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CULTURAL LANDSCAPE REPORT FOR FORT MCHENRY NATIONAL MONUMENT AND HISTORIC SHRINE

SITE HISTORY, EXISTING CONDITIONS AND ANALYSIS

CULTURAL LANDSCAPE REPORT FOR FORT MCHENRY

FORT MCHENRY NATIONAL MONUMENT AND HISTORIC SHRINE

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Cover Photo: Fort McHenry and Patapsco River, looking east, by the authors, July 2003.

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ACKNOWLEDGMENTS

The authors of this report express their gratitude to the staff of the Fort McHenry National Monument and Historic Shrine for extending their invaluable assistance and friendly support during the course of this project. Anna von Lunz, Cultural Resource Manager, and Paul Bitzel, Horticulturist, served as our park contacts during our work, guiding our research toward helpful sources, reviewing drafts and suggesting helpful edits. Scott Sheads, Park Ranger/Historian and the park's librarian, guided us in our use of the extensive materials found in the park's HARP collection, sharing with us his many insights into the Fort McHenry landscape acquired during decades of public service. John Pousson, Archeologist, and co-author of Fort McHenry's excellent Archeological Overview and Assessment (2000), freely shared with us his comprehensive and scholarly knowledge, gently suggesting edits and corrections always prefaced with encouragement. Superintendent Laura Joss helped to both develop and approve the project agreement making our work possible, reviewing draft products, and providing helpful edits. Facility Manager Greg McGuire and Chief Ranger Charles Strickfaden each lent their important perspective, offering comments on draft products.

Sandra Tydd, serving an internship at Fort McHenry, used GPS equipment to map the park's woody vegetation, also compiling a useful database identifying species, size, and estimated age. Sandra's project and internship was funded by the Urban Resources Initiative of the Parks and People Foundation for Baltimore Recreation and Parks. The information Sandra provided was extremely useful in preparing this report, and will help managers of the Fort McHenry landscape for years to come.

Steve Whissen, Cultural Resource Specialist with the National Park Service, Denver Service Center prepared the excellent National Register of Historic Places documentation (1999) for Fort McHenry. His documentation project is unusual for its breadth, extending well beyond the scope of the property's buildings and structures. The analysis of significance and the evaluation of Fort McHenry's many characteristics and features that covered in this cultural landscape report rest on the foundation laid by Mr. Whissen.

We extend our sincere thanks to the curatorial staff of the Frederick Law Olmsted National Historic Site for their assistance with the park's museum collections relating to Olmsted Brothers Job #02437. Anthony Reed, Michelle Clark and Michael Dosch helped guide our research toward valuable sources of information and provided welcome assistance with scanning many of the large-format images found in this report.

Given the wealth of sources for a landscape as steeped in history as Fort McHenry, much credit for our work is due our predecessors. Yet, while we cannot overstate our indebtedness for the contributions of others, the responsibility for errors and omissions in this cultural landscape report belongs to ourselves alone.

INTRODUCTION

PROJECT SETTING

Located on the Patapsco River at the mouth of Baltimore's Inner Harbor, Fort McHenry is approximately three miles southeast of the center of the city, attracting nearly 700,000 visitors annually. Events at this site inspired Francis Scott Key to compose the poem that became our National Anthem as the "Star-Spangled Banner." Key's verses describe the bombardment of Fort McHenry by the British on 13-14 September 1814, during what became known in this country as the War of 1812.

Used as early as 1776 for harbor defense, known then as Fort Whetstone, the current 43.26 acre site was authorized as a National Park in 1925 and managed by the War Department, until it was transferred to the administration of the National Park Service in 1933. However, the military history of the property extends through World War II owing to its use during the national emergency by the United States Coast Guard and United States Navy.

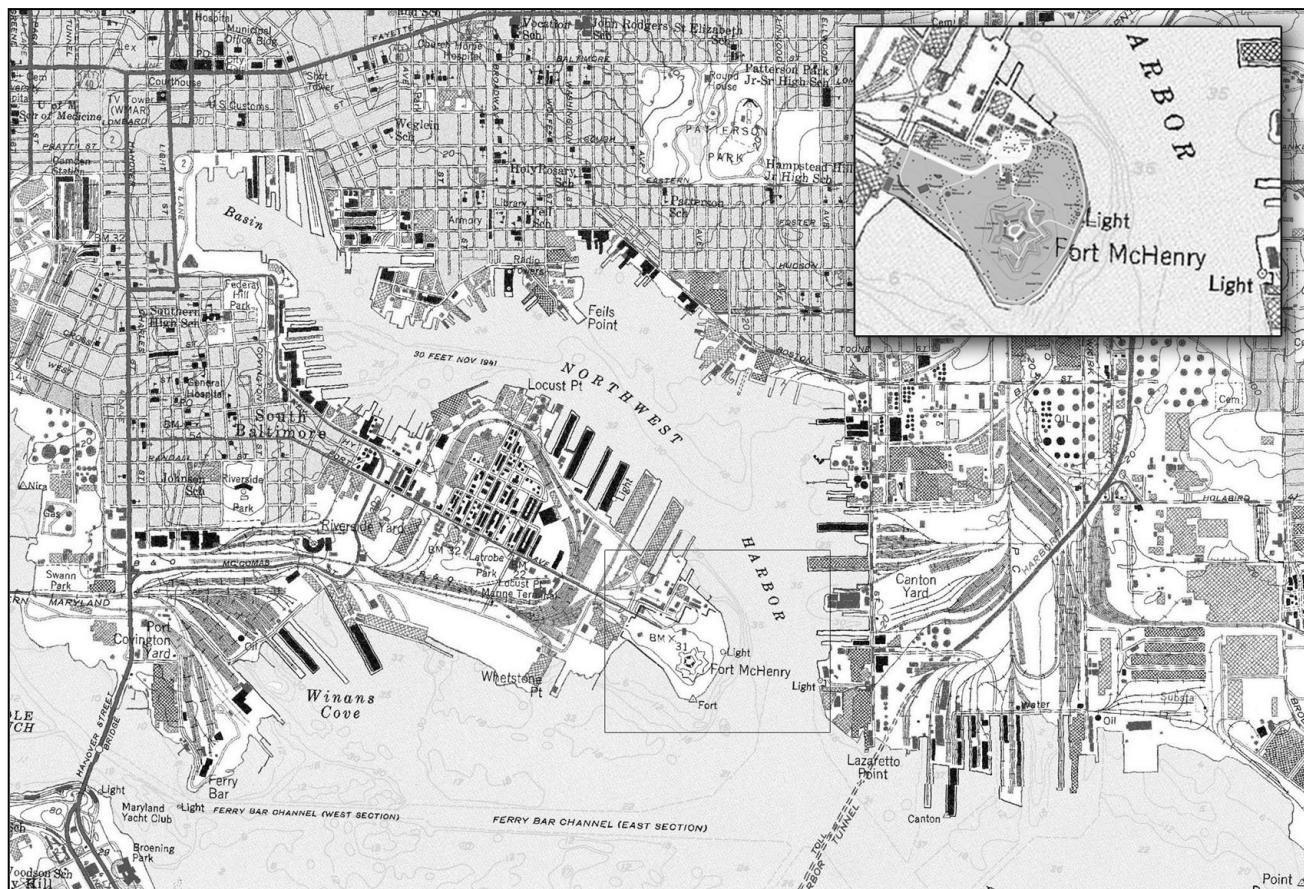


Figure o.1. Project setting. Fort McHenry, Baltimore, Maryland. USGS Baltimore Quadrangle, 1974.

THE PURPOSE OF THIS REPORT

A Cultural Landscape Report (CLR) serves the National Park Service (NPS) as both the primary treatment document for cultural landscapes and as a tool to inform day-to-day management decisions and long-term landscape preservation strategies. The following CLR for Fort McHenry National Monument and Historic Shrine comprises the initial volume of a CLR for this significant landscape containing three primary sections; the first being a narration of developmental landscape history, the second an inventory and assessment of existing conditions, and the third an analytical examination of the landscape and its features according to National Register of Historic Places criteria and definitions. At some future date, a subsequent volume of this CLR may be funded to prepare detailed treatment recommendations, however such recommendations are not within the scope of the current project.

The most immediate purpose of the following report is supporting the "Development Concept Plan / Environmental Assessment for the Replacement of the Obsolete Fort McHenry Visitor Center" (PMIS #66402) with important background information in an effort to guide decision making. There is no General Management plan in place for Fort McHenry as the site currently operates under the planning guidance of a 1988 Amendment to the 1968 Master Plan and Environmental Assessment. The scope of the DCP/EA, in preparation concurrently with this report, is to develop alternatives for both the site and the visitor center structure. The current park visitor center was completed in 1963 as part of the NPS "MISSION 66" development initiative, and at 5,700 square feet, no longer meets the demands and expectations related to current levels of visitation. A National Register determination of eligibility has been completed with reference to the Fort McHenry visitor center and park infrastructure, making the case for the ineligibility of these facilities for the National Register of Historic Places. The Maryland SHPO concurred with an evaluation of ineligibility during June of 2003.

Further objectives of this project include:

- To document the evolution of the Fort McHenry landscape.
- To identify landscape characteristics and features contributing to the site's historical significance.
- To document the changing historical approaches to site vegetation and vegetation management so as to guide future vegetation treatment and maintenance.
- To provide documentation that supports park consultation responsibilities under Section 106 of the National Historic Preservation Act and National Environmental Policy Act.

METHODOLOGY AND FORMAT

The site history component of this project was prepared utilizing research limited to sources found in the park archives, local historical organizations, the NPS Denver Service Center Technical Information Center and the National Archives in Washington, D.C. The level of investigation pursued in preparation of the site history has been "thorough," according to definitions found in *A Guide to Cultural Landscape Reports: Contents, Processes, and Techniques*. Research was conducted between August and December of 2003, and subsequently synthesized into a narrative report supplemented with historical period plans and other graphics. The preparation of historic period plans has made use of the park's extensive geographic information system (GIS) database. As a by-

product of developing period plans for this report, Fort McHenry's existing GIS database has been augmented, through the input and geo-referencing of several historic plans and drawings that were digitized in a raster-based format.

Documentation of existing landscape conditions is accomplished through text, photographs, and graphic plans. Plan documentation is derived from existing paper and electronically stored surveys and maps available at the park. Fort McHenry's structures are referenced to the park's List of Classified Structures (LCS). Emphasis is placed on documenting landscape conditions. Contemporary site functions, visitor services, interpretation, park operations, and maintenance are described to the degree they might potentially influence treatment of the landscape.

Analysis and evaluation of the Fort McHenry landscape draws information found within the site history and existing conditions sections to identify the landscape characteristics and associated features that contribute to the historical significance of Fort McHenry. The analysis will be based on the periods and areas of historical significance outlined in Fort McHenry's excellent National Register documentation, completed in 1999.

HISTORICAL OVERVIEW

In 1661, Charles Gorsuch became the first white settler to claim the lands of Whetstone Point as his private property. Although Gorsuch later divested himself of his real estate there, others eagerly replaced him. While Baltimore was in the process of being founded in 1729, an English company owned the extremity of Whetstone Point and mined iron ore from the soil, actively rearranging the topography of the landscape with spoil and overburden in ways that are not well understood.

Aware of the growing rebellion in New England, the Maryland Congress of Deputies resolved on 20 January 1776 that Baltimore be fortified against the British. Amateur engineers accomplished this by erecting a small star-shaped redoubt at the end of Whetstone Point overlooking the two branches of the Patapsco. This was accompanied by the construction of linear water batteries along the riverbank guarding the channel into Baltimore's harbor. Little is documented of the details of the construction of these early fortifications other than the heraldic shape of the redoubt, the presence of shoreline water batteries, and their combined temporary purpose. The most tactically significant aspect of the design of these fortifications was their choice location, well suited to the city, the river, and the capabilities of arms at that moment in time. Baltimore's fortifications were never used in combat during the American Revolution.

Following the successful conclusion of the War for American Independence, President George Washington urged the new republic to invest in a system of harbor and coastal defenses. In 1794, no standard guidelines were available as the political leadership of each of the former colonies drew upon the talents of itinerant, foreign-trained, engineers as recommended by the War Department. Major John Jacob Ulrich Rivardi was employed to re-engineer the fortifications at Whetstone Point between 1794 and 1797. Noting the design flaws of the star-shaped redoubt for the record, Rivardi and his assistant instead focused attention on reconstructing the strategic water batteries lining the riverbank. These linear fortifications, open to the rear, were designed to skip red-hot cannon shot across the surface of the water, intent on smashing into enemy ships at their vulnerable water line. Work on the fortifications was contingent on the approval of the landowners of record.

Riviardi's work on fortifications elsewhere eventually compelled his replacement by Major Louis Tousard. Tousard drafted a plan for the reconstruction of the star-shaped redoubt, addressing the

design flaws noted earlier by Rivardi. Between 1798 and 1800, additional federal funds were made available for fortifications at Whetstone Point, and much of this was directed to what the National Park Service now refers to as Fort McHenry's "Star Fort." The plan for a pentagonal, five-bastioned fortress as drafted by Tousard was not intended to ward off hostile navies; that was the job of the water batteries. The purpose of the Star Fort was primarily to defend against land attack, and only to serve as a secondary line of defense and a place of retreat, should the water batteries fail. After formally approving Tousard's plan, the task turned to the purchase of the land on which it was to rest. During negotiations for the required eleven acres, Tousard moved on to other projects. In time, he was replaced by John Foncin, who was critical of Tousard's design. Foncin's appeal to Secretary of War James McHenry and the Baltimore Naval Committee for a considerably more elaborate, and costly, alternative was approved. Construction began during July of 1799 and continued through 1800, with new masonry enclosing and reshaping the former star-shaped earthwork. The new fortress must have looked much like a crown, as it was topped with a planting of Lombardy poplars, noted for their distinctive columnar shape, and for their ability to thrive in wet soils.

After October of 1800, his work in Baltimore substantially complete and duly named to honor Secretary McHenry, Foncin left for Boston to work on that city's Fort Independence. The combined efforts of the French designs at Baltimore were to be tested much later.

In 1812, following years of antagonism, the United States declared war on Great Britain. This led to a new appropriation of federal funds for improvements to coastal fortifications, including Fort McHenry. In Baltimore, a hurried program of improvements to Fort McHenry included repairs to gun platforms and carriages, the construction of shot furnaces, and the construction of a triangular "Ravelin" to protect the fort's sally port from a frontal assault. By August of 1814, supplies and men were gathered together, and lines of ships were sunk in the river channel as obstacles to the approaching enemy.

During the early morning of 13 September 1814, sixteen British warships anchored two miles east of Fort McHenry, intent on pounding it into rubble. The superior range of the British arms permitted the flotilla to bombard Fort McHenry while safely out of range of the less advanced American gunnery. Francis Scott Key, a lawyer negotiating for the release of an American prisoner, witnessed the bombardment while anchored to the rear of the British fleet. During a hiatus in the nighttime cannonade, a detachment of the British flotilla sailed west, past Fort McHenry's defense, to attempt a landing hopeful of attacking the fort from its landward side. The British landing was repelled by American forces occupying small fortifications southwest of Fort McHenry, helping to bring about an end to the British attack the following morning. Of Fort McHenry's 1,000 defenders, there were less than thirty casualties.

The experience of the bombardment led to subsequent improvements, fundamentally focused on reinforcing existing structures to sustain a barrage, and two "bombproofs" were constructed on either side of the fort's sally port to protect soldiers. In 1817, a ten-foot high brick boundary wall was constructed along of the reservation's western boundary, and a seawall was begun to stabilize the eroding riverbank.

Following the 17 February 1815 ratification of the Treaty of Ghent, ending the hostilities between Britain and the United States, resources invested on coastal defense were directed elsewhere. In a few short years, post inspection reports would document deteriorated weaponry, fortifications, and buildings. Cannonshot was used decoratively to line pathways instead of being made ready in piles.

Advances in arms and the growth of the city began to make it apparent that the fort at the tip of Whetstone point was no longer well placed to counter current threats. New forts were to be constructed further from the city and closer to the enemy in open water. By the 1830s, Fort McHenry was considered useless, except perhaps as a secondary line of defense. Investments in its improvement were focused heavily on providing improved living conditions for the health and comfort of the garrison. Yet by 1836, the water batteries of 1814 had been long abandoned and were in ruins. As these batteries served as the very reason for the presence of the garrison, plans were developed in 1836 to construct a new exterior battery immediately outside the ramparts of the Star Fort. Construction of this new exterior battery was pursued concurrently with numerous other improvements to structures and facilities at Fort McHenry, a project occupying a period of three years that required the evacuation of the garrison. Part of this work included the removal of the Lombardy poplar trees from the parapets and the fort interior. Work was finally completed in December of 1839. It was during this period of improvements when the size of the military reservation was doubled through acquisition of additional property to the west.

During the Civil War, Fort McHenry stood as a Union outpost within a city generally sympathizing with the Confederate cause. The threat to Fort McHenry was not foreign navies approaching up the Patapsco, but from Baltimore itself. Maintaining Maryland within the Union became imperative to protecting the nation's capital, together with its vital rail and telegraph lines. This was accomplished by taking political prisoners and incarcerating them at Fort McHenry during the early months of the war. Thus, during the Civil War, Fort McHenry became a headquarters for the Union's espionage and counter-secessionist efforts and later as a prison and hospital for captured soldiers. The secessionist grandson of Francis Scott Key who was held there named it the *American Bastille*, in a political pamphlet that he authored.

Following the end of the Civil War, Fort McHenry's slide into obsolescence grew apace. Advances in naval ordnance and the emergence of rifled projectiles made permanent masonry fortifications obsolete. It was during this transitional period that many of the large Rodman guns currently found at Fort McHenry were installed. The most obsolete aspect of Fort McHenry was not decades old Rodman gun technology, but rather the fort's location close to the center of the city.

Nevertheless, because of the scarcity of funds during the 1870s and 1880s, Fort McHenry was made to serve its original purpose. A massive earthen water battery was begun in 1872, only to be left unfinished for decades due to limited appropriations. Following the nationwide evaluation of coastal defenses chaired by Secretary of Defense William C. Endicott in 1886, it became obvious that Fort McHenry no longer played a useful role in the nation's defenses. Various proposals for the reuse of the military reservation were put forward, including its use by the Department of Agriculture as a stockyard. However, in the protracted dealings and counter-dealings following the departure of the last active garrison of soldiers in 1912, the City of Baltimore drew the upper hand, and in 1914 won the right to occupy the grounds and to use the military reservation as a city park.

Yet Fort McHenry's time as a city park was short-lived. A provision in the 1914 agreement between the War Department and the city allowed the United States to reassert physical control of the property in the event of a national emergency. Responding to the aggression of German submarines in the Atlantic, President Wilson asked Congress for a Declaration of War on 2 April 1917. Forecasting unprecedented numbers of casualties inflicted by the tools and techniques of modern warfare, the nation began organizing a system of convalescent hospitals; General Hospital No. 2 would be located at Fort McHenry. Construction began rapidly, with sixty-two large new

buildings wedged into every available open space at the historic fort. Happily, this use too was short lived, as a general armistice was declared on 18 December 1918.

As the number of patients treated at the hospital dwindled, Baltimoreans bemoaned the humiliating fate of their civic icon as weeds and debris accumulated between vacant hospital buildings. During 1922, a monument was installed commemorating Francis Scott Key and the soldiers and sailors involved with the historic defense of Baltimore. The monument project was initiated eight years earlier in 1915, when the property was being used as a city park. Ultimately, the monument was dedicated on 14 June 1922 by President Harding, who made the first nationwide presidential radio broadcast from the grounds. Charles Niehaus, an accomplished neo-classical sculptor, had won the design completion for the completion with his design featuring a colossal twenty-two foot tall bronze of Orpheus, a figure in Greek mythology associated with musical inspiration. The bronze casting of the male nude was fixed atop a fifteen-foot circular marble base carved in bas-relief, and placed in the center of a new traffic circle built into Fort McHenry's central driveway.

A combination of factors led to an improvement in Fort McHenry's prospects. These included President Wilson's 1917 Executive Order requiring that Key's Star-Spangled Banner be played at military events, the 1922 completion of the delayed Key Memorial, and the unrelenting activism of local groups. These were among the influences leading President Coolidge to sign legislation in 1925 authorizing that the Secretary of War hold Fort McHenry in perpetuity as a military reservation, national park, and memorial.

The War Department was quick to pursue a program of site restoration, removing the buildings constructed as part of the World War I convalescent hospital. In the process, however, almost every building outside of the historic Star Fort was razed, including a few garrison buildings dating to the early 19th century. The only buildings left outside of the ramparts were, a large brick magazine constructed during the Civil War, and an incinerator building in the southwest corner of the property. By the early 1930s, the War Department had reconfigured Fort McHenry in the manner of a pleasant city park, including riverfront walks, benches, memorial groves of trees, and wide greenswards of well-maintained turf. No effort was made to represent conditions present during the 1814 bombardment, and few resources were devoted to public education and interpretation.

While the War Department transferred stewardship of Fort McHenry National Park to the National Park Service in 1933, later altering its name in 1939 to Fort McHenry National Monument and Historic Shrine, outwardly visitors would have recognized very little change in management beyond improved signage and interpretive efforts. The physical layout of the park and its public facilities remained as they were under the War Department for the next thirty years. During the years of the New Deal under the leadership of President Franklin Roosevelt, most of the emergency economic relief funds expended for Fort McHenry were concentrated on bricks-and-mortar preservation efforts at the Star Fort rather than on developing new visitor facilities. Several iterations of Master Plans were accomplished prior to World War II, reconfiguring parking, restroom accommodations, and museum and office requirements, but none of these were implemented. The great commonality among these early NPS plans was the insistence that new visitor facilities be placed outside of the boundary of the property as it stood during the 1814 bombardment. Thus, parking lots and new buildings were to be located to the west of the Star Fort, on lands acquired by the government in 1836.

The onset of World War II pinched off the flow of New Deal funds as the National Park Service dealt with the economic austerity of the war effort on the home front. U. S. Coast Guard and U. S. Navy forces came to reoccupy portions of the historic grounds during the war, yet the property remained open to the public for the duration. At the conclusion of the war, increases in operational and capital funding were slow in coming. The public, freed from wartime restrictions on gasoline and tires, began to notice deterioration in facilities of the national park system. This prompted NPS Director Conrad Wirth to develop and advocate for a ten-year program of capital and operational improvements that became known as "MISSION 66."

Beginning in 1956, funds from the National Park Service MISSION 66 program restarted planning efforts leading toward expanded visitor facilities at Fort McHenry. Park design concepts were changing following World War II as the popularity of the automobile led planners to concentrate on facilitating efficient visitor flow. Out of the pre-war park museum, the idea of the park visitor center emerged as a place where the public would be oriented to the site, receive highlights from its history, and pay an admission fee prior to touring the natural or historic features. Important elements from Fort McHenry's MISSION 66 prospectus included a small visitor center located outside of the Star Fort and west of the 1814 reservation boundary, removal of the parking lot built by the War Department north-east of the Star Fort, and construction of a larger new parking lot close to the visitor center. Other significant elements of the MISSION 66 program at Fort McHenry included the relocation of the neo-classical statue of Orpheus commemorating Francis Scott Key away from the central driveway to a less conspicuous location near the Civil War era powder magazine, and marking the 1814 reservation boundary with a hedge or low wall. Practical provisions for housing park rangers and maintenance facilities were located well to the west, just north of the park entrance gate.

Following completion of the MISSION 66 program at Fort McHenry during the early 1960s, assumptions regarding visitation and capacities of both visitor center and parking lot were immediately challenged. Revised park plans, dated just three weeks after the dedication of the new visitor center recommended the expansion of both the building and parking lot based on complaints of overcrowding. A seasonal overflow parking lot was constructed west of the main lot utilizing stabilized turf, a mixture of crushed stone and soil that supports traffic yet allows grass to grow.

In 1968, a new Master Plan was completed for Fort McHenry, addressing perceived inadequacies of the visitor center building, parking lot, and entrance road. The 1968 plan proposed the re-acquisition of a small parcel on the northern shore transferred to the Corps of Engineers in the 1920s for use as additional parking area and, considering the Niehaus's statue of Orpheus and other memorial elements as intrusions and distractions, recommended the removal of these from the property. The 1968 plan did however maintain a consistency with previous plans, identifying the area east of the 1814 reservation boundary as the "preservation zone," and the area west of the 1814 boundary as the park's "public development zone." Yet before any work could be undertaken toward implementing these recommendations, a new threat loomed, casting a shadow on the practicality of making any plans whatsoever toward the park's future. One of the three proposed routes for Interstate 95 published in 1971 included a large suspension bridge positioned directly above Fort McHenry's historic Star Fort.

In time, the political muscle of neighborhood groups, combined with attention from national preservation interests, including National Park Service leadership, helped to transform the suspension bridge proposal into a tunnel crossing located immediately off Fort McHenry's

southern riverbank. Nevertheless, between 1971 and 1980, while the highway alternatives remained an open question, plans for Fort McHenry were held in abeyance. A new planning effort began in 1987, following the completion of the tunnel project in 1985. This new plan, an amendment to the 1968 plan, abandoned the prior proposal to enlarge the current visitor center in favor of its outright replacement with a larger new building. The proposal to remove memorial elements from the property was retained in the new plan, although this was later strongly discouraged by NPS regional leadership.

Before the National Park Service could take steps toward new visitor facilities at Fort McHenry, dramatically deteriorating conditions in the masonry features belonging to the Star Fort compelled the park to prioritize bricks-and-mortar preservation efforts. These had not received serious attention for over sixty years, since the Great Depression. Planning and research for this project, known as "Package 276," began in 1991 with preservation fieldwork beginning in 1995. Final work on this ten-year, \$6,000,000 project was not completed until 2003.

FINDINGS

Fort McHenry National Monument and Historic Shrine consists of a single cultural landscape. No immediate corrective action is required to maintain its current good condition. The landscape shows no evidence of major negative disturbance or deterioration by natural or human forces. Cultural and natural features and characteristics are well preserved.

While the landscape is understood as a single entity consisting of forty-three acres, this report, together with earlier planning documents, acknowledges the presence of two sub-areas comprising the whole. The area east of the 1814 reservation boundary generally represents the extent of the government reservation during the time of the historic bombardment, and is identified as the "Historic Core Character Area" in this report. The parcel west of the 1814 reservation boundary was purchased by the government in 1836 and added to the military reservation. This area is identified in this report as the "West Expansion Character Area." Prior planning documents have identified this western parcel as the park's development zone. Both areas contain features and characteristics that contribute to the historical significance of the property. Fort McHenry National Monument and Historic Shrine is in its entirety listed on the National Register of Historic Places.

One of the key objectives in the preparation of this cultural landscape report has been the identification of key resources and assessing the impacts of various alternatives for expanding or replacing existing park visitor and administrative facilities. Improvements to these facilities have been a recognized goal of the park since at least 1964, when shortcomings in the formulae and assumptions behind the park's MISSION 66 development program first became apparent.

According to the 21 May 2004 "Draft Development Concept Plan/Environmental Assessment/Assessment of Effect for Fort McHenry's Educational/Administrative Center," improvements to current visitor facilities would:

- accommodate current and future visitation needs; providing vital space for educational purposes and;
- consolidating park operations; establishing space for partner groups to assist in the park's education and interpretive programs.

Much of the park's infrastructure dates to the early 1960s. Since that time, visitation has grown to approximately 607,000 annually, creating seasonal delays or denial of public service due to the

physical incapacity of both the Visitor Center and parking areas. Current projections suggest that continued trends over the next ten years could raise visitation to 723,839. Motivated by these trends, the National Park Service is considering changes to both site circulation/access and visitor facilities.

To accommodate increasing visitation at the park and meet visitor and administration needs, the NPS proposes to improve the visitor experience and increase the efficiency of park operations by:

- providing updated facilities and increased services and amenities;
- increasing park access through alternative modes of transportation through improved services and strengthened partnerships and;
- enhancing the efficiency of park operations by removing administrative functions from historic buildings and landscapes and providing adequate alternative facilities.

This document considers four alternatives including one "No Build" alternative and three "Build" alternatives. All of the actions proposed would be concentrated outside of the Fort's 1814 reservation boundary to avoid impacting resources critical to the park's mission. These alternatives include:

Alternative A - No Build, would not add any new facilities, other than those already planned under other projects, to Fort McHenry. The current Visitor Center would continue to lack adequate space for orientation, interpretation, and exhibits, and many of the park's administrative offices would be spread out over the site, including those housed inside historic buildings found within the Star Fort.

Alternative B - Rehabilitated Visitor Center, would enhance and expand the current Visitor Center. These improvements would provide more room for interpretation and education, but would not be of a size large enough to consolidate all of the park's administrative functions. In order to remove these operations from the Star Fort, a new administrative building would be constructed by the front gate.

Alternative C - Decentralized Campus Plan, would demolish the current Visitor Center and replace it with a new education/administration facility, located between the parking lot and the Patapsco River. The new facility would provide more room for interpretation and education than available in the No Build Alternative or Alternative B. It would not, however, provide enough space to consolidate the park's administrative activities. As in Alternative B, a new administrative facility would be constructed by the front gate. In order to provide more parking, the overflow parking area would be paved to create a permanent parking terrace.

Alternative D - Centralized Education/Administration Building, the NPS Preferred Alternative, would also demolish the current Visitor Center, and construct a facility between the parking lot and the historic road trace leading to the post wharf. This new structure would allow for all park operations, including administration, education, and visitor services, to be consolidated in this location. This would eliminate the need for an administration building by the front gate, as Alternatives B and C propose. To provide more parking, and preserve the park's green open space, a grass-roofed parking terrace would replace the current unpaved overflow parking area.

The authors of this report took part in discussions leading to the formulation of the alternatives summarized above, concurrent with their work in researching and evaluating Fort McHenry's cultural landscape. Due to this involvement in the planning process, the author's feel that their

work has been valuable in successfully advocating for the continued inviolability of the historic 1814 reservation boundary. The information contained in the following report has also been useful in consolidating the corporate memory of Fort McHenry National Monument and Historic Shrine's more recent planning history. This has been persuasive in maintaining the longstanding prohibition against constructing new public facilities east of the 1814 boundary.

This is not to say that the land acquired by the government in 1836 and added to the Fort McHenry military reservation does not contain cultural resources, features, and characteristics contributing to the historical significance of the property. All of Fort McHenry, the entire park property, is protected by the National Historic Preservation Act of 1966, not merely that portion east of the 1814 reservation boundary. The question as to the appropriate placement of visitor facilities is rather an issue of emphasis and priority. The findings of this report support the conclusions found in 1999 National Register documentation identifying features of the property dating to as late as 1945 as "contributing" to the historical significance of Fort McHenry.

Regarding Alternative A, the "no-build" alternative, there is no doubt that this choice would fail to address important cultural resource management goals. Historic structures inside the Star Fort would continue to be used beyond their capacity for purely administrative uses. Further, failing to act would not address the longstanding problems involving interpretation and visitor services. Enlarging the current visitor center as proposed in Alternative B, would be an improvement, removing inappropriate uses from historic buildings, and improving the quality of exhibits and interpretive opportunities. However, these strides forward would be overshadowed by the enlargement of a building that already encroaches into the historic viewshed of the Star Fort.

Alternatives C and D reflect two fundamentally different approaches toward meeting the park's need for additional visitor services and administrative space. Alternative C seeks to minimize the size of new building(s) serving these needs by treating Fort McHenry as a campus, reducing the footprint, and massing of visitor facilities near the Star Fort by removing administrative functions to a separate building placed in a less sensitive quadrant of the property. In counterpoint, Alternative D seeks to maximize the park's organizational effectiveness by concentrating visitor services and administrative functions together in a single building. Both Alternatives C and D propose to locate a large new building immediately west of the 1814 boundary, north of the existing Visitor Center. Both alternatives respect historic spatial relationships, such as the major and minor site axis formed by the Fort Avenue (east-west), and the combined 1814 reservation boundary and road to the post wharf (north-south). Both alternatives orient the long axis of the proposed buildings approximately north-south, as was done historically with garrison buildings found in this area of the property. The fundamental difference between Alternatives C and D lay in the size of the buildings proposed immediately west of the sensitive 1814 reservation boundary. The primary building proposed in Alternative D is significantly larger than the primary building proposed in Alternative C. This does not necessarily make Alternative D an inferior preservation choice to Alternative C. The author's of this report find that both alternatives have the potential to meet park needs while preserving park resources.

The choice of Alternative D merely assigns a more complex design problem if the larger building is to fit appropriately with its context and not vie against the Star Fort for the visitor's first impression of the site. Acknowledging the malleable nature of early plans as they are transformed into construction documents, consultation with interested parties, including the Maryland State Historic Preservation Officer, should be an ongoing process as the details of the park's plans materialize beyond the general approaches sketched out in the draft environmental assessment.

SITE HISTORY

PRE-HISTORY TO 1814

The following site history of Fort McHenry relies on both primary and secondary sources to describe the physical evolution of the site from pre-history to the present day. For the period prior to the American Civil War, this narrative references several excellent texts. Most notable of these is the recently compiled "*On the shore dimly seen...: an Archeological Overview Fort McHenry National Monument and Historic Shrine, Baltimore, Maryland*", completed in 2000 by Charles Cheek, Joseph Balicki and John Pousson. The presentation of Fort McHenry's developmental history is organized according to the national context presented by Emanuel Raymond Lewis in *Seacoast Fortifications of the United States: An Introductory History* (1979), incorporating definitions of the "First System," "Second System" and "Third System" of United States coastal fortifications. Other valuable texts referenced in this narrative include, "An Architectural Study of Fort McHenry: A Historic American Building Survey," by Lee N. Nelson (1961), and *Fort McHenry* by Scott Sheads (1995).

NATIVE AMERICAN SETTLEMENT AND LAND-USE

The earliest known inhabitants of Baltimore's environs in the Mid-Atlantic region are linked to the Paleo-Indian (10,000-8,000 B.C.) and Archaic (8,000-1,000 B.C.) periods. It is likely that social communities of the Archaic and the Paleo-Indian period shared many of the characteristics of groups present during later periods. The major distinction between earlier and later periods of Native American land-use relates to cultivation of crops by later peoples. Changes in practices sustaining native groups were probably due to environmental changes that in turn influenced social interaction with other groups. Environmental changes attributed to this period include local, regional, and global consequences of the post-Pleistocene rise of sea level due to a warming climate, and the subsequent development of more abundant floral and faunal resources.¹

Information regarding groups of the Early (1000 B.C.-A.D. 500) and Middle A.D. (500-900) Woodland periods is scarce due to a lack of physical evidence. Even the cultural characteristics and linguistic identity of these groups remains uncertain. The Late Woodland period (A.D. 900-1600) is better understood. Prehistoric sites near Baltimore have revealed cultural similarities with native groups south of Maryland. Scholarship suggests that these groups spoke either closely related Algonquian languages or dialects of the same language. Evidence has also been found indicating that communities in the area surrounding Baltimore were in contact with each other, possibly for the purposes of trade. Information regarding which groups traded with each other is not known, but a likely list includes Patuxent, the Nanticoke, and Conoy grouping of various Algonquian-speaking tribes, (this includes the Piscataway on the Maryland shore of the Potomac, being the predominant group in this region).²

Despite being unable to document and describe the extent to which native peoples manipulated the landscape of the lower Patapsco River, it is possible to evoke a general picture of land use patterns of the early fifteenth century prior to European contact and influence. Stable native settlements were located primarily at coastal sites, while temporary camps tended to occur inland. The broader Native American landscape was organized by the rivers emptying into the Chesapeake Bay and the diverse and extensive resources available within upland river valleys and floodplains.

Algonquin groups in the area cultivated a variety of plants, including corn (*Zea mays*) and tobacco (*Nicotiana rustica*). Hunting and trapping of animals, fishing, and the collection of shellfish provided dietary proteins, and skins for clothing.³

When Captain John Smith explored the Chesapeake Bay in 1608, he noted that the entire lower Patapsco River area appeared absent of human settlement. This contrasted with his reports of a greater relative population along the banks of the Potomac and Patuxent Rivers to the south. There, villages were arranged as lively centers, probably in part to make a more effective defense. The threat of attack in the region probably worked to discourage the establishment of smaller, more isolated communities, perhaps helping to explain why the lower Patapsco was not widely settled.⁴

Friction between native groups was the likely cause of the differences in settlement density noted by Smith in the Upper Chesapeake. This would have been especially likely along the western shore where conflict between the Massawomeck and the Susquehannock frequently spilled over to the harassment of other southerly Algonquian-speaking groups. The annoyance of relatively small and weak native settlements by more powerful native groups probably favored the establishment of a European colony in 1634, where the newcomers may have appeared as potential allies. There, the native peoples welcomed the English to their village of "Yaocomaco" on the western shore of the Chesapeake, extending themselves to the point of selling their settlement to the English to be restyled as Saint Marie's City.

EUROPEAN SETTLEMENT

During 1608, in the course of exploring, Smith passed near the site later known as Whetstone Point.⁵ In his descriptions of the region, Smith noted great potential for future settlement due to the abundance of natural harbors and lush vegetation growing in the marshland extending well away from the riverbanks. During English settlement of the Chesapeake Bay area of the mid-to-late seventeenth century, farmsteads were typically sited on points of land jutting into tidal rivers. Like the native peoples preceding them, settlement choices were based on proximity to water. Prior to the construction of improved roads, these rivers served as critical transportation routes. Access to deep water made cultivation and transport of tobacco profitable, providing easier access to world markets.⁶ The provisional European settlement in the region was made more durable by the ruinous defeat of the Susquehannock at the hands of the League of the Iroquois in 1652. The defeat required the weakened Susquehannock to negotiate with the colonists for access to firearms. Such bargaining led the tribe to divest large tracts of land on both shores of the Chesapeake Bay.⁷ By 1660, responding to a need for greater organization within the community, the Maryland colony established geographic boundaries for Baltimore County as a political entity. Within these boundaries, settlement was allowed to expand.

During this period, scattered groups of Nanticoke and possibly Algonquian tribes, occupied Baltimore's environs, displaced from areas on the Eastern Shore. By the end of the seventeenth century, the remnants of Algonquian-speaking groups in southern Maryland migrated further. The Conoy were forced to move up the Potomac River valley, leaving its watershed in their northward escape to Pennsylvania. At this time, native groups remaining on the eastern shore of the Chesapeake were confined to shrinking reservations and otherwise subjected to political and legal repression of their former freedom. Evidence of the Native American's decline in the area is shown in the establishment of a garrison near Baltimore.⁸ By 1744, the majority of the Nanticoke were forced to resettle in Pennsylvania and only remnants of the various tribes remained in Maryland.⁹

WHETSTONE POINT AND SURROUNDING ENVIRONS

During the early eighteenth century, Maryland's economy continued to be based on tobacco cultivation. The tobacco economy fostered diffuse land-use patterns, discouraging the growth of central port cities. Baltimore was but one of many stops for ships collecting tobacco from riverside wharves for export. Thomas Jefferson, commenting specifically on Virginia, but more generally on regional settlement wrote, "We have no townships. Our country being much intersected with navigable waters, and trade brought generally to our doors, instead of our being obliged to go in quest of it, has probably been one of the causes why we have not towns of any consequence."¹⁰

As the tobacco trade expanded, prominent Marylanders sought greater distinction, and tax revenues. As a result, in 1706, the Maryland Assembly established Whetstone Point, a peninsula formed by the confluence of the North West and Ferry branches of the Patapsco River, as an official port of entry. Prior to this, Whetstone Point had been left relatively undisturbed, but was viewed as a potential site for commercial development. The first records of land ownership indicate that Charles Gorsuch owned the point in February 1661. He later sold the land to James Carroll in June 1702 who ascribed the Whetstone Point place name, probably to the presence of mineral deposits found there.¹¹ Yet it was the presence of iron ore that lead to the 1727 sale of the property to the English Principio Company. During this period, the European settlement of the region was growing apace. Within two years, the Maryland Assembly provided sixty acres to erect the town of Baltimore.

The subsequent growth of the town of Baltimore as a national transportation hub, as well as a manufacturing and distribution center, played a significant role in the development of Fort McHenry's development. On 8 August 1729, after several prominent Marylanders petitioned the governor, Baltimore was officially named as a town. The new recognition included permission to operate a customs house supervising and extracting taxes from the export of tobacco and import of goods from overseas. During this period agriculture in Maryland's interior increased following a change from tobacco to grain crops. This change in regional agriculture required the development of storehouses to consolidate the less conveniently transported staple, further increasing Baltimore's civic importance. In addition, as a consequence of the Revolutionary War, the city's population and economic importance grew. Although military engagements associated with the war bypassed Baltimore, the city prospered due to an increase in demand for iron, shipbuilding, and processing mills. Baltimore became a major regional urban center and was a principle supplier for the Revolutionary War effort. By the end of the eighteenth century, Baltimore was the fifth busiest port, trading exclusively with Europe and the West Indies, ranking as the third most important commercial city in the United States.¹²

FORT WHETSTONE 1776-1780

During the Revolutionary War, harbor fortifications were crucial in defending important port cities. The threat of the British Navy patrolling the Chesapeake Bay left the town of Baltimore in a state of anxiety. The sighting of a single British Sloop of War, "Otter," as it approached the mouth of the Patapsco was enough to call the Maryland Congress into action.¹³ In 1776, nine months after British troops fired on Massachusetts militia at Lexington, the Maryland Congress of Deputies resolved, "...the Town of Baltimore be fortified if it be practicable."¹⁴ Maryland's Council of Safety requested that Samuel Purviance, Chairman of the Committee of Observation in Baltimore Town, "would furnish them with a Chart of the North East Branch of Patapsco River from Whetstone Point; also the Soundings a Depth of the Water between that point and Gorsuch's Point also a plan

of Fortifications and Cheveaux de Frise of other Obstructions to be placed in the River together with an Estimate of the Expense.¹⁵ Further, the Committee of Observance engaged two amateur engineers, Felix Louis Massenbach and James Alcock to locate a suitable site for a harbor defense based on their familiarity with eighteenth century European fortifications.

The protection of Baltimore's harbor focused on the construction of defensive works at Whetstone Point.¹⁶ Construction of an earthen redoubt began in 1776. The earthen structure took the form of a true heraldic star, featuring simple two-sided salients forming the basis for its defense.¹⁷ Upon completion, the first known military company to garrison the works at Whetstone Point was Captain Fulford's militia artillery. In addition to the star-shaped redoubt, additional defenses completed included an open riverfront battery and wooden barracks. In 1778, a boom was placed across the North West channel to Gorsuch Point, providing a physical barrier to entrance into Baltimore's inner harbor.¹⁸ By the autumn of 1778, thirty-eight cannon were emplaced, and a hospital had been constructed to serve the soldiers.¹⁹ The earliest description of the fortified point noted, "the fort, batteries and boom at Whetstone Point are in excellent order; an air furnace erected at the point, from which red thunderbolts of war will be issued to meet our invading foes."²⁰

In the summer of 1781, the British consolidated their forces at the Chesapeake seaport of Yorktown, Virginia. To entrap the British, who were awaiting naval transport, Count de Rochambeau's advanced his French troops overland, passing through Baltimore. Assigned to Rochambeau's staff was Captain Louis Alexandre Berthier, a cartographer who provided the earliest known map of Whetstone Point (*Figure 1.1*).²¹ After the Siege of Yorktown by the combined French and American forces and the subsequent British surrender under Lord Cornwallis on 19 October 1781, the discussion over additional defenses for Baltimore ended. Given the British defeat, the Maryland Commissioners for Confiscated British Property surveyed and subdivided divided Whetstone Point into seventy-six lots. By 1781, the first auctions were held and sixteen lots were sold, primarily on the upper end of the peninsula and soon after, additional lots were sold in a second auction.²² However, the tip of the peninsula would remain in private ownership for only a short time as the new confederation of states eyed this strategic location as an apt spot for future defenses (*Figure 1.2*).

In the absence of a strong centralized government, the Maryland Council of Safety initiated the first program of improvements for the defensive works at Whetstone Point. Despite their lack of formal training in engineering, plans were developed and implemented by local residents and militia. The fort and water batteries were so arranged to take full advantage of the location, commanding the approach channel into Baltimore.²³ By 1793, the post was referred to as Fort Whetstone. Landward access was by way of a cart way leading from Baltimore Town following the ridgeline of the peninsula. The riverbanks of the point were still subject to the scouring effect of storms, and during this period mud and other sediments sloped gently outward from the riverbanks, alternatively covered and laid bare by the action of the tides.

The fort commanded a central position on the eastern side of the peninsula with the major feature, the star-shaped redoubt, located on high ground. As illustrated on maps dating to 1792, the redoubt was designed as a true five-pointed star (*Figure 1.3*). This structure's purpose was to defend the batteries from attack by land, and further offered a second line of defense should the exterior water batteries fail. During this time, water batteries prevailed as the main deterrent against a naval attack. Their effectiveness was based on their ability to fire red-hot projectiles at a low trajectory, skipping these across the surface with the aim to penetrate the wooden hulls of ships at the water line.²⁴ The two water batteries at Fort Whetstone were constructed close to the riverbank to

maximizing their effectiveness. The batteries consisted of earthen works supporting wooden platforms, atop of which numerous guns were strategically positioned. A small topographic rise to the southeast of the fort served as a barrier, or traverse, protecting the water batteries from enfilading fire (*Figure 1.4*).

Although circulation patterns at Fort Whetstone are not well documented, it is likely that a path led from the east side of the redoubt down to the two water batteries. It is likely that paths also led to several structures serving the fort, clustered tightly to the north of the redoubt; consisting of a magazine, furnace, Officers' quarters and barracks (*Figure 1.5*). These defenses apparently served as an effective deterrent, as the British chose not to attack them, and the colonists gained their independence in 1783.

FIRST AMERICAN SYSTEM 1794-1804

Political revolution in France led to European political instability, ultimately threatening to the continued independence of the United States. President Washington understood implications inherent in the political disarray of its strongest ally, and pressed Congress to fund improvements to harbor defenses. In 1793, the Maryland legislature responded to President Washington's warnings by granting permission for the War Department to build additional fortifications for the defense of the city at Whetstone Point, "with the consent of the owner of the soil."²⁵ On 20 March 1794, the first federal appropriation for coastal fortifications was authorized. Under this authorization, the Secretary of War issued instructions as to the general qualities of the fortifications, which were to be of an inexpensive temporary character, leaving details of design and construction to engineers on site.²⁶

Under this program of improvement, what Emanuel Raymond Lewis has identified as the First American System, changes to the existing fortifications at Whetstone Point included the design and construction of a new star-shaped redoubt and the reconstruction of the water batteries. Allied once again with the French against the British treat, input for the design of the post involved plans produced by three French military architects: Major John Jacob Ulrich Rivardi (1794-1797), Major Louis Tousard (1798), and John Foncin (1799-1800). It is likely that the works were essentially complete by 1802.²⁷

Rivardi's contribution to the project involved the reconstruction of the water batteries, although his observations of the design shortcomings of the old star-shaped redoubt were noted by his successors in the decision to replace the original structure. Construction of the new fort began under Tousard's plan; with the work soon interrupted by the revisions proposed by Foncin as shown on a plan from 1803 (*Figure 1.6*).²⁸ Thus, following Foncin's revised design, the fort's primary structures were completed in 1805, and soon thereafter named in honor of James McHenry, the Secretary of War. As with the old fort, the orientation of the five-pointed star design protected defenders from a land attack and provided cover if the water batteries were overtaken. The "points" on the reconfigured fort incorporated reentrant angles that formed bastions featuring four sides. The "flanks" created by the new angles designed into the fort's five bastions reduced the vulnerability of the fort's five curtain walls by exposing attackers to fire from two sides.

If the Water Battery fell to attackers landing on the riverbank, a ditch located at the base of the star-shaped fort's walls served as the second line of defense. If the works were approached by land, infantry could be ordered into the ditch, protected by a five-foot earthen counterscarp. In such a

position, the infantry, standing on a banquette, or firing step, could slow the advance of the enemy with musketry and pike, with covering fire provided by artillery inside the fort.

If all else failed, the fort with its five projecting bastions would become the third and final line of defense. To repel an attacking force, twenty cannon were mounted in groups of four at embrasures designed into the faces of each bastion. The location of gun emplacements provided interlocking fields of fire, eliminating vulnerable blind spots, covering all exterior curtain walls, faces, and flanks of the fortification.²⁹

SECOND AMERICAN SYSTEM 1807-1814

When the threat that prompted the 1794 improvements had passed, the struggling young nation's coastal defenses were neglected yet again. New fortification projects were not considered and only small appropriations were granted to fund general maintenance. However, following a British attack on a United States vessel off Hampton Roads in 1807, a new threat of war grew between Great Britain and her former colonies. Over a three-year period initiated by the 1807 *Chesapeake -Leopard* incident, Congress approved the then enormous sum of three million dollars to implement the defenses of the Second System (1807-1814). In general, the fortifications constructed during the Second System were more elaborate than those of the First System; their configuration, plan, and construction were supervised by American-born engineers for the first time. However, national coordination was still at a premium and the form and function of the structures varied greatly. The architecture of Fort McHenry, during the historic defense of Baltimore, included a combination of characteristics typical of the First and Second systems.³⁰

The national program for the Second System included remodeling and strengthening existing harbor defenses. In addition, following the implementation of the First System there were more strategic locations to defend with major harbor fortifications increasing from twenty to thirty-one nationwide. New coastal fortification projects reflected the growth of economically important commercial cities, especially along the coast of New England, and the Louisiana territories.³¹ At the outbreak of war in 1812, the national program of construction for the Second System and plans for the defense of the nation were well advanced.

The population of Baltimore reacted to the outbreak of war by quickly building and dispatching a large number of privateers. These vessels were designed for attacking non-military targets and were able to interrupt the commerce of the British merchant fleet; capturing the ships and their cargo. The British responded in a limited fashion with a naval blockade at the entrance to Chesapeake and Delaware bays, preventing the privateers from gaining access to open water. Additional offensive operations by the British were indefinitely postponed while more pressing matters were dealt with. Britain's navy was otherwise well occupied as Wellington waged his Iberian Peninsula Campaign against Napoleonic France.³² Thus, by 1812, construction of the Second System at Fort McHenry was essentially completed; protecting Baltimore from the British should they decide to attack. Extensive alterations to the fort and its exterior water batteries continued over the next two years as weaknesses were discovered in the design of the fortifications. The fort's defenses were finally tested during September 1814.

After the British land forces captured Washington D.C. in August, they moved against Baltimore using coordinated land and naval attacks. On 13 September 1814, the British offensive culminated in the British bombardment of Fort McHenry, lasting about twenty-four hours (*Figure 1.7*). The assault failed and the British withdrew; Fort McHenry had survived and the engagement on the

Chesapeake ended after nearly two years of occupation (*Figure 1.8*). The defiant display of the national flag and Francis Scott Key's composition of the Star-Spangled Banner, cemented Fort McHenry's place as a symbol of American patriotism and independence.

The British withdrawal reflected the advantages that harbor fortifications then enjoyed over naval forces; the contemporary military doctrine was that harbor fortifications could not be taken by naval forces without overwhelming superiority.³³

SUMMARY LANDSCAPE DESCRIPTION - 1814

In 1814, the approach to Fort McHenry from Baltimore was still via the original cart way. The subdivision in ownership of adjacent lots would likely have been recognized by fencing or by changes in vegetation and land-use. Major portions of this land bordering the road to Baltimore was marshland; much of the lower lying land was unsuitable for tillage, and where used at all, was put to use grazing livestock or the production of fodder. The boundary to the reservation was well to the east of its current line, marked by a modest fence stretching roughly north-south across the peninsula. East of this fence, numerous buildings occupied an area north of the star-shaped fort, many of them organized to face a driveway leading to the post wharf. These structures served the garrison in various ways; as barracks, storehouses, stables, a hospital, a bakery, a blacksmith shop, and officers' quarters. On the southwest portions of the grounds, away from the fortifications, a kitchen garden provided produce. A burial ground was located near the southeast point of the peninsula.

The three major fortifications at the post were the Star Fort itself and two exterior water batteries above the shore line, open to the west. Access to the inside of the Star Fort was provided by a timber bridge leading to the sally port. By 1813, Decius Wadsworth had constructed a small Ravelin in front of the sally-port. The Ravelin was constructed of a triangular mound of earth and revetted with brick. After passing over the timber bridge and through the sally port, the inside of the redoubt consisted of a small courtyard defined by the enclosure provided by brick buildings of varying sizes. The central area was nearly equally divided between a small parade and a landscaped area, probably of turf. Straight pathways led from the small courtyard parade to the various buildings, including a powder magazine and four barracks. Smaller features included a cistern, wells, privies, a guardhouse, and a flagstaff.³⁴ The flagstaff was located to the northwest side of the parade ground, about thirty feet west of the parade end of the sally-port (*Figure 1.9*).

Earthen ramps leading from the entrance to the fort provided access to the ramparts and bastions. Initially, the bastions were poorly armed, even on the eve of the attack. This was true of the fort as a whole, including the water batteries. Only after May 1814 did the fort have a full compliment of arms. Featuring five bastions, the fort was able to deploy 23 twenty-four pounders and 36 eighteen and thirty-six pounders to defend against an enemy barrage from the water. The fort's ramparts were approximately thirty-eight feet wide and only fifteen feet above the bottom of the surrounding ditch. The ditch, which provided the second line of defense to the exterior water batteries, was thirty feet wide and five feet deep. In this ditch, United States infantry soldiers would form a line on the firing step ready to repel a landing attack at close quarters. The interior of the parapets and bastions were filled with earth, which was sodded and planted with Lombardy poplar trees, helping to consolidate the soil below. The vegetation provided camouflage for the fort and in combination with the low-lying position of the fortifications, made it difficult to locate, especially when viewed from the water (*Figure 1.10*).

The trees were arranged symmetrically with six planted toward the front of each bastion about ten feet apart, two on either side of the angle. These trees would have been removed prior to the British attack, when the bastions were platformed during the process of making ready. Further planting on the bastion included nine trees along the top of four curtain walls, evenly spaced. Inside the fort, extending around the courtyard were thirty-four trees. Two more were located next to the commandant's quarters and with another pair on each side of the cistern. Contemporary images and later accounts indicate that the trees were Lombardy poplars known for their rapid growth and ability to dry wet soils.

FIGURES: PRE-HISTORY TO 1814



Figure 1.1. Portion of a 1781 plan by Berthier showing Whetstone Point and surrounding environs. Berthier, Louis-Alexandre, "Ville, port, et rade de Baltimore dans le Maryland," c. 1781, Library of Congress, Rochambeau Collection, call number G3844.B2A1 1781 .B4.

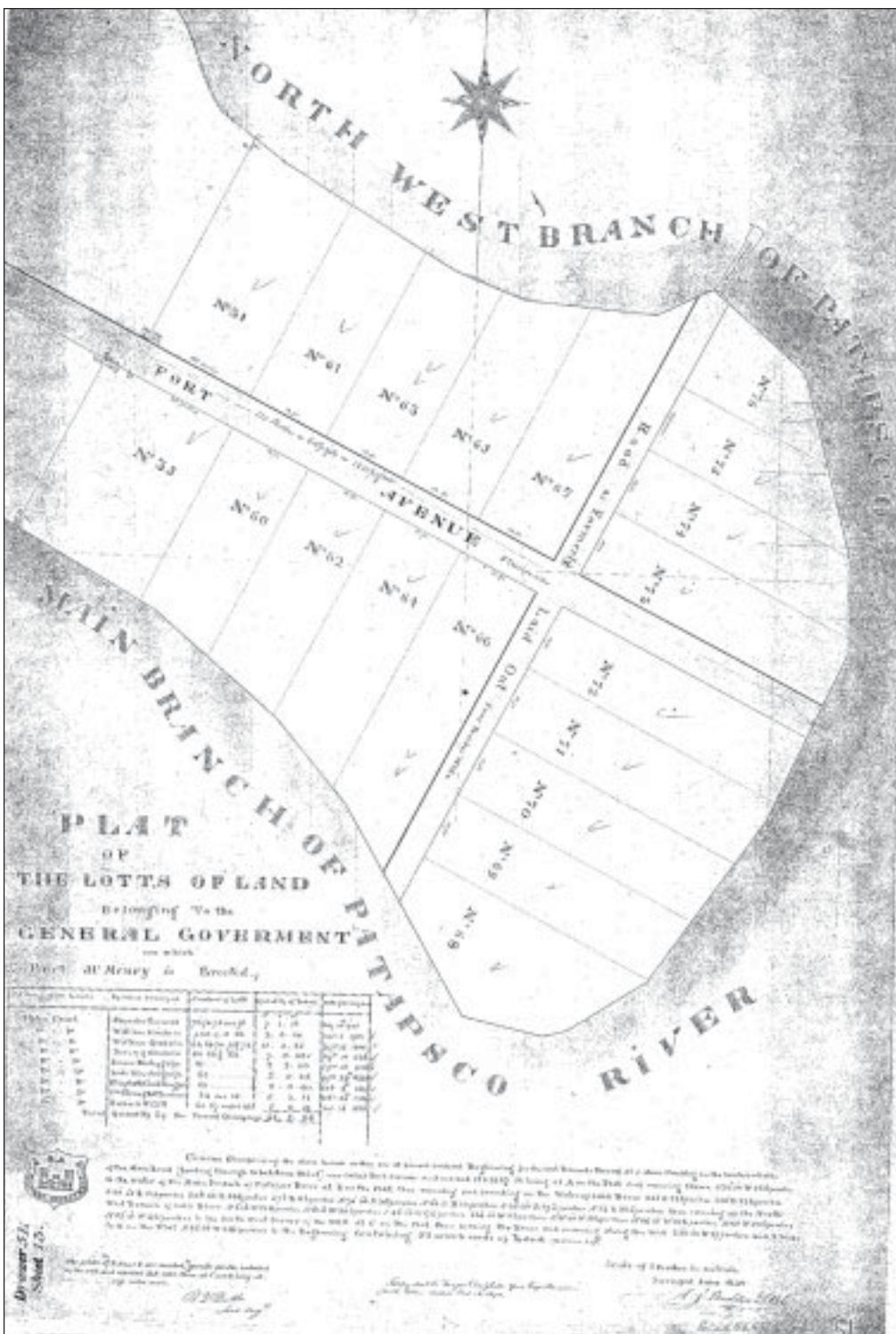


Figure 1.2. June 1840 plan by Butler entitled "Plat of Lots of Land Belonging to the General Government on which Fort McHenry is Erected," which shows plat of lots 34, 35 and 60 to 66, conveyed to the U.S. between 1795 and 1836, on land at Whetstone Point. Shown on the plat are two roadways that became the two major access roads for Fort McHenry. National Archives II, College Park, MD. RG 77.



Figure 1.3. Detail of 1792 plan by A. P. Folie, entitled “Plan of the Town of Baltimore and its Environs,” showing Fort Whetstone including Star Fort and shoreline batteries. Library of Congress.

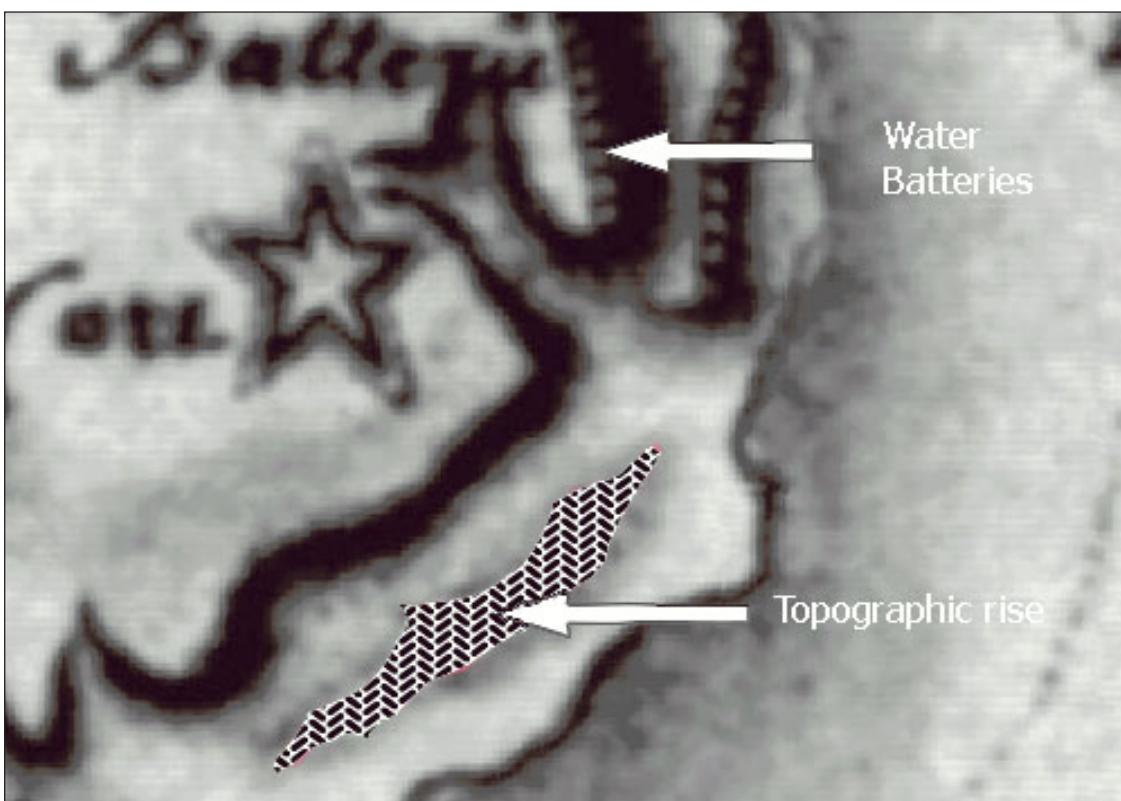


Figure 1.4. Detail of 1782 L. A. Berthier plan entitled “Port et Rade de Baltimore” (Baltimore, Harbor and Roadstead), which shows rise to the southeast of the fort which served as a barrier, or traverse, protecting the exterior water batteries from enfilading fire. OCLP.



Figure 1.5. Diagram depicting 1793 Fort Whetstone landscape. Graphic prepared by the Olmsted Center for Landscape Preservation (OCLP).

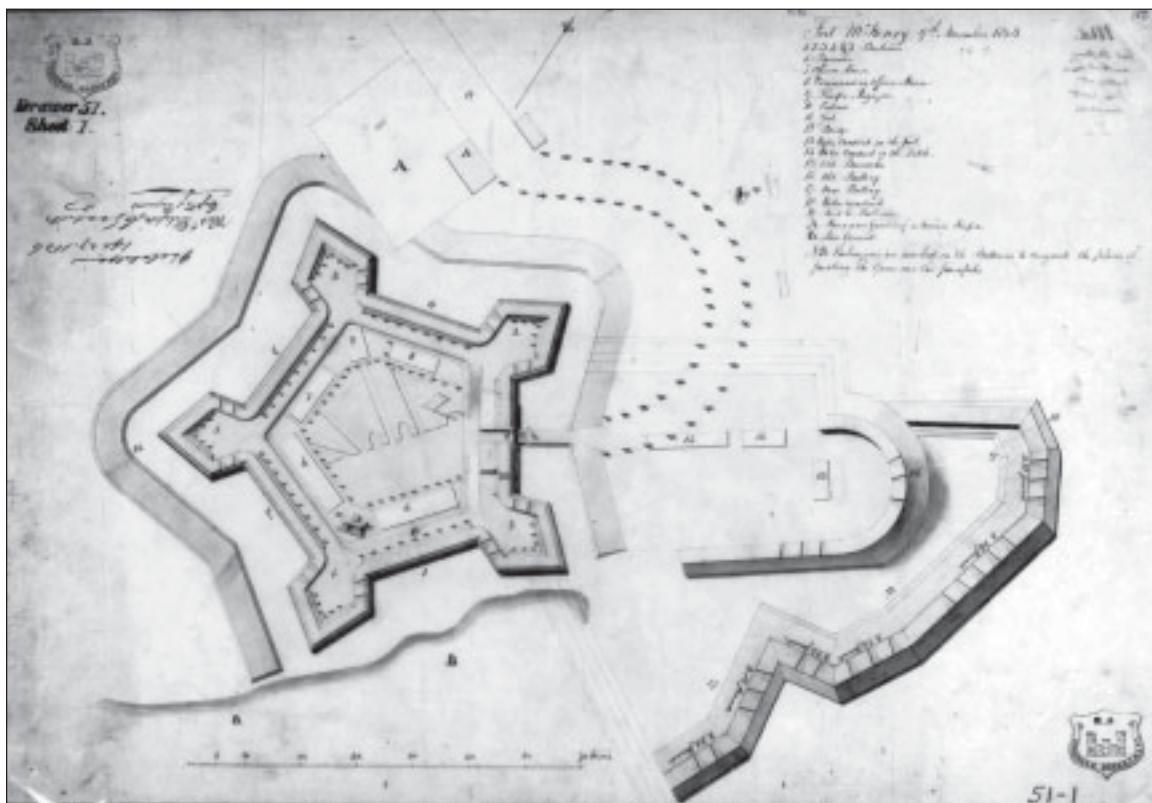


Figure 1.6. 1803 anonymous plan entitled “Fort McHenry,” which depicts the water batteries in a different configuration than 1782, as well as the Star Fort. The trees shown on the plan are probably Lombardy poplars; and the three poplars that were depicted in an 1853 illustration of the fort may have been remnants from this original planting. National Archives II, College Park, MD. Record Group 77.



Figure 1.7. “The Bombardment of Fort McHenry, September 13-14, 1814,” by Alfred Jacob Miller (1810-1874). This image, painted c. 1829, depicts Lombardy poplar trees on the fort terreplein, in front of the Star Fort buildings, and lining the approach road. Maryland Historical Society, Baltimore, MD.

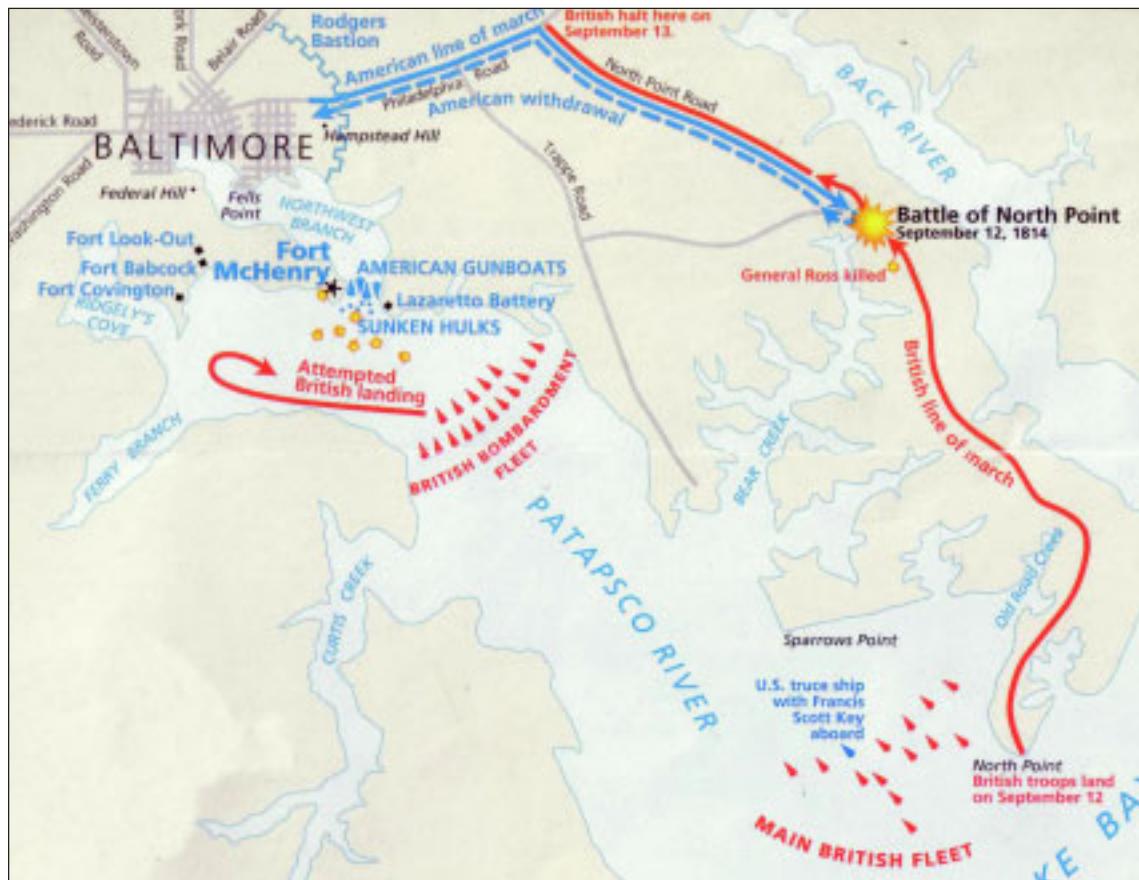


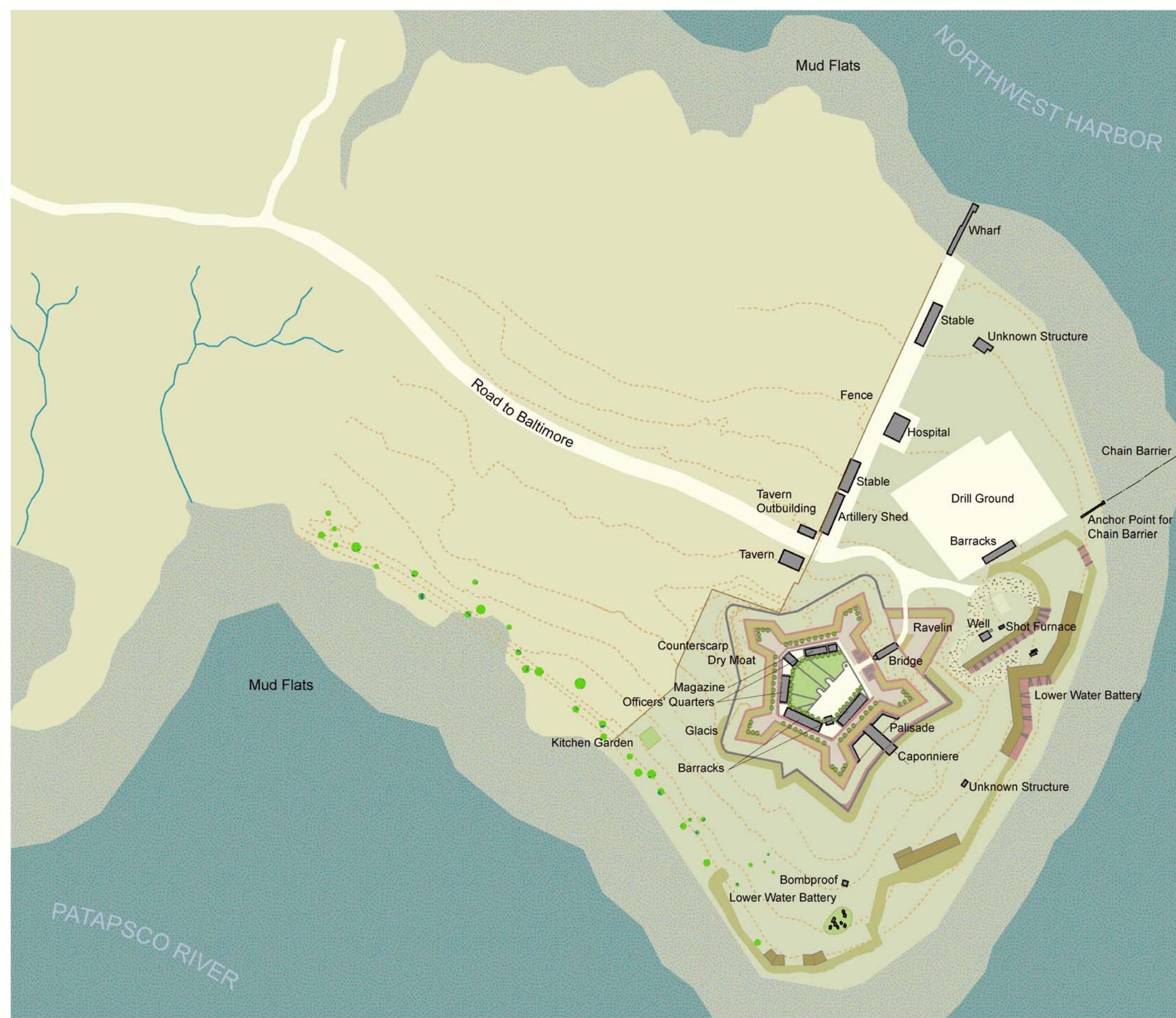
Figure 1.8. Graphic showing the movements of American and British land and naval forces during the Battle of Baltimore, 12-14 September 1814. National Park Service, Harper’s Ferry Center, 1985.



Figure 1.9. “*The Flag is Full of Stars*,” by Dale Gallon, 1989. This modern interpretive painting depicts Fort McHenry in 1814, showing Lombardy poplars along the terreplein wall and in front of the fort’s interior buildings. Dale Gallon Historical Art, Gettysburg, PA.



Figure 1.10. View of Fort McHenry and Whetstone Point from Baltimore’s Hampstead Hill, c. 1810. This rendering indicates numerous trees inside and around the Star Fort. New York Historical Society.



1814 Period Plan

Drawing 1

Cultural Landscape Report for
Fort McHenry National Monument
and Historic Shrine

Produced by
National Park Service
Olmsted Center for
Landscape Preservation

Map Sources:

1819 plan by Captain William Tell Poussin entitled "Reconnoitering of Chesapeake Bay, State of Maryland; Plan and Profiles of Fort McHenry," (NARA, College Park Maryland. Record Group 77, Drawer 51, Sheet 2).

1803 plan by anonymous entitled "Fort McHenry," (National Archives, Records of the War Department, Cartographic Section, Record Group 77, drawer 51, sheet 1).

1782 plan by L. A. Berthier entitled "Port et Rade de Baltimore" (Fort McHenry National Monument and Historic Shrine Archives).

Notes:

The woody vegetation locations are based on analysis of historic plans and images. They are approximate and represent an estimation of the historic character for the period.

Plan drawn using ArcEditor 8.2, Adobe Illustrator and Adobe PhotoShop by Mark Davison, OCLP, NPS.

Legend:

- NPS Land
- Contours
- Earthwork
- Road / Path
- Building / Structure
- Fence
- Tree Canopy
- Landscaped Area

Approximate Scale in Feet

0 100 200 300 400 500



1815 TO 1865

THIRD AMERICAN SYSTEM

President Madison's critics argued that the recent war with Britain had unduly expanded the powers of the federal government at the expense of the rights of individual states. These complaints focused on the creation of a central bank, and the expense of maintaining a standing peace-time national army. Regarding the nation's coastal defenses, the increased power of the federal government following the conclusion of the War of 1812 stabilized funding for the military and military projects. Thus, the Third System of United States coastal fortifications did not share the urgent motivation behind construction under the First and Second systems. Attention and funds could instead be methodically directed toward the creation of a permanent and truly integrated system of harbor defenses.³⁵ Organized in 1816, a special board of officers from the War Department was convened to conceptualize the scope of this new system.³⁶ Gentlemen amateurs were eliminated from the planning process, while foreign expertise still had an important role to play. The War Department's new fortification board was led by a military engineer that had formerly served on Napoleon's staff.

This group was placed in charge of the entire undertaking with responsibility for designating the positions requiring fortification, arranging these in order of their relative importance, determining general design characteristics, and reviewing the specific selections and actual plans of the engineers in charge of the projects. This long-term program of construction would continue until the Civil War. President Monroe's visit to Baltimore in 1817 afforded an opportunity to advise the assembled military officers that "Congress has appropriated large sums of money, for the fortification of our coast, and inland frontier, and for the establishment of naval dock yards, and for building a navy."³⁷

As part of the general defense system for Baltimore, preliminary plans were made for a new fort at Soller's Point Flats. Located four miles below Fort McHenry in the middle of the Patapsco River, the site would later be known as Fort Carroll. At Fort McHenry, the major construction work of this period involved upgrading existing fortifications and armament, and continuing routine repairs. Although Fort McHenry was not redesigned to reflect the typical characteristics proposed for the Third System of fortification, it remained an important element in the defense of Baltimore. According to the rationale of the Bernard Board, the fort was to serve as a secondary defense should Fort Carroll fall.³⁸

At Fort McHenry, construction was begun in 1817 on a granite seawall to help prevent the further erosion and damage to the aging shore batteries. Even after the seawall was completed, the mud-flats around the point were still exposed at low tide as illustrated by Captain William Tell Poussin in 1819 (*Figure 2.1*). Poussin's drawing of Fort McHenry, entitled, "Reconnoitering of Chesapeake Bay, State of Maryland; Plan and Profiles of Fort McHenry," was the first accurate drawing of the entire reservation property following the 1814 bombardment (*Figure 2.2*). In this drawing, the major defensive features present in 1814 had been retained with modifications, and new structures, such as the seawall and western brick boundary wall had been added. The boundary wall consisted of a 10 foot high brick wall, with entry gates, along the western reservation boundary. The back walls of the c. 1807 gun shed and store house were incorporated into the boundary wall.

Experience with Fort McHenry's design during the British bombardment exposed its vulnerabilities. It was fortuitous that the interior courtyard magazine had not been destroyed when

it sustained a direct hit by the British. With this in mind, bomb proofing projects were completed on the parade magazine and the parade well. The Poussin plan also documents the presence of new personnel bombproof on either side of the sally port and the construction of new magazines serving the water batteries.

DETERIORATION AND OBSOLESENCE

Nevertheless, during the 1820s and early 1830s Fort McHenry again suffered from a lack of funding, leading to another periodic cycle of deterioration to the post's structures and facilities. The Bernard Board completed its first report in 1821, barely mentioning forts of the First and Second systems, as the board's priorities were with new forts employing new designs and techniques. From this time forward, it became clear that Fort McHenry would play an ever-diminishing role in the nation's coastal defenses. Observations made by various persons visiting and stationed at the fort were generally negative. These accounts highlighted the inadequate level of maintenance work leading to dilapidated buildings and the poor condition of the gun-carriages. For example, Captain Bolton who was stationed at the fort in 1822 noted, the low level of maintenance stating, "a considerable number of shot, instead of being piled, form the borders for walks. Quarters in only tolerable order... Gun carriages on the ramparts rotten and unfit for service."³⁹ Bolton, later promoted to Major, commented in 1824 that, "the buildings occupied by the corps are old and will require frequent expense.... Fort McHenry is at present in a state requiring considerable repairs. The gun-carriages also, both sea-coast and field, are unfit for service."⁴⁰

Conditions at Fort McHenry affected the health of the garrison. A routine inspection in 1828 mentioned the garrison was in the process of returning from their summer cantonment. This was apparently recommended by the Army in an effort to improve the health of the soldiers. Within a year, another inspection furthered claims that soldiers were suffering from the poor sanitary conditions found within the fort. In correspondence, reference is made to the presence of disease within the garrison, and that the cause lay in the design of the buildings where "close confined air, connected with damp...." The letter recommends improving the circulation of the air within the quarters by, "raising the story four or five feet, the heat would be mitigated and the damp driven from the rooms."⁴¹ Eventually improvements were made to buildings inside the fort in 1829 with second stories added to the residential buildings including the addition of two-story porches facing the parade ground.⁴² The commanding officer's quarters were also extended with a two-story addition between the main structure and the formerly detached kitchen.

After the completion of these improvements, Karl Bernhard, Duke of Saxe-Weimar Eisenach described Fort McHenry for his book, *Travels Through North America During the Years 1825 and 1826*. Observations made by the Duke were probably colored by his familiarity with superior fortifications found throughout Europe. Despite his lack of enthusiasm for the design, it provides one of the most detailed descriptions of Fort McHenry of the period:

The fort is very small, and ill-shaped; a pentagon with five little bastions, where at most but three large guns can be mounted; in front of the entrance is a little ravelin which defends nothing. There is no counterscarp; the ramparts are sodded. The fort is separated from the land by a wall, which might prove injurious than advantageous. Near the water's edge there is a battery which can contain more than fifty guns for firing over the beach. There are also some furnaces for heating cannon balls. It was this battery which offered the greatest resistance to the British. Since that time, the engineers have erected bomb-proofs on each side of the gate, as well as a bomb-proof powder magazine.⁴³

The Duke's analysis was accurate; the flaws he recognized in the design would soon render Fort McHenry obsolete as a coastal defensive fort.

PROGRAM OF IMPROVEMENTS

As early as 1830, Fort McHenry could not reliably defend Baltimore from a naval attack. The fort had not kept pace with improvements to naval armaments during this period, and the location was fast becoming unviable as a defensive site in protection of the growing city. Despite these issues, the earlier decision by the Bernard Board to retain the post assured that limited funds would be made available for upkeep. In 1833, with the arrival of Lieutenant Henry Thompson from the Corps of Artillery, the post gained a competent supervisor for construction projects over the next six years.⁴⁴ On 29 September 1836, orders were issued by Lieutenant Thompson for the evacuation of the fort in preparation for the scheme of improvements. Two months later the post was enlarged when the War Department purchased 15.75 acres covering the majority of the remaining land on the peninsula. On the same day, 15 November, General Charles Gratiot was a successful bidder for the Schwartzour property that lay adjacent to the fort, the central feature of which was a tavern. For the next seven years, the Army used the tavern building to house medical staff.⁴⁵

One of Lieutenant Thompson's first actions was to cut down the trees growing in and on the Star Fort. Lieutenant Thompson informed his superior, General Gratiot, that the work would be completed swiftly.⁴⁶ During this period the small interior parade was refurbished and the earthen banks leading up to the terreplein were replaced with a stone revetment wall.⁴⁷ In 1835, a small project was completed that added guardhouses, including prison cells, to either side of the sally port. This led to the removal of the guardhouse then found wedged between barracks buildings. By 1839, the space vacated by the former guardhouse was filled with a shot furnace.⁴⁸ The parapet was improved in 1837 when a breast-height wall was built, which was extended by eighteen inches two years later. During this period, workers replaced the coping stones on the fort's scarp wall with granite.⁴⁹

In addition to improving the design and layout of the fort, there was some modernization of the fort's armament. In 1835, Brigadier General Fenwick reported that Fort McHenry had no guns mounted, the gun carriages and their associated platforms were decayed, and the water batteries as worthless.⁵⁰ This stirred the War Department into action, as gun traverses were constructed between bastions three and five and at the shoulders of the bastions.

More significantly, a new exterior battery was constructed to replace the hopelessly deteriorated upper and lower waterfront water batteries. The new exterior battery featured emplacements for thirty-nine guns, and by 1842 included two shot furnaces (*Figures 2.3 and 2.4*).⁵¹ In order to build the new exterior battery, the Army had to reconfigure the Ravelin entrance in order to create a ramped access between the new Outer Battery and the inside of the Star Fort. The new approach to the entrance was constructed by regrading the counterscarp, allowing access across the dry moat between the Ravelin and the Star Fort. The old entrance through the Ravelin was blocked and seven gun emplacements were constructed atop of the triangular structure.

The defense of the Fort McHenry required open space to the west providing clear fields of fire in case of an attack by land. The addition of over fifteen acres west of the former 1814 reservation boundary created a spacious buffer protecting the Star Fort (*Figure 2.5*). The acquisition of this new parcel also made possible the development of additional facilities, provided their arrangement did not compromise the defensive design of the works. In 1837, a brick wall was constructed along the new boundary line, which included an iron entrance gate. With the construction of a new entrance, the alignment of the main driveway inside the post was moved to the north of its original location. The altered road ran in a straight line up to the glacis and connected with the redesigned entrance at

the sally port. A secondary road connected the east end of the main driveway with the wharf on the north side of the peninsula. In 1839, a new hospital was constructed to the southwest of the entrance gate, with mature deciduous trees apparently growing around the structure. Lieutenant Thompson, pleased with the improvements of 1839 commented:

The quarters are all in excellent condition [and were] painted two years ago. New floors to the first story... The hospital is new, & will be ready for occupation about the middle of April. The magazine is large, in good order, drier than those I have generally seen, & has a lightning rod, the only one at the fort. ...I contemplate finishing Fort McHenry agreeably to the present alteration by the later end of September.⁵²

The overall program of improvements recommended closing the small burial ground on the southeast side of the fort. Given the purchase of the additional acreage west of the Star Fort, the Army was able to relocate structures and auxiliary services interfering with the defenses (*Figure 2.6*). The bodies of those formerly interred were probably moved to the new cemetery located at the on the south side of the peninsula at the beginning of the 1840s. By the 1850s, the Army had built two brick ordnance storerooms adjacent to the new cemetery. There are indications that that the grounds comprising the new cemetery plot were interspersed with mature deciduous trees.

A few of Fort McHenry's Lombardy poplars apparently escaped Lieutenant Thompson's axe. An image of the fort during the 1850s shows three of the characteristically columnar trees located on the south side of the road near the entrance to the fort (*Figure 2.7*). What appear to be civilians are shown enjoying in the park-like scene. A short distance to the west of this grouping there appears to have been a mature deciduous tree that was also located next to the road. On the north side of the fort, west of the chapel, three brick stables had also been constructed, and the central portion of the newly acquired acreage to the west was marked as a drilling area for the garrison.

THE CIVIL WAR: 1861 – 1865

Despite repairs and improvements to the post over previous decades, as every year went by the historic fort became less prepared to defend against modern arms. Yet, Fort McHenry still had a role to play as war loomed between the southern and northern states during the late 1850s. Rather than defend the new nation against a foreign attack, it would instead impose the will of the federal government inside a blatantly hostile region. In the process, Fort McHenry became a focal point for local resentment due to its role as detention center for political internees and Confederate prisoners of war (*Figure 2.8*).

On the morning of 2 April 1861 Captain John C. Robinson, commander at Fort McHenry, noted growing evidence that the fort was to be attacked after sundown that evening. The attack was to come from the land, via the road to Baltimore. However, he stated confidently that the fort was well defended and would remain in the possession of Union forces (*Figure 2.9*).⁵³ Such confidence was confirmed by a report appearing in the *Baltimore American and Commercial Advertiser*:

Since the commencement of actual hostilities between the North and the South, Fort McHenry has become an object of special attraction on the part of the citizens of Baltimore. The post is under the command of Captain Robinson, of the fifth infantry, who is universally esteemed as an accomplished and experienced officer. The fort has not been reinforced, the rumors to the contrary notwithstanding, the number of effective men is about two hundred, who are kept in a high state of military discipline. The strictest military regulations are necessarily enforced, and citizens are not admitted within the works.

Despite the display of confidence, the Secretary of War was not prepared to take any chances, sending three regiments of Philadelphia troops as reinforcements under the command of General George Cadwallader. Upon arriving in Baltimore, General Cadwallader, as commander of the Maryland district, divided his troops between Federal Hill and Fort McHenry to defend against the

citizens of Baltimore attacking the fort.⁵⁴ However, the night passed without incident and in the days that followed the threat subsided. No more plots against the fort were discovered, and for the remainder of the Civil War, Fort McHenry served as a detention center for political prisoners and enemy combatants.⁵⁵

In June 1861, it became clear that members of Maryland's General Assembly were on the verge of secession. Urgent action by the Federal government was required to prevent the split. Allen Pinkerton, leading Union espionage efforts, was given the job of arresting members of the General Assembly and Baltimore's Mayor, George Brown, for good measure. After the arrests were made, the political prisoners were brought to the fort, where Pinkerton had established his headquarters. As a sign of the changing times, George Armistead Appleton, the grandson of the much lauded Lieutenant Colonel George Armistead, was also arrested for being in possession of a Confederate flag. Francis Key Howard, grandson of Francis Scott Key, was arrested due to his employment as an editor on the *Baltimore Exchange*, which sympathized with the South's cause. He later wrote of the irony of his arrest and imprisonment at Fort McHenry in a pamphlet entitled, *An American Bastille*:

When I looked out in the morning, I could not help being struck by an odd and not so pleasant coincidence. On that day [Sept. 13, 1814], forty-seven years before, my grandfather, Mr. F. S. Key, then a prisoner on a British ship, had witnessed the bombardment of Fort McHenry. When on the following morning, the hostile fleet drew off, defeated, he wrote the song so long popular throughout the country, the "Star-Spangled Banner." As I stood upon the very scene of that conflict, I could not but contrast my position with his, forty-seven years before. The flag which he had then so proudly hailed, I saw waving, at the same place, over the victims of as vulgar and brutal a despotism as modern times have witnessed.⁵⁶

Within a few days of being held at Fort McHenry, Maryland's political prisoners were transferred to Fortress Monroe in Virginia. The life of those prisoners remaining at Fort McHenry, held in the newly converted structures, is generally described as dull. Meal time was apparently the highlight of the day. By 1863, the prisoner population at the post reached nearly eight-hundred. However, a political internee would normally be held for only a short time before being transferred to larger more secure installations elsewhere.⁵⁷ It has been noted by contemporary authors that conditions for political prisoners at Fort McHenry were more comfortable than for those held elsewhere. As an example, Benjamin T. Gunter, a lawyer, recorded the daily routine and gave a detailed description of the cell where he was held:

December 12, 1861 – At 10 o'clock the steamer reached Fort McHenry and I was handed over to Captain J. E. Mulford who took me to the room where I was to be confined. The prison is a room about 24' long by 15' wide, the back part of the room is elevated about 10' higher than the front. In the center of the room is an old fashioned tin plate wood stove which makes the room very comfortable, on the left as you enter is a small shelf for the water pitcher, and in the right corner is a large tub. The room has two small windows on the left and right as you enter and the windows are guarded by iron bars. In the back of the room is an open window about 8" by 30" and this has four upright rods of iron. The furniture of the room consists of one small writing table, one chair, one Camp Set, two pitchers, one wash bowl, and a bucket for dirty water. Each prisoner is furnished with one army blanket and some have two. I am one of the fortunate ones. In front of this room is a pavement about 23' long and 9' wide upon which the prisoners are allowed to walk during the day. At sunset the door to the prison is locked after calling the roll of prisoners, and sunrise the door is again opened.⁵⁸

In its role as a detention center alterations were made to buildings at the post in order to accommodate the influx of prisoners. For example, the stables near the wharf were converted into prison cells in 1862 and enclosed by a stockade wall.⁵⁹ During this period, two excellent accounts describing the buildings and daily life were completed by soldiers stationed at the post (*Figure 2.10*). The first was completed by John C. Myers of the 192nd Regiment, who painted a vivid word-picture of life at the post in 1864:

Found the 7th Ohio National Guard of Cincinnati, in possession of the fort, who soon vacated quarters, formed in line on the parade ground, and in a few moments they filed past our extensive line and went there way rejoicing for Ohio. Our guards immediately detailed and posted. We were placed in very comfortable quarters,

in tents and frame houses on the water side of the fort, fronting the city... The grounds of the fort are some twenty acres: the fort facing south, on the junction of two rivers. The grounds are in bad condition, showing an utter neglect as to drainage and proper construction. There is a great deal of filth around the cooking houses, which ought not to exist in any well-regulated fort. On the western side of the fort is located a small burial place, containing over a hundred graves, --soldiers who died in the service since 1782. Each grave has a neat wooden head-board giving the name, age, regiment and company of the deceased. Our Colonel has declined taking up his quarters in the interior of the fort, containing neat and well furnished houses for officers, and had pitched his tent on the extreme southern end of the land, with-in a few feet of the water-wall. Half the Regiment have also pitched their tents here, and are more comfortable than those in the frame cabins, where vermin abound.⁶⁰

The second account, by Alfred S. Roe of the Fifth Regiment, Massachusetts Volunteer Infantry, describes some of the outbuildings and the construction of gallows in preparation for the execution of prisoners:

The old Brick store houses are surrounded by a stockade and are filled with Confederate prisoners, conscripts and substitutes... It will be remembered that General Morris enquired earnestly as to artisans in the fifth when the regiment reported for service. He soon found employment for men of nearly all trades represented. The old fort needed them badly, and soon of the builder was heard as carpenters and mason all but made over the chapel, barracks, and other parts of the fort. A baker was found for the bake house, a butcher for the commissary department... The first task, assigned to the carpenters was the enlargement of the gallows, originally constructed for one culprit, so that it might be used for four at one time.⁶¹

During the Civil War, the mortality rate at Fort McHenry was comparatively low. Between March 1863 and May 1865 there were fifteen deaths, of which three were executions. During this period, thirty-eight escapes were recorded. In a typical month, at the height of the war, between 250 and 350 prisoners passed through the post. This ended on 9 April 1865 when Confederate General Robert E. Lee surrendered in Virginia, securing victory for the Union. Within months of Lee's surrender, only four prisoners remained at Fort McHenry for the evening roll call.

SUMMARY LANDSCAPE DESCRIPTION - 1865

A color lithograph prepared by E. Sachse in 1865 provides detailed documentation regarding the layout of Fort McHenry at the end of the Civil War (*Figure 2.II*). However, the pleasant conditions represented in the lithograph contradict a less complementary description provided by John C. Myers of the 192nd Regiment. Nevertheless, in combination with three plans dating from 1864, it is possible to describe accurately the physical layout of buildings and features of the Fort McHenry reservation. The purchase of additional land in 1836 altered the configuration of the post, providing expansive new space for drilling of troops and the construction of many new buildings. The major change occurring inside the former 1814 reservation boundary was the removal of the two water batteries, leading to the construction of a new exterior barbette battery shaped to roughly conform to the outline of the pre-existing Star Fort. Other modifications to the existing defensive works tended to be minor, resulting from additional attempts to refine the arrangement of armament.

In 1865, the post had two major entrances: the northwest entrance gate leading to the road to Baltimore and the wharf found on the north side of the point. The northwest entrance provided the only means of land access to the post through a fifteen-foot wide iron gate, flanked by two smaller pedestrian gates. The entrance was guarded by a small guardhouse; its rear wall formed part of the brick boundary wall that extended across Whetstone Point. The wooden wharf was used for landing troops, prisoners, supplies and heavy ordnance. An access road led from the wharf to the Star Fort, intersecting with the main driveway leading from the northwest entrance. These two major routes divided the post into four quarters, each of which had its own distinct character.

The southeast portion of the reservation grounds contained the modified Star Fort, including the exterior barbette battery completed during the 1840s. The trees atop of the fort had been removed, yet three Lombardy poplars still led from the fort entrance to the intersection between the two main roads. Additionally, the new entrance to the Star Fort was probably wider than the original route over the Ravelin, and therefore improved access to the inside of the structure. Another excellent account by John Myers in 1864 covers daily life inside the Star Fort, also providing a physical description of the structures found within:

The interior of the fort is oval, having but one entrance, called the sally-port; this space area is about one hundred feet by eighty, surrounded by battlements bearing upon all points. Each division contains a battery of from five to twenty heavy guns, some of them rifled pieces, with mortars and cohorns planted at intervals. Many of the heaviest facing the city... The interior barracks are well constructed, two storied brick, well lighted and good ventilation. There is room for 400 men. A well supplies water of good quality for the entire fort. The water is pumped into a tank, and the pump is worked with levers requiring from six to eight men. The pumping is done by deserters, and soldiers sentenced by court-martial. They are obliged to pump from early dawn to taps, without ceasing, as a vast quantity of water is needed for camp use and it is used *ad libitum*. Free access to the pumps and hydrants is had by all needing water, which is the only freedom allowed on the premises. In one of the neat little brick buildings, on the right of the sally-port, is the residence of State prisoner, Mr. Walter Lennox, ex-Mayor of Washington City, confined here by an order of the Secretary of War, since July 3, 1863.⁶²

Around the outside of the Star Fort in front of the ditch, ran a line of Abatis creating an entanglement of felled trees with branches oriented outward to slow the approach of an attacker (*Figure 2.II*). In front of the Abatis was a post and rail fence that encompassed the defensive works during peacetime. The only structure between the fort and the water was an armory, which connected with a cart way leading to the main entrance road.

The oldest garrison buildings outside the walls of the Star Fort were found in the northeast quadrant of the post, within the former 1814 reservation boundary. Buildings remaining from the War of 1812 period included the original post hospital which had been converted into a commanding officer's residence, officers' quarters, barracks, stables, and the quartermaster-ordinance storehouse, as well as the wharf, which had been modified to include two small boathouses. New buildings added to this area included a chapel and bakery along the wharf access road, and a wood yard on the waterfront near the wharf.

On the northwest portion of the post the new buildings had been aligned with their long axis oriented north-south, keeping open a view to the harbor. These structures included three converted stables that were used as prisons during the Civil War and were surround by a stockade fence. To the west of the prison buildings, were four barracks buildings that included laundress's quarters. The only building not conforming to this north-south orientation was the cookhouse, abutting the northern boundary of the property.

The southwestern portion of the grounds was of a more open character, with the space to the south of the main entrance drive used for drilling. The buildings in this quarter hugged the southern perimeter of the point except for the recently constructed brick magazine. The hospital was located near the western boundary wall on the south side of the entrance gate. Surrounded by deciduous trees, the hospital had a variety of smaller structures associated with it including a cellar, a shed and a wash room. Along the south side of the point, there was a small grouping of structures near the cemetery including an ordnance storeroom, artillery shed, quartermaster stables, and a carpenter's shop.

By early 1865, the post would have appeared busy with activity. An average of up to 350 prisoners arrived at the wharf every month. A full compliment of soldiers required tents to be erected, mainly

in the northwest portion of the grounds (*Figure 2.13*). Drills would have occurred daily on the open parade south of the central driveway. Because the new buildings were constructed at the perimeter of the acreage purchased by the War Department in 1836, the post retained an open spacious in character. This choice was certainly purposeful, as this arrangement limited the use of these buildings as defenses for an attacking force in the event of a landward attack. Similarly, large trees were kept to the periphery of the site, undoubtedly for much the same reason. The mowed, grazed, or otherwise trampled ground, in combination with the single-storied structures created a campus landscape that was in service to the defensive works.

FIGURES: 1815-1865

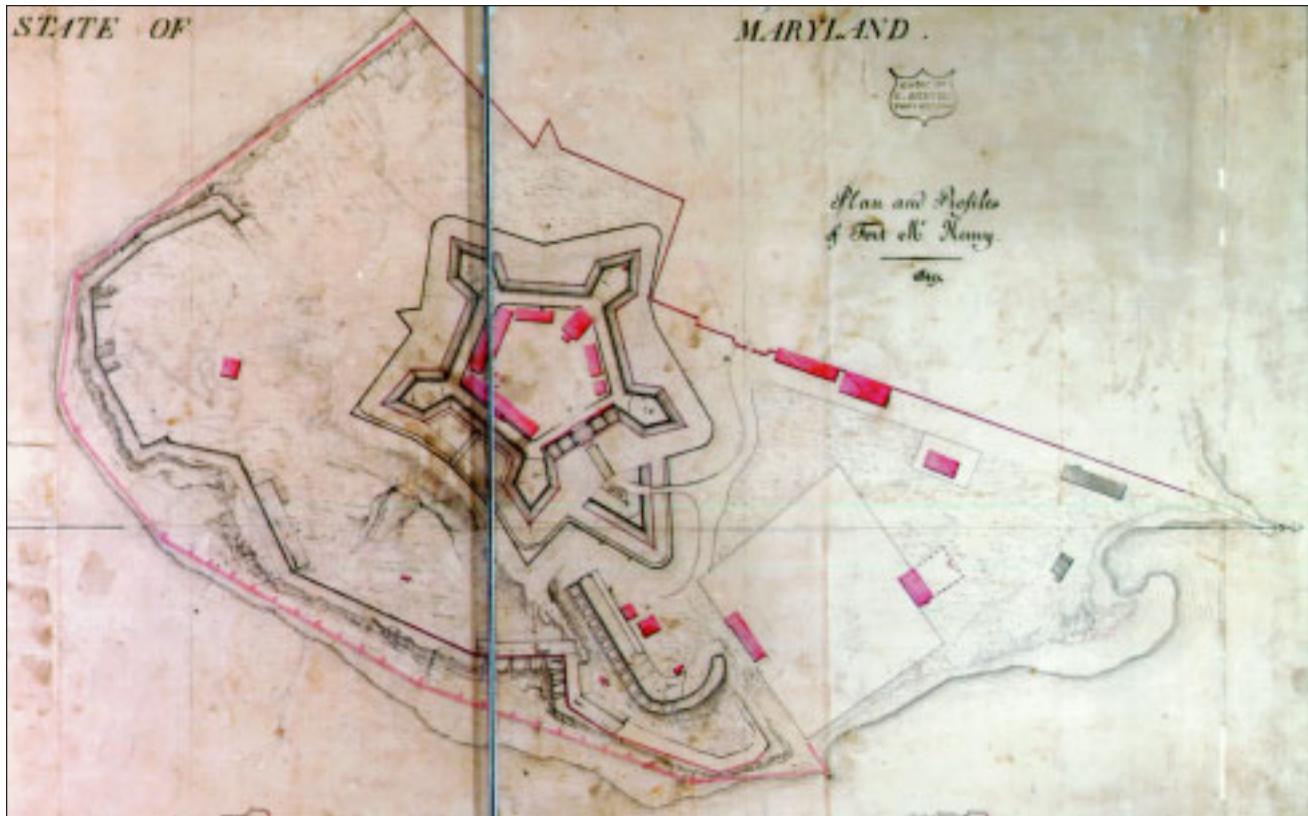


Figure 2.1. Portion of 1819 plan by Captain William Tell Poussin entitled "Reconnoitering of Chesapeake Bay, State of Maryland; Plan and Profiles of Fort McHenry," which shows various new structures and improvements made between 1806 and 1819. This detailed drawing denotes many interesting features including relief, vegetation, open areas, and trails. For example, the southwest portion of the plan includes an open area illustrating the boundary of the old cemetery and on the north side of the point a narrow trail is drawn running along the border of the shore. National Archives II, College Park, MD. Record Group 77.

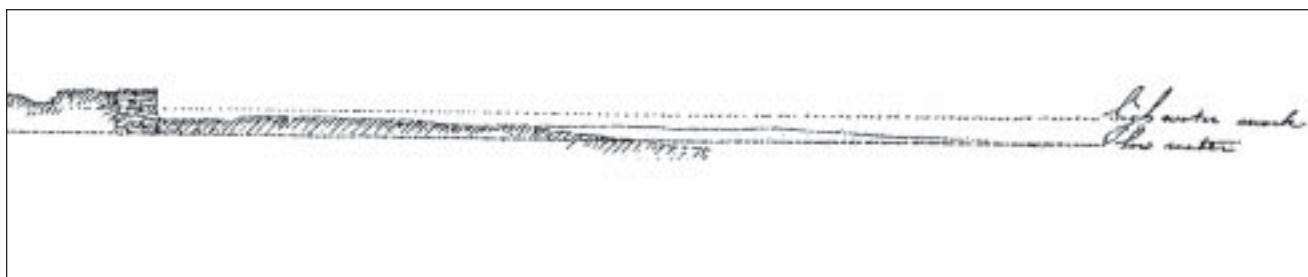


Figure 2.2. Detail of 1819 plan by Captain William Tell Poussin entitled "Reconnoitering of Chesapeake Bay, State of Maryland; Plan and Profiles of Fort McHenry," showing profile of seawall and mudflats at low and high tide marks. National Archives II, College Park MD. Record Group 77.

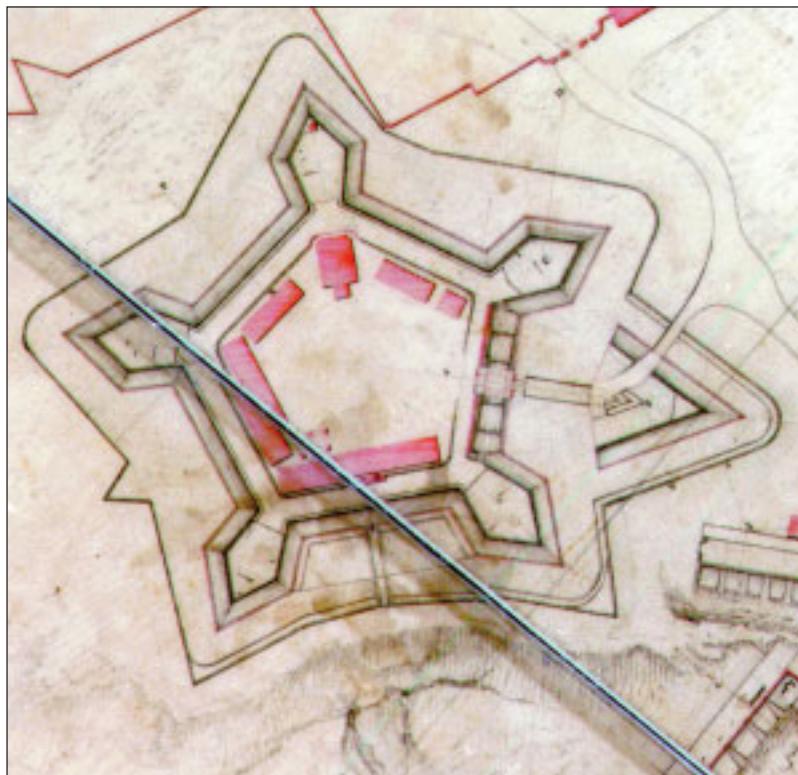


Figure 2.3. Detail of 1819 plan by Captain William Tell Poussin entitled “Reconnoitering of Chesapeake Bay, State of Maryland; Plan and Profiles of Fort McHenry,” showing configuration of Star Fort. National Archives II, College Park, MD. Record Group 77..



Figure 2.4. Detail of 1840 plan by Capt. Fred A. Smith entitled “[Plan of] Fort McHenry, Baltimore, from dimensions furnished by Capt. Henry A. Thompson,” showing alterations to the Star Fort including the new water battery and the remodeled entrance to the sally port. National Archives II, College Park MD. Record Group 77



Figure 2.5. Detail of 1858 plan by Lieutenant Samuel Brick entitled “Plan and Sections of Drill Ground at Fort McHenry,” showing the 1837 land purchase by the War Department and includes the new structures constructed by the Army prior to the Civil War. National Archives II, College Park MD. Record Group 77.

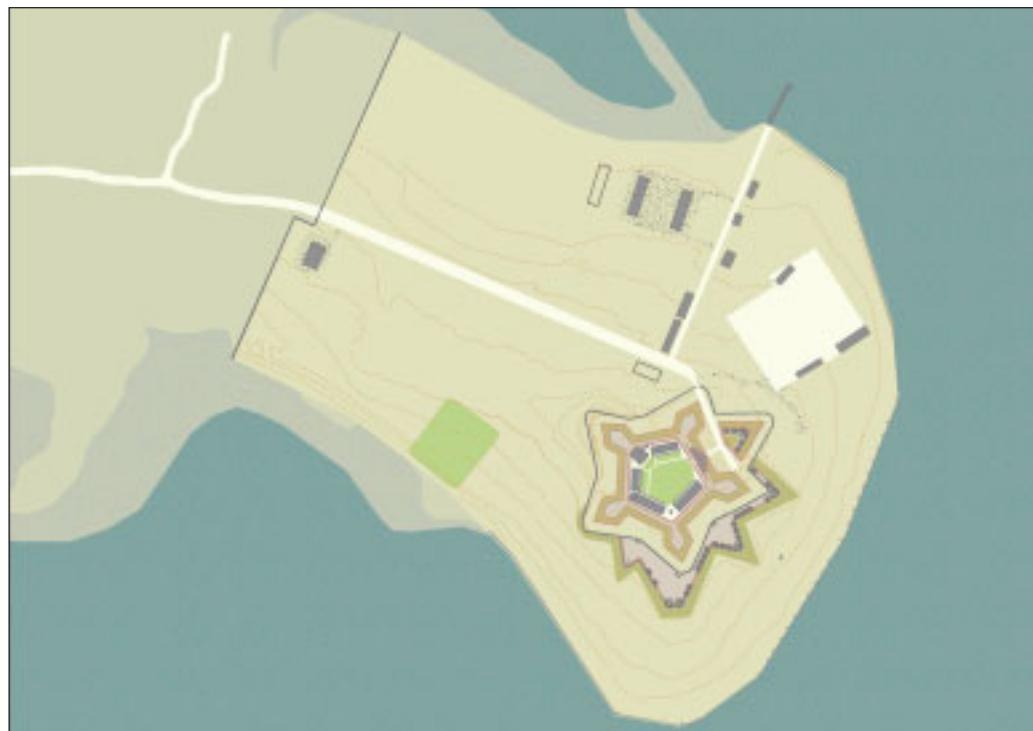


Figure 2.6. Diagram depicting the 1840 Fort McHenry landscape. Graphic prepared by the Olmsted Center for Landscape Preservation (OCLP).

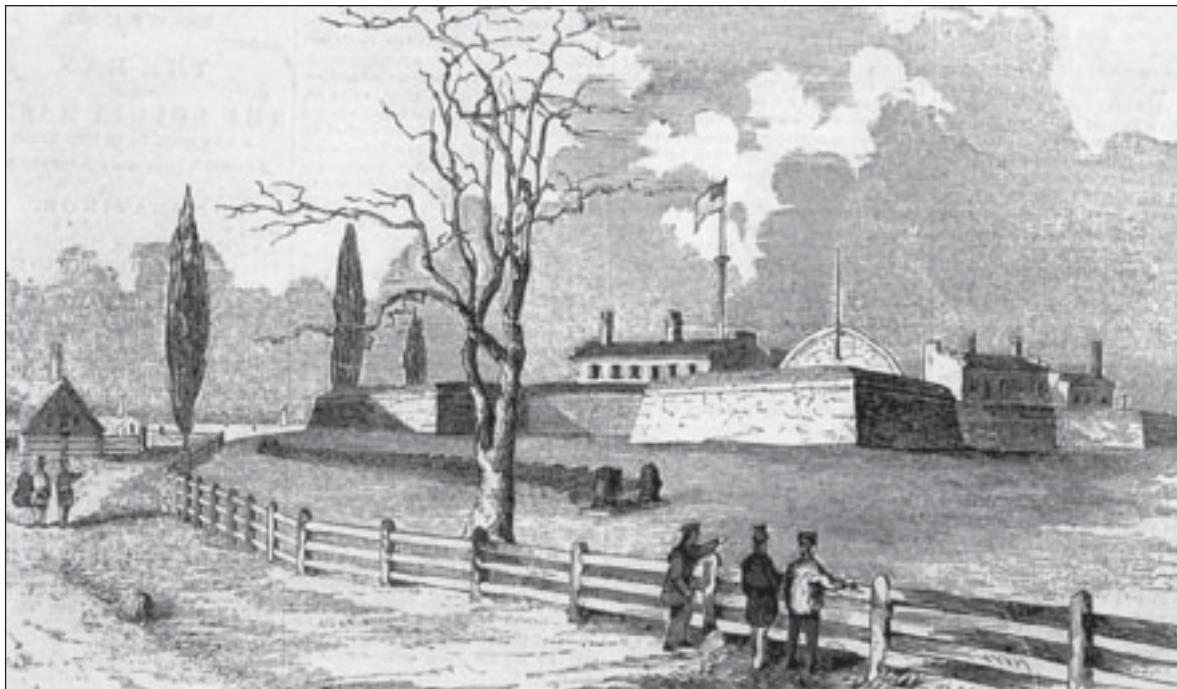


Figure 2.7. "Fort McHenry, Baltimore." This engraving published in the 22 December 1855 edition of Ballou's Pictorial depicts conditions along the approach road to Fort McHenry, including three surviving Lombardy poplars. Other items in view include the specimen deciduous tree in foreground, the dressed dimensional lumber of the 1839 rail fencing, and various unmounted ordnance. At the left of the engraving, the 1807 ordnance shed is in view. The military reservation was often used as a strolling place and pleasure ground by the public. Enoch Pratt Free Library, Baltimore, MD. Cator Print Collection No.28.



Figure 2.8. This c 1861 engraving from Ballou's Pictorial depicts a sentinel posted on Bastion II, Columbiads next to star fort, point to Washington Monument and the City of Baltimore. Note the specimen deciduous tree in foreground, and the Columbiad mounted on Bastion I. Fort McHenry Library Special Collection.

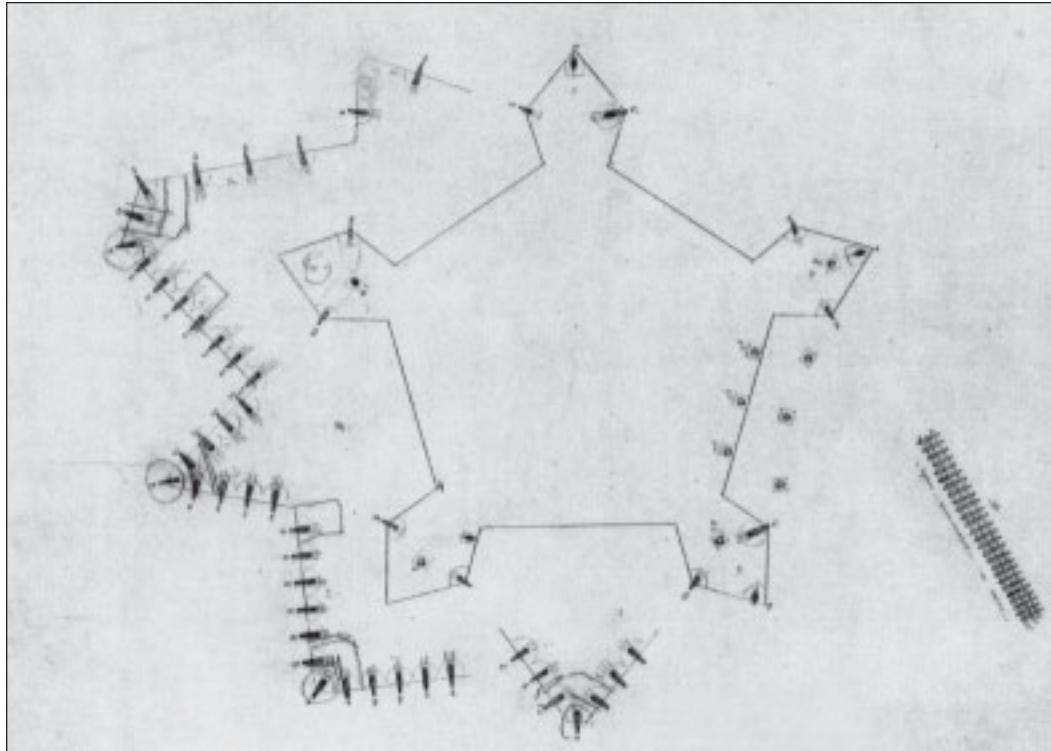


Figure 2.9. “[Plan of] Fort McHenry, Md., Showing positions of the guns, etc.” This 1861 plan by Colonel Brewerton shows positions of the fort’s armament including the unmounted pre-1839 guns stockpiled on the glacis north of the fort National Archives II, College Park MD. Record Group 77.



Figure 2.10. “Fort McHenry, Baltimore, MD.” This 1861 color lithograph by E. Sachse depicts the general configuration of the Fort McHenry landscape during the first months of the Civil War. Note the telegraph line on the north side of the entrance drive as well as the diagonal path leading to the barracks buildings. Enoch Pratt Free Library, Baltimore, MD. Cator Print Collection. No. 166.

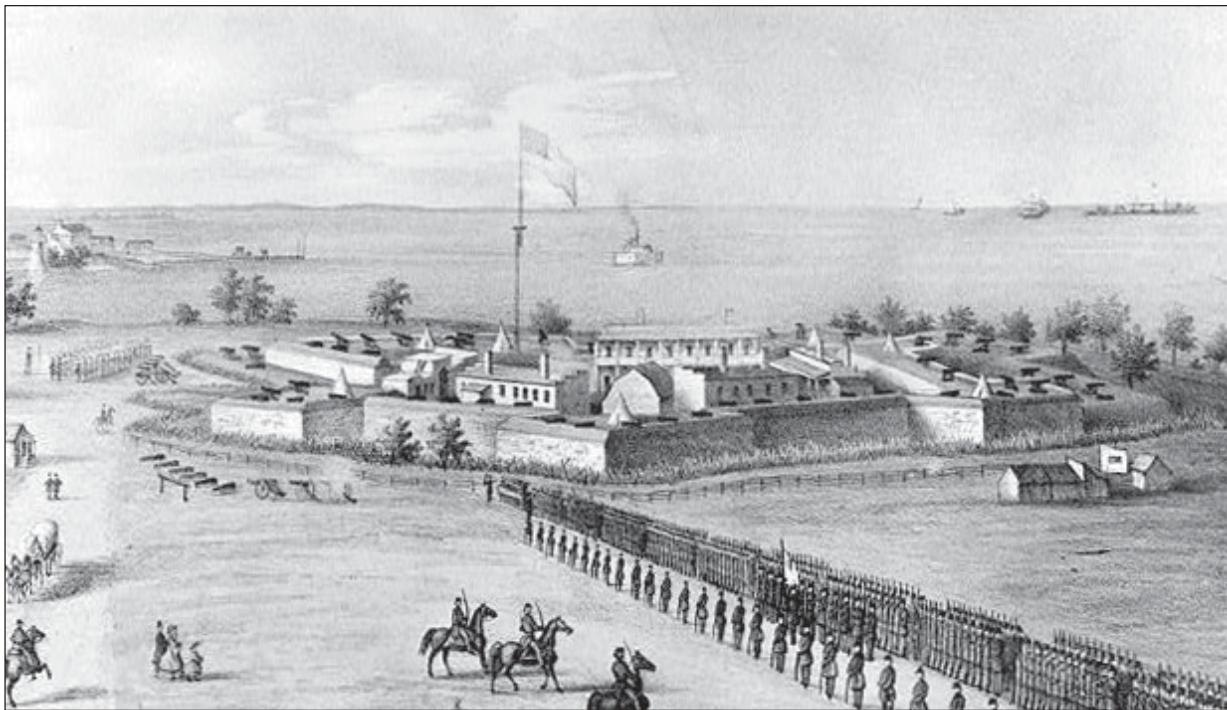


Figure 2.11. Detail of 1861 lithograph by E. Sachse, showing landscape conditions at Fort McHenry during the time of the Civil War. Note the abatis entanglements placed along the counterscarp marking the outer edge of the c. 1800 dry moat. Enoch Pratt Free Library, Baltimore, MD. Cator Collection No. 166.



Figure 2.12. 1865 color lithograph by E. Sachse of Fort McHenry showing landscape conditions during the final months of the Civil War. Note the conversion of the three 1843 stables to house Confederate prisoners, employing the use of surrounding stockade fence and guard towers. The post cemetery and gallows is also prominently in view. Following the end of the war, the prison buildings were converted into enlisted men's barracks and remained on site until 1926. Enoch Pratt Free Library, Baltimore, MD. Cator Collection No. 166.

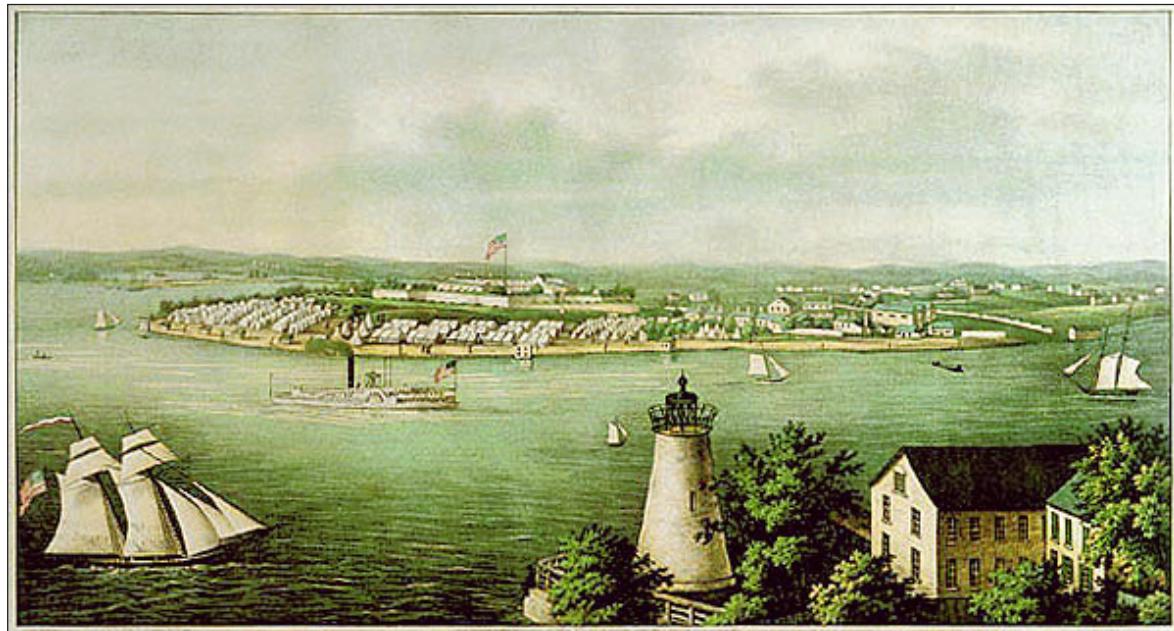


Figure 2.13. 1865 colored lithograph by E. Sachse & Co. of Fort McHenry from the northeast. Note the vegetation along the eastern shore in the vicinity of the batteries. The grounds of the military reservation was used as a temporary encampment during the war. The 1831 Lazaretto lighthouse and 1801 hospital are seen in the foreground. Enoch Pratt Free Library, Baltimore, MD. Cator Print Collection No. 167.



1865 Period Plan

Drawing 2

Cultural Landscape Report for
Fort McHenry National Monument
and Historic Shrine

Produced by
National Park Service
Olmsted Center for
Landscape Preservation

Map Sources:

1840 plan by Capt. Fred A. Smith entitled “[Plan of] Fort McHenry, Baltimore, from dimensions furnished by Capt. Henry A. Thompson,” (National Archives, College Park Maryland. Record Group 77, Drawer 51, Sheet 14).

1865 color lithograph by E. Sachse of Fort McHenry, (FOMC Archive: Courtesy of Peale Museum, Baltimore. Nelson, Illustration #8, Cator Print #166).

1864 sketch of Fort McHenry by Pvt. Robert R. Moore, 17 July 1864. FOMC Library, Special Collections.

Notes:

The woody vegetation locations are based on analysis of historic plans and images. They are approximate and represent an estimation of the historic character for the period.

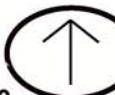
Plan drawn using ArcEditor 8.2, Adobe Illustrator and Adobe PhotoShop by Mark Davison, OCLP, NPS.

Legend:

- NPS Land
- Contours
- Earthwork
- Road / Path
- Building / Structure
- Fence
- Tree Canopy
- Landscaped Area

Approximate Scale in Feet

0 100 200 300 400 500



1866 TO 1912

POST-WAR STATUS-QUO

Once the Union's peculiar ironclads had successfully breached Confederate held masonry fortifications, this provoked a nationwide reevaluation of coastal defense strategy. With large rifled guns mounted on armored steam-powered craft, it was important to engage and dispense with an enemy at a greater distance. Using rifled barrels, a foreign naval force would have little trouble spiraling cone-shaped projectiles from positions miles out of view, directly over Fort McHenry's picturesque defenses, into the center of the city. Until new harbor defenses could be moved closer to open water, the existing fort served as an expedient substitute for nothing at all.

Among the first of the changes occurring at Fort McHenry following the end of the Civil War was the reshaping of the existing exterior battery running parallel to the outline of the Star Fort, and rearming it with larger bore guns. In 1866, five 15-inch smoothbore Rodman cannon were mounted, and these were followed by several new guns of smaller caliber during the 1870's (*Figure 3.1*).⁶³ Also soon after the war, perhaps out of a desire to assess deficiencies and plan improvements, an effort was made by the Quartermaster Department to inventory and document the fort's buildings (*Figures 3.2 and 3.3*).

The U.S. Army's Engineer Department created a permanent Board of Engineers for Fortifications in 1867, engaging in studies and experiments intended to develop a new coastal defense system. The board submitted an initial set of recommendations in 1867, recognizing that arms and warfare were in a state of transition due to the rapid pace of innovation. The board's recommendations deferred the construction of new defenses using costly iron turrets and shields in favor of heavy-caliber barbette batteries protected by enormous earthen parapets. The guns and soldiers would be sheltered from enfilading and reverse fire by earthen traverses on either side of each gun platform and earthen parados behind where necessary.⁶⁴ When the Board of Engineers elaborated upon these recommendations in 1869, it became evident that the new system being proposed, initially as an accessory to fortifications already in place, was to become the primary means of defense. Parapets were constructed of earth and sand and covered with sod to prevent erosion, and faced with brick on the inside faces surrounding gun mounts. Responding to the destructive power of the new generation of arms, the parapets were specified to be forty feet thick, a four-fold increase over the thickness of earthen protection recommended ten years earlier.

During October of 1870, plans were completed for a new earthen exterior barbette battery at Fort McHenry consistent with the rationale and specifications contained in the nationwide recommendations provided by the Board of Engineers for Fortifications (*Figure 3.4 and 3.5*). The scope of the Board's proposal at Fort McHenry was vast. Wrapping around the east side of the fort, and occupying the approximate line of the former Water Battery present during the historic 1814 bombardment, the massive new barbette Water Battery was designed to emplace twenty-five, large 15-inch Rodman guns. The plans for these large works would either displace or make impractical existing barracks, quarters and other facilities grouped together on the slope to the northeast of the Star Fort. Approval for the new battery was granted during November of 1871, with construction beginning the following year. Work commenced with grading a relatively short section of the new earthwork running roughly north-south. When construction was suspended on the new battery in

1876, rough grading and subterranean concrete magazines was all that had been accomplished. Gun platforms and other affiliated construction elements had yet to be built.

While efforts were made to revive the project up until 1892, the new Water Battery, and many like it on the east coast of the United States would never be completed. The reliance of these projects on the decades-old technology of the smoothbore Rodman gun rendered them obsolete almost as soon as construction began. As the technology gap could not be closed in the short-term, Congress refocused defense spending to facilitate commerce instead, spending civil engineering dollars on improving the navigation of harbors and rivers, dredging shoals, building breakwaters, levees, and bridges. Locally, this reorientation of priorities was made clear in 1878 when Baltimore's commercial interests succeeded in wresting two and three-quarter acres from Fort McHenry's northwest shoreline to enable construction of a private dry-dock (*Figure 3.6*).

Further reflecting their low priority on the national agenda, legislators carved away at appropriations for the routine maintenance of existing coastal defenses. The post-war Army found its own attentions diverted from the coastline, being preoccupied in the American West with punitive actions against Native American tribes where they impeded settlement. After 1875, no additional funds were granted for new fortification construction, let alone to rearm existing sites.

By the mid-1870s, European nations were equipping their warships with nine to fourteen inch rifled guns, while the U.S. Army had only begun a makeshift program of testing intended to refit 10-inch Rodman guns fitted with eight inch rifled sleeves.⁶⁵ Beyond a range of 1,200 yards, the aging fifteen inch smoothbore muzzle-loading guns at Fort McHenry were much less accurate and powerful than a modern nine inch rifle. Responding to the discontinuation of the earthen barbette battery project in 1876, the Army's Chief of Engineers lamented that, "any guns we could mount in hastily thrown up earthworks would be useless." Warships mounting rifled guns would have the ability to lie beyond the range of their fire, or watch as, "projectiles from such batteries would fall harmlessly from the side of the enemy."⁶⁶ Lacking a timely and workable plan either to adopt new arms technology or to counteract it, the national system of coastal defenses was left to founder, and the defensive strength of the United States armed forces collapsed to levels unseen since 1812.⁶⁷ Official reports of Fort McHenry's condition during the mid-1870s describe the fort as "almost useless."⁶⁸ Perhaps in an effort to conceal this vulnerability, photography of Fort McHenry's fortifications was forbidden.⁶⁹

Accepting Fort McHenry's declining strategic fortunes and meager peacetime budgets, the facilities were nonetheless regularly inspected and the post commander was expected to maintain buildings and grounds within the constraints of available funds and personnel. Periodic inspections of the post serve as perhaps the best written documentation of landscape conditions at Fort McHenry. A report of an inspection of Fort McHenry made in April of 1870 generally outlines the care given the landscape and earthen fortifications, but also documents the deleterious effects of river currents on unprotected soil and structures (*Figure 3.7*).

Burial ground properly enclosed with wooden fence. In good order... The Cemetery is liable to be washed away by the movement of the sea. Some of the graves had to be moved to protect them and to allow the fence to be moved in. A small sea wall new along the shore from the end of the sea wall proper, to the hospital, would be of great protection to the reservation; which is now being cut away very rapidly by the action of the waves. The wall would not require to be any where near as high and strong as the main sea wall facing the southeast. Remarks on the Work: Commanding Officer is acquainted with the military design of the work... Proper care taken of the fortification. Persons not permitted to walk on the slopes. Animals not permitted to graze on the slopes. Grass on slopes frequently mowed. Spots of dead grass replaced by fresh sods. Grass not burned on any portion of work.... No earth, sand or ashes placed against woodwork. Floors, platforms, bridges etc. well swept down. Tereplains and casemates in good order.... Sidewalks in good order....The sea is encroaching on

this work, and extra sea wall is required to protect it. The wharf is in very bad condition. The piles are all very rotted. When there is the least wind or sea it is dangerous for vessels or steamers to lay along side of it...⁷⁰

Despite the claims found in the inspection report, keeping persons off the earthen slopes must have been a difficult task. While the post's numerous livestock were apparently allowed to graze freely wherever not fenced out, citizens of Baltimore were less easily controlled. No longer a Bastille for southern sympathizers, an engraving found in an 1872 edition of *Picturesque America* reveals that Fort McHenry and its turf-covered slopes were becoming a convenient and pleasant retreat from urban cares (*Figure 3.8*).

As the decade progressed, a list of probable urban cares would have included the increasingly dour economy. Despite the patriotic sparkle emanating from Philadelphia's centennial celebrations of 1876, and as work was halted that year on Fort McHenry's own new Water Battery, the nation was in the midst of the third year of an economic depression. The abolition of slavery created an unbalanced interval in capital's traditional dominance over labor. In 1877, riots and violent strikes were breaking out in Baltimore, Pittsburgh, St. Louis and Chicago instigated in part by the Baltimore & Ohio railroad corporation's string of deep wage cuts. Although never called upon, federal troops stationed at Fort McHenry were placed on alert in the event that the force of federal government was needed to quell an uprising.

Yet during the post-war years of the early late 1860s and early 1870s, while it still appeared that Fort McHenry might continue to play a limited role in this nation's coastal defense, efforts were ongoing to improve housing, sanitary and aesthetic conditions. Post inspection reports made between 1870 and 1873 make it clear that a program was underway to improve the quality of living quarters for both officers and enlisted men. It was an appropriate time to do so, as a number of existing quarters to the northeast of the Star Fort were scheduled to be displaced by the massive new Water Battery (*Figure 3.9*). It was during this time that Fort McHenry acquired a traditional "Officers' Row" along the south side of Fort Avenue, east of the Star Fort. These new officers' quarters, while routinely regarded in post inspection reports as of inferior design and construction, conformed to the military tradition of being so oriented to face the barracks of men under their command (*Figure 3.10*). While officers and enlisted men continued to be quartered within the historic Star Fort, the new enlisted men's barracks facing Fort McHenry's new Officers' Row were converted from Civil War prisons. By 1880, the somewhat random post-war development occurring at Fort McHenry caused an officer inspecting Fort McHenry to complain:

The line of officers' quarters last built at this post and the surrendering of a portion of the exercise ground of the post to the Dry Dock Company has so constricted the exercise ground that it has no longer sufficient area to allow a light battery to be kept at the post in a state of efficiency.⁷¹

The maintenance of the horse-drawn light battery was of some concern. Having few threats to the nation's coastline and harbors, nor from a hostile host community, and having fewer resources to answer them if they did, predominantly ceremonial duties were assigned to troops stationed at Fort McHenry. In these, the role of a light battery played its part.

During the remainder of the late 1870s and early 1880s, post improvements continued on an ad-hoc basis at Fort McHenry. In an apparent effort to harmonize the eclectic mix of brick and frame buildings accumulating on site over the past eighty years, a coat of whitewash appears on post buildings in images of this period (*Figure 3.11*). After years of criticism in post inspection reports, the dungeon-like post guardhouse was moved out of the sally port and into a new gatehouse featuring a new wrought-iron gate and ceremonial archway at the main entrance to the post on Fort Avenue (*Figure 3.12*). Roads and walks were surfaced with crushed oyster shells, and shrubs and trees were

planted to beautify the grounds for the benefit of residents and visitors who entered by way of the open gate. The post cemetery and chapel, regularly criticized in inspection reports for their poor condition, were periodically repaired, put into order, and then left to another cycle of decay. Incomplete along the entire post waterfront until the 1890s, the seawall also required constant attention, and expensive repairs following a powerful storm in September of 1876.⁷² Finally responding to complaints of odor, and gastrointestinal problems among the men, the privies long cantilevered over the seawall and spoiling the promenade of visitors, were removed and replaced with water closets connected to a rudimentary underground sewerage system.⁷³

There are two excellent maps documenting Fort McHenry during the mid-1880s. The earlier of the two drawings is from a detailed Baltimore municipal atlas (*Figure 3.13*). Conditions represented in this drawing are after 1884 when the shipyard property was leased to the Columbian Iron Works and Dry Dock Company, and prior to 1886 when post inspection reports tell of the removal of gardens from the post.⁷⁴ This atlas drawing c. 1885 is valuable because it depicts more than the footprints of buildings, detailing major and minor roads, pathways, fencing, and trees lining the south side of the post driveway. Trees are shown within the post cemetery, and trees are also shown along the southeastern point following the seawall. Backyards, service yards and gardens, are shown surrounded by fencing. Fencing is further seen protecting the slopes of the unfinished exterior Water Battery, as well as the slopes of the Civil War era exterior battery.⁷⁵

The second of the two drawings dates to after 1887 (*Figure 3.14*). In 1885, the enlisted men's area was supplied with a water closet, eliminating the last of the malodorous privies (*Figure 3.15*). The installation of indoor plumbing and running water throughout the post likely overwhelmed the capacity of the well inside the Star Fort, prompting a connection between the reservation and the municipal supply during 1887.⁷⁶ The c. 1887 drawing depicts water supply extending into the reservation from outside the western boundary wall. Small exterior water closets are shown to the rear of the officers' quarters lining the post driveway, as elsewhere, connected directly to the river with underground sewerage pipes. This drawing fails to show any fencing surrounding either of the exterior batteries, indicating that this protection may have been removed by this time due to a decline in the numbers of livestock kept on the property. The incomplete seawall is also documented on this c. 1886-1890 drawing, showing the area of river front between the post bakery and the hospital exposed to the damaging effects of currents and waves.

STRATEGIC DÉNOUEMENT

Those aware of the recent improvements in artillery began to worry openly of the vulnerable state of the nation's coastal defenses. Responding to these concerns, President Cleveland authorized a joint Army-Navy civilian board in 1885 to study new military technologies and make recommendations for action. As William C. Endicott was Cleveland's Secretary of War at the time, this board became known as the Endicott Board. The recommendations of the board were presented the following year, calling for an unprecedented peacetime buildup of ordnance and fortifications. The direction of these recommendations, delivered in 1886, was to shift the emphasis away from elaborate fortifications, instead focusing on the armament held within.⁷⁷ To do so meant to shift away from architectural forts of the Second and Third American System, towards what were fundamentally technical gun emplacements. The high performance of new arms made possible a reduction in the number of new installations. These installations were typically armed with weapons of 8-inch, 10-inch, and 12-inch caliber, the most powerful capable of accurately delivering a one-thousand pound projectile a distance of eight miles.⁷⁸

Construction based on the Endicott Board's recommendations began during the early 1890s; none came to be installed at Fort McHenry. The obsolescence of the fort's geographical setting was incurable. An appendix found at the end of the Endicott Report helps to explain Fort McHenry's redundancy.

...24 feet [draft] can be carried to [Baltimore] city through a dredged channel 12 miles long... Vessels not drawing more than 15 feet could approach the city to any distance, and it could be shelled from almost any position on the Patapsco River below; but vessels drawing more than 15 feet would have great difficulty in approaching the city. Without a pilot, and if [navigation] buoys were removed, the nearest position that could be taken by vessels drawing more than 15 feet would be 14 miles from the city owing to the numerous shoals. There are a number of important railroads entering the city.⁷⁹

The Endicott Board ranked the fortification of the port of Baltimore ninth on a list of national priorities, following behind Washington, D.C. and preceding Portland, Maine.⁸⁰ Because of Fort McHenry's close proximity to the city, Baltimore's new harbor defenses would eventually be installed down range, at Fort Carroll in the middle of the river, and Fort Armistead across from it on the west bank of the Patapsco. Endicott era installations at Forts Howard and Smallwood were placed to closely guard the mouth of the river where it enters the Chesapeake Bay. The Endicott Board perceived a higher priority in rearming the mouth of the bay itself where it enters the Atlantic, detailing expenditures for defending this vast and problematic expanse of water exceeding those identified for Baltimore by over three-hundred percent.⁸¹ A significant portion of the funds earmarked to defend the Chesapeake Bay were slated for the design and construction of surface and submarine torpedo boats. These small craft could threaten hostile vessels, much as Baltimore's privateers had once done, beyond the effective range of shore batteries. The report also suggested the use of buoyant harbor mines to block important shipping channels.⁸²

When Maryland National Guardsmen trained at Fort McHenry in preparation for service in the Spanish-American War of 1898, the lack of modern arms required the soldiers to take their artillery training elsewhere. However, while the fort continued to grow less important strategically, and while the Army failed to invest the historic fort with modern arms, this place grew only larger in the imaginations of the citizens of Baltimore. As the health of the last few "Old Defenders" of 1814 began to fail, the city expressed nostalgia at their passing and arranged for a grand celebration to honor them and the anniversary of their historic defense of the city. The first mock bombardment of Fort McHenry with fireworks occurred during September of 1889 marking the 75th anniversary (*Figure 3.16*).

Since the end of the Civil War, Baltimoreans freely used the reservation as a city park; following the spectacle of the 75th anniversary celebration, the public only became more watchful over the Army's plans for the property. Awareness of the fort's declining military value, and rumors of its abandonment fed in part by the recent transfer of a portion of the government reservation to commercial interests, led the civic-minded to lobby for Fort McHenry's transfer to the municipal parks department. Indicative of the public's growing concern for the preservation of the historic buildings and features, in 1893 the Society of the War of 1812 in Maryland attempted to convince the War Department to rehabilitate the aging structures inside the Star Fort.⁸³ The society's pleas apparently went unheeded as the Army soon thereafter removed the second story from the junior officers' quarters, and converted the building into a bakery. The War Department also began to distribute Fort McHenry's inventory of obsolete ordnance to distant locations among various veterans and patriotic groups.⁸⁴

Although removal of the post cemetery had long been recommended in post inspection reports, it is likely that it was the uncertainty surrounding the Army's future at Fort McHenry that finally led

to the disinterment of approximately 200 bodies from the post cemetery in 1895 for reburial at sites throughout the city. An extensive rehabilitation program was outlined by the Army in 1898. These plans outlined considerable efforts to, improve the drainage within the smaller magazines and bomb proofs, mend the failing slopes on the earthen parapets, and provide gravel walks and drives within the Star Fort (*Figures 3.17 and 3.18*). The program specified the installation of four-foot wide gravel walks on top of the Star Fort parapets and what appear to be nine -foot wide drives both within the Star Fort and around its perimeter.

Following Fort McHenry's negligible role in the Spanish-American War of 1898, and given the dim prospects for inland fortification in light of the nation's new-found expansionist foreign policy, local citizens became more organized in their call for the post's under-used real estate.⁸⁵ In 1902, the first attempt to legislate Fort McHenry into a city park was introduced, only to languish in committee.⁸⁶ Nevertheless, the popular movement had begun leading to the memorialization and eventual preservation of Fort McHenry.

The motive to preserve is often energized by loss, and Baltimore's interest in historic preservation was certainly awakened in 1904 after a fire left over 140 acres of the city's central business district in ruins. By 1905, the Army itself expressed growing interest Fort McHenry's history. Though falling well short of restoring the flagstaff to its historic location, a proposal to install a memorial flagpole base commemorating Francis Scott Key and his famous poem received serious discussion (*Figure 3.19*).

Nevertheless, the failure of the 1902 legislation was perhaps seen as an opportunity by the Department of Agriculture, who expressed an interest in 1906 to use the property as a stockyard. Located on Baltimore's industrial waterfront, the site was suited to such a use, being well served by shipping and railroads (*Figure 3.20*). The Department of Agriculture's overture appears to have united both the military and the public in their mutual distaste for such humiliating treatment. The *Baltimore News* published an account of the Department of Agriculture's request and the Army's response in their 29 November 1906 issue:

The Proposal to turn Fort McHenry over to the Bureau of Animal Industry for a 'cattle pen' is felt very keenly by Colonel Harry R. Anderson, commanding the artillery district of Baltimore. He has taken the matter up with the Brigadier General Frederick D. Grant, who is in command of the Department of the East. So far he has received no answer to his recommendation on the subject. Orders for the abandonment of the Fort as an army post have been issued, but no announcement of its future has been officially made by the War Department. As is well known, the Bureau of Animal Industry the Department of Agriculture applied for permission to use it as a cattle quarantine station several months ago. Inspectors from the Bureau have visited the Post several times to examine it.⁸⁷

When the original Star-Spangled Banner was donated to the Smithsonian Institution in 1907, popular sentiment for Fort McHenry's protection continued to grow. With orders for abandonment in place, the Army was able to delay such an inglorious end to Fort McHenry, allowing time for new legislation to be written for its protection. That year, the Army maneuvered for the protection of the historic place by licensing the use of the reservation to the state of Maryland, commencing 30 April 1909.⁸⁸ The lease made the property available for expressed use of the Maryland Naval Brigade. The leasehold was set to expire in 1912, as the one hundredth anniversary of the Battle of Baltimore approached.

In 1911, one year before the scheduled military abandonment of Fort McHenry, Maryland's Governor Crothers became involved in the preservation movement.

GOVERNOR TO SAVE FORT - WILL APPOINT COMMITTEE OF MARYLANDERS TO TAKE ACTION: Governor Crothers is ready to cooperate with the Maryland delegation in Congress to have Fort McHenry converted into a

national park, as suggested by *The Sun*. He will appoint a committee of Marylanders within the next few days to petition the President and the Secretary of War along this line. It may be that this committee or its representatives, headed by the Governor, will call on the President and the Secretary of War and personally lay the case before them. "The old fort should never be abandoned," said the Governor. "If it is to be discontinued by the Government for detailing of troops, then it should be converted into a national park. I am ready to do all in my power to present the question to the Federal authorities and will in a few days appoint a permanent committee. On this committee I will probably name a number of women, as they are also deeply interested in the preservation of the fort" ...⁸⁹

Emerging from the governor's initiative, U.S. Senator Isidore Raynor introduced two bills; the first bill was intended to fund three engineers to prepare plans for Fort McHenry's transformation into a national park; the second bill was to authorize the Secretary of War to establish a military museum at the historic fort. The first bill failed in committee. The second bill passed, but had been amended to omit all reference to either a museum or park, merely directing the War Department to retain ownership.⁹⁰

On 21 July 1912, The *News American* newspaper published the following account of the departure of the last active garrison of soldiers (*Figure 3.25*).

An evening gun was fired as it had been for nearly 120 years to signal the end of the day. This day was different. A lone soldier lowered the flag for the last time and closed the gates of Fort McHenry. Twenty minutes before, the 141st Company Coast Artillery Corps had marched out and departed for Fort Strong, Massachusetts, pursuant to the orders of July 12. The last active garrison had left there had been no band, no ceremonial farewell, no remarks to mark the occasion. However, a crowd of those who remembered had gathered in the rain.⁹¹

The lieutenant placed in charge of the property related that the gate had been locked due to insufficient men remaining to guard the property, and offered to the press that once the War Department had appointed a caretaker, that the gate would be reopened.⁹²

SUMMARY LANDSCAPE DESCRIPTION: 1912

When the 141st Coast Artillery marched out of Fort McHenry in 1912, their boots scraped against the crushed oyster shells covering the reservation's roads. Walks and gutters lining the roads were of brick and kept meticulously free of weeds.⁹³ On their exit, they marched past electric telegraph and light poles parallel to the driveway that marked only the beginning of the innovations that would take place very shortly during the coming century. This straight drive divided the fort property into two zones having perceptibly different landscape character. South of the main driveway, the landscape was devoted to the enjoyment of the post's officers and their families. A double row of maple trees offered a measure of separation between the driveway and the primary north-facing façade of the officers' quarters. The backs of the officers' dwellings looked out upon a park-like scene, with shade trees scattered along the completed seawall. Across the river, the officers looked upon the undeveloped and peaceful shoreline of the opposite riverbank.

North of the driveway was the zone reserved for enlisted men and the work that they performed. The enlisted mens' zone north of the driveway contained their former barracks. These buildings had begun their useful life as stables, which began housing men during the Civil War when they were converted to prisons. To the north, the view from the barracks was of a coal shed and storehouses, placed there to make convenient use of the nearby post wharf. Beyond this was a view to the rapidly developing industry arranged around Baltimore harbor. This harbor, by virtue of its close proximity, Fort McHenry could no longer defend. To the south, the view from the enlisted men's barracks was of the post's attenuated parade ground, and beyond that, to the officers' quarters lining the post driveway.

The officers' zone to the south and the enlisted zone to the north were circumscribed to the east by the historic Star Fort itself and by a secondary north-south driveway connecting the Star Fort with the post wharf. This eastern extremity of the property can be considered yet a third landscape zone dominated by the historic fortifications of the War of 1812 and the Civil War, as well as the unfinished earthen battery begun during the 1870s. This area of the landscape had become a de facto city park and promenade for Baltimore's citizens after the Civil War. When the last active garrison left Fort McHenry in 1912, the buildings inside the Star Fort had been converted to offices, storehouses and a bakery. A flaking coat of whitewash still clung to the Star Fort's brick buildings and walls. Outside its walls, occupying a space located between both the enlisted and officers' corps, stood the residence of Fort McHenry's commanding officer, the brick core of which had begun its service much earlier as the post hospital. This was the only residence remaining in this easterly quadrant of the property. The commander's dwelling, often made to serve social and ceremonial purposes, was of superior construction to the officers' quarters constructed after the Civil War. The landscape around the commander's dwelling also integrated features complementary and supportive of his role. These included a Victorian bandstand at the eastern end of the range of officers' quarters and enlisted barracks. An administrative building serving as the commander's offices was also nearby, built on the former site of the 1814 tavern. Between the commander's dwelling and the post wharf was a stable equipped for his personal use.

The sight of Fort McHenry's last artillery troops exiting via the post's central driveway was framed by a landscape scene of order and care. Neatness and thrift were overarching landscape characteristics of Fort McHenry, as they continue to be at active military bases today. While paint may have been peeling, and instances of buildings needing repairs because of the lack of funds, the ample and compulsory labor of enlisted men on fatigue duty lent a perceptible military bearing to the landscape. Visitors had the role of guest in so disciplined an environment, and thus behaved differently than they would have in a public park. Turf was neatly kept, shrubs and trees well pruned, and shell and cinder driveways were regularly raked and leveled. When the 141st Coast Artillery marched out the front gate onto Fort Avenue, Fort McHenry lost its grounds crew. Both the condition and character of the landscape were about to change quickly.

FIGURES: 1866 TO 1912

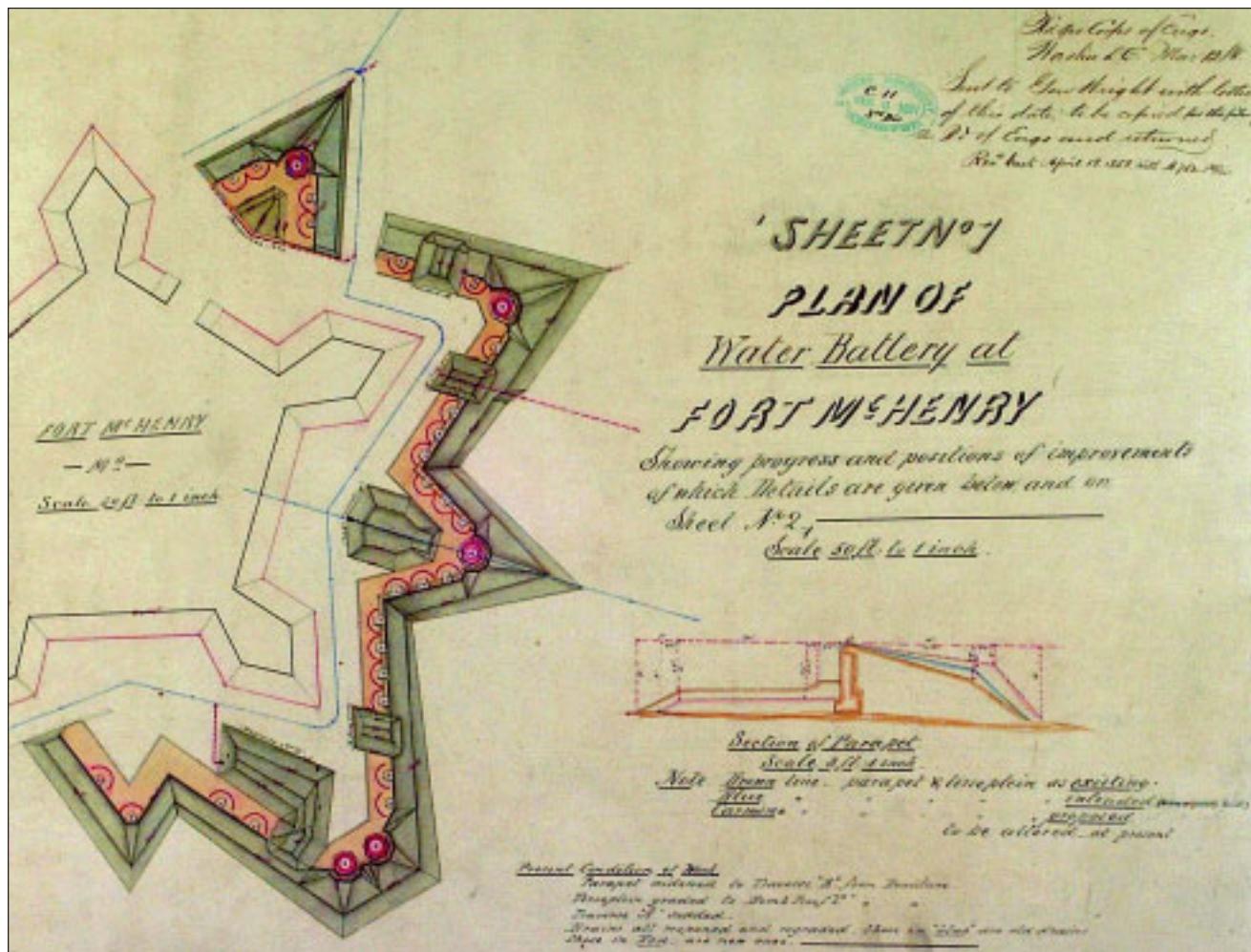


Figure 3.1. Detail from "Sheet No. 1 Plan of Water Battery at Fort McHenry" 3 February 1867. National Archives II, College Park, MD. RG 77.

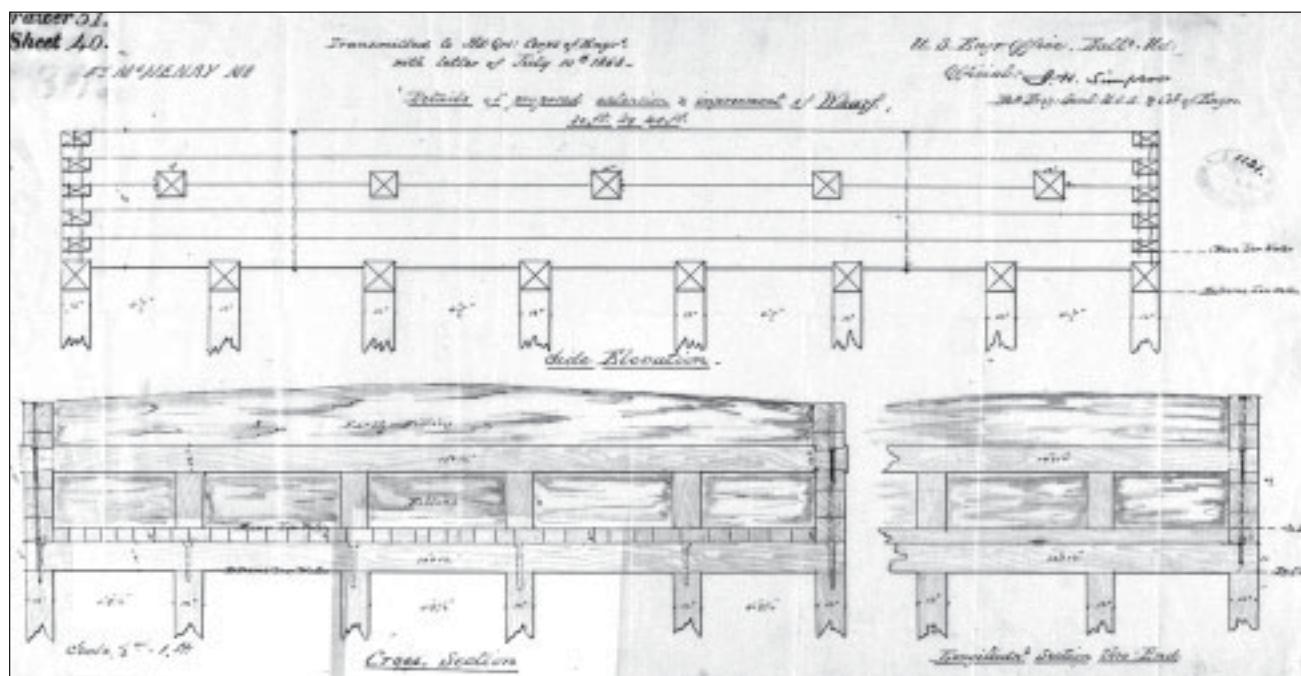


Figure 3.2. "Details of proposed extension & improvement of Wharf." 10 July 1868. National Archives II, College Park, MD. RG 77.

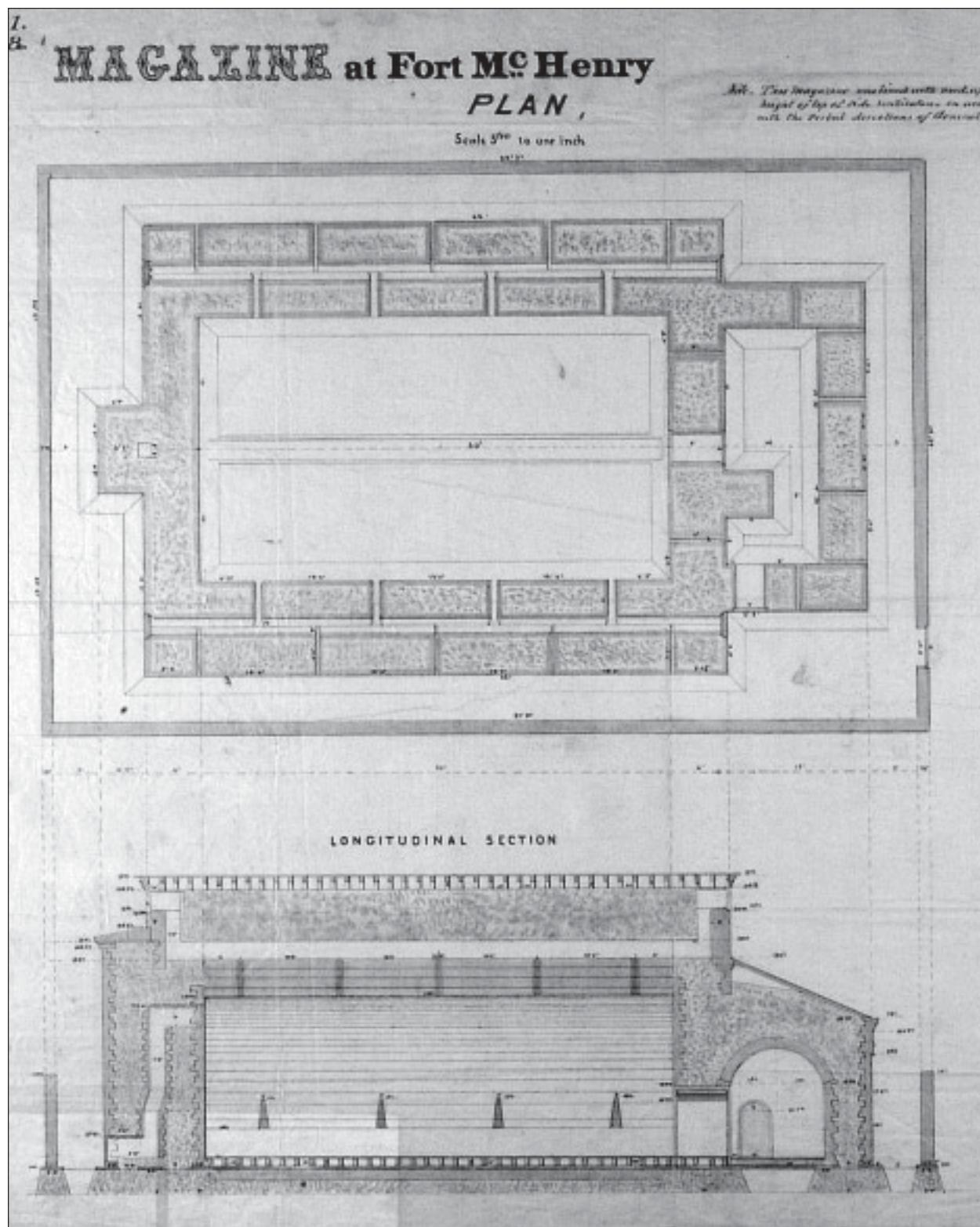


Figure 3.3. "Magazine at Fort McHenry." 15 July 1868. National Archives II, College Park, MD. RG 77.

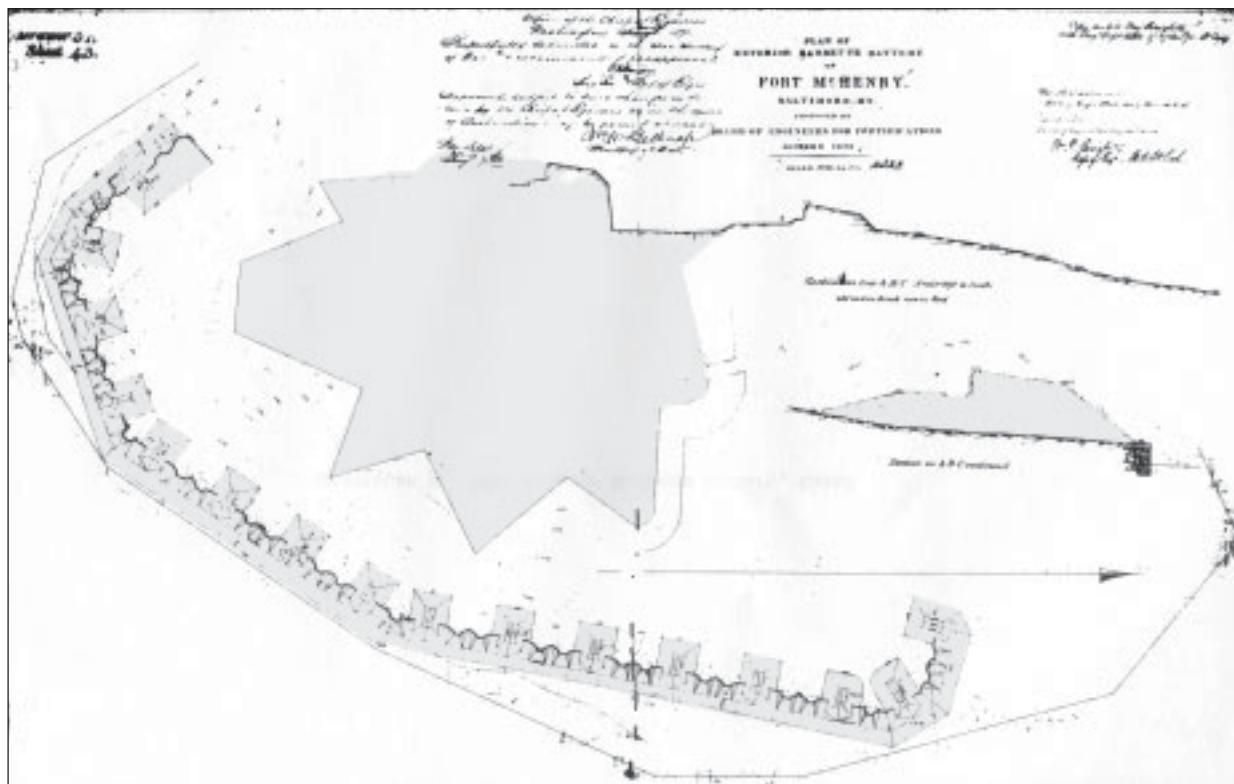


Figure 3.4. "Plan of Exterior Barbette Battery of Fort McHenry." October 1870. National Archives II, College Park, MD. RG 77.



Figure 3.5. Detail of field of fire diagram showing proposed exterior water battery at Fort McHenry and Lazaretto Point Battery. c. 1870. National Archives II, College Park, MD. RG 77.

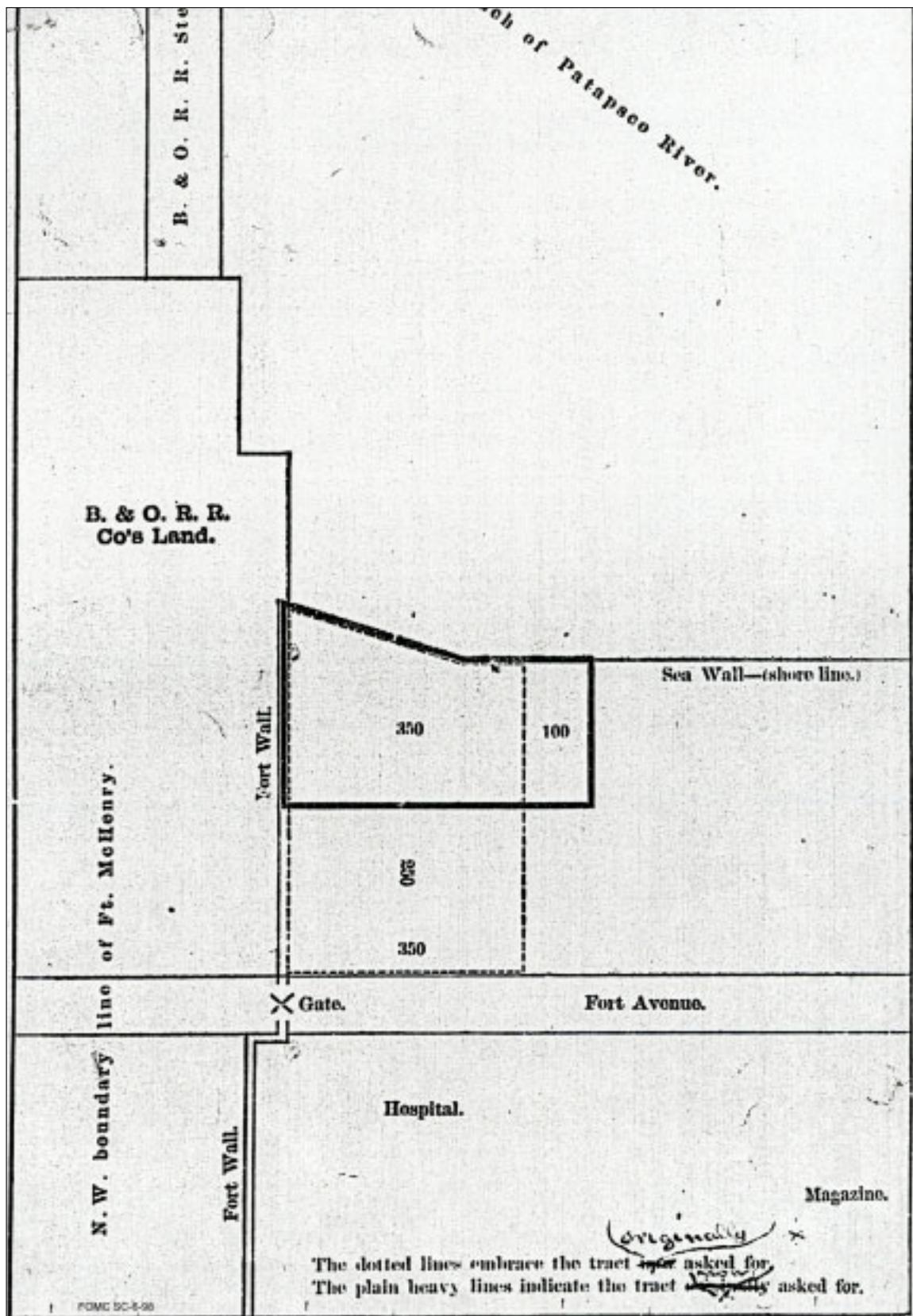


Figure 3.6. Illustration from 1878 Senate Bill transferring a portion of Fort McHenry to private dry-dock company. Fort McHenry Library Special Collection No. 6-98.

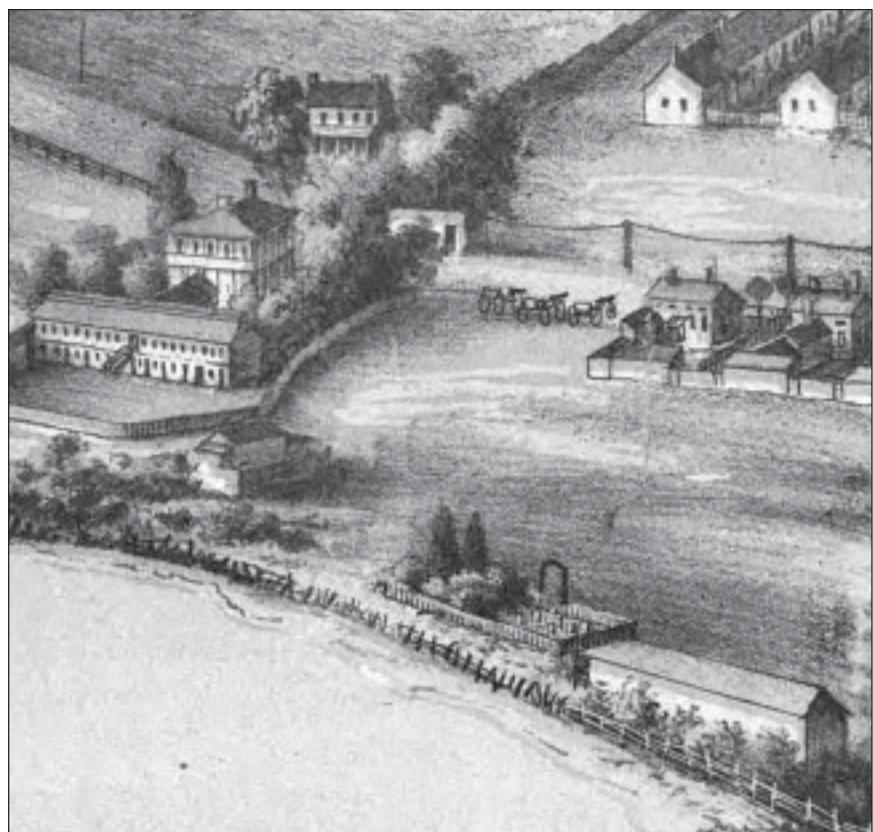


Figure 3.7. Detail from post Civil War lithograph of site, c. 1868-1870. Shows incomplete seawall, and character of landscape outside Star Fort including the 1852-1895 post cemetery, the 1840 hospital and 1864 infirmary. Library of Congress.

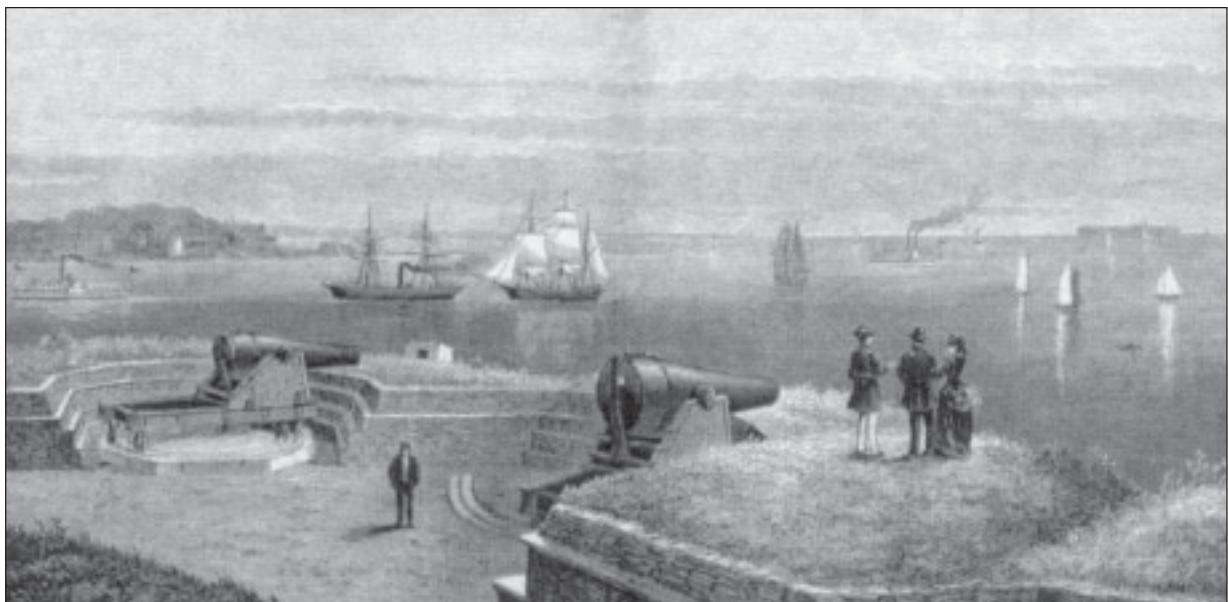


Figure 3.8. Image from "Picturesque America," 1872. Shows public access and enjoyment of post. Fort McHenry Library Special Collection No. 20-1-291.



Figure 3.9. View of exterior garrison area proposed for displacement by 1870 exterior water battery. Image c. 1866. Private collection.

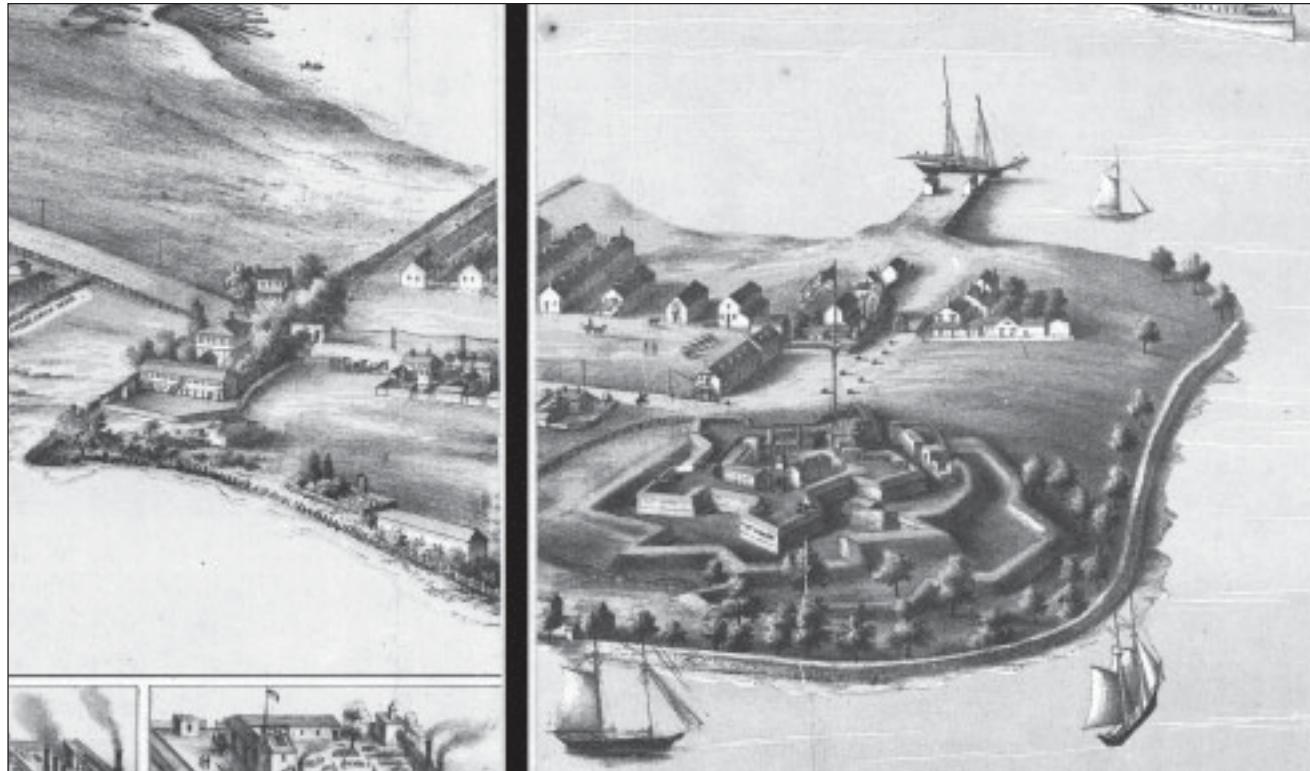


Figure 3.10. Oblique post-Civil War lithograph of Fort McHenry by Sache. Depicts conditions c. 1868-1870. Note road to post wharf. Library of Congress.

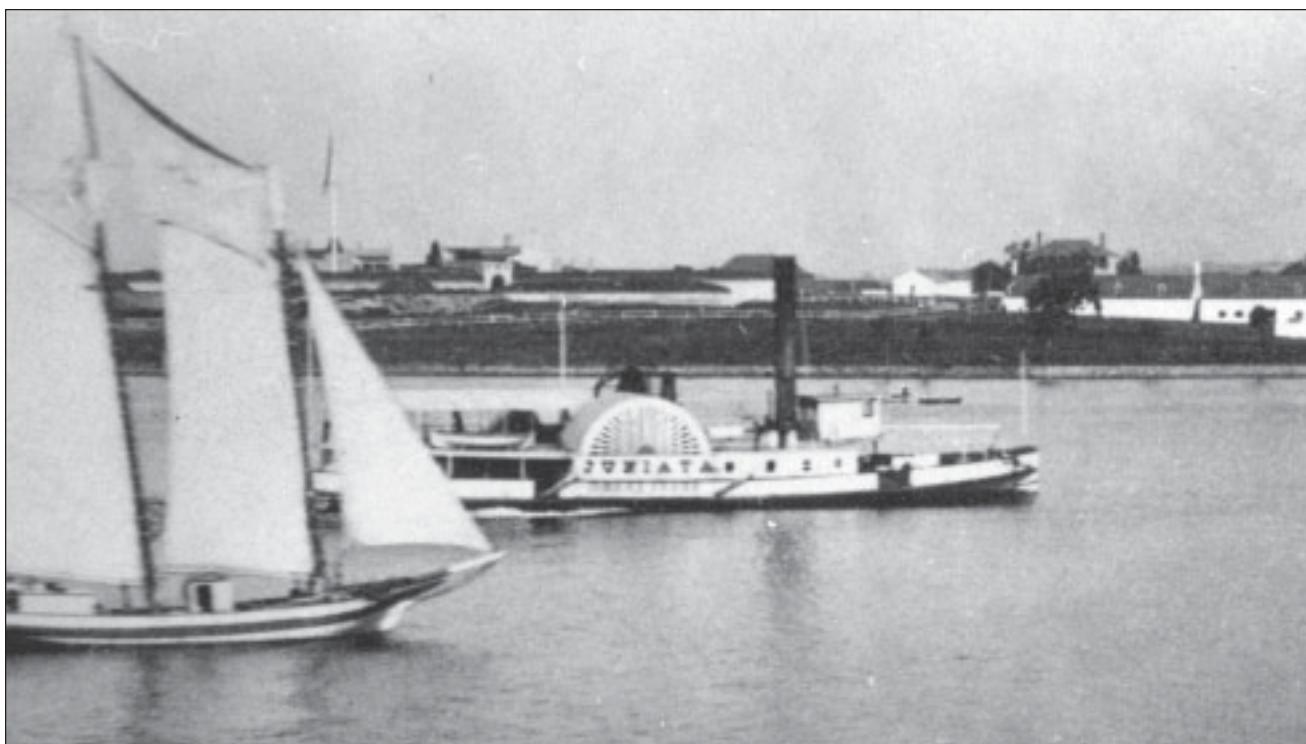


Figure 3.11. This post-Civil War image of Fort McHenry from the river shows fort buildings in light hues, indicating an application of whitewash or paint. Also note presence of post and rail fence. Private collection.

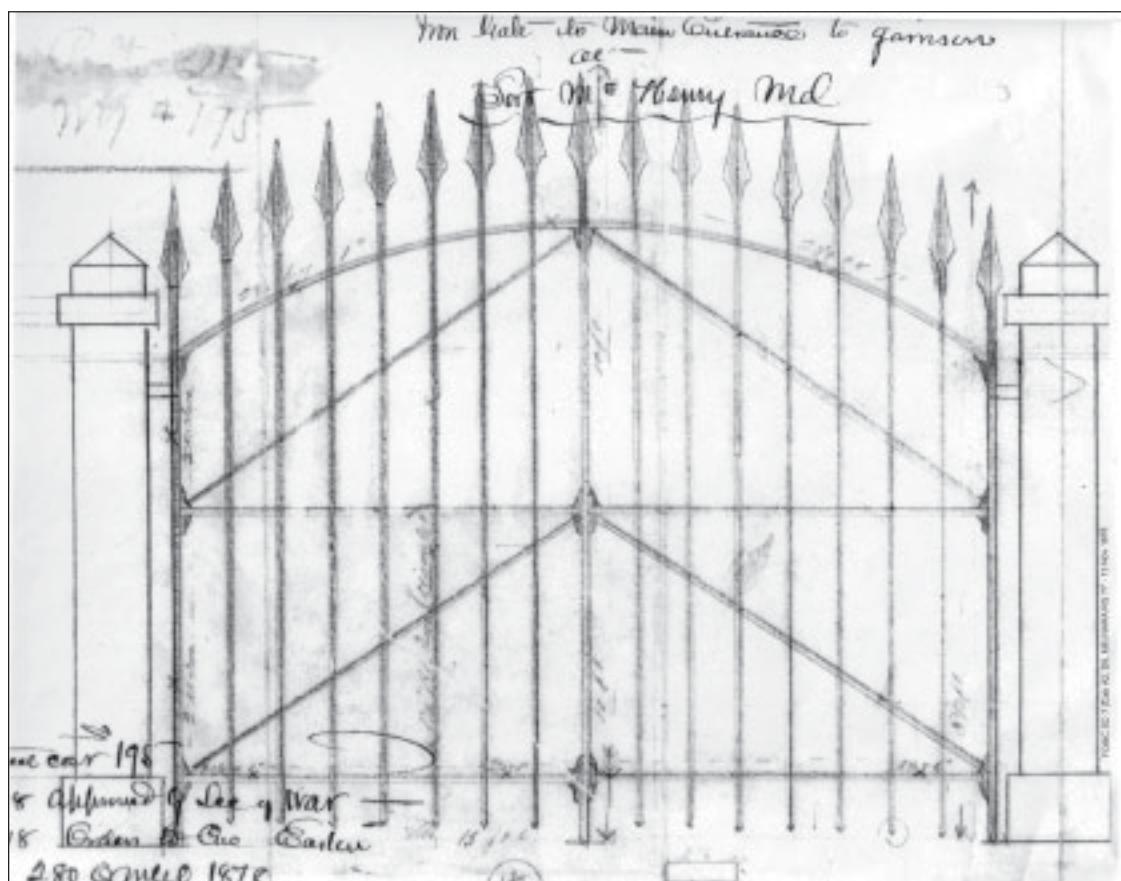


Figure 3.12. Drawing of rebuilt iron gate as part of the construction of the new post guardhouse. 13 November 1878. National Archives II, College Park, MD. RG 77.

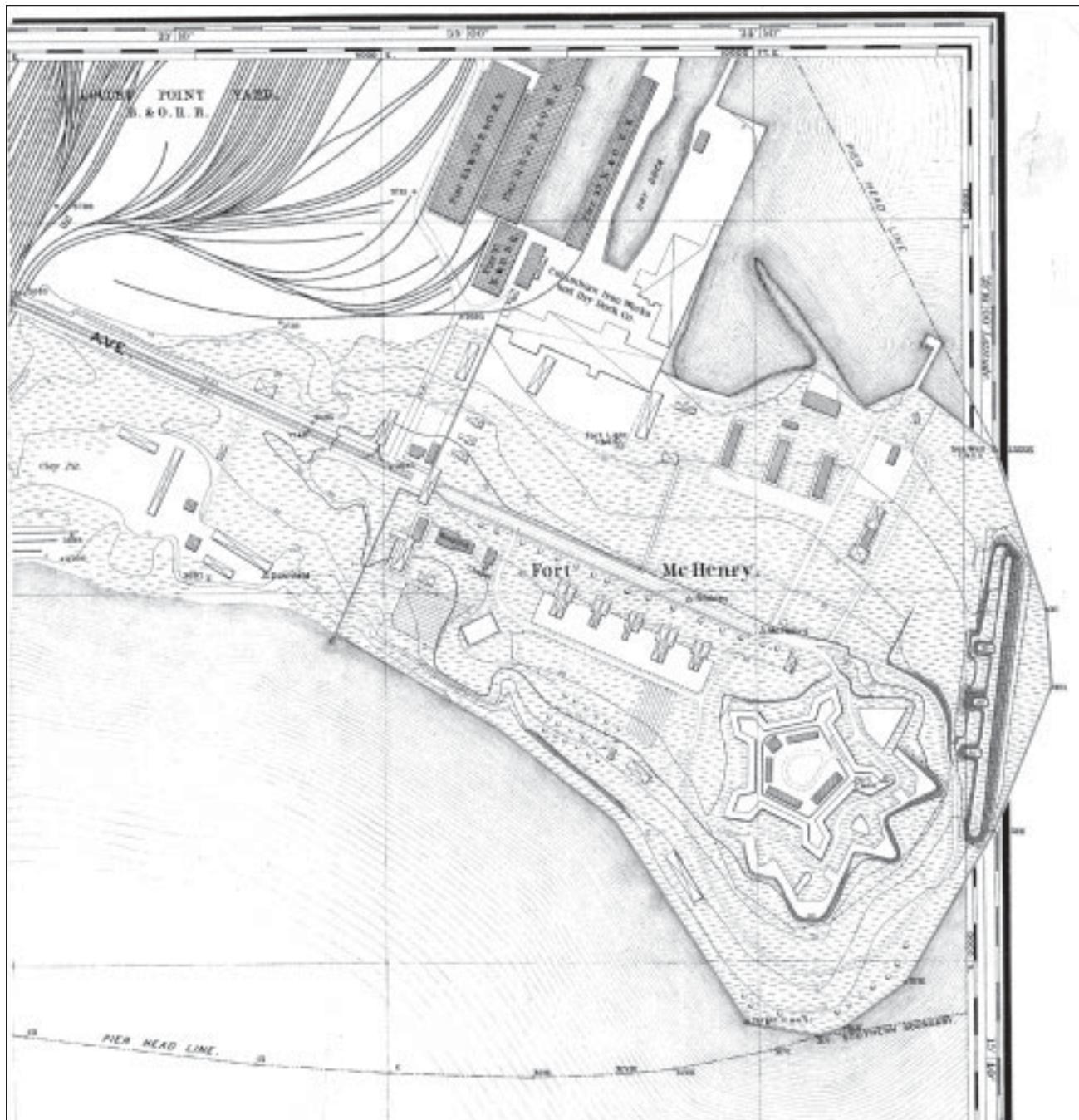


Figure 3.13. Page from c. 1885 Baltimore atlas. Courtesy Frederick Law Olmsted National Historic Site. Olmsted Job Number 02437, drawing 21.

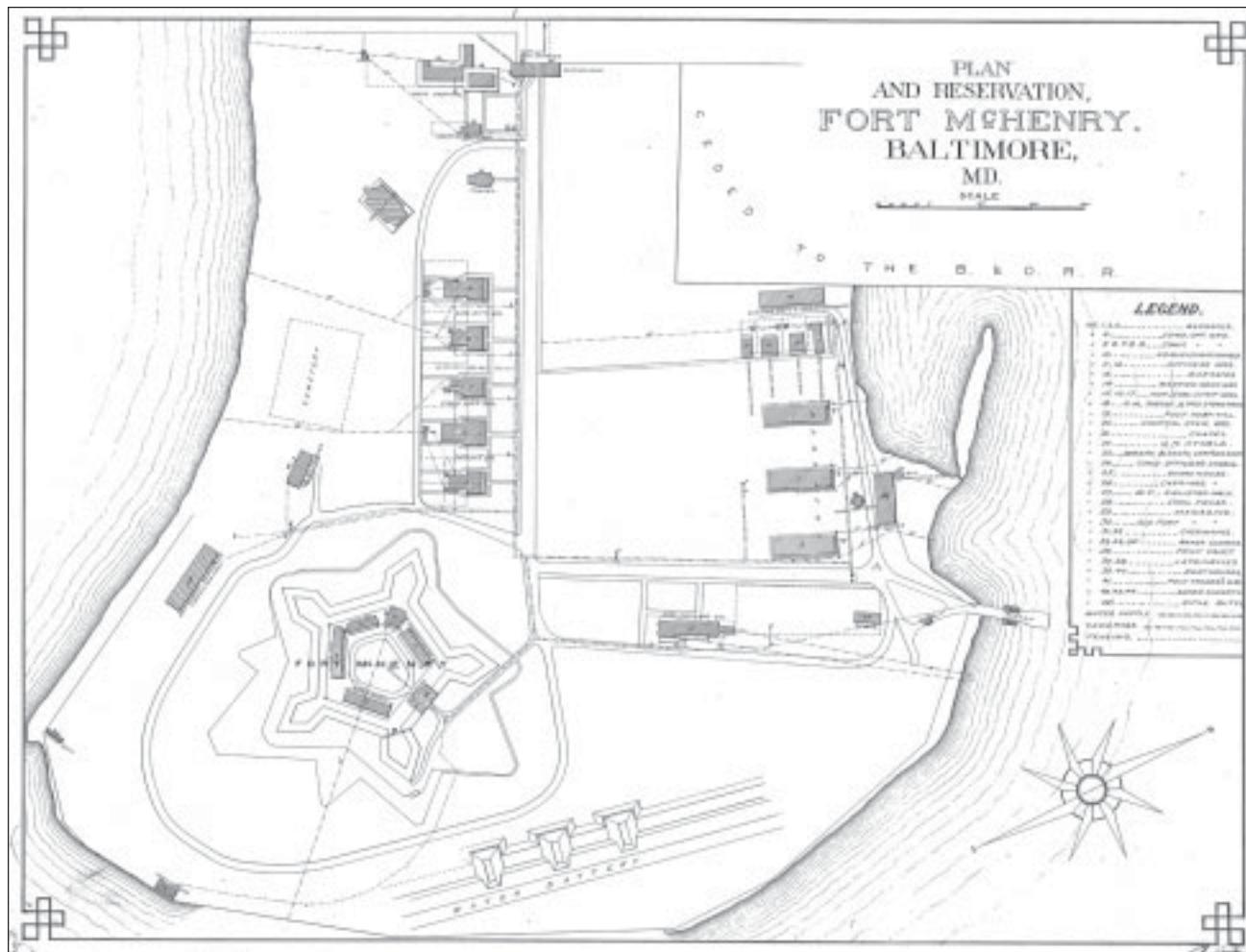


Figure 3.14. "Plan and Reservation, Fort McHenry, Baltimore, MD." Drawing c. 1887, prior to completion of southern seawall. National Archives II, College Park, MD. RG 77.

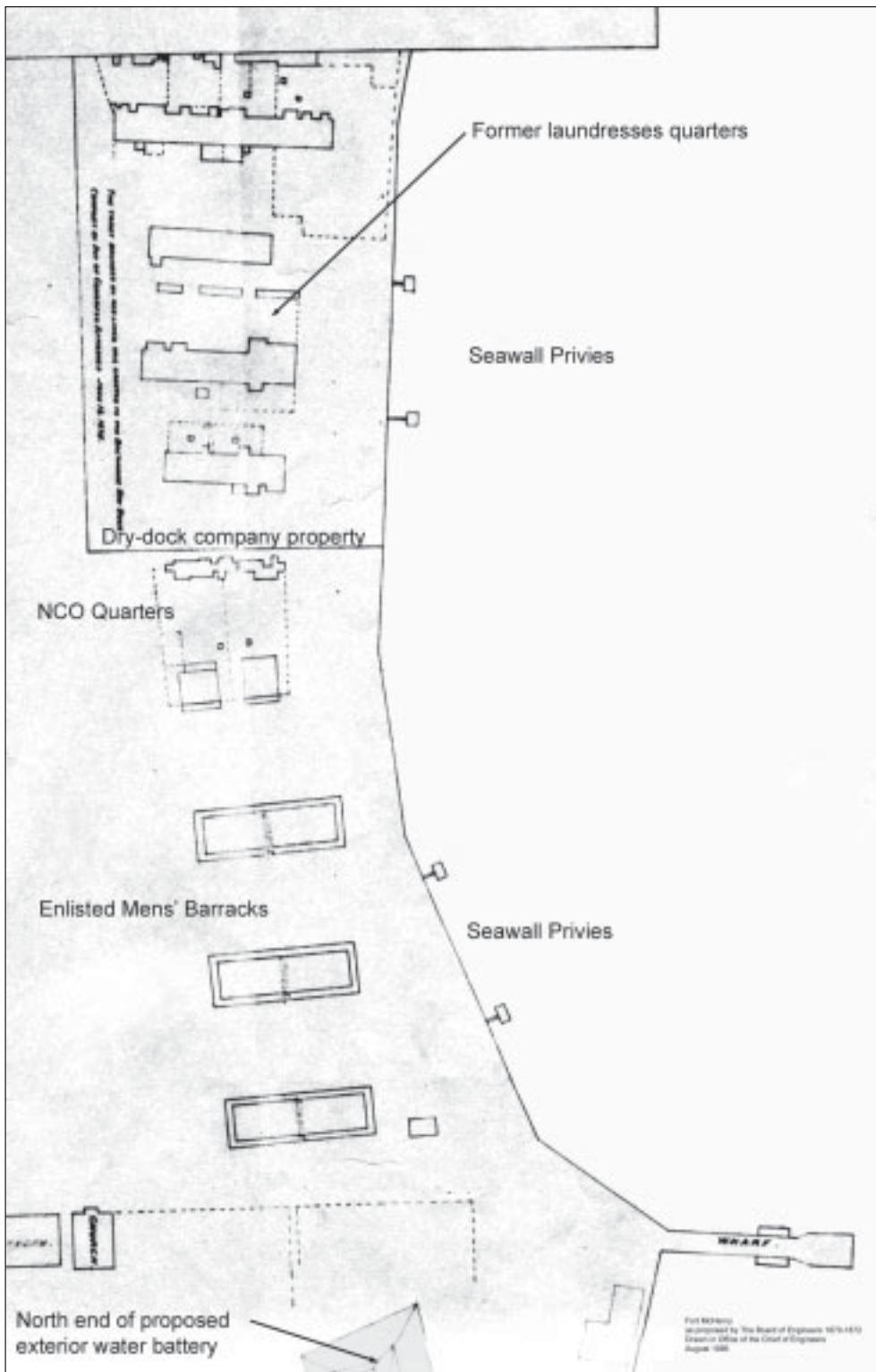


Figure 3.15. Annotated detail from, “Fort McHenry, as proposed by The Board of Engineers 1870-1872, August 1886. Fort McHenry Library Special Collection No. 020-D9, National Archives II, College Park, MD. RG 77.”

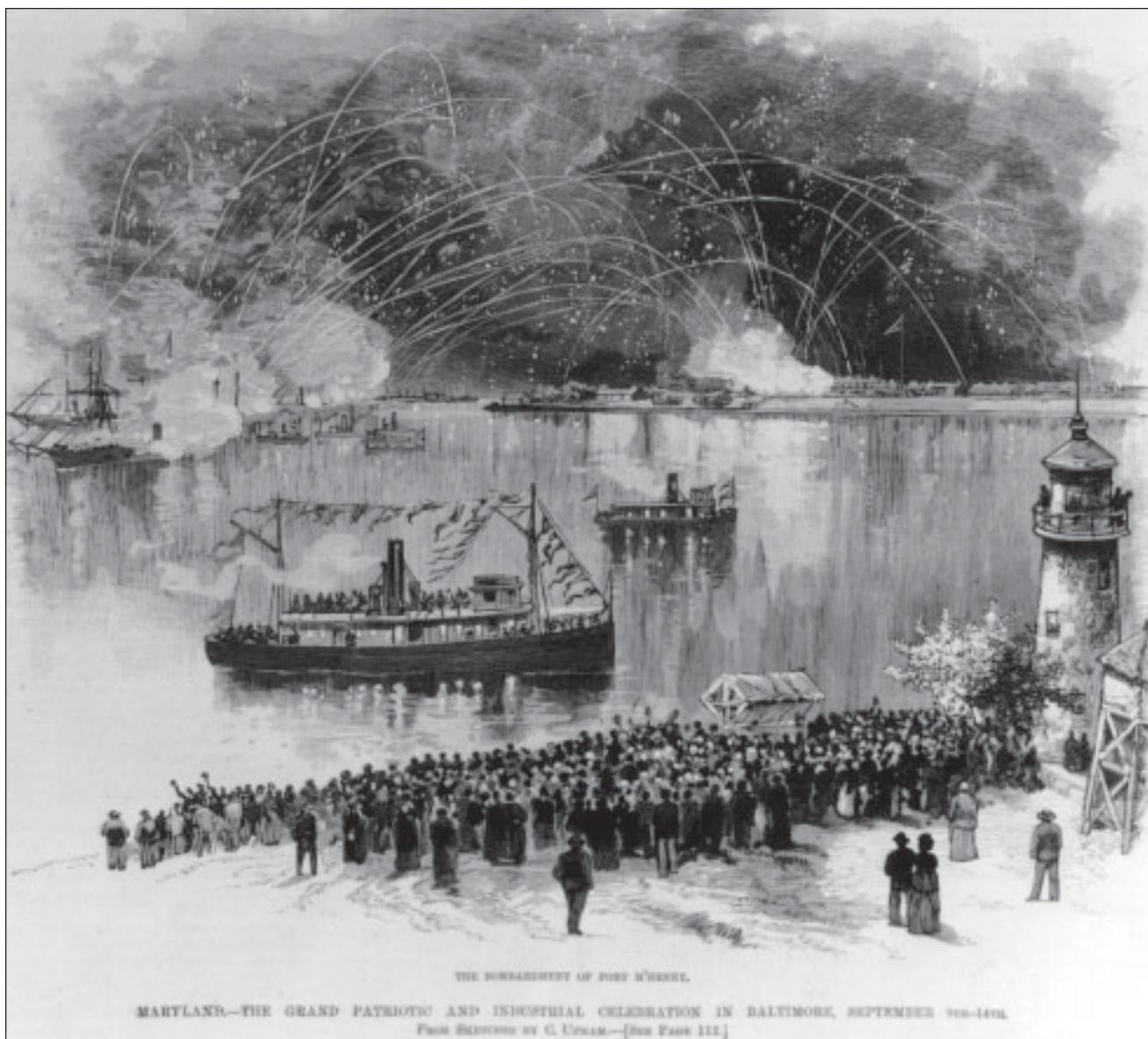


Figure 3.16. "The Bombardment of Fort McHenry." From sketches by C. Upham, "Frank Leslie's Illustrated Newspaper, 29 September 1889.

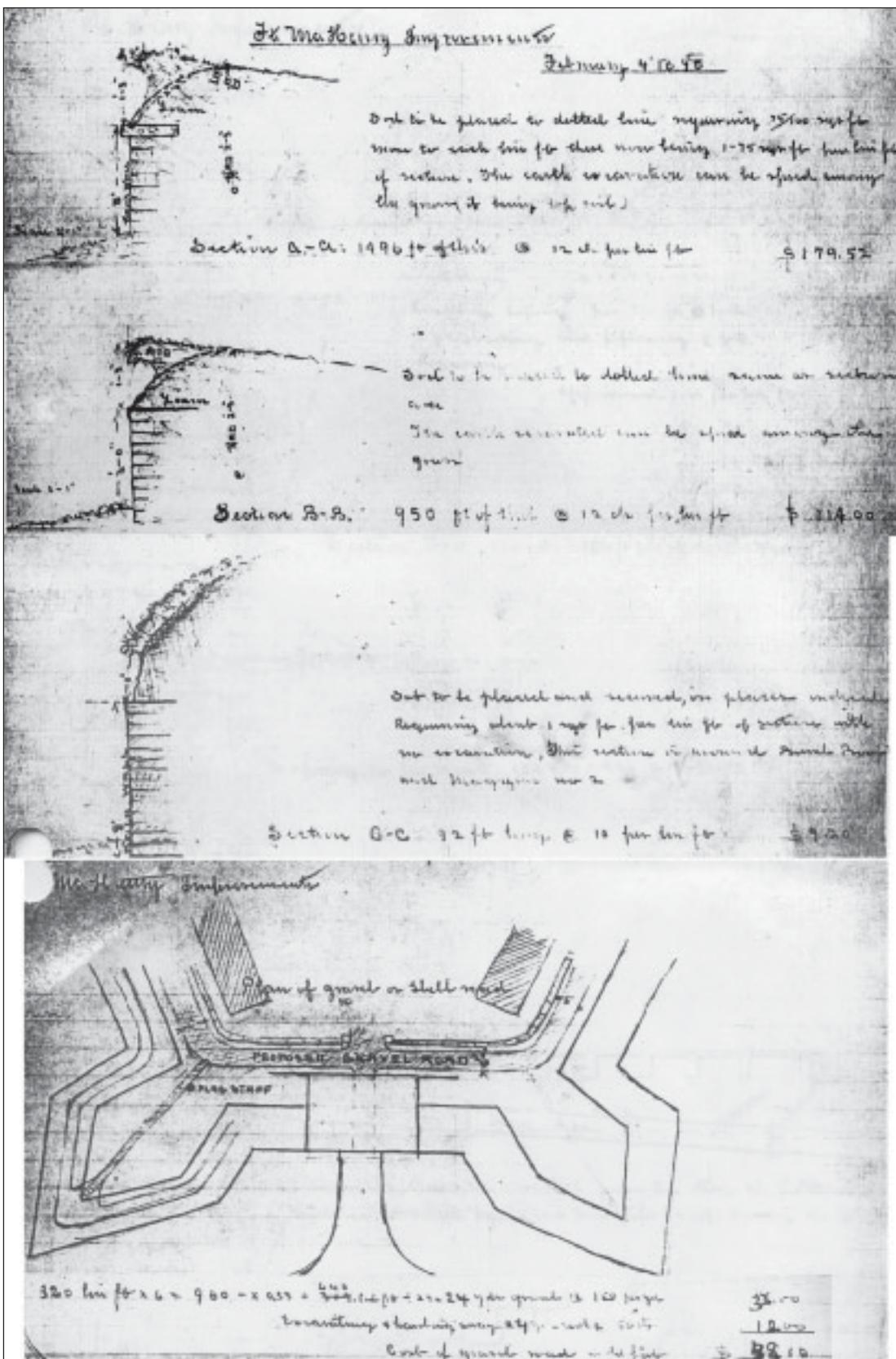


Figure 3.17. Collaged sketches from "Ft. McHenry Improvements, February 4, 1898. Fort McHenry Library Special Collection No. 7-A2, National Archives II, College Park, MD. RG77.

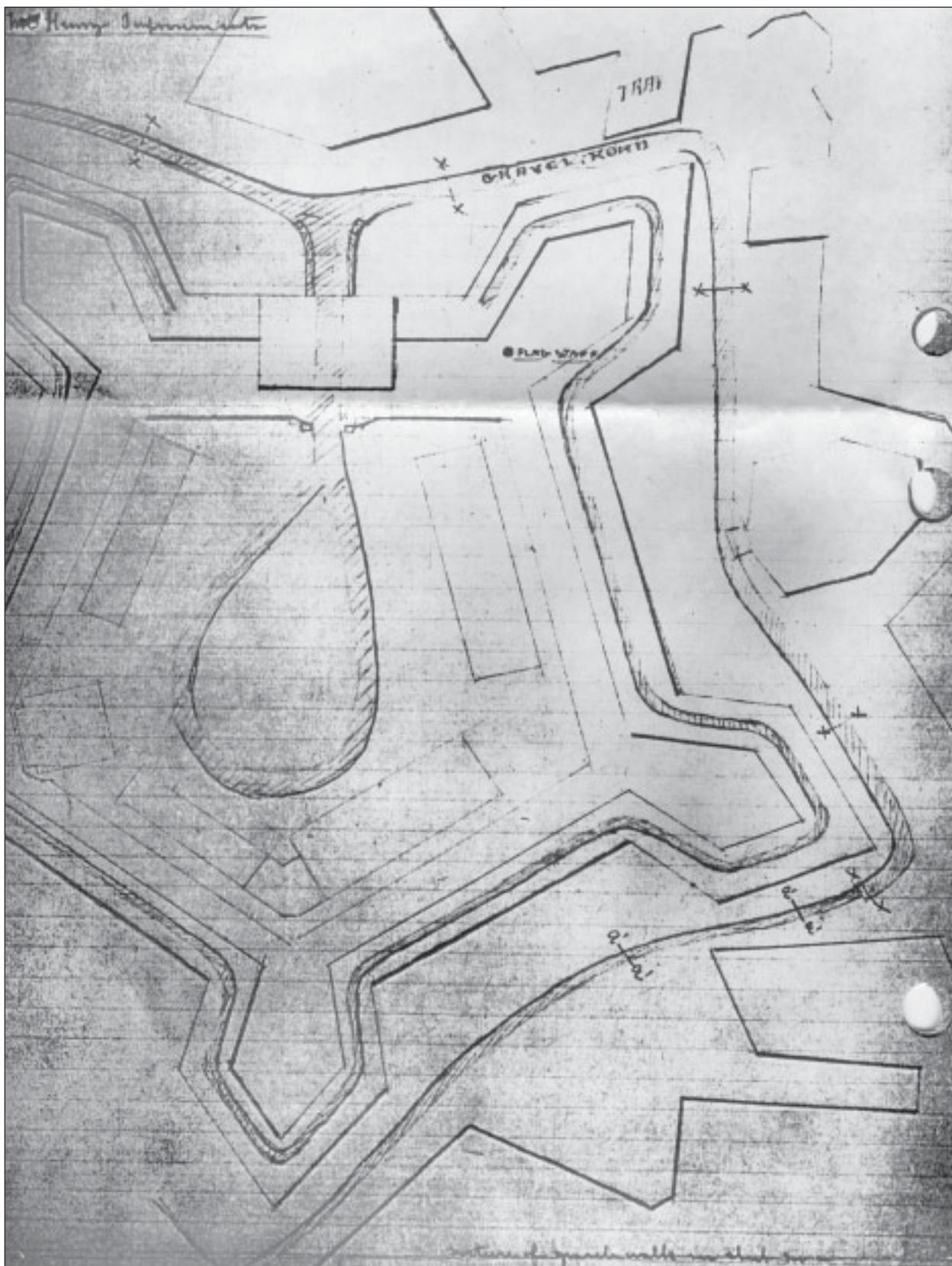


Figure 3.18. Sketch from "Ft. McHenry Improvements, February 4, 1898. Fort McHenry Library Special Collection No. 7-A2, National Archives II, College Park, MD. RG77.

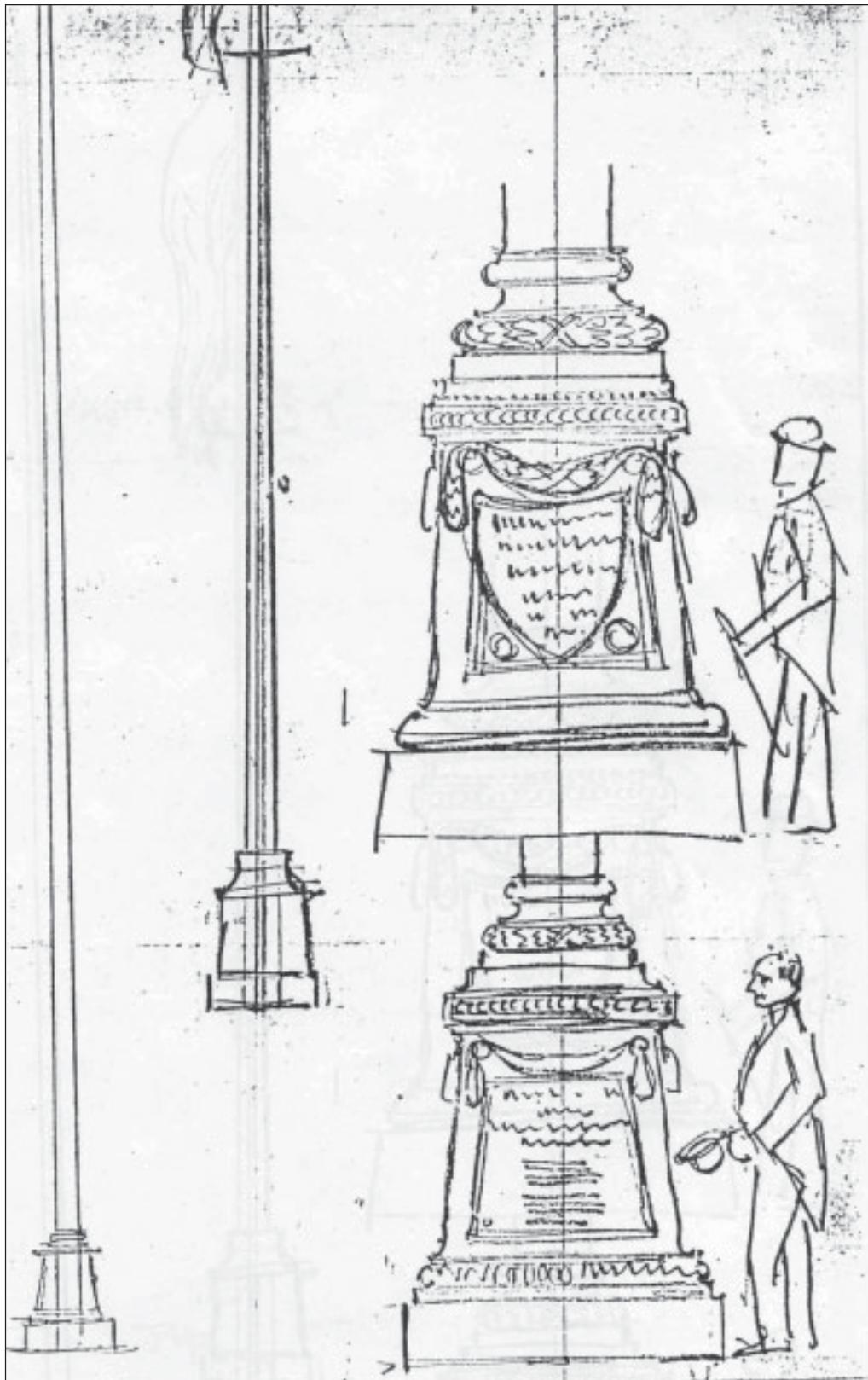


Figure 3.19. Sketch from "Memorandum for the Secretary of the General Staff," 17 August 1905. Fort McHenry Library Special Collection No. 6-052, National Archives, RG 92.



Figure 3.20. Map of Baltimore, 1905, by G. T. Rowland. Map inset shows area burned by the fire of 1904. Fort McHenry Library Special Collections.



Figure 3.21. Fort McHenry c 1907. This image is paired with Figure 3.22 to the right, depicting landscape conditions at Fort McHenry a few years before the departure of its active military force. Fred W. Mueller, photographer. Fort McHenry Library Special Collections, FOMC 2388.

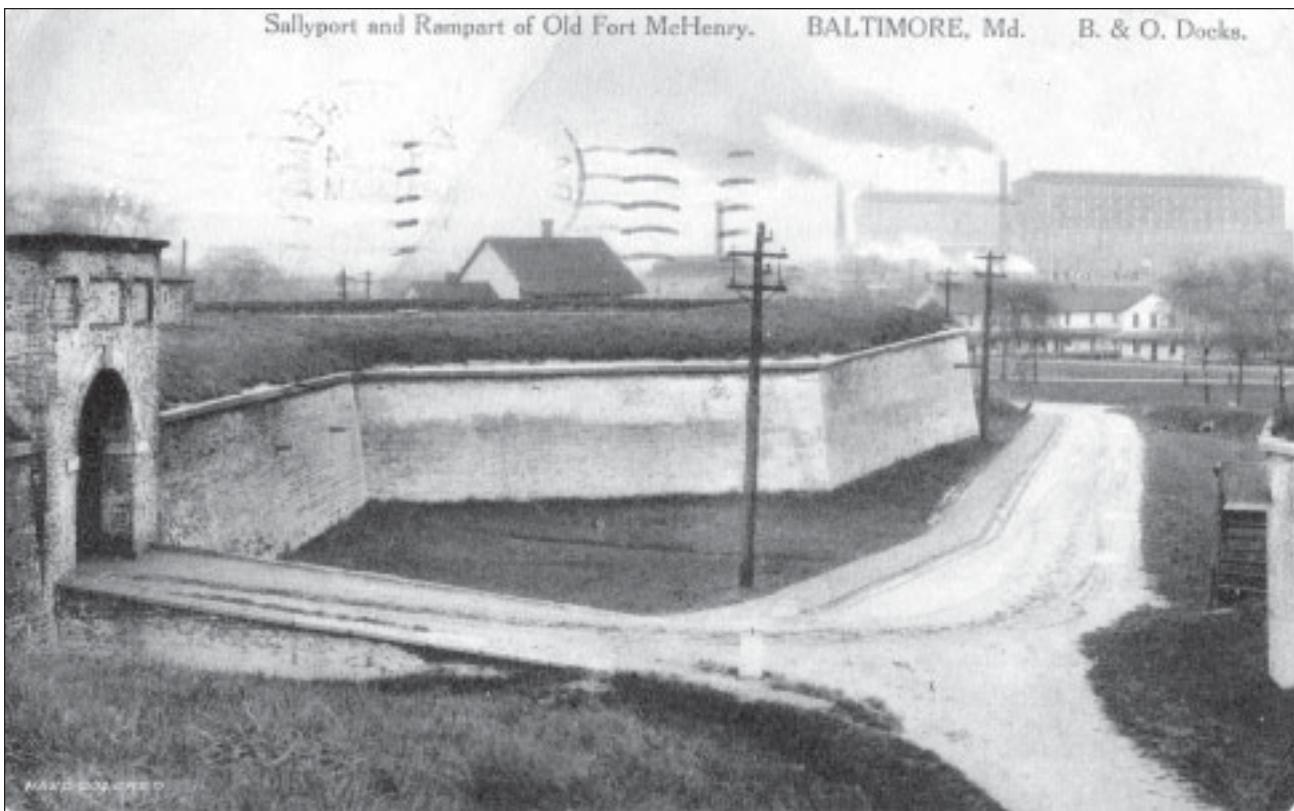


Figure 3.23. Historic postcard of Fort McHenry c 1910. Note remnants of whitewash coating on brickwork, utility poles and alignment of entrance drive. Fort McHenry Library Special Collections, Postcards, FOMC 4513.

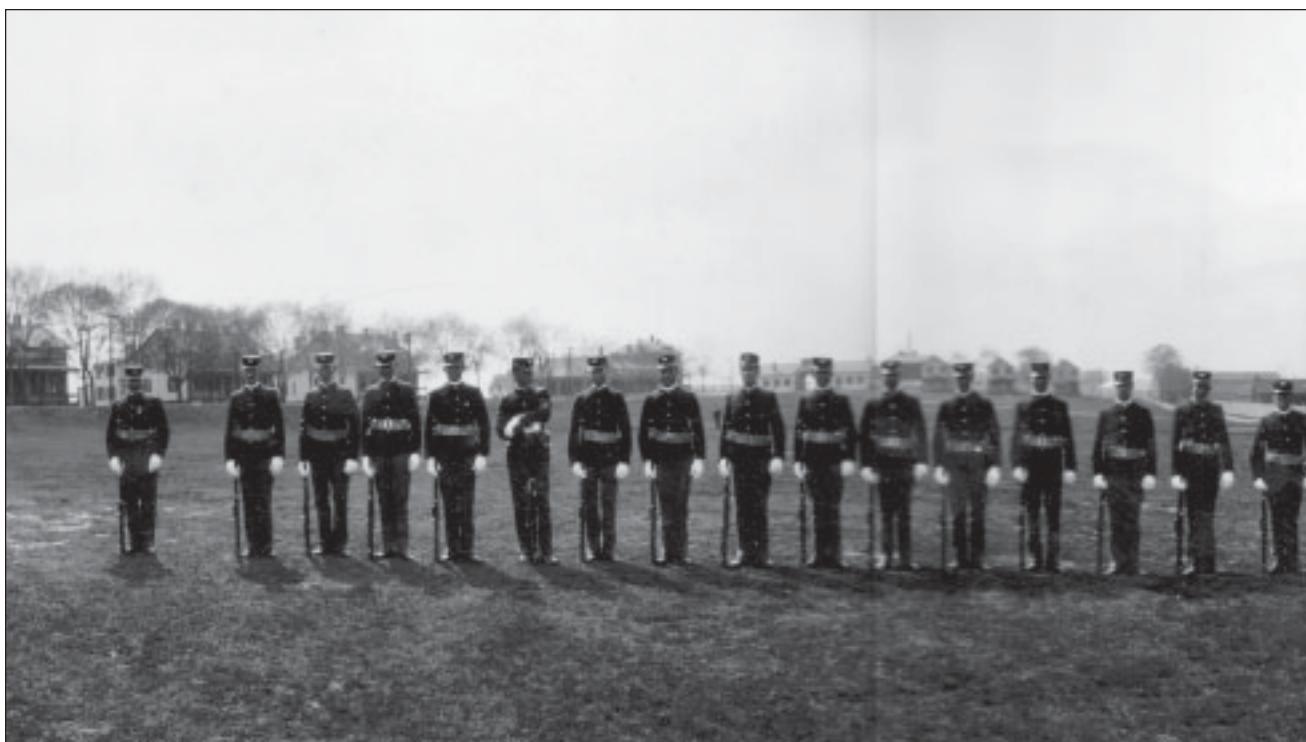


Figure 3.22. Fort McHenry c 1907. This image is paired with Figure 3.21 to the left, depicting landscape conditions at Fort McHenry a few years before the departure of its active military force. Fred W. Mueller, photographer. Fort McHenry Library Special Collections, FOMC 2388.



Figure 3.24. Historic postcard of Fort McHenry c 1907. Note displays of military items and generally well-kept character of the landscape. Fort McHenry Library Special Collections, Postcards, FOMC 3899.



Figure 3.25. Editorial cartoon from 21 July 1912 edition of “*The [Baltimore] Sun*.” Fort McHenry Library Special Collection No. 78.



1912 Period Plan

Drawing 3

Cultural Landscape Report for
Fort McHenry National Monument
and Historic Shrine

Produced by

National Park Service
Olmsted Center for
Landscape Preservation

Map Sources:

"Fort McHenry, Plan Showing Topography and Layout of Buildings," 4 December 1916, (Courtesy Frederick Law Olmsted National Historic Site, Job Number 02437, drawing 17Figure 4.14).

"Fort McHenry," as proposed by The Board of Engineers 1870-1872, August 1886. Park files, FOMC 020-D9, (National Archives, RG 77).

Page from c. 1885 Baltimore atlas, (Courtesy Frederick Law Olmsted National Historic Site. Olmsted Job Number 02437, drawing z1).

"Fort McHenry, Maryland. Compiled from the latest information." Q.M.G.O. Drawn by C.H. Stone, 1912 with revisions through 1919. FOMC Library, Special Collections.

Notes:

Plan drawn using ArcEditor 8.2, Adobe Illustrator and Adobe PhotoShop by Mark Davison, OCLP, NPS.

Legend:

- NPS Land
- Contours
- Earthwork
- Road / Path
- Building / Structure
- Fence
- Tree Canopy
- Landscaped Area

Approximate Scale in Feet

0 100 200 300 400 500



1913 TO 1933

CITY PLAYGROUND, NATIONAL EMERGENCY, AND PRESERVATION

With the property remaining in an ambiguous status under the War Department, Fort McHenry continued to be subject to various proposals aligned against the public's desire for a waterfront park. On 4 March 1913, a 3.25 acre parcel on northern waterfront, adjacent to the area of the reservation earlier transferred to the dry-dock company during the 1870s, was identified for the use of the Treasury Department. This parcel would be developed and operated as an immigration station to facilitate the surge in immigration to the United States during the early twentieth century.

Prior to this, political activity continued to focus on bringing Fort McHenry under the control of the city's parks department. A mere three days after the 141st Coast Artillery marched off of the property, Maryland Congressman J. Charles Linthicum introduced House Resolution 25912, (62nd Congress, 2nd Session) for the placement of a national monument to Francis Scott Key. However, introducing the legislation was relatively easy; passage of legislation funding a monument to Key would require two more years of political effort. Following prior federal authorization, on 17 June 1914, the City Council of Baltimore passed an ordinance accepting the use of the premises. The city's acceptance was made possible by the successful passage of legislation on 26 May 1914 authorizing the "Secretary of War to grant the use of the Fort McHenry Military Reservation... to the mayor and city council of Baltimore..." This legislation, also authored by Linthicum (*ch. 100, 38 Stat. 382*), contained a clause specifying that the Secretary of War could reassert physical control of the property in the event of a national emergency, and that despite any improvements made to the property, that its legal ownership would be retained by the federal government (*Figures 4.1 through 4.6*).⁹⁴

One month later, capitalizing on the political momentum created by the one-hundredth anniversary of the successful defense of the city, \$75,000 was found within the dense pages of the 1914 General Deficiency Appropriation Bill (*P.L. No. 155*), earmarked for the design and construction of a monument to Key. The bill contained language directing the Secretary of War to form a special committee, composed of the Mayor of Baltimore, the Chairman of the National Star-Spangled Banner Centennial Committee, the President of the Board of Park Commissioners of Baltimore and two other persons, so designated by the Secretary of War. The purpose of the committee was to prepare plans for the monument and select a suitable site. One day before the appropriation was made funding the memorial to Francis Scott Key, the assassination of an Austrian archduke unleashed a chain of events that would ultimately delay its completion by eight years.

From correspondence, it appears that Mayor James H. Preston (1911-1919) and others responsible for shaping the language of the General Deficiency Appropriation bill originally felt that most of the federal funding might be put to use to meet general park development needs as well as a memorial to Key, having something very much like a park visitor center, and circuit drive in mind. Prior to final passage of legislation funding the monument to Key, Mayor Preston wired the Olmsted Brothers landscape architectural firm for advice in their capacity as the city's consultant on municipal park matters.

BALTIMORE, MD. - APRIL 20, 1914: OLMSTED BROTHERS, WE ARE ONLY ASKING FOR AN APPROPRIATION FOR MEMORIAL BUILDING FROM GOV'T. I FEAR LIKELIHOOD OF ATTAINING IT. DESIRE HOWEVER TO SHOW GOV'T. WHERE BUILDING COULD BE MOST

ADVANTAGEOUSLY PLACED. IF YOU ARE IN BALTI. ON 22ND WILL BE GLAD TO SEE YOU. NOT NECESSARY TO MAKE TRIP FOR THIS PURPOSE. JAMES H. PRESTON, MAYOR.

During the spring of 1914, the options for the placement of a statue honoring Armistead were also being considered (*Figure 4.7*). Frederick Law Olmsted, Jr.'s. report to Mayor Preston following his April 22 site visit touched upon many issues in addition to the proposed memorial building. These included the location of Berge's Armistead statue, the proposed monument to Key, and the proposed memorial building mentioned in Mayor Preston's telegram. Olmsted's report also recommended the removal of various other structures then considered non-historic.⁹⁵ Olmsted's preliminary notes are more concisely worded than the more formal report that followed: "... Advised against memorial building within the fort proper as subversion of its historical character. Thought it might be built as a gate house (*Figure 4.8*). For the Key monument thought the best scheme a water gate on same axis as Armistead monument. Flagpole present location probably not historical. Probably could be erected in center of fort or elsewhere on Armistead axis." (*Figure 4.9*).⁹⁶

The proposals contained in the Olmsted report to Mayor Preston, are interesting in recommending an approach to park development and monumentation as a unified design problem. The design proposed by Olmsted placed memorial elements such as the monument to Key, the monument to Armistead, the flagpole, and the historic fort itself, into a rigid order defined by axial relationships. This spine organizing the formal elements was to be surrounded by a typically Olmstedian park landscape including a meandering circuit drive, and perimeter plantings intending both to screen discordant off-site industrial development while creating a well-defined central open space focusing attention on the historic fort. As for the Key monument, rather than advocating a memorial building, or otherwise a traditional figurative sculpture, Olmsted recommended simply that two bas-relief panels be inlaid into side walls of a proposed ceremonial "water-gate" entrance to the park. For the left panel, when seen from the water, Olmsted suggested that the bas-relief include a likeness of Key looking westward toward the statue of Armistead, and behind Armistead, to the flag that served as his source of inspiration (*Figure 4.10 and 4.11*). This arrangement, it was argued, would return the two historical figures to a spatially appropriate relationship, evocative of their relative positions during the bombardment; Key near the water to the east - Armistead at the fort to the west.

Yet Olmsted's auxiliary professional activities brought him into conflict with his own recommendations. Between 1910 and 1918, Frederick Law Olmsted, Jr. served on the Commission of Fine Arts, established in 1910 to advise the federal government on matters relating to civic art and architecture. The commission was predominantly focused on guiding the architectural development of Washington, D.C. as a capital city, but was also called upon periodically to advise elsewhere when a request was made by the President or a member of Congress.⁹⁷ As the proposed Key monument involved the War Department, Olmsted found himself as a member of the Commission of Fine Arts in the uncomfortable position of both proposing a design, and passing judgment upon it.

During the weeks and months after funding the monument through the General Deficiency Bill, a sequence of meetings and correspondence suggested the involvement of additional committees and outside experts, provoking Mayor Preston's irritation with the lack of progress on his new city park. On 5 November 1914, he wrote to Secretary of War, Lindley Garrison.

... My recollection is quite distinct as to the attitude taken by the Fine Arts Commission. One member of this Commission suggested that we select an architect outside of Baltimore to do the preliminary studying and sketching, and advise as to the selection of the architect to do the work. I directed attention, however, to the

fact that we had already put three architects to work on this matter (one of whom was Mr. Olmsted, of the Fine Arts Commission, who had prepared plans for our Park Commission costing \$200,000 [to implement] and on a scale which was entirely beyond our financial resources), and, inasmuch as it would, perhaps, be improper for a member of the Fine Arts Commission to make a report upon a matter upon which he would have to officially pass, that same might safely be left to the office of Supervising Architect, which Architect is now engaged in connection with the construction of the immigration building at Fort McHenry, and who has made a careful study of the conditions there and is thoroughly familiar with the whole situation.⁹⁸

Secretary Garrison, asserting his authority over all matters relating to the monument by virtue of language found in the 1914 legislation, gently denied Mayor Preston's request for design assistance from the architect supervising the immigration station project. Secretary Garrison suggested that the city employ the best talent available through the private sector. The War Department would then reimburse the city out of the funding authorized by Congress. During the following months, leaving the question of the Key monument hanging, Mayor Preston proposed spending up to \$50,000 of city funds on park infrastructure at Fort McHenry; \$25,000 for constructing roads and walks, and \$25,000 to construct boathouses for private boat clubs (*Figure 4.12*). The proposed expenditure of monies to build facilities for private clubs was not supported by the city's park board, and there is some indication that well placed city park staff looked forward to the end of Preston's time as mayor.⁹⁹

By April of 1915, the city of Baltimore and the War Department had resolved the impasse as how to proceed with the design of the monument to Francis Scott Key. The solution took the format of a juried design competition administered by the War Department in consultation with the Fine Arts Commission. In the competition program, the Secretary of War invited, "sculptors of established reputation who are citizens of the United States, and architects whom they may associate with themselves until the completion of the work, to submit designs for the proposed memorial."¹⁰⁰ Enclosed within the competition program, was a base map of the property delineating a rectangular area beginning east of the main gate extending approximately 400 feet to the west (*Figure 4.13 and 4.14*). Superimposed on the competition base map was the park design developed by the Olmsted Brothers. While the program narrative identified the layout of roads and walks shown as, "...merely tentative. For the purpose of this competition, however, it may be assumed that the city will ultimately construct roads substantially upon the lines indicated..." Design submissions were due on 1 April 1916 addressed care of Col. William Harts.¹⁰¹

On 4 May 1916 the jury of the design competition had reached its conclusions regarding the merit of the thirty-four entries, awarding a First, Second, Third and Fourth Prizes, as well as three Honorable Mentions.

Guided by these conclusions the Jury have selected model number 28 as best representing the ideals in sculpture, and recommend that this model be awarded first place provided the architectural features are modified so as to be more suitable for the site. The sculpture on this model is so superior that, in the judgment of the Jury, it outweighs the want of a fitting architectural setting, which setting in the opinion of the Jury can easily be modified to form a focal point at the intersection of the three roadways.¹⁰²

Model number 28 was the work of Charles H. Niehaus (1855-1935), an accomplished nineteenth and early twentieth century neo-classical sculptor, born in Cincinnati, Ohio and trained in Munich, Germany at the Royal Academy. At the time when Niehaus won the competition for the Key monument, five of his statues of United States politicians were in place at the United States Capitol. The Niehaus submission for the Key memorial competition included a six-foot tall plaster model of "Orpheus with the Awkward Foot."¹⁰³ The six-foot high competition model was to be enlarged to twenty-two feet and placed atop a fifteen-foot tall circular marble pedestal (*Figure 4.15*). Criticism of the winning entry was immediate as not "...having any particular meaning for Baltimore is concerned, or typifying the giving to the nation of the Nation's hymn..."¹⁰⁴ The Greek symbolism

was however not lost on everyone, as an art and architecture critic of the period recognized Niehaus's work as both a tribute to Key and to the musical arts in general, preferring the proposed statue of Orpheus to, "one more unlovely portrait of mere man."¹⁰⁵

In 1916, President Woodrow Wilson signed an executive order requiring that Key's *Star-Spangled Banner* be played at Army and Navy services and events. That summer, progress was being made in resolving many of the design issues remaining in Baltimore's memorial to Key. Niehaus had engaged Edward Warren, an architect from Brooklyn, New York, to work out a design for an architectural setting for his colossal statuary that would satisfy the Fine Arts Commission. Warren's site plan and elevations show the statue and pedestal according to their relationship to existing and proposed roadways, bollards, benches, and plantings. Thought was also given to providing twin entrance plazas west of the boundary, accompanied by fountains on either side of the main gate (*Figure 4.16*). However, the entrance treatment, and even the extensive grading around the statue itself was argued in correspondence as outside of Niehaus scope of work, not eligible for reimbursement from the \$75,000 allocated through the War Department. Monies for grading and other improvements not immediately related to the fabrication and installation of the statuary and its architectural pedestal and setting were to be paid for by the City of Baltimore.

But while details for benches and bollards, and who would pay for what, were argued over in Baltimore, the devastating effects of the new generation of weaponry sketched out in the 1886 Endicott report were on view as the Great War raged in northern France. In contrast to Armistead's single brave night, the bombardment of artillery along the River Somme extended until the approach of winter. At its crescendo, this modern cannonade involved more than 100,000 shells per day of the most technically advanced and powerful ordnance ever invented, ultimately claiming 600,000 casualties by the end of the campaign. Responding to the aggression of German submarines in the Atlantic, President Wilson returned to Capitol Hill just over one month after delivering his second inaugural address to Congress. On 2 April 1917, Wilson formally asked Congress for a declaration of war against Germany. The national emergency anticipated in the provisional transfer of Fort McHenry to the City of Baltimore had come.

The American Expeditionary Force arrived in France on June 26th, and the Army was estimating a need for three-million additional men. By August of 1917, anticipating commensurately large numbers of casualties, the Army mobilized staff to organize and establish a national system of military convalescent hospitals. General Hospital No. 2 would be located at historic Fort McHenry.

When Quartermaster William Wilson Heaton arrived at Fort McHenry on 15 September 1917, hospital activities were being conducted out of the 1895 post hospital building located just south of the main gate. He found that the City of Baltimore had made little progress in developing the fort property into a worthwhile public park. Heaton later remembered the buildings of the Star Fort on his arrival as "pitiful, broken stairs and windows, rotted flooring, gaping holes in the roofs and the sanitary fittings either destroyed or stolen." Describing a scene of general abandonment, the new quartermaster described all the officers' quarters and buildings on the government reservation as having, "had quartered tramps and vagabonds, who left filth, rubbish and vermin behind them..." Merely cleaning up the "rank growth and general untidiness" of the site required six weeks.¹⁰⁶

When Captain Maurice Hockman, the construction quartermaster for the hospital project arrived at Fort McHenry on 20 December 1917, he was met by representatives of the J. Henry Miller Company of Baltimore which had won the contract. Construction on the new hospital facilities began the following day and was completed approximately fifteen months later in March of 1919

(*Figures 4.17 through 4.22*). Thirty-four buildings were located at Fort McHenry prior to beginning the hospital construction program. Within less than a year and a half, forty-seven new buildings were practically wedged into place amongst the old. Captain Hockman offered his biased perspective on this in his completion report:

During the construction work of this project all the above ground historical landmarks have been religiously respected, and the General Hospital No. 2 has been built entirely around the original Fort and its landmarks without any encroachment, so that should it ever be deemed to raze the present hospital buildings, Fort McHenry will remain intact as one of the landmarks of American history.¹⁰⁷

However by late October of 1918, before the hospital facilities were complete, Nurse Emily Raine Williams described the arrival of a large convoy of wounded, that had landed at Newport News and shipped by train to the hospital at Fort McHenry. "Many of the patients still wore the field dressing tags. Such lines of crippled and wounded men I never want to see again." The arrival of numerous overseas casualties during late 1918 coincided with a deadly outbreak of influenza. Raines remembered the months between September 1918 and January 1919 for the "trying and emergency conditions of our epidemic."¹⁰⁸ Mercifully, on 18 November 1918, a general armistice was put into effect, and the peace treaty of Versailles was later signed in June 1919. The national emergency was over.

As the prosperous 1920s began, the Commander of General Hospital No. 2 began planning for closure. In January, he wrote to a patriotic local farmer, "This hospital is rapidly discharging its men, and I cannot at present find a good man who understands the care of a cow. I am eager to turn your cow back to you in as good condition as when you lent her to us" (*Figure 4.23*).¹⁰⁹ By May of 1920, the War Department transferred the medical facilities at Fort McHenry to the Public Health Service for use as a convalescent hospital, and as an occupational therapy center for veterans of the Great War (*Figures 4.24 and 4.25*). At that time, the name of the facility changed from U.S. General Hospital No. 2 to U.S. Public Health Service No. 56. All but one of the General Hospital No. 2 patients were transferred either to the Army's Walter Reed General Hospital in Northwest, Washington, D.C. or to Spring Grove, Maryland. During the time when the Fort McHenry site was changing bureaucratic hands, the U.S. Engineer's Office (Army Corps of Engineers) identified and sought to reserve a small portion of the post for their use in managing and maintaining Baltimore's ship channel (*Figure 4.26*). The post later came under the administration of the U.S. Veterans Bureau, and after the hospital facilities were closed in 1923, the under-used facilities housed that agency's regional offices.

It was only after the closure of General Hospital No. 2, with World War I concluded that the deferred plans for a memorial to Francis Scott Key were taken off the shelf. Work on the monument commenced, but after little more than the foundation was completed, the War Department once again sought to divest itself of its surplus Locust Point real estate. These maneuvers reawakened the old controversy over choosing an appropriate future for the historic fort.¹¹⁰

Baltimore's ever-persistent Congressman J. Charles Linthicum began crafting legislation in 1921 aimed at returning the use of Fort McHenry to the City of Baltimore. This first bill was opposed by the Society of the War of 1812, and ultimately failed. At the time, there was an expressed desire that Fort McHenry might avoid the past depredations of local politics and find its way into the nation's inventory of national military parks.¹¹¹ The War Department had been in charge of a small portfolio of national military parks since the 1890s. During the 1920s, the War Department's park responsibilities threatened to swell beyond bounds as Congressman Linthicum's legislative peers

introduced many bills authorizing feasibility studies or outright acquisition of additional battlefield sites for military parks.¹¹²

Undeterred, Linthicum kept at his work. One account of a public meeting held at the Maryland Historical Society spoke of a local preference that the fort be granted national park status, remaining under federal supervision. Linthicum followed up with just such a bill during the time when the roads and walks, as well as a carved marble base, were being made ready to receive the bronze casting of Orpheus. This bill also died in committee due to lack of support.

When President Warren G. Harding arrived at Fort McHenry on 14 June 1922 to formally dedicate Niehaus's long-awaited monument to Francis Scott Key, the future of the fort property, and its moribund hospital, remained unresolved (*Figure 4.27*). President Harding went on the following year to sign legislation creating the American Battle Monuments Commission establishing cemeteries and memorials to fallen American soldiers in post-war Europe, while the Society of the War of 1812 flogged Maryland legislators in the press for their apathy toward Baltimore's own spirited history. Congressman Linthicum penned yet another bill.¹¹³ Apparently, the attention garnered from Harding's visit and nationwide radio broadcast, the Society of the War of 1812's publicity campaign, combined with the successful completion of the Key monument all had their effect.

On 3 March 1925, President Calvin Coolidge signed legislation repealing the assignment of the property to the City of Baltimore and authorizing the Secretary of War to hold Fort McHenry "... in perpetuity as military reservation, national park, and memorial."¹¹⁴ At the time that the legislation was signed, citizens of Baltimore were still under the impression that Fort McHenry would return to the administration of the city.¹¹⁵ Although this was not to be, Baltimoreans had been saddened to see the decline of one of their civic icons during the years following the end of World War I, and hoped to make it a vital aspect of city life (*Figure 4.28 and 4.29*). A local newspaper account bemoaned the condition of the fort and paints a colorful word-picture of the property just prior to the passage of legislation authorizing its establishment as a national park.

...What had been a booming fortress was as still and lifeless as a deserted graveyard. The noise of hammering and the ringing of steel in the Baltimore Dry Docks nearby and the steaming and blowing of freight engines in the Locust Point shipyards made the quiet in the fort seem even more sepulchral... In the red brick buildings of the old Fort a few tools and pieces of junk were lying on the floor. The hospital buildings of World War time construction were entirely empty, with only the wind to sweep up and down their long corridors. Everything was run down and neglected. Bricks had fallen out of the walls of the fort, leaving great openings into its underground passageways. Plaster had fallen from the laths and the brick walls of the old buildings. Some of the doors had had panels knocked out of them or were swinging and slapping in the wind...

In the yard between the buildings sawhorses and splintered planks were lying. Their old brick walls had been blistered by the heat and showed beneath their red paint that they had once been painted white. Ivy kindly had covered the walls of the little chapel. In its bell tower there was no bell to ring. In front of it was a sign board marked "Church Bulletin," with a church bulletin beneath saying "All Persons Are Warned Not to Enter Any Buildings. U.S.V.B. [United States Veterans Bureau]. From the sides of the new hospital buildings great sheets of stucco had peeled. The wire screens on their long verandas were torn or had been ripped out. The cold heating pipes sagged down from their posts and broken electric street lamps swung on their wires.... The grounds of the fort were unkempt and neglected. Branches broken from the silver maple trees sprawled on doorsteps and across walks. The bricks in the walks sank down when they were stepped on - from lack of persons walking on them. Except around the Key Monument, the dead grass was rank and uncut. The star-shaped earthworks were covered by dry, waving grass and long stalks of goldenrod and fall aster...¹¹⁶

Restrictions placed on the War Department with the passage of this new legislation included provisions for the continued operation of the light and fog signal station on the eastern seawall by the Commerce Department, a 60-foot by 680-foot right-of-way at the northern boundary of the fort property serving the former immigration station property managed by the Treasury Department,

and the parcel requested by the Secretary of the Army for the use of the Chief of Engineers.¹¹⁷ One month after the passage of the legislation, the United States Veterans Bureau relinquished its interests in Fort McHenry.¹¹⁸ The Army Real Estate Division was soon charged with identifying these restricted areas, and elsewhere with the disposal and salvage of surplus structures.¹¹⁹ As funds for the proposed restoration of the property were to come from the salvage of surplus buildings, no funds were available prior to the salvage operation. On 19 May 1925, the Army's Quartermaster General allotted \$6,000 to hire temporary laborers to address the dire conditions described in the local press that February.¹²⁰

The legislative authorization for Fort McHenry was granted just as the War Department sought to impose new limits on the acquisition of historical battlefield sites. One month after President Coolidge signed the Fort McHenry legislation, the War Department approved a comparative study and analysis of American battlefields penned by Lieutenant Colonel C.A. Bach, Chief of the Historical Section, Army War College. Bach's report, no doubt in preparation while the Fort McHenry legislation was moving through its tortured process, appears to have been generally biased against the significance of War of 1812 sites, claiming that the war's principal actions, "were of a defensive character."¹²¹ He continued on, judging that no War of 1812 sites merited the establishment of a national military park, listing only the Battle of New Orleans as worthy of monumentation and markers (Chalmette Monument and Grounds, 1907). Listing six other War of 1812 sites, including Baltimore's Battle of North Point, Bach's report suggested, "some form of monument, tablet, or marker to indicate the location of the battlefield." Fort McHenry, including the recent monuments on-site erected honoring Armistead and Key were left off Bach's list.

Funds for the restoration of buildings and grounds, not to exceed \$50,000, were authorized to be expended from the proceeds of the sale of salvaged buildings and building materials on the site. This was a woefully inadequate sum considering that \$75,000 was spent installing the Key monument and its limited architectural setting alone. No separate appropriation of funds was made to accomplish the restoration of Fort McHenry. Even though many of the older buildings on the property featured valuable timbers of California redwood, the Army's best offer for the salvaged buildings and materials fell short of this meager estimate by over \$20,000.

A contract was accepted in October of 1925 for the salvage of buildings, removal of rubble and debris, and regrading the building sites, promising to net the government a total of \$28,522.35. All that was scheduled to remain was the Star Fort and its interior buildings, the chapel, the guardhouse, the Key memorial, and the old Civil War [sic] hospital building.¹²² Demolition work proceeded during the course of the following year, with the Baltimore *Sun* reporting on 5 September 1926 that all the buildings identified for salvage had been removed (*Figure 4.30 and 4.31*).¹²³ Nothing other than minor grounds maintenance was accomplished for the remainder of the year.¹²⁴ The monies from the building salvage were exhausted by August of 1927 on a rather limited to-do list of installing new electrical service, restoring the second story to the Junior Officers' Quarters and renovating the park caretaker's quarters.¹²⁵ Army estimates of additional funds required to complete the restoration added to \$221,000.¹²⁶

In 1927, after the passage of yet another year, when little more had been accomplished toward the development of roads and walks, landscaping and the restoration of buildings, the Army's efforts were subjected to new criticism. The 16 June 1927 edition of *The Evening Sun* contained a bitter complaint:

Enormously the greater part of the reservation is put to no use whatever. It is merely covered with rubbish heaps, the last traces of the old hospital buildings. But there is a sign on the gate informing the world that the

place is closed to visitors at 5:30 pm, so it is not available to the people of Baltimore when most of them are at leisure. - The officer in charge is doing his best, which, considering his circumstances, is remarkably good. But without funds to put the grounds in proper shape or to pay caretakers, what can he do? He is refurbishing up the old buildings and keeping the grass cut, and collecting the rubbish into piles, and throwing the place open to the public as long as he dares. Colonel Hacker, personally, appears to be a friend of Baltimore; but the Government he represents seems to look upon the town sourly. Representative Linthicum has never been able to get action on this bill providing for the restoration of the beautiful park that the Government destroyed during the war.¹²⁷

The president of Baltimore's park board later condemned the appearance of the fort in the press as a "national disgrace."¹²⁸ That December, Baltimore's ever-present friend in Washington, Representative Linthicum, introduced a bill in Congress to appropriating \$81,678 for additional restoration work. This bill wound its way through the committee process, and was approved on 10 March 1928.¹²⁹

WAR DEPARTMENT RESTORATION PROGRAM

The program of restoration work began at Fort McHenry that July, and by 12 September 1928, the property's condition had improved sufficiently to welcome approximately 20,000 visitors for its dedication as a national park.¹³⁰ Two weeks following the September dedication ceremony, bids were opened for the first of the earthmoving contracts for the removal of the unfinished 1870s Water Battery. The quantities specified in the original contract were later amended to move a total of 6000 cubic yards of earth. The terms of the earthmoving contract encouraged the placement of fill from the battery within a radius of 500-feet. Thus, the greatest part of the soil was spread quite nearby, filling a low area of the grounds immediately to the northwest, between the battery and the new compound reserved for the Army's Engineer Department.¹³¹

Otherwise, the list of restoration and rehabilitation work accomplished with the 1928 appropriation were weighted toward the architectural, including; the removal of the arched gateway-guardhouse building and restoration of the main gate at Fort Avenue to its previous configuration, including the relaying of the stone flagging at the entrance. While the brick post hospital and post chapel buildings were identified to remain on early War Department plans, these two buildings were apparently razed during the course of restoring the main gate.¹³² There were extensive masonry repairs made to the brick boundary wall, as well as repairs to the Civil War powder magazine, and repairs to the brickwork of walls and buildings associated with the Star Fort. Renovations also included new roofing, gutters, and downspouts and woodwork as needed, but the most remarkable of the restoration carpentry projects was the reconstruction of the missing wooden porches to the brick buildings inside the Star Fort. The second floor of one of the barracks buildings was converted into a two-bedroom apartment for a park caretaker.

Funds dedicated to landscape work through the 1928 appropriation included construction of a new bituminous pavement extending from the restored entrance gate to the Star Fort, complete with new sidewalks, curbing and brick gutters along the new surface. There were also several hundreds of feet of seawall repaired or reconstructed, general grading seeding and sodding of lawns, the discovery and return of a pump to the former well at the center of the Star Fort's small interior parade. Funds were also spent on the installation of brick ground floors and exterior walkways to the building inside the Star Fort. Unrelated to the War Department's restoration efforts, "high-tension" electrical utility lines were installed inside below-ground conduits across Fort McHenry, extending under the Patapsco River in 1929. Recorded only days prior to the stock market crash of 1929, the easements for these utility conduits were granted to the City of Baltimore on 18 October 1929¹³³

But funding through the 1928 appropriation could only be stretched so far in addressing Fort McHenry's long list of needs. By 1930, criticism of the War Department's progress on Fort McHenry began anew. While funds had been spent, despite the souring world economy, on architectural restorations, the buildings within the Star Fort remained closed to the public. The public restroom was described as a "latrine." This critical bit of park infrastructure was located just to the south of the main entrance gate, and constructed "of wood frame and sheathing with tar paper roof, with a partition in the center with one door and window to each side...One non-freezable toilet was installed in each side and connected to water and sewer line.¹³⁴

In response, an additional \$80,000 was requested and received to carry forward additional restoration and park development projects (*Figure 4.32*).¹³⁵ The Quartermaster for the Third Corps Area prepared a thorough nine-page report on both past and planned restoration efforts to accompany the drawing.¹³⁶ Newly recommended tasks included; the construction of a visitor parking lot at the Star Fort, new walkways and benches throughout the site, including the construction of concrete sidewalks adjacent to the entrance drive and also a 6-foot wide perimeter walk following the outline of the peninsula. In addition, old service roads to the rear of the former line of officers' quarters were torn up and the landscape regraded and restored. Hoping to screen industrial development to the northwest and provide a green background to the fort when approaching from the river, an evergreen hedgerow was proposed along the iron picket fencing defining the northern boundary of the site.

The design of the park comfort station attracted considerable comment. Initial proposals called for economical improvements to the current building found just inside the main gate. These measures included the application of masonry veneers, and slate roofing. Correspondence following up this proposal at first recommended against the then current location of the restroom buildings, suggesting that toilet facilities be located within one of the buildings inside the Star Fort.¹³⁷ Recommendation offered later that autumn were given for a new comfort station building, of a "colonial design," to be located "between the Star Fort and main gate, preferably back of the old magazine."¹³⁸

As the two-hundredth anniversary of George Washington's birth drew near, the American Tree Association collaborated with the George Washington Bicentennial Commission to promote new civic tree plantings as memorials to the first American president. According to the published program, these memorials were not to be "monoliths of marble, not statues of static stone, or dun-colored copper and bronze, nor a eulogium written upon perishable parchment; but growing things..."¹³⁹ Fort McHenry's War Department property manager Colonel Alvin Baskett, saw this promotion as an opportunity to "foster Americanism" through collaboration with local civic groups and patriotic organizations.¹⁴⁰

One month after President Herbert Hoover signed legislation designating Francis Scott Key's *Star-Spangled Banner* as the National Anthem, an American Elm was planted that had been propagated from a cutting taken from a tree on the Cambridge, Massachusetts commons (*Figure 4.33*). It was under the tree in Cambridge that George Washington assumed command of revolutionary forces then fighting against Great Britain.¹⁴¹

Moving tree plantings forward from there, Colonel Baskette hoped to have state chapters of the Daughters of the American Revolution purchase individual red oak trees that would together line the both sides of the main drive creating a formal and ceremonial effect. With one oak tree for each of the 48 states, 24 four trees on each side of the driveway, the rows of trees would lead from the

main gate, past the Key monument, and up to the Star Fort. However, the War Department's condition that all the trees be planted at once to avoid a scene with a "few [trees] scattered here and there," made coordination with individual DAR chapters impossible. The War Department instead funded and installed the trees during the fall of 1931.

Alongside efforts to line the driveway with memorial oaks, plans for memorial cherry tree groves were also pursued. On October 24th, marking the commencement of the local Washington Bicentennial observation, Baltimore's schoolchildren planted one Japanese cherry tree for each of the city's public school. An inventory and map of trees planted on that day would have coincidentally recorded the numbers of "white" schools and "colored" schools serving Baltimore's children. Broadening the application of racial segregation to extraordinary lengths, the cherry trees, commemorating a folk tale of Washington's childhood honesty, were planted in segregated groves (*Figure 4.34*).

Bronze markers were originally intended accompanying the 48 oak trees lining the driveway, identifying each state and the date that it was admitted to the Union. Almost a year after the trees were planted, and thus offering some assurance regarding their survival, the accompanying memorials were installed and dedicated during the annual September 12th Defender's Day celebration of 1932.

On 4 March 1933, Franklin Roosevelt was inaugurated after an election taking place during the bleakest months of a worldwide economic depression. During the early weeks of the new administration, National Park Service Director Horace M. Albright took on the task of orienting Secretary of the Interior Harold Ickes to some of the historical areas in and around the nation's capital. Many of these sites were administered by bureaus other than the National Park Service, including the Office of Public Buildings and Parks within the District of Columbia, and several military parks and monuments administered by the War Department. At this time, the National Park Service was a smaller and weaker bureau, having most of its portfolio of parks located in the sparsely populated western states. At the time, the NPS was under regular threat of being consolidated into another bureau, such as the U.S. Forest Service. During their travels, Director Albright expressed to Secretary Ickes his impression that the NPS might protect itself from future threats if it could diversify its property types, taking on responsibility for the historical and cultural sites of Washington, D. C., along with historic military parks and monuments then administered by the War Department. One of the War Department sites the pair visited that spring was Fort McHenry.¹⁴²

Director Albright would soon be invited to take part in a presidential Sunday drive, accompanying the President and Mrs. Roosevelt as they inspected former President Hoover's private camp for donation and possible inclusion within Shenandoah National Park. In the motorcade of cars on the way south, Albright rode alone with Secretary Ickes. Returning, Albright was asked to play the role of tour guide and ride in the President's car. Passing the Manassas battlefield, Albright was able to make a well-rehearsed pitch for the War Department's military parks and monuments. The President, expressing a personal interest in the future preservation of a state battlefield park in New York, thought Albright's proposal reasonable and asked him to work with the administration's reorganization team to bring it about.¹⁴³ Executive Order 6166 was signed on June 10th and on 10 August 1933, all former War Department national military parks and monuments became the responsibility of the National Park Service.

SUMMARY LANDSCAPE DESCRIPTION - 1933

When the War Department left the management of Fort McHenry to the National Park Service in 1933, the transition garnered less notice than when the 141st Coast Artillery marched out the gate twenty-one years earlier. Legislation authorizing the establishment of Fort McHenry as a national park required the government to hold the property in perpetuity as a military reservation, yet with the War Department no longer managing the historic fort, the only remaining military presence was that of the Chief of Engineers, occupying a small parcel on the northern riverbank centered on the fort's historic wharf.

The National Park Service Annual Report for Fort McHenry provides a valuable first-person description of conditions at the time of the transfer.

Annual Report for Year 1933-1934 - Fort McHenry National Park. ...Fort McHenry passed from the supervision of the War Department to the supervision of the National Park Service, Department of the Interior, in August, 1933, in compliance with an Executive Order. Description: Plans. The plan of the grounds is supposed to include all of the original site of the Fort. The southeast twenty acres are rather well taken up with the old Fort, and the outer remainder of the area is rather open. A main road [paved with curb and gutter] enters as an extension of Fort Avenue on the western side and practically bisects the area proceeding directly to a parking zone just outside of the Fort. Roads: The one main road just spoken of represents the road developments. A small road branches from the main road and proceeds into the Star Fort. There is a path system which circles the Park. Parallel concrete walks follow the main entrance drive leading into the fortifications. A wide concrete walk follows the sea wall around the waterfront area. Buildings: Outer magazines. The 65' x 100' brick magazine is located in the southwestern section of the Park Old incinerator. An old concrete incinerator remaining from the last war days, when the area was used as a hospital grounds, is located in the extreme southwest corner. This building measures 35'x40.' It has no value. Star Fort. Within the Star Fort are four barracks buildings of brick, a magazine, guard rooms and guard house. Fences: The western border of the Park is enclosed by a substantial brick wall. A portion of the northern border is enclosed by an iron fence. Walls: Sea walls. A substantial stone sea wall extends around the entire waterfront. Fortifications walls. The walls of the Star Fort are of brick. Lawns: With the exception of the approximately ten acres occupied by the fortifications, the entire area is in lawns. Planting: Planting within the Fort consists for the most part in rows of oak and evergreen planted in the north and west sections. The evergreen and most of the oak are planted as memorials. The rows parallel the entrance drive. There have been three plantings of Japanese cherries put in as memorial plantings. Two of these are on the northern side of the drive, located a little over half of the way in the Park. The other is located to the south of the fort between the Fort and the waterfront. Commemorative Structures: Small headstone type markers are placed at the base of memorial trees along the entrance drive and along the paths between the entrance gate south to the old magazine. A heroic bronze statue representing the spirit of music stands on the pedestal in the main drive at about the center of the Park. Three revolutionary [war] cannon mounted on cast iron carriages are located within the star Fort. From twelve to fifteen large caliber Civil War type fortification cannon are located on the outer earthworks. (HARP binder 1934)

In less than twenty years time, the property rapidly transitioned between roles as a moribund coast artillery post, city park, military hospital, and veteran's bureau headquarters, ultimately becoming a national park in 1925. Owing to the vast construction program of General Hospital No. 2, soon followed by the equally sweeping War Department restoration program, little remained from the fort's period as city park or military hospital. In fact, outside of the Star Fort and its clustered ensemble of buildings, the Civil War magazine, boundary walls and riverbank seawalls, little remained of the historic fort landscape. A colossal, minimally clothed, neo-classical statue of Orpheus stood at the center of an incomplete traffic circle; two short road spurs extended outward from the center of the traffic circle, leading nowhere.

In 1933, the Star Fort seemed to float as small mount in a sea of green grass and young trees. The War Department restoration, while stating the purpose of returning the property to its condition and arrangement during the 1814 bombardment, had fallen far short of this. When the 1918-1919 hospital buildings were knocked down, historic buildings also disappeared that had served the fort for over one-hundred years. No attempt was made to replicate the village atmosphere of garrison

life that long existed outside the ramparts, defined by officers' quarters, stables, storehouses and workshops, connected together with well-used roads and walkways. The restoration of the missing water batteries, so critical during the historic defense of Baltimore had not been proposed.

Happily, the main gate constructed c. 1837 had been restored to evoke its original condition, and the main central driveway continued to lead visitors from Baltimore's Fort Avenue to the Star Fort. After 1922, this route was interrupted by a statue of Orpheus, placed inside an unfinished traffic circle that was once intended to join the driveway with a circuit drive or "parkway" extending around the tip of the peninsula. The post driveway was newly covered with smooth bituminous macadam, replacing the top dressing of oyster shells and gravel that had previously covered the post's otherwise unpaved roads.

In 1933, secondary park roads continued to occupy a secondary north-south axis, marking the relationship between the Star Fort and the harbor. However, this relationship between the historic Star Fort and its working waterfront once supplying many of its needs was severed by the imposition of the Chief of Engineers compound centered on the historic wharf.

The prior commander/subordinate relationship between the dwellings of officers and enlisted men was missing after the War Department's demolition and site restoration program, but the open character of the landscape between the Star Fort and the western boundary wall had been restored to reflect conditions present during the years prior to the Civil War. Yet inside this reclaimed open space, pleasant as it was cleaned of refuse of global war, there was no mistaking the times. Although idled to a great degree by worldwide economic downturn, regardless of one's viewpoint, twentieth century industry served as the backdrop to the historic Star Fort.



Figure 4.1. Baltimore's acquisition of Fort McHenry in 1914 for use as a municipal park led to abuses that would not have previously been tolerated under the management of the U.S. Army. This photograph and the series of images that follow it were taken c. 1914-1915, soon after the transfer. Fort McHenry Library Special Collections, FOMC #8996V.



Figure 4.2. The public promenade around the perimeter of the riverfront made use of the wide coping stones of the seawall. Fort McHenry Library Special Collections, FOMC #8996F.



Figure 4.3. Following the transfer of additional property on Fort McHenry's northern riverfront to the Treasury Department in 1913, Baltimore moved this old canteen building from the site and placed it to the southwest of the Star Fort. Baltimore's Mayor Preston hoped that the Baltimore Corinthian Yacht Club would be able to use the building at its new site. Fort McHenry Library Special Collections, FOMC #8996L.



Figure 4.5. Fort McHenry c. 1914-1915. This image is paired with Figure 4.6 to the right, depicting landscape conditions southwest and west of the Star Fort. Note failing porch roof of former Quartermaster's Stables. Fort McHenry Library Special Collections, FOMC #8996M.



Figure 4.4. Fort McHenry's existing bandstand was well suited to the purposes of a city park. Note the addition of park benches unseen in views of the property while under military stewardship. Fort McHenry Library Special Collections, FOMC # 8996Z.



Figure 4.6. Fort McHenry c. 1914-1915. This image is paired with Figure 4.5 to the left, depicting landscape conditions southwest and west of the Star Fort. Note the peeling paint of the south (rear) facades of the row of officers' quarters. Also note 1895 hospital, adjacent to main gate. Fort McHenry Library Special Collections, FOMC # 8996CC.

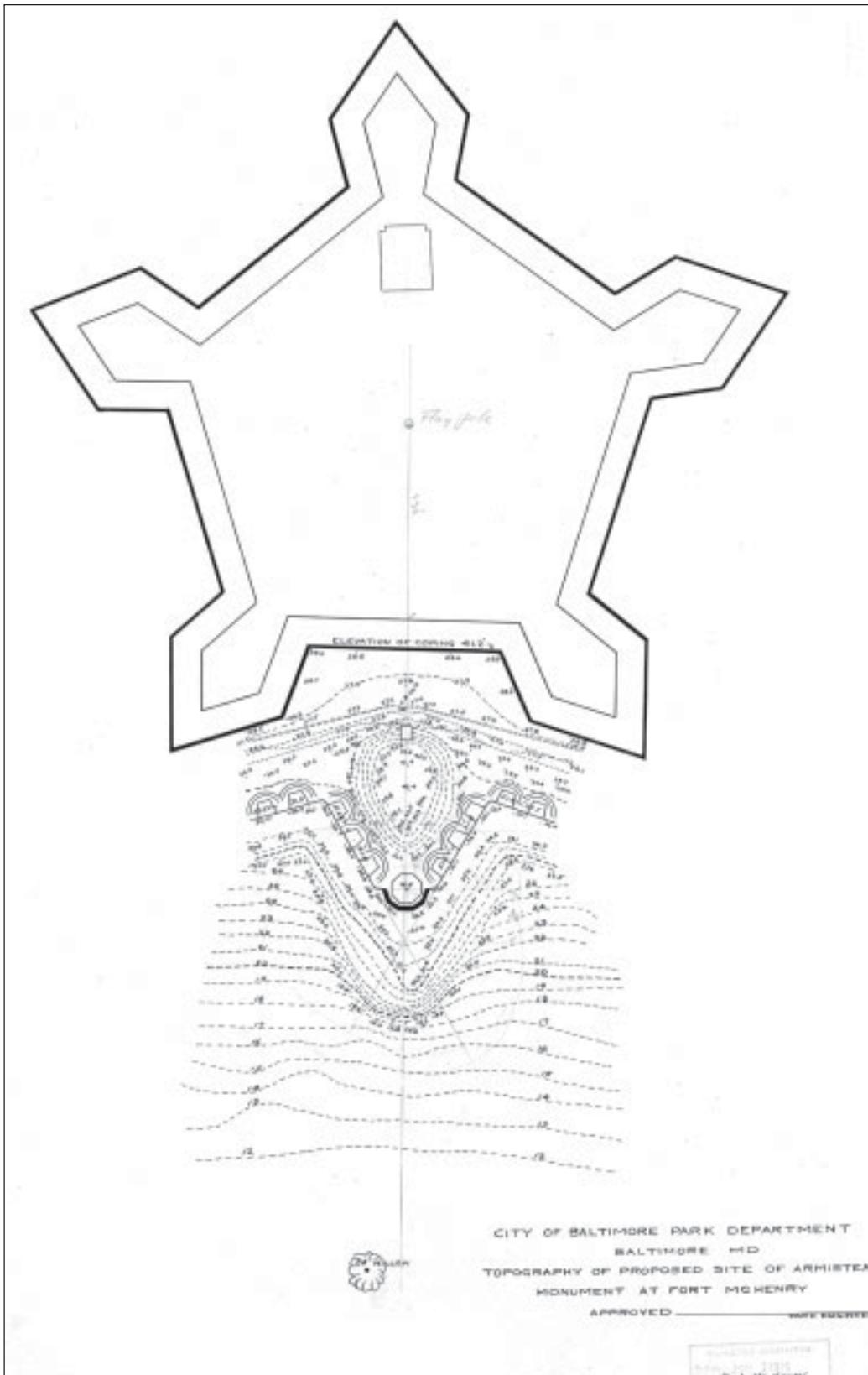


Figure 4.7. “Topography of Proposed Site of Armistead Monument at Fort McHenry,” 1 June 1914. Courtesy Frederick Law Olmsted National Historic Site, Job Number 02437, drawing 6.

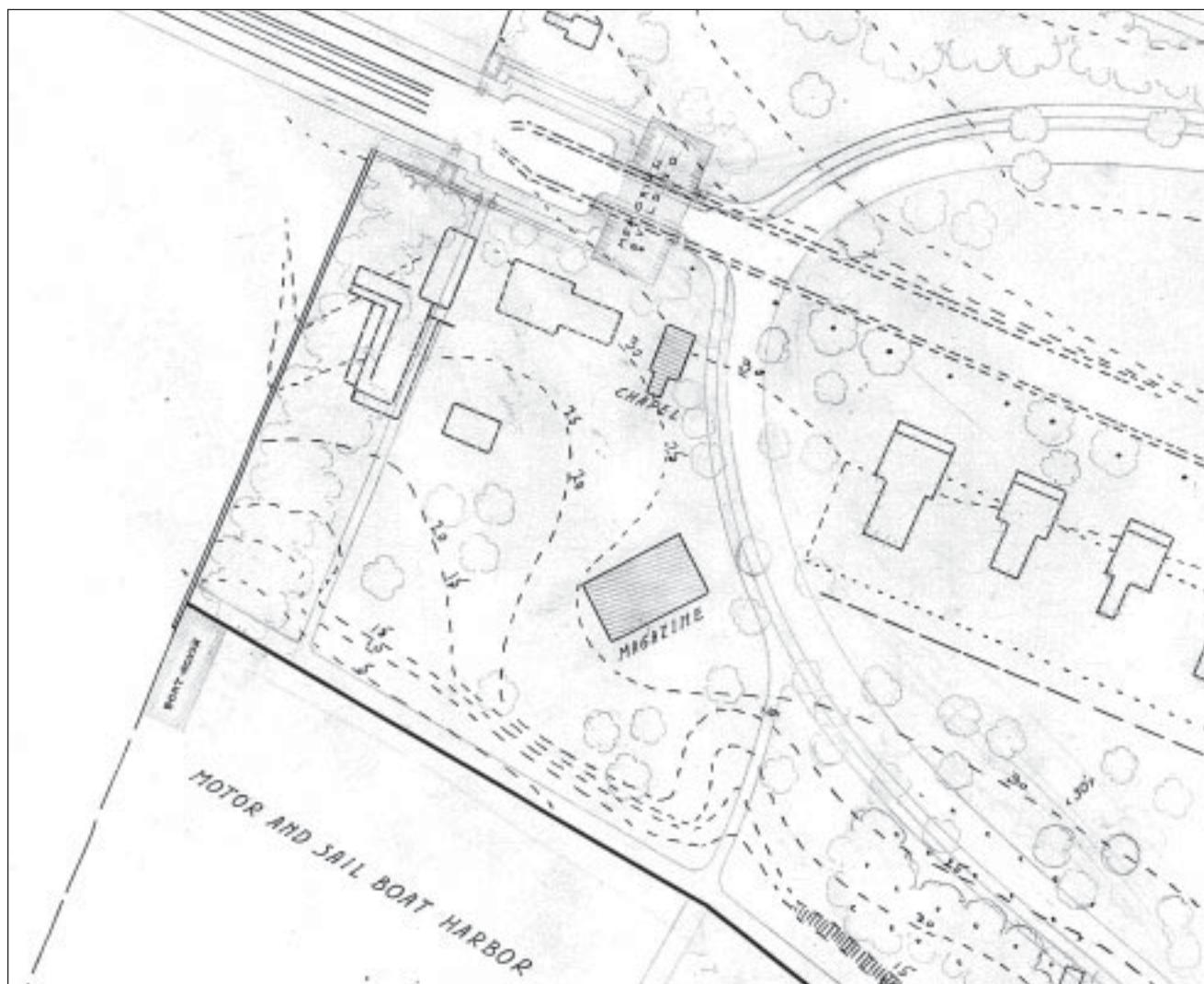


Figure 4.8. One of the early memorial concepts for honoring Francis Scott Key favored by Baltimore's Mayor, was a memorial gatehouse near the entrance to the park. This was ultimately dismissed in favor of a sculptural monument. Courtesy Frederick Law Olmsted National Historic Site, Job Number 02437, detail from drawing 4.

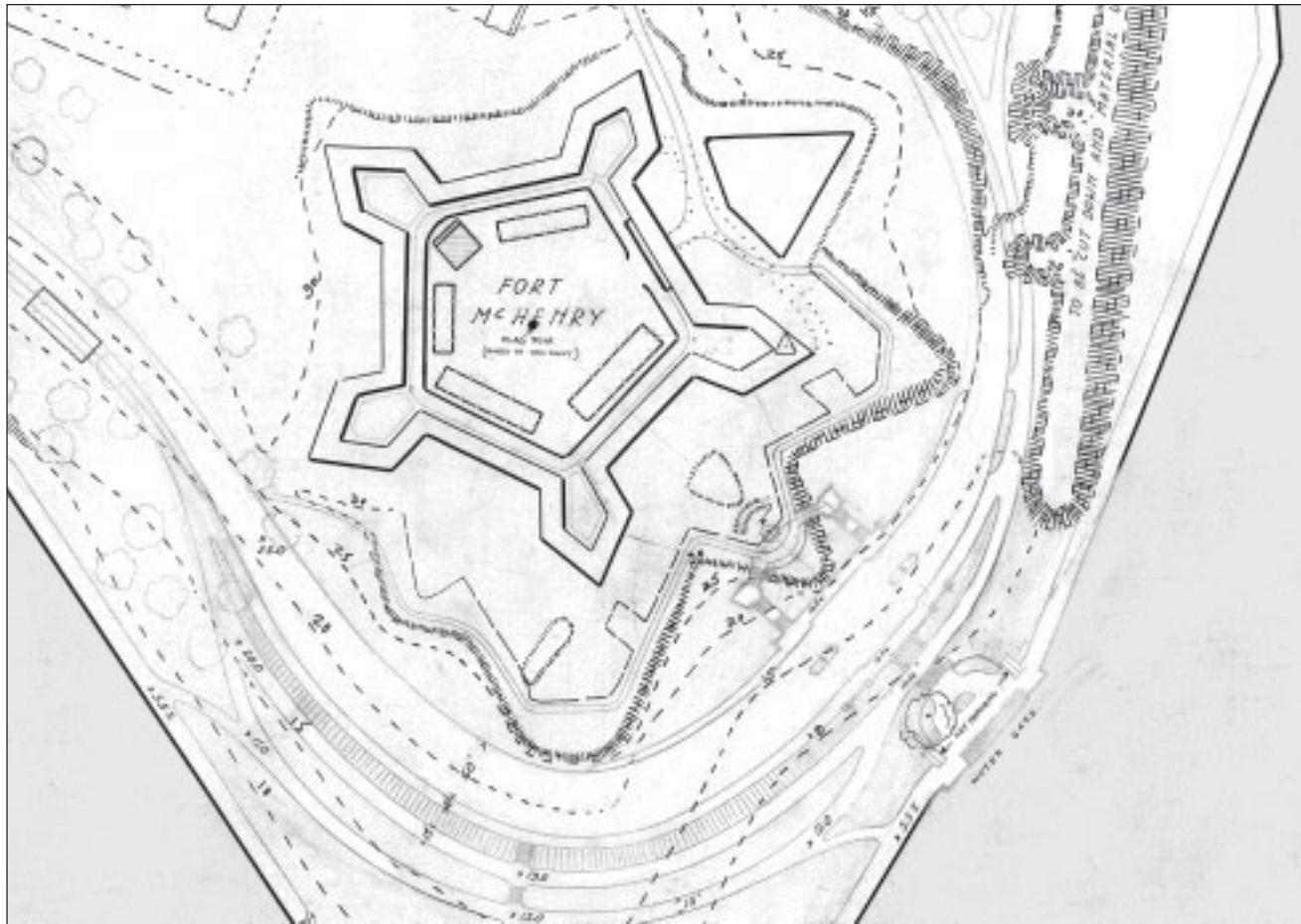


Figure 4.9. As Baltimore's landscape architectural consultant advising on the development of the city park system, Frederick Law Olmsted, Jr. advocated that the proposed Key Memorial be incorporated into a formal "water-gate" to the park. This, it was argued, would place the statue of Armistead and the memorial to Key into a relative spatial relationship existing during the historic bombardment. Key would be found depicted in a bas-relief panel within the walls of the water-gate near the river, looking toward Armistead on the ramparts with the flag beyond. Courtesy Frederick Law Olmsted National Historic Site, Job Number 02437, detail of drawing 4.



Figure 4.10. The statue memorializing Armistead was installed during the summer of 1914 and dedicated in September. The Olmsted landscape architectural firm lost the argument that the statue should occupy the emplacement of the large Rodman gun. Due to an apparent lack of funds to move the large gun, the statue was placed as shown, “clinging insecurely on the very edge of the embankment.” Fort McHenry Library Special Collections, FOMC #8996W.



Figure 4.11. Armistead monument, c. 1915. The placement of the Armistead statue required that a large quantity of new fill be placed at the east facing bastion of the exterior battery. The seat-wall exedra accompanying the statue was short lived, and was removed by 1918. Note street light and park benches. Fort McHenry Library Special Collections, FOMC #8996R.

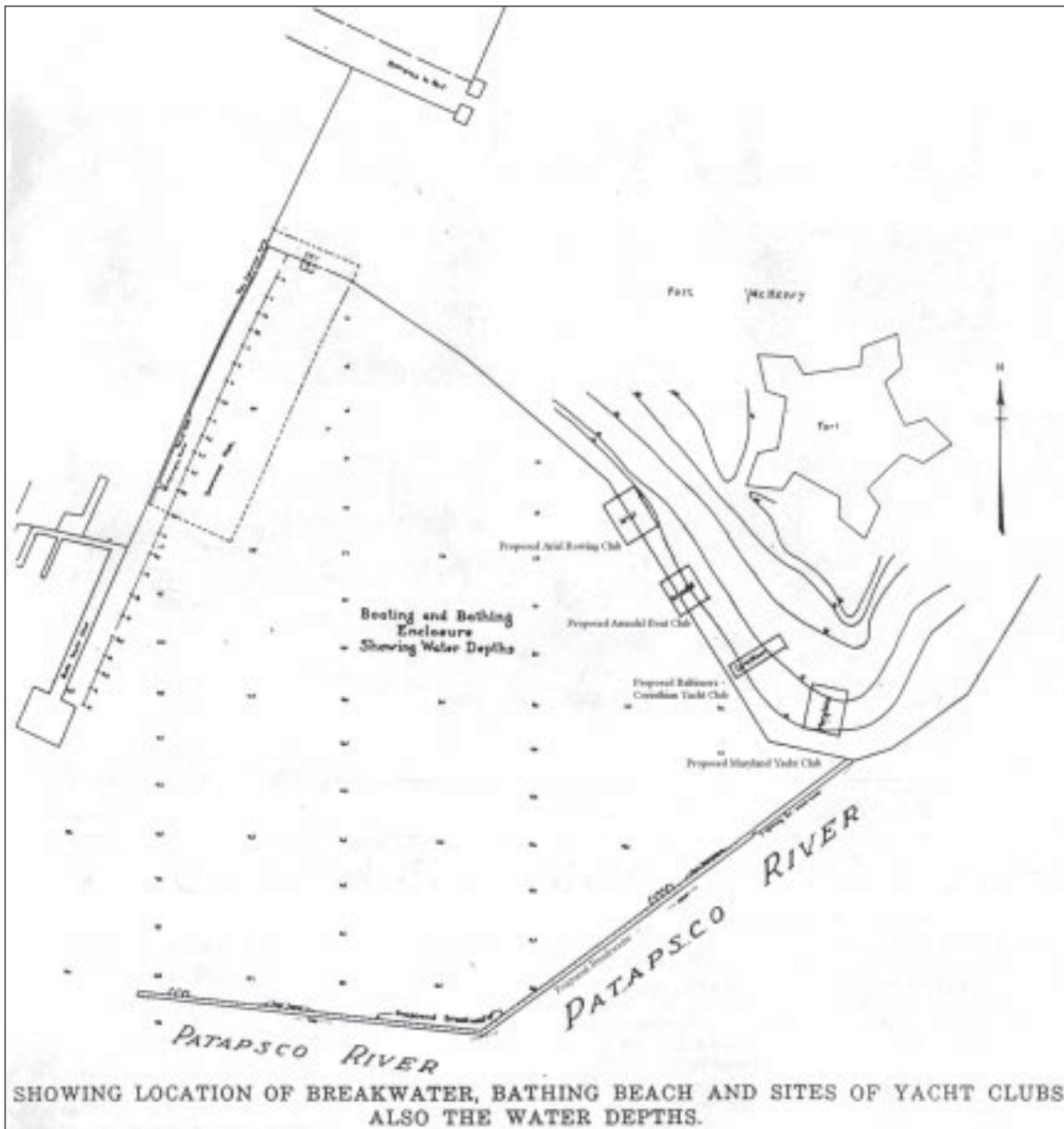


Figure 4.12. Illustration from 22 January 1915 edition of "Municipal Journal - Baltimore: A Semi-Monthly Publication of Facts Issued by the City Government." Baltimore's Mayor Preston hoped to privatize Fort McHenry's southeastern riverbank for the use of private boat clubs. His plan also included a swimming pool. Private collection. Annotations by authors.



Figure 4.13. Illustration from, "Programme of Competition for a Memorial to be Erected at Fort McHenry Park, Baltimore Maryland, in Memory of Francis Scott Key and Others." War Department, Washington, 20 August 1915. This illustration indicates that the proposed memorial was intended to interface with the circuit drive proposed by the Olmsted landscape architectural firm. Library of Congress, Olmsted Associates, Microfilm Reel #93.

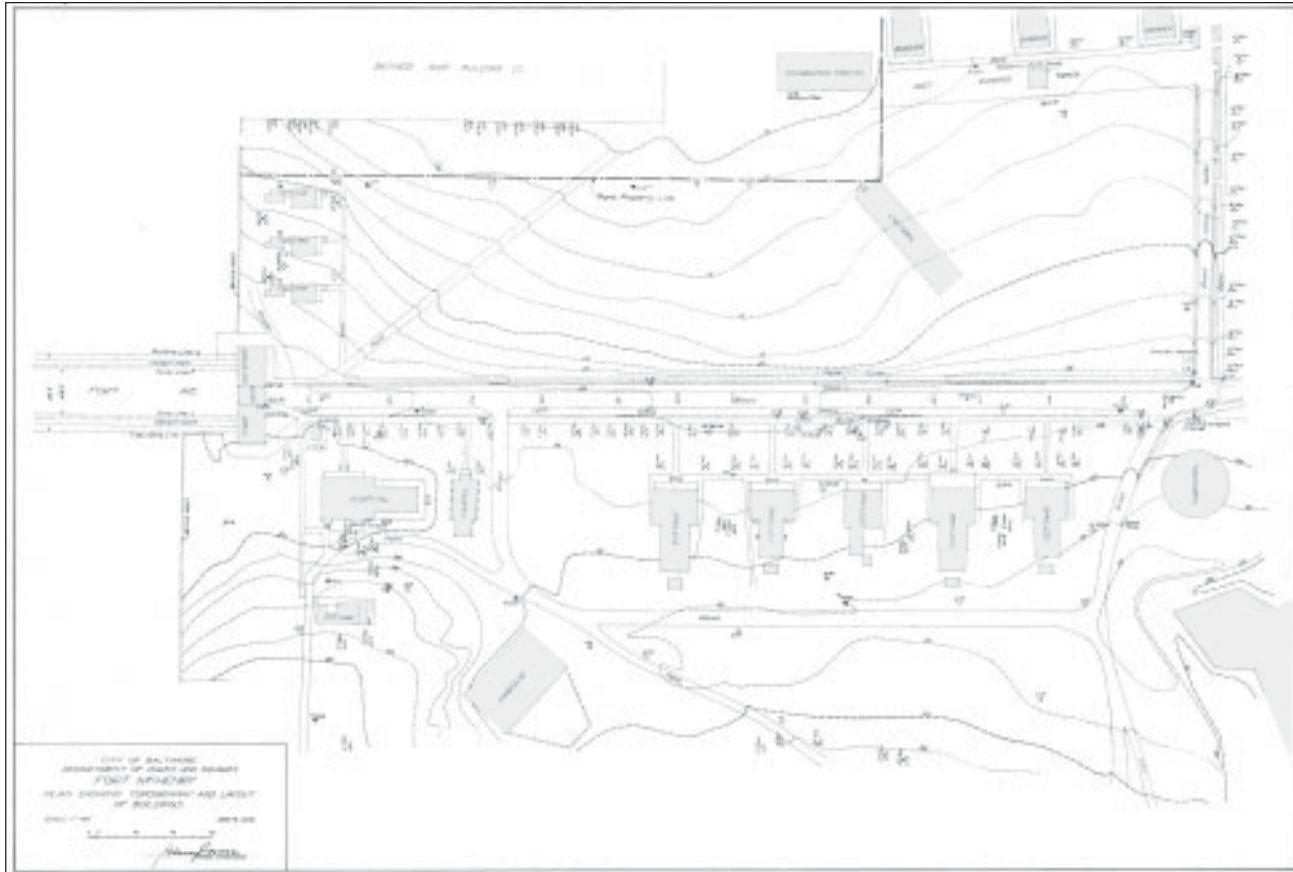


Figure 4.14. “Fort McHenry, Plan Showing Topography and Layout of Buildings,” 4 December 1916. This partial topographic survey was completed to guide site grading for the Key Memorial, requiring extensive fill to the north of the central driveway. Courtesy Frederick Law Olmsted National Historic Site, Job Number 02437, drawing 17.



Figure 4.15. Unlike the statue honoring Armistead, which was intended to face the water, Niehaus’s Orpheus was oriented to present its more modest side to visitors entering the park from Fort Avenue. Detail from “Drawing Showing Layout of Monument and Park Entrance,” Chas. H. Niehaus, Sculptor, Edw. V. Warren, Architect, 1917. Courtesy Frederick Law Olmsted National Historic Site, Job Number, 02437, drawing 15.

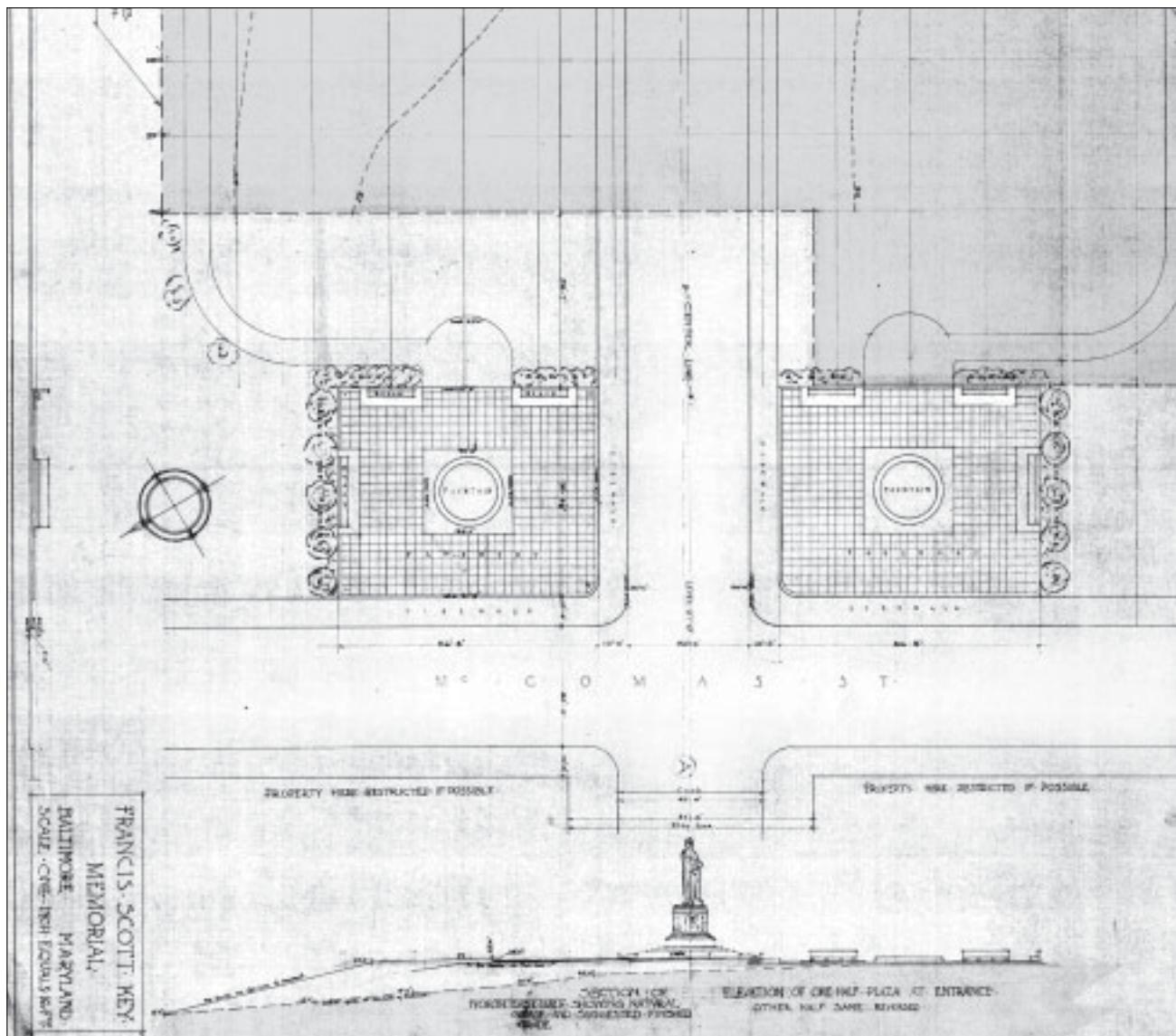


Figure 4.16. In collaboration with Niehaus, architect Edward V. Warren proposed improvements to Fort McHenry's awkward entrance at Fort Avenue. The accompanying topographic cross section graphically indicates the amount of fill required to place the statue on axis with the existing central driveway. Detail from, "Drawing Showing Layout of Monument and Park Entrance," Chas. H. Niehaus, Sculptor, Edw. V. Warren, Architect, 1917. Courtesy Frederick Law Olmsted National Historic Site, Job Number, 02437, drawing 15.



Figure 4.17. Panoramic photograph. This image is paired with Figure 4.18 to the right, depicting conditions during construction of General Hospital #2. Note absence of seat-wall exedra at Armistead statue. General Hospital #2, Fort McHenry, Balto., MD. J. Henry Miller, Inc. Contractor, 1918. Fort McHenry Library Special Collections, FOMC #2368.



Figure 4.19. Panoramic photograph. This image is paired with Figure 4.20 to the right, depicting conditions during construction of General Hospital #2. General Hospital #2, Fort McHenry, Balto., MD. J. Henry Miller, Inc. Contractor, #57, 15 March 1918. Fort McHenry Library Special Collections, FOMC #2348.

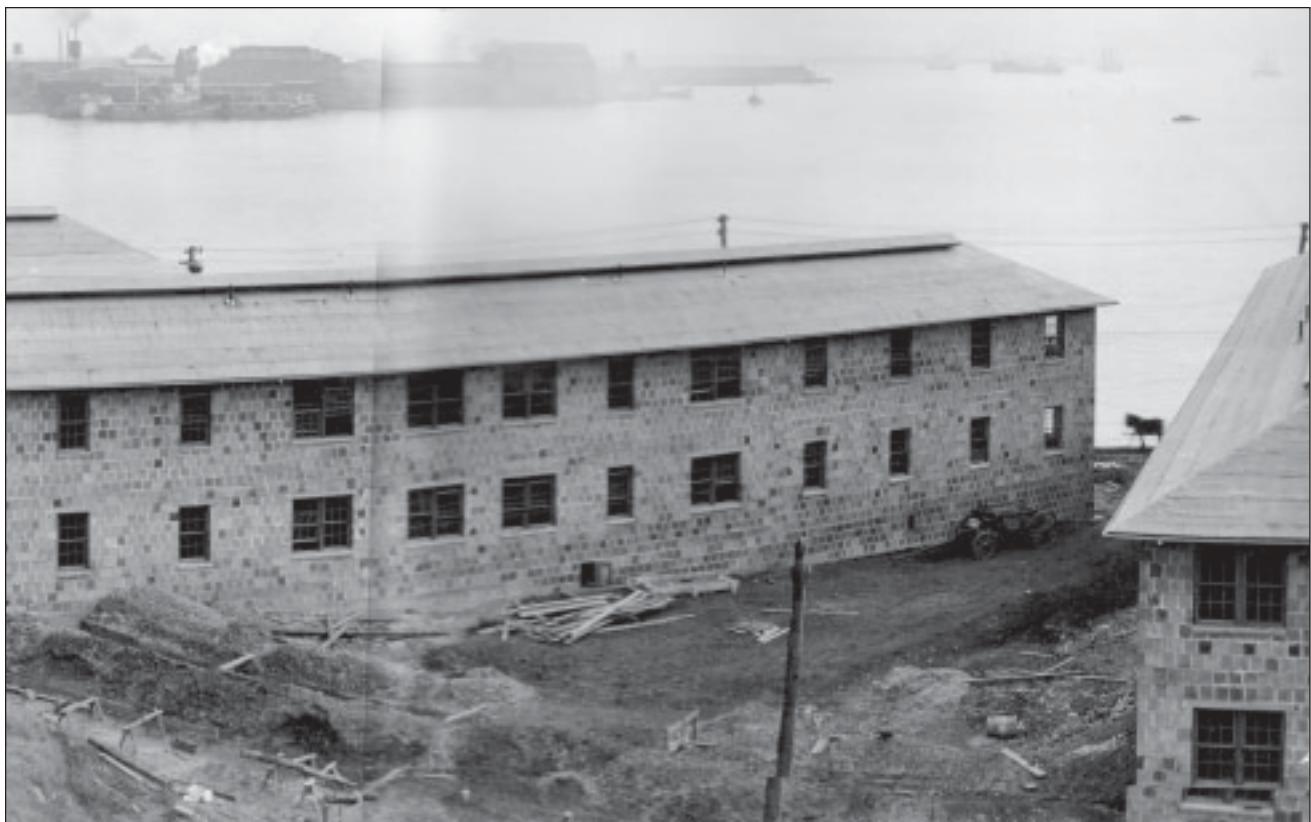


Figure 4.18. Panoramic photograph. This image is paired with Figure 4.17 to the left, depicting conditions during construction of General Hospital #2. Note absence of seat-wall exedra at Armistead statue. General Hospital #2, Fort McHenry, Balto., MD. J. Henry Miller, Inc. Contractor, 1918. Fort McHenry Library Special Collections, FOMC #2368.



Figure 4.20. Panoramic photograph. This image is paired with Figure 4.19 to the left, depicting conditions during construction of General Hospital #2. Note unfinished water battery begun during the 1870s. General Hospital #2, Fort McHenry, Balto., MD. J. Henry Miller, Inc. Contractor, #57 15 March 1918. Fort McHenry Library Special Collections FOMC #2348.



Figure 4.21. Panoramic photograph. This image is paired with Figure 4.22 to the right, depicting landscape conditions during construction of General Hospital #2. Note depth of the dry ditch, still intact in front of the Ravelin. This was removed by the NPS in 1962 during regrading work part of the removal of the War Department's 1930 parking lot. General Hospital #2, Fort McHenry, Balto., MD. J. Henry Miller, Inc. Contractor, 1918. Fort McHenry Library Special Collections, FOMC #2347.



Figure 4.22. Panoramic photograph. This image is paired with Figure 4.21 to the left, depicting landscape conditions during construction of General Hospital #2. General Hospital #2, Fort McHenry, Balto., MD. J. Henry Miller, Inc. Contractor, 1918. Fort McHenry Library Special Collections, FOMC #2347.



Figure 4.23. Detail from panoramic photograph. Note the cow grazing on southern parapet. General Hospital #2, Fort McHenry, Balto., MD. J. Henry Miller, Inc. Contractor, #277, 20 December 1918. Fort McHenry Library Special Collections, FOMC #2388.

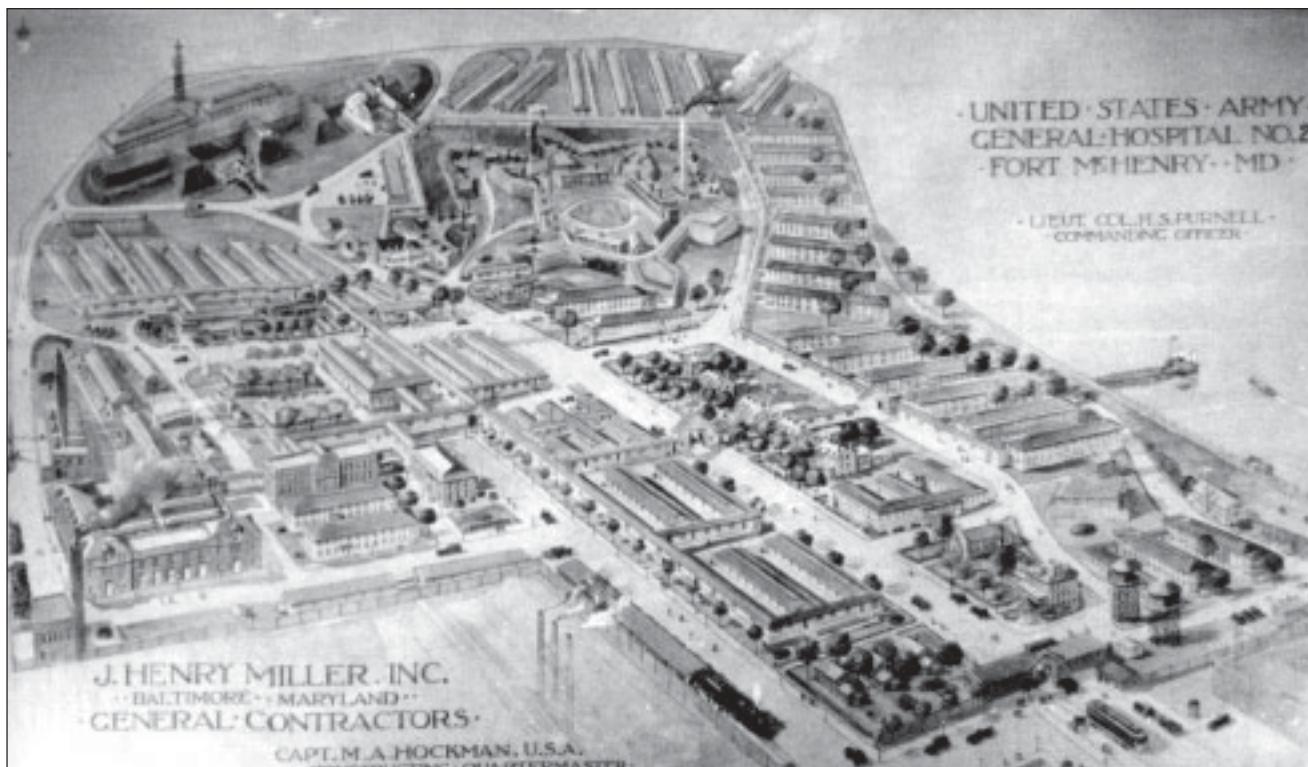


Figure 4.24. Axonometric site rendering. "United States Army General Hospital No. 2. Fort McHenry, MD". c. 1920. Fort McHenry Library Special Collections.

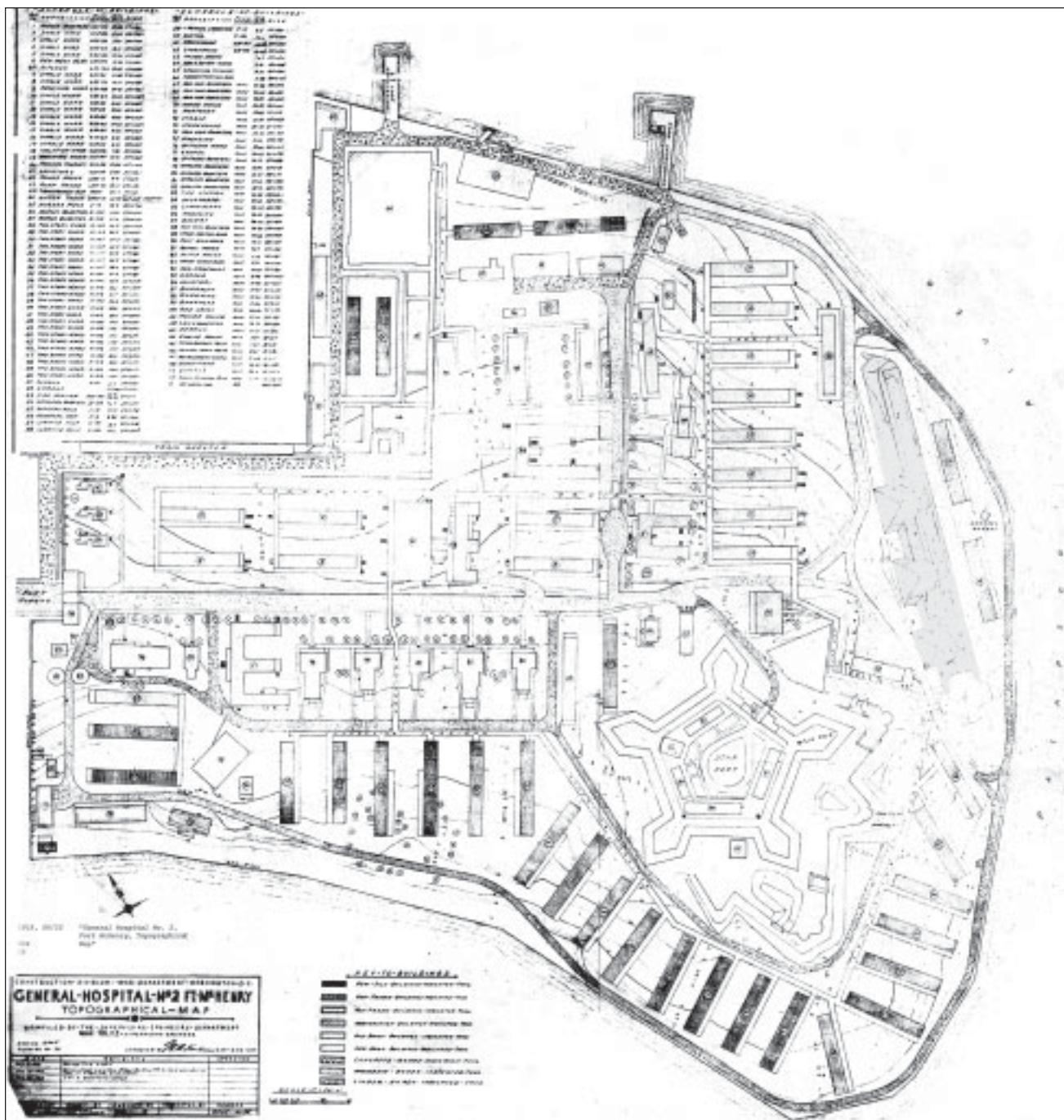


Figure 4.25. "General Hospital No. 2. Ft. McHenry, Topographical Map," 22 August 1918. Drawing shows grades, road and walkway surface materials, and materials of building construction. Submitted with completion report, Office of QM General (1917-1919). National Archives II, College Park, MD. RG 92.

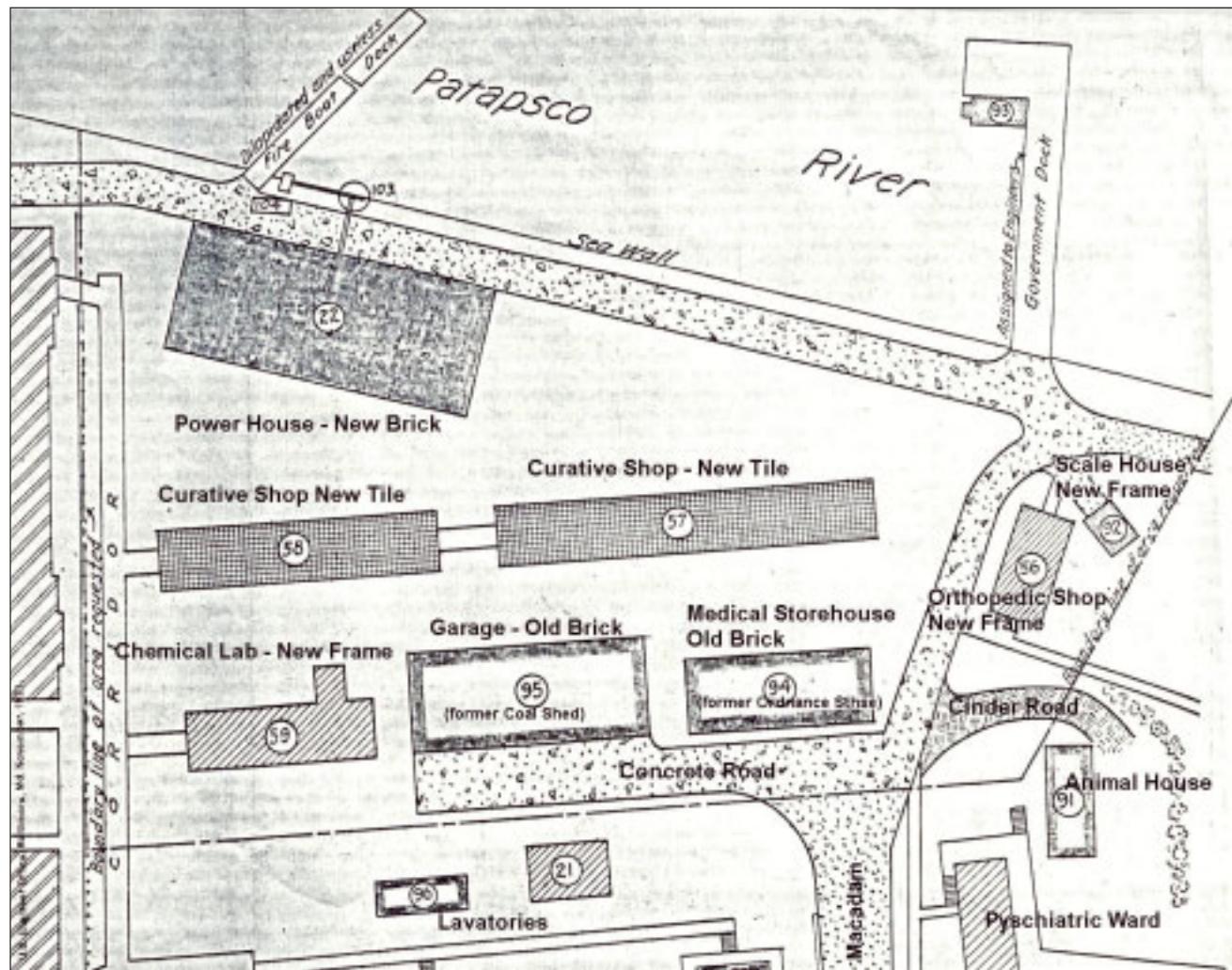


Figure 4.26. Detail from, "Portion of Fort McHenry, MD., U.S. Engineers Office, Baltimore, MD, November 1921. This drawing shows the parcel requested by the Engineers Office. Annotations by the authors based on drawing legend. Fort McHenry Library Special Collections.

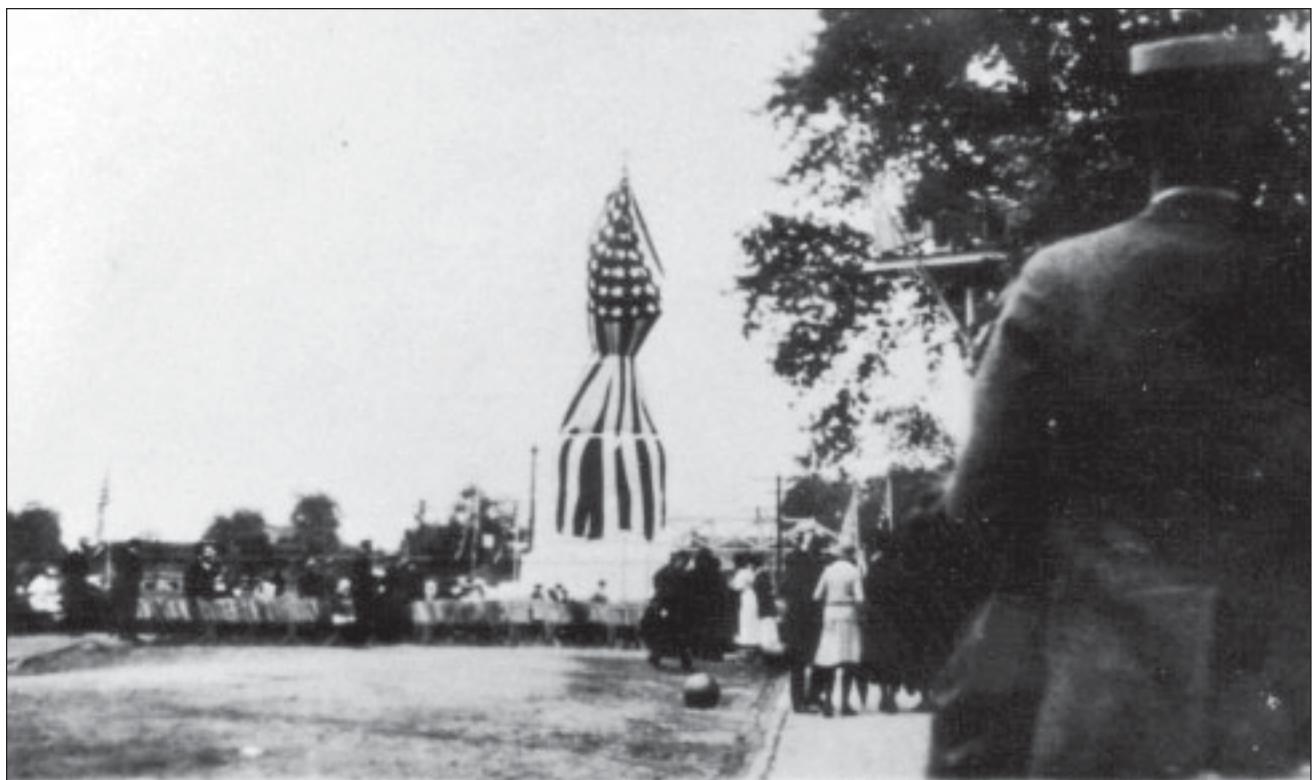


Figure 4.27. Photograph taken just prior to the unveiling and dedication of the Key Memorial, 14 June 1922. Fort McHenry Library Special Collections, FOMC 14550.



Figure 4.28. This photograph published during 1925 in *The [Baltimore] Sun* newspaper shows the poor condition of the landscape inside Fort McHenry's Star Fort. Fort McHenry Library Special Collections.



Figure 4.29. Photograph of southwest portion of Fort McHenry c. 1924. The handbill posted on the utility pole reads, "Labor Will Win the War." Note accumulation of refuse within outer Magazine perimeter wall. Fort McHenry Library Special Collections, FOMC 5468.



Figure 4-30. This 1926 oblique aerial photograph captures Fort McHenry during the process of demolishing unused hospital buildings. Fort McHenry Library, Special Collections.



Figure 4.31. This c. 1930 oblique aerial photograph shows Fort McHenry near the completion of the U.S. Army's site restoration and park development program. The overall character of the site would remain essentially as shown here until the National Park Service MISSION-66 development program of 1962. Fort McHenry Library, Special Collections.

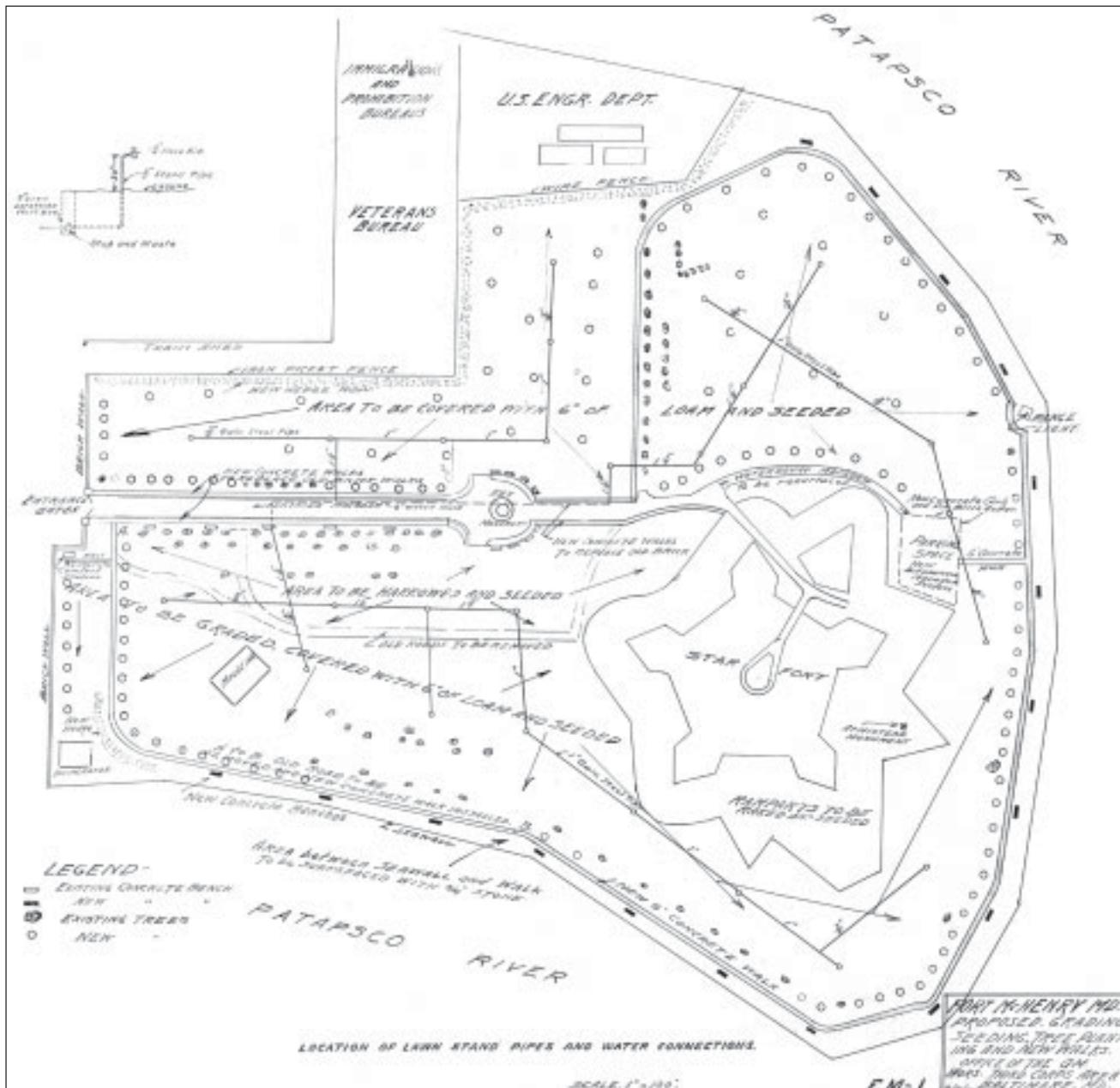


Figure 4.32. "Fort McHenry, MD. Proposed Grading, Seeding, Tree Planting and New Walks," Office of the Q.M. Hqrs. Third Corps Area, Baltimore, MD, 9 September 1930. Also note locations identified for new concrete benches, also the location of a small comfort station at main gate. The seawall trail currently enjoyed by visitors was a result of this project. National Archives II, College Park, MD. RG 77.



Figure 4.33. An American elm, grown from a cutting taken from the tree in Cambridge, Massachusetts where General Washington took command of Revolutionary forces was planted at Fort McHenry, the Army caretakers cooperating with interested local parties on landscape matters. The tree survived until 1995. Image c. 1933. Fort McHenry Library Special Collections, FOMC #4039.



Figure 4.34. Detail from 1939 Existing Conditions Plan of Fort McHenry, part of the NPS Master Plan. Prior to transfer to the National Park Service, during ceremonies commemorating the bicentennial of George Washington's birth, on 24 October 1931, two groves of cherry trees were planted at Fort McHenry. The prevailing racial doctrine of "Separate but Equal" was reflected on site in that one tree was provided for each public school, yet the trees were planted in two separate groves on either side of the historic Star Fort. Fort McHenry Library, Special Collections.



1933 Period Plan

Drawing 4

Cultural Landscape Report for
Fort McHenry National Monument
and Historic Shrine

Produced by
National Park Service
Olmsted Center for
Landscape Preservation

Map Sources:

"Fort McHenry, MD. Proposed Grading, Seeding, Tree Planting and New Walks," Office of the Q.M. Hqrs. Third Corps Area, Baltimore, MD, 9 September 1930.

"Fort McHenry, MD.," U.S. Engineers Office, Baltimore, MD, November 1921.

Notes:

Plan drawn using ArcEditor 8.2, Adobe Illustrator and Adobe PhotoShop by Mark Davison, OCLP, NPS.

Legend:

- NPS Land
- Contours
- Earthwork
- Road / Path
- Building / Structure
- Fence
- Tree Canopy
- Landscaped Area

Approximate Scale in Feet

0 100 200 300 400 500



1934 TO PRESENT

To a casual observer, the transfer of Fort McHenry National Park from the War Department to the Department of the Interior changed nothing. Boundaries did not change, no new buildings were constructed and chronic maintenance and funding issues persisted as before.¹⁴⁴ Even the park's caretaker staff of three was transferred from their former employment under the War Department. The first two years of management and supervision under the National Park Service was carried out on a part-time basis by the staff of Gettysburg National Military Park.

President Roosevelt's transfer of military parks from the War Department to the National Park Service coincided with the creation of various "New Deal" make-work programs designed to relieve economic panic and "prime-the-pump" of the ailing national economy. The most well known of Roosevelt's "alphabet soup" agencies created during the lively first 100 days of the new administration was the Civilian Conservation Corps (CCC). One year prior to Roosevelt's inauguration, the National Park Service had completed a multi-year effort to prepare master plans for each national park, outlining proposed park development both in narrative and graphically.¹⁴⁵ Thus, the national parks administered by the National Park Service prior to 1933 were well positioned to receive the impending flood of labor and funding through the CCC and other programs. National parks and monuments transferred to the National Park Service from the U.S. Forest Service and the War Department by the 1933 reorganization under Executive Order 6166, were caught more flat-footed due to lack of advance planning, but soon enough were enjoying their share of the billions of dollars in funding directed at federal, state and local parks.¹⁴⁶

Relief funds directed toward Fort McHenry began to flow in 1934, administered through both the Civil Works Administration (CWA) and the Public Works Administration (PWA). The establishment of CCC camps, so common within large national parks, was not seen as a practical or effective way to direct relief funds within major cities, where unemployment had reached 25 percent. Relief labor was obtained within the local community, either through the direct hire of day labor, or otherwise through contracts awarded to local construction companies. During 1934, one-thousand dollars of CWA funding was used to prepare a historical narrative and graphic plans documenting the role of Fort McHenry in the development of the city of Baltimore. A much larger PWA allotment, adding to \$24,600 was directed to more tangible ends, including extensive repairs to the riverfront seawall, upgrades to the existing comfort station, and continued interior restoration work to a barracks building within the Star Fort.¹⁴⁷ Large projects funded with federal relief dollars were administered and supervised directly out of the National Park Service's Washington, D.C. offices (*Figure 5.1 through 5.3*).

The following year, Fort McHenry's annual reports list of "Emergency Works" including a list of contracts adding to over \$38,000. The largest of these contracts was listed vaguely as "Reconditioning, alterations and repairs to buildings and grounds" for the sum of \$20,792.¹⁷ Captions accompanying photographs in the 1934-1935 annual report indicate that at least some of these funds were spent on the construction of a new comfort station inside one of the historic barracks buildings of the Star Fort. The next largest project was for the installation of steam heating in the historic buildings for the sum of \$13,775. Smaller projects included the painting of architectural woodwork, as well as grading, raking, fertilizing and seeding various areas within the landscape. Honeysuckle vines (*Lonicera japonica*), popular during this time for erosion control, were said to have been planted at the fort. Day labor obtained through the offices of local relief

agencies was also directed toward general repairs, the installation of underground telephone cable, removal of old gun foundations and the demolition of the incinerator building in the southwest corner of the property.¹⁴⁸

The management of Fort McHenry through the offices of Gettysburg National Military Park ended on 16 December 1935 when George Palmer arrived to begin service as Fort McHenry's first superintendent. Following Palmer's arrival, among his highest priorities was the development of an interpretive program. James R. McConaghie, previously superintending Fort McHenry from a distance in Pennsylvania, had written earlier that, "The whole field of education as far as this Fort is concerned is open."¹⁴⁹ Under the War Department, little effort had been devoted to public education and interpretation of the fort or the events that took place there, relying on the initiative of civic groups and volunteers for building markers, wayside exhibits and signage. In a matter of five months, Palmer had supervised the completion of the park's first museum plan and educational folder.

By September of 1937, permanent park staff at Fort McHenry had grown to five, including Superintendent Palmer. This was augmented with a temporary "non-appointed" staff of four, for a total of nine. Many repair and maintenance project had been successfully completed with relief funds, and many more were planned. The development of educational and interpretive exhibits was ongoing.

A "NEW DEAL" PROPOSED FOR FORT MCHENRY

That autumn, work began toward developing the park's first official Master Plan. This was initiated during late October of 1937 when landscape architects from the National Park Service Branch of Plans and Designs visited Fort McHenry to collect base maps and background information and begin their work. A topographic site survey was begun earlier that spring. Superintendent Palmer's monthly report for November expressed the rosy forecast that the park's Master Plan would be completed by the end of the calendar year, guiding new restoration and park development projects funded under the Emergency Relief Appropriations Act. The first complete plan, consisting of three sheets of drawings labeled, "Utilities, Proposed Development, and Historic Base Map," would not be completed until June of 1938.

For historical properties, one of the key features of National Park Service Master Plans of this period is a drawing entitled "Historic Base Map." The preparation of such a map, depicting the layout of a historic property during the time of a historic battle, period, or other event, helped to accommodate park development and visitor accommodations while continuing to permit a historical site to evoke its past. At Fort McHenry, an 1819 drawing of the fort by William Tell Poussin served the documentary basis for the Master Plan's Historic Base Map. The excellence of Poussin's cartography overshadowed the fact that his map documents conditions five years after the 1814 bombardment.

Preserved in Fort McHenry's library are the original park Master Plan sheets for 1939, which, judging from handwritten annotations, are merely revisions of the original 1938 plan. Reviewing the Master Plan's Historic Base Map, it becomes clear that the 1939 drawing is a literal redrafting of Poussin, incorporating elements now known to have come after the 1814 bombardment. These anachronistic features not present during the 1814 defense of Baltimore included the riverfront seawall and the western brick boundary wall. Despite these shortcomings, the presentation of the 1819 Poussin drawing as the park's Historic Base Map had a positive effect on the proposed National

Park Service park development. The most valuable service of the 1819 map was the depiction of the military reservation's constrained western boundary, which during 1814 lay immediately adjacent to the west facing salient of the Star Fort. Equipped with the knowledge that the 1814 military reservation was much smaller than the current property, National Park Service landscape architects chose to concentrate parking, comfort stations, service, museum and administrative buildings outside of this sensitive area (*Figure 5.4*).

The most important aspects of the proposed developments related to new park roads and automobile parking. The Key Monument, featuring the much maligned statue of Orpheus, was not to be downplayed in new park layout described in the 1939 Master Plan, but rather dramatically emphasized by placement of the statue inside a new elliptical entrance drive intended as a neoclassical terminus to the approach from Fort Avenue. Ironically, the straight post driveway extending onto the property from Fort Avenue, an organizing feature of the landscape since 1814, was identified for removal.

The small existing visitor parking, then found northeast of the Star Fort, was proposed for relocation well east of the 1814 boundary line. Doing so, it was argued, made it possible to exclude all vehicular traffic from approaching the Star Fort and the historic zone surrounding it. The new parking lot was designed as two symmetrical bays accessed from the elliptical entrance drive. The historic axis of Fort Avenue extending past the relocated Orpheus was preserved with a narrow tree-lined mall separating the twin parking lot bays. This arrangement required visitors to park near the main gate, and proceed to the Star Fort on foot.

A group of service buildings, including a garage and maintenance storage building was proposed for an area south of the main gate, very near the western boundary wall. Nearby the proposed service buildings, yet located to offer a pleasant view of the river, a superintendent's residence was recommended, surrounded with a wall or fence for the sake of privacy. Both service buildings and the superintendent's residence were west of, but quite nearby, the surviving Civil War powder magazine, identified in the Master Plan as a likely assembly hall for group presentations given as part of the interpretive program.

One of the most interesting aspects of the 1939 Master Plan was the graphic incorporation of the former Treasury Department parcel within the national park boundary. This evidently came to be during the time when Superintendent Palmer arrived at Fort McHenry in 1935. Part of his new responsibilities was the custodianship of the adjacent federal buildings formerly occupied by the Department of Treasury (*Naval Reserve property*). This property, subdivided from the military reservation in 1913 to serve as an immigration station, later as part of General Hospital No. 2, and following that as offices and warehouse space during Prohibition, remained under National Park Service supervision until the early months of World War II.¹⁵⁰ Later versions of the Fort McHenry Master Plan show this parcel as outside of National Park Service responsibilities.

The design and planning of visitor and support facilities west of the 1814 boundary line was also critically important because this allowed park development and basic preservation efforts to proceed following independent schedules. The National Park Service ultimately received approximately \$218,000,000 from the combined coffers of the PWA, WPA, CCC and CWA during the life of these relief programs.¹⁵¹ There was tremendous pressure on park superintendents to make use of this unusual outpouring of funds. Although the numbers were infinitely smaller, between 1938 and 1941 a large program of basic preservation work was carried out at Fort McHenry utilizing

federal economic relief funds. Over \$150,000 in WPA funding for relief labor was directed toward Fort McHenry during 1938 alone (*Figure 5.5 and 5.6*).

As many as fifty-five relief laborers were employed at Fort McHenry during this time. These men worked predominantly on unskilled, or semi-skilled tasks such as fine grading, opening ditches for underground utilities, repointing brick barracks and rampart walls, painting, laying brick walks, and planting trees, shrubs, and groundcover. The vast majority of this work was directed to the preservation of historic resources east of the 1814 boundary line. For example, during November of 1938, WPA workers planted 24,000 sprigs of periwinkle (*Vinca minor*) on the inner and outer slopes of the Star Fort ramparts, covering over 11,000 square feet as an experimental substitute for turf.¹⁵²

Yet in the years after the 1933 reorganization of the National Park Service, while Roosevelt stimulated the nation's economy by spending hundreds of millions on conservation work, Germany's Chancellor Adolph Hitler spent millions more on arms. Three weeks after Fort McHenry National Park was re-styled as Fort McHenry National Monument and Historic Shine, Germany's army invaded Poland, provoking a declaration of war by Great Britain and effectively beginning World War II. Well into his second term as President, Franklin Roosevelt responded by declaring a limited national emergency, redirecting economic relief funds and the federal government's operating budget toward defense. Regularly budgeted funds for the administration, and maintenance of national parks, that had swelled from \$10,820,620 in 1933 to \$26,959,977 in 1939, were pruned back to \$13,557,815 following the onset of war in Europe.¹⁵³ Fort McHenry simply never began implementing the developments outlined in its pre-WWII Master Plan.

In actuality, the Master Plan for Fort McHenry had a great deal in common with the majority of others proposed elsewhere in the national park system. As these plans were typically implemented in phases, very few were ever completed as specified.

WORLD WAR II AT FORT MCHENRY

The Japanese attack on Pearl Harbor the morning of 7 December 1941 effectively ended the federal government's participation in Depression-era conservation and historic preservation work. Soon after the attack, National Park Service staff was ordered out of its Washington, D.C. offices making room for the war effort. Staff members not leaving their employment for military service were moved to new offices in Chicago's Merchandise Mart. This left only Director Demaray and a handful of support staff in the nation's capital. The members of the staff at individual parks were also affected by the draft, this combined with wartime rationing of gasoline, rubber, and other goods made visitation to distant national parks less attractive. The 1942 revision of Fort McHenry's Master Plan must surely have been prepared in haste. Approved in April of 1942, just prior to the bureau's move to Chicago, this document merely refined the basic redesign of the park recommended in 1938 (*Figure 5.7*). It became what the agency sometimes called, a "plan for the shelf," hopefully of some use with the return of peace. By the fourth year of the war in 1945, the National Park Service budget had been slashed to \$4,740,000. Conrad Wirth described the move to Chicago and life in the National Park Service during the war as "discouraging and trying times."¹⁵⁴

Another national emergency had come. Fort McHenry was transferred back to the stewardship of the United States military services, partly because of its ready availability to the war effort through its enabling legislation, and partly because there were few National Park Service personnel to staff it. The April 1st issue of the *Baltimore Evening Sun* reported, "Fighting Men Return to Old Fort McHenry: Coast Guardsmen Training At Post Bring Historic Shrine Out of Retirement." The

article explains that the Coast Guardsmen were housed in the second and third floors of buildings found the edges of Fort McHenry. The article relates that these buildings were formerly occupied by the Veteran's Administration, yet it is known that the buildings in question were part of the Treasury Department parcel separated from the post in 1913. The newspaper account also related that bomb-proofs and magazines within the Star Fort were used as air-raid shelters.¹⁵⁵

Lengthy monthly and annual reports from the park superintendent became abbreviated. The contents of a brief one-page memorandum entitled, "Annual Report of Officials in Charge of Field Areas," implied the end of interpretation, preservation, and park planning at Fort McHenry. Through its contents, it is understood that the park superintendent was relieved of his duties as custodian of the former Treasury Department parcel and the buildings thereon were transferred to Coast Guard for use as a training station early in 1941; that permission was given to the Coast Guard to use the grounds of the national monument and historic shrine for drilling and recreation; and that a new steam line was constructed, "from the Federal Office Buildings to the Fort at a cost of \$15,067."¹⁵⁶

For each year of the war, Custodian James W. Rader filed an equally brief annual report. Reporting on the period between July 1942 and June 1943, Rader suggested that despite increasing use of the "Monument Area" by the armed services, that civilian visitors to Fort McHenry continued to enjoy the same privileges available during peacetime (*Figure 5.8*). The increased use of the monument area referred to by Rader was through a special use permits between the Director of the National Park Service and the Navy Department and Coast Guard. The Director's agreement with the Navy Department formalized the Navy's exclusive use of 8.4 acres of land. A separate agreement with the Coast Guard formalized the continued use of the open area of the landscape as a drill ground (*Figure 5.9*). A third agreement with the Coast Guard permitted the use of the Civil War era magazine for use as a pistol range.¹⁵⁷ On 20 May 1943, an eight-foot high board fence was constructed to enclose the area of the historic post grounds north of the main driveway that was used by Coast Guardsmen for drilling and recreation.¹⁵⁸

On 6 July 1944, one month following the Allied invasion of Normandy, Rader's brief annual report documents an additional use permit granted to the Navy Department. This was for an additional four acres of Fort McHenry real estate, "adjacent to the Main Entrance gate." The Navy's development of this area was completed in February of 1944, creating the "Fort McHenry Navy Receiving Station," with the capacity to accommodate around 300 new recruits at a time (*Figure 5.10 and 5.11*).¹⁵⁹ The buildings were former CCC barracks moved from a closed camp in West Virginia.

Rader's annual report for 1945 was submitted on July 3, two months following Germany's unconditional surrender. Vice President Harry Truman had assumed the Presidency following Roosevelt's death. Rader's report offers that over the course of the previous year that all of the main roads in the park had been resurfaced, and anticipates the end of the military's use of the grounds:

This year also marked the turning point in the demands of the Armed Forces for the use of the area. In fact, the tide is receding, as evidenced by the voluntary release of the use of the Civil War Powder Magazine by the Coast Guard. We do not believe the use of Fort McHenry for military purposes has interfered with its public use for the purposes intended by Congress.¹⁶⁰

The Japanese surrendered on 15 August 1945, and Rader's report for the year ending 1 July 1946 describes the massive combined V-J Day, and Defender's Day celebration of 12 September 1945. Special permission was given Baltimore's mayor by the President for the joint celebration featuring a mock bombardment, parade, fireworks, and 45,000 very happy celebrants. Fort McHenry National

Monument and Historic Shrine had not been closed to the public for a single day during the war. Concessionaire Mr. Kenneth Curtis briefly resumed his boat excursion service to Fort McHenry. The Navy closed its Receiving Station on 1 November, and the Coast Guard Training Station was decommissioned on 31 December. Buildings occupied by the Coast Guard were transferred to the Federal Buildings Administration early in 1946, which later became the General Services Administration.¹⁶¹ A contract had been awarded to dismantle temporary buildings and restore the grounds of the Coast Guard area, but at the time of Rader's 1946 report, plans to restore the area used by the Navy had not been finalized.¹⁶²

POST WAR PLANNING

Fort McHenry's Custodian Rader became Superintendent Rader soon after the war's end. It was well that so much preservation work was accomplished at Fort McHenry immediately prior to the war. During the austere years of the war itself, little was apparently accomplished other than lawn mowing, trash pickup, minor painting and the repaving the park's main roads. World peace having been achieved, however briefly, National Park Service budgets immediately following the war were only marginally improved. In 1949, National Park Service Director Newton Drury described the parks as "victims of the war."¹⁶³ Between 1940, prior to the United States entry into World War II and 1950, annual visitation had nearly doubled.¹⁶⁴ Total annual agency during the same period had grown by only forty-two percent.

During the autumn of 1948, following a period of heavy rainfall, the earthen slopes of the exterior battery began to fail. Over a year and a half passed before emergency repair funds were obtained. The landslides were particularly acute below the statue honoring Armisted, where the weight of the statue and its granite base exacerbated the problem. Funds amounting to \$7,000 were finally received from the agency's "Emergency Reconstruction and Fire Fighting" appropriation, and repair work was carried out in 1950, early in the year. These repairs involved the complete excavation of the failed slope back to the original grades, the installation of cribbing and drainage features, and the replacement of the soil and restoring the grade of the exterior Civil War era battery (*Figure 5.12 and 5.13*).¹⁶⁵ Park plans of the early 1950s document a general layout of buildings and roads relatively unchanged since 1933, when the National Park Service assumed control of the property from the War Department. However, one difference shown is that many of the commemorative trees lining the main driveway had died (*Figure 5.14*).

Besides maintenance and emergency repairs, the National Park Service became faced with the growing difficulty of accommodating the rapid influx of post-war visitation. Park staff at Fort McHenry noticed the increasing size of the average tour group. During the early 1950s, park staff noted that the exhibit spaces inside the Star Fort's historic barracks buildings could not accommodate groups larger than forty persons. Because of post-war growth of the numbers of organized group visits, tours of up to eighty persons were becoming common.¹⁶⁶

The February 1952 revision of the pre-war Master Plan Development Outline is valuable documentation of the issues facing the park following the war. Many were the same issues that troubled the park before the war, focused primarily on structures and roads, trails and parking. The park continued to struggle with many of these issues for decades. Parking was an especially difficult problem. Under the outline heading of "Operations," the following observation was made:

The only satisfactory solution of the problem of insufficient parking accommodations is a greatly expanded parking space, preferably in another section of the area. Limiting the duration of the stay would be far from effective, since when the flow of vehicular traffic is heavy, there are often four cars competing for such space.¹⁶⁷

However, because of the existence of then ambiguous regional plans for a proposed cross-harbor tunnel, authors of Fort McHenry's 1952 park planning document could not effectively answer questions as to the size of new parking lot, its location on the property, or the design of its entrances and exits.¹⁶⁸ The same questions beleaguered site selection for proposed a proposed administration building, interpretive center, employee residences and maintenance buildings (*Figure 5.15*).

MISSION 66

In 1951, Conrad Wirth, a Fellow of the American Society of Landscape Architects, assumed the bureau's directorship and soon began planning its transformation. Wirth was a twenty year bureau veteran. Frederick Law Olmsted, Jr. had introduced the young Wirth to public service in 1928 as staff of the National Capital Parks and Planning Commission, and during Roosevelt's "New Deal," Wirth was put in charge of all Emergency Conservation Work and Civilian Conservation Corps programs in both state and national parks. Like National Park Service Directors immediately preceding himself, Wirth published critical assessments of his agency's post-war accomplishments and budgetary picture in popular magazines. In July of 1954, *Audubon Magazine* published Wirth's article "Threats to Our National Parks," describing their shameful post-war condition.

Director Wirth's solution to the problems plaguing the Service during his early years as Director was the synthesis of a multi-year program of capital construction projects that became known as "MISSION 66." This program took its name from the goal of upgrading facilities, staffing, and resource management throughout the national park system in time to celebrating the fiftieth anniversary of the National Park Service in 1966. Wirth's vision for the program captured the imagination of President Eisenhower, who in 1956, much as he had done two years earlier proposing a new system of interstate and defense highways, reported on the plans for systematic improvements to the national parks in his January "State of the Union" address.

MISSION 66 became the driving force behind the bureau's post-war park development planning effort. These plans were every bit as comprehensive as park Master Plans of the 1920s, 30s and 40s. The new effort involved park roads, parking areas, campgrounds utilities, administrative facilities employee residences, comfort stations, interpretive exhibits, and something completely new called "visitor centers." Intended to convert the typically small, "museum-type buildings to structures of open design that would include information and interpretive facilities, exhibits, and rest areas." National Park Service visitor centers were designed much as the new "shopping centers" of the time, primarily to accommodate visitors arriving via automobile.¹⁶⁹

Wirth's planning for MISSION 66 began in 1954, well before its presentation and approval by the President. During mid-1955, all parks, including Fort McHenry, were ordered to prepare a MISSION 66 prospectus. Responding to the park's first iteration of its prospectus, a memorandum was sent to the park superintendent commenting that the plan should anticipate the berthing of the *USS Constellation* on site and incorporating the historic ship into the park's interpretive plans¹⁷⁰. At that time, a local group of citizens was working toward the preservation of the historic ship, which was then thought to have been launched in Baltimore on 7 September 1797. This group was then proposing that the *USS Constellation* would be operated by themselves privately, yet berthed in the river adjacent to Fort McHenry.

A typical MISSION 66 prospectus consisted primarily of a narrative park development "program" identifying required elements, but not presenting a definitive site plan for their construction. In Fort McHenry's 1956 edition of the prospectus, the desired physical elements

included; a new 250 car parking west of the historic 1814 property boundary, and a new interpretive center, also outside the 1814 boundary. These visitor facilities were to be supplemented by the adaptation of the exterior Civil War magazine for use as a theater. An administrative center, clustered nearby the interpretive center, was also requested so as to remove administrative uses from the buildings within the historic Star Fort. The recommendations also provided for the construction of two employee housing units in the northwest corner of the property. The location of visitor and administrative facilities were recommended for sites outside of the historic 1814 boundary intentionally, making possible the, "creation of an atmosphere and environment which stimulates the visitor to extract the maximum inspirational benefit and enjoyment from his experience... preparing himself psychologically to take with him a better comprehension and genuine appreciation of the valiant defense..."¹⁷¹

The restoration of the missing riverfront Water Battery, and the restoration of other fort structures to their 1814 appearance was left conspicuously absent from the recommended park development program. The omission was purposefully made. Park staff well appreciated the information gaps left open by relying on Poussin's 1819 map of Fort McHenry, drawn five years after the 1814 bombardment. Thus, an atypical element of Fort McHenry's MISSION 66 prospectus was a proposal for a task force of temporary historians employed to research the question and provide additional reliable data on which to base a faithful restoration. Based on the contents of the park's April 1956 prospectus, the question was discussed between Director Wirth and regional leadership on 6 November 1956. As a result of this high-level meeting, the entire park planning process for Fort McHenry was henceforth, "... held in abeyance. The Director decided basic historical and archeological research as called for in Superintendent Atkinson's original prospectus is needed before a complete development plan can be considered." Rather than finalize Fort McHenry's prospectus, the superintendent was asked to prepare instead an interim document including estimates to serve as a place keeper during the bureau's budgetary process.¹⁷²

Director Wirth's decision resulted in the subsequent reprogramming of 1957 NPS Building and Utilities (Construction) funds toward securing basic historical and archeological data prior to further development and interpretive planning. This became known as Fort McHenry's Historical Archeological Research Program (HARP). The project estimate specified employment of a GS-12 and GS-9 Historian for 18 months; a GS-11 Archeologist and GS-7 Archeological Aid for 12 months, and a GS-4 Clerk Stenographer for 12 months. Salaries and travel expenses for the project were budgeted at \$56,450.¹⁷³ This was to be a significant research project for the National Park Service. Adjusting for forty-six years of annual inflation, the investment of this amount of funding for research in 1957, equates to approximately \$366,811 in 2003 dollars.¹⁷⁴

The 1958 edition of Fort McHenry's MISSION 66 Prospectus offered a progress report on the HARP effort. Through the 1958 prospectus, it is understood that researchers completed extensive investigations at repositories known to hold collections relating to Fort McHenry, including; the Library of Congress, Maryland Hall of Records, Maryland Historical Society, New York Historical Society, Columbia University Library and Clements Library, Ann Arbor, Michigan. Copies of 15,000 documents had been gathered. Eighteen preliminary reports were prepared by individual researchers working at each location, and four final reports were submitted including; "Archeological Explorations at Fort McHenry, 1958," by G. Hubert Smith, "The Out Works of Fort McHenry, September 12 to 14, 1814," by S. Sydney Bradford, "The Battle of Baltimore," by Franklin R. Mullaly, and finally, "The Star Fort," by W. Richard Walsh.

Unfortunately, while Smith's archeological work confirmed the prior location of the flagstaff shown on an 1803 plan of the fort, the findings of these reports frustrated any hopes of restoring the historic fort to its 1814 appearance, as:

...the first two of these reports suggest great difficulties confronting any attempted restoration of the area to its 1814 appearance, [nevertheless] they represent a positive contribution to our body of knowledge. Mr. Smith's report of the extensive changes made to the ground elevations suggests the practical impossibility of such a restoration. Dr. Bradford's report, is inconclusive as the body of material he had to work with is so limited for the 1814 period and subject to so many variations for the periods before and after the attack.¹⁷⁵

The HARP research investment was of greater value in the development of interpretive exhibits and materials, where open-questions are more easily explained than when presented to the public in built form on the ground. Rather than employ conjecture to reconfigure the Star Fort, its exterior buildings and outworks, a topographic relief model would be prepared as an interpretive exhibit.

While the 1958 prospectus did recommend the relocation of the fort's flagstaff to its earlier location verified through Smith's archeology, a rigorous restoration of buildings and grounds to their 1814 configuration was off the table. The new goal expressed a willingness to embrace a longer span of the property's history, and interpret its evolution to visitors.

...While there is little new material on the *Star-Spangled Banner* and Key's mission to the British fleet, there is a wealth of material on structures in the area from the time of the initial building of Fort McHenry to the present. We should use this material to recreate in the mind of the visitor not only the physical appearance of Fort McHenry in 1814, when it came under enemy attack, but also, chronological developmental changes... Rather than a costly restoration of the Star Fort and what portion of the surrounding grounds, which comprised the original reservation, to their 1814 appearance, we recommend instead the extensive use of interpretive devices in the proposed Visitor Center and the locations to accomplish the same ends. The barracks buildings and the existing outer battery, which belongs to the Civil War Period, should be preserved in their present form. With the removal of all administrative functions and housing from the Star Fort and a selective refurbishing of the rooms, it should be possible to adequately interpret the area.

The essential developmental goal expressed in Fort McHenry's MISSION 66 prospectus remained as it was prior to World War II, locating major new park development outside of the 1814 reservation boundary. The contemporary architectural expression of this pre-war concept for the park would ultimately reflect the aesthetic and design conventions of post-war Modernism. Proposed development included a combination visitor center/administration building, a 250-car parking lot between the main gate and the traffic circle containing the Key memorial, two employee-housing units, a maintenance equipment storage building and an oil and paint storage building. Further recommendations included the installation of natural gas utility lines to fuel new furnaces in the Star Fort buildings as the agreement providing steam heat from adjacent GSA buildings was due to expire. One of the more curious recommendations found in the 1958 prospectus was the proposed installation of a four-foot high chain link fence around the perimeter of the seawall.

Excited by the location of the 1803 flagstaff base as reported in the prospectus, a justification was soon made for its restoration through the analysis of a watercolor painting of the period and other documents, claiming that this was the location of the flagstaff during the 1814 bombardment. Drawings were prepared and bids were solicited for the reconstruction and restoration of the flagstaff on 20 April 1959 (*Figure 5.17*). Following Alaska's achievement of statehood that January, a ceremony raising the very first 49-star United States flag atop the reconstructed flagstaff was held on 4 July 1959.

DESIGNING A POST-WAR MASTER PLAN

During 1959, prior to the actual design effort leading to actual construction work, some language equivocating prior stances against restoration of 1814 conditions was inserted into park plans. In the process of translating the sometimes vague directives found in the MISSION 66 prospectus to the working 1959 Master Plan for the park, a piecemeal approach encouraging literal restoration appears to have taken hold. New facilities continued to be recommended for construction outside of the 1814 reservation boundary in the 1959 document, but former supporting and auxiliary structures outside of the 1814 Star Fort, and currently missing from the landscape, became identified for reconstruction and interpretation.¹⁷⁶

Great attention was then given to designing clarity into one's circulation through a National Park Service site. By March of 1961, it was clear that the design effort had resulted in the site selection for the new Fort McHenry Visitor Center. The park's 1961 Interpretive Prospectus serves as an excellent design analysis of the new Master Plan (*Figure 5.18*). Through this document, it is understood that the location for the new building was carefully selected to compel the visitor to enter the building on route from the parking lot to the Star Fort.¹⁷⁷ The merits of this, in addition to capturing an entrance fee, included providing a brief orientation prior to beginning the self-guided tour. Visitation to Fort McHenry was estimated to reach one-million visitors by 1966, and the National Park Service hoped to process these huge numbers of visitors much like that of an assembly line, designing a standard set of experiences, including; contacting park personnel at the information desk, discovering one's location on a map, viewing an audio-visual presentation, visiting a museum, appreciating a view and proceeding to the major attraction.¹⁷⁸

The stop at the Visitor Center was intended to be a brief one, the stated objective was to, "impart to the park visitor the knowledge he requires to achieve fulfillment of his inspirational experience when he reaches the historic Star Fort."¹⁷⁹ The design of the building interior and layout on the grounds was driven by the proposed audio-visual program. This program, filled with patriotic emotion, was intended to evoke the maximum inspiration possible in the visitor when at its conclusion, "the curtains to the picture window of the auditorium are opened and he sees distant Fort McHenry and over it the star spangled banner [sic] silhouetted against the sky."¹⁸⁰ According to the 1961 Interpretive Prospectus, upon leaving the building, the visitor would pay a fee to gain entrance beyond the 1814 reservation boundary line. Inside the 1814 boundary, marked by a low evergreen hedge, the visitor would pass by markers indicating the location of missing exterior garrison buildings on the way to the Star Fort and its exhibits. When finished with the Star Fort, the visitor was to be led by signage to a reconstructed segment of the 1814 water batteries, and from there along the exterior parapet of the Star Fort, a route made possible by the partial removal of the exterior Civil War barbette battery.

Should a visitor not wish to retrace their steps and return directly to the parking lot, an alternative return route to the parking lot was proposed to lead visitors around the southern perimeter of the Star Fort in order to enjoy a waterfront rest area. From there, visitors would proceed in a clockwise direction, passing nearby an expansive public gathering area capable of accommodating an audience of between 30,000 and 40,000 persons during special events. To the west of this large open space, in front of the Civil War powder magazine, the colossal statue of Orpheus was to be relocated from its current location at center of the entrance drive (*Figure 5.19 and 5.20*). In a hemicycle to the west of Orpheus, various memorial tree plaques identifying specimens long since dead were to be relocated and accompany a new planting of trees and shrubs, providing a pleasant rest area available to the public without an admission fee. The adjacent powder magazine

was identified for possible future use as additional museum space, or supplemental interpretive facility.

Construction began on Fort McHenry's new Visitor Center on 17 July 1962, and was completed a little over one year later on 16 August 1963 (*Figure 5.21*). Work on the Visitor Center proceeded concurrently with construction of the new entrance road and parking lot, with the construction of the Duplex Housing Units, and the construction of the Maintenance Utility Garage.¹⁸¹ The entrance road project necessitated the prior relocation of the Orpheus statue (*Figure 5.22 and 5.23*). Between the commencement of construction work during the summer of 1962 and the dedication of the new Visitor Center building on 4 July 1964, other elements of the park Master Plan were implemented, including the installation of landscape plantings around the Visitor Center, and the installation of an evergreen hedge marking the 1814 reservation boundary. Only a limited number of trees were on site prior to the construction program, at its completion Fort McHenry had an estimated 300 trees and shrubs, many of them new. Requiring significant planning and effort was the relocation of the Key Memorial, including the bronze statue of Orpheus and its marble base, as well as the relocation of the Armistead statue to a small plaza east of the new Visitor Center. Other tasks included the installation of segments of sidewalks and trails, the installation of brick at-grade outlines of the footprints of missing exterior garrison buildings, the provision of benches, signage, lighting, waste receptacles and other site furnishings. Omitted from the program of construction work was the proposed restoration of the upper 1814 period Water Battery. Neither was the demolition of the exterior Civil War battery included in the scope of work accomplished during the early 1960s.

Yet soon enough it became clear that the ten year planning exercise leading to Fort McHenry's development under the MISSION 66 program, was judged a failure. A revised park Master Plan, dated only three weeks after the 1964 dedication of the new Visitor Center, complained that, "Overcrowding of this [visitor center] facility is a consideration not to be overlooked."¹⁸² The small size of the auditorium was cited as especially problematic. Further, while development prospectus documents of the mid-1950s had consistently recommended a 250 car parking lot, a significantly smaller 150 car parking lot was all that was constructed as part of the MISSION 66 effort. During the first year of operating of new facilities, it had become painfully clear that the 150 car lot was much too small and was becoming a public relations issue. Managing parking on busy weekends in 1964 required staff to monitor entrance through the front gate, communicating between the gate and staff monitoring the parking lot via radio. Construction of additional parking was recommended. As an interim measure, the 1964 Master Plan recommended that an overflow parking lot be constructed of stabilized turf, essentially a grass surface growing in a medium of equal parts of soil and crushed stone.

The 1964 edition of the park Master Plan maintained an advocacy for removal of most of the exterior Civil War battery, reconstruction of 1814 water batteries, and restoration of buildings inside the Star Fort to their 1814 appearance based on continued scholarly research. These restoration recommendations included proposals for tree planting inside the Star Fort, both in front of the barracks buildings and upon the ramparts themselves, consistent with historic images of the fort.

FORT MCHENRY'S 1968 MASTER PLAN

During the late 1950s and early 1960s, the creation of the Federal Interstate Highway System was literally driving urban planning priorities in the United States. The confluence of transportation planning and post-war urban renewal efforts combined to displace those with limited economic choices and political influence from their homes, in the process destroying many historic urban

neighborhoods throughout the nation. Passage of the National Historic Preservation Act of 1966 was both a political and critical response to the typically unilateral process then pursued by urban and transportation planners. The new legislation sought to hold agencies of the federal government, and their proposed undertakings, accountable to an open public process.

As the 1968 edition of Fort McHenry's Master Plan was being prepared, the City of Baltimore was considering the revitalization of its rundown downtown inner harbor area, which had yet to recover from the devastating fire of 1904. In addition, working through the urban planning office of Skidmore, Owings and Merrill, the city was also continuing its study of alternatives for a federally funded highway system throughout the city, including Locust Point.¹⁸³

The 1968 Master Plan effectively integrated maps, data, and other organizational elements of a regional plan recently prepared by the Baltimore Regional Planning Council. Fort McHenry's new plan made use of this excellent basic data to recommend actions improving access and approach from the five county area surrounding Fort McHenry and beyond. These recommendations included; provision of improved directional signage, the construction of new vehicular access routes approaching east Fort Avenue from the area's major roads, improved bus service, and a water "launch service" to be operated either by a concessionaire or through the offices of Baltimore's Inner Harbor revitalization project (*Figure 5.24*).

Identifying two discreet zones separating historic preservation and visitor development, this fundamental planning decision made in the earliest of National Park Service plans, was carried forward into the 1968 document. As before, the 1814 reservation boundary would serve as the meaningful dividing line between these two park areas.

Inside the Historic Zone, east of the 1814 reservation boundary, the 1968 Master Plan continued to support the decidedly anachronistic restoration of missing features. As Fort McHenry's 1968 Master Plan was completed well before the development of *The Secretary of the Interior's Standards for the Treatment of Historic Properties*, recommendations for reconstructed features included; the 1814 water batteries, while leaving numerous post-1814 Star Fort structures, including the covered sally port and flanking guardhouses, and assorted minor magazines and bomb proofs intact. In addition, the existing exterior era barbette battery, begun during the 1830s was to be removed, while various revetment and breast height walls at the Ravelin and the Star Fort interior, dating to the same approximate period, were to be left intact. The plan also recommended a more emphatic marking of missing garrison buildings outside of the Star Fort, considering the brick outlines as too subtle to be appreciated by the public on a self-guided tour.

Inside the Development Zone, west of the 1814 reservation boundary, the 1968 Master Plan, predictably proposed the enlargement of the current 1964 Visitor Center and the acquisition of the Army Corps of Engineers compound in order to demolish the buildings there and construct additional parking spaces. From there, the plan also criticized the narrow width of the main entrance gate, and proposed that it be widened for two-way traffic, incorporating an entrance station for the collection of fees, offering that:

Since the boundary wall [1837] containing the entrance does not have historic significance, the new entrance should be straightforward and functional in design and not attempt to reproduce any period character.¹⁸⁴

By collecting a fee at the main gate into the park, the plan argued that casual local use of Fort McHenry for eating lunch, reading the newspaper, strolling and casual play would be diverted to other local parks. Completely missing the point that the citizens of Baltimore had used the historic

military post informally as a city park for over one-hundred years, the 1968 park Master Plan denigrated purely recreational use of the park as "non-conforming."

Yet the harshest criticism found in the 1968 Master Plan was reserved for Fort McHenry's ensemble of memorial features. The Orpheus statue, the state markers, the Armistead statue, the fencing surrounding the Washington Elm and the Francis Scott Key memorial plaque were lumped under the plan's heading, "Removal of Intrusions and Distractions." The Key Memorial, composed of the bronze statue of Orpheus and its marble base were described as "startling," and competing with the visitor's attention to the Star Fort itself. The plan suggested that a more appropriate location for the statue might be found somewhere within the \$100,000,000 redevelopment of Baltimore's Inner Harbor.

Most of the recommendations found in the 1968 Master Plan for Fort McHenry ultimately served little purpose. The more helpful of the document's long-range recommendations were soon derailed by a controversial highway project threatening to destroy the park. The threat would require nearly ten years to resolve, a lengthy period of time when the value of park plans and proposals were measured with a "wait-and-see" outlook toward the highway project.

On 22 February 1971, a legal notice appeared in Baltimore's newspapers showing three alternative routes for Interstate I-95 through south Baltimore and giving notice of a public meeting to be held the evening of March 30th. One of the three routes passed directly through Fort McHenry National Monument and Historic Shrine, directly north of the Star Fort. Arthur Cohen, who represented the citizen group Movement Against Destruction (MAD) lobbying against the proposed inner-city highway, had been waiting for a long time to hear Locust Point residents speak out on the ten-year old road proposal. On the evening of March 30th he got his wish.

After an hour-long parade through the Locust Point community organized by the Locust Point Civic Association, 500 flag-waving, boisterous local residents jammed a nearby local school on Fort Avenue. The main speakers at the event were men representing the Greater Baltimore Committee and Baltimore Chamber of Commerce and were at times drowned out by shouting. The alternative that these men tried to sell to the crowd for the jobs it would create, and the traffic congestion it would clear, involved a 180 foot high, double decked, four lane suspension bridge supported from a massive pier built immediately north of Fort McHenry's Star Fort. Prior to a follow-up meeting scheduled for June 17, Baltimore's *Enterprise* newspaper published an anonymous artist's photo-simulation of what the proposed bridge would mean to Fort McHenry (*Figure 5.25*).

One month after the June meeting, Baltimore's *Evening Sun* reproduced the same artistically altered photo as part of a news story reporting that the project had been publicly abandoned, with both Maryland's General Assembly and Baltimore's City Council passing resolutions in opposition. However, by 1972, the proposal for a bridge had been transformed into a proposed tunnel. The change was accompanied by the introduction and passage of various resolutions and bills barring any highway construction in the vicinity of Fort McHenry. After expressing initial reluctance to officially comment, in 1973 the National Park Service submitted a 13-page critique of Baltimore's proposed 3-A highway system, including the proposed I-95 segment impacting Fort McHenry. By 1975, Baltimore's Mayor Schaefer, was so annoyed by the Locust Point communities "anti-expressway agitating" regarding his favored alternative that he cancelled \$7,500 in funding for new neighborhood playground equipment, vowing that Locust Point residents would not get any more special services for "as long as he was Mayor."¹⁸⁵

It was becoming quite a busy year for Mayor Schaefer. The enormous Inner Harbor revitalization project, begun in 1968, was ending, timed to coincide with the nation's Bicentennial anniversary. President Gerald Ford was scheduled to visit Baltimore for the city's 1975 Independence Day celebration. The President was scheduled to stop at Fort McHenry, where tens of thousands of visitors were expected to be present. Beyond the presidential visit, looking forward to the potential for an even larger Bicentennial celebration for the following year, the city's public works department and housing and commercial development offices collaborated with the Charles Center-Inner Harbor Management corporation to build a tour boat pier at Fort McHenry (*Figure 5.26*).¹⁸⁶

In time, a combination of design changes and mayoral hardball had an effect. Perhaps the successful completion of the Inner Harbor project also built local confidence in city officials and softened the objections of critics. Nevertheless, while the I-95 tunnel would not go over, or under Fort McHenry; it was allowed to follow the riverbank, submerged under the shallow water immediately adjacent to the fort's southern seawall (*Figure 5.27*). Construction of the tunnel began in 1980 (*Figure 5.28 and 5.29*).

Before the open question of the I-95 route was settled, the historical record suggests that an unspoken moratorium was in effect regarding plans for Fort McHenry. When construction on the tunnel finally began, the cloud seemed to pass, and those citizens and National Park Service staff involved with the historic fort quickly began to move forward and chart a course for the future.

The working Fort McHenry Master Plan was twelve years old when the highway threat finally passed. The plan's data, assumptions, and many of its recommendations were seriously out of date. During the period of inaction at Fort McHenry, while the highway threat loomed, the National Park Service had developed and refined rigorous philosophical standards guiding the treatment of historic properties. Many of the proposals found in the park's 1968 plan contradicted the philosophical preservation guidance newly offered by *the Secretary of the Interior's Standards for the Treatment of Historic Properties*, and recently updated National Park Service management policies. These policies included the first release of the *Cultural Resource Management Guideline: NPS-28*, during 1980.

Yet regardless of preservation principles, the Fort McHenry Visitor Center remained too small for the demands placed on it. Being within the park's clearly delineated Development Zone, enlarging the undersized Visitor Center was a key element in the park's 1968 plan, and the first of park improvements to be reconsidered once the highway shadow had cleared. By May of 1984, National Park Service architects had completed schematic designs for additions to the Visitor Center. More than doubling the size of the current building, the schematic drawings retained the much-loved effect of the theater curtain wall, which opened after the audio-visual program to reveal a view of the flag.¹⁸⁷ Other projects underway at the same time included the design and installation of new interpretive wayside exhibits, extensive repairs to the seawall, extensive replacement of trees and shrubs, as well as new evergreen plantings to screen the adjacent Navy Reserve property from view.¹⁸⁸ The earthen spoil from the ongoing tunnel project was arranged into an artificial wetland at Fort McHenry's southwestern corner, serving as an environmental mitigation to the massive project's other environmental impacts.

When the tunnel project was completed in 1985, Fort McHenry National Monument and Historic Shrine had begun collaborating with the newly formed "Patriots of Fort McHenry," an independent park "Friends-Group" organized by local business and civic leaders to help raise funds

for the Visitor Center expansion. The "Patriots" raised \$25,000 for the building expansion that year, and pledged to raise up to \$15,000,000 to fund a variety of projects at the park.

By 1987, the park's working planning document was 19 years old. It was time to undertake a review of that long range plan to ensure that it was still appropriate in addressing current issues. The product of this review was the *Concept for Facility Development and Landscape Treatment*. This brief report was not intended to replace the park's official plan, but to focus the park's short and medium term goals toward actions where improvements could be effectively made.

Overlooking, or perhaps unaware, that the MISSION 66 prospectus for Fort McHenry of the 1950s projected one-million visitors by 1966, the park's 1987 *Concept for Facility Development and Landscape Treatment* argued for improved visitor facilities claiming that the current building was designed to accommodate a quarter of that number. The document went on to abandon the concept of enlarging the current building, instead promoting the construction of a new "exhibit and educational center."¹⁸⁹

Much of what was found in the 1987 document was consistent with the contents of the 1968 Master Plan. These elements included discouragement of casual recreational use, removal of ornamental statuary and markers, especially that of the Key Memorial's statue of Orpheus and the reconstruction of a segment of the missing historic waterfront water batteries. However, departing from the direction established in 1968, the plan update of 1987 recommended restoration rather than removal of the post-1814 earthen battery, indicating a somewhat greater embrace of the fort's history beyond the 1814 defense of Baltimore.

Out of a desire to make the park less appealing for casual recreational use, as well as to reduce operating costs, the maintenance staff had reduced mowing to twice monthly during the prior year. As a manicured lawn would have been an oddity during 1814, this move was justified in the 1987 planning update as "creating a setting more compatible with the site's historical significance." The longer grass would also certainly have discouraged widespread picnicking and ball playing. Other landscape related actions specified by the 1987 document included: the relocation of the park's picnic area away from the Star Fort and closer to the water shuttle pier, the removal of the unkempt evergreen hedge planted in 1963 marking the 1814 reservation boundary, installation of additional perimeter screen plantings, and removal of trees and statuary obscuring the view of the Star Fort by visitors approaching through the main gate at Fort Avenue. A small plaza adjacent to the water shuttle pier, accompanied by benches and shade trees was also recommended.

Many of the purely landscape related goals of the document were subsequently implemented. As early as the following year, approximately eighty percent of the recommended tree plantings were carried out in the area northeast of the Star Fort. This was intended to screen industrial harbor development across the river from view when entering the park. Yet while the longer grass may have discouraged games of catch and picnic blankets, the park had greater trouble evicting Orpheus from the premises.

Responding to a 1987 Amendment to the park's Master Plan containing the directive to remove the Key Memorial, Katherine Stevenson, Associate Regional Director for Cultural Resource Management serving the Mid-Atlantic Region, sharply criticized the park's plan to banish Orpheus from the grounds. Comparing the classical inspiration of Niehaus's art with the Memorial Arch at Valley Forge and the Pennsylvania Monument at Gettysburg, Stevenson argued that; the statue of Orpheus was a "physical manifestation of the taste of the people of the early twentieth century," being one of three major memorials placed by the city and by Congress; that the art work clearly

related to Fort McHenry's status as an historic shrine. Countering language suggesting that visitors found the allusion to Greek mythology obscure, Stevenson offered, "indeed much of the fort is obscure for most visitors and Orpheus needs only a little interpretation to explain its presence."¹⁹⁰

Orpheus remained in place, as more pressing goals revealed themselves. Having been paid little attention for over sixty years since the flood of New Deal relief funding, repairs to the masonry features of the Star Fort came past due during the 1990s. Based on dramatically deteriorating conditions aggravated by the high moisture content of the soil, in 1991 the park received \$3,000,000 in funding for masonry restoration through a Congressional add-on to the federal budget. Subsequent funding for what became known as Fort McHenry's Package 276 project would ultimately bring its total multi-year price tag to over \$6,000,000, expanding its scope to occupy a period of greater than ten years. Preparation and plans for an investment of this magnitude were intensive, approaching the HARP effort of the late 1950s, including archeological field investigation, and review of prior archeological work, and updating archeological base mapping (*Figure 5.30*). The fruit of this effort was the completion of a "Review and Synthesis of Archeological Documentation," in February of 1993. Actual masonry restoration work under the Package 276 Line-Item construction project began in 1995 and was completed in 2002. Additional restoration work to architectural elements, including restoration carpentry and painting was completed in 2003.

FIGURES: 1934 TO PRESENT



Figure 5.1. Photograph of entrance drive leading to parking lot c. 1934. Note concrete curbing with brick gutter, arrow shaped directional signage and cast iron street light fixtures. Also note Washington Elm and protective iron fencing. Fort McHenry Library Special Collections.



Figure 5.2. Photograph of fifty-car parking lot being resealed c. 1934. Note board fencing surrounding Dept. of Engineers parcel. Fort McHenry Library Special Collections.



Figure 5.3. Photograph looking northwest from Key Memorial c.1934. Note young tree plantings accompanied by concrete mounted memorial plaques. Trees lining driveway were red oaks, further north, white pines were chosen both to screen off-site development and to highlight the Star Fort when seen from the river. Fort McHenry Library Special Collections.

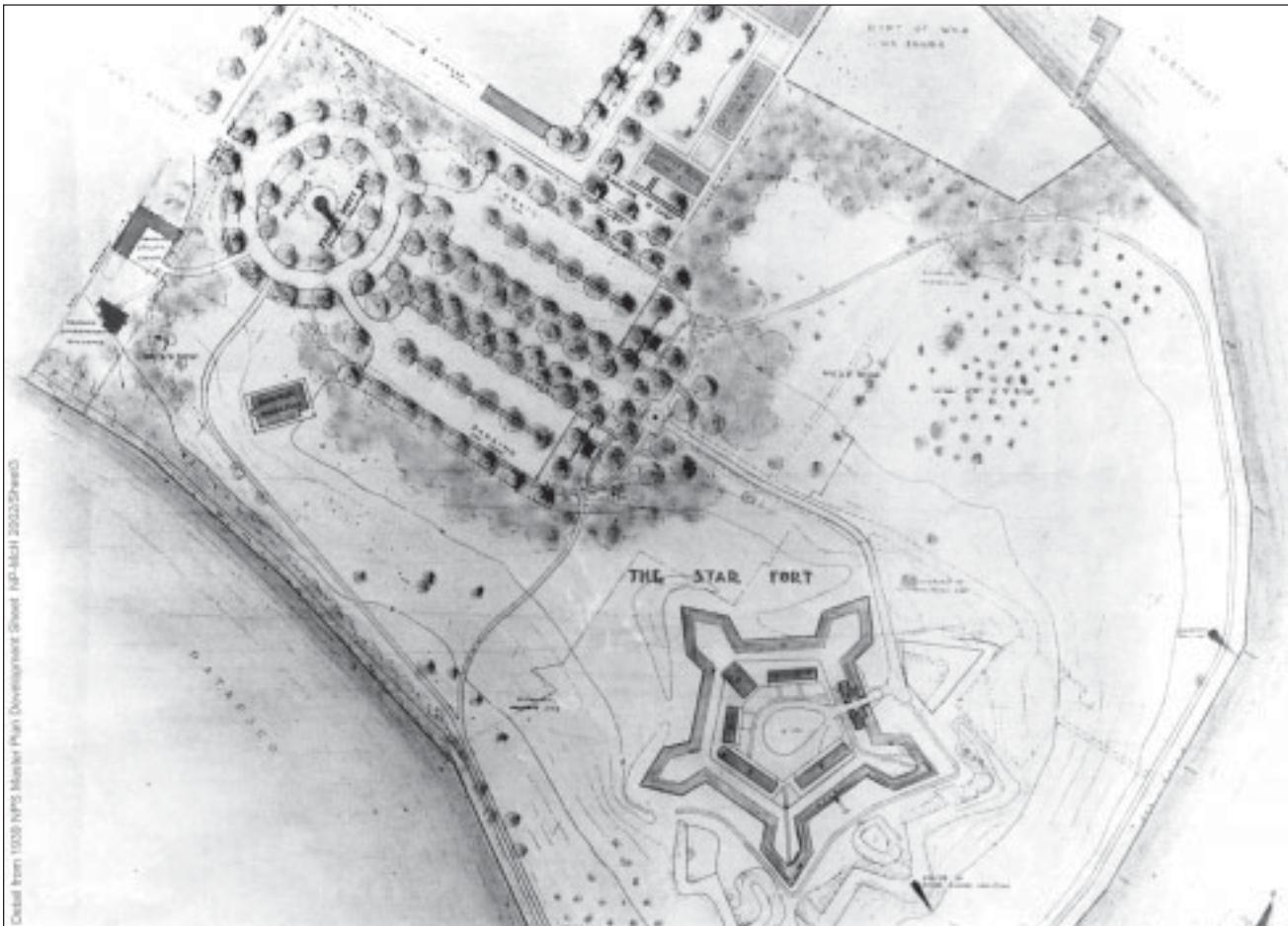


Figure 5.4. Detail from NPS Master Plan Development Sheet NP-McH 2002/Sheet 3. Early National Park Service plans for Fort McHenry eliminated visitor facilities east of the 1814 reservation boundary. Other plan elements included the relocation of the Key Memorial closer to the main gate, and construction of maintenance buildings and a residence in the southwest corner of the property. This plan is especially interesting for its incorporation of the former Treasury Department buildings into the overall park plan, which would have well exceeded the parks requirements for administrative and museum space. Fort McHenry's superintendent was responsible for these vacant federal buildings until 1942. Fort McHenry Library, Special Collections No. 7, NPS Master Plans.



Figure 5.5. Most of the relief labor directed to Fort McHenry as part of President Roosevelt's "New Deal" was concentrated at the historic Star Fort and areas east of the 1814 reservation boundary. Work performed was predominantly unskilled or semi-skilled, such as grading, painting, pointing mortar joints in brick walls, and assorted landscape related tasks utilizing laborers hired through local WPA agencies. Skilled trades were obtained under contract, such as the construction of public restrooms inside a historic barracks building. Superintendent's Monthly Narrative Report for July 1938. Fort McHenry Library Special Collections.

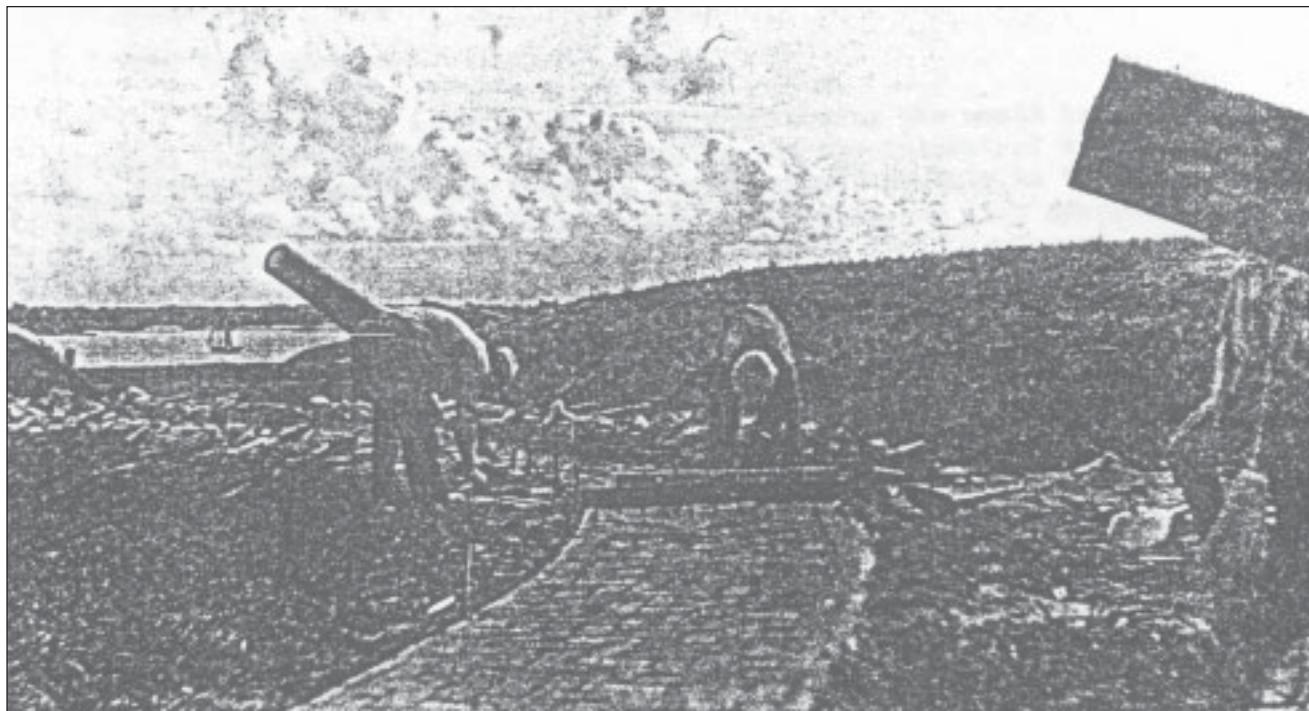


Figure 5.6. Construction of new brick walkways was an ongoing project using WPA labor. During August of 1938, 2,273 square feet of brick walk was constructed. Superintendent's Monthly Narrative Report for August 1938. Fort McHenry Library Special Collections.

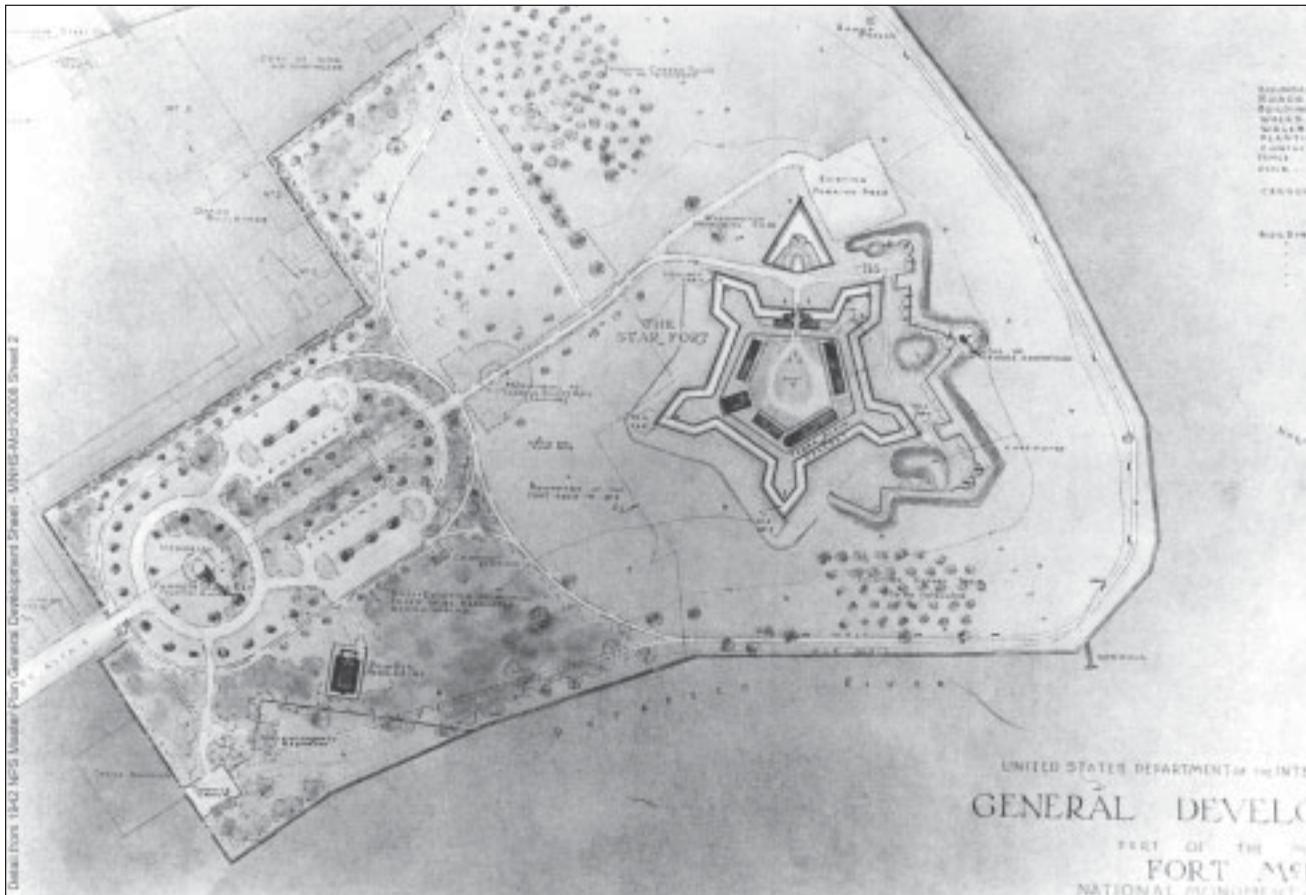


Figure 5.7. Detail from, 1942 Master Plan General Development Sheet, MNHS-McH/2008 Sheet 2. The 1942 revision of Fort McHenry's Master Plan contained only slight refinements to earlier editions, continuing to concentrate visitor parking, restrooms, and the Key Memorial well west of the 1814 reservation boundary line. No provisions are made for an administrative/museum building as the park planned to use the structures inside the Star Fort for this purpose. Fort McHenry Library Special Collection No. 7, NPS Master Plans.



Figure 5.8. Fort McHenry's main gate, 1943. The arrival of U.S. Coast Guard trainees restored to Fort McHenry the compulsory labor of soldiers on fatigue duty. The National Park Service continued to employ an on-site "Custodian" during the war, as most civilian staff were displaced by the war effort. Nevertheless, the park remained open to the public for the duration. Fort McHenry Library Special Collection No. 46, U.S. Coast Guard.



Figure 5.9. Fort McHenry's grounds were available to the military for recreational and ceremonial purposes during the war. The magazines and bombproofs were identified as air raid shelters in the event of an attack. Pictured above is a November 1943 graduation ceremony for U.S. Coast Guard recruits. Note the length of the grasses covering the exterior battery, and the diverse composition of plant species vegetating the earthworks. Fort McHenry Library Special Collection No. 46, U.S. Coast Guard.



Figure 5.10. Looking southeast from Coast Guard Training Station, November 1944. Late in the war, the area north of the central driveway was occupied with a compound constructed by the Navy Department. The buildings were former CCC barracks in West Virginia, dismantled and transported to Fort McHenry. Fort McHenry Library Special Collection No. 46, U.S. Coast Guard.



Figure 5.11. Boundary wall and gate at Fort Avenue, November 1944. This image indicates access to the Coast Guard Training Station via the access drive and right-of-way formerly serving the Treasury Department. The fence enclosure north of the main driveway is also visible through the gateway. This view was taken following a large public gathering at the park. Fort McHenry Library Special Collection No. 46, U.S. Coast Guard.



Figure 5.12. View of repairs underway to slope of exterior battery, April 1950. From, “Final Report on Repairing Slides in the Outer Ramparts...” 9 May 1950. Fort McHenry Library Special Collections.



Figure 5.13. View of repairs and drainage improvements to fill covering Magazine 3, April 1950. This image shows the installation of interior drainage structures intended to reduce soil moisture. Small building at upper right is thought to be a temporary construction office. From, “Final Report on Repairing Slides in the Outer Ramparts...” 9 May 1950. Fort McHenry Library Special Collections.

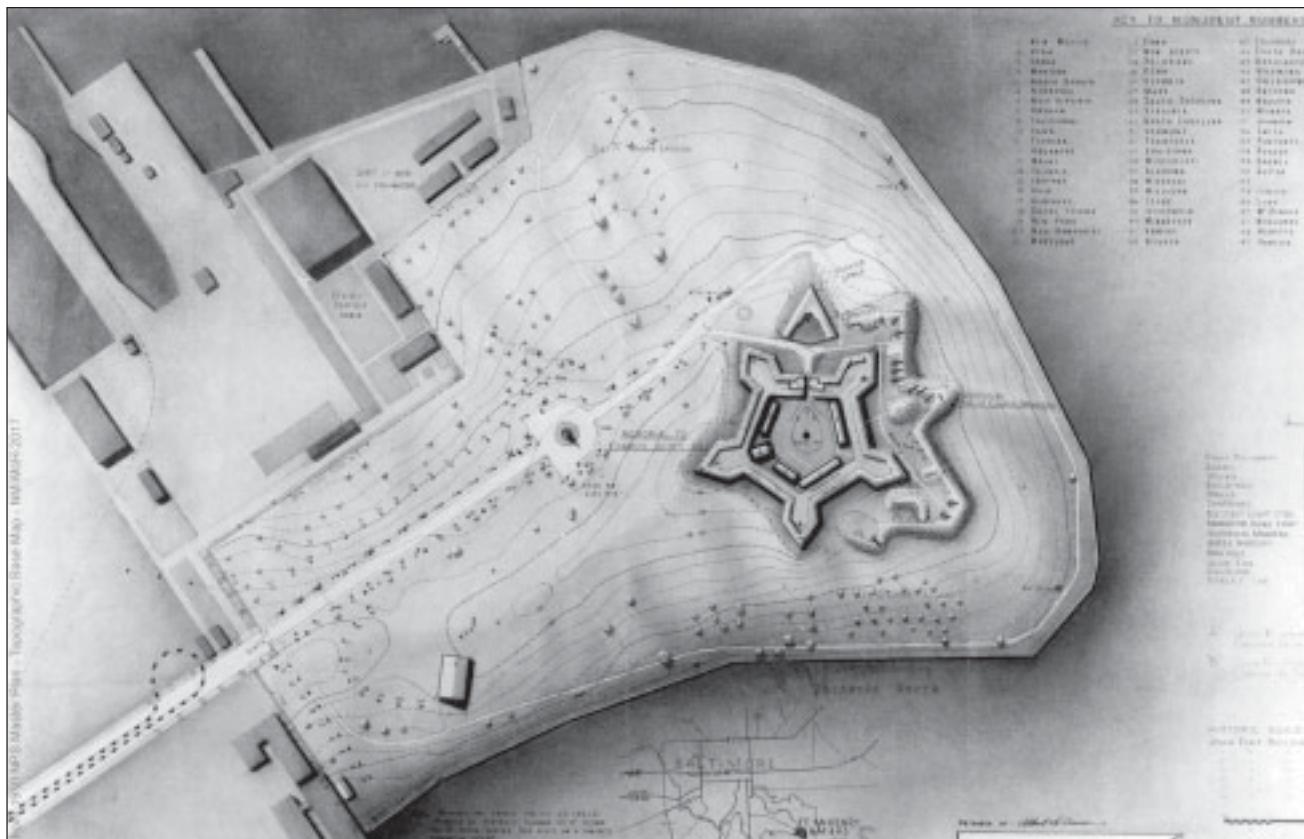


Figure 5.14. Detail, Topographic Base Map, 1950 Master Plan for Fort McHenry. NM-McH-2017. Off-site buildings once occupied by the Treasury Department, and the Coast Guard during WWII, are labeled as managed by GSA in this plan. Note mortality of state memorial trees north of the central drive. Fort McHenry Library Special Collection No. 7, NPS Master Plans.

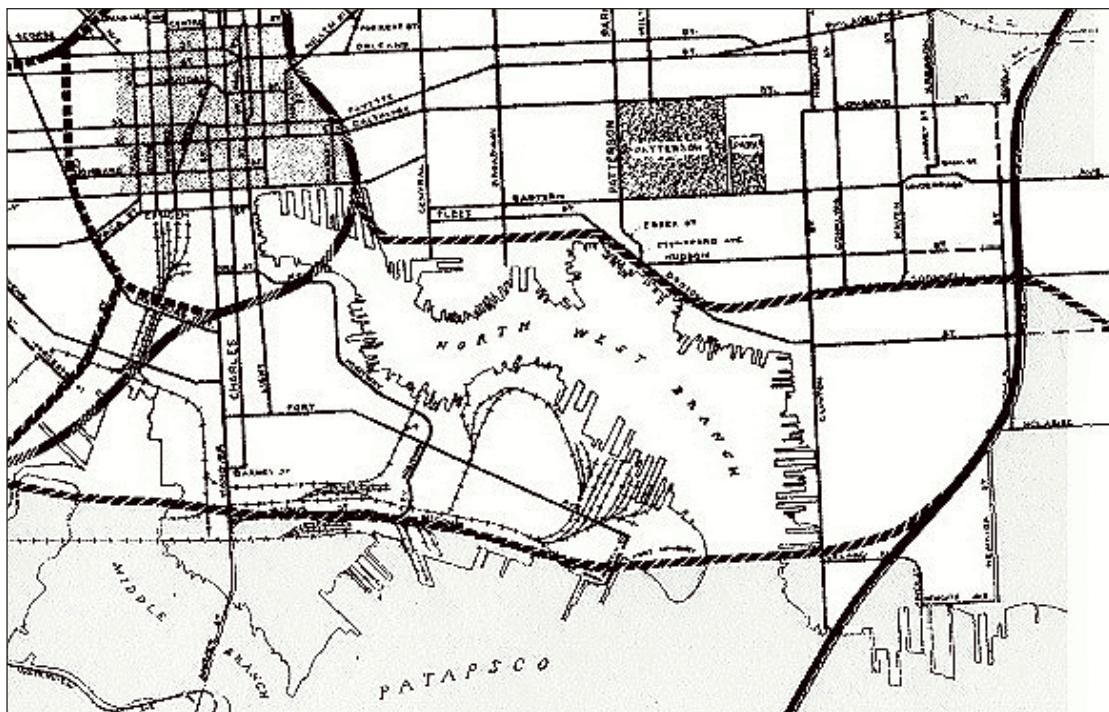


Figure 5.15. Detail of "East-West Expressway Study, 1957 Plan," City of Baltimore Department of Planning, January 1960. Route through Fort McHenry is identified as a "Supplementary Proposal." Fort McHenry Library Special Collections.



Figure 5.16. Aerial view of Fort McHenry and historic Star Fort, 26 July 1954. Outlines of former hospital buildings, post roadways and other features become visible during periods of dry weather. Shortly following the date of this photograph, the park would begin a new planning effort leading to park development under the MISSION-66 program. Fort McHenry Library Special Collections.



Figure 5.17. Photograph of Star Fort in 1959, shortly after the reconstruction of the flagstaff identified on the 1803 plan and verified through archeological investigation. Flagstaff at northeast bastion had yet to be removed by the date of this photograph. Photographer, Murray E. Ward. Fort McHenry Library Special Collections.

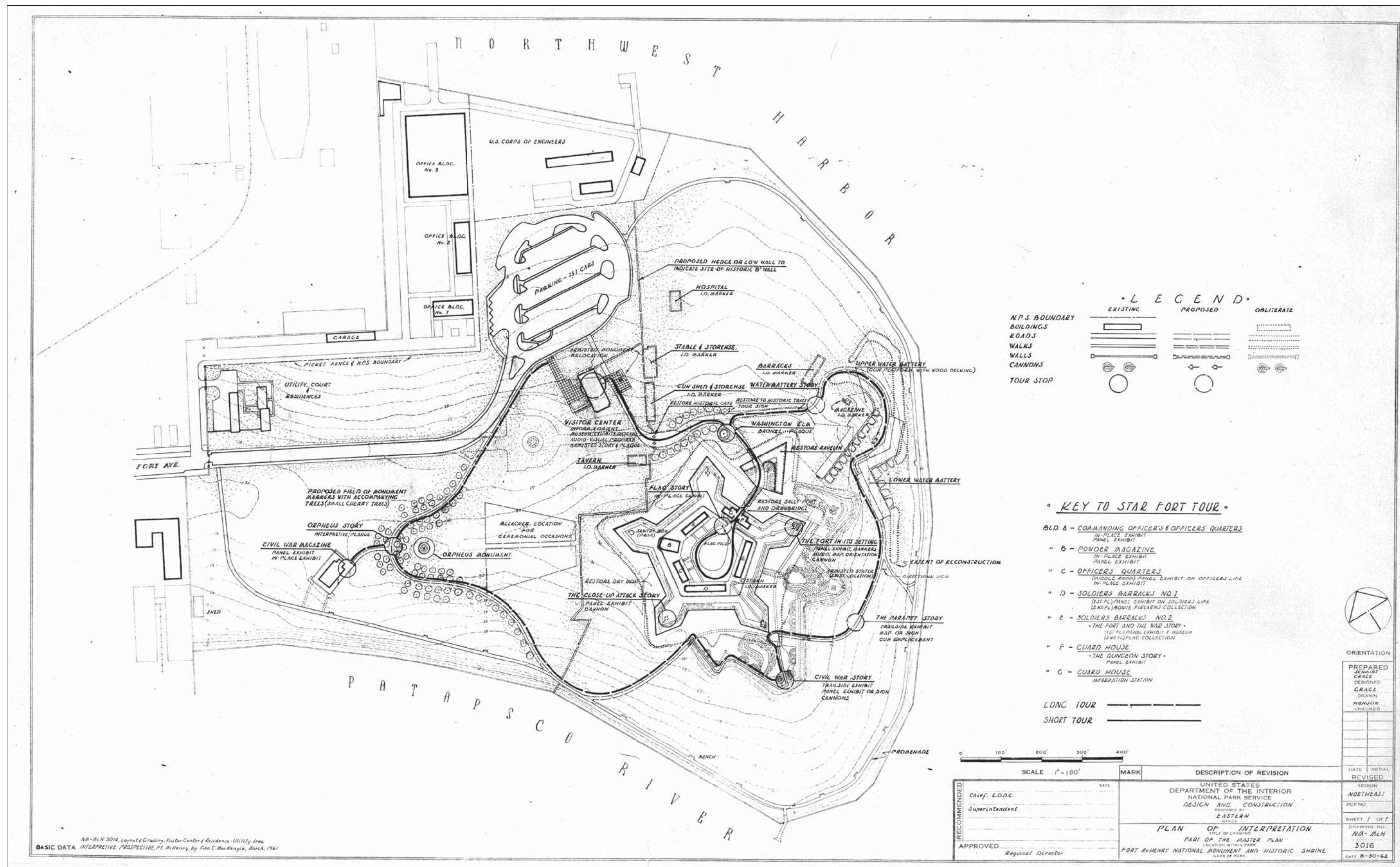


Figure 5.18. Plan of Interpretation, Part of the Master Plan, Fort McHenry National Monument and Historic Shrine, 30 August 1962. Fort McHenry Library Special Collections.



Figure 5.19. Late 1950s image of the Key Memorial prior to its relocation and reorientation as part of Fort McHenry's MISSION-66 park development program. Note the dome shaped earthen pedestal and twelve stone bollards; these elements would not be reproduced in the memorial's new location. Fort McHenry Library Special Collections.



Figure 5.20. Prior to its relocation as part of the park's MISSION-66 development program, the Key Memorial's statue of Orpheus faced west to greet visitors arriving through the Fort Avenue gate. This arrangement was said to place too much emphasis on the monument, where planners hoped to emphasize the view to the Star Fort upon entry. Fort McHenry Library Special Collections, FOMC 1630A.



Figure 5.21. Construction progress photograph, 1963. The park's new visitor center building was designed to be inconspicuous and understated. Its north and south facades featured extensive window glazing, creating views out into the landscape. Fort McHenry Library Special Collections.

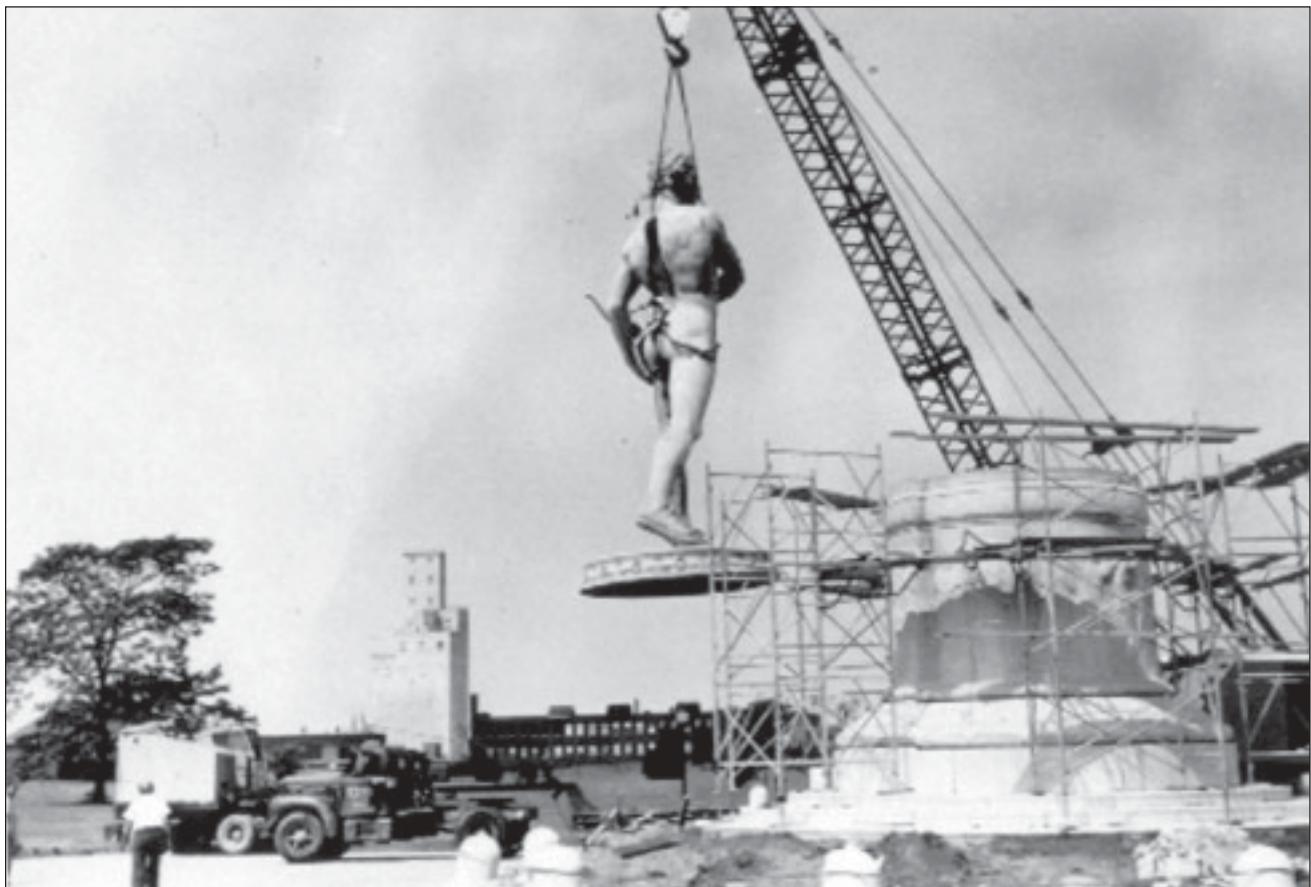


Figure 5.22. Moving the Key Memorial off-axis with the main entrance at Fort Avenue during 1962 represented a major change to the park landscape that the National Park Service acquired from the War Department in 1933. This element of the park's MISSION-66 development plan reflected a cultural shift away from figurative approaches to memorialization typical of the late 19th and early 20th centuries, toward a more literal evocation of the past being popularized by the historic preservation movement and living history interpretation during the 1960s. Fort McHenry Library Special Collections.



Figure 5.23. At its new location, Niehaus's statue of Orpheus, joined Berge's statue of Armistead in an eastward orientation. The monument to Armistead was also moved as part of Fort McHenry's MISSION-66 program, occupying a small plaza adjacent to the new park Visitor Center, retaining its original orientation facing the water. As seen in this c. 1967 image, Orpheus was reoriented east to face the "Star-Spangled Banner," which served as Key's inspiration during the historic bombardment. Note the low evergreen hedge in the middle ground, marking the location of the 1814 reservation boundary. Fort McHenry Library Special Collections.

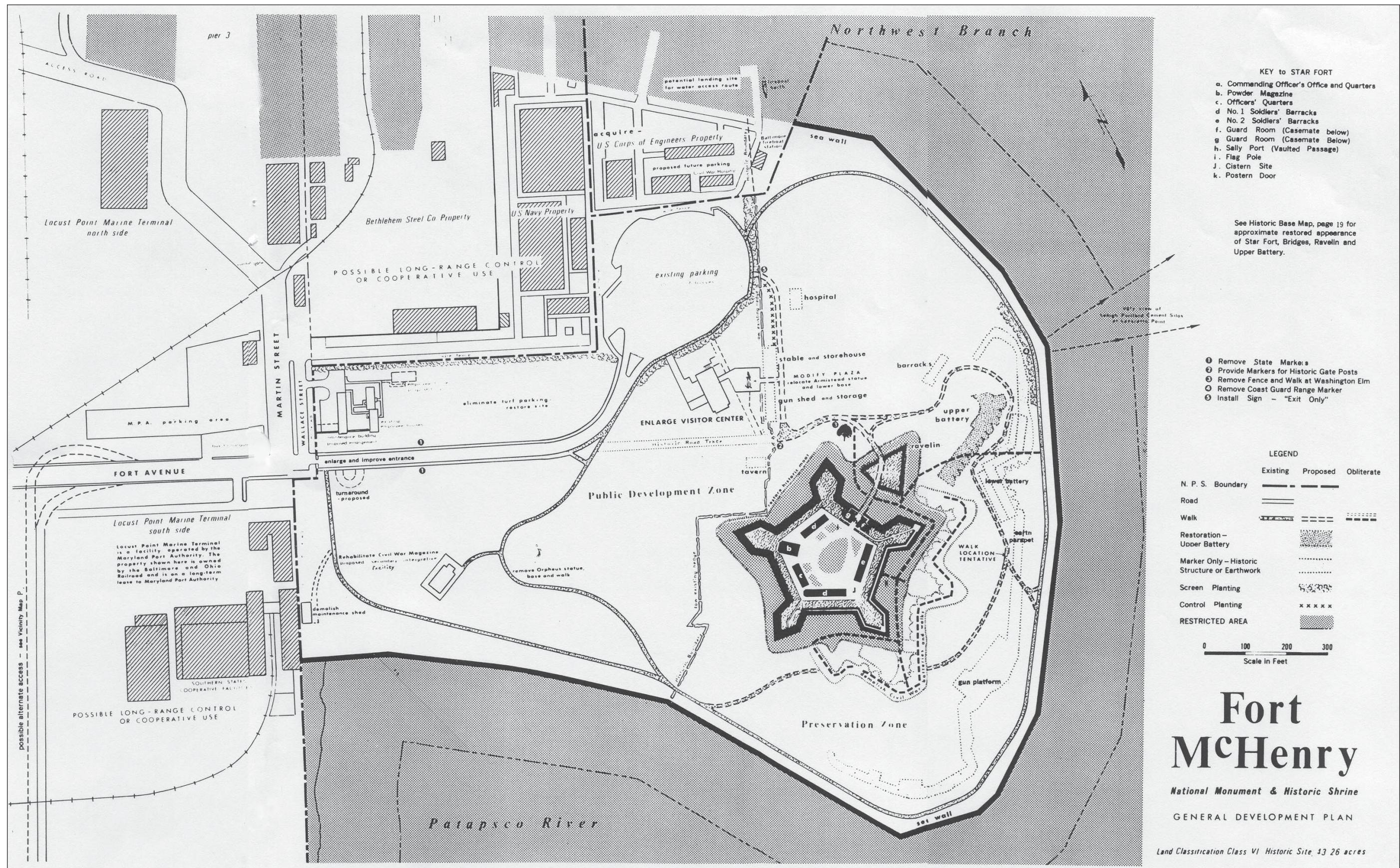


Figure 5.24. Fort McHenry National Monument and Historic Shrine, General Development Plan, 1968. Fort McHenry Library Special Collections.



Figure 5.25. This altered photograph, containing an artist's conception of the proposed I-95 bridge, appeared in the "Enterprise" a local Baltimore newspaper prior to a public meeting over the proposal. The proposed bridge mirrored the effect that the 1964 Verrazano Narrows Bridge had on historic Fort Wadsworth on Staten Island. The subsequent uproar at the 17 June 1971 public meeting in Baltimore's Locust Point neighborhood eventually led to the abandonment of the bridge proposal in favor of a tunnel crossing aligned with Fort McHenry's southern riverbank
Fort McHenry Library Special Collections.

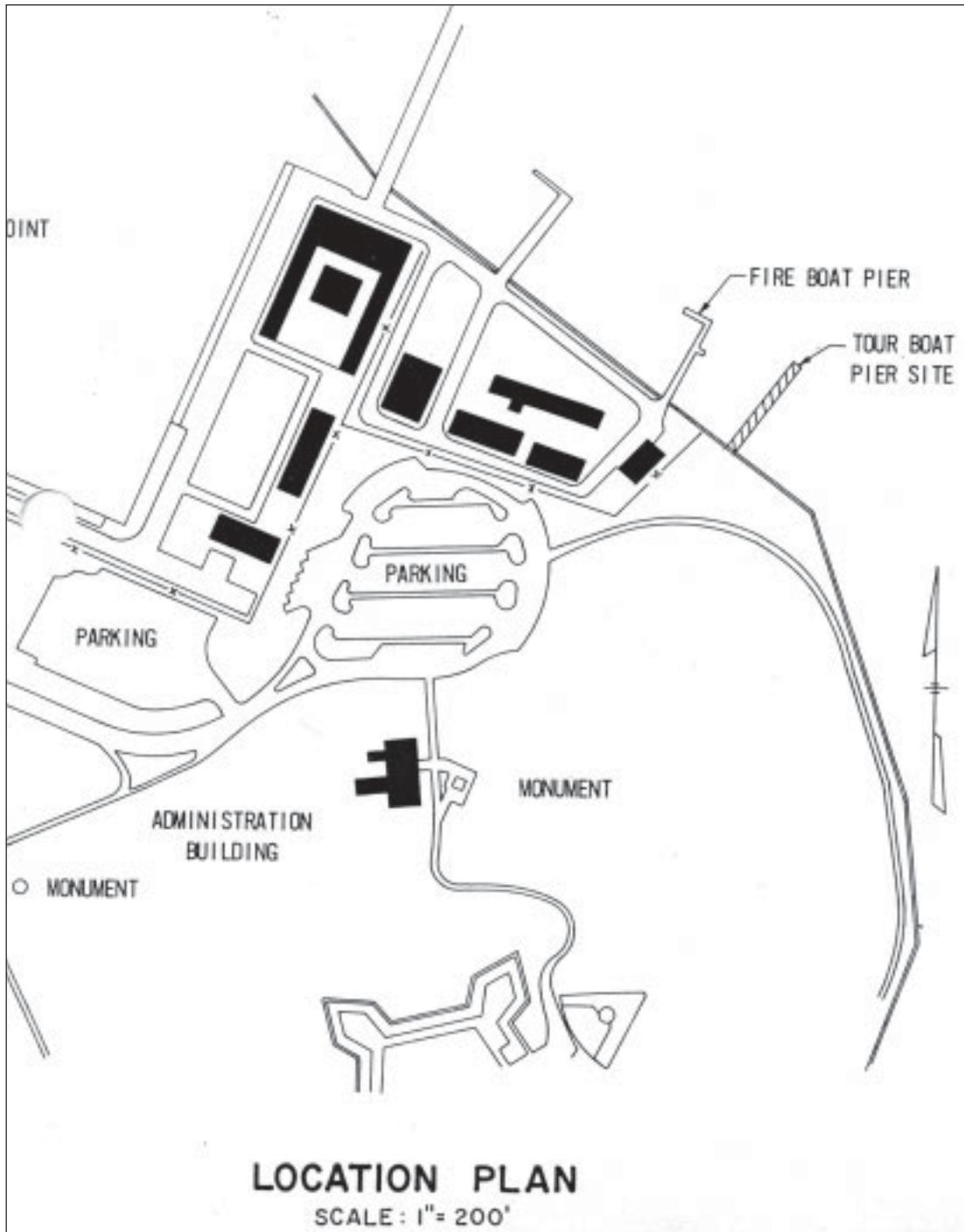


Figure 5.26. Location Plan, Fort McHenry Tour Boat Pier. 18 February 1976, Rummely, Klepper & Kahl, Engineers, Baltimore, MD. City of Baltimore Dept. of Public Works, Dept. of Housing & Community Development, Charles Center - Inner Harbor Management, Inc. Note location of proposed tour boat pier. Location of overflow parking as shown was first recommended in 1964, soon after the completion of MISSION-66 developments. Fort McHenry Library Special Collection No. 8.

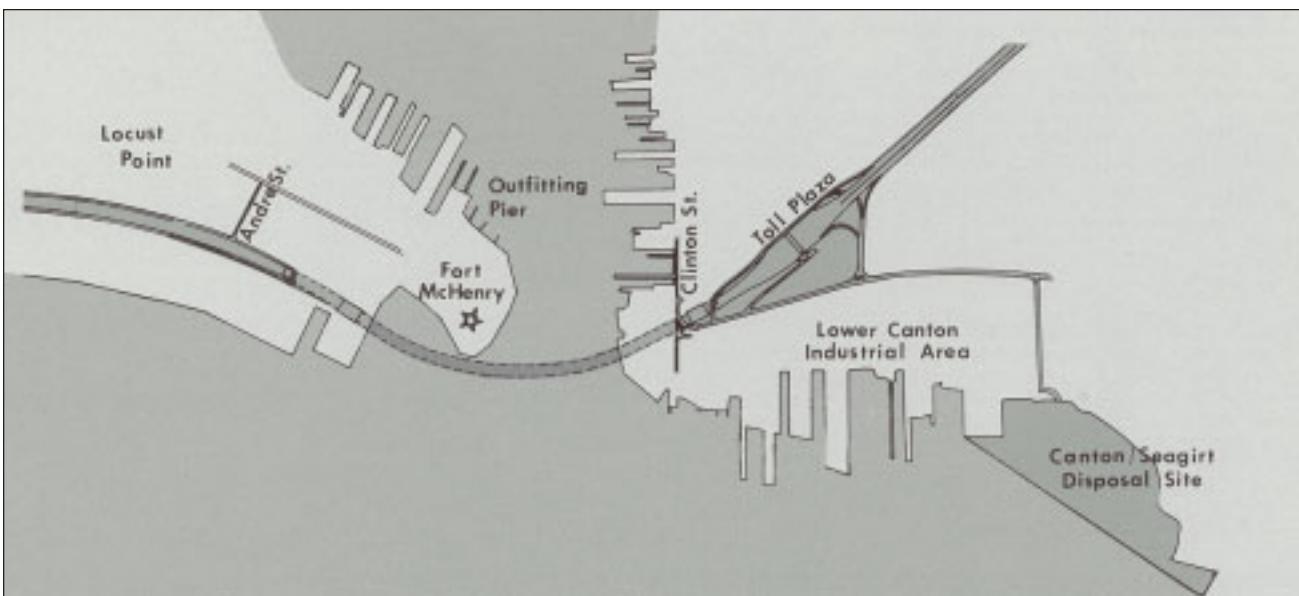


Figure 5.27. Diagram showing final tunnel alignment for I-95 crossing at Fort McHenry. Fort McHenry Library.



Figure 5.28. Construction of the Fort McHenry tunnel began in 1980, ending a period of uncertainty that cast a shadow over park planning. Fort McHenry Library.



Figure 5.29. Aerial photograph, 21 November 1983. This image shows the area of artificial constructed wetland, built as environmental mitigation for the Fort McHenry tunnel project. Fort McHenry Library Special Collections.

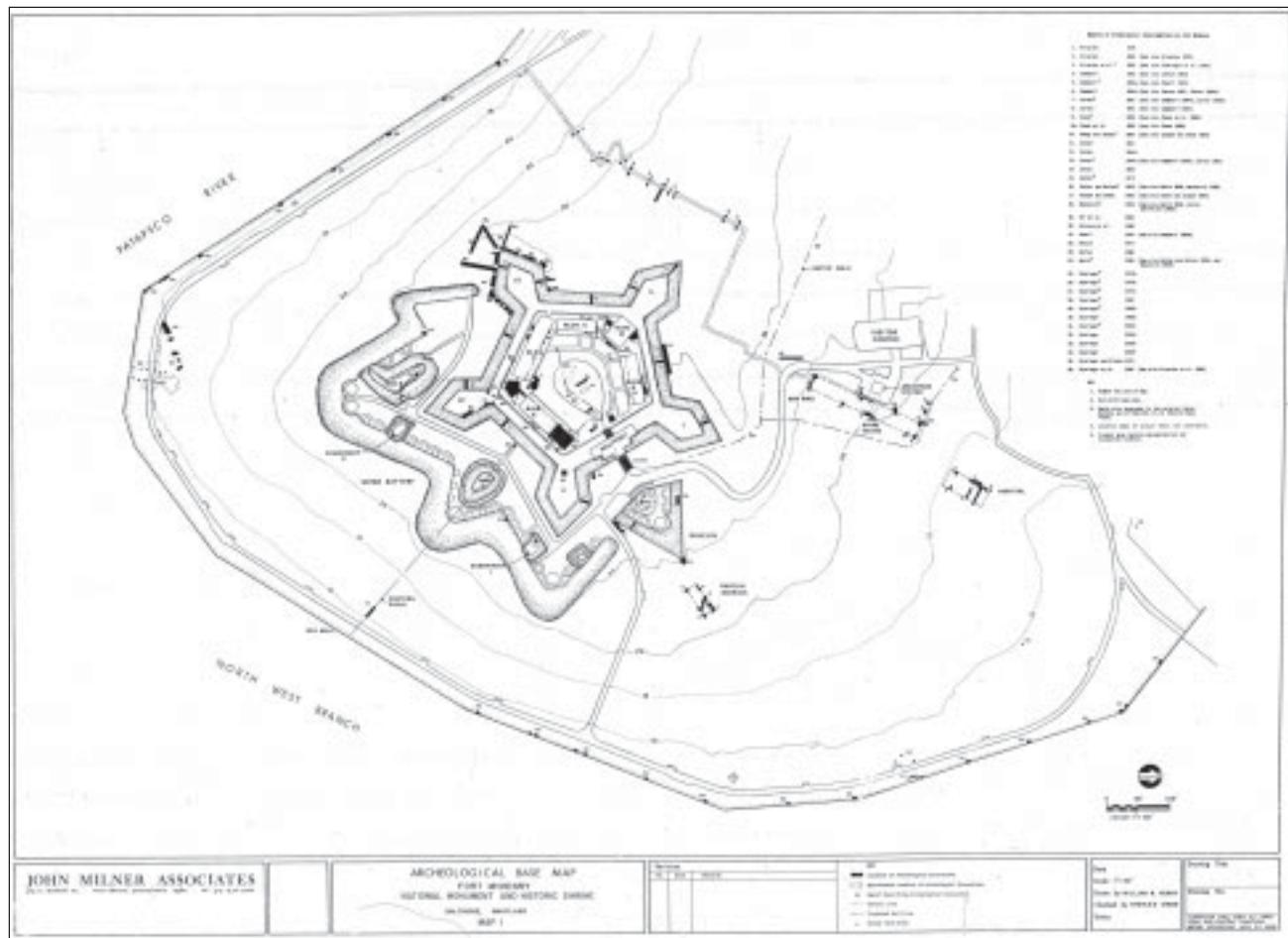


Figure 5.30. Archeological Base Map, John Milner Associates, 1989. This map shows the majority of archeological investigations as having been directed to the features of the Star Fort itself. Fort McHenry Library Special Collections.

EXISTING CONDITIONS

METHODOLOGY AND FORMAT

The following chapter describes the Fort McHenry landscape as it currently exists. This description includes the documentation of landscape characteristics such as: spatial organization, circulation, topography, vegetation, buildings, structures, views and vistas, small-scale features, and archeological resources. It is based on both site research and surveys, including field observation and documentation of significant features. An existing conditions plan, various diagrams, and photographs supplement the narrative description.

The following material is organized according to a hierarchy of landscape character areas, landscape characteristics, and landscape features that together define the Fort McHenry landscape. These areas within the landscape, their names and boundaries, were developed as part of the process of preparing this cultural landscape report. The boundaries of two primary landscape character areas presented here are derived from observation and assessment of contemporary conditions, and are drawn mindful of the site's historical development and surviving features. This subdivision of park areas is also consistent with Fort McHenry's primary planning documents (*Figure 6.1*).

DEFINING LANDSCAPE CHARACTER AREAS

Historic Core Landscape Character Area: The boundaries of this landscape character area are derived from the known boundaries of the military reservation during the historic 1814 bombardment. This area contains the historic Star Fort and c. 1840's exterior earthen battery. In addition to these historic fortifications, an outdoor exhibit depicting a section of the Upper Water Battery of 1814 is under construction. An open view is maintained between the historic fortifications and the Patapsco River shipping channel. North of the Star Fort, deciduous trees have been planted, preventing the industrial waterfront development across the river from competing with the Star Fort for the visitor's first impression of the site. The area is served by paved walking paths, well-maintained turf, decorative benches installed by the War Department, and other visitor amenities such as picnic tables, trash receptacles and interpretive wayside exhibits.

West Expansion Landscape Character Area: This area consists of the area purchased by the War Department in late 1836, accommodating an extensive program of site improvements intended to meet the needs of the garrison. Beginning in the 1930s, the earliest planning documents prepared by the National Park Service have specified that new development accommodating public visitation was to occur within this area. Current planning documents (1988 "Amended Master Plan/Environmental Assessment" and 2004 draft "Development Concept Plan/Environmental Assessment") continue to propose the location new visitor facilities within this less sensitive area west of the 1814 reservation boundary.

DEFINING LANDSCAPE CHARACTERISTICS AND FEATURES

Landscape characteristics form a second level in the hierarchical subdivision of Fort McHenry. Landscape characteristics include both culturally derived and natural processes or physical forms that have influenced the historical development of a landscape, or are the products of its development.¹⁹¹ Landscape characteristics can be either tangible or intangible; they can be defined

by materials as well as their relationship to culture. Landscape characteristics applicable to an analysis of the Fort McHenry landscape include:

- Spatial organization: the arrangement of elements creating the ground, vertical, and overhead planes that defines and creates outdoor space.
- Circulation: spaces, features, and materials that constitute systems of movement for pedestrians and vehicles.
- Topography: three-dimensional configuration of the landscape surface characterized by features and orientation.
- Vegetation: indigenous and introduced trees, shrubs, vines, ground covers, and herbaceous materials.
- Buildings, structures, and walls: three-dimensional constructs such as dwellings, service buildings, and walls.
- Views and vistas: features that create or allow a range of vision, which can be natural or designed and controlled.
- Archeological Sites: sites containing surface and subsurface remnants related to historic or prehistoric land use.
- Small-Scale Features: elements that provide detail and diversity combined with function and aesthetics.

OVERVIEW OF EXISTING CONDITIONS

Fort McHenry National Monument and Historic Shrine is comprised of approximately 43 acres of land historically known as Whetstone Point located at the eastern extremity of the larger Locust Point peninsula in South Baltimore (*Drawing 5 - Ex. Conditions*). The park, bearing the name of the historic Star Fort, marks the confluence of the Middle Branch of the Patapsco River along the southern riverbank, with the Northwest Branch lying to the north (*Figure 6.1*). The landscape of well maintained lawn, specimen trees, historic buildings, and statuary stands in sharp contrast with the character of the heavy industrial development that immediately surrounds the park. The vast majority of park visitors arrive via automobile, approaching from the west by way of Baltimore's Fort Avenue. Two water shuttle services to Fort McHenry are available to the public, departing from Baltimore's Inner Harbor, which is three miles distant.

Upon arriving via Fort Avenue, visitors pass through a formal gateway constructed in a ten-foot high brick wall fitted with black iron gates attached to heavy tooled granite pillars (*Figure 6.2*). After passing through the gate, the straight alignment of Fort Avenue continues eastward before curving broadly northeast to terminate in the visitor parking lot. This main access drive is of generous proportions, comfortably accommodating two-way traffic, covered in bituminous pavement and accompanied by concrete curbs, gutters and sidewalks. Streetlamps and signage are contemporary, as light fixtures incorporate photovoltaic panels in an effort to conserve energy.

Immediately east of the park's front gate, modern brick buildings are found to the north and serve park housing, maintenance and administrative needs (*Figure 6.3*). To the south, additional maintenance operations are housed in a large pre-fabricated steel building (*Figure 6.4*). Trailers and

assorted maintenance equipment is seen parked between the entrance road and this metal building; the equipment is stored immediately west of the park's brick boundary wall.

The view of the landscape as one travels eastward before entering the visitor parking lot is dominated by the brick walls, earthen slopes and impressive flagstaff of the Star Fort itself (*Figure 6.5*). The presence of the Key Memorial to the south, composed of a colossal figure of Orpheus, a figure in Greek mythology, is partially hidden from view upon entering by a brick exterior powder magazine and landscape plantings (*Figure 6.6*). The statue, and its carved marble base, are more prominently in view as one exits the park.

The northern boundary of the park is constrained by neighboring parcels, no longer extending to the northern riverbank as it once did. This boundary, marked by an black iron picket fence, is shared with parcels managed by other governmental entities, including the U.S. Naval Reserve, and the Army Corps of Engineers (*Figure 6.7*). In counterpoint, the historic southern boundary, marked by a Seawall along the Middle Branch, remains intact and permits expansive views of the water and of an artificial wetland constructed as part of the environmental mitigations associated with the I-95 Fort McHenry tunnel project of the 1980s (*Figure 6.8*). South of the entrance drive the site topography slopes gently upward, creating a low ridge of land marked by the exterior brick powder magazine, the Key Memorial, and the Star Fort.

The western edge of the visitor parking lot and site development associated with the existing visitor center are pressed very close to the historic western boundary of the military reservation as it was during the bombardment of 1814. Sizable and permanent visitor facilities are conspicuously absent east of the parking lot and visitor center out of a desire to use the Star Fort and the landscape immediately adjacent to it for historical education and interpretation. Visitor facilities east of the 1814 reservation boundary have been limited in order to evoke the past. In spite of this, the general character of the landscape to the east of this boundary line is not terribly different from that west of it. Immediately east of the visitor parking lot, a large number of deciduous trees have been planted to obstruct views of industrial development occupying the opposite riverbank (*Figure 6.9*). Paved bituminous pathways lead from the small park visitor center building to the Star Fort, passing by commercially manufactured split-rail fencing, trash receptacles fashioned from whiskey barrels, and contemporary interpretive wayside exhibits (*Figure 6.10*).

This walking path leads up a ramp, through the Sally Port and into an interior courtyard within the Star Fort. The spatial volume of the courtyard is defined by the barracks buildings, magazine, and guardhouse that surround it, the barracks fitted with wood-framed two-story sleeping porches. The courtyard features a carriage turn approximating the outline of a teardrop that is surfaced with crushed stone. The interior island of the carriage turn is covered in sod. Brick sidewalks lead from the carriage turn to the buildings, and extend outward to the stone revetment interior to the earthen ramparts (*Figure 6.11*). The slopes of the earthen fortifications are covered in non-native turfgrasses that are kept cut relatively short, maintained with gasoline powered push mowers and gasoline powered nylon weed whips several times per growing season.

Outside of the Star Fort, pedestrians are directed to walk on the park's Seawall Trail, which roughly follows the boundaries of the park (*Figure 6.12*). Though walkers may use it to travel in both directions the trail may be described from one of its ends at the northeastern edge of the visitor parking lot, moving clockwise around the Star Fort, climbing a low rise on a tangent aligned with the Key Memorial, orbiting the statue to the west to return eastward to the visitor parking lot.

LANDSCAPE CHARACTERISTICS

The three most important landscape characteristics within Fort McHenry are spatial organization, circulation, and buildings and structures. These characteristics shaped the design of the post and they continue to be essential components in understanding the landscape today. The combination of these three characteristics illustrates the sequence, events, and changes that shaped the evolution of the study area from the 1814 bombardment, through the Civil War, to the present day. A major portion of the entrance road's alignment still exists, although a secondary circulation route leading from the Star Fort to the post wharf has been lost. It is the main entrance road, extending into the park from Fort Avenue, in combination with the former 1814 reservation boundary line that continue to order the spatial arrangement of the major features in the landscape.

The arrangement of buildings and structures are largely defined by the boundary changes, with the majority of the historic structures found east of 1814 reservation boundary, while modern park facilities are located in the 1837 expansion area. The area within the 1814 reservation boundary contains the Star Fort sitting on open ground in the southeast portion of the peninsula. The northeast portion of the peninsula, also inside the 1814 boundary line, is characterized by a grove of trees through which the Seawall Trail loop passes. Outside of the 1814 reservation boundary, the landscape is subdivided by the main entrance road, with the National Park Service facilities predominantly found on the north side; including the visitor center, administration building, maintenance building, parking lot, and a turf-covered overflow parking area. South of the entrance road, the landscape is less developed and more open in character and contains two major features, the Civil War Powder Magazine and the Key Memorial. Park maintenance operations and facilities are also located at the extreme south-west corner of the property. While the vegetation has changed considerably over the last two centuries, the park horticulturist has undertaken an active program to protect historic trees and reduce non-historic invasive plant material.

Spatial Organization

It is possible to describe Fort McHenry using the former 1814 reservation boundary line as a device for defining the spatial arrangement found within the park. The primary historic features are located on the east side of the line in an open setting that forms the head of the peninsula. Within this area, the fortifications of the Star Fort, Ravelin, and the Outer Battery dominate the landscape. To the north of the Star Fort, the grounds are covered with turf interspersed with a grove of young trees, evoking the generic setting of a pleasant urban park, featuring filtered views to the river.

To the west of the former 1814 reservation boundary, lay the lands purchased by the War Department in 1837. The historic main entrance road further divides the landscape in this area with the majority of the MISSION 66 features on the north side. The south side is defined by the Key memorial surrounded by open maintained turf, interspersed with groupings of ornamental trees (*Figure 6.13*).

CIRCULATION

The circulation within Fort McHenry consists of vehicular and pedestrian systems that are integrated and provide access to all areas of the park. The main entrance road, a continuation of Fort Avenue, provides vehicular access to the parking lot. The only other public area in the park that allows for vehicular access is the overflow parking area to the north of the main entrance road. This seasonal parking lot is only used during peak visiting periods. This overflow lot is covered in

stabilized turf, which makes use of crushed stone mixed into the soil to support the weight of vehicles while allowing the growth of grass.

From the parking lot, the visitor is able to follow two major pedestrian routes. The primary route provides access to the visitor center and to the Star Fort, where it follows the curvilinear alignment of the historic route to the Sally Port. There are a variety of minor paths within the fort structure and outer Water Battery that enables close observation of major historic features, and from the upper sections of the battlements, provide for panoramic views of the Patapsco River.

The other major pedestrian path, the Seawall Trail, leads the visitor around the edge of the peninsula in a circular route. Starting at the comfort station adjacent to the parking lot, the path follows the edge of the Seawall around to the south side of the park before heading west towards the Key memorial and reconnects with the parking lot. The trail also connects with the tour boat dock and provides panoramic views of the Star Fort as well as eastward to the river. In addition, a trail branches off from the Seawall Trail and continues along the southern edge of the park passing the maintenance facility before connecting with Fort Avenue at the entrance gates (*Figure 6.14*).

TOPOGRAPHY

A low ridge running from near the entrance gate to the Star Fort and the gentle slopes that roll down to the edge of the Seawall characterize the topography at the park. The natural topography influenced the design of the Fort McHenry and affected the spatial organization of the post including the location of the main structures and the layout of the circulation system. The construction of major structures and buildings in turn required design alterations to the topography. The topography southeast and south of the Star Fort is in large measure a result of grading operations creating the exterior barbette battery constructed between 1836-1840. After the demolition of approximately one-hundred World War II hospital buildings in 1926, there was major regrading of the topography throughout the site in preparation for use of the landscape as a public park. In addition, the construction of the Seawall altered the edge of the peninsula and led to the loss of the mudflats that formed a gentle transition to the water's edge at low tide. The construction and demolition of major features also modified the natural topography. For instance, the removal of the 1870s unfinished Water Battery led to the placement of fill within a radius of 500' from the site of the former battery.

The large-scale topography of the site varies from a high point of thirty-five feet on the west side of the Star Fort, down to approximately five-feet at the Seawall. From the Seawall around the perimeter of the peninsula the ground rises gently towards the low ridge that runs parallel to the main entrance road, attaining a change in grade of approximately twenty-five feet. On land to the north side of the main entrance road there is a drop in grade of approximately five feet, from the road bed to the center of the overflow parking area [*Diagram 1.3*].

VEGETATION

The large-scale vegetation on the grounds of the Fort McHenry is characterized by historic plantings, ornamental plantings, and an urban forest with mowed grass areas covering the majority of the park. In 2003, the park completed a comprehensive survey of the vegetation, which was spatially mapped in a GIS database (*Figure 6.15*). With every major tree and shrub inventoried, the park horticulturalist, Paul Bitzel also managed a data entry project which included measurements of the DBH, crown spread, and height of each specimen, as well as individual identification numbers

(the resulting table for the park vegetation inventory can be found in Appendix A of this report). From the survey it was possible to identify the major historic plantings. These are comprised of over 25 trees, the majority of which are sycamores (*Platanus x acerifolia*) and scarlet oak (*Quercus rubra*). The oaks were planted by the War Department in the early 1930s north of the central entrance drive, while the sycamores, some of which are large and may pre-date the 1930s, are found near the shoreline on the south side of the park.

Upon entering the park, a small grouping of trees, mainly white pine (*Pinus strobus*), provides a screen for the two MISSION 66 structures on the north side of the road. This theme continues around the northern perimeter of the property where white pines screen buildings at the Maryland Port Authority and the U.S. Navy Reserve facilities from view. Tucked inside the north side of the entrance gate, behind two linden trees (*Tilia x cordata*), is an American elm (*Ulmus americana*), that was propagated from a root sprout of the former Washington elm at one time located next to the Star Fort.

After entering the park, a row of Japanese pagoda trees (*Sophora japonica*) line the north side of main entrance road. Fort Avenue terminates at the parking lot, which contains mature specimen trees planted in the islands. Consisting of mostly Willow oak (*Quercus phellos*), the canopy cover provides shade for arriving visitors. Numerous ornamental trees and shrubs are planted around the visitor center including Japanese yews (*Taxus cuspidata*), survivors of the original planting design for the plaza surrounding the Armistead statue. In addition, a mature silver maple (*Acer saccharinum*) and scarlet oak (*Quercus rubra*), probably preserved during construction of the visitor center, now provide shade for visitors on the approach walk to the building.

The planting of trees around the Star Fort has been restricted to preserve open views of the fortifications. However, investigations revealed the historical presence of Lombardy poplars (*Populus nigra italicica*) planted in an avenue along the entrance road to the fort c. 1800, survivors of which were also depicted on an 1853 engraving. In 2003, the park planted three Lombardy poplar along the path from the visitor center to the Star Fort. The replacement specimens were planted as a restoration project to improve the historic character of the area. There are no major plantings in the Star Fort, as the Lombardy poplar that once lined the parade ground and the battlements were removed in the 1830s. The mowed grass areas in the center of the fort are historic and may have been present since 1814. The layout of these areas was altered in the period leading up to the Civil War, and it is possible that their current arrangement, four small lawn areas, dates to at least 1865.

To the north of the Star Fort is a large planting of trees that was initiated in 1988, beginning an initial phase toward the implementation of landscape recommendations found within the "Landscape Design Concept for Fort McHenry." The primary concept of this landscape design was to create a vegetative visual buffer between the visitor parking lot and the industrial development located on the opposite riverbank. This initial phase of tree planting benefited from private donations solicited from the 1987 "Plant a Living Legacy" program commemorating the Bicentennial of the U.S. Constitution. Phase II of implementing the new landscape design concept recommendations drew upon the resources of the 1993 "Tree-mendous Maryland" statewide tree planting program. The specimen trees create an urban park-type setting consisting of mainly linden (*Tilia x cordata*), green ash (*Fraxinus pennsylvanica lanceolata*), and Sweet gum (*Liquidambar styraciflua*). Further to the west during the 1990s, the park's horticulturalist planted a coniferous screen around the edge of the pedestrian path to hide the newly constructed maintenance building. The majority of the park area is covered in maintained turf that is mowed as often as once per week.

during the growing season and contains a mix of blue grass (*Poa pratensis*), tall fescue (*Festuca arundinacea*), and Bermuda grass (*Cynodon dactylon*).

BUILDINGS, STRUCTURES AND WALLS

The park's planning restrictions on constructing new facilities inside the historic 1814 reservation boundary largely determines the current location of buildings and structures at Fort McHenry. The major historic structures are located on the eastern side of the peninsula, while other park buildings and structures are located in various locations around the periphery of the grounds, especially the north and west sections. The east side of the peninsula contains the Star Fort, Outer Battery, Ravelin, and range light, as well as the tour boat dock, the majority of these structures contribute to the period of significance for Fort McHenry. The buildings in the north and west portions of the grounds tend to be a product of the MISSION 66 construction era, including the visitor center, comfort station, administration building, and park housing (Figure 6.16). On the south side of Fort Avenue the major buildings consist of the Civil War Powder Magazine, Key memorial and the maintenance building, located in the southwest corner of the park.

The two major walls in the park were constructed along the boundary of the property; the brick boundary wall along the entrance to the property and the Seawall. The 10' high brick wall follows the western boundary of the property and includes a set of iron entrance gates with dressed stone pillars. The Seawall marks the boundary of the property as well as the water's edge, and has been the subject of an extensive program of repairs that will be completed in 2004.

VIEWS AND VISTAS

The major existing views incorporate the former fields of fire that provided for the defense of Baltimore and the Star Fort. The first view is from the Star Fort out across water, looking east down the channel of the Patapsco River. This view represents the field of fire designed by the U.S. Army to attack approaching enemy vessels during the War of 1812. The other major view is from the west side of the Star Fort to the entrance gate. This view is significant as it allowed defense forces to monitor the approach from Fort Avenue and protect the Star Fort were it subjected to a ground assault. These views are partially compromised by the planting of trees. However, despite the encroachment of vegetation views to the gate are still possible, allowing for filtered vistas across the relatively flat terrain.

In addition to the above views, the other major focus of the visitor's visual experience is the flag. Located in the Star Fort, the flag can be viewed from many angles throughout the park. However, the key vistas are from the visitor center, Fort Avenue, and the Patapsco River (Figure 6.17).

SMALL-SCALE FEATURES

Of the numerous small-scale features found within Fort McHenry, six types define the character of the landscape. These include fences, benches, light poles, interpretative panels, commemorative markers, and interpretative devices including representations of building footprints and historic road markers. A distinctive small-scale feature is the flagpole located in the Star Fort adjacent to the Sally Port. The present flagpole is a 1989 reconstruction replacing an earlier reconstruction of 1959 (Figure 6.18).

There are two major fences in the park, an iron fence that follows the north boundary of the property, and the reconstructed post and rail fence surrounding the Star Fort. The western section of the iron fence was constructed in the 1920s; the eastern section was built in the 1970s, replicating the historic fence and replacing a chain-link fence from the 1950s. There are numerous styles of benches at the park ranging from historic marble benches to picnic benches. The historic benches include twelve curved marble benches which were originally positioned around the Key memorial. Today only four remain near the statue; the others have relocated along the Seawall Trail. There are also seventeen concrete modern benches, constructed and installed during the 1930s on the outboard side of the Seawall Trail. These were moved to the inboard side of the trail by the late 1930's and are now distributed widely throughout the park and intermixed with the earlier marble benches once surrounding the Key Memorial at its initial setting. The park's light poles are non-historic and are located along the major circulation routes and the interpretative features and markers are found throughout the site, especially in the historic core area.

ARCHEOLOGY

The park recently completed an exhaustive overview of the archeological resources (Cheek et al, 2000). This document listed all of the archeological resources that have been identified and is supplemented by GIS a database that spatially maps their locations. Additional investigations will be implemented as needed for assessment and mitigation purposes prior to developing new facilities. Future investigation may reveal information and artifacts from the War of 1812 era, and field surveys will be required should any new development occur in sensitive locations. Because of major construction and demolition activities in the early twentieth century, there was severe disturbance of the soil and subsoil layers throughout the park. Nevertheless, the archeological record contained in the soil at Fort McHenry does retain the possibility of adding to the existing body of knowledge of Fort McHenry's landscape history, as well as the human history of the peoples who lived here. The brick at-grade rectangles outlining the footprints of missing garrison buildings were installed during the early 1960s to aid historical interpretation. The brick outlines themselves are not historically significant (*Figure 6.19*).

FIGURES: EXISTING CONDITIONS

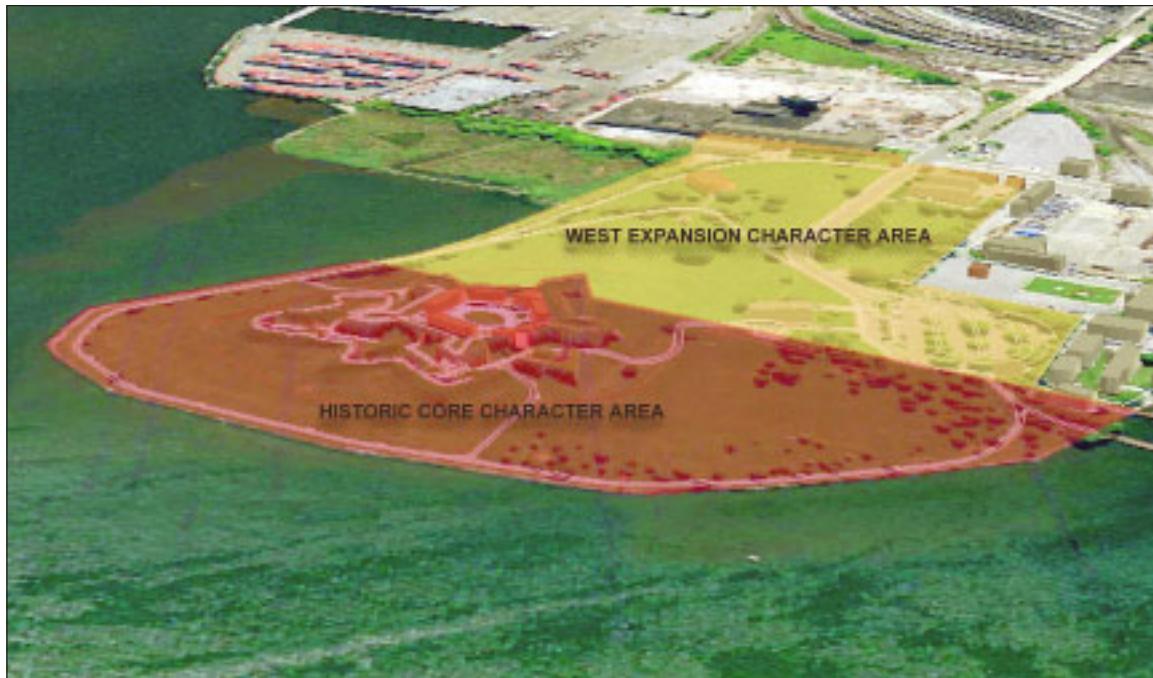


Figure 6.1. Diagram showing the boundaries of Fort McHenry's Historic Core Landscape Character Area, and the West Expansion Landscape Character Area. Olmsted Center for Landscape Preservation, hereafter OCLP.



Figure 6.2 The entrance to Fort McHenry National Monument and Historic Shrine via Baltimore's Fort Avenue is through an entrance gate in an 1837 brick boundary wall. The entrance gate and its features were restored by the War Department in 1928. OCLP, July 2003.



Figure 6.3 Immediately inside the Fort Avenue gate, a grouping of park maintenance and residential buildings can be seen to the north of the entrance drive. These were constructed during the early 1960s as part of the National Park Service "MISSION-66" park development program. OCLP, July 2003.



Figure 6.4 Inside the Fort Avenue gate, south of the entrance road, an additional park maintenance compound has been developed, using a salvaged metal building obtained from Gettysburg NMP. OCLP, July 2003.



Figure 6.5 Entering the park via the park entrance road, the earthforms and features of Fort McHenry's historic Star Fort are prominently in view. Much of the park's 43 acres is covered in well maintained turfgrass. OCLP, July 2003.

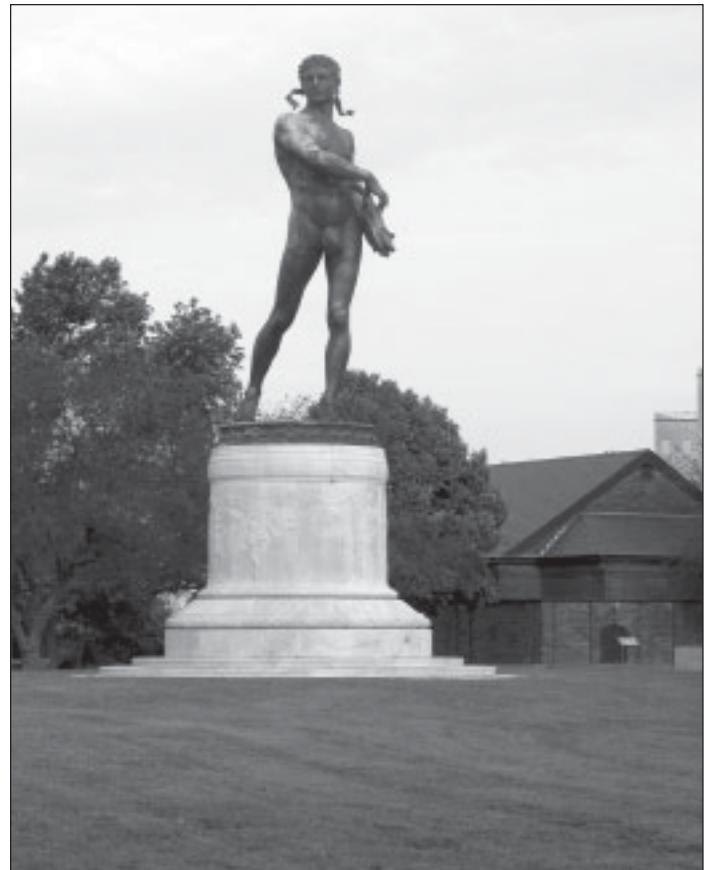


Figure 6.6 The Francis Scott Key Memorial, dedicated in 1922 by President Harding, and moved to its current location in 1962, features a carved marble base and a colossal statue entitled "Orpheus with the Awkward Foot." Plantings of crabapples installed since 1962 have the effect of diverting attention away from the statue when entering the park, helping focus attention on the Star Fort and its flagstaff. When exiting the park, the plantings enhance the statue, helping to feature it prominently. OCLP, July 2003.



Figure 6.7 The northern boundary of the park features a black iron picket fence delineating the boundary between the park and the U.S. Naval Reserve, and the Army Corps of Engineers parcels. OCLP, November 2003.



Figure 6.8 The southern boundary of the park is marked by the riverfront and its seawall, offering expansive views of the river. The area of wetland shown above was artificially created in the early 1980s, as part of the environmental mitigations related to construction of the Interstate 95 tunnel submerged off of Fort McHenry's shore line. OCLP, July 2003.



Figure 6.9 East of the visitor parking lot, extending to the eastern extremity of the park, a grove of trees was planted during the late 1980s to help minimize visual intrusions. OCLP, November 2003.



Figure 6.10 The path leading to the entrance to the Star Fort is served by paved pathway, benches, waste receptacles and informational and interpretive signage. The classically-styled marble bench shown above was once installed at the perimeter of a traffic circle containing the Key Memorial, and was moved to its current location in 1962. OCLP, July 2003.



Figure 6.11 The ensemble of historic structures within the Star Fort together create an informal courtyard or parade. The teardrop-shaped carriage turn is believed to have appeared soon after the Civil War. Yet, soon after the historic bombardment the post flagstaff occupied a position on Bastion IV, rather than the location shown above. OCLP, July 2003.



Figure 6.12 Fort McHenry's Seawall Trail was originally installed between 1928 and 1930 as part of the War Department development program for the new national park. This program of park developments included the demolition of General Hospital #2 buildings covering much of the grounds. OCLP, November 2003.



Figure 6.13. Diagram indicating the spatial organization of the Fort McHenry National Monument and Historic Shrine. The regulating lines shown on this diagram originated with the original subdivision of the property in the eighteenth century. OCLP.



Figure 6.14. Diagram indicating major vehicular and pedestrian circulation routes. Smaller footpaths within the Star Fort complex are not indicated. OCLP.

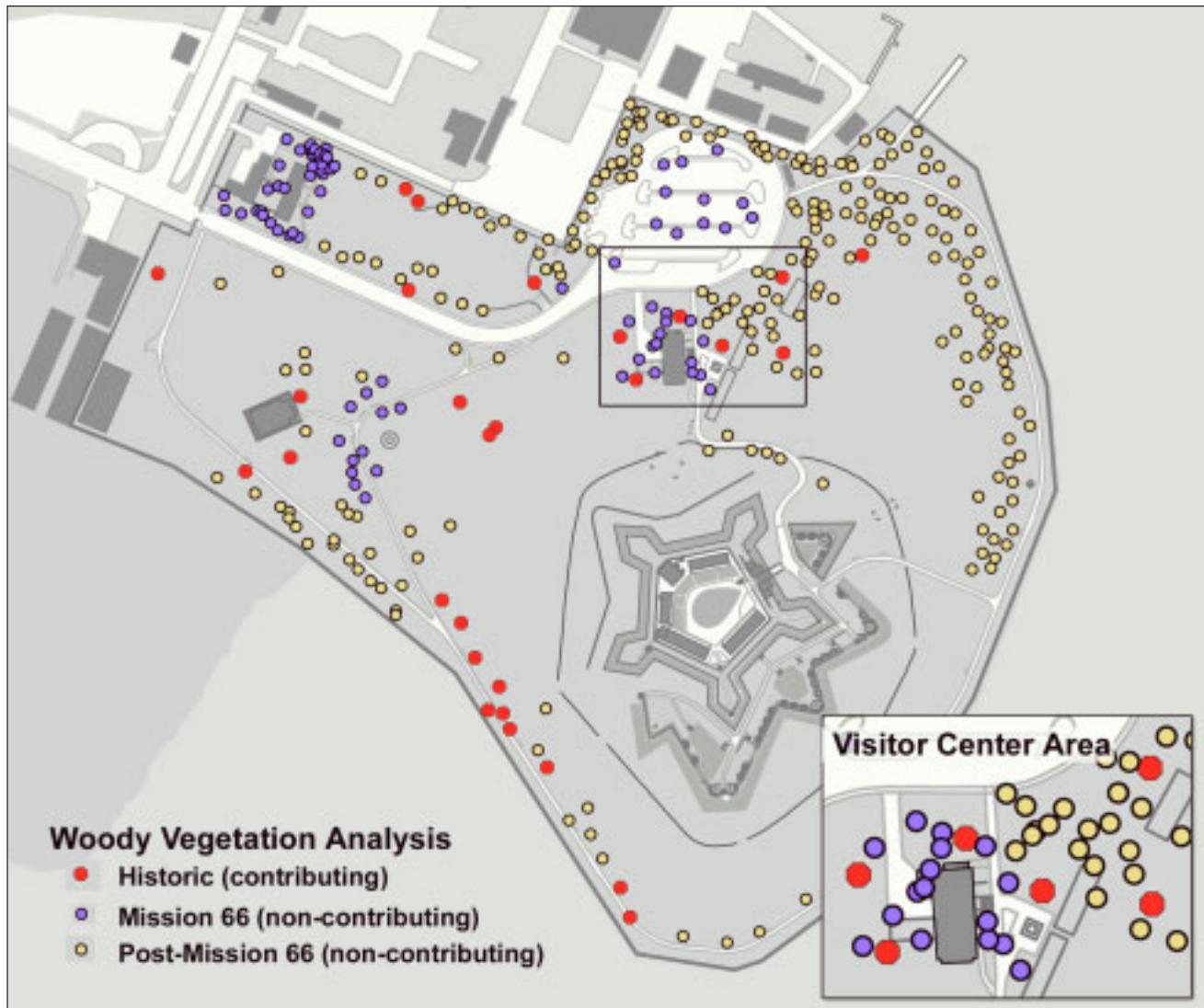


Figure 6.15 Woody vegetation analysis. The points marked in red in the diagram above indicate the locations of large trees thought to have been survivors from the Fort McHenry's lengthy period of historical significance which concluded in 1945. Please refer to the evaluation of landscape characteristics and features found in this report. OCLP and Fort McHenry NM&HS.

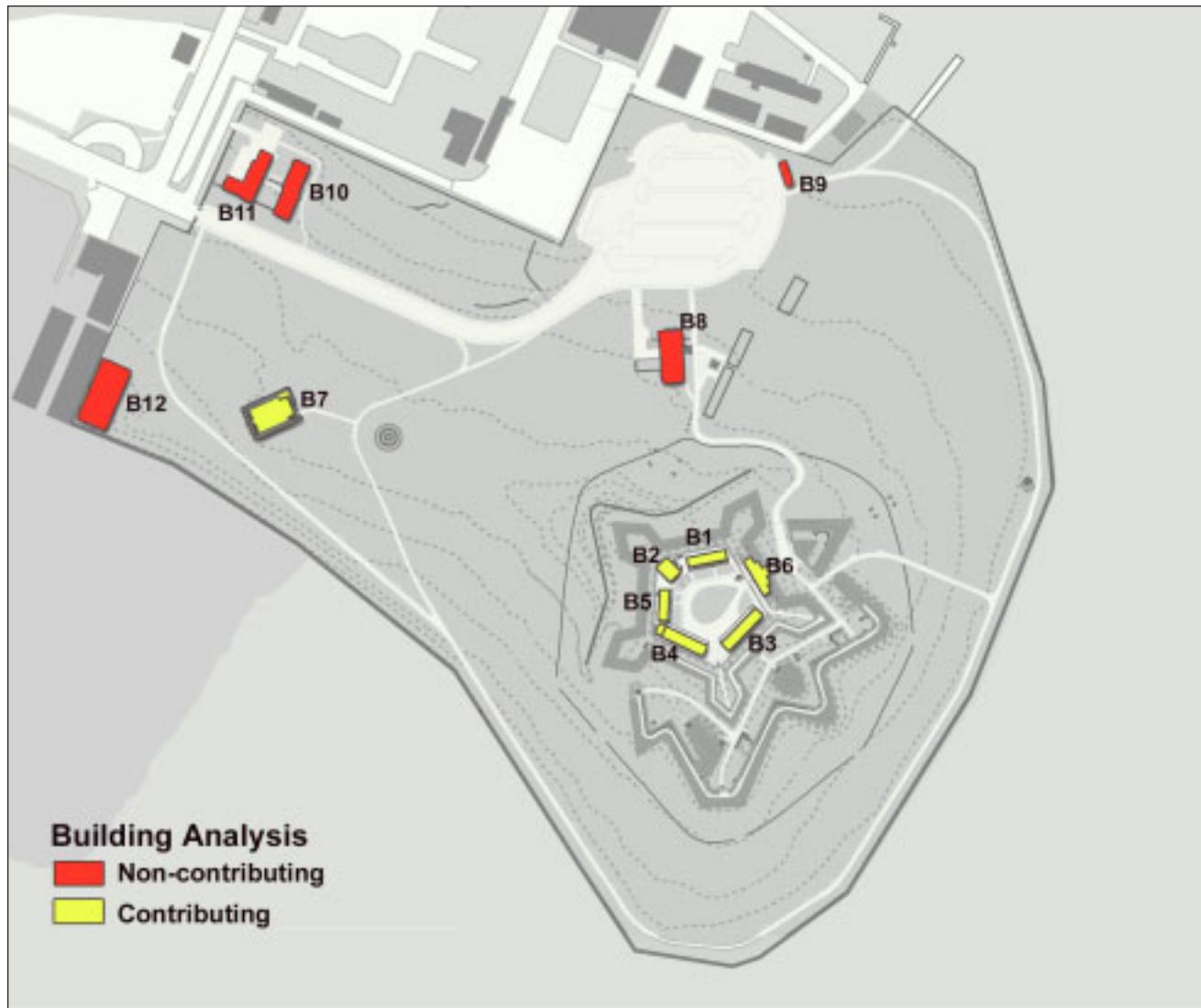


Figure 6.16 Building analysis. The preservation status of Fort McHenry's inventory of buildings is indicated on the diagram shown above. Buildings constructed as part of the MISSION-66 park development and later have been determined ineligible for the National Register of Historic Places. Please refer to the evaluation of landscape characteristics and features found in this report. OCLP.



Figure 6.17. Diagram indicating major views and viewsheds. These areas are also strategic fields-of-fire that are significant in the military history of Fort McHenry. OCLP.



Figure 6.18 Below-ground cross braces belonging to the original flagstaff shown on 1803 drawing of the Star Fort were discovered during archeological investigations of the 1950's, leading to the relocation of the flagstaff in 1959. The flagpole and base were replaced in 1989 after being damaged in a storm. OCLP, July 2003.



Figure 6.19 An extensive archeological record documenting Fort McHenry's physical history and material culture survives below-ground, preserved in the soil. The brick outlines shown above are interpretive markings showing the locations of former garrison buildings outside of the Star Fort. The brick outlines are not themselves historically significant. OCLP, July 2003.



Existing Conditions

Drawing 5

Cultural Landscape Report for
Fort McHenry National Monument
and Historic Shrine

Produced by

National Park Service
Olmsted Center for
Landscape Preservation

Map Sources:

Information presented in this plan is based
on the Fort McHenry National Monument
and Historic Shrine GIS database, June
2003.

Additional vegetation field checking
completed by Fort McHenry National
Monument and Historic Shrine park staff,
November 2003.

Tree identification numbers refer to the
specimens identified in the park GIS
database, 2003.

Notes:

Plan drawn using ArcEditor 8.2, Adobe
Illustrator and Adobe PhotoShop by Mark
Davison, OCLP, NPS.

Legend:

- NPS Land
- Contours
- Earthwork
- Road / Path
- Building / Structure
- Fence
- Tree Canopy
- Landscaped Area

Approximate Scale in Feet

0 100 200 300 400 500



ANALYSIS OF SIGNIFICANCE AND INTEGRITY

The following chapter covering the historical significance and integrity of Fort McHenry is in large part derived from the excellent National Register documentation completed in 1999 by Steve Whissen of the National Park Service's Denver Service Center. The themes and contexts relating to the historical significance of Fort McHenry are presented according to the four National Register criteria. Based on the applicable contexts, this section of the cultural landscape report summarizes the lengthy period of significance for the landscape (1794-1945).

REVIEW OF EXISTING NATIONAL REGISTER STATUS

Following passage of the National Historic Preservation Act of 1966, Fort McHenry National Monument and Shrine was administratively listed on the National Register of Historic Places. Thirty-six years would pass until the appropriate paperwork supporting this listing was filed, with formal documentation approved and signed on 2 April 1999 by the Keeper of the National Register of Historic Places.

The following description is an analysis of the landscape significance. For the purposes of this report, additional descriptions of significant landscape features, omitted from the nomination, have been added to augment and reinforce the existing documentation. The criteria support an overall period of significance from 1794 (construction of Star Fort) to 1945 (period of occupancy by the U.S. Coast Guard and U.S. Navy). Supporting documentation is found in prior sections of this report. Further historic context is found in the following sources: Cheek, et al. *On the shore dimly seen: an Archeological Overview Fort McHenry National Monument and Historic Shrine, Baltimore, Maryland*, NPS, 2000; Sheads, Scott. *Fort McHenry*. Maryland, Baltimore: The Nautical & Aviation Publishing Company of America, 1995; and Nelson, Lee H. "Architectural Research and Exploration at Fort McHenry National Monument and Historic Shrine, Baltimore, Maryland. Conducted as a Part of Historic American Buildings Survey at Fort McHenry." 1958.

NATIONAL REGISTER CRITERION A

THEME: MILITARY

Fort McHenry, constructed between 1794 and 1802 to guard the entrance to Baltimore harbor, is recognized as one of the finest surviving examples of coastal fortifications built during the First American System. This system of federally-funded forts spanned the Atlantic seaboard and the Gulf of Mexico to protect strategic ports from foreign invasion. The site derives preeminent national significance from its pivotal role in the defense of Baltimore during the War of 1812, withstanding a 25-hour British naval bombardment on September 13-14, 1814. From its establishment until 1912, Fort McHenry remained an active military post. Between 1917 and 1923 it served as a receiving hospital for the convalescence of World War I veterans. In 1925 Congress designated Fort McHenry as a national park and "perpetual national memorial shrine" under the administration of the War Department. The enabling legislation specifically called for the fort's preservation and restoration. Several undertakings to address this mandate were carried out by the War Department and later by the National Park Service following transfer of the property to the Department of the Interior in 1933. These efforts are significantly linked to the historic preservation philosophy of the time and the growing recognition that the federal government should play an active role in the protection and interpretation of the nation's important historic sites. In 1939, the fort was redesignated as Fort

McHenry National Monument and Historic Shrine, the only park in the nation to bear this dual distinction. During World War II, the fort served as a U.S. Coast Guard training facility. For its primary association with these historical events, Fort McHenry meets criterion A for listing on the National Register.

NATIONAL REGISTER CRITERION B

THEME: LITERATURE; POETRY

Francis Scott Key, detained off-shore by the British during the 1814 attack on the fort, witnessed the bombardment and was moved to write the poem, "The Star-Spangled Banner." The poem eventually became the National Anthem in 1931. For its association with Key, whose inspired poem has endured as a profound work of patriotic literature and music from the time of its public release immediately after the battle, Fort McHenry meets criterion B for listing on the National Register.

NATIONAL REGISTER CRITERION C

THEME: MILITARY; ENGINEERING

The fort underwent several episodes of construction and modification, both before and after the War of 1812. Although substantially altered in many respects from its appearance at the time of the 1814 bombardment, the essential configuration of the Star Fort has survived to the present. The modifications that have occurred provide insights into the dynamic interplay of technological innovation and political events that over the better part of the last century shaped military designs for coastal fortifications. Therefore, as an expression of the evolution and advances in defense engineering from the late eighteenth to late nineteenth centuries, Fort McHenry also meets National Register criterion C.

THEME: CONSERVATION; HISTORIC PRESERVATION AND ART; SCULPTURE

Resources that further contribute to Fort McHenry's national significance under criterion C include the various statues and commemorative plaques/markers placed at the fort during later periods of memorialization. Among these, the Statue of Orpheus is recognized as a significant artistic work by the renowned neo-classical sculptor, Charles Niehaus. Authorized by Congress in 1914, the statue was dedicated in 1922 to Francis Scott Key and the defenders of Baltimore who participated in the Battle of North Point and the defense of Fort McHenry in 1814. Other important works, placed during the centennial commemoration of the bombardment by various War of 1812 organizations, include the Armistead monument, the American privateers' monument and the British bomb monuments. Therefore the memorialization of Fort McHenry, from the late eighteenth to the early twentieth centuries, based on the national recognition of the events and people associated with the property also meets National Register criterion C.

The 1932 bicentennial celebration of George Washington's birth marked another milestone of memorialization by War of 1812 organizations. This event prompted the planting of trees with memorial plaques dedicated to the fort's commanders during the battle, and the placement of state tablet monuments and the Washington Elm Tree marker. The various plaques and landscape features associated with the 1932 bicentennial celebration have lost historical integrity and no longer contribute to the National Register significance of the property.

NATIONAL REGISTER CRITERION D**THEME: ARCHEOLOGICAL, HISTORIC/NON-ABORIGINAL**

Fort McHenry also meets national register criterion D for its demonstrated ability to yield substantial archeological information regarding the nature and evolution of the fort's various structures and buildings. Important data expanding knowledge of the everyday life of the fort's historic occupants can also be gained from an evaluation of the cultural material acquired during the course of archeological investigations.

NATIONAL REGISTER STATUS OF MISSION 66 PARK DEVELOPMENT AND INFRASTRUCTURE

The National Park Service has recently recognized that the park architecture of the post-WWII period may have historical significance related to the MISSION 66 park development program and that there was a corresponding need for an objective contextual study providing a basis for evaluating significance. Between 1998 and 2000, the agency made progress toward this goal, marked by the completion of *Mission 66 Visitor Centers: The History of a Building Type*. This document includes registration requirements with which to evaluate potential eligibility under this context. As a follow-up to this study of park visitor centers, the NPS has begun a similar examination of Mission 66 and "Parkscapes" landscape infrastructure between 1945 and 1972. Less progress has been made on this second part of the Mission 66 study, and a final product cannot be expected to guide decision-making in the near future.

Guidance to park superintendents from the NPS Associate Regional Director level in Washington, D.C. notes that there is a "need for superintendents to begin National Historic Preservation Act Section 110 and Section 106 consultation with state historic preservation officers [SHPO] early in planning for modifications to or removal of Mission 66 visitor centers and before projects come to the board [DAB] for review."¹⁹²

At Fort McHenry, plans calling for modifications to MISSION 66 buildings and site infrastructure rest upon the consensus that the visitor center at Fort McHenry and its associated landscape did not establish important precedents for the Mission 66 program, did not receive notice in contemporary architectural journals or receive design awards, nor was the building the work of a regionally, nationally, or internationally recognized architect or architectural firm. Due to the late date of its construction within the MISSION 66 program, the Fort McHenry NM&HS visitor center cannot be said to demonstrate distinctive programming, planning, or design features that affected the evolution of the visitor center as a building type nationally, regionally, or internationally. Further, while the Mission 66 park development plan directed toward the Fort McHenry site was important in the history and development of the park, it was not exceptionally so, as evidenced by early criticism of the building and infrastructure design led to plans for its modification as early as 1968. Because of this, a strong case cannot be made for the "exceptional importance" of this building or its landscape typically required of properties less than fifty years old.¹⁹³ Such is the case that was presented to the Maryland SHPO, concurring in June of 2003 with an evaluation of ineligibility.¹⁹⁴

SUMMARY ANALYSIS

In most respects, the fort appears today much as it did in 1933 when transferred from the jurisdiction of the War Department to the National Park Service. Despite the loss of integrity of the surrounding site and modifications of individual buildings and structures, Fort McHenry's extant resources continue to embody a high degree of integrity reflecting the fort's national importance as a coastal defense work from the period of its initial construction (1794-1802) to the end of improvements constructed immediately following the Civil War. After this time, Fort McHenry functioned primarily as a garrison until its closure in 1912, later serving in various capacities that included a World War I hospital and a World War II Coast Guard training facility. The broad significance of the fort is recognized as encompassing these and other later periods. However, the primary physical expression of the fort in its capacity as a coastal defense work is best reflected in the resources constructed between approximately 1800 and 1867. For its primary association with these historical events, Fort McHenry meets criterion A for listing on the National Register.

Apart from meeting criterion A, Fort McHenry also meets criterion B, C, and D. Fort McHenry's meets criterion B for listing on the National Register for its association with Francis Scott Key, whose inspired poem has become the National Anthem of the United States. In addition, the memorialization of Fort McHenry, from the late eighteenth to the early twentieth centuries, based on the national recognition of the events and people associated with the property also meets National Register criterion C. Fort McHenry also meets national register criterion D for its demonstrated ability to yield substantial archeological information regarding the nature and evolution of the fort's various structures and buildings.

Table 2.1: Summary of Areas of Landscape Significance

Criterion	Theme
Criterion A	Military
Criterion B	Literature; poetry
Criterion C	Military; engineering
Criterion C	Art; sculpture
Criterion C	Conservation; historic preservation
Criterion D	Archeological, historic/non-aboriginal

PERIOD OF SIGNIFICANCE

The National Register documentation for Fort McHenry states that the period of significance for Fort McHenry begins in 1794 and ends by 1945. Based on research and analysis this CLR concurs with these findings. This broad period of significance is summarized chronologically in the table provided below:

**Table 2.2: Period of Significance
(1794-1945)**

<u>End-Date</u>	<u>Era</u>
1794	First American System
1814	Second American System
1840	Third American System
1865	Civil War
1914	Municipal Park - City of Baltimore
1917	Military Hospital
1925	National Park - managed by War Dept.
1933	National Park - managed by NPS
1942	War-time use by U.S. Coast Guard and U.S. Navy

ANALYSIS OF LANDSCAPE INTEGRITY

Integrity is the ability of a property to convey its historic identity or the extent to which a property evokes its appearance during a particular historic period, usually the period of significance. While the evaluation of integrity is often a subjective judgment, particularly for a landscape, it must be grounded in an understanding of a property's physical features and how they relate to the significance. The National Register identifies seven aspects of integrity (location, design, setting, materials, workmanship, feeling, and association). Retention of these qualities is essential for a property to convey its significance, though all of the seven qualities of integrity need not be present to suggest a sense of past time and place. These seven categories describe individual landscape features at the site. Collectively, they help create an understanding of the landscapes historic character and cultural importance. As illustrated in Table 2.3, an analysis of the seven aspects of integrity reveals that the site retains integrity. For Fort McHenry the location, setting, workmanship, feeling, and association is evident, the integrity of the design and materials is diminished.

Today, although many of the defense works external to the fort have been removed or modified, the large-scale spatial organization of the site remains intact in many respects. For example, the fort retains its historic geographic orientation towards Baltimore, the Northwest Harbor and Ferry Branch. The sloping grass-covered area outside the fort walls is at least partially representative of early military efforts to maintain the openness of the area between the fort and the water's edge for defensive purposes. Consequently, a general sense of the strategic importance of the site and the reasons behind its selection for fortifications is readily conveyed to the park visitor.

Circulation networks consist of the two-way paved entrance road to the visitor parking lot, paved roads to the maintenance areas, and several pedestrian walkways. The asphalt entrance road (a continuation of Fort Avenue) follows the historic alignment of the original access road to the fort from Baltimore. While a section of the alignment was eliminated to accommodate the modern curved extension to the visitor parking area, a paved footpath follows a continuing portion of the historic alignment north of the Ravelin. No readily observable evidence of the original roadbed remains. Walkways provide access to the Star Fort, visitor center, and the Civil War Powder Magazine. They extend along the Seawall around the perimeter of the property from the picnic area near the boat dock on the north, to a marsh area on the southwest. Non-contributing park housing and maintenance facilities are clustered at the west end of the property north and south of the entrance.

The boundaries of the property encompass all the land that originally comprised Fort McHenry at the time of the British bombardment in 1814 and most of the additional acreage acquired by the War Department in 1837. The historic setting of the larger site as it existed during the War of 1812 or the Civil War no longer exists; construction in 1917 and later demolition of U.S. Army General Hospital No. 2 substantially altered the topography and other features/structures external to the Star Fort. The present landscape surrounding the fort consists of mowed lawn, ornamental fruit trees, and native and exotic shade trees and shrubs. There are over 25 trees that contribute to the period of significance, which were planted by the War Department in the early 1930s. They are in three groupings; the scarlet oaks (*Quercus rubra*) are located in the northern section of the park, and the sycamores (*Platanus x acerifolia*) are found on the south side of the peninsula. The grounds are carefully managed by park staff as part of overall efforts to commemorate the importance of the site as a national shrine, preserving the historic fabric of the existing features that contribute to the period of significance. For example, grass lawns extend from the boundary (entrance) wall to the Seawall, and are mowing practices are employed to recreate the historic appearance of the field layer at the fort. Modern urban and industrial development lies within the viewshed of the fort. The fort is bordered on the north by the U.S. Naval Reserve Center, the U.S. Army Corps of Engineers, and the Baltimore City Fire Department Fireboat Facility. The former Southern States Grain Cooperative property, currently owned by C. Steinweig of Baltimore, and the Maryland Port Authority border the park on the west.

The landscape of Fort McHenry is dominated by the Star Fort, despite changes over the last two centuries the basic structures remains intact. As originally constructed, the Star Fort was laid out as a regular pentagon with a bastion at each angle. The distance between the points of adjacent bastions is about 290'. The Parade Ground is also configured as a pentagon (about 150' per side), within which are found the former officers' quarters, barracks, and powder magazine. Among the principal historic structures on the exterior of the fort are the Ravelin, the Outer (c. 1840s) Battery, and the Civil War Powder Magazine. More detailed descriptions of the various structures and features of the fort are provided in Chapter 3.

While many of the detailed elements of Fort McHenry's cultural landscape have lost integrity, the site continues to exhibit several broader landscape characteristics that provide insight into the selection and development of the site for defensive purposes. The tip of Whetstone Point offered substantial strategic advantages for the defense of Baltimore by commanding the approaches to the Northwest and Ferry Branches of the Patapsco River. This was as true in 1776 during the Revolutionary War when Fort Whetstone was first constructed on the site, as it was throughout the long span of Fort McHenry's subsequent military service. The topography of Whetstone Point is

characterized by gently sloping low-lying land, without the natural protection of cliffs or rocky escarpments. While this permitted unobstructed views towards the downriver approaches to Baltimore, the site required extensive constructed works to compensate for the lack of natural defenses. Under the prevailing 18th and 19th century theories of coastal fortifications, these consisted of a succession of features designed to repel or impede an enemy's advance: the shore-line and upper gun batteries, the elevated slope (glacis), the ditch (dry moat) with its counterscarp, and ultimately the fort ramparts situated on higher ground.

The clustered arrangement of officers' quarters, barracks, and powder magazine on the small interior Parade Ground, all protected by the enclosing ramparts, has remained a distinguishing characteristic of the Fort throughout its history. Despite substantial alterations and subsequent restorations of individual buildings, and the modifications that accompanied armament and other structural/technological improvements, the War Department never undertook measures to substantially reconfigure the fort proper from its late 18th century pentagonal design. The fort retains and continues to convey the intent of its original design as a tightly contained and functionally integrated coastal defense work and garrison.

The 10 ft.-high brick wall presently marking the western boundary of the grounds was constructed in 1837 following the War Department's acquisition of additional lands in 1836. It not only serves as a formal demarcation of the western property line, but provides the approaching visitor the first physical feature clearly symbolic of the former military presence and control of the site. The boundary wall also provides a ready visual indicator of the maximum spatial extent of the fort grounds attained by the 1830s.

Despite modifications to the surrounding site and modifications of individual buildings and structures, Fort McHenry's extant resources continue to embody a high degree of integrity reflecting the fort's national importance as a coastal defense work from the period of its initial construction (1794-1802) to the end of improvements constructed immediately following the Civil War. After this time, Fort McHenry functioned primarily as a garrison until its closure in 1912, later serving in various capacities that included a World War I hospital and a World War II Coast Guard training facility. The broad significance of the fort is recognized as encompassing these and other later periods. However, the primary physical expression of the fort in its capacity as a coastal defense work is best reflected in the resources constructed between approximately 1800 and 1867.

TABLE 2.3: INTEGRITY SUMMARY FOR FORT MCHENRY

<u>Aspects of Integrity</u>	<u>Landscape Integrity Assessment</u>
Location	Retains location;
Design	Diminished design; The nucleus of the main structure remain, but peripheral garrison structures have been lost and portions of the Star Fort have been altered. Existing conditions suggest somewhat greater integrity to conditions present late in the historic period, c. 1945.
Setting	Retains setting; The fort and its relationship to the water has been retained the open views that characterized this relationship remain.
Materials	Diminished materials; Buildings, roads, paths, and structures remain, but there have been broad changes to the vegetation and circulation, as well as the loss of major structures. Non-historic buildings and furnishings have been added.
Workmanship	Retains workmanship; The brick masonry associated with the Star Fort and portions of the earthen work remain intact and are well-maintained. High levels of grounds maintenance also contributes to integrity of workmanship.
Feeling	Retains feeling; The feeling of an institutional, military landscape is retained. Elements contributing to integrity of feeling include the high level of grounds maintenance, the continued presence of the Star Fort, flag and military items, and boundary wall and gate.
Association	Retains association; Association with the site with the War of 1812 is retained.

EVALUATION OF LANDSCAPE CHARACTERISTICS AND FEATURES

The following evaluation of individual landscape characteristics and features at Fort McHenry is in large part derived from the excellent National Register documentation completed in 1999 by Steve Whissen of the National Park Service's Denver Service Center, and the Determination of Eligibility (DOE) of Fort McHenry's MISSION 66 visitor center and park infrastructure prepared by Anna von Lunz in 2003. A small number of modifications have been made to Mr. Whissen's evaluations regarding the contributing vs. the non-contributing status of certain features based on the research conducted during the course of preparing this report. von Lunz's evaluation of the ineligibility of Fort McHenry's park development under the MISSION 66 program is carried forward in this report.

SITE-WIDE LANDSCAPE CHARACTERISTICS AND FEATURES

SPATIAL ORGANIZATION-SITE WIDE

0.1 - EAST-WEST AXIS

Historic Condition: The east-west axis is the one of the primary characteristics organizing the spatial organization of the landscape (*Figure 8.1*). The geometry of the east-west axis was originally derived from the subdivision of land parcels on the peninsula prior to the Revolutionary War. This subdivision of parcels made allowance for an east-west right of way for access. During the war of 1812 the fort was accessed via the Road to Baltimore which was the first tangible use of the east-west axis as an organizing element in the landscape. When the post was expanded in 1837 the road was renamed Fort Avenue. With the extra land the Army constructed the majority of service buildings and quarters on the north side of the road, and used the south side for drilling. The axis continued to provide the major land approach to the Fort and it was not until the Mission 66 era that the axis was interrupted with the construction of the present park Visitor Center and the realignment of the entrance road.

Existing Condition: Currently the axis is a major organizing element in the landscape, the main entrance road to the site still follows the historic route (up to curve leading to the Mission 66 parking lot), and the park uses interpretive device to denote the missing portion of the old road. The majority of the park era services are located to the north of this axis, and the historic features are located to the south including the Star Fort, Key Memorial, and Civil War Powder Magazine.

Evaluation: Contributing.

0.2 - NORTH-SOUTH AXIS

Historic Condition: The north-south axis is a primary landscape characteristic organizing the spatial organization of the landscape. The western boundary of the post during the 1814 bombardment was the physical expression of the north-south axis. Even after the Army expanded the post in 1837 this axis remained important as the alignment for a road leading to the post's wharf. More recently, the presence of this axis, marking the extent of the military reservation during the 1814 bombardment has continued to influence major planning decisions within the park. The land to the east of the axis is regarded with a higher level of significance; in consequence development of park facilities are restricted in this area and have only been allowed to the west of the axis.

Existing Condition: The north-south axis is less visible than it was historically. However, as a planning tool the imaginary line forms an important boundary that prevents modern development from encroaching upon the 1814 era landscape.

Evaluation: Contributing.

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CIRCULATION-SITE WIDE

C.1 - FORT AVENUE (FOMC 30; LCS NO. 81229)

Historic Condition: Although since modified, this road was the original access and supply route to the fort from Baltimore and existed at the time of the fort's construction and the subsequent 1814 bombardment.

Existing Condition: Because of modifications in road materials and width, the alignment is the only remaining historic element (*Figure 8.2*). There are about 670' of original road alignment within the park boundaries. The paved asphalt entrance drive with concrete curbs and gutters follows the historic alignment for 570' from the park entrance to the curve leading to the visitor parking area. A paved footpath follows another portion of the alignment for 100' from the marble posts marking the historic lane to the former Washington Elm tree north of the Ravelin. All visible traces of the historic roadbed have been eliminated along the course of the alignment.

Evaluation: Contributing.

C.2 - PARKING LOT AND CONNECTING ENTRANCE DRIVE

Existing Condition: The visitor parking lot and connecting portion of the entrance drive were constructed as part of the Mission 66 improvements undertaken in the park between 1963 and 1964 (*Figure 8.3*). The modern section of the entrance drive curves for 300', connecting the parking lot to the primary entrance drive (the alignment of historic Fort Avenue).

Existing Condition: The landscaped lot measures approximately 350' by 300' and is paved with bituminous asphalt.

Evaluation: Non-Contributing.

C.3 - OVERFLOW PARKING AREA

Historic Condition: A grass turf parking area is located to the west and adjacent to the paved parking area to handle overflow vehicle parking during peak visitation events. This area was formerly used as part of a larger exercise/drill ground following the annexation of land to the reservation in 1836. The need for overflow parking area was discussed during the early 1960's soon after completion of the visitor center and is shown on park maps and photographs during the 1970's.

Existing Condition: The over flow parking area measures 400' by 130', and is constructed of soil amended with crushed stone to improve the structural weight-bearing qualities of the soil. The reinforced sub-surface can withstand occasional parking during peak periods in visitation

Evaluation: Non-Contributing.

C.4 - VISITOR CENTER PATHWAYS

Historic Condition: The visitor center pathways were constructed in the early 1960s as part of the Mission 66 building program (*Figure 8.4*). A subsequent modification to these pathways includes the accessibility ramp facilitating wheelchair access into the building, constructed in the 1980s.

Existing Condition: The paths are located in the vicinity of the visitor center and include: a connector path between the historical aligned Fort Avenue path and the parking lot approximately 250' in length; a plaza area next to the Armistead Statue; a universal access path approximately 100' in length; and a path to the rear of the visitor center that is approximately 175' in length (Diagram 3).

Evaluation: Non-contributing.

C.5 - PARADE DRIVE (FOMC 19; LCS NO. 81214)

Existing Condition: The drive is first depicted on a c. 1888 plan of the fort, and was originally surfaced with oyster shells. The alignment of the drive is historic.

Existing Condition: The parade drive is a circular gravel driveway (12 to 30' wide) entering from the Sally Port and encircling the grassy area in the center of the Parade Ground.

Evaluation: Contributing.

C.6 - PARADE WALKWAYS (FOMC 18; LCS NO. 81213)

Existing Condition: The configuration of the walkways corresponds to those identified on an 1834 plan drawing, although it is unknown if the walks were bricked at that time. However, brick walkways in a herringbone pattern are evident in a photograph of the Parade Grounds taken sometime between 1883-1894. Plan maps of the fort, including the earliest from 1803, depict drain gutters in place within the parade prior to construction of the parade wall in the 1830s. These drains followed the same general alignment as at present.

Existing Condition: Brick walkways laid in a herringbone pattern connect the parade buildings. Brick gutters presently run along the base of the parade wall, intended to drain surface water to the postern tunnel.

Evaluation: Contributing.

C.7 - SEAWALL TRAIL (FOMC 31; LCS NO. 81230)

Historic Condition: Prior to the War Department's site restoration work of the late 1920's and early 1930's, visitors to Fort McHenry used the coping stones of the Seawall itself as a walkway. The Seawall Trail originated as a War Department park development project (*Figure 8.5*).

Existing Condition: This 8' wide asphalt pedestrian trail borders the Seawall for 4050'.

Evaluation: Contributing.

C.8 - STAR FORT CONNECTOR

Historic Condition: This path is located near the range light and connects the Seawall Trail with the Star Fort. The path was constructed as part of the War Department site restoration in the 1930s connecting the Seawall Trail to a visitor parking lot located adjacent to the Ravelin. When the War Department parking lot was removed in the early 1960s as part of the Mission 66 program, a new section of path was built through the site of the former parking lot in order to maintain the continuity of the trail.

Existing Condition: The Star Fort connector path measures approximately 390'.

Evaluation: Non-contributing.

C.9 - TOUR BOAT DOCK CONNECTOR

Historic Condition: Located in the northeast section of the park, this path connects the tour boat dock, constructed during the 1970s, with the Seawall Trail.

Existing Condition: The Tour Boat Dock Connector Path measures approximately 150'.

Evaluation: Non-contributing.

C.10 - KEY MEMORIAL PATH

Historic Condition: The path was constructed in the early 1960s as part of the Mission 66 building program. The route leads from the main entrance road, near the parking lot, passes the west side of the Key Memorial, before connecting with the Seawall Trail.

Existing Condition: The Key Memorial path measures approximately 870'.

Evaluation: Non-contributing.

C.11 - MAGAZINE PATH

Historic Condition: This small path connects the Civil War Powder Magazine with the curved portion of the Key Memorial path (see above). This path was constructed during the early 1960s as part of the MISSION 66 park development program.

Existing Condition: The magazine path measures approximately 113 feet in length.

Evaluation: Non-contributing.

C.12 - INTERPRETIVE BRICK WALKS

Historic Condition: This system of walks originated c. 1898 while Fort McHenry was still an active military reservation, at that time being surfaced with gravel and marl, (*see Figure 3.17 and 3.18*). In the mid-1930s these walks were paved with brick using financial resources of Franklin Roosevelt's "New Deal" WPA program.

Existing Condition: Herringbone pattern, 9' wide. Begins at Ravelin and continues past Sally Port around to the east between the Star Fort and the Outer Battery. Walk continues, extending to the top of the Star Fort ramparts (IDLCS: 81220/Struc. #29).

Evaluation: Contributing

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VEGETATION-SITE WIDE

V.1.SW – HISTORIC TREES

Historic trees at Fort McHenry can be defined as those trees of sufficient age to have been present during Fort McHenry's period of historical significance, which for purposes of the National Register of Historic Places, ended in 1945 (*refer to Figure 6.15*).

RED OAK

Historic Condition: The red oaks were planted throughout the site by War Department between 1928 and 1932.

Existing Condition: The mature specimens that survive today are probably part of a larger planting. The existing trees tend to be located on the periphery of the property or in areas that were not disturbed by the Mission 66 development phase. The DBH ranges between 11" and 32" and the eight specimens range in height between 27' and 57'.

Evaluation: Contributing.

SYCAMORE

Historic Condition: The sycamores were planted throughout the site by War Department between 1928 and 1932.

Existing Condition: The mature specimens that survive today are probably part of a larger planting. The existing trees tend to be located on the periphery of the property, especially on the south side of the peninsula.

Evaluation: Contributing.

TREE-OF-HEAVEN

Historic Condition: The tree-of-heaven was planted prior to the National Park Service period. A small grouping is located on the south side of Fort Avenue and a single specimen remains to the east of the parking lot.

Existing Condition: There are four trees that exist as a group of three and a lone specimen that is surrounded by the urban forestry program plantings. They are all mature specimens with an average DBH of 33", ranging in height from 55' to 63'.

Evaluation: Contributing.

LITTLELEAF LINDEN

Historic Condition: The littleleaf linden may have been planted by the War Department although further research will be required to date the tree.

Existing Condition: The tree is located next to the Civil War Powder Magazine. The linden is 34' tall and has a canopy spread of 30'.

Evaluation: Contributing.

SILVER MAPLE

Historic Condition: The silver maples were possibly planted by the War Department in the early 1930's.

Existing Condition: One tree is located near the visitor's center. Another, nearby, was removed in 2004 due to storm damage. Despite the similarities in height and DBH, specimen 3-1-96 has a canopy of 45' and 3-1-100 has a canopy of 89'.

Evaluation: Contributing.

V.2.SW – MISSION 66 PLANTING

NORTHWEST BOUNDARY PLANTINGS

Historic Condition: Located in the northwest section of the park, the plantings in this area are a result of the Mission 66 development period. After the construction of the park housing, administration building, and maintenance building the park has planted trees for their ornamental value and for the purposes of screening the modern structures from arriving visitors.

Existing Condition: The mixed planting ranges in height between 8' to 59'.

Evaluation: Non-contributing.

PARKING LOT PLANTINGS

Historic Condition: The majority of the trees were planted in the early 1960s to provide shade for visitors after the construction of the parking lot.

Existing Condition: The majority of the trees are mature ranging in height between 14' to 60'. Apart from some ornamental plantings willow oaks make up the majority of the planting.

Evaluation: Non-contributing.

VISITOR CENTER PLANTINGS

Historic Condition: The majority of the ornamental plantings surrounding the visitor center are attributed to the construction of the visitor center in the early 1960s and later.

Existing Condition: The mixed planting varies in height and represents an evolution of the original planting plan over time. The tallest tree is the European lime, at 60', while the smallest are the recently planted 12' installed near the entrance to the building.

Evaluation: Non-contributing. The majority of vegetation surrounding the Visitor Center does not contribute to the period of significance.

KEY MEMORIAL PLANTINGS

Historic Condition: The crabapples around the Key memorial were planted by the park after the relocation of the statue.

Existing Condition: The trees form an informal semi-circle around the Key memorial. The surviving trees have matured to a uniform height of 27'.

Evaluation: Non-contributing.

V.3.SW – RECENT PLANTINGS**NORTH BOUNDARY SCREEN**

Historic Condition: The mixed planting along the northern boundary of the property screens the park from buildings on the Navy Reserve and Corps of Engineers property. The trees were planted by the park after the completion of the Mission 66 development

Existing Condition: The mixed planting is dominated by white pine that provides an evergreen screen. The mixed aged screen ranges in height from 10' to 60'.

Evaluation: Non-contributing.

ROW OF RED MAPLE

Historic Condition: The park planted the red maples along the northern section of the Seawall Trail before 1987.

Existing Condition: This irregular row of trees provides shade to benches located on west side of the Seawall Trail. The specimens range in height between 11' and 33'.

Evaluation: Non-contributing.

STAR FORT APPROACH PLANTINGS

Historic Condition: The trees along the approach path to the Star Fort were all planted by the park. The date of the two crab apple specimens is not known, but it is likely that they date to the Mission 66 development period. The white oak was planted by President General Ford in 1975 in conjunction with the bicentennial celebrations. Recently, the park planted the three Lombardy poplar whips based on evidence that the trees formed a row along Fort Avenue during the 1814 period. Their current location is not supposed to represent replacement of the historic trees; rather they were planted by the park to improve the historic character of this area.

Existing Condition: The crab apples have reached maturity, with the tallest reaching 29'. The Lombardy poplar's are still whips, but are already exhibiting a good form.

Evaluation: Non-contributing.

RIVERFRONT GROVE

Historic Condition: The Riverfront Grove was begun in 1988, implementing the recommendations of the park's 1987 Concept for Facility Development and Landscape Treatment Plan. The intent of this plan was to screen the visual intrusion of off-site industrial development. The area chosen for the planting was within the 1814 period boundary, north of the Star Fort. In subsequent years, additional trees have been plated in this area, often for commemorative purposes.

Existing Condition: The mixed planting ranges in height from 5.5' to 54'.

Evaluation: Non-contributing.

TREES NEAR FORT AVENUE

Historic Condition: This planting represents a mixed grouping of trees that have been planted as ornamental specimens outside of the 1814 period boundary. The exact planting dates for each specimen remain unknown at present.

Existing Condition: The trees are spread throughout the western portion of the park. The majority are mature specimens ranging in height 20' to 55'. An exception is the 'Liberty' elm, resistant to Dutch Elm disease, that is still a young sapling south of the Key memorial.

Evaluation: Non-contributing.

ROW OF JAPANESE PAGODA

Historic Condition: The Japanese pagoda trees were planted by the park lining the north side of the main entrance road.

Existing Condition: This uniform planting ranges in height between 33' and 53". The canopy spread of the trees varies from 33' to 62'.

Evaluation: Non-contributing.

V.4.SW - GROUNDS TURF

Historic Condition: The use of non-native turfgrasses to cover the ground plane and ramparts at Fort McHenry has been a longstanding practice during the period of significance. This is well documented in narrative accounts as well as graphically. Livestock was allowed to graze throughout the post, as fencing limited access to the earthen slopes of the fortifications.

Existing Condition: The use of non-native turfgrasses continues as the primary vegetative groundcover at the park. The grass is currently kept mown much shorter than it would have been during most of the historic period, especially prior to 1890.

Evaluation: Contributing.

SMALL-SCALE FEATURES - SITE WIDE**F.1.SW CLASSICALLY STYLED MARBLE BENCHES**

Historic Condition: - Twelve classically styled marble benches were originally positioned around the statue of Orpheus, along the perimeter of the drive that formerly encircled the statue in the center of Fort Avenue. The benches were placed in 1922, and were dispersed when the statue was relocated in 1963. Four of the original benches are presently found around the statue of Orpheus, and the remainder are widely distributed on-site. The benches are about 12 ft.-long, with decorative carved scrollwork on the pedestal supports.

Existing Condition: The marble benches are about 12' long, with decorative carved scrollwork on the pedestal supports (*Figure 8.6*). The benches are in good condition, although their bases are currently embedded in a concrete base, raising the potential for future damage.

Evaluation: Contributing.

F.2.SW CLASSICALLY STYLED CONCRETE BENCHES

Historic Condition: Seventeen classically styled concrete benches are placed throughout the site, many of them along the Seawall Trail. These benches were designed and installed by the War Department in 1930 to replicate the general scale and appearance of the classically styled marble benches.

Existing Condition: These benches remain in good condition, however their bases have been embedded in concrete, raising the potential for future damage (*Figure 8.7*).

Evaluation: Contributing.

F.3.SW LIGHT POLES AND FIXTURES

Historic Condition: The current light poles and figures are of contemporary design, being installed after the end of the site's period of significance in 1945.

Existing Condition: These fixtures appear to be in good condition, however technical evaluation of their operation is outside the scope of this report (*Figure 8.8*).

Evaluation: Non-contributing.

F.4.SW INTERPRETIVE PANELS

Historic Condition: Interpretive panels were not present historically.

Existing Condition: Interpretive panels featuring historic images and original artwork, accompanied by explanatory text were introduced by the National Park Service during the 1970s, designed and developed by the bureau's Harper's Ferry Center (*Figure 8.9*).

Evaluation: Non-contributing.

F.5.SW INTERPRETIVE DEVICES

Historic Condition: Three brick outlines showing the location of missing historic buildings and three bollards marking the original alignment of Fort Avenue are found within 1814 reservation boundary.

Existing Condition: The brick building outlines and the bollards marking the original alignment of the post entrance road were installed as part of the park development program of the 1960s (*Figure 8.10*).

Evaluation: Non-contributing.

F.6.SW CONTEMPORARY PARK BENCHES

Historic Condition: Park benches were first introduced to Fort McHenry during the brief period that it was used as a municipal park by the City of Baltimore between 1914 and 1917.

Existing Condition: A wide variety of park benches are found on site attributed to the MISSION 66 period of park development and later (*Figure 8.11 and 8.12*).

Evaluation: Non-contributing.

F.7.SW WASTE RECEPTACLES

Historic Condition: For the purposes of this report, waste receptacles should be considered modern park fixtures.

Existing Condition: The trash cans and waste receptacles appear to be serviceable, generally meeting the needs of the public.

Evaluation: Non-contributing.

F.8.SW SPLIT-RAIL FENCING

Historic Condition: Three-rail fencing featuring dressed timbers for posts and dimensional lumber for rails appears in views of Fort McHenry between 1839 and 1883. This fencing is seen surrounding the earthen slopes and features of the fortifications, protecting them from curious visitors and grazing animals.

Existing Condition: Commercially available split rail fencing was installed in the approximate configuration of the prior fencing during the autumn of 2001 (*Figure 8.13*). While the choice of three rail fence sections is intended to evoke the design of the earlier fencing, images of the fencing in place during the historic period was not of this construction or materials.

Evaluation: Non-contributing.

F.9.SW FIRE HYDRANTS

Historic Condition: The castings of these municipal fixtures are marked with the date "1981."

Existing Condition: The park's collection of fire hydrants appears to be in good condition, however, technical evaluation of their operation and suitability is outside the scope of this report (*Figure 8.14*).

Evaluation: Non-contributing.

F.10.SW PARK SIGNAGE

Historic Condition: A diverse collection of park signage has been a dynamic, highly changeable, feature of the park landscape since the beginning of Fort McHenry's management as a national park. The signs can all be dated to MISSION 66, the Bicentennial, or later.

Existing Condition: The various signs making up the current collection of park signage are well cared for and in good condition (*Figure 8.15 and 8.16*). The majority of signs feature white lettering on a brown field manufactured by Federal Prison Industries, Inc. (UNICOR).

Evaluation: Non-contributing.

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HISTORIC CORE-LANDSCAPE CHARACTERISTICS AND FEATURES

BUILDINGS - HISTORIC CORE LANDSCAPE CHARACTER AREA

The following evaluations of individual features describes the historic condition, existing condition, and preservation status of buildings found in Fort McHenry's historic core, the area east of the 1814 reservation boundary (*refer to Figure 6.16*). During the 1990s, extensive masonry preservation work was performed on all of the masonry structures and buildings associated with the Star Fort. The multi-year cost of this program of work, identified as "Fort Restoration Packaged 276c, totaled to approximately 6.2 million dollars and was completed in 2003-2004.

B.1.HC - COMMANDING OFFICERS' QUARTERS (FOMC 01; LCS NO. 07752; BUILDING A)

Historic Condition: This two-story brick building was constructed ca. 1800. It is located on the north side of the Parade Ground between bastions 1 and 2. It was originally one-story with a gable roof and dormer windows. A second story was added with full-length covered piazza on the front facade as part of extensive remodeling in 1829. A two-story addition was also constructed in 1829 connecting the building to the adjacent guardhouse; the guardhouse was subsequently converted to a kitchen. In 1894, the quarters were again remodeled in conversion to a supply storehouse/office, and the piazza was removed. In 1929, as part of the War Department's restoration of the fort, the piazza was restored and deteriorated sections of the brick exterior walls were rebuilt and repointed. New tin roofs, gutters, and drainspouts were installed at that time.

Existing Condition: The building measures approximately 79' by 18'. It presently exhibits an unadorned appearance with evenly-spaced rounded porch columns and simple porch railing; a raised-seam metal roof over the second floor piazza; sash windows of 20 lights on the front and rear; a tin shed roof with stepped parapet end walls and two brick chimneys. The first floor is presently used for interpretive wayside exhibits. The second floor serves as the park's living history storeroom and office. As part of the Fort Restoration Project (Package 276:1991-2004) restoration and treatment work was accomplished on brick masonry walls, chimneys and parapets, roof replacement. Wooden porch features were repaired and replaced, shutters repaired and painted, and window casements repaired and replaced.

Evaluation: Contributing.

B.2.HC - POWDER MAGAZINE (FOMC 02; LCS NO. 00355)

Historic Condition: This is the original powder magazine serving Fort McHenry, constructed ca. 1800. The magazine was originally not bombproofed, and damage sustained during the 1814 bombardment prompted the construction immediately afterwards of a vaulted arched roof of brick and slate with reinforced brick walls. These measures gave the roof of the structure a character similar to gambrel roof, or otherwise, a barn-like appearance. A brick traverse was constructed in front of the magazine as part of the defensive preparations during the War of 1812. The traverse was initially integrated into the bombproofing but was later removed. The magazine was evidently used until the late 19th century.

Existing Condition: The one-story brick structure measures approximately 30' by 40' and has a single entrance on the south elevation. As part of the Fort Restoration Project (Package 276:1991-2004) restoration and treatment work was conducted on brick masonry walls and wooden architectural elements.

Evaluation: Contributing.

B.3.HC - JUNIOR OFFICERS' QUARTERS (FOMC 03; LCS NO. 07553)

Historic Condition: This building (ca. 1800) is located between bastions 2 and 3 and is similar to the other residential quarters in appearance. It was originally one-story with a gable roof and dormer windows. A second story was added with full-length covered piazza on the front facade as part of extensive remodeling in 1829. In 1894, the second floor was removed, and the building was converted into a bakery. In 1929, the second floor and piazza were reconstructed. Deteriorated exterior walls were rebuilt and repointed at this time, and a new tin roof, gutters and drainspouts were installed. Existing Condition: The Junior Officers' Quarters measures approximately 62' by 18.5'. One of the first floor rooms is presently used for interpretive wayside exhibits and the upstairs for park personnel quarters. As part of the Fort Restoration Project (Package 276: 1991-2004) restoration and treatment work was directed toward brick masonry walls, chimneys and parapets, roof replacement, wooden porch features repaired and replaced, shutters repaired and painted, window casements repaired and replaced.

Evaluation: Contributing.

B.4.HC - ENLISTED MEN'S BARRACKS NO. 1 (FOMC 04; LCS NO. 07554)

Historic Condition: The Enlisted Men's Barracks No. 1 is located between bastions 3 and 4. As originally constructed (ca. 1800), it was one and one-half stories with gabled roof and dormer windows. In 1829, the building was remodeled with the addition of a second story, piazza and kitchen on the west end. Deteriorated exterior walls were rebuilt and repointed in 1929, a new tin roof, gutters, and drainspouts were installed. This building is notable, as was the only structure at Fort McHenry to remain a residential structure from the date of original construction c. 1802 to the departure of the last active garrison in 1912.

Existing Condition: This building, similar in appearance to the other historic residential quarters, measures 91' by 22'. An interpretive exhibit presently occupies one first floor room, and another first floor room is used for a classroom. Ranger offices, restroom, kitchen, and the park library are located upstairs. As part of the Fort Restoration Project (Package 276:1991-2004) restoration and treatment work was accomplished on brick masonry walls, chimneys and parapets, wooden porch

features repaired and replaced, shutters repaired and painted, window casements repaired and replaced. Original wooden shingles dating to 1829 period were found during the restoration work conducted to replace the tin roof on the front piazza, indicating the presence of original woodwork.

Evaluation: Contributing.

B.5.HC - ENLISTED MEN'S BARRACKS NO. 2 (FOMC 05; LCS NO. 00356)

Historic Condition: This building is also similar in appearance to the other residential quarters. It is located between bastions 4 and 5. As originally constructed (ca. 1800), it was one and one-half stories with gabled roof and dormer windows. A second story was added with full-length covered piazza on the front facade as part of extensive remodeling in 1829. In 1894, its second floor piazza was removed and the building converted to a quartermaster's office and storehouse. In 1929, the deteriorated exterior walls were rebuilt and repointed, the piazza reconstructed, and new tin roofs, gutters and drainspouts installed.

Existing Condition: The Enlisted Men's Barracks No. 2 measures 99' by 22'. Interpretive exhibits are presently on the first floor, and meeting rooms and offices are on the second floor. Archeological investigations were conducted in 1958 of the original (ca. 1800) basement kitchen. As part of the Fort Restoration Project (Package 276:1991-2004) restoration treatment work was accomplished on brick masonry walls, chimneys and parapets as well as roof replacement. Wooden porch features were repaired and replaced, shutters repaired and painted, and window casements were repaired and replaced.

Evaluation: Contributing.

B.6.HC - SALLY PORT AND GUARDHOUSES (FOMC 06; LCS NO. 00354)

Historic Condition: The Sally Port is the fort's primary entrance. The 1803 plan map of the Fort seems to indicate the Sally Port as a simple open passage through the scarp wall between bastions 1 and 5. However, this interpretation may be due to a misunderstanding of historic drafting conventions. The provenance of the Sally Port and Guardhouses remains unknown, yet it is possible that these structures were in place during 1814. The entrance was gated and a bridge spanned the moat in front. The 1819 drawing by William Tell Poussin more clearly indicates a vaulted brick arch constructed over the Sally Port. Underground personnel bombproofs were constructed on either side of the Sally Port in the immediate aftermath of the bombardment, later converted to magazines during the Civil War. In 1835, guardhouses (16 ft. X 24 ft.) were built on either side of the Sally Port. In 1857, three additional prison cells were added to the south guardhouse and one to the north guardhouse. The guardhouses were later used for offices and storerooms. Heavy wooden doors are at either end of the Sally Port, as well as at the interior arched entrances to the bombproofs. From the 1860s to the present, the Sally Port has also served as the fort's primary utility corridor. The Sally Port floor has been altered several times throughout the 19th and 20th centuries (most recently in 1982) and a variety of surfacing materials have been used such as brick, oyster shell and macadam. The present paving consists of brick laid in a herringbone pattern. The Sally Port was restored as part of the overall fort restoration undertaken by the War Department between 1928 and 1929.

An 1819 map of the fort prepared by Captain William Poussin, U.S. Topographical Engineers, further indicates that by that date the Sally Port was covered by an arched roof, and the brick traverse at the interior entrance of the Sally Port had been removed.

Existing Condition: As part of the Fort Restoration Project (Package 276:1991-2004) restoration and treatment work was conducted on brick masonry walls and the vaulted archway, chimneys and parapets, wooden features were repaired and replaced, tin roofs were replaced, and window casements repaired and replaced. The park also installed ventilation systems in the underground bombproofs of this building in an effort to lower the humidity levels. The herringbone brick pathway has been repaired repeatedly over the last few decades.

Evaluation: Contributing.

B.7.HC - CIVIL WAR POWDER MAGAZINE (FOMC 07; LCS NO. 07756)

Historic Condition: The Civil War Powder Magazine was constructed in 1863-64. The structure includes a single entrance door on the northeast face, and a square brick tower at the southwest end serves as a ventilating shaft. Between 1914 and 1917, the City of Baltimore used Fort McHenry as a city park, and converted the building's courtyard area for service as bathhouse and restrooms, resulting in extensive alterations to the magazine's south courtyard and the courtyard's enclosing wall. During World War II, the building interior served as a target pistol range for U.S. Coast Guard officers. Despite the alterations, the structure is considered a rare architectural example of this type of detached magazine from the Civil War period. It was adapted in 1974 for storage of furnishings and collections from Fort McHenry and from Hampton National Historic Site.

Existing Condition: This one-story gabled brick/concrete magazine includes a detached 8' high exterior wall approximately 600' northwest of the Star Fort. The structure measures about 80' by 40' and the detached wall is 96' long by 62' wide. In conjunction with the Fort Restoration Project (Package 276:1991-2004) restoration and treatment work was conducted on brick masonry walls of both the structure and the courtyard wall. Wooden features were repaired and replaced, the slate roof was repaired.

Evaluation: Contributing.

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STRUCTURES - HISTORIC CORE LANDSCAPE CHARACTER AREA

The following evaluations of individual features describes the historic condition, existing condition, and preservation status of various structures found in Fort McHenry's historic core, the area east of the 1814 reservation boundary.

S.1.HC - STAR FORT RAMPARTS

Historic Condition: Construction of the Star Fort ramparts began in 1794; despite numerous repairs and alterations the configuration of the structure has been retained.

Existing Condition: The ramparts are comprised of several structural components constructed variously of earth and brick/stone masonry (*Figure 8.17*). In profile these exhibit an irregular stepped appearance. Proceeding from the exterior of the ramparts inward, the principal components are the scarp wall, earthen parapet, breast height wall, earthen terreplein, and parade wall

Evaluation: Contributing.

S.2.HC - SCARP WALL (FOMC 12; LCS NO. 00352)

Historic Condition: The scarp walls are the exterior walls of the Star Fort comprising the outer part of the bastions and the curtain walls separating adjacent bastions. The scarp walls were originally capped with coping stones that soon deteriorated and were completely replaced with new granite coping in the 1830s. While the overall configuration of the scarp walls has not been altered, regular repair and replacement has left only small sections of the original brick fabric in place.

Existing Condition: The scarp walls are battered (sloping inward from the ground up) and vary in height between 9', 8" and 13, 6". They are constructed of English bond brick facing, several courses thick, over an inner wall of mortared stone. Sandstone quoins are present at each external angle of the scarp. The foundation consists of roughly dressed and irregularly laid granite. Stone counterforts buttress the inner wall of the scarp.¹⁹⁵ Major restoration and treatment work was conducted during the Fort Restoration Project (Package 276 – 1991-2004) to repoint and repair masonry features of the scarp walls.

Evaluation: Contributing.

S.3.HC - PARAPET

Historic Condition: The parapets were also originally designed with two embrasures (openings) through the flanks of each bastion to permit artillery fire. These were later filled-in in 1813. The sodded earthen parapets of the ramparts originally sloped gradually upwards from the scarp wall and then steeply down from the peak to the infantry banquette. Erosion has contributed to the modification of the parapet profile over the years. An attempt to prevent erosion was made in 1844 with the clapboarding of the parapet's inner slope. While the locations of all gun embrasures have not been positively identified, archeological excavations conducted in 1994 identified the location of an original embrasure on the left flank of bastion 3; the location agreed with that depicted on the 1803 plan of the fort.

Existing Condition: Need more information

Evaluation: Contributing.

S.4.HC BREAST-HEIGHT WALL (FOMC 12.A; LCS NO. 81247)

Historic Condition: - The parapets were significantly modified in 1837 by construction of the brick breast-height wall on the inner slope. This wall was later raised by 18". In 1839, bringing the height to about 3.5'. Zinc sheathing and sandstone coping were also installed at the top of the wall at that time. The wall was intended to protect the infantry from enemy fire and to retain the earth of the sodded interior parapet.

Existing Condition: Other than subsequent repairs necessitated by water damage, the breast-height wall has remained relatively unaltered. Major restoration and treatment work was conducted during the Fort Restoration Project (Package 276 – 1991-2004) including repointing and repair masonry features of the scarp walls.

Evaluation: Contributing.

S.5.HC - TERREPLEIN

Historic Condition: The terreplein (the broad surface of the rampart extending originally from the infantry banquette below the breast- height wall to the parade wall) underwent several episodes of modification. The terreplein within the bastions was altered in 1813 with the placement of wooden platforms to allow artillery fire over the parapet walls. Construction of the breast-height wall (1837-39) and subsequent infantry banquette (1840) further altered the terreplein along the bastions and curtains. Gun emplacements and traverses were installed on the terreplein that also experienced modification as a consequence of armament improvements.

Existing Condition: Twenty original brick traverse remnants of the 1842 gun mounts remain below grade along the southern terreplein between bastions 3 and 5.

Evaluation: Contributing.

S.6.HC PARADE WALL (FOMC 17; LCS NO. 81212)

Historic Condition: The parade wall was constructed in 1834 around the perimeter of the Parade Ground. The wall varies in height from about 2 ft. near the Sally Port to over 6 ft. behind barracks no. 2. It separates the parade from the adjacent earthen terreplein, that previously sloped to the level parade surface. A portion of the wall behind the powder magazine is brick and was constructed in the immediate aftermath of the 1814 bombardment as part of measures to bombproof the magazine. In 1962, the park removed 10 ft. of the parade wall adjacent to the Sally Port.

Existing Condition: The parade wall is random-coursed ashlar with stone coping and is in good condition.

Evaluation: Contributing.

S.7.HC POSTERN (FOMC 25; LCS NO. 81215)

Historic Condition: Introduced to the fort c. 1813-1814, the postern tunnel originally served the purpose of a drain, centered below the rampart between bastions 4 and 5. It was designed to carry water runoff from the parade to outside the scarp wall. The postern assumed its present configuration c. 1834, when the Parade walls were constructed. An vault-roofed masonry drain was placed below the floor of the existing tunnel c. 1836 delivering stormwater runoff into the river. The postern also provided a secondary means of access and communication between the fort and outer defense works. If a caponniere (protected covered passageway) was constructed as part of the 1813 improvements recommended by Col. Wadsworth, access between it and the Star Fort would have been via the postern. Following construction of the exterior battery in the 1830s, access between the battery and the fort would also have been by way of the postern.

Existing Condition: The postern tunnel served as a passageway and primary drain from the parade to the exterior of the fort and passed below the curtain wall between bastions. The postern is approximately 2', 3" wide by 4', 7" high. Granite lintels and support surrounds are present at the gated interior and exterior openings. During the 1991-2004 Fort Restoration Project, the postern tunnel underwent major treatment and the interior space was filled with foam and sand.

Evaluation: Contributing.

S.8.HC RAVELIN

Historic Condition: The Ravelin was constructed in 1813-14 to bolster defense of the exposed Sally Port. The road that led to the fort from Baltimore crossed the dry moat at the north face and passed through the Ravelin, exiting at the gorge and crossing to the Sally Port. Wooden bridges were constructed across the moat and gorge to permit access. The road through the Ravelin was also filled-in in 1839 and the entrance through the north face bricked-up to permit the movement of troops and supplies between the fort and the Water Battery. The Ravelin entrance was reconfigured and the road which originally passed through the Ravelin to the Sally Port was filled-in. Gun emplacements were also installed on the Ravelin, on the shoulders of the fort bastions, and in the dry moat between bastions 1 and 2.

Existing Condition: The Ravelin is a detached, triangular-shaped earthen and masonry structure. Both faces of the Ravelin are about 133' long.

Evaluation: Contributing.

S.9.HC RAVELIN SCARP WALL (FOMC 13; LCS NO. 07750)

Historic Condition: The Ravelin's battered brick scarp walls are similar in appearance to those of the Star Fort. The walls were constructed on a brick foundation instead of stone and were buttressed with brick counterforts.

Existing Condition: The walls vary in height between approximately 8' and 10'. Sandstone quoins are present at the exterior angles of the scarp, with granite coping at the top of the walls. Major restoration and treatment work was conducted during the Fort Restoration Project (Package 276:1991-2004) to repoint and repair masonry features of the scarp walls.

Evaluation: Contributing.

S.10.HC RAVELIN BREAST-HEIGHT WALL (FOMC 13.B; LCS NO. 81245)

Historic Condition: In 1837, 3 ft.-high brick revetment walls were constructed on the raised inner slope of the Ravelin's parapet. In common with the breast-height walls of the Star Fort, these walls were raised by 18 in. in 1839. Seven gun emplacements were constructed along the breast-height walls on the Ravelin's terreplein at that time. Remnants of the infantry banquetttes that separated the gun emplacements are still evident on the Ravelin.

Existing Condition: Remnants of the infantry banquetttes that separated the gun emplacements are still evident on the Ravelin. The walls are 4', 6" high. Restoration and treatment work was conducted during the Fort Restoration Project (Package 276: 1991-2004) which included repointing and repair of masonry features of the scarp walls.

Evaluation: Contributing.

S.11.HC GUNS AND EMPLACEMENTS (FOMC 13.A; LCS NO. 81218)

Historic Condition: In 1865, near the end of the Civil War, a gun emplacement for a 15". Rodman gun was constructed at the salient of the Ravelin, supplanting three earlier emplacements and necessitating rebuilding of the revetment wall at that location. A 15" Rodman gun cast in 1865 is currently positioned at the salient, the only gun now mounted on the Ravelin.

Existing Condition: In addition to the Rodman and its emplacement, four 1839 gun emplacements (granite pintle blocks, 8', 6" by 9" with traverse circles) remain on the Ravelin.

Evaluation: Contributing.

S.12. HC MAGAZINE NO. 1 (FOMC 20; LCS NO. 81217)

Historic Condition: As part of the post-Civil War improvements undertaken in 1866, magazine no. 1 was constructed in the Ravelin.

Existing Condition: This underground powder magazine consists of a two-chambered brick barrel vault (approximately 38' by 20'). Two entryways from the gorge provide access to a vestibule, from which two flights of brick steps descend to the magazine. Restoration and treatment during the Fort Restoration Project (Package 276: 1991-2004) which included installation of bentonite matting and injection grouting to prevent water from entering and deteriorating interior masonry chambers. Ventilation systems were installed in the chambers to reduce dampness.

Evaluation: Contributing.

S.13. HC OUTER BATTERY

Historic Condition: Construction of the earthen parapet and revetment wall of the Water Battery was carried out between 1836 and 1837 under the direction of Lieutenant Henry Thompson, U.S. Army Corps of Artillery. The battery extends from the east face of the Ravelin to the left shoulder of bastion 3. Although technically not a true Water Battery in the traditional sense of being constructed near the water's edge, its purpose was nevertheless to provide a first line of defense between the fort and the Seawall. Thirty-nine gun emplacements were built within the battery between 1837 and 1838. Two shot furnaces were added in 1842, structures later demolished as a consequence of improvements carried out towards the end and immediately following the Civil War. Archeological testing conducted in 1993 uncovered foundation remains of one of the shot furnaces, located opposite the salient of bastion 5. In 1866, two underground magazines, two underground bombproofs, and a free-standing earthen traverse were constructed within the battery. The magazines and bombproofs are brick chambers covered with sodded earthen mounds that were intended to protect, respectively, powder and troops; they also functioned as traverses.

Existing Condition: Experiencing similar issues common to masonry features elsewhere at Fort McHenry, the magazines, bombproofs, and breast-height wall have experienced deterioration associated with moisture and poor drainage. The earthen slopes appear to be in good conditions (*Figure 8.18*).

Evaluation: Contributing.

S.14. HC OUTER BATTERY BREAST-HEIGHT WALL (FOMC 14; LCS NO. 07755)

Historic Condition: A steep earthen slope (glacis) originally extended from the top of the parapet to the Seawall. This feature was severely modified and impacted in 1917 by construction of U.S. General Hospital No. 2. Settlement of the breast-height wall shortly after construction necessitated rebuilding efforts in 1839. The new wall was built 18 in. higher than the original with a corresponding increase in the height of the parapet. Recent archeological investigations have demonstrated that the 1839 reconstruction altered only the top section of the wall and its outer face, and that the original 1837 wall and foundation were retained. The entire revetment wall was repaired and repointed in 1929. Extensive rebuilding of portions of the wall using modern materials

occurred in the 1980s, with removal of original stone foundations. Despite the rebuilding efforts, the brick wall retains its exterior appearance and configuration from the post-Civil War period.

Existing Condition: The brick revetment wall is approximately 1000' long, and averages about 4' in height.

Evaluation: Contributing.

S.15.HC WATER (OUTER) BATTERY GUNS AND EMPLACEMENTS (FOMC 14.A; LCS NO. 81221)

Historic Condition: In 1865, four emplacements for 15-in. Rodman guns were constructed in the Water Battery. Construction of these emplacements required the removal or modification of several 1830s emplacements and the modification of adjacent sections of revetment wall.

Existing Condition: There are presently eleven Rodman guns with iron carriages mounted on display in the battery: four (8"), three (modified 10" to 8"), and four (15"). In addition to these guns and their emplacements, thirteen emplacements with no guns mounted survive above ground in the Outer Battery featuring granite pintle blocks and traverse circles.

Evaluation: Contributing.

S.16.HC MAGAZINE NO. 2 (FOMC 21; LCS NO. 81224)

Historic Condition: Located opposite the postern tunnel, magazine no. 2 was constructed in 1866.

Existing Condition: The magazine consists of a 3-chambered brick barrel vault (49' by 20') with an iron-gated entry vestibule. Restoration and treatment during the Fort Restoration Project (Package 276: 1991-2004 which included installation of bentonite matting and injection grouting to prevent water from entering and deteriorating interior masonry chambers. Ventilation systems were installed in the chambers to reduce dampness.

Evaluation: Contributing.

S.17.HC MAGAZINE NO. 3 (FOMC 22; LCS NO. 81225)

Historic Condition: Magazine no. 3 was constructed in 1866, and is located opposite the right face of bastion 4.

Existing Condition: The magazine is also a 3-chambered brick barrel vault (approx. 37' by 25'). Two arched entry portals with iron gates lead to two vestibules, each providing access to the main chamber. Restoration and treatment during the Fort Restoration Project (Package 276: 1991-2004 which included installation of bentonite matting and injection grouting to prevent water from entering and deteriorating interior masonry chambers. Ventilation systems were installed in the chambers to reduce dampness.

Evaluation: Contributing.

S.18.HC BOMBPROOF NO. 1 (FOMC 23; LCS NO. 81222)

Historic Condition: Bombproof no. 1 was constructed in 1866, and is located opposite the right face of bastion 5.

Existing Condition: The bombproof is a brick barrel-vaulted chamber (14' by 28' by 8', 10" high). Restoration and treatment during the Fort Restoration Project (Package 276: 1991-2004 included installation of bentonite matting and injection grouting to prevent water from entering and deteriorating interior masonry chambers. Ventilation systems were installed in the chambers to reduce dampness.

Evaluation: Contributing.

S.19.HC BOMBPROOF NO. 2 (FOMC 24; LCS NO. 81223)

Historic Condition: Located opposite the salient and left face of bastion 4, bombproof no. 2 was constructed in 1866, and is similar in configuration to bombproof no. 1.

Existing Condition: The bombproof measures 14' by 30' and is 8', 10" high.

Evaluation: Contributing.

S.20.HC TRAVERSE (FOMC 26; LCS NO. 81216)

Historic Condition: The traverse was intended to protect the Ravelin, Sally Port, and Water Battery from enfilade fire. Construction of the traverse and magazine nos. 1 and 2 supplanted several earlier gun emplacements and a section of the revetment wall.

Existing Condition: A free-standing traverse consisting of a 10' high earthen mound is located opposite the left face of bastion 5. At its base, the traverse measures about 20' by 30'.

Evaluation: Contributing.

S.21.HC MOAT (FOMC 16; LCS NO. 07751)

Historic Condition: Constructed by 1803, the moat is an original feature of the defense works surrounding all but the fort's southeastern side. The 1819 Poussin map depicts the moat completely around the fort and the Ravelin. The moat has undergone several alterations, notably by filling and alignment modifications undertaken in 1929 during the War Department's restoration activities, construction, and demolition of the World War I hospital, and by the introduction of a parking lot and roadway adjacent to the Ravelin.

Existing Condition: Remnants of the dry moat or ditch exist on the north and northwest sides of the fort adjacent to the scarp wall, and by the north wall of the Ravelin. The moat is presently about 4' deep and the width varies between 25' and 40'.

Evaluation: Contributing.

S.22.HC GLACIS

Historic Condition: Construction of U.S. Army General Hospital No. 2 in 1917 for the convalescence of World War I veterans, and removal of the hospital buildings by 1929, resulted in extensive disturbance to the landscape surrounding the fort. Among the external features disturbed by the construction and grading undertaken during this period were the glacis (the earthen defensive slope that formerly extended from the Water Battery to the Seawall) and dry moat around the perimeter of the Star Fort.

Existing Condition: This earthwork feature survives, thought altered by past programs of construction and demolition.

Evaluation: Contributing.

S.23.HC SEAWALL (FOMC 09; LCS NO. 07758)

Historic Condition: The Seawall was not present during the historic 1814 bombardment of Fort McHenry. Initial construction of the wall began in 1816, with a second phase of construction between 1836 and 1839. Work on additional sections on the southern riverbank continued until 1895. The wall is constructed of cut granite stones set flush with the earthen sod embankment behind the wall. The eastern half of the wall was reset in 1974-75, and rip-rap was added as protection at that time. The wall was severely damaged by Tropical Storm David in 1979 that displaced numerous coping stones. Repairs were made in 1985 to a wall section near the city pier. Also, between 1836 and 1839, the heavy masonry Seawall east of the fort near the water's edge underwent a second phase of construction (initial work on the wall began in 1816). Additional sections of the Seawall were constructed up until 1895, extending the overall length of the wall to about three-quarters of a mile.

Existing Condition: The Seawall is a heavy masonry retaining wall, about three-quarters of a mile in length next to the water's edge (*Figure 8.19*).

Evaluation: Contributing.

S.24.HC TOUR BOAT DOCK

Historic Condition: A c.1977 boat dock and pier (located outside the park boundary near the end of the Seawall) is incorporated into the park's visitor circulation system. It is owned by the City of Baltimore and leased by the city to the Harbor Shuttle (*Figure 8.20*).

Existing Condition: The tour boat dock is a wood structure with pilings, approximately 155' long. The decking was destroyed during Hurricane Isabel in September 2003 and rebuilt in April 2004.

Evaluation: Non-contributing.

S.25.HC RANGE LIGHT

Historic Condition: The tower provides a vital navigational and safety service for ships entering Baltimore harbor during darkness. The site for present tower was granted to the Department of Transportation by Congress in 1913.

Existing Condition: This is a 60' high steel navigational aid equipped with a flashing green range light. It is located on a 30' by 30' site near the Seawall east of the Star Fort.

Evaluation: Contributing.

S.26.HC UTILITY CORRIDORS

Historic Condition: Several utility corridors cross the grounds of the national monument including: a 1913 right-of-way easement held by the City of Baltimore for two underground electrical lines granted by the Department of Commerce; and a 1925 right-of-way easement held by the U.S. Coast Guard for the electrical line serving the light tower; a 1947 right-of-way easement held by the

City of Baltimore for two sealed water mains; a right of way held by the U.S. Navy for the water main supplying the U.S. Naval Reserve Center; sealed underground steam lines from the U.S. Naval Reserve Center passing through the curtain wall between bastions 1 and 2.

Existing Condition: Evaluation of the existing conditions of utilities and legal easements is outside the scope of this report.

Evaluation: Requires further evaluation.

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MEMORIALS - HISTORIC CORE LANDSCAPE CHARACTER AREA

The following evaluations of individual features describes the historic condition, existing condition, and preservation status of various memorials found in Fort McHenry's historic core, the area east of the 1814 reservation boundary.

M.1.HC AMERICAN PRIVATEERS' MONUMENT (FOMC 27; LCS NO. 81226)

Historic Condition: This monument consists of an 1814 cannon from an unknown Baltimore ship mounted on a granite base. It was erected in 1914 by the Society of the War of 1812 to commemorate the private armed vessels that were commissioned to capture British ships during the War of 1812. The dedication plaque has been removed.

Existing Condition: The American privateers' monument is located near the southwestern end of the Water Battery breast-height wall.

Evaluation: Contributing.

M.2.HC BRITISH BOMB MONUMENTS (FOMC 28; LCS NO. 81231)

Historic Condition: The British bomb monuments represent mortar and carcass shells from the 1814 bombardment that failed to explode. They are mounted on rough-cut granite shafts. They were erected in 1914 and moved in 1966 adjacent to the Fort powder magazine. One of these monuments has been moved inside the magazine to serve as an interior exhibit.

Existing Condition: These two monuments consist of 13-in. British mortar and carcass shells. The 13-in. carcass shell is the only one known to exist in the United States, and its history is fully documented.

Evaluation: Contributing.

M.3.HC FRANCIS SCOTT KEY MEMORIAL PLAQUE (FOMC 34; LCS NO. 81248)

Historic Condition: This bronze and marble plaque was designed and sculpted by Charles Niehaus in 1914 commemorating the centennial of the 1814 bombardment and Francis Scott Key's writing of "The Star-Spangled Banner."

Existing Condition: The plaque is placed in the southeast scarp wall of bastion 1 about 4 ft. above ground level. Bronze was cleaned and waxed during the autumn of 2000 (*Figure 8.21*).

Evaluation: Contributing.

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VIEWS AND VISTAS – HISTORIC CORE LANDSCAPE CHARACTER AREA

The following evaluations of views and vistas describes the historic condition, existing condition, and preservation status of major views found in Fort McHenry's historic core, the area east of the 1814 reservation boundary.

V.1.HC FIELD OF FIRE VIEW TOWARDS THE WATER

Historic Condition: The major existing views incorporate the former fields of fire that provided for the defense of Baltimore and the Star Fort. Therefore, the primary view is from the Star Fort out across water, looking east down the channel of the Patapsco River. This view represents the field of fire designed by the U.S. army to attack approaching enemy vessels during the War of 1812.

Existing Condition: The land between the Star Fort and the water remains open; the view across the water has been retained

Evaluation: Contributing.

V.2.HC VIEWS OF FLAG

Historic Condition: One of the major views is towards the flag, which became an important unifying symbol in U.S. history following the War of 1812. Located in the Star Fort, the flag can be viewed from many angles throughout the park. However, the key vistas are from the visitor center, Fort Avenue, and the Patapsco River.

Existing Condition: The land between the Star Fort and the water remains open, in addition there is a direct line of sight from the visitor center and the although vegetation massing have encroached upon the view from Fort Avenue, the flag is still possible from the road.

Evaluation: Contributing.

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SMALL-SCALE FEATURES – HISTORIC CORE LANDSCAPE CHARACTER AREA**F.1.HC - FLAGPOLE (FOMC 15; LCS NO. 00357)**

Historic Condition: The present flagpole is a 1989 reconstruction replacing an earlier reconstruction of 1959. It is located on the parade near the Sally Port where its position was identified on the 1803 plan map. It stood at this location until 1839, when it was relocated to bastion 5 where it remained until 1959. Archeological investigations conducted at that time recovered the original brace support for the flagpole, confirming its location on the parade. The flagpole was then reconstructed in its original location. The platform is non-historic, constructed in 1959 to serve for ceremonial occasions. The flagpole was damaged in a 1988 windstorm and replaced in 1989.

Existing Condition: The overall height of the flagpole is 89 ft. It consists of two round timber masts (fashioned from 120-year-old Douglas Fir) spliced and braced at a bridge 55 ft. above the ground. The pole is stabilized by steel guy lines attached to a nine-foot by nine-foot square wood platform at the base.

Evaluation: Non-contributing.

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ARCHEOLOGY - HISTORIC CORE CHARACTER AREA

The following evaluations of archeological resources describes the historic condition, existing condition, and preservation status of major known archeological resources within Fort McHenry's historic core, the area east of the 1814 reservation boundary.¹⁹⁶ Evaluations of existing conditions of these resources were provided by John Pousson, Fort McHenry's staff archeologist.

A.1.HC - PARADE CISTERNS

Historic Condition: A cistern was placed between the Enlisted Men's Barracks at the time Fort McHenry was constructed (ca. 1800). For a number of years prior to the War of 1812, however, the garrison relied on water brought in from a well in Baltimore. Archeological investigations in 1978 identified remains of the cistern. Its brick exterior measured 16 ft. X 27 ft., and its interior chamber (10 ft. X 21 ft.) was enclosed with 3 ft.-thick brick walls. The cistern was disturbed by the placement of a septic tank, the construction (ca. 1814-19) of a structure that by 1833 briefly served as a guardhouse, and later by the construction of a shot furnace (1836-37) over the site.

Existing Condition: Approximately three-quarters of the wall of the cistern's subterranean chamber remains in existence between depths of 2 ft. and 8 ft. below grade. Although multiple disturbances have resulted in some loss of integrity, this feature, including the fill soil within the chamber, retains the potential of contributing information of value to interpretation of the early history of the Fort.

Evaluation: Contributing.

A.2.HC - 1813 PARADE WELL

Historic Condition: In 1813, as part of the war preparations, a well was dug a few feet north of the parade cistern. The upper portion of the well (12 ft.-wide X 40 ft.-deep) was shored with wood in the fashion of a mine shaft. Tongue and groove sheet piling was then driven to extend the well to an overall depth of 95 ft. A brick bombproof vault was constructed over the well immediately after the 1814 bombardment. The bombproof vault was removed prior to 1840, although the well (providing 18 gallons per minute of pure drinking water) remained in use until ca. 1870. The well was eventually supplanted by another artesian well constructed in the center of the parade at the beginning of the Civil War. Archeological investigations of the 1813 well were also undertaken in 1978, identifying it as a slightly elliptical brick cylinder (internal diameter 6 ft.; external diameter 9 ft.) covered by a brick dome. A footing for the support pillar of the 1814 bombproof was also identified.

Existing Condition: The shaft and much of the domed brick covering of the now earth-filled well was found to be intact in 1978, as were one part of the associated bombproof's footing, and parade ground surfaces, including walkways. As a feature, the well remains closely associated with the preparations for the British attack, retaining sufficient integrity to convey that fact. The fill within the well has the potential of contributing to the interpretation of the material culture of garrison life in the post- Civil War period.

Evaluation: Contributing.

A.3.HC - RAVELIN ("OLD") BARRACKS, OR UPPER WATER BATTERY BARRACKS

Historic Condition: Utility excavations in 1963 encountered the brick foundation remains of a former barracks located between 40 and 90 ft. northeast of the Ravelin's salient. Subsequent

archeological investigations determined that the structure was 18 ft.-wide X about 48-50 ft.-long. A herringbone-pattern brick floor was found near the base of the northwestern foundation. The barracks was presumably constructed in the late 18th century, either for Fort Whetstone (1776-82) or as part of the initial construction of Fort McHenry (1795-96). It was removed by 1813 as a probable consequence of the Ravelin's construction. Artifacts found in association with the barracks support a late 18th/early 19th century period of occupation.

Existing Condition: The well-preserved footing, flooring, and exterior walkways of a major part of the Upper Water Battery Barracks possess the potential of contributing valuable information concerning the early architecture, living conditions, and material culture of Fort McHenry during the period of its development and the first decade of its existence.

Evaluation: Contributing.

A.4.HC - GUN SHED AND STORE HOUSE

Historic Condition: The functional integration and proximity of these two structures (about 10 ft. apart) have led to their archeological consideration as one contributing site. The structures were built in 1807-08 north of the fort and along the fort's property line. The northwest walls of the structures were eventually incorporated into the fort's 1817 boundary wall. The structures existed into the 1870s, and possibly as late as 1888 when replacement structures were built. Both brick structures were one and one-half stories in height, and served multiple purposes: the upper half-story of the gun shed was evidently used for storage, and the ground floor of the store house was used variously as a stables, artillery shed and barracks. Full-length additions were placed on the northwest sides of both structures prior to 1858, doubling their size. Although an accurate appraisal of dimensions has been complicated by various structural additions and wall realignments, the gun shed measured about 101 ft. X 21 ft., and the store house about 75 ft. X 24 ft. Most of the artifacts collected from the various archeological excavations of the structures were found to be deposited along with later fill material, and do not substantially contribute to the site's interpretation.

Existing Condition: The relative well-preserved footings of these adjacent structure, and associated artifacts, strata, and features, including the footings of the mid-nineteenth century additions to the buildings [see above] possess the potential of contributing valuable information concerning ordnance storage and the provisioning of the garrison of Fort McHenry.

Evaluation: Contributing.

A.5.HC - 1813 HOSPITAL

Historic Condition: This structure (located about 160 yards north of the present Ravelin) provided over a century of service at Fort McHenry; it first served as a hospital from 1813 to 1840, next as the commanding officer's quarters from 1840 to 1912, and finally as the post exchange from 1917 to 1923 during the operation of U.S. General Hospital No. 2. It was demolished sometime between 1925-26 when most of the World War I hospital structures were removed. The original structure measured 57 ft. X 20 ft. Later additions that modified and extended the structure's dimensions included porches on the southeast and northwest sides (1829), a kitchen and service area on the northeast end (1872-73), and a parlor with upper sleeping quarters on the southwest end (1875-76). Archeological investigations in the 1960s did not reveal intact foundation remains, although brick porch footings, wall remnants associated with the additions, and extensive masonry

debris were identified. Most of the recovered artifacts were introduced to the site in imported fill, and lacked useful archeological context.

Existing Condition: The remains of the 1813 Hospital proper were found to be very poorly preserved during the investigations conducted in the mid-1960s, although the survival of the footings of one of the building's 1829 porches, and of an addition made in the 1870s, suggests that the site may retain integrity to a limited extent. Further investigation would be needed to determine if the site has the potential of contributing valuable information concern later periods of its history, in particular the period (ca. 1845-1912) during which its served as the Commanding Officer's Quarters. It is unlikely to retain the potential of contributing to our understanding of its early role as the post's hospital during the historic bombardment of 1814.

Evaluation: Contributing.

A.6.HC - MARRIED SOLDIERS' QUARTERS

Historic Condition: This structure is presumed to have been constructed shortly after 1819, and was removed in 1867. A porch was added in 1829. It was first depicted on an 1834 plan, and described in a letter accompanying the plan as a wood one-story married soldier's quarters consisting of 6 rooms, each about 14 ft. x 14 ft. The structure was converted to officers' quarters by the time of the Civil War, and was last depicted on an 1866 plan. Archeological monitoring and testing in 1975 resulted in the identification of brick pavement remnants adjacent to the structure, sections of the brick perimeter wall footings, and remnants of two of the structure's three double fireplaces and chimneys. Artifacts were recovered that were temporally consistent with the presumed period of construction.

Existing Condition: The investigation conducted in 1978, although limited in extent, and focused on architectural remains, suggests that this site retains sufficient integrity to contribute to our understanding of the mid-nineteenth century architecture, living conditions, and material culture associated with an important component of Fort McHenry's garrison, more specifically with domestic households within the environment of a military post.

Evaluation: Contributing.

A.7.HC - 1817 BOUNDARY WALL

Historic Condition: This was the original wall that extended along the fort's western boundary between 1817 to 1837. Acquisition of additional lands led to the construction in 1837 of a new wall further to the west, and materials from the original wall were salvaged and incorporated into the new wall. Footings of the original wall have been exposed in several archeological investigations conducted in the late 1950s and the 1960s. Where identified, the footing (about 2.5 ft.-wide X .5 ft. thick) typically consisted of a mass of lime mortar poured in a trench and embedded with brick fragments. Investigations have attempted to confirm the wall's alignment in conformance with early plans, and it appears that the 1834 Lee plan is probably more accurate in this regard than the 1819 Poussin plan that also depicts the alignment.

Existing Condition: Portions of the footing of the fort's 1817 boundary wall survive *in situ*, and in that limited regard the feature contributes to interpretation of how the security of the fort was maintained during two decades of the first half of the nineteenth century. It is uncertain, due in part to the manner of previous investigation, if the feature retains sufficient contextual integrity (clear

association with particular strata and deposits of artifacts) to contribute to a greater extent to our understanding of the fort's history.

Evaluation: Contributing.

WEST EXPANSION AREA-LANDSCAPE CHARACTERISTICS AND FEATURES

BUILDINGS - WEST EXPANSION LANDSCAPE CHARACTER AREA

The following evaluations of individual features describes the historic condition, existing condition, and preservation status of buildings found in Fort McHenry's west expansion area, the area west of the 1814 reservation boundary.

B.1.WE - VISITOR CENTER

Historic Condition: The visitor center was constructed in 1963-64 during the period of development in the NPS known as Mission 66. It is located approximately 300' north of the fort. It exhibits a functional contemporary design typical of late 1950s and early 1960s modern architecture.

Existing Condition: The 2400 sq.-ft. visitor center houses a 65-seat auditorium, lobby/exhibit area, restrooms, concession-operated gift shop, and NPS administrative offices and storeroom. The one-story masonry and steel structure is covered with a brick veneer (*Figure 8.22*).

Evaluation: Non-contributing.

B.2.WE - COMFORT STATION

Historic Condition: The park constructed the comfort station in 1988. The building is located near the picnic area and boat dock.

Existing Condition: The one-story wood frame restroom measures 18' by 58'. The hipped roof building has entrances at either end with screened enclosures. A central entrance provides access to plumbing and waste systems (*Figure 8.23*).

Evaluation: Non-contributing.

B.3.WE - EMPLOYEE HOUSING/OFFICES

Historic Condition: A one-story brick and wood frame Mission 66 duplex is located adjacent to the maintenance shop. The gabled, ranch-style building was constructed in 1963-64, with three bedrooms in each unit. Both units were originally used as residences.

Existing Condition: Each unit (six bays wide by two bays deep) measures about 55' by 25'. Currently only the south unit is used as a residence; the north unit functions as adjunct administration and maintenance offices.

Evaluation: Non-contributing.

B.4.WE - MAINTENANCE SHOP

Historic Condition: The maintenance shop was built in 1963-64. It is located in the northwest corner of the monument grounds adjacent to the park housing complex (*Figure 8.24*).

Existing Condition: The maintenance shop measures 2400 sq.-ft. The structure contains two small offices and shop/storage rooms. The one-story masonry veneer building measuring approximately 50' by 110' includes an attached one-story metal panel clad addition measuring approximately 30' by 50'. A brick wall runs along the south elevation concealing maintenance operations and the park housing area.

Evaluation: Non-contributing.

B.5.WE - UTILITY GARAGE

Historic Condition: A new metal garage was constructed in the southwest corner maintenance area of the park in 1996 (*Refer back to Figure 6.4*). It replaces a former one and one-half story, wood-frame garage with board and batten siding constructed in 1940 on the same site. The removed garage was determined ineligible for the National Register of Historic Places in May, 1995.

Existing Condition: The utility Garage measures 60' by 120'.

Evaluation: Non-contributing.

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STRUCTURES - WEST EXPANSION LANDSCAPE CHARACTER AREA

The following evaluations of individual features describes the historic condition, existing condition, and preservation status of various structures found in Fort McHenry's west expansion area, the area west of the 1814 reservation boundary.

S.1.WE BOUNDARY WALL AND ENTRANCE GATES (FOMC 08; LCS NO. 07757)

Historic Condition: Built in 1837, the boundary wall was constructed to demarcate the boundary of the fort following the acquisition of additional land in 1837. An earlier boundary wall constructed in 1817 marked the western boundary of the fort as it existed at the time of the 1814 bombardment. This main gateway was reconstructed by the War Department during the 1930s. Twin wrought iron gates at the main entrance are supported by granite piers. There are also two wrought iron pedestrian gates of similar construction.

In 1878, the War Department leased 2.75 acres within the northeast sector of Fort McHenry to the Baltimore Drydock Company. As a result of a 1990 Congressional Act that eliminated the possibility of transferring this acreage to the park, some 300' of the 1837 boundary wall existing in this area remains in private ownership. It is threatened with removal with no protection under existing historic preservation laws.

Existing Condition: A 10' high brick wall extends along the western boundary of the park 240' north and 575' south of the entrance (*Figure 8.25*). The wall is capped with granite coping, and strengthened at intervals by square brick piers, each of which is 26" wide.

Evaluation: Contributing.

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MEMORIALS - WEST EXPANSION LANDSCAPE CHARACTER AREA

The following evaluations of individual features describes the historic condition, existing condition, and preservation status of various memorials found in Fort McHenry's West Expansion landscape character area, that portion of the military reservation annexed in 1837.

M.1.WE KEY MEMORIAL / STATUE OF ORPHEUS (FOMC 11; LCS NO. 00353)

Historic Condition: The large bronze statue of Orpheus (mythological Greek poet and musician), was sculpted by Charles H. Niehaus, an influential late 19th century neo-classical sculptor. The statue was the winning entry of a design contest authorized by Congress in 1914 to commemorate Francis Scott Key and "The Star-Spangled Banner." After several years delay, the statue was completed and a dedication ceremony was held in 1922, attended by President Warren G. Harding. The large statue of Orpheus (authorized in 1914 but not placed until 1922 in the center of the entrance drive) was a significant artistic work from this period.

Existing Condition: The 22 ft.-high statue stands atop a 15 ft.-high marble pedestal and 25 ft.-diameter base (Figure 8.26). It was originally located in the center of Fort Avenue west of the Fort, and was moved in 1963 a short distance to its present location east of the Civil War Powder Magazine. Bronze was cleaned and waxed during the autumn of 2000.

Evaluation: Although this sculpture and base have been moved from their original setting, the Key Memorial / Statue of Orpheus remains a contributing resource.

M.2.WE ARMISTEAD MONUMENT (FOMC 10; LCS NO. 07759)

Historic Condition: The standing figure of Major George Armistead, fort commander during the 1814 bombardment, was sculpted by Edward Berge in 1914. It was erected by the City of Baltimore and the Society of the War of 1812. It was originally located on the parapet of the Water Battery opposite magazine no. 2, and was moved in 1963 to its present location in front of the entrance to the visitor center.

Existing Condition: The nine-foot tall bronze statue is mounted on a nine-foot by nine-foot granite base with a height of 12' (Figure 8.27). The sculptural bronze was cleaned and waxed during the autumn of 2000.

Evaluation: Although this sculpture and base have been moved from their original setting, the Armistead Monument remains a contributing resource.

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VIEWS AND VISTAS - WEST EXPANSION LANDSCAPE CHARACTER AREA

The following evaluations of views and vistas describes the historic condition, existing condition, and preservation status of the major view found in Fort McHenry's west expansion area, the area west of the 1814 reservation boundary.

V.1.WE FIELD OF FIRE TOWARDS THE ENTRANCE GATE

Historic Condition: The other major view is from the west side of the Star Fort to the entrance gate. This view is significant as it allowed the defense of Star Fort were it subject to a ground assault.

Existing Condition: These views are partially comprised by the planting of trees around the grounds. However, despite the encroachment of vegetation they are still extant or allow for filtered vistas across the relatively flat terrain.

Evaluation: Contributing.

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SMALL-SCALE FEATURES - WEST EXPANSION LANDSCAPE CHARACTER AREA

The following evaluations of small-scale features describes the historic condition, existing condition, and preservation status of various landscape features found in Fort McHenry' west expansion area, the area west of the 1814 reservation boundary.

F.1.WE - NORTHWEST BOUNDARY FENCE (FOMC 08.A; LCS NO. 81244)

Historic Condition: A boundary fence constructed by the War Department in 1926 demarcates the boundary between Fort McHenry and the U.S. Navy installation on the north.

Existing Condition: The iron picket fence is about 5 ft.-high and about 953 ft.-long, with brick/concrete end piers.

Evaluation: Contributing.

F.2.WE - NORTHEAST BOUNDARY FENCE

Historic Condition: This fence (constructed in 1973) extends east for 580 ft. from the northern end of the historic brick boundary wall to a brick corner pylon, and then northerly to the Seawall. It separates the park from parcels owned by the Army Corps of Engineers and the Baltimore Fire Department. The fence was designed to replicate the existing historic boundary fence and replaced a chain link fence dating from the 1930s to the 1950s.

Existing Condition: The 5 ft. 5 in.-tall fence consists of 10 ft. sections of wrought iron spikes anchored in preexisting concrete footings.

Evaluation: Non-contributing.

F.3.WE - STATE TABLET TREE PLAQUES

Historic Condition: The state tablet tree plaques were placed in 1932 to commemorate the entry of each of the states into the nation. Hawaii and Alaska were dedicated in 1964. Most of these plaques have lost the planting of a red oak tree associated with them, diminishing their integrity. Recent grading has furthermore buried much of the small monuments, which originally projected out of the surface of the ground, much like a small footstone found in cemeteries.

Existing Condition: These are concrete commemorative markers with brass plaques (*Figure 8.28*). They are located along the north side of the drive from the entrance gate.

Evaluation: Non-contributing. Managed as a resource.

F.4.WE - WASHINGTON ELM TREE MARKER

Historic Condition: The Washington elm tree marker was placed in 1932 by the Maryland Society of the Daughters of the American Revolution. It commemorates the 200th anniversary of the birth of George Washington. The Washington Elm contracted Dutch Elm disease and was removed in November, 1995. The tree removal was undertaken in accordance with NPS procedures implementing Section 106 of the National Historic Preservation Act of 1966, as amended. The marker was removed and placed in the park's museum collection.

Existing Condition: The concrete marker with bronze plaque is now held in the park's museum collection.

Evaluation: Non-contributing. Managed as a resource.

F.3.WE - WAR OF 1812 COMMANDER MEMORIAL TREE PLAQUES

Historic Condition: The markers were placed in 1932-33 adjacent to commemorative trees that were planted at that time on the fort grounds. The original trees died and have been replaced. The markers were moved in 1962 across the road to their present location between the Key Memorial (Orpheus) and the Civil War Powder Magazine. They represent elements of a commemorative landscape that has lost integrity and their associated significance has been diminished.

Existing Condition: These 32 concrete markers with bronze plaques were erected by various War of 1812 organizations to commemorate commanders of the war. They were moved to the area west of the Orpheus statue to accompany a semicircular planting of crabapples (*Malus spp.*), many of which themselves have subsequently died, leaving the plaques separated from their horticultural/memorial context.

Evaluation: Non-contributing. Managed as a resource.

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ARCHEOLOGICAL FEATURES - WEST EXPANSION CHARACTER AREA

The following evaluations of archeological resources describes the historic condition, existing condition, and preservation status of major known archeological resources within Fort McHenry's west expansion area, the area west of the 1814 reservation boundary.

A.1.WE - TAVERN

Historic Condition: A former tavern was constructed sometime during the mid-1790s adjacent to the southwest side of the entrance road to the fort, and immediately outside the fort's property boundary. The tavern was situated on a privately-owned tract of 4.5 acres. The two-story brick structure measured about 54 ft. X 30 ft. The 1803 and 1806 plans for Fort McHenry depict the tavern, and also another smaller structure (possibly a stable) on the opposite side of the road. The tavern was leased to the fort between 1833 and 1836, although it is not known to what use the structure then served. It is presumed to have been demolished in 1837 when the post was enlarged and the new boundary wall was constructed. Archeological investigations of the tavern site were conducted in 1958 and 1966. Segments of foundation were identified (undressed dark igneous rock laid in lime mortar). A portion of the fill deposited in the cellar was also examined, consisting primarily of densely-packed construction debris (brick, stone, mortar and plaster fragments).

Existing Condition: There have been multiple disturbances of the site of the tavern, and the documentation of previous archeological investigations/observations is vague at best, but it is nonetheless believed that the site retains the potential of contributing to some extent to our understanding of the interrelationship between Fort McHenry and a semi-dependant, public, drinking/lodging establishment.

Evaluation: Contributing.

FIGURES: EVALUATION OF FEATURES



Figure 8.1. Diagram showing primary East-West site axis, and secondary North-South site axis that together organize the spatial characteristics of the property. Contributing. OCLP.



Figure 8.2. Fort Avenue. The segment of Fort Avenue shown to the left of the diagram above, paired with the segment shown on the right indicate what remains of the historic alignment of the access road to Fort McHenry. Contributing. However, surface materials are non-historic. OCLP.

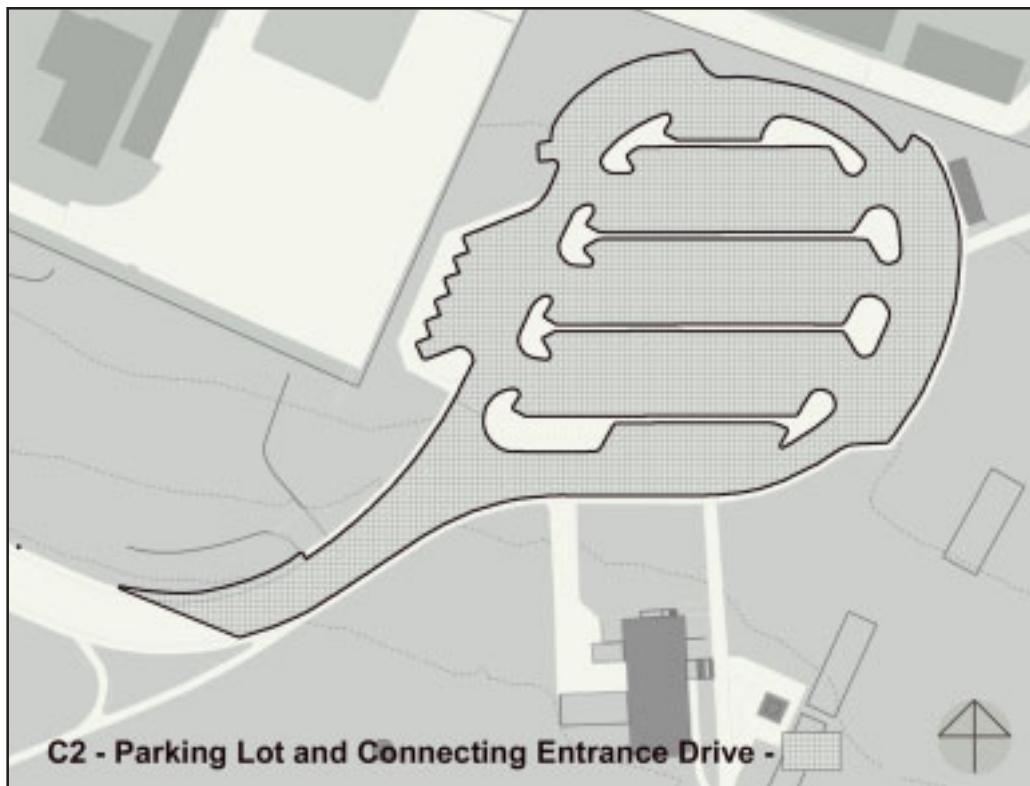


Figure 8.3. *Parking Lot and Connecting Entrance Drive. This portion of Fort McHenry's vehicular circulation system was constructed during 1962 as part of MISSION-66. Non-contributing. OCLP.*

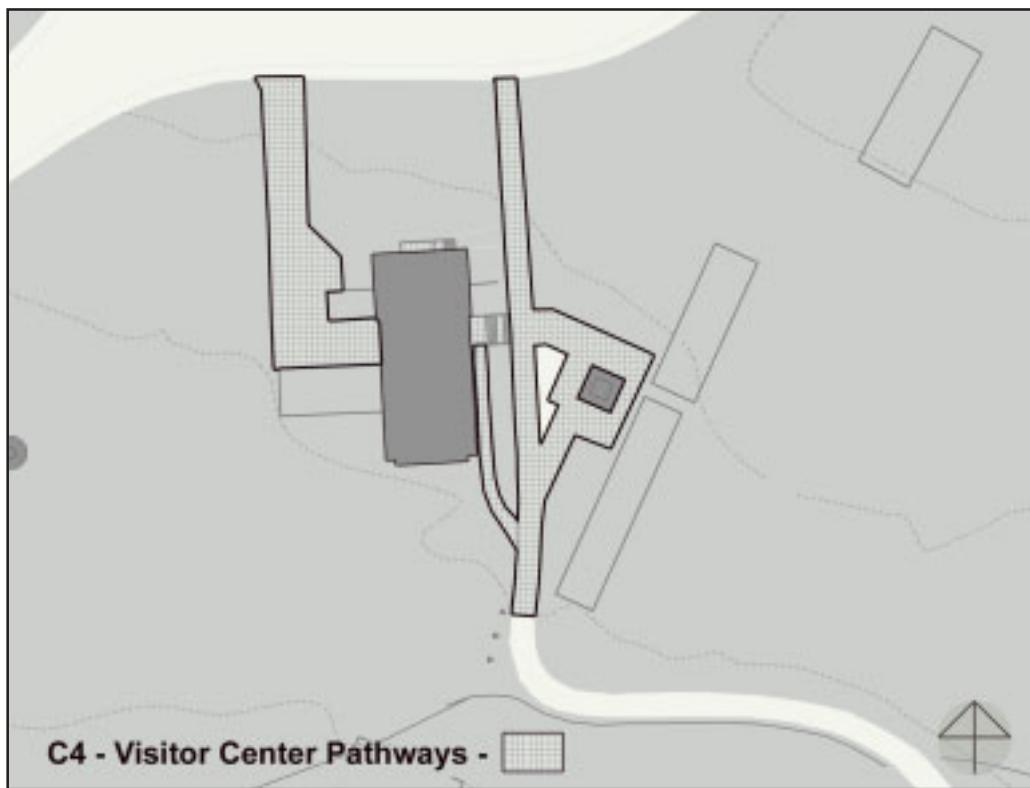


Figure 8.4. *Visitor Center Pathways. The pathways shown in the diagram above were initiated with the construction of the visitor center building during the early 1960s, and have been updated to accommodate Universal Access. Non-contributing. OCLP.*



Figure 8.5. Seawall Trail. This nearly circumferential pathway was constructed by the War Department in 1930 following the removal of buildings associated with the WWI convalescent hospital. Contributing. OCLP.



Figure 8.6 Classically Styled Marble Benches. Eight of these twelve stone benches were originally found at the perimeter of the traffic circle in the central driveway containing the Key Memorial. The remaining four benches were positioned south of the central driveway. These benches were moved in 1962, following the relocation of the memorial. Contributing. OCLP, July 2003.



Figure 8.7 Classically Styled Concrete Benches. During the War Department's stewardship of "Fort McHenry National Park," seventeen additional benches were designed and installed on the outboard side of the Seawall Trail. These benches draw upon the design features of the earlier stone benches, yet were fabricated of inexpensive concrete. These benches have since been relocated to the inboard side of the Seawall Trail. Contributing. OCLP, July 2003.



Figure 8.8 The collection of outdoor lighting, both streetlights and pathlights, are of contemporary design, being installed following the end of the Fort McHenry's period of historic significance. Non-contributing. OCLP, July 2003.



Figure 8.9 Interpretive Panels. Fixtures such as the one shown above are commonplace within units of the National Park Service. Non-contributing. OCLP, July 2003.



Figure 8.10 Interpretive Devices. Fort McHenry features brick outlines showing the location of missing buildings, reconstructed earthworks, and as shown here, bollards marking the location of a former roadway. Non-contributing. OCLP, July 2003.



Figure 8.11 : Contemporary Park Benches. Park benches were first introduced to Fort McHenry during the brief period that it was used as a municipal park by the City of Baltimore between 1914 and 1917. A wide variety of park benches are currently found on site attributed to the MISSION-66 period of park development and later. Non-contributing. OCLP, July 2003.



Figure 8.12 Contemporary Park Benches. One example of the wide variety of park benches found at Fort McHenry is this example, made of carved marble. Intended to mimic the benches first installed in 1922 associated with the Key Memorial (Orpheus), this bench was installed and dedicated in 1991 by the Maryland State Society, National Society Colonial Dames XVII Century. Non-contributing. OCLP, July 2003.



Figure 8.13 Split-Rail Fencing. During the autumn of 2001, commercially-made split rail fencing was installed in the approximate configuration of the fencing found at Fort McHenry between 1839 and the mid-1880s. Non-contributing. OCLP, July 2003.



Figure 8.14 Fire Hydrants. This fixture's main casting includes the date "1981." Non-contributing. OCLP, July 2003.



Figure 8.15 Park Signage. A diverse collection of park signage has been a dynamic, highly changeable, feature of the park landscape since the beginning of Fort McHenry's management as a national park. The signs can all be dated to MISSION-66, the Bicentennial, or later. The majority of signs feature white lettering on a brown field manufactured by Federal Prison Industries, Inc. (UNICOR). Non-contributing. OCLP, July 2003.



Figure 8.16 Park Signage. This example of Fort McHenry's wide variety of signs features type that can be repositioned in order to announce seasonal events, and special circumstances. Non-contributing. OCLP, July 2003.



Figure 8.17 Star Fort Ramparts. Construction of the Star Fort Ramparts began in 1794; despite numerous repairs and alterations the configuration of the structure has been retained. The ramparts are comprised of several structural components constructed variously of earth and masonry. In profile these exhibit an irregular stepped appearance. Contributing. OCLP, July 2003.



Figure 8.18 Outer Battery. Fort McHenry's Outer Battery was built between 1836 and 1837. Featuring emplacements for thirty-nine guns, its purpose was to provide a first line of defense between the fort and the Seawall. Extensive modifications were made in 1866, following the end of the Civil War. Contributing. OCLP, July 2003.



Figure 8.19 Seawall. Construction of the Seawall began in 1816, after Fort McHenry's historic defense of Baltimore, and was not entirely completed surrounding the entire riverfront until the 1890s. Contributing. Navigational Range Light in this view dates to 1913. Contributing. OCLP, November 2003.



Figure 8.20 Tour Boat Dock. This dock, technically outside of the site boundary, serves an important function in the visitor circulation system. It is owned by the City of Baltimore. Non-contributing. OCLP, July 2003.



Figure 8.21 Francis Scott Key Memorial Plaque. This bronze and marble plaque was affixed to the southeast scarp wall of Bastion I in 1914, commemorating the centennial of the 1814 bombardment and Francis Scott Key's writing of "The Star-Spangled Banner." Contributing. OCLP, July 2003.



Figure 8.22 Visitor Center. The 2400 square foot visitor center was constructed in 1963-64 during the period of development in the NPS known as Mission 66. It is located approximately 300' north of the fort. It exhibits a functional contemporary design typical of late 1950s and early 1960s modern architecture. Non-contributing. OCLP, July 2003.



Figure 8.23 Comfort Station. This building, constructed in 1988, is located near the picnic area and tour boat dock. The one-story building measures 18' by 58'. The hipped roof building has entrances at either end with screened enclosures. Non-contributing. OCLP July 2003.



Figure 8.24 Maintenance Shop. The maintenance shop was built in 1963-64. It is located in the northwest corner of the monument grounds adjacent to the Park housing complex Non-contributing. OCLP July 2003.



Figure 8.25: Boundary Wall and Entrance Gates. A ten-foot high brick wall marks Fort McHenry's western boundary. Contributing. OCLP, July 2003.

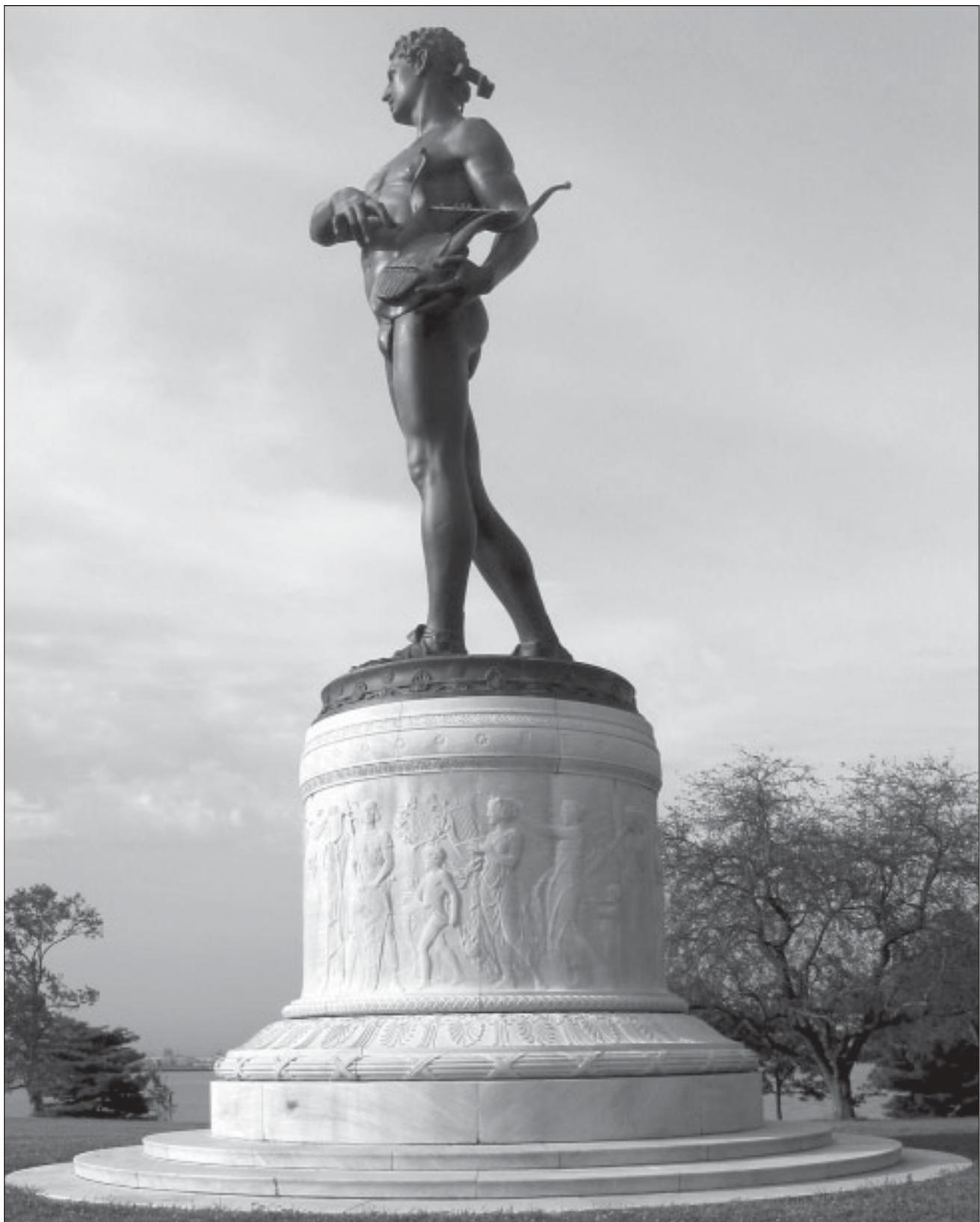


Figure 8.26 Key Memorial (Orpheus). The 22 ft.-high statue stands atop a 15 ft.-high marble pedestal and 25 ft.-diameter base. In 1963 it was moved from its original location to a short distance east of the Civil War Powder Magazine. Contributing. OCLP, July 2003.



Figure 8.27 Armistead Monument. The standing figure of Major George Armistead, commander during the 1814 bombardment, was sculpted by Edward Berge in 1914. Originally located on the parapet of the Outer Battery opposite Magazine no. 2, it was moved in 1963 to its present location as the centerpiece of the plaza in front of the Visitor Center. Contributing. OCLP, July 2003.



Figure 8.28 State Tablet Tree Plaques. These plaques were placed during the Defender's Day celebrations of 1932 to commemorate the entry of each of the states into the nation. Most of these plaques have lost the planting of a red oak tree associated with them, diminishing their integrity. Recent grading has furthermore buried much of the small monuments, which originally projected out of the surface of the ground, much like a small footstone found in cemeteries. Non-contributing, yet managed as a resource. OCLP, July 2003.

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- ⁵ Ibid.
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- ⁷ Francis Jennings, "Susquehannock," in *Northeast*, edited by Bruce G. Trigger, 1978, 364; quoted in Cheek, Balicki and Pousson, 2000, 7.
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- ¹³ Nelson, 1958, 50.
- ¹⁴ Maryland Council of Safety, to the Deputies for Maryland in Congress, January 20, 1776, *Archives of Maryland*, XI. 101.; copy on file, Fort McHenry NM&HS Library.
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- ¹⁶ Baltimore City is located on the North West Branch. The entrance to Baltimore's Inner Harbor is a narrow channel between Whetstone Point and Lazaretto (Gorsuch) Point.
- ¹⁷ An example of a surviving star fort is the pedestal upon which stands the Statue of Liberty currently stands in New York harbor, the former Fort Wood.
- ¹⁸ Cheek, Balicki and Pousson, 2000. 9.
- ¹⁹ Dr. Wiesenthal, to Major Nathaniel Smith, 22 October 1778, Maryland State Papers, Brown Books, Volume 5. 114; copy on file, Fort McHenry NM&HS Library.
- ²⁰ *Maryland Gazette* (Baltimore), 9 September 1777; quoted in Nelson, 1958. 51.
- ²¹ Papers of Louis-Alexandre Berthier, Manuscripts Division, Princeton University Library; quoted in Nelson, 1958. II.
- ²² Samuel Chases's instructions regarding sale of Whetstone Point, n.d., Executive Papers, Nov-Dec 1780, Hall of Records, Annapolis; quoted in Nelson, 1958. 51.
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- ²⁴ Emanuel Raymond Lewis, *Seacoast Fortifications of the United States: An Introductory History* (Annapolis, MD: Naval Institute Press, 1993), 58.
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- ²⁶ Lewis, 1993, 21.
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- ²⁸ Cheek, Balicki and Pousson, 2000. 9.

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- ³⁹ NARA RG 159, OIG 1814-1842; copy on file Fort McHenry NM&HS Library.
- ⁴⁰ NARA RG-159, OIG; copy on file Fort McHenry NM&HS Library, FOMC-SC-69.
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- ⁷² Sharon A. Brown, and Susan Long *Historic Structure Report, Administrative, Historical and Architectural Data Sections : Seawall*. (Washington, D.C.: U.S. Government Printing Office, 1986), 28.
- ⁷³ Inspection Report - Fort McHenry 21 July 1873. (NARA RG-159 - OIG; copy on file, Fort McHenry NM&HS Library, FOMC SC-69).
- ⁷⁴ Inspection Report - Fort McHenry 10 Sept. 1886. (NARA RG-159 - OIG; copy on file, Fort McHenry NM&HS Library, FOMC SC-69). This report comments that there are no gardens on post.
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- ⁷⁷ Lewis, 1993, 75-78.
- ⁷⁸ Lewis, 1993, 78-79.
- ⁷⁹ "Report on the Board on Fortifications or Other Defenses. Appointed by the President of the United States," Approved 3 March 1885, William C. Endicott, Secretary of War (Washington, D.C.: U.S. Government Printing Office, 1886), 182.
- ⁸⁰ Ibid, 8.
- ⁸¹ Ibid, 234. "The Chesapeake Bay is defended by Fort Monroe and Fort Wool. These are inadequate, as vessels could enter the bay and establish a base for hostile operations at any season of the year, and by so doing would sever communications via the inland coast navigation route, which if held intact would render any operations on our Atlantic coast from Massachusetts to Florida very difficult."
- ⁸² Ibid, 67. "... It is now universally admitted that without such auxiliary obstructions [submarine mines] no sea-coast armament can give the needful security. Modern ships of war, with their high speed and heavy armor, can pass any shore battery which the art of man can erect, provided the channel be clear."
- ⁸³ James E. Hancock, "The Story of Fort McHenry and its Restoration," *Baltimore Magazine* (March, 1931), 49; as quoted in Lessem and Kimball 1954, 7.
- ⁸⁴ Sheads, 1986, 71
- ⁸⁵ According to Sheads (1986, 71), the removal of ordnance was not complete when hostilities briefly broke out with Spain in 1898. At that time, the 4th and 6th Artillery were garrisoned at the fort, manning both smoothbore and converted Rodman guns.

⁸⁶ Congressional Record, 57th Congress, 1st Sess., p. 1779; quoted in Lessem and Kimball 1954, 7.

⁸⁷ Rukert, 1983, 78.

⁸⁸ "Fort McHenry, Maryland, Compiled from the latest information," Scale 1" = 100'. Drawn by C.H. Stone. Drawing revised between 1912 and 1919. Notes indicate: "Revocable license of April 30, 1909, to the State of Maryland for the use of the reservation by the Militia of that State and for use of a right-of-way to the wharf constructed under License of Aug 21, 1907." Copy on file, Fort McHenry NM&HS Library.

⁸⁹ Newsclipping: Unattributed 1911; copy on file, Fort McHenry NM&HS Library, FOMC - SC-78.

⁹⁰ U.S. Stat. at Large, XXXVII. 310; quoted in Lessem and Kimball, 1954, 9.

⁹¹ *The News American*, 9 July 1912; quoted in Sheads, 1986, 75.

⁹² *The Baltimore Sun*, 21 July 1912; quoted in Rukert, 1983, 80.

⁹³ "Fort McHenry, Maryland. Compiled from the latest information," Scale 1" = 100'. Drawn by C.H. Stone. Drawing revised between 1912 and 1919. Notes indicate: "All walks and gutters brick except as noted. All roads are oyster shell." Copy on file, Fort McHenry NM&HS Library.

⁹⁴ United States Code: Title 16, Chapter 1, Subchapter LXI, Section 440; quoted in Lessem and Kimball, 1954, 10.

⁹⁵ Olmsted Brothers, landscape architects, to the Honorable James H. Preston, 28 April 1914, Job number 2437. Library of Congress, Records of Olmsted Associates. Microfilm reel #93.

⁹⁶ Frederick Law Olmsted, Jr., "Fort McHenry, Baltimore. Notes, 22 April 1914," Records of Olmsted Associates, Job number 2437. Library of Congress, Microfilm reel #93.

⁹⁷ Sue A. Kohler, *The Commission of Fine Arts: A Brief History, 1910-1995* (Washington, D.C.: U.S. Government Printing Office, 1996), 1.

⁹⁸ Preston to Garrison, 5 November 1914. Records of Olmsted Associates, Job number 2437. Library of Congress, Microfilm reel #93.

⁹⁹ P.R. Jones, Fort McHenry, 4 January 1915, "What Mr. M. [William B. Manning, General Superintendent, Druid Hill Park] wanted me to do was to plan a temporary connection with the straight road the mayor insists on, without doing anything which would prevent the carrying out of our plan when the opposition to it had died out, which would be when Preston got out of the Mayor's chair. I made a study on a blueprint for Mr. M to show the Park Board..." Records of Olmsted Associates, Job number 2437. Library of Congress, Microfilm reel #93.

¹⁰⁰ War Department, *Programme of Competition for a Memorial to be Erected at Fort McHenry Park, Baltimore, Maryland, in Memory of Francis Scott Key and Others*. Washington, D.C. 20 August 1915; reproduced in Records of Olmsted Associates, Job number 2437. Library of Congress, Microfilm reel #93.

¹⁰¹ National Sculpture Society, "Notice to Sculptors," 2 November 1915. Records of Olmsted Associates, Job number 2437. Library of Congress, Microfilm reel #93. "All communications in regard to the Francis Scott Key Competition should be addressed to Col. Wm. M. Harts, U.S.A., personal representative of the Secretary of War in the erection of the Francis Scott Key monument, 1729 New York Avenue, Washington, D.C., and not to the Secretary of the Commission of Fine Arts as stated in our letter of September 9. [Note: Harts concurrently served as Secretary to the Commission of Fine Arts between 1913 and 1917] It is hoped that it will be clearly understood by sculptors that the Commission of Fine Arts is not conducting the competition. It simply advised with the War Department in regard to the programme."

¹⁰² Jury to Secretary, 4 May 1916. Confidential advance copy. Records of Olmsted Associates, Job number 2437. Library of Congress, Microfilm reel #93

¹⁰³ George Mackenzie, "Report on Fort McHenry: Statue of Orpheus," 28 October 1959, copy on file, Fort McHenry NM&HS Library, FOMC - SC - 6 - 53.

¹⁰⁴ [Baltimore] *Evening Sun*, 13 September 1945; quoted in Mackenzie, 28 October 1959; copy on file Fort McHenry NM&HS Library, FOMC - SC - 6 - 53.

¹⁰⁵ Frank Owen Payne, "The National Memorial to the Author of the Star-Spangled Banner," *Art and Archeology*, VI, No. 1, (July 1917), 5-6; quoted in Mackenzie, 28 October 1959. Copy on file, Fort McHenry NM&HS Library, FOMC - SC - 6 - 53.

¹⁰⁶ Heaton to Mackenzie, February 1952; copy on file, Fort McHenry NM&HS, FOMC SC - 45 - B1/F7.

¹⁰⁷ Rukert, 1983; Rukert cites park HARP files 1916-1922.

¹⁰⁸ Emily Raine Williams. "Services Rendered." typescript, no date (post 1933) 38.

¹⁰⁹ Page to G.W. Hubbard, 7 January 1920; copy on file, Fort McHenry NM&HS Library, chronological file, HARP binders.

¹¹⁰ [Baltimore] *Sun*, 20 October 1921; quoted in Lessem and Kimball, 1954, II.

¹¹¹ Lessem and Kimball, 1954, 14, see also, J.E. Hancock, "Restoration," 50.

- ¹¹² Ronald F. Lee, *The Origin & Evolution of the National Military Park Idea* Lee, Ronald F. *The Origin and Evolution of the National Military Park Idea*. Washington, D.C.: National Park Service, 1973.
- ¹¹³ [Baltimore] *Sun*, 23 October 1923; quoted in Lessem and Kimball, 1954, 14.
- ¹¹⁴ Language of original 1925 bill reads, "...as a military reservation, national park and memorial," while the current statute reads, "... as a military reservation, national monument and historic shrine." It is worth noting that Fort McHenry is still considered by this law as, first in this list, a military reservation.
- ¹¹⁵ *The [Baltimore] Sun*. "Home of Star-Spangled Banner Turned Over to City as Park," 28 February 1925; copy on file, Fort McHenry NM&HS Library, FOMC - SC - 78.
- ¹¹⁶ *The [Baltimore] Sun*. "Soon to Become National Shrine: McHenry, Run Down and Neglected, Takes on Appearance of Deserted Graveyard As Senate Passes Bill Turning Over Reservation To City," 28 February 1925; copy on file, Fort McHenry NM&HS Library, FOMC - SC - 78.
- ¹¹⁷ United States Code: Title 16, Chapter 1, Subchapter LXI, Section 437.
- ¹¹⁸ Director of Veterans' Bureau to Secretary of War, 3 April 1925. (National Archives, Quartermaster General Official Correspondence); copy on file, Fort McHenry NM&HS Library, chronological file, HARP binder.
- ¹¹⁹ Lessem and Kimball, 1954, 17.
- ¹²⁰ Q.M. General to Q. M. 3rd Corps Area, 19 May 1925; quoted in Lessem and Kimball, 1954, 18.
- ¹²¹ Lary M. Dilsaver, *America's National Park System, The Critical Documents* (Lanham, Maryland: Rowman & Littlefield, 1994), 74.
- ¹²² Newsclipping: "McHenry Building Razed by Dynamite - One of Hospital Structures at Historic Fort is Destroyed - To be a National Shrine - Birthplace of 'The Star-Spangled Banner' Will be Transformed into Memorial," 1926; copy on file, Fort McHenry NM&HS Library, FOMC - SC - 78. Note: Fort McHenry's 1840 hospital building and its c. 1880 addition were demolished soon after construction of a new hospital in the 1890s.
- ¹²³ Rukert, 1983, 95.
- ¹²⁴ [Baltimore] *Sun*, 5 September 1926; quoted in Lessem and Kimball, 1954, 18.
- ¹²⁵ Quartermaster General's Official Correspondence, National Archives, box 1289, folder 675; quoted in Lessem and Kimball, 1954, 19.
- ¹²⁶ Quartermaster General to Adjutant General's Office 30 October 1939. Quartermaster Generals Official Correspondence, National Archives; quoted in Lessem and Kimball, 1954, 20.
- ¹²⁷ Gerald W. Johnson, "McHenry In The Hands of An Enemy." *The [Baltimore] Evening Sun*, 16 June 1927; copy on file, Fort McHenry NM&HS Library, chronological file, HARP binders.
- ¹²⁸ [Baltimore] *Sun*, 22-23 August 1927, quoted in Lessem and Kimball, 1954, 19.
- ¹²⁹ Senate Report 325, 70th Congress, 1st Session; quoted in Lessem and Kimball, 1954, 20.
- ¹³⁰ Lessem and Kimball, 1954, 22. See also: Newsclipping: "As Fort McHenry Looks Just Before Dedication As Shrine;" copy on file, Fort McHenry NM&HS Library. FOMC - SC - 78.
- ¹³¹ Quartermaster Third Corps Area to Adjutant General, 13 September 1930; copy on file, Fort McHenry NM&HS Library. chronological file, HARP binders.
- ¹³² Quartermaster Third Corps Area to Adjutant General. 13 September 1930; copy on file, Fort McHenry NM&HS Library, chronological file, HARP binders. "Main Gate. After the tearing down of buildings [note plurality] at the main entrance to the Reservation, the iron gates and granite stone gate posts were restored..."
- ¹³³ "Fort McHenry, Md., "Scale 1" = 100', 11 June 1930, revised by Roy M. Messick, Office of Quartermaster Headquarters, Third Corps Area, Baltimore, MD.; copy on file, Fort McHenry NM&HS Library.
- ¹³⁴ Quartermaster Third Corps Area to Adjutant General. 13 September 1930; copy on file, Fort McHenry NM&HS Library, chronological file, HARP binders.
- ¹³⁵ Lessem and Kimball, 1954, 22-23.
- ¹³⁶ Quartermaster Third Corps Area to Adjutant General. 13 September 1930; copy on file, Fort McHenry NM&HS Library, chronological file, HARP binders.
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- ¹⁹⁵ As is true of the various masonry walls throughout the fort, the scarp walls do not exhibit a uniform appearance. This is partly a consequence of the repeated episodes of brick replacement and resulting variations in color and texture. Variations are also attributed to the brick manufacturing processes

employed during the early period of the fort's construction. Brick was then fired at lower temperatures with heat often unevenly distributed within the kiln. This produced differences in oxidizing/reducing atmospheres that accounted for color variations within a single lot of bricks; the variations would be magnified over multiple brick lots, even though all may have been installed within a relatively short period.

¹⁹⁶ Several archeological investigations have been undertaken at Fort McHenry beginning in the 1950s and continuing to the present. These investigations have provided a more complete understanding of the fort's construction, the significance of its various structural and architectural features and the evolutionary sequence of development. For the most part, investigations have been initiated in response to the immediate requirements of maintenance/construction projects in efforts to mitigate the impacts associated with these undertakings. Where sufficient integrity exists, Fort McHenry's archeological resources contribute to the overall National Register significance of the property. Archeological resources have frequently been identified in association with extant historic buildings and structures, for the most part consisting of footings, builder's trenches, artifacts and stratified soil deposits. In other instances, investigations have uncovered the remains of demolished structures that are identified in the historical record but no longer exhibit surface features, existing solely of below grade remnants and associated artifacts (e.g., privies, parade cistern, shot furnace, gun mounts, etc.). Outside the fort walls, the locations of several investigated structures in existence at the time of the 1814 bombardment (e.g., tavern, hospital, barracks, and stables) are marked and outlined with bricks. In many cases, ground disturbance associated with the construction and removal of U.S. General Hospital No. 2 has likely impacted the archeological integrity of these resources. Among the early structures adapted for use by the hospital and then later removed were three 1843 stables (located in the northeastern portion of the 1836 addition to the fort's grounds). Two of the stables were used as prisons during the Civil War; all three served as barracks afterwards and continued in this function throughout the operation of the hospital. Numerous foundations of the World War I hospital buildings, themselves worthy of archeological consideration, remain in the grassy area outside the Star Fort and Water Battery. A summary of the archeological information gathered for Fort McHenry was compiled in "Review and Synthesis of Archeological Documentation, Fort McHenry National Monument and Historic Shrine (18BC13), Baltimore, Maryland," John Milner and Associates, Inc., 1993. Additionally, an overview is in progress that will update and supplement data on the fort's archeological resources: "On the shore dimly seen...": an Archeological Overview, Fort McHenry National Monument and Historic Shrine (18BC13)," Cheek, Balicki and Pousson, 2000. Although a number of former structures have been identified in the historical record, most have not been archeologically investigated. The significance and contributing status of these potential resources are therefore presumed until future investigations and assessments are completed.



As the nation's principal conservation agency, the Department of the Interior has the responsibility for most of our nationally owned public landscape and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interest of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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