

National Park Service
Cultural Landscapes Inventory
2018

Draft



Peddocks Island
Boston Harbor Islands National Recreation Area
Park Review Draft: 05/17/2018

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Introduction

The Cultural Landscape Inventory Program

Purpose and Goals of the CLI

The Cultural Landscapes Inventory (CLI), a comprehensive inventory of all cultural landscapes in the national park system, is one of the most ambitious initiatives of the National Park Service (NPS) Park Cultural Landscapes Program. The CLI is an evaluated inventory of all landscapes having historical significance that are listed on, or eligible for listing on, the National Register of Historic Places, or are otherwise managed as cultural resources through a public planning process and in which the National Park Service has or plans to acquire any legal interest. The CLI identifies and documents each landscape's location, size, physical development, condition, landscape characteristics, and character-defining features, as well as other valuable information useful to park management. Cultural landscapes become approved CLIs when concurrence with the findings is obtained from the park superintendent and all required data fields are entered into a national database. In addition, for landscapes that are not currently listed on the National Register and/or do not have adequate documentation, concurrence is required from the State Historic Preservation Officer or the Keeper of the National Register.

The CLI, like the List of Classified Structures, assists the National Park Service in its efforts to fulfill the identification and management requirements associated with Section 110(a) of the National Historic Preservation Act, National Park Service Management Policies (2006), and Director's Order #28: Cultural Resource Management. The CLI also contributes to the National Park Service's action plan, "*A Call to Action: Preparing for a Second Century of Stewardship and Engagement.*" The CLI directly relates to the theme, "Preserve America's Special Places," and specifically to "Action #28, Park Pulse." The CLI documents the existing condition of park resources and identifies impacts, threats, and measures to improve condition. This information can be used to improve park priority setting and communicate complex park condition information to the public.

Scope of the CLI

The information contained within the CLI is gathered primarily from existing secondary sources found in park libraries and archives and at National Park Service regional offices and centers, as well as through on-site reconnaissance of the existing landscape. The baseline information collected provides a comprehensive look at the historical development and significance of the landscape, placing it in context of the site's overall significance. Documentation and analysis of the existing landscape identifies character-defining characteristics and features, and allows for an evaluation of the landscape's overall integrity and an assessment of the landscape's overall condition. The CLI also provides an illustrative site plan that indicates major features within the inventory unit. Unlike cultural landscape reports, the CLI does not provide management recommendations or treatment guidelines for the cultural landscape.

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Inventory Unit Summary & Site Plan

Inventory Unit

Cultural Landscape Inventory Name	Peddocks Island
Cultural Landscape Inventory Number	650138
Parent Cultural Landscape Inventory Name	Peddocks Island
Parent Cultural Landscape Inventory Number	650138
Park Name	Boston Harbor Islands National Recreation Area
Park Alpha Code	BOHA
Park Org Code	1727
Property Level	Landscape

Landscape Description

Peddocks Island is part of the Boston Harbor Islands National Recreation Area, Massachusetts, and is owned and operated by the Department of Conservation and Recreation (DCR). The park, also known as Boston Harbor Islands National and State Park, is cooperatively managed by eight governmental or non-profit institutional entities, including the National Park Service (NPS), DCR, and Boston Harbor Now (formerly Boston Harbor Island Alliance). The park's islands and peninsulas encompass 1,600 acres of land that include archeological resources, historic sites, open space, wildlife habitats, and 35 miles of relatively undeveloped shoreline, all inside an area of 50 square miles and set against the skyline of Boston and other harbor communities. Peddocks Island is located 200 yards west of the Town of Hull, Plymouth County, and covers 210.4 upland acres.

The park's 34 islands are geologically unique as the only "drowned drumlins" (rounded hills created under glaciers and surrounded by water) on the East Coast. Peddocks Island itself features five drumlins – two on East Head, and one each on Middle Head, West Head, and Princes Head – connected by low-lying sand and gravel bars called tombolos that can flood during high tides. The island's highest point is the south drumlin on East Head, at 123 feet above mean low water. Peddocks Island is dominated by dense forests and long stretches of sandy beach, with smaller areas of dry scrublands and marshes. It has the second largest number of plant species of the harbor islands, around half of which are exotics such as Norway maple.

Multiple strands of Boston Harbor's history intersect on Peddocks Island. Hidden amongst the dense forests are areas of past Native American seasonal habitation and use. On East Head are remains of concrete armament batteries, masonry support buildings, and a grass parade ground at Fort Andrews, a long-closed military post that represents the country's military defenses in the harbor. Enclaves of modest vernacular cottages dot the island, especially on Middle Head, and tell of long-standing connections to families of immigrant fishermen, working-class residents, and summer vacationers. Lastly, the ongoing development of Peddocks for passive recreation and overnight camping reflects the long process of creating

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greater public access to the city's waterfront and Boston Harbor. Today the island is accessible by private boat and seasonal ferry, with visitor services available at the rehabilitated Fort Andrews guardhouse.

HISTORICAL OVERVIEW

Native American Occupation and European Settlement:

The Boston Harbor Islands formed as the result of glacial retreat and rising sea levels that eventually left behind hundreds of smooth-sloped hills called drumlins. By the Late Archaic period sea levels stabilized, forming Boston Harbor and its coastline and defining the islands seen today. Various Native American tribes seasonally occupied the islands and the mainland surrounding the harbor, making use of diverse plant and animal habitats in the estuaries, marshes, and woodlands. European exploration of the islands in the early 1600s introduced permanent settlements and an end to Native American habitation and use.

English colonization of Nantasket Peninsula, including Peddocks Island, began in 1622. One of the colonists was Leonard Peddock after whom the island is named, but it is not known if he lived on the island. In 1634 nearby Charlestown was granted land on the island for pasture and cattle grazing, and in 1642 the island was acquired by the Town of Hull and subsequently divided into 4-acre planting plots. Peddocks Island was mostly forested at the time of first European contact, but demands for firewood, building material, and grazing lands left it increasingly bare. By 1700 the island was reportedly denuded, the hills planted with hay, barley, and other grains.

Although few people lived on Peddocks Island, agricultural uses defined the landscape through the eighteenth and nineteenth centuries, with a few notable exceptions. In 1775 during the Revolutionary War, American troops relocated the island's sheep and cattle to the mainland to avoid their confiscation by the British. In 1776 the soldiers built earthworks on East Head to guard the harbor's Nantasket Roads channel to the north and west, and in 1778 the French expanded the same defenses. In 1799, in response to an increase in shipwrecks in the harbor, the Massachusetts Humane Society erected a refuge hut on Peddocks with food, candles, and tinderboxes for stranded sailors, though its location is not known. Lastly, in the 1870s Prince Head was used as a target to test fire guns from nearby Nut Island.

A clearer picture of the island's residents emerges in the nineteenth century with the arrival of the Cleverly family, who farmed in the valley on East Head around 1844. Their house, three outbuildings, and a wharf occupied the eastern shoreline, and an orchard and fenced pastures filled the valley floor. In the years after the Civil War the farm may have been the site of seasonal tent camping by local residents. By 1876 John Cleverly owned 13.5 acres of land, with the remainder of the island owned by Sally Jones and Eliza Andrew. There were also a few summer cottages in this area by this time, the first confirmed summer residents on the island. The Andrew Estate would eventually acquire the entire island and allow

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development of a cottage community of fishermen and summer residents. It would also sell land to the U.S. Government to build a coastal military fort.

The Cottage Communities and Fort Andrews:

The City of Boston's construction of a hospital on Long Island in 1887 resulted in the displacement of Portuguese Azorean fishermen to Peddocks and other islands in Boston Harbor. Some of the fishermen dismantled and floated their homes to the southwestern shoreline of East Head, and by 1904 there were fourteen fishermen cottages arranged in a line facing the water. During the same period, the Cleverly family left the island and summer cottagers took over the farm buildings and erected additional cottages. By 1904, there was a row of sixteen summer cottages in this area facing the harbor. Development also occurred elsewhere on the island, with the construction of two hotels, "The Willows" in the late 1890s and "The Clubhouse" in 1907 on West Head, and the Island Inn in 1905-1907 on Middle Head.

Contrasting the island's two cottage areas and three hotels was the U.S. Army's fort on the northern 23 acres of East Head, purchased from the Andrew estate in 1898 on the eve of the Spanish-American War to guard Nantasket Roads. Based on recommendations in the 1886 Endicott Report, which aimed to modernize U.S. coastal defenses, the fort's facilities were spread out across the landscape to accommodate more powerful and longer-range artillery. Construction of two mortar batteries (Whitman and Cushing), three gun batteries (Rice, McCook, and Bumpus), a battery observation tower, temporary support buildings (mess halls, barracks, officers' quarters, storehouses), a wharf, and roads was complete in 1904. In 1900 the fort was officially dedicated to Major General George Leonard Andrews (of no relation to the Andrew family).

No sooner was construction almost complete when the government purchased the southern 63 acres of East Head in 1903 from the Andrew estate to increase the fort's capacity to two companies (around 100 men each). At this time the army developed a general layout for Fort Andrews, proposing permanent non-tactical facilities on the slopes and summit of the south drumlin and along the eastern shoreline close to the wharf. Construction in 1905-06 included a range finder station, seven officers' quarters, two barracks, a hospital, quartermaster stable, coal shed, wagon shed, [old] guardhouse, wharf waiting room, ordnance storehouse, and a searchlight shelter. Many of these 1- to 3-story buildings were designed in the Colonial Revival style and featured brick construction, slate roofs, and covered wood porches.

Another building phase began in 1907 after the army designated the fort as a district headquarters and increased its capacity six companies. A revised plan prepared in 1907 identified a parade ground at the east end of the valley, making it a key element in the fort's overall design and function. Building off the parade ground space, as well as the grid established by the main road and barracks in the valley and the curve of

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Officers' Row, construction in 1907-14 included: a post exchange/recreation hall, administration building, two barracks, six officers' quarters, two sheds, two cable houses, a dormitory, latrine, crematory, oil house, new guardhouse, quartermaster's storehouse, and a hospital addition. The 1906 Taft Report, an update to the Endicott Report, resulted in several new communications facilities and accessory equipment at the fort: a battery command/fire control structure, fire control switchboard room, radio station, and "gully" searchlight. Throughout the fort's expansion program, the army built new roads, sidewalks, and stairs; improved infrastructure with water and electric service and a seawall along eastern shoreline; and planted trees and lawns on steep slopes, around buildings, and in the parade ground. Soldiers also planted extensive vegetable gardens and fruit orchards on the hillsides around the fort.

With the government taking ownership in 1903, the cottage communities were gone from East Head by 1910. The fishermen on the southwestern shore either abandoned their cottages or moved them to the northwest side of Middle Head in an area that became known as Crab Alley. The summer residents on the eastern shore either demolished their cottages or relocated them to the northeast side of Middle Head, except for one that was moved next to the abandoned fishermen cottages and became part of a fort housing area called Sergeants' Row. Both of the cottage communities on Middle Head thrived, as residents planted gardens and trees, erected outbuildings and fences, and added other small-scale features associated with island domestic life. Cottagers also had access to hillside gardens on government land, even though the fort's southern property line was marked with a fence and stone arch. The success of the island's hotels, however, was short-lived as "The Willows" and "The Clubhouse" were lost to fire and the Island Inn closed by the start of World War I.

By World War I Fort Andrews, like other Endicott-era coastal defenses, had become strategically outdated in the new era of airplanes and longer-range guns. Although most its weapons were removed and shipped overseas, the fort's extensive support facilities served as a training and staging area for Europe-bound troops. The four large barracks facing the parade ground were not enough to house all of the men, forcing the army to build temporary facilities just south of the mortar batteries. Other new additions built in 1917-21 included a bakery, fire station, electric substation, saw mill, and scales. Despite the fort's non-tactical role, the army added an observation platform and a battery command station during this period, and in 1924 a new "vertical lift" searchlight. In 1926 fire destroyed one of the brick barracks facing the parade ground but it was not rebuilt, as the fort was deactivated and emptied of personnel two years later. The fort was managed in caretaker status for the next twelve years, during which time the burned barracks and the temporary facilities from World War I and pre-1904 were razed. In contrast, cottage life on Peddocks Island continued uninterrupted during the interwar years, with such amenities as a tea room operating there in the 1920s and 1930s. The only major events were the loss of the building that replaced "The Clubhouse" to fire in 1934 and some cottage damage from a hurricane in 1938.

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Fort Andrews was reopened in 1940 just prior to World War II, primarily as an administrative and staging facility. The mortars that had been reinstalled in 1920 were removed and scrapped, and only a few gun batteries and the searchlights were left in operational status. As in World War I the fort's housing capacity was insufficient, by this time down to three barracks, and again required the army to build temporary barracks, mess halls, and storehouses/offices just south of the mortar batteries as well as in a new area on the west slopes of the south drumlin. Later in the war this new area housed around 1,000 Italian prisoners of war. A temporary theatre was built at the former site of the razed barracks, the design and size of which contrasted with the imposing brick barracks. A chapel was constructed along the eastern shoreline, but sited off center in relation to the administration building to preserve the view looking west across the parade ground. Other additions included a 200,000-gallon water reservoir, pumphouse, observation station, and extensions of existing roads and walks to the fort's new facilities. In 1947 Fort Andrews was again closed and placed on caretaker status for the second and final time.

Private Ownership and State/Federal Management:

Fort Andrews was surplused in 1948 and declared "excess property" in 1951. The fort and the entirety of East Head was purchased by Richard S. Robie at public auction in 1957. Middle and West Heads passed to a new generation of heirs to the Andrew estate in 1956, who sold it to Isadore Bromfield, Robie's partner, in a company called East Coast Realty in 1958. The company owned the island until 1970, during which time it made plans to build large houses and a high-end resort, but other than grading new roads on West Head nothing was built. During this period, the previous open landscape conditions that had prevailed on the island since the seventeenth century were transitioning back to forests, especially at the abandoned fort.

In 1970 the Metropolitan District Commission (MDC), now the Department of Conservation and Recreation (DCR), acquired Peddocks Island by eminent domain. At the time of the purchase most of the abandoned fort's buildings and open spaces were heavily overgrown. Shortly after the change in ownership the National Guard razed all of the World War II temporary structures, except for the chapel. Over the next two decades various building studies, assessments, and plans for East Head were conceived but never fully realized other than occasional stabilization efforts on the fort buildings. During this period the island's summer residents paid rent to the state, but almost half of the cottages were sold to the state or changed ownership. The DCR announced plans to evict all cottagers, but in 1994 the state and cottage owners established a life-lease arrangement that still stands today: they can continue to renew their annual leases for their lifetimes, but cannot not bequeath or sell them.

In 1996 Peddocks Island became part of the Boston Harbor Islands National Recreation Area, at which time the Boston Harbor Island Alliance was established to oversee park initiatives and assist with park

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management. In 2002 the Island Alliance, NPS, and MDC collaborated in a roof restoration project on seven Fort Andrews structures as part of a proposed family camp and eco-retreat. The merger of the MDC and the Department of Environmental Management (DEM) in 2003 that formed the Department of Conservation and Recreation (DCR) suspended work on the plan until 2011, but in the meantime dock and pier upgrades were undertaken and utility service was restored.

By 2011 the scope of the eco-retreat plans had changed due to decision to remove twelve unstable fort buildings, all of which were over 100 years old. However, thirteen other fort buildings were stabilized and secured for possible uses in the future. The fort's guardhouse and chapel were rehabilitated for use as a visitor center and assembly hall, respectively. The mortar and gun batteries, road and path network, and remnants of several building foundations were retained, and the overgrown parade ground cleared of vegetation, restoring the historic view to the west and the remaining brick buildings. Recent efforts to increase island visitation have included development of yurt campgrounds next to the gun batteries and mortar batteries and a group camping area along Officers' Row; installation of interpretive signs, picnic tables, and composting toilets; and removal of successional vegetation throughout select areas of the fort to improve views of the harbor. Today Fort Andrews is a popular camping site in Boston Harbor, and many of the island's cottages are still seasonally occupied.

SIGNIFICANCE SUMMARY

Peddocks Island in Boston Harbor, containing Fort Andrews and the cottage community, is significant at the state level under National Register of Historic Places criteria A and C. Under Criterion A, Fort Andrews is significant in the area of Military for its role in coastal defense and military affairs in Massachusetts during the Endicott and Taft eras of harbor defense reform from the 1898 into the early 1900s. The cottage community is significant in the areas of Ethnic History-Other and Entertainment/Recreation for its association with the late nineteenth- and early twentieth-century Portuguese fishing industry as well as its status as the only surviving summer residential community in the Boston Harbor Islands. Under Criterion C, Fort Andrews is significant in the areas of Architecture and Landscape Architecture as an intact Endicott-era military installation laid out in axial and curvilinear forms around a central parade ground, as well as possessing a cohesive collection of early twentieth-century Colonial Revival style buildings. The cottage community is significant in the area of Architecture as a rare example of seaside vernacular architecture and land use. Lastly, Peddocks Island is significant under Criterion D in the areas of Archeology-Prehistoric and Science as a contributing feature to the Boston Harbor Islands Archaeological District, which was listed in the National Register of Historic Places in 1985. Evaluation of archeological significance for this CLI is limited to the previously evaluated sites in the 1985 National Register documentation.

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The overall period of landscape significance for Peddocks Island is 1887 to 1968, which represents the years from when the first Portuguese fisherman and summer recreational cottages appeared on the island; through the development, expansion, and ultimate closing of Fort Andrews; to the latest date possible under the fifty-year rule (as required by the National Register of Historic Places) in order to acknowledge the continued use of the cottages.

ANALYSIS AND EVALUATION SUMMARY AND CONDITION

The physical integrity of Peddocks Island is evaluated by comparing the landscape characteristics and features present during the overall period of significance (1887-1968) with those of the existing landscape as assessed in 2018. The natural systems and features that define Peddocks Island – its drumlin landforms and connecting tombolos – are essentially unchanged despite the natural processes of shoreline and bluff erosion, tidal inundation, and storm events. The large-scale topographic characteristics that contributed the layout of tactical and non-tactical facilities at Fort Andrews and the siting of the cottage communities also remains evident. Specific examples of how the topography was altered can be seen in the terraced landforms in the parade ground area and Officers' Row, as well as the extant training trenches hand-dug by soldiers in World War I. The retention of some of the fort's key facilities demonstrate the army's organization and design of spaces and its attentions to practicality, aesthetics, and rank. Likewise, the compact rows of cottages and associated outbuildings within the three distinct residential areas along the shorelines still exhibit the island's close-knit summer community. There are currently 36 buildings and structures at Fort Andrews and 47 cottage sites on the island (East, Middle, and West Heads combined). Two of the remaining fort buildings, the new guardhouse and the chapel, have been rehabilitated as a visitor center and restored for special events, respectively, while other buildings are used for park operations or have been stabilized and secured for future use. Around 27 cottage sites are used seasonally on a regular or occasional basis and continue to feature modest cabins surrounded by a variety of small outbuildings and garden spaces. A line of historic maple trees lining the main road facing the parade ground has been supplemented with plantings of new shade trees. The successional vegetation that began to take hold in the island's open areas after World War II has continued since the historic period, but clearing projects in the parade ground and the top of the north drumlin has reopened some of the fort's historic views. Although military land uses on Peddocks Island have vanished, seasonal residential use is ongoing and recreational use is increasing.

There have been notable changes in the character of Peddocks Island since 1968. At the fort the park has removed numerous permanent and temporary army facilities for safety reasons, while ruins of other buildings, structures, roads, and walks, are still hidden in the dense forests. In the cottage areas the park has removed several state-owned abandoned cottages, but several other privately-owned dilapidated cabins remain. Successional forests now completely dominate the island landscape. Trees, shrubs, and vines

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cloak the fort's batteries, and have claimed the strategic views from the gun batteries on the north drumlin and the observation and communication facilities on the south drumlin. Such conditions also characterize the empty and abandoned cottage sites. Despite these changes, the landscape retains enough of its historic characteristic and features to convey the significance of Fort Andrews and the cottage communities. The park has developed two small yurt campgrounds, a group campground, and picnic areas, but these new land uses are relatively compact and are compatible with the historic scene.

Overall the current condition of Peddocks Island landscape is "fair." Numerous army buildings, structures, and circulation features that remain at Fort Andrews have been rehabilitated, restored, or stabilized for current or future uses, but other historic features are in various states of ruin and will continue to deteriorate without management action. Slightly over half of the cottage sites are used seasonally and maintained, but other sites have been cleared or are in a state of decline. Shoreline and bluff erosion is evident on the island, and has destroyed some fort and cottage features in these areas. Litter and debris is prevalent on the shorelines, and has created unsightly and potentially hazardous conditions for residents and visitors. Successional vegetation continues to dominate the island, blocking access to and views from the batteries and the various fire control and switchboard facilities.

Inventory Unit Size (Acres)

210.4

Site Plan Information

Site Plan Graphic

Graphics are located at the end of this report.

CLI Hierarchy Description

CLI Hierarchy Description Narrative

Peddocks Island is one of 33 CLI units in the Boston Harbor Islands National Recreation Area. They include: Bumpkin Island, Button Island, Calf Island, Deer Island, Gallops Island, Georges Island, Grape Island, Great Brewster Island, Green Island, Hangman Island, Langlee Island, Little Brewster Island, Little Calf Island, Long Island, Lovells Island, Middle Brewster Island, Moon Island, Nixes Mate, Nut Island, Outer Brewster Island, Raccoon Island, Ragged Island, Rainsford Island, Sarah Island, Shag Rocks, Sheep Island, Slate Island, Snake Island, Spectacle Island, The Graves, Thompson Island, and Worlds End.

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Concurrence Status

Inventory Unit

Completion Status Explanatory Narrative

Research for this CLI coincided with an update to the 2000 “Cultural Landscape Report for the Boston Harbor Islands, Volume I: Historical Overview” by the Olmsted Center for Landscape Preservation. In 2016-17 staff from Boston Harbor Islands NRA and the Olmsted Center and, including Marc Albert, Melissa Eloshway, Jennifer Hanna, and Jeff Killion, conducted several site visits to Peddocks Island. In 2017-2018 Eloshway completed site plans and Killion and Eloshway completed the text. The park contact for this report is Marc Albert, Director of Natural Resource Partnerships, 978-360-0421, marc_albert@nps.gov.

Park Superintendent Concurrence

tbd [Yes/No]

Park Superintendent Concurrence Date

tbd [mm/dd/yyyy]

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Geographic Information & Location Map

Inventory Unit

Inventory Unit Boundary Description

The boundary of the Peddocks Island CLI is coterminous with park boundary for the island. The park boundary of the 210.4-acre island follows the low mean water line. The island is located 200 yards west of Hull, Massachusetts.

Park Management Unit

Peddocks Island

State and County

State

Massachusetts

County

Plymouth

Location Map Information

Location Map Graphic

Graphics are located at the end of this report.

Boundary Coordinates

Boundary Latitude	Boundary Longitude	Boundary UTM Datum	Boundary Datum Other
42.299380	-70.926994	Other Datum	Google Earth Pro
42.302240	-70.927231		
42.302790	-70.930503		
42.301558	-70.934697		
42.299732	-70.935470		
42.297466	-70.934697		
42.295310	-70.935797		
42.293397	-70.937641		
42.290625	-70.943410		
42.290954	-70.945847		
42.291240	-70.948020		
42.290250	-70.950012		

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42.286552	-70.948168		
42.287302	-70.946651		
42.288094	-70.946057		
42.289283	-70.942131		
42.288047	-70.940287		
42.285763	-70.939306		
42.284905	-70.937641		
42.285983	-70.938146		
42.287369	-70.939693		
42.289481	-70.939068		
42.290955	-70.936214		
42.295024	-70.934875		
42.296300	-70.933150		
42.296872	-70.929790		

Regional Landscape Context

Types of Regional Landscape Context Types and Descriptions

Physiographic:

Boston Harbor is a natural harbor and estuary of Massachusetts Bay, a vast bay on the Atlantic Ocean that forms part of the central coastline of the Commonwealth of Massachusetts. With the bay to the east, the harbor area includes smaller named water bodies to the north, west, and south, including the Inner Harbor, Old Harbor, Dorchester Bay, Quincy Bay, Hingham Bay, and Hull Bay (see Regional Landscape Context graphic). There are more than thirty islands in Boston’s inner and outer harbor, ranging from less than 1 acre to over 200 acres and collectively embracing 1,200 land acres dispersed over 50 square miles. (CLR Vol.1 2017: 9)

Boston Harbor is part of the Boston Basin, a topographic depression formed around 600 million years ago. Approximately 12,000 years ago retreating glaciers within the basin deposited 180 drumlins – asymmetrical, elongate masses of till formed into smooth-sloped hills. As the climate warmed and the glaciers receded, the melting ice raised ocean levels, thus inundating the basin and isolating the tops of some of the deposits as islands and flooding the local drainage system composed of the Charles, Mystic, and Neponset rivers. The islands in Boston Harbor are somewhat of a geological rarity as the only drumlin field in the United States that intersects a coastline. However, about a dozen of the islands are not drumlins, but rather outcrops of bedrock scoured by glaciers and composed of Cambridge and Braintree Argellite and a conglomerate of gravel and clay, locally called “Puddingstone.” The glaciers also left behind crushed gravel, sand, and mud that form beaches, salt marshes, and other coastal and subtidal environments. Natural coastal processes, including storms, wind, waves, and tides altered – and continue

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to shape – island landforms as wind and wave action cause shoreline erosion and accretion. (AOA Vol.1 2008: 11; CLR Vol.1 2017: 9-10)

Cultural:

Geological and natural processes shaped the Boston Harbor topography for millions of years, but human prehistoric and historic activities have dramatically altered the landscape in a relatively short period. The current island system is smaller than that documented by seventeenth-century European observers due to natural processes, which were accelerated by these human activities. (CLR Vol.1 2017: 9,11)

The Boston Harbor Islands contain a rich cultural history manifested in the many layers of physical remains, some fragmented and deteriorated and others intact and actively used. Specific features include buildings, structures, roads, trails, stone walls, wells, orchards, ornamental plantings, lawns, and other elements related to infrastructure. These cultural resources relate to coastal defense, navigation, agriculture, resource extraction, fishing and hunting, year-round and summer habitation, resort life, industry, public health, and social reform. Archeological resources in the form of shell middens and other recovered remains are also present on most islands. (CLR Vol.1 2017: 4; GMP 2002: 121)

Political:

Boston Harbor is located adjacent to the City of Boston and is bordered by the municipalities of Winthrop, Quincy, Weymouth, Hingham, and Hull, all part of the Commonwealth of Massachusetts. Boston (population 687,584 in 2017) is the economic and cultural anchor of a substantially larger metropolitan area known as Greater Boston, a metropolitan statistical area home to a census-estimated 4.8 million people in 2016 and ranking as the tenth-largest such area in the country. As a combined statistical area, this wider commuting region is home to approximately 8.2 million people, making it the sixth-largest in the United States. The Boston Harbor Islands lie within Suffolk, Plymouth, and Norfolk counties. (<https://en.wikipedia.org/wiki/Boston>, accessed 7 March 2018)

Management Information

Inventory Unit

Management Category

Must be Preserved and Maintained

Management Category Date

tbd [mm/dd/yyyy]

Management Category Explanatory Narrative

Pedlocks Island, as part of the Boston Harbor Island National Recreation Area, meets the management category “Must Be Preserved and Maintained” because the preservation of the unit is specifically legislated. Congress established the Boston Harbor Islands as a unit of the national park system on November 12, 1996 (Public Law 104-333). According to the legislation, the purpose of the park is to “preserve for public use and enjoyment the lands and waters that comprise the Boston Harbor Islands Nation Recreation Area.” (GMP 2002: 109)

Rather than having the NPS own and manage the park, the enabling legislation makes the NPS a non-landowning participant in the Boston Harbor Islands Partnership, and directs the Partnership “to coordinate the activities of the Federal, State, and local authorities and the private sector in the development and implementation of” a general management plan. The law established a 13-member body consisting of: NPS, U.S. Coast Guard, Massachusetts Department of Environmental Management, Metropolitan District Commission, Massachusetts Water Resources Authority, Massachusetts Port Authority, City of Boston, Boston Redevelopment Authority, Thompson Island Outward Bound Education Center, The Trustees of Reservations, Island Alliance, and Boston Harbor Islands Advisory Council. Pedlocks Island is owned by the Commonwealth of Massachusetts Metropolitan District Commission. (GMP 2002: ii,23-24)

To help determine the balance between resource preservation and visitor use, the General Management Plan defines three management areas on Pedlocks Island, which generally correspond to the three drumlin heads: Historic Preservation Emphasis (Fort Andrews area on East Head), Managed Landscape Emphasis (cottages area on north part of Middle Head), and Natural Features Emphasis (West Head and south part of Middle Head). (GMP 2002: 49-56)

Adjacent Lands Information

Do Adjacent Lands Contribute?

Yes – Adjacent lands do contribute

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Adjacent Lands Description

Adjacent lands are lands outside the cultural landscape boundary, including lands inside or outside the park, which contribute to the significance of the property. Adjacent lands were historically a key component of the island’s fortifications in that they were designed and built to protect Nantasket Roads, the southern approach into Boston Harbor. Views and vistas of adjacent lands and waters were also an important characteristic for the residents who occupied the seasonal cottages on Middle Head.

Management Agreement

Management Agreement	Management Agreement Expiration Date	Management Agreement Explanatory Narrative	Other Management Agreement
tbd-Park Concession Contract/Permit Cooperative Agreement Special Use Permit Lease Interagency Agreement Memorandum of Understanding Other	tbd-Park [mm/dd/yyyy] NA UK	tbd-Park [enter text here]	[enter text here]

NPS Legal Interest

Type of Legal Interest

None – State Government Owned

Other Agency or Organization

Massachusetts Department of Conservation and Recreation (DCR).

Public Access to Site

Public Access

Other Restrictions

Public Access Explanatory Narrative

Peddocks Island is managed by the Massachusetts Department of Conservation and Recreation (DCR). Seasonal access to the island is by a park shuttle boat that lands at the dock on East Head, from late June to Labor Day. Visitor facilities and services, including the campground, are open in the summer. A network of asphalt roads circulate through Fort Andrews on East Head, while an asphalt road and unimproved path

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extends between the dock and Middle Head. Paths extend around the cottages and a rough path extends from the Middle Head cottages to West Head. The new guardhouse serves as a visitor center and the chapel hosts special events, but other buildings at Fort Andrews are closed to the public. Other cottages remain in use as private residences or are abandoned/derelict and are closed to the public.

National Register Information

Inventory Unit

National Register Landscape Documentation

SHPO – Inadequately Documented

National Register Documentation History

Peddocks Island became part of the Boston Harbor Islands National Recreation Area on November 12, 1996 (P.L. 104-333, 110 Stat. 4093). Prior to that date, several historic sites on the island were listed on the National Register of Historic Places, while complexes of other resources were determined eligible for listing on the National Register.

On March 13, 1972, the Massachusetts State Historic Preservation Office (SHPO) approved a National Register nomination for Boston Harbor. The nomination form identified significance in the areas of Commerce, Military, Political, and Transportation for the seventeenth through twentieth centuries. The statement of significance noted Boston's important role in early European settlement and trade with the West Indies, the harbor as both a starting and ending point of many expeditions, and the harbor as the site of numerous forts and the country's first lighthouse. The form made no specific mention of Peddocks Island. It appears that the form was not submitted to the National Register for approval.

On December 21, 1985, the Keeper of the National Register accepted documentation for the Boston Harbor Islands Archeological District. The district included 21 of the 34 islands in Boston Harbor, including Peddocks Island. The documentation identified significance in the areas of Archeology-Prehistoric and Science for the prehistoric, fifteenth, and sixteenth centuries, with specific dates listed as "9,500 to 500 B.P." The documentation stated that the district's significance was based on information its sites have yielded, or will continue to yield, in prehistory. Peddocks Island was acknowledged as one of thirteen islands in the district that have been surveyed and contain known archeological sites. Six sites dating to the Late Archaic, Middle-Late Woodland, and Late Woodland periods were identified at Peddocks Island.

On March 18, 1986, the Massachusetts SHPO determined that the Fort Andrews complex was eligible for listing in the National Register at the local level under criteria A and C. Under Criterion A, the fort was representative of a locally important period of military development and reflected the continued use of Boston's Harbor Islands as a major component of the city's defense system. Under Criterion C, the complex reflected a single period of architectural development and, though deteriorated, was an excellent example of Colonial Revival institutional architecture that preserved intact the plan and hierarchy of the complex's military use. The SHPO noted that despite the removal of some buildings and demolition of others, the complex retained sufficient integrity to convey a strong sense of its original use, design, and

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setting. The areas of significance can be deduced as Military and Architecture, but the SHPO's form did not identify specific areas or periods of significance, or specific resources. The Massachusetts Cultural Resource Information System (MACRIS) cover page for Fort Andrews lists significance in the areas of Agriculture (sic), Archeology-Historic, Archeology-Prehistoric, Military, and Politics/Government.

On October 31, 2001, the Massachusetts SHPO determined that the Peddocks Island Cottages were eligible for listing in the National Register at the local level under criteria A and C. Under Criterion A, the cottages were associated with the Portuguese fishing community on the Boston Harbor Islands and significant as the last remaining example of a residential grouping. Under Criterion C, the cluster of cottages and various outbuildings were collectively significant for their seaside vernacular architecture and evolution of designs over time. The areas of significance can be deduced as Ethnic Heritage, Recreation, and Architecture, but the SHPO's form did not identify specific areas or periods of significance, or specific cottage sites. The MACRIS cover page for the Peddocks Island Cottages lists significance in the areas of Architecture, Ethnic Heritage, Maritime History (sic), and Recreation.

Additional information on the National Register eligibility of Fort Andrews and the cottages was contained in a series of letters authored by the Massachusetts SHPO regarding rehabilitation of the fort's guardhouse and planning and demolition of some of the cottages and outbuildings. In letters dated August 10, 2005, October 22, 2014, and January 26, 2017, the SHPO stated that the cottages and outbuildings were eligible for listing at the local level under criteria A and C for associations with the fishing community on the Harbor Islands and as an example of seaside vernacular architecture. In a letter dated August 8, 2011, the SHPO stated that Fort Andrews was eligible for listing under criteria A and C for its association with the military defense of Boston Harbor from the Spanish-American War through World Wars I and II, and as an excellent, though deteriorated, example of Colonial Revival-style institutional architecture, preserving intact the plan and hierarchy of the complex's military use. None of the letters identified specific areas or periods of significance.

According to research conducted for this CLI and the categories of National Register documentation outlined in the "CLI Professional Procedures Guide," the areas and periods of significance for above ground resources at Peddocks Island are inadequately documented in the National Register and in past consultations with the Massachusetts SHPO. The existing documentation does not adequately describe the site's historic resources that contribute to its significance. Therefore, for purposes of the CLI, Peddocks Island is considered "SHPO-Inadequately Documented."

National Register Eligibility

tbd [seeking "Eligible – SHPO Consensus Determination"]

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National Register Eligibility Concurrence Date (SHPO/Keeper)

tbd [mm/dd/yyyy]

Statement of Significance

Peddocks Island, which includes Fort Andrews and cottage community, is significant at the state level under National Register of Historic Places criteria A and C in the areas of Architecture, Entertainment/Recreation, Ethnic Heritage-Other, Landscape Architecture, Military. Under Criterion A, Fort Andrews is significant for its role in coastal defense and military affairs in Massachusetts during the Endicott and Taft eras of harbor defense reform from 1898 into the early 1900s. The cottage community is significant for its association with the late nineteenth- and early twentieth-century Portuguese fishing industry as well as its status as the only surviving summer residential community in the Boston Harbor Islands. Under Criterion C, Fort Andrews is significant as an intact Endicott-era military installation laid out in axial and curvilinear forms around a central parade ground, as well as possessing a cohesive collection of early twentieth-century Colonial Revival style buildings. The cottage community adds additional significance as a rare example of seaside vernacular architecture and land use. Lastly, Peddocks Island is significant under Criterion D in the areas of Archeology-Prehistoric and Science as a contributing feature to the Boston Harbor Islands Archaeological District, which was listed in the National Register of Historic Places in 1985. Evaluation of archeological significance for this CLI is limited to the previously evaluated sites in the 1985 National Register documentation.

The overall period of landscape significance for Peddocks Island is 1887-1968, which begins when the first Portuguese fishermen and summer recreational cottages appeared on the island, and ends with the latest date possible under the fifty-year rule (as required by the National Register) in order to acknowledge the continued use of the cottages. The period also includes the army's construction of Fort Andrews in 1898 and the final closure of the post in 1947.

CRITERION A

Military:

Fort Andrews is significant at the state level under Criterion A in the area of Military. The U.S. Government purchased land on East Head in 1898 on the eve of the Spanish American War, and began building the fort as part of the national effort to upgrade coastal harbor defenses as ordered by the 1886 Endicott Report. Fort Andrews served as the district headquarters for six companies of coast artillery harbor defense troops and was "the most important garrison in Boston Harbor, [and] the second most important on the Atlantic seaboard (U.S. War Department, Correspondence, 1907). Consisting today of five unarmed batteries, 30 original permanent buildings, and one temporary structure (the chapel), Fort

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Andrews was by far the most developed Endicott-era installation in the state and one of the largest in New England (similarly-sized and extant installations can be found at Fort McKinley and Fort Preble in Portland, Maine). The army built additional observation and communication equipment as directed by the 1905 Taft Report, as well as an array of temporary barracks, mess halls, and other facilities during World Wars I and II. The fort was deactivated and managed in caretaker status from 1928-1940, and permanently closed in 1947.

Entertainment/Recreation and Ethnic Heritage - Other

The cottage community is significant at the state level under Criterion A in the areas of Entertainment/Recreation and Ethnic Heritage–Other. Now comprised of 47 cottage sites on East, Middle and West Heads, the community has its origins in the Portuguese fishing cottages established on the southwestern shore of East Head in 1887 and the simultaneous development of recreational summer cottages on the eastern shore of East Head. By 1910 the most of the fishermen and cottagers had moved to the northwest and northeast sides of Middle Head, respectively, because of the army’s construction of Fort Andrews. Over time the distinctions between the two areas blurred and year-round occupancy transitioned to seasonal uses. However, the community still retains cultural ties to some of the early Portuguese and other summer families who still occupy cottages on the island. (Provencher 2009: 24)

CRITERION C

Architecture and Landscape Architecture:

Fort Andrews is significant at the state level under Criterion C in the areas of Architecture and Landscape Architecture. The fort reflects the ideas put forth by the Endicott Board, which at the time were revolutionary upgrades for the nation’s coastal defenses that heralded a new approach to how such military installations were planned and built. No longer were armaments part and parcel with massive earthen and stone fortifications; with the Endicott Board recommendations, they were now part of a larger system of ever more powerful guns and mortars that were themselves part of a more dispersed installation over large areas of land. These new posts were first and foremost vehicles for the proper deployment of armaments, but were very consciously designed to be aesthetically pleasing in their highly groomed appearance, suggestive of the superiority of the United States military. Fort Andrews is an excellent surviving example of this new paradigm in which the non-tactical structures such as barracks, officers’ quarters, and administrative buildings were laid out to surround a parade ground in unique combinations of military axial arrangements and curvilinear forms. The execution of this design resulted in a multi-layered cultural landscape that combined the logistical needs of the new batteries and armament technology, turn-of-the-century Beaux-Arts and Olmsted-based ideas of park design, and concepts specific to military hierarchical structure and rules of behavior and decorum. (Provencher 2009: 22-23)

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Today, Fort Andrews continues to embody these ideas in its overall layout and design, as well as the structural and landscape details of its buildings. The five batteries are all intact (without guns as most were recycled throughout the entire system) and are excellent examples of period technology with small tactical modifications (such as the fire control station on Battery Rice) representing advancements in military technology. Further, the barracks, officers' quarters, and other buildings were all built according to standardized Office of the Quartermaster General plans used throughout U.S. coastal defenses. These plans used architectural styles popular at the turn of the century, such as Colonial Revival. On Peddocks Island, some of these buildings still stand (in poor to fair, but stabilized, conditions) in their formal arrangement surrounding the parade ground, the symbolic and functional center of the Endicott-era fort. Many details such as fire hydrants, utility poles, light posts, and fences are found throughout the fort and the overall circulation system, which follows the drumlin-based topography, is still extant. Although the forested land cover has significantly altered the setting of Peddocks Island, many of the original landscape plantings such as maples along the main road are still extant. Recent projects to remove vegetation on top of the north drumlin, along Officers' Row, and in the parade ground have restored some of the fort's key strategic and aesthetic views. (Provencher 2009: 22-23)

The cottage community is significant at the state level under Criterion C in the areas of Architecture and Landscape Architecture. Most of the cottages and their outbuildings (including outhouses, well heads, and sheds) reflect the difficulties of constructing a home in such an isolated location. Construction methods and materials vary from pieces of flotsam cobbled together with dimensional lumber (primarily the older cottages) to professional construction materials and methods (more commonly found in the newer cottages). Many of the cottages are linearly arranged along the beaches to maximize shoreline access and the ocean views. The others are aligned in two corridors, one named "Crab Alley," that lie perpendicular to the shore on Middle Head and are enclosed within successional forests creating more closed spaces than those along the beaches. These clustered arrangements, when combined with landscape elements such as fruit trees, ornamental plantings, garden beds, and now-overgrown surrounding vegetation create intimate rustic spaces that are unique on the islands, and extremely rare in New England where seafaring-associated vernacular and utilitarian structures are rapidly disappearing. (Provencher 2009: 24)

CRITERION D

Archeology-Prehistoric and Science

Peddocks Island is one of 21 islands within the Boston Harbor Islands Archeological District. According to the 1985 National Register documentation, the district is significant at the state and local levels based on the information its sites have yielded, or will continue to yield, as they relate to three National Register criteria. The district contributes to the broad patterns of prehistory and the adaptation of prehistoric peoples to the coast and coastal resources (Criterion A); embodies the distinctive characteristic of a site type, the

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shell midden (Criterion C); and is significant because it has yielded information important to prehistory (Criterion D). This information includes data on changing patterns of shellfish use, exploitation of non-maritime resources in island environments, and differential use of inner and outer harbor islands. (National Register 1985, Sec.8)

National Register Significance Level

State

National Register Significance -- Contributing/Individual

Contributing

National Register Classification

District

National Historic Landmark Status

No

World Heritage Site Status

No

National Register Significance Criteria

National Register Significance Criteria

Criterion A: Event

Criterion C: Design/Construction

Criterion D: Information Potential

National Register Criteria Considerations

National Register Criteria Consideration

n/a

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National Register Period of Significance and Historic Context Theme(s)

Start Year/Era and End Year/Era	Historic Context Theme	Historic Context Subtheme	Historic Context Facet
1887-1968	Creating Social Institutions and Movements	Ways of Life	Ethnic Communities (Including the Immigration Phenomenon)
1887-1968	Creating Social Institutions and Movements	Recreation	General Recreation
1887-1968	Expressing Cultural Values	Architecture	Vernacular Architecture
1898-1947	Expressing Cultural Values	Architecture	Period Revivals (1870-1940)
1898-1947	Expressing Cultural Values	Landscape Architecture	Regional Planning
1898-1947	Shaping the Political Landscape	Political and Military Affairs 1865-1939	World War I, 1914-1919
1898-1947	Shaping the Political Landscape	World War II	The Home Front

National Register Areas of Significance

Area of Significance Category	Area of Significance Subcategory (if Archeology or Ethnic Heritage)
Architecture	n/a
Archeology	Prehistoric
Entertainment/Recreation	n/a
Ethnic Heritage	Other
Landscape Architecture	n/a
Military	n/a
Science	n/a

Area of Significance Category Explanatory Narrative

Portuguese

State Register Documentation

State Register Documentation Names, Numbers, and Dates Listed

Fort Andrews (HUL.D), 03/18/1986

Peddocks' Island Cottages (HUL.L), 10/31/2001

Boston Harbor Islands Archeological District (BOS.IZ), 12/21/1985

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NRIS Information

Park Alpha Code/NRIS Name (Number)

BOHA/Boston Harbor Islands Archeological District (85003323)

Primary Certification Date

12/21/1985

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Chronology & Physical History

Inventory Unit

Primary Historic Function – Major Category	Defense
Primary Historic Function – Category	Military Facility (Post)
Primary Historic Function	Military Facility (Post)
Primary Current Use – Major Category	Landscape
Primary Current Use – Category	Leisure-Passive (Park)
Primary Current Use	Leisure-Passive (Park)

Other Current and Historic Uses/Functions

Major Category	Category	Function	Type
Recreation/Culture	Outdoor Recreation	Campground/Picnic Area	Current
Landscape	Scenic Landscape	Overlook	Current
Vacant (Not In Use)	Ruin	Ruin	Current
Government	Government Office	Visitor Contact (Visitor Center)	Current
Recreation/Culture	Museum (Exhibition Hall)	Wayside Exhibit	Current
Vacant (Not In Use)	Abandoned/Unmaintained	Abandoned/Unmaintained	Both Current and Historic
Domestic (Residential)	Single Family Dwelling	Cabin/Lookout	Both Current and Historic
Religion	Religious Structure (Church)	Religious Structure (Church)	Both Current and Historic
Domestic (Residential)	Small Residential Landscape	Small Residential Landscape	Both Current and Historic
Vacant (Not In Use)	Vacant/Maintained (Mothballed)	Vacant/Maintained (Mothballed)	Both Current and Historic
Landscape	Scenic Landscape	View	Both Current and Historic
Agriculture/Subsistence	Agricultural Field	Agricultural Field	Historic
Defense	Fortification	Battery (Defense)	Historic
Agriculture/Subsistence	Agricultural Field	Farm (Plantation)	Historic
Agriculture/Subsistence	Livestock	Livestock	Historic
Defense	Fortification	Parade Ground	Historic
Commerce/Trade	Restaurant (Bar, Lounge)	Restaurant (Bar, Lounge)	Historic

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Current and Historic Names

Name	Type (Historic, Current, or Both)
Petticks Island	Historic
Puttock Island	Historic
Pedocks Island	Historic
Peddocks Island	Current

Cultural Landscape Types

Cultural Landscape Type

Historic Designed Landscape

Historic Vernacular Landscape

Ethnographic Associated Groups

Ethnographic Study Conducted

Yes – Unrestricted Information

Ethnographic Significance Description

In 2016 the report “A Place of Quiet Adventure: An Ethnographic Study of the Peddocks Island Cottages” was completed by Cathy Stanton, PhD. The study documented what is known of the history of the Peddocks Island cottages and their occupants from the late nineteenth century to the present day, drawing on archival and published sources and cottagers’ memories and records.

Chronology

Start Year	Start Era	End Year	End Era	Major Event	Major Event Description
1600	CE	1600	CE	Inhabited	Prior to 1600, Native Americans seasonally inhabited Peddocks Island.
1605	CE	1608	CE	Explored	French navigator Samuel de Champlain explores Boston Harbor, and describes the islands and their inhabitants.
1614	CE	1614	CE	Explored	In 1614 Captain John Smith explores Boston Harbor and notes its suitability for English colonization.
1622	CE	1622	CE	Purchased/Sold	A group of English colonists “purchases” the Nantasket Peninsula and adjacent Peddocks Island.
1634	CE	1634	CE	Ranched/Grazed	General Court grants Peddocks Island to Charlestown for pasture land.
1642	CE	1642	CE	Purchased/Sold	The Town of Hull acquires Peddocks Island and divides much of it into 4-acre parcels.
1775	CE	1775	CE	Inhabited	The first detailed map of the island indicates a

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					structure and fenced enclosure on the southwest side of East Head.
1775	CE	1775	CE	Removed	Continental troops move around 500 sheep and 30 cattle to the mainland.
1776	CE	1776	CE	Military Operation	Around 600 area militiamen are stationed on the island to guard the entrance to Boston Harbor, most likely on East Head.
1778	CE	1778	CE	Military Operation	In 1778, the French take refuge in Boston Harbor to refit their vessels, dispersing some troops on Peddocks Island to fortify East Head.
1799	CE	1799	CE	Built	The Humane Society of the Commonwealth of Massachusetts erects an emergency hut for shipwrecked sailors on Peddocks Island, although the location is not known.
1844	CE	1898	CE	Purchased/Sold	From 1844-98, the Cleverly family owns a farm on East Head, in the valley between the two drumlins.
1844	CE	1898	CE	Purchased/Sold	From 1844-98, members of the Jones/Andrew family own most of the island, except the Cleverly farm.
1860	CE	1860	CE	Built	By 1860 the Cleverly farm includes two houses, three outbuildings, wharf, orchard, windbreak, and pond, and fenced enclosures along the entire length of the valley.
1865	CE	1875	CE	Built	Tent camping is noted on Peddocks Island, possibly at the Cleverly farm.
1870	CE	1879	CE	Military Operation	In the 1870s the Alger Foundry of South Boston conducts ordnance tests from nearby Nut Island, firing guns at targets on Princes Head.
1887	CE	1887	CE	Moved	Construction of a hospital begins on nearby Long Island, prompting some displaced Azorean fisherman there to rebuild their cottages on the southwestern shoreline of East Head.
1880	CE	1889	CE	Built	By the late 1880s the Cleverly farm grows to nine structures (some may be cottages). The Cleverlys leave the island a few years later.
1895	CE	1899	CE	Built	In the late 1890s there is a small hotel or guest house named The Willows on West Head. Location unknown.
1898	CE	1898	CE	Purchased/Sold	The U.S. government acquires the northern 23 acres of East Head from Eliza J.H. Andrew, who retains ownership of Middle and West Heads.
1898	CE	1904	CE	Built	The army builds the fort's main east-west road through the valley separating the drumlins, and a curvilinear road from the main road to the top of the north drumlin. Two temporary sheds and a wharf are located at the east end of the main road and temporary buildings for a mess hall, barracks, and officers' quarters are at the west end. Two temporary buildings are located at the main road's midpoint, and a battery observation station (#F-101) is atop the north drumlin.
1898	CE	1902	CE	Built	Construction of mortar Battery Whitman on the lower west slope of north drumlin.
1898	CE	1902	CE	Built	Construction of gun Battery Rice on the upper north slope of north drumlin.
1900	CE	1900	CE	Established	On April 4 the new military post on Peddocks Island is dedicated as Fort Andrews.
1901	CE	1904	CE	Built	Construction of mortar Battery Cushing on the lower west slope of north drumlin.
1901	CE	1904	CE	Built	Construction of gun Battery McCook on the upper north slope of north drumlin.

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1902	CE	1904	CE	Built	Construction of gun Battery Bumpus on the upper north slope of north drumlin.
1903	CE	1903	CE	Purchased/Sold	The federal government acquires the southern 63 acres of East Head from the estate of Eliza Andrew.
1903	CE	1904	CE	Planned	A 1903-04 army plan proposes expanding fort facilities with permanent buildings to accommodate two companies.
1904	CE	1904	CE	Built	By 1904 there are fourteen fishermen cottages on the southwestern shore of East Head and sixteen summer cottages on the eastern shore of East Head.
1904	CE	1907	CE	Moved	Between 1904-07 all but one of Cleverly buildings/summer cottages on the eastern shore of East Head are demolished or moved to the northeast side of Middle Head.
1904	CE	1910	CE	Moved	Between 1904-10, some Portuguese fishermen move their cottages from the southwestern shore of East Head to the northwest side of Middle Head while others leave them abandoned.
1904	CE	1904	CE	Destroyed	The Willows hotel on West Head burns down.
1905	CE	1907	CE	Built	Between 1905-07 the Island Inn opens on the northeast side of Middle Head.
1905	CE	1905	CE	Built	Expansion of Fort Andrews: range-finder station (R.F.), non-commissioned officers' quarters (#s 14,15,16), hospital (#17, including west wing), barracks (#10), quartermaster stable (#4), coal shed (no#), and wagon shed (no#).
1906	CE	1906	CE	Built	Expansion of Fort Andrews: officers' quarters (#s 19,20,21), field officers' quarters (#22), barracks (#11), [old] guardhouse (#7), wharf waiting room (#6), ordnance storehouse (no#), and searchlight shelter (#24).
1907	CE	1907	CE	Built	"The Clubhouse" opens on West Head, possibly on the southwest tip.
1907	CE	1907	CE	Planned	A 1907 plan proposes expanding the fort facilities to serve as a district headquarters and to accommodate six companies.
1907	CE	1907	CE	Graded	The parade ground space is graded.
1907	CE	1914	CE	Planted	From 1907-14 trees and lawns are installed throughout the fort.
1907	CE	1911	CE	Planted	Soldiers plant vegetable gardens and orchards on East Head.
1907	CE	1914	CE	Built	From 1907-14 a network of concrete sidewalks and stairs is developed throughout fort, some of which are lined with ornamental light posts.
1907	CE	1907	CE	Built	Construction of post exchange/recreation hall (#25).
1907	CE	1908	CE	Built	In 1907-08 water service is installed through a conduit from Nut Island through West Gut.
1908	CE	1908	CE	Built	Construction of administration building (#26), barracks (#13), officers' quarters (#s 27,28), battery command/fire control structure (#F-105), fire control switchboard room (#F-106), dormitory (#46), latrine (#45); radio station (#F-103), two sheds (no #s); oil house (#43), and two cable houses (no #s).
1909	CE	1909	CE	Built	Construction of barracks (#29) and crematory (#5).
1910	CE	1910	CE	Moved	The last of the summer cottages along the eastern shoreline is moved to the southwestern shoreline, next to several abandoned fishermen cottages. This area becomes known as Sergeants' Row.
1910	CE	1910	CE	Built	Construction of officers' quarters (#30) and new

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					guardhouse (#31).
1912	CE	1912	CE	Built	Construction of quartermaster's storehouse (#36), field officers' quarters (#18), non-commissioned officers' quarters (#s 34,35), and hospital (#17, east wing).
1913	CE	1913	CE	Built	Construction of seawall (#48) along eastern shoreline.
1913	CE	1913	CE	Destroyed	The "Clubhouse" is lost to fire.
1914	CE	1914	CE	Built	Construction of "gully" searchlight (no#) on north slope of the north drumlin.
1917	CE	1917	CE	Abandoned	The Island Inn on Middle Head closes.
1917	CE	1917	CE	Planned	Fort Andrews is garrisoned by 400 men of the 55th Coast Artillery.
1917	CE	1917	CE	Built	Around c.1917 a network of zig-zag-shaped training trenches are dug in the west slope of the north drumlin.
1917	CE	1917	CE	Built	Construction of nineteen "600 series" temporary buildings. Twelve buildings are across from the two mortar batteries: seven mess halls, three latrines/lavatories, and two barracks. Six buildings are near the three gun batteries: three temporary mess halls and three latrines/lavatories. One building is an outlier: a guardhouse (no#) at the west end of the south boundary.
1917	CE	1921	CE	Built	Construction of observation platform (no#), bakery (#9), fire station (#33), battery command station (#F-102) within Battery Rice, flagstaff (#32A), electric substation (#1), saw mill (no#), and scales (no#).
1917	CE	1921	CE	Altered	The old guardhouse (#7) is converted into a food storehouse and non-commissioned officers' quarters (#16) is converted to the hospital steward's quarters.
1918	CE	1920	CE	Altered	Armaments from the two mortar batteries and some from the three gun batteries are shipped to Europe in 1918 and then partially remounted in 1920.
1920	CE	1939	CE	Altered	In the 1920s-30s Cottage #3 on Middle Head is used as a tea room.
1920	CE	1959	CE	Established	In the 1920s-50s a small ferry operates on Middle Head.
1924	CE	1924	CE	Built	Construction of the "vertical lift" searchlight (no#) on the north slope of the north drumlin.
1926	CE	1926	CE	Damaged	One of the four brick barracks (#13) on the parade ground is damaged in a fire. It is removed after 1932.
1928	CE	1928	CE	Abandoned	Fort Andrews is deactivated for the first time.
1930	CE	2018	CE	Naturalized	Vegetation becomes established in formerly open areas of East Head.
1932	CE	1932	CE	Demolished	By 1932 demolition of all "600 series" temporary barracks, mess halls, and latrine/lavatory buildings.
1934	CE	1937	CE	Altered	The Bies cottage (Cottage #45) on Sergeants' Row is lost to fire, but rebuilt in 1937.
1934	CE	1934	CE	Destroyed	The building that replaced "The Clubhouse" on West Head is lost to fire, and is not rebuilt.
1935	CE	1935	CE	Demolished	The old pre-1904 barracks and mess halls turned quartermaster buildings at the west end are razed.
1938	CE	1938	CE	Destroyed	Cottage #1, and perhaps others, is destroyed in the Hurricane of 1938 and later rebuilt.
1940	CE	1940	CE	Planned	Fort Andrews is reactivated for World War II, and regarrisoned with U.S. Army and National Guard soldiers.
1940	CE	1945	CE	Built	Construction of 33 "700 series" temporary buildings. Twelve buildings are in the same location as the old

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					World War I temporary buildings across from the two mortar batteries: six barracks, two mess halls, two day rooms, and two supply rooms and administration. Fourteen buildings are on the upper west slopes of the south drumlin: seven barracks, three mess halls, two day rooms, supply and detachment office, and company administration and storehouse. Retaining walls (#47) are also built in this area. Three buildings are located on or near the parade ground: chapel (#T-31), theatre (#T-1), and day room/library (#T-2). Four buildings are outliers: barracks on west side of north drumlin (#T-32), pumphouse (#T-30) on east slope of south drumlin, sentry box (#T-35) at the west end of the south boundary, and garbage grinder (#T-34) at west end of main road.
1940	CE	1945	CE	Built	The new facilities at the fort are accompanied by upgrades to roads, sidewalks, and other infrastructure, including a new water reservoir (#44) atop the south drumlin and a pumphouse (#T-30) on the lower southeast slope of the south drumlin.
1940	CE	1945	CE	Altered	Except for Batteries McCook and Bumpus, all other guns and mortars are removed.
1940	CE	1945	CE	Altered	By 1947 the post exchange housed in the recreational hall (#25) is moved to the bakery (#9).
1940	CE	1945	CE	Built	Construction of observation station (#F-104) on the south drumlin.
1944	CE	1945	CE	Inhabited	The temporary barracks on the upper west slopes of the south drumlin are used to house Italian POWs.
1947	CE	1947	CE	Abandoned	Fort Andrews is deactivated for the second and final time.
1948	CE	1951	CE	Abandoned	Fort Andrews is surplus to the War Assets Administration in 1948 and declared as "excess property" by the General Services Administration in 1951.
1955	CE	1955	CE	Destroyed	Two cottages on Middle Head are lost to fire.
1957	CE	1957	CE	Purchased/Sold	The entirety of East Head is purchased by Richard S. Robie at public auction for \$35,000.
1958	CE	1958	CE	Purchased/Sold	Middle and West Heads are sold to Isadore Bromfield, a partner with Richard Robie in the East Coast Realty Company.
1964	CE	1964	CE	Platted	House lots of 10,000 square feet and larger are advertised on West Head for purchase.
1964	CE	1964	CE	Removed	By 1964 vegetation is removed on West Head for development of homes.
1967	CE	1969	CE	Built	In the late 1960s Cottage #45 is built on East Head, on the south drumlin's lower southwest slope adjacent to an old army pumphouse (#T-30).
1970	CE	2018	CE	Naturalized	Forests return to West Head after East Coast Realty development plan is abandoned.
1970	CE	1970	CE	Purchased/Sold	With financial assistance from the Department of Housing and Urban Development's Open Space Program, the Metropolitan District Commission (MDC), now the Department of Conservation and Recreation (DCR), acquires Peddocks Island under eminent domain. The island becomes part of Boston Harbor Islands State Park. The cottages remain in the hands of the families while the land under them is owned by the state. An appraisal identifies 57 abandoned army structures and 47 cottages, mostly on Middle Head with few outliers on East and West

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					Heads.
1970	CE	1995	CE	Purchased/Sold	From 1970-95, 20 of the 47 cottages are sold to the state or newcomers.
1972	CE	1972	CE	Demolished	Demolition of the most of the fort's remaining temporary "700 series" structures by the National Guard.
1975	CE	1975	CE	Developed	The MDC allows camping on East Head.
1987	CE	1989	CE	Damaged	Storms damage the wharf, but it is repaired.
1989	CE	1989	CE	Damaged	Arsonists damage one of the brick barracks (#29) buildings on the parade ground.
1990	CE	1990	CE	Damaged	The water main under West Gut from Nut Island to Peddocks Island is accidentally cut by a dredge.
1991	CE	1991	CE	Damaged	Arsonists damage the administration building (#26).
1994	CE	1994	CE	Land Transfer	A recommendation by the Peddocks Island Advisory Committee establishes a life-lease arrangement for the cottagers: they can continue to renew their annual leases for their lifetimes, but may not bequeath or sell them.
1994	CE	1994	CE	Built	Projects related to roof stabilization and septic and photovoltaic systems completed.
1995	CE	1995	CE	Built	Clivus toilets and a flagpole (no#) installed near the guardhouse.
1996	CE	1996	CE	Established	Peddocks Island becomes part of the Boston Harbor Islands National Recreation Area, a unit of the National Park Service. The Boston Harbor Island Alliance (established in 1996) oversees park initiatives and assists with park management.
2001	CE	2001	CE	Demolished	Demolition of seven MDC-owned cottages.
2002	CE	2002	CE	Stabilized	The Island Alliance, NPS, and MDC collaborate in a roof restoration project on seven Fort Andrews structures. Asbestos is removed from the guardhouse (#31) as part of an effort to ready the building as a visitor center.
2003	CE	2003	CE	Purchased/Sold	The DCR agency becomes the owner and manager of the most islands in the park, including Peddocks Island.
2004	CE	2004	CE	Built	DCR completes dock and pier upgrades to improve accessibility.
2005	CE	2005	CE	Built	Utility conduit built under Hull Gut (between Peddocks and Hull) to bring water, sewage, and electric service back to East Head.
2011	CE	2012	CE	Demolished	Demolition of twelve fort buildings: administration building (#26), barracks (#29), officers' quarters (#s 18,19,20,21,22,30), non-commissioned officers' quarters (#s 14,34,35), and the hospital (#17).
2011	CE	2012	CE	Stabilized	Fort buildings are stabilized, including the quartermaster stable (#4), old guardhouse (#7), fire control tower (#F-101), post exchange/bakery (#9), two barracks (#s 10,11), non-commissioned officers' quarters (#s 15,27,28), hospital steward's quarters (#16), recreation hall (#25), fire station (#33), and quartermaster storehouse (#36).
2011	CE	2012	CE	Rehabilitated	Former guardhouse (#31) renovated for use as a visitor center.
2011	CE	2012	CE	Removed	Parade ground cleared of woody vegetation, steep slopes woodchipped, and select areas filled, graded, and seeded as needed.
2011	CE	2014	CE	Removed	Vegetation on the two mortar batteries removed by goats.

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2012	CE	2013	CE	Built	Campground with six yurts and two outhouses is built atop the East Head's north drumlin. Trees selectively cleared around the fire control station (#F-101) and areas around the adjacent gun batteries for the development.
2013	CE	2013	CE	Removed	Branching Out and Green Ambassadors programs plant maple trees along the main road at the parade ground and open views from Officers' Row, an area now used as a group campsite, to the parade ground and wharf.
2013	CE	2013	CE	Built	Interpretive signage installed in the Fort Andrews area.
2013	CE	2014	CE	Rehabilitated	Restoration of the fort's chapel (#T-31) for use as an assembly hall for events.
2016	CE	2016	CE	Built	A second campground with six yurts is built south of Batteries Cushing and Whitman, in part of the area that was used for temporary camping, barracks, and mess halls.

Physical History

The following section provides information on the physical development and evolution of the site, organized by time periods. The narrative relies primarily on three sources: "Archeological Overview and Assessment of the Boston Harbor Islands National Park Area, Volume 1" by Nancy S. Seasholes and Timothy L. Binzen (2008), "Peddocks Island Physical History, Chronology & Statement of Significance" by Shaun Provencher (2009), and "A Place of Quiet Adventure: An Ethnographic Study of The Peddocks Island Cottages" by Cathy Stanton (2016). Graphics associated with this section are located at the end of the report.

Physical History Time Periods and Narratives

NATIVE AMERICAN OCCUPATION

Paleoindian Period (11000-9000 Years BCE):

The earliest human occupation of eastern Massachusetts occurred during the Paleoindian period more than 9,000 years ago. Paleoindian societies of the Northeast region apparently were organized in small bands and equipped with specialized and sophisticated lithic technology such as fluted projectile points, distinctive end and side scrapers, graters, and drills. Many such materials can be sourced to locations hundreds of miles away, allowing archeologists to trace the travel and trade patterns of these pioneering inhabitants. (AOA Vol.1 2008: 14)

Paleoindians entered the greater Northeast region shortly after the retreat of the Wisconsin glacier approximately 11,000 years ago in eastern Massachusetts. The post-glacial landscape was succeeded by a tundra environment, which in turn was replaced by a spruce community. The highly mobile Paleoindians occupying this dynamic landscape engaged in diversified seasonal hunting and gathering, ranging over

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great distances to exploit emerging floral and faunal resources associated with glacial lake areas. (AOA Vol.1 2008: 14-15)

The landforms that would become the Boston Harbor Islands were part of a field of drumlins, or oval-shaped hills, deposited in the Boston Basin by the glaciers. At this time the drumlins were located a considerable distance inland from the coastline as it then existed. No evidence for Paleoindian settlement has yet been encountered on the Boston Harbor Islands in part because some of the sites were probably far seaward from the present islands and are now under water due to the sea level rise since that period. (AOA Vol.1 2008: 14-15)

Early Archaic Period (9000-8000 BCE):

During the Early Archaic period sea levels rose and inundated coastal plain areas as the regional climate became warmer and drier and a mixed pine-hardwood forest came to dominate the landscape. However, only a few of the Boston Harbor Islands were actual islands at this point. Artifacts such as projectile points and stemmed or corner-notched points characterized this period, but how they were used by the indigenous peoples is not fully understood. In terms of social structure, research suggests that Early Archaic communities may have moved within established territories practicing a subsistence strategy based on river and lake systems and wetland zones. Populations were not organized in large bands as they were during the preceding Paleoindian period, and the use of hilltop landforms became less crucial in settlement systems because the extensive herds of game that had been present in the preceding millennium apparently were gone. (AOA Vol.1 2008: 15-16)

On the Boston Harbor Islands the sole evidence for Early Archaic settlement reported to date (2008) is a bifurcate-based point recovered from an ancient site in the southern part of Long Island. This landform would not have been an island when people visited it during the Early Archaic period, suggesting the artifact was carried to the site from elsewhere during a later period. (AOA Vol.1 2008: 16)

Middle Archaic Period (8000-6000 BCE):

The Middle Archaic Period saw a climatic warming trend in eastern Massachusetts, bringing with it a diversity of ecosystems and environmental conditions comparable to present day. A deciduous forest became interspersed among the pine-hardwood forest, providing greater diversity of plant and animal foods. Archeological data suggest that the populations of the Middle Archaic used settlement system that was based on planned seasonal movement oriented around major rivers and streams. Subsistence relied upon plant gathering and hunting, and the harvesting of anadromous fish. Artifacts of the Middle Archaic are characterized by variants of projectile points and the introduction of innovative varieties of tool types such as grooved axes, net sinkers, gouges, adzes, plummets, and atl-atl weights. In eastern Massachusetts

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the distribution and moderate frequency of Middle Archaic sites suggest that multi-seasonal settlement system might have been practiced during this period. (AOA Vol.1 2008: 16)

Evidence for Middle Archaic occupations on the Harbor Islands is uncommon, but it is important to recall that prior to 5,000 years ago the coastal shoreline and regional estuarine systems were still coming into form due to rising sea levels. Diagnostic materials indicated that Middle Archaic occupation took place at one site on Grape Island and possibly at a site on Long Island. A Neville Variant point was recovered from a shell midden on West Head at Peddocks Island. (AOA Vol.1 2008: 16)

Late Archaic Period (6000-3000 BCE):

Throughout southern New England as whole and in eastern Massachusetts specifically, archeological sites of the Late Archaic period are encountered much more frequently than sites of the preceding periods. Settlement systems seem to indicate an increase in population and continued trend toward the generalized exploitation of natural resources. Late Archaic sites have been recorded in proximity to swamps, marshes, streams, and rivers as well as river terraces and wetland margins. Sites frequently contain multiple components that are evidence of reoccupation during subsequent time periods. (AOA Vol.1 2008: 17)

Three distinct cultural traditions have been identified within the Late Archaic period in southern New England: the Laurentian Tradition, the Small Stemmed Tradition, and the somewhat later Susquehanna Tradition described below in the Transitional Archaic section. These traditions can be distinguished generally on the basis of morphological differences between their representative projectile point types. Laurentian cultural materials are more numerous in central and western Massachusetts while sites of the Small Stemmed Tradition are more frequently encountered in eastern Massachusetts. Artifact assemblages of the Small Stemmed Tradition are distinguished by small thick narrow-bladed stemmed or notched projectile points. People of this tradition evidently had preference for quartz and quartzite as raw materials for tool manufacture and they made extensive use of the peripheries of marshes and wetlands. Their settlement patterns featured large seasonal camps as well as small temporary sites. The larger settlements appear to have been base camps that often were situated along major rivers, while smaller more specialized occupations were located in terrace and upland areas. (AOA Vol.1 2008: 17)

By the Late Archaic period, rising sea levels had stabilized, forming Boston Harbor and its coastline and defining the islands themselves. The ecologically rich estuarine systems and marsh complexes of the Boston Basin coastal zone were highly attractive to Native populations during this time period and those that followed. Late Archaic components have been identified on Peddocks (three sites), Long (two), Thompson (six), and Grape Island (two). Other archeological sites in the Boston Harbor area have

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provided evidence of Native American occupations in the coastal zone during the period. (AOA Vol.1 2008: 18)

Transitional Archaic Period (3600-2700 BCE):

The Transitional Archaic period in the Northeast is when the indigenous adaptive technologies and settlement systems that prevailed during the Late Archaic period gave way to those that would characterize the entire Woodland period. In southern New England, evidence for occupations by people of the Susquehanna Tradition became more widespread, although the Small Stemmed Tradition remained the prevalent cultural influence. Sites of this period are commonly marked by Susquehanna broad spears, Orient fishtail points, Atlantic-Snook Kill variant points, Genesee points, and Wayland Notched points. In the Northeast, the incorporation of soapstone vessels into technological assemblages and tendency toward complex burial practices also typify this period. A wide variety of site types have been recorded, including small special purpose camps, large seasonal base camps, steatite quarries, and cremation burial grounds. Artifact assemblages occasionally include cord-marked and grit-tempered ceramics. (AOA Vol.1 2008: 18-19)

Technological innovations that emerged during the Woodland Period included the manufacture of ceramic vessels and the emergence of the Meadowood and Rossville projectile point types. Woodland Period subsistence patterns were affected by the introduction of horticulture, chiefly corn, beans, and squash, although hunting, fishing and the gathering of wild foodstuffs remained important. During this time an apparent shift in settlement from interior wetlands to large river drainages occurred. In coastal eastern Massachusetts and on Cape Cod evidence for Native American settlement during the Woodland period is very widespread, as many shell midden deposits have been reported. (AOA Vol.1 2008: 19)

Early Woodland Period (3000-2000 BCE):

The Early Woodland period in southern New England is generally underrepresented in terms of site frequency, due in part to a decline in population. Some changes in subsistence strategy are apparent during this time, probably representing continuation of the Late Archaic trend toward a more localized semi-sedentary settlement system. The more permanent types of camps were established along the coast or inland watercourses where an abundance of waterfowl, fish, and sea mammals could be easily exploited. Shellfish were also taken, although it seems that these were not major dietary component until the Middle Woodland period. Despite an increasingly localized focus of subsistence the pattern remained one of hunting and gathering, particularly along water bodies where fish could be included in the daily fare. (AOA Vol.1 2008: 19-20)

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The rich burial ceremonialism of the Late Archaic period continued into the Early Woodland with exotic artifacts such as gorgets, birdstones, pottery pipes, copper beads, and red ocher placed in graves with human remains. The presence of such exotic goods at sites in New England suggests that there were established trade routes that extended to the Midwest. This period also witnessed the first widespread use of ceramics across the Northeast. (AOA Vol.1 2008: 20)

On the Boston Harbor Islands, sites of the entire Woodland period are far more common than those of preceding periods. Although settlement and land use appear to increase markedly after the Early Woodland period, Early Woodland components dating to the third millennium before present have been reported from locations on Peddocks (one site), Thompson (one), and Grape (two). (AOA Vol.1 2008: 19)

Middle Woodland Period (2000-1000 BCE):

A higher level of sedentism in settlement patterns is indicated in the Middle Woodland period, as well as population increase, greater social complexity, horticultural refinements, and engagement in regional trade. Technological diversification expanded during this period, marked by proliferation of ceramic styles and the emergence of Greene, Fox Creek, Jacks Reef, Pentagonal, and Corner Notched projectile points. People of the period in southern New England obtained exotic lithic materials, including Pennsylvania jasper and New York State chert. Subsistence trends of the Early Woodland period continued. In parts of New England large semi-permanent or perhaps even year-round settlements were established by this time. The period also witnessed a change from minimally decorated ceramics to widespread use of elaborately decorated wares, likely due to ethnic identification rather than a functional change. Another technological adaptation, use of the bow and arrow, also emerged-during this period. (AOA Vol.1 2008: 20)

In eastern Massachusetts and on the Boston Harbor Islands, archeological evidence for Middle Woodland occupations is more common than that for the preceding period. Numerous period settlements and activity areas have been recorded at locations on Peddocks (two sites), Thompson (seven), Bumpkin (one), Grape (three), and Spectacle (one). (AOA Vol.1 2008: 20)

Late Woodland Period (1000-450 BCE or CE 1000-1500):

The Late Woodland period in much of the Northeast region saw the aggregation of indigenous populations into large complex villages. In southern New England and coastal eastern Massachusetts however, evidence suggests that settlements were on more modest scale. Composed of extended family groups, communities may have moved regularly from inland bases in major river valleys to coastal sites in order to exploit seasonally abundant resources. While the population apparently increased it became nucleated into villages in defensible locations. River confluence points and the heads of estuaries were often favored while smaller satellite sites served as special-purpose camps for farming, hunting, and harvesting shellfish.

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Due to a climatic warming trend after 1000 BCE, conditions for agriculture were particularly favorable. Extensive supplies of corn and other foodstuffs were maintained in subsurface pits. Artifact assemblages for this period are marked by high volume of artifacts, worked stone implements, diverse pottery styles, textiles, and triangular Levanna projectile points. In coastal areas extensive shell midden deposits frequently indicate sites of this period. (AOA Vol.1 2008: 20-21)

On the Harbor Islands, sites of the Late Woodland have been reported more frequently than sites of any other ancient period. Evidence for Native American occupations and land use from this period has been discovered on Peddocks (three sites), Long (two), Thompson (eight), Gallops (one), Bumpkin (one), Grape (four), Calf (one), and Spectacle (one). (AOA Vol.1 2008: 21)

EUROPEAN SETTLEMENT

Contact Period (1500-1630):

During the period of initial contact between Native Americans and Europeans, the Boston Harbor area was occupied by the Massachusetts Indians, the prominent indigenous society in coastal eastern Massachusetts north of the Wampanoag territory at Plymouth. The tribe relied heavily on corn, beans, squash, wild plants, and game and sea resources. Families lived in circular houses known as wigwams, constructed with poles bound inward and covered with bark or mats. Early historical reports indicate that the people spent part of each year, probably from late spring to early autumn, in dispersed settlements along the coast growing and processing food that could be stored for the colder months. During the winter people gathered at protected inland locations where fishing and hunting could be profitable. Some permanent coastal settlements may have also existed though they have not yet been identified. Trade was well established along ancient routes, exchanging manufactured goods such as steatite vessels and pipes, wooden bowls and spoons, clothing, and raw materials like shell and copper. (AOA Vol.1 2008: 22)

Although physical evidence from this period has rarely been reported in the Boston Harbor area, it can be inferred from oral tradition and from the documentary record that Native settlement did occur on the Harbor Islands and on the shores of Boston Harbor between 1500 and 1630, and the settlement system at this time likely followed pattern similar to that established in the proviso Late Woodland period with regular seasonal movement between coastal and inland settings. (AOA Vol.1 2008: 23)

Various European nations sailed past the shores of New England beginning in the middle of the sixteenth century, and the Massachusetts occasionally made encounters with the ships just off the coast. Among the first was French navigator Samuel de Champlain, who sailed into Boston Harbor in 1605 and again in 1608, commenting upon the harbor's native inhabitants and prominent features. In 1614 English explorer John Smith extensively mapped the coasts of Massachusetts and Maine, naming the region "New England."

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Smith noted its suitability for English colonization, and like Champlain before him explored the harbor's islands and conducted trade. (CLR Vol.1 2017: 51-52)

In 1622 a group of English colonists “purchased” the Nantasket Peninsula, located on the eastern edge of Boston Harbor, as well as Peddocks Island lying a quarter mile to the southwest. The island was named for one of the colonists, Leonard Peddock, but it is not known if he ever lived or visited the island. Variations of his name have been ascribed to the island, including Petticks, Puttock, Pedocks. (CLR Vol.1 2017: 51-52; Stanton 2016: 257)

Early Historic Period (1630-1675):

By around 1630 the English settlers became an overwhelming majority, not just in the portions of the Massachusetts Bay and Plymouth colonies under their nominal control, but in New England in general. In the Boston Harbor area, colonists apparently simply appropriated the islands for their own use, although there are recorded instances of Native Americans later arguing their claims to various islands. Use of the islands by the tribes declined, but tensions between them and the English gradually escalated as colonist arrived in greater numbers and their demands for land increased. Although some individual Indians lived on the islands as servants or slaves of colonists, the only recorded post-1630 occupation by groups of Native Americans was the forced internment of Christian Indians during King Philip's War in 1675-76. Most of these segregated villages were on Deer Island but some were located on Long, Peddocks, and Great Brewster islands, where many died due to exposure, disease, and lack of basic shelter, food, and medicine. To date the locations of these camps are unknown. (Stanton 2016: 25-26; AOA Vol.1 2008: 24-25)

Like the Native Americans, the English colonists made use of Peddocks and the other harbor islands for farming and fishing, but their impact on the islands was far more pronounced. At the time of first European contact, Peddocks Island was primarily wooded with birch, oak, ash, maple, pine, and cedar trees, but early colonial demands for firewood, building material, and grazing lands caused deforestation, leaving the island increasingly bare. Such conditions likely facilitated the island's use for pasture and cattle grazing by around 1634, when the General Court granted it to the settlers of Charlestown. (Stanton 2016: 25,257)

In 1642 the Town of Hull on the Nantasket Peninsula acquired Peddocks Island and proceeded to divide much of it into 4-acre parcels for use by its residents. Much of the land was held by individual grantees, while some areas were held communally by the town, probably as common grazing land. One such common area was a “swamp” that in a later survey corresponds to the sandbar connecting East and Middle Heads. (Stanton 2016: 25-26)

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Early Settlements and Military Events (1675-1887):

Peddocks Island appears to have been used primarily for pasturage of cattle and sheep for the remainder of the seventeenth century, and by 1700 the island was reportedly denuded and the hills planted with hay, barley, and other grains. There may have been some residents on the island to manage the livestock, but they may also have simply travelled from Hull which was a quick boat ride away. One of the first maps of Peddocks Island dates to 1706 but it provides no indications of structures. (Provencher 2009: 16)

The first maps to show Peddocks Island in detail date to the American Revolution. A 1775 map by cartographer Joseph F.W. Des Barres shows a structure on the west side of East Head surrounded by a square fenced enclosure, suggesting either a paddock for keeping animals in or a garden fence for keeping them out (Figure 1). A solitary tree is identified nearby; on a 1778 map by Georges-Louis Le Rouge it is named “Petticks Tree” and was apparently used as a navigational aid because there is a sight line drawn from the tree into the water. (Provencher 2009: 4; Stanton 2016: 26-27)

Peddocks Island was one of several islands in Boston Harbor to witness military activity during the Revolution. In 1775 Continental troops confiscated around 500 sheep and 30 cattle on Peddocks Island, taking them to the mainland so they could not be used by the British. The following year 600 area militiamen erected earthworks or temporary batteries on East Head to guard the harbor entrance and the Nantasket Roads channel to the north and west. In 1778 the French occupied East Head and reportedly enlarged the earlier earthworks. No traces of these features have been located. (Provencher 2009: 4,16,127; Stanton 2016: 26)

Maritime traffic in Boston Harbor resumed after the war, but despite the presence of new navigational aids to improve harbor safety the frequency of shipwrecks also increased. In 1786 the Humane Society of the Commonwealth of Massachusetts was founded as the first American organization created solely to save the lives of shipwrecked mariners. The Society began constructing small huts with food, candles, and tinderboxes along the Massachusetts shorelines around 1787. The first “houses of refuge” were located on Lovells Island, followed by huts at Hull, Calf, and in 1799 Peddocks. The location of the hut on Peddocks Island is not known, nor is its date of removal. (CLR 2017: 63)

Peddocks Island continued to be used for agriculture into the nineteenth century. A map from 1817 still shows the building on the west side of East Head, as well as three structures on its more sheltered eastern shoreline, where the narrow valley between the two drumlins widens (Figure 2). A later map from 1847 shows this same area with four buildings and a fenceline or property line crossing East Head, but no longer a building on the west side (Figure 3). Researcher Cathy Stanton writes that the homestead on the eastern shore likely belonged to the Cleverly family, who were farmers, fishermen, and harbor pilots that arrived in

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the 1830s. A detailed map from 1860 and sketch from 1882 shows that the Cleverly farm included a main house with two wings, three outbuildings, wharf, orchard, windbreak of trees, pond, and fenced pastures along the entire length of the valley (Figures 4 and 5). The farm may have been the location of tent camping that was common on Peddocks and other harbor islands in the decade following the Civil War. In contrast to the agricultural and recreational uses on East Head was a brief period of military-related operations on Prince Head, which jutted southeast from Middle Head. In the 1870s the Alger Foundry of South Boston conducted ordnance tests from nearby Nut Island, firing Wiard rifled cannons and breech loading guns at iron targets placed on Prince Head. (Stanton 2016: 27,31,55,258; Provencher 2009: 4-5; AOA Vol.1 2008: 122)

Except for the Cleverly farm, by 1844 much of East Head (and perhaps more) was owned by a Thomas Jones, who died in that year and left his property to Sarah (also referred to as Sally or Sallie) Jones, presumably a daughter or other relative. Upon Sarah Jones' death (date unknown), some of her holdings were shared with a relative, Eliza Jane Hersey, who was one of Thomas Jones's granddaughters. Eliza married John Albion Andrew in 1848, who became the Governor of Massachusetts the following year. In 1876 the Hull tax assessor listed Sally Jones as the owner of 91 acres, Eliza Andrew 27.5 acres, and John Cleverly 13.5 acres plus a number of buildings and an orchard. There were also at least four squatters who built summer "vacation" cottages on the eastern shoreline, making them among the island's first confirmed summer residents. The Andrew estate that would eventually acquire the entire island and allow a cottage community to be built on its land, as well as sell land to the U.S. Government for the development of permanent harbor defenses. (Stanton 2016: 31-32,53,258; Provencher 2009: 5)

THE COTTAGE COMMUNITIES AND FORT ANDREWS

Fishermen's Cottages, Summer Cottages, and Lodgings (1880s-1907):

By the latter part of the nineteenth century, the relatively isolated setting of Peddocks Island was beginning to end. The City of Boston, incorporated in 1822, was growing exponentially, its population tripling by mid-century and tripling again by the 1880s to about 400,000. In 1887 the city began construction of a hospital on Long Island, which displaced a Portuguese fishing village. Some of the fishing cottages were dismantled and floated to the southwestern shoreline of East Head, the closest point to Long Island. Like the squatters on the other side of East Head, the fishermen took advantage of the island's absentee landlord and settled on an unused stretch of shoreline. This location also gave them continued access to the prime lobster beds and was within a short distance to the mainland. By 1904 there were fourteen structures aligned in a row in this area (Figure 6). (Stanton 2016: 30-32,77; Provencher 2009: 5)

According to a survey from the late 1880s, around the same time that the new fishermen village was taking root on East Head's southwestern shore, the Cleverly farm on its eastern shore included four structures plus

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the three summer cottages just to the north (Figure 7). The Cleverlys apparently left around the mid-1890s and some of their buildings were converted into summer homes, which according to a 1904 map had grown in number to sixteen (see Figure 6). Like the fishermen village, the cottages were arranged in a line facing the shore and wharf. Behind them were the small pond and orchard noted earlier in 1860. (Provencher 2009: 5; Stanton 2016: 92)

The growth of industrial-era cities like Boston increased interests in vacation and leisure time, especially at seaside locations. By the 1880s large seaside hotels were common in nearby Hull, and in the late 1890s the first hotel opened on Peddocks Island, named “The Willows.” Though much smaller than the Hull lodgings, it operated on West Head until burning down in 1904. Another hotel was built on West Head in 1907, possibly on its southwest tip, and known by a variety of names: “The Clubhouse,” C.Y. West Hotel, Y.O. West End House, West Head Inn, and Drake’s Inn, after its proprietor William Drake, a retired Boston police officer. A newspaper described it as a “rustic summer pavilion” with a porch, dining room, kitchen, bar, and a large open upper story room where curtains were used to create sleeping partitions. Around the same time a more substantial hotel opened on the northeast side of Middle Head and was variously known as the Island Inn, Irwin’s Inn, and Irwin’s Hotel, after its owner John Irwin, a retired baseball player. It also featured multiple floors, a covered porch, and a dock. It was around this time that Irwin hosted several baseball reunions, attracting large crowds. (Stanton 2016: 36-37,51,55,85-88,93,259, citing *Boston Globe* 1913)

The Endicott Report and Boston Harbor Defenses (1886):

Around the time that the cottage communities were developing on Peddocks Island, the U.S. Government was looking at improving the defense of Boston Harbor from enemy attack. Such efforts had begun in the harbor in the previous century during the Revolutionary War and continued into the first half of the 1800s under the “First System,” “Second System,” and “Third System” coastal defense programs. The experiences of that war, and the War of 1812 and the Civil War, revealed new strategies and technologies that made existing coastal forts extremely vulnerable. However, by 1875 construction and maintenance of coastal fortifications ceased after Congress cut spending, causing many forts to fall into disrepair. (Sweetser 1888: 107; AOA Vol.1 2008: 139)

In 1885, President Grover Cleveland appointed a joint Army, Navy, and civilian board to evaluate the country’s coastal defenses. Headed by Secretary of War William C. Endicott, the board recommended a massive \$127 million construction program to improve the country’s coastal fortifications to defend against technological advances in naval ordnance, such as the rifled breech loading cannons aimed at Prince Head a decade earlier. The 1886 Endicott Report identified the defenses in Boston Harbor as the third in a list of 27 locations most urgently in need of upgrades (after New York and San Francisco). The board reported

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that installations such as the massive stone and earthen structures at Fort Warren on Georges Island and Fort Independence on Castle Island were imposing but unable to withstand newly-developed fire power. Furthermore, the smooth-bored, muzzle-loading guns mounted in these forts were unable to pierce the armor of contemporary vessels. (Provencher 2009: 6; Stanton 2016: 31)

The subsequent improvements to U.S. harbor defenses completely changed the planning and design of coastal military installations. To accommodate more powerful and longer-range artillery, military planners replaced the previous layouts of compact and enclosed defensive works with tactical and non-tactical structures spread over larger expanses of land. At the same time, landscape plans were often developed to create a visually attractive post laid out in a mix of traditional military, Beaux Arts, and Frederick Law Olmsted-inspired patterns. A generalized development plan of the new Endicott-era forts is as follows:

- The parade ground was the center of the non-tactical area and used as a multipurpose athletic field.
- Officers' quarters were sited on one side of the parade ground, while barracks were placed on the other, at a lower elevation, if possible.
- The administration building or harbor defense headquarters was sited in a prominent location on the parade ground, as well as commanding officer's quarters, the flagpole, and bandstand.
- Non-commissioned officers' quarters were located off of the parade ground proper, as well as the post exchange, gymnasium, bowling alley, hospital, guardhouse, bakery, fire station, chapel, library, officers club, and theater.
- Carpenter and plumbing shops, Quartermaster and Commissary storehouses, stables and wagon sheds, power and pumping plants, coal storage and wood sheds all usually were usually located in the same area, often near the Quartermaster wharf.
- A system of permanent roads served the entire fort, and the streets were usually named. Railroads and tramways were built during the construction of the forts, and these lines often continued to be used.
- If municipal water and commercial power services were available, the army used them, but at many sites the engineers built their own water and electrical plants and distribution systems. Sewer pipes ran into the ocean. Ice houses, and in northern areas, ice ponds, were also built to provide refrigeration for food in the years before electrical cooling became available.
- Garbage and combustible waste were burned in crematoria, while non-combustible materials were disposed of in landfills or dumped into the ocean. The major fuel at forts was coal, and a system of unloading, transporting, and storing the fuel was developed, usually relying on mule-drawn wagons. (Provencher 2009: 6-7, from Berhow 2004: 418)

The Quartermaster Corps architect's office created standard plans for all types of buildings and structures. Those designed at the turn-of-the-century – when most Coast Artillery forts were constructed – reflected the popular Colonial Revival style with multiple floors, symmetrical front facades with accented doorways, and evenly spaced windows on either side of the doors. Many of the army's primary non-tactical facilities were designed to be permanent, typically set on stone foundations and sided with local brick, clapboard, or stucco, and topped with slate gabled or hipped roofs. Storehouses and pumping plants used more practical industrial or utilitarian styles. (Provencher 2009: 7, from Berhow 2004: 418)

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Construction of Fort Andrews Batteries and Temporary Facilities (1898-1904):

As part of the upgrades to the defense system of Boston Harbor, the federal government selected East Head on Peddocks Island as the site of a new fort. In 1898 on the eve of the Spanish-American War, the government acquired the northern 23 acres of East Head from Eliza J.H. Andrew, who retained ownership of Middle and West Heads. The south side of the parcel ran generally east to west down the center of the narrow valley between East Head's two drumlins. The acquisition included the north drumlin but did not include the former Cleverly compound or other summer cottages just to the south on the eastern shore, nor the fishermen's cottages on the southwestern shore (see Figure 6). (Provencher 2009: 7; Stanton 2016: 33)

The Army Corps of Engineers began construction on two batteries on the north drumlin: Battery Whitman on the lower west slope and Battery Rice on the upper north slope. Whitman was a mortar battery designed to fire a projectile in an arc to impact an enemy vessel through its deck and possibly ignite its ammunitions, while Rice was a gun battery used to fire smaller projectiles rapidly at smaller and quicker enemy vessels. In 1901 work began on Battery Cushing (mortar) and Battery McCook (gun), next to Whitman and Rice, respectively. Battery Bumpus (gun) followed in 1902 next to Rice and McCook, and by 1904 all batteries were complete with armaments mounted. The five batteries were constructed with reinforced concrete and partially concealed with earthen embankments (Figure 8). (Provencher 2009: 7,17; Stanton 2016: 33-34; CLR Vol.1: 184)

- Battery Whitman (built 1898-1902): eight M1890 12-inch mortars on barbette carriages
- Battery Cushing (built 1901-1904): eight M1890 12-inch mortars on barbette carriages
- Battery Rice (built 1898-1902): two M1900 5-inch rapid fire guns on pedestal carriages
- Battery McCook (built 1901-1904): two M1900 6-inch rapid fire guns on pedestal carriages
- Battery Bumpus (built 1902-1903): two 3-inch rapid fire guns on pedestal carriages

Concurrent with construction of the five batteries was the army's development of fort infrastructure and facilities to support two companies of men (around 100 in each). A main east-west road was built through the valley separating the two drumlins and aligned alongside the fort's south property line (see Figure 6). The main road ran from the eastern shore to the western shore and provided access to the two mortar batteries. At its east end were two temporary sheds and a wharf (located just north of the old Cleverly wharf), and at its west end were temporary buildings for a mess hall, barracks, and officers' quarters. Two temporary buildings were located at the main road's midpoint, from which a curvilinear road lead to the three gun batteries and a battery observation station (#F-101) on top of the north drumlin, the fort's first brick structure. The new military post was dedicated as Fort Andrews on April 4, 1900, in honor of Civil War hero and Massachusetts native Major General Leonard Andrews, a name that was inevitably confused with that of the island's Andrew family.

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Expansion of Fort Andrews (1905-1906):

Even before the batteries and temporary facilities were finished, the army made plans to expand Fort Andrews and construct permanent non-tactical facilities. To achieve this goal, the federal government acquired the southern 63 acres of East Head in 1903 from the estate of Eliza Andrew. At this time the army developed a general layout for the fort that incorporated many of the Endicott elements described above, including buildings in the Colonial Revival style. Using the existing axis of the east-west main road, the curvilinear road to the north drumlin, and wharf access on the eastern shore, an early plan from 1903-04 concentrated the various quartermaster buildings around the wharf, and proposed new housing, administration, and hospital buildings around the slopes of the newly acquired south drumlin (Figure 9). The placement of the residential buildings along the curved slopes of the south drumlin provided views of the wharf and what would become the parade ground below. However, this early plan did not specifically call out a centrally-oriented parade ground – the centerpiece of many Endicott-era forts. (Provencher 2009: 8; Stanton 2016: 34)

In 1905 President Theodore Roosevelt appointed a new board to review the progress on the Endicott Report. Under the leadership of Secretary of War William Howard Taft, most of the changes recommended by the 1906 Taft Report did not address fortification structures, but rather adding accessory equipment such as searchlights, electrification of communications and ammunition handling, and modern optical systems for aiming guns and mortars (fire control).

Based on the Taft Report and the 1903-04 plan, albeit with some variations that made use of the valley, expansion of Fort Andrews began in earnest in 1905-06. Construction in 1905 included a range-finder station (R.F.) atop the south drumlin; three non-commissioned officers' quarters (#s 14,15,16) and the hospital (#17, with west wing) on the northeast slope of the south drumlin; a barracks (#10) on the main road; and a quartermaster stable (#4), coal shed (no#), and wagon shed (no#) just north of the wharf at the location of two previous temporary buildings. Construction continued into 1906: three sets of officers' quarters (#s 19,20,21) and a field officers' quarters (#22) along the east slope of the south drumlin; another barracks (#11) on the main road; a [old] guardhouse (#7) at the fort entrance at the foot of the wharf; and a waiting room (#6) at the end of the wharf. In addition, an ordnance storehouse (no#) was built into the hillside just east of Battery Cushing and a searchlight shelter (#24) was constructed at the west end of the fort, overlooking Nantasket Roads. (Provencher 2009: 8-9; Stanton 2016: 34)

Relocation of Cottages to Middle Head (1903-1910):

The 1903-04 plan of Fort Andrews made no indication of the fishermen cottages or the former Cleverly buildings/summer cottages, a sign that these civilian areas were not part of the fort's future. Between 1904 and 1910 the Portuguese fishermen on the southwestern shore either abandoned their cottages or moved

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them to the northwest side of Middle Head, to an area that became known as “Crab Alley.” Between 1904 and 1907 all but one of Cleverly buildings/summer cottages on the eastern shore were demolished or moved, also to Middle Head but on its northeast side. In 1910 the last of these cottages (Cottage #45), owned by the Bies family, was floated to the southwestern shore of East Head and placed next to three or five vacant fishermen cottages that had been left behind (written sources and plans vary on the number) (Figure 10). Some of the fort’s enlisted men and non-commissioned officers who had families began to occupy the empty fishermen cottages, giving this area the name “Sergeants’ Row.” (Provencher 2009: 8; Stanton 2016: 35-36,78)

Expansion of Fort Andrews (1907-1914):

Although much of the Fort Andrews building program was well underway, at the end of 1906 Acting Secretary of War Arthur Murray convened a group of officers to develop plans for six companies of troops, a district headquarters, and “[improve] the character of the reservation on Peddock’s Island [sic].” A new plan prepared in 1907, and subsequent correspondences between the Quartermaster General’s office, the Corps of Engineers, the Coast Artillery Corps, and the Adjutant General’s office, formalized much of what was already in progress at the fort, and also made new proposals different than the 1903-04 plan (Figure 11). They included: two additional barracks buildings and an administration building along the main road facing the parade ground; a new guardhouse and two barracks just north of the wharf where the existing stable, coal house and wagon shed were located; additional officers’ residences around the slopes of the south drumlin; and new quartermaster facilities and a wharf at the west end of the main road. Practical and aesthetic reasons were behind having two wharves on either side of the island:

“lessening the chance of an ice block as wind that packs in against the east shore will help to free the west side, and vice versa. This arrangement also relegates all unsightly structures to the back door, leaving the front, east side, free for beautification to which it lends itself very well.” (Provencher 2009: 9-10, citing U.S. War Department, 8 May 1907: 2; Moore-Heder Architects 1990: 29-30 citing U.S. War Department 1907: 10)

The correspondences also made it clear that the area immediately south of mortar batteries Whitman and Cushing should be kept clear of large permanent buildings to eliminate “probable interference...between the [proposed] range station [atop the south drumlin] and the site of the mortar battery” that could occur from such a structure. However, this area could be used for seasonal temporary housing when needed, and as such “...should be graded to a level parallel to the road and to a gentle slope perpendicular thereto with a subsoil drain at the upper edge to lower the water table.” (Provencher 2009: 9-10, citing U.S. War Department, 24 October 1907: 1; Moore-Heder Architects 1990: 64, citing Board of Officers 1906)

The 1907 plan and correspondences emphasized the valley between the drumlins as a key element in the vision and functioning of the fort. “The first consideration is a parade ground...Any encroachment on this for any building purpose would make the parade very restricted for a six-company post, as well as mar the

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appearance of the post as seen from the water.” The fort was envisioned with “an open vista up a parade ground from the sea line near the east wharf to the administration building with a gentle slope of 1:30. It is thought this should not be encroached upon for any purpose.” This information suggests that grading for the parade ground occurred around 1907. (Provencher 2009: 10, citing U.S. War Department, 13 July 1909: 2-3)

The island’s topography had a major effect on planning at the fort. Officials noted that except for the valley “there is no flat ground at all on the reservation except at the southern end on the neck of land connecting it with the rest of the island, and this is not above highest tides.” As such, many of the proposed facilities required grading but emphasized appropriate uses of cuts and fills “with regard to landscape effect and general beautification of the post.” Specific considerations included: grading of road slopes/cuts/fills to closely conform to the natural topography; overall leveling of the grade to create the parade ground, including filling the pond; augmenting the “natural shelf” on the south drumlin to continue the row of officer’s housing from the drumlin’s east side rather than the west side; stabilizing steep slopes such as those behind the current stables; and filling lowlands on the south side of East Head. Later aerial photographs indicate that major portions of both drumlins, particularly the south one, were also likely graded to control drainage and create garden spaces. (Provencher 2009: 10-11, citing U.S. War Department, 24 October 1907: 3 and 8 May 1907: 2)

The various army offices were unable to officially agree on the fort’s 1907 plan until the summer of 1909, briefly slowing the development program. In 1907 only a post exchange/recreation hall (#25) was completed, situated next to an extant temporary building built before 1904. In 1907-08 water service was installed in a conduit through West Gut from Nut Island, and in 1908 five permanent brick buildings were added: the administration building (#26), barracks (#13), and two non-commissioned officers’ quarters (#s 27,28). That same year also saw the installation of a number of structures of temporary frame and stucco construction on the south drumlin: at the top a combined battery command/fire control structure (#F-105) set in a square-shaped earthen depression, fire control switchboard room (#F-106), dormitory (#46), latrine (#45), and one of the first wireless radio stations (#F-103) in the country; on the southeast slope a shed (no#); and at the far western slope an oil house (#43) and cable house (no#). There was also another cable house (no#) next to the wharf, and a shed (no#) next to the searchlight shelter (#24) at the west end of the main road and next to the fort’s original barracks and mess hall buildings that had been repurposed for quartermaster storehouses. In 1909 a fourth barracks (#29) was constructed at the east end of the main road and a garbage crematory (#5) was erected at the west end. Another officers’ quarters (#30) was built in 1910, as well as a new guardhouse (#31) just north of the wharf, but the two barracks buildings proposed in this area were not. This may explain the need for the placement of temporary tents at various times across from the mortar batteries. In 1912 the largest brick building in the fort to date, the quartermaster’s

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storehouse (#36), was constructed at the west end of the main road, presumably to replace the old supply buildings to the north and in anticipation of a new wharf in this area. That same year a field officers' quarters (#18), a new wing on the east side of the hospital (#17), and two sets of non-commissioned officers' quarters (#s 34,35) were completed. Interestingly, these two residences were sided with stucco and clapboards, respectively, rather than brick. The army installed a protective seawall (#48) backed with fill along the eastern shoreline in 1913 and a "gully" searchlight (no#) mounted on 60-foot long tracks on the north slope of the north drumlin in 1914 (Figure 12). (Provencher 2009: 11,18; Stanton 2016: 251; Parkman 1978: 122; Aphen 1955: 47-48)

Although no planting plans have been located, beautification efforts were underway throughout the 1907-14 construction period. The army planted a row of Norway maple saplings fronting the four brick barracks buildings along the main road and in a "median" behind the two mortar batteries, perhaps to soften their appearance from Officers' Row or to provide shade for the soldiers manning the guns (Figures 13,14,15). Historic photographs show lawns covered the parade ground and surrounded various buildings, helping to stabilize the graded slopes and reduce dust. A narrow road fronting the Cleverly buildings/summer cottages at the east end of the parade ground was extended south to Middle Head. The army also built a network of concrete sidewalks and stairs during this period and expanded it as new buildings were added. Some of the walks and steps were lined with ornamental light posts. Photographs indicate electrical utilities were in place for some buildings, with wires running on utility poles behind the structures to keep the front facades free of clutter. (Provencher 2009: 11)

Military personnel augmented their time on Peddocks Island by tending to vegetable gardens and fruit orchards. An evaluation of photographs from 1911 and aerials a decade later indicate gardens on the hillsides below Officers' Row and around 50 apple, pear, and cherry trees on the south slope of East Head (Figure 16). According to the recollections of cottage resident Matilda Silvia, "each of the companies had their own hill gardens. They grew tomatoes, carrots, beets, cabbage, corn, squash, and beans." Grazing continued in areas outside of the developed areas of the fort, although on a limited scale. The island remained primarily free of overgrowth, though bayberry and wild roses were scattered throughout. (Provencher 2009: 11, citing Silvia 2003: 27)

Cottage and Hotel Development on Middle Head and West Head (1907-1917):

At the same time that the army began expanding Fort Andrew for the second time, the relocated fishermen and summer cottage communities from East Head had taken root on Middle Head. A c.1910 photograph shows a row of cottages fronted by a road stretching along the northeast side from the Island Inn (Figure 17). Other roads lead to Crab Alley on the northwest side near the pond between Middle and West Heads. This area had a more compact layout and featured two perpendicular rows of cottages heading inland. At

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least one well, pumped by a small windmill, was at the center of Middle Head. On West Head, there was at least one cottage (Cottage #43) on the east side by c.1912. The “Clubhouse” hotel was in operation until destroyed by fire in 1913, and was replaced at a later date by another structure. This loss was reflected in Hull’s tax assessor records from 1915, which documented only one hotel (Island Inn), two houses, thirteen cottages, fifteen Portuguese cottages, two stables, and two wharves on the island’s non-government lands. In 1917, on the eve of World War I, the Island Inn closed. (Provencher 2009: 12; Stanton 2016: ii,37,87,95,102; AOA Vol.1 2008: 141)

Although the cottages and hotels were privately owned, they sat on land leased from the Andrew estate that still owned all non-government land on the Peddocks Island. Nonetheless, spaces around the cottages featured small lawns, vegetable gardens, fruit trees, and ornamental plants as well as iron and wood fencing, pathways, outbuildings, and other small-scale features associated with domestic life on the island. The fort’s southern property line was marked with fencing, a stone arch, and a guardhouse at the east end, but non-military residents apparently had access to a hillside garden plowed by the army directly behind the Sergeants’ Row cottages, and possibly the adjacent orchard. Shaun Provencher writes that in this time period, the varied uses of Peddocks Island coexisted, with occasional frictions but for the most part compatibly: Portuguese fishing families, summer vacationers from around the Boston area, military personnel, and casual visitors who used the island for a variety of recreational purposes. (Provencher 2009: 11, citing Silvia 2003: 28)

Fort Andrews During and After World War I (1914-1940):

America’s entry into World War I saw the role of Fort Andrews change from tactical defense to non-tactical support. Like other Endicott-era coastal defenses, the fort had become strategically outdated in the new era of airplanes and longer-range guns. As a result, Fort Andrews’ armaments from the two mortar batteries and guns from Battery Rice were sent to Europe in 1918 and then partially remounted in 1920 two years after the end of the war (except for Rice). However, with extensive infrastructure operating, the fort was well equipped for use as a training facility and staging area for Europe-bound troops. One such activity involved training soldiers in a network of earthen zig-zag-shaped trenches on the west slope of the north drumlin, just downhill from Battery Rice (Figure 18). (Stanton 2016: 37-38)

When the U.S. joined the war in 1917, Fort Andrews was garrisoned by 400 men of the 55th Coast Artillery. That year temporary wooden buildings were constructed in the fort, primarily on the former camp sites across from the two mortar batteries and between the administration building and the quartermasters storehouse. Built from standardized plans like the permanent buildings, the so-called “600 series” structures typically included barracks, lavatories and latrines, mess halls, officers’ quarters, and theaters. A plan from 1921 indicates seven mess halls, three latrines/lavatories, and two barracks were built

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in this area (Figure 19). It also shows three temporary mess halls and three latrines/lavatories were erected near the three gun batteries on the north drumlin, and a temporary guardhouse (no#) at the west end of the south boundary. (Provencher 2009: 12,18)

Other additions at the fort built between 1917 and 1921 included an observation platform (no#) on the upper south slope of the south drumlin near the radio station (#F-103), a bakery (#9) and fire station (#33) at the base of the curvilinear road up to the three gun batteries, and a battery command station (#F-102) within Battery Rice. A tall flagpole (#32A) anchored by four guy wires was erected along the east edge of the parade ground during this period, and an electric substation (#1), saw mill (no#), and scales (no#) were added just north of the wharf. The old guardhouse (#7) near the wharf was used as a food storehouse by this time and one of the non-commissioned officers' quarters (#16) had been converted to the hospital steward's quarters. (Provencher 2009: 12,18)

Following the end of the war in 1918, Fort Andrews remained an active post until 1928. During that time the army added a "vertical lift" searchlight (no#) on the north slope of the north drumlin in 1924, near the previously built "gully" searchlight. There were also several losses of property to fire, including the garbage crematory (#5) in 1921 and one of the four brick barracks (#13) facing the parade ground in 1926. The damaged shell of the barracks was still standing when the fort was emptied of personnel and placed in caretaker status in 1928. A staff of four provided security at the fort from this point through the 1930s, during which time numerous buildings were demolished; by 1932 all of the temporary barracks, mess halls, and latrine/lavatory buildings from the war were removed, and in 1935 the old pre-1904 barracks and mess halls turned quartermaster buildings at the west end were razed. In 1934 the Bies cottage (Cottage #45) along Sergeants' Row burned down was rebuilt in 1937 using salvaged building materials from the plumbing and carpentry shops at the west end, and possibly some materials from the old searchlight shelter. By this time many of the Sergeants' Row cottages had added porches, sheds, and other ancillary structures. (Provencher 2009: 12-13,19)

A series of oblique aerial photographs flown around East Head in 1925 and 1932 show the maturation of trees planted by the army (Figures 20,21, see Figure 18). The photographs show tall maples fronting the four barracks on the parade ground and Batteries Whitman and Cushing, and a group of trees uphill from officers' quarters 18-30 possibly serving as a windbreak. Clearly visible on the south-facing slope of the south drumlin is the orchard, while fields for cultivation or grazing are laid out west of the fire control buildings. The aerials reveal mostly open conditions, but also show several areas of intentional plantings, likely windbreaks, in grid patterns on the western hillside between the Sergeants' Row cottages and the quartermaster storehouse (#36) and on the south and west sides of the north drumlin, behind the four

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barracks and the mortar batteries. The 1932 aerial also indicates “Fort Andrews” spelled out with stones on the slope below officers’ quarters 18 and 19, facing the wharf. (Provencher 2009: 12-13)

Stability on Middle Head and West Head (1917-1947):

After World War I, the island’s cottage community witnessed comparatively less change than the military community. In 1923 there were 29 cottages, 4 houses, and a stable – similar numbers as the 1915 inventory. Some of the cottages were occupied by Italian families who began arriving to the island in the 1920s and 1930s. On Middle Head, Cottage #3 housed a tea room in the 1920s and 1930s. Cottage #1, and perhaps others, was destroyed in the Hurricane of 1938 and later rebuilt. On West Head, the structure that replaced the “The Clubhouse” was destroyed by fire in 1934 but was not rebuilt. Cathy Stanton writes that cottagers made use of a small ferry service that operated from the dock of the old Island Inn in the 1920s through the 1950s. An aerial photograph from 1938 shows mostly open landscape conditions on Middle Head (Figure 22). (Provencher 2009: 13; Stanton 2016: 39-40,139,154,158,260)

Fort Andrews During and After World War II (1940-1947):

In 1940, as World War II was underway in Europe, Fort Andrews was reactivated. By this time the mortar batteries were obsolete and in 1942 they were removed and scrapped, but the 6-inch guns of Battery McCook and the 3-inch guns of Battery Bumpus remained, accompanied by 40mm and half-inch guns and searchlight detachments. Much like World War I, Fort Andrews was utilized mainly as an administrative and staging post rather than a significant harbor defense, as other locations in the harbor were more heavily armed. Nonetheless, a new observation station (#F-104) was built on the south drumlin by 1945, just to the east of the older below-grade battery command/fire control structure (#F-105). (Provencher 2009: 13)

With the fort regarrisoned with soldiers from the National Guard and the U.S. Army, a program of new construction was initiated. By this time the army had developed a new types of temporary wood-frame structures, called the “700 series,” which were more substantially constructed than the earlier “600 series” versions from World War I. At least 28 of these structures were built from 1940 through the summer of 1941, and five more by 1945, including: fourteen barracks (that included bathrooms), five mess halls, four day rooms, day room/library, two supply rooms and administration, supply and detachment office, company administration and storehouse, sentry box, garbage grinder (#T-34), theatre, pump house (#T-30), and chapel (#T-31) (Figure 23). Twelve of the buildings were laid out in a grid pattern in the same location as the old World War I temporary buildings, across from the two mortar batteries (Figure 24). A second area with fourteen of the buildings was developed on the upper west slopes of the south drumlin, an area once occupied by fields and pastures. This new developed area was laid out in a grid pattern that generally followed the curved contours of the drumlin, but nonetheless required the construction of long retaining walls (#47) and steps to create terraced building spaces. The 1.5-story wood frame theatre (#T-1) was built

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at the former site of the barracks (#13), which stood in contrast with the three remaining brick barracks along the parade ground (Figures 25,26). The chapel (#T-31) was built at the east end of the parade ground near the eastern shoreline, but sited off center in relation to the administration building to preserve the view looking west across the parade ground. According to a plan from 1947, the post exchange that was formerly housed in the recreational hall (#25) was moved to the bakery (#9) during this period. (Provencher 2009: 13)

The new facilities at the fort were accompanied by extensions of roads, sidewalks, and other infrastructure, including a new 200,000 gallon underground water reservoir (#44) atop the south drumlin and an emergency pumphouse (#T-30) on the lower south slope of the south drumlin. The new developed area on the south drumlin was linked to sewer, water, and electrical systems as well as macadamized roads that terminated to the east as roundabout surrounding a flagpole. As these structures were considered temporary, little landscaping appears to have been done outside of occasional shrubs, though gravel walkways likely connected the structures. In 1944-45 these facilities housed around 1,000 Italian prisoners of war. The prisoners were not allowed to use the post exchange, but were permitted to see movies in the theater and participate in sporting events on the parade ground. (Provencher 2009: 13; Stanton 2016: 4,161,260)

A comparison of an aerial photograph from 1944 and the earlier aerial from 1932 shows a dramatic change in vegetation occurred on East Head while the fort was closed, showing a transition from mostly open grassland conditions to scattered areas of thickets, shrubs, and trees (Figure 27, see Figure 21). Most of the new vegetation growth was along slopes bordering the developed areas of the fort and along the shoreline bluffs. The tops of both the north and south drumlins were still mostly open at this time, but they too would become cloaked in vegetation as shown in an aerial from the early 1950s. Some of this growth may have been intentional, as the Army Corps of Engineers aimed to conceal distinctive outlines of forts by means of netting, painting, and landscaping.

In 1947, two years after the end of World War II, Fort Andrews was emptied of personnel and placed on caretaker status for a second time. The fort would not see active military activity again; World War II demonstrated that large contingents of troops and materials could be landed without use of port facilities, and that coastal cities were more likely to be attacked by air than by sea. (Provencher 2009: 14; Stanton 2016: 40-42)

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PRIVATE OWNERSHIP AND STATE/FEDERAL MANAGEMENT

Land Transfers and State Acquisition (1948-1970):

Fort Andrews was surplused to the War Assets Administration in 1948 and declared as “excess property” by the General Services Administration in 1951, but it was not until 1957 when the fort and the entirety of East Head was purchased by Richard S. Robie at public auction. Meanwhile, Middle and West Heads had passed in 1956 to a new generation of heirs to the Andrew estate, who sold it in 1958 to Isadore Bromfield, a shipbuilder and Robie’s partner in a company called East Coast Realty. At this point the company owned the entire island and began collecting annual rents from the cottagers. In 1962, the company hired on-site caretakers to help guard against fire, vandalism, and other hazards at the abandoned fort. (Stanton 2016: 41-42,261; Provencher 2009: 14)

A series of aerial photographs from 1952 illustrates how quickly forest vegetation growth advanced throughout the Peddocks Island in the immediate post-war years. On East Head, most of the undeveloped lands around the empty Fort Andrews were forested, and around half of the two drumlin tops were wooded. Forest succession was also occurring on Middle Head and West Head; the informal earthen roads and trails connecting the cottages and running along the shorelines were still visible, but increasingly bordered by trees. In 1955 fire destroyed two cottages on Middle Head. (Stanton 2016: 261)

East Coast Realty planned several uses for Peddocks Island, first as a marina and then as an upscale resort that would replace the cottages. In 1964 the company advertised house lots of 10,000 square feet and larger on West Head, which were laid out along a series of rough roads circling around and upon the drumlin. A comparison of aerial photographs from 1955 and 1969 indicate significant amounts of vegetation was removed in anticipation of sales of the parcels. However, the project never materialized because of the difficulty of providing utilities to the island and managing sewage, and by 1970 the forests had again returned. The island’s physical limitations, and the difficulty in maintaining an extensive inventory of old military buildings, made the company’s plans unprofitable. (Stanton 2016: 42)

Concurrently during the early 1960s, the Metropolitan District Commission (MDC), a predecessor of the Department of Conservation and Recreation (DCR), considered acquiring East Head alone, but decided to wait until it was able to purchase the entire island. The MDC had acquired Georges Island in 1950 and added Lovells Island in 1958 as part of a larger vision to make the harbor islands more accessible to the public. In 1968 the MDC applied for a grant to purchase Peddocks Island and in 1970, with financial assistance from the Department of Housing and Urban Development’s Open Space Program, the agency acquired the island under eminent domain for \$192,000. The island was subsequently included in the Boston Harbor Islands State Park. The ownership of the former Fort Andrews was straightforward and fee simple, but the cottages remained in the hands of the families while the land under them passed to the

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Commonwealth. By this time, the cottages were transitioning to multi-generational, seasonal vacation-oriented uses, continuing a trend that began after World War II. One new cottage (Cottage #45) was constructed on East Head in the late 1960s, on the south drumlin's lower southwest slope near the old army pumphouse (#T-30). (Provencher 2009: 14; Stanton 2016: 42-43; Stanton-Supplemental 2016: 68)

MDC Management (1970-1996):

A 1970 island appraisal identified 57 abandoned army structures, and 47 cottages mostly on Middle Head with few outliers on East and West Heads. By this time the Fort Andrews landscape was densely overgrown, with tall trees towering over the buildings and filling once open spaces, including the parade ground (Figure 28). The fort's brick buildings were deemed structurally sound, but most of the "700 series" temporary structures from World War II that were still standing were severely deteriorated, with the exception of four barracks and three mess halls in the south drumlin housing area. In 1972 the National Guard removed a majority of the remaining temporary structures but left behind remnants of construction materials and foundations. (Provencher 2009: 14; Stanton 2016: 49)

The MDC began to allow camping on East Head in 1975, coinciding with the city's Bicentennial celebrations and a growing popularity in recreational activities throughout the country. A few years later, a National Urban Recreation Study conducted by the Department of the Interior identified the Boston Harbor Islands as offering "traditional recreation and environmental protection values without extensive redevelopment." However, there was little additional recreational development on Peddocks at this time as the MDC was increasingly focused on the growing sewage control issues around the harbor and subsequent cleanup efforts. In 1981 a private non-profit entity called the Peddocks Island Trust, headed by architects and urban planners with experience in waterfront redevelopment, produced ambitious plans for an eco-tourism site, but the group dissolved by 1986. In 1989 a building study conducted by Moore-Heder Architects detailed existing conditions of buildings and utilities on the island, and included building-specific rehabilitation/reuse strategies. The study also described the East Head landscape as a successional forest with a dense undergrowth of brambles and poison ivy. (Heritage Conservation and Recreation Service 1978: 31; Stanton 2016: 44; Provencher 2009: 20; Moore-Heder Architects 1990: 44)

During the many inventory, assessment, and planning efforts on Peddocks Island by the MDC and others, a number of damaging events occurred. Storms damaged the wharf on several occasions and disrupted ferry service to the island (repaired in 1987 and 1989), the water main under West Gut from Nut Island to Peddocks Island was cut by dredging operations in 1990 (service not reinstated), and arsonists damaged the barracks (#29) in 1989 and the administration building (#26) in 1991 (not repaired). However, improvements were also undertaken in the 1990s, including projects related to roof stabilization and septic

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and photovoltaic systems in 1994 and installation of Clivus toilets and a flagpole (no#) next to the guardhouse in 1995. (Provencher 2009: 14,20; Stanton 2016: 251)

Just like the Andrew family's ownership, the cottagers continued to pay their annual rents to the state throughout the 1970s and 80s, but had little interaction with their new landlord, the MDC. However, between 1970 and 1994, 20 of the 47 cottages were sold to the state or to newcomers, leaving empty spots in the cottage landscape or a turnover to people that often had connections to the island or previous owners. This arrangement changed in 1990 when the MDC notified the cottagers that they would be evicted by October 1992. The notice was unexpected, prompting vigorous protests and considerable coverage in the press. Facing resistance, the MDC convened a Peddocks Island Advisory Committee to study the situation and make recommendations about the future of the cottage community. Out of those discussions came the life-lease arrangement in 1994: cottagers could continue to renew their annual leases for their lifetimes, but could not bequeath or sell them. (Stanton 2016: 44,197; Provencher 2009: 14)

State and National Partnership (1996-2018):

In 1996 Peddocks Island became part of the Boston Harbor Islands National Recreation Area. Boston Harbor Now (formerly Boston Harbor Island Alliance, established in 1996) cooperates with NPS and DCR on park initiatives and assists with park management as outlined in the 2001 Boston Harbor Islands General Management Plan. The federal presence within the partnership governing the islands was envisioned as a way “to better coordinate the management of the park and to improve visitor programs and access.” One of the first challenges to face the new management team was the failure of the pier in 1997, which resulted in the island's closure until a new pier was built in 1998. (Provencher 2009: 14,20; Stanton 2016: 44, citing GMP 2002: 15)

Another development plan for Peddocks Island was prepared in 2001, this time by the Island Alliance entitled “The Peddocks Island Eco-Retreat and Family Camp.” Proposing adaptive reuse of most Fort Andrews buildings, work on the phased project began in 2002 when the Island Alliance, NPS, and MDC collaborated in a roof restoration project on seven Fort Andrews structures. In preparation for an influx of visitors, an asbestos removal project was completed in the guardhouse as part of an effort to ready the building as a visitor center. However, a merger in 2003 of the MDC and the Department of Environmental Management (DEM) to form the Department of Conservation and Recreation (DCR) suspended subsequent work on the Eco-Retreat plans until 2011. The DCR agency became the owner and manager of the most islands in the park and at Peddocks initiated several projects to increase visitor interest and improve access. Dock and pier upgrades were completed in 2004 with the installation of new gangways, and a utility conduit was bored under Hull Gut (between the island and Hull) in 2005 to bring water, sewage, and electric service back to East Head. (Island Alliance 2003: 1-2; State of the Park 2016: xii; Provencher 2009: 15,20; Stanton 2016: 251)

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By 2011 the scope of the Island Alliance's Eco-Retreat plans had changed. In 2011-12 the DCR and Island Alliance initiated a major project at Fort Andrews to preserve salvageable buildings for future re-use and to address public safety issues. A demolition contractor removed twelve long-unused buildings, all over 100 years old, that had become structurally unstable, including ten that were brick: administration building (#26), barracks (#29), officers' quarters (#s 18,19,20,21,22,30), non-commissioned officers' quarters (#s 14,34,35), and the hospital (#17). Other fort buildings were stabilized and mothballed, including the quartermaster stable (#4), old guardhouse (#7), post exchange/bakery (#9), fire control tower (#F-101), two barracks (#s 10,11), non-commissioned officers' quarters (#s 15,27,28), hospital steward's quarters (#16), recreation hall (#25), fire station (#33), and the quartermaster storehouse (#36). The fort's mortar and gun batteries, road and path network, gun and mortar batteries, small-scale features, and remnants of several building foundations were retained but not necessarily improved. The new guardhouse (#31) adjacent to the dock opened as a visitor center, featuring an exhibit hall, a large meeting room in the former jail, restrooms, and an apartment for the island caretaker. The DCR and Island Alliance completed rehabilitation of the fort's chapel (#T-31) in 2013-14 for use as an assembly hall for events. To enhance the appearance of this area, new shrubs were installed in front of the guardhouse, a representative apple orchard was planted west of the chapel, and a tall flagpole aligned with the dock was erected near the old guardhouse. (State of the Park 2016: 43)

The work described above dramatically changed the character of the fort, removing ten of the fourteen buildings along Officers' Row, except for a non-commissioned officers' quarters (#15) and the hospital steward's quarters (#16). Only two of the large barracks (#s 10,11) and the foundation of the administration building (#26) remained to define the parade ground. However, the character of the parade ground itself was greatly improved with the removal of woody vegetation. In other areas steep slopes were woodchipped and seeded as needed. Goats were used to clear vegetation from the two mortar batteries, but vegetation was retained around the three gun batteries as a deterrent for climbing. (Epsilon Associates 2011: 10)

Concurrent with this work was the development of a campground atop the East Head's north drumlin in 2012-13. Trees were selectively cleared around the fire control station (#F-101) for the installation of six yurts and a composting outhouse, as was the old road accessing the adjacent gun batteries. Interpretive waysides were added in this area as well as a new clearing at the northern bluff. In 2016 a second campground with six yurts was constructed south of batteries Cushing and Whitman, at the site of the World War I and World War II temporary barracks and mess halls. (OCLP 2017: 1)

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In 2013 the NPS and DCR collaborated to host a youth education training initiative, “Designing the Parks,” to enhance the use and management of Peddocks Island. The team envisioned a shade pavilion and food concession in the arrival and parade ground area; recommended replanting shade trees along the north edge of the parade ground; and proposed art murals of former Fort Andrews soldiers to enliven the boarded up windows of the vacant barracks buildings. The team also recommended improving the views to the surrounding harbor by clearing non-historic vegetation. To achieve their vision of filtered views under existing shade trees, the Designing the Parks team partnered with the Branching Out youth program and Green Ambassadors program to thin trees on the hill below Officers’ Row, thus reopening views from the group campsite in that area to the parade ground and the dock. (State of the Parks 2016: 40)

Changes also occurred at the cottages during this period. In 2001, seven MDC-owned cottages were demolished, which followed a period of removing windows and doors from abandoned cottages to expedite deterioration. Since 2001, another ten cottages have come into state ownership and are in various conditions of decay. According to data from 2013, 27 cottages were used seasonally on a regular or occasional basis, ten were empty and no longer in use, and ten were cottage sites where only traces of the demolished cottages remained. (Provencher 2009: 14; Stanton 2016: 14,46,198)

Analysis & Evaluation of Integrity

Analysis and Evaluation Summary

Analysis and Evaluation Summary Narrative

Landscape characteristics identified for Peddocks Island include natural systems and features, land use, topography, spatial organization, vegetation, circulation, buildings and structures, constructed water features, views and vistas, small-scale features, and archeological sites. Of these, the most significant are natural systems and features, topography, spatial organization, vegetation, circulation, buildings and structures, and views and vistas. Many landscape characteristics have associated features that contribute to the site's overall integrity and significance, as well as features that do not contribute.

INTEGRITY

According to the National Register of Historic Places, integrity is the ability of a property to convey its significance through physical resources. The National Register program identifies seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. Retention of these qualities is necessary for a property to convey its significance; however, not all seven aspects must be present for a property to retain integrity. A basic test of integrity is to judge whether a participant in the historic period would recognize the property as it exists today. Overall, Peddocks Island retains integrity in location, design, materials, workmanship, feeling, and association, but has diminished integrity of setting.

Location:

Location is the place where the historic property was constructed, or the place where the historic event occurred. Key facilities remain at Fort Andrews, which preserves the intents of the Endicott and Taft Boards in improving fortification of Boston Harbor. Numerous fort buildings have been removed since the period of significance, but no buildings have been moved to another location, and others have been repurposed for visitor and park uses or stabilized for future use. The locations of the island's cottage communities on Middle Head, Sergeants' Row, and West Head are unchanged since 1910. The overall cottage layouts are largely intact despite the loss or removal of several cabins and their outbuildings.

Design:

Design is the combination of elements that create the form, plan, space, structure, and style of a property. The design of Fort Andrews was directed by the landforms and topography of East Head and influenced by the army's consideration of practicality, formality, and aesthetics. The army built tactical battery structures on the north drumlin and next to the harbor's Nantasket Roads channel, observation and communication facilities on the top of the south drumlin, and non-tactical facilities and the parade ground throughout the flat terrain in the valley between the drumlins. The hierarchal contrast between the curvilinear layout of Officers' Row on the slopes of the south drumlin and the orthogonal positioning of the barracks and parade

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ground in the valley is still evident despite the loss of several buildings in these areas. Historic and new shade trees along the main road reinforce the formal and aesthetic design intent in this area. The Colonial Revival and utilitarian designs of the remaining permanent buildings and structures reflects their interior uses and also conveys the post's hierarchy through the level of architectural ornamentation and detailing. Some of these buildings are now used by the park, while others have been stabilized and secured for future use. The chapel, the only remaining World-War II temporary building, has been restored. Historic views have been restored across the parade ground to the administration building and from Officers' Row to the parade ground and wharf, but vegetation still blocks the strategic views from the north drumlin gun batteries and south drumlin observation stations.

In sharp contrast to the standardized designs of army facilities is the vernacular seaside architecture of the island's cottages and informal gathering spaces, which reflect the personalities and needs of their owners and the community. Many cottages feature additions, porches, and a variety of outbuildings built with materials found on the island or with products transported to the island. Despite several empty sites, the row alignments of cottages are still intact at the two areas on Middle Head, especially along Crab Alley on the northwest side, but are less evident on East Head's Sergeants' Row where only three cottages remain.

Setting:

Setting is the physical environment of a property and the general character of the place. The setting of East Head has changed significantly since the end of the historic period. Most of the buildings on Officers' Row and two of the four barracks buildings are gone, as are all of the World-War II-era temporary facilities except for the chapel. However, key buildings remain next to the foundation remains of the administration building, and together with the restored parade ground space convey the former army post's formal setting. Removal of successional vegetation and plantings of new rows of trees has also enhanced the military setting. Successional vegetation has dramatically altered the setting of a landscape where views and vistas were important for military success, namely around the fort's mortar and gun batteries and observation and communication facilities. At the same time, the trees and vines that cloak the batteries, obscure old roads and foundations, and crowd around boarded up buildings enhance the setting of a long-closed military fort.

The setting of the island's seasonal cottage community is somewhat diminished since the historic period due the removal and abandonment of several cottages and the growth of successional vegetation. However other cottage sites remain seasonally occupied with modest cottages and outbuildings, flower and vegetable gardens, and other trappings of island life accompanied people here for over a century.

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Materials:

Materials are the physical elements that were combined or deposited during the period of significance in a particular pattern or configuration to give form to the property. The army used reinforced concrete to build the five batteries, ordnance storehouse, and several observation buildings on East Head. Other tactical facilities were constructed with brick, such as the first battery observation tower on the north drumlin, or with stucco on most of the buildings on the top of the south drumlin. Those made with concrete and brick remain today, but the stucco structures are in ruins. Many of the fort's non-tactical facilities were built with red brick, light stone trim, and slate roofs, and those that housed the hospital and officers' and enlisted quarters included covered wood porches. The hierarchy of military rank determined where some materials were used: architectural embellishments on officers' residences were typically granite while on the enlisted barracks they were wood. The brick and stone materials are still evident on the fort's extant structures but the wooden features have been removed. The park has restored the chapel, the only surviving wood-constructed temporary building from World War II. Other extant materials at the fort include iron lamp posts, hydrants, and drain inlets; concrete sidewalks, stairs, walls, and fence posts; and several historic Norway maple trees along the main road.

The materials that comprise the island's cottages range from pieces of flotsam cobbled together with dimensional lumber (primarily the older cottages) to professional construction materials (more commonly found in the newer cottages). When a repair was needed or an entire cottage was rebuilt, the needed materials would often be salvaged from the other abandoned or collapsed buildings or brought in from the mainland. Cottage decoration materials range from items made by residents to buoys and sandals that have washed ashore.

Workmanship:

Workmanship is the physical evidence of the crafts and methods of construction used during the specified historic period of significance. Although the park has necessarily removed a number of unsafe buildings and structures at Fort Andrews, those that remain are a testament to the overall quality and durability of the army's construction methods. These facilities are over a century old and have survived decades of abandonment and exposure to maritime conditions. Evidence of workmanship is visible in the brickwork patterns, stone and wood detailing, and poured concrete walls, ceilings, and stairs. Specific examples of workmanship can still be seen on the concrete lettered signs at Battery Whitman and in the stippled patterns that mark the remnant sidewalks.

Workmanship can be seen at the island's cottages and outbuildings, which owners and occupants have built and modified over time to meet their needs. Construction methods vary from pieces of found materials connected together with lumber to more contemporary construction methods. However, the continued

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exposure to the elements, and the abandonment and removal of some cottages and outbuildings, continues to diminish this aspect of integrity.

Feeling:

Feeling is the expression of the aesthetic or historic sense of a particular time resulting from the presence of physical features that, taken together, convey a property's historic character. Companies of soldiers and their commanding officers no longer occupy Fort Andrews, but the fort's physical inventory of mortar and gun batteries, the restored parade ground, and extant barracks, residences, and support facilities evoke the feeling of a former military landscape. The transformation of East Head to recreational land uses has allowed people to explore these features and spaces, which depict the form and function of a former coastal defense post.

The feeling of an isolated and remote community still prevails amongst the island's cottages, a sense reinforced by outward views of the harbor and the islands and urban areas in the distance. Cottages that remain standing, and even some of those in irreparable conditions, convey a feeling of a historically close-knit working community that is evident in the continued habitation of some cottages, the proximity of the modest dwellings to one another, and the plethora of decorative ephemera (horseshoe crab shells, dinghies, buoys, items left by storms and tides). However, several cottage sites are now empty, which has created gaps in these "neighborhoods." Although the overall context of the cottage community has shifted from year-long habitation and making a living from the harbor to primarily summer season vacationing, the overall feeling of a historic fishing and vacation community is evident.

Association:

Association is the direct link between the property and an important historic event or person. The extant features at Fort Andrews are associated with Endicott-era coastal defense systems, Taft Board modifications, and other additions made during World Wars I and II. As a whole, the fort continues to be directly associated with its military history with the exception of the rehabilitated visitor center in the new guardhouse, the yurt and group campgrounds, and other fort buildings now associated with park operations. The cottage community's connection to the local fishing industry has diminished, but it still retains its association with seasonal vacation uses. The Peddocks Island cottage community is the only residential community left in the Boston Harbor Islands National & State Park.

Landscape Characteristics and Features

This section presents an analysis of landscape characteristics and their associated features and corresponding List of Classified Structures names and numbers, if applicable. It also includes an evaluation of whether the feature is contributing or non-contributing to the property's National Register

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eligibility and historic character for the primary historic period (1887-1968), or if it is non-contributing, undetermined, or managed as a cultural resource. If a feature is non-contributing, it is evaluated as “compatible” (visually congruent with the historic character of the landscape) or “incompatible” (visually incongruent with the historic character of the landscape). Graphics associated with this section are located at the end of the report.

NATURAL SYSTEMS AND FEATURES

Historic Condition (to 1968):

Natural systems and features are the natural aspects that have influenced the development and physical form of the landscape. The Boston Harbor Islands are comprised primarily of bedrock that is more than 500 million years old, and drumlin sediments deposited during the late Wisconsin glacial phase approximately ten to thirty thousand years ago. Drumlins are low, smooth, rounded, elongate hills composed of deposited rocks, sand, and clay that form beneath the margin of glaciers. Peddocks Island is comprised of five drumlins, which are part of a larger drumlin field that extends throughout eastern Massachusetts and Massachusetts Bay. It is the only partially-submerged drumlin field in the country.

The eastern two drumlin hills on Peddocks Island were historically known as East Head, while the three others were called Middle Head, West Head, and Princes Head. The north and south drumlins that form the 86-acre East Head rise 90 and 123 feet above mean low water, respectively, and are separated by a narrow valley that widens towards the head’s eastern and western shorelines. The three other heads are smaller in acreage and feature single drumlins: Middle Head is 40 feet high, West Head is 90 feet, and Princes Head is 38 feet. The heads are connected by low lying sand spits called tombolos, which include tidal ponds and marshes.

The unique landforms of Peddocks Island, and its location in the heart of Boston Harbor, were ideal for seasonal Native American settlement and use. The island also provided shorelines for fishermen and vacationers, hillsides for pasture and farming, and hilltops for fortification and defense systems. Portuguese fishermen relocated from Long Island in the late nineteenth century because Peddocks was close by and near the prime lobster beds. The island setting within sight of a major city inspired local residents to establish rustic summer cottages facing the water, with fenced yards and tended gardens. The two hills and valley on East Head guided the development of Fort Andrews, specifically the strategic arrangement of tactical and non-tactical structures alongside the harbor’s Nantasket Roads channel. The natural inclination of the landforms also reinforced the visual hierarchy of the post, with officers’ quarters located at higher elevations than the enlisted mens’ barracks.

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Post-Historic and Existing Conditions (after 1968):

All of the drumlin islands in Boston Harbor are diminishing in size as a result of sea level rise and coastal erosion, but such dynamics are natural processes that park managers are allowing to proceed unimpeded. However, these processes have threatened some of the important natural and cultural resources on Peddocks, especially on the north half of East Head where bluff erosion has destroyed or damaged several historic fort features, resulting in the closure of some walkways and trails. Although there are no known cultural resources on Princes Head, the drumlin is gradually eroding. In addition to rising sea levels and erosion, Peddocks Island is exposed to coastal storms, salt spray, wave energy, tidal flooding, high winds, and ice scour (Figures 29, 30, and 31).

Peddocks Island retains the historic natural systems and features that influenced the development and physical form of the landscape. Feature types related to this characteristic include the drumlin landforms, tombolos, shorelines, ponds, and marshes. However, they are not evaluated individually because they are not managed features.

LAND USE

Historic Condition (to 1968):

Land use describes the activities that have formed, shaped, or organized the landscape as a result of human interaction. There is evidence of seasonal occupation on Peddocks Island by Native American groups, from around 8000 BCE to around 1500 CE, who engaged in farming, hunting, and harvesting shellfish. From the “purchase” of the island in the early seventeenth century by English settlers until the later part of the nineteenth century, the island was sparsely populated and used primarily for cutting timber and grazing livestock. The Cleverly family is the most notable of these early residents, having owned a farm with pastures and orchards in the valley on East Head beginning around 1844. However, the island also saw recreational and military uses during this period. In 1675-76 the island was the site of an internment camp for Christian Indians during King Philip’s War. In 1775 around 600 militiamen were stationed on the island to guard the entrance to Boston Harbor, followed by French troops in 1778 who reportedly built defensive earthworks. In 1799 the Humane Society of the Commonwealth of Massachusetts built a “hut of refuge” on the island for shipwrecked sailors. In the decade after the Civil War, recreational tent camps could be found on Peddocks Island, possibly at the Cleverly farm. Lastly, in the 1870s the Alger Foundry of South Boston conducted ordnance tests from nearby Nut Island, firing guns at targets on Prince Head.

Residential uses of the island increased with the arrival of Portuguese fishermen from Long Island in 1887, who erected small cottages, outbuildings, and gardens on the southwestern shore of East Head in 1887. Around the same time the Cleverlys left their homestead on the eastern shore, which had grown to include several seasonal summer cottages. Hotel lodgings were also established on the island, beginning with The

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Willows on West Head in the late 1890s, the Island Inn on Middle Head in 1905-07, and The Clubhouse on West Head in 1907.

Military activity on the island returned in force in 1898 when the federal government purchased the north half of East Head from the Andrew estate, who owned all of Peddocks Island by this time. The U.S. Army built two mortar batteries, three gun batteries, roads, a wharf, and temporary support facilities to operate the armaments and sustain two companies of troops. Named Fort Andrews, the government purchased the south half of East Head for the fort's expansion in 1903, building permanent brick barracks, officers' quarters, a hospital, and quartermaster facilities in the valley and around the south drumlin in 1905-06. The army constructed more facilities and infrastructure in 1907-14 when the contingent of soldiers was increased to six companies and the post was designated as a headquarters. The government's plans for the fort did not accommodate the fishermen and cottagers, and by 1910 all of the cottages were either razed or relocated to Middle Head, except for five on the southwestern shore that were left behind and occupied by fort personnel, an areas that became known as Sergeants' Row. The fishermen settled on the northwest side of Middle Head, and this enclave became known as Crab Alley and grew to include other working class and immigrant residents. The summer residents settled mostly on the northeast side of Middle Head. Although a clear separation of military uses (East Head) and seasonal residences and lodgings (Middle and West Heads) was thus established, soldiers and civilians occasionally intermingled.

Fort Andrews operated during and after World War I, closed in 1928, and reopened in 1940 for World War II, during which time it served mainly as a training and administrative facility, and briefly as a prisoner of war camp. Closed for the final time in 1947, the fort and all of East Head were sold to East Coast Realty, a private development company, in 1957. Although the hotels on the island were all gone by 1934, use of the cottages was sustained throughout the two war per periods, and endured even when year-round use of them transitioned to seasonal use after World War II. Middle and West Heads were sold to East Coast Realty in 1958, and although the company developed plans for a high-end resort and large houses, none were built.

Post-Historic and Existing Conditions (after 1968):

In 1970 the entirety of Peddocks Island was acquired by the Metropolitan District Commission (MDC, now Department of Conservation and Recreation) and became part of Boston Harbor Islands State Park. In 1996 the park became part of the Boston Harbor Islands National Recreation Area, a unit of the National Park Service. The Boston Harbor Island Alliance oversees park initiatives and assists with park management of the Boston Harbor Islands National & State Park.

On East Head, military activity has been replaced by recreational land uses. The park has removed many of the structurally unsound army facilities, but has stabilized or rehabilitated others for visitor services, park

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operations, or future use. In 2004 the park completed upgrades to the dock. In 2012-13 the new guardhouse (#31) was rehabilitated into a visitor center, meeting space, and caretaker's apartment, and in 2013-14 the chapel (#T-31) was restored and can be used for events. Picnic tables and grills are available around the orchard adjacent to the chapel and in an area of new tree plantings just north of the new guardhouse, adjacent to a remnant foundation wall of the old coal house (Figure 32). Yurt campgrounds were opened atop the north drumlin in 2013 and across from the two mortar batteries in 2016, the latter of which was used historically as temporary camps for the fort's enlisted men (Figure 33). Group camping is available amongst the foundation outlines on Officers' Row. On Middle Head, the seasonal cottage community is still active due to a life-lease arrangement established in 1994 that allows cottagers to renew their annual leases for their lifetimes (but the leases cannot be bequeathed or sold). Several cottages also remain seasonally occupied on East Head and West Head (Figure 34).

Evaluation:

Peddocks Island retains some of its historic land uses, while vestiges of past land uses still remain in the landscape. Military activities at Fort Andrews have been replaced by recreational uses, as day use visitors and overnight campers now occupy the fort's grounds rather than army soldiers and officers. Historic residential uses of the cottages continues today, albeit seasonally. The fort facilities and the cottages are evaluated individually in the Buildings and Structures section below. Tamping and picnic areas are non-contributing land uses introduced by the park, but overall they do not negatively impact the fort's historic significance and character.

Land Use	Feature Contribution	LCS Name	LCS Number	Type of FMSS Record	FMSS Record Number	FMSS record an exact match?
Recreational Land Uses	Contributing	n/a	n/a	tbd	tbd	tbd
Residential Land Uses	Contributing	n/a	n/a	tbd	tbd	tbd
Campgrounds	Non-Contributing - Compatible	tbd	tbd	tbd	tbd	tbd
Picnic Areas	Non-Contributing - Compatible	tbd	tbd	tbd	tbd	tbd

TOPOGRAPHY

Historic Condition (to 1968):

Topography is the three dimensional configuration of the landscape surface characterized by slope and elevation. The natural drumlin topography of Peddocks Island directly influenced the planning and construction of Fort Andrews. Army engineers positioned multiple gun batteries, observation and communication structures, and searchlights on East Head's two hills, which presented clear sight lines to any incoming threats in Boston Harbor. The top of the south drumlin was also the site of a wireless radio

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station, one of the country's first. The fort's larger mortar batteries and the non-tactical support facilities were placed in the gently sloped valley that separated the hills and provided shoreline access. The south drumlin's natural shelf of level land on the middle slopes was utilized for a hospital and officers' housing built before World War I, while its gently sloping west slopes were suitable for a temporary housing area during World War II. Graded earthworks were mounded next to and on top of the batteries for concealment.

The army executed significant earthmoving to build some of these facilities: the lower slopes of north drumlin were excavated for the two mortar batteries, the ordnance storehouse, and three of the four brick barracks, while earth was added to the old farm pond and behind the seawall to even the grade of the parade ground and protect it from high tides. Retaining walls were also built to protect the parade ground and create level terraces for temporary facilities on the south drumlin. However, wherever possible the army attempted to minimize excessive cutting and filling. All roads required some grading, but "the road grades are easy and conform closely to that of the natural surface, reducing expense to a minimum." Walkways generally followed the existing contours, with steps and staircases built where needed. Other localized examples of topographic changes included the hand-dug World War I-era training trenches on the west slopes of the north drumlin, the below grade battery command/fire control structure (#F-105) on the south drumlin, and the hillside garden spaces throughout the fort. (Moore-Heder Architects 1990: 63, citing Board of Officers, 1906).

The island's topography also influenced locations of the Cleverley farm complex, fishermen village, and summer cottages. The Cleverlys located their pastures in the flat valley on East Head and placed their house and support buildings on its eastern shoreline. The Portuguese fishermen placed their cottages on the lower southwest slopes of East Head, high enough to avoid high tide but low enough to provide quick shoreline access. When the fishermen and summer cottagers relocated to Middle Head, they chose the drumlin's lower and flatter slopes just above high tide, which provided convenient water access and unobstructed views. Residents likely made minor changes to the topography for their homes, outbuildings, gardens, and roads/trails. Grading of roads and lot lines for a planned housing development was completed by East Coast Realty on West Head in the early 1960s, but no homes were ever built.

Post-Historic and Existing Conditions (after 1968):

There has been little to no change in the drumlin topography of Peddocks Island since the historic period with the exception of natural bluff erosion processes. Tree growth and leaf litter is gradually filling in the historic training trenches, while fill around the north section of the failing seawall has eroded (Figure 35). Graded slopes and terraces created by the army around building sites and roads are still visible in some areas of the fort, but are obscured in others by woody vegetation and forest duff (Figure 36). The

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accumulation of woody vegetation and forest duff is increasingly obscuring the earthworks and concrete surfaces of the batteries, although the park has recently removed some of this material from Batteries Whitman and Cushing (Figure 37). Garden areas associated with the fort are no longer visible due to the growth of successional forests and the passage of time.

Evaluation:

Peddocks Island retains the historic topography as characterized by slope and elevation. The drumlin topography remains intact, though it is in constant change from natural processes. Historic cutting, filling, and grading associated with the army's development of Fort Andrews is visible in some areas, but obscured by successional vegetation in others. Historic terraces are extant in the parade ground area and along Officers' Row. The World War I-era training trenches are remarkably intact on the north drumlin and are therefore evaluated as a contributing feature in the landscape. Earthworks associated with the fort's batteries are evaluated as part of those structures in the Buildings and Structures section.

Topography	Feature Contribution	LCS Name	LCS Number	Type of FMSS Record	FMSS Record Number	FMSS record an exact match?
Terraces in the Parade Ground Area and Officers' Row	Contributing	tbd	tbd	tbd	tbd	tbd
Training Trenches	Contributing	tbd	tbd	tbd	tbd	tbd

SPATIAL ORGANIZATION

Historic Condition (to 1968):

Spatial organization is the three-dimensional organization of physical forms and visual associations in the landscape, including the articulation of ground, vertical, and overhead planes that define and create spaces. The layout of Fort Andrews reflected the typical characteristics and hierarchies of Endicott-era coastal defensive posts, with tactical and non-tactical structures spread over large expanses of land and arranged in a mix of traditional military, Beaux Arts, and Olmsted-inspired patterns to create an aesthetically attractive facility. The fort's parade ground at the east end of the valley was the focus of the non-tactical area and the center of fort activity. Officers' quarters and the hospital were placed on one side of the parade ground, on a gracefully curving natural shelf midway up the slope of the south drumlin that overlooked the parade ground and provided views of the wharf and water. On the other side of the parade ground was a line of four imposing barracks buildings, situated at the base of the north drumlin and fronting the main road. The administration building occupied a prominent location at the west end of the parade ground, serving as a focal point for those arriving at the wharf, the fort's main entry point. Non-commissioned officers' quarters were located to the west of the parade ground proper, as was the post exchange, gymnasium,

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bakery, and fire station. A system of permanent roads served the entire fort, which connected to a main road running the length of the valley and paralleling the parade ground, barracks, and mortar batteries.

The unique topography of East Head required adjustments to some of the Endicott guidelines. The shortage of level ground required the army to locate quartermaster functions at both ends of the east-west main road: stables, wagon sheds, power and pumping plants, coal storage, and wood sheds were located just north of the wharf at the east end of the valley, while the quartermaster storehouses and waste facilities were located at the west end. The chapel, one of the last additions to the fort, was built at the far east end of the parade ground, but sited off center from the administration building so as not to impact the view looking west across the parade ground. Temporary barracks and mess halls were erected, and removed, on two separate occasions at Fort Andrews; both were laid out in orthogonal plans separated by roads and walks.

East Head's landforms also accommodated the arrangement of the fort's Endicott-era tactical facilities. The north drumlin was an ideal location for the army's defensive batteries, strategically positioned at the transition of Inner and Outer Boston Harbor and adjacent to the Nantasket Roads channel. The army aligned the two large mortar batteries Whitman and Cushing along the lower west slopes of the north drumlin, and stationed the three smaller gun batteries Rice, McCook, and Bumpus on the top of the drumlin. Fire control systems in the batteries included observers in base end stations, personnel in plotting rooms, and crews operating the mortars and guns. Fire control stations and towers at the top of the north and south drumlin served the three gun batteries and two mortar batteries, respectively, to find and track threats in the harbor and correct firing data. Such facilities had to be located at points on the island that were in close proximity and sight to their assigned batteries, at a height and with a view that allowed for accurate firing calculations, suitably open to the outdoors to adjust calculations to temperature and weather conditions, and properly enclosed to provide protection to those inside. Other tactical infrastructure strategically arranged in the landscape include searchlights on the north drumlin, which were added to the fort as a result of the Taft Report recommendations for technological updates in coastal defense systems.

The fishermen cottages on the southwestern shore of East Head paralleled the waterline, and were arranged in a line determined by the high tide line and the relative shortage of buildable space in this area. The row of summer cottages on the eastern shoreline of East Head also followed the shoreline, with residents facing their cottages toward the water to capture the harbor views. When construction of Fort Andrews displaced the fishermen and summer residents to Middle Head, two cottage areas evolved there, also above the high tide line. The fishermen cottage area on the northwest side, known as Crab Alley, grew into a distinct L-shaped cluster of closely-spaced cottages set alongside three roads/trails running parallel and perpendicular to the shoreline. The summer cottage area on the northeast side grew into a single row of residence spaced

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farther apart from each other, facing a road/trail tracing the shoreline. In both cottage areas, residents built outhouses and wellhouses nearby, as well as gardens and pastures. The old fishermen and summer cottages that remained on the southwestern shore of East Head became known as Sergeants' Row. By the end of the historic period, there were 41 cottages on Middle Head, three on Sergeants' Row and one on the southeast side of East Head, and two on West Head.

In the late 1880s, at the beginning of the primary historic period, most of the developed areas described above were set within open landscapes characterized by grasslands and few trees. On East Head army personnel added trees, windbreaks, lawns, gardens, and orchards that further divided spaces and visually reinforced the fort's layout. On Middle Head, and at a smaller scale, fishermen and seasonal residents enhanced their cottages landscapes in the same way. However by the late 1960s, the end of the historic period (to date), such open conditions had largely given way to successional forests that diminished many spatial relationships. Interestingly, at this time it was West Head that was comparatively free of vegetation because of the preliminary grading of roads and lot lines for a proposed housing development.

Post-Historic and Existing Conditions (after 1968):

At Fort Andrews, the practicality, formality, and beauty of the fort's overall layout has once again been revealed because of the removal of vegetation in the parade ground and thinning of trees on the hill below Officers' Row (Figure 38). Although many permanent and temporary army buildings are gone, the retention of four residences on Officers' Row, the administration building foundation, and two of the large barracks facing the parade ground convey the hierarchy of these masonry structures and their relationship to the parade ground. Vegetation clearing for the yurt campground on the north drumlin has revealed views to the harbor and the purpose of the gun batteries and observation tower at this location. On Officers' Row, lawns, foundation outlines, and remnant sidewalks and the road identify locations of razed houses and the hospital, conveying the curved layout and design of this important space (Figure 39). Other areas of the fort are still heavily vegetated, but the batteries and buildings, main road and connecting roads, and walks and steps that remain allow visitors to appreciate the original design and character of the fort (Figure 40). Three cottages remain at Sergeant's Row.

The historic neighborhood arrangements of the fishermen/summer cottages on the northwest side of Middle Head and summer cottages on the northeast side are still evident, although the spread of dense vegetation and the loss of some cottages has altered spatial relationships within these areas (Figures 41, 42, and 43). Roads and paths still define the two cottage areas and provide access to the shorelines. On West Head, a single road/path along the east side connects to the lone summer cottage and the head's southwest tip, but other circulation and property line features from the East Coast Realty development period are obscured in the trees.

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Evaluation:

Peddocks Island retains its historic spatial organization characteristics, despite the continued growth of successional forests and the loss of numerous military facilities and several residential cottages. The historic design and layout of the fort is still visible, as are the historic row arrangements of cottages on the northwest and northeast sides of Middle Head. However, the abandoned and dilapidated conditions of two of the three cottages at Sergeants' Row may impact the spatial character of this area in the future.

Spatial Organization	Feature Contribution	LCS Name	LCS Number	Type of FMSS Record	FMSS Record Number	FMSS record an exact match?
Parade Ground	Contributing	Fort Andrews Parade Ground	(201644)	tbd	tbd	tbd
Sergeants' Row Cottages	Contributing	tbd	tbd	tbd	tbd	tbd
Rows of Fishermen's Cottages and Summer Cottages, Northwest Side of Middle Head	Contributing	tbd	tbd	tbd	tbd	tbd
Row of Summer Cottages, Northeast Side of Middle Head	Contributing	tbd	tbd	tbd	tbd	tbd

VEGETATION

Historic Condition (to 1968):

Vegetation includes deciduous and evergreen trees, shrubs, vines, groundcovers, and herbaceous plants and plant communities, whether indigenous or introduced in the landscape. Long before the cottage communities and Fort Andrews, Peddocks Island was primarily wooded with birch, oak, ash, maple, pine, and cedar trees. With the arrival of European settlers in the 1600s, most trees were cut down for firewood, building material, and grazing lands. A 1775 map shows one of the remaining trees on East Head served as a navigational landmark. Agricultural uses continued into the nineteenth century, at which time an orchard was established at the Cleverly farm on East Head, at the east end of the valley.

Throughout the period in which Fort Andrews was an active facility, the landscape on East Head was generally limited to grasses and small woody vegetation to ensure maximum visibility to and from tactical structures. However, in the non-tactical areas the army introduced trees, shrubs, and grass to minimize blowing dust, provide summertime shade, and enhance the appearance of the fort. Trees were planted between the various buildings, including a row of Norway maple along the main road in front of the four barracks buildings and the two mortar batteries. Lawns were installed in the parade ground and around buildings, and steep slopes were stabilized with grass seed, including the mounds of earth concealing the batteries. Windbreaks were also set out on the hillsides behind the eastern portion Officers' Row, south of

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the quartermaster storehouse, and north of the four barracks and the mortar batteries. Over the years soldiers tended seasonal gardens of tomatoes, carrots, beets, cabbage, corn, squash, and beans throughout the fort, and at least one orchard of pears, cherries, and apples on the south-facing slopes of the south drumlin. Although locations of intentional tree plantings are generally not known, vegetation on Middle and West Heads was mainly grasses and low shrubs as photographs show open views to and from cottages unblocked by canopy vegetation. Residents engaged in gardening and planted lawns and ornamentals around their cottages.

The character of the island's landscape began to change after World War II as once open spaces began to transition to woodlands. With the closure of Fort Andrews, areas kept clear for the parade ground, gardens, and strategic sight lines began to fill in with trees, while the trees planted by the army continued to mature. Similar trends occurred on Middle and West Heads, where year-round use of the cottages transitioned to seasonal use and forests reestablished themselves in unused and undeveloped. Aerial photographs from 1952 show approximately fifty percent of East, Middle, and West Heads were forested, while aerials from 1970 reveal the coverage increased to about 80 percent.

Post-Historic and Existing Conditions (after 1968):

On East Head, the demolition of the fort's World War II-era temporary barracks and mess halls in 1972 briefly created openings in the dense forest canopy, but in subsequent years they quickly became overgrown. Various land use plans implemented at the fort included some vegetation management, but it was not until the major stabilization/rehabilitation efforts in 2011-12 that the park began managing the fort's overgrown vegetation. At that time the parade ground was cleared of woody vegetation and reseeded, steep slopes around the fort were woodchipped, and select areas were filled, graded, and seeded as needed. New maple trees were planted along the main road fronting the barracks while trees were thinned from the hillside below Officers' Row to reopen views to the parade ground and wharf. At both batteries Whitman and Cushing, one of two pits have been cleared of vegetation, but as a whole the batteries are still dominated by trees, shrubs, and vines (Figures 44 and 45). At the gun batteries, plant removals have opened up the rear elevations, but the stairs and platforms remain covered (partly as a deterrent for climbing on the structures) and the historically open land between them and the harbor are densely forested (Figure 46). Major clearing occurred on the top of the north drumlin for construction of the campground in 2013, which concluded with new plantings of turf and shrubs in this area. Understory vegetation was removed in the area adjacent to the two mortar batteries for a second campground in 2016. The park also planted shrubs in front of the new guardhouse (visitor center) and chapel, and installed a representative orchard just west of the chapel (Figure 47). Other areas of the fort remain shrouded in dense vegetation, including the historic orchard on the south drumlin, making it difficult to find historic vegetation features without the aid of historic plans and photographs. On Middle and West Heads,

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vegetation remains dense in interior areas and along Crab Alley, but other cottages are more open and feature a mix of lawns, hedges, flower and vegetable gardens, and ornamental plantings (Figure 48).

In a 2002–03 survey, 225 vascular plant species were identified on Peddocks Island, making it the second most diverse in the park in terms of total native and exotic plant species. At the time 51% of the plant species on the island were exotics. Rare plants identified were the seabeach dock (*Rumex pallidus*) and seaside angelica (*Angelica lucida*) and are currently considered in stable condition. Population of common reed (*Phragmites australis*) and pepperweed (*Lepidium latifolium*) have been identified in brackish and saltwater wetlands. A patch of kudzu (*Pueraria lobata*) has been eliminated by park managers. (Elliman 2004: 1-9; State of the Park 2016: 20,24)

According to the survey, vegetation communities on Peddocks Island range from closed canopy forests to dry scrublands and long stretches of sandy beach. East Head is dominated by Norway maple (*Acer platanoides*), along with scattered with black pine (*Pinus nigra*), Scotch pine (*Pinus sylvestris*), black locust (*Robinia pseudoacacia*), native hackberry (*Celtis occidentalis*), white ash (*Fraxinus americana*), and black cherry (*Prunus serotina*). Shrub understories are dominated by exotic species, including oriental bittersweet (*Celastrus orbiculatus*), Japanese barberry (*Berberis thunbergii*), Morrow's honeysuckle (*Lonicera morrowii*), and multiflora rose (*Rosa multiflora*). Poison ivy (*Toxicodendron radicans*) is abundant throughout East Head. Middle and West Heads include gray birch (*Betula populifolia*), red cedar (*Juniperus virginiana*), black cherry, and big-tooth aspen (*Populus grandidentata*) that form an open canopy above tangled shrub thickets. Native shrubs include smooth shadbush (*Amelanchier arborea*), red chokeberry (*Aronia arbutifolia*), common elder (*Sambucus canadensis*), and arrow-wood (*Viburnum recognitum*). A partial list of the non-native shrubs in these thickets includes: Japanese barberry, European barberry (*Berberis vulgaris*), privet (*Ligustrum vulgare*), Morrow's honeysuckle, and multiflora rose. Prince Head features thickets of Oriental bittersweet, bayberry, staghorn sumac, and saltspray rose (*Rosa rugosa*). (Elliman 2004: 105)

The low-lying tombolos, or sandy necks, connecting the drumlins are characterized by scrublands and weedy fields. Staghorn sumac, saltspray rose, four-o'clocks (*Mirabilis nyctaginea*), bracted plantain (*Plantago aristida*), sleepy catchfly (*Silene antirrhina*), and purple sand grass (*Triplasis purpurea*) are found in these dry scrub communities. A naturalized population of tiger lily (*Lilium tigrinum*) grows in scrub west of the island's salt marsh. Beach strand associations occur around the island's perimeter: dusty miller (*Artemisia stelleriana*), orache (*Atriplex patula*), sea-rocket (*Cakile edulenta*), goosefoot (*Chenopodium album*), seaside spurge (*Euphorbia polygonifolia*), common sunflower (*Helianthus annuus*), beach pea (*Lathyrus japonicus*), saltwort (*Salsola kali*), and cocklebur (*Xanthium echinatum*). (Elliman 2004: 105-106)

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Evaluation:

Peddocks Island generally retains slightly less successional vegetation today as it did at the end of the historic period, almost two decades after the fort was closed and year-round use of the cottages had diminished. However, this successional vegetation is evaluated as non-contributing-incompatible because it was not prevalent during the periods of most active use at the fort and cottages, and as a whole detracts from the historic character of these areas. The presence of forest growth evokes a bygone time, but also compromises the visitor experience, especially in understanding the design and use of the fort's batteries and associated support facilities. To this end the park has cleared and thinned successional vegetation in several fort areas to restore the intended strategic and aesthetic views, and has replanted grass and other missing trees along the main road. The orchard next to the chapel evokes the character of the nineteenth-century Cleverly orchard, but is well south of its historic location. The orchard, as well as new plantings at the guardhouse and north drumlin are not historic, but do not adversely detract from the historic scene.

Vegetation	Feature Contribution	LCS Name	LCS Number	Type of FMSS Record	FMSS Record Number	FMSS record an exact match?
Successional Forest Communities	Non-Contributing - Incompatible	n/a	n/a	tbd	tbd	tbd
Vegetation on and in Batteries	Non-Contributing - Incompatible	n/a	n/a	tbd	tbd	tbd
Allee of Maples in Front of Barracks	Contributing	n/a	n/a	tbd	tbd	tbd
Parade Ground Lawn	Contributing	n/a	n/a	tbd	tbd	tbd
Remnant Orchard on South Drumlin, East Head	Contributing	n/a	n/a	tbd	tbd	tbd
Chapel Orchard	Non-Contributing - Compatible	n/a	n/a	tbd	tbd	tbd
Shrubs at North Drumlin Campground and New Guardhouse	Non-Contributing - Compatible	n/a	n/a	tbd	tbd	tbd

CIRCULATION

Historic Condition (to 1968):

Circulation is the spaces, features, and applied material finishes that constitute systems of movement in a landscape. Peddocks Island was occupied seasonally by Native Americans, who arrived by watercraft and explored the shorelines and wooded drumlins on footpaths. The island's early European settlers may have followed similar routes as they cleared the land for firewood, building material, and pastures. During the Revolutionary War, around 600 Continental troops were stationed on East Head to protect Boston Harbor, and in doing so likely created numerous well-worn trails. French troops fortifying the same area a few years later may have used the same paths. Both settlers and soldiers may have made use of docks to arrive and depart the island, but such details are not known.

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When the Cleverly family arrived in the 1830s to farm on East Head, they likely developed rough earthen and grass roads/trails between their house and outbuildings, and to reach fenced pastures in the valley. The first indication of a circulation feature on the island appears on an 1860 map, as a small L-shaped wharf on the eastern shoreline belonging to the Cleverlys.

The federal government's construction of Fort Andrews on the north half of East Head in 1898 introduced a practical and formal circulation system on East Head. In order to build the fort's mortar and gun batteries, the army constructed a wharf around 250 feet north of the old Cleverly wharf, from which a main road extended straight through the valley and to the opposite shore. The road linked the quartermaster buildings at the wharf to the barracks, mess halls, and officers' quarters at the west end. At the midway point of the main road a switchback road tracked across the hillsides of the north drumlin to the gun batteries and battery observation station at the top. There was likely a rough road running through the former Cleverly farm area, which by this time had evolved into a row of more than a dozen cottages facing the water. A road may also have existed at the Portuguese fishermen village on the east side.

The federal government's acquisition of the south half of East Head in 1903, and subsequent expansion of the fort, eventually displaced the cottages at the Cleverly farm. This allowed the army to incorporate and improve the existing cottage road, connecting it to the main road and extending it south to the fort's south boundary. This road also linked to a new road at the south end of Officers' Row, that gently curved around the east and north sides of the south drumlin and served a line of houses and a hospital. As the army added new buildings, short connector roads were built from the curved road northward to the main road. The alignment of the east half of main road itself was shifted southward to accommodate the four brick barracks buildings. During World War II the army built a group of temporary facilities on the west slope of the south drumlin, which was accessed by an extension of the curved Officers' Row road. In this area a grid of short roads ran alongside the buildings and then terminated as a roundabout to the east. The roads in the World War II area featured macadamized surfacing; the early fort roads were likely earth/gravel surfaced and then possibly paved in the 1920s. Although it was common army practice to name roads, there is no record of this occurring at Fort Andrews.

Concurrent with the road building effort was the army's construction of pedestrian circulation features. In the fort proper, concrete sidewalks were laid throughout the post, including several long staircases with railings where the topography was steep. Fort plans do not indicate paths to the tactical control structures on top of the south drumlin, suggesting they were accessed by earthen trails. The multi-level batteries themselves featured numerous concrete walks and steps with railings.

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Circulation amongst the cottages on Middle and West Heads was comprised of less formal roads/paths of packed earth and sand. On Middle Head three roads defined the fishermen cottage area and a single long and curved road fronted the summer cottage area, while several roads connected the two via the drumlin slopes. Historic photographs show a series of curving paths across the tombolo between Middle and East Heads that formed an X at its midpoint. The two paths lead to two gates positioned at both ends of the fort's south boundary fence. Sources note a stone arch marked the eastern gate. Residents made use of the hotel wharves associated with the Island Inn on Middle Head and "The Clubhouse" on West Head.

By the end of the historic period, many of the roads, sidewalks, and stairs at the abandoned Fort Andrews were in poor condition, covered with forest litter or blocked by downed trees. Only one path tracked across the tombolo between Middle and East Heads, leading to the western end of the fort's south boundary. On Middle Head, roads/paths still served the residents, and on West Head a road reached the southwest tip. This road connected to a series of roads/trails graded along the shoreline and around the drumlin in the early 1960s that were part of a planned housing development, but they were never used and by the late 1960s the forests were beginning to encroach on them. Both hotel docks were also gone by this time.

Post-Historic and Existing Conditions (after 1968):

At Fort Andrews, the main road continued to function as the primary access route through the closed fort, but other roads were mostly unused until 2011 when the park began its stabilization and demolition project. In the years that followed other fort roads were reopened to provide visitor access to the two yurt campgrounds and the group camping area. Today the fort's main road (around 1,900 feet long), switchback road to the north drumlin (1,200 feet), curved road along Officers' Row (2,400 feet), and road to the former south boundary (2,600 feet) are once again in use, primarily by pedestrians and park maintenance vehicles (Figure 49). Other fort roads remain in poor condition or are only traces amongst the successional forest, especially the roads and roundabout in the former World War II development on the south drumlin (Figure 50). However, they are important remnants of this area. Except for a staircase at the combined battery command/fire control structure (#F-105), trails associated with the army buildings atop the south drumlin are no longer discernible (Figure 51). Some of the fort's concrete sidewalks and steps have been repaired, namely the staircase from Officers' Row to the chapel, but others are in poor condition or hidden under forest duff, although glimpses of them can still be seen in many places. The fort's wharf has been redesigned and rebuilt several times since 1968, and was recently enlarged to accommodate visitors during the summer and early fall arriving by the park shuttle boat. The present dock measures approximately 90x190 feet and includes several boat slips.

Circulation routes amongst the cottages on Middle and West Heads is relatively unchanged since the historic period. However, the roads/trails that crossed the drumlin and connected the two cottage areas on Middle Head are more overgrown than they were historically. There are no longer any shoreline docks, as

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most cottagers now anchor north and south of Middle Head and row to shore. A single path still tracks across the tombolo between Middle and East Heads and to the former gate location at the fort’s boundary. A road/path tracks across the east side of West Head to the southwest tip, and in some areas is covered by an archway of canopy vegetation, creating a tunnel (Figure 52). The roads graded on West Head in the 1960s are no longer visible in the landscape due to the dense forest cover.

Evaluation:

Peddocks Island retains many of the circulation features that were present during the historic period.

Historic roads and walks at Fort Andrews remain, although some features such as those in the World War II housing area on the south drumlin, exist only as traces in the overgrown landscape. The wharf is in its historic location at the end of the main road, but its current design bears little resemblance to the historic wharf and therefore is evaluated as not contributing.

Circulation	Feature Contribution	LCS Name	LCS Number	Type of FMSS Record	FMSS Record Number	FMSS record an exact match?
Main Road, Fort Andrews	Contributing	Fort Andrews Main Path	(201649)	tbd	tbd	tbd
Switchback Road to North Drumlin, Fort Andrews	Contributing	tbd	tbd	tbd	tbd	tbd
Officers’ Row Road, Fort Andrews	Contributing	Fort Andrews Officer’s Row Road	(201749)	tbd	tbd	tbd
Road from Wharf to Middle Head, Fort Andrews	Contributing	Fort Andrews Road Pier to Middle Head	(201752)	tbd	tbd	tbd
Remnant Roads and Turnaround, South Drumlin, Fort Andrews	Contributing	tbd	tbd	tbd	tbd	tbd
Fort Andrews Sidewalks and Stairs	Contributing	tbd	tbd	tbd	tbd	tbd
Fort Andrews Wharf	Non-Contributing - Compatible	n/a	n/a	Location	76243	tbd
Middle Head Roads/ Paths	Contributing	tbd	tbd	tbd	tbd	tbd
West Head Road/Path	Contributing	tbd	tbd	tbd	tbd	tbd

BUILDINGS AND STRUCTURES

Historic Condition (to 1968):

Buildings are three-dimensional constructs built primarily for sheltering any form of human activity, while structures are constructed for functional purposes rather than human activity. During the Contact Period, Native American families in the Boston Harbor area lived seasonally in circular houses known as wigwams, constructed with poles bound inward and covered with bark or mats. However, no specific

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information regarding such shelters on Peddocks Island has been found. Also unknown are details of buildings and structures associated with subsequent human activity: early European settlers who may have lived on the island after it was acquired in 1622; the construction of defensive structures by the Americans and French on East Head during the Revolutionary War; or the placement of a “hut of refuge” on the shoreline by the Humane Society of the Commonwealth of Massachusetts in 1799.

Cottage Communities.

It is not until the mid-nineteenth century that a clearer picture of the island’s buildings and structures is revealed. By 1860 a farm run by the Cleverly family was well established on East Head and included two houses and three outbuildings on the eastern shoreline. A later sketch of the farm from 1882 illustrates 1- to 2-story wood frame buildings with wood roof shingles, clapboard and shingle siding, and brick chimneys. After the Cleverlys left the island their farm became the location of summer cottages aligned in a row facing the water. There are no photographs of the cottages in this area but they likely featured similar characteristics as the Cleverly buildings. The cottages may also have been similar in design and materials to a row of cottages established by Portuguese fishermen on the southwest shore of East Head beginning in 1887. Early twentieth century photographs of this area show modest one- and two-story wood frame buildings with clapboard or shingle siding, covered porches or decks, brick chimneys, and small outbuildings.

The federal government’s purchase of East Head between 1898 and 1903 to build Fort Andrews forced the fishermen and summer residents to abandon their cottages or move them to Middle and West Heads. By 1910 there were no cottages on the eastern shore and only a few on the southwestern shore, which then became homes for some of the fort’s non-commissioned officers. On Middle Head two distinct cottage areas developed; fishermen and a few summer residents on the northwest side and mostly summer residents on the northeast side. The 1- and 2-story cottages featured wood frame construction and were typically clad in wood shingles or clapboards. They were also painted to protect against the seaside environment, often in a range of colors reflecting the personalities of their owners. Many cottage properties included small outbuildings comprised of outhouses, sheds, or wellhouses. The interior rooms of most cottages were small and generally organized around a main living space (often including a kitchen area) with bedrooms around or behind it. Wood stoves were the common mode of heating, though some cottages had propane appliances. (Stanton 2016: 50)

Three hotel sites existed on Peddocks Island during the early part of the historic period. “The Willows” was built on West Head in the late 1890s but its exact location and design are unknown, and it was lost to a fire in 1904. “The Clubhouse” was built on the southwest tip of West Head in 1907. The multi-story frame building featured a wide porch on all four sides, a central dining room, basement kitchen and barroom, and

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a large open upper story room for sleeping. It burned in a fire in 1913 and was rebuilt, but fire also destroyed the replacement building in 1934 and it was not rebuilt. The Island Inn opened on the northeast side of Middle Head between 1905-07. The 2.5-story frame building had a porch, dining room, kitchen, and sleeping rooms. The hotel closed in 1917 and was dismantled at an unknown date.

Tax assessor records from 1915 documented two houses, thirteen cottages, fifteen Portuguese cottages, two stables, and two wharves on the island's non-government lands. Up through the 1960s some cottage owners renovated the original buildings or built additions to them, often using materials easily transported from the mainland or salvaged from other buildings on the island. During this period several cottages were lost to fire or storms, or abandoned. By the end of the historic period there were 47 cottages, mostly on Middle Head with few outliers on East and West Heads.

Fort Andrews.

Contrasting the vernacular styles of the cottages was the vast inventory of standardized facilities at Fort Andrews. The army's first phase of construction spanned 1898-1904 and focused on building defensive batteries and basic support buildings on the north half of East Head. Batteries Whitman and Cushing were mortar batteries, each armed with eight 12" mortars on barbette carriages. Batteries Rice, Whitman, and Bumpus were smaller gun batteries, each equipped with two 3, 5, or 6mm rapid fire guns on pedestal carriages. A two-story brick battery observation station (#F-101) was built on top of the north drumlin. In support of these projects the army constructed temporary 1- and 2-story wood frame buildings for officers' quarters, barracks, mess halls, and quartermaster sheds and storehouses.

Constructed of reinforced concrete and earthworks, the five batteries were part of the Endicott-era of coastal defense structures, reflecting the latest advances in weapon design and technology. The batteries were different from their Third System predecessors:

“The most significant change in the physical nature of harbor defenses was a shift in emphasis from forts to the weapons within them. Following the trend established in the post-Civil War period, the new works were batteries which lacked the vertical walls of the Third System forts, and instead were designed to blend into the landscape as much as possible” (Moore-Heder Architects 1990: citing Lewis 1970: 78).

The design of Fort Andrews' batteries reflected this shift: Batteries Rice, McCook, and Bumpus blended into the north drumlin's upper north hillside, while Batteries Whitman and Cushing were cut into the drumlin's lower west slopes. In addition to decreasing the cost of construction, use of the natural landscape (earthworks and fill) to conceal the fortification structures was envisioned as improving protection of the harbor.

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With the fort's armaments and support buildings complete, the next phase of construction at Fort Andrews came in 1905-1906, after the army acquired the south half of East Head and expanded the post to house two companies of soldiers. Additional construction occurred in 1907-1914 after the fort was designated a district headquarters and its capacity was increased to six companies. Through this nine-year, pre-World-War I period, the army constructed numerous permanent facilities, some of which replaced earlier temporary buildings. The 1- to 3-story permanent buildings were designed in the Colonial Revival style with red brick walls and granite foundations, gabled or hipped slate roofs, and 1- or 2-story wood porches with wood, stone, and brick columns. Just as the locations of buildings followed a hierarchical order (see Spatial Organization), so too did their architectural detailing; officers' residences were more elaborately detailed and featured granite trim, while the barracks largely used wood trim. By design, most of the brick buildings were located in areas that were the most visible – the parade ground, main road, wharf, and Officers' Row. This was intentional, as the government aimed to beautify the fort and create a cohesive appearance both in individual construction and overall layout. By comparison, some of the facilities built on top of the more remote south drumlin at this time featured low profile structures with concrete or stucco construction and flat roofs. Concrete also comprised some of the fort's utilitarian structures, such as the concrete seawall (#48) along the fort's eastern shoreline that protected the parade ground and quartermaster area.

To accommodate the large number of men stationed at the fort during the World War I and II years, the army erected temporary 1-story wood frame buildings and structures, which like the permanent buildings were constructed from standardized plans. The buildings featured gabled rolled roofing and were set on concrete slabs, concrete piers, or wood frame foundations. In World War I the temporaries were called "600 series" structures, and nineteen were erected at the fort: seven mess halls, three latrines/lavatories, and two barracks across from the two mortar batteries; three temporary mess halls and three latrines/lavatories near the three gun batteries; and a guardhouse at the west end of the south boundary. The 600 series buildings were removed in 1932, four years after the fort was closed for the first time. In World War II the temporaries were called "700 series" structures and were more soundly constructed than the earlier series. At this time 33 were built at the fort: six barracks, two mess halls, two day rooms, and two supply rooms and administration offices across from the two mortar batteries; seven barracks, three mess halls, two day rooms, supply and detachment office, and company administration and storehouse in the former pasture and garden area on the upper west slopes of the south drumlin; a chapel, theatre, and day room/library, on or near the parade ground; barracks on west side of the north drumlin; a pumphouse on the east slope of south drumlin; a sentry box at the west end of the south boundary; and a garbage grinder at the west end of main road. The army also built a series of concrete retaining walls (#48) topped with steel railings in the new housing area.

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Below is a roster of buildings and structures at Fort Andrews, organized by date of construction, with building numbers and primary construction material, if known:

1898-1904

Battery Whitman, concrete
Battery Cushing, concrete
Battery Rice, concrete
Battery McCook, concrete
Battery Bumpus, concrete
battery observation station (#F-101), brick
temporary buildings, wood

1905

range-finder station (R.F.), unknown
non-commissioned officers' quarters (#s 14,15,16), brick
hospital (#17, including west wing), brick
barracks (#10), brick
quartermaster stable (#4), brick
coal shed (no#), wood
wagon shed (no#), wood

1906

officers' quarters (#s 19,20,21), brick
field officers' quarters (#22), brick
barracks (#11), brick
[old] guardhouse (#7), brick
wharf waiting room (#6), wood
ordnance storehouse (no#), concrete
searchlight shelter (#24), unknown

1907

post exchange/recreation hall (#25), brick

1908

administration building (#26), brick
barracks (#13), brick
officers' quarters (#s 27,28), brick
battery command/fire control structure (#F-105), stucco
fire control switchboard room (#F-106), stucco
dormitory (#46), stucco
latrine (#45); stucco
radio station (#F-103), brick
two sheds (no #s), unknown
oil house (#43), unknown
two cable houses (no #s), unknown

1909

barracks (#29), brick
crematory (#5), brick

1910

officers' quarters (#30), brick
[new] guardhouse (#31), brick

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1912

quartermaster's storehouse (#36), brick
field officers' quarters (#18), brick
non-commissioned officers' quarters (#s 34,35), stucco and clapboard
hospital (#17, east wing), brick

1913

seawall (#48), concrete

1914

"gully" searchlight (no#), concrete

1917-1921

observation platform (no#), concrete
bakery (#9), brick
fire station (#33), brick
battery command station (#F-102) within Battery Rice, concrete
electric substation (#1), brick
saw mill (no#), unknown
scales (no#), unknown
"600" series temporary buildings:
 10 mess halls (no #s), wood
 6 latrines/lavatories (no #s), wood
 2 barracks (no #s), wood
 guardhouse (no#), wood

1924

"vertical lift" searchlight (no#), concrete

1940-1945

water reservoir (#44), concrete
retaining walls (#48), concrete
observation station (#F-104), concrete
"700" series temporary buildings:
 theatre (#T-1), wood
 day room/library (#T-2), wood
 barracks (#s T-3,T-4,T-5,T-10,T-11,T-12,T-18,T-19,T-20,T-21,T-22,T-23,T-25,T-32), wood
 supply rooms and administration offices (#s T-6,T-14), wood
 mess halls (#s T-7,T-8,T-15,T-27,T-28), wood
 day rooms (#s T-9,T-13,T-17,T-24), wood
 supply and detachment office (#T-16), wood
 company administration and storehouse (#T-26), wood
 pumphouse (#T-30), wood
 chapel (#T-31), wood
 garbage grinder (#T-34), wood
 sentry box (#T-35), wood

The batteries themselves also saw alterations in the first half of the twentieth century, mainly in response to changing technologies and the operational role of Fort Andrews. In 1908 the army built a combined battery command/fire control structure (#F-105) in a square-shaped earthen depression atop the south drumlin, as well as a fire control switchboard room (#F-106) nearby. For World War I the fort changed from tactical defense to non-tactical support, and armaments from the two mortar batteries and those from Battery Rice

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were sent to Europe in 1918. A new battery command station (#F-102) was built within the stripped Battery Rice, and the battery was not rearmed when some of the mortars were remounted in 1920, two years after the end of the war. For World War II, the fort served as an administrative post and training center. All mortars were removed and scrapped, leaving only the guns of Batteries McCook and Bumpus in place. Nonetheless, a new observation station (#F-104) was built on the south drumlin by 1945, just to the east of the below-grade battery command/fire control structure (#F-105). The guns at McCook and Bumpus were presumably removed around 1947 when the fort was surplused.

The army meticulously maintained all permanent and temporary buildings at Fort Andrews, replacing or updating facilities as need. Some building functions changed, such as converting a non-commissioned officers' quarters (#16) to the hospital steward's quarters in World War I, and relocating the post exchange area housed in the recreation hall (#25) to the bakery (#9) in World War II. In 1926 fire severely damaged one of the four brick barracks (#13) on the parade ground, and after 1932 it was removed. During World War II the temporary theatre building (#T-1) was built on the site of the missing barracks. The character of this temporary building was markedly different than the remaining brick barracks in terms of massing, materials, and design.

Caretakers maintained Fort Andrews while it was closed for the first time, from 1928-1940. The post was closed a second time in 1947, surplused to the War Assets Administration the following year, and declared as "excess property" by the General Services Administration in 1951. After this point the remaining permanent and temporary facilities began to deteriorate, especially the temporary "700 series" buildings. By the end of the historic period there were 57 abandoned army buildings and structures at Fort Andrews.

Post-Historic and Existing Conditions (after 1968):

Cottage Communities.

When the MDC purchased the island in 1970, cottagers paid their annual fees to the state. In the first 25 years of the MDC's management, 20 of the 47 cottages were sold to the state or newcomers. In 1994 a life-lease arrangement was established, allowing owners to renew annual leases for their lifetimes, after which the leases would revert to the state. In 2001, seven MDC-owned cottages were demolished following a period of removing windows and doors from abandoned cottages to expedite their deterioration.

According to the data from 2013, 27 of the 47 cottages are used seasonally on a regular or occasional basis. Many of the extant cottages have associated outbuildings, including outhouses, wellhouses, and sheds clustered nearby, that contribute to the historic character. Ten other cottages are empty and no longer in use, but are evaluated as contributing features because they convey the heritage and traditions of past and present islanders, and memorialize the fishing village of a previous era on the island. Some of the vacant cottages are likely past the point of salvaging but are considered important because they are adorned with

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found objects that have washed onto the island's shores and provide local color (Figure 53). There are ten cottage sites where only traces of the demolished cottages remain (see Figure 43). (Stanton 2016: 46)

Building footprints of the cottages range in size from 400 to 1,200 square feet. The cottages are typically of wood frame construction with either painted or unpainted wood shingle siding, gabled asphalt shingle roofs, and a variety of window types with bug screens (many double hung wooden windows, some have more modernized aluminum frame windows). Doors are of differing styles, but most are painted wood. Many windows and doors have storm shutters to protect them from vandalism or weather damage. Roof types are typically asphalt shingle or asphalt rolled roofing with visible joists.

On Middle Head, where most of the East Head cottagers moved to by 1910, there are currently 41 cottage sites. Of the 18 sites on the head's north and east sides (Cottage #s 1-18), ten are used regularly or occasionally, two are empty, and six are demolished; of the 23 on the head's west side (Cottage #s 19-41), fourteen are used regularly or occasionally, seven are empty, and two are demolished. On West Head, which was historically the least settled part of the island, there are currently two cottage sites (Cottage #s 42-43). One is used regularly and one is demolished. On East Head, where the Portuguese fishing community first settled and later became known as Sergeants' Row, there are currently four cottage sites. Of the three sites on the head's southwest side (Cottage #s 44-46), two are used regularly and one is vacant; the one on the head's south side (Cottage #47) is used regularly as a caretaker's residence. A comprehensive descriptions and histories of extant and demolished cottages can be found in Cathy Stanton's "Thumbnail Histories of Individual Cottages," a supplement to "A Place of Quiet Adventure: An Ethnographic History of the Peddocks Island Cottages." (Stanton 2016: 46)

Fort Andrews.

In the late 1960s, while the cottages were occupied and maintained, buildings and structures at Fort Andrews stood vacant and run down. The MDC determined that the fort's brick buildings were structurally sound, but most of the "700 series" temporary structures from World War II that were still standing were severely deteriorated. The park removed most of them in 1972, except for the chapel and the garbage grinder. For the next forty years the permanent and temporary facilities that were left, as well as the batteries and control stations, sat unused despite numerous proposals to repurpose them. During this period arsonists damaged one of the brick barracks (#29) on the parade ground in 1989 and the brick administration building (#26) in 1991. In 2011-12 the DCR razed these two buildings and ten other buildings that had become severely deteriorated: six officers' quarters (#s 18,19,20,21,22,30), three non-commissioned officers' quarters (#s 14,34,35), and the hospital (#17). This work dramatically changed the character of the fort, leaving behind only four of fourteen brick buildings on Officers' Row and two of the brick barracks (#s 10,11) facing the parade ground.

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The work in 2011-12 also included retention of 36 fort buildings and structures, some of which the park reopened for visitor and maintenance operations. One of the first buildings to be rehabilitated was the new guardhouse (#31) adjacent to the dock, which was renovated for use as a visitor center, exhibit hall, meeting space, restrooms, and an apartment for the caretaker. The park rehabilitated the chapel (#T-31) in 2013-14 for use as an event hall. Some of the other fort buildings currently house park maintenance shops and storage, including the electric substation (#1), quartermaster stable (#4), old guardhouse (#7), fire station (#33), and part of Battery Whitman. The army's concrete seawall (#48) is still maintained to protect the eastern shoreline, although section north of the wharf are crumbling or missing due to shoreline erosion. Several of the army facilities retained by the park were stabilized and mothballed for future development: bakery/post exchange (#9), barracks (#s 10,11), non-commissioned officers' quarters (#s 15,27,28), hospital steward's quarters (#16), recreation hall (#25), quartermaster storehouse (#36), and the fire control tower (#F-101) (Figure 54). Most of the windows and doors in these structures are covered with wood panels to prevent vandalism and weather damage. A brief description of the historic fort buildings and structures that have been rehabilitated or stabilized is below:

- Electric Substation (#1): 1-story brick, gabled slate roof, concrete slab foundation, 10x12 feet. Used for storage.
- Quartermaster Stable (#4): 1.5-story brick, gabled slate roof, concrete slab foundation, 34x67 feet. Used for storage.
- Old Guardhouse (#7): 1-story brick, hipped slate roof, granite foundation and full basement, 47x49 feet. Used as a carpenter shop.
- Bakery/Post Exchange (#9): 1.5-story brick, hipped slate roof, concrete slab foundation, 32x70 feet. Vacant.
- Barracks (#s 10,11): 3.5-story brick, cross-gabled slate roof, granite block foundation and full basement, 38x140 feet. Missing 2-story covered porches. Vacant.
- Non-Commissioned Officers' Quarters (#15): 2.5-story brick duplex, gabled slate roof, granite foundation and full basement, 36x27 feet. Missing 1-story covered porch. Vacant.
- Hospital Steward's Quarters (#16): 2.5-story brick, gabled slate roof, granite foundation and full basement, 21x30 feet. Missing 1-story covered porch. Vacant.
- Recreation Hall (#25): 1.5 story brick, hipped slate roof, brick foundation and full basement, 32x53 feet front, 32 x72 feet rear. Vacant.
- Non-Commissioned Officers' Quarters (#s 27,28): 2.5-story brick duplex, gabled slate roof, granite foundation and full basement, 26x37 feet. Missing covered 1-story porch. Vacant.
- New Guardhouse (#31): 1-story brick, hipped slate roof, brick foundation and full basement, front 32x40 feet, rear 20x40 feet. Used as visitor center, meeting space, caretakers' apartment.
- Fire Station (#33): 1-story brick, hipped slate roof, concrete slab foundation, 25x44 feet. Used for storage. (Figure 25).
- Quartermaster's Storehouse (#36): 2-story brick, hipped slate roof, brick foundation with full basement, central hyphen 172x36 feet, two wings 36x49 feet. Vacant.
- Seawall (#48): concrete wall, around 600 feet long south of dock, 500 feet long north of dock, height varies 1-4 feet. Still in use.
- Chapel (#T-31): 1-5 story frame clapboard, asphalt shingle roof, concrete slab foundation, 37x82 feet, two wings 12x14 feet. Used for special events.
- Fire Control Tower (#F-101): 2-story brick, concrete roof, 20x20 feet. Vacant.

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The abandoned facilities atop the south drumlin have been allowed to fall into ruins, but portions of their exterior walls and roofs are still intact: radio station (#F-103), observation station (#F-104), battery command/fire control structure (#F-105), fire control switchboard room (#F-106), water reservoir (#44), latrine (#45), dormitory (#46), and observation platform (no#) (Figure 55). Remnants of the oil house (#43) and garbage grinder (#T-34) proximate to the quartermaster storehouse, and two searchlights (no #s) on the north drumlin, also remain (Figure 56). Portions of concrete retaining walls and metal railings (#47) that supported some of the road beds in the temporary World War II housing area on the south drumlin are extant but mostly hidden by vegetation (Figure 57). The granite block foundation walls of the administration building (#26) basement are still standing, and the foundation outlines of some of the missing residences and the hospital on Officers' Row are visible in the lawns. A section of foundation wall from an old coal house (no#) is extant north of the new guardhouse.

The five batteries are intact but all are in poor condition, with broken doors and windows, missing railings and stairs, and sections of collapsed walls. The park has removed vegetation from some of the platforms pits and earthwork coverings at the two mortar batteries, but trees and debris remain in other sections (Figures 58 and 59). Visitors can explore the some of the interior rooms and hallways, and several of the pits that have been cleared have recently been used for art installations. The three gun batteries are visible from the old road running alongside the rear elevations, but the platforms and earthwork buttresses are obscured in vegetation, as is the battery command station (#F-102) atop Battery Rice. Such conditions, along with missing stairs and railings, limit public access (Figure 60). The hillside ordnance storehouse (no#) adjacent to Battery Cushing is extant but closed to the public (Figure 61).

In recent years the park has developed three campground areas at Fort Andrews, which replaced the informal camping that was allowed in the parade ground beginning in 1975. They were opened in 2012 on the summit of the north drumlin and in 2016 across from Batteries Whitman and Cushing, an area where soldiers were once housed in tents and temporary buildings (Figure 62). Each campground features six yurts measuring 20 feet in diameter with an internal area of 314 sq. feet and a wall height of 65 inches. The walls are latticed wood beams with a canvas covering. Each yurt has a roof dome to admit light and wood frame doors and windows with bug screens. The yurts are set above grade and are accessed by boardwalk "porches" leading up to the entryways; porches by the mortar batteries are covered because of the dense tree canopy. Composting toilets are located at both campgrounds, the group campground on Officers' Row, and at the picnic area next to the new guardhouse. Lastly, a frame building measuring 24x21 feet with clapboard siding and a gabled shingle roof serves as a waiting room on the dock.

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Evaluation:

Peddocks Island has retained most of the cottages and some of the fort buildings and structures since the end of the historic period. There are currently 47 cottage sites on the island (East, Middle, and West Heads combined) while at Fort Andrews there are 36 buildings and structures. Portions of some cottages date to the late 1880s, when they were floated from Long Island to East Head and then moved again to Middle Head. The cottages and their associated outbuildings contribute to the island's historic significance and character. Cottage sites with no structures present are evaluated as non-contributing because they leave conspicuous gaps in what historically were continuous rows of buildings. Despite the loss of many structurally unsound facilities at Fort Andrews, the original defensive structures and key permanent buildings are extant in various conditions. Like the cottages, the extant fort buildings and structures, as well as ruins and remnants of historic buildings and structures, contribute to the fort's historic significance and character. The park has built yurts and outhouses at the campgrounds and a new waiting room on the dock, but these features do not adversely detract from the overall historic scene.

Buildings and Structures	Feature Contribution	LCS Name	LCS Number	Type of FMSS Record	FMSS Record Number	FMSS record an exact match?
Battery Whitman	Contributing	Fort Andrews Battery Whitman	(201733)	Location	82227	Yes
Battery Cushing	Contributing	Fort Andrews Battery Cushing	(201737)	Location	82230	Yes
Battery Rice	Contributing	Fort Andrews Battery Rice	(201734)	Location	82228	Yes
Battery McCook	Contributing	Fort Andrews Battery McCook	(201740)	Location	82231	Yes
Battery Bumpus	Contributing	Fort Andrews Battery Bumpus	(201743)	Location	82232	Yes
Ordnance Storehouse (no#)	Contributing	tbd	tbd	tbd	tbd	tbd
Observation Platform (no#) Ruins	Contributing	tbd	tbd	tbd	tbd	tbd
Coal Shed (no#) Foundation Wall Remnant	Contributing	tbd	tbd	tbd	tbd	tbd
Electric Substation (#1)	Contributing	Fort Andrews Building 1	(102306)	Location	81993	Yes
Quartermaster Stable (#4)	Contributing	Fort Andrews Building 4	(102307)	Location	76217	Yes
Old Guardhouse (#7)	Contributing	Fort Andrews Building 7	(102312)	Location	76248	Yes
Bakery/Post Exchange (#9)	Contributing	Fort Andrews Building 8	(102313)	Location	76221	Yes
Barracks (#10)	Contributing	Fort Andrews Building 10	(102391)	Location	76218	Yes
Barracks (#11)	Contributing	Fort Andrews Building 11	(102402)	Location	76219	Yes
Non-Commissioned Officers' Quarters (#15)	Contributing	Fort Andrews Building 15	(102417)	Location	76234	Yes

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Hospital Steward's Quarters (#16)	Contributing	Fort Andrews Building 16	(102439)	Location	76233	Yes
Recreation Hall (#25)	Contributing	Fort Andrews Building 25	(102456)	Location	76223	Yes
Administration Building (#26) Foundation Remnants	Contributing	Fort Andrews Building 26	(102457)	Location	76220	Yes
Non-Commissioned Officers' Quarters (#27)	Contributing	Fort Andrews Building 27	(102458)	Location	76240	Yes
Non-Commissioned Officers' Quarters (#28)	Contributing	Fort Andrews Building 28	(102465)	Location	76241	Yes
New Guardhouse (#31)	Contributing	Fort Andrews Building 31	(102470)	Location	76213	Yes
Fire Station (#33)	Contributing	Fort Andrews Building 33	(102471)	Location	76222	Yes
Quartermaster Storehouse (#36)	Contributing	Fort Andrews Building 36	(201553)	Location	76224	Yes
Oil House (#43) Ruins	Contributing	tbd	tbd	tbd	tbd	tbd
Latrine (#45) Ruins	Contributing	tbd	tbd	tbd	tbd	tbd
Dormitory (#46) Ruins	Contributing	tbd	tbd	tbd	tbd	tbd
Retaining Walls (#47) Ruins	Contributing	tbd	tbd	tbd	tbd	tbd
Seawall (#48)	Contributing	tbd	tbd	tbd	tbd	tbd
Chapel (#T-31)	Contributing	Fort Andrews Building 39	(201622)	Location	76214	Yes
Garbage Grinder (#T-34) Ruins	Contributing	tbd	tbd	tbd	tbd	tbd
Fire Control Tower (#F-101)	Contributing	tbd	tbd	Location	82229	tbd
Battery Command Station (#F-102) Ruins (part of Battery Rice)	Contributing	tbd	tbd	tbd	tbd	tbd
Radio Station (#F-103) Ruins	Contributing	tbd	tbd	tbd	tbd	tbd
Observation Station (#F-104) Ruins	Contributing	tbd	tbd	tbd	tbd	tbd
Battery Command/Fire Control Structure (#F-105) Ruins	Contributing	tbd	tbd	tbd	tbd	tbd
Fire Control Switchboard Room (#F-106) Ruins	Contributing	tbd	tbd	tbd	tbd	tbd
"Gully" Searchlight (no#) Ruins	Contributing	tbd	tbd	tbd	tbd	tbd
"Vertical Lift" Searchlight (no#) Ruins	Contributing	tbd	tbd	tbd	tbd	tbd
Foundation Outlines on Officers' Row	Contributing	tbd	tbd	tbd	tbd	tbd

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Yurts	Non-Contributing - Compatible	n/a	n/a	tbd	tbd	tbd
Composting Toilets	Non-Contributing - Compatible	n/a	n/a	Asset	408097	tbd
Dock Waiting Room	Non-Contributing - Compatible	n/a	n/a	tbd	tbd	tbd
Cottage #1 and Outhouse	Contributing	Peddocks Island Cottage 1	(101808) (101809)	tbd	tbd	tbd
Cottage #2, Outhouse, and Shed	Contributing	Peddocks Island Cottage 2	(101826) (101827) (101828)	tbd	tbd	tbd
Cottage #3 and Outhouse	Contributing	Peddocks Island Cottage 3	(101853) (101854)	tbd	tbd	tbd
Cottage Site #4	Non-Contributing - Incompatible	n/a	n/a	tbd	tbd	tbd
Cottage Site #5	Non-Contributing - Incompatible	n/a	n/a	tbd	tbd	tbd
Cottage #6 and Shed	Contributing	Peddocks Island Cottage 6	(101860) (101861)	tbd	tbd	tbd
Cottage #7, Outhouse, and Shed	Contributing	Peddocks Island Cottage 7	(101862) (101863) (101864)	tbd	tbd	tbd
Cottage Site #8	Non-Contributing - Incompatible	n/a	n/a	tbd	tbd	tbd
Cottage #9 and Shed	Contributing	Peddocks Island Cottage 9	(101868) (101869)	tbd	tbd	tbd
Cottage Site #10	Non-Contributing - Incompatible	n/a	n/a	tbd	tbd	tbd
Cottage Site #11	Non-Contributing - Incompatible	n/a	n/a	tbd	tbd	tbd
Cottage Site #12	Non-Contributing - Incompatible	n/a	n/a	tbd	tbd	tbd
Cottage #13, Outhouse, and Shed	Contributing	Peddocks Island Cottage 13	(101882) (101883) (101884)	tbd	tbd	tbd
Cottage #14	Contributing	Peddocks Island Cottage 14	(101885)	tbd	tbd	tbd
Cottage #15	Contributing	Peddocks Island Cottage 15	(101886)	tbd	tbd	tbd
Cottage #16 and Outhouse	Contributing	Peddocks Island Cottage 16	(101887) (101889)	tbd	tbd	tbd
Cottage #17 and Shed	Contributing	Peddocks Island Cottage 17	(101895) (101896)	tbd	tbd	tbd
Cottage #18 and Outhouse	Contributing	Peddocks Island Cottage 18	(101897) (101898)	tbd	tbd	tbd
Cottage #19, Outhouse, and Shed	Contributing	Peddocks Island Cottage 19	(101899) (101900) (101901)	tbd	tbd	tbd
Cottage #20, Outhouse, and Shed	Contributing	Peddocks Island Cottage 20	(101902) (101904) (101905)	tbd	tbd	tbd
Cottage #21, Outhouse, and Shed	Contributing	Peddocks Island Cottage 21	(101906) (101907) (101908)	tbd	tbd	tbd
Cottage #22, Outhouses, and Shed	Contributing	Peddocks Island Cottage 22	(101909) (101912) (101913) (101914)	tbd	tbd	tbd

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Cottage #23 and Shed	Contributing	Peddocks Island Cottage 23	(101915) (101916)	tbd	tbd	tbd
Cottage #24 and Outhouse	Contributing	Peddocks Island Cottage 24	(101917) (101918)	tbd	tbd	tbd
Cottage #25 and Outhouse	Contributing	Peddocks Island Cottage 25	(101919) (101920)	tbd	tbd	tbd
Cottage #26, Outhouse, and Shed	Contributing	Peddocks Island Cottage 26	(101921) (101922) (101923)	tbd	tbd	tbd
Cottage Site #27	Non-Contributing - Incompatible	n/a	n/a	tbd	tbd	tbd
Cottage #28 and Outhouse	Contributing	Peddocks Island Cottage 28	(101926) (101928)	tbd	tbd	tbd
Cottage #29, Outhouse, and Shed	Contributing	Peddocks Island Cottage 29	(101929) (101930) (101931)	tbd	tbd	tbd
Cottage #30 and Shed	Contributing	Peddocks Island Cottage 30	(101933) (101934)	tbd	tbd	tbd
Cottage #31, Outhouse, and Shed	Contributing	Peddocks Island Cottage 31	(101935) (101936) (101937)	tbd	tbd	tbd
Cottage #32, Wellhouse, and Shed	Contributing	Peddocks Island Cottage 32	(101938) (101939) (101940)	tbd	tbd	tbd
Cottage #33, Outhouse, Shed, and Well	Contributing	Peddocks Island Cottage 33	(102230) (102232) (102233) (102234)	tbd	tbd	tbd
Cottage #34 and Well	Contributing	Peddocks Island Cottage 34	(102235) (102236)	tbd	tbd	tbd
Cottage #35, Outhouse, and Sheds (3)	Contributing	Peddocks Island Cottage 35	(102239) (102248) (102251) (102252) (102253)	tbd	tbd	tbd
Cottage #36, Outhouse, Shed, and Well	Contributing	Peddocks Island Cottage 36	(102255) (102256) (102257) (102263)	tbd	tbd	tbd
Cottage #37, Outhouse, and Sheds	Contributing	Peddocks Island Cottage 37	(102264) (102265) (102269) (102270)	tbd	tbd	tbd
Cottage #38, Outhouse, and Shed	Contributing	Peddocks Island Cottage 38	(102271) (102272) (102273)	tbd	tbd	tbd
Cottage Site #39	Non-Contributing - Incompatible	n/a	n/a	tbd	tbd	tbd
Cottage #40, Outhouse, and Shed	Contributing	Peddocks Island Cottage 40	(102279) (102281) (101282)	tbd	tbd	tbd
Cottage #41, Outhouse, Shed, and Well	Contributing	Peddocks Island Cottage 41	(102283) (102284) (102285) (102286)	tbd	tbd	tbd
Cottage #42 and Wellhouse	Contributing	Peddocks Island Cottage 42	(102287) (102289)	tbd	tbd	tbd
Cottage Site #43	Non-Contributing - Incompatible	n/a	n/a	tbd	tbd	tbd

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Cottage #44, Outhouse, and Shed	Contributing	Peddocks Island Cottage 44	(102292) (102293) (102295)	tbd	tbd	tbd
Cottage #45 and Shed	Contributing	Peddocks Island Cottage #45	(102296) (102297)	tbd	tbd	tbd
Cottage #46 and Shed	Contributing	Peddocks Island Cottage 46	(102298) (102299)	tbd	tbd	tbd
Cottage #47, Outhouse, Generator Shed, Sheds (3)	Contributing	Peddocks Island Cottage 47	(102300) (102301) (102302) (102303) (102394) (102305)	tbd	tbd	tbd

CONSTRUCTED WATER FEATURES

Historic Condition (to 1968):

Constructed water features are built features and elements that utilize water for aesthetic or utilitarian functions. The early occupants on Peddocks Island – seasonal Native American tribes, temporary deployments of American and French soldiers, and early farmers such as the Cleverly family – likely dug wells for fresh water, but no documentation of such locations has been found. With establishment of fisherman and summer cottages on East Head in the late 1880s and on Middle and West Heads at the beginning of the 1900s, the number of wells increased. Some were intended to supply one building, such as the Island Inn, but most were shared in varying configurations amongst different cottages over time. Water was also collected through rain barrels. (Stanton 2016: 215)

In 1907-1908 a water line was installed under Hull Gut from Nut Island to supply Fort Andrews, tracking across West, Middle, and East Heads to the quartermaster area on the eastern shore. The line supplied water to the various buildings and hydrants located around the fort, as well as the Sergeants' Row cottages. Although the water line passed nearby, the cottagers continued to use their wells, although Cottage #15 apparently had a water line that came from Fort Andrews because its builder was stationed at the fort. During World War II the army constructed a 200,000 gallon underground water reservoir (#44) atop the south drumlin, likely for fire prevention and possibly for potable water. At the same time the army erected a pumphouse (#T-30) along the water line for emergency purposes. (Stanton 2016: 215,251)

Post-Historic and Existing Conditions (after 1968):

In the 1970s and 1980s there was a hydrant on Middle Head that tapped into the water line from Nut Island, which created a brief period in which cottagers were less reliant on their wells for fresh water. The cottagers on the northeast side ran a spur line of PVC pipe to supply their cottages. In 1990, however, the water main under West Gut was accidentally severed during dredging work for an underwater tunnel between Nut and Deer Islands. The line was never repaired. Water service was restored on East Head in 2005 with

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construction of a new water line under Hull Gut from Hull's Pemberton Point, but it did not provide service to Middle or West Heads.

Today, there are more than a dozen wells scattered among the cottages on Middle and West Heads, typically housed or surrounded by wood shelters or stone structures. However, cottagers no longer use them for drinking water because they do not conform to state regulations for potable water. Instead, they bring water in containers from the mainland. Signs stating "non-potable" are now seen on many of the island wells, which are used only for cooling purposes or outdoor showers. Many cottagers continue to make use of rain barrels, collecting water for washing and for fire mitigation. The army reservoir is intact but no longer in use, and difficult to find because the dense successional vegetation canopy on the south drumlin. (Stanton 2016: 212,215)

Evaluation:

Peddocks Island retains several historic constructed water features built to serve utilitarian functions. Private wells contribute to the historic character of the cottage communities, although they are now used strictly for non-potable purposes. They are evaluated as part of the cottage sites in the Buildings and Structures section above. The army reservoir is extant but not currently used, but contributes to the fort's historic significance and character.

Constructed Water Features	Feature Contribution	LCS Name	LCS Number	Type of FMSS Record	FMSS Record Number	FMSS record an exact match?
Water Reservoir (#44) Ruins	Contributing	tbd	tbd	tbd	tbd	tbd

VIEWS AND VISTAS

Historic Condition (to 1968):

Views and vistas are the features that create or allow a range of vision that can be natural or designed and controlled. The location of Peddocks Island in Boston Harbor and its natural drumlin topography provided ideal conditions to view the surrounding harbor, islands, and landforms. However, such views from Peddocks were limited by forests until European settlers removed most of the trees in the seventeenth century. The open conditions attracted commanders from both sides of the Revolutionary War, who ordered soldiers to build defensive works on East Head, which provided clear views of the harbor's Nantasket Roads channel. An early harbor map that details a tree on East Head as a navigational landmark suggests panoramic views were plentiful by the late eighteenth century.

The open conditions persisted into the late twentieth century, prompting the U.S. Government to establish Fort Andrews and build coastal defense structures to protect Boston Harbor. The army constructed three

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gun batteries in 1898-1904 on the top of East Head's north drumlin, which offered unobstructed views of Nantasket Roads. The top of the treeless south drumlin gave the command and communications facilities there clear views of the harbor and views of the two mortar batteries on the lower slopes of the north drumlin. Maintaining this interior viewshed was one of the caveats in the fort's 1907 plan, which prohibited the construction of substantial buildings adjacent to the mortar batteries; in cooler seasons, heat haze rising from buildings would distort views and render firing calculations inaccurate.

Views also influenced the layout of non-tactical areas at Fort Andrews, as the army considered the post's appearance important in the fort's expansion plans. To this end, the most important view was from the water and wharf, looking west across the grass parade ground and toward the stately brick administration building, which served as the focal point. This view was framed on the north by the row of four sturdy brick barracks fronted by shade trees, and on the south by the graceful curve of brick residences and the hospital on the hill. In the background of the view stood the two drumlin hills. Views of this space also reinforced the hierarchy of military rank; the buildings on Officers' Row had views looking down to the parade ground, while enlisted soldiers in the barracks looked directly across the parade ground. Army planners did not want any encroachment on the parade ground, and this goal was preserved by officials in the 1940s when they built the chapel along the eastern shoreline, siting it off center from the administration building and post flagpole.

Open views were also important to cottage residents on Peddocks Island, but for different reasons. The summer residents who aggregated at the old Cleverly farm on the eastern shoreline situated their cottages to face the water and take in views of the harbor. Most of these cottagers, and the fishermen on the southwestern shoreline, relocated to Middle and West Heads by 1910, where they oriented their cottages along or near the shorelines or the pond between Middle and West Heads to enjoy the water views.

Views on Peddocks Island remained mostly open until successional forests began to take hold after World War II, coinciding with the closure of Fort Andrews and the transition from year-round cottage use to more seasonal use. By the end of the historic period, outward views from the two drumlins and interior views to and from the parade ground were blocked by woodlands. Cottages located on the shorelines still had clear views, but those in the interior area of Middle Head had more obstructions. Due to the sandy soils and harsh conditions, tall woody vegetation did not take over the tombolos between East, Middle and West Heads, keeping panoramic views intact in those areas.

Post-Historic and Existing Conditions (after 1968):

Peddocks Island retains some of the views that were present in the historic period. Successional forest growth continues at Fort Andrews, but in 2011-12 the park cleared woody vegetation from the parade

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ground. This project partially restored one of the most important views at the post, despite the loss of two of the four barracks buildings, the hospital and most houses on Officers' Row (only the foundation level of the administration building remains) (Figure 63). The recreation building, located just behind the administration building, also assists in drawing the eye into the Fort Andrews landscape as the administration building once did. Around the same time the park thinned the trees on the hill below Officers' Row, partially restoring the view toward the parade ground and the wharf and water (Figure 64).

In 2012 the park removed a large area of trees on the north drumlin for a campground, restoring historically open conditions around the battery observation tower (#F-101). Although dense vegetation still blocks access to the three gun battery ruins and the important outward views from them, this condition is reversible. This same project also created an overlook northeast of the gun batteries, which provides framed views of the Nantasket Roads and the harbor (Figure 65). Vegetation removal has improved views of the two mortar batteries from the main road and the adjacent campground that was developed in 2016. However, views from the former observation and communication facilities atop the south drumlin to the mortar batteries and the harbor are still blocked by trees. As with the gun battery views, these too can be restored by tree removal and thinning.

Panoramic water views on Middle Head and West Head are mainly from the cottages and roads/trails along the shorelines, as interior areas remain densely vegetated (Figure 66). Views from the northwestern shoreline include Rainsford Island, Long Island, Moon Island, and Downtown Boston, while views from the northeastern shorelines include Prince Head, Bumpkin Island, Sheep Island, Grape Island, and the Towns of Hull and Hingham. Similar views can be found on West Head, mostly from the shorelines. The panoramic views from the tombolos connecting the three heads are extant.

Evaluation:

Pedlocks Island retains some of the views that were present in the historic period. Although currently obscured by successional vegetation, outward views from the three gun batteries and observation stations on the south drumlin, as well as the interior island view from the south drumlin facilities to the two mortar batteries, are evaluated as contributing because they can be restored in the future by clearing. Vegetation removal on the north drumlin for the campground has improved the outward view from the battery observation tower, although the tower is currently closed to the public. The framed view from the nearby overlook is not historic, but allows visitors to experience a view similar to what existed when the fort was active. The park has restored the key historic view of the fort from the dock and from the parade ground looking west to the administration buildings, as well as views of the parade ground from Officers' Row and the barracks. The historic harbor views from Officers' Row are partially intact, while the panoramic views from the cottages also remain.

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Views and Vistas	Feature Contribution	LCS Name	LCS Number	Type of FMSS Record	FMSS Record Number	FMSS record an exact match?
Views from Gun Batteries on North Drumlin to Harbor (blocked)	Contributing	n/a	n/a	tbd	tbd	tbd
View from Battery Observation Station on North Drumlin to Harbor	Contributing	n/a	n/a	tbd	tbd	tbd
View from Overlook on North Drumlin	Non-Contributing - Compatible	n/a	n/a	tbd	tbd	tbd
View from Observation Station on South Drumlin to Harbor (blocked)	Contributing	n/a	n/a	tbd	tbd	tbd
View from Battery Command/Fire Control Structure on South Drumlin to Mortar Batteries (blocked)	Contributing	n/a	n/a	tbd	tbd	tbd
View of Parade Ground Looking West	Contributing	n/a	n/a	tbd	tbd	tbd
View of Fort from Dock	Contributing	n/a	n/a	tbd	tbd	tbd
Views from Barracks to Parade Ground	Contributing	n/a	n/a	tbd	tbd	tbd
Views from Officers' Row to Parade Ground	Contributing	n/a	n/a	tbd	tbd	tbd
Views from Middle Head Shorelines	Contributing	n/a	n/a	tbd	tbd	tbd
Views from Tomolo connecting East and Middle Heads	Contributing	n/a	n/a	tbd	tbd	tbd

SMALL-SCALE FEATURES

Historic Condition (to 1968):

Small-scale features are the elements that provide detail and diversity combined with function and aesthetics. Documentation of small scale features prior the island's cottage communities or Fort Andrews is limited to historic maps and sketches. A 1775 map of Peddocks Island shows an enclosure next to a single building on the west slope of East Head, likely a fence line to keep grazing animals in or out. An 1860 map indicates a series of adjoining fenced pastures associated with the Cleverly family in the valley on East Head. A sketch from 1882 details of some of the fence styles around the core of the Cleverly farm: post and board, picket, and single boards supported by wagon wheels. A barrel for collecting rainwater also appears in the sketch, as does a wagon and a dory.

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There are few details of small-scale features at the Portuguese fishermen village on the southwestern shoreline of East Head, but fishing gear, buoys, and boats were likely present around the cottages and shoreline. Photographs from the 1910s of this area indicate post and board fences enclosed the hillside gardens and various styles of picket fences stood next to the cottages. Photographs show many cottages on Middle Head also featured picket fences and fishing equipment, as well as rain barrels. In c.1910, there was a flagpole in front of the Island Inn and in front of several individual cottages.

The Fort Andrews landscape included wooden utility poles and cast iron fire hydrants. A gas pump (#42) stood next to the wharf and a post and wire security fence around 4-feet high with gates marked the fort's south boundary. The fence was replaced with a taller chain link fence at a later date. Decorative lamp lights mounted on iron poles with flared bases lined the sidewalk fronting Officers' Row, while street lamps mounted on taller shepherd hook or straight steel poles were located at the wharf and along the main road. The army also attached street lamps to some of the utility poles, especially in areas with temporary buildings. By 1930, and probably earlier, the post's flagpole (#32) was located on the eastern shoreline. Standing 100 feet high, the pole was comprised of two sections and was supported by four guy wires set in concrete. Decorative cannons were also displayed along the eastern shoreline and visible to those boating past or to the island, but they were removed when the chapel was built in this area in the early 1940s. By this time a massive wood warning sign announcing "Cable Crossing Don't Anchor" was erected next to the wharf. One of the most interesting signs at the fort was made of stones set out on the hillside below Officers' Row spelling "Fort Andrews." This sign appears in a photographs from 1932 and 1940, but is difficult to discern in later photographs. At the roundabout just east of the temporary housing area on the south drumlin, the army erected a flagpole in its center and sections of concrete post and board fence along its steep north sides.

The presence and condition of the small-scale features described above likely changed after World War II when the year-round use of the cottages declined and the fort was closed. Many small scale features began to deteriorate due to lack of use and/or maintenance.

Post Historic and Existing Conditions (after 1968):

Extant historic small scale features at Fort Andrews include fire hydrants, several lamp posts and bases of lamp posts, remnants of utility poles, the chain link fence at the south boundary, concrete post and wood board fencing remnants on the south drumlin, and a stone monument on the north drumlin (Figure 67). The historic flagpole location is no longer visible, but the park has erected a new flagpole next to the new guardhouse, which is aligned with the dock and lit with floodlights (Figure 68). The gas pump and large wood sign are gone, and the lettering on the Officers' Row hillside is no longer extant (it may be hidden under the understory vegetation). Contemporary small scale features at the fort include metal grills, wood

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picnic tables, and drinking fountains/water spigots at the campground and picnic areas. The park has set out Adirondack chairs along the seawall on the eastern shoreline, benches with backs next to the new guardhouse, and backless wood benches along the road to Middle Head. The park has also erected post and board fences along portions of this road and at the north drumlin overlook for visitor safety. Angled wayside interpretive signs and contemporary directional and regulatory signs can be found throughout the fort.

Small-scale features in the cottage community today include rain barrels, lawn chairs, and yard decorations. Small flower and vegetable gardens also contain various chairs and tables for island residents to enjoy the landscape. Boats, canoes, hammocks, tools, and other necessities are stored in the outbuildings or in the yards. Swimming docks are placed in the water and anchored during appropriate warm seasons, and stored on the land where space is available during the cold months. Many cottages make use of solar panels to power their homes. Most of these features are by nature ephemeral and therefore cannot be specifically dated to the historic period. Nonetheless they do contribute to the overall character of the cottage community.

Evaluation:

Peddocks Island retains several small-scale features from the historic period. Historic fire hydrants and remnants of historic lights, fences, and utility poles contribute to the fort's significance and character. The current flag pole is not at the same location of the fort's flagpole, but its height and location are compatible with the character of the fort. The non-historic small features related to visitor safety and use are typical in park areas but their numbers or designs are not distracting. The small-scale features in the cottage areas are by nature ephemeral and too numerous to specifically evaluate. Nonetheless they do contribute to the overall character of the cottage community.

Small-Scale Features	Feature Contribution	LCS Name	LCS Number	Type of FMSS Record	FMSS Record Number	FMSS record an exact match?
Fire Hydrants, Fort Andrews	Contributing	tbd	tbd	tbd	tbd	tbd
Lamp Post Remnants, Fort Andrews	Contributing	tbd	tbd	tbd	tbd	tbd
Chain Link Fence Remnants, Fort Andrews	Contributing	tbd	tbd	tbd	tbd	tbd
Utility Pole Remnants, Fort Andrews	Contributing	tbd	tbd	tbd	tbd	tbd
Concrete Post and Board Fences, Fort Andrews	Contributing	tbd	tbd	tbd	tbd	tbd

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New Flag Pole, Fort Andrews	Non-Contributing - Compatible	n/a	n/a	tbd	tbd	tbd
New Flag Pole Lights, Fort Andrews	Non-Contributing - Compatible	n/a	n/a	tbd	tbd	tbd
Picnic Tables, Fort Andrews	Non-Contributing - Compatible	n/a	n/a	tbd	tbd	tbd
Grills, Fort Andrews	Non-Contributing - Compatible	n/a	n/a	tbd	tbd	tbd
Adirondack Chairs, Fort Andrews	Non-Contributing - Compatible	n/a	n/a	tbd	tbd	tbd
Post and Board Fences, Fort Andrews	Non-Contributing - Compatible	n/a	n/a	tbd	tbd	tbd
Drinking Fountains/Water Spigots, Fort Andrews	Non-Contributing - Compatible	n/a	n/a	tbd	tbd	tbd
Wayside Signs	Non-Contributing - Compatible	n/a	n/a	tbd	tbd	tbd
Directional and Regulatory Signs, Fort Andrews	Non-Contributing - Compatible	n/a	n/a	tbd	tbd	tbd
Benches, Fort Andrews	Non-Contributing - Compatible	n/a	n/a	tbd	tbd	tbd

ARCHEOLOGICAL SITES

Archeological sites contain surface and subsurface remnants related to historic or prehistoric land uses. In 1985 the Keeper of the National Register approved documentation for the Boston Harbor Islands Archeological District. Peddocks Island was acknowledged as one of thirteen islands in the district that have been surveyed and contain known archeological sites. Six sites dating to the Late Archaic, Middle-Late Woodland, and Late Woodland periods were identified at Peddocks Island: Shell Midden (State ID #19-PL-2), Midden/Habitation (19-PL-3), Lithic Workshop (19-PL-3a), Shell Midden (19-PL-4), Midden/Habitation (19-PL-5), and Shell Midden (19-PL-264).

In 2008 the National Park Service and the University of Massachusetts-Amherst completed an “Archeological Overview and Assessment for Boston Harbor Islands.” As discussed in the Physical History chapter, the report noted the following Pre-Contact sites on Peddocks Island:

- Middle Archaic Period (8000-6000 BCE): A Neville Variant point was recovered from a shell midden on West Head.
- Late Archaic Period (6000-3000 BCE): Late Archaic components have been identified (three sites).
- Early Woodland Period (3000-2000 BCE): Early Woodland components dating to the third millennium before present have been reported (one site).
- Middle Woodland Period (2000-1000 BCE): Numerous period settlements and activity areas have been recorded (two sites).
- Late Woodland Period (1000-450 BCE or CE 1000-1500): Evidence for Native American occupations and land use from this period has been discovered (three sites).

The 2008 report assigned ASMIS names and numbers to four of the six sites in the 1985 National Register documentation, and identified three others: Hotel (ASMIS # BOHA00005), Civilian Cottages

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(BOHA00007), and Fort Andrews (BOHA00001). The Fort Andrews site included subsites: boundary fence, Building 29, barracks, officers' quarters row, Building 36, chapel, retractable cover, possible search light, possible radio station, observation post 1, practice trench (WWI), and fort cottage cluster. (AOA Vol.2 2008: Tables 1 and 2)

Six archeological sites listed below as Contributing are identified in the 1985 National Register documentation. Those identified as Undetermined are described in the 2008 "Archeological Overview and Assessment." For more information, refer to the 1985 documentation and 2008 report.

Archeological Sites	Feature Contribution	ASMIS Name	ASMIS Number	Type of FMSS Record	FMSS Record Number	FMSS record an exact match?
Shell Midden (19-PL-2)	Contributing	tbd	tbd	tbd	tbd	tbd
Midden/Habitation (19-PL-3)	Contributing	Walsh Property	BOHA 00002	tbd	tbd	tbd
Lithic Workshop (19-PL-3a)	Contributing	tbd	tbd	tbd	tbd	tbd
Shell Midden (19-PL-4)	Contributing	19-PL-4	BOHA 00004	tbd	tbd	tbd
Midden/Habitation (19-PL-5)	Contributing	West Head Pond	BOHA 00003	tbd	tbd	tbd
Shell Midden (19-PL-264)	Contributing	19-PL-264	BOHA 00005	tbd	tbd	tbd
Hotel, Peddocks Island	Undetermined	Hotel, Peddocks Island	BOHA 00006	tbd	tbd	tbd
Civilian Cottages, Peddocks Island	Undetermined	Civilian Cottages, Peddocks Island	BOHA 00007	tbd	tbd	tbd
Fort Andrews, Peddocks Island	Undetermined	Fort Andrews Peddocks Island	BOHA 00001	tbd	tbd	tbd

Condition Assessment

Inventory Unit

Stabilization Cost

\$542,933

Stabilization Cost – Estimator

Park/FMSS

Stabilization Cost Measures Description

-- “PLC - Engage Youth (Crew A) in Peddocks Island DM to Improve Public Safety and Visitor Experience” (PMIS 246987). Funding of \$222,653 requested for FY 2019. This project will repair the stair systems on the hill between Officers’ Row and the parade ground.

-- “Demolition of Selected Cottages on Peddocks Island” (PMIS 211387). Funding of \$320,280 requested for FY2020. Project will remove nine DCR-owned cottages on Middle Head that are in ruin. They are located along trails used by visitors and are a safety concern.

Stabilization Cost Explanatory Narrative

The dollar amount is the total of the two projects.

Condition Assessment

Condition Assessment

Fair

Condition Assessment Date

tbd [mm/dd/yyyy]

Condition Assessment Explanatory Narrative

Overall the current condition of Peddocks Island landscape is “fair.” A “fair” condition assessment means that the site 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.

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Numerous army buildings, structures, and circulation features that remain at Fort Andrews have been rehabilitated, restored, or stabilized for current or future uses, but other historic features are in various states of ruin and will continue to deteriorate without management action. Slightly over half of the cottage sites are used seasonally and maintained, but other sites have been cleared or are in a state of decline. Shoreline and bluff erosion is evident on the island, and has destroyed some fort and cottage features in these areas. Litter and debris is prevalent on the shorelines, and has created unsightly and potentially hazardous conditions for residents and visitors. Successional vegetation continues to dominate the island, blocking access to and views from the batteries and the various fire control and switchboard facilities.

Impacts to Inventory Unit

Type of Impact	Impact Type – Other	Internal or External	Impact Explanatory Narrative
Adjacent Lands	n/a	External	Although development on the islands and mainland adjacent to Peddocks Island has evolved over time, the impact of future development in the waters themselves should be carefully evaluated in terms of views and vistas.
Deferred Maintenance	n/a	Internal	Deteriorated and missing sections of the historic seawall on the fort's eastern shoreline may increase damage to the adjacent historic buildings and parade ground during storm or high tide events.
Erosion	n/a	Internal	Erosion along the island's shorelines and bluffs is negatively impacting historic resources in these areas.
Inundation/Sea Level Rise	n/a	Both Internal and External	Sea level rise may advance shoreline and bluff erosion, and impact nearby cultural resources.
Inundation/Storm Surge	n/a	Both Internal and External	Storm surges may advance shoreline and bluff erosion, and impact nearby cultural resources.
Pollution	n/a	External	The shores of Peddocks Island are littered with trash and debris, especially the northern and western shorelines, creating unsightly and unsafe conditions for residents and visitors.
Structural Deterioration	n/a	Internal	Historic resources that are in a state of ruin will continue to deteriorate without management intervention.
Vandalism/Theft/Arson	n/a	Internal	Many army facilities have been stabilized and secured for future use, and should be regularly checked for evidence of vandalism, theft, and arson.
Vegetation/Invasive Plants	n/a	Internal	The continued growth of successional vegetation and spread of invasive plants will impact the cultural landscape, and especially views and vistas.

Treatment

Inventory Unit

Approved Landscape Treatment

Rehabilitation

Approved Landscape Treatment Completed

No

Approved Landscape Treatment Explanatory Narrative

The Secretary of the Interior's Standards for the Treatment of Historic Properties" identifies four treatment approaches: Preservation, Rehabilitation, Restoration, and Reconstruction. Based on the management areas designated for Peddocks Island in the 2002 "General Management Plan for Boston Harbor Islands" (GMP), "rehabilitation" is the overall treatment approach for the island. Rehabilitation is defined as "the act or process of making possible an efficient compatible use for a property through repair, alterations, and additions while preserving those portions of features that convey its historical, cultural, or aesthetic values."

General Management Plan:

The GMP identified three management areas on Peddocks Island, which generally correspond to the three drumlin heads: Historic Preservation Emphasis (Fort Andrews area on East Head), Managed Landscape Emphasis (cottages area on north part of Middle Head), and Natural Features Emphasis (West Head and south part of Middle Head). (GMP 2002: 49-56)

-- Areas of Historic Preservation emphasis are designated to perpetuate historical settings, designs, materials, workmanship, or association. The historic resources are preserved, restored, reconstructed, or adaptively reused for visitor education and appreciation. Visitors expect to encounter a moderate to high number of other people as they explore and learn about the historic buildings, structures, and landscapes featured. Island areas selected for Historic Preservation emphasis are those that contain historic buildings, structures, or landscapes; have mainly historic resource values; and have moderate to high visitor use.

-- Areas of Managed Landscape emphasis are landscapes that are predominantly "open" space, managed to preserve their cultural and natural features, such as meadows, orchards, gardens, groves of trees, and lawns. Visitors expect to encounter some people, but they also find many opportunities for tranquility at certain times. Some visitor amenities are available, such as picnic areas, composting toilets, and ranger-led tours. Island areas selected for Managed Landscapes emphasis are those that reflect the imprint of human use (but not of primary cultural resource value); that retain some character-defining cultural resource features; and that are able to accommodate a moderate level of visitor activity without significant negative effects. The need to balance natural and cultural resource management will be most evident in these areas.

-- Areas of Natural Features emphasis are characterized by landscapes that appear to be affected primarily by the forces of nature such as wetlands, areas of successional growth, and densely wooded areas. The imprint of human influence is substantially unnoticed, and natural features dominate. Visitors have many opportunities for tranquility and expect to see few other visitors. They have opportunities for challenges and adventure, and they need to be self-reliant. Island areas selected for

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Natural Features emphasis are those that predominantly reflect forces of nature; that retain some feeling of “wilderness”; that potentially are affected by visitor activity.

Designing the Parks, Vegetation Management Plan, Cultural Landscape Report, and Future Projects:

Numerous recommendations and tasks – ranging from rehabilitation, stabilization, and demolition – for the island’s buildings and structures have been implemented and are detailed in the Physical History chapter. Treatment projects for the landscape have also been developed in recent years. A 2013 report and video “Reimagining Peddocks Island” by the *Designing the Parks* youth program identified a Rehabilitation treatment to best preserve the island’s historic resources while accommodating compatible uses. Treatment recommendations related to land use, circulation, vegetation, views, structures, and small-scale features focused on Officers’ Row, the campground and overlook area, and the arrival area and parade ground. A 2016 report “Vegetation Management Plan for Fort Andrews” by the Olmsted Center for Landscape Preservation recommended a Rehabilitation treatment to manage the fort’s historic landscape character in order to accommodate safe, sustainable, and enjoyable use of the island. The report recommended maintenance practices, a series of vegetation maintenance tasks, and a calendar for maintenance practices. The tasks focused on five areas: arrival area and parade ground, campground and overlook area, Officers’ Row, the north fort area, and west fort area. (SOTP 2016: 40; VMP 2016: 1)

A 2000/2017 “Cultural Landscape Report for the Boston Harbor Islands, Volume I: Historical Overview” included broad recommendations for future identification and maintenance of historic resources on Peddocks Island (CLR Vol.1 2017: 205-213). They include:

- Stabilize military buildings and structures and thoroughly document existing conditions, including those of the surrounding landscape.
- Prepare preservation maintenance plans to address island vegetation management in steep, eroded areas, especially around military fortifications and buildings.
- Complete a Historic Resource Study for summer communities in Boston Harbor including communities on Peddocks.
- Document through a combined historic structures report, cultural landscape report, archeological assessments, and ethnographic studies the extant cultural resources.
- Conduct further research on the history of fishing to determine the economic importance of fishing in the harbor and the importance of the islands as communities for fishermen.
- Document historic engineering structures, including causeways, dams, seawalls, jetties, and piers on the islands. Identify those structures that protect significant cultural resources. Also document the prevailing storm waves and tides that affect these features.

Future projects in the National Park Service’s Project Management Information System (PMIS) address landscape treatment on Peddocks Island:

- “Cultural Landscape Report and Treatment Plan for Peddocks Island,” funding of \$93,610 requested for FY 2020. The project will build on draft cultural landscape studies for the Boston Harbor Islands, and address the entire island with a focus on the Fort Andrews landscape (PMIS 201866).
- “PLC - Engage Youth (Crew A) in Peddocks Island DM to Improve Public Safety and Visitor Experience,” funding of \$222,653 requested for FY 2019. The project will clear vegetation and

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underbrush to create an additional tent camping site and new spur trails to improve circulation (PMIS 246987).

Approved Landscape Treatment Document

General Management Plan

Approved Landscape Treatment Document Date

01/01/2002

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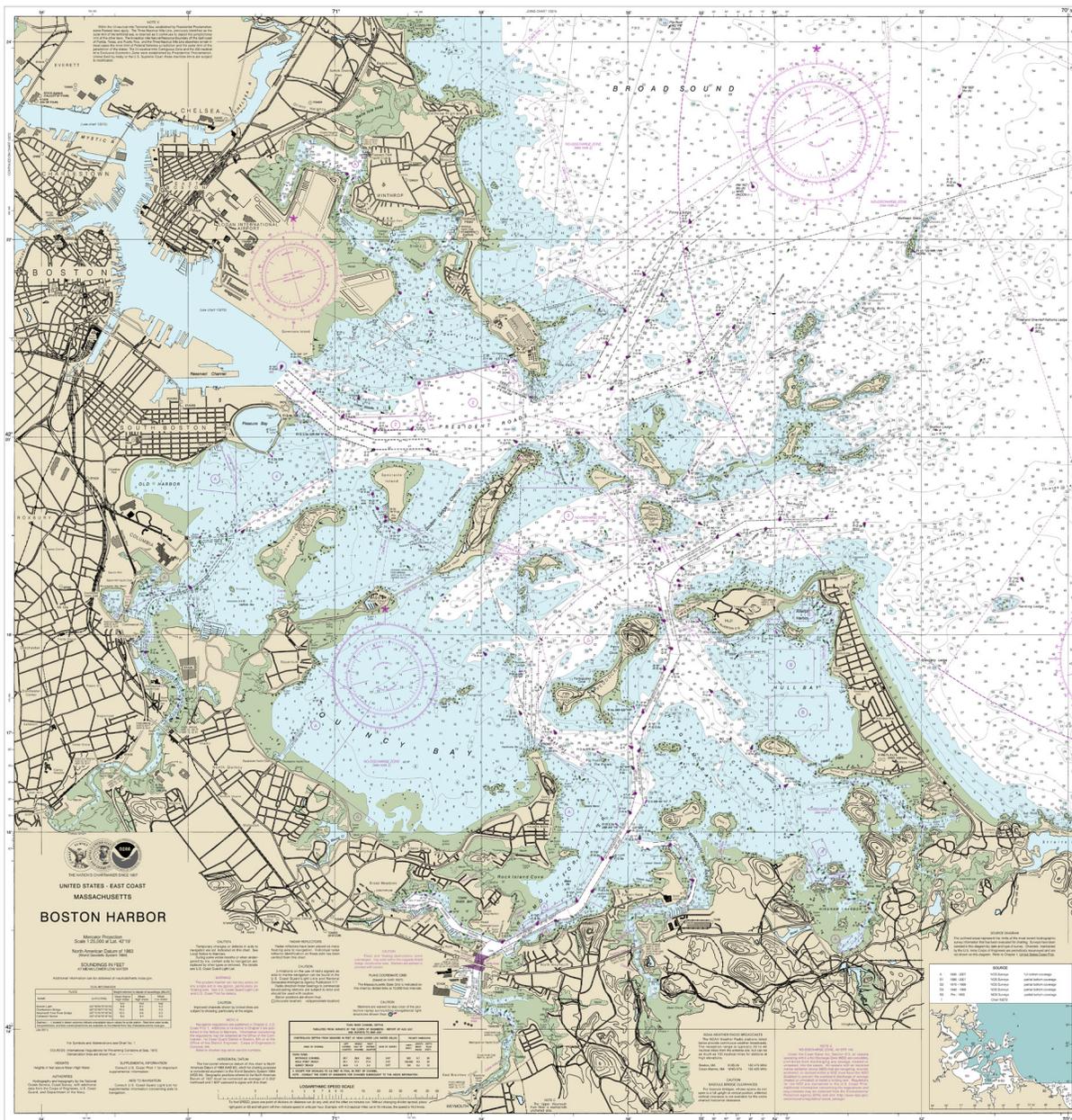
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Peddocks Island
Boston Harbor Islands National Recreation Area



Location Map Information. Maps of the Boston Harbor Islands National Recreation Area. (Harpers Ferry Center, <https://www.nps.gov/hfc/cfm/carto-detail.cfm?Alpha=BOHA>, accessed 7 March 2018)



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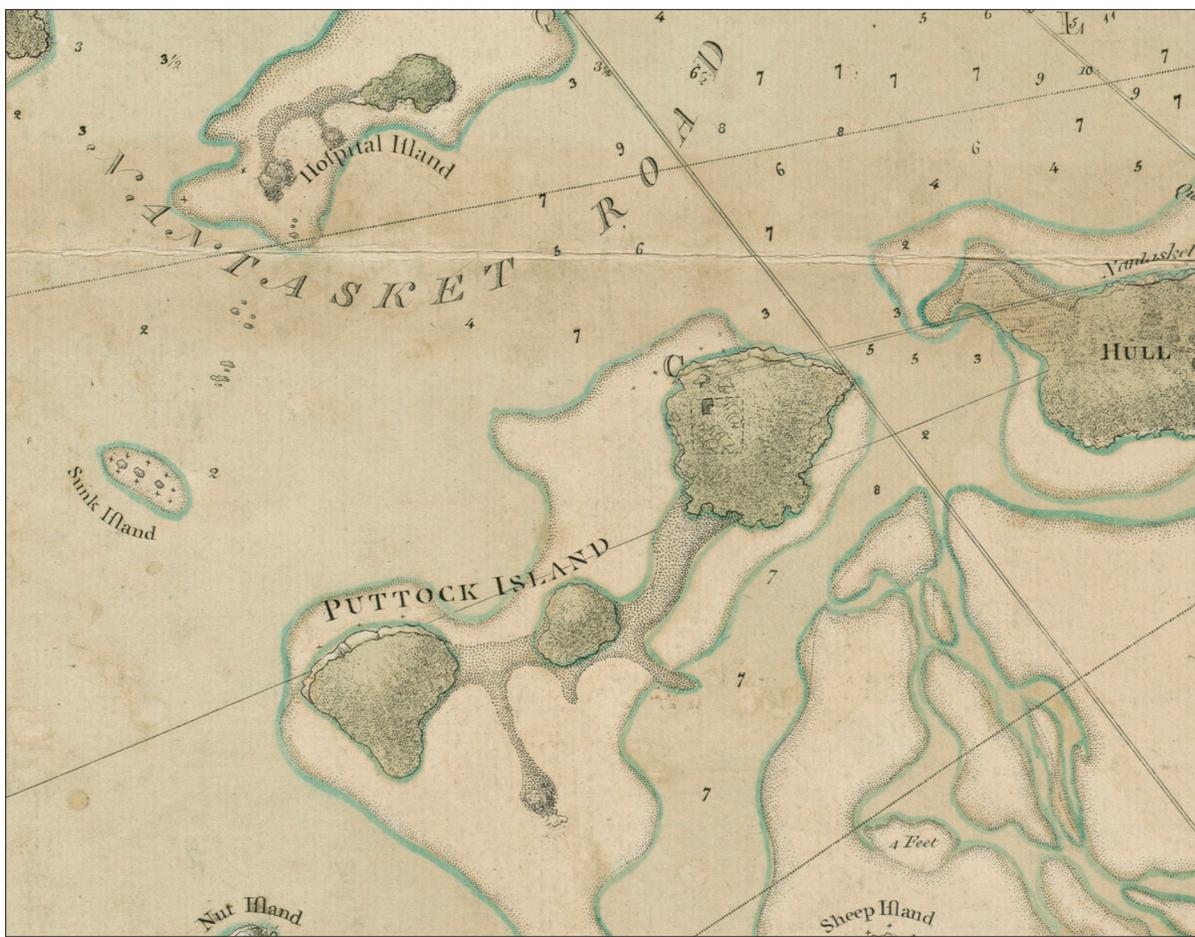


Figure 1. Detail from “A Chart of the Harbour of Boston, 1775” by Joseph F.W. Des Barres, showing a fenced homestead on East Head, near the “Pettick Tree” that was a navigational landmark. (Boston Public Library)

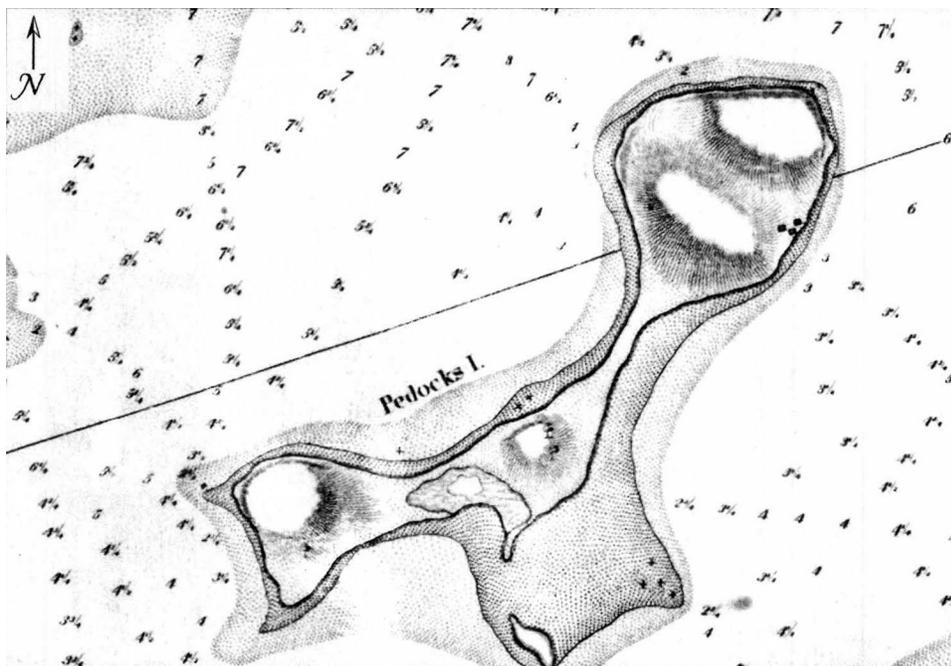


Figure 2. Detail from an 1817 chart of Pedlocks Island, indicating four structures on East Head. (Archeological Overview and Assessment--hereafter AOA--Vol.1 2008: 378)

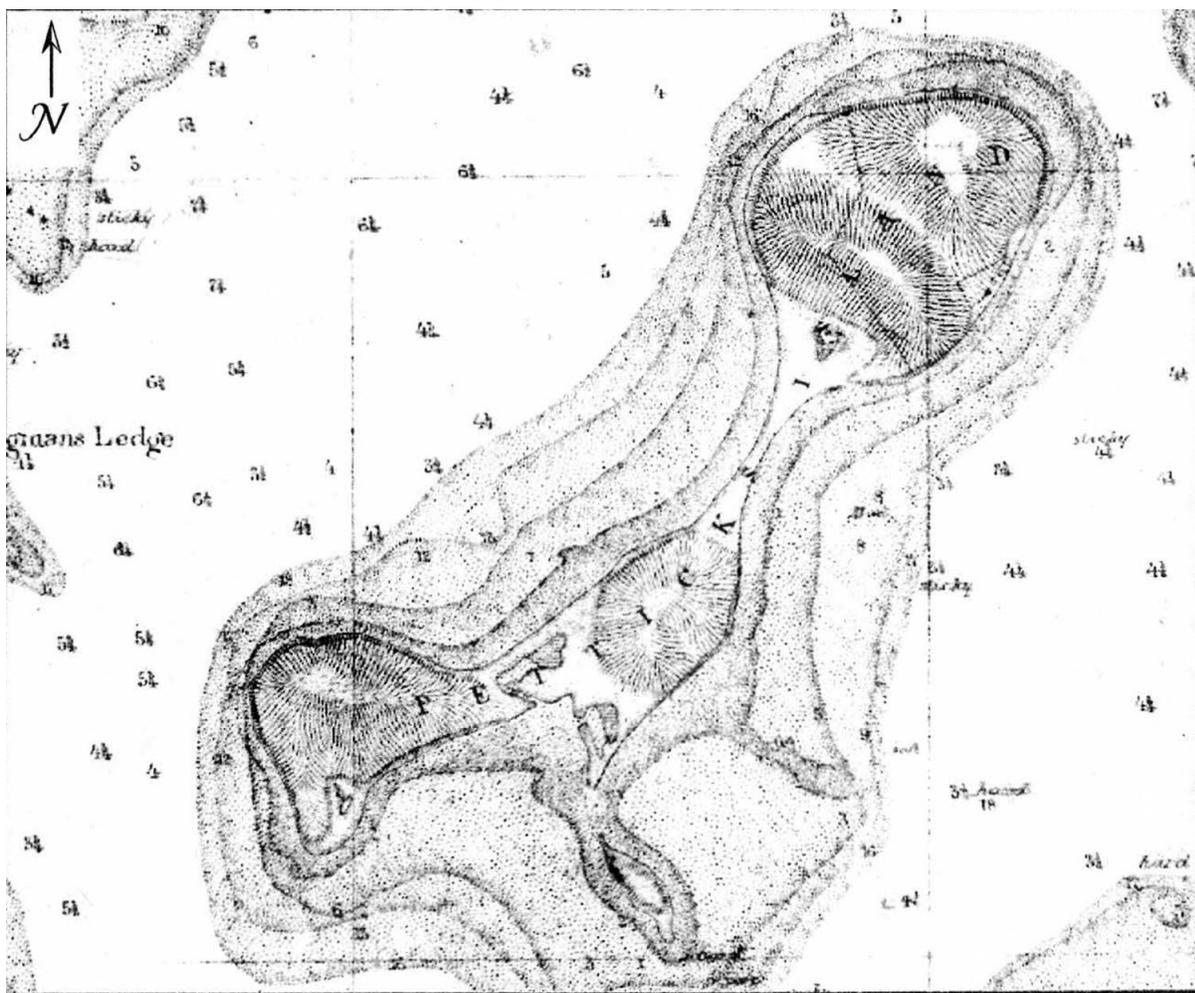


Figure 3. Detail from an 1847 chart of Peddocks Island, showing the Cleverly farm on East Head. (AOA Vol.1 2008: 379)

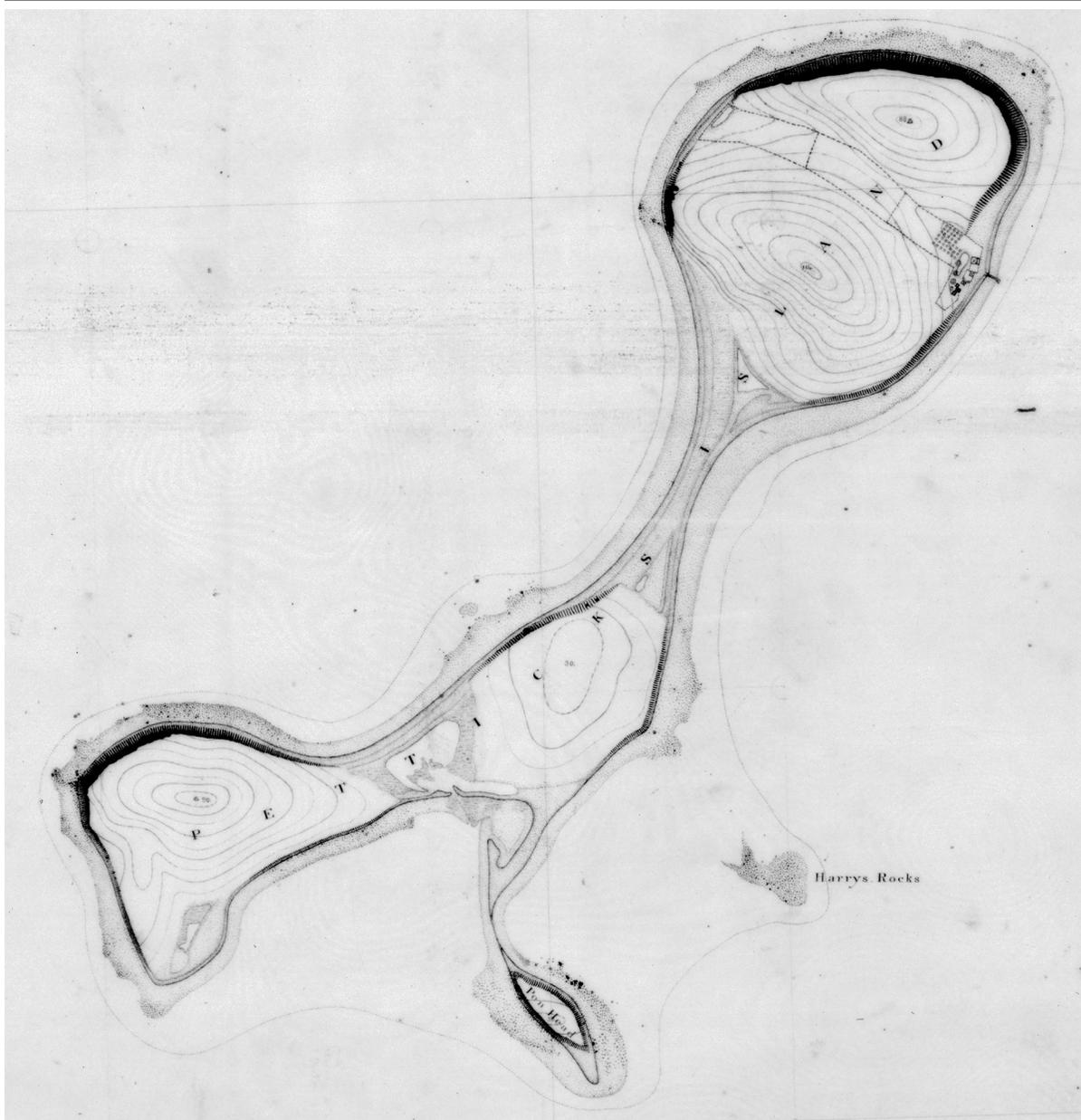


Figure 4. Detail from an 1860 map of Peddocks Island, showing the Cleverly farm on East Head. (U.S. Coastal Survey, from Cultural Landscape Report--hereafter CLR--Vol.1 2017: 48)

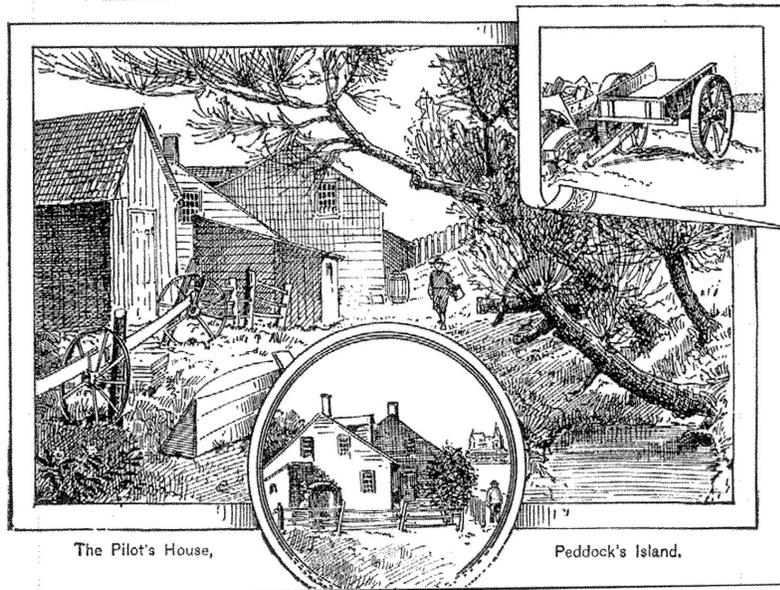


Figure 5. A drawing of the Cleverly Farm , 1882. (AOA Vol.1 2008: 364)



Figure 6. Map of Fort Andrews, 1904, before the fort expanded. The Cleverly Farm and summer cottages line the eastern shore of East Head while Portuguese fishing cottages line the southwest side. (Department of Conservation and Recreation--hereafter DCR--2009: 31)

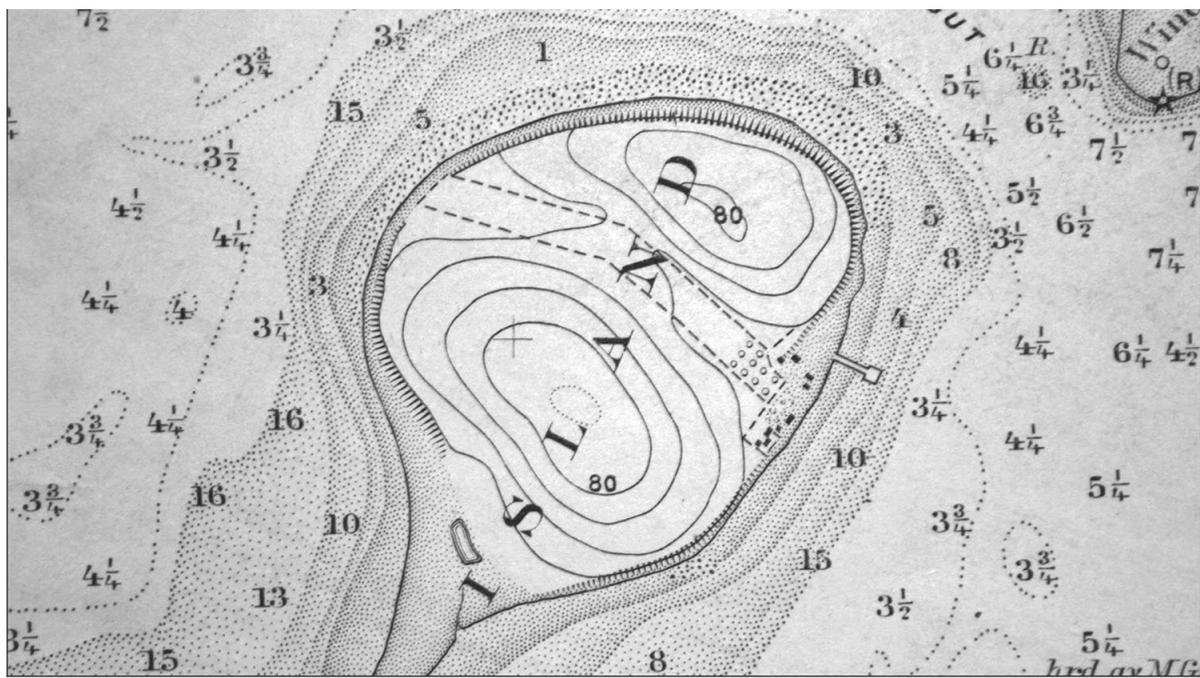


Figure 7. Detail of an 1890 (surveyed 1887) U.S. Coast Geodetic Survey map of East Head. Note the Cleverly farm buildings, fencing, and orchard. (DCR 2009: 30)

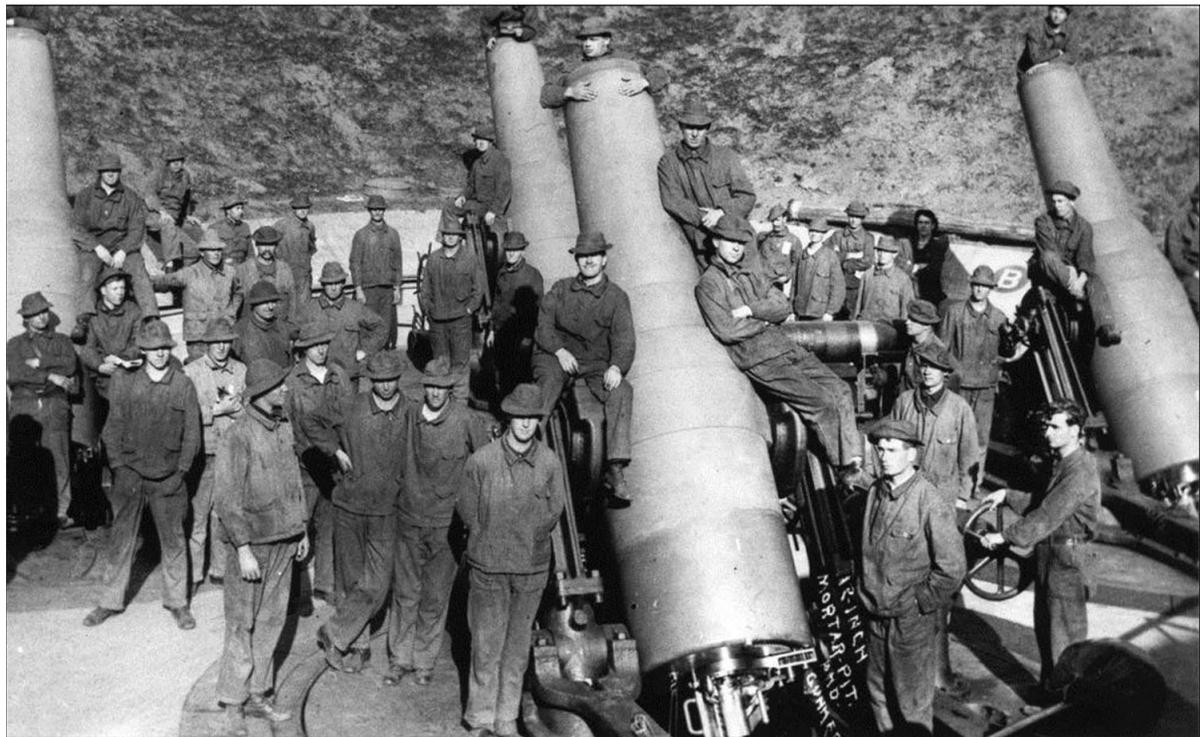


Figure 8. The 12-inch mortars in Battery Whitman, c.1910. (DCR 2009: 45)

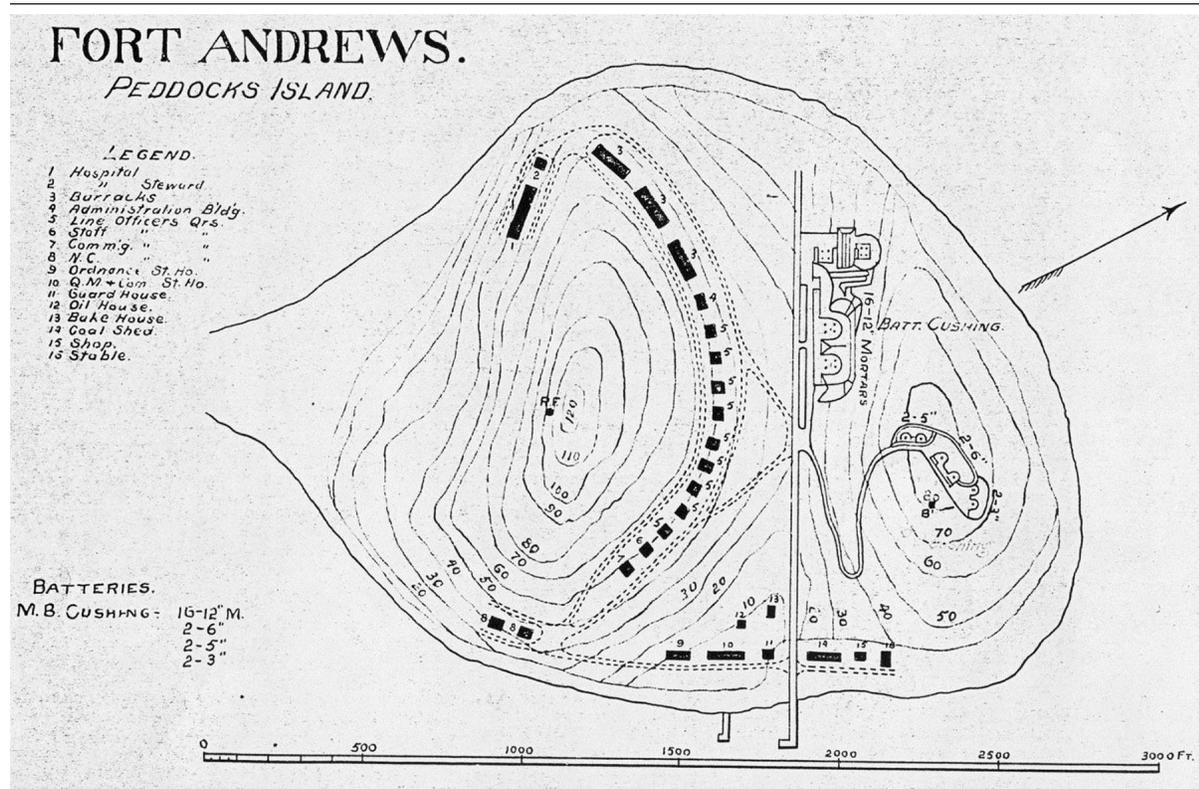


Figure 9. A 1903-04 plan for Fort Andrews, which aligned the various quartermaster buildings around the wharf along the eastern shore, and relocated the barracks, officers quarters, and the hospital around the south drumlin. (DCR 2009: 32)

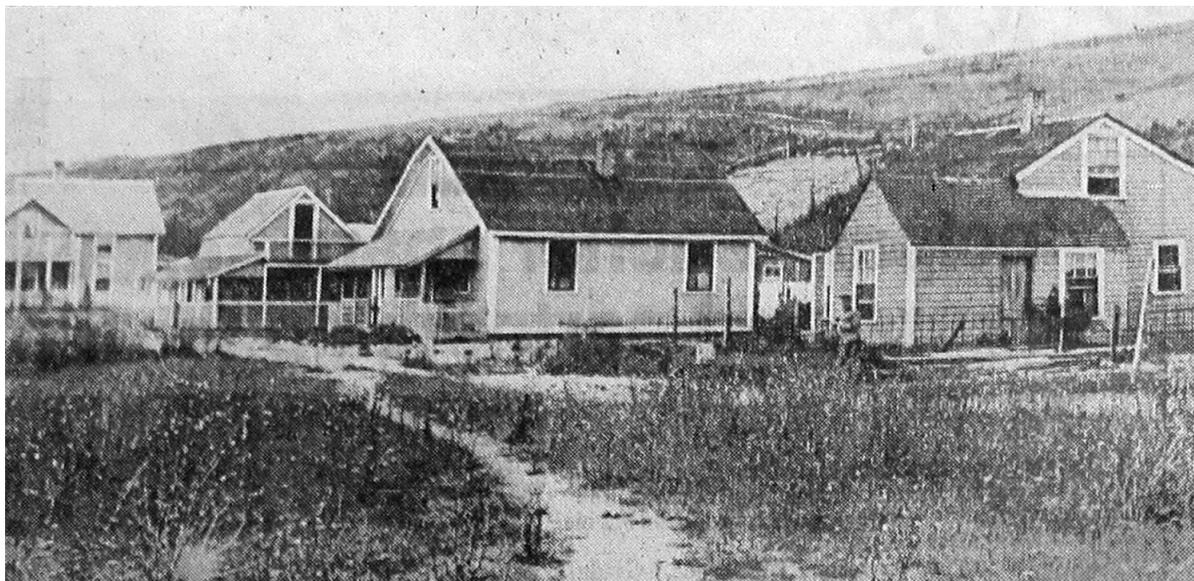


Figure 10. View of relocated Bies home (far left) on the southwest side of East Head and “the five remaining Portuguese fishermen cottages,” occupied by NCOs from Fort Andrews by the 1910s. (Ethnography Study 2016: 79, citing Silvia 2003: 19)

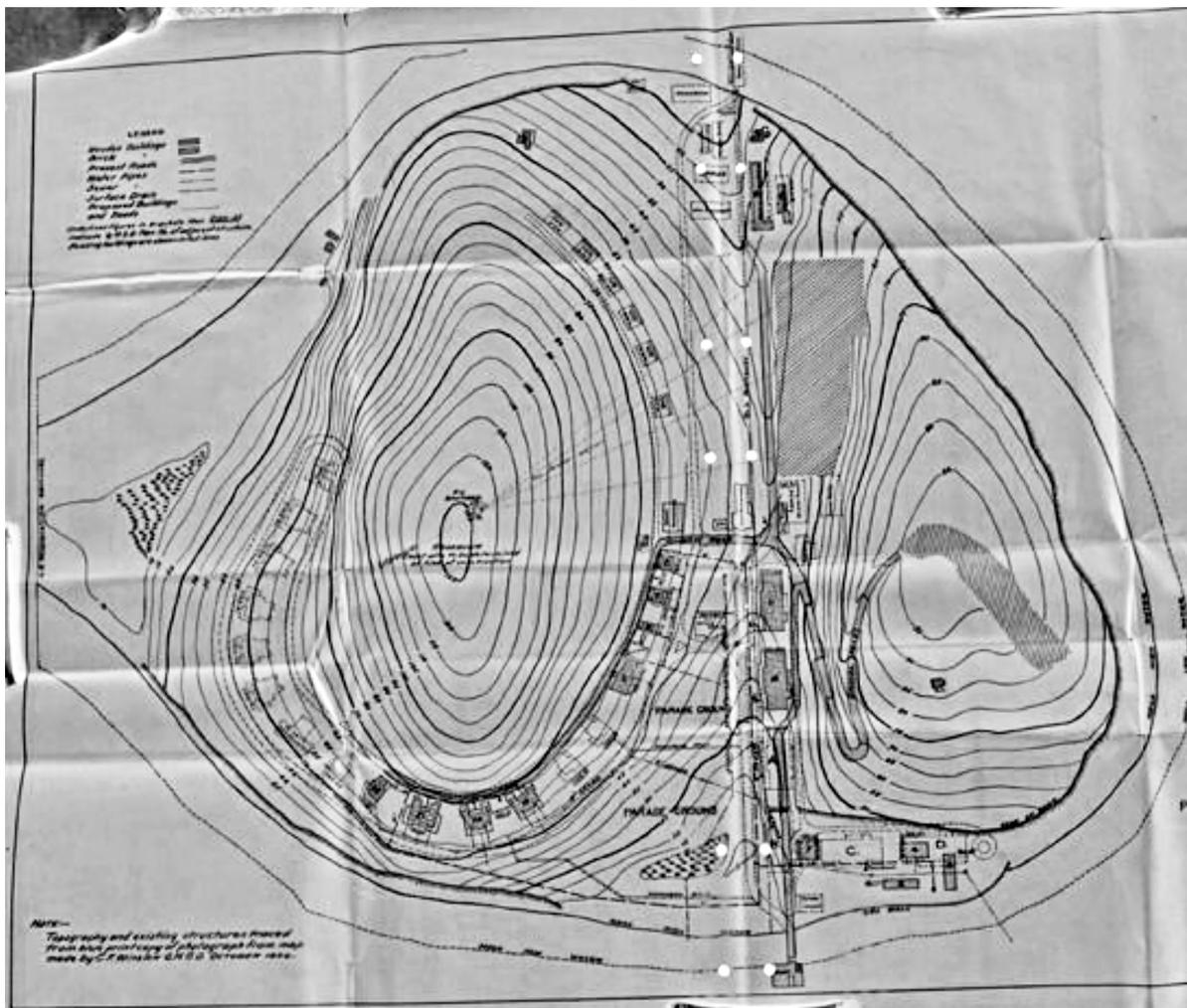


Figure 11. “Proposed Locations of Buildings for Fort Andrews,” 1907. (DCR 2009: 35)



Figure 12. Photograph of the “gully” searchlight on the north slope of the north drumlin on East Head, c.1945. (DCR 2009: 66)



Figure 13. View looking northeast at barracks (#s 13,29) on the north side of the parade ground, after 1908. Note the maples in front of the barracks, graded and grassed parade ground, and light standards. (DCR 2009: 48)

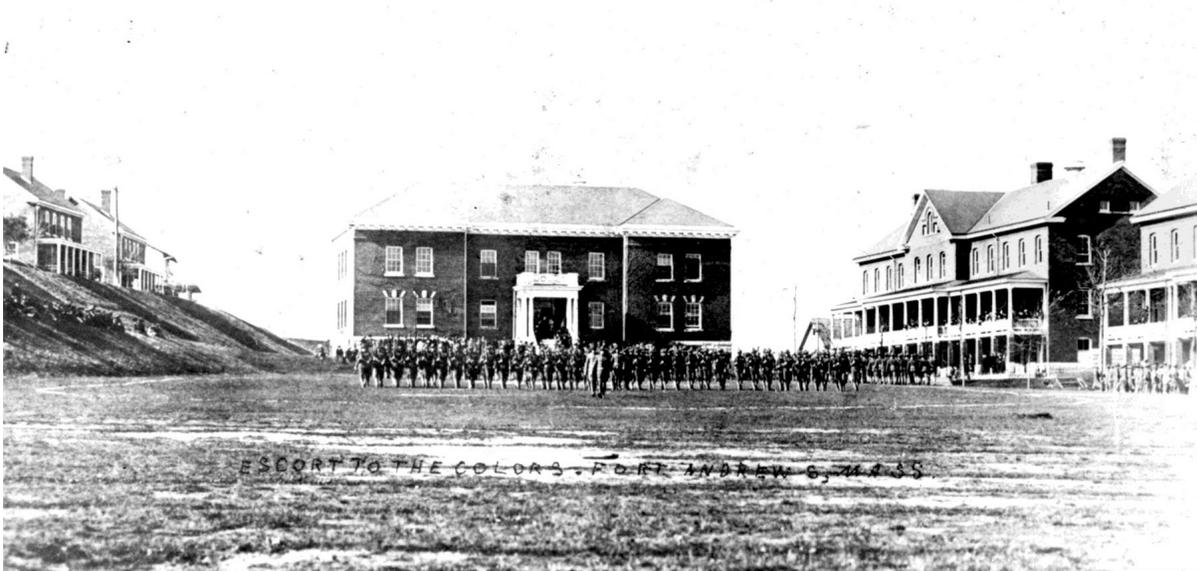


Figure 14. View looking northwest from the parade ground to the administration building (#26), after 1912. At image left are steps to officers' quarters (#s 15,14,34) and at image right are barracks (#s 10,11). Young trees and steps are faintly visible in front of the barracks. (DCR 2009: 49)

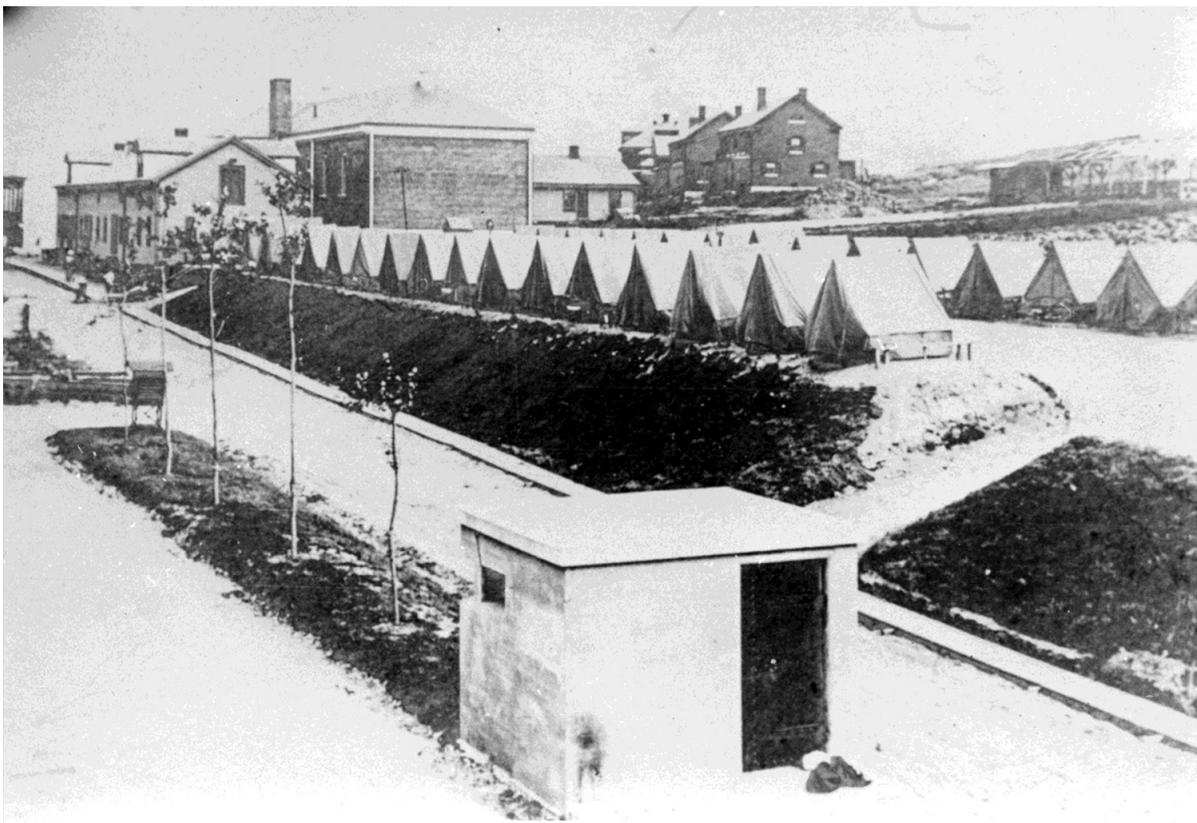


Figure 15. View from 1907 looking southeast from Battery Cushing at curbed walks and young trees on the main road. In the background is a pre-1904 temporary barracks, the 1907 post exchange/recreation hall (#25), and officers' housing on the south drumlin. (DCR 2009: 37)



Figure 16. View looking north towards Battery Cushing in c.1915. Note the garden furrows in foreground, utility poles, and grass-covered battery. (DCR 2009: 47)



Figure 17. Middle Head as viewed from East Head, c.1910, looking south at summer cottages and the Island Inn. A windmill provides well water. Crab Alley can be seen in the background at image right, over the treeless drumlin. (DCR 2009: 44)



Figure 18. Detail of a c.1925 oblique aerial looking southwest at the zig-zag earthen trenches and orchard or garden areas on the west slope of the north drumlin. Note the temporary buildings across from Batteries Cushing and Whitman. (BOHA Archives, #B17170010)

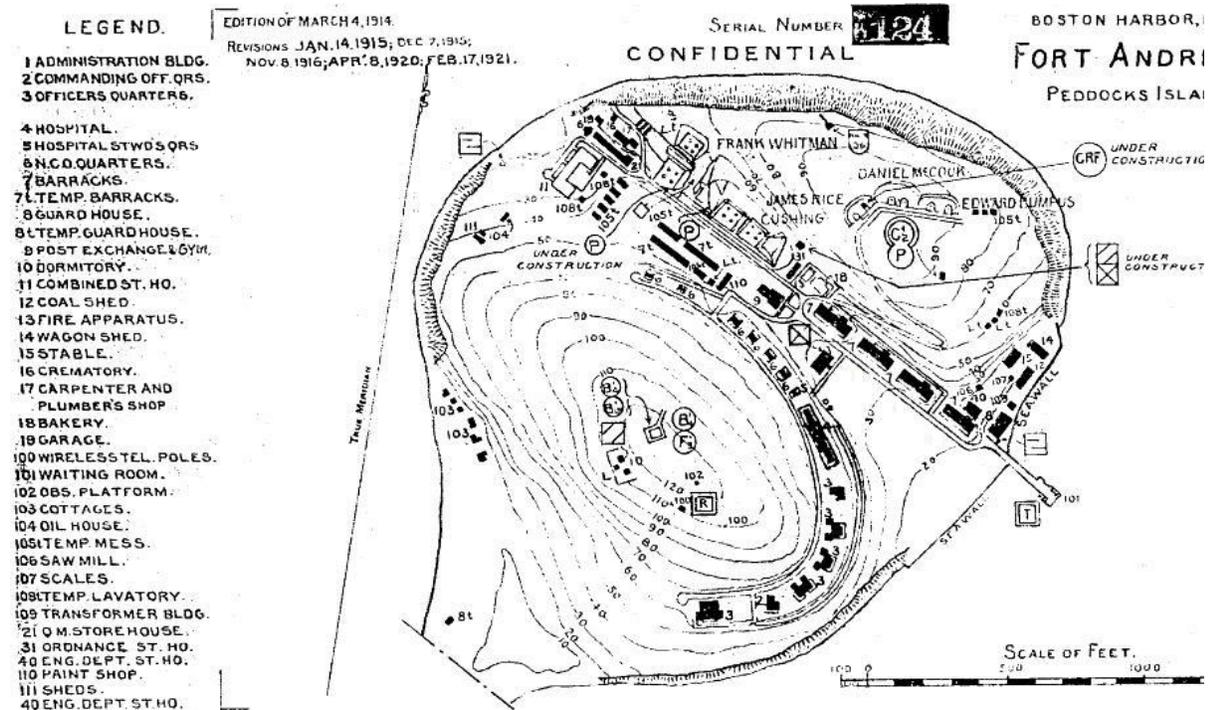


Figure 19. Plan of Fort Andrews, 1921. (BOHA Archives, #B17170010)



Figure 20. A 1925 aerial of East Head from the southeast showing the facilities at Fort Andrews as well as the group of former fisherman cottages known as Sergeants' Row" and orchard on the west side. (DCR 2009: 55)



Figure 21. A 1932 aerial of East Head from the northeast, showing the burned remains of barracks (#13). Note the mature trees fronting the four barracks. (DCR 2009: 56)



Figure 22. Aerial photograph of Middle Head, c.1938, showing nearly all the cottages on the island, with low groundcover and dirt paths throughout. (DCR 2009: 57)

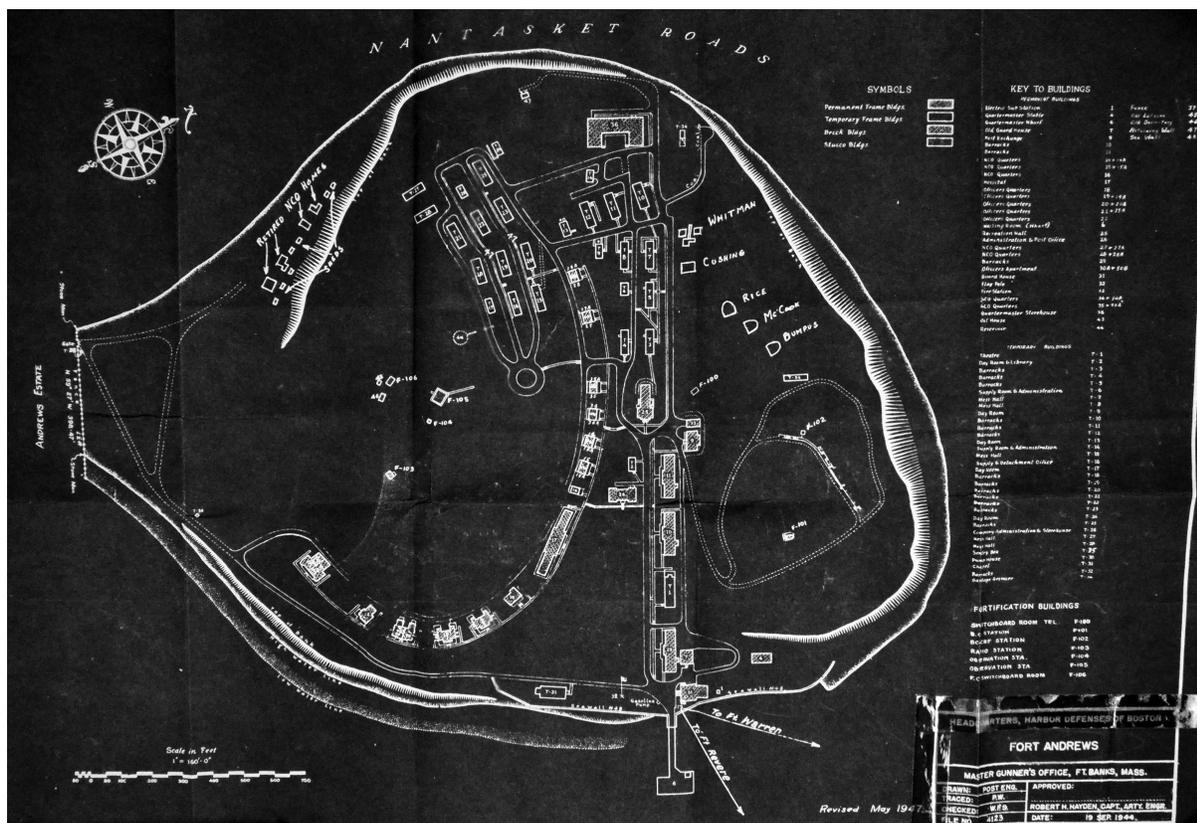


Figure 23. Plan of Fort Andrews, 1947. (DCR 2009: 67)



Figure 24. View looking northwest in 1940 and construction of new temporary barracks in preparation for World War II. Batteries Cushing and Whitman are at image right and the post exchange/recreation hall (#25) is at image left. (J.K. Kurnsey, from DCR 2009: 58)



Figure 25. View looking northeast from Officers' Row in 1945 at the parade ground, theatre building (#T-1) at the former site of barracks (#13), and barracks (#29). Note the size of the maple trees. (DCR 2009: 64)

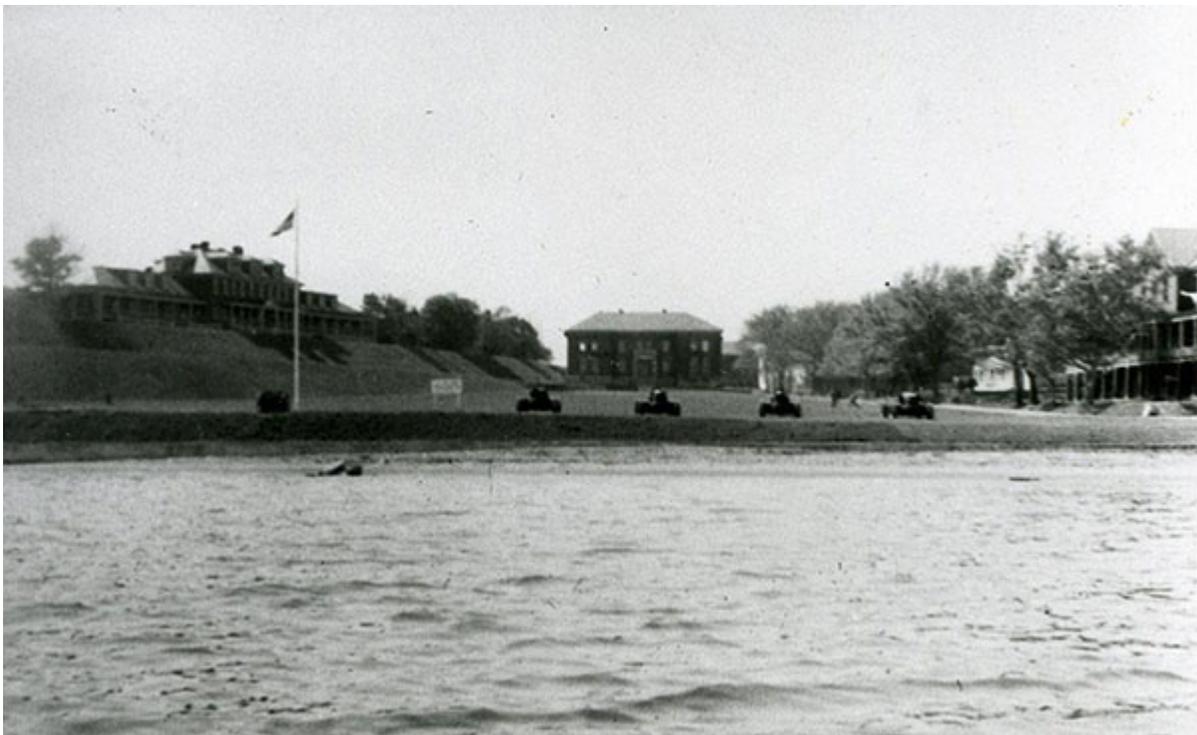


Figure 26. View looking northwest at Fort Andrews, 1941. The chapel ((#T-31) was constructed along the shoreline later that summer, left of the flagpole. Note the mature trees and display cannon. (DCR 2009: 62)



Figure 27. Aerial view of East Head from 1944, showing World War II-era additions. Note the partially complete forest succession and baseball diamond on the parade ground. (DCR 2009: 65)



Figure 28. Oblique view looking west at the chapel (T-31), c.1971, and the overgrown parade ground. Note the total forest succession amongst the buildings and surrounding hillsides. (DCR 2009: 69)



Figure 29. The east end of the valley and the south drumlin on East Head. The first Fort Andrews buildings visitors see are the (l. to r.) chapel, wharf, and new guardhouse (visitor center). View looking west. (Olmsted Center for Landscape Preservation--hereafter OCLP--2016, DSC-0853)



Figure 30. The tombolo connecting East and Middle Heads, from Cottage #17. View looking northeast. (OCLP 2016, DSC-0535)



Figure 31. The island's largest pond is on the tombolo between Middle Head and West Head. Several Crab Alley cottages are visible in the treeline. View looking northeast. (OCLP 2015, DSC-1082)



Figure 32. The yurt campground on the north drumlin, from Battery McCook. The brick battery observation station (#F-101) is in the background. View looking southwest. (OCLP 2017, DSC-0473)



Figure 33. One of the island’s picnic areas is located north of the new guardhouse (#31) and electric substation (#1), alongside remnant foundation wall of the coal shed. View looking south. (OCLP 2017, DSC-0843)



Figure 34. Cottage #44 is the last occupied building on Sergeants’ Row, built by a fort sergeant in the 1920s and now occupied by the McDevitts. View looking northeast. (OCLP 2015, DSC-6369)



Figure 35. Remains of the hand-dug World War I-era training trenches are still visible on the north drumlin. (OCLP 2017, DSC-0509)



Figure 36. The army altered the topography to create level terraces for buildings, and built staircases to overcome substantial elevation changes between the parade ground and Officers' Row (in the background). View looking southwest. (OCLP 2017, DSC-0540)



Figure 37. The contours of earthen embankment between the two mortar pits at Battery Cushing are still visible. View looking southwest. (OCLP 2017, DSC-0575)



Figure 38. The park's retention of key buildings and road proximate to the administration building's foundation, and restoration of the parade ground, communicate the fort's historic design. Note the new maple trees along the main road. View looking west. (OCLP 2015, DSC-1154)



Figure 39. Open lawns, remnant walks and road, and remaining buildings reveal the curved layout of Officers' Row on the slopes of the south drumlin. View looking southeast. (OCLP 2017, DSC-0797)



Figure 40. The orthogonal layout of the main road, sidewalk, and two mortar batteries contrasts with the curved layout of facilities along Officers' Row. View looking northwest. (OCLP 2015, DSC-0572)



Figure 41. Row of cottages (#s 22, 23, 24, 25) facing northwest, on the northwest side of Middle Head. View looking southwest. (OCLP 2016, DSC-0460)



Figure 42. Row of cottages (#s 29, 30, and 31) on Crab Alley face southwest, on the northwest side of Middle Head. View looking southeast. (OCLP 2016, DSC-0390)



Figure 43. Row of cottages (#s, 6, 7, and 9) facing east, on the northeast side of Middle Head. Cottage #8 (at the picnic table) is missing. View looking north. (OCLP 2015, DSC-0987)



Figure 44. Visitors can now explore the eastern mortar pit of Battery Cushing, recently cleared of vegetation. View looking west. (OCLP 2017, DSC-0576)



Figure 45. The park has cleared woody vegetation in the north mortar pit of Battery Whitman. View looking east. (OCLP 2017, DSC-0676)



Figure 46. Overgrown vegetation on the rear elevations of Battery Bumpus and the two other gun batteries are mostly clear, but other components are cloaked in trees, shrubs, and vines. View looking northeast. (OCLP 2017, DSC-0458)



Figure 47. The chapel (#T-31) is fronted with new plantings, and a representative apple orchard stands just to the west. The 1912 army seawall (#48) is in the foreground. View looking southwest. (OCLP 2017, DSC-0849)



Figure 48. Some of the cottages on the northwest side of Middle Head are landscaped with a variety of small trees, shrubs, hedges, gardens, and lawns. View looking west. (OCLP 2016, DSC-5420)

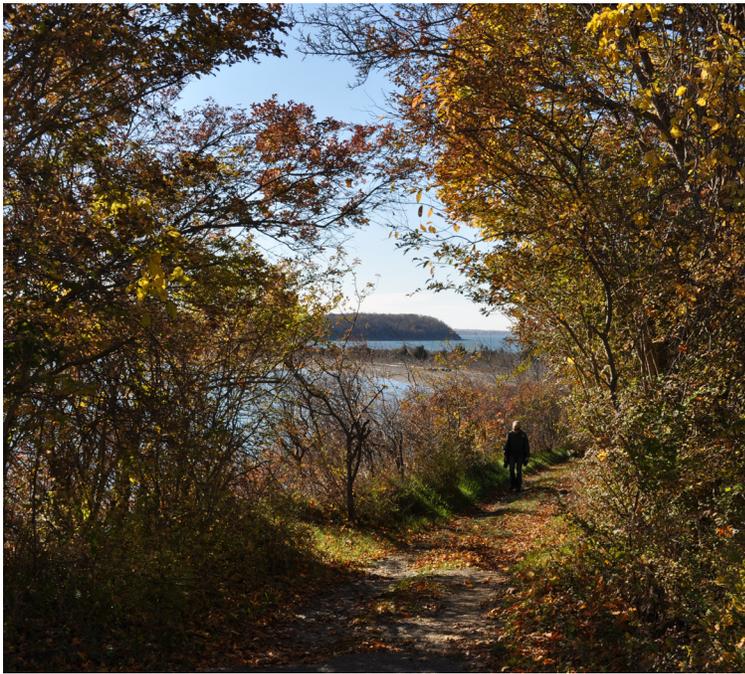


Figure 49. This historic road tracks along the east and south sides of East Head, connecting the fort's wharf to the fort's south boundary. West Head is visible in the background. View looking southwest. (OCLP 2016, DSC-0541)



Figure 50. A trace of the roundabout where the roads in the World War II temporary facilities terminated are still visible on the south drumlin. Note the remnant concrete fence posts. View looking northwest. (OCLP 2017, DSC-0752)



Figure 51. The only intact circulation feature at the top of the south drumlin is this staircase that accessed the ruins of the below-grade battery command/fire control structure (#F-105). View looking southeast. (OCLP 2017, DSC-0772)

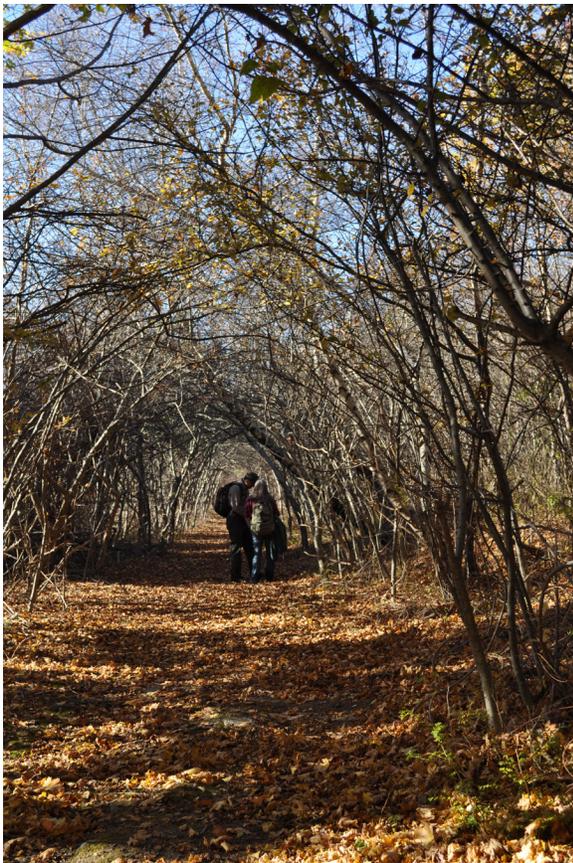


Figure 52. An old trail/road leads to the southwest tip of West Head. View looking southwest. (OCLP 2016, no#)



Figure 53. The decorated ruins of Cottage #32 on Crab Alley, Middle Head. View looking southeast. (OCLP 2016, DSC-0399)



Figure 54. The U-shaped quartermaster storehouse (#36), the largest building at the fort, has been stabilized for future use. View looking north. (OCLP 2017, DSC-0705)



Figure 55. The ruins of the army’s observation station (#F-104), built in the early 1940s, on top of the south drumlin. View looking northwest. (OCLP 2017, DSC-0761)



Figure 56. The remains of the 1924 “vertical lift” searchlight structure can be found on the north drumlin. A glimpse of the harbor is visible through the successional forest. View looking northwest. (OCLP 2017, DSC-0512)



Figure 57. Concrete foundation posts, a brick chimney, and debris remain from a World War II-era temporary day room (#T-24) on the south drumlin. One of the concrete retaining walls built in this area is visible at image left. View looking west. (OCLP 2017, DSC-0724)



Figure 58. Visitors can explore the two pits and inner chambers of the 1898-1902 Battery Whitman. View looking northeast. (OCLP 2017, DSC-0663)



Figure 59. Stairs and railings in varying conditions remain throughout Battery Cushing, built in 1901-04. View looking southwest. (OCLP 2017, DSC-0614)



Figure 60. Vegetation envelops much of Battery McCook, built in 1901-04. View looking northwest. (OCLP 2014, DSC-0096)



Figure 61. The concrete ordnance storehouse was built into the north drumlin in 1906. View looking north. (OCLP 2015, DSC-6339)



Figure 62. Yurts in the campground across from the mortar batteries feature covered porches. View looking east. (OCLP 2014, no#)



Figure 63. The historic view from the parade ground has been restored, and compares well with the scene in Figure 14. View looking west. (OCLP 2017, DSC-0429)



Figure 64. Selective tree removals have partially reopened the views from Officers' Row to the parade ground, wharf, and harbor. View looking northeast. (OCLP 2017, no#)



Figure 65. The overlook on the north drumlin allows visitors to experience the harbor view that was once visible from the nearby gun batteries. View looking north. (OCLP 2017, DSC-0440)



Figure 66. View of the harbor islands and downtown Boston from Middle Head. View looking northwest. (OCLP 2016, DSC-0466)



Figure 67. A historic light pole still stands in front of the recreation hall. View looking east. (OCLP 2017, DSC-0549)



Figure 68. View of the flagpole at Fort Andrews. View looking west. (OCLP 2014, DSC-5471)



Cultural Landscape Inventory

Peddocks Island

Boston Harbor Islands National & State Park
Hull, Massachusetts

Island Overview



National Park Service
Olmsted Center for Landscape Preservation
www.nps.gov/oclp

SOURCES

1. Massachusetts GIS
2. LiDAR, 2013
3. Orthographic photos, 2013
4. Coast Defenses of Boston Harbor, Mass. Fort Andrews, Jan 1921
5. Field Observation and photos, Nov 2016, Jan 2017

DRAWN BY:

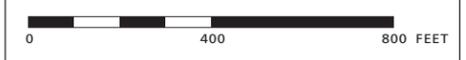
Melissa Eloshway, OCLP
ArcMap 10.4.1, AutoCAD Map 3D, Adobe Illustrator CS6,
Adobe InDesign CS6

LEGEND

- Low Tide Line/Park Boundary
- High Tide Line
- Building / Structure
- Foundation
- Road / Path
- Contour, 5 feet
- Canopy Vegetation
- Groundcover / Sand
- Water

NOTES

1. All features shown in approximate scale and locations.
2. Projection: UTM Zone 19N, NAD 83, International Feet



Cultural Landscape Inventory

Pedlocks Island

Boston Harbor Islands
National & State Park
Hull, Massachusetts

East Head



National Park Service
Olmsted Center for Landscape Preservation
www.nps.gov/oclp

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Melissa Eloschway, OCLP
ArcMap 10.4.1, AutoCAD Map 3D, Adobe Illustrator CS6,
Adobe InDesign CS6

LEGEND

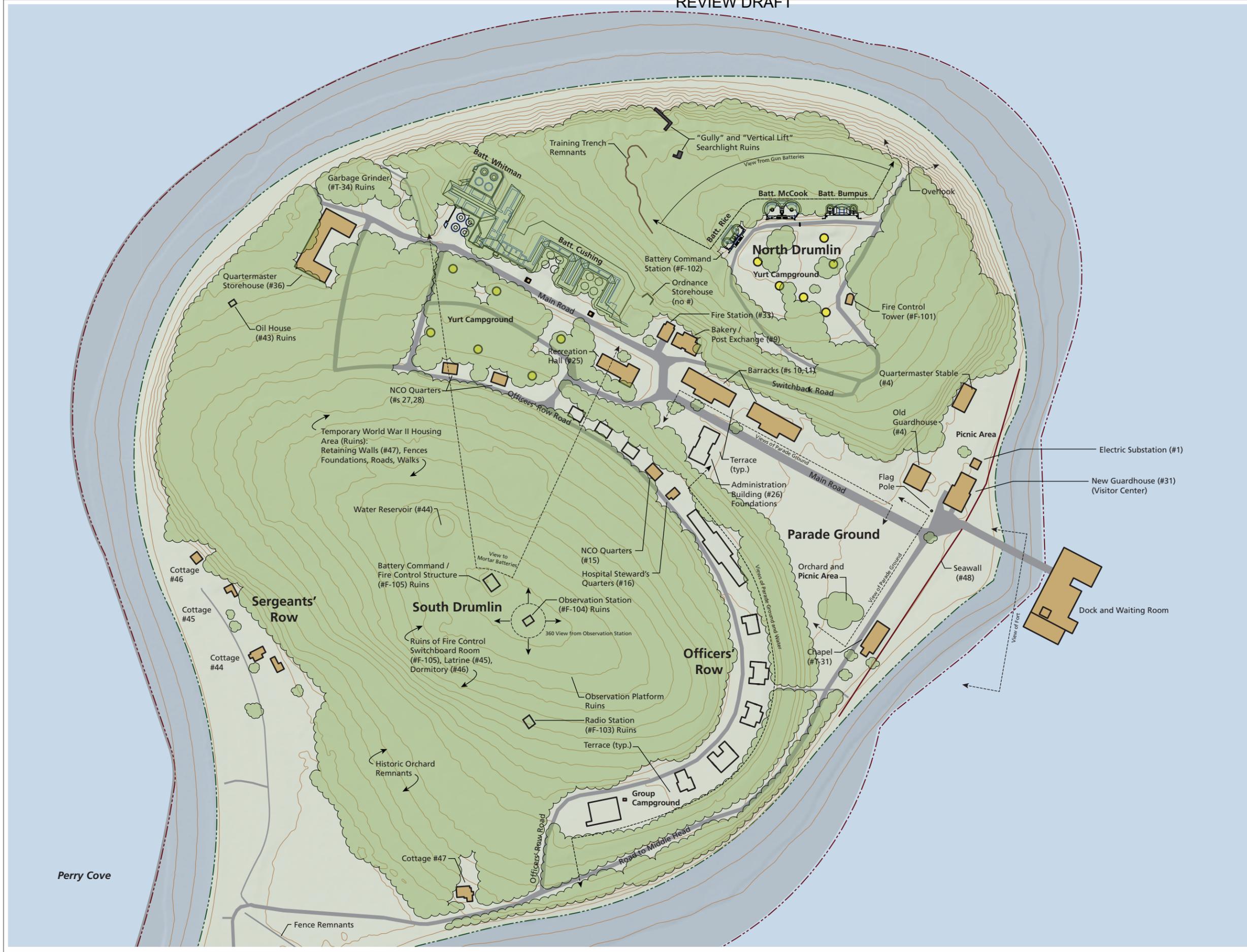
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NOTES

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2. Projection: UTM Zone 19N, NAD 83, International Feet



Drawing 2



Perry Cove



Cultural Landscape Inventory

Peddocks Island

Boston Harbor Islands
National & State Park
Hull, Massachusetts

Middle Head



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National Park Service
Olmsted Center for Landscape Preservation
www.nps.gov/oclp

SOURCES

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Melissa Eloshway, OCLP
ArcMap 10.4.1, AutoCAD Map 3D, Adobe Illustrator CS6,
Adobe InDesign CS6

LEGEND

- Low Tide Line / Park Boundary
- High Tide Line
- Building / Structure
- Ruin / Remnant
- Building Foundation
- Road / Path
- Contour (5 feet)
- Canopy Vegetation
- Groundcover
- Water

NOTES

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Cultural Landscape Inventory

Peddocks Island

Boston Harbor Islands
National & State Park
Hull, Massachusetts

West Head



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SOURCES

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ArcMap 10.4.1, AutoCAD Map 3D, Adobe Illustrator CS6,
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LEGEND

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