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OFFICERS CLUB Building No. 114

Sandy Hook Unit
Gateway National Recreation Area
Fort Hancock, New Jersey



Historic Structure Report

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**OFFICERS CLUB
BUILDING No. 114**

HISTORIC STRUCTURE REPORT

**Sandy Hook Unit
Gateway National Recreation Area**

By

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Northeast Region, National Park Service
U.S. Department of the Interior
Lowell, Massachusetts

June 2006

2006-0304-P

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ACKNOWLEDGEMENTS

The preparation of this report would not have been possible without the assistance of the staff of the Sandy Hook Unit, Gateway National Recreation Area. Richard Wells, Park Superintendent, provided useful advice during the project review meetings. Lou Venuto, Chief of Interpretation and Cultural Resources, provided direction and coordinated the efforts of his staff. Thomas Hoffman, Park Historian, provided copies of existing records and documents, as well as oral histories of Fort Hancock and the Officers Club. On a number of occasions Hoffman also provided access to the Officers Club. Mary (Trocchia) Rasa, Curator, provided access to historic photographs and maps in the Gateway NRA Museum Collection at Sandy Hook. Michael Thomas, Cultural Resource Specialist, also provided access to historic documents and the building. Constance Witherby, Supervisory Park Ranger, also provided assistance during investigation of the building.

Research undertaken by Edwin C. Bearss in the 1980's proved extremely useful in determining where to conduct further primary source research. Research at the Northeast Region National Archives and Records Administration would not have been successful without the assistance of Richard Gelbke, Archives Specialist. At the National Archives and Records Administration in Washington, D.C., Jill Abraham, Old Military Records Archivist, provided guidance for research in the record groups pertaining to military records.

James J. Lee III

ABBREVIATIONS

The following abbreviations have been used in this report:

CDF	Character- defining Feature
DOE	Determination of Eligibility
DOI	Department of the Interior
HAP	Historic Architecture Program, Northeast Region, NPS
HSR	Historic Structure Report
LC	Library of Congress, Washington, DC
LCS	List of Classified Structures
NAB	National Archives Building, Washington, DC
NACP	National Archives at College Park, MD
NARA – Northeast Region (NY)	National Archives and Records Administration – Northeast Region (New York, New York)
NER	Northeast Region of the National Park Service
NPS	National Park Service
NRA	National Recreation Area
RG	Record Group
RG 77	Records of the Chief of Engineers
RG 156	Records of the Chief of Ordnance
SHPG	Sandy Hook Proving Ground

I. INTRODUCTION

EXECUTIVE SUMMARY

Purpose and Scope

This historic structure report (HSR) was produced by the Historic Architecture Program (HAP) of the Northeast Region, National Park Service (NPS). The purpose of the report is to document the development and use of the Officers Club (Building No. 114) at the Sandy Hook Unit (SAHO), Gateway National Recreation Area (Gateway NRA), Fort Hancock, New Jersey. Furthermore, it is intended to inform and guide the rehabilitation of that historic structure.

The scope of this historic structure report, as stated in its Project Agreement, was to perform a “thorough” investigation of the Officers Club (Building No. 114) as defined by the Park Service’s *Cultural Resource Management Guideline*.¹ The report, which deals primarily with the subject building, incorporates context and background information about Sandy Hook and the various military installations located there. The HSR contains Part I, “Developmental History,” and Part II, “Treatment and Use,” which includes a list of character- defining features (CDFs), in accordance with NPS standards. An analysis and color- matching of the building’s exterior finishes, and of finishes in the primary first - story rooms, are included as an appendix to this report. Based on examination of the paint evidence and extant building materials, it was determined that the period paint- color matches required by the Project Agreement would reflect the dates circa 1905 and circa 1940. The report does not include a Condition Assessment, nor does it include a Part III, “Record of Treatment.” The latter should be prepared after treatment is completed by the contractor in charge of the work.

The physical investigation of the building was limited to finishes analysis, and observation and recordation of existing conditions. The deteriorated condition of some materials allowed the researcher to observe construction methods and building features that would have otherwise been hidden. The failure of certain building materials creates a peeling away of accumulated layers of building materials, which can reveal both original features and alterations to the building. In particular, the damage to plaster and lath walls from water infiltration revealed the method of structural framing. Further information regarding the structure’s early configuration and alterations might have been gained from destructive investigation, but this was not within the scope of the project, nor would it advance the preservation and rehabilitation of the Officers Club.

¹ Release No. 5, 1997; also called NPS- 28.

Statement of Significance

The red- brick, Second Empire structure under study has been known over the years by many names. For the purposes of consistency, the structure will be referenced as the Officers Club throughout this report. Other names may be used when appropriate, or in excerpts from correspondence and documents; in either case, the building name will appear as a quotation.

The Officers Club is a contributing structure to the Fort Hancock and the Sandy Hook Proving Ground Historic District. This district includes approximately 380 acres containing more than 100 historic structures, and was listed on the National Register of Historic Places on April 24, 1980. The nomination form denotes the period of significance as spanning from 1859 through the 1950's and 1960's Cold War era.² The Fort Hancock and Sandy Hook National Register District received National Landmark status on December 17, 1982.

Completed in 1879, the Officers Club is one of the oldest extant buildings at Sandy Hook. It was used as Ordnance Officers' Quarters until 1919, when the proving ground was relocated to Aberdeen, MD, and the building became part of Fort Hancock. "The Brick House was intimately associated with the (Sandy Hook) Proving Ground from 1878 until 1919. When on-site the various Ordnance Boards responsible for developing, testing, and proving the heavy and much of the light artillery with which the nation fought the Spanish- American War and World War I, met and stayed in this handsome structure. Here, the boards entertained important visitors, such as the Secretary of War, and officers assigned to the Proving Ground slept, studied, ate, and relaxed."³ The Officers Club is considered to be one of the most architecturally distinctive buildings at the Sandy Hook Proving Ground. Its proposed preservation and rehabilitation will insure its continued contribution to the historic district.

Research Conducted

This HSR documents the evolution of the Officers Club by relying on physical investigation of extant building materials, and on documentary research using both primary and secondary sources. Repositories consulted and utilized for materials pertaining to the subject are as follows:

- Gateway NRA Museum Collection, Sandy Hook Unit, Gateway National Recreation Area, Fort Hancock, NJ
- National Archives and Records Administration, Archives I, Washington, D.C.
- National Archives and Records Administration, Archives II, College Park, MD
- National Archives and Records Administration, Northeast Region, New York, NY

² Richard E. Greenwood, National Register of Historic Places Inventory - Nomination Form, "Fort Hancock and the Sandy Hook Proving Ground Historic District," June 28, 1976 (rev. Nov. 9, 1982), item 7, p. 1, and item 8, p. 1.

³ Edwin C. Bearss, *Historic Resource Study, The Sandy Hook Proving Ground, 1874- 1919, Sandy Hook Unit, Gateway National Recreation Area, New Jersey* (Denver: U.S. DOI, NPS, Denver Service Center, Aug. 1988), p. 2. Hereinafter *HRS, 1874- 1919*.

- Historic Architecture Program Library, Northeast Region, NPS, Lowell, MA
- United States Army records at the Aberdeen Proving Ground, Aberdeen, MD
- Olmsted Center for Landscape Preservation, Northeast Region, NPS, Brookline, MA
- New Jersey State Archives, Trenton, NJ
- Monmouth County Historical Association, Freehold, NJ

Research Findings

Review of the reports, photographs, maps, and drawings available in the Gateway NRA Museum Collection provided background for further research and physical investigation of the Officers Club. Extensive research was undertaken by Edwin C. Bearss in the 1980's during the preparation of several historic resource studies for the Sandy Hook Unit, Gateway NRA. Mr. Bearss' reports proved extremely useful in determining where to conduct further primary source research.

The National Archives and Records Administration proved most fruitful for primary source material. At National Archives Building, Washington, D.C., research in Record Group (RG) 156, "Records of the Office of the Chief of Ordnance," led to the discovery of the 1878 proposed plans for the Officers' Quarters, which were endorsed by Chief of Ordnance Brigadier General Stephen V. Benét. Further research within that same record group, both at the National Archives Building and the National Archives' Northeast Region repository in New York City, provided more detailed information regarding the ca.- 1905 addition to the Officers Club. Investigation of the records in RG 77, "Records of the Office of the Chief of Engineers," at National Archives, College Park, MD, produced textual records that included annual reports and maintenance records, as well as historic photographs. All of these records, combined with the existing reports for the Officers Club, led to a better understanding of the history and evolution of the building.

The initial physical investigation of the Officers Club posed some questions as to the configuration of the original structure. Upon further examination, it became clear from the extant building materials that the building had been altered a number of times during its association with both the Sandy Hook Proving Ground and Fort Hancock. The physical evidence on site was supported by the documentary evidence.

Significant discoveries included a better understanding of the original appearance of the building and the rear ell, as well as a clearer delineation of the later additions. In particular, it was found that the ca.- 1905 alterations resulted in a much larger addition to the rear ell than previously documented, and included the Colonial Revival- style Dining Room (Room 106). Research and investigation also revealed more information about some missing features and changes to the Officers Club during the period of significance for the district. The evolution of the Officers Club is further elucidated in this HSR.

The many names borne by the Officers Club over the years reflect the use of the building throughout its association with the U.S. Army. When first constructed, the building was referred to as the "quarters for the Ordnance Board," due to its function. It was also listed as the "Officers' Quarters" on early maps and correspondence. The building was called the "Brick

House” as early as 1898, a name which was commonly used through the 1930’s. In 1901 it was referenced as the “Officers’ Quarters and Mess.” The 1908 map of the Proving Ground (revised in 1918) lists the structure as “5. Officers’ Quarters (Brick House).” During its association with Fort Hancock, the building was officially designated “Officers Quarters – Brick House,” as well as “Building No. 114.” The official designation was changed in 1935 to “Officers Quarters and Officers Club,” which was shortened to the “Officers Club” soon thereafter. The Fort Hancock Officers’ Wives Club used the Officers Club during the 1960’s for meetings and receptions. Military personnel used the building through 1974, the year when most of Fort Hancock was transferred to the National Park Service. The Officers Club was occupied as a residence by park personnel from 1977 through 1981, when its use was discontinued.⁴ It is apparent that throughout its history, the Officers Club has served a prominent and important role in the vitality of Sandy Hook.

Recommended Treatment

Planning documents for the Gateway National Recreation Area state that the goal for structures within the Fort Hancock and the Sandy Hook Proving Ground Historic District, including the Officers Club, is rehabilitation. The proposed rehabilitation of the structures should conform to *The Secretary of the Interior’s Standards for the Treatment of Historic Properties*, which includes the *Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings*. The Secretary’s Standards define rehabilitation as:

the act or process of making possible a compatible use for a property through repair, alterations, and additions, while preserving those portions or features which convey its historical, cultural, or architectural values.⁵

The NPS has determined that the Fort Hancock and the Sandy Hook Proving Ground Historic District should emphasize the continuum of history throughout the period of significance, which is defined by the National Historic Landmarks nomination (in “Statement of Significance”) as 1895 to 1974.⁶

In its current configuration, the exterior of the Officers Club reflects the evolution of the building throughout its association with the military at Sandy Hook. Immediately recognizable is the original Second Empire structure and the grand nature of that period and style. The current structure, with its various additions, also communicates changes over time, which serves as a testament to the Officers Club and the military history of Sandy Hook.

The preservation of the character- defining features of the Officers Club is an important goal of any rehabilitation. The *Finding of No Significant Impact, Adaptive Use of Fort Hancock and the*

⁴ Interview with Thomas J. Hoffman, Park Historian, Sandy Hook Unit, Gateway NRA.

⁵ Kay D. Weeks and Anne E. Grimmer, *The Secretary of the Interior’s Standards for the Treatment of Historic Properties, with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings* (Washington, D.C.: U.S. DOI, NPS, 1995), p. 62.

⁶ Statement of Significance, National Historic Landmark Program website (<http://tps.cr.nps.gov/nhl/detail.cfm?ResourceId=1828&ResourceType=District>).

Sandy Hook Proving Ground Historic District (July 2003) for Sandy Hook/Gateway NRA states that the Officers Club is “unique among Fort Hancock’s historic buildings, in that it has grown and changed over time with additions that are not necessarily compatible with its Second Empire style.”⁷ Though not all of the additions to the building are compatible with the original design, the structure does represent the continuum of the military presence at Sandy Hook. Therefore, accretions to the building – including additions made circa 1905, circa 1941, and in 1943 – should be treated as character- defining. The rehabilitation of the Officers Club should include the retention of the alterations to the building throughout its association with the U.S. military presence at Sandy Hook. The preservation of the building’s character- defining features would be one way of furthering the goal of the Gateway NRA to interpret and present a continuum of history throughout the period of significance for the district.

The current plan to reuse the Officers Club for hospitality is in keeping with the plans for the historic district. As stipulated in the lease, any work on the building, including alterations, demolition, and additions, requires the approval of the National Park Service and must be reviewed for compliance with Section 106 of the National Historic Preservation Act. In addition, the existing structure, as well as all future work, should be thoroughly documented by written, photographic, and graphic means, according to NPS standards.

⁷ *Finding of No Significant Impact, Adaptive Use of Fort Hancock and the Sandy Hook Proving Ground Historic District* (U.S. DOI, NPS, Gateway NRA, Sandy Hook Unit, Monmouth County, New Jersey, July 2003), p. 3.

ADMINISTRATIVE DATA

Location of Site

Fort Hancock and the Sandy Hook Proving Ground are part of a NPS unit under the control of the Gateway National Recreation Area. The unit consists of approximately 2,044 acres in Monmouth County, Middletown, New Jersey, on a peninsula that begins east of the town of Highlands and extends north to the main entrance channel to outer New York Harbor. On October 27, 1972, President Nixon signed the legislation for Public Law 92- 592, which established the Gateway National Recreation Area. This law caused Fort Hancock (including the former proving ground) to be transferred from the Department of Defense to the Department of the Interior after the deactivation of the post in 1974.⁸ The Officers Club is located within what was historically the Sandy Hook Proving Ground, and which is currently the Fort Hancock and the Sandy Hook Proving Ground Historic District.

National Register of Historic Places

The Sandy Hook Proving Ground constitutes one portion of the Sandy Hook Unit, Gateway National Recreation Area. The 1976 National Register nomination form acknowledged that the Sandy Hook Proving Ground was a significant and contributing resource to the Fort Hancock and the Sandy Hook Proving Ground Historic District. When the district was listed on the National Register on April 24, 1980, the area was recognized for a period of significance spanning from 1859, when construction on the granite “Fort at Sandy Hook” was begun, through the 1960’s, when the Nike defense system became obsolete.

The Federal reservation at Sandy Hook, New Jersey, has played a double role in the United States military history, as the site of both the Army Ordnance Board’s Proving Ground from 1874 to 1919, and Fort Hancock, the chief unit in the defense of New York Harbor from the Spanish- American War through the Cold War.⁹

As the National Register nomination form points out, the buildings, batteries, radar sites, and missile installations exhibit an important piece of the districts history.

These structures reflect the history of the U.S. Army’s Ordnance Department Proving Ground and Fort Hancock Military Reservation, a vital defense installation for New York City from the Civil War through the 1950’s and 1960’s Cold War.¹⁰

⁸ Barry Sulam and John B. Marsh, *Historic Structure Report, Architectural Data Section (Volume IV), The Sandy Hook Proving Ground, 1874- 1919, Sandy Hook Unit, Gateway National Recreation Area, New Jersey* (Denver: U.S. DOI, NPS, Denver Service Center, Aug. 1988), p. 1.

⁹ Greenwood, “Statement of Significance,” item 8, p. 1.

¹⁰ Greenwood, “Description,” item 7, p. 1.

The National Park Service has thus determined that the period of significance for the Fort Hancock and the Sandy Hook Proving Ground Historic District will highlight the entire history of the district, as defined by the National Register of Historic Places.

National Historic Landmark

The Fort Hancock and the Sandy Hook Proving Ground Historic District was listed as a National Historic Landmark (NHL) on December 17, 1982. The NHL nomination chooses to acknowledge the history of Fort Hancock as the most significant period for Sandy Hook.

Fort Hancock and the Sandy Hook Proving Ground Historic District reflects the history of a vital defense guarding New York City and its harbor from 1895 to 1974. This landmark played a key role in the development of advanced weaponry and radar....¹¹

List of Classified Structures (LCS) Information

A majority of the structures at Gateway NRA are within the historic district. The LCS notes that the Officers Club is the oldest brick building on Sandy Hook peninsula. The building is situated facing east- northeast; for the purposes of this report, the front of the building will be called the east façade, which is consistent with previous reports.

The LCS file information for the Officers Club is as follows:

Preferred Structure Name: Sandy Hook Proving Ground- Brick Officers' Quarters 114
Other Structure Names: Brick House, Fort Hancock- Officers Club
Park Structure Number: SH- 114
LCS ID Number: 008505
National Register Date: 04/24/1980
National Register Reference Number: 80002505
National Historic Landmark Date: 12/17/1982
Significance Level: Contributing

Proposed Use

The 1979 General Management Plan (GMP) for Gateway NRA specifies a “rehabilitation zone” that includes the Sandy Hook Proving Ground and Fort Hancock. It further states that the area of the fort and proving ground, denoted as the Fort Hancock Gateway Village, should “retain the integrity of the historic scene,” with the goal of “adaptive use through rehabilitation of historic structures.” An amendment to the General Management Plan in 1990 (GMP- AMEND)

¹¹ Statement of Significance, National Historic Landmark Program website.

proposed that the NPS, through its Historic Leasing Program, enter into partnerships with lessees that would serve to preserve and maintain the historic structures through adaptive use. Under this arrangement the allowed uses would include educational facilities, research centers, conference centers, professional offices, restaurants, and overnight accommodations, among others.¹² In accordance with this proposal, Gateway NRA has signed a letter of intent and a lease agreement with Sandy Hook Partners LLC for the rehabilitation of 36 buildings at Fort Hancock, including the Officers Club, for a mixed use of education, hospitality, and professional offices.

The LCS record for the Officers Club states that it “must be preserved and maintained,” and that the ultimate treatment is rehabilitation, as identified in the GMP- AMEND. The lessee’s proposal for the building is adaptive use, which combines a restaurant, overnight accommodations, conference rooms, and exhibit space. This plan will preserve the Officers Club as a part of the historic district, as well as generate new uses for the building that will make the building a vital part of the Gateway Village.

Related Studies

Several publications identified in the Cultural Resources Management Bibliography (CRBIB) were consulted in the preparation of this report. Some of these publications provide more background information about the history of the Sandy Hook Proving Ground and Fort Hancock. Readers desiring a broader discussion of the military presence at Sandy Hook should consult the publications listed here.

Edwin C. Bearss, *Historic Resource Study, The Sandy Hook Proving Ground, 1874- 1919, Sandy Hook Unit, Gateway National Recreation Area, New Jersey* (Denver: U.S. Department of the Interior, National Park Service, September 1983)

Bearss, *Historic Resource Study, Fort Hancock, 1895- 1948, Gateway National Recreation Area, New York/New Jersey* (Denver: U.S. Department of the Interior, National Park Service, May 1981)

Environmental Assessment, Adaptive Use of Fort Hancock and the Sandy Hook Proving Ground Historic District (U.S. Department of the Interior, National Park Service, in association with Sandy Hook Partners LLC, February 2002, revised July 2003)

Finding of No Significant Impact, Adaptive Use of Fort Hancock and the Sandy Hook Proving Ground Historic District (U.S. Department of the Interior, National Park Service, Gateway National Recreation Area, Sandy Hook Unit, Monmouth County, New Jersey, July 2003)

¹²*Environmental Assessment, Adaptive Use of Fort Hancock and the Sandy Hook Proving Ground Historic District* (U.S. DOI, NPS, in association with Sandy Hook Partners LLC, February 2002, revised July 2003), p. 2.

General Management Plan Amendment: Development Concept Plan and Interpretation Prospectus: Sandy Hook Unit, Gateway National Recreation Area, New York/New Jersey (U.S. Department of the Interior, National Park Service, January 1990)

Richard E. Greenwood, National Register of Historic Places Inventory - Nomination Form, "Fort Hancock and the Sandy Hook Proving Ground Historic District," June 28, 1976

Richard E. Greenwood, National Register of Historic Places Inventory - Nomination Form, "Fort Hancock and the Sandy Hook Proving Ground Historic District," revised November 9, 1982

Historic Structure Assessment Report, Fort Hancock- Building 114, Officers Club, Gateway National Recreation Area, Sandy Hook Unit (Atlanta, GA: Center for Architectural Conservation, 1988- 1989)

Chandler McCoy, *Fort Hancock Rehabilitation Guidelines, Sandy Hook, New Jersey* (U.S. Department of the Interior, National Park Service, March 1999)

Barry Sulam and John B. Marsh, *Historic Structure Report, Architectural Data Section (Volume IV), The Sandy Hook Proving Ground, 1874- 1919, Sandy Hook Unit, Gateway National Recreation Area, New Jersey* (Denver: U.S. Department of the Interior, National Park Service, August 1988)

II. DEVELOPMENTAL HISTORY

HISTORICAL BACKGROUND AND CONTEXT

Sandy Hook

Sandy Hook is a peninsula of land extending from the confluence of the Shrewsbury River and Sandy Hook Bay, approximately 6½ miles northward to Lower New York Harbor (fig. 1). This spit of land is very close to the natural deep- water channel to the outer harbor of New York City, and its importance was recognized early on by maritime explorers and merchants. Ships attempting to sail into New York Harbor had to rely on the channel passing the tip of Sandy Hook. Henry Hudson was reported to have anchored off the shores of Sandy Hook during his initial explorations of the Hudson River in 1609. In 1680, the English Governor of New York, Richard Nichols, recommended the installation of a beacon and fortifications at Sandy Hook.¹ The dangers of the passage into Sandy Hook Bay led to numerous shipwrecks in the early 18th century. The losses irritated many New York merchants, who in 1761 petitioned the Colonial Assembly of New York to erect a lighthouse on Sandy Hook. The lighthouse at Sandy Hook was first lit in June 1764, and it remains the oldest functioning lighthouse in the United States (fig. 2).²

The ownership of eastern New Jersey during the colonial period was embroiled in land disputes. “Sandy Point” (later known as Sandy Hook) was included in the “Monmouth Patent” issued by Governor Richard Nicols in April 1665. He was apparently unaware that proprietorship of New Jersey had been granted to Sir George Carteret and Lord John Berkeley. The patent was contested when the appointee as Governor of East New Jersey, Sir Phillip Carteret, arrived in July 1665.³ One of the first owners of record for a large tract of land on Sandy Hook was Richard Hartshorne. Hartshorne’s heirs deeded the land on Sandy Hook to the United States in the early 19th century.⁴

During the 19th century Sandy Hook was home to activities of the U.S. Army, the U.S. Lighthouse Service, the U. S. Life- Saving Service, U.S. Army Corps of Engineers, the U.S. Army Ordnance Department, and the U. S. Army Corps of Artillery, as well as an office of the Western Union Telegraph Service.⁵ The 20th century saw continued use by the U.S. Army at Fort Hancock, as well as the arrival of the U.S. Army Signal Corps, the Women’s Auxiliary Army Corps (later the Women’s Army Corps) during World War II, the U.S. Coast Guard, and the U.S.

¹ Also spelled Nicolls. Naomi D. Kroll and Sharon K. Ofenstein, *Historic Structure Report, Building 25, Enlisted Men’s Barracks, Fort Hancock, New Jersey, Sandy Hook Unit, Gateway National Recreation Area* (Lowell, MA: U.S. DOI, NPS, NER Building Conservation Branch, February 2002), p. 17.

² Thomas J. Hoffman, *Sandy Hook Lighthouse* (Gateway NRA).

³ Edwin Salter and George C. Beekman, *Old Times in Old Monmouth County, NJ* (Freehold, NJ: James S. Yard, 1890).

⁴ “History of Sandy Hook Proving Ground, July 22, 1909”; Vol. 1, p. 1; General Records; SHPG, N.J., 1889- 1919; Entry 1537; RG 156; NARA – Northeast Region (NY).

⁵ Edwin C. Bearss, *Historic Resource Study, Fort Hancock, 1895- 1948, Gateway National Recreation Area, New Jersey* (Denver: U.S. DOI, NPS, May 1981), p. 14. Hereinafter *HRS, 1895- 1948*.

Army Air Defense Command during the Cold War. Currently the peninsula is occupied by the National Park Service (U.S. Department of the Interior) and the U.S. Coast Guard.

Military Occupation at Sandy Hook

Early Fortification

The description of the Sandy Hook from *Historical and Bibliographical Atlas of the New Jersey Coast* adds to the lore of the peninsula. In it the authors note that “the proximity of Sandy Hook to New York City, and its wild uninhabited state, with its easy accessibility and good and convenient harbor, made it a favorite rendezvous for refugees, outlaws and pirates during the Revolutionary War.”⁶ In 1776 British troops recognized the military advantage of Sandy Hook, and used it as a rendezvous point during the successful invasion and capture of New York City. The British built a stockade around the Sandy Hook lighthouse and fortified the area throughout most of the Revolution. The fortifications were purported to include a camp for Tory refugees that was known as Refugees Town.⁷

During the War of 1812, a wooden stockade fort called Fort Gates was built by American troops to protect New York City against another invasion by the British. The fort served its function and was abandoned at the end of the war. Following this successful defense of New York’s outer harbor, the U.S. government could no longer ignore the significance of the peninsula, and in 1817 it purchased the remainder of the land from the Hartshorne family.⁸

The history of military occupation continued at Sandy Hook with the construction of a large granite fort. Again spurred by the need to defend New York’s outer harbor, the U.S. Army Corps of Engineers began planning the granite fort in 1857, and in that same year built a wharf on the western shore of the hook to facilitate construction efforts (fig. 2).⁹ The Corps of Engineers also erected housing for personnel and other structures at Sandy Hook to support the construction of the “Fort at Sandy Hook,” thus establishing a Corps of Engineers presence in the area that would last into the 20th century. Ground was broken for the fort in 1859, and with the onset of the Civil War, troops were garrisoned there in 1863 to man the armaments and guard public property. Construction of the fort was terminated in 1868, however, due to new advances in rifled artillery that could obliterate a granite masonry fortress.¹⁰

⁶ Theodore F. Rose, H.C. Woolman, and T.T. Price, *Historical and Bibliographical Atlas of the New Jersey Coast* (Philadelphia, PA: Woolman & Rose, 1878), p. 18.

⁷ “History of Sandy Hook Proving Ground.”

⁸ Kroll and Ofenstein, p. 17.

⁹ Greenwood, item 7, p. 1.

¹⁰ Kroll and Ofenstein, p. 17.

Sandy Hook Proving Ground

After the Civil War, in an effort to keep abreast of the new technology and remain competitive with European powers, the Army's Ordnance Department took on the task of designing and testing rifled guns of increased size and power.

On June 6, 1872, President Ulysses S. Grant signed into law an act making available \$270,000 "for experiments and tests of heavy rifled ordnance"; provided "this appropriation shall be applied to at least three models of heavy ordnance to be designated by a board of officers."¹¹

In the following years the Ordnance Department proceeded with the conversion of conventional cannons to rifled artillery, as well as the development of new artillery.

The development of new ordnance highlighted the need for an adequate proving ground. A specially convened Board of Ordnance Officers, known as the Laidley Board, reported in 1874 that the proving ground should be installed in a level area with easy access

not traversed by "highways or extensive watercourses, uninhabited and sufficiently removed from any settlements to avoid any possible accident, and embrace an extension of land of seven to eight miles in length and from one-half to one mile in width."¹²

The Army's existing ground at Fort Monroe, VA, on Chesapeake Bay, was not sufficient for the requirements of the newly developed ordnance. In its search for a better site the board identified Squan Beach, New Jersey, as the recommended site, and Sandy Hook was suggested as an interim site prior to the acquisition of Squan Beach.¹³

Colonel Silas Crispin, Commander of the New York Ordnance Agency, provided estimates for the construction of the Sandy Hook Proving Ground to Brigadier General Stephen V. Benét, Chief of Ordnance. Brigadier General Benét submitted the estimates to Secretary of War William W. Belknap in August 1874, in a letter that stated:

Col. S. Crispin estimates of funds for erection of suitable temporary appointments for an experimental and trial ground for heavy ordnance at Sandy Hook, NJ. \$4000. and recommends that, if there is no objection by the Chief of Engineers, authority be given the Ord. Dept. to erect the same on that portion of the reservation, marked "C" on the enclosed drawing.¹⁴

¹¹ *HRS, 1874- 1919*, p. 6.

¹² *HRS, 1874- 1919*, p. 11.

¹³ *HRS, 1874- 1919*, pp. 9- 12.

¹⁴ Brigadier General Stephen V. Benét, Chief of Ordnance, to William W. Belknap, Secretary of War, Aug. 5, 1874, with response from Belknap to Benét, Aug. 7, 1874; Record 3605; Letters Received 1812-1894; General Records; Entry 21; RG 156; NAB.

The Secretary of War approved the installation, and construction began on the site in October of that year. The initial proving ground was to include “four wooden platforms, one proof butt, one bombproof, building for chronoscope, wires and other apparatus, [and] two wooden casements for covering guns” (fig. 3).¹⁵

The Sandy Hook Proving Ground received its first shipment of experimental ordnance by October 1874. These were 10- inch smoothbore Rodman guns converted into 8- inch rifled artillery. The first test of the Rodman guns was conducted on October 24, 1874, at Sandy Hook. This was the first in what would become numerous tests of not only the Rodman guns but other experimental ordnance. During the latter part of the 1870’s the proving ground performed trials and proofs of several models of breech- loading rifles and Gatling guns, as well as powders and projectiles. The Sandy Hook Proving Ground was also the facility for improving and testing the carriages that were necessary to support the guns.¹⁶ Experimentation with the various guns and carriages became an essential part of the nation’s defense.

The establishment of the proving ground and the increased activity there throughout the 1870’s made housing for necessary personnel an important matter. Since housing for the Ordnance personnel is not indicated in any records or maps that were reviewed from that period, it is presumed that they occupied some of the existing structures belonging to the Corps of Engineers. It is documented that in 1876 the Ordnance Department requested the use of Engineers barracks for temporary quarters, which led to the eventual construction of the “Officers’ Quarters” in 1878- 1879. Indeed, the Ordnance Department did utilize some of the Engineer buildings as barracks until a new barracks was built in 1909, and the old wooden structures were removed (figs. 4 - 5).¹⁷ These old barracks were located west of the new barracks (Building 102), along the western shoreline of Sandy Hook.

In 1886 the Endicott Board, headed by Secretary of War General William C. Endicott, reported on the deficiency of the nation’s coastal defenses. Though the recommendations of the board were never fully implemented, the report did impact activity at the Sandy Hook Proving Ground, beginning at the end of the 19th century and continuing into the 20th century. The additional appropriations for artillery led to an increase in testing at the proving ground,¹⁸ and the facilities there underwent significant improvements and expansion during the late 19th century.

The Endicott Report also led to the establishment of a number of coastal defense installations. The importance of Sandy Hook for the protection of New York’s outer harbor was again recognized by the construction of the nation’s first two concrete gun batteries there. Completed in 1895, Battery Potter – named for General Joseph Potter – was the first steam- powered hydraulic- lift gun battery (fig. 6). This innovation allowed the gun to be raised and lowered inside the protection of a concrete bunker, which in turn was encircled within an earthwork slope for protection and camouflage.¹⁹ The Sandy Hook Mortar Battery, the first of its kind built for American harbor defense, was completed in 1894. Mounting 16 mortars of 12- inch caliber, the battery could fire half- ton armor- piercing projectiles in high arcs that could smash through

¹⁵ *HRS, 1874- 1919*, p. 13.

¹⁶ *HRS, 1874- 1919*, pp. 24- 25.

¹⁷ Annual Report, 1909; Binder 6, 1909; Annual Reports, 1904- 1907 and 1909; General Records; SHPG, 1889- 1919; Entry 1527; RG 156; NARA – Northeast Region (NY). Report includes photographs.

¹⁸ *HRS, 1874- 1919*, pp. 81- 83.

¹⁹ Thomas J. Hoffman, *The Defenses of Sandy Hook* (Gateway NRA).

the decks of battleships and cruisers.²⁰ The creation of Battery Potter, the Sandy Hook Mortar Battery, and subsequent batteries at Sandy Hook marked an important stage in the development of coastal defenses.

The earliest batteries at Sandy Hook were manned after their completion by a combination of Ordnance and Engineer Corps personnel. However, responsibility for them passed to the U.S. Army Corps of Artillery in 1895 when Fort Hancock was established at Sandy Hook adjacent to the proving ground. Fort Hancock was operated by the Artillery Corps as a coastal- defense site defending New York Harbor through 1974.

On December 11, 1901, after more than a quarter of a century of active duty, the Sandy Hook Proving Ground was finally recognized as a permanent installation by the Ordnance Department. The Chief of Ordnance, General William Crozier, notified Captain Edwin B. Babbitt, Commander of the Proving Ground, of the change, and noted that all new construction and building improvements would be designed accordingly.²¹ Capt. Babbitt subsequently developed a master plan for Sandy Hook, which included the creation of “definite spheres of jurisdiction” among the various military departments represented in the area (fig. 7).²² His plan called for the division of the northern section of Sandy Hook into two sectors, and the further division of the Ordnance sector into two areas. His plan was approved by the Ordnance Board, but a specially formed Demarkation Board recommended against the creation of the proving ground as an independent post, citing that an interdependent relationship needed to exist between the proving ground and Fort Hancock. Captain Babbitt and his superiors argued against the Demarkation Board’s findings, and they finally prevailed after a long conflict. The Ordnance Department recommended boundaries dividing the jurisdiction of the northern end of Sandy Hook. The Secretary of War approved the establishment of the boundaries, and the Sandy Hook Proving Ground received permanent status in March 1903. Unfortunately Captain Babbitt himself was not present to witness the fruition of his plans: he had been succeeded as post commander by Major Charles S. Smith in November 1902.²³

From the first tests in 1874 until it was deactivated in 1919, the Sandy Hook Proving Ground remained an important site for the Ordnance Department’s proving of weaponry. Edwin C. Bearss summarizes the significance of the proving ground as follows:

All the experimental guns and carriages for seacoast defenses were tested at Sandy Hook. After a model had been accepted by the Ordnance Board and placed in production, all the guns and carriages manufactured by the Army Gun Factory, other arsenals, or private contractors were shipped to Sandy Hook to be proof fired before being sent to the site where they were to be emplaced. This practice continued for many years. All the big guns and mortars and their carriages mounted in the nation’s Endicott- and Taft- period coastal fortifications from the early 1890s through World War II were developed at Sandy Hook and many were proved there. The heavy and field artillery used in the United States Army in the Spanish- American War and World War I was tested at Sandy Hook, as were various types of Gatling guns and mitrailleuses. The Life- Saving Service’s Lyle gun was tested at the Proving Ground. Powders, both explosive and propellant, and fuses were tested.²⁴

²⁰ Information from Thomas J. Hoffman, Park Historian, Sandy Hook Unit, Gateway NRA.

²¹ *HRS, 1874- 1919*, pp. 188- 189.

²² *HRS, 1874- 1919*, p. 189.

²³ *HRS, 1874- 1919*, pp. 194- 203.

²⁴ *HRS, 1874- 1919*, p. 1.

*Fort Hancock*²⁵

The establishment of Fort Hancock, named in honor of Major General Winfield Scott Hancock, was a direct response to America's increased need for harbor defense installations. Although the order establishing Fort Hancock was issued in 1895, the first buildings were not ready for occupancy until August 1898 (fig. 8).²⁶ Nevertheless, the post's first garrison of U.S. Artillery Corps troops arrived in March of that year to man the gun batteries protecting New York Harbor. In addition, two battalions of the Third New Jersey Volunteer Infantry joined the Ordnance Department and the Corps of Engineers at Sandy Hook during the summer of 1898.²⁷

The completion of the Sandy Hook Mortar Battery in 1894 and Battery Potter in 1895 marked the first of many gun batteries constructed at Sandy Hook prior to World War I. During the period 1901- 1916, Fort Hancock was garrisoned by four to six companies of the U.S. Coast Artillery, whose job was the "care and use of the fixed and movable elements of land and coast fortifications, including the submarine mine and torpedo defenses."²⁸ In addition, the Coast Artillery and the National Guard held training, practice, drills, and exercises at the post.²⁹ Some 25 permanent buildings were added to the post during this period, as evidenced by period site plans and photographs (figs. 9- 10).

The number of troops assigned to Sandy Hook increased during World War I. In addition, Fort Hancock served as a training base for artillery units before they were sent to France.³⁰ This expansion of the forces at Fort Hancock prompted the construction of numerous temporary wooden structures to support the needs of the troops. The end of the war witnessed the deactivation of the Sandy Hook Proving Ground in 1919, as well as a dramatic reduction in the number of forces assigned to Fort Hancock and the demolition of the temporary structures.³¹

Activity at Fort Hancock continued at a slow pace. During the 1920's and 1930's the post was home to several Coast Artillery units, and it provided facilities and training for the National Guard, the Civilian Military Training Corps (CMTC), and the Army Reserve.³² As the technology of the artillery at the fort became obsolete and the guns lay in disuse, some of the batteries were dismantled and their emplacements converted to other uses. One such reuse was as a site for anti- aircraft guns, to combat the increased threat of aerial attacks.³³

²⁵ The section partially relies on research presented in Judith Q. Sullivan, *Building 32, Quartermaster's Storehouse, Fort Hancock, New Jersey, Historic Structure Report* (Lowell, MA: U.S. DOI, NPS, Historic Architecture Program, 2004), pp. 26- 30.

²⁶ Kroll and Ofenstein, p. 28.

²⁷ Information from Thomas J. Hoffman, Park Historian, Sandy Hook Unit, Gateway NRA.

²⁸ *HRS, 1895- 1948*, p. 176.

²⁹ *HRS, 1895- 1948*, p. 189.

³⁰ Edwin C. Bearss, NPS memorandum, Feb. 20, 1976, p. 6. NER Archives, Boston, MA.

³¹ Sullivan, p. 26.

³² Richard E. Greenwood, National Register of Historic Places Inventory - Nomination Form, "Fort Hancock and the Sandy Hook Proving Ground Historic District," 1976, revised November 9, 1982; item 8, p. 4.

³³ John A. Scott, *Fort Hancock Gatehouse, Gateway National Recreation Area, Sandy Hook, New Jersey, Historic Structure Report* (Lowell, MA: U.S. DOI, NPS, NER Historic Architecture Program, 2004), p. 12.

In 1937 Fort Hancock became the site for the testing and development by the U.S. Army Signal Corps of the country's first radar system. This began an increase in activity at Fort Hancock that continued through World War II. During that period Fort Hancock once again became headquarters for the harbor defenses of New York. It was the home of the 113th Regimental Combat Team, which was responsible for the protection of the Long Island and New Jersey shorelines against enemy attacks.³⁴ Fort Hancock also served as a training base and staging area for units being readied for service overseas.

The military personnel at Fort Hancock swelled once again. This led to the erection in 1942 - 1943 of more than 200 temporary structures, including barracks, mess halls, latrines, recreation halls, infirmaries, nurses' quarters, garages, and warehouses.³⁵ But as the tide of the war turned in favor of the Allied forces, the need for reinforcements was reduced and the urgency of the coastal defenses was no longer an immediate priority. The number and the strength of the units assigned to Fort Hancock was reduced, and during 1945- 1946 the post served as a reception center for troops returning from the European theater of operations.³⁶

In the post- World War II era, the once- mighty guns of Sandy Hook became obsolete. The development of the atomic bomb, missiles, and modern warfare led to the disarming of the batteries at Fort Hancock. Reductions in defense spending and the decline in use of the post prompted the deactivation of Fort Hancock in June 1950, leaving only the keepers of the Sandy Hook Lighthouse and the crew of the Sandy Hook Coast Guard Station.³⁷

Fort Hancock was again called into action in April 1951 to provide anti- aircraft defense for the New York City area during the Korean War.³⁸ However, usage of the post was brief, and it was again deactivated in May 1953.³⁹

The next phase of activity at Sandy Hook began with the development of the Nike missile systems in the 1950's. Beginning in 1954, the anti- aircraft guns at Sandy Hook were replaced by Nike- Ajax surface- to- air missiles. This eventually led to the reactivation of Fort Hancock in July 1956 to provide support for the newly installed missile systems.⁴⁰ The Nike- Ajax missiles started to be replaced in 1958 by the longer- range Nike- Hercules missiles, which had nuclear capabilities.

The Nike missile system was rendered obsolete by the introduction of the Intercontinental Ballistic Missile (ICBM), and the program at Fort Hancock was phased out of service in 1974.⁴¹

³⁴ Greenwood, item 8, p. 4.

³⁵ HRS, 1895- 1948, p. 598.

³⁶ Greenwood, item 8, p. 5.

³⁷ Edwin C. Bearss, *Historic Resource Study, Fort Hancock: 1948- 1974, Sandy Hook Unit, Gateway National Recreation Area, Monmouth County, New Jersey* (Denver: U.S. DOI, Nov. 1982) p. 18, and pp. 22- 23. Hereinafter HRS, 1948- 1974.

³⁸ HRS, 1948- 1974, p. 24.

³⁹ HRS, 1948- 1974, p. 29.

⁴⁰ HRS, 1948- 1974, p. 54.

⁴¹ Hoffman, *The Defenses of Sandy Hook*, p. 4.

In October 1972, when the Gateway National Recreation Area was created, the military presence at Fort Hancock consisted of:

- tactical positions for Nike missiles;
- family housing;
- a U.S. Army Reserve Center;
- the First U.S. Army Recreation Area; and
- the Fort Monmouth Officers Club beach.⁴²

Also present at Sandy Hook were the U.S. Coast Guard, the U.S. Navy Reserve, the Fort Hancock First Army Recreation Area, the U.S. Department of Commerce Marine Laboratory, and the U.S. Army Signal Corps' Electronics Support Command.⁴³

The closing of Fort Hancock was aptly summarized by Thomas Hoffman as follows:

Fort Hancock's long role of guarding the harbor ended on August 15, 1974. The Army formally deactivated the 16th Air Defense Artillery Group at Fort Hancock, and dedicated "Guardian Park" to commemorate the Nike Missile Air Defense Era. When Fort Hancock closed on December 31, 1974, Sandy Hook had witnessed the entire progression of fortifications and weapons used to defend an American Harbor.⁴⁴

On January 1, 1975, Fort Hancock was transferred to the Department of the Interior, ensuring the preservation of the site and the interpretation of this important part of American history.

⁴² *HRS, 1948- 1974*, p. 161.

⁴³ *HRS, 1948- 1974*, p. 161.

⁴⁴ Hoffman, *The Defenses of Sandy Hook*, p. 4.

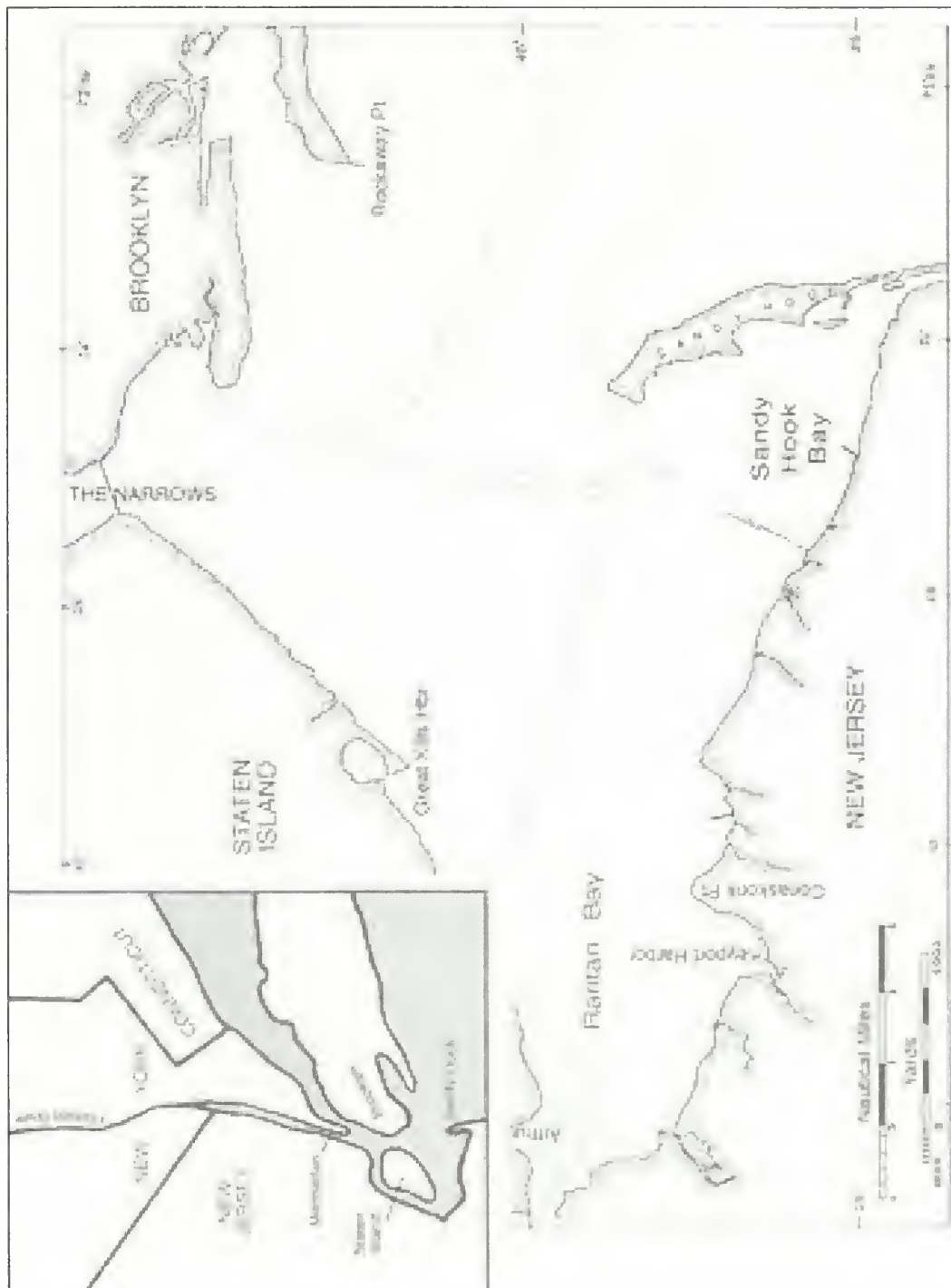


Figure 1. Lower New York Harbor, showing Sandy Hook, with inset of a portion of the Eastern Seaboard, 2004.

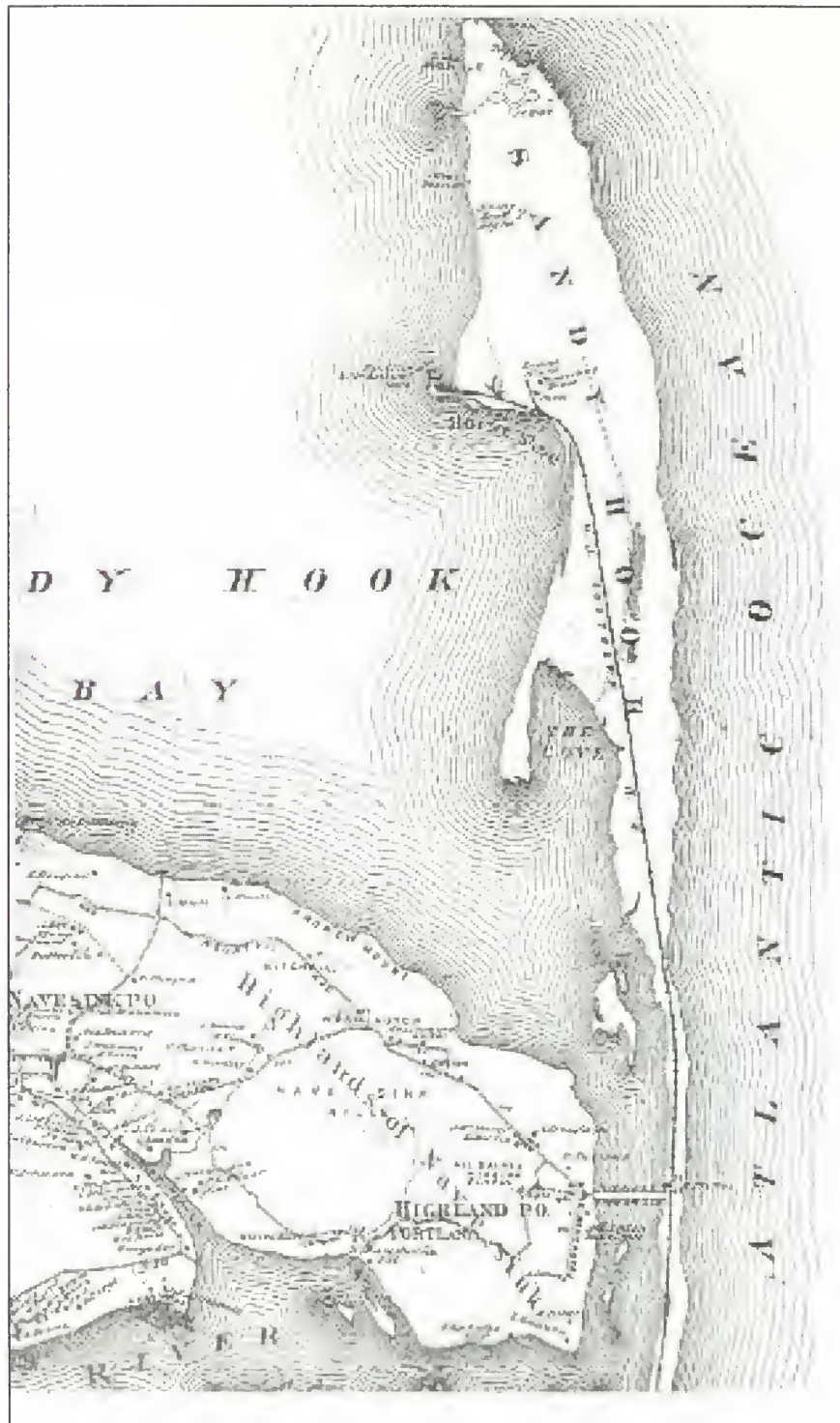


Figure 2. Map of Sandy Hook, New Jersey, showing location of lighthouse and fort, 1873.

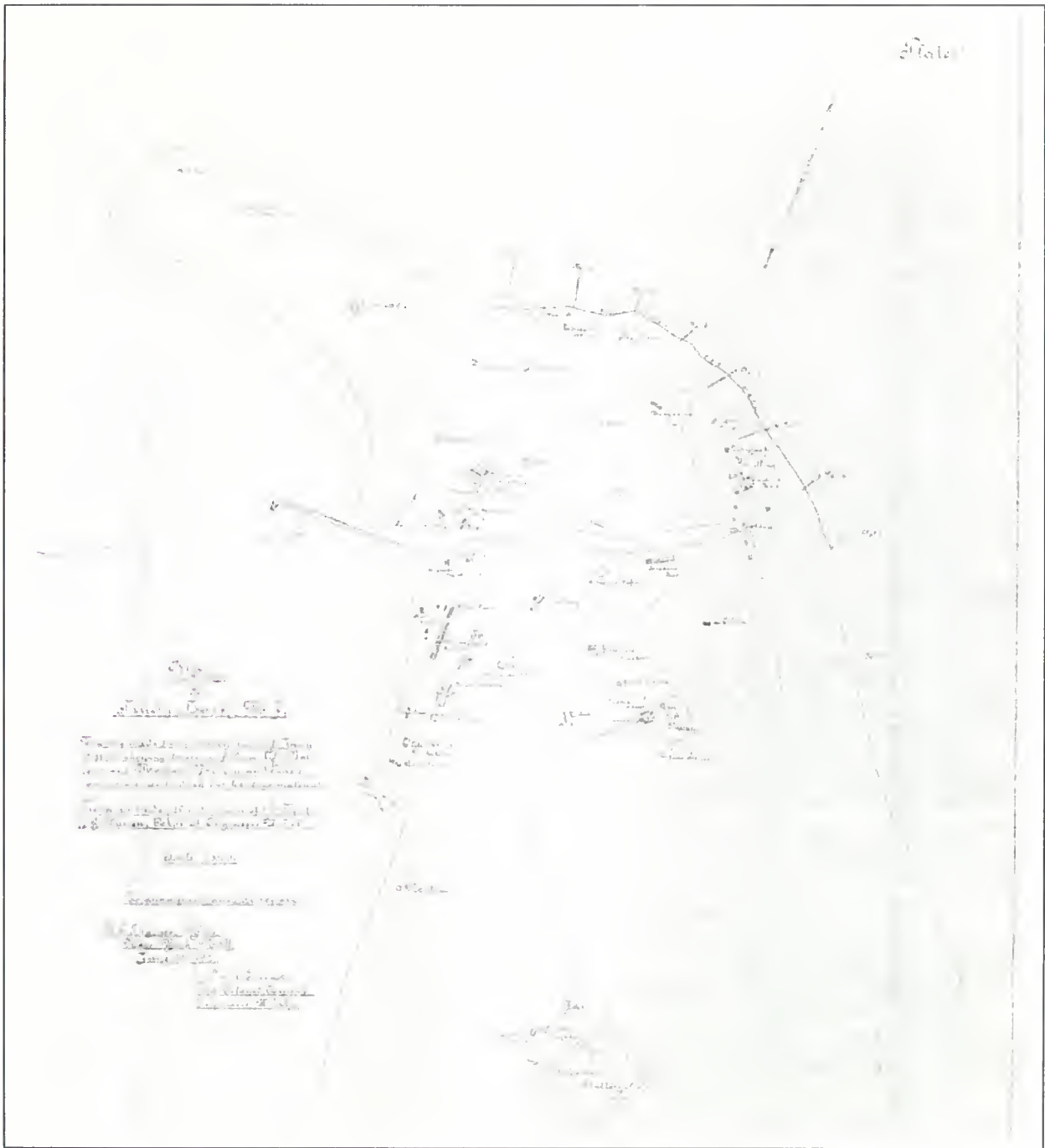


Figure 3. "Map of Sandy Hook, NJ, June 30, 1892," showing Sandy Hook Proving Ground structures and the first two batteries built at Sandy Hook.



Figure 4. Old barracks in front (west) of new barracks, Building 102, circa 1909.



Figure 5. Old barracks in front (west) of new barracks, Building 102, circa 1909.

GUN LIFT BATTERY No. 1

FOR
TWO 12-INCH RIFLED GUNS
AT

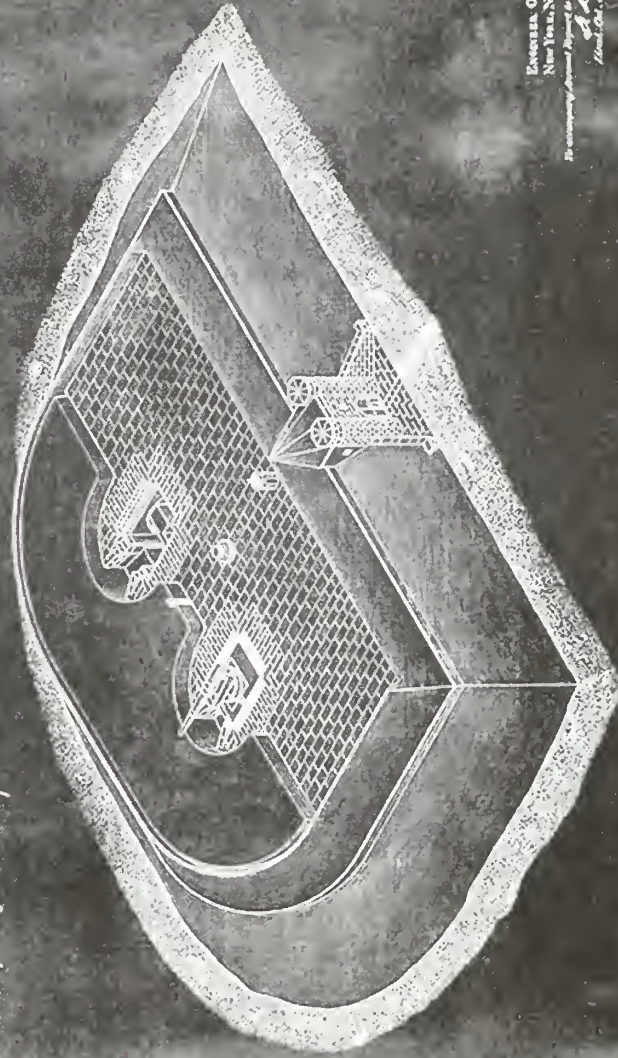
SANDY HOOK, N.J.

ISOMETRIC VIEW

Showing positions of guns, etc., as built.

by
LIEUT. COL. G. L. GILLESPIE,
CORPS OF ENGINEERS U.S.A.

Prepared by **J. B. Warren, Corps of Engineers, U.S.A.**



Scale: 1" = 20 FT.



Keegan's Office: U.S. Army,
New York, N.Y.; July 27, 1893.
For correspondence refer to the Chief Engineer, U.S.A.,
Sandy Hook, N.J.

325



Figure 6. "Gun Lift Battery No. 1" (Battery Potter), Isometric View, June 30, 1893.

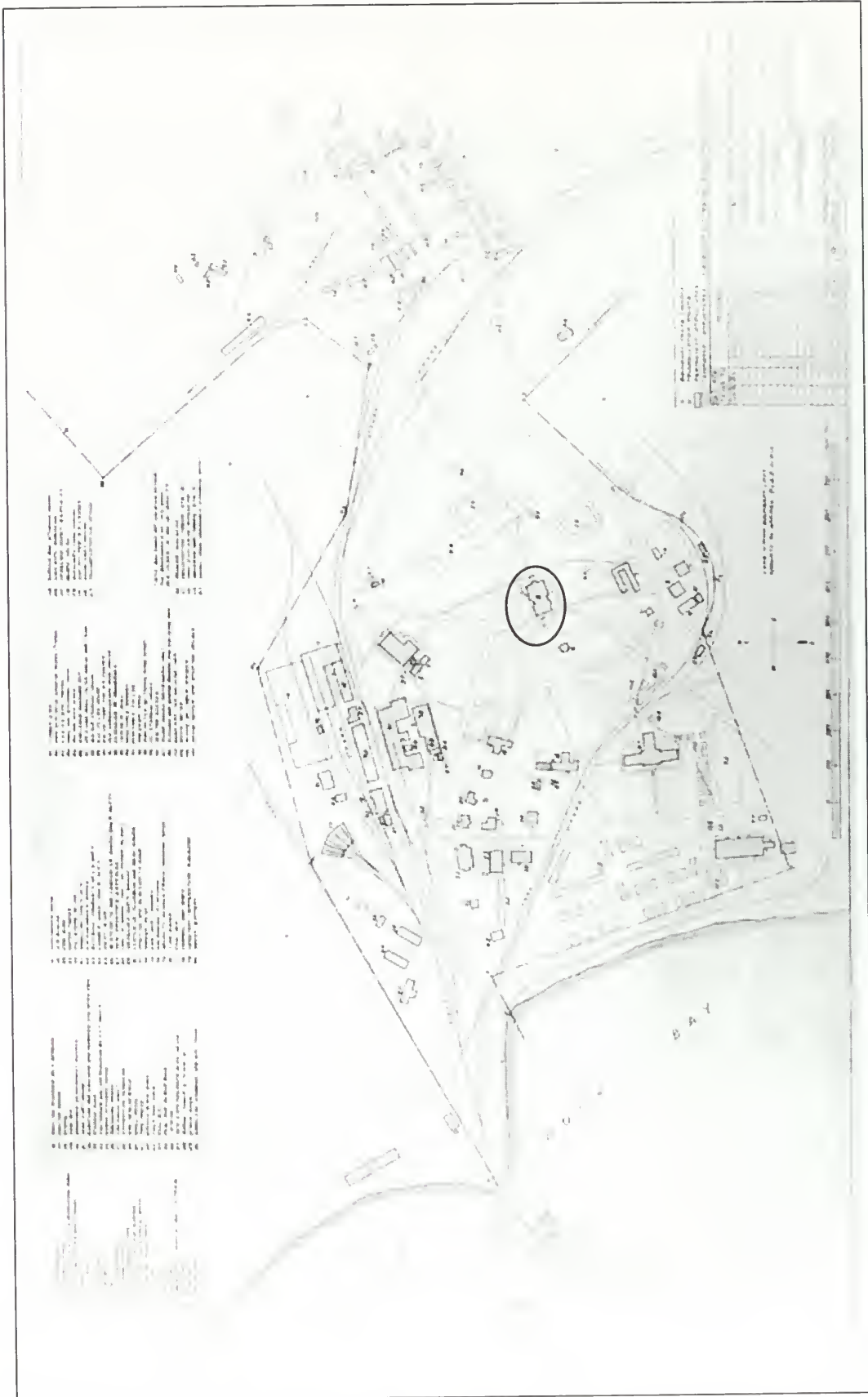


Figure 7. Map of Sandy Hook Proving Ground, January 23, 1908 (revised December 30, 1918), showing structures and boundary lines. Officers Club (Building 5) is indicated with the oval.

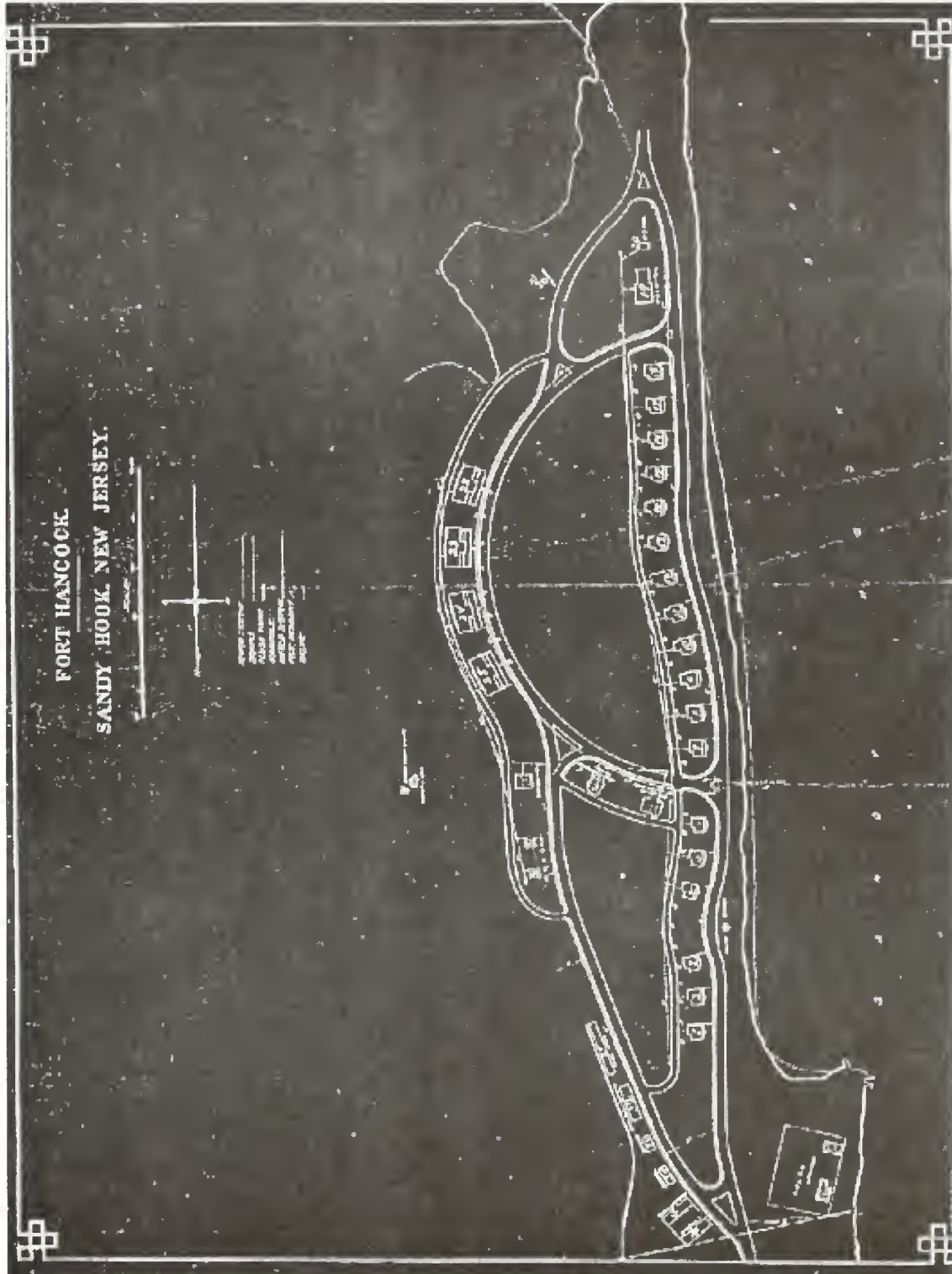


Figure 8. Map of Fort Hancock, circa 1900, showing the first 36 buildings constructed there.

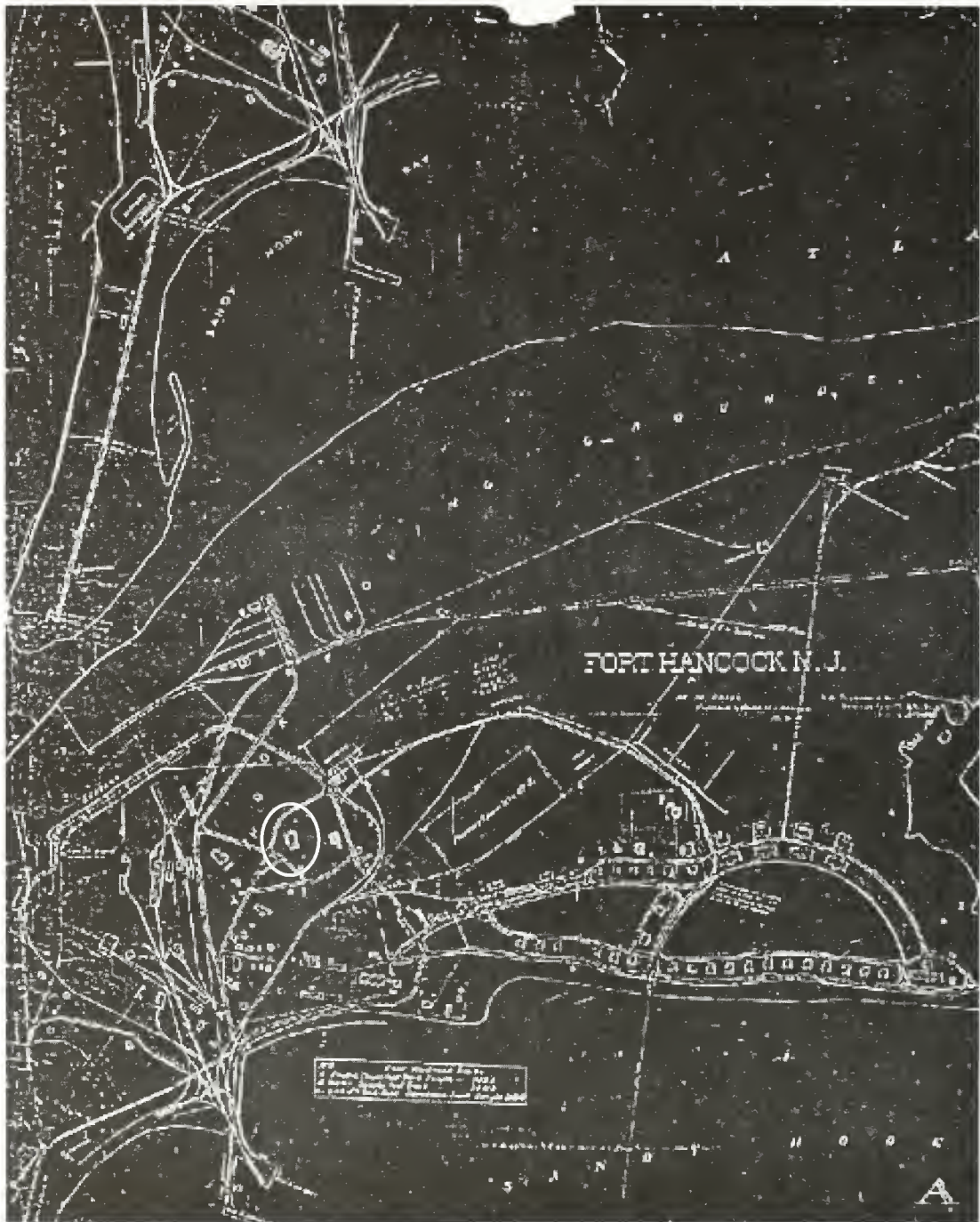


Figure 9. Map of Fort Hancock, March 21, 1908; Officers Club is indicated with a circle.



Figure 10. View of Fort Hancock from the Sandy Hook Light, looking west, circa 1911.

CHRONOLOGY OF DEVELOPMENT AND USE

Construction of the “Officers’ Quarters”

In 1876, Colonel Silas Crispin – Commander of the New York Ordnance Agency – notified his superiors of the need for additional housing for the personnel stationed at the Sandy Hook Proving Ground. Arrangements were made for the ordnance personnel to occupy buildings at Sandy Hook that the Corps of Engineers was not using. This was a temporary agreement that ended in 1878, when the engineers required the space for an increase in personnel at the site.⁴⁵

Congress approved the appropriation of \$12,500 for the construction of a single building to be “quarters and accommodations for the Ordnance Board at the Proving Ground, Sandy Hook, N.J.” in June 1878.⁴⁶ On July 3, 1878, Colonel Crispin sent a letter to Chief of Ordnance Brigadier General Stephen V. Benét, containing proposed plans for the building and a map showing the preferred site, 650 feet from the masonry fort (figs. 11- 16). General Benét approved the plans and site, and forwarded the correspondence to the Chief of Engineers, General Humphreys, asking if there was any objection to the site selected. Upon the request of his superiors, Colonel Henry W. Benham, Superintending Engineer at Sandy Hook, reviewed the site and recommended the building be positioned northwest of the site selected by Colonel Crispin (see notation on fig. 16).

When they evaluated the site, Colonel Benham told Crispin that, unfortunately, it was in the dead angle of the fort’s salient, and thus outside the direct line of fire from the masked wall. Even the fire that might be borne upon it from the pan coupe of the south front would be obstructed by a projected caponniere [sic]. Consequently, a direct approach on this salient by the foe would be masked by the proposed quarters, which were to be located on the highest ground in the area. Its cellar walls of stone would form a breast- height wall for a counter-battery directed against the weakest part of the fort.⁴⁷

However, Lt. Col. of Engineers H.G. Wright (in the absence of General Humphreys) supported the Ordnance Department’s site selection, and forwarded it to the Secretary of War with a recommendation that it be approved. He noted that:

Should the danger ever arise of this building being taken advantage of by an enemy as a cover for his approaches or the site of a battery as

⁴⁵ *HRS, 1874- 1919*, pp. 38- 39.

⁴⁶ Brigadier General Stephen V. Benét, Chief of Ordnance, from Col. Silas Crispin, July 3, 1878; Record 3605; Letters Received 1812- 1894; General Records; Entry 21, RG 156; NAB.

⁴⁷ *HRS, 1874- 1919*, p. 42.

suggested by Colonel Benham in his report, it could be readily destroyed by the garrison of the work.⁴⁸

The recommendation of the Chief of Engineers was approved by the Secretary of War on July 23, 1878.⁴⁹

The issue of building materials was a point of contention between Colonels Benham and Crispin. Colonel Crispin planned on constructing the “Officers’ Quarters” from red brick, which he claimed was more comfortable and provided more warmth than a frame structure.⁵⁰ In order to reduce the cost of the building, he wanted to use the granite left on site from the construction of the old fort for the foundation. Colonel Benham had already planned to use the granite to combat beach erosion. Furthermore, he objected to the use of brick, because he felt that the building could be used as cover by a potential enemy, and it would be difficult for the garrison to destroy the building in the event of such an attack.⁵¹ A compromise was reached: Crispin’s request to use the granite was withdrawn, but the building was constructed with brick.

With the approval of the Secretary of War, General Benét informed Colonel Crispin that he should proceed with the construction of the Officers Club and make every effort to have it under a roof by winter. But the work did not progress as rapidly as planned. The “Officers’ Quarters” were not occupied until June 1879, and even at that point there “remained a number of details still requiring attention.”⁵² The earliest known photograph of the Officers Club (ca. 1879, figs. 17- 18) documents the original appearance of the building minus the piazza that would later wrap around four sides of the main block of the building. The absence of the piazza may be evidence of the slow progress made in the construction of the building. However, once completed, the building assumed a prominent role in the Sandy Hook community. Its importance was readily identifiable from its location – on the highest point of the peninsula – and its permanent construction materials – red brick, with brownstone trim and a slate roof.

⁴⁸ Brigadier General Stephen V. Benét, Chief of Ordnance, from Lt. Col. H.G. Wright, July 23, 1878; Record 3605; Letters Received 1812- 1894; General Records; Entry 21, RG 156; NAB.

⁴⁹ Benét from Wright, July 23, 1878.

⁵⁰ *HRS, 1874- 1919*, p. 42.

⁵¹ *HRS, 1874- 1919*, p. 42.

⁵² *HRS, 1874- 1919*, pp. 43- 44.



Figure 11. "Officers' Quarters," proposed front elevation plan, July 1878.

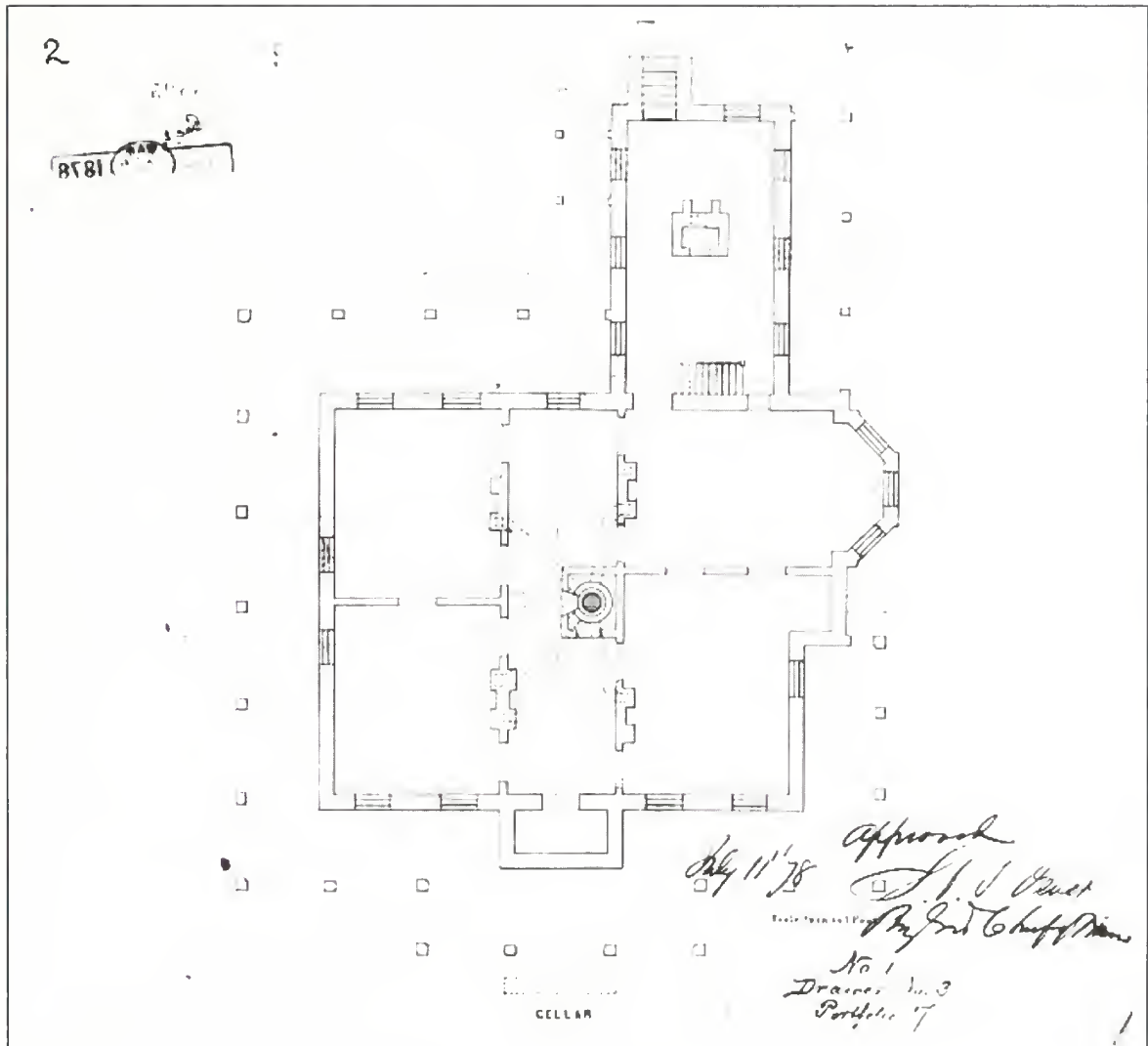


Figure 12. "Officers' Quarters," proposed cellar plan, July 1878.

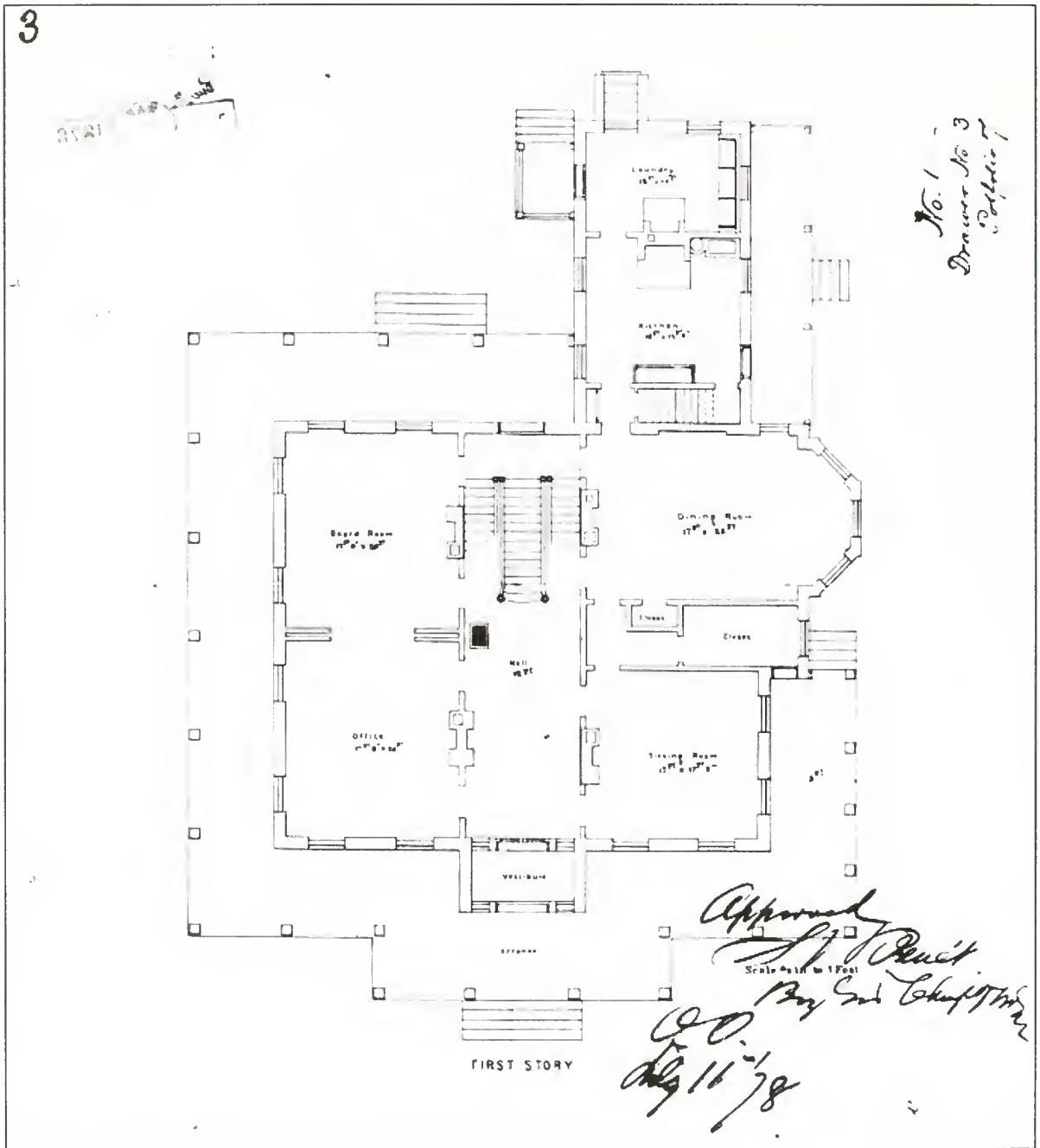


Figure 13. "Officers' Quarters," proposed first-story plan, July 1878.

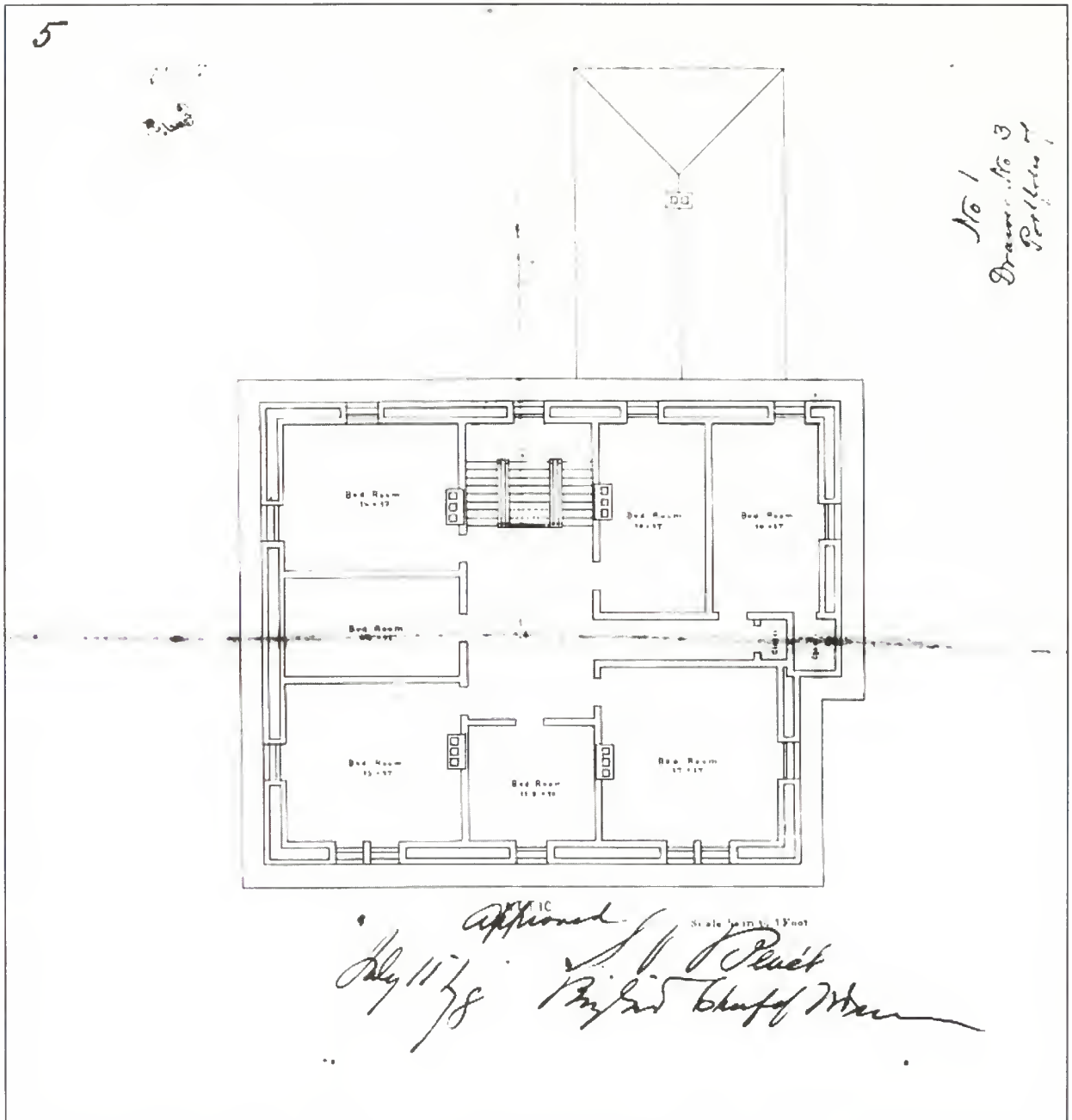


Figure 15. "Officers' Quarters," proposed attic plan, July 1878.

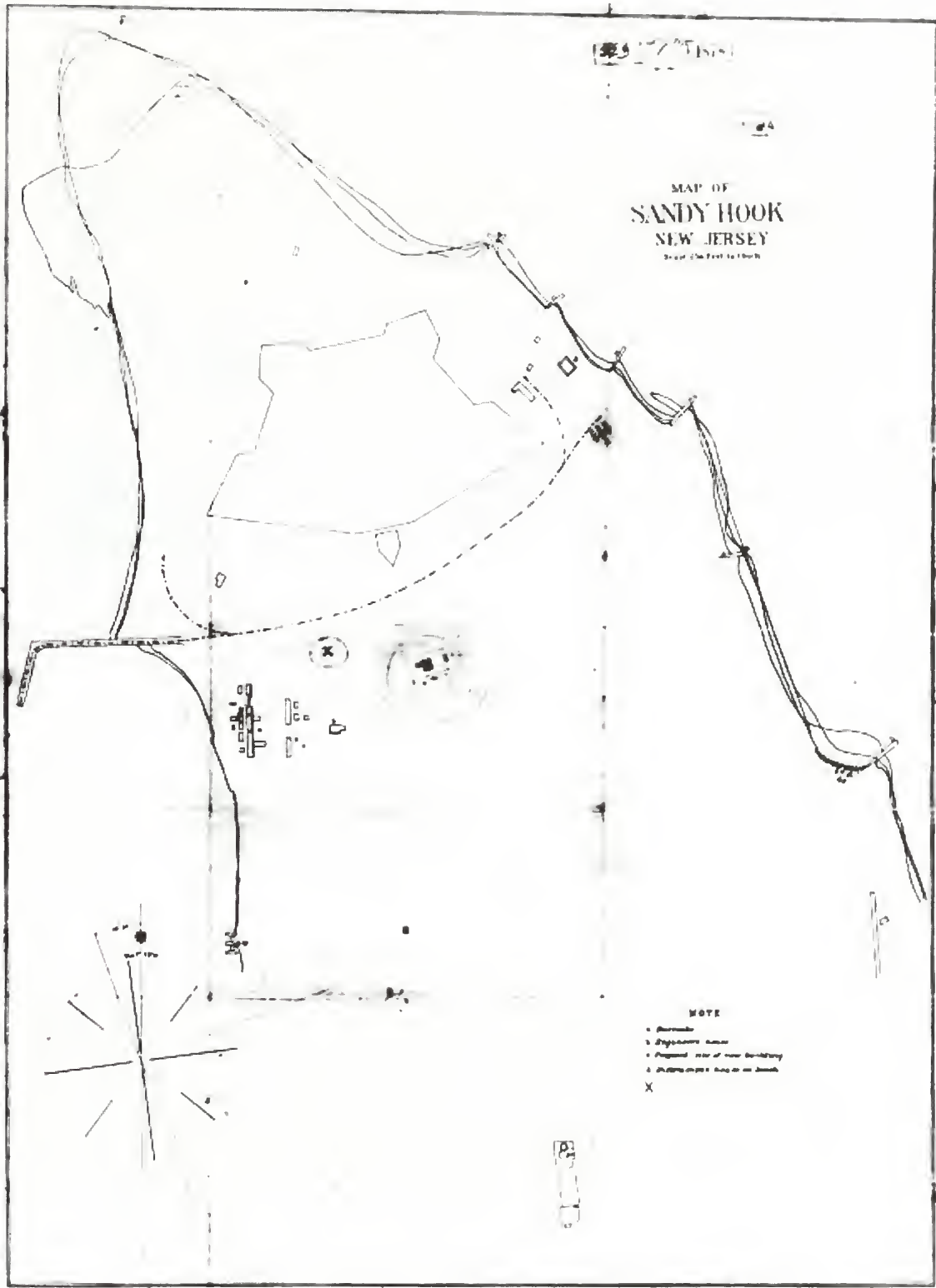


Figure 16. Map of Sandy Hook, 1878, showing location of the “Officers’ Quarters,” with alternate “position preferred by Col. Benham” marked with an X.



Figure 17. The granite fort at Sandy Hook, with the Officers Club in the background, circa 1879.



Figure 18. Detail of the Officers Club, north and east elevations; note the absence of the piazza.

Original Appearance

Throughout this section, references to “plans” or “drawings” indicate the proposed plans (figs. 11- 15). Existing plans of the Officers Club, with the 1959 room designations,⁵³ as well as room numbers and window numbers, are included for reference in Appendix A of this report. In this section and the following sections, the 1959 room names will be used for purposes of consistency (Appendix A and figs. 73- 74).

The author relied on the proposed plans for the “Officer’s Quarters” for the overall intent of the original design, for the general organization of the interior spaces, and as confirmation of pieces of physical evidence. Physical and documentary evidence was used to corroborate the original appearance. In particular, a ca.- 1900 photograph of the east/front elevation (fig. 19) provided the earliest detailed view of the Officers Club.

Research revealed that the building was not constructed exactly as depicted in the proposed plans, but that the main intent of the design was realized, along with the general room plan and period details shown on the plans. A jog in the north elevation was eliminated, probably because it would have complicated the construction of the walls and the roof. Also, the rear ell was extended by one room, most likely to provide more room for the servants.

Exterior Elements

Size

The brick structure consisted of a two- and- one- half story main block measuring approximately 50 feet 7 inches wide by 45 feet 9 inches deep, and a two- story rear ell measuring approximately 18 feet 4 inches wide by 41 feet 6 inches deep. A one- story brick entry vestibule was attached to the front of the building, measuring 13 feet wide by 6 feet 3 inches deep.

Style

Colonel Crispin’s description of the “Officers’ Quarters” stated that “The structure is proposed to be of brick, with a Mansard attic, and piazzas, as shown in the drawings.”⁵⁴ In accordance with the proposed plans, the “Officers’ Quarters” was built in the Second Empire style, which was a popular type of Victorian- era architecture. Its defining feature was the mansard roof, which is a double- pitched hip roof. The lower section is a steeply pitched roof, which is more

⁵³ The plans of the Officers Club prepared in 1959 are the most recent documents depicting the room layout of the first and second stories of the building. The room designations used in the 1959 plans are used throughout this report for consistency and clarity. However, it has been noted that some of the room names and uses changed during the later years of the U.S. Army’s occupancy of the building. These name and use changes are discussed in the section “Alterations.”

⁵⁴ Brigadier General Stephen V. Benét, Chief of Ordnance, from Col. Silas Crispin, July 3, 1878; Record 3605; General Records, Letters Received 1812- 1894; Entry 21, RG 156; NAB.

of an extension of the exterior walls, and the upper section is a shallow-pitched hip roof. This particular roof style was named for 17th-century French architect François Mansart, and was popularized during France's Second Empire period and the reign of Napoleon III.⁵⁵ However, as was typical of the period, the building exhibited a combination of various Victorian influences.

In its original design and construction, the east/front façade of the building displayed a symmetrical five-bay pattern, which is illustrated in the plans (fig. 11), as well as in a ca.- 1900 photograph of the building (fig. 19). The symmetry was carried up through the dormers in the mansard roof. The center dormer contained a single window; on either side of it was a larger dormer with paired windows. The façade's piazza reiterated the rhythm, by having a projecting section and entry stairway at the center. The hierarchy of the façade would have marked this as the main entrance to this stately building.

Foundation and Walls

As noted previously, the original planning for the Officers Club called for the use of some of the rough granite blocks already on site. The engineers had other plans for the granite, and on this point the Chief of Ordnance conceded: "Stone for the foundation, in view of the position taken by Colonel Benham, would be provided from the appropriation for the quarters."⁵⁶ As built, the exterior walls of the Officers Club, from the foundation to the attic level, were of red brick with brownstone trim at the doorway and window openings. The walls were five wythes (brick widths) thick at the basement level, four wythes thick at the first level, and three wythes thick at the second and attic levels. The bricks were typically laid up in a common bond pattern of seven stretcher courses and one header course. The mortar joints were approximately an eighth of an inch wide and tooled; the mortar appears to have been a sand/lime mortar. (Mortar analysis was not performed as part of this report.) A brownstone water table, dressed with a top beveled edge, extended around the exterior of the building.

Porches

The earliest photograph of the Officers Club, dated ca. 1879, shows it without a piazza on the east/front elevation (figs. 17 - 18). This was possibly one of the unfinished items at the time of occupancy. However, the proposed plan, building design, and proportions leave little doubt that the piazza was part of the original intent (fig. 11). The plan of the structure illustrates a piazza wrapping around all four sides of the main block, and smaller porches on the rear ell (fig. 13). Early maps of Sandy Hook illustrate the "footprint" of the Officers Club with a porch extending along the entire south side of the rear ell (figs. 20- 21). These same maps also indicate that a porch was constructed on the north side of the rear ell.

⁵⁵ Virginia and Lee McAlester, *A Field Guide to American Houses* (New York: Alfred A. Knopf Publishing, 1984), p. 242.

⁵⁶ *HRS, 1874- 1919*, p. 43.

Portions of the main block's piazza are extant on the east elevation, and there is ample documentation of its configuration during the 20th century. However, on-site evidence does not convey the exact configuration of the porches on the rear ell, which were removed during later alterations.

Paint samples from the piazza elements have a similar stratigraphy to samples taken from the original window openings. Based on this physical evidence and the documentary evidence, it is apparent that the porches were completed soon after the occupancy of the Officers Club in 1879.

As planned, the piazza was one story high. It began on the west elevation, at the rear ell, and extended continuously across the south and east elevations, and along the north elevation to the bay window on this elevation. It was 9 feet wide and covered approximately 1,336 square feet. On the east elevation the piazza projected out, echoing the projection of the vestibule and delineating the front entry. The projection was fronted by a flight of steps, which constituted the primary access to the piazza. Additional sets of steps were located at the northwest end of the piazza near the bay window, and on the west side of the piazza.

The piazza was a wood-framed structure supported on brick piers set every 9 feet. Positioned above the piers were column bases that in turn supported square Doric columns extending to the cornice level. The edges of the columns were chamfered, with "lamb's-tongue" stops. The columns were capped with Doric capitals. Above the column capitals, scroll brackets supported the cornice (fig. 22). These brackets were 14 inches high, 27 inches wide, and 3 inches deep, with a combination of ovolo, cyma, and quarter-round moldings typical of the Victorian era.

The drawing of the proposed "Front Elevation" shows diagonal lattice between the brick piers and no balustrade. The photograph from ca. 1900 (fig. 19) depicts the porch with no lattice and no balustrade. Paint evidence indicates that the existing latticework and balustrade were later additions.

The ceiling of the porch was tongue-and-groove beaded boards. A section of the ceiling at the front entry was recessed (fig. 23). It is not known why the porch was constructed in this manner. This feature does further delineate the entrance, and it is possible that the ceiling was so constructed to accommodate the high lintel of the entry doorway.

The cornice of the porch was detailed with 4-inch-wide brackets set 13 ¼ inches apart. The brackets were elliptical ovolo moldings combined with a small cavetto at the top and a bevel at the bottom (fig. 22). The cornice brackets at each column were 5 ¼ inches wide and further detailed with fillet moldings at the edges.

Doorways and Windows

The placement of doorway and window openings in the building figures prominently in the Victorian design. This is illustrated in the drawing of the "Front Elevation" (fig. 11). Though the doorway and window details were not executed exactly as drawn, and the placement of some openings deviates from the proposed plan, the overall intent for the façade was implemented. Many of the building's original openings are extant and continue to convey the intent of the original design, and they also provide evidence of original details and finishes.

The five-bay pattern of the east façade of the Officers Club was defined by the fenestration. The primary rooms on the first story (Rooms 103 and 108) were furnished with large windows that extended from the piazza's floor to ceiling. This admitted more light into those east- and south-facing rooms, and also gave weight to the design of the façade. Other window openings throughout the building contained conventionally sized double-hung sashes. The fenestration on the other elevations was less regimented and more dictated by the interior spaces.

The windows at the basement level were single casement windows hinged at the top to open into the basement. Each sash measured $39\frac{1}{2}$ inches wide by $20\frac{1}{2}$ inches high and was divided into three lights. The basement windows each had a wooden header measuring 4 by 14 inches, faced with a 4- by 6- inch brownstone lintel. The window sill was a 2- by 14- inch wooden member faced with a 2- by 6- inch brownstone sill. The lintels of the basement windows were set flush with the foundation brick, and the sills extended 2 inches beyond the wall; both were unadorned.

The cellar plan of the Officers Club placed the bulkhead on the west elevation of the rear ell. It is evident that the current bulkhead doorway is the original one, based on its brickwork and the construction of its header and lintel. The bulkhead doorway was a utilitarian opening 4 feet 4 inches wide, with a tongue- and- groove, beaded- board door housed within a simple casing. The doorway was framed with a 4- by 14- inch wooden header and a 4- by 6- inch brownstone lintel. The lintel was tooled to a smooth finish and was flush with the exterior brickwork.

The center bay of the east/front façade featured a projecting entry vestibule that identified the main entrance to the building. The doorway here was an inviting set of double doors with a brownstone lintel and sill (fig. 24). The lintel was constructed with shallow brackets at either end, and was dressed with beveled outside edges, a chamfered lower edge, and a shallow cyma profile on the brackets of the lintel. Each door had eight lights in the upper half and one small wooden panel below. These were framed by decorative molding. A transom light extended above the double doors. The entry was surrounded with a plain wood casing and flanked by sidelights.

In plan, the trim elements of the first- and second- story windows were plain, capped elements. However, they received a more decorative design as built. The windows were faced with brownstone lintels and sills, similar to the front entry (fig. 25). The lintels protruded from the masonry wall $1\frac{1}{2}$ inches, the outside edges were beveled, the lower edge was chamfered, and the ears of the lintel had a shallow cyma profile. The brownstone sills had a shallow pitch, but were otherwise unadorned. The horns of the brownstone sills extended $1\frac{1}{2}$ inches beyond the rough opening.

The first- story windows that opened into the primary rooms were large openings with brownstone headers and sills. These openings measured 44 inches wide by 120 inches high, and had double- hung, four- over- four sashes. The window lights measured $17\frac{1}{4}$ inches wide by $26\frac{3}{8}$ inches high. The muntins were 1 inch wide by $1\frac{1}{4}$ inches deep and had a slightly curved profile.

As part of the original design and construction, the main block of the building had a one- story bay window on the north elevation (fig. 26). The bay window had angled sides; its three windows contained double- hung, two- over- two sashes measuring $42\frac{1}{4}$ inches wide by 94

inches high. The brownstone lintels and sills of the bay window displayed the same detailing as other windows on the building.

The typical window openings at the second- story level measured 44 inches wide by 82 inches high and had double- hung, one- over- one sashes (fig. 25). The second story also featured some atypical openings. Based on examination of the earliest photographs, the center bay of the front elevation was an elongated opening that contained double- hung sashes and a smaller two- light sash above (fig. 19). Tall window openings were also constructed on the north elevation above the bay window. In this location the sashes were paired to create a larger opening. This configuration is evident in both the plans and the early photograph (figs. 13, 18, and 27).

Narrower windows 32 inches wide (W116 and W210) were used on both the first and second stories at the northwest corner of the main block near its junction with the rear ell. These held double- hung, one- over- one sashes with brownstone lintels and sills.

The second story of the west elevation of the main block was designed with two windows: one centered in the wall of the southwest bedroom (Room 215), and a wide window at the landing of the main stairway to the second story (fig. 14). Two apparently original windows are extant in this elevation today: one at the extreme south end of the elevation (W223), and the narrow northwest- corner window just described (W210). The offset location of the southwest window suggests that Room 215 may have had two windows in this wall prior to the enlargement of the ell ca. 1905. This arrangement that would have mirrored that of the east elevation, but it cannot be confirmed without further destructive investigation. The interior casing of the original landing window appears to be intact, but nothing else of that window is visible.

At the attic level, the east façade had five windows similar to the stories below, but they were grouped into three dormers: a center dormer with one window was flanked by two dormers with paired windows. This arrangement was echoed on the west elevation, contrary to the proposed attic plan (fig. 15). The north and south elevations each had three dormers, rather than the two shown on the proposed attic plan. These were symmetrically placed and had a single window each.

All of the dormer windows in the mansard roof were framed in wood. All window openings had a segmentally arch head (fig. 28). The dormer casings were detailed with an applied fillet molding, chamfering on the outer and inner edges and on the segmental arch of the window opening, and they were flared at the base. Many of these details matched the proposed plans, but the flared bases were less elaborate than planned. The typical dormer cornice had an arch in the center, and the arched crown over the double window was extenuated and segmental in shape.

The typical opening of the single dormers was $38\frac{3}{4}$ inches wide by $66\frac{3}{4}$ inches high. The paired windows were set within the same casing and separated by a mullion. Overall the double- window opening measured 81 inches wide by $66\frac{3}{4}$ inches high, and the individual openings were $32\frac{1}{2}$ inches wide by $62\frac{1}{4}$ inches high. All windows at this level had double- hung, one- over- one sashes. The top rail of the top sash was segmentally arched to match the window opening (fig. 29).

On the proposed plan for the rear ell, the fenestration was regular and placed primarily to serve the function of the interior spaces. As previously explained, early photographs and physical investigation prove that the ell was built longer than planned. Photographs verify that the second story of the ell had four openings on the north elevation and two openings on the west elevation (fig. 27). No such documentation was found for the windows of the first story of the ell. However, extant windows W117 and W123 appear to be original. Based on an investigation of W117 and the photographs, the original window openings on the first story of the rear ell appear to have held double- hung, two- over- two sashes; those on the second story had double- hung, four- over- four sashes.

The proposed plans for the Officers Club showed entrances on both the north and south elevations of the rear ell. The south- elevation opening is now the location of an interior doorway. Examination of extant framing in the basement and alterations in the foundation suggests that a feature formerly projected from the building at this point, but was later removed and infilled with loose bricks (figs. 30- 31). Paint evidence, which indicates that the current doorway to the rear ell was a later alteration, supports the existence of the earlier opening on the south elevation. Evidence of the north- elevation exterior doorway was removed during alterations.

Roofs

The main roof of the Officers Club was the defining feature of the structure's Second Empire style, and made it unique among the buildings at Sandy Hook. As previously discussed, the roof was pierced with dormer windows. In the proposed plans the roof was shown topped by decorative iron cresting. No evidence of this feature was discovered on site, nor does it appear in archival photographs.

The lower slope of the mansard roof was covered with gray slates. The slates were scallop-shaped and set in a fish- scale pattern, approximately 6 inches to the weather. The hips of the mansard were finished with boards.

Metal roofing material covered the low- pitched upper hip roof of the mansard. Previous reports documented this as a flat- seam metal roof, and maintenance records also referred to it as a metal roof, which was consistent with other roofs on the building.⁵⁷

The mansard roof was constructed with two wooden cornices, a lower and an upper. The lower cornice was constructed with a typically deep overhang at the eave. Both the lower and upper cornice incorporated an integral gutter system. The lower cornice molding used built- up elliptical designs and was supported by heavy brackets projecting from the frieze (fig. 32). The brackets were 10 inches wide and carved with elliptical ovolo, cyma, and quarter- round designs to imitate Italianate details. Adding to the classical vocabulary of the cornice were dentil blocks placed between the brackets. The upper cornice was a wide feature, measuring approximately 2 feet high. It was also constructed with a number of moldings joined together to form the crown of the mansard roof.

⁵⁷ C. Thomas Ballos, *Completion Report, Emergency Stabilization of Historic Fort Hancock, Gateway National Recreation Area, Sandy Hook Unit* (U.S. DOI, NPS, North Atlantic Regional Office, Building Conservation Branch, 1993), p. 15.

The roofs of the dormers were also covered with flat- seam metal pans (fig. 33). They were constructed with a complex ridge/hip/valley combination, which allowed water to shed around the arched crown.

The main roof of the Officers Club was pierced by four red- brick chimneys. Early photographs indicate that the chimneys were corbelled at the top, which was typical for the period.

The profile of a roof hatch on the upper hip roof is visible in the earliest photograph of the building. This may have been the outline of an original skylight that would have illuminated both the attic hallway and the second- story hallway. The roof currently has two skylights that protrude from the roof, but which are roofed over. It is possible that both were part of the original structure: on- site examination could not confirm the installation date of the skylights.

The rear ell was originally two stories high with a shallow- pitched hip roof. The roof was covered with metal and would have most likely used the same materials as those extant on the main roof. The roof configuration is evident in early photographs and in the proposed plan of the attic level (figs. 15, 18, and 27). A red- brick chimney extended up through the second story and the center ridge of the ell's hip roof. It serviced the cooking hearth.

Paint evidence demonstrates that the existing cornice of the rear ell is not original. Upon close examination of the earliest photograph, one can observe small brackets below the cornice of the original hip roof. This roof would have also incorporated an integral gutter system.

The roof of the piazza was a low- pitched metal roof supported by a traditional framing system. Photographic documentation during the 1991 building stabilization demonstrates original construction techniques. The rafter system utilized dimensional lumber and was decked with tongue- and- groove fir boards (fig. 34). The rafter ends were extended with notched boards that supported the integral gutter and cornice (fig. 35). The roof covering was flat- seamed metal. The metal roofing material was bent upward at the wall of the building and then tucked into the brick, forming an integral flashing system.⁵⁸

Finishes

The earliest photograph of the Officers Club from ca. 1879 (fig. 18) depicts the building with light- colored window trim and dark- colored cornice trim (Appendix C). Paint analysis indicates that the window trim was painted off- white paint and the cornice brown. As previously discussed, the ca.- 1879 photograph appears to have been taken prior to the completion of the building. It is possible that the paints were intended as primers, but the paint evidence suggests that they were left exposed for some time before the second paint scheme.

A more detailed photograph of the Officers Club (figs. 19 and 36) from ca. 1900 and the ca.- 1895 photograph taken during the construction of Battery Potter (fig. 37) depict a polychrome paint scheme for the structure. In those photographs, the exterior brick was unpainted, and the window trim and cornice details are painted a dark color. The ca.- 1900 photograph of the east façade shows that the columns, column bases, and column brackets were finished with a lighter color, which was also evident on a portion of a column visible in the ca.- 1895 photograph. Paint

⁵⁸ Ballos, pp. 19- 20.

analysis indicates that the period trim color was a red- brown, and that the accent color applied to the column elements was a golden- tan during that period (Appendix C). As documented by the photographs, this paint scheme was on the Officers Club from ca. 1890 through ca. 1900.

Structural Elements

Bearing Walls

The exterior brick bearing walls of the Officers Club began at the foundation level and extended up to the attic level to support the roof structure. The foundation walls were 20 inches thick and set on rough granite footings. At the first story the walls were 17 inches thick and were then stepped back by one brick wythe at the second story (fig. 38). At the attic level of the main block, the bearing wall formed a knee wall that carried the plate for the roof. Exterior openings in the bearing walls were constructed with segmental relieving arches (fig. 39). The two- story rear ell was similarly constructed, with exterior bearing walls supporting the hipped roof structure.

The main block of the building had two interior bearing walls constructed with red brick. These walls were 12 inches thick and extended from the basement level up through the attic level, forming the east- west center hallway. Interior openings in the bearing walls at the basement level were headed with solid beams measuring $9\frac{3}{4}$ inches by $11\frac{1}{2}$ inches. Also at the basement level were interior brick partition walls. These were 12 inches thick and supported the wooden interior partitions at the first, second, and attic levels of the building.

Structural Framing

At the first, second, and attic levels of the Officers Club the floors were framed with vertically sawn floor joists measuring 3 by 10 inches, which spanned from the exterior bearing walls to the interior bearing walls. The framing members were set in pockets in the masonry walls (fig. 38). The four chimney bays of the main block were constructed with 4- by 10- inch framing. As part of the original construction, the joist framing was strengthened with 2- by 4- inch bridging fastened with cut nails.

The wall- framing studs at all levels were vertically sawn sticks measuring $2\frac{1}{2}$ by $3\frac{3}{4}$ inches, spaced roughly 12 inches on center.

The structural framing of the window openings consisted of interior wooden headers that supported the relieving arches and were faced with brownstone lintels. The interior structural sills were also wood and faced with brownstone exterior sills, as described previously.

Roof Framing

The double- pitched mansard roof of the Officers Club was framed with a combination of framing members. The lower pitch of the roof was set on a 3- by 12- inch plate attached to the

top of the brick bearing wall. It was framed with 4- by 4- inch hip rafters, and alternating 4- by 6- inch and 2½- by 3¾- inch jack rafters (fig. 40). All rafters sat directly on the plate and were beveled at a slight angle. A 4- by 6- inch upper plate formed the juncture between the lower and upper hips. The upper hip was constructed with 4- by 6- inch hip rafters and 3- by 6- inch jack rafters. The rafters were beveled and extended slightly beyond the upper plate to support the upper cornice of the mansard roof. The stud framing for the attic level was let into the upper plate with mortise and tenon joinery (fig. 41). The dormers of the mansard roof were framed with wood structural members measuring 4 ¼ by 6 ½ inches.

Interior Elements

Basement

In the basement of the Officers Club the two interior brick bearing walls were 7 feet 6 inches high; they formed an east- west center corridor that was used as a utility room (fig. 12). The basement was further divided by interior masonry walls, three wythes thick, that supported the structure above. The foundations for the vestibule and the bay window on the north elevation were separate areas connected to the main basement by openings in the walls. The brick walls at this level were left exposed.

The basement of the rear ell was connected to the main block by an opening in the west exterior bearing wall. The ell basement was rectangular in plan and interrupted only by the chimney base for the kitchen fireplace.

Based on the floor extant in Room 008, all basement floors were probably paved with pieces of brick. The basement ceilings were unfinished and consisted of exposed framing. Framing details were previously described in the “Structural Elements” section of this report.

Physical analysis of the existing finishes in the basement revealed no visible accumulation of dirt between the substrate and the first finish. Further testing determined that the earliest finish was a lime/whitewash. This evidence suggests that the brick walls and exposed framing were whitewashed soon after the original construction.

The exterior openings at this level were described in the “Exterior Elements” section. The interior openings were situated to facilitate access between the partitioned areas (fig. 12). These openings were headed with substantial timbers but not furnished with doors.

The stairway from the basement to the first story was located in the rear ell. The only surviving evidence of the stairway is the framing. Based on that evidence, it appears that this was the location of the original and sole interior basement stairway.

In the basement the four brick chimneys of the main block were supported by vaulted bases. These chimney bases were integral to the interior bearing walls. The base of the kitchen chimney has been altered, but the construction technique – along with photographs and proposed plans – indicate that the extant chimney was part of the original building.

First Story

Plan

The plan for the first story of the Officers Club included a center hallway defined by the interior east- west bearing walls (figs. 13 and 73, and Appendix A, fig. 89). Projecting from the east end of the hallway was the entry vestibule. North of the hallway were a “Sitting Room” at the front of the building and a “Dining Room” behind it. These were separated by closets (later altered to bathrooms).⁵⁹ As proposed, the area south of the hallway contained two rooms, an “Office” in the southeast corner and a “Board Room” in the southwest corner.

The plan of the rooms north of the center hallway is relatively intact. The Sitting Room became the Ladies’ Lounge (Room 103), a primary room in the northeast corner of the building. The Dining Room, which contained the three- sided bay window and had direct access to the rear ell and kitchen area, eventually became the Men’s Lounge (Room 104). As planned, each of these rooms was accessed from the central hallway by two doorways, one on either side of a fireplace on the interior bearing wall.

There was no evidence that the rooms south of the hallway were constructed as planned. Investigation of the physical evidence indicates that it is more likely that this was built as one large room. The double doorway from the hallway has the same casing as other original doorways on the first story. Observation of the construction of the doorway suggests that it was neither rebuilt nor constructed with reused materials. In addition, the paint evidence on the casing of the double doorway is similar to that of other casings in the room, as well as the baseboard (Appendix C). The location of the double doorway would not have allowed for a partition in the Lounge (Room 108). Furthermore, there is no physical evidence of an original partition. An existing doorway in the southwest corner of the hallway (Room 102) was originally an entry to the Lounge (Room 108). Evidence of other doorways from the hallway (Room 102) to the Lounge (Room 108) was not detectable visually.

The rear ell of the Officers Club was one room wide and extended west from the main block in a “shotgun” fashion. In the proposed plan the rear ell was two rooms deep, but it was actually built as three rooms deep. The middle room had a cooking hearth and would have been a kitchen (Room 105). The kitchen was separated from the east room in the ell (Room 105a) by a stairway to the second story. Room 105a was probably originally a pantry; it had a doorway to the original dining room (now the Men’s Lounge, Room 104), and was historically used as a pantry. The doorway between the pantry and the dining room was designed as a conventional-sized doorway. Though no longer extant, this doorway – which provided the only access between the main block and the rear ell – was most likely constructed as planned.

The ell room farthest to the west (Room 105b) was planned as a laundry room, but no evidence of that earlier use remains. The construction of the Laundry Building (Building 113) in 1905 does suggest that that function may have moved from the Officers Club to the ancillary building at that time (see the subsequent discussion “Ancillary Structures”).

⁵⁹ Park staff recalls that the Men’s Lounge was switched to Room 103 and the Ladies Lounge to Room 104 sometime after plans of the building were prepared in 1959 and before the NPS took over in 1974. For the purpose of this report, the nomenclature used in the 1959 plans will be used throughout.

Floors

Some of the floors of the Officers Club were parquetry, which is an ornamental inlay pattern of closely fitted pieces of wood, typically using two or more colors or tones.⁶⁰ The extant floor in the Ladies' Lounge (Room 103) was typical for the period of construction, and was most likely original to the room. Historic photographs from the 1940's of the Men's Lounge (Room 104) show a floor with a similar pattern (fig. 42). Though no longer extant, this may have been an original parquetry floor. Based on this evidence and other extant examples at the second and attic levels, it appears that this type of floor was used in some of the first- story rooms.

A brief description of work scheduled for the Officers Club in 1884 mentions repainting the floors of "uncarpeted" first- story rooms, which indicates that some rooms were carpeted at the time.⁶¹ This work occurred only five years after the building's completion; it is unlikely that the flooring in the Officers Club would have been replaced so soon, nor is there any documentation of such changes. Therefore, it appears that some of the first- story rooms were carpeted when the building was first occupied.

Walls and Ceilings

The interior framing of the Officers Club was furred out with sawn wood lath 1 ½ inches wide, which was evident in several rooms. The wall and ceiling lath was plastered in a traditional three- coat system. At the juncture of the wall and ceiling was a plaster cornice that was run in place.

Doorways and Windows

Most of the interior doorways were single doorways 3 feet 4 inches wide by 9 feet 5 inches high (fig. 43). The doorway to the vestibule was a double doorway with a pair of doors, a transom, and sidelights. The transom was a single light. The sidelights were also single lights, with a recessed wood panel below. The centered doorway to the Lounge (Room 108) was also a double doorway with a pair of doors. The doorway casings at this level were composite moldings that combined cyma, quarter round, and ovolo profiles. The corners of the casings were constructed with corner blocks. The original finish on the door surrounds was a dark resinous layer, probably shellac.

The windows have been described previously as exterior elements. The window surrounds employed the same details as the doorway casings, and were originally finished with the same dark resinous layer.

Stairways

The stairway from the first story to the second story was located in the center of the main hallway (fig. 13). This was a double- return stairway that led to a landing and continued to the second- story hallway by way of two side flights of stairs. The first two steps of the stairway were curved, and the rest of the steps had 7 ½- inch risers and 12- inch treads. The treads and

⁶⁰ Cyril M. Harris, *American Architecture an Illustrated Encyclopedia* (New York: W.W. Norton & Company, Inc., 1998) p. 241.

⁶¹ *HRS, 1874- 1919*, p. 67.

risers were covered with wood strips to carry the parquetry flooring pattern to the next story (fig. 44). The balusters were turned in a classical form. The newel posts appear to have been replaced (see “Current Physical Description”). The handrail of the balustrade had a wide molded profile. The fascia board encircling the stairwell opening at second-story level was detailed with rectangular molded panels. The elements of the stairway were finished with a resin similar to other woodwork on the first story.

A stairway to the second story of the rear ell was located in the kitchen (Room 105). As previously discussed, the rear ell was constructed with three rooms, rather than the two rooms shown in the proposed drawings. The physical evidence suggests that the staircase from the first story to the second story was constructed above the basement stairway, as depicted in the 1959 floor plan (fig. 73). Thus, the staircase was situated between the former pantry (Room 105a) and the kitchen.

Fireplaces

The proposed plan for the first story of the Officers Club depicts five fireplaces in the main block and two in the rear ell. Judging from the construction of the chimney bases and the framing in the basement, the main block was constructed with the fireplaces as planned. Only three of the original fireplaces remain in the main block: one in the Ladies’ Lounge (Room 103) and two in the Lounge (Room 108). One fireplace also remains in the kitchen (Room 105) in the rear ell. Other original fireplaces were removed during alterations.

The fireplace in the Ladies’ Lounge (Room 103) had a cast-iron fireback set in a slate surround (fig. 45). The fireback was inscribed by the manufacture as follows: “W. JACKSON & SON, 166 BROADWAY, 246 FRONT ST, NEW YORK, NY.” W. Jackson & Son was established in New York City in 1827, and W.H. Jackson was given a patent for a cast-iron ornamental fireback on July 27, 1869. It appears that the same W. Jackson provided the cast-iron back for the fireplace in the Officers Club. The fireplace had a decorative wooden mantelpiece that consisted of pilasters supporting an entablature and mantel shelf. The surround was detailed with carved floral and shell designs, and was finished with a resinous coating matching other woodwork.

Surviving evidence indicates that all the woodwork on the first story was resin-coated, probably shellac (Appendix C). Wall and ceiling coverings and/or finishes were difficult to ascertain due to the lack of remaining scraps.

Second Story

Plan

The east-west interior bearing walls of the main block extended through the second story, maintaining a center corridor flanked by rooms to the north and south. As planned and constructed, there were five “Bed Rooms” at this level of the main block (figs. 14, 74, and Appendix A, fig. 90). All of the bedrooms opened off the center hallway. Adjoining closets separated the bedrooms on both sides of the hallway.

The rear ell was built with three bedrooms. These were servant's quarters and, according to documentation, were initially unheated spaces. Originally there was no doorway between the main block of the building and the rear ell at the second- story level. The ell was accessed only by a service stairway that ran from the middle bedroom down to the first- story kitchen area.⁶²

Floors

The floors in the hallway provide a good example of how other floors in the building may have originally looked. The main area of the floor is laid in a parquet pattern, which is bordered by parquetry in a Greek fretwork design (fig. 47). The parquet floor is also extant on the intermediate stairway landing to the second story. In this latter case, the border had parallel inlays of different colored woods.

Walls and Ceilings

The walls and ceilings were furred out with sawn wood lath and coated with plaster. A plaster cornice was run at the transition between the walls and the ceilings (fig. 46). Original wall finishes could not be determined from the extant evidence. However, the hallway ceiling is intact; the earliest surviving paint layer was off- white, but it is unclear what period this represents.

Doorways and Windows

Two surviving early casings were found on the second story of the main block. Both of these casings had the same profile as those on the first story. One was located at the intermediate stairway landing to the second story, and surrounded what was originally a large window opening on the west elevation. (The opening was later converted to a doorway to the rear ell; see "Alterations"). That casing was originally finished with a resinous coat similar to the first- story doorway casings. The other casing surrounded the doorway to Room 215. It was originally painted: the first layer of paint was an off- white primer, followed by a golden- tan finish color.

Stairways

The two short flights of steps of the double- return stairway led from the intermediate landing to the center hallway. The second- story hallway also had a central double- return stairway that led to the attic level. The risers and treads of this stairway were detailed with parquetry, which continued the decorative theme of the parquetry flooring up to the attic.

Fireplaces

In plan the second story had four fireplaces. They were located in each of the large bedrooms, directly above the first- story fireplaces. There is no extant evidence of these fireplaces.

⁶² HRS, 1874- 1919, p. 186.

Attic Level

The attic was planned with seven bedrooms to accommodate Ordnance personnel (fig. 15). The 1938 fire and subsequent remodeling have altered some of the building materials, but records and physical evidence have survived to help to interpret some original details.

Records document that in the early 20th century (prior to the 1938 fire) the main block of the attic had five bedrooms. The existing physical evidence indicates that the framing in this part of the attic was not substantially altered after the 1938 fire. Though the partition walls are covered with metal lath and plaster, it seems likely that the current partitions in the main block are similar to the original configuration (Appendix A, fig. 91). Therefore, it is likely that the attic was constructed with five bedrooms, probably with some closets between the rooms, similar to the arrangement on the second story.

The double- return stairway from the second story was located in the center hallway, and the rooms opened off of the hallway. The walls and ceilings originally would have been finished with wood lath and plaster, similar to those elements on the lower levels of the building. This was evident from the plaster burns (marks) on the exposed framing. Also extant was the parquetry floor in the hallway, which has a mosaic wood border.

Utility Systems

The proposed plan for the Officers Club included a hot- air furnace, which was to be installed in the center corridor of the basement. The typical hot- air furnace for that period would have been coal- fired, with air ducts leading to floor grates and/or vents in the chimney mass, as illustrated in the plan (fig. 12). The system is no longer extant, but the first- story floor contains framing that suggests vents for a hot- air heating system were part of the original construction. The materials used in framing the floor vents appears to be similar to other period framing materials, including the use of cut nails as fasteners.

On the first and second stories, evidence of the original utilities has either been removed or was covered during later alterations. The floor framing does indicate that there were vents with floor grates on the first story, and the plan shows vents for distributing heat from the chimney mass, but there was no extant evidence of chimney vents. The attic level was apparently unheated when the building was first occupied.⁶³

The first use of electric light in the Officers Club was well- documented in annual reports for the post (see the section “Alterations”); it did not occur until eight years after construction. Other buildings on the post used oil lamps and lanterns, which may have been the original means of lighting the Officers Club. It is also possible that the building employed a system of piped gas for lighting, but no evidence was found for such a system.

⁶³ *HRS, 1874- 1919*, p. 186.



Figure 19. Officers Club, east/front facade, ca. 1900.

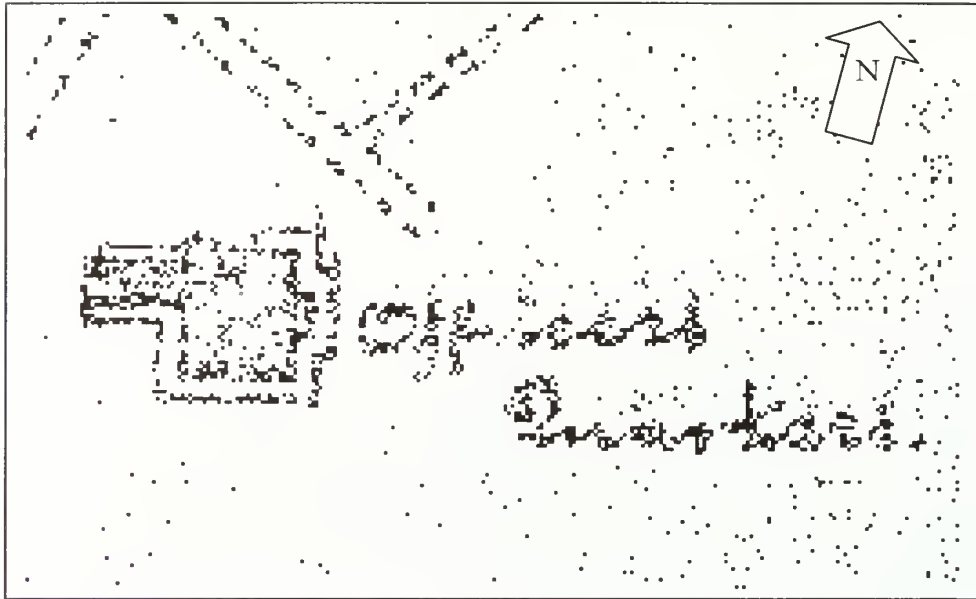


Figure 20. "Officers Quarters," 1892. Note the delineation of porches.

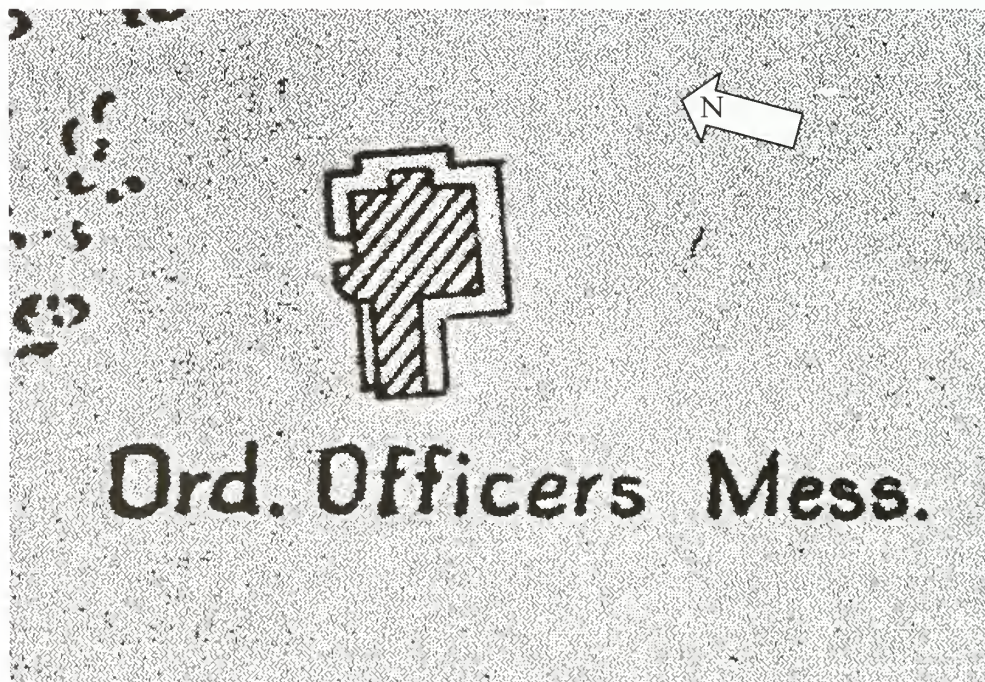


Figure 21. "Ordnance Officers Mess," 1901. Note the delineation of porches.



Figure 22. Officers Club, north elevation, piazza brackets, 2005.



Figure 23. Officers Club, east façade , piazza ceiling, 2005.



Figure 24. Officers Club, east façade, showing front entrance, ca. 1900.



Figure 25. Officers Club, east façade, second story, showing typical window elements, ca. 1900.



Figure 26. Officers Club, north elevation, bay window, 2005.



Figure 27. Officers Club, showing window openings, ca. 1904.



Figure 28. Officers Club, east elevation of mansard roof, showing dormer with paired windows, 2005.



Figure 29. Officers Club, interior side of dormer sashes with arched top rail, 2005.



Figure 30. Officers Club, basement of rear ell, south wall, showing extant framing and brick infill that is evidence of earlier opening, 2005.

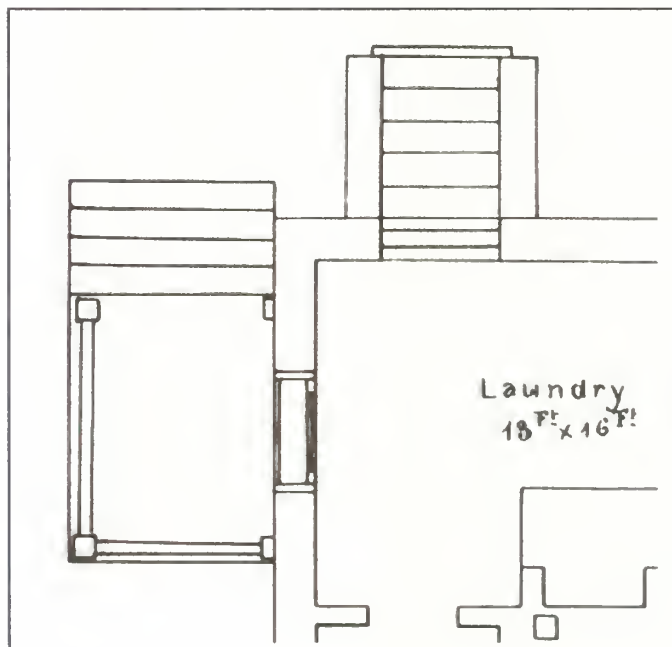


Figure 31. Officers Club, south- elevation entry to rear ell, 1878.

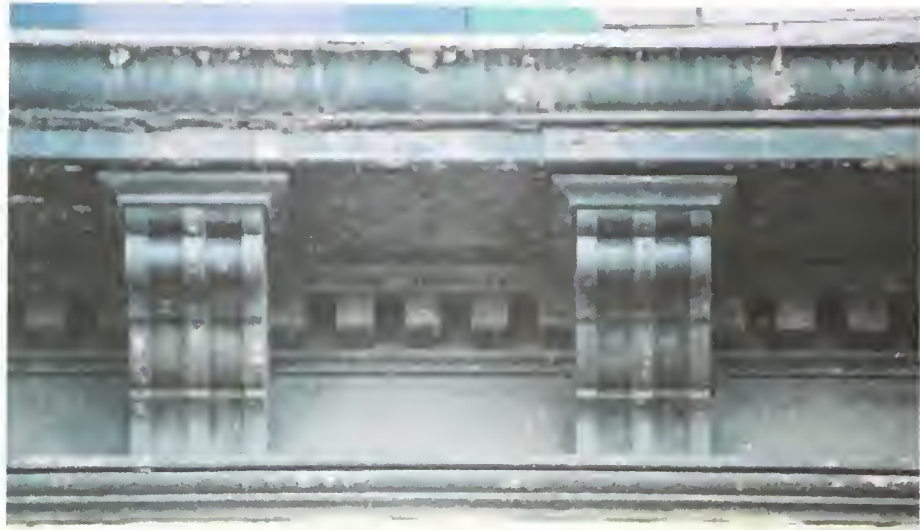


Figure 32. Officers Club, mansard roof, lower cornice brackets, 2005.



Figure 33. Officers Club, mansard roof, dormer roofing material, 1992.



Figure 34. Officers Club, east façade, piazza roof, showing original framing and repairs, 1991.



Figure 35. Officers Club, east facade, piazza roof, showing original framing with extended rafters for integral gutters.



Figure 36. Officers Club, east-facade piazza, showing period paint scheme, ca. 1900.



Figure 37. Construction of Battery Potter, looking northwest; Officers Club in background, ca. 1895.



Figure 38. Officers Club, showing exterior bearing- wall construction at transition from first story to second story; also shows pockets in masonry for framing, 2005.



Figure 39. Officers Club, typical brick relieving arch above window opening, as seen from Ladies' Lounge (Room 103), 2005.



Figure 40. Officers Club, attic, showing framing of lower slope of mansard roof with alternating jack rafters, 2005.



Figure 41. Officers Club, attic framing detail, showing joinery of wall stud and jack rafter into upper plate of mansard roof, 2005.



Figure 42. Officers Club, Men's Lounge (Room 104), detail from historic photograph showing parquetry floor no longer extant, ca. 1942.



Figure 43. Officers Club, Ladies' Lounge (Room 103), looking south at typical doorway, 2005.



Figure 44. Officers Club, center hallway (Room 102), stairway, showing parquet pattern on treads and risers, 2005.



Figure 45. Officers Club, Ladies' Lounge (Room 103), south-wall fireplace, 2005.



Figure 46. Officers Club, second- story center hallway (Room 201), ceiling plaster on wood lath, 2005.



Figure 47. Officers Club, second- story center hallway (Room 201), parquetry floor, 2005.

Alterations

Though there may have been some details still requiring attention, the Officers Club was ready for occupancy by June 30, 1879.⁶⁴ From the initial requirement of quarters for the Ordnance Officers, through the history of the Sandy Hook Proving Ground and Fort Hancock, the Officers Club continued to fill an important role in the military life at Sandy Hook.

Physical investigation of the building, materials analysis, and archival research indicate that a majority of the extant materials are original. This includes the brick foundation, exterior brick walls of the main block, brownstone water table, brownstone window sills and lintels, and much of the exterior wood trim. Photographs and maintenance records indicate that the original mansard roof had slate on the lower hip and flat-seamed metal pans on the upper hip. Records and paint research also indicate that some of the early fenestration is extant. This included double-hung, four-over-four sashes in the large first-story window openings, double-hung sashes in the second-story windows, and double-hung, one-over-one sashes in the dormers on the mansard roof.

Early Repairs and Improvements (1879 - 1900)

Records of the earliest repairs to the Officers Club include appropriations approved on September 30, 1884. In that year Colonel Baylor, the commander of the proving ground, requested funds for general repairs, repainting of the floors in the hallways and uncarpeted rooms on the first story, and additions to and alteration of the plumbing.⁶⁵

The contents of this project list give some information about the early appearance of the building. This is the first mention of plumbing, and it includes both additions and alterations, suggesting that some plumbing existed. A 1901 letter discussing the sanitary conditions at the Officers Club states that a privy near the house was removed.⁶⁶ The only plumbing apparent in the proposed plans for the Officers Club was for the laundry room. It is therefore reasonable to assume that the original building did not have toilets. It was not possible to tell from extant materials when the building was first fully plumbed, but the projects listed in 1901 indicate that there was some plumbing in the building at that time.

As previously discussed, the mention of “uncarpeted” first-story rooms in the records of 1884 indicates that some floors were carpeted at the time.

The budget for fiscal year 1889 included \$2,000 for repairs to the Officers Club. Though the records did not indicate specific projects, the budget amount did represent approximately nine percent of the annual budget for facilities at the proving ground.

⁶⁴ HRS, 1874- 1919, p. 43.

⁶⁵ HRS, 1874- 1919, p. 67.

⁶⁶ Captain Edwin B. Babbitt to Brigadier General A. R. Buffington, Chief of Ordnance (Apr. 1899 – Nov. 1901), Apr. 4, 1901 (Babbitt to Buffington); Vol. 16, pp. 128- 129; General Records, Letters and Endorsements Sent to the Chief of Ordnance, 1890 – 1905 (Letters Sent, 1890- 1905); SHPG, 1889- 1919; Entry 1516; RG 156; NARA - Northeast Region (NY).

In fiscal year 1897 (ending June 30, 1897), when the Sandy Hook Proving Ground was under the command of Captain Frank Heath, the Officers Club was one of two buildings at the post to receive electric lighting during the installation of the earliest electrical system. The electrical cables for the Officers Club were carried underground to a “double pole, knife- edge switch with fuze (sic)”⁶⁷ in the basement, which controlled the lights in that building. The wiring from the basement fed a cut- out box on the second story, which in turn fed eight lamp circuits via “No. 12 Grimshaw white core, insulated copper wire.”⁶⁸ This early system consisted of 62 110-volt lamps. “The cellar of the officers’ quarters is provided with drop cord lights: but the rest of the building is furnished with electroliers and brackets in antique brass, fitted for Edison sockets.”⁶⁹ The new lighting system included two exterior lights as well, one of which was located in front of the Officers Club.⁷⁰

The following fiscal year, appropriations in the amount of \$2,000 were made to improve the water system at the proving ground. The primary goal of the work performed during fiscal year 1898 was the replacement of the post’s water system, which was insufficiently large to provide adequate fire protection for the post. The new system included a 12,000- gallon cypress water tank, mounted on a 45- foot- high galvanized steel structure 100 feet south of the Officers Club (visible in several turn- of- the- century photographs). The new water pipes supplied several new 2- ½ inch fire hydrants and were also connected to existing tanks, including the “two small tanks of about 850 gallons capacity in the Brick House.”⁷¹

The Proving Ground as a Permanent Installation (1901 – 1905)

The beginning of the new century witnessed an increase in activity at the Sandy Hook Proving Ground, and in December 1901, General William Crozier, Chief of Ordnance (November 1901 – 1918) began the process of establishing the proving ground as a permanent installation. As part of that process, Post Commander Captain Edwin B. Babbitt was to prepare a master plan for the proving ground, with the instruction that all new buildings and additions would be designed with the new permanent status in mind.⁷² Captain Babbitt worked diligently to establish the boundaries of the proving ground and prepare a master plan for the facility, which included an allotment for an addition to the Officers Club.

⁶⁷ Captain Frank Heath to Brigadier General Daniel Webster Flagler, Chief of Ordnance (1891 – Mar. 1899), 1897 (Heath to Flagler); Vol. 5, p. 400; Letters Sent, 1890- 1905; SHPG, 1889- 1919; Entry 1516; RG 156; NARA - Northeast Region (NY).

⁶⁸ Heath to Flagler, 1897; Vol. 5, p. 401; Letters Sent, 1890- 1905; SHPG, 1889- 1919; Entry 1516; RG 156; NARA - Northeast Region (NY).

⁶⁹ Heath to Flagler, 1897; Vol. 5, pp. 401- 402; Letters Sent, 1890- 1905; SHPG, 1889- 1919; Entry 1516; RG 156; NARA - Northeast Region (NY).

⁷⁰ Heath to Flagler, 1897; Vol. 5, p. 402; Letters Sent, 1890- 1905; SHPG, 1889- 1919; Entry 1516; RG 156; NARA - Northeast Region (NY).

⁷¹ Heath to Flagler, 1898; Vol. 8, p. 232; Letters Sent, 1890- 1905; SHPG, 1889- 1919; Entry 1516; RG 156; NARA - Northeast Region (NY).

⁷² HRS, 1874- 1919, p. 189.

1901 Upgrades

Improvements to the utilities at the Officers Club continued in 1901 with improvements to both the heating and plumbing systems. During that same year it was noted that the plaster ceilings had been damaged by the firing of guns at the proving ground, and that they would be changed to metal when funds became available.⁷³

Post Commander Captain Babbitt initially requested funds for a new heating system for the Officers Club in a letter to the Chief of Ordnance, dated December 18, 1900, nine days after he assumed command of the post.⁷⁴ Subsequent correspondence between Babbitt and various contractors discussed plans for the new heating system for the “Ordnance Officers Mess Building,” as the building was referred to during that period.⁷⁵ Work commenced on a new hot-water heating system during 1901, which for the first time included service to the attic level and the servants’ wing.⁷⁶

According to correspondence from Captain Babbitt to the Chief of Ordnance, dated April 4, 1901, the faulty plumbing of the Officers Club was responsible for illness among the officers during the previous winter. The sanitary conditions of the building were inspected and recorded by the Building and Sanitary Inspection Company of New York, who evidently found the conditions among the worst they had ever inspected. Captain Babbitt’s letter requests “that an allotment of \$2,500.00 be made for at once installing an adequate sanitary system of plumbing.”⁷⁷ This same letter discusses removing a privy near the house and completing the new heating system for the “entire house.” Thus, by the close of 1901, the systems at the Officers Club were vastly improved and up- to- date.

Circa- 1905 Addition to the “Brick House”

Planning and Construction of the Addition

Major Charles S. Smith succeeded Captain Edwin B. Babbitt as Post Commander in November 1902 and, when the Sandy Hook Proving Ground received official permanent status from the Secretary of War in March 1903, Major Smith began implementing the master plan.⁷⁸

⁷³ *HRS, 1874- 1919*, p. 186.

⁷⁴ Babbitt to Buffington, Dec. 18, 1900; Vol.15, p. 176a; Letters Sent, 1890- 1905; SHPG, 1889- 1919; Entry 1516; RG 156; NARA - Northeast Region (NY).

⁷⁵ Babbitt from Edmund J. Maurer, Apr. 27, 1901; Vol. by year, 1901; General Records, Letters and Endorsements Received, 1889 - 1907; SHPG, 1889- 1919; Entry 1519; RG 156; NARA - Northeast Region (NY).

⁷⁶ *HRS, 1874- 1919*, p. 186.

⁷⁷ Babbitt to Buffington, Apr. 4, 1901; Vol. 16, pp. 128- 129; Letters Sent, 1890- 1905; SHPG, 1889- 1919; Entry 1516; RG 156; NARA - Northeast Region (NY).

⁷⁸ *HRS, 1874- 1919*, p. 203. Note: *HRS* cites “Lt. Col. Charles S. Smith,” but letters from 1903 were signed “Major Charles S. Smith.” The exact date of Major Smith’s promotion to Lieutenant Colonel was not researched.

A letter from Major Smith to the Chief of Ordnance, dated March 18, 1903, discussed the reasons for hiring a draftsman for the post. Included in the duties of that position was the preparation of "plans and specifications for adding a wing to the Brick House."⁷⁹ Apparently the draftsman was very efficient, for in April of that same year Major Smith submitted a preliminary design of the addition to the Officers Club to the Chief of Ordnance, with a letter that included this description:

The principal feature of the remodeled building will be the dining room, which, as designed, is to be a large, comfortable room, facing South, finished in Colonial style, and fronted by a broad porch, which it is proposed to provide with wire mosquito netting for summer use in connection with the dining room.⁸⁰

Captain Babbitt had included an initial estimate for the project in his master plan for the proving ground in 1901. The proposal for the addition submitted to the Appropriations Committee on June 30, 1903, estimated the cost of construction of \$8,000. The following explanation was included in the records:

For adding to the wing of the Brick House for accommodation of officers temporarily at the Proving Ground, including heating, lighting and plumbing.

note: The present accommodations for officers temporarily at the Proving Ground are insufficient and the object of the above item is to enlarge the wing of the brick house so as to provide more adequate accommodations.

A. R. Buffington
Brigadier General, Chief of Ordnance⁸¹

The funds were allocated by the Fortifications Act of 1902, but the high cost of construction at Sandy Hook prompted an increase in the estimate to \$11,000.⁸² The work on the building was accomplished during fiscal year 1905 and, according to the annual report for that year, the "addition to the wing of the Brick House...has been practically completed during the year."⁸³ The final appropriation for the addition to the Officers Club was \$16,600.⁸⁴

⁷⁹ Major Charles S. Smith to General Wm. Crozier, Chief of Ordnance, Mar. 18, 1903 (Smith to Crozier); Vol. 22, p. 140; Letters Sent, 1890- 1905; SHPG, 1889- 1919; Entry 1516; RG 156; NARA - Northeast Region (NY).

⁸⁰ Smith to Crozier, Apr. 9, 1903; Vol. 22, p. 241; Letters Sent, 1890- 1905; SHPG, 1889- 1919; Entry 1516; RG 156; NARA - Northeast Region (NY).

⁸¹ Brigadier General A.R. Buffington to Appropriations Committee; Vol. 8, June 30, 1903 (date of transcribed entry); Estimates of Appropriations (1816- 1904) and Statements of Appropriations (1812- 1904); Fiscal Matters, 1812- 1938; Entry 129; RG 156; NAB. Note: The transcribed entry was dated June 30, 1903, but the request must have been made by Buffington prior to his leaving the Ordnance Dept. in Nov. 1901.

⁸² *HRS, 1874- 1919*, p. 191.

⁸³ Annual Report, FY 1905, p. 3; Binder for FY 1905; SHPG, 1889- 1919; Annual Reports, 1904- 1907 and 1909; General Records; SHPG, 1889- 1919; Entry 1527; RG 156; NARA - Northeast Region (NY).

⁸⁴ *HRS, 1874- 1919*, p. 217.

Exterior Alterations

Research and examination of building materials reveal that the addition to the Officers Club was a two-story addition along the south side of the original rear ell. It included a gable roof and an attic over the entire rear ell. This was not only apparent from the absence of these features in the proposed plans and historic photographs, but also by a comparison of the representative “footprint” of the building in site plans for Sandy Hook in 1892 - 1901 to the plan from 1908, revised 1918 (figs. 20, 21, and 48). In the earlier maps the Officers Club appeared as originally constructed, with a narrower ell, but in the later plans the ell had been enlarged. The 1908/1918 map showed a detailed outline of the building, including the bay window on the north elevation of the main block and the rounded porch on the south elevation of the enlarged rear ell.

The “broad porch” proposed for the south elevation of the Dining Room was constructed as part of the addition.⁸⁵ It is no longer extant, but examination of historic site plans and photographs reveals the porch’s design and materials (figs. 48- 50). The most distinctive feature of the porch was a half-round bay on the south elevation. Porch details included a classical balustrade with turned balusters and Doric columns, and it was apparently equipped with awnings and screens. The details of the porch reflected the “Colonial style” Major Smith had mentioned in his letter to the Chief of Ordnance. Of the archival materials reviewed, the photograph from ca. 1909 (fig. 49) of the Greenhouse, with the Officers Club in the background, was the first to document the exterior after the ca.- 1905 addition.

As discussed in the previous section “Original Appearance,” the original structure probably had an entrance to the rear ell in the southwest corner of the ell. The addition necessitated the removal (or conversion) of that entrance and any porch associated with it. A new entrance and a back porch were added to the west elevation of the rear ell. Paint analysis demonstrated that the west-elevation entrance dated to the ca.- 1905 addition. Paint research further indicated that some of the earlier porch elements were reused in the construction of the back porch ca. 1905.

The change in building materials provided some evidence of the ca.- 1905 addition. The colors of the brick and mortar used in the original construction were different from those of the addition. The masonry-wall thickness at the basement level measured 20 inches in the original structure versus 18 inches in the crawlspace below the Dining Room (Room 106). Also, masons used a different bond in constructing the addition, which is visible at the first and second stories. The original brickwork for the main block and rear ell was laid in a common bond pattern of seven stretcher rows and one header row. The later additions were laid in a running bond of all stretcher rows on the exterior of the building.

The differences in materials and methods of construction might explain the earliest paint layers found on the exterior brick. Indeed, the brick from the original structure and the brick from the ca.- 1905 addition have the same paint layering from the earliest to the most recent (Appendix C). The paint analysis leads to the conclusion that the exterior brick was painted after the ca.- 1905 addition. In an attempt to maintain the color and appearance of the original structure, the earliest exterior paint was a brick-red color.

⁸⁵ This porch was later removed and replaced with a buff-brick addition ca. 1940. It most recently served as the New Dining Room, and is marked as Room 107 on the plans in Appendix A.

The windows of the addition also demonstrated the changes to the building. The two first-story windows (W124 and W125) of the Dining Room (Room 106) were arched, with a design unique to the building (fig. 51). Each window's lower sash was one unit with a wide center mullion, which made it resemble a pair of casement windows. There were eight lights on either side of the center mullion. The upper sash was arched with intersecting lancet- arch muntins. The lower sash was operative and the upper sash was fixed. The windows were set in a rectangular rough opening measuring 57 inches wide by 93 ½ inches high and surrounded by wood trim. The lintels and sills of these windows, as well as others in this addition, copied the same design as the original elements. However, the builders used both brownstone and limestone for these elements: the window sill of W125 was limestone, and the lintel of W124 was brownstone. Comparative paint research on selected exterior window surrounds further supports the field evidence. The surrounds of W109 (on the main block) and W123 (on the west end of the ell) have greater accumulations of paint than does the surround of W125, on the addition to the ell (Appendix C). The paint evidence discovered on the windows of the Dining Room (Room 106) forms the basis for the exterior trim color for the period.

The ca. - 1905 addition also included window openings at the second- story and attic levels. On the second story, the west- elevation windows matched the existing rear- ell openings in size and trim details. The south- elevation windows were two oriel windows. Though no longer extant, these windows were well- documented in photographs and drawings, and framing evidence for them was found within the framing of a later roof. At the attic level, the builders constructed an arched window and an oculus window on the west elevation (fig. 52).

The gable roof of the addition also incorporated some stylistic changes. The roof was constructed with flared eaves, which had its origins in the Dutch Colonial style and was incorporated in the Colonial Revival style (fig. 53). The north and south elevations of the rear ell's roof were each pierced with three symmetrically placed dormers. These were gabled dormers with an articulated pediment and composite moldings (fig. 54).

Interior Alterations

Examination of the existing foundation, and the bearing partition walls in the basement and on the first and second stories of the rear ell, shows further evidence of the addition (fig. 55). The south exterior wall of the original rear ell, which was brick and extended from the basement level through the second story, became the extant partition wall between the Kitchen (Room 105) and the Dining Room (Room 106). The foundations of the main block of the structure and the original rear ell were connected and had full basements, which were accessed from the west- elevation bulkhead of the rear ell. By contrast, the basement of the addition to the rear ell was built with only a crawl space, and was only accessible through an existing basement window.

The difference in framing materials was also evident. The first story of the addition was framed with radially sawn 2- by 12- inch joists fastened with wire nails. Where additional support was required, the 2- by 12- inch lumber was sistered together instead of using timbers, as seen in the original structure. The builders also used cast- iron joist hangers in the addition. The variation in building materials provided an opportunity to observe the changes in building technology from the time of original construction in 1879 to ca. 1905 when the addition was constructed.

The brief description of the addition by Major Smith, which included the orientation and style of the Dining Room (Room 106), is supported by the earliest photographs of the room (figs. 56 - 57). They were most likely taken soon after the completion of the Dining Room, and they reveal several aspects of the room's initial appearance. Among these are the outline of the original south- elevation bay window, the early mantelpiece and overmantel, the period trim and decorative schemes, the plaster ceiling, early lighting fixtures, and the original fenestration. All reflect the Colonial Revival style, and clearly illustrate the stylistic change from the period of original construction to the period of the addition.

Upon close examination, one photograph reveals the outlines of a large bay window facing south (fig. 56). This is supported by the shape of the ca.- 1905 foundation, which was constructed with a three- sided projection on the south elevation (fig. 55). The bay was designed to take full advantage of the southern exposure of the Dining Room (Room 106). The bay- window opening was framed with a classical archway composed of a large segmental arch with Composite- order pilasters and entablature. The archway was balanced by a symmetrically placed arch on the north wall, which framed a niche for a sideboard and, at the time of the photograph, a moose head.

The arched window openings along the west side of the room were surrounded with molded archways. This same trim was echoed on the east wall for the casings of the doorways to the hallway and Lounge. Other doorway and window casings were molded with crossettes, or ears. A unique decorative detail of the Dining Room (Room 106) was the two smaller windows on the south elevation. Within the openings were lead- camed windows with the insignia of the Ordnance Corps depicted in stained glass (fig. 58).

The ca.- 1905 fireplace was constructed with classical elements that included a marble surround, engaged Ionic columns, and a classical entablature. The overmantel pediment and relief included a broken swan- neck pediment and a bas- relief depicting a chariot (fig. 59).

Upon the completion of the ca.- 1905 addition, the second- story and attic rooms of the rear ell were used as bedrooms and bathrooms. The second- story rooms in the original portion of the rear ell, formerly servants' rooms, were converted to bedrooms for officers. These were supplemented by the new rooms on the south side of the building, which consisted of two bedrooms with an adjoining bath. Each of these bedrooms had an oriel window facing south, and the southwest bedroom had a fireplace.

As noted in the previous section, the Officers Club was wired for electricity in 1897. The note submitted to the Appropriations Committee with the funding request on June 30, 1903, stated that the new addition would include electrical work.⁸⁶ The ca.- 1905 photographs of the room show wall sconces and a chandelier, which most likely dated from the construction of the addition (figs. 56- 57). The same wall sconces were visible in photographs through the 1960's.

⁸⁶ Brigadier General A.R. Buffington to Appropriations Committee; Vol. 8, June 30, 1903 (date of transcribed entry); Estimates of Appropriations (1816- 1904) and Statements of Appropriations (1812- 1904); Fiscal Matters, 1812- 1938; Entry 129; RG 156; NAB.

Additional Ca.- 1905 Alterations

Exterior Alterations

The sidelights and transom of the front entry were originally constructed with clear glass, as depicted in the ca.- 1900 photograph (fig. 24). The next detailed photograph of the east facade was taken in 1922 (fig. 65). At some point between 1900 and 1922 the sidelights and transom of the entryway were altered. Both the sidelights and transom were fitted with ondoyant (rippled) glass cut in decorative patterns, with some pieces stained and all set in lead coming (figs. 60- 61). The documentary material reviewed included no specific reference to the change of the sidelights and transom, but it seems likely that this change took place during the ca.- 1905 alterations. The same type of glass was used in the stained- glass window of the Dining Room (fig. 58), and was popular during that period.

The current one- story addition on the north elevation of the rear ell, which expanded the kitchen area, appears to be contemporary with the ca.- 1905 addition. This is evident from the similarity in building materials. The brickwork for this addition is laid up in the same manner as that of the Dining Room. The floor joists use similar 2- by 12- inch framing and wire nails, with 3- by 12- inch framing used under the Cold Storage (105c) for additional support. It is also significant that the ca.- 1905 addition included a provision for cold storage. In his 1901 letter discussing the sanitary issues of the Officers Club, Captain Babbitt mentioned reconnecting the basement refrigerator to its waste.⁸⁷ The addition of a refrigeration area on the first story would have likely eliminated the need for the basement refrigerator. Thus, the kitchen addition postdated 1901. The 1908/1918 site plan showed not only the Dining Room (Room 106) addition, but also the one- story addition to the Kitchen (fig. 48). Based on the documents and the physical evidence, the Kitchen addition was probably done at the same time as the other ca.- 1905 alterations.

The one- story Kitchen addition was constructed with three window openings that copied the existing rear- ell windows (e.g., W117) in size and trim details. One window was on the east elevation of the jog, and two were on the north elevation of the jog. A third opening at the west end of the north elevation of the jog (W121) was a smaller hatch- like opening with trim matching the other windows. The small opening was equipped with a cover and provided access to the Cold Storage (105c), and was most likely for delivery of ice and perhaps other kitchen items.

Exterior paint evidence indicates that some other minor changes were made at the second- story level during the same period as the construction of the addition. The paint layers on the window surround from the Dining Room window (W125) and the oriel window (W209) over the north elevation's bay window are very similar. The features have the same number of paint layers, and the first paint layer appears to be the same color. Therefore, the physical evidence suggests that W209 was contemporary with the ca.- 1905 addition.

⁸⁷ Babbitt to Buffington, Apr. 4, 1901; Vol. 16, pp. 128- 129; Letters Sent, 1890- 1905; SHPG, 1889- 1919; Entry 1516; RG 156; NARA - Northeast Region (NY).

Interior Alterations

Certain changes were made to the existing structure to accommodate the new addition. On the first story, access to the Dining Room (Room 106) was created from the center hallway (Room 102) and the Lounge (Room 108), as well as the Kitchen in the rear ell (fig. 57). Paint evidence suggests that the doorway from Room 102 was originally an exterior doorway, and that the doorway from Room 108 was formerly a window opening. Both of these openings were rebuilt as arched doorways with pocket doors. Two more doorways pierced the north wall of the Dining Room (Room 106), leading to the Kitchen (Room 105). Based on the proposed 1878 first-story plan, the west doorway was originally an exterior doorway, while the east doorway was formerly a window.

As stated previously, the 1878 proposed plans for the Officers Club did not show a doorway between the second story of the main block and that of the rear ell. Furthermore, physical evidence did not show that any connection was built originally. The alterations during the ca.-1905 addition represent the first time the main block and the rear ell were connected at this level. This was accomplished by constructing a doorway in the west wall of the landing of the center hallway stairway. Existing evidence, including the style of the casing and the paint evidence, suggests that this opening was originally a window. A short stairway ascended to the hallway of the new addition, which also gave access to the original rear ell.

The new connection of the main block and the rear ell denotes a change in use of the rooms in the rear ell. It is likely that the rear ell was originally occupied by servants who only needed access to the first-story service rooms via the back stairway. When the addition was completed, the second-story rooms were designated as bedrooms for military personnel, fulfilling the primary goal of the addition.

Records indicate that servants were present at the Officers Club at least through the 1920's. Those records list five servants' bedrooms and one servants' bathroom on the third/attic story. It is likely that the attic of the rear ell was used as servants' quarters from the time of the ca.-1905 addition through the 1920's.

Lounge (Room 108)

The 1878 proposed plan for the Officers Club included two rooms south of the center hallway (Room 102) on the first story. As previously discussed, there was no evidence that this configuration was ever built. One historic photograph (fig. 62) of the Dining Room (Room 106) provided a view into the Lounge (Room 108). Based on what was visible in that photograph, the Lounge (Room 108) had no major partitions at the time.

The existing physical evidence strongly indicated that much of the extant material in the Lounge (Room 108) dated from the same period as the ca.-1905 addition. Visible in the historic photograph were the details of the fireplace mantel in the Lounge (Room 108), which showed that the current fireplace details were in place at that time (fig. 62). The date of installation of the mantel and other trim was further determined through comparative paint analysis (Appendix C). The original baseboards and window casings in the room were initially finished with a dark resin. The earliest paint layers that appear on these elements were light tans. In comparison, paint samples from the fireplace surrounds, and the moldings that frame the wall panels, had no resinous layer, and the earliest paint layer matches the tan found over the resin

layer on the baseboard and window- casing samples. This suggested that the fireplace surround and panel moldings were added after the baseboards and window casings. A comparison of the number of paint layers on the fireplace elements in the Lounge (Room 108) and those in the Dining Room (Room 106) also indicates that these features were contemporaneous. Furthermore, the doorway from the Lounge (Room 108) to the New Dining Room – formerly the ca.- 1905 porch (Room 107) – has a paint sequence similar to that of the fireplace elements. The casing of this opening was part of the original construction and was most likely a window, as it appeared in the proposed plans. Its conversion to a doorway would have logically coincided with the ca.- 1905 addition, when other doorway and window openings were altered to provide access from existing rooms to the newly constructed Dining Room (Room 106) and sun porch (Room 107).

Once renovated, the Lounge (Room 108) would have been one of the grandest rooms on the first story. The original window trim and baseboards were retained. Additional trim was added to create wall panels, and plaster bas-relief festoons were added to the cornice and panels flanking the overmantel. The two fireplaces in the Lounge had white marble surrounds and were set in highly decorative mantelpieces (fig. 63). The mantelpieces had scrolled brackets, or consoles, which were adorned with cast-plaster floral relief. The consoles supported a classical entablature with dentils, and a deep mantelshelf.

The walls in the Lounge (Room 108) were probably papered at the time of the ca.- 1905 alterations. Comparison of paint samples taken from the trim and the plaster walls showed a relatively small number of paint layers on the walls. The absence of paint layers suggested that the walls were papered ca. 1905.

The floor in the Lounge (Room 108) was seen to be carpeted in the ca.- 1905 historic photograph (fig. 62).

Latter Years of the Proving Ground (1906 - 1919)

There were few records for the Officers Club during the latter years of its association with the Sandy Hook Proving Ground, and those reviewed did not significantly add to the existing knowledge of the building during that period. The “Brick House” is referenced in a letter from November 1917, commending the efforts of the various branches of the service for their cooperation in fighting a fire at that building.⁸⁸ As indicated in the correspondence, there was little damage to the building. The existing evidence suggests this fire may have started in the basement. While performing repairs to the building in 1992, NPS Exhibit Specialist C. Thomas Ballos noted that “there was evidence of previous fire damage to the left underside of the porch deck framing.”⁸⁹ This corresponds to the fire damage noted in several of the basement rooms during the most recent investigation of the building. The well-documented 1938 fire was contained to the attic level and roof, and would not have caused this damage.

⁸⁸ HRS, 1895- 1948, p. 385.

⁸⁹ Ballos, p. 19.

One alteration that appears to have occurred during this period was the addition of the oriel window on the east façade (W203), above the entrance. This was primarily determined through paint analysis and review of historic photographs. The earliest paint on the oriel was a brown color, applied over a white primer. By comparison, that same brown paint layer is present as the seventh paint layer on the north- elevation oriel window. The samples from these two windows have similar paint stratigraphies after the brown to the recent exterior green. The first record of the east- facade oriel window is a photograph from 1922 (fig. 65). Considering both the evidence of the paint analysis and the photograph, it appears that the east oriel window was added after the ca.- 1905 alterations, but before the 1922 photograph was taken.

It also appears that many of the second- story double- hung sashes were changed during this same period. The original sashes, which were one- over- one sashes, were changed to two- over- two sashes. The sash lights measured 17 ³/₈ inches wide by 34 ¹/₂ inches high, and the muntins were molded with quarter- round and filet profiles. Photographic evidence indicates that the sashes were altered prior to 1922, and the exterior paint evidence suggests that the sashes were contemporary with the east oriel window.

With the advent of the First World War and the increased demands on the Ordnance Department, the Sandy Hook Proving Ground was no longer adequate for the needs of modern artillery. This led to the establishment in 1917 of the Aberdeen Proving Ground in Aberdeen, Maryland, and the phasing out of Ordnance activities at Sandy Hook in 1919. Once the proving ground had relocated, the Officers Club and other Ordnance buildings became part of Fort Hancock.

Fort Hancock (1919 – 1974)

It is clear from Fort Hancock records, which include annual reports, maintenance records, and photographs, that the Officers Club remained an important fixture in the lives of the military personnel at Sandy Hook. Maintenance records from the Fort Hancock Post Record Book chronicle the continued maintenance and repair of the Officers Club. Excerpts from the records are as follows:

DATE	REPAIRS, ALTERATIONS, INSTALLATIONS AND REPLACEMENTS	COST
Dec. 1926	One- half lower floor converted into living quarters "Suite A." Reported Dec. 13, 1926	\$920.10
	Interior painting, general repairs to woodwork, both interior and exterior, repairs to screen doors and windows.	\$2,164.00
Jan. 12 1929	Storm sash; 1 door 2'10 ¹ / ₄ x 7'6", 33 window shades and 2 – standard kitchen sinks installed.	
Oct. 1929	Old boilers, steam drum, 8 radiators and piping removed; Chimney bricked up, 3 – radiators replaced, new piping run to 8 radiators and one radiator installed. Contract No. W 383 q.m. 128	\$1,848.00

Sept 1930	Metal weather stripping on 35 windows and 2 doors. Base sills installed on 2 doors. Contract W 383 q.m. 185. Started Spt. 15, 1930 Completed Nov. 26, 1930	\$89.50
Jan 1933	Work consisted of: Constructing a fifty (50') foot brick chimney with round flue lining on west side of brick house, Building 114; constructing and installing forty nine (49' feet of 20" diameter 18- gauge galvanized Toncan iron smoke pipe; one 18" to 20" galvanized Toncan iron 18- gauge increaser and 40 feet of 24" wide 24- gauge galvanized Toncan iron heat deflector and connecting heating boiler to new chimney.	\$406.82
Aug. 1936	Building Painted. Paint furnished by Du Pont Co.	
May 1937	Landscaping, foundation planting completed with CCC funds and labor.	\$278.47
F.Y. 1937	New metal roof and complete exterior painting by W.P.A.	
April 1938	Roof & 3 rd floor damaged by fire on April 9, 1938. Estimated cost repairs (\$ 8,000.00)	
May 1938	Installed 1 - Kitchen ceiling unit comp. w p/c; 1 porcelain bracket w p/c; 5 wall brackets w p/c and 1 ceiling fixture with p/c Voucher 1998- 8	\$8.83
May 1938	Installed 1 - panel, 10 circuit, surface type, plug fuse, solid neutral Toggle switch control on each circuit, complete with Toggle switch; 12 fixtures, kitchen, ceiling, 4 x 9, w/full switches; 5 - switches, safety, 60 Amp., 3 pole, 250 volt. Voucher 1029- 9	\$50.00
Nov. 1938	Installed 1 - 4" fire hydrant (near Bldg. 114) Voucher No. W.P.A. 197- 39	\$59.66
F.Y. 1938	Bldg. #114, Officers Club - Repaired and replaced main roof, remodeled and repaired Recreation room, removed all worn wood floors and installed new flooring. Repaired all doors, windows and trim. Removed partitions of third floor apartment and swung all French windows out. Repaired all plaster walls and cornice and renewed all water lines, waste and traps where needed. Installed new bath fixtures and repiped new baths and kitchens on 2 nd and 3 rd floors. Painted entire interior of building. Repaired and replaced all electrical fixtures and wiring. NOTE:- Due to the fire, a great amount of this work had to be repeated. W.P.A.	\$18,301.58
1939	2 - Tubs, bath, w base removed from building for I & I. Voucher No. CV 1084- 9 2 - Sinks, comb. Complete removed from building for I & I. Voucher No. CV 1084- 9 1 - Radiator, steam, removed from building for I & I. Voucher No. CV 1084- 9	

1938 ⁹⁰		
Nov.	Installed 3 Lavatories, pedestal 24 x 20. Vou. No. W.P.A.- 201- 39. Cost 22.00 ea.	\$66.00
F.Y.	Repairs to metal ceiling. Painting of interior.	
1940	General carpenter repairs. W.P.A.	\$222.60
June	Removed: 1 Hot water boiler, 40 gal. and 1 iron enamel sink.	
1942	Voucher No. DV 588- 43	
June	Installed: 1 sink, scullery, 60 x 24 x 12 w/2 drain boards, 24", at \$74.00.	
1942	Vou. No. CV 589- 43 ⁹¹	

These records overlap with the annual reports and provide further information on some of the work performed.

Alterations in the 1920's

Historic photographs from the 1920's illustrate the configuration and condition of the Officers Club during that period.

An aerial photograph dated April 24, 1924, showed the basic form of the Officers Club much as it appeared after the ca.- 1905 alterations (figs. 50 and 64). It showed additions to the rear ell that included the gabled roof with dormers, and the south elevation's rounded porch. A February 1922 photograph used in the building maintenance form showed in better detail the south elevation's ca.- 1905 porch, which was enclosed with multi- light windows (fig. 65). Before 1922, the porch enclosure may have alternated between screens in the summer and glass windows in the winter, but 20th- century photographs show only the glass enclosure (figs. 65- 66 and 68). In all of these photographs, the exterior finish of the building appears to be dark with light- colored trim.

The designations and sizes of the rooms in the Officers Club during the 1920's were recorded in the ca.- 1923 maintenance record for the building (Appendix B).⁹² Of interest on that list was the presence of a "Billiard Room," which appears to have been in the Men's Lounge (Room 104). It was also apparent from the list that one of the closets adjoining Rooms 103 and 104 had been converted into a "lavatory." The room list includes a Servants' Dining Room on the first level, and five servants' bedrooms and one servants' bathroom on the third/attic level. The room sizes listed indicated that the servants' bedrooms were in the attic of the rear ell. In addition to the room designations, the record states that on September 25, 1926, half of the first story was converted to living quarters, and the capacity of the building was increased to six officers and families. The arrangement of the first- story rooms would suggest that the "one- half" consisted of the two rooms north of the center hallway, which conveniently included a bathroom.

⁹⁰ This entry was out of order in the original Post Record Book.

⁹¹ Fort Hancock Post Record Book (GATE cat. 220), Officers Club, Building No. 114, pp. 452 - 457, partial excerpt.

⁹² Fort Hancock Records, Building No. 114, 1922; Historical Records of Buildings and Records of Equipment and Conditions of Buildings, 1905- 1942 (Historical Records, 1905- 1942); Division Records, Reports; Entry 393; RG 77; NACP.

In 1926 the Post Commander noted that the tin gutters and decks, and the “tin” roof of the Officers Club, were in desperate need of repair. The building was also in need of painting on both the interior and exterior.⁹³ Funds were approved for these and other repairs in 1927 and work was begun. The Annual Reports on Construction, Maintenance, and Repairs demonstrate an increase in spending for maintenance at the Officers Club in fiscal years 1928 and 1929.⁹⁴

Alterations in the 1930's

By the 1930's the Officers Club had become one of the centers for recreational activity at the post. During this period bi-weekly bridge parties were hosted at the “Brick House,” and in 1936 a monthly game night was established. The Officers Club hosted a reception for the recently instated post commander, Colonel Magruder, and his wife in November 1935, and was the site of regular dances and a gala New Year's Eve party in 1936. When planning the nine-hole golf course for the post in 1936, care was taken to make sure the 1st and 9th holes were near the Officers Club.⁹⁵ The activity at the Officers Club during this period demonstrates the importance of the building to the post and to the men and women who worked and lived at Fort Hancock.

Throughout the 1930's the building was alternately referred to as the “Officers' Quarters” and/or the “Brick House.” Historic documents record a continued investment in maintaining the structure, with an increase in spending in fiscal years 1932 and 1933.⁹⁶ In 1932 the capacity of the building was four families; in 1934 it changed to three families. On April 11, 1935, the designation of the building was officially changed from “Officers Quarters- Brick House” to “Officers Quarters- Officers Club.”⁹⁷ It was probably not too long after that the name was shortened, perhaps unofficially, to the Officers Club.

The maintenance records included the addition of a 50-foot chimney on the west elevation of the rear ell in 1933. This was a red-brick chimney enclosing the iron smoke pipe. At the roof level the chimney was butted up against the existing chimney. A photograph of enlisted men and civilians working on the chimney (fig. 67) depicts the chimney extending above the roofline and the slate roof of the rear ell roof. Paint samples from the chimney show that it was painted red to match the rest of the building.

⁹³ *HRS, 1895- 1948*, p. 504.

⁹⁴ Fort Hancock Records, FY 1928 & 1929; Annual Reports on Construction, Maintenance, and Repair of Buildings at Posts, 1924- 1938 (Annual Reports, 1924 - 1938); Entry 398; RG 77; NACP.

⁹⁵ *HRS, 1895- 1948*, pp. 455- 457.

⁹⁶ Fort Hancock Records, FY 1932 & 1933; Annual Reports, 1924 - 1938; Entry 398; RG 77; NACP.

⁹⁷ Fort Hancock Records, Building No. 114, 1922; Historical Records, 1905- 1942; Entry 393; RG 77; NACP.

1937 Alterations

During fiscal year 1937 the Officers Club received the largest amount of funding since its appropriations for the ca.- 1905 addition. The Annual Report on Construction, Maintenance, and Repairs for that year recorded that a total of \$8,110.76 was spent on improvements to the building.⁹⁸ This expenditure represented more than 16% of the \$50,000 budget allotted for repairs and improvements to the buildings at Fort Hancock.⁹⁹ The work that year included:

Installing entire new roof on the main deck of the Officers Club, also new gutters and leaders, repairing of all porches, sills, and steps, point up of all brick work, retop all chimneys and paint entire outside of building. Installing one new metal ceiling, patching and pointing up of all ceilings and walls, and painting same. Remodeling and changing the ladies' washroom, and the laying of linoleum in three bathrooms and one kitchen. Improving roads and parking area around the Club and erecting a new porte cochère.¹⁰⁰

During that same year the Civilian Conservation Corps (CCC) completed foundation plantings and other landscaping at the site. It is apparent from the size of the shrubs, the presence of the "porte cochère," and what appears to be a freshly painted exterior, that the 1937 photograph of the building was taken to document the extensive work performed that year (fig. 68). It does not appear that the "porte cochère" was designed so that automobiles could pass beneath it. Rather, it was a section of covered porch that extended out from the northeast end of the piazza to the improved parking area. In conjunction with the construction of the "porte cochère" entrance, the steps were removed from the northwest side of the piazza.

1938 Fire

On April 9, 1938, a fire started in the attic of the Officers Club that damaged much of the work performed during the previous year (figs. 69- 70). The cost of repairing the fire damage and returning the building to its former state was estimated at \$8,000. The annual report for FY 1938 stated that a total of \$22,496.11 was spent on the "Officers' Quarters and Club."¹⁰¹

The Completion Report for fiscal year 1938 details the work in the following entry:

Repaired and replaced the main roof of the Officers Club, Bldg. #114, remodeled and repaired recreation room and repaired doors and interior of men's latrine. Removed wood floors in bathroom, Apt. #21; removed partitions of the third floor apartment and swung all French windows out. Installed new washbowl and new drain boards in apartment, 3rd floor. Repaired plaster, cornice, patched and pointed up, painted walls and ceiling in main hall and 3rd floor. Renewed all water lines, waste and

⁹⁸ Fort Hancock Records, FY 1937; Annual Reports, 1924 - 1938; Entry 398; RG 77; NACP.

⁹⁹ Office of the Harbor Defense Commander, Fort Hancock, N.J., to the Quarter Master General, July 12, 1937 (Commander, Fort Hancock to QMG); Completion Report, Repairs and Improvements to Public Buildings, FY 1937, p.1 (Completion Report); Division Records, Completion Reports, 1917 - 1943 (Records, 1917- 1943); Entry 391; RG 77; NACP.

¹⁰⁰ Office of the Harbor Defense Commander to the Quarter Master General, July 12, 1937.

¹⁰¹ Fort Hancock Records, FY 1938; Annual Reports, 1924 - 1938; Entry 398; RG 77; NACP.

traps in bathroom, Apt. #21, laid new floors in side hall, 2nd floor rear, renewed fixtures and repiped new baths and kitchen, 2nd and 3rd floor. Repainted all walls and ceiling of 1st, 2nd, and 3rd floors. Installed center light fixture in ceiling of bedroom, Apt. #5. Completed rewiring of electric wiring, repaired and replaced fixtures.¹⁰²

Alterations in the 1940's

Activity at Fort Hancock greatly increased during the early 1940's. The increase in military personnel at the post included officers, which meant increased activity at the Officers Club. A number of changes to the building appear to have coincided with this busy period at Fort Hancock.

New Dining Room (Room 107), Circa 1940

The Real Property Card for the Officers Club dating from fiscal year 1940 provides a good record of the building. The record cites the building materials and size and includes a photograph from the period (fig. 71).¹⁰³ Of note in the photograph is the change to the south elevation of the building. This photograph, and a postcard from the same period (fig. 72), both show that the enclosed porch, which extended from the south elevation of the rear ell, had been replaced by an addition with solid walls. The existing material and physical evidence indicate that the current buff- brick section, the New Dining Room (Room 107), is the addition visible in the ca.- 1940 photographs. Research suggests that the buff- brick addition, which measures 38 feet 9 inches by 24 feet 6 inches, was added ca. 1940. It may have been part of the remodeling and repairs mentioned in the FY 1938 records, or it may have been work performed by an outside contractor whose records have not been located. It is interesting to note that adjacent buildings SH- 144 and SH- 145 were constructed by the Work Projects Administration (WPA) in 1939 using the same buff- brick materials.¹⁰⁴ The records from the Fort Hancock Post Record Book do document that smaller projects at the Officers Club were performed by the WPA (see previous excerpt). It is thus possible that the WPA built this addition on the south elevation of the rear ell. Evidence is lacking to specifically date the buff brick addition to the Officers Club, but the photographs do narrow the possible date range, and the evidence supports a date of circa 1940.

The bricks of the ca.- 1940 addition were keyed into the existing brickwork of the west elevation. The buff- brick addition was constructed from the foundation up with masonry (terra cotta) tiles measuring 8 inches wide by 12 inches high by approximately 6 inches deep. The tiles were laid in concrete and faced with one layer of buff- colored brick. The water table of this addition was cast concrete with a beveled top edge. The windows of the addition were double casements with a transom, and had concrete sills and lintels with beveled edges.

¹⁰² Commander, Fort Hancock to QMG, Sept. 30, 1938; Completion Report, FY 1938, p.1; Records, 1917- 1943; Entry 391, RG 77, NACP.

¹⁰³ Fort Hancock Post Record Book (GATE cat. 220), Officers Club, Building No. 114.

¹⁰⁴ Interview with Park Historian Hoffman.

Interior photographs from 1942 through 1944 further document the time period and materials used in the New Dining Room (Room 107). It is apparent from the photographs that the room was built with a pressed- metal ceiling, which by that time had been installed in other first- story rooms due to the damaged condition of the plaster ceilings. Also notable in the photographs are the wood floor and casement windows.

The paint evidence in the New Dining Room (Room 107) provided some interesting clues to the evolution of the building and the use of materials (Appendix C). Paint samples from the sashes in the New Dining Room (W127) appeared to have a greater number of paint layers than samples from other window elements. The earliest paint layers on W127 sashes correspond with the early layers on the French door to the Lounge (Room 108), and those on the casing of the (now inside) window in the wall shared with the Dining Room (Room 106). This indicates that the sashes of W127 were contemporary with the ca.- 1905 doorway and window casing, and were therefore reused in the ca. - 1940 addition.

Additional evidence supporting this conclusion was discovered on paint samples taken from the brickwork of the ca.- 1905 addition. A section of the ca.- 1905 brick was revealed under a deteriorated plaster and lath wall on the north side of the New Dining Room (Room 107). Similar paint stratigraphy was evident on both the ca.- 1905 brick sample and the casement sash sample. That indicated that the sash and the ca.- 1905 brick were contemporary, and the casement sash was in place prior to the application of the plaster and lath walls when the buff-brick addition was built ca. 1940. This further suggests that the casements were possibly the same sashes observed in the 1922, 1937, and 1938 photographs of the enclosed porch.

Men's Lounge (Room 104) Alterations

Photographs of the Men's Lounge (Room 104) from the early 1940's depict a bar in front of the bay window, with chairs and tables in the foreground (fig. 76). Apparently the Men's Lounge served as the bar for the Officers Club during that period (see the subsequent discussion on room use). It is evident from documentary and extant physical evidence that the original conventional doorway between the Men's Lounge and the Pantry Area (Room 105a) was widened during this period. Historic photographs show that the bar area of the 1940's encompassed both the Men's Lounge (Room 104) and the Pantry Area (Room 105a). It would follow that the doorway between the two rooms was enlarged to create better access between the two rooms when the rooms were altered to function as one space. This may have been part of the remodeling of the recreation room noted in the 1938 records or a later alteration. In either case, the doorway between the Men's Lounge (Room 104) and the Pantry Area (Room 105a) was enlarged by the early 1940's.

1943 Addition

The next recorded alteration dates from 1943. The Real Property Card for the Officers Club described it as measuring 94 feet 6 inches by 44 feet 8 inches, covering 9,380.54 square feet, with brick walls and foundation and a slate roof. The record includes a handwritten note that reads "ADDITION TO BE ADDED 38' X 18' SUN PORCH, COMPLETED 5- 15- 43."¹⁰⁵ This reference appears to indicate the more recent wood addition, later converted to the Bar (Room 109), which enclosed the south side of the piazza. Indeed, photographs from 1943 and 1944

¹⁰⁵ Fort Hancock Post Record Book (GATE cat. 220), Officers Club, Building No. 114.

depict the wood- paneled interior of this addition (fig. 78). However, the current wood addition measures 52 feet 10 inches by 18 feet 2 inches. It is possible that the size of the wood addition was increased by 16 feet, or that there was some confusion between the ca.- 1940 addition (which measured 38 feet by 24 feet) and the 1943 addition. In either case, the photographic evidence is supported by physical investigation and paint investigation, all of which confirms the 1943 date of construction for the wood addition. The entry in the records suggests that the room was intended to be used as a sun porch (see the subsequent discussion on room use).

The 1943 addition was erected along the south elevation of the main block, and it replaced the section of the piazza there. The addition was built on grade with a crawl space. The floor framing for the addition incorporated the original porch framing and brick piers into the new construction. Since the addition extended beyond the area of the former porch, new framing was added to the existing structure to achieve the desired expanse of the addition. The wall and roof framing used dimensional stock fastened with wire nails. The exterior of the addition was clad with wood clapboards, and the shallow- pitch hip roof was originally covered with terne-coated flat- seam steel.¹⁰⁶ A set of double doors in the northeast corner of the room led to the front piazza. The doors were paneled with 12 lights in the upper portion of each door. Another exterior entrance was built on the south elevation, and was accessed by a set of steps that was protected by an overhanging pediment. The design of the new addition took advantage of the southern exposure by using double- hung, 12- over- 12 sashes.

The interior walls were paneled with knotty pine boards, and the ceiling consisted of plywood panels with a finished veneer. The floor of Room 109 was covered with hardwood strip flooring. Interior access to the Sun Porch/Bar (Room 109) was from the Lounge (Room 108) and the New Dining Room (Room 107). The doorway from the Lounge was created by enlarging the westernmost of four original window openings in the south wall of the Lounge. (The other three windows remained intact.) The doorway from the New Dining Room was a wide doorway in the east wall of the Dining Room, which may have been converted from an earlier window opening. (A second window in this wall remained intact at this time.) Both the doorway and window have since been closed up, but they are depicted on the 1959 floor plans and in ca.- 1943 photographs. In addition, physical evidence remains in situ of the doorway.

Alterations in the Cold War Era (1959 – 1974)

A gap exists in the records located for the Officers Club between the documents dating from World War II and the 1970's records of the National Park Service. However, 1959 floor plans located in the Gateway NRA Museum Collection at Sandy Hook provided a view of the building during the later part of its association with Fort Hancock (figs. 73- 74). The room designations and building measurements provided a better understanding how the Officers Club evolved. Based on those plans and investigation of the existing building materials, there appear to have been no major exterior additions or alterations to the building after 1959.

Among the changes discernible from the plans were alterations to Room 103 (the Ladies' Lounge) and Room 104 (the Men's Lounge). In the 1959 plan Room 103 has two bathrooms. One of the bathrooms (103b) had been installed before the 1920's, as previously discussed. The installation of the second bathroom (103a) blocked the passage between Rooms 103 and 104.

¹⁰⁶ Ballos, p. 18.

Existing evidence, including light fixtures and wall mounts, indicates that a large mirror was installed on the north wall of the room – a useful feature, given the room’s use as a Ladies’ Lounge.

The 1940’s photographs of Room 104 document that it was then in use as a bar room, being furnished with tables and chairs and a bar along the bay window on the north wall. The 1959 plan depicts that a partition had been erected in the room, running north- south and intersecting the north- elevation bay window. Toilets, urinals, and sinks were installed on the east side of the new partition (Room 104a), and Room 104 was designated as the Men’s Lounge (Appendix B). The large doorway between the Men’s Lounge (Room 104) and the Pantry Area (Room 105a) was apparently closed off at that time. The doorway was certainly eliminated by 1959, as depicted in the floor plans. This work was most likely completed during the 1950’s.

The 1950’s partition between the Men’s Lounge (Room 104) and the toilets (Room 104a) was apparently shifted eastward after its creation, reducing the size of the toilet room. The partition that appears in the 1959 plan (fig. 73) is in a different location than the current one. Physical investigation could not confirm this alteration, but it may have occurred when the Men’s Lounge (Room 104) was converted to the Ladies’ Lounge sometime during the late 1960’s or early 1970’s (see the subsequent discussion on room use).¹⁰⁷

At some point prior to the creation of the 1959 plans, the 1943 wood addition was converted to the bar. This probably coincided with the alterations made to the Men’s Lounge (Room 104) during the 1950’s. However, the installation of the current red leather bar, and a double mirrored bar- back, probably dated to the 1960’s. (The 1959 plan shows two windows in the approximate location of the current bar.) Currently the same two enclosed windows can be seen on the south wall of the room behind the bar. The interior trim of the windows was left intact, and the openings were infilled with paneling to match the wall paneling (fig. 79). The extant evidence indicates that these windows were closed up when the leather bar and bar- back were installed, which would have been after the 1959 plans were made. During this same period the exterior of the Bar (Room 109) was covered with asbestos shingles. Since the shingles cover the two windows that were altered during the bar- back installation, it appears that the asbestos shingles were added sometime after the 1959 drawings were done. A doorway and a window in the west wall of the Bar, both looking into the New Dining Room (Room 107), were probably closed up at this time, as well.

The 1959 plans reveal that a small metal- sided structure had been added to the back porch along the west elevation of the rear ell. This was a Men’s Room, and paint evidence suggests that it was added in the late 1940’s or early 1950’s.

The two south- elevation oriel windows on the second story of the rear ell were removed sometime after the 1959 plans were drawn, but existing evidence could not conclusively date this alteration.

Other alterations that most likely occurred during this period were the removal of partitions and stairways in the Kitchen (Room 105), creating one large kitchen. The alteration of the Kitchen included the construction of a knee- wall partition, which is extant. The partition was covered with tile; it started at the hearth wall and extended east to the Pantry area.

¹⁰⁷ Interview with Park Historian Hoffman.

During the latter part of the U.S. Army use of the Officers Club, some minor alterations occurred on the second story due to a project to divide the space into separate apartments. These included the installation of partitions in the second- story hallways, and enclosing the stairway from the second story to the attic with plasterboard.¹⁰⁸ Fire escapes were added to the east and west elevations of the building in the 1960's.

National Park Service (1974 – Present)

The Officers Club remained primarily unchanged from the time it was transferred to the National Park Service to the present day. The building was used by the NPS as staff housing from 1977 until it was closed in 1981.¹⁰⁹ National Park Service maintenance records from the 1970's document some minor repairs and painting of the interior and exterior. Examination of the exterior and interior paints does indicate that the building was regularly painted.

From 1991 through 1993 NPS personnel performed emergency stabilization work on several buildings at the Sandy Hook Unit, Gateway National Recreation Area. Included in that work were repairs to the Officers Club. The work included repairs to the mansard roof, gabled roof, Dining Room roof and porch roof, as well as stabilization of the front piazza, and some minor painting projects.¹¹⁰

Recent projects to stabilize the Officers Club include additional shoring of deteriorated structural elements. In efforts to stop water infiltration, the roof was repaired with roll roofing and tar patches in the spring of 2005.

Uses of the Officers Club

The uses of the Officers Club, as explained previously, evolved with the changes in the military staffing at Sandy Hook. Built as the "Officers' Quarters" to serve the needs of the Sandy Hook Proving Ground, the building apparently continued in that role throughout its use by the military. At the turn of the 20th century, documents indicate that it was also considered the "Officers' Mess," and prior to World War II it was designated as the "Officers' Quarters' and Officers Club." During the World War II era, the Officers Club was the scene of several Christmas parties and gala New Year's Eve parties. During the 1960's the Officers Club served as the headquarters for the Fort Hancock Officers' Wives Club, and was used for meetings and receptions. Historic records, correspondence, photographs, and existing building materials provide the basis for understanding the importance of the building and how it was used since it's original construction. Some of those uses are illustrated in Appendix A ("Annotated Plans"), Appendix B ("Change in Room Use"), and figures 11- 15 and 73- 74.

¹⁰⁸ Interview with Park Historian Hoffman.

¹⁰⁹ Interview with Park Historian Hoffman.

¹¹⁰ Ballos, pp. 15- 22.

Ladies' Lounge (Room 103)

The 1878 proposed plans for the Officers Club listed Room 103 as the "Sitting Room." Major Smith's letter discussing the ca. - 1905 addition also notes that "the present library (of the Officers Club) is considered to be adequate for its purpose."¹¹¹ The maintenance records from the 1920's indicated that the "Library" at that time was in Room 103. It is likely that Major Smith was referring to that same room in his correspondence to the Chief of Ordnance.

The conversion of half of the first story to living quarters in 1926 probably included this room. However, the 1930's saw increased recreational usage of the building, and a concurrent reduction in its housing capacity. The adjacent room to the west, the Men's Lounge (Room 104), was being used as a bar by the 1940's, as depicted in photographs from that period. It seems likely that the second bathroom in Room 103 (103a) was added during this period. This addition closed the doorway between Rooms 103 and 104, and turned Room 103 into a general lounge area. Since Rooms 103a and 103b were the only bathrooms on the first story during this period, it seems likely that one would have served as the Ladies' Room and the other as the Men's Room.

In the early 1950's, when Room 104 was altered to be the Men's Lounge and bathroom, Room 103 was converted to the Ladies' Lounge. It remained in that function through the mid 1960's. When the NPS took control of the Officers Club in 1974, Room 103 was being used as the Men's Lounge.¹¹² This change in use probably occurred ca. 1965, which corresponds to a change in paint color on the walls and trim of Room 103 from pink to blue (Appendix C).

Men's Lounge (Room 104)

Room 104 was originally intended as the "Dining Room," as indicated by the proposed plans. Its proximity to the kitchen and pantry would support this use prior to the addition of another dining room (Room 106) ca. 1905. Room 104 originally had a fireplace along the south wall. The chimney was evident in early photographs, which depicted four symmetrically placed chimneys. Existing evidence included the arched chimney support in the basement, as well as visible framing for a chimney between the first and second stories. It is likely that Rooms 104 and 105 were connected by a conventional doorway, as illustrated in the plans. The specific use of Room 104 after the ca. - 1905 addition is not known, but the 1920's room list indicated that this was the "Billiard Room."

Several photographs from 1942 through 1944 showed this room with a bar. The same photographs also indicate that Room 104 and the Pantry (Room 105a) to the west were joined by a large doorway and functioned as one space.

¹¹¹ Smith to Crozier, Apr. 9, 1903; Vol. 22, p. 241; Letters Sent, 1890- 1905; SHPG, 1889- 1919; Entry 1516, RG 156; NARA - Northeast Region (NY).

¹¹² Interview with Park Historian Hoffman.

The 1940's photographs of Room 104 depict wood paneling below the chair rail and *trompe l'oeil* paintings of mermaids on the upper walls (figs. 76). The wood paneling, which was finished with dark shellac and set in a diamond pattern, was extant. The same paneling was present in the Pantry (Room 105a). Evidence of the large doorway formerly here, which connected Rooms 104 and 105a, is visible in both rooms. Also, a photograph from 1943 shows partygoers in the doorway from Room 106 to Room 105 with the mermaid painting in the background. The previous use of Room 104 as the "Billiard Room" and a photograph of the room from 1943 showing a pinball machine in Room 105a, suggest that this area may have been the "recreation room" referred to in the 1938 annual report.

The creation of a toilet room and the conversion of the remainder of the space to the Men's Lounge most likely dated to the early 1950's, perhaps after Fort Hancock was reopened. Paint evidence indicates that – at the same time the wide doorway to Room 105 was closed – the walls above the paneling were covered with wallboard, and the room was painted.

The partition in Room 104 was shifted eastward sometime after the 1959 plans were drawn. This most likely occurred ca. 1965, when the Men's Lounge became the Ladies' Lounge. Room 104 was being used as the Ladies' Lounge when the NPS obtained the Officers Club in 1974.¹¹³

Kitchen (Room 105)

The current kitchen area, in the first story of the rear ell (Rooms 105, 105a, and 105b), has experienced a number of alterations. Physical evidence cannot conclusively date those changes, but room descriptions, photographs, and plans help present at least a time frame for these alterations.

Originally this area contained three rooms. The middle and largest room was probably the kitchen (Room 105), because it had a fireplace. The room to its east, from which it was separated by stairways to the basement and the second story, was most likely a pantry (Room 105a), since it had a doorway to the original dining room (Room 104). The room west of the kitchen (Room 105b) was probably a laundry. The proposed plan shows a fireplace in this room, back- to- back with the Kitchen fireplace. No physical evidence of such a fireplace was found during the research for this report.

A major change to the kitchen area was the addition of the one- story "bump- out" on the north side of the ell ca. 1905. This addition increased the size of the working kitchen, and included the addition of a cold- storage area (105c) in the northwest corner of the ell.

The use of the original Laundry (Room 105b) also changed dramatically around that time. The ca.- 1905 addition to the Officers Club ell increased the building's housing capacity, and there was probably a corollary increase in service staff. At the same time, Building No. 113 was constructed adjacent to the Officers Club as its laundry.¹¹⁴ Any laundry function within the Officers Club would have been discontinued at that time. Records from the 1920's indicate that Room 105b was being used as a servants' dining room by then. It seems likely that the change in

¹¹³ Interview with Park Historian Hoffman.

¹¹⁴ Sulam and Marsh, p. 86.

use from a laundry to a servants' dining room occurred when the new laundry building (Building No. 113) was constructed.

Room 105b was later altered by the addition of its extant south wall. This was evident from the difference in baseboard trim along the south wall versus other baseboard trim in the room. Furthermore, the room size noted in the 1920's room list indicated a larger room, without the south partition. The 1959 floor plans showed this room in its current configuration as a store room, which indicates that the south wall of this space was added between the 1920's and 1959. Physical evidence indicates that Room 105b formerly had a doorway in its east wall, north of the chimney stack, leading to the Kitchen (Room 105). The doorway does not appear on any plans, and the date of its infilling is not known.

The 1959 plan depicts a partition wall on the south side of the Kitchen, which created a hallway between the Kitchen (Room 105) and the Dining Room (Room 106). Based on the room sizes and floor plans, it is apparent that the partition was added between the 1920's and 1959.

The partition and stairwell between the Pantry (Room 105a) and the Kitchen, as delineated in the 1959 floor plans, were later removed, presumably to expand the Kitchen. At this same the south partition previously described was altered to a knee wall and covered with tile.

Dining Room (Room 106)

The Dining Room (Room 106) appears have always served the original intent of the ca.- 1905 design. As previously discussed, the ca.- 1905 photographs of the Dining Room reveal several aspects of the room's earlier appearance (figs. 56- 57). Among these were the outline of the original south- elevation bay window, the early mantelpiece and overmantel, the period decorative scheme, the plaster ceiling, early lighting fixtures, and the original fenestration.

The first alteration to this room was probably the addition of the metal ceiling. Paint evidence suggests that this may have been one of the earliest metal ceilings to be installed in the Officers Club. The south- facing bay window evident in the early photographs was later removed to accommodate another addition to the south. This change presumably took place when the New Dining Room (Room 107) was added ca. 1940, but may have been done earlier when the porch enclosure material was changed from screen to glass.

The original marble fireplace surround and classical engaged columns and entablature remained intact. Photographs document that the overmantel pediment and relief were replaced with a large mirror prior to 1943. These same photographs illustrated that the stained- glass windows incorporating the Ordnance Corps insignia were removed prior to 1942. This most likely occurred when the Sandy Hook Proving Ground was decommissioned in 1919.

The wall sconces seen in the photographs appear to date from the ca.- 1905 installation, and were visible in images through the 1960's. The niche in the north wall of the Dining Room (Room 106), which was framed by classical pilasters and an arch, served as a decorative centerpiece for the room. One of the ca.- 1905 photographs depicted a moose head in that location. That was later replaced by a portrait of General Hancock, which was seen in photographs from the 1940's. The portrait in turn was replaced by 1960 with a mural of an antebellum mansion, which remained in place through 1967. The most recent decoration of the

niche was the extant mural of Sandy Hook (fig. 75), which was painted by the post's sign painter Harvey Haddon between 1967 and 1973.¹¹⁵

New Dining Room (Room 107)

This room occupies the space of the "broad porch" with rounded bay and Colonial Revival details that was part of Major Smith's plan for the ca.- 1905 addition to the Officers Club. The porch was well documented in historic photographs, and was extant through ca. 1940. The original intent, as described by Major Smith, was "for summer use in connection with the Dining Room."¹¹⁶ The porch presumably served the intended function, and the addition of the glass sashes to enclose the porch may have extended its seasonal use. The removal of the enclosed porch, and the construction of the buff- brick New Dining Room (Room 107) in its place ca. 1940, increased the square footage and dining capacity of the Officers Club. Photographs from the 1940's documented that the space was also used for dancing during that active period of Fort Hancock (fig. 77).

Lounge (Room 108)

The 1878 proposed plans for this space show it partitioned into an east "Office" and a west "Board Room." Both the physical and documentary evidence reviewed indicate that this area was always one room. As stated by Edwin Bearss, the Officers Club was used as a meeting place for members of the Ordnance Board, as well as other dignitaries.¹¹⁷ Though the specific use of Room 108 was not initially documented, given the established function of the other primary first- story rooms, it would be logical to assume that Room 108 functioned as a meeting room. The ca.- 1905 alterations to the Lounge (Room 108) certainly made it one of the more decorative rooms on the first story, and a room that would have impressed visitors. The 1920's records listed Room 108 as the "Reception Room," and in the 1959 plan it was labeled the "Lounge." The expanse of the room, the large windows, and the two ornately carved mantelpieces created a sense that it was an important room.

Bar (Room 109)

The Real Property Card notation concerning this 1943 addition suggests that Room 109 was initially used as a sun porch. Historic photographs taken soon after it was constructed depict the room being used as an additional dining area during the holiday parties (fig. 78). During that very active period at Fort Hancock, the room continued to serve as the overflow for dining and receptions at the Officers Club, as well as a sun porch. By 1959 Room 109 had been designated as the bar for the Officers Club, as indicated by the floor plans of that year. As previously discussed, the installation of the current red leather bar, and double- mirrored bar- back, probably dated to the 1960's (fig. 79). The bar continued in that capacity through 1974 when the building was turned over to the NPS.

¹¹⁵ Interview with Park Historian Hoffman.

¹¹⁶ Smith to Crozier, Apr. 9, 1903; Vol. 22, p. 241; Letters Sent, 1890- 1905; SHPG, 1889- 1919; Entry 1516; RG 156; NARA - Northeast Region (NY).

¹¹⁷ HRS, 1874- 1919, p. 2.

It appears that the Officers' Club was a vital place throughout its association with the Sandy Hook Proving Ground and Fort Hancock. The use of the primary first- story rooms reflects that vitality, and the interpretation of that history contributes to the understanding of the Officers Club and the site.

Ancillary Structures

Building No. 113

Building No. 113 (figs. 80- 81) was constructed in 1905 just west of the Officers Club (fig. 48), to serve as a laundry for the officers of the Ordnance Department.¹¹⁸ It was a one- story wood- framed structure built on a poured concrete foundation. The building had a hip roof, which was covered with green asphalt shingles at the time of research was performed for this report. Building No. 113 was clad with clapboards and had wooden double- hung sashes. The structure had triple sets of windows on both its south and east elevations. The center window in both sets had double- hung, eight- over- eight sashes, which were flanked by double- hung, six- over- six sashes. Other windows on the building had double- hung, six- over- six sashes.

The plan of Building No. 113 had two rooms arranged in a T shape. The main room measured 16 feet by 22 feet and composed the main block of the building. The other room measured 6 feet by 16 feet, and was attached to the west elevation of the main block.¹¹⁹

Building No. 113 served as the laundry building for the Officers Club from 1905 until the late 1930's when it was altered to function as a "Caddy House" for a nine- hole golf course that would have started and ended near the Officers Club.¹²⁰ Its location and role make it important to the historical context of the Officers Club.

Barbecue Terrace

The concrete terraced area situated between the Officers Club and Building No. 113 was historically used as a barbecue terrace. It was described in the Cultural Landscape Report as being equipped with a "barbecue with three grills built into a curving concrete block wall that stretches almost the whole length of the southern edge of the terrace."¹²¹

The date of construction of the barbecue area is not known, but it may have been part of the 1937 improvements to the parking area and grounds. The location of the barbecue area near the Officers Club makes it an important landscape feature and part of the contextual history of the Officers Club.

¹¹⁸ Sulam and Marsh, p. 86. This section is based on the report prepared by Barry Sulam and John Marsh. Building No. 113 was not researched or investigated as part of this report.

¹¹⁹ Sulam and Marsh, p. 87.

¹²⁰ Sulam and Marsh, p. 86.

¹²¹ Norma E. Williams, *Cultural Landscape Report for Proving Ground and Wartime Expansion Areas* (Brookline, MA: U.S. DOI, NPS, Olmstead Center for Landscape Preservation, July 1999), p. 62.

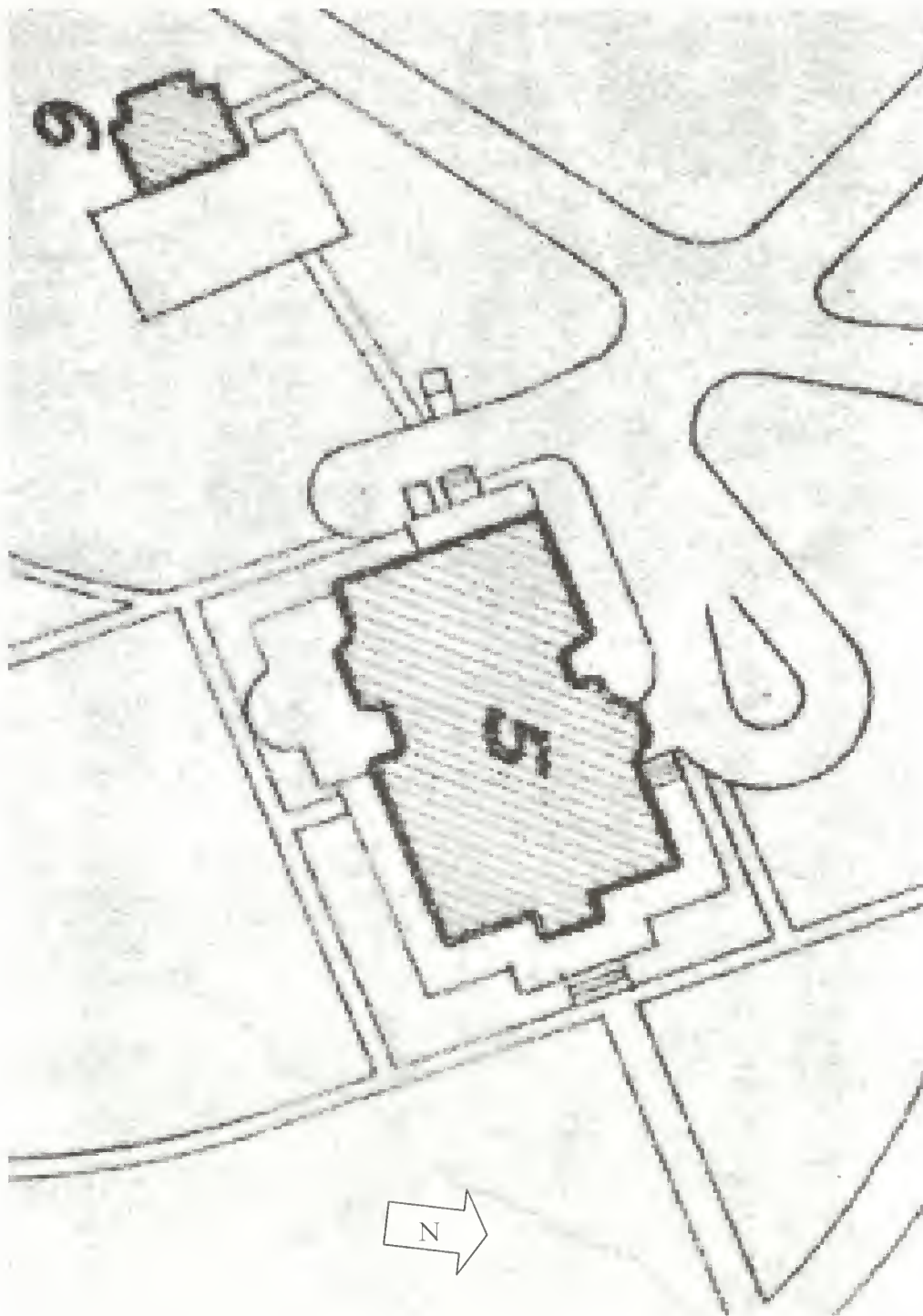


Figure 48. Detail of map of Sandy Hook Proving Ground, 1908/1915, showing Officers Club "footprint" with ca.- 1905 additions, including bay window and rounded porch on south elevation. Map also shows Laundry/Building No. 113 (No. 6).



Figure 49. Sandy Hook Proving Ground, Greenhouse, with Officers Club in background, south elevation; note details of rounded porch.

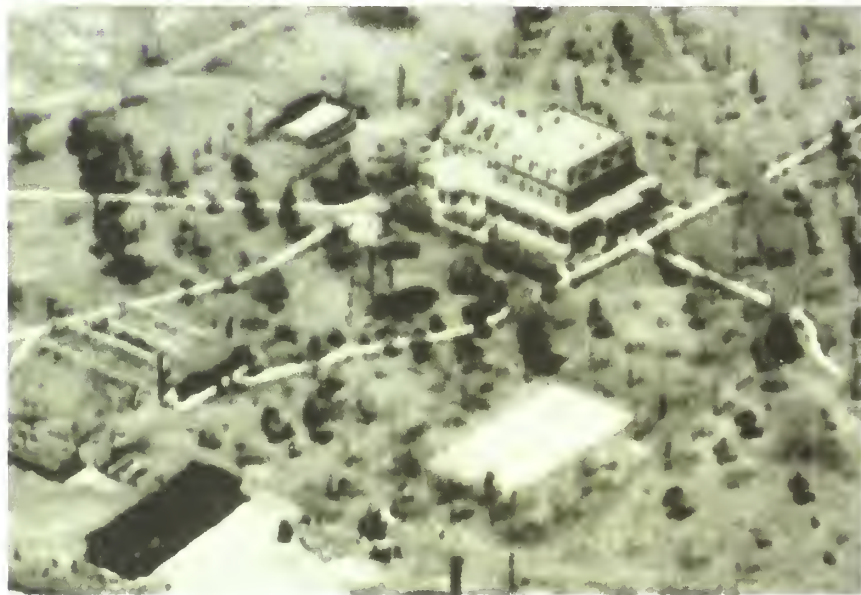


Figure 50. Detail of figure 64, showing Officers Club, 1924.



Figure 51. Officers Club, west- elevation window W124, seen from the Dining Room (Room 106), 2005.



Figure 52. Officers Club, west elevation of rear ell, ca.- 1905 portion; shows oculus window (W311) and arched window (W312) in gable end, 2005.



Figure 53. Officers Club, west elevation of rear ell, flared eave of ca.- 1905 addition, 2005.



Figure 54. Officers Club, north elevation of rear ell, showing dormer of ca.- 1905 addition, 2005.



Figure 55. Officers Club, basement plan illustrating original appearance and alterations (not to scale).



Figure 56. Officers Club, Dining Room (Room 106), view of south and west walls, ca. 1905.



Figure 57. Officers Club, Dining Room (Room 106), view of north and east walls, ca. 1905.



Figure 58. Stained-glass window from Officers Club, ca.- 1905 Dining Room addition (Room 106), incorporating Ordnance Corps insignia.



Figure 59. Officers Club, Dining Room (Room 106), detail of fireplace and mantelpiece, ca. 1905.



Figure 60.
Officers Club.
east- façade
main entrance.
Photograph taken
after October
1979 and before
June 1986.



Figure 61. Officers Club, transom above east- façade main entrance, as seen
from center hallway (Room 102), 2005.



Figure 62. Officers Club, doorway from Dining Room (Room 106) to Lounge (Room 108), ca. 1905.



Figure 63. Officers Club, Lounge (Room 108), fireplace surround and mantelpiece, 2005.



Figure 64. "Detail 40, 4/24/24, 14th Photo Section, Fort Hancock, New Jersey." Aerial photograph of northern end of Sandy Hook, New Jersey, April 24, 1924.



Figure 65. Officers Club, east façade and south elevation, "Feb 1922"; note enclosed porch.



Figure 66. Officers Club, west and south elevations, ca. 1940; note enclosed porch.



Figure 67. Officers Club, chimney work on rear- ell gable roof, ca. 1937.



Figure 68. Officers Club, east façade and south elevation, ca. 1937.



Figure 69. Officers Club, east façade and south elevation, April 9, 1938.



Figure 70. Officers Club, south elevation, April 9, 1938.



Figure 71. Officers Club, east facade, ca. 1940; note south- elevation addition and exterior paint color.



Figure 72. Officers Club, east facade, ca. 1941; note south- elevation addition and exterior paint colors.

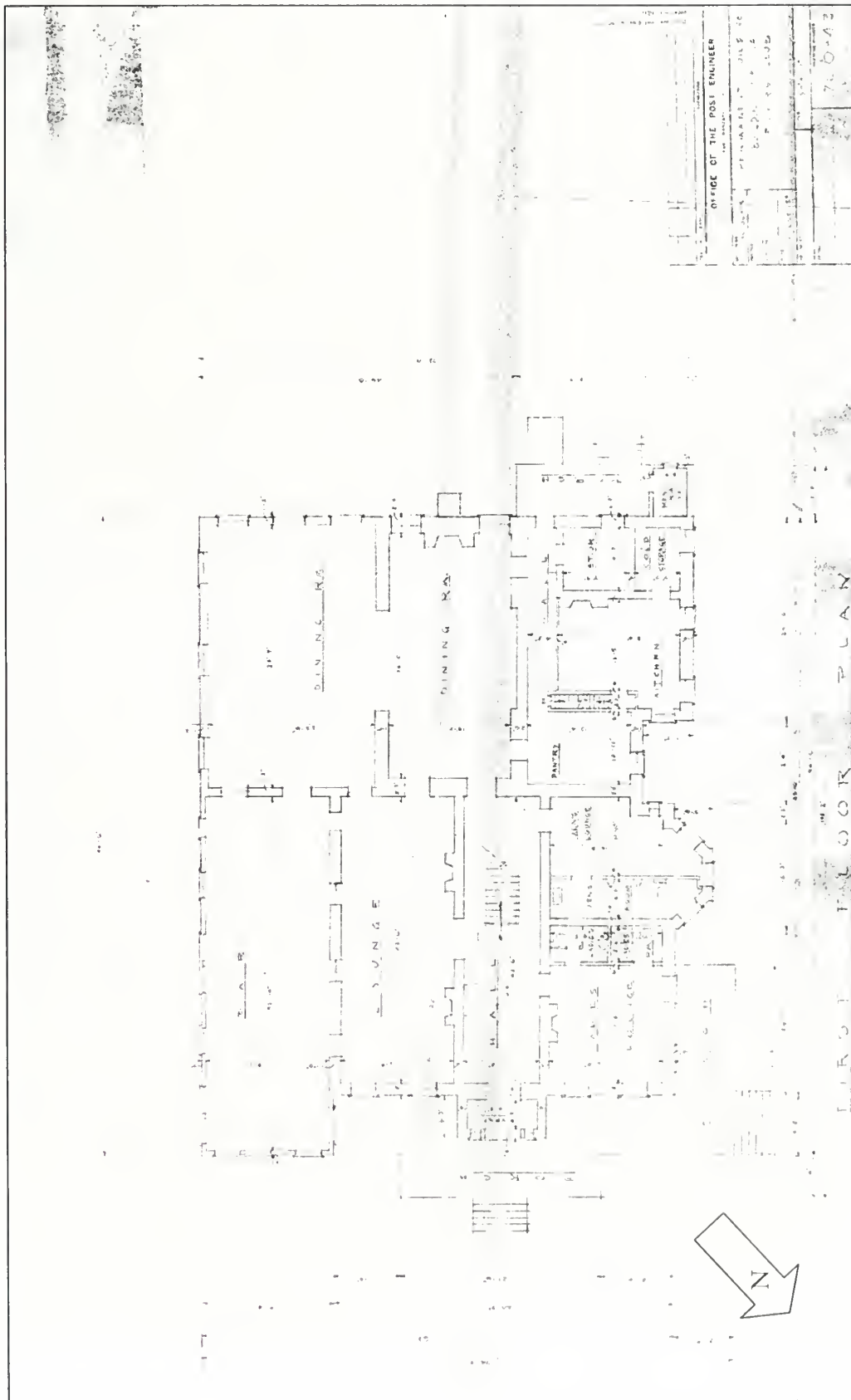


Figure 73. "First Floor Plan, Permanent Building, Building No. 114, Officers Club," 1959.

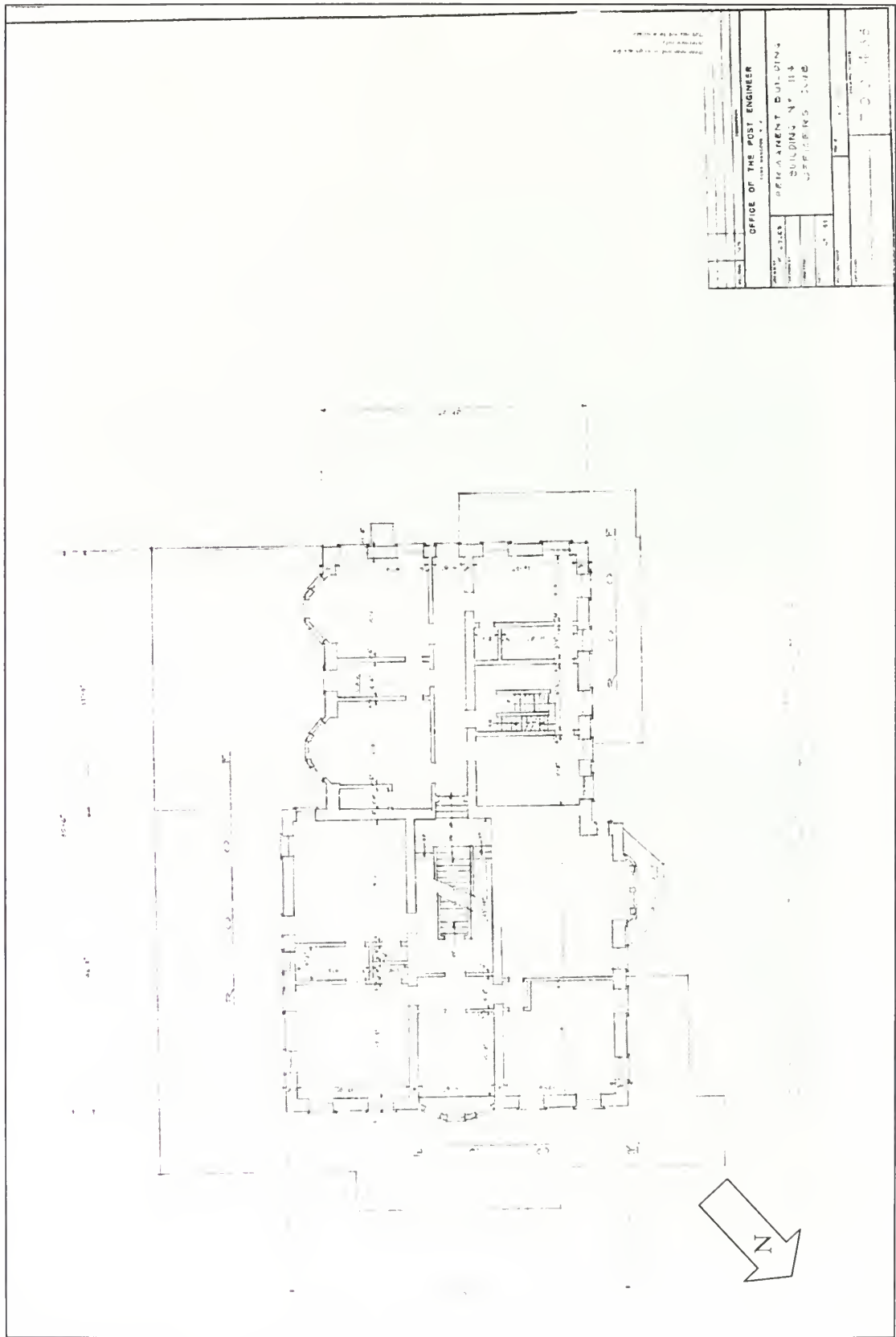


Figure 74. "Second Floor Plan, Permanent Building, Building No. 114, Officers Club," 1959.



Figure 75. Officers Club, Dining Room (Room 106), north-wall mural depicting northern end of Sandy Hook, 2004.



Figure 76. Officers Club, Men's Lounge (Room 104), showing *trompe l'oeil* painting on east wall, 1942.



Figure 77. Officers Club, New Dining Room (Room 107), south and east walls; note doorway to Room 109 at left on east wall, 1944.



Figure 78.
Officers Club,
Bar (Room 109),
1944.



Figure 79. Officers Club, Bar (Room 109), 2005.



Figure 80. Laundry/Caddy House, Building No. 113, ca. 1940.



Figure 81. Laundry/Caddy House, Building No. 113, 1995.

CURRENT PHYSICAL DESCRIPTION

The following physical description of the Officers Club is meant to augment the descriptions in the preceding sections "Original Appearance" and "Alterations." Much of the existing building material appears to be original, and so has been described previously. Additions and modifications to the original structure were discussed in the section on alterations. Those descriptions should be considered as part of the current physical description, and will not be reiterated here.

The photographs included with this section are intended to illustrate the current physical description. This report does not include a condition assessment, but it should be noted that the current condition, as documented in many of the photographs included with this report, is poor. In spite of the poor condition, the extant building fabric of Officers Club retains a high degree of integrity.

Exterior Elements

The current exterior appearance of the Officers Club reflects the evolution of the building throughout its association with the military presence at Sandy Hook. The current structure communicates the original form of the building, as well as later additions and alterations (Appendix A, figs. 88- 91).

Foundation

The present foundation is brick, with one section of asbestos shingles on the south and east elevations of the 1943 addition. The sections that were constructed with red brick are painted yellow/tan, which matches the buff bricks used to construct the ca.- 1940 addition.

Walls

The exterior walls appear as described in previous sections. The red- brick, stamped metal, and asbestos wall surfaces are painted to match the ca.- 1940 buff- brick addition, and the trim is painted green. The degraded condition of the paints has exposed some of the brick surface, as well as bare wood on some trim. The brownstone water table is painted green, but is otherwise unchanged.

Porches

The section of piazza along the south elevation of the main block was removed during the construction of the 1943 wood- frame addition. The piazza now extends only along the east facade of the main block and the north elevation. Some of the original porch elements are intact, but a significant amount of material has been lost. Emergency repairs stabilized the structure and roof, and also some of the lower elements. The front steps are no longer extant. The roof of the “porte cochère” entrance at the northeast corner of the piazza remains; its sides have been removed, and its steps were recently rebuilt by the NPS. Sections of the piazza balustrade have fallen apart; others have been removed and replaced with a temporary 2- by- 4 railing and balusters. Likewise, a large portion of the piazza latticework has deteriorated.

The back porch is enclosed with plywood, and a significant amount of the historic building material is deteriorated. Most of the columns are decayed, and some have been replaced with temporary 4- by- 4 supports. The steps were rebuilt using modern materials during the emergency stabilization. The doorway to this porch currently serves as the primary entrance to the building, and its door is equipped with a modern lock.

Doorways and Windows

The original fenestration of the Officers Club, as well as the fenestration of the additions, is very much intact. Some of the window sashes were replaced over the years, but paint research indicates that some of the early sashes have survived. Most window and doorway openings are currently covered with plywood. This stabilization effort has helped protect many of the windows. Some of the window openings at the basement level were infilled during alterations to the building, but this does not affect the exterior appearance of the building.

The first story retains the original large double- hung, two- over- two sashes in the window openings of the Ladies’ Lounge (Room 103) and the Lounge (Room 108), as well as the configuration of the bay window, with original double- hung, two- over- two sashes in the Men’s Lounge (Room 104).

The window sashes in the main block on the second story are all of double- hung design, but they have varied configurations. Most openings have two- over- two sashes, but two window openings on the south elevation have one- over- one sashes, as do the smaller windows at this level. The oriel windows on both the east and north elevations of the main block of the Officers Club are equipped with four- over- four sashes, including the curved sashes of the north elevation’s oriel window. The north- elevation oriel window is damaged and currently covered with plywood.

The window openings in the rear ell on the second story generally have double- hung, four- over- four sashes with simple board trim matching the doorway casings. As previously mentioned, the two oriel windows on the south elevation of the rear ell, which were part of the ca.- 1905 addition, were removed sometime after 1959, but the framing for those windows is extant. Those two oriel windows were replaced with paired double- hung, two- over- two

sashes with horizontal lights. The bathroom window opening on this same elevation also has double- hung, two- over- two sashes with horizontal lights.

At the first and second stories the brownstone lintels and sills are painted green to match the other trim elements. The masonry trim on the ca.- 1905 and ca.- 1940 additions is also painted green. The trim elements on the 1943 addition are likewise painted green.

The window openings in the mansard- roof dormers retain their original double- hung, one- over- one sashes with segmental arched top sashes. The dormers also retain their historic surrounds with arched crowns and flared casings, and are an important feature of the building.

Roofs

The lower hip of the mansard roof is covered with fiberglass tab shingles, which replaced deteriorated asphalt shingles during the 1991 stabilization. Likewise, the gable roof and dormers of the rear ell were covered with fiberglass tab shingles during repairs.¹²² Since the asphalt is evident in photographs from the 1960's, it is likely that it was first installed in the late 1950's to early 1960's. The upper hip of the mansard roof is presently covered with a built- up bituminous roof, and areas are patched with roofing tar. The 1991 stabilization included repairs to the roof over the ca.- 1940 addition, the 1943- wood addition, and the piazza. All of these roofs are currently covered with 90- pound asphalt double- coverage roofing material.¹²³ The roof of the one- story kitchen addition on the north elevation of the rear ell, and the rear porch on the west elevation, form a contiguous roof line. This entire roof is covered with terne- coated flat- seam metal pans.¹²⁴ The small roofs of the mansard dormers retain their flat- seam metal roof coverings.

The upper cornice of the mansard roof is wrapped with light- gauge aluminum painted green to match other trim elements. The section of aluminum along the east elevation has fallen off, and other sections have sustained some damage. The wood cornice behind the aluminum is decayed, but would provide a suitable profile for replication of that feature. The lower cornice is primarily intact and, in spite of the deteriorated condition of the paint finishes, retains its historic integrity. Other cornices on the building are wood and painted green to match other trim elements. All cornices on the building include integral gutters lined with metal. During building repairs some of the gutter linings were replaced with aluminum; otherwise, the metal gutters were treated and left intact. The downspouts are a combination of galvanized metal and aluminum, and are painted green to match the trim.

The main roof is pierced by three red- brick chimneys. The chimneys are corbelled at the top and are capped. The rear ell has two brick chimneys, as well as a large chimney that runs up the west elevation of the ell, then abuts the interior chimney of the Dining Room (Room 106) at the roof line. All of the chimneys are painted buff to match the body of the building.

¹²² Ballos, p. 16.

¹²³ Ballos, pp. 18- 19.

¹²⁴ Ballos, p. 20.

Other Elements

On the east elevation a steel fire escape is attached to the building at the center dormer. A steel ladder extends from the platform to the piazza roof below, and another steel ladder runs from the piazza roof to the ground level. A fire escape is also attached to the west elevation of the building. At this location a large steel platform can be accessed from a second- story emergency- exit doorway. A steel stairway extends from the platform to the ground level. The section of fire escape that leads from the attic level on the west elevation is no longer intact.

Interior Elements

The existing interior elements represent the changes to the building over the 126 years since it was constructed. The Officers Club as described in the “Alterations” section has, for the most part, remained unchanged since the World War II era.

Basement

There is a full basement under the original sections of the building and crawlspaces under the additions (fig. 55 and Appendix A, fig. 88). The original stairway from the basement to the first story of the rear ell has been removed. Thus, the only access to the basement is through the west- elevation bulkhead. Several of the doorways in the brick bearing walls and partitions of the basement are sealed off with cinderblocks. Some of the original basement windows are closed off with brick, and the windows facing the exterior are covered with plywood. As previously mentioned, a large portion of the exposed framing was charred by fire. In Room 001, some of the framing has been strengthened by the addition of support posts and extra joists. The ceiling in the center hallway, Room 002, appears to be composed of fireproof asbestos panels. The basement floors are covered with cement, except in Room 008, which is paved with pieces of brick.

There was one addition to the basement “footprint” that could not be dated. A small room (Room 007) tucked in the southwest corner where the main block meets the ell appears to have been built after the original construction. This room is full height, with a doorway to the center hallway of the basement, and a window on the west elevation trimmed with brownstone. It is constructed with brick, but is not integral with the original foundation. The position of the room within the foundation walls and crawlspace of the ca.- 1905 addition suggests that it was added prior to that addition. The location of this room, near the original utility room, suggests that this may have been an early coal storage area.

First Story

The physical elements are in poor condition, but the survival of room proportions, high ceilings, tall window openings, and classical details on the first story has managed to preserve the historic integrity of the space. A number of the features and architectural elements at this level were described in previous sections, and are considered to be “character- defining” (see the subsequent section “Character- defining Features”).

The current plan of the first story appears to be relatively unchanged from the military usage of the Officers Club (Appendix A, fig. 89). The front entrance and vestibule, leading to the east-west center hallway, remain important features of the plan. The primary rooms on first story flank the center hallway, as they did historically. The demolition of the rear stairway and partitions in the Kitchen area (Room 105) has created a much larger service area that does not reflect the historic appearance. However, this does not adversely affect the interpretation of the first story.

A majority of the floors on the first story are of wood. The wood floors in the vestibule, and in sections of the Kitchen, have been overlaid with tile. The center hallway (Room 102) and the stairway are carpeted, but uncarpeted sections of both reveal parquet flooring. Photographs from the 1960's also depict a parquetry fretwork border in the hallway (Room 102), which may remain underneath the current carpeting. The Ladies' Lounge (Room 103) appears to have the earliest surviving wood floor, which is unfortunately in poor condition. Historic photographs of the Dining Room (Room 106) indicate that the existing parquet floor is not original to the ca.- 1905 addition. The wood- strip flooring in other rooms also appears to be from the later years of military use, but the use of wood flooring does help maintain the appearance associated with the historic wood floors.

The double- return stairway to the second story has flared newel posts on the first story, which appear to be replacements. The newel posts are constructed with wire nails and painted a brown color. Photographs from the 1960's depict the newel posts with lantern- style caps, which have since fallen off. Based on the existing evidence, it was not possible to accurately date the installation of the current newel posts, but they do not match the original style of the building. Furthermore, the extant newel posts at the attic level appear to be original, and are more appropriate to the period of construction.

Several records for the Officers Club mention the condition of the plaster walls and ceilings and the efforts to repair and/or replace them. Several generations of lath and plaster were observed on the walls and ceilings, providing an interesting record of the changes to the building.

The building was constructed with wood lath and plaster on walls and ceilings. Damage to the plaster surfaces from the firing of guns at the proving ground required the replacement of most of the original plaster and lath with metal lath and plaster, which is evident throughout the building. The extant evidence further reveals that in many rooms, the plaster and metal- lath ceilings were later covered by metal ceilings. As early as 1901 and as late as the 1937 Annual Report, the repair of the plaster walls and ceilings and the installation of metal ceilings, as well as interior painting, appeared to be regular maintenance items at the Officers Club. The records do not mention specific rooms but, with the exception of the Ladies' Lounge (Room 103) and the Bar (Room 109), currently all the rooms on the first story have metal ceilings, and the walls are

either plaster on metal lath or are covered with plasterboard. The Bar (Room 109) retains the wooden wall paneling and portions of the plywood ceiling seen in early photographs of that room. The plaster and metal- lath ceiling in the Ladies' Lounge (Room 103) is severely deteriorated, but it is the only surviving plaster ceiling on the first story, and so is a significant feature. In the Dining Room and the New Dining Room (Rooms 106 and 107), the walls below the chair rail have been covered with thin wood paneling. The kitchen area (Room 105) has a drop ceiling, but a metal ceiling is evident above.

The ornamental plaster cornices in the Ladies' Lounge (Room 103), the Lounge (Room 108), and the Dining Room (Room 106) are intact period details. In other rooms, the installation of the metal ceilings included a metal cornice piece. (The earlier cornices were either covered or removed.)

The doorways retain much of their early casing details, but at this level many of the doors are missing. Hollow- core doors hang in the double doorway from the hallway (Room 102) to the Lounge (Room 108). The pocket door from the Lounge (Room 108) to the Dining Room (Room 106) is no longer operative, but it remains intact. Paint analysis has determined that the French door leading from Lounge (Room 108) to the New Dining Room (Room 107) dates from the ca.- 1905 alterations. An apparently original doorway in the northwest corner of the Lounge, leading to the hallway (Room 102), was closed up, and a telephone booth and closet were installed in the recess of the doorway opening on the hallway side.¹²⁵ A doorway from the New Dining Room (Room 107) to the 1943 sun porch/Bar (Room 109) was also closed up, sometime after 1959.

Most of the interior window trim is intact. Particularly representative examples of period trim exist in the Ladies' Lounge (Room 103) and the Lounge (Room 108), as well as in the ca.- 1905 Colonial Revival- style Dining Room (Room 106). The four openings in the south wall of the Lounge (Room 108) were originally exterior windows. The westernmost window was converted to a doorway in 1943 to access the sun porch built that year (Room 109). The other three original windows remained intact. Two windows in the south wall of Room 109 (now the Bar) were closed sometime after 1959, probably when the present red- leather bar and double mirrored bar- back were installed, probably in the 1960's. As mentioned previously, the interior trim for these windows remains on the south wall of the room. A window in the west wall of Room 109, looking into the New Dining Room, was also closed up without a trace sometime after 1959.

Second Story

The current floor plan of the second story has not been dramatically changed from the historic layout (Appendix A, fig. 90). The 1920's room list provides a useful tool for determining the number, size, and use of rooms. The room list does not include Room 202, a small connecting hallway that was apparently created after the 1920's. Also evident from that list was the removal of one bathroom, which was corroborated by the physical evidence. This bathroom was located

¹²⁵ The doorway appears on the 1878 proposed first- story plan. Neither the doorway nor the telephone booth appear in the 1959 first- story plan, but the booth exists today.

between Rooms 204 and 205 and would have had a doorway to each room. Room 205 was further altered by the addition of two partitions to create Room 206.

The floors in the center hallway (Room 201) of the second story are among the best- preserved parquet floors in the Officers Club. Likewise, the parquet floor at the landing of the double- return stairway is representative of that flooring style and are in good condition. Both floors provide examples of the inlaid border, and the hallway especially shows the Greek fretwork border. Some bedroom floors retain wood- strip floors, while others are covered with linoleum tile.

As on the first story, most of the walls on the second story are plaster on metal lath. The walls in the center hallway (Room 201) are covered with plasterboard. Plasterboard has also been applied to the sides of the double- return stairway from the second story to the attic, to enclose it. Partitions with doorways on either side of the stairway were added to restrict access from the first story to the second- story apartments.

The ceiling of the center hallway is the only surviving wood- lath and plaster ceiling in the main block of the Officers Club. As such, it is an important record of the historic materials at the Officers Club, even though the plaster may have been repaired over the years. Other ceilings in the main block were replaced with metal. The rooms in the rear ell have either plaster- on- lath ceilings or composite- board ceilings.

An early plaster cornice survives in the hallway (Room 201). The cornice here combines classical elliptical profiles and is integral with the ceiling plaster. Cornice details in other rooms on the second story were removed when the metal ceilings were installed. Some rooms in the rear ell have wooden cornices.

Doorways to the rooms on the second story of the main block line the center hallway (Room 201). The bedroom doorways include transom windows. This is also true of the doorways in the rear ell. In the main block, the existing doors are metal with no detail. In the rear ell at this level, the doors to the bedrooms are four- panel wood doors probably dating to the ca.- 1905 addition. There are also some closet doors with five horizontal panels. The doorway casings in the center hallway (Room 201) have the same profile as those in the center hallway on the first story. This includes the trim of the doorway at the west end of the hallway, at the short stairway to the rear- ell hallway (Room 211). Paint samples from both of these casings show evidence of early finishes. All other doorway trim at this level consists of plain- board surrounds, which paint research indicates are later alterations. The windows in the main block at this level are recessed by approximately 8 inches, with the exception of the two oriel windows (W203 and W209), which have window seats. The window trim on the second story of both the main block and the rear ell is a simple board casing.

The risers and treads of the main stairway to the attic are of wood, and a parquet pattern is evident on the risers. The turned balusters and the handrail match those of the first- story stairway. In the rear ell, the single- return stairway to the attic in the rear ell has one landing. The opening to the original stairway down to the first story of the ell was closed up with plasterboard when that stairway was removed.

The only surviving fireplace on the second story is in Room 212. It dates from the ca.- 1905 addition, and is constructed with red bricks that are painted red.

Attic

The extant building materials in the attic of the Officers Club indicate that the current room plan of the main block is similar to the original 1878 layout (Appendix A, fig. 91). The bearing walls that delineate the east- west center hallway continue at the attic level, with rooms flanking the hallway. The list of room names and sizes from the 1920's supports the physical evidence. Apparently one bathroom has been removed since then, which may have been located between Rooms 304 and 305. A partition was added across the center hallway (Room 301) to restrict access from the second story to the attic- story rooms. This created an ancillary cross hallway (Room 302). In the rear ell, the attic is divided into five bedrooms and one bathroom. This is also similar to the layout described in the 1920's records.

The floor in the center hallway (Room 301) in the attic retains an early parquetry floor and border. Some of the bedrooms at this level have intact wood- strip floors. In some rooms the wood floors are covered with linoleum tiles, which are generally in disrepair.

In the attic of the main block the walls are plaster on metal lath. Wood lath is visible in the gabled attic of the rear ell, and the walls are plastered.

Most of the ceilings in the attic are covered with pressed metal, as on the second story. This includes the higher ceilings in the center hallways. Plaster and wood- lath ceilings have survived in some of the rooms of the attic of the rear ell.

The doorways in the attic have transoms similar to those on the second story. The doors in the main block at this level are two- panel doors, while the doors in the rear ell have five horizontal panels. The doorway casings match the simple board casings on the second story.

The framing of the dormers of the mansard roof required that the window openings be recessed, and they were constructed with a wide window shelf. The gabled dormers on the rear ell have double- hung, two- over- two sashes with horizontal lights. The west wall of Room 310 has an arched window with four- over- four sashes. The windows at this level are trimmed with simple board casings.

The two skylights that helped illuminate the attic hallway are covered with boards, which are in turn covered on the exterior with roofing material.

Utilities

Basement

The remnants of various utility systems can be found in the basement, either suspended from the ceiling and/or scattered through out the basement. These include a main fuse and breaker box located on the east wall of Room 006.

First Story

Currently most of the first- story rooms are wired for wall sconces, but many of the fixtures have been removed. Historic photographs show that some of the wall sconces present at the turn of the 20th century were still being used in the 1960's. When the metal ceilings were installed, some ceiling- mounted light fixtures were apparently removed.

The most recent heating utility for the first story was a forced hot- water system. There are two radiators in the center hallway, and the other rooms had floor grates with radiators within the grates. In the Dining Room (Room 106), the heating vents were placed under the built- in window seats, and radiators were installed in the wall between the Dining Room (Room 106) and the New Dining Room (Room 107).

Second Story

The rooms on the second story retain the cast- iron radiators for the heating system. In the bedrooms of the main block the radiators were placed within the window recesses. Both oriel window units have radiators built into the window seats. The tall thin radiator in the hallway of the rear ell (Room 211) is typical of the historic radiators. Maintenance records for the Officers Club document the removal of old radiators and the installation new ones in 1929; presumably some of the extant radiators date from that period (see "Character- defining Features").

Lighting on the second story was provided by both ceiling fixtures and wall sconces. Many of the fixtures are no longer extant. Of the surviving ones, most are in disrepair.

Attic

The bedrooms in the attic of the main block have cast- iron radiators placed within the window recesses. The extant lighting fixtures in the attic are ceiling fixtures.

Finishes

The brickwork and exposed framing materials in the original section of the basement are covered with a lime- based whitewash. The only extant basement- window sash does not show any significant evidence of paint finishes. Likewise, the bulkhead door does not retain any reliable evidence of finishes.

A majority of the woodwork on the first story was originally finished with a dark resinous coating, probably shellac. It appears that the first paint layers in some rooms coincide with the ca. - 1905 addition. Records indicate that after that period, the interior of the Officers Club was painted on a regular basis. This was also evident in the paint samples (Appendix C). Paint analysis, supported by historic photographs and research, suggests that many of the wall surfaces were initially wallpapered. Currently many of the wall surfaces are painted white, and the trim is painted tan. The Dining Room (Room 106) has a ca.- 1960's flocked wallpaper with

white trim, and wood paneling below the chair rail, as well as a painted mural of Sandy Hook between the pilasters on the north wall. Portions of the New Dining Room (Room 107) were painted gray for the filming of a Bruce Springsteen music video in 1987.¹²⁶ The rest of the room has wood paneling below the chair rail, and off- white/peach painted walls with white trim.

The existing finishes on the second story are generally degraded and date from the more recent occupancy of the Officers Club by NPS personnel. Most of the rooms are painted white with white trim. The walls of the center hallway (Room 201) and the hallway of the rear ell (Room 211) are painted gray with white trim.

In general, the paint finishes at the attic level are degraded. Most of the trim is painted white, and many of the walls are also white. The halls are currently painted gray, and Room 303 is lime green.

¹²⁶ Anecdotal information from interview with Park Historian Hoffman.



Figure 82. Officers Club, east facade, 2004.



Figure 83. Officers Club, east façade and south elevation, 2004.



Figure 84. Officers Club, south elevation, 2004.



Figure 85. Officers Club, west elevation, 2004.



Figure 86. Officers Club, north and west elevations, 2004.



Figure 87. Officers Club, north elevation, 2004.

III. TREATMENT AND USE

INTRODUCTION

An historic structure may be significant for its architectural features and/or its association with historic events and persons. The character-defining features (CDFs) of a building are those visual features and elements that define the structure and contribute to the building's historic integrity. To retain the historic integrity of the structure, it is important to preserve those CDFs.

The proposed treatment for the Officers Club, in accordance with the GMP, is rehabilitation. The rehabilitation of a structure includes the retention of CDFs. The Secretary of the Interior's Standards for Rehabilitation address this in the definition of "rehabilitation," which is "the process of returning a property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property which are significant to its historic, architectural, and cultural values."¹ The standards further address the preservation of "those portions and features" as follows:

A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.

Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

¹ Kay D. Weeks and Anne E. Grimmer, *The Secretary of the Interior's Standards for the Treatment of Historic Properties, with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings*. (Washington, D.C.: U.S. DOI, NPS, 1995) p. 61.

Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.²

The *Fort Hancock Rehabilitation Guidelines*³ and the *Environmental Assessment*⁴ outline the character- defining features of the Officers Club, Building No. 114. The following section will elaborate on the exterior and interior CDFs. Although this report does not contain a section on landscape characteristics, they too are important to the history and context of the Officers Club. Among the landscape characteristics listed as character- defining features in the *Environmental Assessment* are the “shepherd’s- crook” lighting standards, and the barbecue terrace and barbecue pit. Other reports generated on this subject for Sandy Hook Unit, Gateway National Recreation Area, should be consulted prior to any work on the site.⁵

² Weeks and Grimmer, p. 62.

³ Chandler McCoy, *Fort Hancock Rehabilitation Guidelines* (U.S. DOI, NPS, March 1999), p. 29.

⁴ *Environmental Assessment, Adaptive Use of Fort Hancock and the Sandy Hook Proving Ground Historic District* (U.S. DOI, NPS, in association with Sandy Hook Partners LLC, February 2002, revised July 2003).

⁵ These include but are not limited to the following: *Cultural Landscape Report for Proving Ground and Wartime Expansion Areas*, by Norma E. Williams; *Historic Landscape Assessment for Fort Hancock*, by Elliot Foulds.

CHARACTER- DEFINING FEATURES

Exterior Elements

Design and Context

- Only representative example of Second Empire- style architecture at Sandy Hook.
- Distinctive original architectural features, including mansard roof form, projecting center vestibule, and north- elevation bay window.
- 20th- century additions reflecting newer architectural styles, notably the Colonial Revival style, and changes in use of the Officers Club.
- Significance of the Officers Club to the institutional history of both the Sandy Hook Proving Ground and Fort Hancock.

Porches

- Piazza on east façade and north elevation, with chamfered columns, balustrade, scroll brackets, bracketed cornice with integral gutter, and other trim elements.
- Brick piers and lattice between piers.
- “Porte cochère” elements attached to the northeast corner of the piazza.

Note: The back porch has undergone many changes, and is not considered a character-defining feature.

Fenestration

- Overall design and proportions of doorways and windows, including the tall, narrow windows on the first story.
- Symmetry of east- facade doorways and windows.
- East- facade entry doorway, including double doors with lights, and sidelights and transom window displaying decorative lead cames.

- Double- hung wooden sashes, especially the tall, original, two- over- two sashes on the east façade and the ca.- 1905 arched sashes on the west elevation, first- story; and the one- over- one sashes with segmentally arched top rails in the mansard dormers.
- East- elevation second- story oriel window.
- North- elevation second- story oriel window, especially the curved side sashes.
- North- elevation opening to Cold Storage (W121).
- West- elevation arched and oculus windows.

Roof and Related Elements

- Mansard roof form with arched dormers, including dormers with paired window openings.
- Wide lower and upper cornices of mansard roof with decorative brackets, dentils, and band molding.
- Gable roof of rear ell with flared eaves and gabled dormers.
- Skylights in upper hip of mansard roof.
- Extant corbelled chimneys in the upper hip of mansard roof and on the gable roof of the rear ell.
- All cornices with integral gutters.

Materials

- Red brick with thin mortar joints representing original construction and ca.- 1905 additions.
- Original brownstone water table, lintels, and sills, and matching brownstone and limestone elements from ca.- 1905 addition.
- Wooden trim elements, including east- facade entry doorway surround and window casings.
- Slate mansard roof, including scallop- shaped slate shingles set in a fish- scale pattern.
- Ca.- 1940 buff- colored brick addition.

Finishes

- Exterior paint schemes – brick- red paint color with off- white trim prior to ca.- 1940 addition, and buff- tan paint color with blue- green trim after ca.- 1940 addition (Appendix C).
- Grained finish on east- facade entry doorway elements.

Interior Elements

Plan

- East- west center hallway defined by interior bearing walls on all levels.
- Floor plan of primary rooms on the first story of both the main block and the rear ell, representative of the original layout and the 20th- century alterations.
- Center hallway on the second story and in the attic.
- Double- return stairways in the center hallway at the first- and second- story levels.

Floors

- Wood floors at all levels, including parquetry and wood strip flooring, especially inlays and fretwork in the borders of the parquetry in the first- story hallway (Room 102), second- story hallway (Room 201), and the attic hallway (Room 301).

Walls

- Plaster walls in the primary rooms on the first story.
- Ca.- 1943 wood- paneled walls in the Bar (Room 109).

Ceilings

- Extant plaster ceilings on first and second stories of main block, especially in the Ladies' Lounge (Room 103), and the plaster on wood lath in the second- story hall (Room 201).
- Extant plaster cornices, especially in the Ladies' Lounge (Room 103), Dining Room (Room 106), Lounge (Room 108), and the second- story hallway (Room 201).
- Metal ceilings at every level of the main block.

Doorways

- Doorway from the entry vestibule to the center hallway, including the double doors with single lights, the side lights, and the transom.
- Tall doorways in primary rooms on the first story.
- Paneled wood doors throughout, sliding pocket doors, and French doors.
- Arched doorways in Dining Room (Room 106).
- Doorways (with transoms) that open into the center hallway on both the second story and in the attic, including the hardware.

Woodwork

- Doorway and window trim and baseboards in primary rooms on the first story, and in the second- story hallway (Room 201).
- Wide archways and associated Colonial Revival trim in the Dining Room (Room 106).
- Molding around wall panels in the Lounge (Room 108).

Fireplaces

- Brick fireplaces with marble surrounds and associated mantelpieces in the Lounge (Room 108), including consoles, deep mantelshelf, plaster bas- relief, and other decorative elements.
- Brick fireplace with marble surround and classical- style mantelpiece in the Dining Room (Room 106), including engaged Ionic columns, bas- relief in the entablature, denticulate mantelshelf, and other decorative trim.
- Cast- iron fireback with slate surround and carved decorative mantelpiece in the Ladies' Lounge (Room 103).
- Brick hearth in Kitchen (Room 105)
- Brick fireplace in Room 212.

Utilities

- Cast- iron radiators throughout.
- Wall sconces in the Dining Room (Room 106), no longer extant but clearly depicted in photographs from ca. 1905 through the 1960's.

Finishes

- Dark resinous finish on woodwork on first story.
- Mural of Sandy Hook painted on the north wall of the Dining Room (Room 106).

RECOMMENDATIONS

The recommendations for the Officers Club address the retention of character- defining features. This report does not include a condition assessment, but it should be noted that, despite NPS stabilization efforts and emergency repairs, the building is generally in poor condition. However, the current condition does not compromise the historic integrity of the Officers Club, and any rehabilitation should treat the CDFs appropriately and with due respect.

The 1979 General Management Plan (GMP) for Gateway NRA specified a “rehabilitation zone” that included the Sandy Hook Proving Ground and Fort Hancock Historic District. The amendment to the General Management Plan in 1990 (GMP- AMEND) proposed using the Historic Leasing Program for the historic structures within the historic district. The current lessee’s proposal for the Officers Club is rehabilitation and adaptive use, which includes a restaurant, overnight accommodations, conference rooms, and exhibit space.

The following recommendations are intended to inform and guide the rehabilitation of the Officers Club.

Exterior Elements

Design and Context

- Preserve elements that represent the original Second Empire style and distinctive architectural features.
- Retain and rehabilitate the ca.- 1905, ca.- 1940 and 1943 additions to the Officers Club. The Officers Club retains a high degree of historic integrity from the World War II era, and has not been significantly altered since that period. The rehabilitation of the exterior of the building should be compatible with elements from that period.

Porches

- Retain the piazza on the east façade and north elevation, and restore missing and/or deteriorated features in- kind or with compatible materials.

Fenestration

- Retain extant fenestration, including the first- story tall double- hung sashes and north- elevation bay window, the second- story oriel windows on the east and north elevations, the mansard dormers and sashes, and the rear- ell dormers and sashes. Efforts should be made to rehabilitate deteriorated elements using in- kind materials. Missing or deteriorated elements should be replaced in- kind or with compatible materials.
- Preserve and restore the east- façade doorway, including its lead- camed side lights and transom.

Roof and Related Elements

- Preserve the mansard roof form and arched dormers.
- If feasible, replace the asphalt shingles on the lower pitch of the mansard roof with scalloped slate shingles, set in a fish- scale pattern (refer to historic photographs for an illustration of the shingles and pattern).
- Restore or replace the skylights on the upper hip of mansard roof.
- Retain the flared eaves and gabled dormers extant on the rear- ell roof.
- Retain the lower cornice of the mansard roof, and replace any deteriorated elements in- kind or with compatible materials.
- Retain and restore the integral gutter system.

Materials

- Preserve the exterior red- brick walls with thin mortar joints. Repoint areas of mortar loss with compatible sand- lime mortars. Mortar analysis should be performed prior to the rehabilitation of the exterior mortar.

Finishes

- Paint the exterior of the Officers Club to represent the World War II era. The exterior brick should be painted tan, and the trim should be painted blue- green (Appendix C).

Interior Elements

Some of the interior elements have deteriorated since the Officers Club was last occupied. However, the general historic floor plan is well preserved, and many of the interior elements retain a high degree of integrity. The existing floor plan, additions, and alterations are most representative of the World War II era. It is recommended that the interior rehabilitation of the Officers Club strive to retain the World War II era elements, and that any new materials be compatible with elements from that period.

First Story

Plan

- Preserve the floor plan of the primary first- story rooms, and retain the east- west center hallway in the main block of the Officers Club, including the double- return stairway.

Vestibule (Room 101)

- Preserve as the main entry to the Officers Club, retaining the exterior doorway and the interior doorway to the center hallway (Room 102).
- Retain and repair the pressed- metal ceiling. Replace missing or deteriorated elements in kind or with compatible materials.

Center Hallway (Room 102)

- Preserve the open corridor with high ceilings and center stairway.
- Retain and repair the pressed- metal ceiling. Replace missing or deteriorated elements in- kind or with compatible materials.
- Retain and restore the parquetry wood floors, including the pattern on the stairway. Replace missing or deteriorated elements in- kind or with compatible materials, using the extant materials as a pattern.

Ladies' Lounge (Room 103)

- Retain and restore the parquetry wood floors. Replace missing or deteriorated elements in- kind or with compatible materials, using the extant materials as a pattern.
- Preserve and restore the cast- iron fireback and the mantelpiece.

Men's Lounge (Room 104)

- Though this was an important room historically, its historic integrity has been diminished by the partitioning of the space, the addition of the bathrooms, the alteration of historic fabric, and the deterioration of elements.

Kitchen (Room 105)

- The current kitchen is a large room, but the demolition of partitions and original stairway has diminished the historic integrity of this space. If possible, the Cold Storage (Room 105c) and the Storage Room (Room 105b) should be retained as separate spaces. If it is necessary to expand the kitchen area, it is recommended that the Cold Storage and Storage Room be used for additional space. The kitchen area should not be expanded into any other primary rooms on the first story.

Dining Room (Room 106)

- The Dining Room retains most of its original elements dating to its ca.- 1905 construction. These features – which include the mantelpiece, archways, doorways, doors, window trim, and sashes – should be preserved and restored. Any missing or deteriorated elements should be replaced in kind or with compatible materials.
- The existing parquet floor is a later alteration. However, the condition of the earlier parquetry floor beneath it (if it is extant) is unknown. Therefore, it is recommended that the existing parquet floor be retained and restored.
- Remove the thin wood paneling below chair rail, and retain and restore the plaster walls, both above and below the chair rail. Replace missing or deteriorated materials in- kind or with compatible materials.
- Retain and conserve the mural of Sandy Hook painted on the north wall.
- The metal ceiling in this room is in good condition, and should be retained and repaired. Missing or deteriorated sections should be replaced in- kind.
- Replace the walls sconces seen in historic photographs from the turn of the 20th century through the 1960's. The replacement sconces should be compatible with the existing building materials.

New Dining Room (Room 107)

- Preserve the New Dining Room as an example of the changes made to the building during the World War II era.
- Retain and repair the wood strip flooring; replacing missing or deteriorated materials in-kind or with compatible materials.
- Remove the thin wood paneling below the chair rail, and retain and restore the plaster walls, both above and below the chair rail. Replace missing or deteriorated materials in-kind or with compatible materials.
- Retain and repair the casement sashes. Replace missing or deteriorated elements in-kind or with compatible materials.
- Retain and repair the metal ceiling, which was original to the construction of this addition ca. 1940. Replace missing or deteriorated elements in-kind.

Lounge (108)

- The Lounge retains most of the elements dating to its ca.- 1905 alteration. These features – which include the fireplaces, mantelpieces, doorways, doors, window trim, and sashes – should be preserved and restored. Any missing or deteriorated elements should be replaced in-kind or with compatible materials.
- Retain and repair the wood strip flooring, replacing missing or deteriorated materials in-kind or with compatible materials.
- The plaster walls should be restored, and should retain the panels and associated molding.
- The molded cornice should be preserved; where material is missing or deteriorated, the extant cornice profile should be copied and reproduced in-kind or with compatible materials.

Bar (Room 109)

- The addition of the wood- frame room that was designated as the Bar (Room 109) in the 1959 floor plans of the Officers Club was completed in 1943. The rehabilitation of the Officers Club should retain and preserve the volume and layout of this room. However, changes to the space and the deteriorated condition of its building materials have diminished the historic integrity of the existing building fabric. The rehabilitation treatment of this room should be determined based upon the completion of a detailed condition and structural assessment of the space and its most significant elements, including the leather bar, wood- paneled walls, and fenestration.

Finishes

- The extant interior paint finishes are degraded. Therefore, it is recommended that the interior rehabilitation choose from the pallet of paint colors identified in the paint analysis (Appendix C).

Second Story

- Preserve the plan in the main block of the Officers Club. This includes the east- west center hallway with its double- return stairway, and rooms flanking the center hallway.
- Remove the plasterboard that encloses the stairway to the attic in the center hallway; remove the partitions on either side of the stairway.
- Preserve and restore the parquetry floor in the center hallway (Room 201), at the landing, and on the stairway to the attic.
- Retain and restore the oriel windows and window seats in Rooms 203 and 205. Any missing or deteriorated materials should be replaced in kind or with compatible materials.
- Retain and restore the extant doorways with transoms that open to the center hallway. If feasible, reopen and restore the doorway from the center hallway (Room 201) to Room 205.

Attic

- Preserve the attic plan of the main block of the Officers Club, with rooms flanking the center hallway (Rooms 301 and 302).
- Preserve and restore the parquetry floor in the center hallway and at the landing.
- Retain and restore the extant doorways with transoms that open to the center hallway.

Accessibility

Compliance with the accessibility requirements of the Americans with Disabilities Act (ADA) should be part of the rehabilitation of the Officers Club. The existing structure can accommodate these needs, and the following recommendations should guide the placement of ADA- accessible facilities.

A ramp or a lift for the east- façade piazza could be installed on the northwest corner of the piazza where it wraps around onto the north elevation of the building. This area should provide adequate space for either a ramp or a lift, and would be less intrusive on the façade of the Officers Club. Also, its location near the parking lot should fulfill the requirements of ADA.

The east- façade entry of the Officers Club could be made an ADA- compliant entrance with the addition of a raised platform on the piazza. This could be a permanent or removable platform. The wide doorway should not require alteration to meet ADA standards.

The interior of the building should allow for the accommodation of ADA- compliant bathroom facilities. If it is necessary to widen doorways to provide access, the modification and rehabilitation of the doorways should reuse the existing trim, or else replace trim elements with a compatible material.

ADA- compliant access to the second story should be provided with the addition of an elevator within the existing structure. In efforts to minimize the impact of an elevator on the exterior of the building, an exterior addition to accommodate an elevator should not be considered.

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V. APPENDICES

APPENDIX A.

Annotated Building Plans

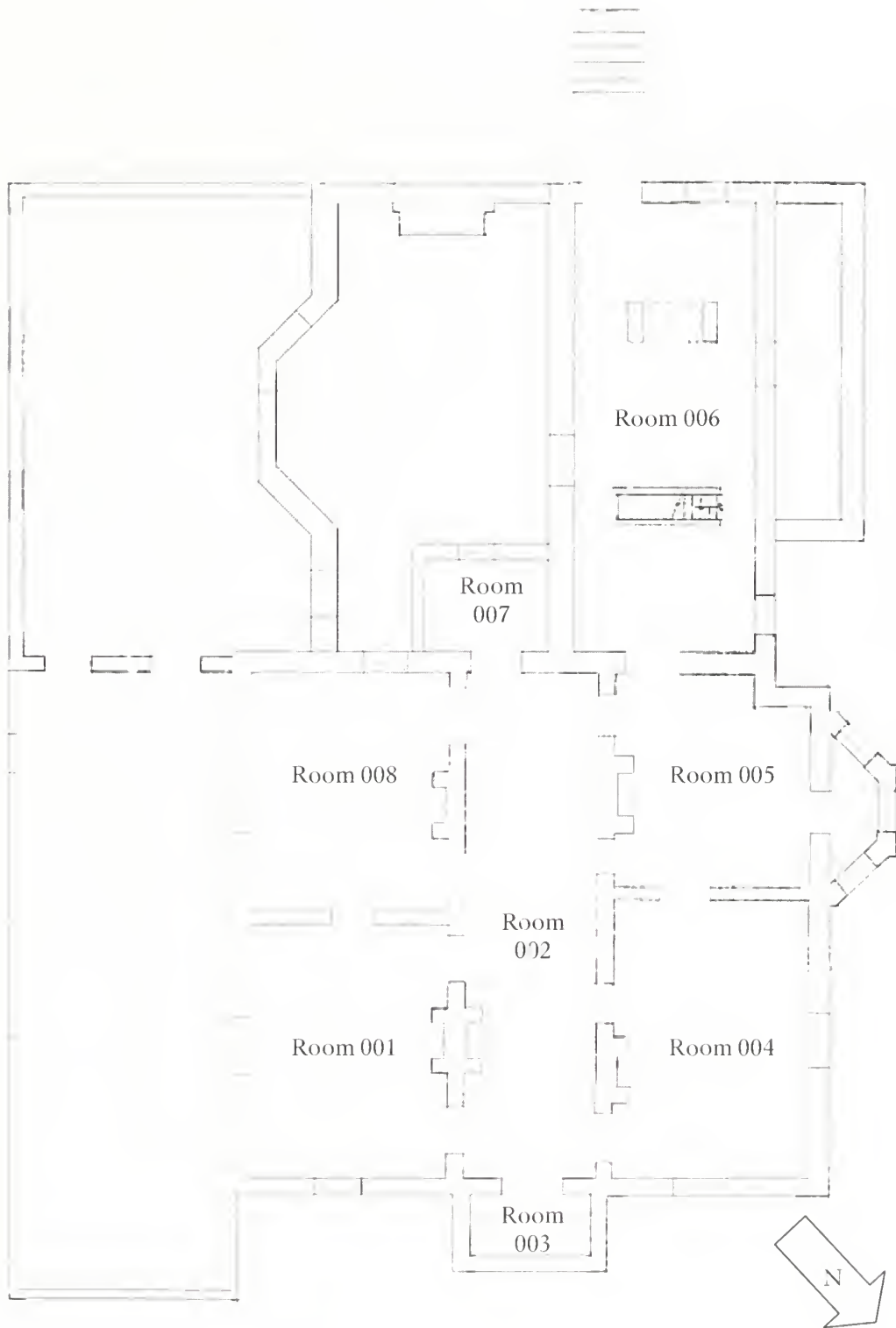


Figure 88. Officers Club, basement plan annotated with room numbers (not to scale).

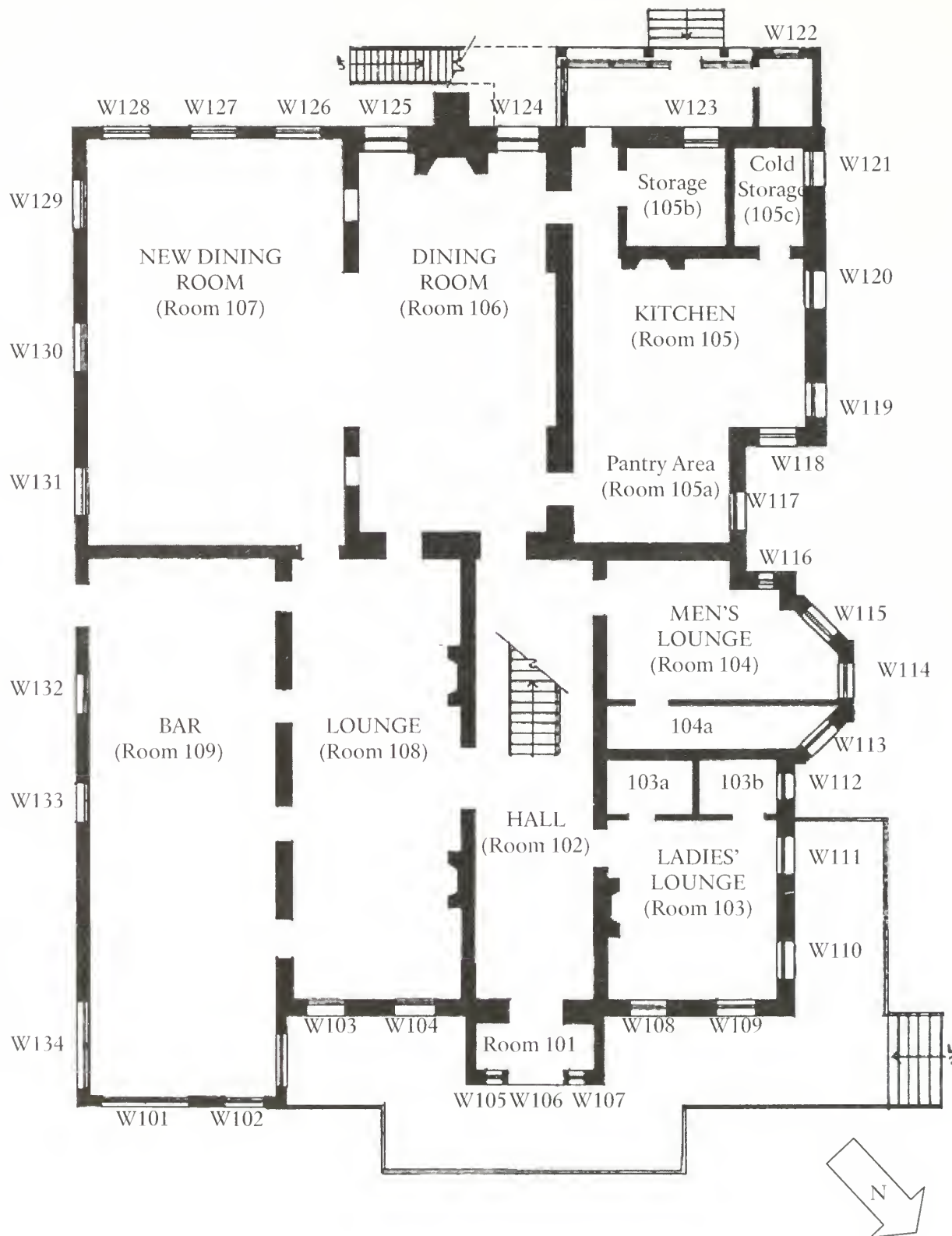


Figure 89. Officers Club, first-story plan, annotated with 1959 room names and room and window numbers (not to scale).

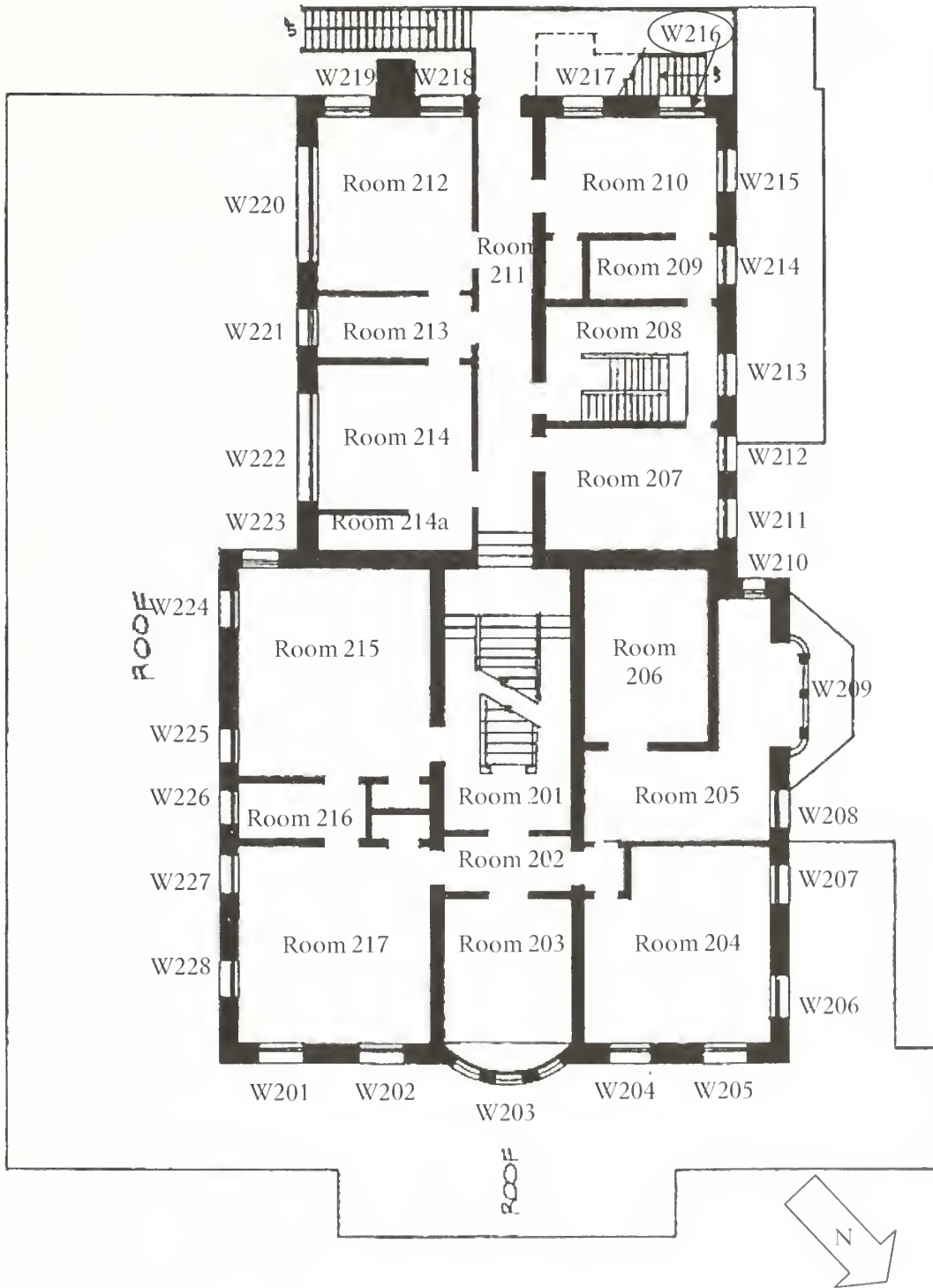


Figure 90. Officers Club, second-story plan, annotated with room and window numbers (not to scale).

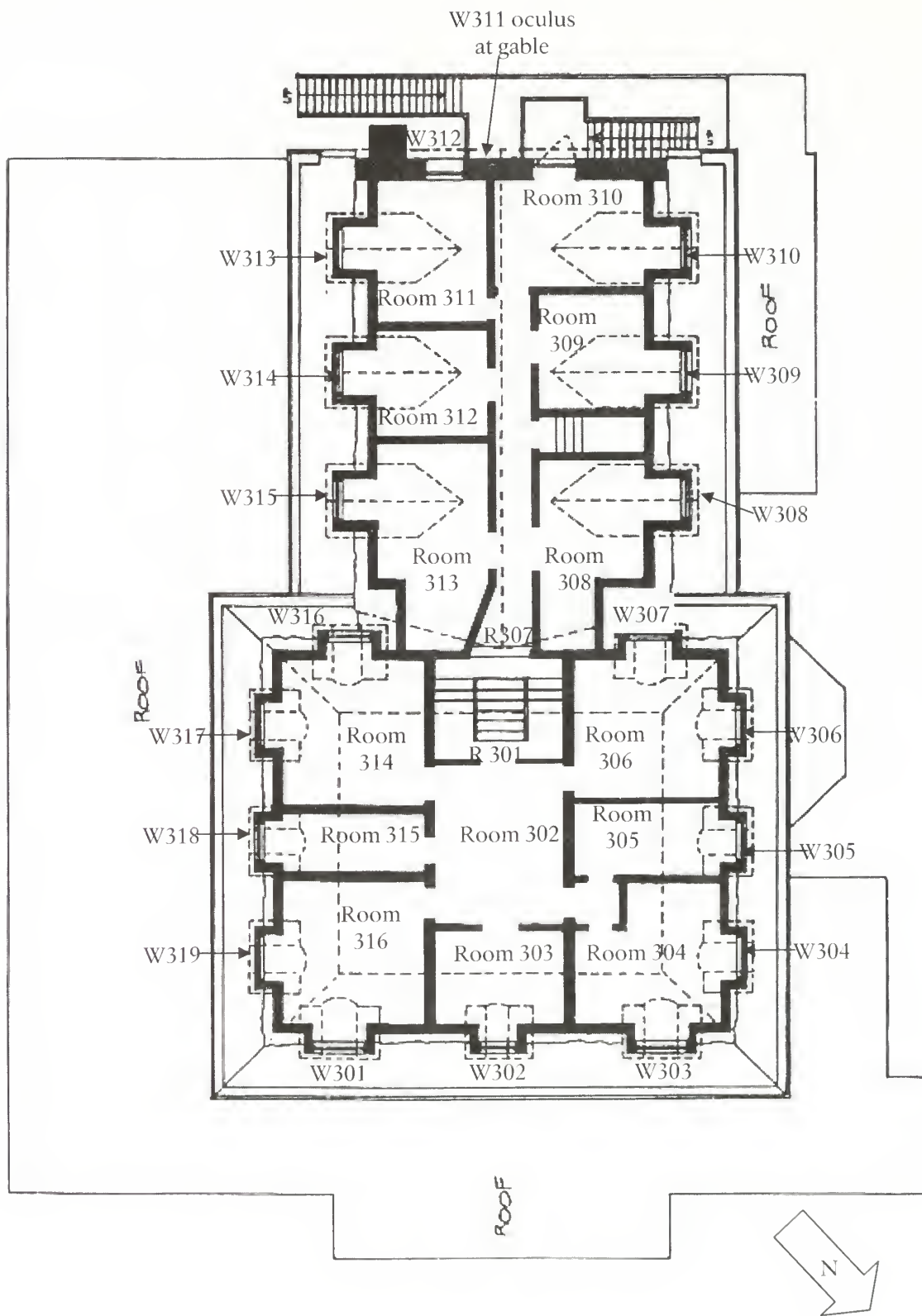


Figure 91. Officers Club, attic plan, annotated with room and window numbers (not to scale).

APPENDIX B.

Room Use Chart

CHANGES IN ROOM USE

ROOM #	1879 ¹	ca. 1905 ²	ca. 1922 ³	1938 & 1943 ⁴	1959 ⁵
101	Vestibule	Vestibule	Vestibule	Vestibule	Vestibule
102	Center Hallway	Center Hallway	Center Hallway	Center Hallway	Center Hallway
103	Sitting Room	Library	Library	Ladies' Lounge	Ladies' Lounge
103a	Hallway & Closet	Hallway & Closet	Hallway & Closet	Lavatory/ bathroom	Ladies' bathroom
103b	Closet	unknown	Lavatory/ bathroom	Lavatory/ bathroom	Ladies' bathroom
104	Dining Room	unknown	Billiard Room	Recreation Room/Bar	Men's Lounge
105	Kitchen	Kitchen	Kitchen	Kitchen	Kitchen
105a	Pantry ⁶	Pantry	Pantry	Recreation Room/Bar	Pantry
105b	Laundry	unknown	Servants' Dining Room	Storage	Storage
105c	NA	Refrigerator	Refrigerator	Cold Storage	Cold Storage
106	NA	Dining Room	Dining Room	Dining Room	Dining Room
107	NA	Screen Porch	Enclosed Porch	New Dining Room	New Dining Room
108	Board Room & Office	unknown (one room)	Reception Room	Reception Room	Lounge
109	NA	NA	NA	Sun Porch	Bar

¹ Room names based on proposed plans dated July 1878.

² Names based on previous names and documentation pertaining to ca.- 1905 addition and alterations.

³ Room names based on room list from ca.- 1922 property maintenance record.

⁴ Room names based on annual reports from FY 1937 and FY 1938, as well as ca.- 1940 and 1943 additions, and documentary photographs from the period.

⁵ Room names based on 1959 floor plans.

⁶ The Pantry was not part of the proposed plan, but was evidently part of the original construction.

APPENDIX C.

Finishes Analysis

INTRODUCTION

Project Scope

The Officers Club, one of the oldest extant structures on Sandy Hook, will be rehabilitated. The proposed adaptive use will include a restaurant and overnight accommodations, as well as conference rooms and exhibit space. This report describes the findings of the finishes analysis conducted on the exterior and interior elements of the building. The historic finishes are described in the following tables, with selected layers matched to a standardized color- notation system for two periods of interpretive interest: ca. 1905, when the “Officers’ Quarters” was expanded to better serve the needs of an active proving ground, and World War II (1943), when the building functioned as the Officers Club for Fort Hancock.⁷

The information in this report can be used to recreate the historic finishes of the building exterior or portions of the interior for either of the periods specified above. The general color palettes used during periods of interpretive interest are considered to be character- defining features (CDFs) of the structure, and should be recreated where appropriate.

Additionally, information gleaned from the paint analysis was used to date certain elements and alterations to the building. These dates were included in the discussions on “Alterations,” and were explained in that section.

Methodology

Paint samples were taken during site visits to Sandy Hook in December 2004, and January and March 2005. A total of 55 exterior and 76 interior paint samples were taken from accessible building elements using an X-acto knife. In the laboratory at the Historic Architecture Program (HAP) in Lowell, MA, all samples were examined with a Bausch and Lomb “Sterozoom 7” microscope under 10 to 70 times magnification, illuminated by tungsten fiber- optic light. Some samples were also examined under ultraviolet light to help determine the sequence and composition of paint layers. Representative samples were mounted in wax- filled petri dishes to better examine their finish sequences.

Limited chemical testing was also preformed in conjunction with the paint analysis. Paints containing lead were identified by spot testing with a solution of sodium sulfide and water. Paint composed of calcium carbonate (CaCO₃) – such as whitewash – was identified by spot testing

⁷ The Munsell Color System is an internationally recognized standard of color measurement that identifies color in terms of three attributes: hue (color), value (lightness/darkness, or degree of white/black mixed in to the color), and chroma (saturation, or intensity of the color). The Munsell System color swatches included in this copy of the report (Tables XI- XVI) were digitally reproduced. For accurate color swatches, refer to the master copy of this report that was sent to the park.

with a diluted hydrochloric acid. The presence of shellac was determined by testing with denatured alcohol.

The chronological finish stratigraphy from each sample was recorded in chart form; these sequences were correlated to one another through their common layers. These "chromochronologies" are given in Tables I through X; each horizontal row represents the elements' finishes at one period in time. Drawing upon the documentary and physical research, dates were assigned to some of the rows to illustrate the finishes during certain periods.

Color matches were performed under the HAP microscope to the finish layer determined to be representative of the periods described above. The layers were matched to Munsell System color cards, glossy finish, and a set of the cards was submitted to the park with the master copy of this report.

All samples taken from the Officers Club will be stored at the HAP office in Lowell, MA, and will be available for future research.

DATA AND CONCLUSIONS

Data

The finish stratigraphy of selected, representative samples are listed sequentially in Tables I- X, and the Munsell color system notations and swatches for the ca.- 1905 finishes and the ca.- 1943 finishes are provided in Tables XI – XVI. All color names are subjective designations intended to distinguish between paint layers and provide a general color notation. Munsell color notations provide a standard method of color description, but are approximations of the paint colors that were originally used. Thus, the Munsell color chips provide a close but not exact match to most colors. In addition, paints (particularly oil- based) can darken or yellow over time, and certain pigments fade. It should also be noted that color is only one factor affecting a coating's appearance; sheen, opacity, texture, and application techniques also play a role.

Conclusions

Exterior Elements

Brick

When the Officers Club was first constructed in 1878- 1879, the brick was left unpainted. The paint evidence indicates that the brick was first painted after the addition to the rear ell circa 1905. The exterior paint used at that time was a red- brown color that closely mimicked the natural brick tone. It is apparent from the paint evidence and historic photographs that the exterior of the building retained the red- brown color until the 1940s. After the buff - brick addition was constructed on the south elevation of the building, the exterior brickwork was painted tan to better match the new addition, as well as the institutional color scheme of Fort Hancock. Since that time the exterior brick has been maintained with tan paint. The last documented exterior paint application was in 1979 by the NPS.

Trim

Paint evidence indicates that the masonry trim – including the brownstone water table, lintels and sills – was initially unpainted. The exterior wooden trim was originally painted, but those colors were not matched for this report (see “Original Appearance, Finishes”). Paint samples from representative trim elements indicated that all the trim, including the brownstone elements, was painted after the ca.- 1905 addition. The ca.- 1905 paint appears to have been a gray color. There were several layers of gray, light gray, and off- white paints on the trim until

the 1940's, when the exterior paint scheme was changed. After the buff- brick addition was built circa 1940, most of the trim was painted dark blue- green. However, the east- façade piazza columns, the inset panels of the piazza column bases, the piazza balusters, and the east- façade entry doorway were painted a tan color that matched the exterior brick color for that period. Paint evidence shows that after the construction of the wooden addition along the south elevation the building in 1943, all trim elements were painted dark green.

Interior Elements

The interior paint analysis focused on the primary first- story rooms of the Officers Club. Paint samples were taken from wood trim, sashes, plaster walls, and plaster and metal ceilings. The samples from the woodwork provided information for determining historic paint finishes in the first- story rooms. However, there was insufficient evidence of wall coverings and/or finishes to provide matches to the wall finishes in all rooms, and no wall finishes could be accurately dated to the ca.- 1905 date. Where enough evidence has survived, the finishes on the plaster walls during the ca.- 1940s period have been provided (Tables XIV and XVI).

Woodwork

From the time of the original construction in 1878- 1879 through to the 1940's, much of the original interior woodwork was coated with dark shellac, which can be observed on the extant woodwork beneath the degraded paint finishes. The exceptions to this were the Lounge (Room 108) and the Dining Room (Room 106). As previously discussed, paint evidence indicated that the Lounge (Room 108) was altered ca. 1905 at the time of the addition. The Dining Room (Room 106) was added ca. 1905, and the first paint finishes on the woodwork in that room date from the ca.- 1905 construction. Thus, period paint- color matches for the ca.- 1905 interior are limited to the woodwork in the Lounge (Room 108) and the Dining Room (Room 106); other woodwork during that period was shellacked.

In the 1940s the woodwork in the Lounge (Room 108), the Dining Room (Room 106), and the New Dining Room (Room 107) was finished with varying tones of tan- colored paints. In the early 1940s the woodwork in the Vestibule (Room 101), the hallway (Room 102), the Ladies' Lounge (Room 103), and the Men's Lounge (Room 104) was still finished with shellac. Paint evidence does indicate that the woodwork in these rooms was painted soon after this period, possibly when Fort Hancock reopened in the early 1950s.

Walls

As previously discussed, there was a lack of sufficient evidence to provide wall finishes for all rooms during the selected periods of interpretation. It was well documented that many of the plaster surfaces in the rooms were repaired and replaced over time due to damage from testing at the proving ground. These repairs most likely removed some evidence of early finishes. Of the paint finishes that were present on the plaster walls, some could be accurately dated to the World War II era (ca. 1940). During that period the walls were apparently painted tan, except for the Ladies' Lounge (Room 103), which appears to have been yellow. The color matches are provided in Tables XIV and XV.

Ceilings

Most of the ceilings on the first story of the Officers Club were covered with pressed metal. Paint samples were taken from the metal ceilings, and the number of paint finishes ranged from six to four. The metal ceiling with the most paint layers was in the Dining Room (Room 106), indicating that this was one of the earlier metal ceilings to be installed. Specific color matches have not been provided for the metal ceilings. The paint colors present range from off- white to light tan.

The ceiling in the Ladies' Lounge (Room 103) is the only surviving plaster ceiling on the first story. The paint layers on the ceiling coincide with the colors on the plaster cornice, which was finished with a tan- colored paint circa 1943 (Table XIV).

TABLE I. EXTERIOR ELEMENTS

SAMPLE	P003, P004 & P007	P008	P017	P010
ELEMENT	Porch column, column base & brackets	Porch cornice brackets	Porte cochère, cornice bracket	Porch ceiling
SUBSTRATE	wood	wood	wood	wood
ca. 1879	off- white off- white	gray gray		off- white off- white
	tan golden tan golden tan	red/brown brown		
	red/brown red/brown	red/brown		blue blue
	lt. brown/tan lt. brown/tan	brown		
ca. 1905	light gray light gray	gray white gray white		blue blue
	light gray light gray	light gray		
	gray lt. gray	off- white/ lt. gray off- white/ lt. gray		white off- white
ca. 1937 ⁸	white white	white	off- white off- white white	off- white off- white
ca. 1938 ⁹	yellow / buff off- white/lt. tan	light tan light tan	off- white off- white	off- white off- white
ca. 1940 ¹⁰	off- white /lt. tan off- white/lt. tan	dark green dark green	dark green dark green dark green	light green light green
ca. 1943	green green	green green	green green	light green light green
	green green green	green green	green green	green green
ca. 1979 ¹¹	white (primer) green	white (primer) green	white (primer) green	green

⁸ Documented date for addition of “porte cochère” and painting of the exterior per FY 1937 Annual Report.

⁹ Exterior painting as a result of damage from fire on April 9, 1938.

¹⁰ Based on ca.- 1940 photograph (fig. 66). The column brackets at that time were dark green.

¹¹ Maintenance records of the National Park Service.

TABLE II. EXTERIOR ELEMENTS

SAMPLE	P013	P012 & P014	P024	P021
ELEMENT	East entry, panel below sidelight	East entry, trim	N. Mansard, dormer, cap	Main block, cornice bracket
SUBSTRATE	wood	wood	wood	wood
ca. 1879	resin	resin	white white	
	tan	tan - graining resin - graining	red brown red brown brown	light brown brown brown
ca. 1905	light gray light gray	gray white gray white	light gray gray	gray light gray
	light gray light gray	light gray light gray	light gray light gray	light gray light gray
	light gray light gray gray	gray light gray	light gray light gray light gray	lt. gray, yellowed off- white off- white
			brown	gray
ca. 1937	off- white off- white off- white	off- white off- white off- white	white	off- white light gray
ca. 1938	white white	off- white off- white off- white		white off- white
ca. 1940		dark green dark green dark green	dark green dark green	dark green dark green
ca. 1943	green green	green green	green green	green green
		white (primer) green green	green green	
			green green	
ca. 1979	white (primer) green green	white (primer) green green	white (primer) green	

TABLE III. EXTERIOR ELEMENTS

SAMPLE	P015	P020	P016	P019
ELEMENT	E. elev, W109 trim, ca. 1879	W. elev., W124, trim, ca. 1905	W. elev., W127 trim, ca. 1940	S. elev., W134 trim, ca. 1943
SUBSTRATE	wood	wood	wood	wood
ca. 1879	off- white off- white			
	red/brown red/brown red/brown			
ca. 1905 ¹²	light gray	off- white (primer) light gray		
	light gray light gray	gray light gray - drab		
	gray	off- white light gray		
	light gray gray	light gray light gray		
ca. 1937	white gray/white	off- white off- white /tan		
ca. 1938	gray/white gray/white	white white		
ca. 1940 ¹³	dark green dark green dark green	dark green dark green	dark green dark green	
ca. 1943 ¹⁴	white (primer) white (primer) green	green green	green	off- white (primer) off- white (primer) green
	green green	green green	green	green green
		green green	green	green
ca. 1979	white (primer) green green	white (primer) white (primer) green green	white (primer) white (primer) green green	white (primer) green green

¹² Documented date of addition to rear ell, which included W124.

¹³ Date of buff- brick addition determined through physical and documentary evidence: the addition of the New Dining Room (Room 107) replaced the earlier enclosed porch in the same location.

¹⁴ Documented date of wood addition.

TABLE IV. EXTERIOR ELEMENTS

SAMPLE	P026	P028	P030
ELEMENT	N. elev., ell cornice, ca. 1905	E. elev., brick, under porch	S. elev., brick, ca. 1905 (below plaster, Rm 107)
SUBSTRATE	wood	masonry	masonry
ca. 1879		unpainted	
ca. 1905	off- white (primer) light gray		(dirt)
	light gray light gray	red/brown ¹⁵ (dirt)	red/brown (dirt)
ca. 1919 ¹⁶	gray white light gray	red/brown red/brown	red/brown red/brown
	light gray		bright yellow ¹⁷ bright yellow
ca. 1937	off- white off- white		off- white off- white
ca. 1938	off- white, yellowed		off- white
ca. 1940	dark green dark green	yellow/tan yellow/tan	
ca. 1943	green green	off- white off- white	
	green	off- white	
ca. 1979	white (primer) green	white (primer) white (primer) yellow/tan	

¹⁵ Earliest application of exterior paint was sometime after the ca.- 1905 addition.

¹⁶ The gray dirt layers in samples P028 and P030 appear as a thick accumulation, which was possibly from powder residue related to the testing of ordnance nearby. This suggests that the preceding paint finishes were pre- 1919, when the proving ground was decommissioned.

¹⁷ This bright yellow layer and the subsequent layers are interior treatments that were inside the enclosed porch until this wall was covered with lath and plaster ca. 1940. These same layers were present in other samples from ca.- 1905 materials in what is now Room 107, most notably P052; see Table IX, Interior Elements.

TABLE V. INTERIOR ELEMENTS

SAMPLE	P035	P036	P037	
ROOM & ELEMENT	Room 101, Front Door	Room 101, Plaster wall	Room 102, Entry door casing	Room 102, Wallboard
SUBSTRATE	wood	plaster	wood	
	tan tan shellac - graining		dark shellac	
ca. 1940				
	beige beige	yellow/tan yellow/tan yellow/tan	beige beige	
	beige beige	tan tan	beige	
	beige tan	tan tan	beige	
	white white	light green light green	white white	
ca. 1965	off- white peach	white peach	peach peach	white off- white
	white off- white	off- white white	white peach	off- white off- white

TABLE VI. INTERIOR ELEMENTS

SAMPLE	P038	P039	P040	P067
ROOM & ELEMENT	Room 103, W108 casing	Room 103, plaster wall	Room 103, cornice	Room 103, mantle
SUBSTRATE	wood	plaster	wood & plaster	wood
	dark shellac			dark shellac
			off- white	
			drab green	
			brown	
			white	
			off- white	
ca. 1940 ¹⁸		yellow yellow	light tan	
		tan golden tan	white tan	tan yellow/tan
	tan tan	tan tan	tan tan	tan tan
	light tan tan/peach	tan tan/peach	dark tan tan/peach	tan tan
	white	pink	pink	off- white
	off- white	blue	blue	off- white
ca. 1965	white white	white white	off- white off- white	white white
			white	off- white

¹⁸ Date based on sequence of paint layers in Room 107; see Table IX, Interior Elements.

TABLE VII. INTERIOR ELEMENTS

SAMPLE	P043	P066	P065	P065a
ROOM & ELEMENT	Room 104, plaster above chair rail	Room 104, wall trim at bay	Room 104, plaster beneath paneling	Room 104, wood paneling
SUBSTRATE	plaster	wood	plaster	wood
		white	sizing	
		off- white off- white	tan tan	
	salmon red	salmon red		
		pink pink salmon red	light tan	
		yellow	yellow/tan yellow/tan	
		yellow	yellow/tan	
ca. 1940 ¹⁹	light tan	tan tan		paneling installed resin
	light tan	tan light tan		
	tan	light tan light tan		
	tan	light tan light tan		
ca. 1950 ²⁰	tan	light tan light tan		off- white off- white
ca. 1965	blue blue/green	white blue/green		blue
	light blue	light blue		light blue
	(wallboard and wallpaper installed)	(wallboard and wallpaper installed)		

¹⁹ Photographs document that the paneling was installed prior to 1942 and that it was a dark color at the time of the photographs. Date based on paint sequences from Room 107; see Table IX, Interior Elements. The 1942 photograph depicts the walls as neutral with *tromp l'oeil* paintings of mermaids.

²⁰ Estimated date for construction of partition in Men's Lounge (Room 104) as it appears on the 1959 floor plan. The off- white paint layer on paneling matches the first layers on the doorway of the partition.

TABLE VIII. INTERIOR ELEMENTS

SAMPLE	P047, P046, P044	P055	P048	P049
ROOM & ELEMENT	Room 106, N wall trim	Room 106, mantle frieze, field	Room 106, S wall below chair rail	Room 106, N wall arch spandrel
SUBSTRATE	wood	wood	plaster	wood
Ca. 1905 ²¹	off- white off- white	white (primer) off- white	off- white	white (primer) off- white
	off- white light tan	off- white light tan	beige	white
	light tan light tan	yellow light tan	golden tan	golden tan
	off- white light tan	light tan tan	tan	tan
ca. 1940 ²²	light tan light tan	tan light tan	tan	tan
	tan	light tan tan	light tan	tan
	light tan tan	light tan	tan	tan
	peach/beige	light tan	tan	tan
	off- white	off- white	pink	pink
	off- white	off- white	bright blue	blue
ca. 1965 ²³	off- white peach peach	light tan peach	off- white light peach peach	off- white peach
	off- white	light tan	(paneled) ²⁴	off- white
	white off- white	white white		white off- white

²¹ Documented date of addition to rear ell, including the Dining Room (Room 106).

²² Representative paint layer based on paint evidence and layering sequence in Room 107; see Table IX, Interior Elements.

²³ Date based on installation of paneling and similar paint layers in samples from Room 107.

²⁴ Paneling is not evident in photographs from 1967 (which do depict paneling in Room 107), but it was installed when the upper portions of the walls were covered with flocked wallpaper in the late 1960's to early 1970's.

TABLE IX. INTERIOR ELEMENTS

SAMPLE	P051	P052	P053	P054
ROOM & ELEMENT	Room 107, N wall arch surround	Room 107, N wall window casing	Room 107, W126 interior sill	Room 107, plaster above chair rail
SUBSTRATE	wood	wood	wood	plaster
ca. 1905	off- white off- white	off white		
	white off- white	gray gray		
	off- white	light yellow yellow		
	off- white	yellow bright yellow		
ca. 1940 ²⁵	light tan	white beige	tan tan	tan
	light tan light tan	beige off- white	beige	tan/yellow beige
	light tan tan	tan light tan	light tan light tan	light beige beige
	tan (blue splatter)	light tan	light beige	soft blue
	off- white white	tan peach/beige	light beige peach/beige	off- white off- white
	peach/beige beige	off- white white	white off- white	light pink light pink
ca. 1965 ²⁶	peach peach	off- white peach	light beige peach	peach ²⁷ peach
	white	white	white off- white	
	white	white	white white	gray

²⁵ Date of construction for buff- brick addition; window sill and plaster wall were part of that addition.

²⁶ Date based on interior photographs of Room 107; wood paneling was absent in 1963, but present in 1967.

²⁷ Wood paneling below chair rail installed, based on paint sample from plaster wall underneath extant paneling, which had a top paint layer of pink.

TABLE X. INTERIOR ELEMENTS

SAMPLE	P058	P059	P060	P063
ROOM & ELEMENT	Room 108, S wall, baseboard	Room 108, mantel bas-relief	Room 108, S wall, finish plaster	Room 108, mantel console
SUBSTRATE	wood	plaster	plaster	wood
	resin			
ca. 1905 ²⁸	light tan light tan	white		white (primer) off-white
	tan tan	off-white		off-white white
	tan light tan	tan		off-white off-white
	gray light gray	gray		gray
ca. 1940 ²⁹	light tan light tan	light tan tan	tan	tan tan
	off-white light tan	tan golden tan	golden tan	tan
	off-white light tan	tan beige	tan	light peach
	light tan	beige tan	beige	tan
	light tan	tan	tan beige	light tan light tan
	off-white	beige/peach	peach	beige/peach
ca. 1965 ³⁰	off-white light peach peach	white peach peach	off-white light peach peach	white peach peach
	off-white	off-white	off-white	off-white
	white beige	off-white	off-white	beige

²⁸ Date of extensive alterations to the Lounge (Room 108), associated with the ca.- 1905 addition.

²⁹ Representative paint layer based on paint evidence and layering sequence in Room 107; see Table IX, Interior Elements.

³⁰ Date based on similar paint stratigraphy in Room 107 and Room 106.

TABLE XI. CA.- 1905 EXTERIOR FINISH COLORS
 With Munsell Color System Notations & Swatches³¹

Exterior Elements	
Brick	 <p data-bbox="1255 343 1431 416">5R 3/4 (Red/brown)</p>
Piazza Columns, Piazza Trim, Doorways, Doors, Window Casings, Lintels, Sills, Cornice	 <p data-bbox="1295 696 1431 768">10YR 6/1 (Gray)</p>
Piazza Ceiling	 <p data-bbox="1271 1079 1431 1152">5B 7/2 (Light blue)</p>

³¹ The Munsell System color swatches included in this copy of the report (Tables XI- XVI) were digitally reproduced. For accurate color swatches, refer to the master copy of this report that was sent to the park.

TABLE XII. CA.- 1905 INTERIOR FINISH COLORS
With Munsell Color System Notations & Swatches

Interior Elements ³²		
Vestibule (Room 101) Center Hallway (Room 102) Ladies' Lounge (Room 103) Men's Lounge (Room 104) Woodwork, Doorways, Window Trim, Window Sashes, and Mantelpiece in Room 103)	Dark Shellac ³³	
Dining Room (Room 106) Chair Rail, Archways, Mantelpiece, Doorways, Window Trim, and Window Sashes		2.5Y 9/2 (Cream, off- white)
Lounge (Room 108) Woodwork, Mantelpiece, Doorways, Window Trim, and Window Sashes		2.5Y 8.5/2 (Off- white)

³² Due to the lack of sufficient evidence of wall coverings/finishes, only interior woodwork was dated for this period.

³³ The shellac appears to be the original finish on most of the first- story woodwork, and in Rooms 101, 102, 103, and 104 it appears to have been present through the 1940's. Certain elements in these rooms were grained to match the shellac.

TABLE XIII. CA.- 1943 EXTERIOR FINISH COLORS
With Munsell Color System Notations & Swatches






Exterior Elements		
Brick		<p>2.5Y 8/4 (Tan/buff)</p>
Piazza Columns, Piazza Trim, Doorways, Doors, Window Casings, Lintels, Sills, Cornice		<p>2.5BG 3/4 (Blue/green)</p>
Piazza Ceiling		<p>5BG 7/4 (Mint green)</p>




TABLE XIV. CA.- 1943 INTERIOR FINISH COLORS
With Munsell Color System Notations & Swatches

Interior Elements ³⁴		
Vestibule (Room 101) Center Hallway (Room 102) Men's Lounge (Room 104) Woodwork, Doorways, Window Sashes, Paneling in Room 104, Mantelpiece in Room 103	Dark Shellac ³⁵	
Ladies' Lounge (Room 103) Plaster		2.5Y 9/4 (Yellow)
Ladies' Lounge (Room 103) Cornice and Ceiling		2.5Y 8/2 (Light tan)

³⁴ Due to the lack of sufficient evidence of wall coverings/finishes, it was possible to match paint finishes on the plaster walls for only certain rooms during this period.





³⁵ The shellac appears to be the original finish on most of the first- story woodwork, and in Rooms 101, 102, 103, and 104 it appears to have been present through the 1940's. Certain elements in these rooms were grained to match the shellac.

TABLE XV. CA.- 1943 INTERIOR FINISH COLORS
With Munsell Color System Notations & Swatches
 (continued)

Interior Elements ³⁶		
Men's Lounge (Room 104) Plaster		10YR 8/4 (Peach/tan)
Dining Room (Room 106) Chair Rail, Archways, Mantelpiece, Doorways, Window Trim, and Window Sashes		10YR 9/2 (Off- white)
Dining Room (Room 106) Plaster		10YR 8/4 (Peach/tan)

³⁶ Due to the lack of sufficient evidence of wall coverings/finishes, it was possible to match paint finishes on the plaster walls for only certain rooms during this period.

TABLE XVI. CA.- 1943 INTERIOR FINISH COLORS
With Munsell Color System Notations & Swatches
 (continued)

Interior Elements ³⁷		
New Dining Room (Room 107) Woodwork, Mantelpiece, Doorways, Window Trim, and Window Sashes		2.5Y 8/4 (Tan)
New Dining Room (Room 107) Plaster		10YR 8/4 (Peach/tan)
Lounge (Room 108) Woodwork, Mantelpiece, Doorways, Window Trim, and Window Sashes		10YR 9/4 (Tan/yellow)
Lounge (Room 108) Plaster		2.5Y 8/4 (Tan)
Bar (Room 109) Wood Paneling and Trim	Resin Coated ³⁸	

³⁷ Due to the lack of sufficient evidence of wall coverings/finishes, it was possible to match paint finishes on the plaster walls for only certain rooms during this period.

³⁸ The resinous coating on the woodwork in Room 109 was not tested.





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