature and newly planted trees.
CE 1900 - 1910	Demolished	The Navy dismantles the gun park and either scraps the cannon or half-sunkthem in the ground as bollards around the dry docks and in the upper yard.
CE 1900 - 1920	Maintained	The commandant's grounds include a small vegetable garden andornamental flowerbeds with geraniums, primroses, tulips, gladiolas, roses,and snapdragons.
CE 1900 - 1973	Maintained	The yard repairs and commissions destroyers and submarines built at otheryards.
CE 1901 - 1905	Altered	Dry Dock 1 is fully repaired with a new Dry Dock 1 Caisson.
CE 1901	Built	Pier 1 is built extending the old coaling wharf (Whites Wharf) and the ShearWharf to form one pier with a solid core to support the massive new coalfacility.
CE 1901	Built	Construction of Pier 1 requires removal of the western end of the yardboundary wall, Building 6 (Fire Apparatus House), Building 7 (CoalShed), and a shipbuilding slip.
CE 1901	Maintained	Just to the west of the new Pier 1, the Navy shares a slip known as the?Fitchburg Slip? with the Fitchburg Railroad Company (owner of theabutting Hoosac Pier) and docks USS Constitution here.
CE 1901	Moved	The large shears at the end of the former Shear Wharf are moved to anotherpier.
CE 1901	Moved	The Navy moves Building 10 (Battery Charging Facility) several feet to theeast as part of the construction of Pier 1.
CE 1901	Built	Between Dry Docks 1 and 2, the Navy builds a new Pitch House - Building110 (Lead Room).
CE 1901	Expanded	The War Department lays down a new pier and bulkhead line further intothe harbor constituting a new waterfront boundary for the yard.
CE 1902	Established	The yard assigns numbers to its twenty-five thoroughfares and designatesthe east-west roadways as ?avenues? and north-south roads as ?streets.?
CE 1902	Built	The Navy constructs the Underground Pipe Conduit (Structure 280), anunderground utility tunnel topped by a concrete sidewalk, along the northside of First Avenue.
CE 1902	Paved	The Navy widens and paves First Avenue with granite Belgian blocks andbrick (the section of First Avenue from Gate 1 to Third Street is brick).
CE 1903	Built	The Navy builds Building 128 (Wireless Telegraph Station) near thecorner of First Avenue and Third Street.
CE 1903	Built	The Navy erects an elegant new brick and stone Building 97 (Main Gate).

Year	Event	Major Event Narrative
CE 1903 - 1906	Built	Between Dry Docks 1 and 2, the Navy builds Building 125 (Paint Shop).
CE 1904 - 1905	Paved	Navy replaces the paving along Second Avenue with a wood block surfacewith cobblestone gutters to provide a quiet road surface near theQuarters G (Commandant's House).
CE 1904	Built	Between Dry Docks 1 and 2, the Navy builds Building 124 (Public Toilet)in 1904.
CE 1904	Built	The Navy builds an enormous new Building 109 (Coaling Plant); theconcrete and corrugated iron structure covers an area of 75 by 420 feet onthe east side of the Pier 1 and is capable of storing 12,500 tons of coal.
CE 1904	Planted	The Navy completes landscaping the former gun park.
CE 1904 - 1905	Built	The Navy constructs Building 105 (Forge) and Building 107 (Public WorksShop).
CE 1904 - 1905	Built	The Navy installs 20-foot gauge tracks for 40-ton traveling portal cranesfrom Dry Dock 1 to Dry Dock 2, running along both sides of the docks.
CE 1904 - 1905	Moved	The Navy relocates the former Building 23 (Chapel) to the east of Building22 (Ship Repair Shop) and Building 24 (Riggers and Laborers Shop) andremoves the southern three bays of Building 28 (InstrumentationCalibration Shop) in order to connect the tracks between the two dry docks.
CE 1905	Built	At the lower eastern corner of the new dry dock, the Navy constructsBuilding 123 (Pumphouse) for Dry Docks 1 and 2.
CE 1905	Built	The Navy constructs an eight-foot diameter subsurface culvert that runningfrom Dry Dock 1, under Dry Dock 2, to Building 123 (Pump House).
CE 1905	Paved	The Navy paves Sixth Street with granite cobblestones.
CE 1905	Built	The yard?s new 750-foot Dry Dock 2 is completed on the former site ofTimber Dock 91 and a portion of the Wet Basin supplementing dockingcapacity of the existing 1833 dry dock (redesignated Dry Dock 1).
CE 1905	Military Operation	With Dry Dock 2, the Navy can now service and refit the largest battleshipsin the modern fleet.
CE 1907 - 1920	Maintained	US Navy berthed USS Constitution at Pier 3.
CE 1909	Built	The Navy demolishes the small one-story structure at the east end of theBuilding I (Marine Barracks) parade ground that had served as Building 30(USMC Officer-of-the-Day?s Quarters) and constructs a new three-storyBuilding 136 (Marine CorpsADministration) in its place.
CE 1910 - 1911	Built	The Navy constructs the Commandant's House Drive that curves fromSecond Avenue to a loop by the house's west facade.
CE 1910	Altered	A new rail system replaces the yard?s antiquated 1860s flat-type track,extending service and supporting the yard?s two locomotives, thirteen dumpcars for coal, six flat cars, seven ash cars, four general purpose dump cars,and two general purpose gondolas.

Year	Event	Major Event Narrative
CE 1910	Altered	The Navy enlarges Building 32 (Bank).
CE 1912	Built	The Navy also erects a wireless (radio) tower on Pier 1 northwest ofBuilding 10 which becomes the Wireless Station.
CE 1914	Expanded	Although President Woodrow Wilson proclaims American neutrality at theoutbreak of World War I in Europe, the yard expands operations, repairingand outfitting private vessels, increasing storage facilities for provisions,and even reviving shipbuilding.
CE 1914	Reconstructed	The Building 24 (Riggers and Laborers Shop) is reconstructed following itssecond and more severe fire in 1910.
CE 1915 - 1919	Built	The Navy constructs thirty-six new buildings in the yard, though seven aretemporary and two-thirds are storage facilities in the lower yard.
CE 1915 - 1919	Expanded	Employment in the yard grows from 2,500 to 12,844 as the yard'sfacilities expanded during World War I, though most are temporary storagefacilities in the lower yard.
CE 1917	Built	The Navy constructs a new Building 163 (Bandstand) along SecondAvenue, across from the Quarters G (Commandant's House), half-buried cannons, topped with cannonballs are placed beside thebandstand, and a large elm shades the bandstand.
CE 1917	Military Operation	With the entrance of the United States into World War I, PresidentWilson calls for ?incomparably the greatest navy in the world."
CE 1917 - 1919	Military Operation	The yard repairs existing warships and Navy auxiliaries, outfits andcommissions new vessels, and converts merchant vessels for the war.
CE 1918	Planted	Commandant Rush directs the planting of eighteen European or silverlindens along Second Avenue by the Quarters G (Commandant's House).
CE 1918	Expanded	The Navy extends the bulkhead line.
CE 1918	Moved	The Navy relocates Building 110 (Lead Room) from west of Building 125to its current location just north of it in connection with the building of theMarine Railway.
CE 1918	Built	The Navy constructs the Marine Railway east of Pier 2 with its machineryhoused in Building 24 (Riggers and Laborers Shop) to more easily servicesmaller ships of up to 2,000 tons.
CE 1918 - 1919	Built	Yard workers construct a new brick Building 19 (Scale House) just east ofthe preexisting structure and north of Building 22 (Ship Repair Shop).
CE 1920 - 1930	Maintained	A privet hedge separates the commandant?s gardens from SecondAvenue.
CE 1920 - 1930	Maintained	Extensive herbaceous beds line both sides of the walkway between theQuarters G (Commandant's House) and Second Avenue.
CE 1920 - 1930	Planted	Gardeners plant apple and pear trees on the commandant?s grounds andtend a vegetable garden on the west side of the house.

Year	Event	Major Event Narrative
CE 1920 - 1930	Maintained	Gardeners tend lattices supporting shrubs of Dorothy Perkins roses on thecommandant's grounds.
CE 1920 - 1930	Demolished	The Navy removes Building 20 (Commandant?s Tool Storage Barn) fromthe southeast lawn.
CE 1920 - 1930	Demolished	Workers remove the arbor, fence, and guardhouse from the commandant?sgrounds by the close of the decade.
CE 1920 - 1930	Damaged	Mature elms begin to succumb to Dutch elm disease, leaving gaps along theavenues for replacements with alternative tree species.
CE 1920 - 1930	Maintained	The built industrial landscape of the waterfront does not contain muchvegetation, but Pier 1 contains a panel of lawn with trees or shrubs just tothe south of Building 5 (Bachelor Officers Quarters / Open Mess).
CE 1920 - 1930	Maintained	An athletic field and two concrete tennis courts occupy the area betweenBuilding 42 (Machine Shop) and Dry Dock 2 that had previouslyaccommodated storage facilities.
CE 1920 - 1930	Maintained	US Navy berthed USS Constitution at Piers 2 or 3.
CE 1921 - 1922	Military Operation	The Five-Power Naval Treaty sets limits on new ship construction and fleetsize, including a ten-year moratorium on capital ship construction, therebyreducing activities at the main yard.
CE 1926	Engineered	Civilian personnel at the Boston Navy Yard develop the die-lock chainmaking process and begin producing chain for that becomes the standardanchor chain for the Navy in 1928.
CE 1927	Conserved	USS Constitution enters Dry Dock 1 for a three-year restoration.
CE 1929	Maintained	The Boston Globe describes "the great elms that make leafy arches abovethe main entranceway."
CE 1929	Built	The Navy builds Building 245 (Ground Equipment Shop) linked to SecondAvenue with the Ground Equipment Shop Drive (former barn?s drive).
CE 1929	Demolished	The Navy demolishes a quarter-mile section of the yard?s boundary wallparalleling Building 58 (Ropewalk) and replaces it with a wrought ironfence with concrete posts.
CE 1930 - 1940	Maintained	Manufactured chain is stockpiled in several areas along the waterfront.
CE 1930 - 1940	Maintained	The south grounds of the Quarters G (Commandant's House) have carefullymaintained flowerbeds on both the lawn and along the central path.
CE 1931	Military Operation	The Navy assigns the construction of two destroyers to the yard therebyresurrecting the shipbuilding facility.
CE 1933 - 1940	Military Operation	The yard produces fourteen destroyers in the dry docks following the 1934precedent in which most keels are laid in Dry Dock 2 and hauled to DryDock 1 for completion.
CE 1934	Military Operation	Responding to growing threats of expansionism by both Japan andGermany, Congress passes the Vinson-Trammel Act, to expand the navalfleet bringing swift and significant changes to the yard.

Year	Event	Major Event Narrative
CE 1934	Built	USS MacDonough, a modern destroyer is ?floated? from Dry Dock 1.
CE 1935 - 1940	Altered	WPA projects in the upper yard include replacement of the rear porches ofBuilding 265 (Married Officers Quarters B-F) and the construction of a newsunporch on the south fa‡ade of the Quarters G (Commandant's House)along with anADdition containing a new brick kitchen and butler? s pantry.
CE 1935 - 1936	Built	At the head of Pier 1, south of Building 5 (Bachelor Officers Quarters /Open Mess) and near the former lawn area, WPA labor constructs Building194 (Navy Exchange Service Station).
CE 1935 - 1936	Altered	WPA crews enlarge the south end of Building 136 (Marine CorpsAdministration).
CE 1936	Built	To the west of the Quarters G (Commandant's House), the WPA buildsGarages (will become Building 1 in 1941) thereby reducing the greenspace associated with this corner of the yard.
CE 1936 - 1942	Altered	WPA projects include rehabilitating the end of Pier 1, paving streets,installing new equipment, and reconditioning or expanding buildings.
CE 1938	Expanded	The yard employs 1,406 WPA workers to initiate wartime expansion ofCharlestown?s physical plant, and most of the yard?s shade trees are lost tothis expansion.
CE 1939	Established	As tensions escalate in Europe, the Navy issues a policy that establishes themain yard?s primary function as destroyer production and its secondaryfunction as manufacture of cordage and anchor chain.
CE 1939 - 1945	Maintained	Fragments of green space are retained around buildings such as Building265 (Married Officers Quarters B-F), Quarters G (Commandant's House),and Building I (Marine Barracks).
CE 1939 - 1945	Maintained	Large overhead cranes and construction equipment dominate waterfrontskyline.
CE 1939 - 1945	Built	New multi-story industrial buildings, constructed of brick, steel, andconcrete, replace much of the yard?s open, recreational space. Newconstruction extends onto nonessential streets, and temporary or semi-permanent frame structures fill pockets of open space between the largerbuildings.
CE 1939 - 1945	Built	During World War II, the yard constructs almost 300 vessels, repairs oroverhauls more than 3,000, converts 74, and outfits 1,100.
CE 1939 - 1945	Altered	The Navy removes mature elms to allow for street widening, or becausethey have succumbed to Dutch elm disease.
CE 1939 - 1945	Altered	The yard loses its pleasant park-like setting that has attracted tourists andcity residents; wartime security and production takes precedence ofaesthetic considerations.

Year	Event	Major Event Narrative
CE 1939 - 1945	Paved	The yards' roads have been quickly paved with bituminous concrete andasphalt, and antiquated buildings have been upgraded.
CE 1940 - 1950	Built	The Navy constructs a wooden Bandstand (Structure 260) around thebase of Flagpole (Structure 242) facing First Avenue on the southwestcorner of the shipyard mall.
CE 1940 - 1950	Maintained	US Navy berths USS Constitution at piers at the east end of the yard duringWorld War II, but permanently berths her at Pier 1 West by the end of thedecade.
CE 1940	Altered	The yard prepares eighteen World War I-era four-stacker destroyers fortransfer to Great Britain.
CE 1941	Altered	Due to security concerns, the Navy filled in the gate in front of theQuarters G (Commandant's House) with granite blocks and mortar atop aconcrete footing and cuts down the exedra walls in front of the house to halfheight.
CE 1941	Altered	In order to facilitate increased vehicle traffic, the Navy removes a portionof the granite wall at Henley Street to create Gate 2, and thereafter, trafficenters along Water Street through Gate 1 and exits the yard through Gate 2.
CE 1941	Altered	With no access to Chelsea Street, the Quarters G (Commandant's House)west side entrance on the basement level gained prominence with access tothe west drive from Second Avenue.
CE 1941	Built	With the opening of Gate 2, a gatehouse isADded to the Garages which thenbecome Building 1 (Gate House / Garages) with the razing of the existingBuilding 1.
CE 1941	Built	Building 269 (Married Officers Quarters Garages B-F) is built to the northof Building 1.
CE 1941	Built	The Works ProgressADministrationADds the fireproof stair towers andpresent porches to Building I (Marine Barracks).
CE 1941 - 1944	Removed	Expansion of Buildings 31 and 108 eliminate Flirtation Walk, thetree-lined boardwalk that led from Gate 4 to the lower officers? quarters,although some of the walk's trees persist.
CE 1941 - 1945	Demolished	The Navy removes Building 163 (Bandstand) located southeast of theSecond Avenue and Third Street intersection in the shipyard mall(recreation area).
CE 1941 - 1945	Expanded	The industrial labor force at Charlestown yard and its three annexesexpands from 4,000 workers at the beginning of the war to about 50,000 in1943, including over 7,000 women workers.
CE 1941 - 1945	Built	The Navy installs a large water tank beneath the Quarters G (Commandant'sHouse) front lawn southwest of the house and another water tank beneaththe Marine Barracks Parade Ground.
CE 1942	Built	The Navy replaces the tennis courts with a three-story, wood-frameBuilding 198 (Supply Department Storage).
CE 1942	Purchased/Sold	The Navy acquires Riordan's Stables outside of the boundary wallbetween Gates 1 and 2 in order to remove the existing building.

Year	Event	Major Event Narrative
CE 1942	Purchased/Sold	The Navy acquires a garage built in 1927 just outside Gate 2 against theboundary wall to serve as Building 204 (Garage and Transportation Office).
CE 1942	Altered	To assist in the management of increased water traffic, Building 109(Waterfront Office), the last remnant of the old Coal Storage & HandlingPlant, is enlarged to provide office space for the yard?s harbormaster.
CE 1942	Altered	To help cope with the increasing stream of job applicants, the Navyenlarges the pedestrian Gate 4 andADds a ramp and turnstiles to directaccess to time clocks removing twenty feet from the western end of theBuilding 58 (Ropewalk) to make way for the expansion.
CE 1943	Altered	The NavyADds a two-story wooden structure to the west end of theBuilding 58 (Ropewalk) with a direct entrance to Chelsea Street so that jobapplicants did not need to enter secure areas of the yard to process papers.
CE 1945 - 1949	Military Operation	After World War II yard activity diminishes; however, the United States?status as a global power prompts yard repairs at the close of the decade asan emerging rivalry with the Soviet Union requires military preparedness.
CE 1945 - 1949	Maintained	The yard continues to manufacture items for the Navy, including anchorchain and rope and serves as a repair center for electronic equipment.
CE 1946	Built	The Navy constructs three new tennis courts (Structure 236) in the areasouth of the Quarters G (Commandant's House) between First and SecondAvenues and Third and Fourth Streets.
CE 1947	Established	The Navy?s Bureau of Ships defines the yard's main mission as thedocking, overhaul, and alteration of smaller commissioned warships, adefinition later modified to include vessels ?up to aircraft carriers.?
CE 1948	Expanded	The Commonwealth of Massachusetts draws a new pier and bulkhead line.
CE 1948	Expanded	Outward portions of Dry Docks 1 and 2 are reconstructed, and Dock 1 isextended to a length of 404 feet.
CE 1948	Built	The Navy installs a saluting battery (Structure 261), a pair of three-inchsalute guns on a concrete platform, and constructs Building 272 (SalutingBattery Ammunition Bunker) at the end of Pier 1.
CE 1948	Planned	YardADministrators develop a master plan, for development in preparationfor future global conflicts.
CE 1948	Altered	The Building 10 (Battery Charging Facility) is expanded to accommodate asonar test tank.
CE 1950 - 1960	Altered	Involvement in the Korean War requires the yard to take vessels out ofreserve and retrofit them for continued service with the installation ofelectronic devices, including radar and sonar. The Navy also installs guidedmissiles into ships in place of guns to counter new threats from aircraft andsubmarines.
CE 1950 - 1960	Altered	Propeller and sonar pits areADded to Dry Dock 1.

Year	Event	Major Event Narrative
CE 1950 - 1960	Paved	The increase in roads, connectors, and parking areas marks a dramaticincrease in asphalt surfacing.
CE 1950 - 1960	Altered	Throughout the yard, open space is used to park vehicles to accommodatethe seventy-five percent of the yard?s workers who commute by car to theyard.
CE 1950 - 1960	Maintained	Keel blocks, made of concrete and reinforced by steel, are a common sightaround the waterfront with the Navy using them to hold ship keels uprightin the dry docks, to test and balance cranes, and to block motor vehicles forsecurity.
CE 1950 - 1960	Maintained	Admiral John L. McCrea's gardener Tom Little maintains a garden plot onthe western side of the grounds, uses the greenhouse for growing flowers,and raises chickens and turkeys in the pens.
CE 1950 - 1960	Destroyed	Hurricanes destroy many of the remaining trees along Second Avenue in theupper and lower yards.
CE 1950 - 1960	Established	The Freedom Trail and The Freedom Trail Foundation are created inBoston, and a red line is painted to connect selected historic sites.
CE 1950	Altered	The yard initiates a major conversion program, upgrading radar and sonarsystems with a laboratory and techniques that are laterADopted at othernaval repair stations.
CE 1950	Built	Construction of the Tobin Bridge (Mystic River) presents a visual barrier,separating the yard from Charlestown to a greater degree than the yard?sperimeter wall.
CE 1950	Altered	With the Tobin Bridge?s disruption of Chelsea Street?s traffic flow, manyworkers begin to park on Chelsea Street and under the bridge itself.
CE 1951	Altered	Floodlights are installed on building roofs and towers to provideillumination for Dry Dock 2.
CE 1952 - 1953	Built	The Navy constructs the large Grit Hopper (Structure 259).
CE 1954	Paved	The Navy paves over almost all open road surfaces and parking areas withbituminous concrete.
CE 1955	Altered	First Street is eliminated.
CE 1955	Built	The Navy constructs a visitor parking area for USS Constitution betweenBuilding 4 (Chief Petty Officers Club) and Hoosac Stores 1&2, and aconcrete wall with two Curtain Gates marks the visitor entrance to the lotandthe yard.
CE 1955	Built	The yard lays down the keel of the LST Suffolk County, its only postwarconstruction and the last vessel built at the Charlestown yard.
CE 1956	Altered	The Navy converts the water tank below the Quarters G (Commandant'sHouse) front lawn into a Fuel Oil Tank (Structure 220) and pipelinesconnect the tank to Pier 1 and Building 108 (Power Plant) as the Navyconverts it from coal to oil burning facility.
CE 1957	Planted	The NavyADds trees, shrubs, and groundcover to the area surrounding theBandstand (Structure 260).

Year	Event	Major Event Narrative
CE 1958	Demolished	The yard depends on trucking and less on rail transport, and to expeditetruck access, the Navy demolishes the 1903 Building 97 (Main Gate) anderects a new modern Building 267 (Gate 1 Gatehouse).
CE 1958	Memorialized	The Navy places the bronze Yard Commandants Plaque (Structure 270)honoring all of the yard's commandants in front of the Quarters G(Commandant's House) along Second Avenue in a recessed nook within theflat stone retaining wall.
CE 1959	Moved	A granite slab with the bronze War Memorial (Structure 279) is movedfrom a traffic island in the middle of First Avenue and relocated on thesidewalk in front of the new Bandstand (Structure 260).
CE 1959	Demolished	The First Avenue traffic island is removed to better facilitate trucktransportation.
CE 1959	Built	The wooden Bandstand (Structure 260) is replaced with a newconcrete terrace with an aluminum post and chain railing.
CE 1960 - 1970	Altered	Parking covers much of the area just outside of the boundary wall betweenGates 1 and 2, near Hoosac Stores 1 & 2, which is no longer used by therailway company but leased as warehouse space.
CE 1960 - 1970	Altered	Parking spaces are limited with some parking along First and SecondAvenues and immediately surrounding many of the buildings.
CE 1960 - 1970	Altered	The Navy installs square yellow trash receptacles with the motto ?KeepYour Shipyard Clean" along the yard?s roads and walkways and nearbuilding entrances.
CE 1960 - 1970	Maintained	The Navy operates a small souvenir sales trailer in USS Constitution visitorparking area between Building 4 (Chief Petty Officers Club) and HoosacStores 1 & 2.
CE 1960 - 1970	Planted	The grounds surrounding Building 19 (Scale House) on First Avenue isplanted with trees and arborvitae shrubs.
CE 1960	Altered	The Navy sandblasts Building 5 (Bachelor Officers Quarters / Open Mess),Building 4 (Chief Petty Officer Club), and Building 265 (Married OfficerQuarters B-F) to remove the white paint from their brick walls.
CE 1962	Planted	RearADmiral Joseph H. Wellings plants several small spruce trees,including a pair in front of the Quarters G (Commandant's House),improves the landscaping all around the house, and maintains a vegetablegarden in the southwest lawn behind the current rose garden.
CE 1962	Graded	The Navy substantially regrades the western end of the Shipyard Mall andadds a concrete walk with the area north of the Flagpole (Structure 242)being used as a baseball field with backstop.
CE 1962 - 1963	Built	The NavyADds a second, smaller Grit Hopper (Structure 273) to supply gritto Dry Dock 1 for sandblasting steel ships.
CE 1963	Demolished	RearADmiral Joseph H. Wellings has the greenhouse removed.

Year	Event	Major Event Narrative
CE 1964	Military Operation	Secretary of Defense Robert McNamara cites preliminary studies of excesscapacity and high costs at government navy yards as justification for closureof some facilities.
CE 1964	Land Transfer	The 1.35-acre parcel encompassing Building I (Marine Barracks), theMarine Barracks Parade Ground, and Building 136 (Marine CorpsAdministration) is transferred to the Marine Corps.
CE 1966	Memorialized	The Secretary of the Interior designates the yard as a National HistoricLandmark, and the Navy installs the landmark plaque on a marble base nearthe Finger Pier.
CE 1967 - 1980	Maintained	The east entrance to Building 5 (Bachelor Officers Quarters / Open Mess) iscovered at this time with a blue and yellow metal awning.
CE 1969	Altered	The Navy converts the first floor of Building 4 (Chief Petty OfficersClub) into public restrooms for USS Constitution visitors.
CE 1970 - 1980	Planned	The Boston Redevelopment Authority (BRA) and National Park Service(NPS) prepare plans for management of the older portion of theCharlestown yard as an historic park.
CE 1970 - 1980	Maintained	The flowerbeds along the Commandant's House Brick Walkways arefilled with tulips in massed groups of color in the spring and red geraniumsin the summer.
CE 1970 - 1980	Maintained	The Building I (Marine Barracks) have a training yard in front of thebuilding that includes a climbing rope on a metal support.
CE 1970 - 1980	Moved	The National Historic Landmark plaque and base are moved to the westside of Pier 1.
CE 1971	Planned	A study completed by the National Park Service proposes that the westernportion of the yard be incorporated into a larger Boston National HistoricSites park, comprised of a number of Revolutionary War-era sites in andaround Boston.
CE 1971	Planned	A study of the yard commissioned by the Boston Redevelopment Authoritycalls for a mixed-use plan, consisting of a naval park, museum and touristfacilities.
CE 1971	Abandoned	The Navy closes the main yard?s Marine Railway and Building 58(Ropewalk).
CE 1972 - 1974	Established	Building 10 serves as the first USS Constitution Museum, and a chain linkfence leads visitors from the visitor parking area across Pier 1 to Building10 preventing public access to other parts of the yard.
CE 1972	Altered	The NavyADds an exterior platform to Building 10 (Battery ChargingFacility) on Pier 1 so visitors could observe USS Constitution while it wasin Dry Dock 1 for rehabilitation.
CE 1972	Altered	The Navy installs a large picture window to the south side of Building 5(Bachelor Officers Quarters / Open Mess).
CE 1973	Planned	The yard is included on the 1973 list of naval facilities to be closed.

Year	Event	Major Event Narrative
CE 1973	Altered	The Navy recommends that a portion of the yard beADministered by theNPS in a partnership to protect USS Constitution so that it may remain inCharlestown, and the NPS proposes a boundary for the park thatencompasses the western portion of the yard.
CE 1974 - 2006	Neglected	Parts of the Historic Monument Area including Building 58 (Ropewalk),Building 60 (Public Works Storage), and Building 105 (Forge) languishwith little activity except for stabilization.
CE 1974	Maintained	While the more industrial waterfront is cluttered with materials such asstockpiles, cranes, light towers, and keel blocks, the upper yard reflects twocenturies of meticulous care.
CE 1974	Maintained	An assortment of lawn, ornamental shrubs, and shade trees (some dating tothe nineteenth century) surround Quarters G (Commandant's House) andBuilding 265 (Married Officers Quarters B-F) along with several beds forherbaceous flowers and vegetables.
CE 1974	Maintained	Important symbols of the Navy?s presence remain in good condition,including the Flagpole, Bandstand, and War Memorial (Structures242, 260, and 279).
CE 1974	Land Transfer	The 1.35-acre parcel encompassing Building I (Marine Barracks), theMarine Barracks Parade Ground, and Building 136 (Marine CorpsAdministration) is returned to the Navy just before the yard closure.
CE 1974	Abandoned	A formal disestablishment ceremony at the main yard?s Flagpole (Structure242) on 1 July marks the official closure of the yard.
CE 1974	Maintained	The main yard comprises approximately 131 acres (83.9 land acres, 46.07water, and 1.34 marine railway), ten piers extend into the harbor, andindustrial buildings and structures, cranes, dry docks, slips, and residentialandADministrative quarters stretch from the waterfront to the yard?sboundary at Chelsea Street.
CE 1974	Established	President Gerald Ford signs the Boston National Historical Park Act of1974 on 1 October authorizing the establishment of Boston NationalHistorical Park, a unit of the National Park System with seven sites indowntown Boston and Charlestown.
CE 1974	Established	The seventh site listed in the park?s legislation is the Charlestown NavyYard that includes approximately thirty acres at its west end.
CE 1974	Planned	The founding legislation authorizes the National Park Service to permit theNavy to use buildings and facilities necessary for the preservation andmaintenance of USS Constitution.
CE 1975 - 1985	Maintained	NPS employees maintain a vegetable garden.
CE 1976 - 1980	Altered	The NPSADds a wooden post and rail fence around Dry Dock 1 for safetyreasons.

Year	Event	Major Event Narrative
CE 1976 - 1980	Altered	The NPS removes the backstop and baseball field at the northwestern end ofthe recreation area and makes changes to the plantings in the vicinity ofBuilding 265 (Married Officers Quarters B-F).
CE 1976	Maintained	The granite boundary wall is covered with Virginia creeper 'Parthenocissusquinquefolia' and shaded by tree-of-heaven 'Ailanthus altissima.'
CE 1976	Established	The Charlestown Navy Yard is divided into four separate parcels, with theNPS acquiring one thirty-acre parcel consisting of the oldADministrativeand ceremonial center of the Navy Yard, including the Commandant?sHouse, Building I (Marine Barracks), Piers 1 and 2, DryDock 1, and USS Constitution.
CE 1976	Established	The Navy formally establishes the USS Constitution Maintenance & RepairGroup to oversee continued maintenance of the ship with sailors living inBuildings 4 and 5 while caring for the ship.
CE 1976	Moved	The Navy removes the caisson of Dry Dock 2 and floods the structurebefore transferring the dock to the BRA.
CE 1976 - 2000	Established	The USS Constitution Museum is developed privately in Building 22 (ShipRepair Shop) and Building 28 (Instrumentation Calibration Shop) with itsassociated landscape.
CE 1976 - 1985	Demolished	The NPS removes most of the training equipment from the Marine BarracksParade Ground.
CE 1977 - 1981	Demolished	The World War IIADdition to the Building 31 (Muster House) is razed, andthe pre-1930 octagonal porch is reconstructed.
CE 1977 - 1979	Established	The remaining three parcels are acquired and managed by the BostonRedevelopment Authority (BRA).
CE 1978 - 1980	Expanded	Subsequent Congressional legislation amends the original legislativeboundary byADding four buildings outside park boundaries to BostonNational Historical Park; Buildings 58 (Ropewalk), Building 60 (PublicWorks Storage), Building 105 (Forge), and Building 107 (Public WorksShop), with only the latter actually deeded to the United States.
CE 1978 - 1980	Altered	The World War II woodenADdition at the west end of Building 58(Ropewalk) is removed by the BRA and the older roofline is restoredwithout the appropriate skylights.
CE 1978	Established	USS Cassin Young (DD-793), a WWII destroyer, is permanently berthed atthe yard.
CE 1979 - 1985	Planted	The NPS plants a yew hedge in the spot where Building 136 (Marine CorpsAdministration) had stood and plants turf on the site of the demolishedBuilding 198 (Supply Department Storage).
CE 1979	Demolished	The park razes Building 136 (Marine CorpsADministration).
CE 1979	Demolished	The park razes Building 198 (Supply Department Storage), fills theconcrete foundation walls with soil, and establishes a lawn thereby restoringthe open space of the Shipyard Mall (recreation area) to pre-World War IIlevels.

Year	Event	Major Event Narrative
CE 1980 - 1990	Maintained	NPS employees continue to maintain the commandant?s vegetable gardenfor their own use until lead is discovered in the soil.
CE 1980 - 1990	Demolished	The park removes the lattice fence from the Quarters G (Commandant'sHouse) grounds along Second Avenue.
CE 1980 - 1990	Demolished	Some semi-permanent mid-twentieth centuryADditions, which partiallyobscure the original nineteenth-century grid pattern of the yard, areremoved.
CE 1980 - 1990	Maintained	Street lighting consists of florescent, incandescent, and mercury vaportypes.
CE 1980 - 1990	Established	Outside of the park boundary, the BRA removes the outer end of Pier 3 andestablishes an MBTA water shuttle at Pier 4.
CE 1980 - 1990	Established	Outside of the park boundary, the BRA establishes the public Shipyard Parksurrounding and to the east of Dry Dock 2.
CE 1980 - 1990	Maintained	The park's Maintenance Division park?s curatorial storage facility andoffices for the Cultural Resources Division occupy Building 107 (PublicWorks Shop).
CE 1980 - 1981	Moved	Construction of the Chelsea-Water Street Connector necessitates therelocation of much of the yard?s granite boundary wall to the south reducingthe size of the Quarters G (Commandant's House) grounds.
CE 1980 - 1981	Moved	With the relocation of the northwestern boundary wall of the yard to thesouth, the park relocates many plants elsewhere including a Japanese maple,two honeysuckles, and seven azaleas and removes other plants permanentlyincluding elms, honeysuckles, maples, oaks, apples, cherries, and tree-of-heavens.
CE 1980 - 1981	Expanded	Fifth Street is expanded to Chelsea Street through a new vehicular gate atGate 4, and the concrete pedestrian gateway is shifted east to make way forthe road bed.
CE 1980 - 1981	Demolished	Building 204 (Garage and Transportation Office) is razed for this projectwith parts of its concrete wall remaining attached to the relocated boundarywall.
CE 1980	Moved	With the relocation of the northwestern boundary wall of the yard to thesouth, the NPS relocates Building 245 (Ground Equipment Shop) to itsoriginal location and shortens a path.
CE 1980	Planted	A hedge of Dorothy Perkins roses is removed from the edge of theCommandant's House Drive, and another is established along awooden lattice fence running parallel to Second Avenue southwest of thehouse.
CE 1980	Rehabilitated	Pier 1 is rehabilitated.
CE 1981	Rehabilitated	The Navy rehabilitates Finger Pier, a viewing platform west of USSConstitution.
CE 1981 - 1987	Rehabilitated	The park begins rehabilitating Pier 2 but stops the work in 1987 due toenvironmental concerns allowing the end of the pier to deteriorate.

Year	Event	Major Event Narrative
CE 1983	Altered	The park converts Gates 1 and 2 from vehicular into pedestrian only, andBuilding 19 (Scale House) becomes the main entry to the park.
CE 1984	Planted	The Marine Barracks East Garden is landscaped.
CE 1985 - 2004	Maintained	The garden to the west of the barracks is rehabilitated and maintained with alawn surrounded by a border of ornamental shrubs and perennials.
CE 1986	Planted	The NPS replaces the two large blue spruce trees planted in front of theQuarters G (Commandant's House) in 1962 with two dwarf blue sprucetrees.
CE 1986	Demolished	A Memorandum of Agreement (MOA) clears the way for demolition of thenearly collapsed Marine Railway superstructure on Pier 2, although someportions were retained for later interpretation of the site.
CE 1986	Memorialized	USS Cassin Young (DD-793) is designated a National Historic Landmark.
CE 1987	Demolished	The park removes about half of the Marine Railway superstructure.
CE 1989	Altered	The NPS converts Building 10 (Battery Charging Facility) into a foodservice concession building.
CE 1990 - 2000	Built	The NPS replaces the wooden fence around Dry Dock 1 with a syntheticlumber fence with the materials donated by the manufacturer leaving theoriginal pipe and chain fence standing to the inside of this newer barrieralong the edge of the dock.
CE 1990	Planned	The Master Plan for the Yard?s End proposes that Flirtation Walk berestored along Building 58 (Ropewalk) with the replanting of an alle, ofDutch-elm-disease resistant hybrid elm tress to replace those that oncegraced this promenade.
CE 1990	Built	The USS Constitution Museum installs five flagpoles at the head of the DryDock under a Section 106 action with an annual review option.
CE 1991	Established	The USS Constitution Maintenance & Repair Group becomes part of thenew Naval Historical Center Detachment, Boston.
CE 1992	Moved	USS Constitution enters Dry Dock 1 in preparation for its 1997bicentennial.
CE 1993	Memorialized	Outside of the park, the Korean War Veterans Memorial is built in thepublic Shipyard Park to commemorate the armed services commitment todemocracy and South Korea.
CE 1993 - 1997	Expanded	The USS Constitution Museum expands with the construction of aconnector to Building 28 (Instrumentation Calibration Shop).
CE 1995	Demolished	The Army Corps of Engineers removes more of the Marine Railway.
CE 1997	Planted	The NPS replaces a gravel areaADjacent to Building 22 (Ship Repair Shop) with turf.

Year	Event	Major Event Narrative
CE 1999	Moved	The NPS demolishes the landmark plaques's marble base that had beendamaged by snow plows and moves the plaque to the Bandstand(Structure 260).
CE 1999 - 2000	Paved	The park resurfaces its roads and much of its piers with bituminousconcrete.
CE 1999 - 2000	Paved	With a resurfacing project, the park exposes historic granite paving in thecenter of the pier and along the western edge by USS Constitution, and it isretained uncovered.
CE 1999 - 2000	Altered	For pedestrian safety, the park paves the railroad track flangeways on Pier 1and installs rubber crossing pads on the tip of exposed crane rails at keyareas.
CE 1999 - 2000	Altered	Traffic and parking are reconfigured on Pier 1 away from USSConstitution.
CE 2000 - 2002	Paved	The park replaces Fourth Street?s wood blocks, dimensioned like standardbrick pavers and laid in a running bond pattern, but they fail and are pavedover with asphalt.
CE 2001	Altered	In response to the 11 September 2001 terrorist attacks on the United States,the places jersey barriers around USS Constitution to prevent vehicles fromapproaching too closely.
CE 2003	Built	The NPS installs an arm gate to Building 19 (Scale House) gate on FirstAvenue andADds two-lane pop-up barriers (Structure 285).
CE 2004	Altered	The Jersey barriers near USS Constitution are replaced with new movablesteel bollards and chains.
CE 2004	Built	The parkADds a small modern Guard Booth (Structure 288), reminiscent ofthe historic gate guard houses, to allow close supervision of the pop-upbarrier controls.

Physical History:

Pre 1630 – 1800: Charlestown Before the Navy Yard

When glacial ice covered New England nearly 12,000 years ago, the Boston Basin, a geological depression bounded by an escarpment to the north and west, was a hilly plain cut by rivers and streams and colonized by various plant and animal species. Within the basin, advancing glaciers formed drumlins—elongated masses of till shaped into smooth-sloped hills—that characterize the landscape of the Charlestown area. Five to eight thousand years later, Paleo-Indian populations and their descendants occupied the region, settling primarily along major river basins. In the late sixteenth century, members of the Algonquin linguistic group occupied the area that later became Charlestown. The Algonquin called it "Mishaumut" or "Mishawum," translated as “Great Spring,” bounded by the Mystic and Charles Rivers, then the "Mistick" and "Mishaum" (Edes in Winsor, 1881: 383, 387). These individuals were possibly part of the Massachuset or Pawtucket Tribes, some of the first Native Americans to come in contact with European explorers in the early 1600s (Sweetser, 1882: 260). Coastal tribes were also the first to be heavily exposed to European diseases, particularly small pox, that afflicted entire villages in 1616 and 1619. Many New England colonial settlements were built on the sites of decimated Native American villages, requiring little effort to claim and clear the land (Cronon, 1983: 90). While it is likely that Native Americans hunted and

occupied the land within the present Charlestown Navy Yard, prehistoric archeological sites have only been located west of the property. Subsequent development of the yard property may have destroyed many sites (Carlson, 2004 Draft).

Thomas Walford established the first English settlement in Charlestown in about 1625. Members of the Massachusetts Bay Company arrived at Charlestown or “Cherton” in 1629, when about one hundred persons relocated from Salem under the leadership of Frances Higginson. Walford’s Episcopal tenets eventually lead to his departure from Charlestown upon the arrival of Puritans of the Massachusetts Bay Company. Seventeenth-century town records relate that a small company “traveled the woods…and lighted of a place situated and lying on the north side of Charles River, full of Indians called Aberginians…by whose free consent they settled about the hill of the same place, by the said natives called Mishawum.” The Company’s engineer, Thomas Graves, proceeded to "model and layout the form of the town, with streets about the hill." Each inhabitant was allocated a two-acre lot to plant upon, and “all were to fence in common" (Edes in Winsor, 1881: 385). The southern-most hill, the smallest of four drumlins on the peninsula, was selected as the center of the settlement and named “Town Hill,” rising at the confluence of the Charles and Mystic Rivers, where there was deep anchorage. To the west, a narrow isthmus, known as the “Neck,” connected the peninsula to abundant inland forests and farmland. The three other hills were subsequently named Bunkers, Breeds, and Moultons Hills. Moultons (or Mortons) Hill, a drumlin originally thirty-five to forty feet in elevation, rose from the easterly portion of a field, known as Moultons Point Field, that would later become part of the Charlestown Navy Yard. The settlers measured out properties, built stone fences to establish the boundary markers, enclosed a common, and erected a "Great House" on Town Hill. On July 4, 1629, King Charles of England chartered the settlement as an independent town, and “Charlestown” became his namesake (Meltsner et al., 1985).

Upon his arrival to Charlestown in 1630, John Winthrop, the designated Governor of the Massachusetts Bay Colony, noted “some wigwams and one house.” He selected Charlestown as the seat of government and occupied the “Great House” with several of the patentees, while “the multitude set up cottages, booths, and tents about the Town Hill” (Edes in Winsor, 1881: 386). After two months of persistent sickness, scarce food, and inadequate fresh water, Winthrop and many colonists moved to the Shawmut peninsula, that was renamed Boston. The following year the General Court inaugurated a ferry between Boston and Charlestown. Those who remained in Charlestown began to realize Graves’ town plan around Town Hill that became “a large market-place near the water side built round with houses, comely and fair, forth of which there issues two streets orderly built with some very fair houses, beautified with pleasant orchards and gardens” (Edes in Winsor, 1881: 383-400). One of the earliest orders of Charlestown provided for a great “Cornfield” on the east side of Town Hill, embracing all of the land between Main Street and the Mystic River and the three hills—Bunkers, Breeds, and Moultons. This cornfield may have included land that became the Charlestown Navy Yard. The earliest roads were “the Country Road” (later Main Street) towards Charlestown Neck and the “Crooked-lane” (later Bow Street) that encircled Town Hill (Frothingham, 1851: 93). A small cart path likely led to Moultons Point.

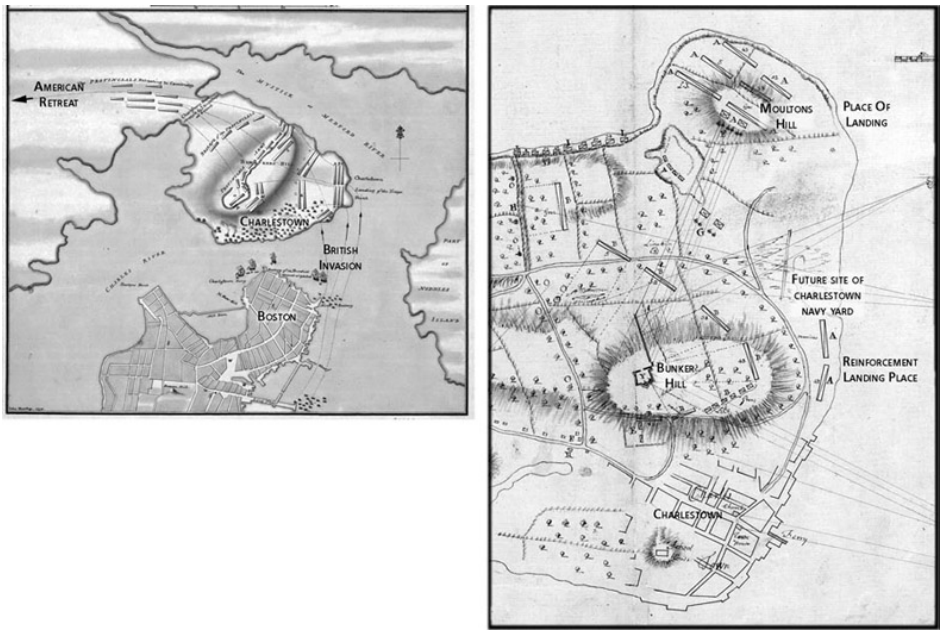
The sheltered location of Boston’s inner harbor provided good anchorage and deep channels to support the Massachusetts Colony’s early maritime economy. By the eighteenth century, the Charlestown settlement emerged as a thriving community founded upon several shipyards and merchants, who engaged primarily in commerce and trade with the West Indies and Europe. Charlestown listed 412 voters who agreed to pave portions of public streets and to construct an almshouse. Along the main streets and waterfront, occupants constructed about 400 buildings, including houses, shops, a marketplace, and shipyards precipitating the town’s transformation into a bustling seaport (Frothingham, 1851: 48). An inland road, ranging from sixteen to thirty feet wide, extended from the Charlestown Neck across the upland hayfields and pastures from Bunker Hill to Moultons Point. Farmhouses lay along the roads backed by fields and pastures, clearly demarcated with post-and-rail fences. With the exception of trees along the main roads, most of the peninsula’s timber had long since been harvested, leaving open views to Boston, Noddles Island (later East Boston), and Chelsea. The Moultons Point section of Charlestown was largely open pasture and marsh fronting on tidal flats at the confluence of the Charles and Mystic Rivers at the inner limit of Boston Harbor. Only a couple of buildings stood on the extreme west corner of what became the Charlestown Navy Yard (Bearss, 1984). Eighteenth-century town records indicate that James

Russell built a dry dock near Harris' Wharf, not far from the present location of the Charlestown Navy Yard and Samuel Henley purchased a portion of the town's common (Frothingham, 1851: 181,210, 264, 325-26). The War for Independence, however, resulted in a dramatic alteration of the Charlestown landscape.

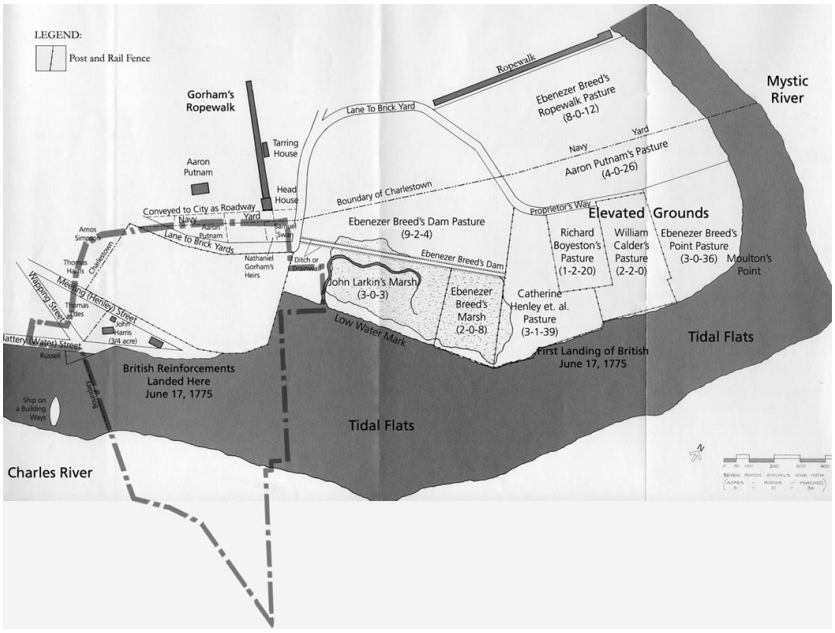
By the Revolutionary era, Charlestown's prosperous seaport was hampered only by British rule and taxation. In June of 1774, the British-imposed Boston Port Bill effectively shut down Charlestown, suspending maritime trade, precipitating economic decline, and spurring Charlestown delegates to bear an active part in patriotic councils. On 18 April 1775, Paul Revere landed along the Charlestown shore, at a point now at the western end of the yard, and began his ride to Lexington to bring news of British General Thomas Gage's dispatch of troops to destroy the rebel stores in Concord. The next day, Charlestown was the scene of intense excitement and confusion as the British Regulars retreated to the peninsula and occupied Bunker Hill. Many of the town's 3,000 inhabitants fled after Gage notified the Charlestown selectmen that he would order his ships in Boston Harbor to fire on the town if American troops entered the peninsula. The population further dwindled to less than 200 after a general order on 6 May 1775 prohibited all traffic through Boston. American troops began to fortify Breed's Hill on the eve of 16 June 1775. At dawn, Gage kept his word, ordering British artillery on Copp's Hill in Boston to open fire on Charlestown. By mid-afternoon, nearly 3,000 British troops marched from two landing sites at Moultons Point toward the American redoubt, and the Battle of Bunker Hill ensued. Charlestown burned in a great fire, ignited in part by the shells thrown from Boston. The British Annual Register later reported the town's fate: "Charlestown was large, handsome, and well built, both in respect to its public and private edifices; it contained about four hundred houses, and had the greatest trade of any port in the province, except Boston…It is now in ruins" (Frothingham, 1851: 334, 344, 368).

After the war, Charlestown residents returned "to repair their waste places" and rebuilt the town center largely to the west of the former center, in a location considered easier to defend. Legislative acts in 1781 and 1790 provided for "widening and amending the Streets, Lanes, and Squares, in that part of the Town which was lately laid waste by Fire" and clearing the ruins, particularly around the market place. New structures were built along Water (Battery) and Henley (Meeting) Streets, that branched off from the crooked lanes leading eastward from Town Hill towards Moultons Point. Later Wapping Street cut between the two streets. In 1785, there were 151 buildings and nearly 1,000 residents on the Charlestown peninsula.

By 1800, the town contained 349 buildings and 2,750 residents, of whom some of the most prominent occupied "well-cared-for estates, surrounded by green fields stretching away as far as the eye can see," on the slopes of Breed's Hill (Frothingham 1851: 16, 22-24). Merchants, shipbuilders, manufacturing industries, and farmers resumed their businesses in the Moultons Point vicinity. On the lower part of the ridge, along the "lane to the brick yards" were several houses, a brewery, Samuel Ferrin's brickyard, and the ropewalk established by Joseph Burton and Benjamin Gray in 1794. A second ropewalk extended from another portion of the "lane" (on what was to become Chelsea Street), north of Henley Street, to the rear of the Tufts and Breed estates (Sawyer, 1902: 171-81). A watercolor painted in 1800 depicts the land that became the yard. A great lawn stretched from a large, Federal style mansion towards the "lane." The lawn contained trees that may have represented an orchard. Only three small buildings, situated on the portion of John Harris' tract between Henley and Water Streets, occupied the flats below the "lane." A dam, together with a "sluice or drain" roughly in line with western portion of the "lane," drained marshland to create Ebenezer Breed's "Dam Pasture." Post-and-rail fences, running to low-tide mark along the Charles River, delineated the boundaries of pastures held by four additional property owners in the area of Moulton's Point.



Left: Humphrey map depicting the British invasion of Charlestown from Boston in 1775. Right: Force map of 1775 British landing sites near Moulton's and Bunker Hills (American Memory, The Library of Congress National Digital Library).



Historical Base Map showing roads, property ownership, structures, fences, and the waterline in c. 1800. Current park boundary is outlined at the left (National Park Service, Denver Service Center, in Bearss 1984; 1059).

1800-1828: Establishment of the Navy Yard

For the American colonies, independence meant the loss of protection once afforded by Britain's powerful navy. In 1794, Congress to enacted legislation authorizing the construction, equipping, and manning of six frigates, establishing the foundation of the Unites States Navy. Private commercial yards built the frigates and in 1798, shortly after USS Constitution slid down the ways at Hartt's Yard near Copp's Hill in Boston, Congress established a separate Navy Department. First Secretary of the Navy Benjamin Stoddert recommended naval expansion and the establishment of public shipyards to confront French threats to American neutral shipping (Bearss, 1984: 2-4).

In early 1800 Naval Constructor Joshua Humphreys visited New England in order to evaluate potential dock sites. After much controversy and public involvement, the Charlestown site was designated as one of the six yards, with the others located in Kittery, Maine; New York; Philadelphia; Washington, D.C.; and Norfolk, Virginia. Beginning in August of 1800, Putman acquired a 24½-acre tract determined by Humphreys as sufficient for both a building yard and dock (Bearss, 1984: 12, 15-18). For the next three decades, the yard sporadically expanded, languished, and reorganized according to strategic and political deliberations, or in response to the immediate demands of war (Carlson, 2004 Draft).

The site selected for the yard included Moultons Point Field, the adjacent marsh area, a portion of Moultons Hill, and extensive tidal flats. After their first acquisition dated 26 August 1800, the Navy eventually purchased about ten tracts of land (Carlson, 2004 Draft). These tracts included Ebenezer Breed's "Point Pasture," "Dam Pasture," and "Marsh" for which the United States agreed to maintain the ditch and dam. Breed retained his upland pastures and the Navy agreed to erect fences along the new boundary (Bearss, 1984: 24). The Navy also acquired pasture parcels bounded by post and rail fences from William Calder, Richard Boyeston, Catherine Henley, and Aaron Putnam, a marsh parcel from John Larkin, and several small building lots from John Harris, Aaron Putnam, Samuel Swan, and Nathaniel Gorham's heirs.

In January 1801, residents at a Charlestown town meeting voted that "the roads & streets leading into and through the lands purchased by the United States for the Navy and dock yard, be granted or exchange in such manner as will accommodate the United States without injury to the town, or the inhabitants of the vicinity." Four Charlestown roads traversed the property. Battery (Water) Street ran eastward along the Charles River, terminating at the edge of the Harris tract at a point near the landing site of British reinforcements in 1775 (now in the vicinity of Building 5). Meeting (Henley) Street cut diagonally southeastward, terminating at the same point. The "Lane to Brick Yards" led from the Training Field to the brick yards, running along the southern boundary of Aaron Putnam's residential parcel and roughly in line with Ebenezer Breed's dam, before turning northward and exiting the property near the dam. Finally, Proprietor's Way, an extension of the lane to the brick yards, ran through pastureland at the eastern end of Moultons Point, ending in the vicinity of Breed's "Point Pasture." The town conveyed these four roads to the United States for exclusive use and authorized the selectmen to alter "the road leading from the Training field to the brick yards, by an exchange of land" with the Navy. This forty-foot-wide alternative road later became the Salem Turnpike and then Chelsea Street (Bearss, 1984: 26). Three years later Congress authorized the Navy to convey title to the proprietors of the Salem Turnpike and Chelsea Bridge Corporation a triangular tract at the western corner of the Charlestown Navy Yard that the corporation agreed to maintain as public highway.

In late 1801, Congress requested a plan of each navy yard in the nation. The required plan for Charlestown, completed by Carleton Osgood in 1802, divided the grounds into three tracts, which were defined as a waterfront area, a residential and workshop area in the upper yard, and a pasture area in the lower yard. The waterfront area, comprised of the 9¾-acre basin of marshland bounded on the south by a wharf, stored most timber received at the yard. The upper yard, a nine-acre area north and west of the "bason," contained storage structures, housing, and shops. Construction and repair materials, as well as cannon, shot, iron, and ballast were stored in this area. Oxen purchased for the yard were also pastured here. The lower yard, the land north and east of the basin, served as pasturage for public oxen (Bearss, 1984: 41-43). The layout of these areas was irregular and likely based on the natural topography of the land and access to the water channel without extensive filling or dredging. The division of functions was indicative of an organization that remained consistent for the next 170 years.

In April 1812, as relations with Great Britain deteriorated, the yard's condition was neglected and its fences and wooden buildings were in disrepair. Among the yard's buildings, Commandant Bainbridge listed: "one old wooden building," providing office and storage space and "scarcely worth keeping on the grounds;" a "very old small structure nearly in ruins" occupied by the boatswain and purser; two one-story frame sheds under which timber for a 74-gun ship was stored; a blacksmith shop housed in an old frame building; a carpenter shop; a stone landing about twelve feet in width and elevated about three feet from the beach surface; a cobb wharf, fourteen feet-wide and three hundred feet-long, that formed a dam for the timber basin; and temporary fences in "ruins" (Bearss, 1984: 1869). Bainbridge later complained that he had found Charlestown Navy Yard "...in a state of perfect chaos. The public property in a state of ruin and decay; the establishment, then of twelve years standing, afforded no advantage or facility for naval purposes; a boat could not approach at certain periods of the tide within five hundred feet of the shore—a few temporary wooden buildings were all it contained except the Quarters G (Commandant's House) and Building I (Marine Barracks), unenclosed, it was even exposed to the inroads of the cattle from [the] highway" (Bearss, 1984: 99, 101-03, 181).

President James Madison declared war with Britain on 12 June 1812 and shortly thereafter discovered the inadequacies of the American armed forces. The tiny U.S. Navy fought briefly before the British blockade bottled up its warships for the duration of the war. Early successes, using fast frigates and sloops-of-war, prompted Congress to authorize six new frigates and six sloops-of-war. In addition, Congress authorized four 74-gun ships. Between 1813 and 1822, the hulls of three of these ships (Independence, Vermont, and Virginia) were laid down at Charlestown.

Until 1827, improvements to the country's navy yards had been made without adherence to a master plan. In March 1827, Congress directed the President to "cause the navy yards of the United States to be thoroughly examined, and plans to be prepared … for the improvement of the same." A board of three senior naval officers was set up to carry out the project, and Massachusetts native Colonel Loammi Baldwin was named the board's chief engineer for all naval yards to assist the board in their surveys, and in preparing the plans (Brady and Foster, 1980: 47). In Charlestown, Alexander Parris, the yard's assistant engineer and architect, would be responsible for implementation of the plan.

By 1828, development of the Charlestown facility remained fairly limited. The yard consisted of two clusters of structures separated by an expanse of open space, with a creek and the surrounding tidal marsh. The yard occupied a valuable parcel of waterfront property at the confluence of the Charles and Mystic Rivers and was surrounded by fine country estates bounded by picket fences. Within the yard, the Quarters G (Commandant's House) occupied the highest point of land. The yard contained pasture, several brick structures interspersed with temporary storage sheds, and workshops. Overall, the low wooden structures and two and three-story Federal style brick buildings were of a relatively modest scale, including Building I (Marine Barracks) and Building 5 (Bachelor Officers Quarters / Open Mess). Below, by the waterfront, a new stone-faced wharf and timber dock extended naval operations into the Charles River, though most of the yard was still bounded by tidal flats. Three wooden shiphouses towered over the low structures and sheds near the shore. Three earthen roads traversed the property from east to west. North of the Quarters G (Commandant's House) and outside of the yard's new boundary wall, portions of the former "Lane to Brickyards" became part of the Salem Turnpike, later known as Chelsea Street. A smaller road within the yard was the extension of Henley Street that ran just below and south of the Quarters G (Commandant's House) and was known as the new road or Main Avenue. From this road, paths and cart roads led down to the wharf area. A third, less defined road extended east from the intersection of Wapping and Water Streets. Trees, including elms and fruit trees, and gardens beautified the upper eastern corner of the yard surrounding the Quarters G (Commandant's House). Fast-growing Lombardy poplars, planted in 1816, now defined a walk from the Quarters G (Commandant's House) to the waterfront. The 200-300 elms planted in 1823 were still quite small. A boundary wall provided a sense of unity for the yard though buildings were in disparate clusters. Clearly, an overall plan was needed.

Waterfront

One of the first waterfront structures built in the center of the yard, was a cobb wharf "for keeping the masts, yard, timbers, etc. in a state of preservation." The wharf consisted of timber cribs with stone

ballast and held timbers underwater to slow deterioration. A canal between the wharf and the Charles River facilitated movement of materials. In its first two years, the yard served more as a supply depot than a shipyard since all other construction was postponed and the Navy rented wharves in Boston to repair its vessels (Bearss, 1984: 32-34; Brady and Wilson, 1982: 8).

The building program for the yard continued in earnest in January 1802. When a Congressional investigation reviewed the naval program and concluded that the yards at Charlestown and Norfolk were the most eligible for receiving and repairing ships. Necessary improvements to the Charlestown yard included the construction of sheds for storage of oak and pine timbers, a blacksmith shop, carpenter shop, and a wooden storehouse (Bearss, 1984: 34-5, 47). In the vicinity of these buildings the U.S. Marine Corps took possession of a lime shed on the former Harris tract to construct rudimentary barracks for the Marine Guard (Bearss, 1984: 49, 75-6). None of these original structures remain.

During the War of 1812, Secretary of the Navy William Jones authorized construction of a wharf faced with stone and a shipbuilding way for a 74-gun ship. The wharf, a nearby new Blacksmith shop, and the Navy Store (Building 5 (Bachelor Officers Quarters / Open Mess)) were constructed during the summer and autumn of 1813. Bainbridge, after learning that the Portsmouth Navy Yard intended to erect a shelter to protect workmen from bad weather during construction of a gun ship, submitted a similar plan for a shiphouse in Charlestown. Construction of the Shiphouse, a large barn-like structure erected over the shipbuilding way on the site of the present Pier 1, commenced immediately upon approval of the plan in September (Bearss, 1984: 146). This shiphouse and subsequent shiphouses dominated the Charlestown Navy Yard waterfront for the rest of the century.

During the War of 1812 the formidable threat posed by British naval power gave rise to security concerns for the yard and, in particular, for the safety of the gun ship under construction. Guards, gun batteries, and cannon were installed to protect the yard's entrance from the British (Bearss, 1984: 147-48, 150). Around the time that Bainbridge ordered the fortification of the Charlestown Navy Yard, the British consented to direct peace negotiations at Ghent and signed a treaty at the end of 1814. A period of retrenchment followed the cessation of hostilities with Great Britain and, consequently, the modest program of wartime improvements to the Charlestown physical plant came to a grinding halt. Several ships and vessels were ordered to Charlestown Navy Yard for repairs and placed "in ordinary" [in storage]. Soon their outfitting, armament, stores, and ballast began to fill the empty spaces throughout the yard. Prominent along the waterfront was USS Constitution, which was in ordinary after the War of 1812. The ship was subsequently repaired, armed, and provisioned before putting out to sea again in 1821 (Bearss, 1984: 161, 207-09, 306-09).

The first vessel, completed and christened, USS Independence, slid down the ways into the Charles River with a "federal salute" from USS Constitution on 22 June 1814. A violent windstorm in July 1814 destroyed the Independence shiphouse, but the Navy salvaged ironwork and planking and used these materials for construction of a pile wharf in front of the blacksmith shop. In 1816, Commandant Isaac Hull, Charlestown Navy Yard's newly-appointed commandant, proposed major improvements to the yard but was only authorized to carry out minor work. Most yard improvements were directed towards enhancing production along the waterfront. Upon receiving orders to prepare the yard for construction of a 74-gun ship-of-the-line and a 44-gun frigate, Commandant Hull directed the clearing and repair of the shipbuilding way in April 1817. Construction of a new shiphouse, known as Shiphouse 1 (later known as Shiphouse G) began in the autumn of the same year and was completed in 1818 to house USS Vermont. Workmen installed a permanent pair of shears, for raising masts, at the head of the pile wharf near the shiphouse (Bearss, 1984: 284-85, 333, 355). Thereafter the wharf was known as the Shear Wharf and eventually became part of Pier 1.
Two additional shiphouses, built in 1824 and 1825, provided additional building sites. Shiphouse 3 (later known as Building 71 (Shiphouse I)) contained the 74-gun Virginia, and Shiphouse 2 (later known as Shiphouse H or Building 68), located between a new timber dock and new wharf west of Shiphouse 3, housed construction of the 44-gun frigate Cumberland. A causeway, "piled and built," connected a waterfont smithy and Shiphouse 2 (Bearss, 1984: 214, 337, 362-63).

Shiphouses served as the primary location for shipwork until 1827 when the Charlestown Navy Yard was selected as one of two sites for a dry dock (later known as Dry Dock 1), with the other in Norfolk.

Excavation began to the east of the stone Shear Wharf and Shiphouse 1, at the site of the old saluting battery and the “new” timber dock (Carlson, 2004 Draft). The Navy's Chief Engineer, Laommi Baldwin supervised construction of the dry dock, with Captain Alexander Parris as the assistant engineer.

Laommi Baldwin, Jr. (1780–1838) a lawyer, author, and engineer, is heralded as “the father of civil engineering in America.” He built Fort Strong on Long Island in Boston Harbor, executed the design of the Bunker Hill monument as proposed by Horatio Greenough, and was City Engineer for Boston. He was responsible for preparing master plans for all the nation’s navy yards. Alexander Parris (1780–1852) was a Boston architect and engineer who designed in the Neoclassical style and was associated with the famed Boston architect Charles Bulfinch during his early career. He worked for the U. S. Navy in Charlestown Navy Yard from 1825 to the 1840s where he designed and oversaw construction of some of the most substantial engineering and manufacturing facilities in the yard, including Dry Dock 1, Building 58 (Ropewalk), boundary wall, sea walls, manufacturing buildings, and much of the manufacturing equipment installed during his tenure. Parris also designed the Quincy Market buildings and St. Paul’s Church in Boston in the 1820s, and the “Church of Presidents” in Quincy.

Upper Yard
In 1804, the Navy selected the highest point in the yard for a residence of the superintendent of the yard, formally known as the Quarters G (Commandant's House). Completed in 1805, the three-story brick structure was built “on the most convenient place on the public ground and upon substantial scale” and designed to face Chelsea Street, but also included a back porch and walkway that led directly to the waterfront. In response to Superintendent Samuel Nicholson’s request for a garden, the Navy approved plans for the enclosure of a “small piece of ground contiguous [west of] to the House to be built for the Superintendent for a garden,” but denied his request for a barn or stable to shelter four cows, two horses, and a chaise for his family as well as two or three yoke of public oxen. Building 20 (Commandant's Tool Storage Barn), a small barn, was eventually approved and built southeast of the house but a larger stable was not added until the 1820s (Bearss, 1984: 58, 89, 341).

In June 1810 the Marine Corps selected a site for a new barracks, east of the Quarters G (Commandant's House) and south of the Salem Turnpike. This was the first portion of Building I (Marine Barracks). Plans included excavation of a portion of the hill to the east of the Quarters G (Commandant's House), designs for a garden southeast of the barracks, two wells, and diversion of turnpike drainage through a drain near the fence. Constructed largely by the Marines themselves, it consisted of a single-story central section containing enlisted men’s barracks and three-story wings at each end housing officers. Marine Corps Commandant Franklin Wharton’s correspondence also suggests that the ground fronting the barracks had been graded. During the following year, Wharton gave instructions for the laying out of a parade ground, including a provision for a “Lane or Alley between the Commanding Officer’s garden & the Stables of the Commodore for the former & latter to use.” Wharton requested a board fence, rather than post and rail, to enclose the barracks and parade ground. Upon completion of the project in early August, Nicholson complained that the Marines’ parade ground, extending 305 feet along the fronts facing the turnpike and the river, was “absolutely spoiling the Navy Yard,” but Paul Hamilton, who succeeded Smith as Secretary of the Navy, chose not to intercede (Bearss, 1984: 82-84, 89-91).

During the summer of 1817, the Navy built a combination guardhouse and two-story brick Porter’s Quarters (Quarters A) at the Main Gate at Water Street and relocated a frame building to be used as quarters for the gunner. Commandant Hull acquired a tract of the Harris estate in order to rid the yard of the “perpetual nuisance” of “shops and houses.” The 5,186-foot lot, near the yard’s South Gate, was conveyed in turn to the United States at fair market price (Bearss, 1984: 256-57, 260-61, 337-39). Hull commenced relocation of the yard’s fences, “throwing them back so as to enlarge the area of the yard, and form it nearly an oblong square" (Bearss, 1984: 333). In 1818 a timber shed, constructed between the commandant’s garden and Henley Street, replaced the temporary shed on the site of the wooden storehouse, which had been destroyed by an 1815 fire.

Hull’s improvements included the construction of fences and some landscaping in front of the

Quarters G (Commandant's House). Laborers established a gunpark to store armament. Carronades—short muzzle-loading ordnance similar to those on USS Constitution—lined "the fence forming the northwest line of the yard, in front of the Quarters G (Commandant's House)." Laborers also planted two rows of young Lombardy poplars extending from the house's south porch, along the walkway to the new road, "Maine Avenue," later called "Second Avenue" (Preble, 1875: 114). They also regraded, improved, and ornamented other portions of the yard. A work crew dug a well and opened a trench for an aqueduct supplied by a natural spring (Bearss, 1984: 333-34). To tend the landscape, Hull requested the authority to hire a man to care for "the public garden, fences and trees and public grounds" (Brockway and Todisco, 1985: 6).

In the early 1820s, the Navy expanded beyond the old Harris tract at the western end of the yard and claimed several inholdings. In 1820, temporary sheds were built along the new western boundary to shelter pine planks, beams, and ledges. In 1823, under the direction of Bainbridge, laborers set out 200 to 300 elms as shade trees in the yard (Bearss, 1984: 491-92). Three years later an unspecified number of fruit trees were planted to enhance the yard's landscape, which had begun to take on a more integrated appearance (Bearss, 1984: 451, 491-92). In 1824 Alexander Parris designed a granite block boundary wall that defined the boundary of the upper yard from Building 5 (Bachelor Officers Quarters / Open Mess) to and along the Salem Turnpike. Parris also designed the granite Building 21 (Carriage House) to the northeast of the Quarters G (Commandant's House) for Commandant Crane. The thirty-by-twenty-foot building, with a roof height of twelve feet was flush with and joined to the wall. Later, the building also served as a watchhouse for the Marine Guards. Adjacent to the structure, an area was designated as a "carriage yard" for the cleaning and harnessing of horses (Brockway and Todisco, 1985: 6).

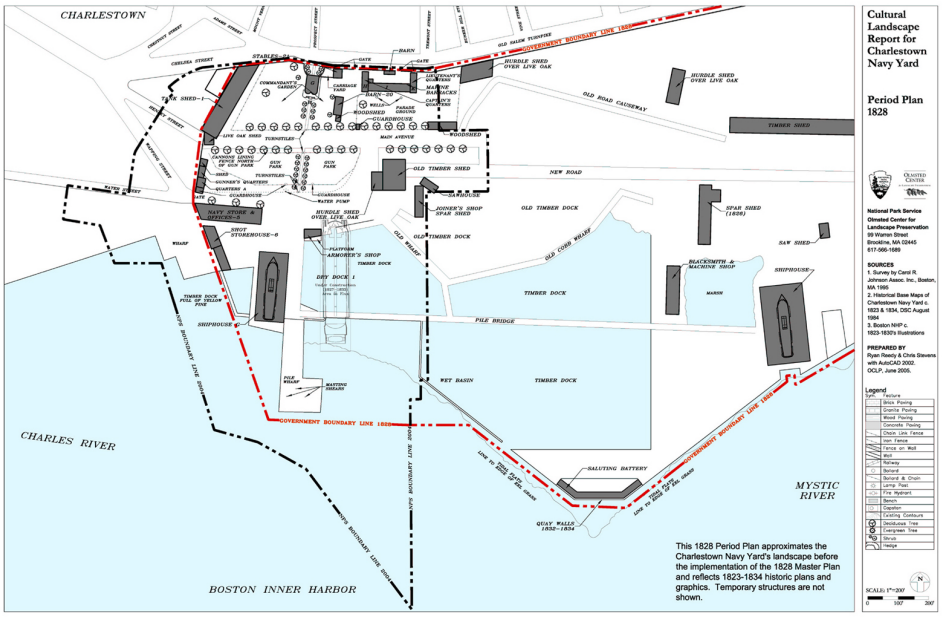
Granite Boundary Wall and Gates
In November 1819, Commandant Hull proposed a wall to enclose the most valuable parts of the yard, reminding the Board of Naval Commissioners that the wooden fences had been standing for eight years and would soon require replacement. Several Irish laborers were hired to repair existing fences after the Board failed to respond to Hull's request, limiting improvements to immediate construction needs.

In 1823, Bainbridge directed laborers to construct a spruce-post picket fence paralleling the Salem Turnpike. Shortly thereafter the land side of the yard became clearly defined, when the wood fences were replaced with a granite wall from Water Street to and then along the Salem Turnpike (Chelsea Street) to the Mystic River. Construction of the wall began in 1824 and was to both deter trespassers (and naval deserters) and protect the yard from fire spreading into it from adjoining areas (Bearss, 1984: 782). With the approval of the owners of the Salem Turnpike, the Navy straightened the northern boundary of the yard and completed the boundary wall in October 1826. Designed by Alexander Parris, the wall curved into the corners of the Quarters G (Commandant's House), allowing access to the outside without passing through the yard and incorporated portions of the brick wall enclosing Building I (Marine Barracks)' stable (Bearss, 1984: 450-469; Keeshan, 1981).

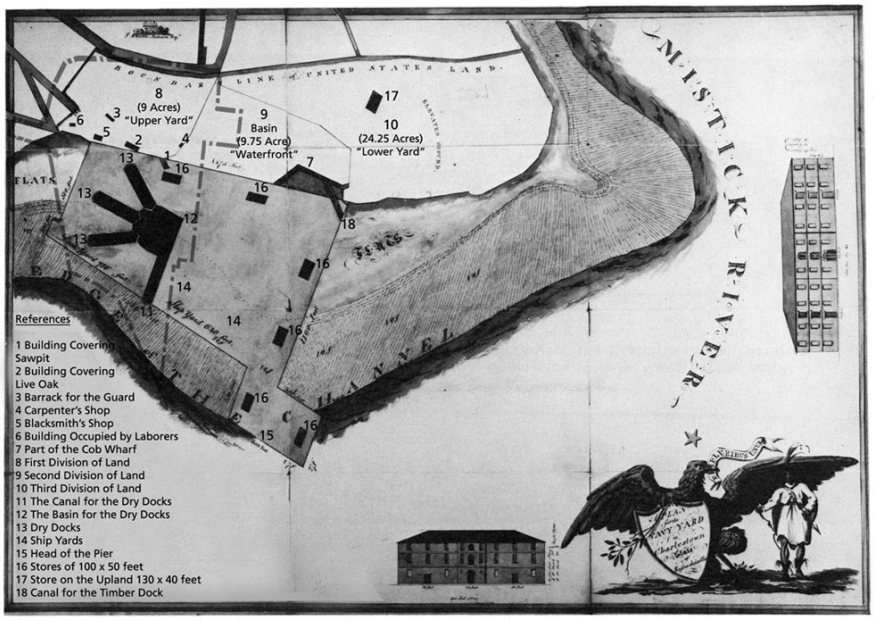
In early 1825, the Board of Naval Commissioners approved plans and estimates submitted by Alexander Parris for gates and iron fencing for the granite boundary wall. The designs included a floor plan for the granite Building 21 (Carriage House) incorporated along its northern elevation into the wall. Parris designed the Carriage House's hip roof to be flush with the top of the granite wall to make it invisible from the turnpike. A high stone fence, extending from the stable to the corner of the Quarters G (Commandant's House), divided the stable yard from the garden and provided a "covered way from the House to the Privy." In July of 1825, the Board ordered Naval Agent Amos Binney to include an additional set of gates through the wall, to provide access to the commanding officer's wing of Building I (Marine Barracks). Delays in leveling the hill before Quarters G (Commandant's House) postponed installation of the ironwork and gates until January 1826. The commissioners authorized the paving of a five-foot walkway outside of the yard, beginning on a line parallel with the road "leading to Mr. Tufft's and extending east to the gate entering the Marine quarters." Commandant William Crane reported the stone wall, with the exception of a twelve-foot passageway, was completed in October 1826 (Bearss, 1984: 466-68; 471-72). Around this time, Major Wainwright of the Marines notified Crane that he planned to erect a high brick wall on the east side of the Carriage House to extend from Building I (Marine Barracks) to the wall along the road in order to

improve security (Bearss, 1984: 475-78).

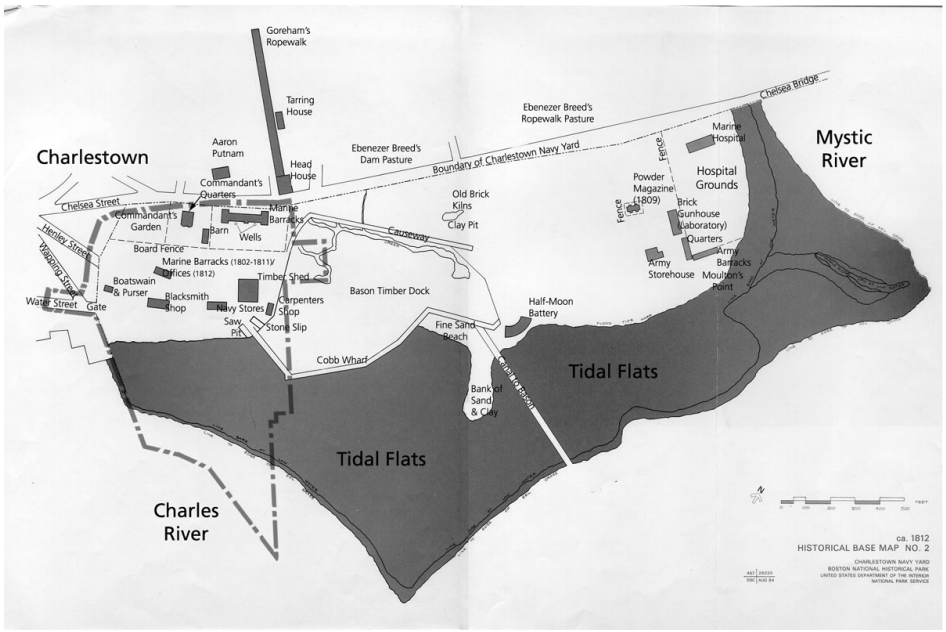
Specifications for the boundary wall foundation trench required, “well filled with clinkers and cinders three feet deep from the surface of the ground & three feet thick,” and for a substantial granite wall around 2,400 feet long, nine feet high (exclusive of the capping), and twenty inches thick at the capping. Foundations paralleling the commandant’s garden were to be raised to the level of the turnpike, with those in the low, wet section of the yard reinforced with piling or cobbing. A culvert, two bricks in thickness, was designed to drain water from under the wall, in the “low area" (Bearss, 1984: 460-62). These specifications clearly communicated the Navy’s intent to demarcate the yard’s boundaries and to effect both a physical and visual separation of the public property from contiguous civilian parcels (Bearss, 1984: 462-63).



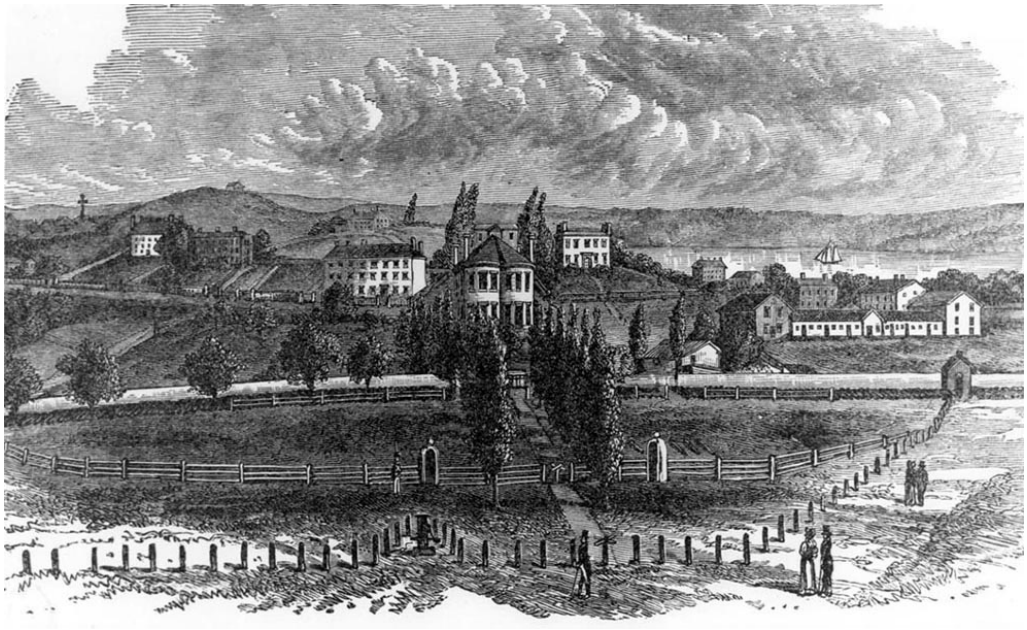
1828 Period Plan of the Charlestown Navy Yard (Cultural Landscape Report for Charlestown Navy Yard, Olmsted Center for Landscape Preservation, 2005).



Carleton Osgood's 1802 drawing of the three tracts of the Charlestown Navy Yard. Current park boundary is outlined (From the National Archives in Bearss, 1081).



Historical Base Map of the yard in c. 1812. Current park boundary is outlined (NPS, DSC, 1984 in Bearss, 1063).



1830s Engraving derived from a c. 1823 painting (BOSTS-9179).

1828-1853: Early Nineteenth-Century Growth

On 11 August 1828, the Board of Naval Commissioners approved the master plan for the yard, as mandated in the 1827 legislation. It was to be used for reference "whenever improvements" were authorized and on no occasion was it to be "deviated" from without written instructions from the naval commissioners (Bearss, 1984: 507). Under the supervision of the Navy's Chief Engineer Loammi

Baldwin, the Assistant Engineer and Architect Alexander Parris oversaw implementation of the plan. Modeled after Britain's royal navy yards, the plan established the spatial organization of the yard, imposing a classical grid of streets, with five broad avenues running west to east and seven cross streets. Like the development of the city beyond the yard, the grid responded to the increasing density of urban development along the waterfront and required extensive earthmoving and filling over the next century.

The 1828 plan also reflected the current naval technology of wooden sailing ships. It proposed many timber sheds, including numerous "stores" for rigging, sails, and "articles belonging to ships in ordinary;" a timber dock; a wet basin; three additional dry docks for ship repair; saw and block mills; and, most notably, a rope-manufacturing complex. The manufacturing facilities for sails and rope reflected the Navy's interest in industrial specialization for each of its yards. Most new structures were proposed for the lower yard, with improvements throughout the yard to meet evolving needs of the Navy (Bearss, 1984: 507, 586).

In 1845 deteriorating relations with Mexico spurred increased repair and outfitting activities at Charlestown, although the eighteen-month conflict—consisting principally of land engagements—had only limited impact on the yard. Charlestown Navy Yard worked on ten ships engaged during the Mexican-American War. At the end of hostilities in 1848, the last all sail-powered warship launched at Charlestown Navy Yard, the Vermont, slid down the ways to a "vast concourse of people and the firing of cannons," but never saw service as a commissioned warship (NPS Handbook 152, 1995: 18). Shortly thereafter the Navy dismantled Shiphouse G, which had housed the Vermont for over forty years.

Throughout the mid 1800s, the nation flourished with the development of steam power and iron construction, including an expanding network of railroads for overland transport. Yet the Navy struggled to modernize, due to both its senior staff of seasoned sailors and the lack of modern repair and coaling facilities particularly in the Pacific ports. The Navy relied on its East Coast facilities until the 1850s, when expansionist interests and the Mexican-American War resulted in the establishment of the Mare Island Navy Yard in California. To effectively manage and expand each yard, the Navy sought "industrial specialization" for each yard.

Roads and Utilities

In the 1828 master plan, Second Avenue, running along an earlier east-west main roadbed, served as the major axis and the baseline for measurements in the yard. The plan called for an "avenue with paved road thirty-feet wide and a foot walk fifteen-feet wide on each side." The plan also included a network of canals, basins, and dry docks that were never constructed. In the 1840s and 1850s the Navy proposed the extension of railroad tracks into the yard from the Fitchburg Railroad line's current Charlestown Branch spur that terminated at the western edge of the yard (Black and Bearss, 1993: 28). Although the rail connection would facilitate movement of raw materials to manufacturing facilities, the delivery of coal, and outfitting of ships, rails were not installed in the yard until the Civil War.

In the late 1840s, Main (Second) Avenue was graded, graveled, drained by gutters, and later paved along its entire length (Black and Bearss, 1993: 67, 75, 80). Shortly thereafter, the road leading from the Main Gate, described as the frontage road, which later became First Avenue was paved in 1851. "Paving bricks" were also set on the sidewalk along the outside of the boundary wall, Water Street, the area adjacent to the Main Gate, and "220 feet of sidewalk between the Commandant's Quarters and the corner of the yard and Chelsea Street at the stables" (Black and Bearss, 1993: 57-8). Ten years later, the Navy contributed to the cost of paving Wapping Street from the yard to Henley Street (Black and Bearss, 1993: 128).

Coal was of increasing importance to the Navy in the early 1840s as a source of power for the yard's physical plant as well as auxiliary power for ships. The Navy erected several coal sheds in the winter of 1844 to 1845, including one near the Dry Dock on the lot east of Building 24 (Riggers and Laborers Shop). Other improvements contributed to the changing landscape. Natural gas, introduced into the yard in 1856, illuminated three converted oil lamps and three new lights at the end of each shiphouse, extending working hours and the yard's productive capacity (Black and Bearss, 1993:

118).

Waterfront
Even before the issuance of master plans for the various navy yards, the Navy received appropriations for the construction of two granite dry docks, one in Charlestown and the other at the Norfolk yard. At Charlestown, the work was completed under the supervision of Loammi Baldwin, with Alexander Parris as assistant engineer (Davis et al., 1976: 3, 19). With Dry Dock 1 under construction in the late 1820s and completed in 1833, waterfront structures in the vicinity were added and reorganized to accommodate new operations in this portion of the yard (American Society of Civil Engineers web page, 2001). Parris designed Building 22 (Ship Repair Shop), completed in 1832, which served the dry dock until 1905 when a new Building 123 (Pumphouse) was built for both Dry Docks 1 and 2. Just six years after completion, Dry Dock 1 barely held Fulton II, the Navy's "first" steam-propelled warship, forecasting the need for the extension of the dry dock.

While construction of Dry Dock 1 greatly expanded the yard's ship repair and building capacity, other improvements reflected the Navy's ambivalence between wind and steam technology. By the late 1830s the Philadelphia yard began construction of steam-powered vessels, including two steam-powered paddlewheelers and the first steam-powered, iron-hulled, screw-propelled vessel, the Princeton. Meanwhile at the Charlestown yard, orders to produce four sailing frigates necessitated construction of a fourth shiphouse. Shiphouse 39, later named Building 73, was built in the lower yard to the east of Shiphouse G and completed in 1842. Workers laid the wooden keel of the Bainbridge, while six other wooden-hulled sailing vessels laid in ordinary at the yard (Bearss, 1984: 569, 807, 940; Black and Bearss, 1993: 4-5, 15, 26-7). Within the growing technological disparities amongst the navy's yards, Charlestown remained a facility for the repair and construction of wooden sailing ships, and continued to store and ship provisions to overseas squadrons.

Despite a lack of equipment to service metal hulls and machinery, Charlestown ranked among the Navy's three most important yards in the 1840s (Black and Bearss, 1993: 7). Requirements to build, outfit, and repair larger ships required increased docking capacity. In the early 1840s, only the Shear Wharf could support ships with a deep draft, thus two additional wharves, Nos. 65 and 66 were constructed at the eastern end of the lower yard, near Shiphouses I and 39 to berth large ships. Small buildings were added to the wharves, including coal houses.

During the Mexican-American War, the yard's expanded role in repairs necessitated emergency plant improvements along the waterfront, including the erection of two workshops, a timber shed, brick barn, and frame coalhouse (Black and Bearss, 1993: 19, 35-6, 49-50). After the war, a period of naval retrenchment ensued as Congress and the nation turned its attentions to the West and to the slavery question. While only two ships were built at Charlestown Navy Yard during this period, the Dry Dock experienced greater usage after the Navy permitted docking of nonpublic vessels, including coppering of renowned clipper ships built in East Boston. Timber basins, used to store and season building and repair materials, remained a persistent reminder of the Navy's tenuous hold on obsolescent sailing technologies. The yard assumed a more integrated appearance—as materials excavated from the lower yard filled some of these basins and extended the yard toward the edge of the Charles River tidal flats. Massive wooden shiphouses dominated Charles River skyline, while the Bunker Hill monument, completed in 1842, towered over the yard's northern viewshed. Laying beside the wharves in the early 1850s, the ship-of-the-line Ohio served as a receiving ship for the yard, providing sailors with temporary housing between assignments or whose ships were in the yard for repair work.

Between 1847 and 1849, the Navy built a long granite building, Building 24 (Riggers and Laborers Shop), south of First Avenue and east of Dry Dock 1. The granite structure helped define the grid proposed in the 1828 plan. In 1852, work began on Building 10 (Battery Charging Facility), then located on the Shear Wharf, west of the ship-way remaining from Shiphouse G. Completed in 1853, the fifty by thirty five-foot, two-story brick building, rested on piles driven into the peat muck, allowing the yard to expand waterfront operations further into the harbor.

Upper Yard
The 1828 master plan embraced trees as an integral element and proposed an alleé along the Main

Avenue across the entire yard. In the upper yard, Commandant Jesse D. Elliott, 1833 to 1835, authorized several aesthetic improvements, including the setting out of trees, the beautification of Main (Second) Avenue, and the laying out of stone runners in the enlarged gun park. In 1839 a local newspaper article praised the “spacious avenue, which runs the…length of the yard, bordered with young and thriving elms” (Bearss, 1984: 716, 949). Comparable to the rowhouse built at the eastern end of the yard in the 1820s, the Navy built the larger five-unit Building 265 (Married Officers Quarters B-F) in the upper yard 1833. With front doors facing east, the building enclosed the western end of the yard, creating a campus quadrangle between the Quarters G (Commandant's House), Building I (Marine Barracks), Building 5 (Bachelor Officers Quarters / Open Mess) and Building 22 (Ship Repair Shop). In the center of the upper yard, post-and-rail fences defined gun, shot, and anchor parks in between what would become First and Second Avenues, creating a space that was both ceremonial and functional for storage.

The grounds around the Quarters G (Commandant's House) changed according to the interests of the commandant and his family. Commandant John Nicholson, the yard’s ninth commandant who served between 1842 and 1845, built a greenhouse on the grounds. Constructed without authorization, the structure was subsequently dismantled in the 1860s (Preble, 1875: 371). Several years later a new greenhouse structure was built onto the back of the Carriage House. An engraving of the Quarters G (Commandant's House) in Gleason’s Pictorial Drawing-Room Companion portrays the variety and density of vegetation surrounding the building after nearly fifty years of occupation by about ten commandants. Some time before 1852, an arbor was constructed over the walkway leading to the waterfront. Several fence styles, including wood and wrought iron, defined other walkways and garden areas. Historian Lucinda Brockway notes “the garden is densely planted with what appear to be many varieties of ornamental plants; the slope at the rear [south side] of the house is covered in shrubbery” (Brockway and Todisco, 1985: 8-9).

The yard stockpiled nearly 40,000 cannonballs, which were stacked in pyramids on oak planks in the shot park. Confronted with the shifting of the planks and the subsequent damage of the cannonballs, each pyramid was set on a stone foundation of sufficient depth to “be beyond the reach of frost.” Above ground, the foundation was brick bordered with “a plate of cast iron four inches wide and one and a half inch thick” with the face sloped to shed rain. Brick and granite runners later replaced oak planking in the shot park. In 1849, the Commandant indicated the balls would be stacked in forty pyramids of one thousand balls each, or twenty beds of two thousand balls for a cost savings. The Commandant also directed the installation of tracks in the gun park to serve as wheel runners (Black and Bearss, 1993: 79-80).

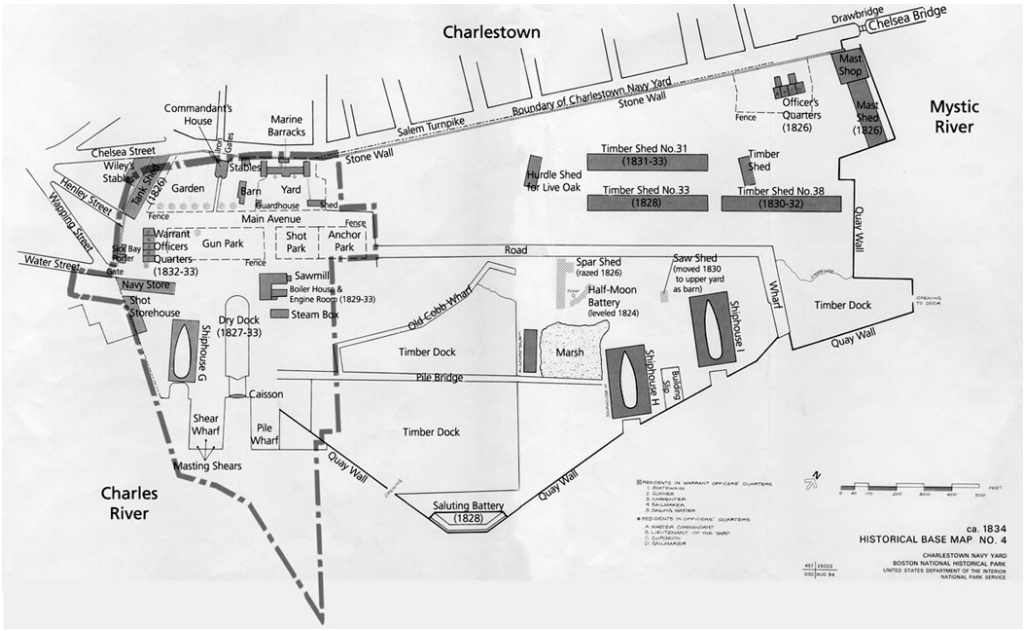
The emphasis on yard improvements suggests the relatively quiet period at the yard following the Mexican-American War. The character of the yard is captured in an 1851 article in Gleason’s Pictorial. Gleason’s notes the yard’s physical plant included “three ship-houses and slips for building vessels under cover….two large store-houses 200 feet by 60 feet built of Quincy Granite…four timbersheds of 450 feet in length, in which are stowed…frames of live oak for sixteen ships of various rates…and the blockmaker’s shop with its improved and beautiful machinery.” Other notable features were the “magnificent park for heavy cannon…with its seven or eight hundred pieces of the largest caliber…the shot park, with many thousand balls piled in the neatest manner, and an anchor park, in which there are the largest anchors for men-of-war.” The yard is described as “laid out into streets and avenues, which are either paved or graveled, and bordered with elms, maples, or ornamental trees, affording one of the most beautiful promenades in this part of the country" (Quoted in Black and Bearss, 1993: 65).

In front of Building I (Marine Barracks), “fatigue parties” were ordered to regrade the parade grounds in order to drain rain water away from buildings. To accomplish this, the crew installed a paved gutter and cesspool (Black and Bearss, 1993: 88). Building I (Marine Barracks) and its setting were described in Gleason’s Pictorial as follows: "[The barracks are] capable of accommodating a large body of Marines, although at present the establishment is reduced to comparatively few. There are but thirty Marines quartered there at present, sufficient for the duties of the well-regulated establishment. The place of the parade is the prettiest enclosures to be found anywhere, and in the shade of beautiful elms, affords a very pleasant retreat for the leg-wary sentries during the relief from duty, on the hot days of summer" (Quoted in Black and Bearss, 1993: 88).

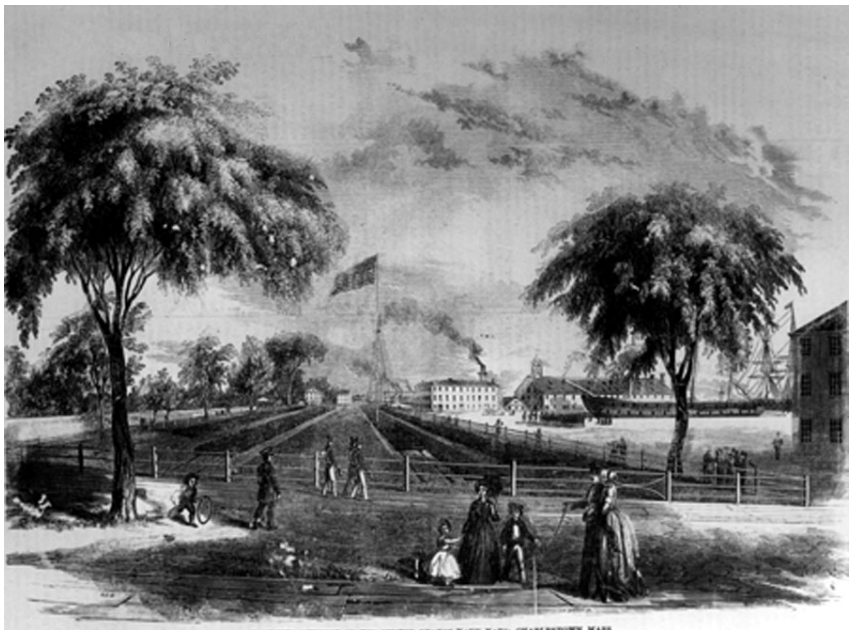
The Gleason's Pictorial article alludes to the transformation of the yard's landscape during the second quarter of the nineteenth century, as the young trees planted in the early 1800s matured (Black and Bearss, 1993: 128). Set along a classical grid, the yard had taken on a more organized appearance. Views to the east down First and Second Avenues captured Parris' monumental building designs of finely dressed granite, which conveyed a sense of purpose and permanence. The harmony of the new buildings, trees, lights, and fences communicated the yard's emerging institutional identity, while specialized forms proclaimed the yard's productive roles.

Lower Yard
Spanning the upper and lower yards along the northern boundary wall, the granite Building 58 (Ropewalk) completed in 1837 represented Charlestown Navy Yard's new manufacturing capacity. Parris designed the Navy's only ropemaking facility, a complex that included a quarter-mile rope "laying" area running the length of the building. The Charlestown Navy Yard had been chosen as the site of a ropewalk intended to supply the needs of the entire Navy for a number of reasons: Boston was one of the leading ports trading in hemp, the raw material for rope; the area had a number of commercial ropewalks from which the necessary skilled workers could be drawn; and the area was a major center of innovation in the textile industry (Hutchins, 1999: 34-6; Waite, 1991 Draft: ch.3, p. 3-5). Construction of the ropewalk required regrading the eastern edge of the parade ground in front of Building I (Marine Barracks) as seen in later images (Bearss, 1984: 91; NPS Handbook 152, 1995: 17,19). At the east end of the Ropewalk—near Building 75 (Timber Shed) built in 1831—several buildings supplied the ropemaking facility. In association with Building 58 (Ropewalk), Building 62 (Hemp House) built in 1837 contained raw materials and Building 60 (Public Works Storage) built in 1838 provided a location to coat the rope with preservative tar. Building 34 (Storehouse) built in 1837 may have been used for rope storage. Building 79 (Coal House) added in 1852 supplied the steam-powered machinery in Building 58 (Ropewalk) and was enlarged six years later to become Building 79 (Power House).

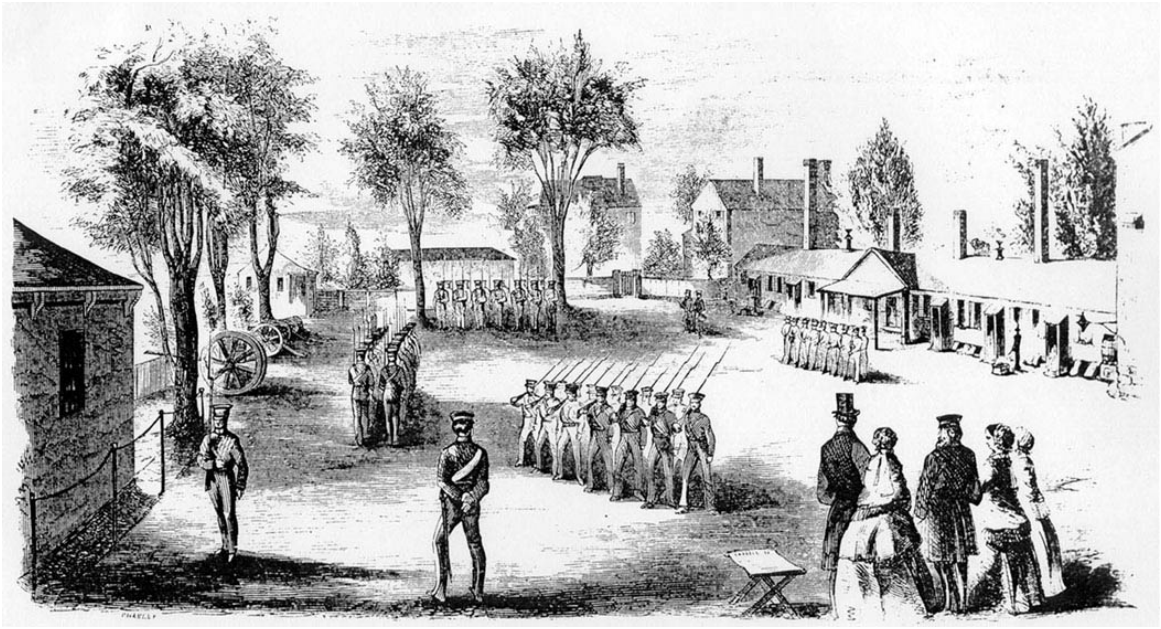
Granite Boundary Wall
In the mid 1840s, the Navy extended the boundary wall toward the tide water mark, near Shiphouse G, at the western edge of the yard and from the masthouse to the east quay wall at the opposite end. This completed the enclosure of the naval installation from the growing commercial district just beyond its boundaries. The substantial wall that surrounded the property clearly imposed both a physical and visual separation from the surrounding town, whose burgeoning economy edged toward the Navy's installation. Outside of the yard, Charlestown's ice export trade flourished, trade activities enlivened the wharves that ranged along Water Street, and the rail line that whisked goods from the port inland to the Boston & Lowell Railroad. Inside the wall, the yard's ornamented promenade probably offered a cloistered haven from Charlestown's teeming industrial landscape.



Historical Base Map of the yard c. 1834 showing the beginnings of First and Second Avenues and several new structures in the upper and lower portions of the yard. Current park boundary is outlined (NPS DSC, in Bearss, 1071).



1850s view of the yard looking east along elm-lined First Avenue and the waterfront. Gun park and Main (Second) Avenue are to the left. (From Gleason's Pictorial Drawing Room Companion, November 29, 1857, BOSTS 8635).



1856 view looking northwest across the elm-lined parade ground. Cannons and pipe-and-chain fencing line the edge of the parade ground that faced the waterfront (From Gleason's Pictorial Drawing Room Companion).

1853-1869: Development in the Age of Steam

After the Mexican-American War, the Navy stood indecisively at a technological crossroads, subject to the vicissitudes of American foreign relations and domestic crises. In 1853, the Navy had seventy available ships, many of which had languished at the nation's navy yards under the Democratic Party's opposition to naval expansion. Between 1852 and 1855, Charlestown's repair work, limited to ten Navy vessels, reflected the increased competition from docking and repair facilities at Kittery, New York, Pensacola, and Norfolk (Black and Bearss, 1993: 89, 100). Yet, Charlestown benefited from a change in the nation's political landscape. In 1853, President Franklin Pierce adopted a vigorous expansionist foreign policy that, together with continued domestic territorial expansion, required modernization of the aging Navy and the nation's outdated naval yards. Congress appropriated funds for construction of six steam-powered, screw-driven frigates. Within two years the steam frigate Merrimack was launched from one of the yard's shiphouses. The frigate Cumberland returned to Charlestown and was cut down to a 28-gun sloop-of-war that reflected a mid-century trend towards smaller naval vessels (NPS Handbook 152, 1995: 29, 31). Congressional support for naval construction resulted in a quarter of a million dollars for new structures and improvements at the Charlestown facility (Black and Bearss, 1993: 89).

At the outset of the American Civil War, the volume of activity at the yard exceeded that of any previous period, including repair of twenty ships—many of them powered by steam—and construction of the steam-propeller sloops-of-war Hartford and Narrangansett (in Shiphouses H and 39 respectively). In 1861, when the seceding Southern states adopted a constitution for the Confederated States of America, yard activity peaked once again to meet war-time needs. Between 1861 and 1865, the yard constructed seventeen new vessels, outfitted twenty-three additional vessels constructed at private yards, converted forty-three vessels, and repaired between 100 and 130 vessels. To carry out this work, yard employment increased to almost 5,000 workers by 1864 (Black and Bearss, 1993: 167). At the end of the Civil War, the Union had accumulated a fleet of more than 600 vessels (Black and Bearss, 1993: 150). Since the Confederacy was able to build and acquire ships in England for use as either commerce raiders or blockade runners, the Union Navy adopted two tactics. Large vessels were needed to establish blockades for major ports along the Atlantic and Gulf Coasts and smaller ships were needed to take control of ports along major inland rivers (Hagan, 1992: 167). The five types of vessels built or outfitted in Charlestown included

cruisers, steam sloops-of-war, ironclad monitors, small gunboats, and double-end sidewheeler gunboats. The Monadnock, a double-turreted ironclad considered the “best monitor afloat,” and five double-ended sidewheelers were destined for the Union’s “brown-water” Navy on the shallow rivers of the South (NPS Handbook 152, 1995: 36, 42).

Activity at the Charlestown Navy Yard increased dramatically before and during the Civil War, calling greater attention to the yard’s technological shortcomings, many of which would not be addressed until the turn of the century. The wartime efforts at the Charlestown Navy Yard contributed to the industrial base of the Navy. Yet, following a precedent set at the conclusion of earlier military campaigns, the end of the Civil War signaled a similar decline in plant expansion at yard. Even before the Confederate surrender at Appomatox, Secretary of the Navy Gideon Welles began a partial demobilization of the naval fleet. By 1865, he had sold half of the Navy’s 671 ships, mostly the converted merchant vessels used in blockades. Demobilization activities at Charlestown included off-loading of supplies from ships and subsequent auctioning of accumulated stores, the sale of many vessels, a decline in new construction and ship repair, and reduction of the workforce. Secretary Welles articulated a plan of “rigid economy,” a trend that continued until the early 1880s. At the same time Welles advocated for a modern, metal-hulled, steam-powered Navy, together with naval facilities capable of building and maintaining such a fleet. The manufacture of cordage, sails, and other canvas goods continued at Charlestown, albeit at reduced rates of production (Black and Bearss, 1993: 180, 210).

As the yard approached its seventieth year, it portrayed both an ordered and stately appearance with its paved avenues and mature elm and maple trees, and its extensive long buildings of granite and brick, capped by the Machine Shop’s 240-foot chimney. The yard embraced modern amenities including paved streets and sidewalks, a pipe-fed municipal water system, gas lighting, and a network of rail lines. Upon closer inspection, the yard likely had a more cluttered appearance, with numerous temporary buildings and large quantities of stores and materials piled along the waterfront and around manufacturing buildings. Excess armament was stored in gun and shot parks located south of the parade ground, between First and Second Avenues (NPS Handbook 152, 1995: 29, 31). Numerous vessels lay in ordinary, either unlaunched, unfinished, uncommissioned, or out of commission (Black and Bearss, 1993: 178). Unfortunately, this neglect increased over the next decade.

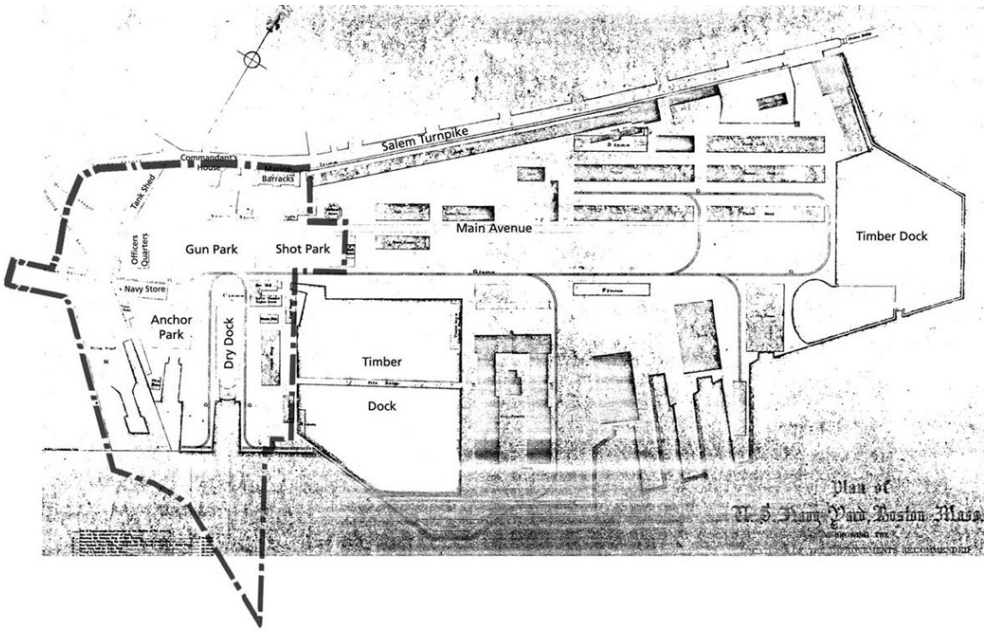
Railroad Lines and Utilities
The construction of a railroad system for the yard was an important addition during the Civil War, which became operational in November 1865. The Fitchburg Railroad extended the Charlestown Branch Railroad, running along Water Street, into the yard primarily for munitions delivery (Booth and Henson, 1983). This allowed the yard not only to move materials more easily within the yard but also to receive shipments from suppliers by rail. By 1869, the yard had 1,417 yards of rail trackage, including spurs to the wharves and Building 42 (Machine Shop) (Black and Bearss, 1993: 193-7). Paving projects along the Main Avenue and between the timber sheds increased plant efficiency. During the war, the Navy ceased using well water and connected to the Boston water system supplied by Cochituate Waterworks and installed thirty-six hydrants throughout the yard. The yard also installed a connection to the Mystic River as a contingency source.

Waterfront
A changing of the architectural guard roughly coincided with Charlestown’s financial windfall. Following the completion of the 1840 portfolio, Parris was only hired on a project basis to supervise certain jobs, while the Naval Constructor, Samuel Pook, supervised civil engineering work in the yard. In 1853, Joseph Billings became the yard's chief architect and civil engineer. At first Billings continued to design within the classical vocabulary of his predecessor Parris who favored granite while Billings favored brick. With increased appropriations between 1852 and 1855, Billings oversaw construction of the enormous Building 42 (Machine Shop) complex with a 240-foot chimney, which would dominate the waterfront when completed in 1859 (east of park property). The new complex provided space vital to activities in the Navy’s conversion from wind to steam power and represented the most dramatic program of plant expansion since completion of the Dry Dock and Ropewalk in the 1830s. In 1857 silting near the shoreline, increasingly more acute with tidal flat reclamation, led the yard to acquire a dredge to deepen the Charles and Mystic Rivers where they fronted the yard.

Just prior to the Civil War, Dry Dock 1 was extended, adding 65 feet to a floor length of 368 feet, and an overall length of 393 feet. During the war, much of the Navy's construction program reflected the immediate needs of the Union effort, but there Navy made some permanent improvements to the Charlestown Navy Yard during this period. In 1863, Congress authorized payment to the owners of White's Wharf, and the yard took possession of the 2.3-acre property at the boundary along its western shoreline. Increased production and the use of steam technology demanded certain immediate infrastructural improvements. Coal was stock piled along the waterfront in many locations since the yard still lacked an internal rail system until 1865. The new Building 42 (Machine Shop) served as the hub of operations.

Upper Yard
Commandant Francis Gregory requested a plan for a Muster House "similar to the one in New York." Built between 1852 and 1853 (outside park boundary), the octagonal brick building, with a surrounding porch, served as the civilian workers' mustering post. More importantly, the stylistic departure evident in the Muster House paralleled a transformation in the yard's industrial landscape during Billings' tenure as chief architect and civil engineer. Soon after daily musters were moved to the new Muster House, yard workmen requested a new gate in the yard wall for convenience. In 1853, Gate 4 was opened along Chelsea Street and a guardhouse established at the west end of Building 58 (Ropewalk) in order to accommodate the growing stream of workers.

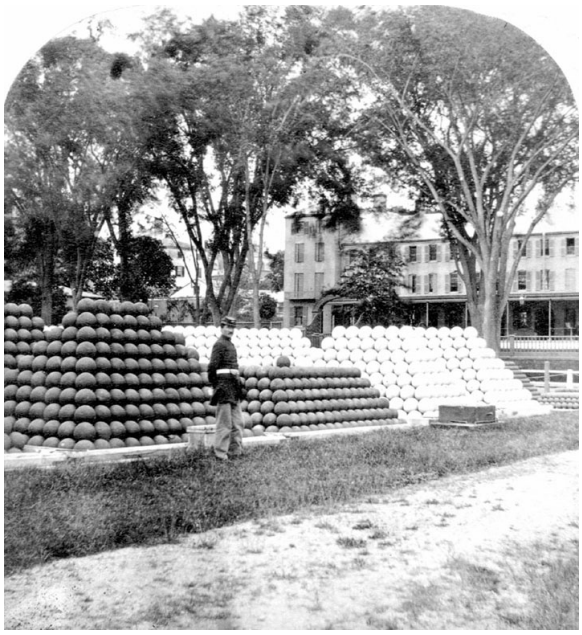
Civil War activities demanded expedient measures in plant development; temporary buildings, hastily erected and often unnoted in yard records, housed additional tools and stores. These temporary structures, together with large quantities of accumulated stores, probably gave the yard a cluttered appearance. The shot park was expanded to include the site of the anchor park across from Building I (Marine Barracks), and anchor storage was temporarily transferred to an area south of Building 5 (Bearss and Snell, 1978: 28). The replacement of twenty-four dead trees enhanced the yard's appearance (Black and Bearss, 1993: 112, 125-6, 128).



1862 plan of the yard showing proposed rail lines, which were partially installed in 1865 (Boston NHP).



The gun and shot parks in the shipyard mall (recreation area) of the yard, 1874. Tree-lined First Avenue is in the foreground, and tree-lined (elms) Second Avenue is to the north in the background (BOSTS-nhf150).



View facing northwest of the shot park between First and Second Avenues with elms fronting the remainder of the parade ground and Marine Barracks, c. 1865. Each pyramid contains approximately 700 cannonballs (BOSTS-8875).

1869-1898: Post Civil War

A radical shift in post Civil War priorities, including the diversion of funding to reconstruction programs, diminished naval activities during the 1870s and contributed to the neglect of the naval yards across the country. While European navies pursued new technologies, the U.S. Navy largely eschewed steam power and iron hulls for traditional wooden-hulled vessels. In 1874, Charlestown was annexed to Boston. In the mid 1870s, Alfred Thayer Mahan, who later became an influential writer on naval strategy, was appointed as the senior aide to the commandant at the Boston Navy Yard. While in this post, he resided in one of the yard's officers quarters and in 1875 wrote "there is little doubt that the Navy is rapidly getting into a deplorable condition, as that the fault lies largely with our present Secretary." Mahan's criticisms also pointed out corruption at the yard and in the Navy at large which crippled this branch of the service during the presidency of Ulysses Grant (Black and Bearss, 1993: 279-80). The Navy continued to decline in the late 1870s during the presidency of Rutherford Hayes when the U.S. Congress limited naval expenditures. Congress reduced the fleet from over 600 vessels during the Civil War down to 139 ships, with only 50 in commission.

By 1870, the Charlestown Navy Yard had tripled its original size of 24.5 acres, mostly through three decades of expansion over tidal flats beyond the granite quay (Carlson, 2004 Draft). Most of the buildings rested on driven wood pilings and the filled land was leveled, giving the yard a fairly even topography. During a general period of naval decline that lasted through the 1880s, the yard survived as an important manufacturing and repair facility, but with personnel reductions, the yard's facilities deteriorated. Unlike the extensive yard additions in previous decades, the Navy removed many small and temporary structures (Black and Bearss, 1993: 281). The Navy, however, did construct nine new buildings during the 1870s, four of which were temporary structures. In 1874, Charlestown launched the wooden-hulled screw sloop Vandalia and the experimental iron-hulled torpedo vessel Intrepid. These concurrent launchings reflected the Navy's "lukewarm and indecisive response to changing naval technology" (NPS Handbook 152, 1995: 37-9).

In the 1880s, a combination of political, technological, and intellectual changes in Europe influenced American Naval policies, and ultimately affected the Boston Navy Yard. Acting upon the recommendations of Secretary of the Navy William Chandler and Chairman of the Naval Advisory Board Rear Admiral Robert Shufeldt, the House Naval Affairs Committee called attention to the

deterioration of the U.S. Navy and rallied support for reform (Hagan, 1992: 185-6). The Navy Appropriations Act of 1882 made provisions for construction of modern ships of war. These steel cruisers, known as the “ABC” vessels, comprised the initial core of a “New Navy” constructed to meet the challenge of European sea power. For Charlestown, the immediate effect of the new construction campaign was devastating. The same legislation that authorized the “New Navy” established new criteria limiting funds for the repair of sail-powered vessels, effectively suspending repair and construction duties at four naval yards, including Charlestown. Further economizing stripped equipment from the Charlestown yard in order to free funds for the new construction initiative.

In June 1883, Secretary Chandler ordered all work at the yard suspended except for the manufacturing of rope and sails. In December 1886, Chandler’s successor, William C. Whitney, decreed that as of February 1, 1887, the yard would be used “as a permanent, general manufacturing yard for articles of equipment” (Black and Bearss, 1993: 372). By 1890, the yard had become the only naval shipyard producing rope, chain, anchors, and sails. The Department of Equipment remained the largest single employer in the yard; supplying the general needs of the Navy and generating steady—though limited—activity in the lower yard. Though some public figures advocated sale of the yard, it was retained in reserve, to be activated in the event of national emergency. Consequently, the dry dock, wharves, and other critical facilities were ostensibly maintained in a serviceable condition necessary for reactivation. The yard acquired no new industrial, storage, administrative, or residential buildings in the late 1880s. During this time workmen removed many buildings, mostly decayed wooden sheds (Black and Bearss, 1993: 350-1, 355-6; NPS Handbook 152, 1995: 45, 50). The yard remained obsolescent until the 1890s when Alfred Thayer Mahan’s influential book on naval strategy, The Influence of Sea Power upon History, cast a new light (Hagan, 1992: 190).

The late-nineteenth century was a period of inactivity for the yard and a time for redefining its role with respect to other naval yards. The yard’s operations were hampered by the Navy’s slow transition from wood and sails to steel and steam. By 1898, the Navy’s efforts to divest itself of outdated infrastructure were clearly visible. The Navy razed nearly a dozen wooden buildings, including Building 29 (Commandant's Office) and the recently-built Building 92 (Shiphouse). Over burdened with costly naval facilities across the country, the functions of the yard shifted to manufacturing for rope, chain, anchors, and sails.

Walled off from Charlestown, the yard’s inactivity contrasted with the commercial and residential growth of Charlestown, now a part of Boston. With few improvements, the upper yard and waterfront retained much of its character from the Civil War era. The extant trees continued to grow and provide shade in the upper yard around the gun park and in the lower yard along Flirtation Walk. Mature elms and other tree species arched over the yard’s oldest buildings such as the Quarters G (Commandant's House), Building I (Marine Barracks), Building 265 (Married Officers Quarters B-F), and Building 5 (Bachelor Officers Quarters / Open Mess). The Navy surfaced roads and industrial portions of the yard with granite block pavers and cobblestone sidedrains. Planks were used for sidewalks and around piers. Rail lines redefined circulation within the yard, though oxen were still used to move materials. Conversion of ceremonial spaces into recreational spaces or utilitarian functions, such as the conversion of a portion of the shot park into a tennis court, started a trend that would continue into the twentieth century. Most of the masted ships that once dominated the viewshed of the yard were scrapped. USS Wabash remained until 1912, and USS Constitution returned to the yard in 1897, but was not fully remasted until 1907.

Circulation and Utilities

The installation of railroad lines beginning in 1865 signaled a shift in both circulation and technology, one in which First Avenue served as the major axis of supply and production. In 1877, the yard’s civil engineer reported a general state of disrepair in which “Roads, walks, gutters and drains need a complete overhauling.” Wharves, cranes, scales, tracks, and water and gas works required repairs, but the yard would mark time without major improvements for much of the remainder of the century (Black and Bearss, 1993: 281, 295; NPS Handbook 152, 1995: 39).

Most of the yard’s roadways were unpaved, with the exception of portions of Main (Second) Avenue.

In 1891, yard workers replaced the cobblestones between Building 5 (Bachelor Officers Quarters / Open Mess) and Building 22 (Ship Repair Shop), along the roadway fronting the gun park. This granite block paving was extended along Main Avenue to Building 40 (Anchor Shop) in 1893. Reconstruction of the yard's railway track system proceeded from the yard entrance to the head of Dry Dock 2 (authorized in 1898) and from the Shear Wharf to the Building 67 (Sawmill).

Rehabilitation of the yard's water system included excavation and replacement of old mains, cleaning the reservoir near Building 75 (Timber Shed), and installation and repairs of pipes, hydrants, and fixtures between 1889 and 1892. In 1895, the yard's sewage system connected to the Metropolitan Intercepting Sewer, transporting waste previously discharged into the harbor near the Chelsea Bridge to sewage outfalls at Moon and Deer Islands. Electric lights, powered by Building 28 (Instrumentation Calibration Shop), replaced gas illumination in the yard. By the middle of the decade, all wharves had been repaired and rendered serviceable, with the exception of the thoroughly decayed and irreparable Wharf 4.

Waterfront

In 1870, the Navy built a fourth shiphouse - Building 92 (Shiphouse) between Wharves 1 and 2 in the vicinity of the yard's former first shiphouse. The new Shiphouse housed the construction of the first iron-hulled vessel, the torpedo ram Intrepid, though the Shiphouse itself was considered outdated and torn down twenty years later. Four wharves extended into the harbor, providing the yard with nearly one thousand feet of docking space (Black and Bearss, 1993: 236). Constantly battered by waves, changing tides, and wind, the wooden wharves and many waterfront structures required extensive maintenance and repairs, which the Navy struggled to maintain.

By 1880, the yard's physical plant reflected the Navy's technological limbo having had few improvements since the 1850s. A coaling wharf to service steamers and a new rolling mill for iron plate coexisted with the large sail loft and wet timber dock that served the Navy's wooden sailing vessels. Though the yard had greater capacity with rail lines, four shiphouses, and two building ways, oxen still pulled timber from docks to the sawmill. The waterfront remained relatively unchanged from the late 1860s until the turn of the century, when the timber dock was replaced with a second dry dock. The Building 42 (Machine Shop) on the former site of the 1820s blacksmith shop, prevailed over the waterfront with a 240-foot smokestack as a visible reminder of the Navy's incipient transition from wind to steam power. The steam frigate USS Wabash arrived at the yard in 1875 and eventually replaced USS Ohio as the yard's receiving ship until 1912.

In the 1880s, the yard's shoreline illustrated the facility's marginal role in new naval construction. Four vessels remained unfinished on the ways and four more remained in ordinary, provoking an 1882 newspaper article's reference to the Charlestown waterfront as "Rotten Row." In 1884, when the Navy ordered the sale of vessels in ordinary, workers dismantled the nearly completed ship-of-the-line Virginia, stored on building ways in Shiphouse I since 1824, as well as two wooden steam ships and a monitor constructed during the Civil War (Black and Bearss, 1993: 322, 335; NPS Handbook 152, 1995: 45-6, 50).

Between 1883 and 1897, the Navy used the Dry Dock five times for naval repairs, marking an all-time low in repair work at the yard. Though private firms contracted use of the facility for repair work, the Dry Dock remained in disuse for long periods of time, including a nearly two-year interval between May 1884 and March 1886.

In 1890, the Navy directed the largest of the three "ABC" vessels, the steel cruiser Chicago, to Charlestown for repair, but later turned it away from the inadequate and deteriorating Dry Dock. During the previous year, newly appointed Secretary of the Navy Benjamin T. Tracy had observed the "tumble down condition of navy-yard property." Most buildings were in need of repair, the deteriorated Dry Dock was only marginally functional, and most of the yard's thoroughfares remained unpaved and seasonally unserviceable. Only one of the six wharves was in good repair and lacked a crane or shears capable of handling heavy weights. While many of the stone buildings were repairable, the yard was largely "unsightly and unhealthy" (Black and Bearss, 1993: 376; Black, 1988: 23, 41-2, 44).

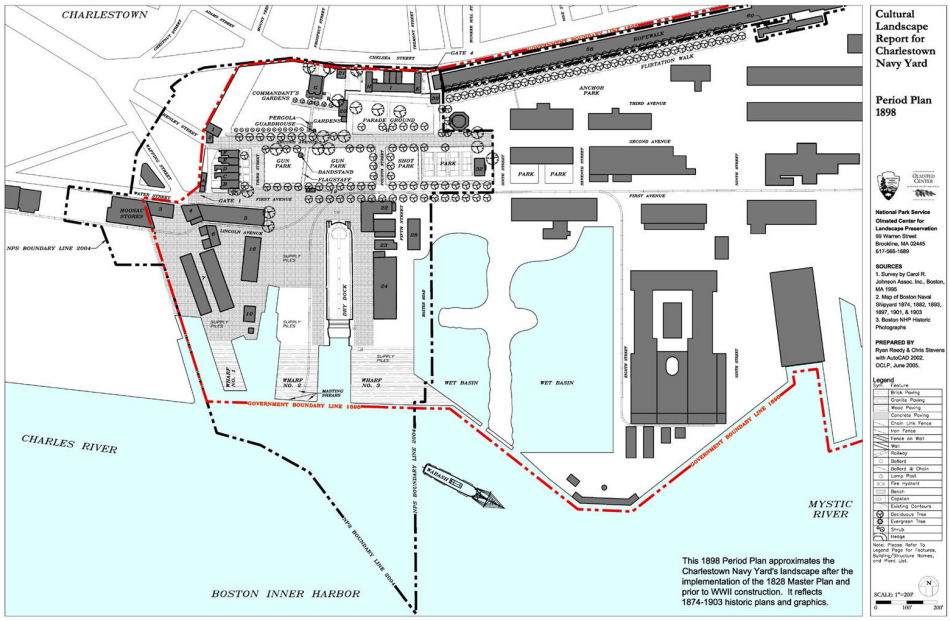
A bright sight amongst the dilapidated shoreline was USS Constitution, which in 1897 was towed to Boston to celebrate her centennial. After clearing the Boston Roads in July 1798, USS Constitution had entered nearly fifty years of active duty before technological change rendered her obsolescent. During the remainder of the century she fulfilled various ancillary roles, serving as a school ship, a training ship, and finally a receiving ship before returning to her homeport. Though rebuilt in 1906 and 1907, she remained laid up at Charlestown and destined largely for a ceremonial function.

Upper Yard
During the 1870s and 1880s, the yard was open to visitors every day but Sunday. Residents of Charlestown came to picnic, walk along the elm-lined streets, and admire the gardens of the commandant, which were popular for their selection of ornamental trees and shrubs, flowerbeds, and winding paths. Both First and Second Avenues were lined with mature elm trees planted as early as 1823 (Brockway and Todisco, 1985: 3-4). From the back porch, facing the waterfront, the steps of the Quarters G (Commandant's House) descended past a row of fruit trees, then under the arbor constructed during the 1850s. The arbor was covered with dense vines, possibly grapes. A walkway to the east was lined with a short section of wood fence painted white, with round widely spaced pickets. In the eastern lawn, a circular garden bed was filled with herbaceous plants. In the center, a tall post supported a bird house.

The most noteworthy construction in the upper yard in 1873 was the yard's new Building 19 (Scale House), used for weighing wagons. The Navy built the weighing facility just south of the first gun park (by the present Flagpole (Structure 242)) (Black and Bearss, 1993: 236; NPS Handbook 152, 1995: 17). Navy plats identified gardens near Building 265 (Married Officers Quarters B-F) and Quarters G (Commandant's House) and mature trees lined First and Second Avenues. The enclosed parade ground in front of Building I (Marine Barracks)and the adjacent shot and gun parks preserved verdant open space.

Awnings graced the Shell House (Building 32 (Bank)), converted for use as the Commandant's Office (Building 32 (Bank)), and a tennis court replaced the adjoining shot park. An alleé lined "Flirtation Walk," the boardwalk that ran along the south wall of Building 58 (Ropewalk). Two narrow strips of lawn, which supported the alleé, separated the promenade from the building and the adjoining anchor park (Black, 1988: 54).

Lower Yard
By the end of 1890, Commodore Alfred Thayer Mahan's advocated for vigorous maritime commerce and for the creation of a great United States battle fleet second to none. Congress authorized the nation's first full-sized battleships and an appropriation of $152,000 for new machine tools and modernization of the yard (Hagan, 1992: 192; Black, 1988: 41-9). Initial improvements pertaining to the yard's mission to repair modern war ships centered upon outfitting and refitting shops. The yard continued the production of both fiber and wire rope and sails (Black, 1988: 49, 51-2, 98-9). Under Whitney's orders, the production of anchors and anchor chain was shifted to the yard. Anchor chain would become the yard's major industrial activity in the twentieth century. While the capacity of the yard to serve the modern Navy expanded, "progress improving the plant of the Boston Navy Yard in the 1890s proved to be faltering, frequently incomplete, and sometimes temporary" (Black, 1988: 61).



1898 Period Plan (Cultural Landscape Report for Charlestown Navy Yard, Olmsted Center for Landscape Preservation, 2005).



An 1870s view of the waterfront from the Bunker Hill Monument. Note the gun park and alleé along Second Avenue. (From the Society for the Preservation of New England Antiquities, SPNEA 12426B).



View east of Gate 1 in 1874 showing the new granite and iron gateposts with the older wooden picket fence remaining. The roads, surfaced with granite pavers, are in disrepair (BOSTS-8940).

1898-1920: Yard Resurrected

Between the years 1898 and 1920, the Boston Navy Yard underwent expansion and modernization in response to the Spanish-American War, World War I, and the mounting tension in Europe. The conversion to steam engines then to diesel, changes in defense technology, and new ship designs necessitated new facilities and larger docking areas. Major changes in the physical plant included the construction of Dry Dock 2, addition of some eighty buildings in the yard, and the extension and reconfiguration of the piers and crane and train lines. The Navy filled many voids in 1828 master plan grid, particularly along the waterfront and the lower yard. America had emerged as a world power following the Spanish American War. With the acquisition of colonial possessions, the U.S. needed a strong navy equal or superior to those of the two major European naval powers, Britain and Germany, as well as that of Japan. Technological changes were motivated in large part by innovations in Europe. In the early 1900s, the British launched the large battleship, HMS Dreadnought, which was 490 feet long, with large guns, and a maximum speed of 21.5 knots. American development is exemplified by the design of the South Carolina class battleships and by Theodore Roosevelt's dispatch of the Great White Fleet on its around-the-world cruise. Later the potential threat of German Unterseeboots or "U-boats" prompted the U.S. Navy to invest in destroyers to escort cargo vessels and troop ships through perilous waters. In the early 1900s, the yard repaired and commissioned destroyers and submarines built at other yards (Black, 1988: 164).

In April 1898, the United States declared war on Spain to bolster Cuban independence. The war, which required naval fleets in both the Caribbean and Pacific, was one-sided and effectively ended three months later but had a broad impact on the United States. The naval campaign during the Spanish-American War increased repair activities at the Boston Navy Yard and marked an enduring expansion in the size and diversity of the yard's workforce. During this brief military contest, the yard performed more work than in the entire previous decade and the civilian workforce grew from 500 to 1,500 workers (Black, 1988: 301; NPS Handbook 152, 1995: 51). War work at the yard generally involved the conversion of civilian vessels to military use and the repair and decommissioning of naval craft at the end of the conflict. Expansion and improvement of the Boston Navy Yard continued into the next decade, as the war underscored the need for a larger fleet and additional docking space (Black, 1988: 165).

Upon the August 1914 outbreak of World War I in Europe, President Woodrow Wilson proclaimed

American neutrality. The yard adhered to neutrality policies, while at the same time expanding operations, repairing and outfitting private vessels, and increasing storage facilities for provisions. Eager to reactivate the yard's shipbuilding program, a "Build-a-Ship-at-Boston" campaign was supported by yard personnel, the Boston Navy District Office, and the Boston community. Efforts were successful and on 19 February 1914, the Navy Department assigned the construction of a supply ship to the yard. The project, which had been won by the yard in competition with proposals from private shipbuilders, led to major improvements in the yard's shipways. Improvements included four large hammerhead cranes that would visually dominate the yard's skyline until demolished by the Navy following the yard's closure in the 1970s. The yard laid the 423-foot steel keel in May 1915 and thirteen months later launched the yard's largest ship and the Navy's first refrigerated supply ship, USS Bridge (Carlson, 1998; Black, 1988: 364-66).

Reversing his neutral stance, President Wilson proclaimed the battle cry for "incomparably the greatest navy in the world" (Hagan, 1992: 204). The entrance of the United States into World War I in the spring of 1917 brought about a considerable increase in work at the yard, which was once again closed to the public. Employment in the yard grew from 2,500 at the end of 1915 to 4,500 shortly after the nation officially entered the war to a high of 12,844 in February 1919 (Black, 1988: 336). During World War I the yard repaired existing warships and Navy auxiliaries, outfitted and commissioned new vessels, and converted merchant vessels for the war (Black, 1988: 354). Following a 1916 Congressional authorization to increase shipbuilding, including 285 destroyers, the Navy acquired a number of new sites and facilities to enhance the ability of private yards to carry out these contracts and subcontracts. In October 1917, Congress authorized development of the United States Destroyer and Submarine Base in Squantum at the mouth of the Neponset River in Boston Harbor. Completed in May 1918, the plant was owned by the Navy and operated by Bethlehem Steel until the cessation of construction activities in May 1920 (Black, 1988: 370-1, 377). A similar plant was established at Bethlehem Steel's Fore River Shipyard in Quincy. Both plants delivered destroyers to the main yard in Charlestown for outfitting and commissioning.

In 1919, Boston Navy Yard annexed Lockwood's Basin, a waterfront property in East Boston comprised of five buildings, a marine railway, and a single pier that served as a base for small boats during World War I. During the same year the Commonwealth Dock (later, Naval Dry Dock), a 1,100-foot dry dock on state-owned land in South Boston, was completed. This dock, which could accommodate state-of-the-art battleships (those completed after 1910), was at the time the nation's largest dry dock. The Navy increased the docking capacity of the Boston Navy Yard with acquisition of the dock in 1920, which became the core of the Boston Navy Yard's annex at South Boston (Black, 1988: 205, 377-8).

Roads, Rails, and Utilities

Improvements to the yard's circulation systems were necessary to meet both the increasing demands of modern naval design and the administration's appeal for scientific management principles and maximal production. A more rational system of nomenclature, surface paving, and railroad tracks facilitated traffic among the sites of increasingly integrated modes of production. In 1902, the yard assigned numbers to its twenty-five thoroughfares and designated the east-west roadways as "avenues" and north-south roads as "streets." Between 1904 and 1905, the Navy replaced the paving along Second Avenue with a wood block surface with cobblestone gutters to provide a quiet road surface near the Quarters G (Commandant's House), reportedly so traffic noise would not interfere with the commandant's wife's sleep. The Navy also constructed the Underground Pipe Conduit (Structure 280), an underground utility tunnel topped by a concrete sidewalk, along the north side of First Avenue in 1902 (Carlson, 2004 Draft). As part of this construction project, the Navy widened and paved First Avenue with granite Belgian blocks and brick (the section of First Avenue from Gate 1 to Third Street was brick) (Brockway and Todisco, 1985: 22). The Navy paved Sixth Street with granite cobblestones in 1905. The administration experimented with other paving materials including brick, bituminous concrete, and granite and granolithic paving throughout the yard during the years leading up to World War I. For example, brick paving was used for First Avenue and granite paving for the western edge of Pier 1 (Black, 1988: 197, 220-8; Archetype Architecture, Inc., 1996: 9-10).

The railroad allowed for the delivery of modern construction materials from across the country

(Jacobs, et al., 1983). By 1910, a new rail system replaced the yard's antiquated, 1860s flat-type track, extending service along the full-length of all but two piers (Piers 7 and 10), to the shipbuilding ways between Building 103 (Electric Supply) and Building 104 (Shipfitter's Shop), and into several industrial and storage buildings. The new rails supported the yard's two locomotives, thirteen dump cars for coal, six flat cars, seven ash cars, four general purpose dump cars, and two general purpose gondolas (Black, 1988: 212-3).

During the early 1900s, the yard switched from gas to electric lighting. In addition, approximately forty telephones were installed throughout the yard. Many of the photographs in this chapter show overhead utility lines. Most of these lines were eventually routed through the utility corridor that ran under First Avenue.

Waterfront

At the outset of the Spanish-American War, safety and security concerns prompted the commandant to close the yard to the public. When reopened in 1901, major changes were in progress. The Fiscal Year 1899 Appropriations Act funded construction of four timber dry docks at the yards in Boston, Kittery, Philadelphia, and Mare Island in California. Congress authorized the Secretary of the Navy to construct one of these structures of granite or concrete faced with granite. Secretary John D. Long selected Boston as the site of construction of the granite dry dock, designed to supplement the docking capacity of the existing 1833 dry dock (redesignated Dry Dock 1). Completed in 1905, the yard's new 750-foot Dry Dock 2 was built on the former site of Timber Dock 91 and a portion of the Wet Basin. A substantial amount of fill removed during construction was used to fill the remainder of the basin, which later became a recreation field. Over 11,200 blocks, comprising 21,500 cubic yards of granite for the new dry dock came from both a quarry of extremely dense granite in North Conway, New Hampshire and from the yard's old granite sea wall (Black, 1988: 197, 200). The largest single construction project undertaken at the yard, the new dry dock allowed the yard to service and refit the largest battleships in the Navy's modern fleet. Between 1904 and 1905, 20-foot gauge tracks for 40-ton traveling portal cranes were installed from Dry Dock 1 to Dry Dock 2, running along both sides of the docks. Between 1904 and 1905, the Navy relocated the former Building 23 (Chapel) to the east of Building 22 (Ship Repair Shop) and Building 24 (Riggers and Laborers Shop) and removed the southern three bays of Building 28 (Instrumentation Calibration Shop) in order to connect the tracks between the two dry docks. At the lower eastern corner of the new dry dock, the Navy constructed Building 123 (Pumphouse) for Dry Docks 1 and 2 in 1905. Dry Dock 1 was fully repaired in 1907 and 1908. A steel Dry Dock 1 Caisson, still in use today, replaced the 1833 caisson in Dry Dock 1.

In 1901, the War Department laid down a new pier and bulkhead line further into the harbor that constituted a new waterfront boundary for the yard. Following its acceptance by state and municipal authorities, the Navy extended the existing piers and constructed five new piers, named 3, 4, 4-A, 5 and 6, in an area absent of piers before 1900. Two of these wharves, Nos. 3 and 4, each sixty-feet-wide, were added to either side of the entrance of the new Dry Dock 2. Increased wharfage, through new construction and extensions, necessitated the institution of a new numbering system for piers in 1900 (Black, 1988: 143, 207). By 1914, the yard possessed nine industrial piers and one light-usage pier, Pier 10, to access the yard's receiving ship, the Wabash. Nine cranes operated along the piers (Black, 1988: 207). Much of the waterfront was paved with granite blocks at this time.

The most dramatic alterations took place at the western end of the waterfront. Unlike the other wood decked piers, Pier 1 was designed with a solid core to support a massive new coal facility. The old coaling wharf (Whites Wharf) and the Shear Wharf were extended to form one pier. Piles were driven thirty feet into the water and concrete piers were poured and topped with concrete arches with forty-foot spans. The rear of the arches was backed with concrete curtains to contain fill. Construction of Pier 1 required removal of the western end of the Granite Boundary Wall, Building 6 (Fire Apparatus House), Building 7 (Coal Shed), and a shipbuilding slip. Buildings retained during the work included Building 4 (Chief Petty Officers Club), Building 5 (Bachelor Officers Quarters / Open Mess), Foundry, and Building 10 (Battery Charging Facility) which the Navy moved several feet to the east. A small Building 94 (Boathouse) was also retained but shortened and later removed in 1904. The large shears at the end of the former Shear Wharf were moved to another pier but subsequently removed by 1908. Just to the west of the new Pier 1, the Navy shared a slip known as the "Fitchburg Slip" with the Fitchburg Railroad Company, who owned the abutting Hoosac Pier. As shown on the 1902-03

map of the yard, the slip held USS Constitution during this period.

When Pier 1 was complete, the Navy built an enormous new Building 109 (Coaling Plant) (Brady and Wilson, 1982; Craig, 1978). Completed in 1904, the concrete and corrugated iron structure covered an area of 75 by 420 feet on the east side of the pier. The structure was capable of storing 12,500 tons of coal, but difficult access for ships and the transition to fuel would render the facility obsolete within twenty years. The Navy also erected a wireless (radio) tower on Pier 1 in 1912 northwest of Building 10 which became the Wireless Station.

Between Dry Docks 1 and 2, the Navy built a new Pitch House - Building 110 (Lead Room) - in 1901, Building 124 (Public Toilet) in 1904, and Building 125 (Paint Shop) in 1903-1906. Completion of the Paint Shop was delayed by the 1905 construction of an eight-foot diameter subsurface culvert that ran from Dry Dock 1, under Dry Dock 2, to Building 123 (Pump House). The Navy relocated Building 10 (Battery Charging Facility) in 1918 from west of the Paint Shop to its current location just north of it in connection with the building of the Marine Railway. Nearby, Building 24 (Riggers and Laborers Shop) suffered its second and more severe fire in 1910 and was totally reconstructed within four years (Black, 1988: 213; Carlson, 2004 Draft).

Between 1915 and 1919, the Navy constructed thirty-six new buildings in the yard, though seven were temporary and two-thirds were storage facilities in the lower yard. In contrast the Navy only constructed two buildings between 1920 and 1934. The Navy also further extended the bulkhead line in 1918, though war-time production took precedent over pier extensions. As with earlier wars, many yard improvements were proposed during World War I but carried out after the armistice in November 1918. During the war, the Navy worked on many small vessels for use as harbor patrol craft, minesweepers, and for anti-submarine activities. The Navy proposed a marine railway to more easily service smaller ships of up to 2,000 tons (Black, 1988: 372-5). Work began in early 1918, when the Navy awarded a contract to the Boston firm, Crandall Engineering Co. to build the railway immediately east of Pier 2, with its machinery housed in Building 24 (Riggers and Laborers Shop). The railway's timber cradle was unlike the typical steel construction at other Navy yards. The railway became operational on 2 June 1919, when it lifted the Coast Guard cutter Ossippee (Carlson, 2004 Draft; Black, 1988: 373). From 1918 to 1919, yard workers constructed a new brick Building 19 (Scale House) just east of the preexisting structure and north of Building 22 (Ship Repair Shop).

Upper Yard
The gardens around the Quarters G (Commandant's House) contrasted with the industrial character of the piers below. An elaborate arbor and a gated wooden fence backed by shrubs separated the commandant's yard from Main Avenue and a nearby guardhouse at the turn of the century. Only a few trees were located on the south and west sides of the house, allowing for views to the yard and waterfront. In contrast, a grove of deciduous trees clustered on the north side of the house, just inside the boundary wall, provided a screen from Chelsea Street. By 1911, the Navy had constructed the Commandant's House Drive that curved from Second Avenue to a loop by the house's west facade.

Of the forty new buildings added to the yard between 1899 and 1914, only two were added to the upper yard north of First Avenue and west of Sixth Street, though several others received additions. In 1903, the Navy erected an elegant new brick and stone Building 97 (Main Gate) (US Bureau of Yards and Docks Spec. No. 1192, 1901). In 1909, the Navy demolished the small one-story structure at the east end of Building I (Marine Barracks) parade ground that had served as Building 30 (USMC Officer-of-the-Day's Quarters) and constructed a new three-story Building 136 (Marine Corps Administration)in its place. The Navy enlarged Building I (Marine Barracks) throughout the twentieth century. In 1910, the Navy enlarged Building 32 (Bank).

By expanding the yard's piers further into the harbor, the Navy was able to preserve open spaces for recreation and ceremonial purposes in the upper yard. By the early 1900s, many trees planted nearly a century earlier declined and required replacement, thus the rows of trees along First and Second Avenues were a mix of mature and newly planted trees. The Navy dismantled the gun park and either scrapped the cannon or half-sunk them in the ground as bollards around the dry docks and in the upper yard. The Flagpole (Structure 242) was retained along the walk that extended from the

Quarters G (Commandant's House) down to the waterfront. In 1903, the Navy built Building 129 (Wireless Telegraph Station) near the corner of First Avenue and Third Street. In 1904, the Navy completed landscaping the former gun park (Annual Report, 1905). Four tennis courts, shown on the 1914 plan for the yard, covered a former portion of the shot park behind Building 32 (Bank) adjacent to Building 31 (Muster House). Residents of the yard flooded the courts in the winter to enjoy ice skating.

In 1917, the Navy constructed the new Building 163 (Bandstand) along Second Avenue, across from the Quarters G (Commandant's House). Half-buried cannons, topped with cannonballs were placed beside the bandstand. A large elm shaded the bandstand and a young tree was planted along the road, presumably to replace a mature street tree that had been removed.

Before and during World War I, James Downes served as the gardener for Commandant William Rush. Downes tended the grounds around the Quarters G (Commandant's House), which included a small vegetable garden and ornamental flowerbeds with geraniums, primroses, tulips, gladiolas, roses, and snapdragons. Downes also supervised a larger garden in Hingham at the Ammunition Depot, which provided fresh vegetables for the Commandant's household. In 1918, Commandant Rush directed the planting of eighteen European or silver lindens along Second Avenue by the Quarters G (Commandant's House) (Micholet, 1986, 7-18, 49-50).

Lower Yard
Most buildings added to the lower yard in the early 1900s, often brick over steel framing with a granite base and slate roofs, were probably designed by the Bureau of Yards and Docks in Washington. The Navy constructed similar buildings at other Navy yards (McNeil, 1985: 45; Reh and Ross, 1991: 20). To make way for the new buildings, the Navy demolished the remaining wooden shiphouses and many of the less substantial nineteenth-century structures. The new “factory” buildings introduced a new standard of height and massing to the eastern end of the yard. With a few exceptions, the yard retained the grid pattern. The Navy constructed Building 107 (Public Works Shop) and Building 105 (Forge) between 1904 and 1905.



The south side of the Commandant's House (Quarters G) in 1901 showing the arbor without vines, the wooden fence along Second Avenue, guardhouse and guard (BOSTS-9182).



First Avenue after paving c. 1903. The concrete sidewalk covers the new Conduit (Structure 280). Note the gutter to the left and the flagpole in the former gun park. Elm trees still line the south side of the street (BOSTS-8654).



Marine Barracks (Quarters H-I-K) in 1902 with fourth floor addition to the central portion of the building (BOSTS-9220).

1920-1934: The Stagnant 1920s

By the 1920s, the Navy and its yards declined as the nation shifted its attention to private enterprise and business. The Five-Power Naval Treaty, negotiated in 1921-22, set limits on new ship construction and fleet size, including a ten-year moratorium on capital ship construction (Black, 1988: 425). The decreased work, together with the diversion of much of the American fleet to the West Coast in response to tension with Japan, further reduced activities at the main yard. After the launching of the destroyer tender Whitney in 1924, construction work at Charlestown halted for the remainder of the decade. Repair work was largely limited to naval battleships and some passenger liners. Fiscal austerity limited both improvements to and maintenance of the yard's buildings, facilities, and grounds.

The Navy did not extend piers to the new 1918 bulkhead line, erected only two new buildings, and eliminated or moved more than one dozen temporary and portable buildings. The Navy made little changes to road surfaces, although inspection maps and paving plans were completed. The increasing presence of automobiles and trucks resulted in extensive asphalt paving and street tree removal by the end of the decade. Pier 1, cleared of all but one of the small structures associated with the former Coal Storage and Handling Plant, Building 109 (Waterfront Office), provided space for chain storage. Recreational facilities, primarily tennis courts filled open areas in the upper yard and east of Dry Dock 2. The installation of double rail tracks on many of the piers and increasing number of cranes promised a larger industrial role in the future (Black, 1988).

Waterfront
During the 1920s, only two new buildings, Building 191 (Pumphouse) and Building 192 (Electric Substation), were erected in the waterfront. While some important new machinery was installed in several shops, improvements to the main yard's physical plant were limited to completion of the Marine Railway, repairs to some of the piers, the installation of a crane on Pier 2, reconstruction of Building 42 (Machine Shop), and small paving projects at the intersection of First Avenue and Ninth Street and at Dry Dock 2 (Black, 1988: 396, 401-3). In addition, several small, temporary structures erected at the main yard during the war effort were transferred to the South Boston Annex (Black, 1988: 402-5, 429-31; NPS Handbook 152, 1995: 57)). In June 1927, USS Constitution entered Dry Dock 1. During a three-year restoration process, the venerable ship attracted a large number of visitors to the waterfront (Black, 1988: 433). An athletic field and two concrete tennis courts occupied

the area between Building 42 (Machine Shop) and Dry Dock 2 that had previously accommodated storage facilities.

The Navy assigned the construction of two destroyers to the main yard in September 1931 thereby resurrecting the shipbuilding facility. For the remainder of the decade, the yard received orders under the annual naval construction programs for pairs of ships. During this period, the Navy used Dry Dock 2 as a construction basin rather than a repair area. The Navy "floated" ships built here by having the dock flooded rather than launching them in the traditional way by sliding them down inclined ways into the water.

The built industrial landscape of the waterfront did not contain much vegetation. Pier 1 contained a panel of lawn with trees or shrubs just to the south of Building 5 (Bachelor Officers Quarters / Open Mess).

Upper Yard
A 1921 collection of photographs documented the appearance of the upper yard. In the 1920s, William Otis, who was trained as civil engineer, served as the gardener for Rush's successor, Rear Admiral Phillip Andrews. Historian Micholet writes, "Otis carried out an ambitious program of grounds beautification including the planting of flowers, shrubs, and trees. His assistant was William Donnell, a former cavalryman noted for his ability to handle men and direct work." Together, with the assistance of three men, they planted apple and pear trees in the Commandant's parcel and tended a vegetable garden on the west side of the house. They also tended lattices supporting shrubs of Dorothy Perkins roses (Micholet, 1986: 50). A description of the yard in a July 1929 newspaper article highlights the vegetation in the yard. "All who visit the Yard are familiar with the great elms that make leafy arches above the main entranceway" (Boston Globe, 28 July 1929). The article listed vegetation added to the yard by Otis and Donnell (see figure at end of this section), although some of the quantities seem greatly exaggerated.

By the late 1920s, the arbor, fence, and guardhouse were gone from the commandant's grounds and a privet hedge separated the commandant's gardens from Second Avenue. The Navy removed Building 20 (Commandant's Tool Storage Barn) from the southeast lawn during the 1920s and replaced it in 1929 with the smaller Building 245 (Ground Equipment Shop) linked to Second Avenue with the Ground Equipment Shop Drive (former barn's drive). This structure probably served as a car garage too.

The lavish attention expended on the yard grounds was short lived, and by 1930, features had begun to disappear. The arbor, small garden fences, perimeter fence, and guardhouse were removed, and instead, a privet hedge defined the edge of the property. Most of the fruit trees along the south façade were removed, though few remained in the lawn area near the Ground Equipment Shop Drive. Ornamental shrubs remained along the south façade and scattered about the lawn. Extensive herbaceous beds remained along both sides of the walkway between the house and Second Avenue. Views to the waterfront were enhanced by the removal of overhead wires and telephone poles earlier in the century. A new style of electrical lights was introduced both along the commandant's walkway and along Second Avenue. Mature elms began to succumb to Dutch elm disease, leaving gaps along the avenues for replacements with alternative tree species.

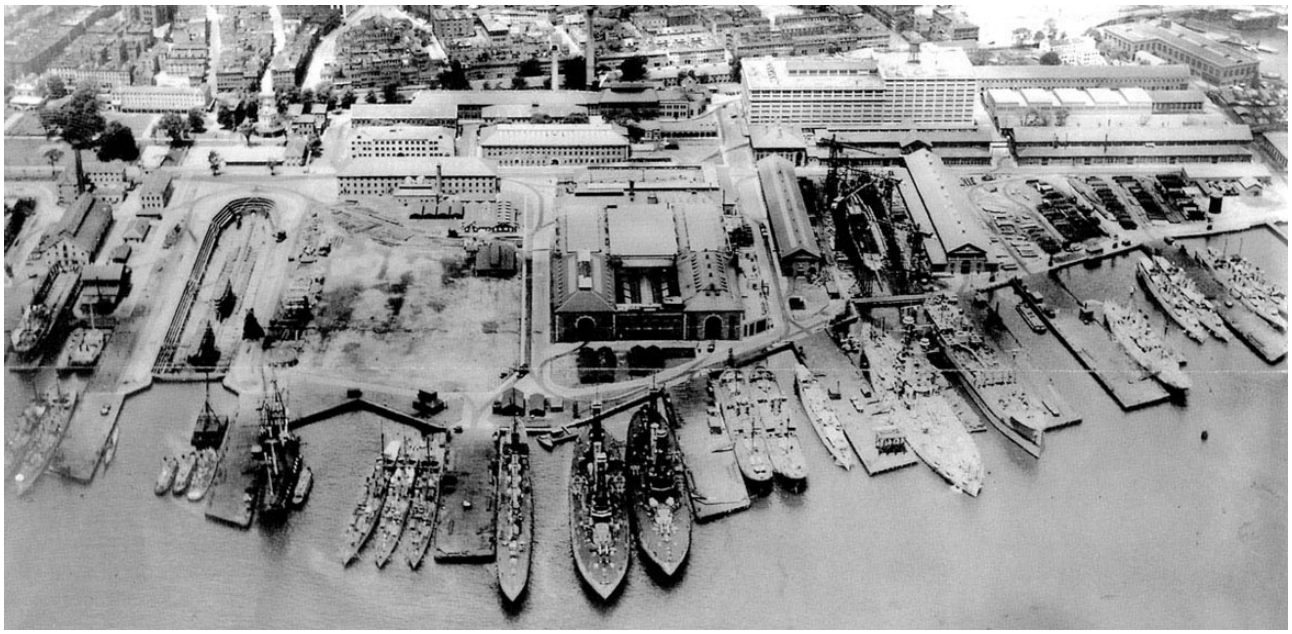
Lower Yard
Since the 1880s, the main yard had been the primary chain manufacturing facility used by the Navy. Prior to the early 1910s, chain was hand-forged from wrought iron bars produced in the yard's rolling mill. In the period between 1912 and 1914, the yard introduced mechanized steam hammers to eliminate some of the tedious hand-welding process. The steam hammers sped up the forming and bending of bar stock which was then welded into links. Production of cast steel chain began in 1918. When it was adopted as the Navy standard in 1921, the Norfolk Navy Yard was designated as the sole production facility. Then in 1926, civilian personnel at the Boston Navy Yard developed the die-lock chain making process and began producing chain for the Navy that by 1936, superseded cast-steel chain for all sizes. This innovation restored the yard's chain shop to its former prominence as a manufacturing facility (Black, 1988: 435-6; NPS Handbook 152, 1995: 60). With further refinements, die-lock chain became the standard anchor chain for the Navy in 1928. Made in sizes up to 3-3/8

inch diameter for use on battleships, manufactured chain was stockpiled in several areas along the waterfront.

In 1929, the Navy demolished a quarter-mile section of the yard's boundary wall paralleling Building 58 (Ropewalk) and replaced it with a wrought iron fence with concrete posts (Carlson, 2004 Draft). Circa 1930, the Navy removed Building 31 (Muster House) porch.

COMMON NAME	SCIENTIFIC NAME	NO.	COMMON NAME	SCIENTIFIC NAME	NO.
TREES			**SHRUBS**		
Mountain ash	*Sorbus aucuparia*	1	Rose of Sharon	*Hibiscus syriacus*	3
Common ash	*Fraxinus americana*	25	Barberry	*Berberis* sp.	4
Birch	*Betula* sp.	1	Bladder senna	*Cassia* sp.	3
Catalpa	*Catalpa speciosa*	2	American hazelnut	*Corylus americana or avellana*	3
Washington hawthorn	*Crataegus phaenopyrum*	18	Corchorus ? (a globe flower)	*Corchorus capsularis* (tropical herb)	7
Chinese elm	*Ulmus parviflora*	3	Red flowering dogwood	*Cornus florida 'Rubra'*	102
Black walnut	*Juglans nigra*	4	Slender deutzia	*Deutzia gracilis*	2
Japanese flowering crabapples	*Malus floribunda*	3	Euonymus	*Euonymus* sp.	2
Maple	*Acer* sp.	17	Forsythia	*Forsythia* sp.	103
Oak	*Quercus* sp.	9	Snowball hydrangea	*Hydrangea arborescens*	9
Pine	*Pinus* sp.	600	Winterberry	*Ilex verticillata*	2
Poplar	*Populus* sp.	9	Lilac	*Syringa vulgaris*	3
Spruce	*Picea* sp.	338	Bush honeysuckle	*Lonicera tatarica*	10
Apple	*Malus* sp.	16	Mock orange	*Philadelphus coronarius*	12
Pear	*Pyrus* sp.	6	Privet	*Ligustrum* sp.	55
			Purple-leaved plum	*Prunus cerasifera 'Atropurpurea'*	8
PERENNIALS			White kerria	*Kerria* sp.	4
Phlox	*Phlox* sp.	75	Sumac	*Rhus* sp.	5
Polemonium	*Polemonium* sp.	15	Buckthorn	*Rhamnus* sp.	2
Heuchera	*Heuchera* sp.	20	Garland spirea	*Spiraea x arguta*	8
Globe flower	*Trollius europaeus*	15	American elder	*Sambucus canadensis*	2
Iris	*Iris* sp.	100	Snowberry	*Symphoricarpos rivularis*	4
Japanese ivy	*Ampelopsis tricuspidata*	10	Japanese tree lilacs	*Syringa reticulata*	2
Philodendron	*Philodendron* sp. (not hardy to northeast)	2	Fragrant viburnum	*Viburnum carlesii*	5
			Weigela	*Weigela* sp.	98

List of plants added to the Boston Navy Yard in 1929. Some of the quantities appear to be too large.



Aerial of the yard c. 1921 showing ships and submarines docked for maintenance and repair. USS Constitution is east of Dry Dock 2 at the left. (National Geographic Society Image Collection, Photograph by Hamilton Maxwell).



The south facade of the Commandant's House (Quarters G) as it appeared in 1934, just before WPA work enclosed the main floor porch (HABS photo (MA-2-10), LC HABS, MASS,13-CHAR,2-2).

1934-1945: The Yard Revitalized and World War II

During the years preceding World War II, the Boston Navy Yard was transformed from a repair facility to a shipbuilding yard. Responding to growing threats of expansionism by both Japan and Germany in 1934, Congress authorized additional naval construction. With the passage of the Vinson-Trammel Act, Congress further committed to the expansion of the fleet. This reverse of naval policy brought swift and significant changes to the Boston Navy Yard. Later that year USS MacDonough, a modern destroyer incorporating sixty years of technological advances and the first warship built at Charlestown since 1874, "floated" from Dry Dock 1. The Navy issued a policy statement that explicitly established the main yard's primary function as destroyer production and its secondary function as manufacture of cordage and anchor chain. For the remainder of the 1930s, the yard benefited tremendously from the nation's naval expansion program.(Black, 1988: 500-1).

As part of federal efforts to bring the nation out of the Great Depression, the yard facilities were modernized through the Works Progress Administration (WPA). Between 1936 and 1942, WPA projects included paving streets, installing new equipment, and reconditioning or expanding buildings. For example, in November 1938 the yard employed 1,406 WPA workers to initiate wartime expansion of Charlestown's physical plant (Black, 1988: 475-6; NPS Handbook 152, 1995: 65). Most of the yard's shade trees were lost to this expansion.

With the outbreak of World War II in Europe in 1939, Charlestown's construction program accelerated and the yard became known as the "destroyer yard" (NPS Handbook 152, 1995: 63-5). The yard prepared eighteen World War I-era four-stacker destroyers for transfer to Great Britain under the 1940 destroyers-for-bases agreement (NPS Handbook 152, 1995: 65). At this time the yard's Public Works Officer reported most of the Charlestown or "main yard" buildings and industrial facilities in good condition, and several important additions underway. United States' entry into the war following the 1941 Japanese raid on Pearl Harbor intensified mobilization activities at Boston Navy Yard. During the war effort the yard constructed almost 300 vessels, repaired or overhauled more than 3,000, converted 74, and outfitted 1,100 (NPS Handbook 152, 1995: 65-6, 74-5; Carlson, 2004 Draft).

At its peak of activity during World War II, the Charlestown yard appeared congested and chaotic. Most of the roads had been quickly and efficiently paved with bituminous concrete and asphalt by

WPA work crews. Antiquated buildings that had been upgraded by the WPA were overshadowed by new multi-story industrial buildings—constructed of brick, steel, and concrete—which replaced much of the yard's open, recreational space. The creation of Gate 2 and greater use of Gate 4 increased the amount of vehicular and pedestrian traffic in the upper yard. New construction extended onto nonessential streets, and temporary or semi-permanent frame structures filled pockets of open space between the larger buildings. Large overhead cranes and construction equipment prevailed along the waterfront, replacing the former shiphouses as both the dominant visual element and symbol of naval technology along the shoreline. The Navy removed mature elms to allow for street widening or because they had succumbed to Dutch elm disease. Although the Navy installed replacement trees, the yard lost its pleasant park-like setting that had attracted tourists and city residents. Wartime security and production took precedence of aesthetic considerations.

Following the war's end, the Boston Navy Yard's multi-site facility was designated the Boston Naval Shipyard beginning in November 1945 and remained busy converting troop transports, deactivating ships, and completing ship construction. The demobilization of the fleet included mothballing several vessels, as well as completion of construction, repairs, and outfitting, and preparation of some vessels for scrapping.

Circulation
In the late 1930s, WPA crews paved most of the streets in the yard with asphalt and many trees were cut down to allow for street widening. The increasing number of automobiles and trucks and the need for parking redefined much of the yard's open space as parking or loading areas. Fragments of green space were retained around buildings such as Building 265 (Married Officers Quarters B-F), Quarters G (Commandant's House), and Building I (Marine Barracks). The purchase of diesel locomotives to replace steam-powered engines led to the modernization of the yard's railroad system.

Waterfront
Between 1933 and 1940, the main yard produced fourteen destroyers in the dry docks following the 1934 precedent in which most keels were laid in Dry Dock 2 and hauled to Dry Dock 1 for completion. The main yard constructed two other ships during this period on the shipbuilding ways. With both dry docks given over to construction work, ships in for repair were floated into a large cradle and hauled up the tracks of the yard's marine railway or taken to the South Boston dry dock. Charlestown's accelerating construction program revealed the yard's deficiencies, including the lack of proper shipbuilding ways that relegated construction to its dry docks. Many of the shops and other buildings had insufficient space, poor layouts, outdated equipment, and suffered from neglect.

WPA projects in the waterfront area included the complete interior reconstruction of Building 5 (Bachelor Officers Quarters / Open Mess), reconditioning of Building 4 (Chief Petty Officers Club), remodeling of Building 22 (Ship Repair Shop), which housed tinsmiths and shipwrights, and extensive paving. At the head of Pier 1, south of Building 5 (Bachelor Officers Quarters / Open Mess) and near the former lawn area, WPA labor constructed Building 194 (Navy Exchange Service Station) in the vicinity of the former lawn area. The gas station was later expanded to include a service bay and served the yard's needs until its removal in the 1970s. To assist in the management of increased water traffic, Building 109 (Waterfront Office), the last remnant of the old Coal Storage & Handling Plant, was enlarged in 1942 and again two years later to provide office space for the yard's harbormaster.

In 1937, Pier 1, the Marine Railway, Dry Dock 1, and Dry Dock 2 all received repair work. The Navy made extensive changes along the waterfront east of Dry Dock 2. Between 1937 and 1939, the WPA erected the new Building 195 (Pipe Shop) on what had been open space used as athletic fields between Dry Dock 2 and Building 42 (Machine Shop). During World War II, Piers 5 and 10 were enlarged, Pier 7 eliminated, Pier 11 constructed, and two new shipways, Nos. 2 and 3, came into service in 1941. Thereafter, new construction ceased at Dry Docks 1 and 2. Shipway 3 evolved into a shipbuilding dry dock, which was designated Dry Dock 5 in 1944. Wharfage increased with the extension of Piers 4, 7, 6, and 9 to the 1918 bulkhead line, and a new Pier 5 replaced 4-A (Black, 1988: 530, 532-4). Many buildings along the waterfront were removed to make way for new construction. The yard purchased portal and locomotive cranes to operate along the piers and dry

docks. Three of the portal cranes from the American Hoist and Derrick Company in use during World War II, Nos. 30 (63), 62, and 65 remain today. Eventually, eleven piers and twenty-one cranes were in service.

Upper Yard
WPA projects in the upper yard included replacement of the rear porches of Building 265 (Married Officers Quarters B-F) and the construction of a new sun porch on the south façade of the Quarters G (Commandant's House) along with an addition containing a new brick kitchen and butler's pantry. Photographs from the1930s show the south grounds with carefully maintained flowerbeds on both the lawn and along the central path. Some traces of the Victorian shrub and tree remain, but the plantings were less dense by this time.

Access to the house changed during World War II. In 1941, due to security concerns, the Navy filled in the gate in front of the Quarters G (Commandant's House) with granite blocks and mortar atop a concrete footing. At this time the exedra walls in front of the house were cut down to half height. With no access to Chelsea Street, the west side entrance on the basement level gained prominence with access to the west driveway from Second Avenue. During World War II, a large water tank was buried beneath the Quarters G (Commandant's House) front lawn southwest of the house, and another water tank was installed beneath Marine Barracks Parade Ground. The Quarters G (Commandant's House) served as the home for the yard's commandant and family until 1945, when the functions of yard commandant and commandant of the First Naval District were separated. For the next thirty years the district commandant occupied the house. The shipyard's commandant was relocated to one of the quarters in the eastern end of the yard (Carlson, 2004 Draft).

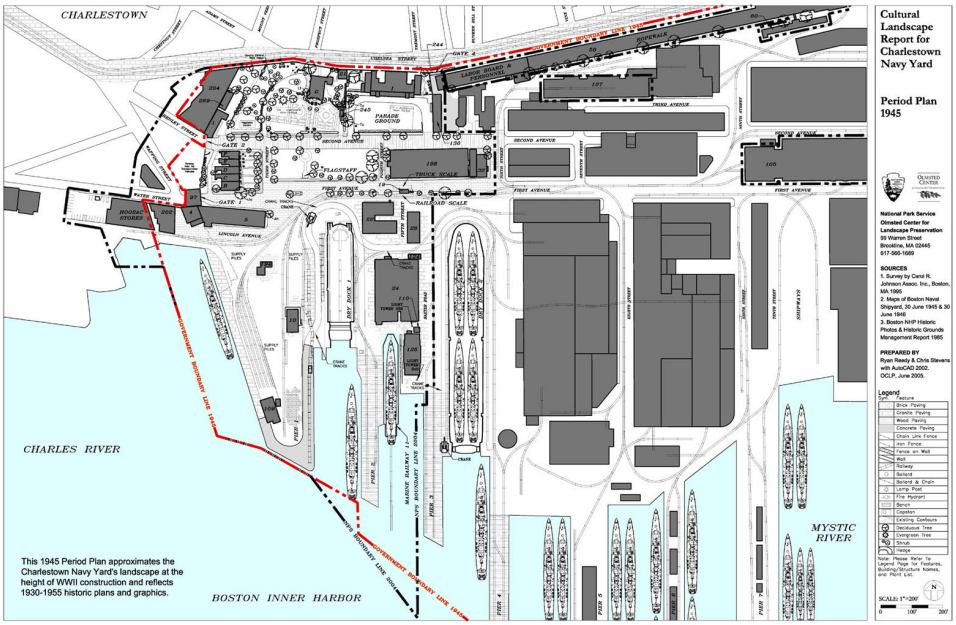
To the west of the Quarters G (Commandant's House), the WPA built Building 1 (Gate House / Garages) in 1936. In 1941, with the opening of Gate 2, a gatehouse was added to Building 1 (Gate House / Garages) which then became Building 1 with the razing of the existing Building 1. The Navy built Building 269 (Married Officers Quarters Garages B-F) just to the north this same year. These new structures reduced the green space associated with this corner of the yard. WPA workers added fireproof stair towers and open porches to Building I (Marine Barracks). The WPA crews also enlarged the south end of Building 136 (Marine Corps Administration), which was later demolished in the 1970s. Similarly the WPA improved the tennis courts in front of Building I (Marine Barracks) but their work was subsequently obliterated in 1940 with the construction of a three-story, wood-frame Building 198 (Supply Department Storage). This building also housed Women Accepted for Volunteer Emergency Service (WAVES) during the war. The Navy constructed three new tennis courts in 1946 in the area south of the Quarters G (Commandant's House) between First and Second Avenues and Third and Fourth Streets.

The industrial labor force at Charlestown yard and its three annexes expanded from 4,000 workers at the beginning of the war to about 50,000 in 1943, including over 7,000 women workers. Women comprised from fifteen to twenty percent of the workforce, though they were prohibited from positions that required boarding commissioned ships. More than 2,300 African American workers represented a smaller proportion of the workforce, after an executive order banned racial discrimination and increased employment opportunities in defense industries. This larger, diversified workforce required certain alterations, including additional gender-segregated lockers and lavatories. To help cope with the increasing stream of applicants, the Navy enlarged the pedestrian Gate 4 in 1942 and added a ramp and turnstiles to direct access to time clocks (Black, 1988: 532, 559, 572, 594; NPS Handbook 152, 1995: 65). The Navy removed twenty feet from the western end of Building 58 (Ropewalk) to make way for the expansion. The Navy also added a two-story wooden structure to the west end of Building 58 (Ropewalk) with a direct entrance to Chelsea Street so that applicants did not need to enter secure areas of the yard to process papers. In order to facilitate increased vehicle traffic, a portion of the granite wall was removed at Henley Street to create Gate 2. Thereafter, traffic entered along Water Street through Gate 1 and exited the yard through Gate 2.

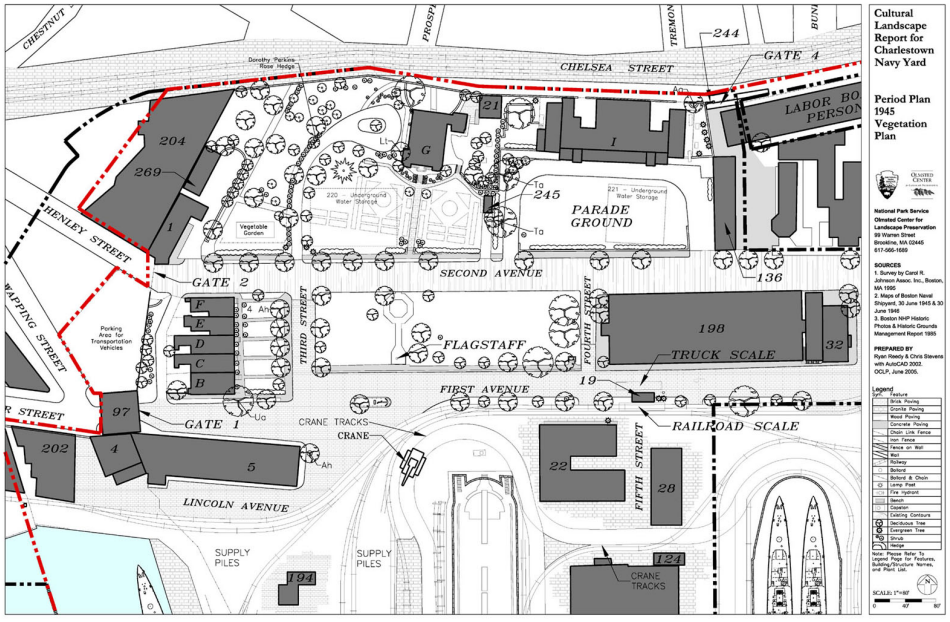
There were other hasty efforts to accommodate the yard's wartime responsibilities. In 1942, just outside Gate 2, the Navy acquired a garage built in 1927 to serve as Building 204 (Garage and Transportation Office). This building was just on the other side of the wall of the recently WPA rebuilt Building 1 (Gate House / Garages). The Navy also acquired an additional parcel outside of the

boundary wall between Gates 1 and 2 in order to remove the existing building, Riordan's Stables, constructed against the wall.

Lower Yard
Between 1941 and 1944, expansion of Building 31 (Muster House) and Building 108 (Central Power Plant) eliminated Flirtation Walk, the tree-lined boardwalk along Building 58 (Ropewalk) that led from Gate 4 to the lower officers' quarters. Some of Flirtation Walk's trees persisted into the 1950s though. As temporary structures and building extensions intruded upon secondary streets and avenues, the main unit seemed to have reached its maximal capacity.



1945 Period Plan (Cultural Landscape Report for Charlestown Navy Yard, Olmsted Center for Landscape Preservation, 2005).



1945 Period Plan Vegetation Plan (Cultural Landscape Report for Charlestown Navy Yard, Olmsted Center for Landscape Preservation, 2005).



The Commandant's House (Quarters G) west yard and boundary wall in 1942 BOSTS-9187).

1945-1974: Cold War Era

The post-war years followed earlier precedents of personnel and production cuts. Yet, unlike previous post-war lulls, the likelihood of yard closure increasingly overshadowed yard improvements. Demobilization and the paring of the civilian labor force dictated removal of surplus equipment, material, and supplies, including excess cranes, trucks, and stockpiled shipbuilding materials in the immediate post-war years. In addition, the yard became responsible for maintenance and security of local deactivated facilities, including Hingham's Bethlehem shipyard, renamed the U.S. Naval Storehouse in Hingham (Black, 1988: 637-40, 642, 662; NPS Handbook 152, 1995: 71).

Changes in the yard's landscape were minimal with the exception of repairs and removals, particularly for waterfront facilities. The United States' status as a global power prompted repairs in the late 1940s. An emerging rivalry with the Soviet Union required military preparedness, placing unusual peacetime demands on the nation's navy yards. Though the Charlestown plant revealed numerous deficiencies, the Cold War debate over the size and character of the American military establishment precluded a significant program of improvements (Black, 1988: 635). In 1947, the Navy's Bureau of Ships defined Boston Naval Shipyard's main mission as the construction, docking, overhaul, and alteration of smaller commissioned warships, a definition later modified to include vessels "up to aircraft carriers." During the following year, yard administrators developed a long-range plan, referred to as the 1948 master plan, for development in preparation for future global conflicts. The yard continued to manufacture items for the Navy, including anchor chain and rope. In addition, the yard served as a repair center for electronic equipment. In 1950, the yard initiated a major conversion program, upgrading radar and sonar systems with a laboratory and techniques that were later adopted at other naval repair stations (Black, 1988: 708; NPS Handbook 152, 1995: 71).

During the early 1950s, the commitment of American forces and aid to Asia (South Korea, the Formosa Straits, and Indo-China) necessitated activation of reserve fleet vessels and conversion or new construction of other ships. Boston Naval Shipyard performed most of its ship work—limited largely to activation and conversion—at its Charlestown facilities, but few of the plant's deficiencies identified in the 1948 master plan had been addressed with a limited program of improvements (Black, 1988: 726-7). A shortage of space and funding largely dictated the modernization and enlargement of existing structures, rather than construction of new facilities. In the mid 1950s, the yard laid down the keel of the LST Suffolk County, its only postwar construction and the last vessel

built at the Charlestown yard. The yard also converted the destroyer Gyatt into the world's first guided missile destroyer (NPS Handbook 152, 1995: 72-7).

In 1964, Secretary of Defense Robert McNamara cited preliminary studies of excess capacity and high costs at government navy yards as justification for closure of some facilities. The Navy invested little for maintenance and modernization of the main yard facilities and closed inefficient or superfluous bases. In November, the US Navy Department announced intentions to close shipyards and selected the New York Naval Shipyard and the repair facility at San Diego in this first round of deactivation (NPS Handbook 152, 1995: 72). Escalating costs for American forces in Vietnam forced the Department of the Defense to adopt stringent fiscal measures later in the decade, including reduction of the naval fleet. The resulting decline in the number of destroyers severely reduced Boston Naval Shipyard's repair program (Black, 1988: 732, 749, 804-5).

A preliminary evaluation of Boston Naval Shipyard, conducted between 1966 and 1968, noted the yard's inefficient layout and general facilities and later recommended consolidation and relocation of operations to a modernized South Boston plant. A portion of the "E" Street Annex at South Boston was declared excess to operations and transferred to Massachusetts Port Authority in 1969. The rest of this annex was disposed of during the 1970s. The consolidation plan was never funded, and in 1972, the idea was abandoned in favor of modernizing the Charlestown yard. However, modernization never came to fruition because of the decision to include the yard on the 1973 list of naval facilities to be closed.

A new direction for the flagging Charlestown yard was marked by the designation of the Boston Naval Shipyard as a National Historic Landmark in 1966 as described here "The Boston Naval Shipyard is one of the Nation's oldest, and for over 150 years has built, repaired and serviced naval vessels. The installation introduced the use of shelters for shipways, erected one of the Nation's first drydocks [sic], and pioneered in modern ship construction. She also manufactured all of the Navy's rope for over a century" (National Survey, 1966).

The Boston Redevelopment Authority and National Park Service (NPS) prepared plans for management of the older portion of the Charlestown yard as an historic park (Black, 1988: 815). Following the Navy's plans to consolidate the yard to the South Boston plant, a 1971 study of the Boston Naval Shipyard commissioned by the Boston Redevelopment Authority called for a mixed-use plan, consisting of a naval park, museum and tourist facilities. Another 1971 study completed by the NPS proposed that the western portion of the yard be incorporated into a larger Boston National Historic Sites park, comprised of a number of Revolutionary War-era sites in and around Boston. In 1973, following a recommendation by the Navy that a portion of the yard be administered by the NPS in a partnership to protect USS Constitution, the NPS proposed a boundary for the park that encompassed the western portion of the yard. In this way the ship could remain in Charlestown. As the yard prepared for closure in 1974, its abandoned physical plant reflected the end of an era for the US Navy and the promise for a bright future as a park and redeveloped residential and commercial community. After several in depth studies, the western portion of the yard was delineated as a park.

While the more industrial waterfront was cluttered with materials such as stockpiles, cranes, light towers, and keel blocks, the upper yard reflected two centuries of meticulous care. An assortment of lawn, ornamental shrubs, and shade trees (some dating to the nineteenth century) surrounded the Quarters G (Commandant's House) and Building 265 (Married Officers Quarters B-F) along with several beds for herbaceous flowers and vegetables. Important symbols of the Navy's presence remained in good condition, including the Flagpole, Bandstand, and War Memorial (Structures 242, 260, and 279). The surrounding Shipyard Mall (recreation area) also reflected the Navy's presence with its tennis courts and shade trees. As reflected in the Navy's 174 years of records, annual work plans, and requests for maintenance funds, the yard required an enormous amount of upkeep, which would now become the responsibility of the National Park Service and Boston Redevelopment Authority.

Circulation
Most pedestrians entered the yard through Gate 4 on Chelsea Street after arriving on trolley or by

foot. Turnstiles at this gate slowed the steady stream of workers, so security workers could inspect them coming and going (Rose, 2003). Some pedestrians also entered the yard through Gate 1 where they parked nearby. By the 1950s, many workers owned cars and yard operations depended on trucking and less on rail transport. To expedite truck access, the Navy demolished the 1903 Building 97 (Main Gate) in 1958 and erected a new modern Building 267 (Gate 1 Gatehouse). The Navy had also discussed extending Bunker Hill Street through Building 58 (Ropewalk) to Building 108 (Central Power Plant) to improve truck traffic but decided against it. Throughout the yard, open space was used to park vehicles to accommodate seventy-five percent of the yard's workers who commuted to the yard. In the 1960s, parking also covered much of the area just outside of the boundary wall between Gates 1 and 2, near Hoosac Stores 1 & 2, which was no longer used by the railway company but leased as warehouse space. Parking spaces were limited, though, and regulated with parking permits. Permits allowed parking along First and Second Avenues and immediately surrounding many of the buildings (Rose, 2003).

Cleanliness was one of the major campaigns waged in the post-World War II period, and the Navy installed square yellow trash receptacles along the yard's roads and walkways and near building entrances. The design of the trash receptacles was heralded in the shipyard newspaper and was the focal point of numerous "Keep Your Shipyard Clean" cartoons in the paper, many of which were drawn by nationally significant African-American artist Allan Rohan Crite.

During the 1950s, Boston journalist William Schofield suggested linking historic sites in the City of Boston, so visitors and residents could find them more easily. Mayor John Hynes agreed, and plywood signs were created to direct visitors to the sites. By 1958, the Freedom Trail and The Freedom Trail Foundation had been created, and a red line was painted to connect selected historic downtown sites (extended to USS Constitution in the 1980s). In 1955, the Navy constructed a visitor parking area for USS Constitution between Building 4 (Chief Petty Officers Club) and Hoosac Stores 1 & 2 (Carlson, 2004 Draft). A concrete wall with two Curtain Gates marked the visitor entrance to the lot and the yard. The project eliminated First Street.

Construction of the Mystic River Bridge (opened in 1950) presented a visual barrier, separating the yard from Charlestown to a greater degree than the yard's perimeter wall. With the bridge's disruption of Chelsea Street's traffic flow, many workers began to park on Chelsea Street and under the bridge itself. The increase in roads, connectors, and parking areas marked a dramatic increase in asphalt surfacing.

Waterfront

A modest program of improvements enabled the Charlestown yard to service the post-war Navy. With the exceptions of Piers 1 and 5, all of the yard's wharves were constructed of light timber on wood piling supports, structures incapable of sustaining the weight of mobile cranes (Black, 1988: 669-71). In 1948, the Commonwealth of Massachusetts drew a new pier and bulkhead line. Outward portions of Dry Docks 1 and 2 were reconstructed, and Dock 1 was extended to a length of 404 feet. In 1947 and 1948, the Navy installed a saluting battery (Structure 261), a pair of three-inch salute guns on a concrete platform, and constructed Building 272 (Saluting Battery Ammunition Bunker) at the end of Pier 1. The Building 10 (Battery Charging Facility) was expanded to accommodate a sonar test tank in 1948 (Carlson, 2004).

In the early 1950s, involvement in the Korean War required the yard to take vessels out of reserve and retrofit them for continued service. The Navy installed electronic devices, including radar and sonar. The Navy also installed guided missiles into ships in place of guns to counter new threats from aircraft and submarines. Propeller and sonar pits were added to Dry Dock 1, and the wooden Piers 4, 6, 7, and 11 were all replaced by new concrete piers (Black, 1988: 664-5, 667, 676-78). Floodlights installed on building roofs and towers provided illumination for Dry Dock 2.

The Navy constructed the large Grit Hopper (Structure 259) on Pier 1 in 1952-1953. The Navy added a second, smaller Grit Hopper (Structure 273) in 1962-1963. Trucks supplied the abrasive grit to the yard's hoppers. The grit was in turn pumped by hose to Dry Dock 1 to sandblast steel ships.

In 1956, the Navy converted the water tank below the Quarters G (Commandant's House) front lawn

into a Fuel Oil Tank (Structure 220). Pipelines connected the tank to Pier 1 and Building (Power Plant) as the Navy converted if from coal to oil burning facility (Carlson, 2004 Draft).

The transducer facility, one division of the electronics shop, was relocated from Building 10 (Battery Charging Facility) to the South Boston Annex in 1958. In 1958, the "K" Street Annex, adjacent to South Boston Annex, was sold as surplus. The Bureau of Ships ordered inactivation of the South Boston Annex, although its implementation was delayed until completion of repairs to Dry Dock 2 at the main yard in Charlestown. However, Dry Dock 3 in South Boston remained open for ship work on carriers until closure of the entire yard. The East Boston Fuel Annex ceased operations and was placed in maintenance status two years later (Black, 1988: 746, 748).

A large portion of the yard's open space was used for parking. The only vegetation retained at the west end of the waterfront, was a small planting around Building 5 (Bachelor Officers Quarters / Open Mess). The area just north of Building 22 (Ship Repair Shop) near Building 19 (Scale House) was surfaced with gravel, (an area that is now grass lawn). Keel blocks, made of concrete and reinforced by steel, were a common sight around the waterfront. The Navy used the blocks to hold ship keels upright in the dry docks, to test and balance cranes, and to block motor vehicles for security (Rose, 2003).

During the 1960s, yard activities included outfitting vessels, missile and antisubmarine warfare (ASW) conversions, and Fleet Rehabilitation and Modernization (FRAM) overhauls that ranged from brief dockings to extensive operations. As part of the pier replacement projects in the 1950s, twenty-foot wide crane tracks on the new Piers 4, 6, and 7 were integrated with tracks on Pier 5 into a system connected to crane tracks serving Dry Docks 1 and 2. Additional minor construction included several industrial service buildings on Piers 4, 6, and 7, fire pump houses, garages, and other small structures (Black, 1988: 759).

The 1960s also brought an appreciation of the yard's historic heritage. In 1958, the Navy placed the bronze Yard Commandants Plaque (Structure 270) in front of the Quarters G (Commandant's House) along Second Avenue. The freestanding plaque was placed in a recessed nook within the flat stone retaining wall along the house's front lawn and sidewalk. In 1966, the Secretary of the Interior designated the Boston Naval Shipyard as a National Historic Landmark, and the Navy installed the landmark plaque on a marble base near the Finger Pier. The plaque and base was moved to the west side of Pier 1 during the 1970s (Carlson, 2004 Draft).

The Navy sandblasted Building 5 (Bachelor Officers Quarters / Open Mess), Building 4 (Chief Petty Officers Club) and Building 265 (Married Officers Quarters B-F) in 1960 to remove the paint from their brick walls, and in 1972, the Navy installed a large picture window to the south side of Building 5 (Carlson, 2004 Draft). The entrance to the building on the east facade was covered at this time with a blue and yellow metal awning (Rose, 2003).

In 1970, the yard's docking officer evaluated Marine Railway No. 11 as unusable. The Navy closed main yard's Marine Railway and Building 58 (Ropewalk) in 1971. The Navy also ordered closure of Building 105 (Forge) in 1973, transferring foundry work to the Philadelphia shipyard as part of a consolidation plan for the East Coast (Black, 1988: 746, 756, 807, 810). Only five new structures were erected between 1963 and 1973, including Building 276 (Electrical Substation) and Grit Hopper (Structure 273) on Pier 1 (Black, 1988: 755).

USS Constitution berthed at Pier 1 attracted an increasing number of tourists. The Navy operated a small souvenir sales trailer in USS Constitution visitor parking area between Building 4 (Chief Petty Officers Club) and Hoosac Stores 1 & 2. In 1969, the Navy converted the first floor of Building 4 (Chief Petty Officers Club) into public restrooms (Carlson, 2004 Draft). In 1972, the USS Constitution Museum Foundation was formed and the non-profit took over souvenir sales (Carlson, 2004 Draft). The same year, the Navy added an exterior platform to Building 10 (Battery Charging Facility) on Pier 1 so visitors could observe USS Constitution while it was in Dry Dock 1 for rehabilitation. Building 10 served as the first USS Constitution Museum. A chain link fence line path led visitors from the visitor parking area across Pier 1 to Building 10 preventing public access to other parts of the yard.

Upper Yard
In 1951, Shipyard Commander Pleasant D. Gold Jr. described the site as a “densely congested area of buildings and facilities, hemmed in by the Mystic and Charles Rivers on three sides and the overhead Mystic River Expressway on the fourth side” (Black, 1988: 669). The Building 31 (Muster House), having been stripped of its porch c. 1930, looked even more stark by the close of the 1950s after hurricanes had destroyed many of the remaining trees along Second Avenue in the upper and lower yards. Now virtually no vegetation surrounded this building or its neighbors, Building 136 (Marine Administration Building), Building 198 (Supply Department Storage), and Building 32 (Bank). At this time, yard employees parked their cars on angle against each of the buildings further adding to the cramped conditions.

One respite to the loss of vegetation was the Commandant’s gardens. Admiral John L. McCrea, who relocated from the Hawaiian Islands and resided in the house in the early 1950s, lived off the land as much as was possible in an urban setting. His gardener, Tom Little, tended a garden plot on the western side of the grounds and used the greenhouse for growing flowers. Fences surrounded the garden and separated the pen, where Little raised chickens and turkeys for the commandant’s table. In 1958, site improvements and additional landscape work was completed on the grounds.

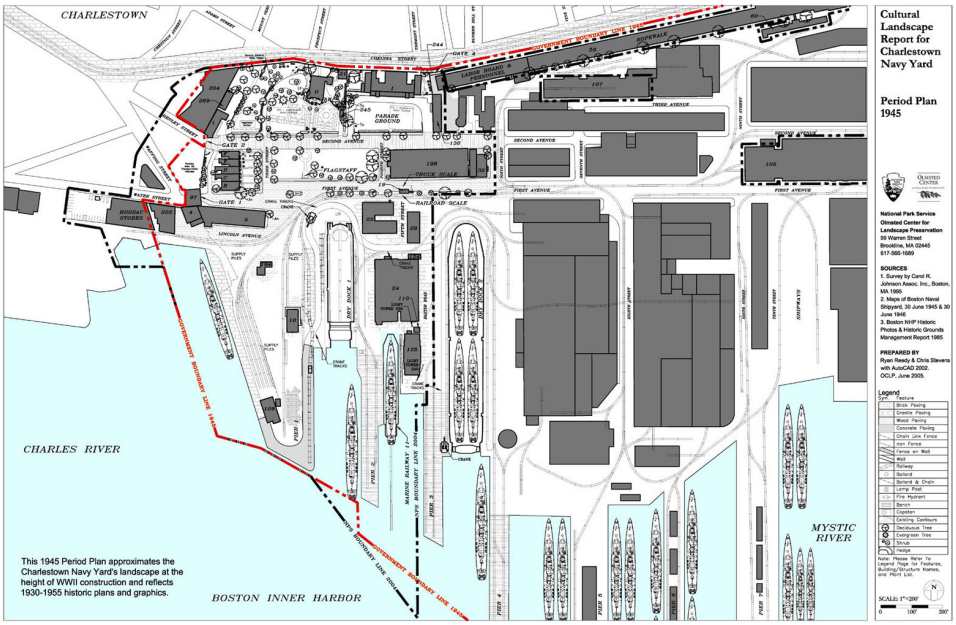
Rear Admiral Joseph H. Wellings, who resided in the house beginning in 1962, was very interested in the gardens. In an interview Wellings related, “In addition to several small spruce trees, I improved considerably the landscaping to the south of the Quarters G (Commandant's House). I also improved the landscaping all around the immediate building, and in the general garden area.” The spruce trees planted by Wellings flourished and eventually obscured the house (Brockway and Todisco, 1985: 11-12). Wellings’ vegetable garden was located in the southwest lawn behind the current rose garden. The Wellings family filled the greenhouse and sun porch with plants and also used the vegetable garden, but was discouraged by the urban soot and grime that coated the flowers and vegetables (Micholet, 1986: 50-1). The greenhouse was in poor repair, and Wellings had it removed in 1963 (Carlson, 2004 Draft). Overall the Commandant’s grounds, the most planted portion of the yard, were formal but not showy (Rose, 2003).

Maynard Spekin, who worked at the yard from 1941 to 1975 and continued for two years with the NPS from 1976 to 1977, provided another description of the grounds. Spekin, who worked as a contract coordinator, recalled in a 1985 interview, that an outside contractor cared for most of the trees and shrubs in the yard. He remembered a small vegetable garden near Second Avenue next to the fence that was tended by the Admiral’s steward. NPS employees installed a larger vegetable garden in the late 1970s and maintained it until the early 1980s. Spekin described flowerbeds along the walkway between the house and Second Avenue filled with tulips in massed groups of color in the spring. “These bulbs were then pulled out and given to Navy Yard employees, then the beds were filled with red geraniums – I remember 350 geraniums at one time – which stayed until the fall when they were given away and the tulips were planted before winter” (Brockway and Todisco, 1985: 12). When the last resident, Admiral Roy D. Snyder, departed in 1976, the commandant’s grounds were documented with photographs showing lush and mature vegetation through out the site, including azaleas and rhododendrons. The boundary wall was covered with Virginia creeper (Parthenocissus quinquefolia) and shaded by tree-of-heaven (Ailanthus altissima).

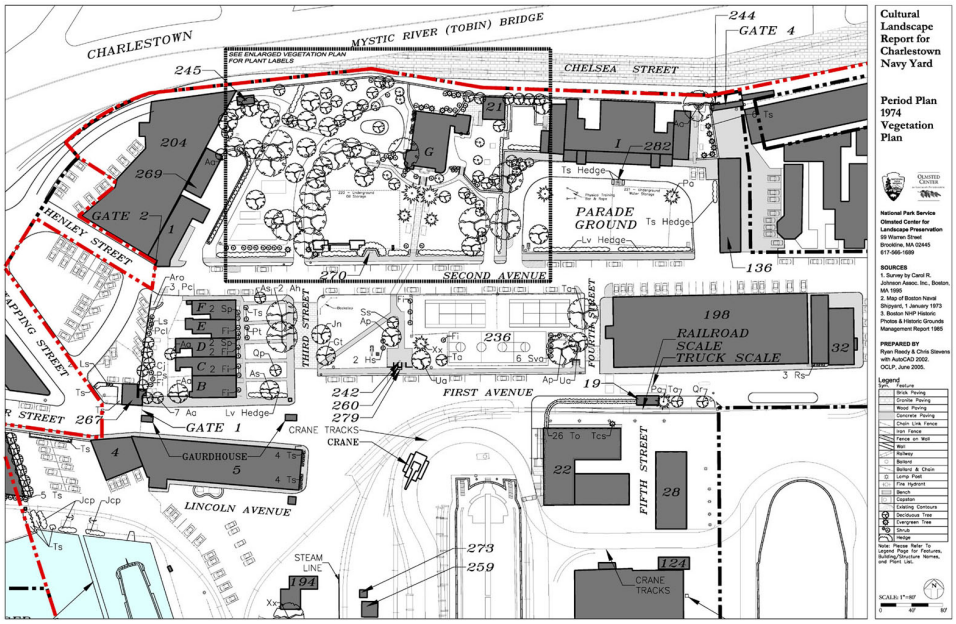
Vegetation also highlighted the grounds of Building 265 (Married Officers Quarters B-F) and Building I (Marine Barracks). In 1964, the 1.35-acre parcel encompassing Building I (Marine Barracks), the Marine Barracks Parade Ground, and Building 136 (Marine Corps Administration) was transferred to the Marine Corps then returned to the Navy just before the yard closure in 1974 (Carlson, 2004 Draft). In the 1970s, Building I (Marine Barracks) had a training yard in front of the building, and a climbing rope on a metal support is all that remains (Brockway and Todisco, 1985: 15). Marines had to climb that rope to the top each day if they wanted to earn breakfast (Rose, 2003). There were stairs cut into the concrete retaining wall along the Marine Barracks Parade Ground at this time linking it to Second Avenue.

During World War II, the Navy removed Building 163 (Bandstand) located southeast of the Second

Avenue and Third Street intersection in the shipyard mall (recreation area). After this time, the Navy constructed a wooden Bandstand (Structure 260) around the base of Flagpole (Structure 242) facing First Avenue on the southwest corner of the mall. There had been a flagpole in the same location since the early-nineteenth century marking the site of many yard ceremonies. 1957 design drawings show a proposed expansion of the Bandstand with the addition of trees, shrubs and groundcover. In 1959, the wooden Bandstand was replaced with a new concrete terrace with an aluminum post and chain railing. At this time, a granite slab with the bronze War Memorial (Structure 279) was moved from a traffic island in the middle of First Avenue and relocated on the sidewalk in front of the new Bandstand (Structure 260). The commandant often addressed yard workers from the platform. The traffic island, removed in 1959 to better facilitate truck transportation, had also contained a large anchor and was surrounded by a metal post and chain fence. The anchor was relocated to the grass plot at the First Avenue and Fourth Street intersection. By 1962, the Navy substantially regraded the area and added a concrete walk (BOSTS-13437-1957; BOSTS-14347-1962). The area north of the Flagpole (Structure 242) near Second Avenue was used as a baseball field during this period and included a backstop. The Navy had constructed three new tennis courts in 1946 east of the Flagpole (Structure 242) and Bandstand (Structure 260).



1974 Period Plan (Cultural Landscape Report for Charlestown Navy Yard, Olmsted Center for Landscape Preservation, 2005).



1974 Period Plan Vegetation Plan (Cultural Landscape Report for Charlestown Navy Yard, Olmsted Center for Landscape Preservation, 2005).



1974 Period Plan Enlarged Vegetation Plan (Cultural Landscape Report for Charlestown Navy Yard, Olmsted Center for Landscape Preservation, 2005).

1974-2006: Yard Closure and National Historical Park

On 16 April 1973, the yard commander, Captain R.L. Arthur, announced the closure of the Boston Naval Shipyard. All fleet servicing and manufacturing operations ceased as of 31 December. A formal disestablishment ceremony at the main yard's Flagpole (Structure 242) on 1 July 1974 marked the official closure. At the time of closure, the main yard comprised approximately 131 acres (83.9 land acres, 46.07 water, and 1.34 marine railway). Ten piers extended into the harbor, and industrial buildings and structures, cranes, dry docks, slips, and residential and administrative quarters stretched from the waterfront to the yard's boundary at Chelsea Street.

On 1 October 1974, President Gerald Ford signed the Boston National Historical Park Act of 1974. This legislation authorized the establishment of Boston National Historical Park, a unit of the National Park System. The park was not a single, contiguous piece of property. Rather, it was a collection of seven sites in downtown Boston and Charlestown, the purpose of which was to "preserve for the benefit and inspiration of the people of the United States … certain historic structures and properties of exceptional national significance … associated with the American Revolution and the founding and growth of the United States." The seventh site listed in the park's legislation was the main yard, now referred to by its original name, Charlestown Navy Yard. The act defined the yard "to include the United States Ship Constitution" and approximately thirty acres at the west end. It also authorized the National Park Service (NPS) to enter into written agreements with the Navy to "permit the continued use of any such buildings and facilities as the Secretary of the Interior determines to be necessary for the preservation and maintenance of the Constitution."

In July 1976, the Navy formally established the USS Constitution Maintenance & Repair Group to oversee continued maintenance of the ship. Originally attached to the Supervisor of Shipbuilding, Conversion, and Repair, Boston, it became part of the new Naval Historical Center Detachment, Boston, on its creation in 1991 (Martin, 1997: 365, 371). By that time, plans were well underway to dry dock the ship for a twelve- to fifteen-month inspection and repair period in preparation for her bicentennial in 1997. USS Constitution entered Dry Dock 1 in September 1992, immediately after her participation in Sail Boston 1992, the city's celebration of the 500th anniversary of Christopher Columbus' voyage in 1492 (The Broadside, 1992: 3). The U.S. Navy continues to be an integral presence at the yard with sailors living here while caring for USS Constitution.

The Charlestown Navy Yard was ultimately divided into four separate parcels in 1976. This division greatly affected the subsequent treatment of the yard, as well as determining the fate of individual buildings and structures. The NPS acquired one parcel, which became a unit of Boston National Historic Park (BNHP). The thirty-acre contiguous parcel, which comprised the Charlestown Unit of the new historical park, consisted of the old administrative and ceremonial center of the Navy Yard, including the Quarters G (Commandant's House) and Building I (Marine Barracks), as well as Piers 1 and 2, Dry Dock 1, and USS Constitution. For maintenance of USS Constitution, the NPS authorized the Navy continued use of the yard's facilities. The remaining three parcels were acquired and managed by the Boston Redevelopment Authority (BRA). These included the Historic Monument, Public Park, and New Development Areas. The Public Park Area included Piers 3 and 4, Dry Dock 2, and Building 195 (Pipe and Shipfitting Shops). The Historic Monument Area encompassed the northeastern quarter of the yard north of First Avenue. This area was defined as high intensity to include major public attractions, retail and commercial uses, and housing and related services. The New Development Area, the largest of the three parcels, consisted of many of the existing piers (5-11) and buildings in the southeastern quarter of the yard. This highly desirable area with its harbor views was defined to include housing and hotels and retail and commercial space.

A boundary enlargement report completed by the NPS Denver Service Center in December of 1978 noted historically “exceptional” and “primary” resources outside the park boundary, apparently in an effort to stem the tide of extensive alterations to the yard (Boundary Enlargement Report, 1978: 43-4). In 1976, the Navy had removed the caisson of Dry Dock 2 and flooded the structure before transferring the dock to the BRA. The boundary report objected to the flooding of the dry dock, stating that it would, among other things, cause damage to building foundations and utility tunnels south of First Avenue (Boundary Enlargement Report, 1978: 43-6). From 1978 to 1980, subsequent Congressional legislation amended the original boundary by adding four buildings outside park boundaries to BNHP; Building 58 (Ropewalk), Building 60 (Public Works Storage), Building 105 (Forge), and Building 107 (Public Works Shop) (Deed Files, BOST). These buildings, now part of the park’s legislative boundary, remain officially in BRA ownership except for Building 107, which has been deeded back to the United States as part of an exchange of real property.

In 1980, the Charlestown Navy Yard General Management Plan (GMP) identified several structures for adaptive reuse to provide visitor services; Building 32 (Bank) for orientation, Building 5 (Bachelor Officers Quarters / Open Mess) as an activity center with food service concessions, Building 10 (Battery Charging Facility) as the main interpretive center, and the Quarters G (Commandant's House), Building I (Marine Barracks), Building 58 (Ropewalk), and Building 105 (Forge) as theme museums.

By the mid-1980s, the park recognized that many of the GMP goals were unrealistic or had been made unworkable by other developments. Thus in mid-1986, the park revised the GMP, and following public review, approved the plan in March 1987 (Final Revised General Management Plan/ Volume II, 1987). The revision scaled back many of the original plans, revised the preservation zoning to allow for the development of visitor amenities, and adjusted the locations of facilities. The plan shifted the proposed food service to Building 10 (Battery Charging Facility) and the yard’s interpretive center to Building 125 (Paint Shop). Building 32 (Bank) remained as the offices and museum of the Boston Marine Society. To fund yard development, the plan promoted reliance on private partnerships rather than on Congressional appropriations. The updated GMP scrapped plans for developing the entire Building 58 (Ropewalk) and Building 105 (Forge) into museums, instead encouraging commercial redevelopment through either the NPS Historic Leasing Program or the Boston Redevelopment Authority with space reserved for major exhibit components.

The landscape of the Charlestown Navy Yard Unit of Boston National Historical Park has not changed dramatically since becoming a park in 1974. As a guardian, the park service has maintained the yard’s diverse resources remaining from its 174 years of service under the U.S. Navy.

Construction of the Chelsea-Water Street Connector in 1980-81 necessitated the relocation of much of the yard’s granite boundary wall to the south reducing the size of the Quarters G (Commandant's House) grounds. The project ultimately enhanced circulation within the yard with the Fifth Street expansion project. The park resurfaced its roads and much of its piers two decades later. Shortly

after these improvements, the park tightened security along these routes with gates and barriers to protect against acts of terrorism.

The USS Constitution Museum was developed privately in Building 22 (Ship Repair Shop) and Building 28 (Instrumentation Calibration Shop) with its associated landscape during its first three decades. During this time the park maintained the landscaped grounds of the upper yard much as they had been during the close of the US Navy's tenure. With the razing of Building 198 (Supply Department Storage), the park restored the open space of the Shipyard Mall's (recreation area) to pre-World War II levels.

Pier 1 has remained the center of tourism for the yard, with USS Constitution and USS Cassin Young (DD-793) berthed here. The park and U.S. Navy maintains piles of ship-related materials on the pier as has been done historically. With the resurfacing project at the turn of the century, the park exposed historic granite paving in the center of the pier and along the western edge by USS Constitution.

The Boston Redevelopment Authority (BRA) has reinvigorated its waterfront portion of the yard with residential and commercial development and with the public Shipyard Park along Dry Dock 2, although parts of the latter seem neglected and underutilized. The BRA rehabilitated part of the lower yard with institutional development and the Second Avenue Pedestrian Mall. Parts of the Historic Monument Area though including Building 58 (Ropewalk), Building 60 (Public Works Storage), and Building 105 (Forge) have languished with little activity except for stabilization. The proposed rehabilitation of Flirtation Walk would enhance this area.

Circulation
Early park and BRA planning documents call for visual easements to protect axial views that survive from the historical building pattern of the yard. Most of these views follow historic circulation routes that traverse the yard. Historic American Engineering Record (HAER) photographs taken in 1977 document the yard's historic buildings while inadvertently providing a snapshot of the conditions at the yard. In general, few changes had been made since the yard's closure. Photographs show that the streets were completely paved to the facades of buildings, with few sidewalks and almost no curbing. Railroad and crane tracks were extant, as were numerous chain link fences.

The most significant post-World War II changes to the circulation system at the yard occurred in the late 1970s and early 1980s. Construction of the Mystic River Bridge had made Chelsea Street dead end, making it little more than a cobbled driveway for yard workers. Charlestown planners realized the need for reviving the street, and in 1980-1981, they built the Chelsea-Water Street connector and paved Chelsea Street with asphalt. This project necessitated shifting much of the yard's granite boundary wall further south especially near the Quarters G (Commandant's House). The granite wall was split into five sections, which were moved intact to their new locations and reassembled. Building 204 (Garage and Transportation Office) was also razed for this project with parts of its concrete wall remaining attached to the relocated boundary wall. At the same time, access to the BRA portion of the yard was greatly enhanced by the addition of vehicular access through Gate 4 and the expansion of Fifth Street. In 1979, this project required the demolition of the Building 136 (Marine Corps Administration Building) and Building 198 (Supply Department Storage) which were within the NPS portion of the yard. The concrete pedestrian gateway was shifted east to make way for the road bed, and the retaining wall along the Marine Barracks Parade Ground was extended. The NPS made other minor changes to curbs and lighting to accommodate accessibility and safety issues. The NPS converted Gate 1 from vehicular into pedestrian only in 1983, and Building 19 (Scale House) became the main entry to the park.

A repaving project in 1999 and 2000 included all of the public streets within the park. In making changes to improve accessibility for visitors, the NPS utilized the results of the 1995 Charlestown Navy Yard Historic Pavement Study. The study showed that historically a number of materials had been used to pave the yard and that most of these were lifted or subsequently covered with concrete and asphalt. Archeological work conducted for the project indicated that historic material still existed on Pier 1, First Avenue, and 3rd and 4th Streets. The preferred alternative in the plan involved treatment of the Freedom Trail (brick), First Avenue (brick) beginning at Gate 1, 3rd Street (mainly

yellow brick), 4th Street (brick and wood block), and Pier 1 edging (granite). The preferred alternative for First Avenue and Pier 1 was abandoned in favor of asphalt for cost reasons. However, when much of Pier 1's historic granite paving (including strips of granite block paving in the center of the pier and along the west side) was discovered to be largely intact, it was retained uncovered. Remaining areas to be addressed with the study included the treatment of some of the railroad tracks on Pier 1, which were considered a hazard to pedestrians. The flangeways of railroad tracks were to be paved, and rubber crossing pads were to be laid on the tip of exposed crane rails to avoid tripping. Also on Pier 1, traffic and parking were reconfigured away from USS Constitution. The plan also called for resurfacing of the concrete deck and stabilization of the end (Archetype Architecture, Inc., 1995: 2-3). By 2002, Fourth Street's wood blocks, dimensioned like standard brick pavers and laid in a running bond pattern, had failed. The impervious concrete layer under the wood collected rainwater causing the blocks to float out of place (Rose, 2005). Historically the wood block paving in the upper yard was laid atop a pervious base. The park repaved this section of Fourth Street with asphalt.

In response to the 11 September 2001 terrorist attacks on the United States, the NPS placed jersey barriers around USS Constitution to prevent vehicles from approaching too closely. The Jersey barriers here and elsewhere were replaced with new movable steel bollards and chains in 2004. In 2003, the NPS installed an arm gate to Building 19 (Scale House) gate on First Avenue and added two-lane pop-up barriers (Structure 285) here. A small modern Guard Booth (Structure 288), reminiscent of the guard houses that have historically been located at the gates, was installed in 2004 to allow close supervision of the barrier controls.

Waterfront
During the late 1970s, many buildings along the waterfront had small, semi-permanent mid-twentieth century additions, which partially obscured the original nineteenth-century grid pattern of the yard. These additions consisted mainly of sheds, small connecting buildings, storehouses, substations, and service buildings. Railroad, hammerhead, and portal cranes, grit hoppers, and large incandescent spotlight fixtures on steel towers towered over the piers and waterfront. Street lighting consisted of florescent, incandescent, and mercury vapor types. The Navy signage on many of the buildings was still present.

The private, non-profit USS Constitution Museum opened in 1976 in the former Building 22 (Ship Repair Shop). In 1978, USS Cassin Young (DD-793), a WWII destroyer, was permanently berthed at the park. In 1993, the USS Constitution Museum expanded with the construction of a connector to the former Building 28 (Instrumentation Calibration Shop) (Carlson, 2004 Draft). The expansion took place incrementally with Building 28 (Instrumentation Calibration Shop) rehabilitated in 1996 and the final landscaping competed in 1997. The NPS replaced a gravel area adjacent to Building 22 (Ship Repair Shop) with turf. In 1989, the NPS converted Building 10 (Battery Charging Facility) into a food service building offering concessions.

During the 1970s, the NPS added a wooden post and rail fence around Dry Dock 1 for safety reasons. This fence was replaced during the 1990s with a synthetic lumber fence with the materials donated by the manufacturer. The original pipe and chain fence still stands to the inside of this newer barrier along the edge of the dock.

During the 1980s, the BRA established the public Shipyard Park surrounding and to the east of Dry Dock 2. The BRA also removed the outer end of Pier 3 and established an MBTA water shuttle at Pier 4.
Pier 1 was rehabilitated in 1980. In the following years, the Navy rehabilitated Finger Pier, and the park began rehabilitating Pier 2 but stopped the work in 1987 due to environmental concerns allowing the end of the pier to deteriorate.

In 1986, USS Cassin Young (DD-793) was designated a National Historic Landmark. In 2005, the NPS completed a historic furnishings report for the ship which proposed her restoration to her appearance at the end of her last major overhaul by the yard to interpret post-World War II yard activities.

In 1986, a Memorandum of Agreement (MOA) cleared the way for demolition of the nearly collapsed Marine Railway superstructure on Pier 2, although some portions were retained for later interpretation of the site. The park removed about half of the superstructure in 1987, and the Army Corps of Engineers removed the rest in 1995.

The 1990 Master Plan for the Yard's End proposed a Korean War Veterans Memorial for the public Shipyard Park to commemorate the armed services commitment to democracy and South Korea. This memorial was realized in 1993 and is now part of the BRA's 13-acre park that includes the permanently flooded Dry Dock 2.

The USS Constitution Museum installed five flagpoles at the head of the Dry Dock in 1990 under a Section 106 action with an annual review option. The installation was intended to be a one-year temporary experiment meant to attract people to the museum. The Section 106 files show that in 1992, although there was no evidence that the flags increased visitation, the park considered allowing the poles to remain "on an indefinite basis pending the preparation and implementation of a "Cultural Landscape Treatment Plan" for the yard. The merits of the flagpoles have not been reevaluated, and they remained in 2006.

Snow plows had damaged the yard's landmark plaque's marble base on the west side of Pier 1. In 1999, the NPS demolished the base and moved the plaque to the Bandstand (Structure 260) (Carlson, 2004 Draft). Although no known physical elements remain from Revere's landing, the British landing sites, or the battle within the yard, Revere's approximate landing site is marked with a plaque west of Pier 1 along the waterfront and the British landing sites are marked with plaques on Buildings 5 and 105. The landing sites are considered defining features of the Bunker Hill Battlefield in the American Battlefield Protection Program survey (Carlson, 2004 Draft).

Upper Yard
The upper yard's formal landscaping was limited to the Quarters G (Commandant's House), Building I (Marine Barracks), Building 265 (Married Officers Quarters B-F). NPS employees continued to maintain the commandant's vegetable garden for their own use until lead was discovered in the soil during the early 1980s. The Chelsea-Water Street Connector project of 1980-1981 resulted in the relocation of the northwestern boundary wall of the yard to the south, eliminating open space in front and sides of the Quarters G (Commandant's House). As a result, the NPS relocated Building 245 (Ground Equipment Shop) to its original location and shortened a path in 1980. The NPS removed much of the plants from the north side of the house and the northwest corner of the grounds transplanting some elsewhere including a Japanese maple, two honeysuckles, and seven azaleas (Brockway and Todisco, 1985: 51). The NPS removed other plants permanently including elms, honeysuckles, maples, oaks, apples, cherries, and trees of heaven. A hedge of Dorothy Perkins roses was removed from the edge of the Commandant's House Drive and another established along a wooden lattice fence running parallel to Second Avenue southwest of the house by this time. The park late removed the fence. In 1986, the NPS replaced two large blue spruce trees planted in 1962 from the front lawn, and replaced them with a dwarf variety of Blue Spruce. As of 2006, some historic yard light fixtures still stood in the yard including a simple crook neck lamppost by the Commandant's House Drive. It is typical of the twentieth-century lamps made in the yard shops (Rose, 2003).

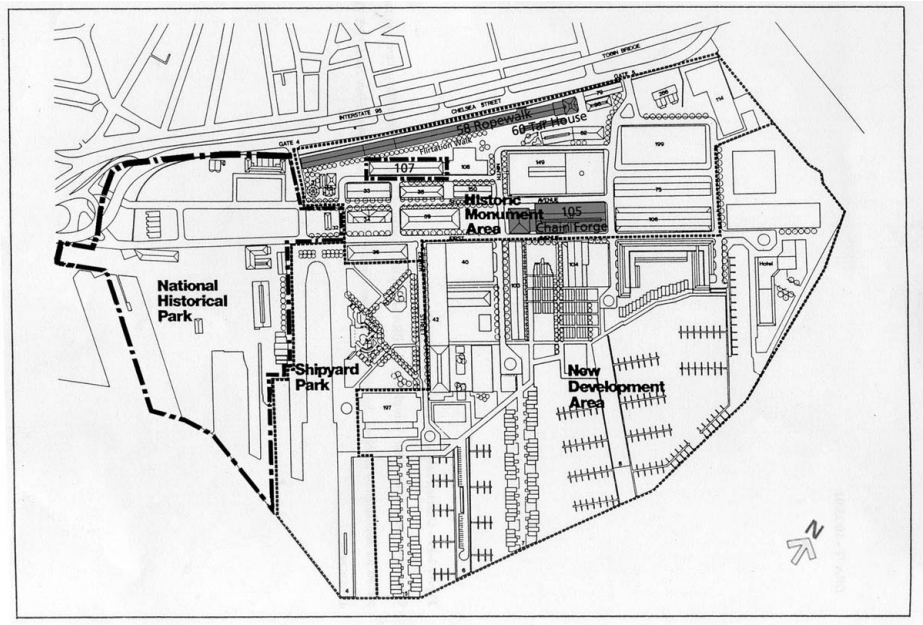
Additional period alterations involved "beautification" of the Marine Barracks Parade Ground, the lawn bordered by a privet hedge between Building I (Marine Barracks) and First Avenue. Sometime between 1976 and 1985, the NPS removed most of the training equipment from the Marine Barracks Parade Ground. The NPS also planted a yew hedge in the spot where Building 136 (Marine Corps Administration) had stood and planted turf on the site of the demolished Building 198 (Supply Department Storage). In 1984, the yard to the east of the barracks was landscaped (Brockway and Todisco, 1985: 84). In 1985, the garden in the yard to the west of the barracks, was overgrown and neglected, but by 2004, it was well maintained with a lawn surrounded by a border of ornamental shrubs and perennials.

When the NPS acquired part of the yard, the area around Building 19 (Scale House) on First Avenue was planted with trees and arborvitae shrubs. This planting still survived by 1985, but as of 2004, only one red oak stood east of the building. The NPS has made few changes to the recreation area

(shipyard mall). By 1978, the NPS removed the backstop and baseball field at the northwestern end of the recreation area and made changes to the plantings in the vicinity of Building 265 (Married Officers Quarters B-F) (Brockway and Todisco, 1985).

Lower Yard
One of the first BRA contracts established early in the 1970s entailed the removal of many post nineteenth-century buildings and structures. This contract was aesthetically rather than historically driven. The World War II wooden addition at the west end of Building 58 (Ropewalk) was removed and the "original" roofline was restored without the appropriate skylights. Within the lower yard, three of the noncontiguous park buildings (owned by the BRA) have remained vacant awaiting rehabilitation and reuse: Building 58 (Ropewalk), Building 60 (Public Works Storage), and Building 105 (Forge). Another noncontiguous building owned by the park, Building 107 (Public Works Shop) contains park administrative offices as well as the NPS public works department facilities. Now housing the park's maintenance operations, the building has resumed its historic function. Although plans were drawn up in 1980 and 1981 to consolidate park offices on the second floor of Building 107 (Public Works Shop), they were never implemented. Instead, in the mid-1980s, the Maintenance Division occupied offices at the east end of that floor. Between 1988 and 1990, the remainder of the second floor became the park's curatorial storage facility and offices for the Cultural Resources Division. Improvements were made to Gate 5, and a new vehicular gate, Gate 6, was constructed requiring the demolition of a wing of Building 114. Between 1977 and 1981, the BRA demolished the World War II addition to Building 31 (Muster House). At this time the octagonal Muster House porch was reconstructed having been removed c. 1930.

The 1990 Master Plan for the Yard's End proposed that Flirtation Walk be restored along Building 58 (Ropewalk) with the replanting of an alleé of Dutch-elm-disease resistant, hybrid elm tress to replace those that once graced this promenade. This proposal has not been realized, but as of 2004, the BRA and NPS were working on guidelines to replace the historic walk with a "reminiscent" one that can incorporate the NPS laydown space and the last remaining railroad tracks in the lower yard. Second Avenue has been rehabilitated in the lower yard as the Second Avenue Pedestrian Mall. The BRA repaved the route with Belgian Blocks and replaced the sidewalks, gutters, and curbing. The BRA also planted an alleé of honey locust trees to suggest the elm trees that historically lined the avenue.



Yard plan showing NPS property (dashed lines) and BRA property (dotted lines). The three noncontiguous properties that are included in the park's legislative boundary are highlighted in gray (General Development Plan, 1980).



The pedestrian Gate 4 in 1977 before Fifth Street was extended and the concrete gate to the right (west) was relocated to the left (east). Buildings 198 and 136 in the background were razed as part of the extension (HAER MA-90-114).



Temporary Storage Building (Building 198) in 1977 prior to demolition with the Shell House (Building 32) to the east and Muster House (Building 31) to the north. The Bunker Hill Monument is in the background (HAER-MA-90-117).

Uses

Functions and Uses:

Major Category	Category	Use/Function	Historic	Current	Primary
Defense	Naval Facility	Naval Facility	Yes	No	Yes
Education	Interpretive Landscape	Interpretive Landscape	No	Yes	No
Government	Government Office	Interpretation Facility	No	Yes	Yes
Government	Government Office	Maintenance Facility	Yes	Yes	No
Government	Government Office	Visitor Contact (Visitor Center)	No	Yes	No
Industrial/Processing/Extraction	Manufacturing Facility (Mill)	Manufacturing Facility (Mill) - Other	Yes	No	No
Landscape	Plaza/Public Space (Square)	Urban Park	No	Yes	No
Recreation/Culture	Museum (Exhibition Hall)	Wayside Exhibit	No	Yes	No
Transportation	Water-Related	Landing (Wharf, Dock)	Yes	Yes	No

Public Access:

Public Access: Unrestricted

Public Access Narrative:

Public Access: Other Restrictions

Public Access Narrative:

There is unrestricted pedestrian access to the Charlestown Navy Yard from 6 AM to midnight (no pedestrian access from midnight to 6AM). There is restricted access (only with security screening) to the area around USS Constitution. Pedestrian access is limited southeast of Dry Dock 1, where the industrial ship-servicing operations may pose a threat to visitor safety. Vehicular access is restricted to Building 19 (Scale House) check point on First Avenue to National Park Service, US Navy, and USS Constitution Museum employees, yard residents and their guests, handicapped visitors, and yard business/deliveries. There is no tour or school bus access. During heightened times of security as determined by the Department of Homeland Security's Color-Coded Threat Level System, visitor access may be restricted throughout the yard, especially when the advisory system issues a Code-Red or Severe warning thereby closing the park. During such cautionary times, restricted vehicular access continues but with more rigorous vehicular searching and screening at the check point.

Associated Ethnographic Group

Ethnographic Study Status:

Ethnographic Narrative:

Analysis & Evaluation of Integrity

Analysis and Evaluation of Integrity Narrative Summary:

This section provides an evaluation of the physical integrity of the Charlestown Navy Yard cultural landscape by comparing landscape characteristics and features present during the period of significance (1800-1974) with current conditions. Each characteristic or feature is classified as contributing or non-contributing to the site's overall historic significance. For those features that are listed as undetermined, further primary research, which is outside the scope of this CLI, is necessary to determine the feature's origination date. Contributing characteristics or features were either present during the period of significance or are in-kind replacements of such historic elements. Landscape characteristics identified for the Charlestown Navy Yard are natural systems and features, spatial organization, circulation, buildings and structures, small-scale features, vegetation, and views and vistas. The buildings and structures, already documented through the List of Classified Structures, are described here in the context of the landscape setting. This section also includes an evaluation of the property's integrity in accordance with National Register criteria. Historic integrity, as defined by the National Register, is the authenticity of a property's identity, evidenced by the survival of physical characteristics that existed during the site's historic period. The National Register recognizes seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. Several or all of these aspects must be present for a site to retain historic integrity. To be listed on the National Register a property not only must be shown to have significance under one of the four criteria, but must also retain integrity.

The act of Congress that established Boston National Historical Park on October 1, 1974, designated the 30-acre western portion of the yard, the administrative and ceremonial center, as an area of the new park naming it "Charlestown Navy Yard" (Public Law 93-431). With a 174-year long period of significance ending at the time of the park's creation, almost every characteristic and feature inherited by the National Park Service from the Navy contributes to the property's historic significance. Since 1974, while most of the park's alterations have not diminished the yard's overall integrity, a few actions have. The park's General Management Plan states that "…the Navy Yard's appearance will be managed to reflect the final period of Navy occupancy dating to 1974 (GMP, 1997). The yard has been substantially altered since the Historic American Engineering Record (HAER) photographs were taken in 1977. The demolition of certain buildings and additions, the neglect of structures such as the Marine Railway, the reconfiguration of some streets, and the reintroduction of some street trees illustrate a few of the changes. Yet the design intent—guided by the yard's overall plan and building scale and largely influenced by Loammi Baldwin, Alexander Parris and other early yard architects and engineers—is still strongly evident. The integrity of individual resources in the Navy Yard varies. Yet as a whole, the yard retains all seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association, especially with respect to the National Historic Landmark criteria regarding its association with "events that have made a significant contribution to, and are identified with, or that outstandingly represent, the broad national patterns of United States history from which an understanding and appreciation of those patterns may be gained." It is impossible to restore the yard's landscape to a specific subperiod without damaging or erasing earlier or subsequent layers.

Nineteenth Century
Integrity of the location, design, and association of the Navy Yard landscape remains, but evidence of the setting, materials, workmanship, and feeling have been lost to subsequent development of the site and surrounding area. The yard's landscape reflects the early to mid-nineteenth century planning (design) of Loammi Baldwin and Alexander Parris with its grid of avenues and streets and massing of buildings. Most of the yard's street trees have been lost however, while much of the yard has been paved with asphalt. Meanwhile the Navy shifted the bulkhead further and further south into the harbor as the yard expanded. With naval modernization, ship and yard materials and workmanship have changed. The upper yard, a subzone within the park, retains integrity of materials and feeling associated with the nineteenth-century landscape at Building 265 (Married Officers Quarters B-F), Quarters G (Commandant's House), and Building I (Marine Barracks). Here trees, shrubs, and lawn evoke the historic scene. The Shipyard Mall, however, was historically covered with shot and guns, but is now open for recreation. The integrity of archeological resources should be considered, but is beyond the scope of this report.

Twentieth – Twenty-first Centuries
For all post-1920 subperiods, the site retains integrity with respect to location, workmanship, association and

materials. World Wars I & II necessitated intense additions that compromised the yard's park-like character. By the end of World War II, few street trees remained much like today. Aspects of integrity that are slightly compromised include design, setting, and feeling. After World War II, the Navy removed many of the stockpiles needed for the war effort. The park and BRA later removed some of the World War II era buildings and structures. Overall, Charlestown Navy Yard's cultural landscape retains integrity with respect to all seven aspects (location, design, setting, materials, workmanship, feeling, and association) for its last few decades (1945-1974 Cold War Era) of its 174-year long period of significance. Most noncontributing, post-1974 park features do not detract from the landscape's integrity.

Seven Aspects of Integrity
1. The Location aspect of integrity involves the place where the landscape was constructed. Although boundaries and the shape and structure of the shoreline have changed over time, the Charlestown Navy Yard occupies its historic location along Boston Harbor between the mouths of the Charles and Mystic Rivers. The cultural landscape retains high integrity of location for the entire 174-year period of significance.

2. Design is the combination of elements that create the form, plan, space, structure and style of a cultural landscape or historic property. Loammi Baldwin's grid has guided the yard's development for almost two centuries. The yard has maintained its characteristic zones (upper yard, lower yard, and waterfront) with the open Shipyard Mall at the core. The circulation and building grid pattern, building scale and massing, compartmentalization and zoning of the yard, and key spatial characteristics such as the Shipyard Mall remain and contribute to the character of the historic property. Many of the yard's buildings, some designed by Alexander Parris, reflect the historical development of the yard and reflect the Federal and Classical styles of the nineteenth century and contribute to the yard's historic character. Within the National Park Service property, most of the prominent buildings remain from the 1974 acquisition with the exception Building 198 (Supply Department Storage) and Building 136 (Marine Corps Administration) removed by the park in the 1980s. With the removal of these buildings, the park slightly altered the historic circulation pattern with the expansion of the Gate 4 pedestrian gate into the main vehicular access and the reduction of the former main gate, Gate 1, into just a pedestrian gate. The lawns, trees, shrubs, and hedges of Building 265 (Married Officers Quarters B-F), Quarters G (Commandant's House), Building I (Marine Barracks), and Shipyard Mall in the upper yard evoke a sense of this area's historic park character. First and Second Avenues, however, lack the grand street trees that once arched over them. The historic core of the yard, the upper yard's Shipyard Mall, with its open, turf-covered space, continues to provide recreational space to residents and visitors alike. Although some alterations have been made to both the intentional and evolutionary design of the yard, the cultural landscape retains high integrity of design for most of the period of significance.

3. Setting is the physical environment of a cultural landscape or historic property. While the shoreline setting that influenced the location of the Navy Yard remains, the setting surrounding the yard has changed greatly over time. The surroundings today reflect modernization of the twentieth-century and include views to the Tobin Bridge and the skyline of Boston. The setting within the yard itself has also changed over time with technological advancements and reduced vegetation. The yard's buildings reflect the historical development of the yard and contribute to the yard's historic character. The manicured vegetation of the Quarters G (Commandant's House), Building I (Marine Barracks), and Building 265 (Married Officers Quarters B-F) as well as the tree shaded lawn of the Shipyard Mall contribute to the historic recreational and ceremonial setting of these landscapes. Conversely, the hardscape of the piers, devoid of any vegetation, reflects their industrial character with cranes, USS Cassin Young (DD-793), USS Constitution, support structures, and small-scale features, such as capstans, bollards, keel blocks, steam lines, and shipbuilding supply pipes. The yard's cultural landscape retains high integrity of setting for the last two subperiods or the last four decades of the period of significance.

4. Materials are the physical elements of a particular period, including construction materials, paving, plants, and other landscape features. Traditional buildings and structures throughout the yard are constructed with brick, granite, and or concrete just as they were historically. The grid of avenues and streets are mostly paved with asphalt and lined with concrete or granite curbing now as they were by 1974. The park has since exposed many of the extant underlying granite and brick surfaces from earlier subperiods. With minor exceptions, historic railroad tracks and crane tracks remain and contribute to the historic character of the property, but the flangeways have been paved for pedestrian safety. Numerous historic brick and concrete walkways survive throughout the yard. The grounds of the Quarters G (Commandant's House), Building I (Marine Barracks), and Building 265 (Married Officers Quarters B-F), and the Shipyard Mall retain many historic and replacement plants

including trees, shrubs, vines, bulbs, and grass lawn. First and Second Avenues, however, lack the grand street trees that once arched over them until the mid-twentieth century. These trees were lost to Dutch Elm Disease, hurricanes, modernization, and intense use of space for industry and parking and have not been replaced. The yard's cultural landscape retains integrity of materials with many historic materials remaining especially reflecting the yard's last few decades of operation as an active naval facility.

5. Workmanship includes the physical evidence of the crafts of a particular period. The park's buildings largely reflect nineteenth-century workmanship with their Federal and Classical styles of along with a few twentieth-century additions. Structures and other engineering works represent the historic naval workmanship and include the granite Dry Dock 1, wood and concrete piers, steel cranes, and iron capstans. The yard's streets and sidewalks also evidence historic paving techniques with a variety of materials, including bituminous paving, concrete, granite, brick, and wood. Bituminous material is most widely used for paving streets and piers and concrete is most often used for sidewalks. Granite blocks, cut to varying dimensions, are used throughout the park for both vehicular and pedestrian surfaces, and much of the curbing is granite. Brick is widely used in the park for utilitarian and decorative purposes. The range of styles includes standard pavers, roman (narrower, longer profile) pavers, and yellow pavers. Wood decking covers portions of some of the piers. The park today is similar to the 'snapshot' the park acquired in 1974, representing an amalgam of workmanship from 174-years of naval service. The cultural landscape retains integrity of workmanship.

6. Feeling is a property’s expression of the aesthetic or historic sense of a particular period. The park's buildings and structures are perhaps the greatest contributors to the historic feeling of yard. They are lasting witnesses of the events from the many subperiods of the long period of significance. The yard also retains many small-scale features that contribute to its historic sense as a U.S. Navy facility including capstans, bollards, keel blocks, steam lines, and shipbuilding supply pipes. Some small-scale amenities have been added since the site became a park to facilitate tourism and for security and do not contribute to the historic character, including benches and interpretive signs; however, the park has been careful that these do not detract from the historic feeling. The lawns, trees, shrubs, and hedges of Building 265 (Married Officers Quarters B-F), Quarters G (Commandant's House), Building I (Marine Barracks), and Shipyard Mall in the upper yard evoke a sense of this area’s historic park character and frame historic vistas. However, First and Second Avenues lack the grand street trees that once arched over them. The historic core of the yard, the upper yard’s open, turf-covered space continues to provide recreational space to residents and visitors alike. Like today, the waterfront historically did not support much vegetation south of First Avenue, but instead supported industry related to the servicing and sometimes building of ships. Waterfront views remain the most significant contributor of feeling given the site’s role in American history. There are more open views of the water now than during much of the twentieth century due to the removal of the large World War II era building 198, many temporary structures, most of the street trees, and the lack of large numbers of berthed ships. The Tobin Bridge looms over the northern vistas, but contributes as it was constructed before the end of the yard’s period of significance. Other notable views within the yard include the view of the Commandants House, Building I (Marine Barracks), Building 265 (Married Officers Quarters B-F), Views down First and Second Avenues, views from Gates 1, 2, and 4. Significant views from the waterfront include views to Downtown Boston, Bunker Hill Monument, the Tobin Bridge, and views to the upper yard. The cultural landscape retains integrity of feeling especially to the last few decades of the period of significance.

7. Association is the direct link between an important historic event or person and a historic property. The Charlestown Navy Yard is associated with national naval trends, response to wars, and innovations in technology. The yard is also associated with significant individuals including naval officers, designers (architects and site planners), and engineers. The cultural landscape reflects these links and retains a high integrity of association for the entire 174-year period of significance.

Landscape Characteristic: Natural Systems and Features

Historic Condition
Members of the Massachusetts Bay Company established the Charlestown settlement in 1629 on the peninsula bounded by the confluence of the Mystic and Charles Rivers with Boston Harbor. The town was surrounded by extensive tidal flats, and a small inlet from the Charles River fed a five-acre marsh. Ebenezer Breed's dam created pastureland to the north of the bounded wetland. Charlestown's location offered a protected marine setting with a deep shipping channel in the Boston Harbor.

Early in the nineteenth century with the establishment of the Charlestown Navy Yard here, the land in front of Building I (Marine Barracks) was graded to create a parade ground, the Salem Turnpike was graded in front of the Quarters G (Commandant's House), and a hill was leveled in the lower yard. A natural creek flowed through the marshland of the former Breed's dam pasture. The fate of the dam is uncertain. Cobb wharf was constructed in the tidal flats below the dam, creating a timber dock. A canal led through the Charles River tidal flats to this dock, and a causeway and dike were constructed along the creek at the northern edge of the dock. The causeway connected the new blacksmith shop and Shiphouse No.2.

The surrounding tidal flats limited boat access at low tide. Throughout the nineteenth century, the Navy filled the wetlands, channelized the creek, built a drainage system, and extended the shoreline with pilings, quays, and fill. These actions tripled the size of the Navy Yard. A culvert was designed to drain water from under the stone boundary wall in "low areas" of the yard. Filled marshland in the lower yard extended the shoreline behind the causeway. The Navy also dredged the harbor to increase the depth of the boat slips to the dry docks. During the late-nineteenth century, pipes were laid for water distribution system first from the Cochituate Waterworks and later from the Mystic Waterworks. By the turn of the twentieth century, the water mains were replaced, and hydrants and fixtures were installed with connection to the metropolitan sewage system. The Navy Yard had become decidedly industrial. The Navy filled in some shipways with waste to create parking lots after World War II and continued to extend the piers further into the harbor until the Navy Yard closed in 1974.

Existing Condition
The Charlestown Navy Yard is located on the southeast tip of the Charlestown Peninsula located at the confluence of two rivers, the Charles and the Mystic, at the innermost part of Boston Harbor. The waterfront is bounded by piers and granite seawalls over extensive fill. The topography of the yard is nearly level with a rise in the land near the Quarters G (Commandant's House) and Building I (Marine Barracks). The Marine Barracks Parade Ground Retaining Walls hold it level on three sides. Beyond the yard's Granite Boundary Wall, the land ascends more steeply to Breed's Hill. The Navy Yard is largely industrial and covered with structures and paving. With the exception of the rivers and harbor, there are no visible natural features.

Evaluation
Once a tidal marsh, the Navy filled in the wetlands, channelized and culverted the drainage, and bound the waterfront with piers and granite seawalls over extensive fill. The Navy graded portions of the upper yard hill for gardens, recreation, and ceremony including the Commandant's House Terrace, and Marine Barracks Parade Ground, and Marine Barracks East and West Garden Terraces. The yard's physiography remains as it was during much of the Navy's operations and at its closure in 1974. Without its natural features (the Charles and Mystic Rivers and the Boston Harbor), the Navy Yard would have been sited elsewhere. Thus, the location of the yard at the confluence of the rivers, the pilings, quays, and fill, and the multiple terraces within the yard stepping down to the waterfront all continue to contribute to the yard's character.

Landscape Characteristic Graphics:



The south elevation of the Commandant's House (Quarters G) and landscape terracing located prominently on gently rising slope along the northern boundary (OCLP, 2002).



View northwest from the end of Pier 1 of the confluence of the Charles River and Boston Harbor (OCLP, 2005).

Landscape Characteristic: Spatial Organization

Historic Condition
The Navy Yard was sited east of the town of Charlestown on open land. During the seventeenth and eighteenth centuries, the Charlestown settlement consisted of pasturage surrounded by residential and some rope-manufacturing parcels. When the Navy Yard was established in 1800, some of the purchased land remained residential and pastoral, but the developed land became institutional, used for manufacturing, military housing, and defense. The early Navy Yard contained an institutional complex at the eastern end (lower yard) that included a Marine hospital, Army storehouse, powder magazine, barracks and quarters. The western end of the yard contained two clusters, a residential grouping of buildings and structures along the yard's northern boundary (upper yard) and a manufacturing cluster in the region below the fence and stretching to the shoreline (waterfront). A timber dock predominated over the central portion of the yard, which remained as relatively open pasturage for public oxen with the exception of a brick-making complex and the army's earthen half-moon battery at the flood tide mark near the basin canal. By 1822, the Charlestown Navy Yard included eighty-four acres of land and forty-six acres of water and was bounded on the east and south by the confluence of the Mystic and Charles Rivers with the Boston Harbor and on the west and north by Water and Chelsea Streets.

In 1828, a master plan was designed by engineer Loammi Baldwin patterned after classical city grids and the royal navy yards of Europe. The plan only called for one road, what is now Second Avenue, and called for internal canals that were never built. From this plan, the yard has evolved into five broad east to west avenues and seven north to south streets. The master plan further bolstered the yard's compartmentalization with the upper yard (northwest) being residential, ceremonial, and park like, the lower yard (northeast) hosting production and manufacturing, and the waterfront (south of First Avenue) servicing ships directly. The lower yard and waterfront areas contained predominantly large rectangular buildings arranged parallel to the grid.
By 1830, a gun and shot park occupied the area between Third and Fifth Streets and First and Second Avenues in the upper yard. Here the Navy stored equipment and supplies in a beautifully ordered fashion. Later the area became part of the Shipyard Mall, an open space recreation area shaded with trees. This space visually adjoined the Marine Barracks Parade Ground and provided the yard a park core used for recreation, drilling, ceremonies, and storage. The areas various tennis courts have even been frozen over in the winters for ice-skating.

Throughout the nineteenth century, as the Navy Yard expanded, the residential and pastoral lands were developed with increased manufacturing operations that produced rope, chain, anchors and sails. In addition to manufacturing, the Navy Yard's other emphasis was on ship repairs. Shipbuilding facilities were developed in the lower yard. The Army and Marine hospital reservations were surrendered to the Navy, and the lower yard was developed primarily for manufacturing (shiphouses, mast shop, and timber sheds), although a small residential enclave (officers' quarters) fronted Salem Turnpike near the Chelsea Bridge. The Navy Yard continued to expand with added manufacturing and ship repair buildings and structures until the late-nineteenth century, when these facilities were reduced.

The twentieth century brought an increased number of workshops and ongoing use of manufacturing and ship repair facilities. With World Wars I and II during the first half of the century, the emphasis on ship repairs was expanded to include destroyer construction; overhaul, conversion, and outfitting for military use; and embarkation. Supply manufacturing, particularly chain and rope, remained important as did continued officer residential use. During this period, tourism increased with USS Constitution docked at the yard since 1897.
For World War I efforts, the Navy increased the number of temporary structures associated with supplies and increased the size of structures associated with the movement of steel ships and parts. During World War II, the Navy Yard was "built out" to capacity with additional buildings and structures, resulting in lost open spaces and infringing upon the grid and the domestic area of officers housing. Many of these buildings and structures were removed after the war.

After World War II, the Navy Yard's mission included construction, docking, overhaul, and alteration of ships for defense as well as continued officers' residential use. The Navy Yard also served as a repair center for electronic equipment, a sonar laboratory, and a manufacturing site for large anchor chain. In the decades after the war, the Navy Yard's layout was determined to be inefficient and plans were made to consolidate and relocate operations at a modernized South Boston plant. These plans were never implemented, and the yard closed in 1974. The Navy Yard was designated a National Historic Landmark and placed on the National Register of Historic Places in 1966.

Boston National Historical Park has made few changes to the spatial organization of the park portion of the yard since assuming control on January 1, 1976. The biggest impact resulted from the Chelsea-Water Street connector and Fifth Street extension projects of 1980-1981. The northwestern portion of the boundary wall was shifted south reducing the size of Quarters G (Commandant's House) grounds, and the large World War II era Building 198 (Supply Department Storage) was razed returning open space to the Shipyard Mall.

Existing Condition

The entire Charlestown Navy Yard consists of 129.5 acres, while the Boston National Historical Park portion consists of about 30 acres. The park portion includes the upper yard and the western part of the waterfront. The Boston Redevelopment Authority (BRA) controls the lower yard which contains the Historic Monument Area and the eastern part of the waterfront that includes the Shipyard Park and the New Development Area. A grid of streets defines the spatial organization of the yard. First Avenue separates commercial and residential use within the park. Open spaces fronts Building 265 (Married Officers Quarters B-F), Quarters G (Commandant's House) and Building I (Marine Barracks), and support both active and passive recreational uses. Below First Avenue are predominantly large rectangular buildings, including Buildings 4, 5, 10, 22, 24, 28, 109 and 125, which are used for industrial and institutional purposes. Expansive paved open areas support marine-related activities and visitor circulation. Pier 1, the largest pier in the park's portion of the yard, provides the largest open space. It is here that most visitors gather to board either USS Constitution or USS Cassin Young (DD-793), or to visit the USS Constitution Museum.

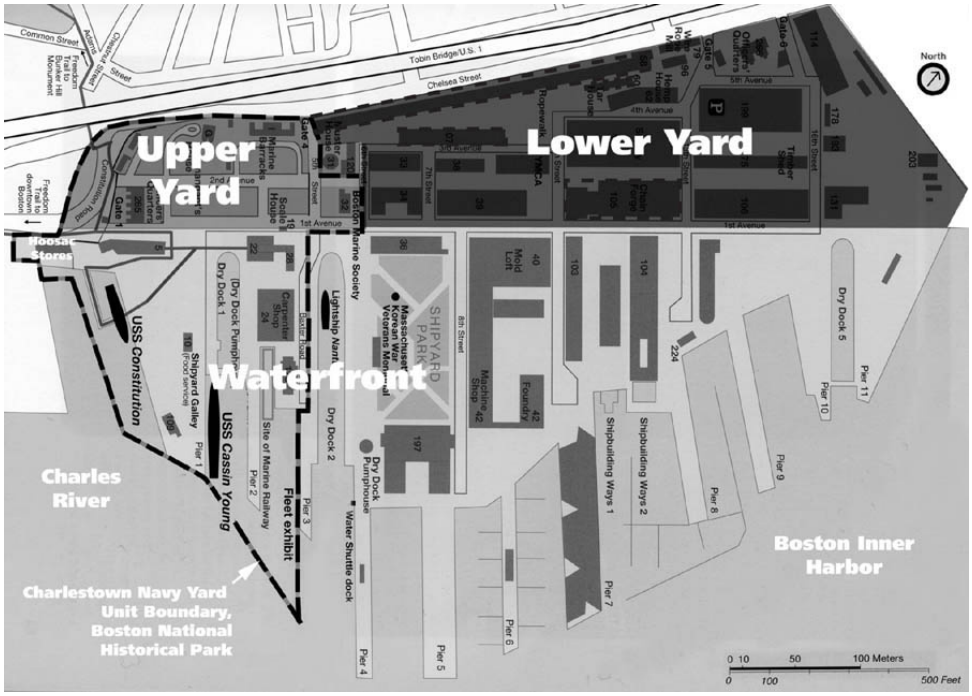
Evaluation

While the Navy Yard has grown substantially since its 1800 inception, the spatial organization remains and contributes to the yard's historic character. Loammi Baldwin's grid has guided the yard's development for almost two centuries. The yard has maintained its characteristic zones (upper yard, lower yard, and waterfront) with the open Shipyard Mall at the core. The circulation and building grid pattern, building scale and massing, compartmentalization and zoning of the yard, and key spatial characteristics such as the Shipyard Mall contribute to the character of the historic property.

Landscape Features:

Feature Name	CLI Feature ID	Feature Contribution	CRIS-HS Resource ID	Associated CRIS-AR ID	FMSS Record Type	FMSS Record Number	FMSS Exact Match
Upper Yard Hill	113348	Contributing					No
Pilings, Quays, and Fill	113346	Contributing					No
Commandant's House Terrace	113338	Contributing					No
Marine Barracks West Terraces	113344	Contributing			Asset	60177	Yes
Marine Barracks East Garden Terraces	113342	Contributing			Asset	60176	No
Marine Barracks Parade Grounds	113340	Contributing			Asset	60174	Yes

Landscape Characteristic Graphics:



The circulation, building grid pattern, building scale and massing, compartmentalization and zoning of the yard, and key spatial characteristics contribute to the yard's character (OCLP, 2006).

Landscape Characteristic: Circulation

Historic Condition
During the time of Charlestown’s seventeenth and eighteenth-century settlement, four of the town’s

roads traversed the future Navy Yard property. When the Navy Yard was established, a forty-foot-wide alternative road was constructed, rerouting Charlestown's "lane to brickyards," later Chelsea Street, along the northern boundary of the yard. Central Avenue passed along the southern boundary of the commandant's complex. A third road followed the causeway along the northern edge of timber dock. The fourth road led from Chelsea Street to the magazine. During this period, portions of the Navy Yard remained unfenced, open to foot traffic and animal intrusions.

In 1828, engineer Loammi Baldwin developed the yard's master plan patterned after classical city grids and the royal navy yards of Europe. The plan included broad east to west and north to south routes. Alexander Parris designed the granite block boundary wall that separated the yard from the surrounding community. As the Navy Yard developed during the first half of the nineteenth century, the main gate (with a guard house and a porter's quarters) stood at Water Street. The Navy built a new eastward road that connected the two building clusters and Central Avenue and Water Street. This road extended to a new wharf in the lower yard, and a small spur cut along a sand and clay embankment to the new blacksmith shop. During the last half of the nineteenth century, regional railroad lines linked to the Navy Yard for deliveries. The Navy paved Main (Second) Avenue with granite blocks to improve transport within Navy Yard, but most roads remained unpaved.

At the turn of the twentieth century, new crane tracks were placed around Dry Docks 1 and 2. Some shipbuilding ways were removed. The twenty-five roads within the yard were named in 1902 with east-west routes as "avenues" and north-south routes as "streets." World War I efforts brought new railroad system tracks. Increasing use of automobiles also necessitated parking areas and improved road surfaces on First Avenue and Ninth Street. During the Great Depression, the WPA completed paving projects around the yard, and a portion of the granite wall surrounding the Navy Yard was removed to improve traffic flow. During World War II, tightened security altered circulation patterns. Most roads were paved with bituminous concrete and asphalt at this time.

During the next few decades, construction of the Tobin Bridge increased the Navy Yard's separation from Charlestown. The existing crane track system was expanded to service newly rebuilt Piers 4, 6, 7, and 11. The Marine Railway closed in 1971, because of its poor physical condition and inability to handle modern naval vessels. The numbers of automobile-commuting workers increased, so Shipways 1 and 2 were filled with waste and converted to parking lots. The Chelsea-Water Street connector and Fifth Street extension projects of 1980-81 altered the circulation pattern. Construction of the connector between the Tobin Bridge and the Central Artery (Fitzgerald Expressway) in the 1950s had made Chelsea Street dead end, but by 1981, the street was reconnected with Water Street. Fifth Street was extended to intersect with Chelsea Street at this time, and a new vehicular gate was created at Gate 4. For the first time, Gate 1 and First Avenue ceased to be the primary vehicular entrance to the yard.

Existing Condition

First Avenue serves as the primary artery of the yard, bisecting the 130-acre site as it runs east-west. Second Avenue is north of and parallels First Avenue. Both are open to vehicles within the park, but only First Avenue permits access from outside the park boundary. Most of the numbered streets preserve the grid first proposed in 1828, and are secondary circulation routes that connect the major avenues. Below First Avenue, they meld into the piers. Sidewalks along most streets and avenues permit pedestrian use, though there is no sidewalk on the south side of First Avenue between the USS Constitution Museum (Buildings 22 and 28) and the proposed Visitor Center (Building 5). A smaller network of paths connects units in Building 265 (Married Officers Quarters B-F) with the street and one another. Paths around the Quarters G (Commandant's House) function similarly.

The streets and sidewalks consist of a variety of materials, including bituminous paving, brick, concrete, granite and wood. Of these, bituminous material is by far the most widely used for paving streets and piers. Most of the sidewalks throughout the high traffic areas of the park are concrete.

Granite cut to varying dimensions is used throughout the park. Blocks provide paving material for both vehicular and pedestrian surfaces such as the western edge and southern central portion of

Pier 1 and along the western edge of Building 24. As a design element, they serve as a grade-level base for the display of large anchors at the head of Dry Dock 2. Much of the yard's curbing is granite, but concrete curbing borders First Avenue. Brick is widely used throughout the park for utilitarian and decorative purposes, paving Third and a portion of Fourth Streets. A significant amount is used at the head of Dry Dock 1, around the USS Constitution Museum (Buildings 22 and 28), and the Quarters G (Commandant's House). The range of styles includes standard pavers, Roman (narrower, longer profile) pavers and yellow pavers. Wood is used for the boardwalks along Dry Dock 2, decking near concessions and on some piers, and for the construction of utility covers at some junctions of rail lines.

Evaluation
The circulation pattern at the Navy Yard has changed little since the development of Baldwin's grid during the nineteenth century and contributes greatly to the yard's character. Specifically, First Avenue, Second Avenue, Third Street, Fourth Street, a portion of Fifth Street, Sixth Street, and Baxter Road contribute to the historic character of the property. Chelsea Street also contributes to the historic setting of the property, although it is now substantially wider than it was during the historic period. Sidewalks and walkways continue to traverse the open areas of the upper yard including the Shipyard Mall and Quarters G (Commandant's House) grounds and contribute to the character of the property. The historic driveways and associated gates still lead from Second Avenue to the Quarters G (Commandant's House) and to Building I (Marine Barracks). The grid of avenues and streets are mostly paved with asphalt now as they were when the yard closed in 1974. The paving work done in 1999-2000 and in 2003-2004 exposed many of the extant underlying granite and brick surfaces. With minor exceptions, historic railroad tracks and crane tracks remain and contribute to the historic character of the property, but the flangeways have been paved for pedestrian safety. Most of the Marine Railway tracks have been removed from the waterfront, but the crane tracks remain.

One of the greatest changes to the yard's circulation has been the expansion of the Gate 4 pedestrian gate into the main vehicular access and the reduction of the former main gate, Gate 1, into just a pedestrian gate. Another change near Gates 1 and 2 is the redesign of Constitution Road area, which does not contribute to the historic character of the site. Despite these changes in use, the location, setting, association, materials, and feeling remain intact for three of the gates. Gates 1, 2, and 4, and Building I (Marine Barracks) gates contribute to the character of the property. Another gate, which led to the Quarters G (Commandant's House) from Chelsea Street, was closed in the 1920s and sealed with a wall in the 1980s, and thus no longer contributes to the historic character of the property.

Landscape Features:

Feature Name	CLI Feature ID	Feature Contribution	CRIS-HS Resource ID	Associated CRIS-AR ID	FMSS Record Type	FMSS Record Number	FMSS Exact Match
Railroad Tracks	111614	Contributing	40084				No
Crane Tracks	111616	Contributing	40130				No
Chelsea Street	111636	Contributing					No
Fifth Street	111640	Contributing					No
Constitution Road	111654	Noncontributing – Compatible					No
Freedom Trail	111656	Noncontributing – Compatible					No
Married Officers Quarters B-F Walkways	111644	Contributing			Asset	62047	Yes
Commandant's House Brick Walkways	111620	Contributing	40338		Asset	1025372	Yes
Baxter Road	111622	Contributing	40345		Location	60370	Yes
First Avenue	111624	Contributing	40354		Location	60362	Yes
Second Avenue	111626	Contributing	40355		Location	60364	Yes
Third Street	111630	Contributing	40357		Location	60365	Yes
Commandant's House Drive	111632	Contributing	40358		Location	60500	Yes
Ground Equipment Shop Drive	111634	Contributing			Location	81735	Yes
Marine Barracks Drive	111642	Contributing			Location	81736	Yes
Fourth Street	111618	Contributing	40337		Location	60367	Yes

Landscape Characteristic Graphics:



View east along First Avenue toward Scale House gate and modern security devices (OCLP, 2005). Note the concrete sidewalk to the left and the rail tracks and brick sidewalk to the right.



Brick walkways of the Commandant's House (OCLP, 2005).



Third Street partially paved with yellow bricks and the concrete walkways of the Officers Quarters (OCLP, 2003).

Landscape Characteristic: Buildings and Structures

Historic Condition
Before the Navy Yard was established, several residences and Breed's and Gorham's ropewalk complexes were located north of the future boundary and the road to the brickyards, and several small buildings covered John Harris' ¾-acre triangular plot near the waterfront, between Henley and Water Streets. Early Navy Yard buildings included the brick Quarters G (Commandant's House), Powder Magazine, and Gunhouse. Wooden buildings included Building I (Marine Barracks), offices, storehouses, and artisan's shops, as well as the Shiphouse, Timber Shed, Blacksmith Shop, and Marine Hospital. Structures included the Pile Wharf (below the Blacksmith Shop) and the army's earthen half-moon battery (near Timber Basin). The Guard's Fort Breastworks were constructed for the War of 1812 near the Chelsea Bridge in the lower yard.

By the mid-nineteenth century, the Navy Yard contained approximately sixty buildings including Building 265 (Married Officers Quarters B-F), Building 22 (Ship Repair Shop), Building 58 (Ropewalk), workshops, and timber sheds. New structures included the Granite Boundary Wall, Dry Dock 1, shiphouses, launching ways, and a wharf (the extended and rebuilt army arsenal wharf). Alexander Parris designed the yard's Granite Boundary Wall built between 1824 and 1826. It originally extended from the Chelsea Street Bridge to the Main Gate on Water Street, and iron gates marked many of the wall's openings including one at the semicircular-walled entrance and another at the stable of the Quarters G (Commandant's House). Dry Dock 1, built 1827-34, was one of the earliest structures of its kind in the United States and was designated as a National Historic Civil Engineering Landmark by the American Society of Civil Engineers in 1977 (American Society of Civil Engineers, http://www.asce.org/history/landmarks/massachusetts.html). The Ropewalk, designed by Alexander Parris and built 1834-38, is this country's only surviving ropewalk not significantly altered or moved from its original site. The 1,360 feet long building produced the U.S. Navy's rope for 132 years.

During the last half of the nineteenth century, new buildings included the octagonal civilian workers'

Muster House, a machine shop complex, a shiphouse, as well as several temporary buildings constructed for the Civil War. New structures included a dry dock extension, a new saluting battery, and an ordnance quay. A tennis court was added in place of the shot park, and decommissioned USS Constitution was berthed at the Navy Yard. Over twenty dilapidated or outdated buildings were removed, including seven storage sheds and the former Building 29 (Commandant's Office). Some existing buildings were upgraded or converted including a new four-boiler pumping facility in Building 22 (Riggers and Laborers Shop).

Building I (Marine Barracks) is considered to be the oldest Marine barracks in the United States. Over the years, this building has undergone considerable modifications. Between 1861-1863, the original central portion was demolished and replaced by a three-story building. A fourth story was added by 1900. The final major modification came in 1941, when the Works Progress Administration added the fireproof stair towers and present porches.

Forty new buildings including a large construction and repair complex (Buildings Nos. 104-106), workshops, a paint shop, an electric power station, and a coaling plant were built at the turn-of-the-century. Other buildings were relocated or demolished. New structures included the 750-foot Dry Dock 2, piers, and extensions to existing piers. The wood Dry Dock 1 Caisson was replaced with one built of steel. USS Constitution was restored in 1907.

World War I preparations brought approximately thirty-six new buildings, most for temporary storage space. New structures included an oil storage tank, a battery charging station, a locomotive shed, and a crane shed. At this time, the Navy Yard's rail system consisted of four locomotive cranes, two locomotives, thirteen coal cars, six flat cars, seven ash cars, four dump cars, and two gondola cars.

Many temporary buildings from WWI were demolished in the 1920s. During the era of the New Deal and World War II, many new buildings were constructed including a seven-story machinist and electrical shop, a pipe and shipfitters shop, and an addition to the Ropewalk for administrative use. Piers were extended, and new shipways and facilities associated with the construction of destroyers and other types of warships were constructed. The tennis court was replaced with a three-story, wood-frame Building 198 (Supply Department Storage). Immediately after the war, surplus structures were removed including cranes, and stockpiled materials.

During the Cold War, new buildings included industrial service buildings and garages. New structures were added to accommodate larger ships and new technologies including longer and stronger steel and concrete piers, light towers, fire pump houses, electrical substations, a sand hopper, an extension of Dry Dock 1, and other small structures. Building 58 (Ropewalk) closed in 1971. During this time the Navy converted one of the tennis courts on the Shipyard Mall into a basketball court while maintaining the others (Playing Courts (Structure 236)).

As part of the Fifth Street extension project of 1980-81, the park demolished the World War II era Building 198 (Supply Department Storage) and Building 136 (Marine Corps Administration). Within the Boston Development Authority's areas of the yard, most twentieth-century buildings were razed, while most of the nineteenth and early-twentieth century buildings were retained and adapted for reuse with all later additions removed.

Existing Condition
In 1994, as part of the List of Classified Structures (LCS) inventory, the research team made a first effort to itemize contributing resources for the former shipyard. The structures identified included crane and railroad tracks, Grit Hoppers (Structures 259 and 273), Flood Light Towers (Structures 238, 239, and 240), gates, the Granite Boundary Wall, piers, the Underground Oil Storage Tank (Structure 220), Underground Water Storage Tank (Structure 221), Dry Dock 1, three Portal Cranes (30, 62, and 65), and USS Constitution. In a memorandum dated January 30, 1995, the State Historic Preservation Officer concurred with the list of contributing resources identified by the LCS team, however, they also noted that the streets that are part of the Parris [Baldwin] plan should contribute as a single structural system.

Brick, granite, and wood are the primary construction materials for the buildings and structures in the yard. Building density reflects original use and is greatest in the industrial areas south of First Avenue and east of Pier 1. Density is lighter in the residential areas of the yard north of First Avenue (the upper yard). Most of these buildings are located toward the perimeter of the yard, constructed of brick, and have large amounts of vegetated open space nearby.

The Upper Yard including the Shipyard Mall includes many retaining walls and planar areas including garden terraces, the Marine Barracks Parade Ground, and the Playing Courts (Structure 236). The Playing Courts are still used for tennis and basketball games by local employees and residents.

Granite and wood members hold back the sea and raise the piers above reclaimed marshland. There are wooden utility sheds constructed on some piers, as well as temporary shelters constructed of metal and synthetic fabric. These sheds are moveable and include Building M-1 (Electrical Substation), Building M-39 (Steam Box Shed), and Building M-41 (Storage Shed), and Building M-42 (Steam Box Shed). Building M-37 (Portable Steel Shed) collapsed while being moved by the park and is irreparable. A network of rail and crane tracks weave throughout the yard, connecting dry docks, piers and inland manufacturing and storage buildings. Three Portal Cranes (30, 62, and 65) and two Grit Hoppers (Structures 259 and 273) are located on the piers. Four wooden Protection Dolphins (Structure 289) stand along the water boundary between Finger Pier and Hoosac Pier protecting USS Constitution.

Evaluation
The yard's buildings within Boston National Historical Park reflect the historical development of the yard and reflect the Federal and Classical styles of the nineteenth century and contribute to the yard's historic character. Within the National Park Service property, most of the prominent buildings and structures remain with the exception of Building 97 (Main Gate), Building 198 (Supply Department Storage), and Building 136 (Marine Corps Administration).

Landscape Features:

Feature Name	CLI Feature ID	Feature Contribution	CRIS-HS Resource ID	Associated CRIS-AR ID	FMSS Record Type	FMSS Record Number	FMSS Exact Match
Building 60 (Public Works Storage)	111692	Contributing	40046				No
USS Constitution	111752	Contributing	40079				No
Hoosac Stores 1 & 2 Boilerhouse	111776	Undetermined	40328				No
Finger Pier	111790	Contributing	40139				No
Commandant's House Gate	111832	Noncontributing – Compatible					No
Security Structures	111834	Noncontributing – Compatible					No
Building M-41 (Storage Shed)	111836	Noncontributing – Compatible					No
Building M-40 (USS Cassin Young Workshop	111838	Noncontributing – Compatible					No
Building 204	111808	Contributing	40054		Asset	30095	Yes
Railroad Gate	111810	Contributing	40341		Asset	1483276	Yes

Building M-39 (Steam Box Shed)	111812	Contributing	40344		Asset	1483868	Yes
Protection Dolphins (Structure 289)	111814	Contributing	482009		Asset	1483909	Yes
Underground Pipe Conduit (Structure 280)	111816	Contributing	504116		Asset	199782	Yes
Gate 4 gate (Structure 24)	111828	Contributing			Asset	1025368	Yes
Marine Barracks Parade Ground Walls	111830	Contributing			Asset	61978	Yes
Building M-1 (Electrical Substation)	111794	Contributing	40335		Asset	61190	Yes
Gate 2	111796	Contributing	40339		Asset	30092	Yes
Curtain Gate	111798	Contributing	40342		Asset	585817	No
Gate 4	111800	Contributing	40346		Asset	100799	Yes
Portal Crane 30	111802	Contributing	40356		Asset	1023987	No
Gate 1	111804	Contributing	40360		Asset	30091	Yes
Portal Crane 62	111778	Contributing	40132		Asset	1023987	No
Portal Crane 65	111780	Contributing	40133		Asset	1023987	No
Bandstand (Structure 260)	111782	Contributing	40134		Asset	124662	Yes
Building 272	111784	Contributing	40135		Asset	1483274	Yes
Grit Hopper (Structure 273)	111786	Contributing	40136		Asset	30140	No
Grit Hopper (Structure 259)	111736	Contributing	40065		Asset	30140	No
Saluting Battery (Structure 261)	111738	Contributing	40066		Asset	1483926	No
Marine Railway	111678	Contributing	40039		Asset	254219	Yes
Building 198	111710	Contributing	40053		Asset	62044	Yes
Underground Oil Storage Tank	111712	Contributing	40055		Asset	1025404	Yes
Underground Water Storage Tank	111716	Contributing	40056		Asset	60180	Yes
Track Scale (Structure 234)	111718	Contributing	40057		Asset	254374	Yes
Truck Scale (Structure 235)	111724	Contributing	40058		Asset	124977	Yes
Flood Light Tower (Structure 238)	111726	Contributing	40060		Asset	131615	Yes
Playing Courts (Structure 236)	111728	Contributing	40059		Asset	612104	No
Flood Light Tower (Structure 239)	111730	Contributing	40061		Asset	131609	Yes
Flood Light Tower (Structure 240)	111732	Contributing	40062		Asset	121869	Yes
Building 245 (Ground Equipment Shop)	111734	Contributing	40064		Location	60345	Yes
Building 19	111680	Contributing	40040		Location	60494	Yes

Building 21 (Carriage House)	111682	Contributing	40041		Location	60353	Yes
Building 22	111684	Contributing	40042		Location	60336	No
Building 24 (Riggers and Laborers Shop)	111686	Contributing	40043		Location	60332	Yes
Building 32 (Bank)	111688	Contributing	40044		Location	60335	Yes
Building 58 (Ropewalk)	111690	Contributing	40045		Location	60356	Yes
Building 1 (Gate House / Garages	111662	Contributing	40032		Location	60344	Yes
Building 4 (Chief Petty Officers Club)	111664	Contributing	40033		Location	60337	No
Building 5 (Bachelor Officers Quarters)	111666	Contributing	40034		Location	60337	No
Quarters G (Commandant's House)	111668	Contributing	40035		Location	60331	Yes
Building 10 (Battery Charging Facility)	111672	Contributing	40036		Location	60329	Yes
Pier 1	111674	Contributing	40037		Location	60383	Yes
Pier 2	111676	Contributing	40038		Location	60385	Yes
Building 265 (Married Officers Quarters)	111740	Contributing	40067		Location	60341	Yes
Building 267 (Gate 1 Gatehouse)	111742	Contributing	40069		Location	60338	Yes
Building 269	111744	Contributing	40077		Location	60350	Yes
Dry Dock 1	111746	Noncontributing – Compatible	40078		Location	60389	Yes
Building 105 (Forge)	111694	Contributing	40047		Location	60691	Yes
Building 107 (Public Works Maintenance)	111696	Contributing	40048		Location	60342	Yes
Building 109 (Waterfront Office)	111698	Contributing	40049		Location	60328	Yes
Building 110 (Lead Room)	111700	Contributing	40050		Location	60339	Yes
Building 124 (Public Toilet)	111702	Contributing	40085		Location	60340	Yes
Building 125 (Paint Shop)	111704	Contributing	40051		Location	60334	Yes
Building I (Marine Barracks)	111788	Contributing	40138		Location	60346	Yes
Granite Boundary Wall	111760	Contributing	40086		Location	81710	Yes
Dry Dock 1 Caisson	111764	Contributing	40087		Location	60390	Yes
USS Cassin Young (DD-793)	111768	Contributing	40088		Location	60388	Yes
Hoosac Stores 1 & 2	111772	Contributing	40092		Location	60351	Yes
Building 28	111806	Contributing	40412		Location	60336	No

Landscape Characteristic Graphics:



Marine Barracks (Quarters I) and Marine Barracks Parade Ground Retaining Walls (OCLP, 2005).



View north from base of Pier 2 from left to right: Portal Crane, Carpenters Shop (Building 24) with remnants of Marine Railway, and Paint Shop (Building 125).



View west of from left to right: USS Constitution, Navy Store (Building 5), and Officers Quarters (Building 265) (OCLP, 2005).

Landscape Characteristic: Small Scale Features

Historic Condition
Before the Navy Yard was established, post-and-rail fences bounded many of the town's plots. Fenced plots included one at the western end of the future Navy Yard, between Henley Street and the lane to the brickyards, and two at the eastern end, Ebenezer Breed's marsh and "point pasture" near Moulton's Point. Fences also enclosed three pastures south of "proprietor's way" belonging to Catherine Henley, Richard Boyeston, and William Calder. Post-and-rail and board fences surrounded the Quarters G (Commandant's House) and gardens and Building I (Marine Barracks) complex in the early Navy Yard. The Building I (Marine Barracks) grounds also contained three wells. Wells were located in the vicinity of Building 265 (Married Officers Quarters B-F). Picket fence lined the Salem Turnpike at the Navy Yard's northern boundary.

Many piles of wooden ship building and repair materials were scattered around the Navy Yard especially along the piers, and masting shears were located at the head of the Pile Wharf. Bollards, capstans, and keel blocks surrounded the piers and dry docks. Stores of shot, guns, and anchors were stockpiled in beautifully ordered rows and piles in parks in the upper yard between the residential areas and the waterfront. The completion of Dry Dock 1 in 1833 was noted with a dedication inscription on the granite blocks inside its head, "Commenced on 10 July 1827, John Q. Adams President of the United States, Samuel L. Southard Secretary of the Navy, Authorized by the nineteenth Congress. Opened 24 June 1833, Andrew Jackson President of the United States, Levi Woodbury Secretary of the Navy, Loammi Baldwin Engineer."

During the last half of the nineteenth century, the installation of natural gas lights at the shiphouses extended work hours. By the close of the century, electric lights powered by a lighting plant in Building 28 replaced the gas lights. Some of these freestanding lights were ornate, but most were simple crookneck fixtures manufactured in the yard. At this time, a wooden picket fence surrounded the Quarters G (Commandant's House) grounds. An elaborate arbor and octagonal guardhouse marked the gate on Second Avenue. An ornate, two-story birdhouse rose above the south lawn on

a pole. A low, iron pipe fence protected areas of lawn and street trees from foot traffic in the area of the Muster House.

In 1929, an iron picket fence replaced the eastern portion of the granite boundary wall to the ropewalk to allow more light into the facility. World War II brought enormous amounts of materials to the Navy Yard, but the surplus was removed after the war. A pedestrian ramp, turnstiles, and time clocks were constructed at Gate 4 to handle the massive increase of employees. When Building 108 (Central Power Plant) was converted from a coal to an oil burning facility, pipes were installed from the storage tank beneath the Quarters G (Commandant's House) grounds to the plant.

During the last few decades that the Navy Yard operated, new light towers were constructed, and floodlights were installed on roofs and towers to illuminate Dry Dock 2. The square yellow trash receptacles were installed around the yard with the message “Keep Your Shipyard Clean.” The Marine Barracks Torii Gate (Structure 282) was installed in front of Building I (Marine Barracks) to face the Marine Barracks Parade Ground. Various plaques honoring the yard’s history were mounted around the site over the years.

Existing Condition
Small-scale features relate to visitor amenities, circulation, signs, and marine, military, and security functions. The few amenities, benches and picnic tables, are confined to the USS Constitution Museum, the Shipyard Mall (recreation area), Dry Dock 2, the west side of Building 32, and the east side of Building 10. Examples of historic anchors, guns, and chain are also displayed at some of these locations. Bronze plaques located around the yard denote historical events or people associated with the facility. Freestanding signs include directional, identification, traffic, and workplace safety information. Marine and industrial related features include capstans, bollards, cleats, hydrants, lifesaving stations, masts, chain, rope, and utilities and are found on the piers. Pier 1 still contains many piles of shipbuilding materials such as live oak timber. The Aboveground Steam Line (Structure 281) still lines the center of the pier. The Dry Dock 1 Dedication Inscription still marks the inside of Dry Dock 1’s head, although it is deteriorating. Five flagpoles erected in 1990 by the USS Constitution Museum stand in a row at the head of Dry Dock 1. These were installed to attract visitors to the museum. Many features relate to public safety needs in the wake of the events that occurred on 11 September 2001. Currently, a series of concrete Jersey barriers and bicycle fencing cordon off USS Constitution and Buildings 4 and 5. Jersey barriers and pop-up vehicular barriers are used at the vehicular entrance on Fifth Street to control traffic into the park. Keel blocks, which are found throughout the site, are utilized as barriers at Gate 1 and near Building 19 (Scale House). In 2004, the park replaced jersey barriers and keel blocks in many locations with new movable steel bollards and chains.

Evaluation
The Charlestown Navy Yard Unit of Boston National Historical Park retains many small-scale features that contribute to its historic character as a U.S. Navy facility (1800-1974) including capstans, bollards, keel blocks, steam lines, freestanding lights and signs, and shipbuilding supply pipes. Other contributing small scale features include the Safety Sign on Grit Hopper (Structure 259) (relocated from the west wall of Building 36), the Marine Barracks Torii Gate (Structure 282), and several plaques. The gun, shot, and anchor parks stored numerous supplies during the nineteenth century, but were removed by the turn of the twentieth century. A few samples of these supplies still draw the attention of visitors in tourism areas, while many more are in storage at the yard. These cannons, shot piles, anchors, and the historic Ship Mast contribute to the character of the historic landscape. The yellow trashcans with the slogan, “Keep Your Shipyard Clean” also contribute to the historic character of the property. Some small-scale amenities have been added since the site became a park to facilitate tourism and for security and do not contribute to the historic character, including benches and interpretive signs. The five Dry Dock 1 Flagpoles added near the USS Constitution Museum and recent temporary structures added for yard security neither contribute to or detract from the historic character of the yard.

Landscape Features:

Feature Name	CLI Feature ID	Feature Contribution	CRIS-HS Resource ID	Associated CRIS-AR ID	FMSS Record Type	FMSS Record Number	FMSS Exact Match
Freestanding Signs	112006	Contributing					No
Chain	112022	Contributing					No
Commandant's House Concrete Planters	112024	Noncontributing					No
Keel Blocks	112038	Contributing					No
Safety Sign on Grit Hopper (Structure 25	112040	Contributing					No
Ship Mast	112042	Contributing					No
Shipbuilding Supply Piles	112044	Contributing					No
Shot	112046	Contributing					No
Trash Cans	112048	Contributing					No
USS Boston Memorial	112050	Noncontributing – Compatible					No
Benches	112052	Noncontributing – Compatible					No
Dry Dock 1 Flagpole	112054	Noncontributing – Compatible					No
Interpretive / Park Signs	112056	Noncontributing – Compatible					No
Commandant's House Iron Railing	112026	Contributing			Asset	1025373	Yes
Dry Dock 1 Concrete Lamppost	112028	Contributing			Asset	30174	Yes
Dry Dock 1 Dedication Inscription	112036	Contributing			Asset	1483951	Yes
Freestanding Lights	112008	Contributing			Asset	1334752	Yes
Flagpole (Strucuture 242)	112010	Contributing	40063		Asset	453709	Yes
Anchors	112014	Contributing			Asset	1483943	Yes
British Landing Site Plaque	112016	Contributing			Asset	1483944	Yes
Paul Revere Landing Site Plaque	112018	Contributing			Asset	1025406	Yes
Cannons	112020	Contributing			Asset	124681	Yes
Yard Commandants Plaque (Structure 270)	111990	Contributing	40070		Asset	62041	Yes
Capstan 1	111992	Contributing	40127		Asset	30152	Yes
Capstan 2	111994	Contributing	40129		Asset	30169	Yes
Capstan 3	111996	Contributing	40131		Asset	30153	Yes
War Memorial (Structure 279)	111998	Contributing	40330		Asset	1483940	Yes
Marine Barracks Torii Gate	112000	Contributing	40334		Asset	60121	Yes

Bollards	112002	Contributing	40351		Asset	30148	Yes
Aboveground Steam Line (Structure 281)	112004	Contributing	40352		Asset	30139	Yes

Landscape Characteristic Graphics:



Anchor and Capstan along Baxter Road with the Flood Light Towers in the background (OCLP, 2003



Keel Blocks add security along First Avenue by preventing vehicles from avoiding check point at the Scale House (Building 19) (OCLP, 2004).



Anchors and Bench at intersection of Fourth Street and First Avenue in Shipyard Mall (OCLP, 2004).



Shinto Torii Gate and bench along Marine Barracks Parade Ground (OCLP, 2004).

Landscape Characteristic: Vegetation

Historic Condition
When the Navy Yard was established, eelgrass and other marsh grasses covered the tidal flats and wetlands, and grasses covered the pastures. Ornamental trees like the Lombardy poplars grew on Putnam's property that fronted the lane just north of the Navy Yard's boundary.

The Navy planted 200-300 elm trees and an unspecified number of fruit trees during the first half of the nineteenth century. After the Baldwin plan of 1828, the Navy lined new avenues with elms, maples, and ornamental trees. The Quarters G (Commandant's House) grounds were well manicured with shade and fruit trees, ornamental shrubs, and flowerbeds. The commandant also kept a vegetable garden southwest of the house. The level, turf Marine Barracks Parade Ground provided green and open space for the drilling of soldiers, while a vegetable garden to the southeast provided food. Large trees shaded and hedges lined the front lawn of Building 265 (Married Officers Quarters B-F), while the back yards provided garden space. During the last half of the nineteenth century, the Navy maintained the yard's street trees, replaced them as needed, and planted an alleé of trees along Flirtation Walk, the boardwalk just south of the Ropewalk. The yard was very much a park, and residents and visitors delighted in its beauty.

Unabated building construction during World Wars I and II led to the loss of open, planted spaces. Dutch Elm Disease and hurricanes of the 1950s decimated the few remaining trees along the avenues and Flirtation Walk. The Navy maintained the park character surrounding the Quarters G (Commandant's House), Building 265 (Married Officers Quarters B-F), and Building I (Marine Barracks). With the removal of the shot and guns from the Shipyard Mall at the turn of the twentieth century, this turf-covered and tree-shaded area provided recreation space to the yard's residents. Ornamental plantings enhanced the development of parking near tourist amenities near Gate 1 by the 1960s. Historically, the piers had no vegetation except for the grass covered Building 272 (Saluting Battery Ammunition Bunker) at the end of Pier 1.

Existing Condition
Ornamental plantings and turf are located outside the wall at Gate 1 which serves as a drop off/pick up site for visitors. A few medium-sized pin oaks are located at the opposite entrance at Fifth Street. There are several ornamental trees in the residential areas north of First Avenue. The grounds around the Quarters G (Commandant's House) contain ornamental trees and shrubs, perimeter hedges, and beds of herbaceous plants along the main walk. The yards in front of Building 265 (Married Officers Quarters B-F) are turf with mature trees and forsythia as a foundation planting in front of each house. Small individual courtyard gardens are located behind Building 265 (Married Officers Quarters B-F). Other turf areas surround the war memorial plaza to fallen yard workers and cover the parade ground in front of Building I (Marine Barracks). Trees shade the western end of the Shipyard Mall, while the eastern end is covered with turf. There are few street trees along First and Second Avenues in the park. The Boston Redevelopment Authority (BRA) planted an alleé of trees along the Second Avenue Pedestrian Mall. Very little vegetation grows south of First Avenue. At the end of Pier 1 is the grass-covered Building 272 (Saluting Battery Ammunition Bunker). Ornamental plantings are located near USS Constitution and Finger Pier, and along the perimeter of the parking area between Hoosac Stores 1 & 2 and Building 4. All other vegetation below First Avenue is weedy material.

Evaluation
Much of the upper yard's vegetation contributes to the yard's historic character. The lawns, trees, shrubs, and hedges of Building 265 (Married Officers Quarters B-F), Quarters G (Commandant's House), Building I (Marine Barracks), and Shipyard Mall in the upper yard evoke a sense of this area's historic park character. First and Second Avenues lack the grand street trees that once arched over them. The historic core of the yard, the upper yard's open, turf-covered space continues to provide recreational space to residents and visitors alike. The waterfront historically did not support much vegetation south of First Avenue.

Landscape Features:

Feature Name	CLI Feature ID	Feature Contribution	CRIS-HS Resource ID	Associated CRIS-AR ID	FMSS Record Type	FMSS Record Number	FMSS Exact Match
Building 32 (Bank) Flowerbeds	112100	Noncontributing – Compatible					No
Building 32 (Bank) Rose Bushes	112102	Noncontributing – Compatible					No
USS Constitution Museum Vegetation	112104	Noncontributing – Compatible					No
Commandant's House Hedge	112058	Contributing			Asset	1025428	Yes
Commandant's House Flowerbeds	112060	Contributing			Asset	1025508	Yes
Commandant's House Lawn	112062	Contributing			Asset	136285	Yes
Commandant's House Shrubs	112064	Contributing			Asset	1006747	No
Commandant's House Trees	112066	Contributing			Asset	1006595	No
Curtain Gate Parking Trees and Shrubs	112068	Contributing			Asset	1006747	No
Fifth Avenue Pin Oaks	112070	Contributing			Asset	1025488	Yes
Finger Pier Shrubs	112072	Contributing			Asset	1025489	Yes
Gate 1 Vegetation	112074	Contributing			Asset	1006595	No
Marine Barracks East Garden (yews, lawn)	112076	Contributing			Asset	60176	No
Marine Barracks Parade Ground Hedge	112078	Contributing			Asset	576928	Yes
Marine Barracks Parade Ground Lawn	112080	Contributing			Asset	60174	Yes
Marine Barracks West Garden	112082	Contributing			Asset	1025503	Yes
Married Officers Quarters B-F Lawn	112084	Contributing			Asset	612165	No
Married Officers Quarters B-F Shrubs	112086	Contributing			Asset	1006747	No
Married Officers Quarters B-F Trees	112088	Contributing			Asset	1006595	No
Saluting Battery Ammunition Bunker Grass	112090	Contributing			Asset	576823	No
Building 32 (Bank) Street Trees	112092	Contributing			Asset	1025490	No
Shipyard Mall Lawn	112094	Contributing			Asset	576823	No
Shipyard Mall Shrubs	112096	Contributing			Asset	1025491	Yes
Shipyard Mall Trees	112098	Contributing			Asset	1025481	No

Landscape Characteristic Graphics:



Ornamental trees and lawn along the Commandant's House Drive (OCLP, 2004).



Ornamental trees and hedge of the east side of the Commandant's House grounds and along the Marine Barracks Circular Drive (OCLP, 2004).



View north of the vegetation of the Shipyard Mall and Marine Barracks Parade Ground beyond as seen from First Avenue (OCLP, 2003).

Landscape Characteristic: Views and Vistas

Historic Condition
Prior to the Navy Yard, the waterfront views were relatively unobstructed with few built features between the yard's northern boundary and the shoreline. With the establishment of the yard, the views remained relatively unobstructed with only a few intrusions by single-story structures and the three-story Building 5 (Bachelor Officers Quarters / Open Mess). As the yard developed during the first half of the nineteenth century, residents and workers enjoyed significant views northwest of the new Bunker Hill Monument and south of the harbor. Shade trees and buildings partially obscured southeast views. During the last half of the century, these views became blocked with the construction of increasingly large buildings such as the machine shop with its large stack. Once USS Constitution was berthed at the Navy Yard, it became a significant part of many views. Views remained relatively unaltered until World War II when building density and height increased to up to seven stories high. Construction of the Mystic River Tobin Bridge after the war further restricted views.

Existing Condition
From the yard, there are views south and west to the inner harbor, downtown Boston and the Leonard P. Zakim Bunker Hill Bridge. To the north, the Bunker Hill Monument is visible from Piers 1 and 2. To the east are long broad views down the straight First and Second Avenues. Looking into the yard from the waterfront, USS Constitution and cranes are the dominant visual elements. The view east from Gate 1 includes a long expanse of asphalt extending across the yard, and a partial view of the façade of the USS Constitution Museum with the BRA-owned portion of the yard in the distance. The view from Gate 2, down Second Avenue, includes lawn areas bounded by hedges and street trees. The view from Gate 4, down Fifth Street, includes cranes, Dry Dock 2, and the inner harbor beyond. The view from Building 19 (Scale House) entrance into the yard, down First Avenue, includes Building 5 and a distant view of Gate 1.

Evaluation
Historic views and vistas of and from the Navy Yard remain and contribute to its historic character. Waterfront views remain the most significant given the site's role in American history. There are more open views of the water now than during much of the twentieth century due to the removal of the large World War II era Building 198, many temporary structures, most of the street trees, and the lack of large numbers of berthed ships. The Tobin Bridge looms over the northern vistas, but it was constructed during the yard's period of significance. The upper yard, with its park character and historic buildings, still creates and frames many historic vistas including the views from the Quarters G (Commandant's House) and from Building I (Marine Barracks) to Boston Harbor, to USS Constitution, and industrial waterfront area. Other notable views within the yard include the view of the Commandants House, Building I (Marine Barracks), Building 265 (Married Officers Quarters B-F), views down First and Second Avenues, views from Gates 1, 2, and 4. Significant views from the waterfront include views to Downtown Boston, Bunker Hill Monument, the Tobin Bridge, and views to the upper yard.

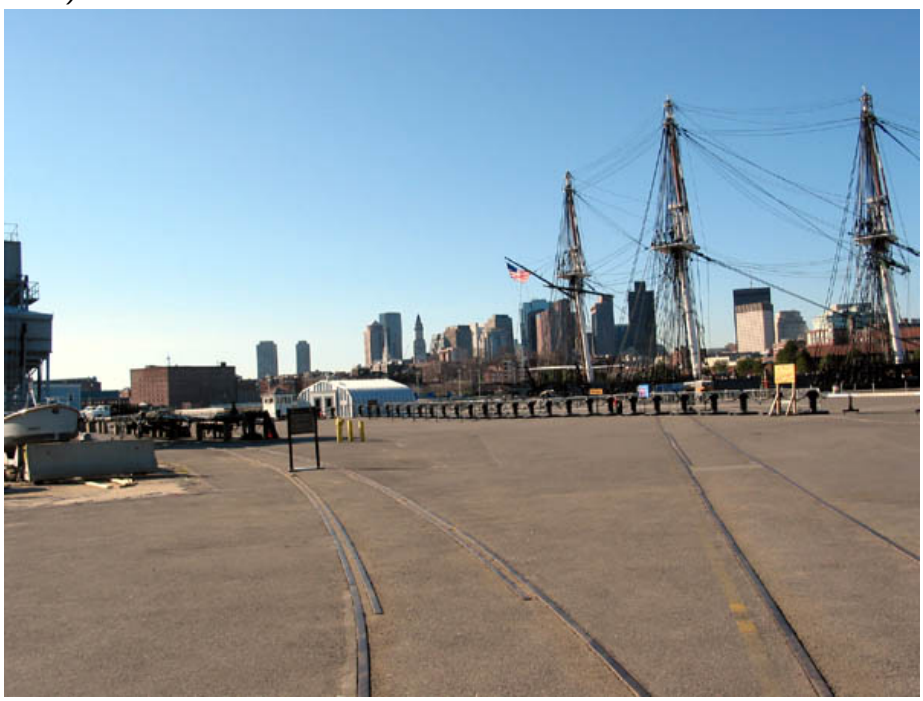
Landscape Features:

Feature Name	CLI Feature ID	Feature Contribution	CRIS-HS Resource ID	Associated CRIS-AR ID	FMSS Record Type	FMSS Record Number	FMSS Exact Match
View down First Avenue	112106	Contributing					No
View down Second Avenue	112108	Contributing					No
View from Waterfront to Downtown Boston	112110	Contributing					No
View from Quarters G to Boston Harbor	112112	Contributing					No
View from Quarters G to USS Constitution	112114	Contributing					No
View from Gate 1	112116	Contributing					No
View from Gate 4	112118	Contributing					No
View from Building 1 to Boston Harbor	112120	Contributing					No
View from Building 1 to USS Constitution	112122	Contributing					No
View from Waterfront to Bunker Hill Monu	112124	Contributing					No
View from Quarters G from yard	112126	Contributing					No
View of Building 1 from yard	112128	Contributing					No
View of Tobin Bridge	112130	Contributing					No
View of Yard Waterfront	112132	Contributing					No

Landscape Characteristic Graphics:



From Pier 1 looking north the Bunker Hill Monument can be seen rising above the Safety Sign on the Grit Hopper and Shipbuilding Supply Piles, through the vegetation of the Shipyard Mall and Upper Yard (OCLP, 2004).



View of Boston skyline across Boston Harbor through masts of USS Constitution (OCLP, 2005).

Condition

Assessment Interval (Years): 8

Next Assessment Due Date: 06/11/2033

Condition Assessment and Impacts

Condition Assessment: Good

Assessment Date: 06/11/2025

Condition Assessment Explanatory Narrative:

The overall landscape is well-maintained and in good condition.

Condition Assessment: Good

Assessment Date: 09/05/2022

Condition Assessment Explanatory Narrative:

Provisional. The condition reassessment for this CLI has been delayed due to Covid-19 travel restrictions and staffing shortages. In the meantime, the most recent condition assessment will remain in place until it is reassessed as part of a comprehensive update of the entire CLI. Planning and scheduling this update, in cooperation with the Historic Structures Inventory, is underway.

Condition Assessment: Good

Assessment Date: 08/30/2012

Condition Assessment Explanatory Narrative:

In consultation with Ruth Raphael, Park Planner, and with concurrence from the Superintendent, the Charlestown Navy Yard is is good condition. The definition of “good” is as follows: “ the inventory unit shows no clear evidence of major negative disturbance and deterioration by natural and/or human forces. The inventory unit’s cultural and natural values are as well preserved as can be expected under the given environmental conditions. No immediate corrective action is required to maintain its current condition.”

The park has completed three of the four projects identified as stabilization projects in the 2006 CLI (a fourth project was deleted): repoint the granite boundary wall, conserve historic signs, and repair brick walls. The park has also painted the flag pole, planted trees, improved safety lighting, and is currently in the process of restoring collapsed catch basins. Proposed projects include rehabilitation of the tennis courts, and funding has been requested for a Phase 3 Cultural Landscape Report to research the Boston Redevelopment Authority Historic Monument Area, bounded by the boundary wall and First Avenue and including the Forge Shop and Ropewalk.

Condition Assessment: Good

Assessment Date: 08/11/2006

Condition Assessment Explanatory Narrative:

Impacts

Type of Impact: Erosion

Other Impact:

External or Internal: Internal

Impact Narrative: The tidal action of Boston Harbor and the Charles River may impact the seawalls and piers.

Date Identified: 09/21/2006

Type of Impact: Exposure to Elements

Other Impact:

External or Internal: Internal

Impact Narrative: Hurricanes, nor'easters, or other seaborne wind and moisture impact the resources.

Date Identified: 09/21/2006

Type of Impact: Inundation/Flooding

Other Impact:

External or Internal: Internal

Impact Narrative: The tidal action of Boston Harbor and the Charles River may cause flooding damage under unique circumstances.

Date Identified: 09/21/2006

Type of Impact: Impending Development

Other Impact:

External or Internal: Internal

Impact Narrative: Development continues to happen within the park and BRA portions of the yard creating demands for parking and infrastructure.

Date Identified: 09/21/2006

Type of Impact: Poor Security/Lighting

Other Impact:

External or Internal: Both Internal and External

Impact Narrative: Parts of the yard are dark at night and difficult to completely secure.

Date Identified: 09/21/2006

Type of Impact: Structural Deterioration

Other Impact:

External or Internal: Internal

Impact Narrative: The historic buildings and structures of the yard require constant maintenance.

Date Identified: 09/21/2006

Type of Impact: Adjacent Lands

Other Impact:

External or Internal: External

Impact Narrative: Surrounding lands continue to face development pressure.

Date Identified: 09/21/2006

Type of Impact: Inundation/Sea Level Rise

Other Impact:

External or Internal: External

Impact Narrative: Deterioration from water perpetually covering coastal or estuarine land that was seasonally or traditionally dry, as a result of an increase in the elevation of the mean sea level (MSL) of Boston Harbor.

Date Identified: 06/11/2025

Type of Impact: Inundation/Storm Surge

Other Impact:

External or Internal: External

Impact Narrative: Deterioration from water temporarily covering land along coasts and large inland lakes that are seasonally or traditionally dryland, as a result of amplified tides during severe low pressure weather systems.

Date Identified: 06/11/2025

Treatment

Stabilization Measures

Treatment Documents

Treatment Type: Rehabilitation

Treatment Completed: No

Document Type: General Management Plan

Document Date: 1987-03-26

Title:

IRMA Link:

Narrative:

Approved Treatment Costs

Cost Narrative:

Treatment Type: Bulk Import TBD

Treatment Completed: No

Document Type: Cultural Landscape Report

Document Date: 2005-01-01

Title: Cultural Landscape Report for Charlestown Navy Yard, Boston National Historical Park

IRMA Link: https://irma.nps.gov/DataStore/Reference/Profile/2187410

Narrative:

Approved Treatment Costs

Cost Narrative:

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Landscape Documents:

File Name	Date	Attachment Type
BOST_Bunker Hill-CNY-Dorchester Heights_CLI Updates Notes_2025.pdf		

Source