
National Park Service
Cultural Landscapes Inventory
2008



Constitution Gardens
National Mall & Memorial Parks - West Potomac Park

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Inventory Summary

The Cultural Landscapes Inventory Overview:

CLI General Information:

Purpose and Goals of the CLI

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

The CLI, like the List of Classified Structures, assists the NPS in its efforts to fulfill the identification and management requirements associated with Section 110(a) of the National Historic Preservation Act, National Park Service Management Policies (2006), and Director's Order #28: Cultural Resource Management. Since launching the CLI nationwide, the NPS, in response to the Government Performance and Results Act (GPRA), is required to report information that respond to NPS strategic plan accomplishments. Two GPRA goals are associated with the CLI: bringing certified cultural landscapes into good condition (Goal 1a7) and increasing the number of CLI records that have complete, accurate, and reliable information (Goal 1b2B).

Scope of the CLI

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

treatment guidelines for the cultural landscape.

Inventory Unit Description:

Designed by the Washington office of the architectural firm Skidmore, Owings and Merrill in the early 1970s, Constitution Gardens is the firm's interpretation of the barely sketched design for this area offered by the 1902 McMillan Plan. The 43.1-acre park occupies a prominent position in West Potomac Park, northeast of the Lincoln Memorial Grounds. Constitution Gardens is considered part of the National Mall area, yet is somewhat hidden from view by grade changes: the 1930s/1940s flood control levee that runs along its south boundary, a low berm along Constitution Avenue on the north, and raised elevations at the east and west. Six years after the park was completed in 1976, the Vietnam Veterans Memorial was built in a meadow at its west end, requiring modification of the grade and planting design. Later, two sculpture groups with additional landscaping were added south of the memorial: the Three Servicemen in 1984, which includes a flagpole as part of its design, and the Vietnam Women's Memorial in 1993. The "In Memory" plaque was added adjacent to the Three Servicemen in 2004.

Constitution Gardens is a constructed park. East and West Potomac Parks were created in the late-nineteenth and early-twentieth centuries from material that had been dredged from the Potomac River and deposited along its banks to improve navigation. The reclaimed lands were graded, covered with top soil, seeded with grass, planted with trees, and developed into recreational areas. In 1918, on the future Constitution Gardens site, two enormous temporary office buildings for the Navy Department were built (these were removed in 1971). In the 1930s, an earth-and-concrete flood control levee was erected along the south side of the area, also extending some distance up 17th Street. The levee was rebuilt in the 1940s, and again in the mid-1970s as part of the park's construction. It forms part of a larger legislated flood control project that is still maintained by the U.S. Army Corps of Engineers and the National Park Service, and protects a large section of Washington from flooding. Under the Flood Control Act of June 22, 1930, the NPS has to maintain the height of this levee.

Constitution Gardens comprises a roughly rectangular site, the eastern half of which gently slopes down to a 6.75-acre lake that has a continuously curving shoreline, oriented with its long axis east-west. Near the north shore of the lake lies a half-acre island. A wooden pedestrian bridge provides access to the island, a memorial landscape dedicated to the 56 Signers of the Declaration of Independence that was designed by landscape architects from EDAW's Alexandria office. From the bridge, a granite walk leads to a paved semicircular plaza that opens to the south shore, lined on the north side by fifty-six granite blocks organized into thirteen groups representing each of the original states. Carved into the slanted top face of each block is the signature, name, hometown, and occupation of a signer. Behind both quarter-circles of granite stones is a triangular planting bed, and another planting bed lines the island's sloping north shore. The beds hold remnants of the original plantings, which were dense, linear arrangements of perennials, shrubs such as azaleas and junipers, and trees including weeping willows and saucer magnolias. A curving line of saucer magnolias is planted in the lawn along the island's east-west center line.

Almost two thousand trees grow in Constitution Gardens. Over two thousand (2654) trees were planted at the time the park was built, in 1975-76, but a large percentage of these soon died because of poor soil conditions and, possibly, because of heavy rains; many of the existing trees are replacements

Constitution Gardens

National Mall & Memorial Parks - West Potomac Park

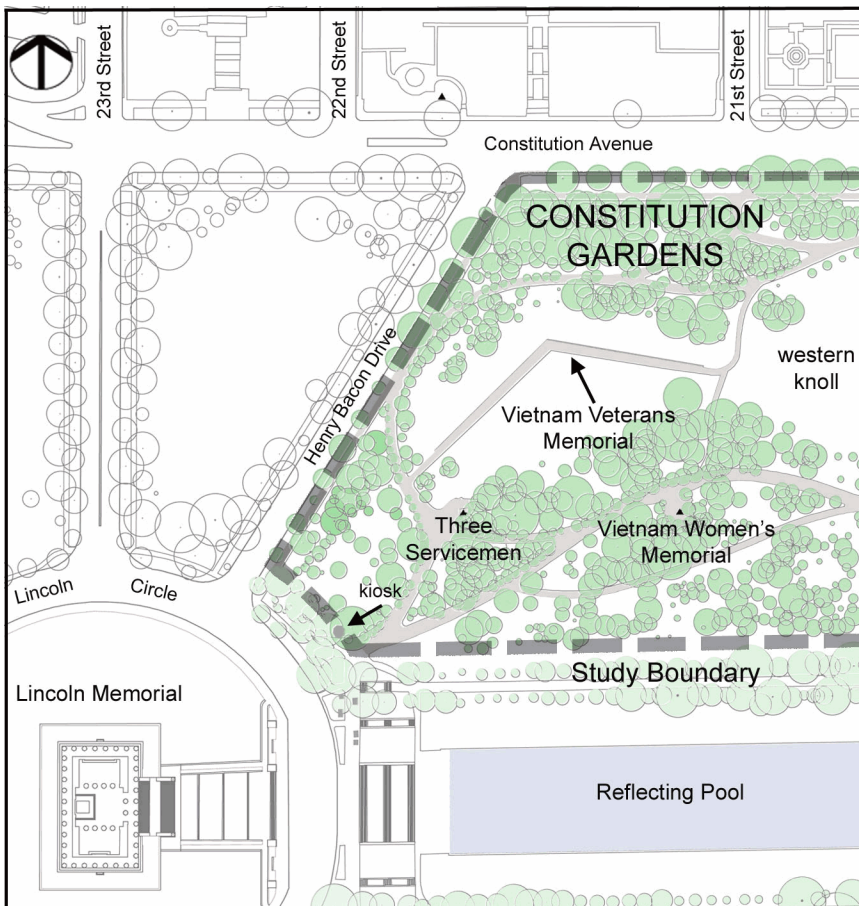
(Hodge WP 5/28/76:C7). Trees are planted regularly around the park's perimeter, effecting a gradual transition from the formal lines of trees surrounding the park – the European elms along the Reflecting Pool on the south, and the American elms lining the streets on the north and east. Trees within the park are primarily a mixture of native deciduous species and flowering upland understory species. Because of replacements, the original species composition has been altered and is now more complex; also, some planting locations have been altered. Several existing trees were incorporated into the design, mostly at the west end near the Vietnam Veterans Memorial, and at the east end near the Lockkeeper's House are several trees that pre-date the establishment of Constitution Gardens.

Running through the park are about two miles of meandering walks designed for use by pedestrians and cyclists. These are laid out in two large peanut-shaped loops that are aligned east to west; one follows the shoreline of the lake, the other curves around the large western knoll and the Vietnam Veterans Memorial. Secondary walks branch off from and connect back with the main loops. Nearly all walks are paved with gravel-topped asphalt, an asphaltic material in which gravel is rolled into the surface of the asphalt while it is still warm; however, the walk in front of the Vietnam Veterans Memorial has two types of granite pavers. At first, hundreds of Norway maples were planted in circular openings in the asphalt, along one side of the loop walks, to create a linear wall of trees shading and emphasizing the curving pedestrian routes. Most of these trees have died and been replaced by red maples, placed adjacent to the walks rather than within them, though in some places maples have been planted in the original tree holes.

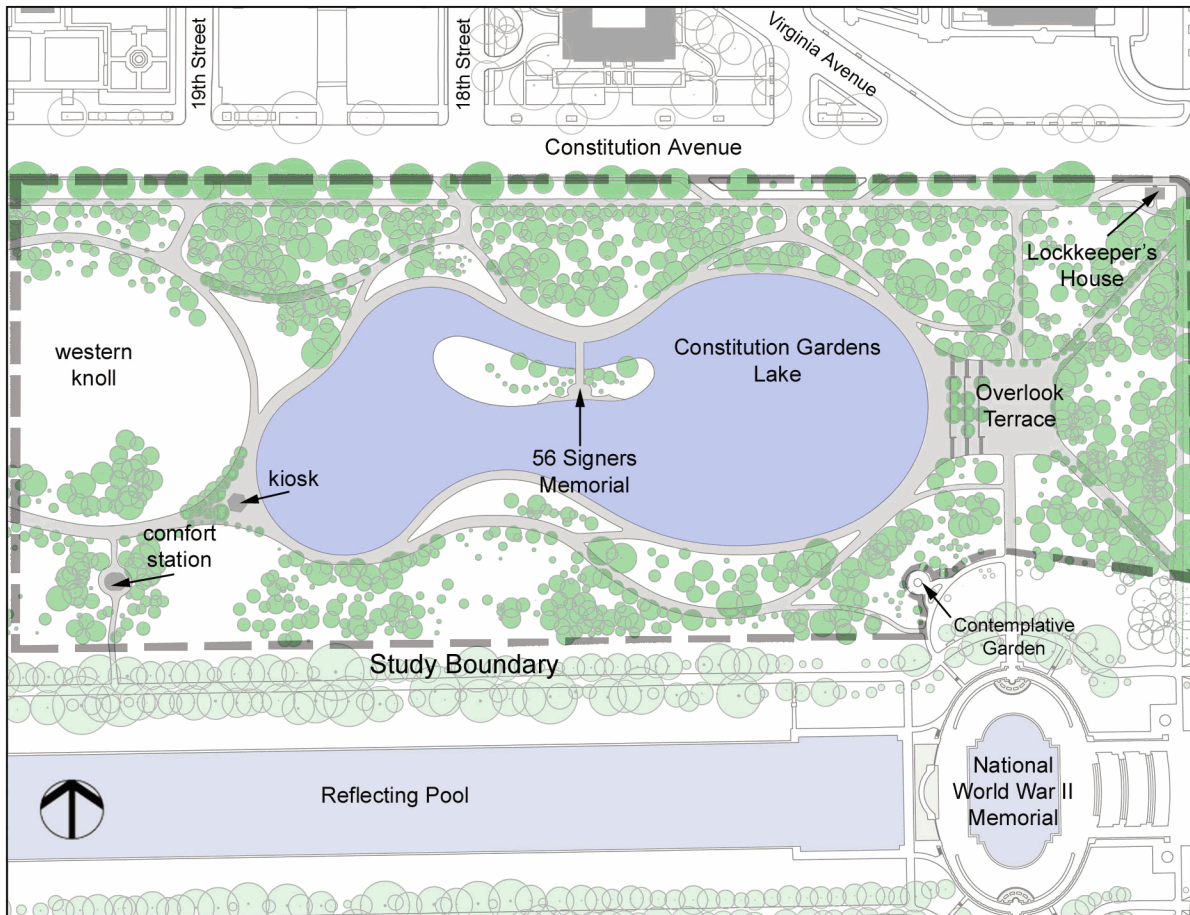
Overlooking the lake at its east end is a large paved platform, planned as the site for a visitors facility with a restaurant that was never built because of a lack of funds (Hodge WP 5/28/76:C7). Three stone-walled terraces, designed for outdoor seating, descend the slope from the plaza to the lake (the first terrace is at the same level as the paved platform). Honey locust trees are planted in lines along the terraces. At the northeast corner of the site stands the historic Lockkeeper's House, built when the Washington City Canal was joined to the Chesapeake & Ohio Canal in the 1830s. The Lockkeeper's House was relocated forty-nine feet west and six feet north from its original to its present location in 1915 to accommodate the extension of 17th Street.

Though secluded from the highly public grounds of the Lincoln Memorial and Washington Monument, and the busy arterial road of Constitution Avenue, Constitution Gardens is tied to these other areas through circulation and views. Walks connect with nearby memorials and streets. Views of the Washington Monument, in particular, are prominent throughout the park, and other structures, including the Lincoln Memorial, the Old Post Office tower, the Thomas Jefferson Memorial, the U.S. Capitol dome, and the buildings of Federal Triangle, are visible. The statues of the Three Servicemen and the Vietnam Women's Memorial were placed to provide views from specific locations of the Vietnam Veterans Memorial.

Site Plan



Site plan 1 of 2. This plan depicts the western third of Constitution Gardens, the area where the Vietnam Veterans Memorial is located. (Sept. 2007, CLP file COGA west side site plan.jpg.)



Site plan 2 of 2. This graphic depicts the major features and current condition of the eastern two-thirds of Constitution Gardens. (Sept. 2007; CLP file 'COGA east side site plan.jpg')

Property Level and CLI Numbers

Inventory Unit Name:	Constitution Gardens
Property Level:	Component Landscape
CLI Identification Number:	600012
Parent Landscape:	600007

Park Information

Park Name and Alpha Code:	National Mall & Memorial Parks - West Potomac Park -NAMA
Park Organization Code:	3495
Subunit/District Name Alpha Code:	National Mall & Memorial Parks - West Potomac Park - NAMA
Park Administrative Unit:	National Capital Parks-Central

Concurrence Status

Inventory Status: Complete

Completion Status Explanatory Narrative:

The Constitution Gardens Cultural Landscape Inventory was written by Kay Fanning, Ph.D., Landscape Historian with the Cultural Landscapes Program of the National Capital Region. She began work in September 2006 and completed the inventory in April 2008. Research material was gathered from the following repositories: Cultural Resource Files, National Mall & Memorial Parks (NAMA), National Capital Region (NCR); Beautification Files, Cultural Landscapes Program (CLP) files, NCR; maps and plans from the Technical Information Center (TIC) and Land Resources Program Center (LRPC), NCR; Constitution Gardens and Lincoln Memorial grounds photos, NCR Museum Resource Center (MRCE); Commission of Fine Arts (CFA) minutes from National Archives & Records Center (NARA); and Washington Post archives, ProQuest Newspaper Database. Interviews were conducted with David Childs, Consulting Partner, SOM and Chairman, Commission of Fine Arts and with John Parsons, Associate Regional Director for Lands, Resources and Planning, NCR concerning the design development of Constitution Gardens in the 1970s. Other NPS professionals provided their insights on the various issues related to the flood levee, vegetation and water quality: Glenn DeMarr, Project Manager, NCR; Robert Defeo, Regional Horticulturist, NCR; Dr. James Sherald, Chief of Natural Resources and Science, NCR; and Mary Willeford Bair, Natural Resources Specialist, NAMA. Many other professionals within the NPS (National Capital Region and National Mall and Memorial Parks) reviewed the document and provided information and corrections.

Concurrence Status:

Park Superintendent Concurrence:	Yes
Park Superintendent Date of Concurrence:	08/12/2008
National Register Concurrence:	Eligible -- SHPO Consensus Determination
Date of Concurrence Determination:	09/29/2008

National Register Concurrence Narrative:

The State Historic Preservation Officer for the District of Columbia concurred with the findings of the Constitution Garden Cultural Landscape Inventory on September 29, 2008, in accordance with Section 110 of the National Historic Preservation Act. It should be noted that the "National Register Eligibility Concurrence Date" refers to this Section 110 Concurrence and not the date of listing on the National Register.

Concurrence Graphic Information:

Constitution Gardens
National Mall & Memorial Parks - West Potomac Park



United States Department of the Interior

NATIONAL PARK SERVICE
National Capital Region
1100 Ohio Drive, S.W.
Washington, D.C. 20242

August 7, 2008

Memorandum:

To: Regional Historical Landscape Architect, National Capital Region
From: Superintendent, National Mall & Memorial Parks
Subject: Statement of Concurrence, Constitution Gardens U.S. Reservation 332 Cultural Landscape Inventory

I, Peggy O'Dell, Superintendent of National Mall & Memorial Parks, concur with the findings of the Cultural Landscape Inventory for Constitution Gardens, including the following specific components:

MANAGEMENT CATEGORY: Must Be Preserved and Maintained

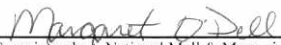
CONDITION ASSESSMENT: Fair

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

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

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

The Cultural Landscapes Inventory for Constitution Gardens, U.S. Reservation 332, is hereby approved and accepted.


Superintendent, National Mall & Memorial Parks


Date

Concurrence memo for FY2008 signed by the NAMA superintendent on 8/12/2008.



United States Department of the Interior

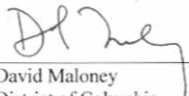
NATIONAL PARK SERVICE
National Capital Region
1100 Ohio Drive, S.W.
Washington, D.C. 20242

August 15, 2008

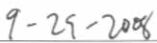
Memorandum

To: Cultural Landscapes Inventory Coordinator, National Capital Region
From: State Historic Preservation Officer, District of Columbia
Subject: Statement of Concurrence, Constitution Gardens Cultural Landscapes Inventory

I, David Maloney, District of Columbia State Historic Preservation Officer, concur with the findings of the Constitution Gardens CLI as submitted on August 15, 2008.



David Maloney
District of Columbia
Acting State Historic Preservation Officer



Date

Concurrence memo for FY2008 signed by the DC SHPO on 9/29/2008.

Geographic Information & Location Map

Inventory Unit Boundary Description:

Constitution Gardens is a 43.1-acre park unit in West Potomac Park, part of the National Mall, bounded by Henry Bacon Drive on the west, Constitution Avenue on the north, 17th Street on the east, and, on the south, the toe of the slope that runs down to the elm walks along the Reflecting Pool. This slope follows the flood control levee. The Vietnam Veterans Memorial, along with the Three Servicemen statue and the Vietnam Women's Memorial, occupies a site legislated as two acres at the west end of Constitution Gardens.

Constitution Gardens

National Mall & Memorial Parks - West Potomac Park

State and County:

State: DC

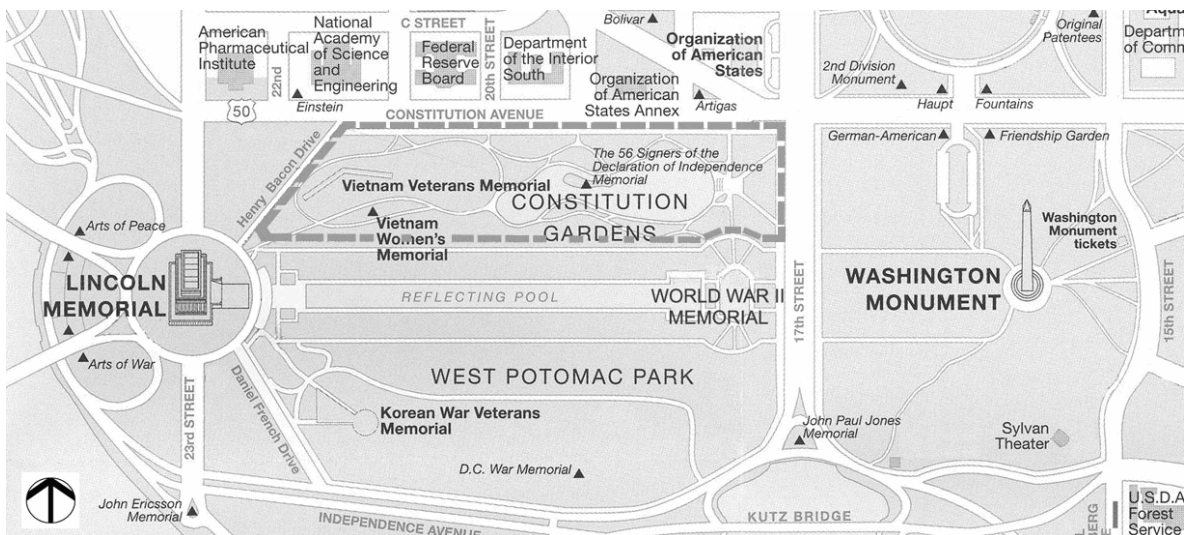
County: District of Columbia

Size (Acres): 43.10

Boundary UTMS:

Source:	GPS-Differentially Corrected
Type of Point:	Point
Datum:	NAD 83
UTM Zone:	18
UTM Easting:	322,390
UTM Northing:	4,306,781
Source:	GPS-Differentially Corrected
Type of Point:	Point
Datum:	NAD 83
UTM Zone:	18
UTM Easting:	322,313
UTM Northing:	43,065,559
Source:	GPS-Differentially Corrected
Type of Point:	Point
Datum:	NAD 83
UTM Zone:	18
UTM Easting:	323,111
UTM Northing:	4,306,555
Source:	GPS-Differentially Corrected
Type of Point:	Point
Datum:	NAD 83
UTM Zone:	18
UTM Easting:	323,113
UTM Northing:	4,306,765

Location Map:



Map showing location of Constitution Gardens within West Potomac Park. (Sept. 2007; CLP file 'COGA location map.')

Management Unit: Constitution Gardens

Tract Numbers: Reservation 332

Management Information

General Management Information

Management Category: Must be Preserved and Maintained

Management Category Date: 08/12/2008

Management Category Explanatory Narrative:

Constitution Gardens is part of the National Mall and is thus nationally significant. The National Mall and its constituent sites clearly meet the requirements for National Historic Landmark status even though an NHL has not been prepared. Constitution Gardens is the setting for the Vietnam Veterans Memorial and the Memorial to the 56 Signers of the Declaration of Independence, both mandated by Congress.

The Management Category Date is the date the CLI was first approved by the park superintendent.

Maintenance Location Code: 12066

Agreements, Legal Interest, and Access

Management Agreement:

Type of Agreement: Concession Contract/Permit

Expiration Date: 12/31/2010

Management Agreement Explanatory Narrative:

Government Services Inc. (GSI) operates the restaurant kiosk in Constitution Gardens.

NPS Legal Interest:

Type of Interest: Fee Simple

Public Access:

Type of Access: Unrestricted

Explanatory Narrative:

Constitution Gardens is open to the public at all hours.

Adjacent Lands Information

Do Adjacent Lands Contribute? Yes

Adjacent Lands Description:

Though Constitution Gardens is visually screened from adjacent lands, it was designed in response to them. One of the main reasons for constructing a landscape on this site was to provide a pleasant alternate route for people walking between the Lincoln Memorial and the Washington Monument. The SOM design intended the landscape of gentle slopes, informal tree massings, winding walks, and a curvilinear pool to contrast with the strict formality of the Lincoln Memorial Grounds. The classical and classically-derived modern buildings fronting Constitution Avenue on the north also define a visual boundary. These buildings were sited and designed following the guidelines of the Public Buildings Commission (1916-1933), which oversaw construction of new federal buildings in the District following McMillan Commission standards. The park's landscape is somewhat similar in character to the grounds of the Washington Monument and the Tidal Basin, and also to its simpler complementary landscape on the south side of the Reflecting Pool.

National Register Information

Existing NRIS Information:

Other Names: E&W Potomac Parks Hist District

Primary Certification Date: 11/30/1973

Other Names: L'Enfant Plan

Primary Certification Date: 04/24/1997

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

Significance Criteria: B - Associated with lives of persons significant in our past

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

Criteria Considerations: B -- A building or structure removed from its original location

F -- A commemorative property

G -- A property less than 50 years of age

Statement of Significance:

Introduction

This CLI recommends that the Period of Significance for Constitution Gardens extend from 1882, the year dredging for Potomac Park began, to 1993, the year the Vietnam Women's Memorial was completed. As explained below, the park is listed under Criteria A, B, and C, and under Criteria Consideration B, for the Lockkeeper's House, and F and G, for the 56 Signers Memorial in two National Register Nominations (East and West Potomac Park Historic District and L'Enfant Plan of the City of Washington, District of Columbia, National Register Nomination). In these nominations Constitution Gardens is listed under the following Areas of Significance: Architecture, Art, City Planning, Commemoration, Engineering, Entertainment/Recreation, Landscape Architecture, Politics/Government, Social History, and Transportation. Also as part of Section 8 of the nominations (Statement of Significance), numerous designers and themes are listed under the short description for each Area. This CLI recommends that, in addition, the Constitution Gardens should be listed under Criterion C for the work of the architectural firm Skidmore, Owings, and Merrill and the architect Maya Lin (the landscape architecture firm EDAW is already noted in the revised nomination). It further recommends that the park should be listed under Criterion A and Criteria Considerations F and G as a site commemorating the Bicentennial of the American Revolution.

Constitution Gardens

National Mall & Memorial Parks - West Potomac Park

East and West Potomac Park Historic District National Register Nomination

Original Nomination, November 30, 1973

Revision to the Nomination, April 2001

The original nomination for East and West Potomac Parks was listed on the National Register on November 30, 1973, before Constitution Gardens was built (NRIS #73000217). An extensive revision was completed in 2001, “necessitated by changes in overall documentation standards, by the need to evaluate major national monuments and memorials less than 50 years of age, and by the evolving requirement to include historic landscapes in National Register documentation.” (EWPP rev. nomination 2001:Sec. 7, p. 1) The original date of listing is the official date for the East and West Potomac Park Historic District nomination.

Constitution Gardens is listed on the National Register as a Contributing Site to the East and West Potomac Park Historic District. It is listed under Criterion A, Landscape Architecture and Commemoration, and Criteria Consideration G, for works that are less than 50 years old, because it “has achieved exceptional significance, first as a highly visible project celebrating the American Bicentennial in the nation’s capital, and later [sic] as the landscaped setting for a number of national memorials.” (EWPP rev. nomination 2001:Sec. 7 p. 20) The Period of Significance for the East and West Potomac Park Historic District is given as 1882-1997, extending from the year dredging began to the year of the Franklin Delano Roosevelt Memorial dedication.

However, the revised document still does not meet current standards for cultural landscape writing and research. While it evaluates some landscape characteristics of Constitution Gardens, for example, circulation, it focuses on structures rather than on features such as vegetation, or the overarching landscape design of the park. It does not discuss the contribution of the designers, the architectural firm of Skidmore, Owings and Merrill.

The Lockkeeper’s House was individually listed on the National Register in 1973 (November 30, 1973, NRIS #73000218; no criteria are listed, perhaps because of the nomination’s early date). It is listed on the revised nomination as a Contributing Building under “Miscellaneous Resources” for East and West Potomac Parks (rather than as a feature within Constitution Gardens), and is considered contributing under Criterion A, Architecture and Transportation. Criteria Consideration B was also determined to apply to the house, since it is a building that was “removed from its original location that is significant primarily for its architectural value” and because it is the only structure remaining in East and West Potomac Parks associated with the city’s nineteenth-century canal system. (EWPP rev. nomination 2001:Sec. 7, p. 41)

The flood control levee is listed as a Contributing Site in the revised nomination (Sec. 7, p. 19). The levee was incorporated into the design of Constitution Gardens as a feature separating the new park from the Reflecting Pool. (The information given on the levee in the nomination may not be entirely accurate. It states that the levee is concrete and was built in 1938, replacing a temporary levee of 1936. However, as discussed below under “Topography,” historic plans indicate that the levee was

rebuilt in whole or in part in 1945/46; the concrete structure was then mostly removed and replaced with an earth berm in 1974-76 when Constitution Gardens was built.)

The 56 Signers Memorial is listed in the revised nomination as a Contributing Object under Criteria A and C, in the areas of Landscape Architecture and Commemoration, and Criteria Considerations F and G. (Given that it encompasses the landscape of the entire half-acre island, the memorial might be more accurately described as a Contributing Site.) The nomination states: “Despite the fact that it is primarily commemorative in intent . . . its design, tradition, and symbolic value has invested it with its own historical significance, thus it falls within the exception to National Register Criteria Consideration F. The 56 Signers Memorial also falls within the exception to National Register Criteria Consideration G. Though it is less than 50 years old, the memorial possesses exceptional significance due to the Congressional authorization of its site and design [sic], and its immediate symbolic importance in the Monumental Core.” (EWPP rev. nomination 2001:Sec. 7, p. 22.)

The revised nomination discusses the Vietnam Veterans Memorial as a two-acre subunit of Constitution Gardens, set on the park’s grounds “within . . . [the] meadow near the Lincoln Memorial.” (EWPP rev. nomination 2001:Sec 7, p. 20) The nomination treats the Three Servicemen as part of the Vietnam Veterans Memorial and not as a separate object. The nomination lists the Vietnam Women’s Memorial as a contributing object.

The L’Enfant Plan of the City of Washington, District of Columbia, National Register Nomination
April 24, 1997

Constitution Gardens is also listed on the National Register under the nomination, “The L’Enfant Plan of the City of Washington” (listed April 24, 1997, NRIS #97000332). As defined in this nomination, the L’Enfant Plan as a whole and its constituent parts, including Constitution Gardens, are significant under Criteria A, B, and C:

The plan meets National Register Criterion A for its relationship with the creation of the new United States of America and the creation of a capital city; it meets Criterion B because of its design by Pierre L’Enfant, and subsequent development and enhancement by numerous significant persons and groups responsible for the city’s landscape architecture and regional planning; and it meets Criterion C as a well-preserved, comprehensive, Baroque plan with Beaux Arts modifications. (Leach and Barthold, “The L’Enfant Plan in the City of Washington, D.C.,” NR nomination, Section 8, page 2)

The description of Constitution Gardens in this nomination is limited to the following, under Reservation 332, West Potomac Park: “Constitution Gardens, the area between the Reflecting Pool (1921) and Constitution Avenue, contains a Lockkeepers House (1837, re-erected 1903 [sic – the house was actually moved, not disassembled and re-erected, and this was in 1915]), the 56 Signers of the Declaration of Independence Memorial (1984), Vietnam Veterans Memorial (1982/84), and Korean War Veterans’ Memorial (1994 [sic – this is incorrect: the Korean War Veterans Memorial is south of the Reflecting Pool]).” (L’Enfant Plan nomination, Sec. 7, p. 8) The nomination includes no

information on the design or any of its features other than these structures.

McMillan Plan, 1902

The 1902 Senate Park Commission Plan – the McMillan Plan – established a design framework for the greater National Mall area, including the new East and West Potomac Parks. The Lincoln Memorial Cultural Landscape Report (1999) states that Constitution Gardens, the Vietnam Veterans Memorial, and the Korean War Veterans Memorial are “landscapes [that] have changed the formal geometric character that the McMillan Commission and the National Capital Park and Planning Commission intended for this portion of West Potomac Park.” (Joseph & Wheelock 79) However, a case can be made that the SOM design for Constitution Gardens is a logical interpretation of the vaguely defined intent of the McMillan Plan for this area as given in the McMillan Report (this was the opinion reached by the Commission of Fine Arts when evaluating the final SOM plan):

“For the most part this area from New York avenue [sic] to the river should be treated as a wood, planted informally, but marked by formal roads and paths, much as the Bois de Bologne [sic] at Paris is treated.” (Moore 51)

Mid-Twentieth-Century Plans of the National Capital Park & Planning Commission

Plans for this area developed by the National Capital Park & Planning Commission in the mid-twentieth century showed lawns bordered by informal massings of trees. The SOM plan articulated these suggestions and filled in the details following contemporary approaches to landscape architecture. Informal massings of trees were used to create borders for the site, and trees were also arranged in informal clusters within spreading lawns. Walks, most of them curvilinear and informal rather than rectilinear and formal, were designed to pass through this informally planted wood. Though winding and informal, the walks nevertheless connected important sites lying outside the park’s boundaries – the Lincoln Memorial, the Washington Monument Grounds, etc.

Skidmore, Owings and Merrill Plans, 1966 and 1973

The various National Register nominations and Cultural Landscape Inventories which detail other areas of the National Mall – including Union Square (1st to 3rd Streets and Pennsylvania to Maryland Avenues) and the Mall (from 1st to 14th Streets and Madison to Jefferson Drives) – have not assessed the contribution of the Skidmore, Owings and Merrill plans of 1966 and 1973 for these areas according to National Register Criteria. Little of the SOM designs was implemented on the Mall, where the two inner, asphalt-paved roads between 3rd and 14th Streets and all the existing concrete walks were changed to gravel walks. (The Union Square and Mall CLIs discuss the SOM plans in some detail in their history sections, but do not analyze them for historic significance, since the plans lie outside the Periods of Significance.)

At Constitution Gardens, however, the SOM design was almost fully implemented and entirely changed the site's appearance. This Cultural Landscape Inventory for Constitution Gardens provides more information on the SOM design, its intent, and its integrity than can be found in other National Park Service documents for other areas of the Mall.

Bicentennial of the American Revolution, 1976

Though less than fifty years old, this landscape is the major site in Washington, D.C. commemorating the American Bicentennial. The park is the location for the congressionally-mandated Vietnam Veterans Memorial and the 56 Signers Memorial, a monument also built under congressional authorization that supports the Bicentennial theme.

State Register Information

Date Listed: 11/08/1964
Name: East and West Potomac Park Historic District
Explanatory Narrative:

The Lockkeeper's House is also listed on the D.C. State Register, 11/08/1964.

Chronology & Physical History

Cultural Landscape Type and Use

Cultural Landscape Type:	Designed
Other Use/Function	Other Type of Use or Function
Leisure-Passive (Park)	Both Current And Historic
Monument (Marker, Plaque)	Current
Outdoor Sculpture (Statuary)	Current
Outdoor Recreation-Other	Both Current And Historic

Current and Historic Names:

Name	Type of Name
Constitution Gardens	Current
Potomac Park	Historic
Potomac Flats	Historic

Chronology:

Year	Event	Annotation
AD 1790	Land Transfer	The three city commissioners appointed by President George Washington were given jurisdiction over city reservations.
AD 1791 - 1792	Planned	Maj. Pierre (Peter) Charles L'Enfant created the initial plan for the city of Washington. After Washington fired L'Enfant in March 1792, the plan was modified by his successor, surveyor Andrew Ellicott. Pierre(Peter) Charles L'Enfant Andrew Ellicott
AD 1802	Land Transfer	Responsibility for the reservations was transferred from the three city commissioners to a Superintendent of Public Buildings, also appointed by the president.
AD 1810 - 1815	Engineered	The Washington City Canal was built along the route of Tiber Creek, from the Potomac River on the north side of the Mall, opening to traffic on Nov. 21, 1815.
AD 1816	Land Transfer	The Superintendent of Public Buildings was replaced by a Commissioner of Public Buildings, also serving under the authority of the president.
AD 1828 - 1837	Engineered	Construction began on the Chesapeake & Ohio (C&O) Canal; it opened for barge traffic in 1831 and over the next six years was connected to the Washington City Canal. A basin linking the two canals was built at the mouth of Tiber Creek, adjacent to the site of Constitution Gardens.
AD 1831 - 1832	Built	The C&O Canal Company built a two-and-a-half-story stone house as a gate house and home for the lockkeeper at the canal basin at 17th Street and B Street North.
AD 1848 - 1854	Land Transfer	Construction began on the Washington Monument. About one-third of the structure was built over the next six years.
AD 1849	Land Transfer	The office of the Commissioner of Public Buildings was transferred from the authority of the president to the new Department of the Interior.

Constitution Gardens

National Mall & Memorial Parks - West Potomac Park

AD 1867	Land Transfer	The D.C. reservations were transferred from the Dept. of the Interior to the Office of Public Buildings and Grounds (OPBG), U.S. Army Corps of Engineers, War Dept., inaugurating an era of rapid park development.
AD 1870	Destroyed	Because of siltation and odors, portions of the Washington City Canal were covered over and others filled in. The height of the Lockkeeper's House was reduced to one-and-a-half stories.
AD 1873	Built	B Street North (now Constitution Avenue) was built on top of the main length of the covered and filled-in Washington City Canal.
AD 1874 - 1912	Built	Potomac Park was constructed, primarily out of material dredged from the Potomac River and also soil deposited from building excavations. Work was overseen by a U.S. Civil Engineer under the Army Chief of Engineers, U.S. Army Corps of Engineers.
AD 1879 - 1884	Built	The Washington Monument was completed.
AD 1897	Land Transfer	The reclaimed land was made a public park by an act of March 3, 1897 (29 Stat. 624).
AD 1901	Land Transfer	The first portion of the reclaimed land to be transferred to the OPBG was thirty-one acres adjacent to the Washington Monument Grounds, on August 12.
AD 1901 - 1902	Planned	The Senate Park (McMillan) Commission developed a plan for the city. Focusing on the Mall area, the plan sought to recapture the spirit of the L'Enfant Plan through elimination of discordant elements while allowing for development of new buildings and parks designed on City Beautiful principles.
AD 1902	Built	The first appropriation for West Potomac Park was made in a sundry civil act of June 1902, and initial improvement of the transferred land began. The Lockkeeper's House was transferred from the canal company to the Chief of Engineers.
AD 1903	Built	The roof and floors of the Lockkeeper's House were replaced and four dormer windows were added.

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National Mall & Memorial Parks - West Potomac Park

AD 1907	Planted	Rows of American elms were planted along 17th Street and small trees were planted along B Street North
AD 1909	Land Transfer	Most of the area of Potomac Park which is now West Potomac Park was transferred from the Army Corps of Engineers to the OPBG on April 24, 1909 (presumably this was an interdepartmental transfer, as the OPBG was under the Army Corps.
	Built	B Street North was extended to the river by the Public Buildings Commission.
AD 1910	Built	In 1910/11, \$25,000 was appropriated for the "unimproved" part of West Potomac Park. Grading, road and bridle path construction, laying of water and drain pipes, sowing of grass seed, and planting of trees and shrubs probably began, and continued in subsequent years. 1530 trees were planted.
AD 1912	Planted	2000 trees were planted in West Potomac Park this fiscal year.
AD 1913	Planted	15,405 trees and shrubs were planted in West Potomac Park this fiscal year.
AD 1913 - 1918	Built	Tennis courts were built on the Constitution Gardens site in 1913/14, and were removed in 1918. A three-hole golf course was laid out and a sheep corral was built.
AD 1914 - 1922	Built	The Lincoln Memorial was built.
AD 1915	Planted	61 trees, 1762 shrubs, and 328 vines were planted in West Potomac Park in this fiscal year. Some old trees were removed and sod was laid. Sidewalks were built along 17th Street and B St. North and new bridle paths were built. Two drinking fountains were installed.
AD 1915 - 1916	Moved	The Lockkeeper's House was moved about fifty feet out of the intersection of 17th St. and Constitution Ave., and its surroundings were landscaped. Two new stone chimneys were built on the house and the roof was replaced again.
AD 1916	Altered	B St. North was renamed Constitution Avenue.

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	Planted	303 trees were planted and 578 old trees were removed in West Potomac Park.
AD 1918	Built	The federal government built two large temporary structures (known as "tempos"), the Navy and Munitions Buildings, on the site.
AD 1921 - 1922	Built	The Lincoln Memorial was opened in 1921 and dedicated in May 1922. The Reflecting Pool and the Rainbow Pool were built.
AD 1925	Land Transfer	The Office of Public Buildings and Grounds, renamed the Office of Public Buildings and Public Parks (OPBPP), was transferred from the Army Corps of Engineers to the office of the U.S. president.
AD 1928	Planned	The National Capital Park and Planning Commission developed a new plan for the Mall area.
AD 1933	Land Transfer	Under Executive Order 6166, June 10, 1933, all public lands and buildings were transferred to the Office of National Parks, Buildings, and Reservations, Dept. of the Interior. On March 2, 1934, the name of this federal bureau was changed to the National Park Service. The OPBPP became National Capital Parks.
AD 1936	Built	Following a record flood of the Potomac River on March 19, a flood control project was authorized, to be built parallel to the north side of the Reflecting Pool.
AD 1937	Planned	The NCPPC Mall Plan was revised.
AD 1938	Built	The temporary flood control levee was rebuilt as a permanent earth and concrete structure.
AD 1939	Planned	The NCPPC Mall plan was revised.
AD 1941	Planned	The NCPPC Mall plan was revised.

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National Mall & Memorial Parks - West Potomac Park

AD 1942	Built	More tempors were built adjacent to the Navy and Munitions Buildings; others were built south of the Reflecting Pool and on the Washington Monument Grounds. Elevated pedestrian bridges were constructed to join them with the Navy and Munitions Buildings
AD 1946	Built	The flood control levee was improved.
AD 1950	Removed	The bridle paths in Potomac Park were closed because of increasing automobile traffic.
AD 1966	Planned	The “Washington Mall Master Plan” was developed by the architectural firm of Skidmore, Owings and Merrill (SOM).
AD 1970 - 1971	Demolished	The Navy and Munitions Buildings were razed.
AD 1973	Planned	The “Washington Mall Circulation Systems” plan by SOM was issued, adapting and enlarging on ideas presented in the 1966 SOM plan. This serves as the current master plan for the Mall.
AD 1974 - 1976	Built	Constitution Gardens was built as a Bicentennial project on the site north of the Reflecting Pool, following a design developed by Skidmore, Owings & Merrill. Construction began in Aug. 1974 and the park was dedicated on May 27, 1976. The flood control levee was rebuilt as part of this project. David Childs Richard Giegengack Henry Arnold George Dickie
AD 1982	Built	The Vietnam Veterans National Memorial was completed on a two-acre site at the west end of Constitution Gardens. Maya Lin Ying Arnold Associates

Constitution Gardens

National Mall & Memorial Parks - West Potomac Park

AD 1982 - 1983	Built	<p>The Memorial to the 56 Signers of the Declaration of Independence was built on the island in Constitution Gardens Lake.</p> <p>Joseph Brown</p> <p>Cales Givens</p>
AD 1984	Built	<p>A sculptural group titled the "Three Servicemen" was erected southwest of the Vietnam Veterans Memorial.</p> <p>Frederick E. Hart</p>
AD 1986	Memorialized	<p>President Ronald Reagan proclaimed that Constitution Gardens was to be recognized as a site commemorating the U.S. Constitution.</p>
AD 1993	Built	<p>A second sculptural group, the "Vietnam Women's Memorial," was placed southeast of the Vietnam Veterans Memorial.</p> <p>Glenna Goodacre</p> <p>HOK</p> <p>George Dickie</p>
AD 2004	Built	<p>The "In Memory" plaque was dedicated at the Vietnam Veterans Memorial, adjacent to the Three Servicemen statue.</p>
	Built	<p>The World War II Memorial was completed south of Constitution Gardens. The Garden of Remembrance feature of the memorial landscape lies within the Constitution Gardens landscape.</p> <p>Friedrich St. Florian</p> <p>Ohme Van Sweden</p>

Physical History:

1790-1882 :

Physiography and Early History

SOURCES – Much of the material on dredging comes from Gordon Chappell, “East and West Potomac Parks: A History,” 1973, or is adapted from the history sections of the Lady Bird Johnson Park CLI, 2004. An excellent and thorough summary of the reclamation project and the Chappell study is given in the HABS report on West Potomac Park, HABS No. D.C.-693. “AR” followed by year refers to the Annual Reports of the Chief Engineer, Office of Public Buildings and Grounds (OPBG), U.S. Army Corps of Engineers, War Department. Since these were submitted to Congress at the end of the fiscal year, typically the end of June, it is often difficult to say whether an action took place in that year or the preceding, and so it has been necessary to write, for example, “AR 1912/13.”

East and West Potomac Parks exist today because of the specific attributes of their location and physiography. They lie south of the Fall Zone in the Potomac River, immediately west of the former mouth of Tiber Creek (Goose Creek) and the entrance to the Washington City Canal. Originally the area lay under the river, but after European settlement it became covered by mud flats and tidal marshes. The land comprising the parks was created in the late-nineteenth century by the dredging and deposition of mud and debris from the river.

The District of Columbia is one of a series of Eastern cities built within the Fall Zone, a low escarpment running along the Eastern seaboard from New Jersey to South Carolina. The Fall Line forms the juncture between two physiographic regions, the flat, sandy Coastal Plain and the hilly, rocky Piedmont. Marking the furthest reach of tidal ocean waters in many Eastern rivers, the Fall Zone is the place where emergent rocks create rapids and falls that historically impeded navigation but provided power for industry. Many early American cities were situated there. (additional information from tapestry.usgs.gov/features/14fallline.html, Jan. 26, 2007)

In the Potomac River, the Fall Zone begins at Mason’s Island (today Theodore Roosevelt Island), and at Easby’s Point on the river’s eastern shore. North of Mason’s Island, the Potomac runs swiftly through a narrow channel, about 900 feet wide, between high palisaded hills. South of the island, the river formerly widened abruptly to 5000 feet, slowing into an expanse of tidal waters through which ran three channels: the Washington Channel along the District shore; the Virginia Channel beginning in Alexandria and running parallel to the western shore, along the west side of Mason’s Island, and leading to the Georgetown harbor; and the Georgetown Channel, breaking from the Virginia Channel below the island, then running north and east of the island to the Georgetown harbor. (Chappell 4) Siltation and debris from agriculture and timbering activity further north in the river valley created multiple broad muddy shoals in the river where it slowed below the Fall Zone. Often these obstructed the channels to Georgetown.

European settlement in the area of the District began in the late seventeenth century, with land being cleared for tobacco plantations. The tobacco port of Alexandria, Virginia, was

established in 1749, followed two years later by the charter of the competing port of Georgetown, Maryland, several miles upstream. In 1748, a ferry route was begun between Mason's Island and Georgetown, which was the only passage across the river to Virginia for decades, until the first Long Bridge was built in 1809 (after 1822, the ferry terminus may have been on the Virginia shore; see Gahn, "George Washington's Headquarters . . .," Manuscript Division, LOC, Acc.# 6349; copy in Netherton files, GWMP. Mason's Ferry ran until about 1867).

By the 1790s, the local plantations were occupied by second- and third-generation settlers, who farmed lands rapidly becoming exhausted by tobacco cultivation: "Many were poor and nearly all were eager to liquidate their real estate holdings." (Gutheim 1977:15) The future Mall lay in the watershed of Tiber Creek, whose waters rose in the lands of a plantation called Rome, north of Capitol Hill. (Gutheim 1977:20) Along the north shore of the Tiber, from the river to the foot of Capitol Hill, spread the 350-acre farm of David Burnes, and to the south lay the extensive Cerne Abbey Manor of Notley Young. In the marshes bordering the creek grew "wild oats, reeds, and thickets of berry bushes and other shrubs", while "[o]n the southern shore of the creek" Dr. William Thornton had planted saplings and shrubs on about eighteen acres "to catch the river silt and to establish title to the land." (in Joseph & Wheelock, "Lincoln Memorial Cultural Landscape Report," p. 13, references to Hawkins, "The Landscape of the Federal City," in "Washington History" 3 [Spring/Summer 1991]: 10-33, and Loftin, "1800 Washington City," in Washington, D.C., "The Evolution of the Center, Two Centuries of Change," Passoneau et al., no date; Young information from LeeDecker et al. 2007:34)

The new national capital of Washington, D.C., was founded in 1790, at the confluence of the Potomac and Anacostia Rivers, and Georgetown was included within its boundaries. Pierre (Peter) Charles L'Enfant's urban plan of 1791 combined a rectangular street grid with diagonal ceremonial boulevards connecting important sites and structures. The focus of the plan was the visual relationship between the Capitol and the "President's House," joined by an avenue named for Pennsylvania, and also by a "grand avenue" (which became the Mall) that extended due west of the Capitol. Where the axis of the grand avenue met the axis extended due south of the President's House, L'Enfant envisioned an equestrian statue of Washington. (Scott 1991:39)

The federal government relocated to the new city from Philadelphia in 1800. George Washington persuaded the landowners within the federal city limits – the original "proprietors" – to allow their lands to be subdivided. Some lots were given to the District for street and public development, others were sold, and some, known as "reservations," were kept for federal use. The reservations were managed under several different jurisdictions from 1790 up through 1933 and their transfer to the National Park Service. Beginning in July 1790, three district commissioners managed these lands. Twelve years later, these positions were eliminated and the duties transferred to a Superintendent of Public Buildings, also appointed by the president. In 1816, the Superintendent of Public Buildings was replaced by a Commissioner of Public Buildings, at first acting under the authority of the president and then, after its creation in 1849, the Department of the Interior.

The colonies and the early United States were dependent upon navigation. Early in the nineteenth century, it became clear that the future growth of Washington required the improvement of transportation routes along the Potomac River, and finding a means of dealing with the excessive amounts of siltation.

A private company, the Washington Canal Company, was chartered in 1802 to dig a canal from Tiber Creek to the Anacostia River. Little was accomplished, however, and a second private company of the same name was chartered in 1808, which began construction on the Washington City Canal in the spring of 1810. The canal opened to traffic on November 21, 1815. Following the route of Tiber Creek, the canal ran along the north edge of the Mall, extending west to 15th Street and east to 5th Street, where it then paralleled Pennsylvania Avenue before turning south down 3rd Street and crossing the Mall. South of the Mall it branched, joined with the James Creek Canal, and then emptied into the Anacostia River at Buzzard Point. (on canal, see Gutheim 1977:44, 48; Reys 1991:54, 190; and Scott 1991:47) Intended to bring commerce into the heart of the city, the shallow, wood-lined canal never functioned well. It soon became stagnant and filled with sewage. In the 1860s, it was described as being “extremely disgusting to both sight and smell. It is nothing more than an open sewer, constantly generating noxious gases which are most deleterious to those not only residing immediately along its banks, but to the inhabitants of the entire city.” (Nathaniel Michler in AR 1868:16)

In 1828, construction began in Georgetown on the Chesapeake & Ohio (C&O) Canal, which opened for barge traffic in 1831 and eventually extended north along the Potomac River to Cumberland, Maryland. The District bought the Washington City Canal in 1831, and over the next six years straightened, widened, and deepened it, building a basin at the mouth of Tiber Creek to connect it with the C&O. (WMG CLR, Aug. 2003 draft:2.5) A two-and-a-half story stone house was built here, at 17th Street at the juncture of the two canals, in 1832-33 by the C&O Canal Company as a “gate house” and a home for the lockkeeper, who collected tolls and kept trade records. (AR 1903:2554; rev. East & West Potomac Park NR nomination 2001:Sec. 7 p. 40) The canal was widened from eighty to 150 feet by an act of Congress on May 31, 1832, further cutting into the north edge of the Mall, which skewed the Mall’s center line off the axis of the Capitol. (Scott 1991:47, and note 58; Olszewski Mall:7) An eight-foot-wide street was laid out along the canal’s south side.

Developing reliable passage across the Potomac was also necessary for the city’s growth. The Long Bridge, built in 1809, joined 14th Street in Southwest Washington to the Virginia shore. A flood destroyed the bridge in 1831. When it was rebuilt two years later, some portions were laid over earthen causeways set on rock foundations constructed in the riverbed. While improving transportation, the new bridge only worsened the siltation problem. The causeways proved to be formidable barriers, causing mud shoals to build up more rapidly in the river channel, not only impeding navigation but damaging the bridge. Much of this extensive area of shoals, known as the “Potomac Flats,” lay above water at low tide; marsh grasses were growing on them by the 1860s. The U.S. Army controlled Long Bridge during the Civil War, and had laid railroad tracks across it by 1862. A separate, parallel railroad bridge was built a short distance downstream in 1863-64 by the Washington, Georgetown & Alexandria Railroad.

Throughout the century, Long Bridge continued to be washed out by floods every few years, with notably bad floods occurring in 1877, 1881, and 1889. These floods often inundated parts of the Mall and adjoining areas.

Slowly, by the mid-nineteenth century, development began on the Mall, which had been used for pasturage, storage, and other private activities. In 1848, Congress granted the Washington Monument Society a thirty-seven-acre site encompassing the crossing of the two axes, and construction began that year on a gigantic obelisk designed by architect Robert Mills. The structure was set southeast of the true junction of the Capitol and White House axes. This may have been because of fears about the stability of the ground, though recent scholarship suggests that a more likely reason was that the circular colonnade planned for the monument's base would have required extending the Mall to the west, where it may have intruded upon the entrance to the Washington Canal. Time and money also were factors. (Scott 1991:51-52) Because of political agitation and lack of funds, work stopped in 1855 after the shaft had risen to 156 feet. During the Civil War, a "remount depot" for horses and a cattleyard for slaughtering beef were set up on the Monument Grounds. Construction resumed in 1879 and the Washington Monument was finally completed in 1884.

In the post-war years, important changes were made to the administration of federal lands and rivers in the District. In 1867, Congress transferred authority over river navigation, bridges, and certain other public works in Washington from the Commissioner of Public Buildings, Department of the Interior, to the Chief of Engineers, U.S. Army Engineer Bureau (later the Army Corps of Engineers), War Department. Also transferred from the Commissioner of Public Buildings to the Engineer Bureau was the new Office of Public Buildings and Grounds (OPBG), charged with the development and care of federal park lands and other properties in D.C., and placed under the authority of an Engineer Officer. Between 1871 and 1874, the Territorial Government of the District and its Board of Public Works, headed by Alexander R. "Boss" Shepherd, drastically expanded and improved the city's road and sewer system. When the Territorial Government was disbanded, a provisional commissioner form of government was established that was made permanent in 1878. One of the three serving commissioners was always an officer of the Army Corps of Engineers. (Chappell 10) In 1872, under the Territorial Government, a sewerline was constructed along the City Canal from 7th to 17th Streets, where it emptied into the river. The Board of Public Works also covered over the City Canal by 1873 and built a street along its course, named B Street North. (LM CLR:13)

1882-1912:

The Formation of Potomac Park

The first attempts at dredging the shoals and flats in the river began in 1870. In 1872, a Board of Survey under the Army Corps developed a Reclamation Plan for the Potomac Flats. But success was not achieved until a Board of Engineer Officers (the Gillmore Board) was appointed in January 1882, charged with reviewing previous plans. As a result of their report, Major Peter C. Hains of the Corps of Engineers was appointed to develop a new plan for reclamation, approved in September 1882. (Chappell 19, 31ff) The work was managed by a succession of U.S. Civil Engineers reporting to the Army Chief of Engineers. Over the decades, numerous work projects were handled by a series of private contractors hired through

competitive bidding.

At first, the primary goal of dredging was simply to clear the navigation channels; only later did actual reclamation of the mud flats into usable land become an objective. The work was divided into three sections along the bank. Section I stretched from Easby's Point to the Washington Canal. Fill deposited in Section II, from the canal to the railroad bridge, the area now known as West Potomac Park, extended the shoreline almost a mile westward from the grounds of the Washington Monument. In Section III, from the railroad bridge south, now East Potomac Park, fill was deposited along the western edge of the Washington Channel, resulting in a new peninsula, Hains Point.

Between the extended Mall and Hains Point, engineers created the Tidal Basin (completed 1894) to flush the waters of the Washington Channel. A single navigation channel was formed in the river, generally following the alignment of the Virginia Channel and terminating at Georgetown. A retaining sea wall was built on the river shore, and an embankment was built along the Washington Channel.

By February 19, 1890, all three sections had been filled above the level of high tide. (Chappell 51) Dredging still remained to be done in the Washington Channel and the Tidal Basin, and extensive redredging was necessary in the Virginia Channel and Georgetown Harbor because of material deposited during the severe flood of 1889. Between 1890 and 1911, the sea wall was built, and the last quarter of the fill was deposited on the new land. The dumping of fill by private citizens, usually on areas far from water, was allowed as long as the fill was clean and was graded after being deposited. (Chappell 74)

In all, the Potomac Flats reclamation resulted in the creation of 621 new acres of land for the Federal City and 118 acres of tidal reservoir. The question arose of what to do with the new land. Congress considered selling it for private or commercial development. Washington banker and philanthropist Charles Glover became involved with efforts to reserve it as parkland. (Chappell 63)

The reclaimed land was made park land by an Act of March 3, 1897 (29 Stats, p. 624) which stated "That the entire area formerly known as the Potomac Flats and now being reclaimed, together with the tidal reservoirs, be, and the same are hereby, made and declared a public park, under the name of the Potomac Park, and to be forever held and used as a park for the recreation and pleasure of the people." (AR 1915:1669) The HABS report on West Potomac Park notes: "As the project progressed, landowners sued for ownership of the reclaimed land, until finally the *Martin F. Morris et al. v. United States*, or the Potomac Flats case, was resolved by the Supreme Court in 1898 in favor of the U.S. government." (HABS No. DC-693:6)

The work of improving the city's parks and reservations under the OPBG followed a consistent pattern. Ground was graded and sewer and other pipes were laid for drainage, particularly necessary in the low, marshy land along the canal which comprised much of the Mall. Topsoil was spread and sown with grass seed or covered with sod; sod was usually laid along the

margins of walks and roads. Wooden fences or iron posts and chain were installed. The OPBG used a particular style of post and chain throughout the parks, and these may have been used in Potomac Park. The posts were short, squat columns shaped like fasces – rods bundled around an ax, a conventional classical Roman symbol of authority – with molded bases and caps that bore either the initials “OPBG” or a finial.

(One consequence of the reclamation and creation of West Potomac Park was the removal of the “Anne Royal stone,” which marked the place where this pioneering American woman journalist of the early nineteenth century sat when she famously cornered President John Quincy Adams for an interview while he bathed in the river. The removal sparked a protest and the assurance that the stone would be preserved, though today its whereabouts are unknown. See “Anne Royal Stone Gone,” WP, 8/21/1913:4.)

1901-1917: The McMillan Plan and the Recreational Development of West Potomac Park

The Transfer of Potomac Park

The first portion of the reclaimed land to be transferred from the Army Corps of Engineers to the OPBG was thirty-one acres adjacent to the Washington Monument Grounds, on August 12, 1901. Most of Sections I and II were transferred to the OPBG on April 24, 1909, with the last remaining section of West Potomac Park – a small parcel at Easby’s Point – conveyed in August. The reclamation of East Potomac Park was complete by August 1911, and it was turned over the next year on August 24. (Chappell 89, 93-94)

The Senate Park Commission Plan

The Mall was never developed according to the L’Enfant Plan, but instead, starting in 1867 and continuing through the 1880s, had been landscaped by the OPBG as a picturesque park with curving walks and hundreds of massed specimen trees and shrubs. This work was based, in part, on an 1851 plan by pioneering American horticulturist and landscape designer Andrew Jackson Downing.

In the 1890s, both private citizens and the federal government developed plans for the improvement of central Washington. These were of varying degrees of sophistication, but they fired the ambition of architect Glenn Brown, appointed Secretary of the American Institute of Architects (AIA) in 1898, to arrange for the AIA to devote its annual meeting in December 1900 to the question of Washington’s redesign. The talks included an address by landscape architect Frederick Law Olmsted Jr. that was “one of the first attempts by an American designer to define the role of landscape architecture in the planning and improvement of cities.” (Reps 1966:89; Olmsted, “Landscape in Connection with Public Buildings in Washington,” in Glenn Brown, *Papers*, pp. 25+) The meeting resulted in the creation of an AIA committee on legislation, which lobbied Congress to undertake a serious examination of the city’s design problems. With the aid of Senator James McMillan of Michigan, chairman of the Senate District Committee, the AIA committee helped bring about the establishment of the Senate Park Commission in 1901. (Reps 1967:Chapter 3. For more details on the workings of the McMillan Commission, see Moore, *Senate Park Report*, 1902; Reps, “Monumental Washington”;

Gutheim, "Worthy of the Nation"; and Longstreth, ed., "The Mall in Washington, 1791-1991.")

A joint resolution introduced by McMillan in December 1900 had proposed forming a committee to study the arrangement of public buildings in Washington and the development of a comprehensive park system. This was defeated, apparently because of the opposition of the powerful, conservative Republican Speaker of the House, Joseph "Uncle Joe" Cannon of Illinois, a vehement opponent of using federal funds for the aesthetic improvement of the District of Columbia. McMillan sidestepped this obstacle by having a Senate Resolution passed in executive session in March 1901, which mandated the use of Senate funds for a redesign of the park system only, though McMillan clearly intended to include public architecture. (Reps 1967:92-93) McMillan succeeded in establishing the Senate Park Commission, but his political maneuvering, particularly the bypassing of House approval, led to continuing problems in getting specific portions of the plan enacted.

Congress appointed the Senate Park Commission – popularly known as the McMillan Commission – the same month. Its members included architects Daniel Burnham and Charles McKim, landscape architect Frederick Law Olmsted Jr., and sculptor Augustus Saint Gaudens. They were assisted by Charles Moore, McMillan's secretary and Clerk of the District Committee.

All the commission members had been involved in the creation of the 1893 World's Columbian Exposition in Chicago, a landmark of City Beautiful design. The term "City Beautiful" refers to a broad set of progressive beliefs and practices espoused in the late-nineteenth and early-twentieth centuries concerning ways to improve urban communities – from the creation of new municipal centers to the installation of neighborhood playgrounds. City Beautiful architectural design relied on the principles taught at the Ecole des Beaux-Arts in Paris, which was attended by many of the era's leading architects and wielded enormous influence. Beaux-Arts architecture focused on the planning of monumental civic buildings that embodied hierarchical and symmetrical arrangements of spaces and structures, using dominant axes and subordinate cross-axes. The buildings were commonly designed in classical styles, and often employed all the traditional visual arts: architecture, sculpture, and painting.

The McMillan Commission applied City Beautiful precepts to the redesign of Washington's central core. As laid out in a report edited by Moore, their plan attempted to recapture the fundamental principles of the original L'Enfant plan for the Mall; to establish and maintain design standards for this area; and to extend the District of Columbia's park system to protect views, natural and scenic features, and the city water supply.

The commission began meeting in April 1901. Following an extensive trip through Virginia and then Europe, visiting the great classical urban ensembles of the Western tradition, the commission members and their assistants produced large-format color renderings and three enormous models, which were exhibited in Washington's Corcoran Gallery of Art in December 1901. Their report was presented to Congress on January 15, 1902. (Reps 1967:103-108)

One critical victory won by the commission was securing the removal of the Baltimore &

Potomac Railroad depot from the Mall at 6th Street, and the construction of a new Union Station, shared with the Baltimore & Ohio Railroad, on a site north of the Capitol. On the Mall, key sites were reserved for memorials to Grant, at the east, and Lincoln, at the west. The Washington Monument grounds were to be redesigned with walled terraces ornamented by small temples, pools, and groves of trees to emphasize the intersection of the two controlling axes and to highlight the fundamental relations between the legislative and executive branches of government. (Reps 1967:97-100)

The McMillan Plan widened the Mall to 1600 feet, almost 200 feet more than previously, and realigned its east west axis twenty-five feet to the south to conform with the deviation caused by the placement of the Washington Monument. The Mall was to be transformed into a grassy lawn bordered by carriage drives and ranks of elm trees, dotted with fountains and places to sit, rest, and enjoy the view.

The Lincoln Memorial Area

The major features of West Potomac Park, extending the central axis of the Mall to the Potomac River, were largely completed in the 1920s. Congress established the Lincoln Memorial Commission in 1911, and by a joint resolution passed on February 1, 1913, Potomac Park was approved as the new monument's site. (AR 1915) Architect Henry Bacon designed a Greek Doric temple constructed of white marble, turned 90 degrees from traditional temple orientation so that its long axis faced east and became its façade. National symbolism referring to the number of states in key years of Lincoln's life, and emphasizing the importance of the individual states to the Union, informed every part of the structure – from the number of steps in the stylobate and the number of columns in the colonnade to the number of wreaths in the entablature. Placed in the central chamber was Daniel Chester French's heroic sculpture of a somber seated Lincoln. The Lincoln Memorial was opened to the public in 1921 and formally dedicated on Decoration Day (now Memorial Day) in May 1922.

The rectangular Reflecting Pool, stretching east from the Lincoln Memorial towards the Washington Monument, was excavated in 1921 and completed and filled with water by December 22, 1922. The smaller transverse pool at its east end, which soon came to be called the Rainbow Pool, was completed about the same time.

Arlington Memorial Bridge was built between 1926 and 1932, following a visual axis linking the Lincoln Memorial with Arlington House, the former home of Robert E. Lee, Commander of the Confederate Army, in Arlington National Cemetery, which had been Lee's Arlington estate. Designed by William Mitchell Kendall of McKim, Mead & White, the bridge, with its marble facing, heroic sculptural ornamentation, and low arches reflecting the Virginia hills, retained the original concept of architect and McMillan Commission member Charles McKim (who had died in 1909).

Further Development of West Potomac Park

The 1915 Annual Report of the Chief Engineer, OPBG, noted that "all improvements in the

[Potomac] park are being made along the lines suggested by the park commission [McMillan Commission] of the District of Columbia . . .” (AR 1915:1669). The text of the 1902 McMillan Report is more allusive than detailed, and it provides few specifics on, or illustrations of, the treatment recommended for West Potomac Park. In fact, the area of the future Constitution Gardens appears to be discussed in only one or two places. In the section on the Lincoln Memorial, the report states:

“For the most part this area from New York avenue [sic] to the river should be treated as a wood, planted informally, but marked by formal roads and paths, much as the Bois de Bologne [sic] at Paris is treated.” (Moore 51)

A later section on the Washington Embankment and Potomac Park adds:

“The form and situation of the land suggest at once the landscape of natural river bottoms – a suggestion that can be hardly improved upon as a guide in the development of the park. Of the many types of river-bottom scenery, the one which seems best adapted to the conditions is that of great, open meadows, fringed by trees along the waterside and diversified by occasional outstanding masses and single trees serving to focus the meadow area into a series of connecting compositions without completely obscuring its extent.” (Moore 118)

However, this passage may refer primarily to Hains Point.

Renderings indicate that the commission considered identical treatments for the areas north and south of the Reflecting Pool. Both show a system of walks or roads cutting through thick woods on orthogonal and diagonal lines, connecting the Lincoln Memorial and other key sites.

Development of Potomac Park began soon after publication of the McMillan Report. Details of the work are provided in the Annual Reports of the Chief Officers of the Office of Public Buildings and Grounds (OPBG). The Annual Reports usually describe the work done on West Potomac Park in two separate sections, designating the area north of the Tidal Basin and south of B Street North as the “unimproved” portion. It is often not clear just what work may have been carried out on the Constitution Gardens site specifically.

The first appropriation for West Potomac Park was made in a sundry civil act of June 1902. After that, yearly appropriations were made for grading, laying water and drain pipes, construction of roads, walks, bridle paths, sowing of lawns, and planting of trees and shrubs. (AR 1916:1891)

In 1906/07, the OPBG built foot and bridle paths. In 1911/12, the interior of the park was drained and graded. By 1914, a planting scheme had been approved by the Commission of Fine Arts.

Potomac Park roads were covered with “bituminous macadam,” lined with brick gutters and lighted by electric arc street lights; over sixty such lights had been installed by 1911. (AR 1911:2978; AR 1911:2973) B Street North (now Constitution Avenue) was “extended to river

as a boulevard” in 1909. B Street North was lined by small trees and 17th Street by mature American elms, planted in 1907. (LM CLR 17, 25) A sundry civil act of May 27, 1908 (35 Stats p. 356) moved jurisdiction over B Street west of Virginia Avenue from the District of Columbia to the Chief of Engineers, U.S. Army. The south half of B Street between 15th Street and Virginia Avenue was similarly transferred, by a letter of November 29, 1909 (accepted by letter of December 6, 1909). (AR 1915: 1669) By 1910, B Street North had been built east as far as 16th Street, and it was extended to 15th Street the following year. Its median was planted with rhododendrons east of 17th Street and with mountain laurel west of 17th. A few years later, both types of shrubs were replaced with a deciduous planting.

In 1910/11, \$25,000 was appropriated for the “unimproved” part of West Potomac Park. (AR 1911:2979) At that time, “a row of iron posts was placed along the northern boundary of the park”, from 21st to 23rd and from 25th to 26th Streets; these may have been the type of cast-iron bollard in the shape of Roman fasces that was typically used for the downtown parks. Seventy-thousand square yards of land was graded and covered with topsoil, and thousands of linear feet of galvanized iron, cast-iron, and terra cotta water pipe were laid. An additional \$25,000 was appropriated for the “interior” part of West Potomac Park the next year. Clearing, grading, seeding, and the laying of water pipes continued over the following years.

Thousands of trees were planted in West Potomac Park. In 1910/11, 1530 trees were planted and 210 dead trees were removed. Four-hundred and fifty trees were planted in 1911/12, 2000 in 1912/13, and 15,405 trees and shrubs in 1913/14. In 1915/16, sixty-one trees and 1762 shrubs were planted, along with “120 evergreens” (whether trees or shrubs is not specified) and 328 vines. (AR 1916:3595) In 1916/17, 303 trees were planted and 578 “old trees removed” (AR 1917:3714).

In 1915/16, a new concrete sidewalk “treated with tar and sand” was built along both sides of 17th Street, and a new bridle path was built (AR 1916:1800). A new concrete walk, eight feet wide and 4000 feet long with a “tarred surface,” was laid along the south side of B Street North, from 17th Street to the river. “Considerable additional planting” was installed, and “a large area was graded, sod laid, old trees removed, and drain tile laid.” (AR 1916: 1891-92) Four rows of English elms were planted along the site of the future Reflecting Pool adjacent to the Lincoln Memorial (AR 1916:1800).

Recreational development in the park included the building of bridle paths, surfaced with sand (AR 1911:2979) and including some jumps (AR 1910:2670+). In 1915/16, a new bridle path, ten feet wide and 5700 feet long, was built parallel to the new sidewalk. Ten tennis courts were built “south of B Street, between 17th and 19th Streets” in 1912/13. (AR 1913:3225) In 1916/17, the ten tennis courts were changed to fourteen, seven courts in each of two enclosures. In 1914, “a ‘three-hole’ practice golf course was laid out . . . [and] a sheep corral was erected for the safe-keeping of a drove of sheep which is feeding in the park at present.” (AR 1914:3355) Over 7000 square yards were graded in one area – its precise location is not known – that was referred to as “Riders’ Row.” (AR 1912:3501) Two “hydrant drinking fountains” were installed in 1915/16 (AR 1916:3595).

The stone Lockkeeper's House was described as being in "very dilapidated condition" when the OPBG took over West Potomac Park, and was occupied at that time by an African American family of squatters who were evicted by August 1902 (AR 1903:2554). Trustees of the canal company conveyed title to the Chief of Engineers on August 14, 1902. Beginning the next May, the OPBG refurbished the structure as a watchman's lodge and tool house, replacing the roof and floors and adding four dormer windows. By 1915/16, the house also held comfort stations and a bike room.

In 1915, the Lockkeeper's House was moved out of the intersection of 17th Street and B Street North, forty-nine feet to the west and six feet to the north. Landscaping was installed: "The area around the house was improved in accordance with the approved plan". This plan, dated March 30, 1916, was prepared by the OPBG. New plantings were installed in a triangular plot, its short side formed by Constitution Avenue, and the two long sides formed by 17th Street and a walk that curved diagonally from B Street North past the west side of the house to join with the 17th Street sidewalk, perhaps a hundred feet or so from the intersection. The house had a dense foundation planting of various shrubs and small trees, including hollies, osmanthus, and junipers, with larger trees framing the approaches. Dozens of trees, including numerous white pines (*Pinus strobus*), oaks (*Quercus pyramidalis* – perhaps *Quercus fastigiata*), and English hawthorn (*Crataegus oxycantha*) were planted informally across the plot behind the house. Shrub beds lined the east side of the diagonal walk. (None of these plantings remain.) In all, forty-one shrubs and small trees were transplanted near the house, 505 new trees and shrubs were planted, and a new concrete walk and a new bridle path were built. (AR 1916:3594)

The Lockkeeper's House was again remodeled in 1916/17, with the first floor altered to house a comfort station and a bike room and lockers for park watchmen located on the second. (AR 1917:3713) The Annual Report noted that "[i]n remodeling this building special care was taken to restore it to its original design as nearly as possible. Two new stone chimneys were built and a new roof placed on the house." (AR 1917:3714) Also in the early years of the century, the house became headquarters for the Park Police, and included a temporary holding cell for people arrested in Potomac Park. (EWPP revised nomination 2001:Sec. 7 p. 40)

Design of many areas surrounding Constitution Gardens was greatly affected by the work of the Public Buildings Commission, established in 1916 to identify the need for new public buildings in the District and oversee their design and construction, following the recommendations of the McMillan Commission. Among these were the buildings of the Federal Triangle and new structures on the north side of Constitution Avenue between 17th and 22nd Streets. The commission advised on the buildings' massings, setbacks, and facades, landscaping, and terracing of the grounds to maintain a certain elevation for flood control purposes. (Gutheim 1977:140, 148-9, 176)

The commission also oversaw the planting of street trees along major ceremonial thoroughfares within the monumental core. The double rows of elms along Constitution Avenue and Henry Bacon Drive were implemented as part of the development of the Navy and Munitions grounds and the Lincoln Memorial grounds, respectively. The single rows of elms along both sides of 17th Street were planted because that street was considered the entrance into Potomac Park.

(Written review comments, Glenn DeMarr, Aug. 2007)

1918-1963: The Navy and Munitions Buildings

Recreational use of the northern area of West Potomac Park lasted only a short time. During the years building up to American involvement in the two World Wars, many office buildings were quickly erected on public lands in Washington, including the Mall. Constructed of wood or steel and covered with lath and stucco, these structures were meant to be temporary, hence their popular name of “tempos.” But they proved too useful to easily discard, and most remained standing for decades, marring views and hindering plans for appropriate development of major parks.

With the advent of the U.S. entrance into World War I, the Urgent Deficiency Act of March 28, 1918, authorized the construction of two enormous temporary buildings for the Navy and War Departments, south of B Street North between 17th and 21st Streets (AR 1918:1930). Known as the Navy and Munitions Buildings, they housed the offices of the Secretary of the Navy and the Chief of Naval Operations. (The 1919 Annual Report mentions that the War Risk Bureau had installed 630 feet of pipe rail fence at 17th and B Streets.)

These tempos were occupied in August 1918, three months before the war ended. Within that short span of time, 14,000 workers were moved in. Much of the “Navy’s high command” remained here through the Second World War, preferring the location to that of the newly complete Pentagon in Virginia. (from Naval Historical Center website, www.history.navy.mil/photos/pl-usa/pl-dc/nav-fac/mn-mun.htm, Dec. 21, 2006)

The two buildings extended for almost a third of a mile along Constitution Avenue between 17th and 21st Streets. The entrance of the Navy building was on line with 18th Street and that of Munitions with 20th Street, and between them ran a driveway aligned with 19th Street. Both buildings were three stories high, constructed of wood and with stucco exteriors. Each had a main corridor running east to west across its facade, parallel to Constitution Avenue. Wings extended perpendicular to the façade corridors, nine wings for Navy and eight for Munitions. Almost 100 enclosed pedestrian bridges connected the wings at the first, second, and third stories. (Hodge WP 3/3/77:3) By 1930, a line of Lombardy poplars had been planted along the rear of the buildings, between the buildings and parking lots; these were soon removed, when additional tempo buildings were constructed on the parking lots. In the early 1940s, a tenth wing was added to Navy and fourth floors were built on both buildings. Numerous other tempos were built between the wings. (Hodge WP 3/3/77:3; Naval Historical Center website 12/21/06)

For over fifty years after construction of the Navy and Munitions Buildings, little else happened on the site. Administrative changes in the 1920s and ‘30s returned the federal reservations from the War Department to the Department of the Interior. The limited amount of new construction continued to follow the general guidelines of the McMillan Plan. Plans in the 1960s began to consider new uses for West Potomac Park, projecting particularly drastic changes for the area north of the Reflecting Pool.

In 1925, the Office of Public Buildings and Grounds was replaced by the Office of Public Buildings and Public Parks of the National Capital. On June 10, 1933, four months after his first inauguration, President Franklin D. Roosevelt signed Executive Order #6166, which transferred all public reservations and buildings, including National Capital Parks, to a new Office of National Parks, Buildings, and Reservations, in the Department of the Interior. On March 2, 1934, the Office of National Parks, Buildings, and Reservations was renamed the National Park Service. The Office of Public Buildings and Public Parks became National Capital Parks (now the National Capital Region) on June 4, 1934.

The development of the landscape south of the Reflecting Pool presumably had been similar to that on the north, broad lawns with groves of trees. In 1931, the District of Columbia War Memorial was built in this area, on the axis of 19th Street. The memorial, designed by Frederick H. Brooke with Nathan C. Wyeth and Horace W. Peaslee, was a small, marble Doric tempietto designed to be used as a bandstand. Also in 1931, a congressional act authorized changing the name of B Street North to Constitution Avenue (Public Resolution 123-71 St. Congress, H.J. Res. 464).

The Lockkeeper's House remained in use by park staff. From about 1940 to 1970, a comfort station occupied the first floor, and equipment and supplies were stored in the attic. It continued to be used as a Park Police lodge and a temporary holding cell. (EWPP rev. nomination 2001:Sec. 7 p. 40)

Following a severe flood of the river on March 19, 1936, a temporary levee was constructed in Potomac Park to protect downtown Washington in the event of future floods. The levee ran parallel to the Reflecting Pool, north of the double row of elms and south of the Navy and Munitions Buildings, extending from the Lincoln Memorial east to 17th Street, with a gap at 23rd Street, where the design required placement of temporary earth fill barriers. In 1938, the Army Corps of Engineers rebuilt the levee as a permanent earth and concrete structure. The levee appears to have been rebuilt again in 1945-46. When Constitution Gardens was built, much of the concrete levee was removed, but the topographic rise of 19.5 feet was incorporated into the design as a slope, covered with earth and planted with grass. (EWPP rev. nomination 2001:Sec. 7 p. 19)

In 1942, with the start of World War II, two new tempos were built on the parking lot behind the Navy and Munitions buildings (LM CLR p. 55 fig. 26). New temporary office buildings were also constructed south of the Reflecting Pool and on the west side of the Washington Monument Grounds; pedestrian bridges were built linking the Navy tempos with these buildings, one bridge over the Reflecting Pool, a second immediately east of the pool, and a third over 17th Street. More tempos were built on the Monument Grounds the following year, and all-day parking was allowed on lots near the tempos and on the Mall roads east of 14th Street. (LM CLR 55; also Naval Historical Center website)

While the Constitution Gardens site remained occupied by the Navy and Munitions buildings, major changes were undertaken on other areas of the Mall to fulfill the vision of the McMillan Plan. In the 1930s, under the guidance of Frederick Law Olmsted Jr., working with National

Capital Parks and the National Park and Planning Commission, the construction of a modified McMillan landscape plan for the Mall from 1st to 14th Streets was carried out, using Public Works Administration funds.

By 1932, when Olmsted began this work, only a few aspects of the McMillan Plan for the Mall had been implemented, mostly the construction of new buildings in the approved classical styles and at the recommended setback from the center line. Olmsted and his colleagues oversaw radical changes: the removal of most templos (though the last tempo on the Mall was not razed until 1971); the extensive addition of fill and regrading, particularly between 9th and 14th Streets; the laying of roads and walks; the moving of trees from the remnant park landscape, thus opening up, for the first time, the view between the Capitol and the Washington Monument; and the planting of lawns and almost 600 American elms to frame the central view corridor. However, the reconstruction stopped at the Washington Monument Grounds.

The NCPPC updated Mall plans in 1937, 1939, and 1941. These show changes to the footprint of the Reflecting Pool, completion of Constitution Avenue, and the addition of the Ericsson and D.C. War Memorials. (LM CLR 52)

The 1937 and 1941 studies illustrate landscape development of the project area. Three streets – 20th, 21st, and Henry Bacon Drive – are depicted as extending through the area to an east-west road, parallel to the Reflecting Pool, that then crossed 17th Street to the Washington Monument Grounds, joining with an elliptical road that circled the monument.

Both studies show the areas south and north of the Reflecting Pool treated similarly, except for the presence of the D.C. War Memorial and its walkways. In the 1937 study, trees are massed around the perimeters of blocks, surrounding central lawns (NCPPC, “The Mall, Central Area, Study for Development,” 1937, plate XCIV in “Mall in Washington,” p. 225). In the 1941 study (prepared with the assistance of a consultant, the prominent landscape architect Gilmore D. Clarke), the lines of trees are broken and irregular, extending into the central lawns, and with openings along the block boundaries (NCPPC, “Development of the Central Area West and East of the Capitol, Washington, D.C.,” Gilmore D. Clarke, Consultant, 1941, pl. XCV in “Mall in Washington,” p. 225).

In a report issued in 1948, the Commission of Fine Arts wrote:

“that the area along the south side of Constitution Avenue, now occupied by buildings, be planned as a naturalistic park area, within the rigid borders of the straight avenues, roads, and walks, with broad expanses of lawn with trees in mass, in groups, and singly, composed in a manner appropriate for passive recreation and in keeping with the immediate environment of two of the greatest memorials ever erected, the Washington Monument and the Lincoln Memorial. This is no place for active, noisy recreation: the area belongs to the people of the United States and it should not be dedicated for the use by Government employees and other residents of Washington as baseball and football fields.” (LM CLR:56, note 65 CFA report July 1, 1944 to June 30, 1948 (GPO: 1948): 90.)

However, the tempos remained, and the work was not carried out. Because of the increasing numbers of cars, in 1950 the bridle paths in Potomac Park were permanently closed. (LM CLR:61) No other changes are known to have occurred on the site before the 1960s.



The Lockkeeper's House in about 1930, viewed from the northeast. The landscaping had been installed about fifteen years earlier. (LCS photo, CLP file)



View of West Potomac Park from the Washington Monument, about 1942 or later. The Navy and Munitions Tempos have been built north of the Reflecting Pool, and other tempos constructed on adjacent lands. (MRCE LM CLR disk 3-36)

1964-1993:

The Creation of Constitution Gardens

Demolition of the Tempos

In August 1964, the World War II tempos south of the Reflecting Pool and on the west side of the Washington Monument Grounds were removed, but the Navy and Munitions buildings remained (LM CLR 64). Some of these had begun sinking by 1968 and had to be evacuated. The last two tempos were finally removed through the efforts of President Richard Nixon (1969-1974). Nixon's Domestic Affairs Advisor, John Ehrlichman, had once worked in them and, recalling their poor condition, suggested they be razed. Whenever Nixon passed them, he was reminded to issue memos calling for their destruction.

All offices in the tempos were moved out in 1970, and by the end of that year most of the structures had been demolished, though apparently wood and/or concrete footings remained in the ground. (The Environmental Assessment states without citation: "The buildings were razed

to ground level, leaving 5,092 double piles of timber spaced at approximately 8 to 10 feet on centers.” [EA c. 1974:10]. Hammerschlag and Patterson write: “These subsoil materials further raised the elevation and served to bury the support concrete pilings and basement structures for the old ‘temporary’ buildings.” [Hammerschlag & Patterson 1].) The Navy and Munitions Buildings were among the last tempos to be removed from the Mall. A World War I tempo at the southern end of the block between 5th and 7th Streets, on the current site of the National Air and Space Museum, was not razed until 1971. One tempo still remains in downtown Washington, the Liberty Loan Building on Maine Avenue.

Skidmore, Owings and Merrill Plans for the Mall

Report of the President’s Council on Pennsylvania Avenue, 1964

In the 1960s, the Modernist architectural firm Skidmore, Owings and Merrill (SOM) became involved in efforts to redesign the Mall and Pennsylvania Avenue. One of the firm’s founders, architect Nathaniel Owings, in 1962 had been named by President John F. Kennedy to head the President’s Council on Pennsylvania Avenue, a team of architects, planners, and other experts charged with preparing recommendations for improving the appearance of the deteriorated historic street. Their 1964 report served as an “idea book” for the Pennsylvania Avenue Development Corporation, founded in 1972, and was also the genesis of many design proposals for the Mall in succeeding years. (Parsons 4/26/06)

About this time, spurred by the approach of the Bicentennial of the American Revolution in 1976, the National Park Service retained SOM to prepare a master plan for the Mall. Nixon’s Bicentennial message of February 4, 1972, announced that a “park and recreation area would be available by 1976” on the site of the old tempos (NAMA CR COGA Desc/Research). A Washington office of SOM was set up, headed by the young architect David Childs, who had served as an independent consultant on the Pennsylvania Avenue study. Owings was involved in the work, along with Charles Bassett and other associates of the firm. Outside consultants included landscape architect Dan Kiley and the traffic engineering firm of Wilbur Smith & Associates.

“The Washington Mall Master Plan” (1966) and the “Washington Mall Circulation Systems” (1973)

SOM submitted two reports, “The Washington Mall Master Plan” in 1966 and the “Washington Mall Circulation Systems” in 1973, and several versions of the drawn plan were prepared between 1966 and about 1976. The two reports differed in details, but shared common aims: removing automotive traffic and parking from the Mall, replacing them with shuttle buses and underground or off-site parking; visually strengthening the central vista through planting more trees to augment the lines of American elms; and adding outdoor visitor attractions along the Mall and on the grounds of the memorials. The “Master Plan” contained extensive

recommendations for Constitution Gardens; the 1973 “Circulation Systems” plan only added a few details regarding Tourmobile routes, including one through the site. (SOM 1973:8)

The “Master Plan” envisioned a looser, more picturesque treatment of the Mall west of 14th Street to contrast with the formal landscape of the 1st through 14th Street axis, a character also referred to in the “Circulation Systems” report: “Much of the aesthetic pleasure of the Mall landscaping is derived from this very juxtaposition of the romantic pastoral landscape with the more formal garden, and the contrast should be preserved.” (SOM 1973:24) The 1966 plan stressed the need for planting a greater variety of trees on the Mall, while stating: “Ground contours around existing tree masses must be left virtually untouched so as not to disrupt the ecology of mature plantings.” (SOM 1966:21-22)

The “Master Plan” proposed replacing 17th Street with an “allee” – presumably, judging by photos of the large model of the Mall reproduced in the report, a pedestrian walk delineated by an allee of trees. The rotary in front of the Lincoln Memorial would be removed and the memorial’s terraces enlarged. The Reflecting Pool would be extended further east, and an “elevated viewing platform” built at its new east end. A row of Southern magnolias would be added to the outer edges of the elms along the pool, “thus increasing the strength of the axis and relating to the new activities developed on either side.” (SOM 1966:13, 22) To the south, Independence Avenue would be eliminated to create continuous recreational grounds stretching to the Tidal Basin and beyond (SOM 1966:13). In this area there would be spaces for more structures like the D.C. War Memorial, and picnic grounds with restrooms and food pavilions, a pony ring, a carousel, and a small children’s zoo (SOM 1966:16). An Inner Highway was to have been routed under the Lincoln Memorial and the Tidal Basin (Parsons 4/26/06).

On the site of Constitution Gardens (not yet designated by this name), a Mall Orientation Center would be built, placed mostly underground, with a reception hall to the north, a terrace to the south, and a terraced roof meant to “harmonize” with the surrounding gardens and the formal institutional buildings facing the site on the north side of Constitution Avenue. The Center would house cafeterias and restrooms, along with spaces for exhibits, films, and lectures on the history of the Mall, the work of the National Park Service, conservation, and patriotic subjects. “Formal Rose Gardens” would be planted east of the Center, “framed in groves of trees . . . with hedges, sculpture and fountains” (SOM 1966:13). To the west, an “elegant pavilion restaurant” would offer “a distinguished cuisine all year round.” (SOM 1966:14) Berms and groves would hide two bus parking lots. (SOM 1966:13)

Results of the SOM Plans

Only a few of the recommendations contained in these SOM plans were carried out. Ninth and 12th streets were tunneled under the Mall. Washington and Adams Drives were removed, converted from asphalt roads into gravel walks, though Jefferson and Madison Drives were retained, and automobile traffic and parking continued on the two drives and on cross streets. Tourmobile bus service was inaugurated in 1969. In 1975, the paving of walks east of 14th Street was changed from concrete to gravel. Constitution Gardens was ultimately built to a design by SOM that differed from the scheme presented in their 1966 plan.

SOM Plans for Constitution Gardens

Revision of First SOM Plan

Beginning in about 1970, SOM developed a separate series of plans for Constitution Gardens, on a site which then extended west across Henry Bacon Drive (which remained open) to 23rd Street. At some point, the western boundary was pulled back to Bacon Drive.

The client for the Constitution Gardens work was the Secretary of the Interior. The project began while Nash Castro was Regional Director of the National Capital Region of the National Park Service (NCR, NPS). In 1973 Castro was replaced by Deputy Regional Director Manus “Jack” Fish, who remained closely involved until he left the NPS in 1988. Ed Peetz, an Urban Planning Team Manager with the NPS’s Denver Service Center (DSC), oversaw construction. John Ehrlichman, Nixon’s Domestic Affairs Advisor, helped implement the presidential order for the garden’s creation (interview with Childs 9/6/06).

From 1972, David Childs, head of the new SOM Washington office, was the design partner in charge, and SOM prepared all working drawings. An NPS working group reviewed the designs and oversaw their implementation. Other designers involved included consulting landscape architect Dan Kiley; landscape architect Henry Arnold of Arnold Associates; and architect Richard Giegengack and landscape architect George Dickie, both of SOM (“Richard Giegengack,” Obituary, WP, 1/17/07:B7 and Desautels, “The Art of Democracy,” Penn Stater 1-2/94:23). Arnold, who had worked for Kiley, was particularly good on detail and was hired by SOM to produce the technical drawings. SOM had already worked out a mixture of mostly native tree species with Dan Kiley.

The area was initially called Bicentennial Gardens. While some felt that the park should be named Nixon Gardens, it was given the official name of Constitution Gardens after the adjoining avenue. (Parsons 4/26/06)

The SOM team first altered the formal design presented in the 1966 plan to an amusement park in a picturesque setting, a densely articulated park with circular and curving elements based on Copenhagen’s nineteenth-century Tivoli Gardens (801/84082, Constitution Gardens base plan, no date). (The idea was First Lady Pat Nixon’s; it was also Pat Nixon’s idea to use the knoll at the west end of Constitution Gardens as a performance area. Parsons 4/26/06 and Childs 9/6/06.) A long, curving lake would have widened into a round pool with a circular island in its center, planted with an “American Holly Garden.” There was to be an oriental tea garden, a children’s garden, a 250-seat auditorium, a restaurant and a large cafeteria, underground bus parking, a dock for fifty boats, and a Tourmobile “path” along the park’s southern edge. A large visitors pavilion would have stood on a platform at the lake’s east end.

The designers studied the McMillan Commission’s models and drawings. The Commission of Fine Arts hoped the redesign of the western end of the Mall would follow the McMillan Plan,

rather than recreating the informality of the era when it was a recreational field. But these were the early days of the historic preservation movement in the U.S., and on the whole the CFA and NCPC supported SOM's aims. (Childs 9/6/06)

Commission of Fine Arts Review

The Commission of Fine Arts reviewed the plans a number of times – the original elaborate Tivoli-type scheme in December 1971 and February 1972, and the succeeding simpler picturesque landscape in March 1973 (CFA minutes, NARA I, microfilm). In November 1974 and January 1975, they reviewed the design of the refreshment kiosk.

The commission considered the relation of the original design to the McMillan Plan: “The designs . . . appeared complicated and divergent from the original Olmsted and McMillan plans to keep the area wooded and simple in character.” (CFA minutes 12/15/71:1-2) Two months later, they noted: “. . . the historical intent was to have this section of the Mall a green, wooded retreat from the formality of the Reflecting Pool and the scale of the remainder of the Mall.” (CFA minutes 2/16/72:3)

CFA Chairman J. Carter Brown summarized the arguments opposing the complications of the design in a letter to Jack Fish. Stating that Constitution Gardens “should not provide this much presence on the Mall,” he continued:

“The construction will be visible from the mound of the Washington Monument, not to mention the top of it, as well as from the air, a view that is becoming increasingly important as a way in which the visitor to Washington first apprehends the plan of the Capital in its original totality.

“In general, the Commission felt that the design was too inward-looking, that it in effect turns its back on the rest of the city. As a self-contained entity, it could be located just about anywhere. The Commission is sympathetic to the need for breaking down the scale of the Mall and humanizing it into sub-spaces. It felt this proposal, however, was overdesigned.”

Brown concluded by attempting to pin down the desired character:

“The panel between the Reflecting Pool and Constitution Avenue should breathe easily and with dignity as part of an overall scheme, and enhance the experience of the monuments and of the city plan, with its increasingly precious provision of open green space.” (CFA minutes 2/16/72, Exhibit A: Letter 2/23/72)

In addition to the difficulties posed by the complicated design, the cost, estimated at \$49 million, was exorbitant (Hodge WP 5/28/76:C7). The Tivoli plan was altered to a simple, picturesque park with a small lake, partly in hopes of creating a permanent home for the Smithsonian Folklife Festival, which had been held south of the Reflecting Pool in 1973 (Parsons 4/26/06). (The festival took place along the south side of the Reflecting Pool from 1974-76. Since then, it has been held on the Washington Monument Grounds from 1977-81, and on the Mall between 3rd and 12th Streets from 1982 to the present).

Second Revision of SOM Plan

When SOM's revised design was presented to the commission the following year, it immediately met with approval: "The McMillan Commission had envisioned the area as a wooded park, now the redesign was more in line with that." (CFA minutes 3/20/74) The commission questioned the need for the visitor pavilion and a curved road leading to it from 17th Street. An NPS representative explained that "the Park Service had been forced to abandon plans for a Washington Monument Visitor's Center and that the proposed facility would serve the whole west end of the Mall." The CFA then approved the project on condition the road was eliminated, allowing only pedestrian access. (CFA minutes 3/20/74:"interview") Brown later wrote: "The essential simplicity of the design complements the great formal composition of the Reflecting Pool and surrounding areas . . ." (CFA minutes 3/20/74, Exhibit 4: Letter 3/25/74).

Almost twenty years later, Brown enlarged on the commission's thinking:

"Skidmore, Owings, and Merrill's initial scheme created a new precinct in response to the president's wishes, but the Commission rejected the scheme as being far too busy and functionally inappropriate. Our idea was quite different. Tastes were changing: people were rediscovering Victorian architecture and the naturalistic landscape plans of Andrew Jackson Downing and Frederick Law Olmsted. Moreover, we believed that the structure of the Mall was now so established that something of a much more relaxed nature was warranted for this space." (Brown in Longstreth 1991:251-53)

Brown seems to be suggesting that the commission interpreted the McMillan Plan as a dynamic document, remaining open to interpretation.

While the revisions were in progress, an alternative plan under consideration was Humanisphere, a National Park Service initiative that proposed exploring human values systems through five interpretive areas. In fact, Humanisphere was nearly completed, probably in early 1972 (Swersky, e-mail, 5/13/07, ref. to WP article c. May 1972). A month before it was due to open, the White House rejected the project. The site was seeded with grass while other schemes were considered. Eventually the simpler SOM design was chosen. (A cluster of wooden yurts with sod-covered roofs had been erected on the site for Humanisphere, and were moved to Glen Echo Park, in Glen Echo, Maryland, where they remain today.)

SOM's concept of a simpler, European-inspired picturesque landscape featured rolling slopes, meandering walks, and a small pond, on a site that still extended west as far as 23rd Street (the western boundary was soon changed to Henry Bacon Drive; the larger site comprised fifty-two acres, and this figure appears in many early park documents). A variety of different historic gardens and landscapes provided sources for particular features of Constitution Gardens. At the time of dedication, Childs said: "It's a Romantic park, not a formal classical park like the Mall, and is similar to Hyde Park in London and the Bois de Boulogne in Paris." (Hodge WP 5/28/76:C1) Precedents included the woodland paths of the Bois de Boulogne, and the walks in

the Tuileries, where lines of trees were planted within the edges of gravel walks. (Childs 9/6/06. However, at Constitution Gardens, the walks were paved in gravel-topped asphalt, rather than being covered with loose gravel, and for this and other reasons the trees did not thrive; see below, Vegetation.) The contrast of informal garden rooms with a formal feature was adapted from the gardens of Versailles, and is seen at Constitution Gardens in the contrast of the curving lake with the rectilinear Reflecting Pool just south of the park. Spreckels Lake, in Golden Gate Park in San Francisco, a small, irregularly-shaped pond used for model boat sailing, was another inspiration (Childs 9/6/06). J. Carter Brown later wrote: “Childs drew inspiration from the work of Andre Le Notre; I confess I had Saint James’s Park in London much more in mind.” (Brown in Longstreth 1991:251-253)

A mix of tree species was sought because of concerns about monoculture plantings; many new trees were planted on the central knoll in particular. The design team was careful about preserving notable trees, among them an old hickory growing on the western end of the site near the future location of the Vietnam Veterans Memorial (Childs 9/6/06). A separate Tourmobile road was built along Constitution Avenue (this was removed in 2004 and replaced with a sidewalk, as part of the World War II Memorial construction project).

The revised SOM plan had four goals: a large visitor services building offering information, restrooms, and food; a “garden-landscape” with “activity centers for cultural and recreational programs”; a “natural water feature or lake”; and access by public transportation, i.e., buses, a goal that was later dropped. (NAMA CR files, D/R, “CoGA-Status,” 9/30/75)

Documents Describing the Design Intent

Two important text documents have been located in NAMA files discussing an early version of the final picturesque landscape design for Constitution Gardens. Neither document is identified by author name or date, but both seem to have been written about 1974, probably by a member of the SOM and/or NPS design team. The first document lacks its title page but appears, from its contents, organization, and internal references, to be an Environmental Assessment, and it will be referred to as such (EA c. 1974; located in NAMA CR files COGA “Internal Memos/Correspondence”). A Report of the Joint Committee on Landmarks, July 23, 1974, says: “. . . the National Park Service has made a determination that an Environmental Impact Statement is not required for this project. In lieu of a Statement, an Environmental Assessment has been submitted [NCPC file No. 0954]”). This report presents the design while providing information on the site’s history, and the characteristics of its soil, groundwater, local pollution, traffic, and so forth. A second document, which may date from somewhat later, is a three-page paper entitled “The Constitution Gardens”; though brief, it discusses in detail the antecedents, intentions, and features of the design.

As described in the Environmental Assessment, about 530 trees were then growing on the fifty-two-acre site. Street trees included oaks, elms, pines, and walnuts along 17th Street, lines of elms along 17th Street, Henry Bacon Drive, and 23rd Street, and sycamores on 21st Street. The western portion of the site between 21st and Henry Bacon Drive was the “most densely

planted” part, with “pine, maple, hickory, walnut, and oak”. (EA c. 1974:6) (21st Street, Henry Bacon Drive, and a block-long unnamed street linking 21st Street and Drive ran through the site.) Three baseball diamonds and two clay tennis courts had been located in the western area for many years.

The EA recommended that trees be planted on about half the site. The proposed lake, described as seven-and-a-half acres and up to four feet deep, would have a 2650-foot long “meandering shoreline”. (EA c. 1974:1. As built, the lake is 6.75 acres and averages two to three feet in depth, with an eighteen-inch depth at the water’s edge and three depressions that reach a maximum of four-and-a-half feet.) Circulation would include 2510 feet of bike paths and over three miles of pedestrian walks. At “eight major points” these walks would widen into paved areas – “open air stages” – of varying sizes, from 5800 to 18,000 square feet, suitable for exhibitions, concerts, or other gatherings. Other areas within the walks could be used for “commemorative sculptures.” An open meadow of almost fourteen acres would be created for informal events. (EA c. 1974:1-2) Suitable lighting for evening use would require varied spacing and intensity, and would employ a small version of the Mall light standard, along with canister down-lights in the tree canopy (EA c. 1974:2).

Descriptions were provided of the architectural programs for a “visitor facility structure” situated on a platform at the east end of the lake and for a small refreshment kiosk at the west end. The rough square footage allotted for the different functions of these buildings was detailed, but the designs themselves were still in their conceptual stages and were described only as one-story high, and “simple . . . and unobtrusive in massing”. (EA c. 1974:3)

The second document describes the quality of the landscape sought in Constitution Gardens. Keeping the site wooded would maintain the character of the larger West Potomac Park area. Within Constitution Gardens, features would be “reduced in scale and subtly ordered to contrast with the formalism of the Grand Axis”. Overall, “the design establishes a floor plane of softly contoured meadows shaded by a canopy of trees and sloping gently to meet the curving shoreline of an informally shaped lake.” Walks would “meander[. . .] in the shade following the contour lines” and would widen at several places into “tree-encircled areas” – “natural stage[s] for a variety of activities” that would not require “permanent facilities”, such as “small outdoor concerts, exhibits, picnics, informal sports, and National Park Service programs and festivals, and modest structures”. (“Con. Gardens” c. 1974:1-2)

The transition from the formal design of the Mall to the informal design of Constitution Gardens would be effected by the arrangement of perimeter trees: “Slightly undulating groupings of trees” would be located at a “respectful distance” from the lines of elms north of the Reflecting Pool. On the park’s three street sides, trees would be evenly spaced in rows, with their “regularity dissolv[ing] as the plantings continue toward the interior of the Gardens.” (“Con. Gardens c. 1974:1)

One dominant tree species would be used throughout the park. Along the walks, trees with a more “columnar shape” would be “spaced in a regular rhythm [to] lend [. . .] a degree of unity to the experience of walking”. (“Con. Gardens” c. 1974:1) The park’s general vegetative and

experiential character was clearly defined:

“The design emphasizes the quality of transparency. The selection of high canopied tree species will create a band of daylight flowing between the dark of the leaves and the grassy meadow floor. Branches would not interfere with views of visually important Mall features such as the D.C. War Memorial. Understory trees and shrubs over 4 feet tall will be used only sparingly and will be grouped to provide a sense of scale without disturbing views. . . . The motif of dappled shade and reflecting surfaces will be carried forth in the design of the . . . airy, light structures accented with bright colors.” (“Con. Gardens” c.1974:2)

Because of its informal shape, still surface, and the walk immediately along its shore, the lake would differ from all other water features on the Mall. The island and the meadow would “provide abundant spots for picnicking, reading, and play.” (“Con. Gardens” c. 1974:2)

Construction of Constitution Gardens

In July 1972, the CFA and NCPC approved final site development plans “with enthusiasm”. An initial budget of \$14 million was reduced to \$11.9 in April 1974. Construction contracts for preliminary grading and tree planting were let in June 1974, and work began in early August. (NAMA CR files, D/R, “CoGA-Status,” 9/30/75)

At this time, George Berklacy, assistant to the regional director of NCR, was quoted in The Washington Post: “It’s a long walk from the Monument to the Memorial. We estimate that about 15 million tourists visit that area each year. So we decided to build the park to provide them with a place to rest as they make the walk from the Monument across the Mall to the Memorial.” Berklacy noted that plans then included a 1000-seat amphitheater to be built at the park’s east end that would offer lunch-time concerts. He said, “The theatre is to be completely natural, with seats and walls carved out of the ground.” (Butler 7/20/74)

This amphitheater was soon replaced by plans for a large food service structure on a paved terrace. However, because of cost, this idea also was abandoned: “The use of free sludge, sparing use of expensive sod and the elimination of a large café-pavilion were among the things that brought the cost of Constitution Gardens down from an estimated \$12 million two years ago to a final \$6.7 million, according to architect Childs.” Instead, a small food pavilion was built at the lake’s west end, intended to serve beer, knockwurst, sodas, and sandwiches, “the first time beer will be served year-round in federal parks here. . .” The final cost of Constitution Gardens was \$6.7 million. (Hodge WP 5/28/76:C1, C7)

Fill and Soil Issues

When the tempos were demolished, much of their substructures were left in the ground; these materials were either wood or concrete, or both: “5,052 double piles of timber spaced at approximately 8 to 10 feet on centers.” (EA c. 1974:9); “These subsoil materials further raised

the elevation and served to bury the support concrete pilings and basement structures for the old ‘temporary’ buildings.” (Hammerschlag & Patterson 1.) Fill for the site was brought from different sources, mostly from the excavation for the Library of Congress’s Madison Building, on Pennsylvania Avenue, S.E., but also from Metro construction (Patterson 1975:18; Hoke 1997 in Gedney 1998:17). The soil from deeper excavations may not have been appropriate as a growing medium. In the summer of 1974, NCR staff created a small, quarter-acre wetland and a pond south of the line of 20th Street as an interim measure while the park’s design was being worked out: “A pick-up truck load of pond muck and wetland plants was brought in and the border was fenced and seeded with wildflowers.” (Gedney 19, refs to Hoke 1974 and 1977)

Extensive amendment of the soil was necessary: “The soils existing at the site prior to renovation were a conglomeration of subsoil materials and building debris in obvious need of modification if they were to support the extensive planting proposed for the Constitution Gardens.” (Patterson 1975:18) Four alternatives for such modification were considered. The option chosen was an “essentially odor-free” mixture of sewage sludge, wood chips, and leaf mold, a compost produced in a pilot project between the USDA Biological Waste Management group and the Maryland Department of Environmental Services. (Patterson 1975:8) The material was mixed on site with the existing soil and covered with four inches of topsoil, resulting in a layer of eighteen inches on top of the base soil of dredgings, fill, and tempo detritus. Some problems were encountered in the mixing. Rains that spring were the heaviest in forty years, and made the work difficult (Gedney 20-21, ref. to Sherald). Different methods of soil mixing were tried, including tilling, plowing, and harrowing. The best results were had with a machine resembling a “large moldboard plow”. (Patterson 1975:19) A mixture of wood chips, sand, and peat moss was used in the tree holes (Patterson 1975:19).

Construction of the Lake and Island

Partly because of concerns about security and liability, the lake was built as a shallow body of water (though a homeless man drowned in it during construction; Childs 9/6/06). A broad walk was constructed immediately adjacent to its curving shore to provide constantly changing views. The lake was lined with concrete and had granite curbing. Like Spreckels Lake in Golden Gate Park, it was meant for model sailboats; row boats and paddleboats “would dwarf the lake,” said David Childs, adding: “The small lake seems large partly by the illusion created by its curved shape and because trees are kept back from the edge.” (Hodge WP 5/28/76:C7) During construction, a “relatively rare killdeer” built a nest and laid four eggs near the lake. Construction activity in the area was curtailed until the eggs hatched and the birds flew away. (Hodge WP 5/28/76:C7)

Near the north shore of the lake, a small, footprint-shaped, half-acre island was built, intended as the site for a future memorial. Reached from the north by a twelve-foot-wide wooden bridge, the island sloped two feet to the south. The larger west end had a three-foot mound, while the smaller east end was “relatively flat”. It was planted with grass. High groundwater and poor drainage helped lead to the death of a planting of ivy. Thirteen weeping willows were installed, but did not fare well; by the time the 56 Signers Memorial was being planned, several

years later, one willow had died and two were in poor condition. (DOI et al., “A Memorial. . . ,” 12/79:14-15 in BF Res. 332 “56 Signers”) As an interim measure, before any memorial was built, SOM placed a series of pavers on the island that dispersed into the grass. (DOI et al., “A Memorial. . . ,” 12/79:7 in BF Res. 332 “56 Signers”)

Dedication

Constitution Gardens was dedicated on May 27, 1976. Mud had been seeded with grass and spraypainted green; by the time of dedication, grass was already beginning to sprout on the hills. (Hodge WP 3/3/77:1) In the rush to finish the park on time, sod was still being laid the day before. Officiating over the ceremony was Secretary of the Interior Thomas S. Kleppe, who said the “new park is unique . . . because it is the first federal park created largely with sewage sludge . . . a silk purse created out of a sow’s ear” (Hodge WP 5/28/76:C7, C1). Also attending were Director of the National Park Service Gary Everhardt and U.S. Representative Barbara Jordan, Democrat from Texas. The U.S. Army Band played and a Department of Interior singing group, “The Naturalists,” performed. (Kleppe to DOI employees 5/21/76, NAMA CR files) Constitution Gardens won a 1980 design award from the Washington Metropolitan Chapter of the American Institute of Architects (Conroy WP 6/15/80:L1).

Constitution Gardens was the most ambitious of several Bicentennial projects completed by the NPS in the National Capital Parks. Others included the construction of a \$1.8 million sports pavilion in Anacostia Park and a \$3.5 million indoor ice-skating rink and sports complex in Fort Dupont Park. (“Bicentennial Parks” WP 6/6/76:38)

Drowning of Trees

In spite of the extensive soil emendation, the following spring (perhaps beginning in 1976), hundreds of trees and azaleas drowned in Constitution Gardens “because water . . . had trouble seeping through the almost impenetrable clay and rubble upon which Washington’s newest park was built.” (Hodge WP 3/3/77:1) Most of the trees planted within the walks died. Trees drowned on the “bulldozed” hill near 17th Street. About 350 trees died in all, roughly half the number of large trees in the park, or 10% of the total number of trees planted. (Gedney 1998 reports that 1886 of eighteen species were planted in 1975-76, and by 1978, 28% of these had died; of the 328 Norway maples planted, only nine were alive the next year. Gedney 21, 25).

Ed Peetz, the Urban Planning Team Manager for DSC, said: “The top 18 inches is fine but when we dug deeper to put in large trees and to put in trees along the paths, water collected in the holes like a tea cup.” He continued: “Among our problems were that the project was held up for two years, we had a trucking strike and a wet spring, which made it hard to work, and our budget was cut in half.” (Hodge WP 3/3/77:1) An article in The Washington Post further described the problem:

“The Park Service conducted an extensive postmortem to insure the contractors weren’t at

fault, said Peetz, because large trees, many of them 8 inches in diameter, are expensive to replace. ‘We concluded it was nobody’s fault. The trees were the victims of a combination of things. . . .’ The tree boxes for the pathway trees were thus dug directly in the ‘solid, almost impermeable soil,’ says Peetz, ‘and although good mulch was put in with them they all just filled up with water. You could shake the tree and hear it slosh. They were like bowls of soup.’ Park Service maintenance staff watered the park heavily all summer to help the new grass, which also helped keep the trees soggy, said Peetz.” (Hodge WP 3/3/77:3) Peetz said that the base soil was not to blame for the drowning, since most of the drowned trees were on hills or hillside walks, “and apparently drowned in water from above, from rain and sprinklers, not from below”. (Hodge WP 3/3/77:3)

A reclamation contractor (it is unclear whether he was retained by the NPS or just offered his opinion) blamed the deaths on the use of sludge. Peetz defended the sludge, saying it was used in all the parks and that both “the Department of Agriculture and the U.S. Geological Survey concluded that water did it. The trees drowned.” (Hodge WP 3/3/77:3)

NCR soon began to replace the shrubs and 140 of the large trees, at an initial cost of \$140,000, with plans to replace more in 1978 at \$100,000 (Hodge WP 3/3/77:1, 3). The Park Service intended to improve the grading and drainage and to plant “more water-tolerant varieties” of trees, such as maples and certain hybrid oaks.

Problems with Constitution Gardens Lake

Other problems soon arose. At Constitution Gardens, it was said, “Nothing seems to grow on the soil and everything seems to grow in the water.” (Hodge WP 5/24/79:3) Algal growth, encouraged by the clear, shallow water used in the lake, decaying leaves, and chemical fertilizers that drained off the hills, had become so heavy within a few years that one NPS official said it was a “disgrace that we simply had to do something about.” (Hodge WP 5/24/79:1; 3) Several times a year the lake had to be drained and cleaned, at a cost of \$10,000 to \$20,000 for each cleaning. “‘We were treating [the ponds] like swimming pools,’ said John Hoke, a biologist and “urban park specialist” with NCR. ‘We used to have bulldozers in there pushing all that green stuff around.’” (Bruske WP 8/20/83:B4)

In the late 1970s, Hoke started a program to create viable ecosystems in the National Capital Region’s small lakes and ponds through the addition of “fish, underwater grasses, lilies and lots of zooplankton” to eat the algae (Hodge WP 5/24/79:3). In Constitution Gardens, numerous planter boxes holding subaquatic vegetation were installed to encourage the deposition of silt. It was hoped the habitat would save money, attract wild birds, and “add interest to the somewhat barren-looking park”. (Hodge WP 5/24/79:3) Other habitat sites included the ornamental pools at the National Capital Region headquarters on Ohio Drive, S.W., and in Bolivar Park, south of the main Department of Interior building.

At Constitution Gardens, the planting boxes were filled with mud dredged from Kenilworth Aquatic Gardens (unfortunately, this also brought in hydrilla, which NCR subsequently tried to

control with herbicides; Marshall WP 9/19/84:C3). Bass, bluegills, and turtles were introduced, along with gambusia fish, related to guppies, to eat mosquito larvae. Corn was used to lure ducks. Hoke said he hoped to replicate the success of a similar project in London's Hyde Park that now attracted forty-three species of water birds. (Phillips WP 3/23/86:C5; Hodge WP 5/24/79:3) Also, NCR planned to replace lawn fertilizers with sludge.

But the algae problem persisted. By the early 1980s, it was forming huge mats under which methane gas collected: "'I lit one of the domes and it went off with quite a crack,' recalls Park Service official [sic] John Hoke. 'These were giant floating mats of algae. It was really disgusting. . . . a Sargasso Sea of green goo'". (Bruske WP 8/20/83:B1) In the fall of 1982, inert blue and black dyes were added to the lake in the hope that they would restrain algal growth by reducing the amount of sunlight. The use of dyes conferred other benefits: they discouraged wading, hid trash, saved thousands of dollars in cleaning costs, and made the surface more reflective. (Bruske WP 8/20/83:B1) The two soluble dyes (acid blue No. 9 and acid black DCJ) stayed mixed in the water and did not harm animals. The dyes were used until the late 1990s. In addition, a "natural agent", which Hoke referred to as "Swamp muck" – dredged from the bottom of the lake in Kenilworth Aquatic Gardens – was spread on the lake bottom to retard algal growth through the introduction of zooplankton and other organisms that consume algae (Bruske WP 8/20/83). Hoke's approaches to algae management were used through the late 1990s and proved at least partially effective.

Many alternatives have been considered to fix the poor design of the lake. A flow-through system was designed for the lake but was dismissed as too expensive. A plan to "pump the nutrient-rich lake water onto the lawns and trees" was found to be too expensive. The "surface-level overflow" system does not flush material on the bottom, and the lake is too shallow for a "double-sleeve overflow". (Gedney 51-52)

In 2002, a three-year ecological restoration plan for the lake began under the direction of Natural Resource Specialist Gopaul Noojibal. The lake was cleaned of heavy sediments that had accumulated over the years. Plantings were made in the existing underwater boxes and submerged aquatic vegetation was established. Though this program was similar to the one implemented in the 1970s, additional steps were taken to foster better fish habitat. This was accomplished by placing gravel in pans near the shallow lake edge for spawning areas, installing aquacribs as fish shelters, and adding aquamats to increase zooplankton and other small organism populations. Beneficial bacteria were also added periodically to aid in degradation of debris. Algal blooms were periodically controlled using a hydrogen peroxide algicide (a "green" product, approved for organic use).

Today, algae remains a problem in Constitution Gardens Lake. The non-recirculating, shallow, closed-system lake is almost entirely exposed to direct sunlight and is fed by a municipal water source. The artificiality of the system has a predisposition toward an unbalanced ecology that provides the opportunity for unsightly and odiferous algal blooms that have been extremely difficult to manage. An added complication occurred after the District of Columbia Water and Sewer Authority (DC WASA) switched from chlorine to chloramine treatment of the water supply in 2000. Several years later, it was discovered that lead was being leached from pipes

because of this chemical change. This health threat necessitated the addition of orthophosphate to coat the pipes. Since this change in 2004, increased algae problems have occurred in fountains, pools, and other water bodies such as Constitution Gardens Lake. Additionally, the water supply is not treated for algae unless complaints are made to DC WASA. By the time treatment of the water has been made, the lake has been inoculated with algae. Algae problems become more pronounced when the weather becomes warmer and there are minimal amounts of rainfall, as was the case in 2007 during drought conditions. Large populations of geese, ducks, and other waterfowl still create considerable waste material that contributes to the nutrient load, and the consequential algal blooms, in the lake. One recent management change has been the recognition of filamentous algae, also known by the unflattering name of “pond scum,” as a positive contributor to the lake. It acts like a submerged aquatic vascular plant in that it provides shade and shelter for fish and many of the invertebrates they prey upon, contributes oxygen to the water, and ties up nutrients so they are not available to “pollution” species of algae. Public education will be required to gain tolerance for this beneficial algae. Park staff continues to strive toward maintaining a working biological system at this artificial lake.

Construction of the 56 Signers Memorial

A few years after Constitution Gardens was completed, a memorial was authorized for the island. The idea originated with John Warner, former chairman of the American Revolution Bicentennial Commission (later senator from Virginia). Funds came from money remaining from the Bicentennial celebrations conducted by this commission. Public Law 95-260 (92 Stat. 197), authorized by Congress on April 17, 1978, permitted construction of a memorial to the fifty-six men who signed the Declaration of Independence on a site in Constitution Gardens.

The landscape architecture firm EDAW was selected to design the project, with Joe Brown serving as principal landscape architect and Cales Givens as project manager. National Park Service staff developed the design program, which called for a “low key” monument that would form a “focal point within its immediate environment,” supporting rather than competing with the site’s “inherent symbolism”, in particular its visual relation with the Washington Monument and Lincoln Memorial. In addition, the memorial was not to be “overly simplified or obvious” and should possess a “reflective and contemplative nature”. (DOI et al, “A Memorial to the 56 Signers . . . ,” 12/79:1 in BF “56 Signers”)

The design team developed three alternatives of varying complexity. The option selected was a semicircular plaza to be located on the island’s southern shore, with stone pavers laid in a radiating pattern, which would allow dramatic views of the Washington Monument. Surrounding the north side of the plaza would be low granite blocks, organized into thirteen groups, one for each of the original states. Each stone would be engraved with the signature, name, profession, and hometown of a signer. (DOI, “A Memorial to the 56 Signers . . . ,” 12/79:23ff, BF “56 Signers”)

The site presented an array of challenges. Since Constitution Gardens had “poor surface and

subsurface drainage” and the lake was plagued by algal growth, the area required higher maintenance than NCR would have liked. It was subject to noise from airplanes flying into National Airport and from traffic along Constitution Avenue. (DOI, “A Memorial to the 56 Signers . . .,” 12/79:12, 14, BF “56 Signers”) Ground was broken on April 17, 1982, and the memorial was completed later that year, but it was not dedicated until July 2, 1984.

In December 1980, before construction began, National Capital Region scientists conducted a study of the island’s soil. Samples showed that, like the rest of Constitution Gardens, the island was composed of Coastal Plain materials, including sand, loam, and rounded gravel, deposited in segregated rather than homogenized textures. The assessment stated that the soil was “generally fertile” and, if well mixed, would form an appropriate “base material” for trees and turf grass, though azaleas would require different supplemental soil. The memo offered specific soil recommendations for trees, turf, and azaleas, and noted the difficulties that would be encountered if *Magnolia soulangeana* were planted, as planned: the high water table and “mottling in existing soils” suggested “anaerobic conditions” which would generally not be favorable to ornamental trees. (Patterson et al., 3/4/81, BF “56 Signers”)

In 1991, \$400,000 was spent to replace what Gedney refers to as the “irrigation” system in Constitution Gardens. (Gedney 27) This system does not appear to be in working condition.

The construction of the 56 Signers Memorial created a correspondence between the Modernist picturesque landscape of Constitution Gardens and such eighteenth-century antecedents as Stourhead and Stowe, early English picturesque landscapes where memorials and small historicist structures, including Roman temples and Palladian pavilions, were situated at strategic points within the scene to recall poetic associations within the mind of the viewer. One clear comparison can be drawn between the 56 Signers Memorial and William Kent’s Temple of British Worthies at Stowe (1730s), a small, curving wall holding busts of revered English writers, philosophers, and rulers set within small classical aedicules, or frames.

Construction of the Vietnam Veterans Memorial and the Vietnam Women’s Memorial

The Vietnam Veterans Memorial was built in 1982 at the west end of Constitution Gardens. Construction of this memorial changed the use and perception of the park.

In the late 1970s, veteran Jan Scruggs and others, dismayed by the poor treatment that veterans of the Vietnam War faced on their return to the U.S., vigorously lobbied for the creation of a memorial on the Mall to honor those killed in the war and to provide national recognition of their sacrifice. Scruggs was taken by Joe Ronsisvalle, Memorials Liaison for the National Capital Region, to look at possible sites, among them Memorial Avenue, the road leading from the traffic circle at the end of Arlington Memorial Bridge to the entrance to Arlington Memorial Cemetery. Scruggs rejected the idea of building a memorial in one of the many niches in the tall hedges lining this route, and expressed his desire to have it placed in Constitution Gardens. Reluctant to have the new park turned into a garden of memorials, NCR officials resisted use

of this location, but Scruggs succeeded in having Congress name the memorial's site as being "approximately two acres in size located in the area of West Potomac Park known as Constitution Gardens" (Public Law 96-297, 94 Stat. 827, July 1, 1980; Parsons 4/26/06).

An open memorial competition in early 1981 yielded over 1400 entries. Among these were a series of sketches by Maya Ying Lin, a twenty-one-year-old Chinese-American architecture student at Yale. She had prepared the drawings of a V-shaped stone wall set into sloping ground as a project for a class in funerary architecture, and described them as depicting "a rift in the earth." The jury of design professionals unanimously selected Lin's design. It was built in 1982 and dedicated on November 13, 1982. (For descriptions of the Vietnam Veterans Memorial and the two nearby statues, see "Buildings and Structures.")

The Vietnam Veterans Memorial (often referred to as "the Wall") possesses a solemn eloquence that has proved to be profoundly influential on subsequent public memorials. However, its stark modernity troubled many; while Lin's design received enormous acclaim, it also encountered opposition from some veterans and lawmakers. As a consequence, a piece of traditional figural bronze sculpture by Frederick E. Hart, known most commonly as the "Three Servicemen," was added to the composition in 1984. It was placed in an existing grove of mature trees southwest of the memorial, augmented with a plaza, some new trees and landscaping, and a sixty-foot bronze flagpole set in the walk to its rear.

A former Army nurse, Diane Carlson Evans, who had served in Vietnam, was deeply moved by her first visit to the Vietnam Veterans Memorial. But she was dismayed when the statue of the Three Servicemen was installed, believing that its omission of female figures indicated that the contribution of women to the war effort was not understood: "The statue of the men makes the current memorial complex incomplete [underlined]. It does not acknowledge women's service – and perpetuates the stereotype that only men go to war to serve their country." (Vietnam Women's Memorial Project, Position Paper; also Perl:28) After winning public support – and in spite of the strong opposition of the Commission of Fine Arts – the Vietnam Women's Memorial group received congressional authorization and conducted a national competition for a suitable memorial. The winning design, by sculptor Glenna Goodacre with assistance from the architectural firm HOK, depicts a group of three women in varied poses, one of them holding a wounded male soldier. It was dedicated on November 11, 1993, on a site located southeast of the Vietnam Veterans Memorial. The plaza and its landscape were designed by landscape architect George Dickie of HOK, one of the original SOM designers of Constitution Gardens.

The installation of the Vietnam Veterans Memorial and the two sculpture groups within Constitution Gardens required changes and adaptations to the existing landscape. The Vietnam Veterans Memorial was situated on a slope within an open meadow on the west side of the park, beyond the broad knoll that occupies the middle of the site. The meadow was extensively recontoured so that the land in front of the Wall slopes down towards it as an even bowl-shaped field, while the land behind is a gentle rise. Efforts were made to adapt new tree plantings to existing plantings, which consisted of irregular massings of deciduous trees around the edges of the field. This west side of the park had never been built on, and its soils were less disturbed than the site of the Navy and Munitions Buildings. Older trees grew there, some of which

Constitution Gardens

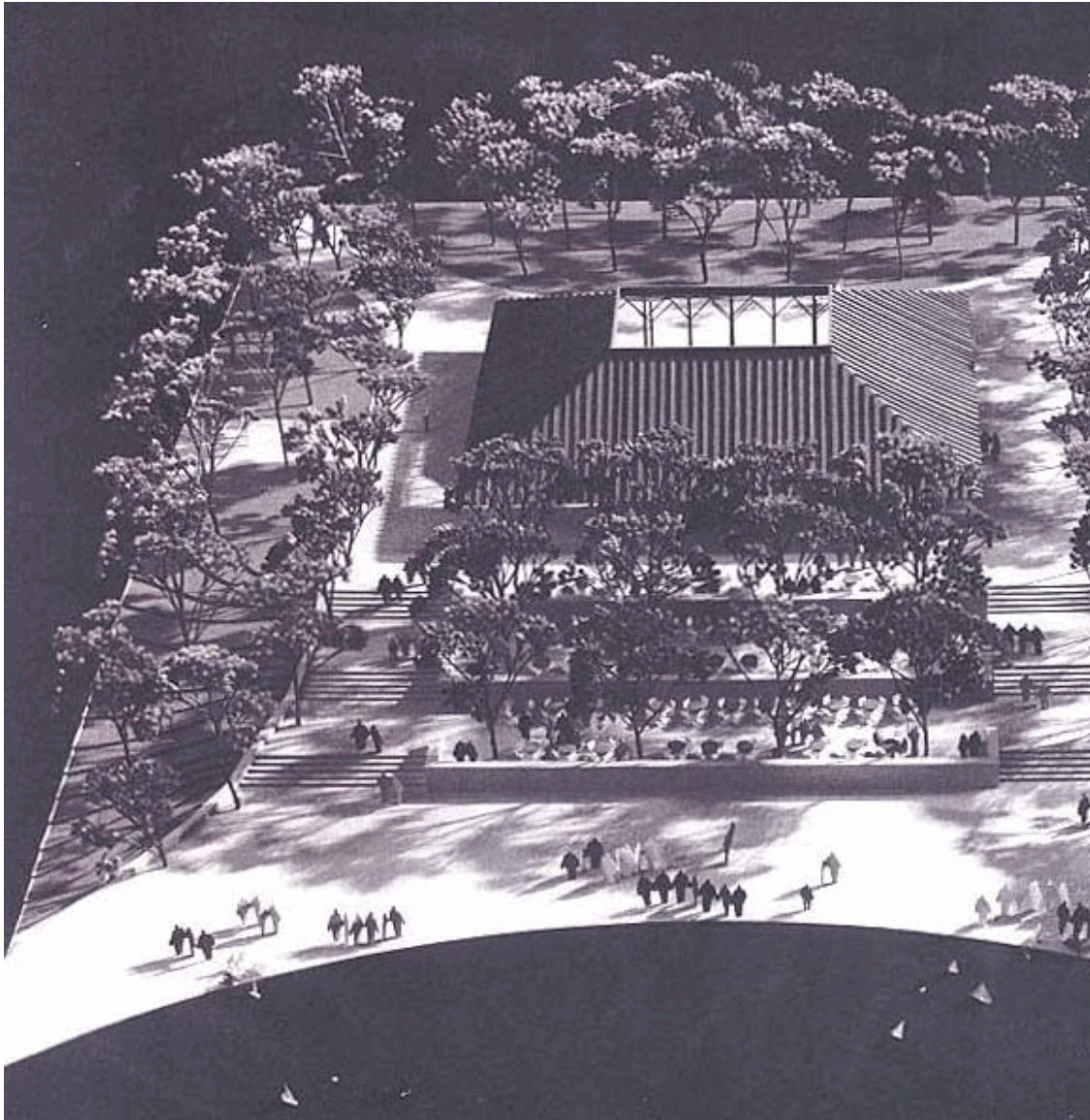
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were incorporated into the Constitution Gardens plantings. The memorial landscaping included the transplantation or removal of some existing trees, and the addition of new trees. Most trees remained in place. New landscaping was installed around the two sculpture groups. Changes to circulation included the addition of a granite-paved walk in front of the memorial and a new north-south walk at its west end.

For the purposes of controlling public demonstrations, NPS regulations in Section 36 of the Code of Federal Regulations (CFR) mandate that the boundary between Constitution Gardens and the Vietnam Veterans Memorial site lies two-hundred feet east of the eastern tip of the memorial, and prohibits demonstrations within the Vietnam Veterans Memorial area. On paper, the boundary is a north-south line running just east of the alignment of 21st Street, across the western slope of the large central knoll. It should be noted that this is a management zone, rather than a physical or legislated boundary.

In the late 1980s, proponents of a Korean War Veterans Memorial wanted to use a site at the east end of Constitution Gardens. The NPS rejected this idea, stating that Constitution Gardens should not become a “war garden.” (Parsons 4/26/06)

The Vietnam Veterans Memorial is one of the most heavily visited sites in Washington, D.C. Its construction changed the character of this end of Constitution Gardens since it has become a favored site for ceremonies on Memorial Day, Veterans Day, Mothers and Fathers Day, and other occasions.



The SOM model of the proposed East End Visitors Pavilion on the Overlook Terrace. Note the model boats in the lake (foreground). (CLP file, COGA pavilion model birdseye," from report, The East End Visitors Pavilion,"c. 1977, NAMA CR files)



This undated aerial photo from the west was taken in early spring, probably in 1983 or 1984, soon after the 56 Signers Memorial was completed. It shows the shrub beds once planted at walk intersections and along slopes. (MRCE, CLP file "COGA 2")

1994-2008:

The Management of Constitution Gardens

Since completion of the 56 Signers Memorial, few changes have occurred in the eastern part of Constitution Gardens. This section of the park is not used as much for permitted events as the Vietnam Veterans Memorial site or most other areas on the National Mall. Plans for a Black Revolutionary War Patriots Memorial on a location south of the lake have been on the boards for some twenty years. However, after several extensions by Congress, the foundation that was authorized to complete the fundraising and construction of this memorial could not finish the work, and the authorization expired in 2005.

Constitution Gardens Lake is stocked with fish such as bluegill and bass. At times, fishing has been allowed during special events, such as 1984's River Fest. In 1996, the National Fishing Day, an annual event in early June sponsored by the U.S. Fish and Wildlife Service, Department of the Interior, was moved from the Tidal Basin to the Constitution Gardens Lake. The event includes a catch-and release program for children, and the park's shallow lake was

thought to be safer to supervise, and easier to stock. In the spring, the lake is typically stocked with hundreds of bass, bluegills, and black perch; in the past, channel catfish and koi were added as well. (Harry W. Gedney, "Natural Resource Management Overview: Constitution Gardens," George Mason University, 1998:57) Catch-and-release fishing is permitted.

In April 1997, about 250 dead channel catfish were found in the lake. Two other fish kills occurred, in July 2001 and September 2007. These kills illustrate the difficulty of maintaining a natural ecosystem in a shallow, closed-system pool. The deposition of nutrients and sediments forms an anaerobic, mud-covered lake bottom, increasing the shallowness of the water. The shallower water, in turn, can spur increased algal blooms and warmer water temperatures, leading to a decreased supply of dissolved oxygen available to fish.

Constitution Gardens was named a commemorative Living Legacy of the U.S. Constitution in a proclamation issued by President Ronald Reagan in 1986, in anticipation of the bicentennial year of that document. (The announcement was made on Citizenship Day, September 17, during Constitution Week, September 17-23; both are annual commemorations.) The park, or perhaps the 56 Signers Memorial (sources are not clear), subsequently became a symbol of the Bicentennial of the Constitution Living Legacy Project, which aimed "to encourage volunteers to plant or restore a garden or park or undertake some other project to commemorate the Bicentennial of the signing of the Constitution." (ASLA press release 9/17/88, BF "56 Signers") A ceremony inaugurating the program was held in the park on September 17, 1988, with Lady Bird Johnson and Chief Justice Warren Burger presiding. ASLA president John L. Wacker said: "We believe that the Living Legacy program can help educate the public about our heritage of historic landscapes, which have been a neglected resource." (ASLA press release 9/17/88:2)

Though the eastern section of Constitution Gardens is rarely used as a site for public demonstrations, on March 17, 2003, a North Carolina tobacco farmer drove a jeep pulling a tractor into the lake to protest federal tobacco policy. Claiming he had a bomb, the farmer held police officers in a standoff for almost two days before surrendering.

In 2004, the World War II Memorial, designed by architect Friedrich St. Florian, was constructed at the Rainbow Pool. The site was lowered, and a smaller pool, reflecting the footprint and location of the removed historic Rainbow Pool, forms the central plaza of the new monument. Numerous other sites had been analyzed by the American Battle Monuments Commission, including the Overlook Terrace at the east end of Constitution Gardens, but the Commission of Fine Arts, the National Capital Planning Commission, and the National Park Service approved the Rainbow Pool location because it was situated on the cross-axis to the Mall and because World War II was the most significant event in the twentieth century, as Lincoln and the Civil War were to the United States in the nineteenth century and Washington and the Revolutionary War were to the U.S. in the eighteenth century.

The new memorial's colonnades are visible from the east end of Constitution Gardens, and its many fountain jets can be heard. A walk leads due south from the Overlook Terrace to the north-south axis of the memorial. Off this walk is the small Garden of Remembrance (designed

by Oehme, Van Sweden & Associates, landscape architects) associated with the World War II Memorial, situated on the south slope of the levee berm. The garden is composed of a circular bench, a paved plaza, and surrounding plantings that extend over the crest of the berm.

In 2003, the Overlook Terrace and two walks leading to it were repaved with gravel-topped asphalt. The two walks – the diagonal walks at the terrace’s northeast and southeast corners – were also reduced in width, from nineteen and twenty-one feet to fourteen feet, so that their edge trees would not be surrounded by pavement. The Tourmobile road was removed, and replaced by a wide asphalt sidewalk and lawn. A new bus and Tourmobile pick-up area was built along Constitution Avenue near 17th Street where tourists visiting the World War II Memorial can reboard their buses. The drop-off is at the Memorial on Homefront Drive.

Four existing planting beds, located between 17th Street and the Overlook Terrace, were modified in 1997. Overgrown pyracantha was removed and daffodils were planted. In 2008, more than 7000 feet of post-and-chain fencing was installed throughout West Potomac Park and the Washington Monument Grounds to protect the lawn and tree areas from foot traffic. As part of this project, all trash receptacles were replaced.

Between October 2007 and January 2008, work was carried out at the 56 Signers Memorial. The signature inscriptions were re-gilded, and the other inscriptions have been in-painted.

Analysis & Evaluation of Integrity

Analysis and Evaluation of Integrity Narrative Summary:

This section presents an overview of the character-defining features of Constitution Gardens, which were identified and evaluated to determine their level of integrity and their contribution to the overall historical significance of the site. The park's Period of Significance is 1882-1993.

Seven characteristics are used to assess historic integrity for landscapes that are listed on, or are eligible for, the National Register of Historic Places: location, setting, design, materials, workmanship, feeling, and association. These are discussed at the end of the summary. Analysis of the Constitution Gardens landscape according to these characteristics shows that the park retains its historic integrity.

Constitution Gardens has an entirely constructed topography of gently rolling slopes and berms surrounding, in its eastern half, a lower area occupied by a small lake and, in its western half, the Vietnam Veterans Memorial group. The flood control levee forms a low slope along the park's south side. The slope from Constitution Avenue down to the lake partially screens the park from views and traffic along the street. The park was designed to provide a pleasant area to walk through between the Lincoln Memorial and the Washington Monument, offering an informal alternative to the elm walks along the Reflecting Pool. It later was chosen as a site for the major national memorial, the Vietnam Veterans Memorial, and its associated statue and the Vietnam Women's Memorial. The park's relative seclusion encourages strolling, picnicking, and resting on the benches, along with some more active recreation, such as bike riding. At times it serves as a gathering place for demonstrations and marches. Ceremonies commemorating the sacrifices of the men and women who served in the Vietnam War are regularly held at the Vietnam Veterans Memorial.

Trees massed around the site's perimeter define the interior space, with occasional openings between massings to allow views to adjacent areas and structures. Massings become thinner and more open as they move towards the interior. Trees along the outside edges of walks create a linear element curving throughout the park.

Constitution Gardens Lake is a small, peanut-shaped body of water oriented east to west that was built as the park's central feature. The shallow lake has a concrete bottom and sides and is surrounded by a granite curb that is flush with the ground. Immediately adjoining this curb is a broad perimeter walk. In the lake lies a constructed island that is the site of the 56 Signers Memorial.

Since Constitution Gardens is entirely constructed on fill, it has almost no natural systems or features. However, the park attracts wildlife, particularly birds and waterfowl, because of efforts to create a naturally functioning ecosystem in the lake, which for years has been plagued by large amounts of algae. At first, the lake held clear water and had no plantings. It provided an uninterrupted surface for reflection of its surroundings, notably the Washington Monument. It soon developed problems with algal growth. Various methods have been tried to control the algae, with only limited success.

In contrast to the formal, rectilinear system comprising the majority of the National Mall's circulation,

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Constitution Gardens is laid out with a network of curving walks. The circulation has three major features: two peanut-shaped loop walks that are oriented east-west, one circling the lake and the other circling the large central knoll and Vietnam Veterans Memorial; and a large plaza at the east end, the Overlook Terrace. Narrower subsidiary walks run across the sloping lawns, linking different areas within the park and leading to adjoining sites. Most walks and the Overlook Terrace are paved with gravel-topped asphalt, meant to give the appearance of gravel walks; the exception is the walk in front of the Vietnam Veterans Memorial, paved with granite pavers and sets. On the west side of the Overlook Terrace, three terraces, formed by stone retaining walls and flanked by broad stairways, descend the slope to the lake, and join with the lake's perimeter walk. A north-south walk running to the midpoint of the Overlook Terrace connects with the World War II Memorial to the south. Two sidewalks run parallel to Constitution Avenue and 17th Street, and a bus and Tourmobile pick-up is located on Constitution Avenue near 17th Street. The gravel-topped asphalt walks generally are in poor condition. The top gravel layers have largely worn off, and the exposed asphalt surfaces are deteriorating. There are numerous deteriorating pavement patches covering the holes where dead trees that grew within the sidewalks have been removed.

Constitution Gardens is planted with a mix of mostly deciduous tree species. The majority are planted in masses within the sloping lawns, creating a dense boundary that presents an undulating line towards the park's interior. Others are planted in lines next to or within the outside edge of walks to emphasize the rhythm of movement through the landscape. The planting plans included flowering understory trees. Many of the existing trees are replacements for varieties that did not survive in the park's difficult soil conditions; a greater number of species were used as replacements, with the result that the park today has a more complex mixture of species than was first planted. Two plantings of honey locust trees (*Gleditsia triacanthos*) were meant to create groves sheltering the food-service structures. Older trees growing in the western part of the site, the Vietnam Veterans Memorial section, may have been retained. Otherwise, except for the American elm street trees and a small grove near the Lockkeeper's House, there do not appear to be any trees in Constitution Gardens that predate the 1975-76 planting. Changes made to the plantings when the Vietnam Veterans Memorial and its two related statues were installed in the 1980s and 1990s attempted to retain the existing character.

The pastoral landscape of Constitution Gardens offers more varied and intimate views than is typical for the Mall landscape. The Washington Monument is the only structure serving as a focal point of a vista; it is prominently visible to the east from throughout Constitution Gardens, usually seen mirrored in the lake or from the walk in front of the Vietnam Veterans Memorial. Views of the lake itself, its small island memorial, and the Vietnam Veterans Memorial dominate the park's interior. From the Vietnam Veterans Memorial, the Washington Monument is clearly, and the Lincoln Memorial is partially, visible in the winter when the leaves have fallen, since the walls of the memorial were designed to point toward them. Other nearby buildings and memorials can be glimpsed from the park.

The relatively few buildings and structures in Constitution Gardens are visually subordinate to the landscape. Contributing buildings include the Lockkeeper's House, a small food service kiosk, and a small information kiosk at the main approach to the Vietnam Veterans Memorial area. Contributing structures include the Vietnam Veterans Memorial, the Three Servicemen statue, and the Vietnam

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Women's Memorial at the west end of the site; at the east, they include the stone terraces and paved platform, the island in Constitution Gardens Lake, the 56 Signers Memorial on the island, and the topographic structure of the flood control levee along the southern boundary.

The Lockkeeper's House was built in 1832-33, at the time the Chesapeake & Ohio Canal was extended southeast from Georgetown to connect with the Washington City Canal at a basin west of the Washington Monument grounds. It is a one-and-one-half story (originally two-and-a-half story), three-bay structure with a gable roof, dormers, and end chimneys, constructed of randomly-coursed stone ashlar. In 1915, the structure was moved approximately 46 feet from its original location.

The Flood Control Levee, an earthen dike dating begun in the late 1930s and rebuilt in the mid-1940s that protects the downtown area of Washington, D.C., from flooding of the Potomac River, was again rebuilt and incorporated into the design of Constitution Gardens; the levee forms the southern boundary of the park. Today, the levee is a berm to be maintained at no less than 19.1 feet above mean sea level.

A small, half-acre island lies near the north shore of the lake and is reached by a flush wooden footbridge. The island was constructed with fill and is retained by granite walls. The 1983 Memorial to the 56 Signers of the Declaration of Independence occupies the island, and comprises a paved plaza partially enclosed by a half-circle of granite blocks, each block bearing the carved signature of one of the signers. Planting beds behind the blocks and along the island's north slope originally contained a dense, complex planting of trees, shrubs, and perennials. The plan retains its basic structure of tall and short plant material, but many of the original, individual varieties are missing. The rest of the island is lawn.

At the east end of the park, an area on a constructed knoll was leveled to build a large paved platform, the Overlook Terrace. This was intended as the site of a structure, the East End Visitor Pavilion, that would have housed a restaurant and other services; the pavilion was never built because of its high cost. Three terraces stepping down from the plaza on the west were built to provide outdoor seating areas for the restaurant pavilion. Terrace walls are constructed of irregular, roughly-hewn bluestone gneiss laid in a random bond pattern, and the terraces are paved with gravel-topped asphalt. Lines of honey locust trees are planted on the terraces, which are flanked by broad stairs. A small refreshment kiosk stands at the west end of the lake. The wood-sided hexagonal building has a roof with a central pyramidal section surrounded by a sloped collar. Honey locusts line the plaza behind the kiosk. To its south is a circular public restroom structure.

The Vietnam Veterans Memorial is a V-shaped wall of polished black granite set within a meadow at the west end of the park. In front of the wall is a sloping, bowl-shaped lawn (Scope of Work 1992 uses term "bowl" to refer to slope, see p. 1ff). The Three Servicemen and Vietnam Women's Memorial statues are located southeast and southwest of the Wall, respectively; the Three Servicemen, with its imposing flagpole, is considered part of the memorial. An inscribed paving stone, the "In Memory" plaque, also forms part of the Vietnam Veterans Memorial and is situated adjacent to the Three Servicemen.

Contributing small-scale features include benches and light posts. Benches are of a standard style developed for the National Capital Parks in 1934/35. They have cast-iron frames with curved struts and wood-slat backs and seats. Benches are typically located along the outside edges of secondary walks, facing the lake, and are placed singly or in pairs, alternating with lightposts and trash receptacles. Most of the lights in Constitution Gardens are the variety known as the Washington Standard, designed in the early twentieth century and specified for the city in standards issued in 1923. The fluted classical iron posts support the classical urn-shaped Washington Globe lamps. The posts are shorter than those lining Washington's streets, a scale more appropriate for pedestrian walks. Some simpler modern light fixtures are used at the Vietnam Veterans Memorial and around the two statues.

Aspects of Integrity

Location – The location of Constitution Gardens has not changed.

Setting – The major change to the setting was the legislated addition of the Vietnam Veterans Memorial in 1981. However, because much of the existing landscaping was retained, and because it is largely shielded from view of the eastern two-thirds of the park by the central knoll, the memorial is not visually discordant.

Design – Most of the park's original design characteristics remain: the sloping topography, the curving lake and walks, the transitions between the subtle massings of the trees. Some adaptations have been made. The major structure, the East End Visitor Pavilion, was never built. A large percentage of the original trees have been replaced, by the same or more site-appropriate species, and sometimes locations were adjusted. The shrub beds have been removed. Mechanical aerators, and underwater planting boxes containing subaquatic plants, have been added to the lake in attempts to control the serious algae problem. The Vietnam Veterans Memorial and its two nearby statues, with their small plazas and more intimate landscaping, and the "In Memory" plaque, were placed among the trees within the west-end meadow by designers sensitive to the defining qualities of the park. Overall, however, the design conveys the original intent, closely resembles the original design, and retains integrity.

Materials – The structures retain their original materials – notably, the stone of the three terraces and of the early nineteenth-century Lockkeeper's House, as well as the refreshment kiosk, the 56 Signers Memorial, and the Vietnam Veterans Memorial and the two statues. For the most part, the gravel surfacing of the asphalt walks (except for the Overlook Terrace and its two diagonal walks, recently repaved in-kind), is original, though the walks are now greatly deteriorated.

Workmanship – The characteristic of "workmanship" is most visible in the Vietnam Veterans Memorial, the sculpture group the Three Servicemen, the Vietnam Women's Memorial, the terrace walls, and in the stone walls, paving, and signature stones of the 56 Signers Memorial. There has been a small amount of damage to the terrace walls. At the 56 Signers Memorial, the signature inscriptions

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were recently re-gilded, and the other inscriptions were in-painted. Overall, workmanship retains integrity.

Feeling – The feeling of a pastoral landscape, with varied historic, European references – a more detailed and Modernistic interpretation of the design sketched in the McMillan Plan – remains at Constitution Gardens. The Vietnam Veterans Memorial was placed within the tree-bordered meadow specifically because this secluded garden would enhance its contemplative quality.

Association – The association of Constitution Gardens with the National Mall, as a pastoral landscape in keeping with an interpretation of the McMillan Plan and offering an intimate landscape, remains. Constitution Gardens was built as a project of the Bicentennial of the American Revolution, and it retains this association also, particularly because of the presence of the 56 Signers Memorial, completed in 1983. Constitution Gardens has a congressionally-legislated association with commemoration of the Vietnam War and its veterans, and this remains.

Aspects of Integrity:

Location

Design

Association

Setting

Feeling

Workmanship

Materials

Landscape Characteristic:

Natural Systems and Features

Since Constitution Gardens is a park constructed on fill, it has few natural systems or features. It does, however, attract wildlife, particularly water birds, because of attempts beginning in the late 1970s to create a naturally functioning ecosystem in the lake.

As the lands of East and West Potomac Parks began to take form, dredged from the river beginning in the 1880s, private citizens were allowed to dump fill in areas some distance from the water. This filling operation lasted until 1912, when the parks were substantially complete. Fill was added from a borrow pit on the Arlington Experimental Farm on the Virginia shore of the river, formerly part of Robert E. Lee's Arlington Estate, and other, nearby construction sites. Following the demolition of the Navy and Munitions Buildings in 1970, borings were made in August and September of 1971 that revealed the composition of the site's layers. The nineteenth-century fill, varying from two to fifteen feet in depth, was composed of "clay, sand, gravel, brick, and cinders" and was "deepest in the central and north portions of the site". Below lay "alluvial deposits of the Potomac River and Tiber Creek", eighteen to thirty-five feet of "silty clay and sandy silt with some organic matter". Underneath this was a layer of "silty sand, gravel, and clay", on top of bedrock mostly composed of "granite gneiss". (EA c.

1974:4-6) Thousands of concrete and/or wooden footings had been left in the ground after the demolition of the temporary buildings. More fill was then added to the Constitution Gardens site, at least some of it taken from excavations for the construction of the Library of Congress' s Madison Building and Metro (earth from these excavations may have come from deep levels and probably was not a good growing medium). During construction of Constitution Gardens in 1974, the top layer of fill – about fourteen inches – was amended with “sludge,” a mixture of leaf mold, treated sewage, and wood chips. Four inches of topsoil were then placed on top.

The clear water of the park's shallow artificial lake soon became filled with heavy concentrations of algae. Over the last thirty years, several methods have been used in attempts to control the problem. Dozens of underwater planting boxes containing subaquatic plants were placed in the lake, and periodically muck containing zooplankton and other biota was dredged from Kenilworth Aquatic Gardens and deposited on the bottom of the lake to help establish a balanced ecosystem. The planting boxes have attracted substantial wild bird populations – mostly mallard ducks, Canada geese, seagulls, and occasionally herons and other species. Large amounts of bird waste have caused more algal growth. Dyes, both artificial and natural, have also been used to limit algal growth by reducing sunlight.

Squirrels, field mice, and rodents are common in the park, and deer and opossum are sometimes seen. Red foxes are known to be living in the general area (meeting 4/17/07). The pond is annually restocked with fish, mostly bass and bluegill, for the annual catch-and-release National Fishing Day. A high concentration of fish is stocked in the lake to ensure children will make a catch.

Topography

Constitution Gardens has an entirely constructed topography of gently rolling slopes and long berms surrounding, in the east, a central depressed area occupied by a small lake and, in the west, a slope descending to the partially sunken Vietnam Veterans Memorial. As the c. 1974 design statement expressed it: “The land will be graded in broad, gently sloping forms to complement the scale of views into and through the Gardens.” (design statement c. 1974:2) The flood control levee forms a linear slope along the park's south side and southeast corner (see below). A low berm along Constitution Avenue partially screens the park from views and traffic along Constitution Avenue.

The original topography of Potomac Park, created from river dredgings, was probably more or less flat. Any surface irregularities would have been leveled for construction of the Navy and Munitions Buildings in 1918. The undulating topography of the park's west section was regraded for the Vietnam Veterans Memorial. This structure was designed to resemble an opening within the earth, with the Wall rising from and then returning to the ground, and the top of the Wall remaining level. A smooth, somewhat elongated bowl-shaped lawn slopes evenly down to the Wall. The walk in front of the memorial was graded for easy wheelchair accessibility. Behind the Wall, the irregular ground was smoothly contoured without being radically changed. A low tripping curb was added a distance behind the face of the Wall to preclude the need for a railing along it.

The highest elevation within the park is twenty-six feet above mean sea level, the height of the crown of the knoll, and the levee has a design height of 19.1 feet. The lake lies below the level of the park's surroundings. The elevation of the water is about eight feet above sea level, or six to eight feet below the elevation of the Reflecting Pool and Constitution Avenue: "This drop in elevation creates an inwardly oriented and moderately scaled environment within the total Mall area." (DOI with EDAW, "A Memorial," 12/79, BF "56 Signers":5)

Flood Control Levee (Contributing)

The Flood Control Levee is an earthen dike that, since 1939, has protected large areas of Washington, D.C., from flooding of the Potomac River. Part of a larger system of topographic rises running along the city's waterfront, the levee was incorporated into the design of Constitution Gardens, and it generally forms the southern boundary of this park. The levee begins at 23rd Street and extends east parallel to the Reflecting Pool, where it turns north near its east end toward the Overlook Plaza. The raised elevation is picked up across 17th Street in the topography of the Washington Monument Grounds. The topographic line must be maintained at a minimum of 19.1 feet elevation. Because the elevation of 17th Street between these points is considerably lower, the National Park Service must fill the gap in between with sandbags and the construction of an earthen berm created with soil excavated from the Washington Monument Grounds in the event of impending river flooding.

Following a severe flood in 1936, a levee about 1830 feet long was constructed in 1939 parallel to the Reflecting Pool, north of the double row of elms, from beyond the west elevation of the Munitions Building to 17th Street, to protect downtown Washington. At the west end, the levee extended up towards Constitution Avenue, gradually sloping into the ground before reaching this street. Flood elevations prompted amendments in October 1942 and further amendments in 1946, when the U.S. Army Corps of Engineers rebuilt the levee in more permanent materials (as claimed in the EWPP rev. nomination 2001:Sec. 7, p. 19; the plans are not clear about this). Material for the original, 1936 levee was taken from a borrow pit at Arlington Farm, formerly part of Robert E. Lee's Arlington Estate on the Virginia shore of the Potomac. It was built of compacted clay fill with a revetment of sand bags on the south side. The south side had a 2:1 slope, while the clay north side had a slope of 1:1. (801/ 80132, "Flood Control, West Potomac Park and Monument Grounds, Location of Levee and Details," Feb. 1, 1936)

Various plans – 801/80370, "Flood Protection" (July 1, 1945) and 801/80355, "Drainage and Utility Plan, West Potomac Park, Flood Protection Works" (July 1, 1946) – depict the levee from 23rd to 21st Streets as a "permanent earth levee" and from 21st to 17th Streets as a "permanent earth and concrete levee" (also as a "flood levee and wall," 80355 sheet 5; also see 801/80370). Photographs suggest that the concrete wall faced north with an earth slope to the south. Sections showing the clay layers and temporary sandbag revetment are included in 801/80132 and 801/80355. (Other plans showing the location and some details of the levee include 801/20010 [early 1970s], 801/41005 [Sept. 1, 1974], and 801/41007 [Dec. 1, 1974].)

The levee was rebuilt as an earthen slope in 1974 as part of the comprehensive regrading of the Constitution Gardens site. The concrete wall was reduced to a stub and buried within the new berm. Today, the levee along the southern boundary of the park is a berm, rising about eight feet from the point where the slope begins or about nineteen feet above mean sea level, planted with grass and trees, with a gradual slope on the north face and a steeper slope on the south. The levee defines the south side of the gardens, and includes the elevated land at the southeast corner and the Overlook Terrace. It provides a physical and visual separation between Constitution Gardens and the Reflecting Pool area. The levee is regularly inspected by the Corps of Engineers and the NPS. The crest needs to be kept clear of trees for a width of twenty feet so that roots will not breach the barrier.

Character-defining Features:

Feature: Flood Control Levee

Feature Identification Number: 128947

Type of Feature Contribution: Contributing

Feature: Gentle slopes

Feature Identification Number: 128949

Type of Feature Contribution: Contributing

Feature: Plateau at Overlook Terrace

Feature Identification Number: 128951

Type of Feature Contribution: Contributing

Feature: Western knoll

Feature Identification Number: 128953

Type of Feature Contribution: Contributing

Feature: North berm

Feature Identification Number: 128955

Type of Feature Contribution: Contributing

Feature: Low central area occupied by lake

Feature Identification Number: 128957

Type of Feature Contribution: Contributing

Feature: Slope and cut at VVM

Feature Identification Number: 128959

Type of Feature Contribution: Contributing

Landscape Characteristic Graphics:



The historic flood control levee is now a broad, gentle slope that defines the boundary between Constitution Gardens and the Lincoln Memorial Grounds. View looking east from SW corner of park. (Feb. 2008; CLP file)

Spatial Organization

Topography and use divide the space of Constitution Gardens into east and west sections. On the east, the ground slopes to a low plane at the central lake. On the west, the Vietnam Veterans Memorial occupies a large central clearing. In both areas, trees massed thickly around the perimeter define interior space, with openings between massings in places to allow views of structures and areas beyond the boundaries. The tree massings become thinner and more open as they move towards the site's interior, their inner line advancing and retreating down the slopes. The trees are arranged to create several large clearings down the central spine of the park. Lines of trees along the outside edges of walks create a linear element curving throughout the park, an open, porous wall that defines the act of passage through the site and highlights its importance as a route between two important monuments. The landscape treatment associated with the memorials was designed to coordinate with the existing SOM design.

Character-defining Features:

Feature: Border of trees

Feature Identification Number: 128961

Type of Feature Contribution: Contributing

Feature: Open central area

Feature Identification Number: 128963

Type of Feature Contribution: Contributing

Land Use

Constitution Gardens was designed to provide a pleasant area to walk through between the Lincoln Memorial and the Washington Monument, an informal alternative to the elm walks along the Reflecting Pool. As George Berklacy, assistant to the regional director of NCR, said at the time construction began: "It's a long walk from the Monument to the Memorial. We estimate that about 15 million tourists visit that area each year. So we decided to build the park to provide them with a place to rest as they make the walk from the Monument across the Mall to the Memorial." (Butler WP 7/20/74; information on Land Use from newspaper articles, meeting with park staff 4/17/07) Other nearby monuments include the World War II Memorial (2004), and the institutions and museums to the north of Constitution Avenue.

The park's rolling topography and its relative seclusion, created by its border of trees and higher grades along its perimeter, encourage quiet activities, such as strolling, picnicking, and resting on the benches that face in towards the lake. More active pursuits include bike riding on the walks, and kite flying and frisbee playing on the large knoll; the park has often been a favorite venue for frisbee soccer.

In contrast to the east section of the park, the Vietnam Veterans Memorial attracts large numbers of daily visitors, who come to pay their respects at the three memorial sites. Numerous annual ceremonies take place at the memorial on Memorial Day, Veterans Day, Mothers and Fathers Day, and when new names are added to the Wall. (from www.vvmf.org) Wreaths are laid and speeches delivered by politicians and other public figures, and private citizens. Also on Memorial Day, Rolling Thunder, a procession of veterans on motorcycles held to foster awareness of POW/ MIA issues, travels down Constitution Avenue, and gathers at the west end of the Lake. Soon after the Wall was completed, visitors began leaving mementos of friends or family members who had served in the war. These were left in such quantity – 100,000 by December 2006 – that the Park Service created a special museum collection to maintain them. The collection itself has inspired great interest, and led to traveling exhibitions and books. Annual wreathlayings are also held at the Vietnam Women's Memorial.

Catch-and-release fishing is permitted in the lake with a D.C. fishing license. On the annual National Fishing Day in June, a catch-and-release program sponsored by the U.S. Fish and Wildlife Service, and the National Park Service, Department of the Interior, children are helped to fish in the lake for bass, bluegill, and other fish, which the Fish and Wildlife Service stocks in the lake each spring. The lake was designed, in part, for model boat sailing, an occasional activity in the past. Skating is permitted when signs are posted stating that this activity is allowed. Newspaper accounts from the 1980s record events such as "River Fest" and a "handicapped" race being held regularly in Constitution Gardens (little information is now known about these events).

Because President Ronald Reagan declared the park a "living legacy to the Constitution" in

1986, annual citizenship ceremonies are held at the Overlook Terrace. The park also serves as a gathering place for demonstrations and marches, though the eastern section is not heavily used for such events. People often visit the park at night, walking between other sites, or coming to gaze at the lake or, especially, visiting the Vietnam Veterans Memorial. With the opening of the World War II Memorial in 2004, the number of bus tours to the area has increased. There is a bus and Tourmobile drop-off on Homefront Drive south of the WWII Memorial, and a pick-up at the northeast corner of Constitution Gardens, a pull-off area at Constitution Avenue near 17th Street and the Lockkeeper's House.

Just outside of Constitution Gardens, a few small booths stand near the Lincoln Memorial approachway, near the Vietnam Veterans Memorial information kiosk, and near the southwest entrance to the Vietnam Veterans Memorial area of Constitution Gardens. These are used by Prisoners of War-Missing in Action (POW-MIA) demonstrators, who occupy them under First Amendment protections which have been upheld by the Supreme Court. These activities and the size, location, and use of the booths follow guidelines laid out in CFR 36 Sec. 7. The demonstrators provide information about the war and POW-MIA issues and sell educational materials and memorabilia. As of spring 2008, these have been relocated to an area along Constitution Avenue, near the northern edge of Constitution Gardens.

Character-defining Features:

Feature: Passive recreation

Feature Identification Number: 128965

Type of Feature Contribution: Contributing

Feature: Visiting the memorials

Feature Identification Number: 128967

Type of Feature Contribution: Contributing

Feature: Ceremonies at the VVM and VWM

Feature Identification Number: 128969

Type of Feature Contribution: Contributing

Feature: Demonstrations

Feature Identification Number: 128971

Type of Feature Contribution: Contributing

Feature: Citizenship ceremony at Overlook Terrace

Feature Identification Number: 128973

Type of Feature Contribution: Contributing

Feature: Catch-and-release fishing
Feature Identification Number: 128975
Type of Feature Contribution: Contributing

Vegetation

Introduction

Constitution Gardens is planted with a varied mix of mostly deciduous tree species. The majority are planted in masses within the sloping lawns, creating a dense boundary that presents an undulating line towards the park's interior. Others – today mostly red maples (*Acer rubrum*) – are planted in lines along or within the outside edge of north and south walks to emphasize the rhythm and pattern of movement through the landscape. The planting plans included flowering understory trees and ten large beds of massed rhododendrons and azaleas (*Rhododendron* sp.), underplanted with hosta (*Funkia* sp.) and narcissus (*Narcissus* sp.), located at certain walk intersections. These shrub beds are now gone. Numerous understory trees and some shrubs still remain, many of them replacements for varieties or species which did not survive in the park's difficult soil conditions. Two plantings of honey locust trees (*Gleditsia triacanthos* var. *inermis*) were meant to create groves sheltering the food service structures. The extensive lawns are planted with a mixture of perennial rye grass and turf-type tall fescue (park staff meeting 4/17/07 and DeFeo email 2/20/08).

Many improvements were made to the surroundings of the Lockkeeper's House after it was moved in 1915. Forty-one shrubs and small trees were transplanted, and 505 new trees and shrubs were installed.

SOM Design

Before construction of the Navy and Munitions tempos began in 1918, the site had been mostly cleared of trees. Some portion of the site where the buildings were erected had been occupied by tennis courts. The Annual Reports of the Office of Public Buildings and Grounds suggest considerable numbers of trees had been planted on the rest of the site; dense masses were left growing around the boundary of the western block between 21st and 23rd Streets, which was left open and used for recreational purposes, including ballfields, and is now partly occupied by the Vietnam Veterans Memorial. Except for street trees, there do not appear to be many trees on the eastern part of the site that predate 1975-76. Exceptions include the double line of mature sycamores that runs along the former alignment of 21st Street and a grove of trees near the Lockkeeper's House. Various older trees are located around the Vietnam Veterans Memorial site in the western section of the park, including a group of red oaks in the northwest corner, near the intersection of Constitution Avenue and Henry Bacon Drive, planted in 1922 as memorials to American naturalists and writers, including John Burroughs, John James Audubon, Walt Whitman, Ralph Waldo Emerson, Henry David Thoreau, and John Muir. Street trees on 17th Street, Henry Bacon Drive, and Constitution Avenue all predate the construction of Constitution Gardens, and were planted as a result of decisions by the Public Buildings Commission.

The design statement dating from c. 1974 (see History) directly addresses the type of vegetative character sought for the park:

“The Constitution Gardens are conceived as a wooded park, in keeping with the character of the larger portion of West Potomac Park surrounding the Lincoln Memorial and its reflecting pool. The design establishes a floor plane of softly contoured meadows shaded by a canopy of trees and sloping gently to meet the curving shoreline of an informally shaped lake.”

It discusses the basic pattern that would be followed in tree planting:

“To achieve a smooth transition from the formal portion of the Mall into the Gardens, slightly undulating groupings of trees are set back a respectful distance from the formally planted elms flanking the Reflecting Pool. The treatment of the transition between the Gardens and the rectilinear geometry of city streets and buildings along the Constitution Avenue side is different. Here the outermost rows of trees are evenly spaced in straight columns paralleling the street. This regularity dissolves as the plantings continue toward the interior of the Gardens.”

Trees

The Environmental Assessment, also from c. 1974, states that about 530 trees were then growing on the site. The plan anticipated that approximately 2500 trees would be planted on about half the site. (EA c. 1974:1, 12) In actuality, 1886 trees of eighteen species were planted on the entire site in 1975-76 (Harry W. Gedney, “Natural Resource Management Overview: Constitution Gardens,” George Mason University, 1998: 21).

The plant list included in the Site Development Plan, Phase II (801/41007, sheet L7, October 1974), specified sixteen tree species, all but one of them deciduous. Among these were almost 400 red oaks (*Quercus borealis*), almost 300 “Emerald Queen” Norway maples (*Acer platanoides*), 200 each of red maples and sweetgums (*Liquidambar styraciflua*), and smaller numbers of tulip trees (*Liriodendron tulipifera*), scarlet oaks (*Quercus coccinea*), bur oaks (*Quercus macrocarpa*), Eastern white pines (*Pinus strobus*), and Dedfree Dutch elms (*Ulmus hollandica* Dedfree; “Dedfree” means “Dutch elm disease free”). Almost 200 each of flowering dogwoods (*Cornus florida*) and shadblow serviceberries (*Amelanchier canadensis*) were planted, with lesser quantities of kousa dogwoods (*Cornus kousa*), fringe trees (*Chionanthus virginicus*), and several varieties of crabapples (*Malus* sp.). Several hundred azaleas and almost 200 rhododendrons, with underplantings of Baltic ivy (*Hedera helix baltica*) and over 45,000 narcissus (*Narcissus poetaz* [Tazetta] Laurens Koster), were specified for the ten planting beds at walk intersections.

Of the 328 Norway maples planted, mostly in tree wells within the walks, only nine were alive the next year (Hammerschlag & Patterson 1978:7; Gedney 25). By 1978, 28% of the 1886 trees planted two and three years before had died (Gedney 21). Most had drowned. Trees

planted within the asphalt walks had been placed in wells filled with topsoil, dug within less permeable soil that held water from rains and runoff. Various techniques then were tried to ensure the survival of replacement trees. Trees were raised on “pedestals” of soil to lift them out of the water-laden earth. In the “keyhole” method, trenches filled with “loosened soil” were dug from the tree wells through the pavement to nearby lawns. (Gedney 24) In some cases, dry wells were installed in the bottom of walkway planting wells on the north side, with access pipes to pump out excess water; however, these were never used (Jim Sherald, email, 8/14/2007). Many of the Norway maples have now been replaced with red maples that are planted just outside the walkway, and most of the tree wells within the walks have been paved over with gravel-topped asphalt. However, some red maples still survive within walks, particularly in the north area of the park; these are the upright form “Bowhall.” (DeFeo, email, 2/20/08)

Other methods have been employed to reduce tree loss. Original upland tree selections have been replaced with more water-tolerant species – for example, red maples and sugar maples have been used to replace Norway maples (Gedney 25). In 1974-75, seventeen percent of tree replacements were maples. From 1992 to 1996, maples – particularly red maples – were used in half of replacements (NCR Chief Horticulturist Rob DeFeo refers to the red maples as being an “early warning system for dry conditions”; Gedney 26). Of the 313 dogwoods originally planted, 250 soon died; these were replaced once, but not a second time (Gedney 26). Flowering dogwoods have recently been planted in the four beds between the Outlook Terrace and 17th Street. The result of such changes is a more complex mixture of species than was first planted.

An analysis conducted by park ranger Harry Gedney in 1998 found that the number of trees in Constitution Gardens was roughly 1900, the same as originally planted. From about 1987 to 1997, 461 trees were removed and 465 were planted (Gedney 32). Certain changes were noted: the “precise location of trees has been adjusted”; there are about twice the proportion of maples as originally called for; and the percentage of dogwoods is much lower, 3% rather than the original 17% (Gedney 30). Sweetgums have suffered from bleeding canker fungus, caused by the fungus *Botryosphaeria dothidea*, perhaps brought on by the stress of drought, and consequently the percentage of sweetgums has also been reduced, from 12% to 7%. Oaks then accounted for about 23% of the total number of trees. (Gedney 30-31 & Sherald email 2/22/08)

At some point, there was an undocumented planting of a silver maple (*Acer saccharinum*) in Constitution Gardens. Since this tree was found to be thriving, ten others were planted. In the 1990s, several maples of a type called “Celebration” – a cross between red and silver maples – were planted. (Gedney 27)

Because of the poor soil conditions, trees in Constitution Gardens have been susceptible to drought. Various ailments also affect them. For example, the elms and red oaks suffer from leaf scorch, a bacterial pathogen carried by leaf hoppers.

Groves of honey locust trees were to be planted to cast a light shade over the park's two intended structures, more importantly the terraces in front of the East End Visitor Pavilion planned for the Overlook Terrace (design statement c. 1974:1). While the pavilion was never built, the three rows of four honey locusts on the terraces, which were meant to shade outdoor seating, were installed.

Honey locusts were favored by landscape architect Dan Kiley, consultant to the SOM Mall Plan (and former employer of Henry Arnold, who was a planting consultant for Constitution Gardens). In a monograph on his work, Kiley wrote of the honey locust that it is "a canopy tree with delicate qualities that work well in precise formations such as allees and bosques." (Kiley 1999: 38) This concept may have had some bearing on the choice of honey locusts for the terraces of Constitution Gardens. The locusts are not uniform in size or growth habit, and a couple are missing. (Virginia creeper was meant to grow up the west faces of the Overlook Terrace terrace walls [801/41007A EE4 or sheet 43]; if it was ever planted, it no longer exists.)

Planting of a second grove of honey locusts was planned to shelter the small kiosk which stands in the center of the park, at the west end of the lake. The grove, composed of trees planted on a tightly-spaced grid, may have been planted, judging by some patched holes visible within the asphalt. About seventeen honey locusts line the outside edges of this walk, behind the refreshment kiosk. These create a somewhat distinctive vegetative character for this area.

Earlier versions of this SOM plan depicted several circular paved plazas ringed by trees. These were intended as areas for recreation and entertainment:

"In half a dozen places the paths open into tree-encircled areas, providing a natural stage for a variety of activities and modest structures. . . . The Gardens are designed to provide spaces for a wide variety of activities that do not require permanent facilities. Small outdoor concerts, exhibits, picnics, informal sports, and National Park Service programs and festivals are examples of the kinds of activities encouraged by the design. The Gardens are envisioned as a setting for sculpture and other works of art suited to outdoor display on either a temporary or permanent basis. Such elements, like the pavilions and the activity 'stages,' would sit as individual events for the visitor to discover as he proceeds throughout the park." (design statement c 1974 p. 1-2)

A ring of willow oaks (*Quercus phellos*) in the southwest area of the park appears to have been planted because of this now-abandoned design concept.

56 Signers Memorial (Contributing)

(Basic information from East and West Potomac Parks National Historic District Nomination, Sec. 7, p. 22+, EWPP rev. nomination 2001:Sec. 8, p. 86; materials in Beautification File, "56 Signers Memorial," including NCPC, Memo, 2/5/81; 801/41012, 801/80018)

This memorial landscape so closely integrates structure and landscape that it is impossible to separate the two. A certain amount of repetition, therefore, is inevitable in this inventory, but more detailed information pertaining directly to structural features can be found below, under “Buildings and Structures.”

The work of the landscape architecture firm EDAW, the Memorial to the 56 Signers of the Declaration of Independence commemorates the men who risked their fortunes and their lives by adopting and signing this key American document. Architect and landscape architect Joe Brown (now president and CEO of EDAW) was the principal in charge, assisted by landscape architect Cales Givens and civil engineer Kurt Pronske. The Secretary of the Interior chose the site on the small island. Authorized by Congress on April 17, 1978, and approved in 1981 by President Ronald Reagan, the memorial was paid for by the American Revolutionary Bicentennial Administration with \$500,000 remaining from the Bicentennial celebrations. Construction began in 1982. It was completed in 1983 and dedicated on July 2, 1984.

The approach to the memorial includes a low wooden footbridge, which leads over a narrow channel of the lake to the island’s north shore. The rest of the route is paved with granite flagstones, including three inscribed stones.

The memorial is composed of fifty-six separate rectangular blocks hewn from a mottled gray, white, and pink granite. Each block is carved on its top surface with the signature of a signer, and together they form a broad semicircle around a central paved plaza that opens to the south shore. The plaza and surrounding signature stones are approached on axis from the rear; the walk passes through the half-ring of stones and descends three low curved steps to the plaza, which offers broad views of the lake, the park, and the Washington Monument.

The signature blocks are organized into thirteen groups representing the thirteen original states. Originally, the white-flowered evergreen *Potentilla* “tridenta” (probably “tridentata” was meant in the EDAW literature) was planted in the joints between the thirteen groupings as a “living mortar” (EDAW, “A Memorial,” c. May 1984, BF 56 Signers). Later, sedum was tried, but nothing remains now, so there are wide gaps between some of the stones.

The semicircular plaza is paved with square granite blocks (probably Durax), which have been laid in a complex series of curves. The paving extends beyond the semicircular plaza along the shoreline in two wings to the east and west.

Extending east and west behind the half-circle of signature stones are two small planting beds, and behind these beds is a row of saucer magnolias (*Magnolia soulangeana*) planted in the lawns. A low, curving stone wall demarcates the sloping north side of the island; the wall decreases in height from the center north/south entrance to merge into the lawns at its east and west ends. The wall’s stone masonry is similar to that used in the terraces at the Overlook Terrace (NCPC, Memo, 2/5/81, Beautification Files, Res. 332/56 Signers). (For more

information on the planting, see Vegetation.)

The memorial was intended to have a non-monumental quality. Salient visual characteristics of the site helped determine the design. One guiding idea was recognition that the memorial would occupy a low area within a topographic bowl: “The memorial site retains a low/horizontal profile created by the flat, linear quality of the lake surface. Topographic rises in the land surrounding the lake tend to enframe and reinforce this horizontal quality.” An early description noted how the appearance of the island from the lakeshore continuously changed (DOI, “A Memorial to the 56 Signers . . .,” 12/79:9 BF “56 Signers”). The memorial contains a series of curves – the semicircular plaza with its parallel curved lines of paving, the wall of signature stones, the planting beds, the lines of magnolias, the low stone wall (EDAW, “A Memorial . . .” c. 5/84, BF “56 Signers”). Grass was planted on the east and west ends of the island and between beds.

A statement produced by EDAW (“A Memorial . . .” c. 5/84, BF “56 Signers”) stressed that the memorial was unique in being the only permanent memorial to the signers of the Declaration of Independence. It won a 1984 Honor Award in the Professional Awards Program from the American Society of Landscape Architects.

As stated above, today the potentilla is missing, along with other original plantings in the beds. Nevertheless, the memorial appears to be in good condition.

Changes Made to Vegetation as a Result of the Vietnam Veterans Memorial

One of the original designers – Henry Arnold of Arnold Associates – was enlisted to make sure new plantings for the Vietnam Veterans Memorial harmonized with existing landscaping. The memorial was set within the open meadow on the park’s west end. In front of the Wall, a uniform, bowl-shaped slope was formed. This was planted with turf reinforced with drainage mat, while the rest of the site was covered with sod. (Scope 1992:1-2)

Most existing trees were retained. Others were removed, or transplanted within the site or to other NCR parks. Some new trees were planted. New and moved trees were to be raised above existing grade, and the soil was to be feathered (Corbin 1982:1). Efforts were made to preserve at least two trees within the memorial construction area (Neal 3/18/1982).

Plans show that certain trees among those lining the southwest walk – the approach to the memorial from the direction of the Lincoln Memorial – were to be removed or relocated (809/80001, L-3, Planting Plan 1/29/82, & 809/80001, A-1, Removals Plan, rev. 4/11/83). Trees in a small grove at the very beginning of this walk were to be relocated, as were trees growing within the lawn nearby. A grove adjacent to the Wall’s west end was to be removed and replanted in the same location after regrading was finished. A couple of dozen new trees were to be planted among existing groves behind the Wall. It is assumed that these plans were carried out.

Because of their tolerance of wet conditions, “October Glory” red maples were first specified by the NPS; subsequently, preference was expressed for the variety “Red Sunset” (Corbin 1982:2). Trees were to be spaced a minimum of fifteen feet on center to conform with previous plantings. As architect Carla Corbin of Cooper Lecky Architects wrote, “the approach of our Landscape Architect, who is familiar with the site and its previous planting, has been to make the new planting consistent with the existing appearance.” (Corbin 1982:3) The NPS recommended a spacing of over twenty feet for the October Glory maples (Neal memo c. Feb. 1982).

Planting smaller trees, those with a caliper of three-and-a-half to four-and-a-half inches, rather than larger specimens was recommended to ensure better survival and faster growth. It is possible in some cases that “new trees of comparable size” were substituted for existing trees, which may have then been planted elsewhere within the region’s parks. (Neal 3/18/82)

Three Servicemen

When the Three Servicemen statue and its plaza were installed, they were placed within an existing grove of trees. Surrounding the plaza were beds planted with cotoneaster. This was later replaced with the thorny *Berberis x gladwynensis* 'William Penn' to discourage pedestrian trespass through the beds.

Vietnam Women’s Memorial

George Dickie, formerly of SOM and then of HOK, served as the landscape architect for the Vietnam Women’s Memorial. As with the Three Servicemen, the site was situated within an existing grove of trees, located about 300 feet south of the Wall and 300 feet southeast of the earlier statue. (Perl:31)

Three issues were considered in choosing the site: visibility of the Wall, easy access, and ability to relate “to the design of the park and [to] complement the original design concept of Constitution Gardens.”

(www.vietnamwomensmemorial.org/pages/framesets/setmemorial.html, 9/12/2007). Visitors would be encouraged to move around the sculpture, viewing it “in a series of successive views. . . . to determine a personal perception of the composition . . . to involve the viewer in a kinetic relationship to the statue”. A small granite-paved plaza provides sufficient space for people to walk freely around the statue, and room for benches on three sides.

New tree plantings and landscaping help define the main walk and enclose the terrace (Memo [no author], Nov. 7, 1991) The plaza opens off the southern edge of the original loop walk, and two beds planted with red oaks separate the plaza from the walk. Surrounding the plaza are two successive planting beds with broadly curving outer edges; the inner bed is planted with barberry (most likely *Berberis x mentorensis*) and the outer with liriop. Trees were placed to “provide transparent walls to the terrace . . .” Willow oaks line the plaza; behind them are beds

planted with serviceberry (*Amelanchier*) and viburnum, softening the transition to the existing grove of trees. Other plants include redbud (*Cercis canadensis*), witch hazel (*Hamamelis virginiana*), yellowwood (*Cladrastis lutea*), and sycamore (*Platanus occidentalis*). Red oaks were planted among existing trees. The nearby wayside states that the eight trees planted in the new grove (the yellowwoods) represent the eight women killed in the war, whose names are engraved on the Vietnam Veterans Memorial wall.

Conclusion

Today, the entire site retains the varied, mostly native vegetative character sought by the designers. Except on the island, most of the plants are trees; today, the former shrub beds are maintained as either lawn or mulched beds. Also, none of the 1915-1916 plantings installed around and behind the Lockkeeper's House now remain. All trees in this area appear to date from the SOM planting of 1974-76. The large shrubs surrounding the house's foundations are Japanese acuba (*Acuba japonica*), planted at some unknown date after the original plantings were removed. The complex tree plantings around the house reflect the intended character of 1915-16. When the structure was used as a canal lockhouse, the surrounding area was bare, as is visible in historic photos.

The changes made to the tree palette over the years and necessitated by site conditions have resulted in a more complex mixture than first planted, but appear to be compatible with the intended character.

At some time after the original planting, four additional planting beds were created at the park's east side, between the Overlook Terrace and 17th Street. These contained large pyracantha and witch hazel shrubs, along with canopy trees and small flowering trees, including flowering dogwood. The pyracantha have recently been removed from these beds, and narcissus bulbs have been planted with funds provided by the Trust for the National Mall.

When the World War II Memorial was built south of Constitution Gardens in 2004, a small area known as the Garden of Remembrance, composed of a circular bench, a paved plaza, and surrounding plantings, was constructed on the south slope of the levee berm. The Garden of Remembrance extends into Constitution Gardens but does not contribute to its landscape.

Character-defining Features:

Feature:	Deciduous trees
Feature Identification Number:	120788
Type of Feature Contribution:	Contributing
Feature:	Honey locust trees on Overlook Terrace
Feature Identification Number:	128977
Type of Feature Contribution:	Contributing

Constitution Gardens

National Mall & Memorial Parks - West Potomac Park

Feature: Honey locust trees around kiosk

Feature Identification Number: 128979

Type of Feature Contribution: Contributing

Feature: Sycamores, former 21st St. alignment

Feature Identification Number: 128981

Feature: Magnolias, 56 Signer Memorial

Feature Identification Number: 128983

Type of Feature Contribution: Contributing

Feature: Memorial trees, NW corner of park

Feature Identification Number: 128985

Type of Feature Contribution: Contributing

Feature: Evergreen trees planted as replacements

Feature Identification Number: 120790

Type of Feature Contribution: Contributing

Feature: Street trees Con. Ave. Bacon Dr. 17 St.

Feature Identification Number: 120796

Type of Feature Contribution: Contributing

Feature: Lawns

Feature Identification Number: 120792

Type of Feature Contribution: Contributing

Feature: Remnant plantings, 56 Signers Memorial

Feature Identification Number: 120794

Type of Feature Contribution: Contributing

Feature: Plantings, Vietnam Veterans Memorial

Feature Identification Number: 128373

Type of Feature Contribution: Contributing

Feature: Plantings, "Three Servicemen"

Feature Identification Number: 128375

Type of Feature Contribution: Contributing

Feature: Plantings, Vietnam Women's Memorial

Feature Identification Number: 128377

Type of Feature Contribution: Contributing

Feature: Plantings around Lockkeeper's House

Feature Identification Number: 128997

Type of Feature Contribution: Non Contributing

Feature: Subaquatic & other plants in lake boxes

Feature Identification Number: 120798

Type of Feature Contribution: Non Contributing

Feature: Plantings, Garden of Remembrance

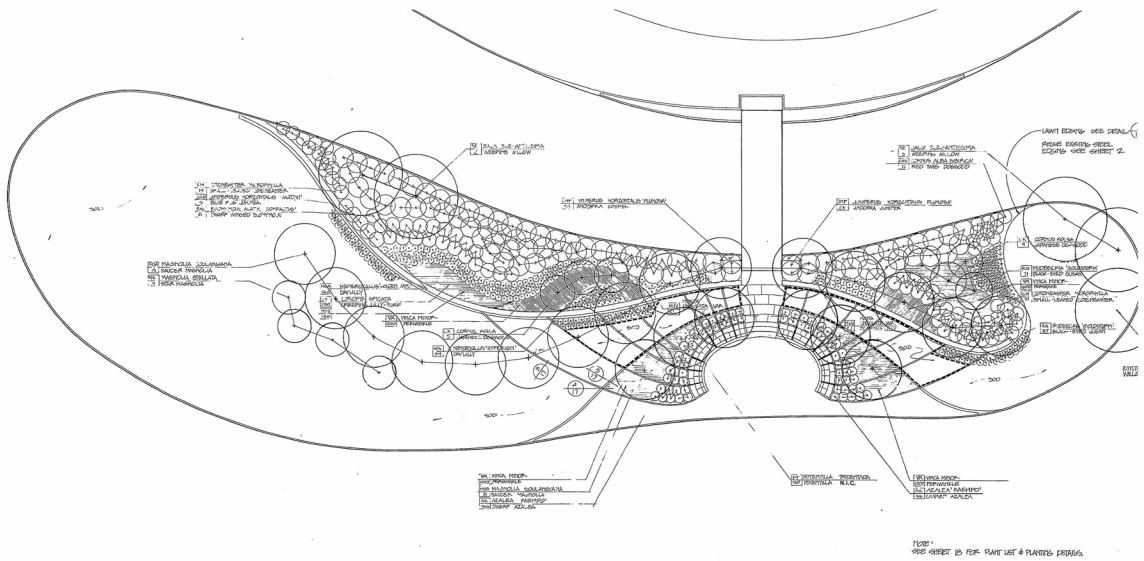
Feature Identification Number: 120800

Type of Feature Contribution: Non Contributing

Landscape Characteristic Graphics:



The original idea of the soft, informal appearance of a curving line of trees growing from within a gravel walk soon proved impracticable, though some isolated sections remain, such as along this walk in the north part of the park. (June 2007; CLP file)



The 56 Signers Memorial planting plan depicted a dense, complex planting, composed primarily of shrubs and perennials. (804/41012 sht. 5, 1981)



While focused on the plaza, the 56 Signers Memorial encompasses the entire small island. The landscape was developed as a series of curves, including the line of magnolias and the low stone wall. (June 2007; CLP file)



The dense perennial plantings around the Garden of Remembrance area of the World War II Memorial extend into Constitution Gardens. (June 2007; CLP file)

Circulation

In contrast to the formal, rectilinear system comprising the majority of the National Mall's circulation, Constitution Gardens is laid out with a network of winding, curving walks (801/41007A). The park's location off the central visual axis between the Washington Monument and the Lincoln Memorial, and its partial screening from view of the Lincoln Memorial Grounds by the flood control levee, allowed greater freedom in design.

A statement dating from about 1974 discussed the effect that was sought in the design of the circulation:

"The design establishes a floor plane of softly contoured meadows shaded by a canopy of trees and sloping gently to meet the curving shoreline of an informally shaped lake. A network of paths for pedestrians and bicyclists meanders in the shade following the contour lines." (design statement c. 1974:1)

The original plans called for 2510 feet of bike paths and over three miles of pedestrian walks. (EA c. 1974:1)

The circulation system has three major features: two loop walks and a large paved plaza, known as the Overlook Terrace. Narrower subsidiary walks run across lawns and slopes, linking different areas within the park and leading to adjoining sites.

All original walks and the Overlook Terrace are paved with gravel-topped asphalt, an asphalt base into which a covering of gravel was rolled while the asphalt was warm. Skidmore, Owings and Merrill chose this material for its resemblance to the loose gravel paths of the Tuileries, where trees are planted directly within the paths. The material has deteriorated since its installation in the mid-1970s. Two sidewalks, one asphalt and the other concrete, along Constitution Avenue and the concrete sidewalks along 17th Street and Henry Bacon Drive also lie within the park's boundaries.

The two major walks of the park are long loops having the general shape of a figure 8 or a peanut – that is, a shape that is nipped in the middle, forming a lobe at each end. The long dimensions of the two loop walks are oriented east to west, and each occupies roughly half of the site. The eastern loop walk is placed immediately adjacent to the lake and thus follows its contours. The western loop curves around the large knoll and then circles the Vietnam Veterans Memorial.

The Overlook Terrace is a large, paved rectangular plaza at the east end intended as the location for a visitors pavilion that was never built because of cost. Walks lead diagonally from the 17th Street sidewalk to the terrace's northeast and southeast corners and axially along a north-south line to the midpoint of the terrace on the north and south. The north axial walk runs between the Constitution Avenue sidewalk and the terrace; the south axial walk, slightly offset to the west from the alignment of the north walk, runs between the terrace and the World War II Memorial, and is aligned with the central axis of the Rainbow Pool (redesigned in 2002 as the central feature of the new memorial). On the west side of the Overlook Terrace, three walled stone terraces flanked by broad stairways descend the slope to the lake, where they join with the lake's perimeter walk (see Buildings and Structures). The terraces are planted with honey locust trees and were intended to have outdoor seating. Narrow walks parallel to the stairs lead from the north-south axial walk to the lake walk. Benches, light posts, trash receptacles, and other small-scale features are set directly on walks rather than on pads extending from walks into adjacent lawns.

The walk around the perimeter of the lake allows visitors to stroll next to the water, the surface of which lies near the ground plane. This was meant to provide a contrast to the experience of walking along the Reflecting Pool, where walks on both sides are elevated several feet above the level of the pool and a considerable distance back, as well as to contrast with walking by the other pools of water in West Potomac Park and on the Mall. (Childs 9/6/06)

The lake and its adjoining walk lie on the lowest plane of the park, surrounded by gentle slopes. To the north and south, secondary walks break away from this main loop walk, curving up the slopes before running back to rejoin the lake walk. On the south, a short walk midway along the lakeshore joins the primary and secondary walks; a narrow walk breaks away from the secondary walk at the southeast, and leads over the levee to the World War II Memorial. On the north, two short walks lead from the secondary walks over the berm on the park's northern boundary to the Constitution Avenue sidewalk. A third such short walk runs to the sidewalk

from the loop walk around the knoll to the west.

Though changes occur very gradually, the width of walks varies greatly. All walks widen considerably at their intersections. Generally, the primary loop walks range from sixteen to twenty feet wide, though the lake walk narrows to fourteen feet along the south shore. The secondary walks typically vary from ten to sixteen feet, but the walk leading up the slope at the southeast corner is only six feet wide. To ensure accuracy in maintaining correct widths and footprints, any work on the walks would require careful study of the SOM plans. (801/41007)

The two loop walks join near the center of the site, forming a wider triangular paved area, in the middle of which stands the refreshment kiosk. This paved area was to have been planted with a dense grid of honey locust trees, so that the pavilion would have been located in the center of a grove. No photographs have been found showing this, but a few round patches are evident in the deteriorated gravel-topped asphalt paving in front of the kiosk, suggesting the grove may have been planted. North of this area, the two loop walks curve away from each other, and another secondary walk runs to the north, so that the three walks form a triangular area of lawn. A narrow walk leads from the south edge of the knoll loop walk to the comfort station, and from there over the levee to the elm walk on the north side of the Reflecting Pool. In the park's northeast corner, a slightly curving walk runs diagonally behind the Lockkeeper's House, joining the sidewalk of Constitution Avenue with the main walk to the Overlook Terrace.

Originally, most walks to the north and south were lined with trees on one side. The "Emerald Queen" Norway maple was the species originally selected, and the trees were planted directly in tree wells within the paving. Though the wells were filled with high-quality topsoil, they were set, like cups, within a much less porous subsoil, and consequently most of the trees soon died (see History and Vegetation sections).

Numerous social trails have been cut across the lawns of Constitution Gardens, especially over the flood control levee, leading to the Lincoln Memorial Grounds and the Reflecting Pool, and over the north boundary berm to the Constitution Avenue sidewalk. Social trails also run immediately parallel to many of the walks.

Two walks run parallel to Constitution Avenue, both under NPS jurisdiction. A narrow concrete "step out" runs immediately adjacent to the curb of Constitution Avenue. South of this, separated by planting areas planted with grass and American elms, a wide asphalt sidewalk was built in 2003 to replace the Tourmobile access road, as mitigation for construction of the World War II Memorial. The new asphalt sidewalk has a narrower alignment than the Tourmobile road and therefore lacks integrity as a historic element. A bus and Tourmobile pick-up has been built on Constitution Avenue near 17th Street. A concrete sidewalk runs along 17th Street with a planting area between the sidewalk and the street. American elms are planted in this area, many or most of them predating the construction of Constitution Gardens.

The park lacks a designed entry point for the service vehicles which are needed to stock

concessions, remove trash, and perform maintenance, and the walk system was not designed to accommodate their use. As a result, the walks become damaged by vehicles engaged in routine service and maintenance tasks.

Changes Made to Circulation as a Result of the Vietnam Veterans Memorial

Circulation was altered slightly after the Vietnam Veterans Memorial and the statue and the Vietnam Women's Memorial were added. At the southwest corner of the west loop walk, the entrance walk leading from the Lincoln Memorial grounds branches in two directions, with a new branch now leading straight to the Three Servicemen – consequently, a triangle of lawn between the two branch walks replaced a section of the loop walk. Another new walk runs past the Wall; this is paved with bituminous asphalt at the east and west ends, changing to granite pavers directly in front of the Wall. The slope is a gentle 1:12 for handicap access. The slope of the lawn levels at the vertex of the Wall. (Scope 1992:28-29) At its east end, this walk joins with a slightly curving north-south walk that connects the north and south sides of the loop walk, running across the narrowest point of the loop.

The granite pavers of the memorial walk, made of “Indian Black” granite imported from Bangalore, India, are placed perpendicular to the Wall in a walk that is parallel to it. All are rectangular, except for ten at the vertex of the Wall, and vary in width and length “in proportion to the height of the memorial wall,” i.e., the length of the pavers and thus the width of the walk is greatest where the Wall is highest. The surface is “flame-finished” to provide good footing in wet conditions (though staff note that, when wet, the granite pavers are often slippery). (Scope 1992:28) Open joints allow for quick drainage. Smaller square granite “sets” supplement the larger pavers and are used along their edges. With their rougher surface, and the grass planted in the joints between, the sets have a less formal appearance than the pavers. (Scope 1992:33) The walk was rehabilitated in 2004-2005, when lights were recessed below grade, and the pavers were reinstalled in stone dust settings.

The Three Servicemen statue stands in a small lozenge-shaped plaza extending off a walk near the approach from the Lincoln Memorial grounds. The plaza is paved with both granite sets and large pavers. One of these pavers northwest of the Three Servicemen is engraved as the “In Memory” plaque. The Vietnam Women's Memorial, completed in 1993, was set within its own plaza, which opens off the southern edge of the original loop walk southeast of the Vietnam Veterans Memorial. The square plaza is paved with a “carnelian red” granite from Minnesota. The statue, set on a granite base, occupies the center. The plaza edge projects and recedes, creating niches for the three benches and animating the space: “The rectangular shape of the terrace and the indents for seating and viewing create a counterpoint to the movement of the visitor and to the circle of trees that form the space within the park.”

Recent Work

The Overlook Terrace and the two diagonal walks leading to the plaza were used during

construction of the World War II Memorial in 2002 for access and staging. The original gravel-topped asphalt paving was already deteriorating and was further damaged by this activity. Light poles and trees were set within these paved areas, and the trees, part of the original planting, were not thriving, having reached a diameter of only five to seven inches.

In the fall of 2003 the World War II Memorial's contractor, Tompkins/Grunley-Walsh, restored these areas used for construction access and staging. Paving around the trees and lights was carefully removed by hand. The plaza and the northeast diagonal walk were entirely rebuilt, and the southeast diagonal walk was partly rebuilt. The new paving was again gravel-topped asphalt to match the original. The widths of the two diagonal walks were reduced from about twenty feet to fourteen feet, leaving the existing trees and lights outside of the paved areas. The footprint of the plaza was reduced by about eight-and-a-half feet on the west, removing it from between the trees, thus making a continuous planting bed; the edge of the asphalt was aligned with the ends of the cheek walls along the stairways. (meeting notes 9/23/03, CLP file "NACC – COGA Repaving Project 2003"; e-mails from Alice McLarty 6/19/07, 6/21/07)

Today, except for the areas repaved in 2003, the condition of most walks in Constitution Gardens is poor. Much of the gravel has worn off the asphalt underlayer, leaving the surface pitted and rough. The exposed asphalt is cracked and its edges are worn. Water pools in the surface depressions. The walk around the lake is particularly deteriorated. Many areas have been patched.

Character-defining Features:

Feature: Overlook Terrace

Feature Identification Number: 128999

Type of Feature Contribution: Contributing

Feature: Granite walk, Vietnam Veterans Memorial

Feature Identification Number: 129001

Type of Feature Contribution: Contributing

Feature: Plaza, Three Servicemen statue

Feature Identification Number: 128381

Type of Feature Contribution: Contributing

Feature: Plaza, Vietnam Womens Memorial

Feature Identification Number: 128387

Type of Feature Contribution: Contributing

Feature: Loop walk around lake

Feature Identification Number: 120802

Constitution Gardens

National Mall & Memorial Parks - West Potomac Park

Type of Feature Contribution: Contributing

Feature: Loop walk around west end & VVM

Feature Identification Number: 120804

Type of Feature Contribution: Contributing

Feature: Secondary walks over slopes

Feature Identification Number: 120806

Type of Feature Contribution: Contributing

Feature: Two stairways west from Overlook Terrace

Feature Identification Number: 120810

Type of Feature Contribution: Contributing

Feature: Walks parallel to stairs, north & south

Feature Identification Number: 120812

Type of Feature Contribution: Contributing

Feature: Diagonal walk NE corner Overlook Terrace

Feature Identification Number: 120814

Type of Feature Contribution: Contributing

Feature: Diagonal walk SE corner Overlook Terrace

Feature Identification Number: 120816

Type of Feature Contribution: Contributing

Feature: Walk south, Overlook Terrace to WWII Mem

Feature Identification Number: 120818

Type of Feature Contribution: Contributing

Feature: Walk north, Overlook Terrace to Con Ave

Feature Identification Number: 120820

Type of Feature Contribution: Contributing

Feature: Two sidewalks along Constitution Ave.

Feature Identification Number: 120822

Constitution Gardens

National Mall & Memorial Parks - West Potomac Park

Type of Feature Contribution: Contributing

Feature: Sidewalk along 17th St.

Feature Identification Number: 120824

Type of Feature Contribution: Contributing

Feature: Sidewalk along Bacon Drive

Feature Identification Number: 128389

Type of Feature Contribution: Contributing

Feature: Walk behind Lockkeeper's House

Feature Identification Number: 120826

Type of Feature Contribution: Non Contributing

Feature: Social trails

Feature Identification Number: 120828

Type of Feature Contribution: Non Contributing

Feature: Asphalt sidewalk along Con. Ave.

Feature Identification Number: 129003

Type of Feature Contribution: Non Contributing

Landscape Characteristic Graphics:



This wide asphalt sidewalk along Constitution Avenue replaced the former Tourmobile drive. A jogging trail has been worn into the ground beside it. A narrower sidewalk along the curb is barely visible in this photo. (Jan. 2007; CLP file)



The walk circling the lake has lost much of its gravel, and the exposed asphalt is deteriorated. (Jan. 2007; CLP file)

Buildings and Structures

The relatively few buildings and structures in Constitution Gardens are visually subordinate to the landscape. Contributing buildings include the Lockkeeper's House and a small food service pavilion. Contributing structures include the stone terraces and paved platform at the east end of the site, the island in Constitution Gardens Lake, the 56 Signers Memorial on the island, the flood control levee along the southern boundary, the Vietnam Veterans Memorial, the Three Servicemen and Women's Vietnam Memorial, and the comfort station.

These features are discussed alphabetically. Further information on the plazas and surroundings of the Vietnam Veterans Memorial and two statues is available under "Vegetation" and "Small-Scale Features."

Comfort Station (Contributing)

A curvilinear comfort station, of a type developed for the National Capital Parks in the mid-1970s, by National Park Service architect Ben Biederman for use in Bicentennial projects, is located in a somewhat inconspicuous location south of the refreshment kiosk, off an asphalt walk and among a grove of trees near the toe of the flood control levee. These comfort stations typically had exposed aggregate siding; to meet objections raised by the Commission of Fine Arts and the Joint Committee on Landmarks, wood siding was substituted on this structure for the concrete to complement other proposed structures for Constitution Gardens (Stanton to Conrad, 2/4/75, NAMA CR files D/R).

The building is actually slightly ovoid in plan (801/41007A). One half of the building houses a men's restroom, the other a women's restroom. Both are semicircular in plan and slightly offset from each other. The structure is built of steel posts between which are panels of narrow vertical wood siding, painted brown. A clerestory provides natural light; there is no artificial lighting. The flat roof has a broad overhang.

The comfort station is in poor condition. The plumbing needs replacing. The bathrooms are too small to accommodate many visitors, and many complain about its condition. (meeting 4/17/07)

Constitution Gardens Island (Contributing)

A small, 0.51-acre island was included in the design of Constitution Gardens as a feature lying near the north shore of the lake, reached by a low wooden footbridge. The form was apparently derived from the shoeprint of architect David Childs. (Parsons 4/26/06) Like the lake itself, the island is retained by granite walls. It was constructed with fill, and originally it was planted with grass, English ivy, and twelve weeping willows, and partly paved with flagstones. The island lies on the axis of 19th Street (as does the D.C. World War II Memorial to the south, visible from the west end of the island). (DOI, "A Memorial to the 56 Signers . . .," 12/79:9 Beautification Files "56 Signers"; 801/41007, 801/41007A, sheet I-1 in both)

56 Signers Memorial (Contributing)

(Basic information from East and West Potomac Parks National Historic District Nomination, Sec. 7, p. 22+, EWPP rev. nomination 2001:Sec. 8, p. 86; materials in Beautification File, "56 Signers Memorial," including NCPC, Memo, 2/5/81; 801/41012, 801/80018)

This memorial landscape so closely integrates structure and landscape that it is impossible to separate the two. A certain amount of repetition, therefore, is inevitable in this inventory; vegetation is emphasized in that section, while this discussion contains more detailed information on structural features.

The work of the landscape architecture firm EDAW, the Memorial to the 56 Signers of the Declaration of Independence commemorates the men who risked their fortunes and their lives by adopting and signing this key American document. A low wooden footbridge leads over a narrow channel of the lake to the island's north shore. The memorial design incorporated an existing twelve-foot-wide plank bridge, which is supported on two piers and lacks handrails. This pedestrian bridge cannot support the weight of most vehicles, so even today, park maintenance vehicles cannot use it to reach the island, making tree removal and planting difficult.

The approach to the memorial includes the bridge and is otherwise paved with granite, including three inscribed stones. The first stone in the walk sequence is set into the ground at the

entrance to the bridge and carries the dedication: “A memorial to the 56 Signers of the Declaration of Independence/ A gift from the American Revolution Bicentennial Administration 1976”. At the end of the bridge is a stone bearing the heading of the Declaration of Independence: “In Congress, July 4, 1776 The unanimous Declaration of the thirteen united [sic] States of America”. Finally, three courses beyond this is a large stone, darker than the rest, engraved with the closing words of the document, which directly pertain to the signers’ vows: “And for the support of this Declaration with a firm reliance on the protection of Divine Providence we mutually pledge to each other our lives our fortunes and our Sacred Honor”.

The memorial is composed of fifty-six separate rectangular blocks hewn from a mottled gray, white, and pink granite. Each block is carved with the signature of a signer, and together they form a broad semicircle around a central paved plaza that opens to the south shore. The plaza and surrounding signature stones are approached on axis from the rear; the walk passes through the half-ring of stones and descends three low curved steps to the plaza, which offers broad views of the lake, the park, and the Washington Monument.

The signature blocks, of varied widths and lengths, are organized into thirteen groups representing the thirteen original states. The stones decrease in height as they move to the outside of the circle. The fronts are rock-faced; their polished upper faces are cut on a slant, so that, as a group, they form a smooth, tilting arc and each face can be easily read by visitors. The top face of each stone bears the large engraved signature of a signer, and incised beneath the signature is the signer’s name, occupation, and hometown. The carved letters were covered with gold leaf (re-gilded in fall 2004). Originally, the white-flowered evergreen *Potentilla* “tridentata” (probably “tridentata” was meant in the EDAW literature) was planted in the joints between the thirteen groupings as a “living mortar” (EDAW, “A Memorial,” c. May 1984, BF 56 Signers).

The semicircular plaza is paved with square granite blocks (probably Durax), which have been laid in a complex series of curves. The paving extends beyond the semicircular plaza along the shoreline in two wings to the east and west. A band of polished granite at the foot of the signature stones is carved with the names of the original states. A bronze star inset in a semicircular stone at the center of this band, at the foot of the three steps, is framed on either side with a decorative linear design and the name of Philadelphia, Pennsylvania.

A low, curving stone wall demarcates the sloping north side of the island; the wall decreases in height from the center north/south entrance to merge into the lawns at its east and west ends. The wall’s stone masonry is similar to that used in the terraces at the Overlook Terrace (NCPC, Memo, 2/5/81, Beautification Files, Res. 332/56 Signers). (For more information on the planting, see Vegetation.)

The memorial was intended to have a non-monumental quality. Salient visual characteristics of the site helped determine the design. One guiding idea was recognition that the memorial would occupy a low area within a topographic bowl: “The memorial site retains a low/horizontal profile

created by the flat, linear quality of the lake surface. Topographic rises in the land surrounding the lake tend to enframe and reinforce this horizontal quality.” An early description noted how the appearance of the island from the lakeshore continuously changed (DOI, “A Memorial to the 56 Signers . . .,” 12/79:9 BF “56 Signers”). The memorial contains a series of curves – the semicircular plaza with its parallel curved lines of paving, the wall of signature stones, the planting beds, the lines of magnolias, the low stone wall (EDAW, “A Memorial . . .” c. 5/84, BF “56 Signers”). Grass was planted on the east and west ends of the island and between beds.

A statement produced by EDAW (“A Memorial . . .” c. 5/84, BF “56 Signers”) stressed that the memorial was unique in being the only permanent memorial to the signers of the Declaration of Independence. It won a 1984 Honor Award in the Professional Awards Program from the American Society of Landscape Architects.

Though missing some of the original plantings, the memorial appears to be in good condition.

Lockkeeper’s House (Contributing)

The Lockkeeper’s House was built in 1832-33, at the time the Chesapeake & Ohio Canal was extended southeast from Georgetown to connect with the Washington City Canal at this location, where a basin was created. The basin was a triangular harbor at the mouth of Tiber Creek. On the west it opened to the river, and was partially bounded by 17th Street, which extended a short distance south from the C&O Canal; on the north, its shore (now the north curb of Constitution Avenue) extended east to 15th Street; on the east, the shore extended diagonally southwest out into the river then returned southeast. A small island lay in the northwest corner of the basin, near the Lockkeeper’s House. The house was the residence of the lockkeeper, who collected tolls and kept trade records. The canal company conveyed it to the Chief of Engineers, U.S. Army Corps of Engineers, on August 14, 1902. (EWPP rev. nomination 2001:Sec. 7 p. 40, and Dillon, NR Nomination 1972)

By 1915, expansion of 17th Street left the house protruding into the roadbed, and so it was moved out of the intersection, forty-nine feet to the west and six feet to the north. The 1916 Annual Report of the Office of Public Buildings and Grounds illustrates footprints and photos of the house before and after the move (footprints p. 3595, photos following p. 3597). Internal alterations were made to the structure to house a restroom, bicycle room, and locker room for park watchmen. Many improvements were made to the house’s surroundings. (AR 1916:3594)

The one-and-one-half story, three-bay structure stands on a concrete foundation and has a side-gable roof covered with wood shingles. It is constructed of randomly-coursed ashlar, using both rock- and smooth-faced stones of widely varied heights and lengths. The front door occupies the central bay. Windows have stone sills and lintels. The house originally rose to two-and-a-half stories, but was reduced in height in the 1870s, when the canal was filled in and the ground level was raised. (EWPP rev. nomination 2001:Sec. 7 p. 40) There are two

dormers at both front and rear and two end chimneys, which are later additions to the original structure.

In the twentieth century, the house was used for storage, as a police lodge, as a holding cell for people arrested in Potomac Park, and, from 1940 to 1970, as a comfort station. The house is presently unused. Recent plans have explored turning it into a visitor contact station where the Washington City Canal and the development of the west end of the National Mall could be interpreted. The structure is in fair condition.

Overlook Terrace and Three Terraces (Contributing)

At the east end of the park, an area on a constructed knoll was leveled to build a large paved platform, known as the Overlook Terrace (801/41007A), which forms part of the continuous line of elevation constituting the flood control levee. The terrace was intended to be the site of a structure, the East End Visitor Pavilion, a major feature of the approved SOM plan for the gardens. The plaza was located on the north-south axis of the Rainbow Pool. The pavilion was not constructed because of its high cost, but the plaza and its three terraces were built. The plaza is paved in gravel-topped asphalt that was replaced in 2003. At this time, the plaza was also reduced in size, with its edge pulled back on the west side. Two walks (also repaved in 2003) lead diagonally to the northeast and southeast from the corners of the plaza; two other walks lead to the north and south from the mid-point of the plaza to the street; and two stairs flanked by two narrow walks lead west down the knoll to the lake (see also Circulation).

Three terraces stepping down from the plaza on the west side were built to provide outdoor seating areas for the Visitor Pavilion, and to function as a structural and visual transition from the pavilion to the lake. Terrace walls are constructed of a bluestone gneiss (probably local), mostly blue-gray in color but some reddish-gray, with rubble stones laid in a random bond. The front wall of one terrace forms the back wall of the next as the terraces descend the slope; the front walls stand about two-and-a-half to three feet high, and the back walls four feet eight inches. The stones were set into mortar laid at the back of the wall, so that the mortar is not visible from the front and the walls have the appearance of being dry-laid. The coping is formed of similar stones; individual stones were not broad enough to extend the entire width of the wall as capstones. The terraces themselves are paved with gravel-topped asphalt. Most of the gravel has worn off, leaving bare asphalt.

Four honey locust trees are planted in rows in tree wells at the front of each terrace, and their roots have buckled the asphalt paving. Seams in the paving suggest that, formerly, the strip of ground with the trees may not have been paved.

At each end of the terraces is a broad stairway, composed of three flights of five low stone steps. The low cheek walls on the outside edges of the two stairs are built of the same blue-gray fieldstone and are laid in the same manner as the terrace walls. They appear to be in good condition.

Refreshment Kiosk (Contributing)

A small refreshment kiosk stands at the west end of the Constitution Gardens lake (see 801/41009, “Refreshment Kiosk,” Nov. 1, 1975, and 801/41009A, “Refreshment Kiosk, as constructed,” Aug. 1, 1977). Its style is unlike that of other Mall pavilions, though it would have resembled the large East End Visitor Pavilion once planned for the Overlook Terrace. The kiosk is operated by Government Services, Inc., and serves a variety of food, including beer, soft drinks, sandwiches, chips, and ice cream.

The kiosk stands on a widened paved area of the seeded asphalt walk at the west end of the lake. The design of this hexagonal building plays on triangular units. The roof is in the shape of a bent pyramid, with a central pyramidal section surrounded by a sloped plane or collar. This collar has an exposed steel-and-wood structure composed of triangular segments that are alternately glass skylights and solid roof. The collar is bent in two planes, the solid sections following the angle of the pyramid roof, and the skylights between them less steeply inclined. The skylights allow for the play of light and shadow on the grounds, an effect sought by the designers: “The motif of dappled shade and reflecting surfaces will be carried forth in the design of the few structures . . .” (design statement c. 1974:2) The wall panels are built of tongue-and-groove siding, painted gray, and the wood-and-steel roof is painted brown.

The kiosk was intended to stand in the center of a grove of thirty-six honey locust trees, planted about eighteen feet on center. Current site plans show seventeen honey locusts remaining along the boundary of the walks; none are now planted directly in the walks, but a few visible circular patches in the asphalt suggest the other trees may have originally been planted and later removed. The kiosk appears to be in good condition.

Three Servicemen (Contributing)

The bronze statue known as the “Three Servicemen” is located at the southwest corner of Constitution Gardens, standing in a lozenge-shaped plaza extending off a walk near the approach from the Lincoln Memorial grounds. In the walk southwest of the statue group stands a tall flagpole (see Small-Scale Features). The statue and the flagpole are considered part of the Vietnam Veterans Memorial.

The initial concept, supported by DOI Secretary James Watt, would have placed the statue on the sloping lawn facing the memorial, with the flagpole located above the memorial at the apex of its two walls. This design scheme faced much opposition, and was rejected by the Commission of Fine Arts. Instead, a spot within an existing grove of trees was chosen, and the flagpole was set behind it to the south, within a walk intersection.

Designed by sculptor Frederick Hart, known for his traditional human figural compositions, the Three Servicemen portrays three soldiers, two white (one may be Hispanic) and one African

American, standing in relaxed but alert poses and gazing towards the Wall, representing their comrades. One soldier stands before the other two, assuming the classical contraposto stance – he bears his weight on one leg, resulting in an S-curve of opposed tension and relaxation running through legs, trunk, and arms – a pose that indicates a calm readiness. The other two soldiers, standing slightly behind the first, are somewhat more upright and tense. All figures are rendered in exacting detail, down to the creases in the uniforms, buttons and zippers, and hanging dogtags.

Vietnam Veterans Memorial (Contributing)

The Vietnam Veterans Memorial is composed of two walls of black granite panels set in a V-shape. Each wall is 246.75 feet long. One arm is aligned with the Lincoln Memorial and the other with the Washington Monument, thus forming a visual relationship between the national values and allusions to past wars embodied in these monuments; the importance of the reciprocity of views was stressed in the L'Enfant and McMillan Plans. Because the ground slopes down to the walls, the impression is given that the memorial rises from and sinks back into the earth. The panels are inscribed with the names of all those who died of wounds received in the Vietnam War, with the chronological list beginning at the apex of the V, at the highest point on the right-hand panel, and ending at the bottom of the adjoining panel on the left. The polished surface of the granite reflects visitors passing along the walk in front of the memorial, showing their images superimposed over the names and forging an immediate relation between the living and the dead.

Maya Lin originally intended to have visitors approach the memorial directly across the grass in order to experience the magnitude of the names before focusing on the individuals on the wall. She was finally persuaded that the grass would not survive without a lateral walkway along the wall.

The Wall was originally inscribed with 57,692 names – including eight women – of people who had served in Vietnam and had been killed between July 1959 and May 1975 (Knight 1993: B9+). Names have since been added regularly over the years. (See also Small-Scale Features.)

Vietnam Veterans Memorial Kiosk (Non-Contributing)

At the southwest entrance to Constitution Gardens, leading from the Lincoln Memorial grounds to the Vietnam Veterans Memorial, stands an octagonal kiosk with a pyramidal roof, similar to the Tourmobile kiosks placed elsewhere on the Mall, designed for the Bicentennial by SOM. The front of the kiosk is an open counter with windows; the rear half is closed for storage. The structure is walled with metal panels painted white. It is staffed by NPS rangers, who provide information on the Vietnam Veterans Memorial and adjacent memorials.

Vietnam Women's Memorial (Contributing)

The proposal of sculptor Glenna Goodacre for this memorial to all women who served in Vietnam was selected through an open competition. Her bronze group, placed on a low circular red-granite base, depicts three female figures arranged in a pyramidal composition meant to be viewed from multiple sides. A nurse seated on sandbags tends to the wounds of a blindfolded male soldier; the two figures are placed in a pose recalling Michelangelo's iconic "Pieta" of the fifteenth century. Behind the nurse, and placing a hand on her shoulder, stands an African American woman, scanning the sky as if searching for rescue helicopters. A third woman kneels behind the other two, holding a helmet in a pose suggesting contemplation of the price of war.

Character-defining Features:

Feature: Constitution Gardens island

Feature Identification Number: 120830

Type of Feature Contribution: Contributing

Feature: 56 Signers Memorial

Feature Identification Number: 120832

Type of Feature Contribution: Contributing

IDLCS Number: 46828

LCS Structure Name: 56 Signers Memorial - Res. 332

LCS Structure Number: 33290002

Feature: Lockkeeper's House

Feature Identification Number: 128397

Type of Feature Contribution: Contributing

IDLCS Number: 46849

LCS Structure Name: Canal Lockhouse - Res. 332

LCS Structure Number: 33290004

Feature: Overlook Terrace & 3 walled terraces

Feature Identification Number: 120838

Type of Feature Contribution: Contributing

Feature: Refreshment kiosk

Feature Identification Number: 120840

Type of Feature Contribution: Contributing

Constitution Gardens

National Mall & Memorial Parks - West Potomac Park

Feature: Comfort station

Feature Identification Number: 120842

Type of Feature Contribution: Contributing

Feature: Vietnam Veterans Memorial

Feature Identification Number: 128395

Type of Feature Contribution: Contributing

Feature: Three Servicemen

Feature Identification Number: 128393

Type of Feature Contribution: Contributing

IDLCS Number: 46831

LCS Structure Name: Vietnam Veteran's Memorial - Statue - Res. 332

LCS Structure Number: 33280002

Feature: Vietnam Women's Memorial

Feature Identification Number: 128399

Type of Feature Contribution: Contributing

IDLCS Number: 46853

LCS Structure Name: Vietnam Women's Memorial - Statue- Res. 332

LCS Structure Number: 33280003

Feature: Vietnam Veterans Memorial kiosk

Feature Identification Number: 128403

Type of Feature Contribution: Non Contributing

Landscape Characteristic Graphics:



This view looking west of the 56 Signers Memorial shows the plaza, the west quarter-circle of signature stones, a line of saucer magnolias, and one of three weeping willows. (June 2007; CLP file)



The small restaurant kiosk at the lake's west end is the sole remnant of the many visitor amenities that SOM originally proposed for the park. Honey locust trees frame the kiosk. Algae can be seen growing in the water. (June 2007; CLP file)



Three walled terraces flanked by wide stairways descend the hill at the park's east end. (June 2007; CLP file)



The Vietnam Veterans Memorial, viewed across the sloping lawn from Three Servicemen statue. The memorial was carefully sited within an existing meadow surrounded by trees, including older hardwoods predating Constitution Gardens. (Feb. 2008; CLP file)



The Vietnam Women's Memorial (left) includes a grove and is carefully sited within existing trees about 300 feet from the Wall. The Three Servicemen statue (right) is considered part of the Vietnam Veterans Memorial. (Feb. 2008; CLP file)

Views and Vistas

Constitution Gardens is a pastoral landscape, designed not only to provide a pleasant stroll between memorials but to offer a series of more varied, intimate, and restful views than is typical for the Mall landscape. Landmarks are partly glimpsed between trees or rising above the tree line.

The design statement dating from about 1974 describes the type of viewing experience sought:

“The design emphasizes the quality of transparency. The selection of high canopied tree species will create a band of daylight flowing between the dark of the leaves and the grassy meadow floor. Branches would not interfere with views of visually important Mall features such as the District of Columbia War Memorial. Understory trees and shrubs over 4 feet tall will be used only sparingly and will be grouped to provide a sense of scale without disturbing views.” (design statement c. 1974:2)

To some extent, this character has been achieved. However, trees have not grown as tall as was expected, so the “band of daylight” is only occasionally apparent. Shrubs have been removed.

The Washington Monument is the only structure serving as the focal point of a dominant vista. It is prominent to the east from throughout Constitution Gardens, usually seen across the lake and mirrored in its reflective surface. One of the most striking views of the monument occurs from the walk ascending the eastern arm of the Vietnam Veterans Memorial, which is aligned with the monument, and from which it is seen rising above the prominent central knoll of Constitution Gardens. Similarly, the Vietnam Veterans Memorial comes into view from the crown and western side of the knoll. This reciprocity of views between important monuments was a key theme of the L’Enfant and McMillan Plans. The statues of the Three Servicemen and the Vietnam Women’s Memorial were situated to provide sightlines to the Vietnam

Veterans Memorial, an open vista in the case of the former and filtered through trees in the case of the latter.

A vista lacking the meaning and grandeur of the Washington Monument view opens to the west, where the distant skyscrapers of Rosslyn, Virginia, are plainly visible above the central knoll through a wide gap in the trees of the Vietnam Veterans Memorial site, apparently the result of clearing for construction of that memorial.

Visible from most areas within the park, the lake forms the dominant feature of the eastern section. The walk that hugs its shoreline invites people to stroll along the water's edge, gazing at the reflections in the still water, the wildfowl, the trees massed on the surrounding hills, and the small island with its memorial to the 56 Signers. Similar views of the park's landscape can be seen from the island, where visitors are first led to the plaza that forms the central feature of the memorial. This vantage point offers perhaps the most dramatic vista of the Washington Monument.

Looking west from the Overlook Terrace at the park's east end offers expansive views of the lake and its surroundings. Also visible to the south from the Overlook Terrace is the "Atlantic archway" leading into the World War II Memorial. The fountains and portions of the colonnade can be partially seen.

Visible from walks on the south, and from the levee, are filtered views to the elms along the Reflecting Pool, the pool itself, and glimpses of the Lincoln Memorial. From some points in the park, particularly from the Vietnam Veterans Memorial site, the attic of the Lincoln Memorial can be seen above or through the trees. The entire memorial, however, is not clearly visible and does not serve as a landmark in the manner of the Washington Monument. The D.C. War Memorial (Frederick H. Brooke with Nathan C. Wyeth and Horace W. Peaslee, 1931), the small marble temple on the axis of 19th Street, in the grounds south of the Reflecting Pool, was meant to be a visual feature but is today barely visible.

The stately parade of civic buildings lining the north side of Constitution Avenue across from the park – the Organization of American States (OAS; architects Albert Kelsey and Paul Cret, 1908-10; façade faces 17th Street), the OAS Annex (Kelsey and Cret, 1948), the Department of the Interior South Building (Jules Henri de Sibour, 1933), and the Federal Reserve Board (Cret, 1937) – can be partially seen in places through a screen of trees, including the American elms lining the avenue.

Parts of other structures are visible above the trees to the east – the red roofs of the Federal Triangle buildings, the towers of the Old Post Office, the dome of the U.S. Capitol, the Smithsonian Castle, and the Sidney R. Yates Federal Building (originally the Bureau of Engraving and Printing, 1880). These views help to situate the park within its urban context.

The revised East and West Potomac Parks Historic District National Register Nomination does

not list any contributing views or vistas related to Constitution Gardens since these are not features counted in the National Register. It does, however, note: "...though not specifically described below, other views and vistas that preserve this sense of open space should not be precluded from consideration as significant aspects of the parks." (EWPP rev. nomination 2001:Sec. 7 p. 42)

Because this wide-ranging visual experience is fundamental to the design of Constitution Gardens, few of the views or vistas are out of character with the landscape. This is particularly so because its surroundings have been carefully developed in accord with the McMillan Plan. The only discordant notes are the vista to the Rosslyn towers, to the west, and the views and sounds of the World War II Memorial, to the south, which is arguably not in keeping with the serenity of the low, horizontal, modest scale of the McMillan Plan's Rainbow Pool.

Character-defining Features:

Feature: Vistas from park to Washington Monument

Feature Identification Number: 120844

Type of Feature Contribution: Contributing

Feature: Vista from Vietnam Vets Mem to WAMO

Feature Identification Number: 128405

Type of Feature Contribution: Contributing

Feature: Views to Reflecting Pool area

Feature Identification Number: 120846

Type of Feature Contribution: Contributing

Feature: Vistas to Lincoln Memorial

Feature Identification Number: 120848

Type of Feature Contribution: Contributing

Feature: Views to buildings north of Con. Ave.

Feature Identification Number: 120850

Type of Feature Contribution: Contributing

Feature: Vistas to Vietnam Veterans Memorial

Feature Identification Number: 120852

Type of Feature Contribution: Contributing

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Feature: Views from Overlook Terrace

Feature Identification Number: 120854

Type of Feature Contribution: Contributing

Feature: Internal views to lake

Feature Identification Number: 120856

Type of Feature Contribution: Contributing

Feature: Internal views to island

Feature Identification Number: 120858

Type of Feature Contribution: Contributing

Feature: Views to buildings on or near Mall

Feature Identification Number: 120860

Type of Feature Contribution: Contributing

Feature: Views to Rosslyn, Virginia

Feature Identification Number: 120864

Type of Feature Contribution: Non Contributing

Landscape Characteristic Graphics:



From the Vietnam Veterans Memorial, the Washington Monument is seen rising over the west knoll of Constitution Gardens. (Feb. 2008; CLP file)



Views of the Lincoln Memorial through a filter of trees can be seen throughout the Vietnam Veterans Memorial area (left). In other areas, views open to neighboring structures, such as the Federal Reserve Board (right). (Jan. 2007 & Feb. 2008; CLP file)

Constructed Water Features

Constitution Gardens Lake

(For the island, see Buildings and Structures)

Constitution Gardens Lake is a 6.75-acre body of water that was constructed as the central ornamental feature of Constitution Gardens. Typically described as kidney-shaped, the two-lobed lake might be more accurately described as resembling a peanut, with one end, the west, slightly deflected to the south, and its longer dimension oriented east-west. It is situated in the eastern half of the park. In the center section of the lake, near the north shore, is a constructed half-acre island that is the site of the 56 Signers Memorial; it is accessed by a wooden footbridge. (See 801/80009, “Lake Outlet – Mall Lake/Constitution Gardens, July 1, 1975” and 801/80010, “Concrete Lake Lining” [the designer is recorded as Longworth], July 1, 1975.)

The irregular, picturesque lake provides a clear reflective surface for its surroundings and, in particular, the Washington Monument. Set within a bowl-shaped depression within the undulating terrain, the lake enhances the park’s pastoral, intimate quality.

The lake was designed with a continuously curving shoreline, allowing visitors a constantly changing perspective. The water level was set at only two inches below the shoreline, in part so it would not greatly affect the groundwater level. (Childs 9/6/06, EA c. 1974:18) SOM architect David Childs notes that, with the construction of the lake, the Mall became, in effect, a museum of the different ways of handling water (Childs 9/6/06, EA c. 1974:15). According to the early design statement:

“The lake will be unlike any of the several other bodies of water on or near the Mall. In contrast to the formally designed reflecting pools, the lake will invite visitors to approach and wander along the water’s edge, which will be encircled by a path on almost the same plane. The lake’s glassy surface will contrast with the often turbulent and changing levels of water in

the Tidal Basin. Light bridges will lead to a tree-shaded island with grassy shores. This island and the meadow surrounding the lake will provide abundant spots for picnicking, reading, and play. Visitors walking throughout the Gardens will be rewarded with glimpses of sparkling water and reflections.” (design statement c. 1974:2)

According to Childs, the lake was inspired in part by Spreckels Lake in Golden Gate Park, San Francisco, a smaller irregular body of water much used for sailing model boats. Model boat sailing was an activity intended for Constitution Gardens Lake also, and was occasionally pursued there in the years after the park was completed. Another inspiration for the lake was the small formal pool in the Luxembourg Gardens in Paris, also a popular venue for model boats.

The lake was planned to have a curving circumference of 2625 feet (presumably, this is the measurement as built). With an average depth of two feet, ranging from eighteen inches to three feet, it holds 5.5 million gallons (WP, 1/17/03; EWPP rev. nomination 2001:Sec. 7, p. 19; park ranger Harry Gedney, author of a resource study on Constitution Gardens, writes that the average depth is thirty-four inches, ranging from eighteen to fifty-six inches, see Gedney 1997:34) The lake has a concrete bottom and sides and is surrounded by a four-inch-thick granite curb or coping that is flush with the ground. Immediately adjoining this curb is a broad perimeter walk of gravel-topped asphalt, designed to bring visitors close to the water and to make strolling by the lake an intimate experience.

Though designed with an automatic refill system on the west side, the lake is now manually refilled from a valve located to its southeast. Water comes from the District’s public water supply and enters through an underground culvert at the southeast.

At first, the lake held clear water and had no plantings. It provided an uninterrupted surface for reflection of its surroundings, particularly the Washington Monument. It soon developed problems with algal growth, encouraged by the shallowness of the water and the build-up of dead organic matter. In the late 1970s and through at least the early 1980s, algal buildup required the lake to be cleaned two to three times a year, at a cost of about \$20,000 for each cleaning. The high cost led to a search for other means of controlling the algae. Various remedies were tried, including a program initiated in the 1970s by John Hoke, an NCR biologist and “Urban Ecologist,” of installing planting boxes to grow aquatic plants and thereby establish a viable pond ecosystem of zooplankton and plants. This initially helped to reduce algae but also attracted waterbirds, whose droppings have increased the amount of nutrients available in the water to feed algal blooms. (For more information on the problems presented by the lake, see History section “1964-2007: The Creation of Constitution Gardens,” and Supplemental Information.)

Past methods of algae treatment have included dyes used to darken the water and copper-based algaecides. The addition of fish changed the management regime of the algae. Management includes manual removal of filamentous algae and the addition of beneficial bacteria. When blooms begin to overtake the lake, organic algaecides are used.

Character-defining Features:

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Feature: Constitution Gardens Lake

Feature Identification Number: 120866

Type of Feature Contribution: Contributing

Landscape Characteristic Graphics:



The Washington Monument is dramatically reflected in Constitution Gardens Lake; view looking east. The island and the 56 Signers Memorial are at the left. (Jan. 2007; CLP file)



The granite walls that line the lake and create a curb along the lakeside walk occasionally pop from their anchors. This image also shows the heavy growth of algae that had developed on the water's surface by mid-June 2007. (CLP file)

Small Scale Features

Features are listed alphabetically. Major features associated with the Vietnam Veterans Memorial are listed under that heading. For plans and specifications for the benches, lights, and trash receptacles, see 801/41007, D-1.

Benches

Cast-iron and wood-slat benches (Contributing)

Most benches in Constitution Gardens are of the standard style developed for the National Capital Parks in 1934/35 with Public Works Administration funds. It is not known whether the purpose of this design was to have a standard bench design for the Mall specifically or for all of the National Capital Parks. What proportion of the current benches are replacements in kind, or include replaced materials, is not known; probably all of the wood slats have been replaced over the years.

The benches have cast-iron frames and wood-slat backs and seats; the backs have four slats and the seats have five. Curved struts, which have a slight forward lean and terminate in simple scrolls, join front and back legs. A semicircular strut beneath the seat joins the rear legs. The iron frameworks are painted black, and the slats are stained black. Generally, in the eastern part of the park, the benches are located along the secondary walks, on the outside edges facing towards the lake, rather than on the main loop walks, except where the former join the latter; in the western part of the park, they are located on the loop walk and face towards the Vietnam Veterans Memorial. Benches are placed singly or in pairs, usually

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alternating with lightposts and trash receptacles. The feet of some benches have been buried in the gravel-topped asphalt.

Drinking Fountains (Non-Contributing)

A few handicap-accessible drinking fountains are located in Constitution Gardens. An enameled steel cylinder forms a central post. A steel arm projects from the post and supports a round basin.

Fencing (Non-Contributing)

At places in the park, thin, black-painted metal posts connected by chains are used to guide visitors to stay on walks and off lawns. On a walk near the stairs, next to the three terraces at the east end, are paired posts without chains and surmounted by pointed “acorn” caps, probably placed here to keep vehicles from driving on these narrow walks. The posts are painted black and have bands of white tape wound around them. Throughout the eastern part of the site, posts and chains run along all walks to keep visitors off the lawns.

Lights (Contributing)

All the lights along walks in Constitution Gardens are the variety known as the Washington Standard. This light was designed in the early twentieth century by artist Francis Millet, one of the first members of the Commission of Fine Arts (a version of Millet’s post had been used in city parks as early as 1912). In 1923, lighting standards developed for the city specified varying post heights and brightness levels, and established Millet’s Washington Standard as the typical design for posts, and Henry Bacon’s classical urn-shaped lamp, the “Washington Globe,” as the standard lamp. (Bacon was the architect of the Lincoln Memorial. See Noreen 1975 and LCS – Washington Light Standards 2002.) The fluted classical post of the Washington Standard has a flared, molded base and capital, and supports a single Washington Globe lamp. The twelve-foot-high posts are cast iron. The lanterns are made of Lexan, a thermoplastic resin, and hold 100-watt metal halide lamps. Lights stand along the outer edges of walks, interspersed with the benches and trash receptacles. Around the statue group and the Vietnam Women’s Memorial are simple modern fixtures set on plain, unornamented poles.

Constitution Gardens was the first area located within the National Mall to have interior pedestrian lighting. Previous lights lined roads rather than pedestrian walks (the former Washington and Adams Drives, between 3rd and 14th Streets, were changed in the 1970s to walks).

Mounting Block (Non-Contributing)

On a lawn behind and southwest of the Lockkeeper's House is a stepped concrete structure that was probably a mounting block dating from the 1910s, before the temples were constructed, when the recreational park had bridle trails. A mounting block is used to mount horses.

The block was cast as a single piece. It is oriented southwest/northeast and currently has no visual relation to anything in the park's landscape. The block has three semicircular steps between side posts; the top step protrudes slightly at the rear of the structure.

Because the site has been almost entirely redesigned, the mounting block lacks historic context, and is therefore not a contributing feature to the landscape of Constitution Gardens. Even so, it is compatible because of its association with the Lockkeeper's House area, and provides a tangible and important reminder of the park's original development and use.

Pay phone (Non-Contributing)

A single pay phone stands on the walk that curves around the south side of the central knoll.

Signage (Non-Contributing)

A small number of inconspicuous regulatory signs are located in the park. A couple of signs are used exclusively near the Vietnam Veterans Memorial: signs saying "Honor Those Who Served" and temporary, moveable signs saying "slippery when wet".

Signage at the Vietnam Veterans Memorial includes two interpretive waysides. The first, describing the memorial, stands at the southwest entrance to the area, near the Lincoln Memorial Grounds. The second, describing the intent of the Vietnam Women's Memorial statue in its grove and the struggle to build it, stands facing this memorial across the walk, within the sightline to the Wall.

Trash Receptacles (Non-Contributing)

Trash receptacles have recently been replaced throughout Constitution Gardens. The previous receptacles were cylindrical, with wood slats, supported on steel posts and containing steel cans, had been specified on the plans, 801/41007 D-1) The replacements, manufactured by Victor Stanley (Ironsites S-35, in glossy black), are cylindrical steel-slat receptacles with a flared top, plastic liners, and side doors. The new receptacles were placed in the same locations – along the outside edges of walks, generally alternating with lightposts and one or two benches. Near the refreshment kiosk, the receptacles are paired.

Washington City Canal Memorial Stone and Plaque (Contributing)

Next to the west side of the Lockkeeper's House is a boulder carrying a commemorative plaque donated by the National Capital Sesquicentennial Commission in 1950. The text, in capitals, reads: "Washington City Canal/Completed in 1815/The canal extended east of this point/along the line of/ Constitution Avenue/and south around the Capitol/with branches leading into/the Anacostia River./National Capital Sesquicentennial Commission/1950" This is one of a dozen such monuments erected in the city. The National Park Service, National Memorials and Historic Sites Section, provided the text, and other branches of the NPS chose the sites and boulders and installed the markers. (ROCR Shadow LCS, "Fort Derussy Boulder Marker")

The Washington City Canal stone was not part of the design of Constitution Gardens and is therefore not a contributing feature to its landscape. However, it does recall an important era of the park's history and has significance on this account.

Vietnam Veterans Memorial

Flagpole (Contributing)

A large-diameter bronze flagpole bearing an exceptionally large American flag is set within the walk a short distance southwest of the Three Servicemen statue. The pole rises from a low conical base that bears a large star in bas-relief, centered on the pole. On each of the five points of the star is a bas-relief depicting the seal of one branch of the U.S. Armed Forces. The base is surrounded by a double ring of granite pavers. The flag is lit so that it can be flown at night.

"In Memory" Plaque (Contributing)

The "In Memory" Plaque, a rectangular granite stone set within the plaza northeast of the Three Servicemen, is inscribed with the following text, in capitals: "In Memory/of the men and women/who served in the Vietnam War/ and later died as a result/ of their service/ we honor and remember/ their sacrifice." The plaque was authorized by Congress in April 2000. The design and siting were by James Cummings, current architect of record for the memorial, and landscape architect George Dickie, with assistance from landscape architect Henry Arnold. (Vietnam Veterans Memorial Fund webpage, <http://www.vvmf.org/index.cfm?SectionIC=105> and other pages, 4/29/08) The present plaque is a replacement of the original and was designed in November 2006. The park received many complaints about the legibility of the inscription on the original plaque, and worked with the Vietnam Veterans Memorial Fund and the original design company to develop a different treatment for the lettering. The present "In Memory" plaque was inscribed identically to the original and inlaid with a dark grout (rather than the in-painting technique used in the original). Its legibility is monitored. The original plaque is held

in storage at the park.

Lighting Fixtures (Contributing)

At first, nighttime lighting of the memorial was not believed necessary, but so many people visited the Wall in the evenings that planning to add lights began in fall 1983. Cooper-Lecky Architects and Claud Engle designed a system of ground lights that were intended to be inconspicuous in daylight, while in the evening, “the quality of the light was meant to be a soft, dull glow, sufficient to read the names, but not so bright as to compete with lighting from the Lincoln Memorial.” (Scope 1992:8; 7) The lights were composed of steel fixtures set within pyramidal granite housings, whose surface was sandblasted to resemble the surface texture of the granite walkway paving. (“Scope” 1992:8) These fixtures collected water and frequently shorted out. They were replaced in the early twenty-first century by lights set flush in the granite sets directly in front of the Wall.

A similar “dull” quality was sought for the nighttime lighting of the flagpole after it was installed. Three waterproof lights are used, two in the lawn near the paving, and the third at the edge of the planting bed. Night lighting is required so the flag can be flown continuously. Three other lights were placed in two of the trees. (Scope 1992:16)

Locators (Contributing)

Five bronze “locators,” or stands to hold directories that give the locations of names on the Wall, are placed at either end of the walk leading past the memorial. Four are set in the asphalt walk at the west end; these are of two different heights, forty inches high for wheelchair users and forty-eight inches high for others. The fifth, also forty-eight inches high, stands in the grass near the walk east of the Wall. The locators were conceived of as sculptural objects. The bronze was given the same finish as the bronze flagpole and its base. Glass covers protect the laminated directories. Recesses for NPS brochures are built in on either side. (Scope 1992:22)

OTHER

Utility boxes (Non-Contributing)

Various utility boxes distributed throughout the park hold tools, electrical circuitry, or supplies for the Refreshment Kiosk.

Character-defining Features:

Feature: NCR standard benches

Feature Identification Number: 120868

Type of Feature Contribution: Contributing

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Feature:	Washington Standard lightposts
Feature Identification Number:	120870
Type of Feature Contribution:	Contributing
Feature:	Wash City Canal memorial stone & plaque
Feature Identification Number:	120878
Type of Feature Contribution:	Contributing
Feature:	Vietnam Veterans Memorial flagpole
Feature Identification Number:	128407
Type of Feature Contribution:	Contributing
Feature:	VVM "In Memory" plaque
Feature Identification Number:	128409
Type of Feature Contribution:	Contributing
Feature:	VVM lighting fixtures
Feature Identification Number:	128411
Type of Feature Contribution:	Contributing
Feature:	VVM locaters
Feature Identification Number:	128413
Type of Feature Contribution:	Contributing
Feature:	Drinking fountain
Feature Identification Number:	120872
Type of Feature Contribution:	Non Contributing
Feature:	Mounting block
Feature Identification Number:	120874
Type of Feature Contribution:	Non Contributing
Feature:	Trash receptacles
Feature Identification Number:	120876
Type of Feature Contribution:	Non Contributing
Feature:	Pay phone

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Feature Identification Number: 120880

Type of Feature Contribution: Non Contributing

Feature: Utility boxes

Feature Identification Number: 120882

Type of Feature Contribution: Non Contributing

Feature: Signage

Feature Identification Number: 120884

Type of Feature Contribution: Non Contributing

Landscape Characteristic Graphics:



These bronze "locaters," situated at either end of the Vietnam Veterans Memorial, hold directories identifying locations of names on the Wall. (Feb. 2008; CLP file)

Condition

Condition Assessment and Impacts

Condition Assessment: Fair

Assessment Date: 08/12/2008

Condition Assessment Explanatory Narrative:

Most of the gravel-topped asphalt walks in Constitution Gardens have greatly deteriorated since their installation in the 1970s. Even the 2004 repaving of the overlook terrace and adjoining north/south walks done in conjunction with the National World War II Memorial project have deteriorated substantially. The lake has recurring problems with algae and excess bird waste impacting the water quality and reflective quality of the water surface. Also many sections of the lake's stone coping have shifted, leaving open joints. Many of the trees growth is stunted and they do not reach their full growth and life expectancy due to poor soils and compaction, and poor drainage.

To improve Constitution Gardens to "good" condition, the following should be completed:

1. Replace deteriorated gravel-topped asphalt paths and prevent cracking in the base paving.
2. Improve Constitution Gardens Lake by resetting and stabilizing the stone coping, controlling the algae growth and improving the water quality.
3. Improve the soils for a better growing medium for trees, shrubs and turf.

To maintain Constitution Gardens to the following items should continue to be followed:

1. Prune dead wood and replace trees and shrubs in-kind in the general location.
2. Reseed the turf once or twice a year to maintain a healthy ground cover.
3. Repair any damaged wooden slats on benches.
4. Rehabilitate or replace comfort station.

Impacts

Type of Impact: Deferred Maintenance

External or Internal: Internal

Impact Description: The gravel-topped asphalt walks have greatly deteriorated.

Type of Impact: Improper Drainage

External or Internal: Internal

Impact Description: Improper drainage causes water to pool on the walks, especially

near the lake.

Type of Impact: Operations On Site
External or Internal: Internal
Impact Description: Since walks were not designed to accommodate service vehicles, they are damaged by their use.

Type of Impact: Other
Other Impact: Poor soil
External or Internal: Internal
Impact Description: The poor condition of the park's soil leads to severe problems with vegetation and drainage.

Type of Impact: Pests/Diseases
External or Internal: Internal
Impact Description: Bacterial leaf scorch caused by *Sylella fastidiosa* affects many of the oaks in Constitution Gardens.

Type of Impact: Pests/Diseases
External or Internal: Internal
Impact Description: Large numbers of waterfowl leave copious amounts of waste in the lake, increasing the growth of algae, and on land. Ducks and geese eat aquatic and land vegetation, leaving areas denuded of plants.

Type of Impact: Soil Compaction
External or Internal: Internal
Impact Description: In spite of treatment, the poor subsoil of Constitution Gardens has led to numerous problems with drainage and plant growth.

Type of Impact: Structural Deterioration
External or Internal: Internal
Impact Description: The sections of granite coping surrounding the lake are shifting, leaving open joints that pose a tripping hazard for visitors.

Type of Impact: Structural Deterioration

External or Internal: Internal
Impact Description: The comfort station is in poor condition.

Treatment

Treatment

Approved Treatment: Rehabilitation
Approved Treatment Document: Other Document
Document Date: 02/01/2007

Approved Treatment Document Explanatory Narrative:

From the PMIS statement Project Narrative Description:

“The NPS unit, Constitution Gardens, is in need of significant rehabilitation to address chronic problems associated with (1) complex physical and biological issues linked to managing algal blooms that occur in the lake; (2) structural problems associated with the lake itself, the path around the lake, and the pathways throughout the area. In addition, significant work is required to design, develop, and install a functioning irrigation system that uses water from the lake.”

Approved Treatment Costs

Cost Date: 02/01/2007
Level of Estimate: C - Similar Facilities
Cost Estimator: Park/FMSS

Bibliography and Supplemental Information

Bibliography

Citation Author:	EDAW Inc.
Citation Title:	"A Memorial to the 56 Signers of the Declaration of Independence, Constitution Gardens, Washington, D.C."
Citation Author:	American Society of Landscape Architects
Citation Title:	"Landscape Architects Help Launch Bicentennial Living Legacy Project"
Year of Publication:	1988
Citation Publisher:	American Society of Landscape Architects press release
Source Name:	Other
Citation Type:	Narrative
Citation Location:	Beautification Files, CLP office
Citation Author:	n/a
Citation Title:	"Anne Royall Stone Gone"
Year of Publication:	1913
Citation Publisher:	Washington Post
Source Name:	Other
Citation Author:	various
Citation Title:	Annual Reports of the Commissioner of the Office of Public Buildings and Grounds
Year of Publication:	1867
Citation Publisher:	Government Printing Office
Source Name:	Other
Citation Author:	various
Citation Title:	Annual Reports of the Office of Public Buildings & Public Parks
Year of Publication:	1925
Citation Publisher:	GPO
Source Name:	Other

Citation Author:	Elizabeth Barthold
Citation Title:	"National Mall and Monument Grounds"
Year of Publication:	1993
Citation Publisher:	HABS
Source Name:	HABS
Citation Author:	editorial
Citation Title:	"The Bicentennial Parks"
Year of Publication:	1976
Citation Publisher:	The Washington Post
Citation Author:	Ed Bruske
Citation Title:	"Park Service Forges ahead in War on Green Goo"
Year of Publication:	1983
Citation Publisher:	The Washington Post
Citation Author:	Keith Butler
Citation Title:	"Mall Park Construction Set This Week"
Year of Publication:	1974
Citation Publisher:	The Washington Post
Citation Author:	Gordon Chappell
Citation Title:	"East and West Potomac Parks: A History"
Year of Publication:	1973
Citation Author:	Nancy Bromley Collins
Citation Title:	"An Oasis in the Hot, Hot City"
Year of Publication:	1988
Citation Publisher:	South County Current

Citation Author: Sarah Booth Conroy
Citation Title: "Architectural Child's Play"
Year of Publication: 1980
Citation Publisher: The Washington Post

Citation Author: Ed Desautels
Citation Title: "The Art of Democracy"
Year of Publication: 1972
Citation Publisher: The Penn Stater

Citation Author: Helen Dillon
Citation Title: "Lockkeeper's House, C&O Canal Extension"
Year of Publication: 1972
Source Name: Other

Citation Author: Director, National Capital Parks, to Deputy Director, NPS
Citation Title: Memo, re: Bicentennial Priority List
Year of Publication: 1974

Citation Author: Cynthia Earman
Citation Title: "An Uncommon Scold"
Year of Publication: 2000
Source Name: Other

Citation Author: Bessie Wilmarth Gahn
Citation Title: "George Washington's Headquarters in Georgetown"
Source Name: Other

Citation Author: Harry W. Gedney
Citation Title: "Natural Resource Management Overview: Constitution Gardens"
Year of Publication: 1998
Citation Location: NAMA Cultural Resource files

Citation Author:	James Goode
Citation Title:	Capitol Losses
Year of Publication:	2003
Citation Publisher:	Smithsonian Institution Press
Citation Author:	Frederick Gutheim
Citation Title:	Worthy of the Nation
Year of Publication:	1977
Citation Publisher:	Smithsonian Institution Press
Citation Title:	"Hallowed by Anne Royall"
Year of Publication:	1913
Citation Publisher:	Los Angeles Times
Citation Author:	Richard S. Hammerschlag and James C. Patterson
Citation Title:	"Constitution Gardens: The Making of an Urban Park" in Manual of Site Management
Year of Publication:	1978
Citation Publisher:	Environmental Design Press
Citation Author:	Paul Hodge
Citation Title:	"Constitution Gardens: A Bicentennial Gift to Us"
Year of Publication:	1976
Citation Publisher:	The Washington Post
Citation Author:	Paul Hodge
Citation Title:	"Trees, Shrubs Drown in City's Newest Park"
Year of Publication:	1977
Citation Publisher:	The Washington Post
Citation Author:	Paul Hodge
Citation Title:	"Wildlife Planned for Lake"
Year of Publication:	1979
Citation Publisher:	The Washington Post

Citation Author:	Maureen DeLay Joseph and Perry Wheelock
Citation Title:	Lincoln Memorial Grounds, West Potomac Park, Cultural Landscape Report
Year of Publication:	1999
Citation Publisher:	U.S. Dept. of Interior, National Park Service, National Capital Region
Citation Author:	Junior League of Washington
Citation Title:	The City of Washington: An Illustrated History
Year of Publication:	1993
Citation Publisher:	Wings Books
Citation Author:	Dan Kiley and Jane Amidon
Citation Title:	Dan Kiley: The Complete Works of America's Master Landscape Architect
Year of Publication:	1999
Citation Publisher:	Bulfinch Press
Citation Author:	Sec. of Interior Thomas S. Kleppe to DOI employees
Citation Title:	Memo
Year of Publication:	1976
Source Name:	Other
Citation Author:	Sara Amy Leach and Elizabeth Barthold
Citation Title:	"L'Enfant Plan of the City of Washington, D.C."
Year of Publication:	1997
Source Name:	Other
Citation Author:	Sara Amy Leach, Elizabeth Barthold, Judith Robinson, et al.
Citation Title:	"The Plan of the City of Washington"
Year of Publication:	2000
Source Name:	Other

Citation Author: Richard Longstreth, ed.
Citation Title: The Mall in Washington, 1791-1991
Year of Publication: 1991
Citation Publisher: National Gallery of Art

Citation Author: Leslie Marshall
Citation Title: "Two Herbicides Tested on Hydrilla in D.C."
Year of Publication: 1984
Citation Publisher: The Washington Post

Citation Author: Henry Mitchell
Citation Title: "The Pursuit of Purity"
Year of Publication: 1987
Citation Publisher: The Washington Post

Citation Author: National Capital Planning Commission
Citation Title: Memo
Year of Publication: 1981
Source Name: Other

Citation Author: NPS Harper's Ferry Center
Citation Title: Interpretive Prospectus: Constitution Gardens, National Capital Parks - Central, D.C., draft
Year of Publication: 1994
Citation Publisher: National Capital Region

Citation Author: President Richard Nixon
Citation Title: "Bicentennial Preparations in D.C.," press release
Year of Publication: 1972
Source Name: Other

Citation Author:	Sarah Pressey Noreen
Citation Title:	Public Street Illumination in Washington, D.C.
Year of Publication:	1975
Citation Publisher:	George Washington University
Citation Author:	James C. Patterson
Citation Title:	"Enrichment of Urban Soil with Composted Sludge and Leaf Mold - Constitution Gardens"
Year of Publication:	1975
Citation Publisher:	Compost Science
Citation Author:	James C. Patterson et al. to Associate Regional Director, NCR, Land Use Coordinator
Citation Title:	Memo re: soil recommendations for 56 Signers Memorial Island
Year of Publication:	1981
Citation Author:	Donald C. Pfanz
Citation Title:	"National Mall"
Year of Publication:	1981
Source Name:	Other
Citation Author:	Angus Phillips
Citation Title:	"Coexistence: Museums and Bluegills"
Year of Publication:	1987
Citation Publisher:	The Washington Post
Citation Author:	Angus Phillips
Citation Title:	"Scientist Ensures Wildlife Is Part of Washington Cityscape"
Year of Publication:	1986
Citation Publisher:	The Washington Post

- Citation Author:** John W. Reps
Citation Title: Monumental Washington: The Planning and Development of the Capital City
Year of Publication: 1967
Citation Publisher: Princeton University Press
- Citation Author:** John W. Reps
Citation Title: Washington on View
Year of Publication: 1991
Citation Publisher: University of North Carolina Press
- Citation Title:** "Richard Giegengack: Designed Prominent D.C. Buildings," obituary
Year of Publication: 2007
Citation Publisher: The Washington Post
- Citation Author:** Pamela Scott
Citation Title: "'This Vast Empire': The Iconography of the Mall, 1791-1848" in The Mall in Washington, 1791-1991
Year of Publication: 1991
Citation Publisher: National Gallery of Art
- Citation Author:** Skidmore, Owings and Merrill
Citation Title: The Washington Mall Master Plan
Year of Publication: 1966
- Citation Author:** Skidmore, Owings and Merrill
Citation Title: The Washington Mall Circulation Systems
Year of Publication: 1973
- Citation Author:** Richard L. Stanton, Associate Director, National Capital Region, NPS, to Charles H. Conrad
Citation Title: Letter
Year of Publication: 1975

Citation Title:	"To Save Historic Stone"
Year of Publication:	1913
Citation Publisher:	The New York Times
Citation Author:	Charles Moore, ed., U.S. Congress, Senate, Committee on the District of Columbia
Citation Title:	The Improvement of the Park System of the District of Columbia
Year of Publication:	1902
Citation Publisher:	Government Printing Office
Citation Author:	U.S. Dept. of Interior, National Park Service, Denver Service Center, with EDAW
Citation Title:	"A Memorial to the 56 Signers . . . "
Year of Publication:	1979
Source Name:	Other
Citation Author:	Andrew Wallace
Citation Title:	"NFFA to NCTA: The Organization Broadens Its Mission"
Year of Publication:	2002
Citation Publisher:	Folklife Center News

Supplemental Information

Title: Constitution Gardens Plant List
from Site Development Phase II, 801/41007
Dec. 1, 1974
sheet L7 of 22 (13 of 13)

Description: Constitution Gardens Plant List
from Site Development Phase II, 801/41007
Dec. 1, 1974
sheet L7 of 22 (13 of 33)

tree quantities listed as “prepurchased”
shrub and bulbs listed as “this contract”
dbh and/or height and root ball size also listed

SHADE TREES

AR – *Acer rubrum* – red maple – 200
AS – *Acer saccharum* (? illegible) – sugar maple – 32
AP – *Acer platanoides* “Emerald Queen – Emerald Queen Norway maple – 294
CJ – *Cercidiphyllum japonicum* – katsura tree – 18
FG – *Fagus grandifolia* – American beech – 20
GT – *Gleditsia triacanthus* “shademaster” – shademaster honey locust – 35
LS – *Liquidambar styraciflua* – sweetgum – 200
LT – *Liriodendron tulipifera* – tulip tree – 100
NS – *Nyssa sylvatica* – black gum – 4
PA – *Platanus acerifolia* – London plane tree – 21
PS – *Pinus strobus* – Eastern white pine – 46
QA – *Quercus macrocarpa* – bur oak – 50
QB – *Quercus borealis* – red oak – 200, then 147 addition
QC – *Quercus coccinea* – scarlet oak – 60
SB – *Salix babylonica* – weeping willow – 16
UA – *Ulmus hollandica* dedfree – Dedfree Dutch elm – 25

FLOWERING TREES

AC – *Amelanchier canadensis* – downy serviceberry – 180
CF – *Cornus florida* – flowering dogwood – 194
CK – *Cornus kousa* – kousa dogwood – 64
CF – *Chionanthus virginicus* – fringe tree – 90?
MK – *Malus katherine* – Katherine crabapple – 66
MA – *Malus arnoldiana* – Arnold crabapple – 37
MF – *Malus floribunda* – Japanese flowering crabapple – 44

SHRUBS

RA – Rhododendron Kurume apple blossom – apple blossom (azalea) – 427

RC – Rhododendron catawbiense album – catawba rhododendron – 162

RD – Rhododendron Kurume Delaware valley white – Delaware valley azalea – 2121

HH – Hedera helix baltica – Baltic ivy – 52,314

BULBS

Narcissus poetaz (Tazetta) Laurens Koster – Narcissus Laurens Koster – 45,200

Constitution Gardens Plant List, 2003-2004 Survey

Provided by National Mall & Memorial Parks

National Capital Region Horticulturalist Rob DeFeo notes that there are other tree species growing in the park that are not reflected on these plans: Amelanchier, Pinus strobus, and Tilia tomentosa. DeFeo to author, email, 9/4/2007.

Constitution Gardens Plant List, 2003-2004 Survey

Provided by National Mall & Memorial Parks

National Capital Region Horticulturalist Rob DeFeo notes that there are other tree species growing in the park that are not reflected on these plans: Amelanchier, Pinus strobus, and Tilia tomentosa. DeFeo to author, email, 9/4/2007.

AC – Acer – maple

ACCA – Acer campestre – hedge maple

ACGI – Acer ginnala – Amur maple

ACNI – Acer nigrum – black maple

ACPL – Acer platanoides – Norway maple

ACRU – Acer rubrum – red maple

ACSA1 – Acer saccharinum – silver maple

ACSA2 – Acer saccharum – sugar maple

AEFLA – Aesculus flava – yellow buckeye

AM – Amelanchier – serviceberry

CACO – Carya cordiformis – bitternut hickory

CEOC – Celtis occidentalis – common hackberry

CEJA – Cercidiphyllum – katsura tree

CLLU – Cladastris kentukea – Kentucky yellowwood

*COFL – Cornus florida – flowering dogwood

(no flowering dogwoods remaining – all *Cornus florida* shown on map are *Cornus kousa*; DeFeo to author, email, 9/4/07)

COKO – *Cornus kousa* – Kousa dogwood
COMA – *Cornus mas* – Cornelian cherry dogwood
FA – *Fagus* – beech
FAGR – *Fagus grandifolia* – American beech
FASY – *Fagus sylvatica* – European beech
FASY – *Fagus sylvatica* ‘atropunicea’ – purple-leaf beech
FR – *Fraxinus* – ash
FRAM – *Fraxinus americana* – white ash
FRPE – *Fraxinus pennsylvanica* – green ash
GLTR – *Gleditsia triacanthos* – honey locust
GYDI – *Gymnocladus dioica* – Kentucky coffeetree
ILAQ – *Ilex aquifolium* – English holly
JUNI – *Juglans nigra* – black walnut
LIST – *Liquidambar styraciflua* – sweetgum
LITU – *Liriodendron tulipifera* – tulip poplar
MA2 – *Malus* – crabapple
MA2 – *Malus* – “Katherine” crabapple
MA2 – *Malus* – “Donald Wyman” crabapple
MAFL8 – *Malus floribunda* – Japanese flowering crabapple
MASO9 – *Magnolia X soulangiana* – Chinese magnolia
MAVI – *Magnolia virginiana* – sweetbay magnolia
MORU – *Morus rubra* – red mulberry
MYCE – *Myrica cerifera* – wax myrtle
NYSY – *Nyssa sylvatica* – black tupelo
PI2 – *Pinus* – pine
PIST – *Pinus strobus* – Eastern white pine
PLOC – *Platanus occidentalis* – American sycamore
PLAC – *Platanus x hispanica* – London planetree
PODE – *Populus deltoides* – cottonwood
POMA2 – *Populus maximowiczii* “Androscoggin” – Japanese poplar
PR – *Prunus* – cherry
PYCA – *Pyrus calleryana* ‘Bradford’ – Bradford Callery pear
QU – *Quercus* – oak
QUAC – *Quercus acutissima* – sawtooth oak
QUAL – *Quercus alba* – white oak
QUBI – *Quercus bicolor* – swamp white oak
QUCO – *Quercus coccinea* – scarlet oak
QUFA – *Quercus falcata* – southern red oak
QULA2 – *Quercus laurifolia* – laurel oak
QUMA1 – *Quercus macrocarpa* – bur oak
QUNI – *Quercus nigra* – water oak
QUPA – *Quercus palustris* – pin oak

QUPH – Quercus phellos – willow oak
QUPR – Quercus prinus – chestnut oak
QURU – Quercus rubra – northern red oak
QUVE – Quercus velutina – black oak
ROPS – Robinia pseudoacacia – black locust
SA – Salix – willow
SABA – Salix babylonica – weeping willow
SOJA – Sophora japonica – Japanese pagoda tree
TADI – Taxodium distichum – bald cypress
TIAM – Tilia americana – American basswood
TICO – Tilia cordata – littleleaf linden
TIEU2 – Tilia X euchlora – Crimean linden
TSCA – Tsuga canadensis – Canada hemlock
ULAM – Ulmus americana – American elm
ULHO – Ulmus X hollandica – Dutch elm
ULPR – Ulmus carpinifolia – smoothleaf elm
ULPU – Ulmus pumila – Siberian elm
ULS – Ulmus – elm
UNKN – unknown

Title: Current Maintenance Routine and Issues for Constitution Gardens Lake

Description: At Constitution Gardens Lake, algae still presents a major seasonal maintenance problem. The overabundance of waterfowl also causes problems.

The lake is cleaned at least once or, more usually, twice a year, in early spring and fall, depending on available staff and other activities. Maintenance staff would prefer to clean it more often. All maintenance work on the lake has to be done within a limited span of time, usually two weeks. The lake can only be drained about ten to fifteen feet (?) from the shoreline, to ensure enough water is left in the deeper center for the fish to survive. It would be easier to treat the algae if there were no fish; the water could be entirely drained and chemicals could be added.

Small front-end loaders are used to push and gather the algae and other debris. Though the condition of the lake bottom is not known, and is likely thin at points, damage has not been a concern since the lining could be replaced. The lake's coping, or walls, made of granite slabs, occasionally pop from their anchors because of Washington's freeze/thaw cycle, and are replaced as needed. (meeting 4/17/07)

Birds present a considerable problem. An overpopulation of birds – mostly Canada geese, mallard ducks, and seagulls – eat the vegetation and produce large amounts of waste. The fifty or so wooden planting boxes remaining in the lake are planted with cattails and subaquatic vegetation, and a small "duck island" planted with sub-aquatic vegetation (SAV) has been constructed north of the island. The cattails are being eaten by birds and are not surviving. Formerly, protective mesh was used around the cattails but visitors complained about its being unsightly.

Within the last ten to fifteen years, an aeration system has been installed. The system typically has two parts. Aerators on the lake bottom circulate water, but to bring air in, they have to extend above surface of water. Only the underwater part of the mechanism was installed, causing the pumps to burn out. Two underwater aerators are now working.

A plan to “pump the nutrient-rich lake water onto the lawns and trees” was found to be too expensive. The “surface-level overflow” system does not flush material on the bottom, and the lake is too shallow for a “double-sleeve overflow”. (Gedney 51-52)

Title: Current Planting Plans for East Side of Constitution Gardens, sheets 1-6

Description:

Constitution Gardens planting plan, northwest section. (courtesy of Brad Conway, NAMA GIS)

Constitution Gardens planting plan, north central section. (courtesy of Brad Conway, NAMA GIS)

Constitution Gardens planting plan, northeast section. (courtesy of Brad Conway, NAMA GIS)

Constitution Gardens planting plan, southwest section. (courtesy of Brad Conway, NAMA GIS)

Constitution Gardens planting plan, south central section. (courtesy of Brad Conway, NAMA GIS)

Constitution Gardens planting plan, southeast section. (courtesy of Brad Conway, NAMA GIS)

Title: Referenced Interviews and Meetings

Description: John Parsons, April 26, 2006
David Childs, Sept. 6, 2006
Perry Wheelock, Chief of Resource Management, NAMA, Alice McLarty, Landscape Architect, NAMA, and COGA maintenance staff, April 17, 2007