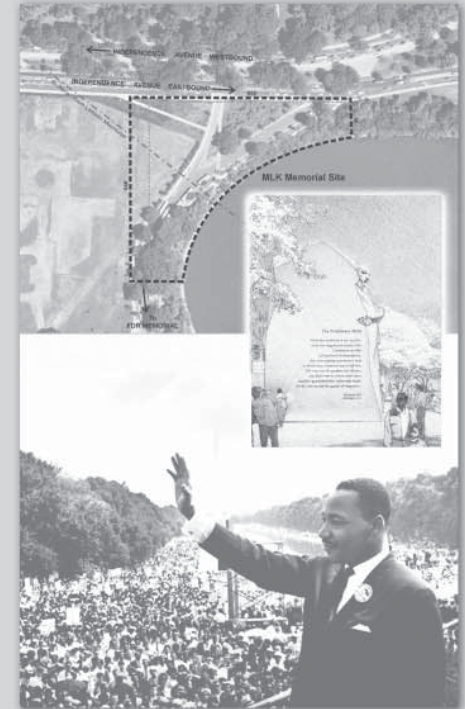


## 3.0 AFFECTED ENVIRONMENT



## 3.1 Socio-Economic Environment

### 3.1.1 Land Use

#### *The Site*

The Memorial site is located in West Potomac Park (National Park Service Reservation 332) within the Monumental Core area of Washington, DC. The site is located along the Tidal Basin, on axis with the Lincoln and Jefferson Memorials. The triangular site is relatively flat and open and can be approached from all sides.

The existing walkway along the Tidal Basin defines the southern side of the site. The northern boundary of the site is approximately 19 feet south of the curb along Independence Avenue. The site contains a small portion of the northeastern-most part of the West Potomac Park Polo Grounds, which are located between Independence Avenue and Ohio Drive. The grounds are enclosed by fencing.

The site is traversed by roadways and walkways. Independence Avenue runs west-to-east along the northern boundary of the site. West Basin Drive runs diagonally through the site from the southwest to the northeast, forking into left turn and right turn lanes. This fork creates a large, triangular median near the center of the site.

No buildings or structures are present on the site, although there is a Memorial marker near where West Basin Drive forks on the Tidal Basin side. There is also street furniture, including signage, lighting, and benches. A handicapped-accessible ramp leads from the Memorial marker down to the Tidal Basin walkway. An eight-foot chain link fence defines the edge of the polo field in the northwest section of the site, and a four-foot chain link fence is located near the Tidal Basin in the southwest portion of the site.

The primary landscaping vegetation on the site is the rows of mature cherry trees lining the Tidal Basin. In addition to plantings

throughout the site, there is a grove of trees in the easternmost portion of the site.

#### *Study Area*

West Potomac Park, the National Mall, and the close-in portions of the Monumental Core can be considered a broader area of influence for the proposed Memorial. The 394-acre West Potomac Park is bounded by Constitution Avenue, the Potomac River, 17<sup>th</sup> Street and the 14<sup>th</sup> Street bridges. North of Independence Avenue, the Park has a distinct, linear form, defined by the Mall and the strong east-west axial relationship between the Capital and the Lincoln Memorial. South of Independence Avenue, the Park has an irregular, asymmetric shape that is influenced by the quatrefoil shape of the Tidal Basin.

Land uses in West Potomac Park are categorized as parks and public open space. West Potomac Park provides both passive and active recreational open space, including a polo field, softball fields,



*Existing site vegetation includes cherry trees along the Tidal Basin walkway.*

and practice fields. West Potomac Park also contains a number of memorials, which are further discussed in Section 3.2.2 of this report.

The central component of the Monumental Core is a broad greensward from the Capitol to the Lincoln Memorial, including the Mall (which is technically bounded by Constitution Avenue on the north, the Capitol Grounds on the east, Independence Avenue on the south, and 14<sup>th</sup> Street on the west), the Washington Monument and Grounds, and the cross-axial open space from the White House to the Jefferson Memorial. This area is considered the ceremonial heart of Washington, where the ideals of democracy are manifested. The Monumental Core also functions as a prime site for both public protest and celebration.

The District of Columbia Generalized Land Use map categorizes the entire Monumental Core area as “parks, recreation and open space.” Large open spaces accommodate recreation activities, such as softball, soccer, volleyball, rugby, polo, cricket, Frisbee playing,



The Tidal Basin offers water recreation opportunities.

inline skating, bicycling, jogging, and walking. Bicycling and inline skating are allowed along paved roads and walkways, but not in memorial areas. Nearby trails are indicated in Table 3.1.1-1.

Table 3.1.1-1  
NPS Trails in the Study Area

Trail Name	Length
Tidal Basin Shoreline Trail	2 miles
Independence Avenue (15th to 23rd Street)	0.8 miles
The National Mall	1.8 miles
Reflecting Pool Walkways	1 mile
The Washington Monument Grounds Walks	0.7 miles
Potomac Park Shoreline	2.6 miles
Constitution Avenue (14th to 23rd Street)	0.9 miles

Source: NPS-National Capital Region

The polo field, which is currently located west of the site, has existed in West Potomac Park since the late 1960s. This field is used primarily in the summer, specifically for matches on Sundays and intermittently for practice during the evenings.

In addition to parks and open space, the primary land use in the study area is institutional, and includes museums, galleries, memorials, and other cultural uses. Popular nearby tourist destinations include the White House, Washington Monument, Lincoln Memorial, Jefferson Memorial, Franklin Delano Roosevelt Memorial, National World War II Memorial, Vietnam Veterans Memorial, Korean War Veterans Memorial, District of Columbia WWI Veterans Memorial, National Museum of American History, National Museum of Natural History, National Gallery of Art (West and East Wings), National Air and Space Museum, National Museum of the American Indian, Hirshhorn Museum of Art, Arts and Industries Building, Smithsonian Institution Building, Museum of African Art, Arthur M. Sackler Gallery of Asian Art, Freer Gallery of Art, Holocaust Memorial and Museum, Constitution Gardens, and the U.S. Botanical Gardens.

### 3.1.2 Planning Controls and Policies

While private properties within the District of Columbia are subject to the zoning regulations of the District of Columbia, the regulations have no jurisdiction over US Government properties. Therefore, the site and study area, which are NPS land, is not zoned. However, the District of Columbia Zoning Enabling Act (1958) gives the NCPC “in lieu of zoning” approval for height, bulk, number of stories, and open space for Federal buildings and projects.

#### *Commemorative Works Act*

The Commemorative Works Act of 1986 (CWA) provides standards for the placement of memorials on Federal land in the District of Columbia and surrounding areas. The CWA requires that Congress must authorize these memorials. The CWA also distinguishes between the close-in portion of the Nation’s Capital (Area I), where works of “preeminent historical and lasting significance” can be sited, and areas outside this zone (Area II), where works of “lasting historical significance” can be placed (see the figure on page 3-4). The project site is within Area I. The CWA was amended in 2003 to establish the Reserve as a completed work of civic art where new memorials can not be located in the future with the exception of this Memorial and the Black Revolutionary War Patriots Memorial.

#### *Comprehensive Plan*

The Comprehensive Plan for the National Capital, Federal Elements (1977-1984, updated 1990) is the principal planning document adopted by NCPC for the planning of Federal facilities. The Plan represents a collection of policies and recommendations about long-term development of Federal lands and the Federal interest in Washington, DC. The chapters entitled “Federal Facilities”, “Parks, Open Space, and Natural Features”, and “Preservation and Historic Features” are particularly relevant to the proposed land use as discussed in this EA.

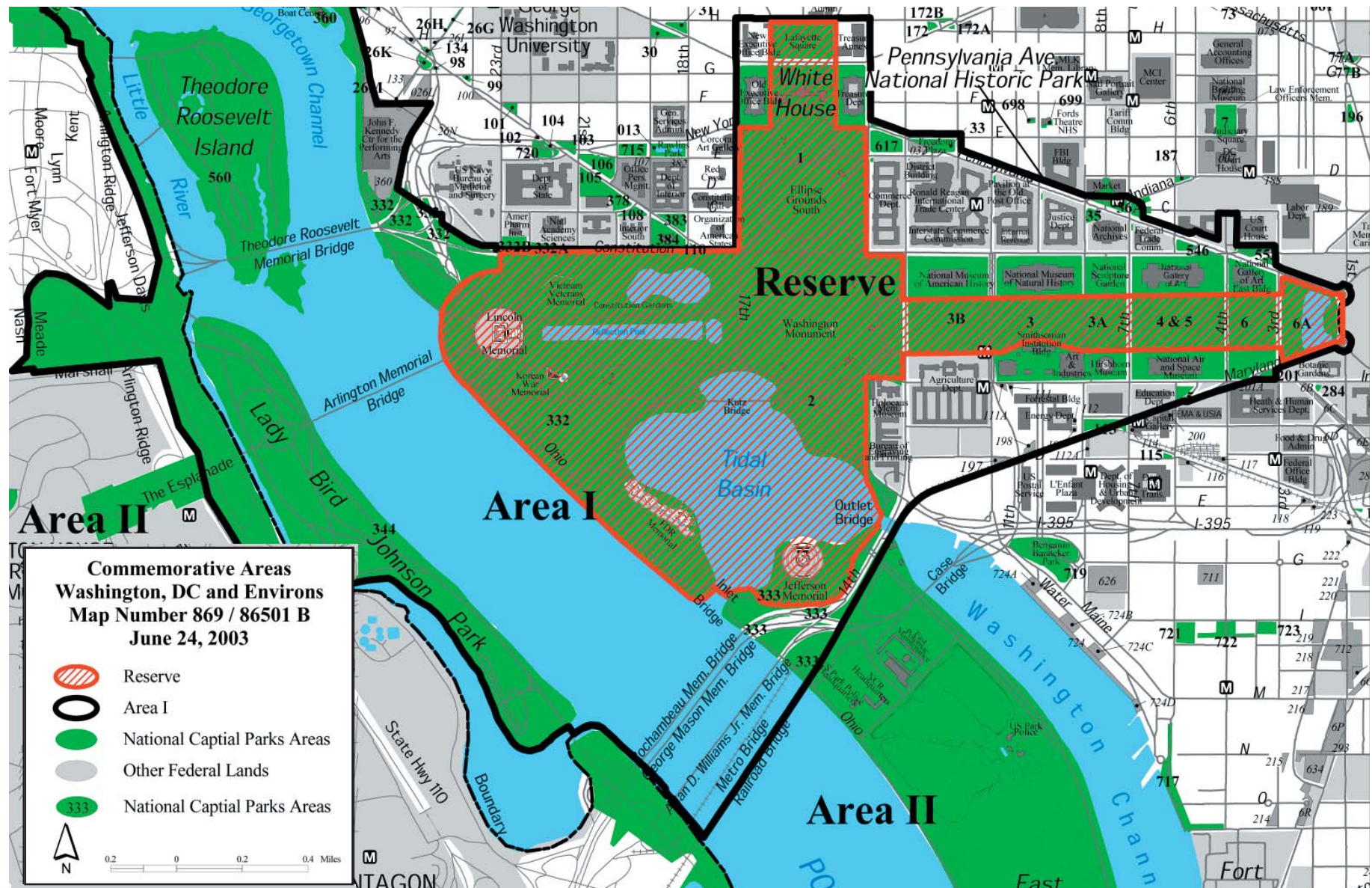
Criteria for the location of Cultural, Memorial, and Information Facilities contained in the Federal Facilities Element specify that:

- Federal memorials, as authorized by Congress, should locate within appropriate areas throughout the National Capital. Preference should be given to identified sites at locations which provide visual prominence, gateway entrances, vistas, or overlooks or have special features that would enhance the Memorial.
- Only Federal memorial facilities that are of exceptional national or international significance, such as those associated with presidents and/or momentous national or international events, should locate within the central monumental area (which includes the Mall, the Ellipse, the Washington Monument Grounds, East and West Potomac Parks, Theodore Roosevelt Island, and Lady Bird Johnson Park).
- Memorials to persons or events having strong functional or traditional association with specific areas of the National Capital should be given preference in locating these areas.
- Memorials should be designed and sited to be sympathetic to their location.

The Parks, Open Space, and Natural Features element designate West Potomac Park as a monumental park. The following policy from this element is applicable:

- Monumental and Decorative Parks should serve as settings to enhance public buildings, monuments, and memorials; as such, their fundamental integrity should be protected. Additionally, they should serve as outdoor areas for displays and cultural activities, as well as areas for passive and controlled active recreational activities, including lunchtime picnics and gatherings.





The Commemorative Zone Policy of 2000 designated the Reserve, in which no new museum or memorial sites will be approved. The Commemorative Works Act of 1986 established Area I as a sensitive area designated for commemorative works of preeminent historic and national significance, and Area II (which encompasses the rest of the city with emphasis on North, South, and East Capitol Street axes, circles and squares on major avenues, waterfront sites, gateways, and scenic overlooks), as an appropriate area in which new commemorative works will be encouraged.

Source : National Park Service



Since West Potomac Park is listed in the National Register of Historic Places, the following policy in the Preservation and Historic Features element applies:

- The distinguishing qualities of character of Historic Landscapes should be protected and enhanced.
- Existing historic and special resources should be protected, enhanced, and strengthened. New features should be created. Historic plans and their underlying principles should be used for guidance. Civic art should be used to enrich such places and to establish their identity and image.

Independence Avenue, a component of the historic L'Enfant Plan, is adjacent to the site. Therefore, the following policy applies:

- The integrity of the form and design of streets with historic significance should be maintained and protected to the extent feasible and as warranted by safety requirements from unnecessary traffic channelization and from encroachment of new buildings into public space.

Given that West Potomac Park is located within a floodplain and is subject to periodic flooding, applicable policies in the Environmental Element state:

- The site should be returned as close as possible to its natural contours.
- Floodplain fill and grading requirements should be minimized.
- Free natural drainage should be preserved.

### ***Other Planning Guidance***

Executive Order 11990, Flood Plain Management, which addresses development of structures in the floodplain, applies to the project site. Under EO 11990, projects must not reduce the flood storage area and structures must be developed to withstand the impacts of flooding.



*Independence Avenue, which borders the Memorial site on the north, is a component of the L'Enfant Plan.*

### **3.1.3 Demographic and Economic Resources**

Demographic and economic resources include population and demographic characteristics, housing, community facilities, and economic and fiscal conditions. There are no residential units or businesses on the site or within the immediate study area. The site is located within Census Tract 62.2, which encompasses all of the National Mall, the White House, and East and West Potomac Parks.

Since the Memorial site is on parkland that is the property of the US Government, it does not currently pay taxes to the District of Columbia Government.

### 3.1.4 Visitor Use and Experience

The Memorial site is part of the Monumental Core and is administered by a unit of NPS known as National Capital Parks-Central (NACC). NACC preserves and interprets more than a dozen sites, including the Lincoln and Jefferson Memorials, the Washington Monument, the Vietnam Veterans Memorial, the Franklin Delano Roosevelt Memorial, the Korean War Veterans Memorial, Ford's Theatre National Historic Site and the Petersen House, and the Pennsylvania Avenue National Historical Park. In fiscal year 2001, approximately 10 million people visited National Capital Parks-Central. Approximately 4.1 million people visited the Lincoln Memorial, 3 million visited the FDR Memorial, and approximately 2.3 million visited the Jefferson Memorial.

In 1998, a *National Monuments and Memorials, Washington, D.C. Visitor Study* was conducted by the National Park Service. This study provides a statistical analysis of visitation patterns and visitor characteristics, which can be used to make a general prediction of visitation patterns and visitor characteristics for the proposed MLK Memorial.

Based on this pattern, it is expected that the majority of visitors will arrive in family groups, primarily in groups of three or four, and will stay overnight in the area. The majority of visitors will be from the United States of America, and there will be a substantial number of international visitors. More than half of the visitors will be first-time visitors to the Nation's Capital. Visitors will come because they are interested in seeing the new Memorial, learning about United States history, and showing their friends and families the Memorial.

The majority of the visitors will plan their visit, either by talking to friends or relatives who have visited the memorials or by consulting guidebooks. The visitors will access the site on foot, as opposed to automobile or Tourmobile.

### *Special Events and Demonstrations*

The Monumental Core is a highly visible stage for special events, such as inaugural activities and Fourth of July celebrations, and demonstrations on a variety of national and international issues. These events can draw up to hundreds of thousands of participants, which can present challenges for public safety and management of these lands. The site is currently heavily used by visitors during the National Cherry Blossom Festival.

The Supreme Court recognizes the importance of parks in the Nation's Capital as venues for special events and First Amendment demonstrations, but has stated that special events and demonstrations are subject to reasonable time, manner, and place restrictions. NPS is charged with the responsibility for managing and maintaining the National Parks and is authorized to regulate use of the parks. To this end, NPS has procedures for allowing informal use of open space and permitting of special events or demonstrations.



*Visitation patterns to the nearby memorials, such as Jefferson Memorial, can be used to predict visitation to the proposed Martin Luther King, Jr. Memorial.*

## 3.2 Cultural Resources

This section details the archaeological, historic, cultural, and visual resources present on the site and in the study area. The information was derived from the National Register of Historic Places, the Historic American Buildings Survey (HABS), historical narratives from books and internet sites, and field reconnaissance. The Area of Potential Effects (APE) is defined as the boundaries of the site, as well as West Potomac Park and the National Mall.

### 3.2.1 Archaeological Resources

Until the 19<sup>th</sup> century, the project area was marsh at the edge of the Potomac River. West Potomac Park was created by dredged material. Therefore, the possibility of extant archaeological resources on the site is negligible.

### 3.2.2 Historic and Cultural Resources

There are several historic resources located within the APE for the Memorial site. The resources listed in the National Register, which include buildings, land areas, and physical plans, are identified in Table 3.2.2-1. The most relevant of these resources are described on the following pages.



*The historic march to Selma.*

**Table 3.2.2-1  
Designated Historic Resources**

Resource	National Register Designation
East and West Potomac Parks and Tidal Basin	1973, updated in 2001
National Mall	1966, 1974, and updated in 1981
L'Enfant Plan	1966 and 1997
McMillan Plan	1997, part of L'Enfant Plan designation
Washington Monument	1966
Lincoln Memorial	1966 (documented in 1981)
Jefferson Memorial	1966 (documented in 1981)
Lockkeeper's House	1973
Arlington Memorial Bridge	1980 separately (in 2001, as Potomac Parks)

### *National Mall*

Officially bounded by Constitution Avenue on the north, the Capitol Grounds on the east, Independence Avenue on the south, and 14<sup>th</sup> Street on the west, the National Mall is informally considered to be the entire greensward from the Capitol to the Lincoln Memorial. The history and culture associated with the Mall is a reflection of American History. The Mall serves as a setting for four major presidential memorials (the Washington Monument, Lincoln Memorial, Jefferson Memorial, and Franklin Delano Roosevelt Memorial), and several war memorials (the Vietnam Veterans Memorial, Korean War Veterans Memorial, DC World War I Memorial, and the National World War II Memorial).





*Cherry trees line the banks of the Tidal Basin.*  
Source: NPS

From Pierre L'Enfant's first conception of the National Mall as a grand, open promenade in 1791, to the 1901 McMillan Commission's plan, the National Mall was comprised of many separate individual parks and grounds. Today, the unified National Mall is emblematic of the nation's democratic government, contains monuments to milestones in the country's history, and serves as a forum within which citizens exercise their constitutional and political rights of freedom of expression. Such First Amendment activities include demonstrations, marches, rallies, and vigils. Major historic events have included: Dr. King's "I Have A Dream" speech from the steps of the Lincoln Memorial in 1963 as part of the March on Washington for Jobs and Freedom, anti-Vietnam War demonstrations, the first major Earth Day celebration in 1971, and the Million Man March in 1995.

### ***Washington Monument***

The Washington Monument, as the nation's foremost memorial to George Washington, is one of the most recognizable structures in the United States. It is also a premier example of Egyptian Revival architecture and a notable accomplishment of 19<sup>th</sup>-century engineering. The Washington Monument was one of the first historic properties to be listed on the National Register of Historic Places in

1966 and has also been listed in the DC Inventory of Historic Sites. The Washington Monument Grounds have served, and continue to serve, as a vital public space in the Nation's Capital for celebrations, demonstrations, and recreation. Plans for a national monument to George Washington began as early as 1783. The Washington National Monument Society initiated a design competition in 1836, which prominent architect Robert Mills won with a plan to "harmoniously lend durability, simplicity, and grandeur." As Assistant Architect of the Capitol, Robert Mills designed landscapes featuring the Washington Monument as the focus of picturesque gardens and winding pathways. Construction began in 1848, stagnated during the Civil War, and resumed in 1878 with an alteration to Mills' original design: it proposed an unadorned Egyptian obelisk with a pointed pyramidion. The Monument opened in 1888, 40 years after the cornerstone was laid.

### ***East Potomac Park***

East Potomac Park, which is located to the south and east of West Potomac Park, occupies a peninsula between the Washington Channel and the Potomac River. East and West Potomac Parks are part of what was originally called "Potomac Flats," a marshland formed from silt deposits along the Potomac River. By the second half of the 19<sup>th</sup> century, the Potomac Flats had become a sewage dump and a breeding ground for malaria. After a disastrous flood in 1881, Congress appropriated funds to the US Army Corps of Engineers for a 30-year "Land Reclamation Project," which consisted of dredging of the Potomac River to create East and West Potomac Parks. In 1897, Congress designated 723 acres of this new land as Potomac Park, "to be forever held and used as a public park for the recreation and scenic pleasure of the people." Today East Potomac Park is used primarily for recreation and offers a variety of facilities including a golf course, driving range, swimming pool, tennis courts, and picnic area. Together with West Potomac Park, East Potomac Park was placed in the National Register of Historic Places as a Historic District in 1973; its nomination was revised in 2001.

### ***West Potomac Park***

The Memorial site is technically located within Franklin Delano Roosevelt Memorial Park (which is bordered by Independence Avenue on the north, the Tidal Basin on the east, the Inlet Bridge on the south, and the Potomac River on the west). Franklin Delano Roosevelt Memorial Park, which was named by Congress in 1959, is located within West Potomac Park. Together with East Potomac Park, West Potomac Park was placed on the National Register of Historic Places as a Historic District in 1973; its nomination was revised in 2001. According to its nomination form, the 394-acre West Potomac Park is a historic landscape “characterized by broad expanses of open space framed by mature landscape plantings, and by views of major memorials that have become part of the American collective memory” (Section 7-2). Its area of significance is for landscape architecture and architecture, and its periods of significance are from 1825-1849, from 1875-1899, and from 1900-1924.

Successive historic development plans have shaped West Potomac Park:

#### ***L’Enfant Plan of Washington***

The sole American example of a comprehensive Baroque city plan; the L’Enfant Plan is characterized by a coordinated system of radiating avenues, vistas, and parks overlain upon an orthogonal grid of streets. Major elements in the project study area include the Mall and the Washington Monument Grounds, L’Enfant Plan streets including Independence Avenue, and L’Enfant Plan vistas including the cross-axial vista from the Capitol along the Mall toward the west and from the White House across President’s Park toward the south. The L’Enfant Plan of 1791 established the urban design concept that was later applied to the creation of West Potomac Park.



*The Monumental Core includes some of the Nation’s most prominent memorials*

#### ***McMillan Plan of 1901***

The Senate Park Commission of 1901, known as the McMillan Commission, expanded the L’Enfant Plan to create the most elegant example of City Beautiful tenets in the nation. The McMillan Plan is significant because it represents the first effort to conduct systematic, comprehensive urban planning for a major city. The Plan reclaimed land west of the Washington Monument, which “extended the grand axis of the Mall as a formal greensward within West Potomac Park, which terminated at the Neoclassical memorial to Abraham Lincoln,” added the Reflecting Pool as a “formal element connecting the Lincoln Memorial and the Washington Monument,” and extended the vista south from the White House “across reclaimed land to the site for another notable monument (now the Jefferson Memorial).” The features implemented from the 1901 McMillan Plan are National Register-designated resources included in the 1997 nomination of the L’Enfant Plan.

**Table 3.2.2-2**  
**West Potomac Park Historic District Resources**

<b>Resource</b>	<b>National Register Designation</b>
Lincoln Memorial	Contributing Structure
Lincoln Memorial Grounds	Contributing Site
Reflecting Pool	Contributing Site
Rainbow Pool	Contributing Site
Elm Trees	Contributing Site
Arlington Memorial Bridge	Contributing Structure
Flood Control Levee	Noncontributing Site
Constitution Gardens	Contributing Site
Vietnam Veterans Memorial	Contributing Object
Vietnam Women's Memorial	Contributing Object
56 Signers Memorial	Contributing Object
Tidal Basin	Contributing Site
Stone Seawalls	Contributing Structure
Tidal Reservoir Outlet Bridge	Contributing Structure
Tidal Reservoir Inlet Bridge	Contributing Structure
Independence Avenue Extension	Contributing Structure
Kutz Bridge	Contributing Structure
Commodore John Paul Jones Statue	Contributing Object
Japanese Cherry Trees	Contributing Site
First Japanese Cherry Trees Plaque	Noncontributing Object
Japanese Lantern	Contributing Object
Japanese Pagoda	Contributing Object
Franklin Delano Roosevelt Memorial	Contributing Site
Number 4 Fountain	Contributing Object
Floral Library	Noncontributing Site
Jefferson Memorial	Contributing Structure
Jefferson Memorial Grounds	Contributing Site
John Ericsson Monument	Contributing Object
DC World War I Memorial	Contributing Object
Korean War Veterans Memorial	Contributing Object
US Park Police Stables	Noncontributing Building
Lockkeeper's House	Contributing Building
West Potomac Park Polo Grounds	Noncontributing Site
First Air Mail Flight Marker	Noncontributing Object
Guardhouse	Noncontributing Building
Recreational Facilities	Noncontributing Site

Source: East and West Potomac Parks Historic District Revised National Register of Historic Places Nomination, July 1999.

Several historic resources in West Potomac Park can be considered part of the setting for the site. As a result, these resources are most relevant to the proposed Memorial including:

### ***Tidal Basin***

Nearly a quarter of the total acreage of West Potomac Park is occupied by the six foot deep Tidal Basin. The Tidal Basin is a constructed body of water shaped like an asymmetrical quatrefoil. The 110-acre Tidal Basin was designed by US Army Major Peter C. Hains in 1882, was dredged in 1885, and was re-dredged in 1907. The basin is a significant feature of the reclamation and improvement of the Potomac Flats, which is one of the most important projects undertaken by the US Army Corps of Engineers in the late 19th century. In addition to providing the Park with a picturesque focal point and recreation amenities, it serves a practical function of preventing stagnation by flushing waters into the Washington Channel. Hundreds of cherry trees line the banks of the Tidal Basin, which is a contributing site to the Historic District.

### ***Stone Seawalls***

The Tidal Basin is rimmed with stone retaining walls, which prevent the earth fill from eroding back into the Potomac River. The walls in West Potomac Park were constructed by the US Army Corps of Engineers in the 1880s and 1890s; the Tidal Basin seawall was completed in 1896. The seawalls are capped by an eight-foot-wide concrete walk, which was intended to provide safe access to the riverfront for passive recreation, such as siteseeing, strolling, and fishing.



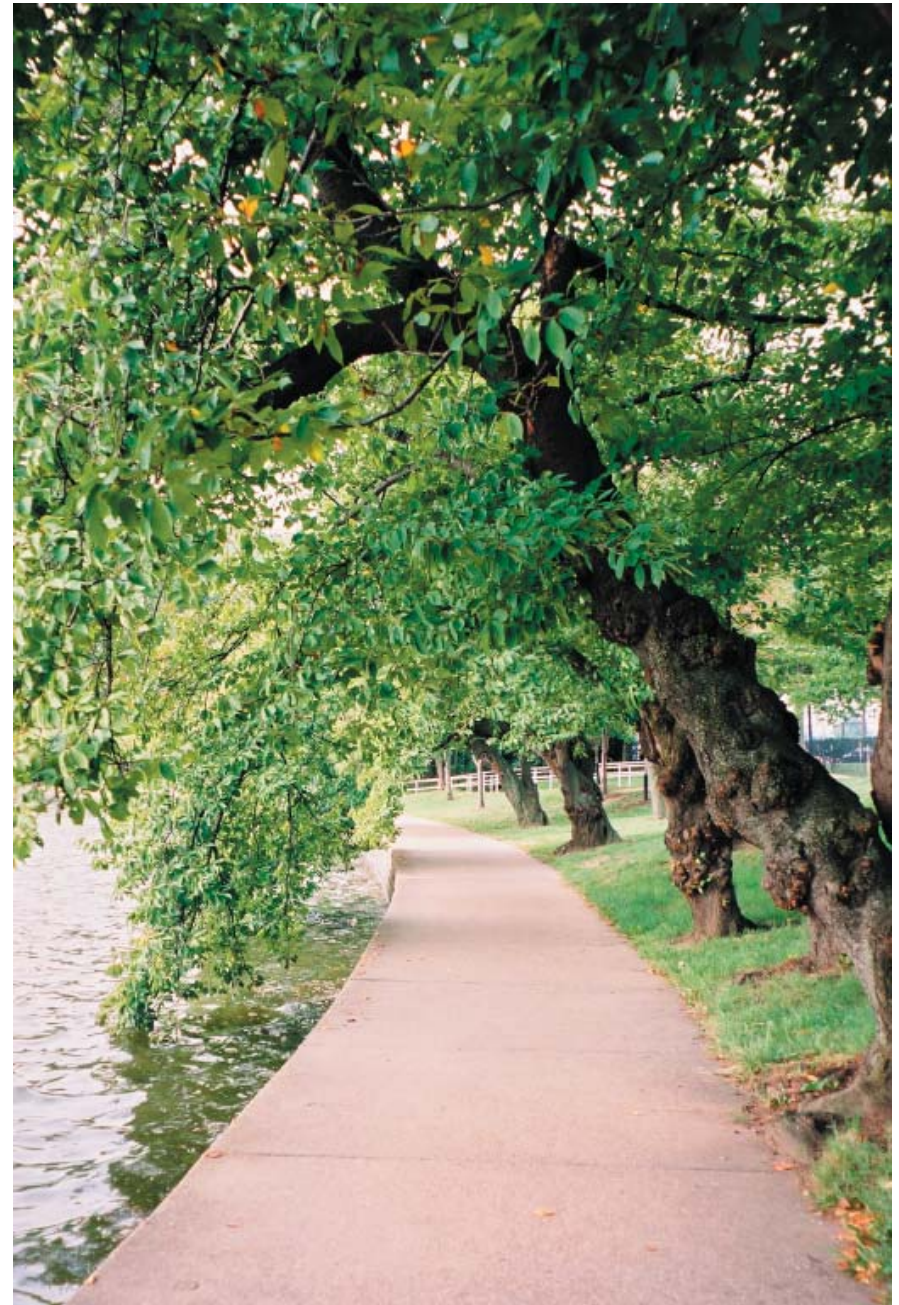
### ***Japanese Cherry Trees***

The cherry trees along the Tidal Basin are considered a major character-defining component of West Potomac Park and are a protected feature. Twelve species of flowering cherry trees (or ‘Sakura’) were presented as a gift from the Japanese government to the United States. In 1912, First Lady Helen Herron Taft and the Viscountess Chinda, wife of the Japanese ambassador, planted two Yoshino cherry trees on the northern bank of the Tidal Basin just east of the project site. Some of the oldest cherry trees at the Tidal Basin are located within the Memorial site. Today, an estimated 150 to 200 of the original trees survive; however, only two species, the white Yoshino and pink Kwanzan are present. Since replacement records have only been kept since the 1970s, the precise location of many of the original trees is not known.

The annual Cherry Blossom Festival commemorates the renewed friendship between Japan and the United States, Japanese culture, and the arrival of Spring. The Festival is held for two weeks, from the end of March until the beginning of April. On average, the date of the trees’ peak bloom is in early April, which coincides with the anniversary date of the assassination of Dr. King.

### ***West Potomac Park Recreation Fields***

Although these grounds have been used intermittently for polo and other sports for years, they do not contribute to the East and West Potomac Parks Historic District. They do not have any recognizable structures, the grounds were not planned or planted according to any known plan, and they have been extensively altered over time.



*The Tidal Basin, Stone Seawall, and Japanese cherry trees are historic resources.*

Additional contributing resources to West Potomac Park include the following:

- **Lincoln Memorial** – This memorial to the nation’s 16<sup>th</sup> president functions as the formal terminus to the McMillan Commission’s extended Mall. The memorial’s monumental stairs have served as the site of many pivotal events in the Civil Rights movement, including Dr. King’s “I Have a Dream” address during the March on Washington for Jobs and Freedom.
- **Lincoln Memorial Grounds** – The grounds are comprised of several landscapes, including Lincoln Memorial Circle, which was implemented in 1932, and the Watergate Steps, which was designed in 1929 by the architecture firm of McKim, Mead and White. The first formal design for this area was a collaboration between Henry Bacon and Frederick Law Olmsted, Jr.
- **Reflecting Pool** – The McMillan Plan called for this formal water element, located between the Washington Monument and Lincoln Memorial. It is 0.3 miles long and lined with shade trees.



The Lincoln Memorial’s reinterpreted Greek temple design was completed by architect Henry Bacon in 1922.

- **World War II Memorial** – This memorial is located at the site of the oval Rainbow Pool, which is situated between the Lincoln Memorial and the Washington Monument. The pool was reconstructed within the plaza of the memorial and is now at a lowered elevation and encompassed by the WWII Memorial, which was dedicated in 2004.
- **Elm Trees** – The double rows of Dutch Elms that line the asphalt walkways along the north and south sides of the Reflecting Pool are a defining feature within the McMillan Plan landscape. The original Elms were imported from England and planted in 1915.
- **Arlington Memorial Bridge** – This 2,163-foot Neoclassical bridge was designed by the architectural firm of McKim, Mead and White and constructed between 1926 and 1932. It physically and symbolically connects the Lincoln Memorial to Arlington Cemetery and features nine arches and two pairs of statues, flanking the ends of the bridge.
- **Constitution Gardens** - This 52-acre designed park features a six-acre curvilinear constructed lake, with a kidney-shaped island on which the Memorial to the Signers of the Declaration of Independence stands. The Vietnam Veterans Memorial is also within the park’s boundaries.
- **Vietnam Veterans Memorial** – Known as “The Wall,” the memorial was designed by Maya Lin, and was dedicated in 1982. Its V-shaped black granite panels are inscribed with the names of the deceased and missing. After extensive debate, a flagstaff and figurative sculpture entitled “Three Servicemen” were added in a granite-paved plaza situated at a distance from the memorial.
- **Vietnam Women’s Memorial** – This memorial, which honors the women who served in Vietnam, was designed by George Dickie. Glenna Goodacre sculpted the central artwork. The memorial was dedicated in 1993.
- **The 56 Signers of the Declaration of Independence Memorial** – This memorial, located on the lake within Constitution Gardens, consists of 56 large granite blocks featuring the signatures of the signers of the 1776 document.





*The lighting of Japanese Lantern, which is located east of the site, opens the annual Cherry Blossom Festival.*

- **Tidal Reservoir Outlet Bridge** – The US Army Corps of Engineers built the Outlet Bridge, located where East Basin Drive crosses the Washington Channel, in 1888-89 as the primary tidal gate for the Tidal Basin. Today, the bridge functions primarily as a pedestrian crossing.
- **Tidal Reservoir Inlet Bridge** – The Inlet Bridge, which is located on Ohio Drive, was constructed in 1908-09 after it was determined that the primary tidal gate was insufficient for regulating the basin's flow. The bridge was designed by noted Washington, DC architect Nathan C. Wyeth and features ornamental gargoyles.
- **Independence Avenue Extension** – This road project was initiated in the 1940s to facilitate access from Washington, DC to the Pentagon in Arlington, Virginia. Philadelphia architect Paul Philippe Cret designed a narrow dual-highway system (including the Kutz Bridge) that connected to the 14<sup>th</sup> Street Bridges and the Memorial Bridge.
- **Kutz Memorial Bridge** – This bridge is named in honor of Charles W. Kutz, who authored the District of Columbia's first zoning law. Several components of the landscape surrounding the bridge can be attributed to Frederick Law Olmsted, Jr.
- **John Paul Jones Statue** – Located at 17<sup>th</sup> Street and Independence Avenue, SW, this memorial to the Revolutionary War naval hero consists of a bronze portrait statue in front of a marble pylon. The memorial was dedicated in 1912.
- **Japanese Lantern** – In 1954, the Japanese Ambassador presented a 300-year-old Japanese stone lantern to Washington, DC. This lantern commemorates the 100th anniversary of the first Treaty of Peace between the United States and Japan, signed by Commodore Matthew Perry. The lighting of the lantern officially opens the National Cherry Blossom Festival.
- **Japanese Pagoda** - In 1958, the Mayor of Yokohama presented the Japanese Pagoda to symbolize the spirit of friendship between the United States and Japan. The nine-tiered Pagoda is located on the west bank of the Tidal Basin near the Franklin Delano Roosevelt Memorial.





*The Franklin Delano Roosevelt Memorial is located south of the Martin Luther King, Jr. Memorial site.*

- **Franklin Delano Roosevelt Memorial** – This memorial, designed by Lawrence Halprin, depicts Roosevelt’s four terms of office with a procession of four interpretive outdoor rooms. From the Great Depression through World War II, his accomplishments, programs, and life are commemorated with sculpture, water, engraved quotations, and landscape plantings. The memorial was dedicated in 1997 and occupies the last of four ceremonial spaces reserved by the 1901 McMillan Plan.
- **George Mason Memorial** – This circular feature is located southeast of Inlet Bridge and is the last of four fountains from the 1905 evergreen nursery and rose garden. The George Mason Memorial was recently constructed on the site and incorporates the fountain in its design.
- **Jefferson Memorial** – This neoclassical rotunda with a bronze statue of Thomas Jefferson, the nation’s third president, was designed by John Russell Pope and Frederick Law Olmsted. It was dedicated in 1938.
- **Jefferson Memorial Grounds** - Although much of what is planted today was not in Frederick Law Olmsted, Jr.’s original

design, the grassy terrace and circular roadway are extant. Furthermore, the grounds’ design, age, tradition, and symbolism invest the landscape with its own significance.

- **John Ericsson Monument** – This memorial, located in a traffic circle at 23<sup>rd</sup> Street, Independence Avenue and Ohio Drive, honors the Swede who revolutionized maritime engineering and designed the “Monitor,” whose successful Civil War battle made Ericsson a hero. The Monument and its landscape, for which Frederick Law Olmsted, Jr. was the consultant, was completed by 1932.
- **District of Columbia World War I Memorial** - This 1931 memorial honors the 26,000 D.C. residents who served in the US armed forces during World War I. The memorial is a marble, Doric column temple within a bosque of tall sycamore trees. Frederick H. Brooke designed it in collaboration with noted architects Nathan C. Wyeth and Horace W. Peaslee.
- **Korean War Veterans Memorial** – This memorial, located south of the Reflecting Pool on a direct axis with the Vietnam Veterans Memorial, was dedicated in 1995. It depicts nineteen soldiers passing through a battlefield, a wall of etched photographic images taken during the conflict, a fountain, and a flag.



*The Washington DC World War I Memorial is located across Independence Avenue from the Martin Luther King, Jr. Memorial site.*

### 3.2.3 Visual Resources

#### *Views and Vistas in the Area*

The 2001 National Register Nomination for East and West Potomac Parks list a number of views<sup>1</sup> and vistas<sup>2</sup> in West Potomac Park that contribute to the Historic District. The view to the Jefferson Memorial, which is visible from many vantage points along the walk surrounding the Tidal Basin, has been designated as a contributing view to the Historic District.

The views of the Tidal Basin from Independence Avenue are revealed at the Kutz Bridge. Views through the Memorial site are filtered by the existing vegetation.

#### *Vistas from the Site*

The most visually dramatic aspect of the Memorial site is its expansive vista, framed by cherry trees, across the Tidal Basin. While the Tidal Basin provides a sense of intimacy and enclosure to the site, its vista to other memorials provides a sense of grandeur. The panoramic vista across the Tidal Basin to the Jefferson Memorial is particularly notable. The view to the Franklin Delano Roosevelt Memorial is less apparent due to vegetation, although the stairs leading from the FDR Memorial to the Tidal Basin are visible.

The MLK Memorial site offers views north to the DC War Memorial and northeast to the Washington Monument. Views northwest to the Lincoln Memorial are obstructed by vegetation.

#### *Views of the Site*

The visual character of the Memorial site is generally vegetated. As a result, views differ depending on the season. For example, the view from Independence Avenue across the site toward the

Jefferson Memorial is partially available in winter, but is obscured by vegetation at other times of the year.

The NPS sets the standards for lighting on the Mall, including standards for color temperature, street lights, the pedestrian promenade, and lighting on and in monuments on the Mall.



*From the Tidal Basin Boathouse, the view of the Dr. King Memorial site is generally screened with vegetation.*



*Vista of the Jefferson Memorial From the Dr. King Memorial site.*

<sup>1</sup> An unplanned view that results from the construction of other park features.

<sup>2</sup> A view of primary importance that was specifically planned, designed, and implemented



### 3.3 Natural Resources

#### 3.3.1 Geophysical Resources

The proposed site sits on reclaimed land consisting of artificial fill, that is of a heterogeneous composition and texture. Bedrock is approximately 45 to 50 feet below grade in this area (Schnabel Engineering 2003). The site has a relatively flat terrain surface, which slopes gently toward the Tidal Basin. At the water's edge, however, there is a four-foot drop in elevation. This area, which is mostly comprised of cherry trees, is a restricted zone for development.

In terms of soils, the site is composed of Linside type loam immediately adjacent to the Tidal Basin, with Udorthents heterogeneous fill material on the remainder of the site (USGS 1965). Linside, which occur on nearly level floodplains, consists of very deep, moderately well-drained soils formed in alluvium washed mainly from lime-influenced soils on uplands. They offer moderate permeability. Udorthents are found on excessively drained to poorly drained soils on floodplains, terraces, and uplands. Uncovered and nearly level areas of Udorthents are usually high in fertility and available water capacity, thereby offering high potential for trees, lawns, and ornamental shrubs (SCS 1976). Both the Linside and the Udorthents soils have general tendencies to be used for man-deposited dredged material or cuts, fills, or otherwise disturbed land (USGS 1965).

In general, the soils at the site require construction of significant loads to be erected on friction piles that extend to bedrock. Drainage characteristics range from poor to moderate, with a variable pH.

The Potomac River is in close proximity to the proposed site, and a water surface level at mean sea level (0.0 MSL) creates high potential for abundant groundwater recharge from the Potomac at the

Memorial site. Groundwater has the potential to require dewatering for construction of the proposed Memorial. Because the Tidal Basin is in direct contact with the proposed site, the groundwater table is very near the surface. Given these conditions, construction would possibly be affected by slight changes in the water table of the Potomac River and the Tidal Basin.



*The site drops in elevation near the water's edge (shown here at the pathway to the Franklin Delano Roosevelt Memorial)*

#### 3.3.2 Water Resources

The site's physical proximity to the Tidal Basin and Potomac River creates a close relationship with this natural resource.

##### *Surface Water*

The Tidal Basin, which was engineered in 1882 to mitigate flooding from the Potomac River, lies in the Middle Potomac-Anacostia-Occoquan watershed.





The Tidal Basin's water surface elevation is influenced by Potomac River tides.

The Memorial site abuts the Tidal Basin walkway. Currently, stormwater runs off from West Basin Drive and enters the Tidal Basin via a storm drain system of curb inlets and pipes. Within the vicinity of the park, a 30-inch and an 18-inch pipe outfall to the Basin.

Washington, DC lies in the Potomac River drainage basin, a subbasin of the Chesapeake Bay watershed. All surface waters in the District of Columbia flow to the Potomac River either directly or through tributaries of the Potomac, such as Rock Creek or the Anacostia River. The drainage area that encompasses the site currently consists of approximately 40% of impervious surface. The site slopes toward the Tidal Basin, resulting in good drainage on the eastern and southern portions of the site.

### ***Wetlands***

The National Wetlands Inventory (NWI) categorizes the Tidal Basin as a Lacustrine unvegetated wetland. Its NWI identifier "L1UBV" is

subdivided into [L] Lacustrine, [1] Limnetic, [UB] Unconsolidated Bottom, and [V] Permanent-Tidal.

The Lacustrine System includes wetlands and deepwater habitats that possess all of the following characteristics: (1) they are situated in a topographic depression or a dammed river channel; (2) they lack trees, shrubs, persistent emergents, emergent mosses or lichens with greater than 30% area coverage; and (3) their total area exceeds 20 acres. The Lacustrine System is bounded by upland or by wetland dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens. "Limnetic" extends outward from Littoral boundary and includes deep-water habitats within the Lacustrine System. The category of "Unconsolidated Bottom" includes wetlands with at least a 25% cover of particles less than 6-7 centimeters, and a vegetative cover of less than 30% (Cowardin, et. al pp. 103).

### ***Floodplains***

The site is located within the 100-year flood plain of the Potomac River and, therefore, is subject to flooding. In addition to the flooding, the water surface elevation of the Tidal Basin is also influenced by the Potomac River tides. The high tide in this area may be as high as 3 feet above mean sea level. The 100-year flood plain elevation based on FEMA studies is approximately 16.5 feet above mean sea level. At 8 to 12 feet above sea level, the site is below this flood elevation.



### 3.3.3 Vegetation

#### *Study Area*

The dominant types of trees around the Tidal Basin are Yoshino cherry trees (*Prunus x yedoensis*). Yoshino cherries produce a large number of white blossoms, which create the effect of white clouds around the Tidal Basin. Yoshinos are round-topped, wide-spreading trees that reach 30 to 50 feet at full maturity. The flowers are in clusters of two to five. Dispersed among the Yoshino trees are a small number of Akebono cherries (*Prunus x yedoensis* “Akebono”), which are a mutation of the Yoshinos. The Akebonos are also round-topped, wide-spreading trees that reach 30 to 50 feet at full maturity. However, they have single, pale-pink blossoms that fade to white. Interspersed with the Yoshinos’ white blossoms, they form an attractive palette of color during the early bloom period.

The Tree Crew of the National Capital Parks-Central maintains the cherry trees. In addition to pruning one to two times a year, they water the trees, repair bark wounds, monitor for insects and diseases,



*The site is adjacent to historic Yoshino cherry trees.*



*The American holly (Llex opaca) is also found on the site.*

fertilize, aerate and mulch, and replace the trees as needed. The approximately 130 historic cherry trees on and adjacent to the site are important cultural resources and must be protected.

#### *Site*

There are approximately 85 existing deciduous and evergreen trees within the boundaries of the Memorial site, the majority of which are immature and small. The trees include American holly (*Llex opaca*), slippery elm (*Ulmus rubra*), American elm (*Ulmus americana* cultivar), red mulberry (*Morus rubra*), London planetree (*Platanus x acerifolia*), flowering dogwood (*Cornus florida*), Kousa dogwood (*Cornus kousa*), and Amur cork tree (*Phellodendron amurense*). Of all the species found at the site, the American holly is the only evergreen. The elm trees (slippery and American) present on the site are abundant in Washington, DC. The elm tree is fast-growing and an excellent “street tree”; it has been growing in urban settings for more than a century.





*The flowering dogwood (Cornus florida) is common to Washington DC.*

### 3.3.4 Wildlife and Aquatic Life

The site has been disturbed and landscaped, and therefore, does not provide much in the way of natural environments for terrestrial or aquatic animal species. No known endangered or threatened animal species currently inhabit or utilize the site and no critical habitat is present.

The existing wildlife community likely includes common urban species of small mammals and birds, such as gray squirrels (*Sciurus carolinensis*), Norway rats (*Rattus norvegicus*), house sparrows (*Passer domesticus*), pigeons (*Columba livia*), and starlings (*Sturnus vulgaris*).

### 3.3.5 Hazardous Material

The fill soils that were used to create the site are likely contaminated with minor pollutants. Based on soil testing in the vicinity, arsenic is likely present. However, there are no facilities that generate or manage hazardous waste on the site. The nearest such facility is the US Bureau of Engraving and Printing, which is located east of the site on 14<sup>th</sup> and C Streets SW. This facility is categorized by the EPA as a “facility that generates and manages hazardous waste that reports to the EPA Biennial Reporting System.”

### 3.3.6 Air Quality

The proposed Memorial would be located within the National Capital Interstate Air Quality Control Region. While the region has been designated by the EPA as a “serious non-attainment area”, it meets the National Ambient Air Quality Standards (NAAQS) for all other air pollutants. In the greater metropolitan Washington region, automobile traffic is a significant contributor to air quality problems.



The General Conformity Rule of the Clean Air Act Amendment of 1990 requires any Federal agency responsible for an action in a nonattainment area to determine that the action is either exempt from the Conformity Rule requirements or that the action conforms to the applicable State Implementation Plan. The conformity assessment process is intended to ensure that Federal agency actions: (1) will not cause or contribute to new violations of NAAQS; (2) will not increase the frequency or severity of any existing violations of NAAQS air quality standards; and (3) will not delay the timely attainment of ambient air quality standards. An agency may establish that the projected emission rates would be less than specified emission rate thresholds, known as *de minimis* thresholds. If these conditions are met, conformity of the project is presumed.

### 3.3.7 Noise Levels

Noise is generally defined as unwanted or objectionable sound. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and in the extreme, hearing impairment. Community noise levels vary continuously. Typical noise levels<sup>1</sup> for common activities are shown in Table 3.1.7-1. Most environmental noise includes a mix of frequencies from distant sources, which create a relatively steady background noise in which no particular source is identifiable.

Noise sensitive receptors are generally considered to be human activities or land uses that may be subject to the stress of significant interference from noise. Land uses associated with sensitive receptors include residential dwellings, hospitals, education facilities, and commemorative resources, such as a memorial.

Typical noise levels on the site range between 50 decibels (dB) and 65 dB. Commercial air traffic to and from Ronald Reagan Washington National Airport increases these ranges to 70dB to 85dB. Take-offs and landings can occur as frequently as one per minute during peak times of the day.

**Table 3.3.7-1 Typical Noise Levels**

Common Outdoor Activities	Noise Level dBA	Common Indoor Activities
	--110--	Rock Band
Jet Fly-over at 1,000 feet	--100--	
Gas Lawn Mower at 3 feet	--90--	
Diesel Truck at 50 feet at 50 mph	--80--	Food Blender at 3 feet Garbage Disposal at 3 feet
Noisy Urban Area, Daytime Gas Lawn Mower, 100 feet Commercial Area	--70--	Vacuum Cleaner at 10 feet
Heavy Traffic at 300 feet	--60--	Normal Speech at 3 feet Large Business Office
Quiet Urban Daytime Quiet Urban Nighttime	--50--	Dishwasher Next Room Theater, Large Conference
Quiet Suburban Nighttime	--40--	Room (Background) Library Bedroom at Night, Concert Hall (Background) Broadcast/Recording Studio
Quiet Rural Nighttime	--30--	
	--20--	
	--10--	
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

Source: Caltrans 1998.

<sup>1</sup> Noise levels are usually measured and expressed in decibels (dB). Human hearing is less sensitive at low frequencies and extremely high frequencies than at mid-range frequencies. Therefore, a method called "A-weighting" is used to filter noise frequencies that are not audible to the human ear. Sound levels discussed in this section are A-weighted and therefore are called the A-weighted sound level (dBA). Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. Thus, a doubling of the energy of a noise source would increase the noise level by 3 dBA; a halving of the energy would result in a 3 dBA decrease.

### 3.4 Transportation and Urban Systems

The site selection process for the Memorial emphasized location, accessibility, and connectivity. The location of the site within the Monumental Core, its proximity to the other monument and visitor attractions are, therefore, principal considerations for the assessment of potential impacts and mitigation actions.

The site is favorably served by regional highway facilities, which enable easy access by private vehicle and by public transportation. At the same time, roadways immediately adjacent to the site are not subjected to excessive volumes of traffic, vehicular speeds, or heavy vehicle classes. These factors are relevant from the perspective of environmental quality and infrastructure needs. They are of even greater importance considering that most visitors to the Memorial will arrive by foot. The following visitor characteristics are noted, based upon a 1998 visitor study conducted for a representative sample of monuments and memorials in Washington, DC.

- *Group size and structure:* Families constituted 66%, with group sizes ranging from 21% (for six or more) to 38% (for 3 to 4 persons), and 25% (for 2 persons). Large groups (of 6 or more persons) represented 21% of all visitors.
- *Age:* The dominant age group of visitors was children (15 years or younger) followed by adults (age 36 to 45 years).
- *Travel Modes:* Considering access within the general vicinity of monument sites, the dominant modes of travel were walking (75%), Metrobus and Metrorail (36%) and Tourmobile and taxi (17%). It is noted that these statistics involve usage of more than one mode of transportation.

#### 3.4.1 Roadway Traffic

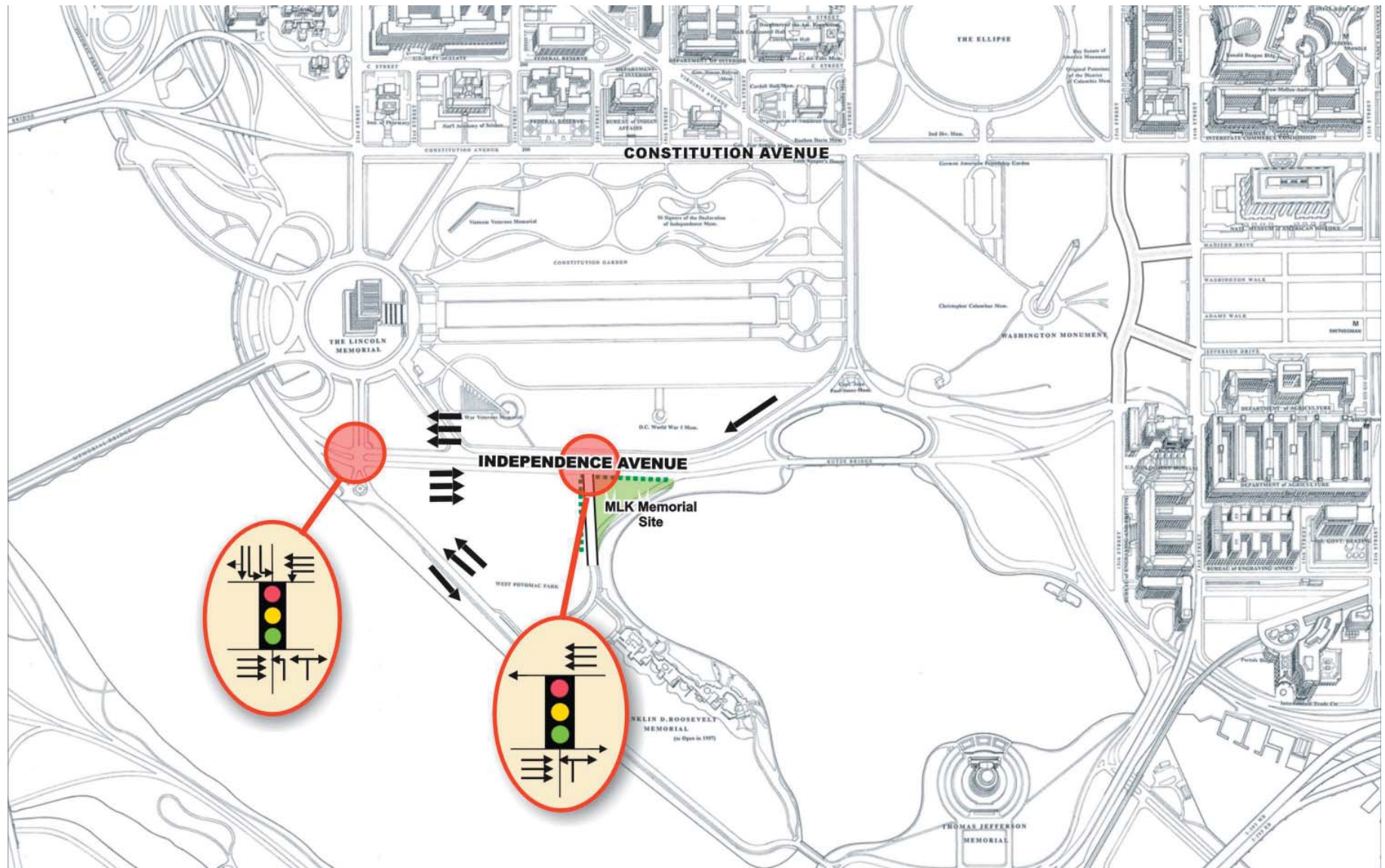
The site abuts two roadways: Independence Avenue and West Basin Drive. Independence Avenue, S.W., runs east-west and is a six-lane divided roadway. It is designated as an “Other Freeway/Expressway” facility on the District of Columbia transportation network. This roadway provides service to commuter and through-traffic, as well as to local visitor traffic accessing the Monumental Core, and has stopping and standing restrictions at all times. Although the site abuts Independence Avenue, it is not accessible from the roadway.

West Basin Drive is a National Park Service (NPS) roadway that borders the site to the west and is a local connector roadway between Independence Avenue and Ohio Drive. The roadway, which was reconfigured in association with the Franklin Delano Roosevelt Memorial’s construction, provides movement from Ohio Drive to Independence Avenue. West Basin Drive is required for access to the FDR Memorial and to relieve Ohio Drive of traffic exiting West Potomac Park to Independence Avenue. However, West Basin Drive only serves one-way, northbound traffic flow.

Ohio Drive, which is also a roadway under the jurisdiction of the National Park Service, is an important access route to the Memorial. Ohio Drive provides vehicular connection to the Thomas Jefferson Memorial and East Potomac Park via the Inlet Bridge, as well as somewhat indirect access to the I-395 Freeway. Because of the circuitous connection, Ohio Drive and West Basin Drive do not attract significant levels of through-traffic.

The road network that serves other monuments and memorials within the local environment that could be impacted by the proposed Memorial is shown in figure 3.4-1. This exhibit also shows the existing daily and peak hour traffic volumes of the adjacent intersections and roadway sections.



**Figure 3.4-1**

Map used with permission from Joseph R. Passonneau

*The roadway network serving the Memorial site consists of primary and secondary roads, including Independence Avenue and West Basin Drive.*

Source: O.R. George and Associates

Traffic volume data provided by the District of Columbia Department of Transportation (DDOT) shows that the adjacent section of Independence Avenue currently carries approximately 35,000 vehicles per day as measured by Annual Average Daily Traffic (AADT). Review of data for earlier years shows that there has been an appreciable reduction in traffic volumes from 1996 to 2000. Current data collection will be undertaken to confirm this trend, and also to provide vehicle classification and speed data. Turning movement data for the adjacent signalized intersection of Independence Avenue is also being undertaken to provide part of the basis for the modest redesign that will be needed for this intersection. This design will include consideration of pedestrian access across Independence Avenue.

### **3.4.2 Parking**

The site is traversed by a spur connection to Independence Avenue from West Basin Drive. There are sixteen (16) parking spaces within the site, five (5) of which are restricted to permit holders. There is also a designated Bus Zone. Parking is prohibited between 1:00 AM and 9:00 AM. There are an additional 2,000 parking spaces within West Potomac Park to the south. These spaces are located approximately 500-1000 feet from the center of the Memorial site. Field observations indicated that the use of the parking spaces to be moderate during the fall and winter, and higher during peak tourist seasons (spring and summer).

### **3.4.3 Public Transportation**

The Monumental Core is served by mass transit and bus transit, principally by the WMATA system. The closest Metrorail station is the Smithsonian Station on the Orange and Blue lines, which is located adjacent to the Department of Agriculture approximately eight-tenths of a mile to the east. While this distance is significant, it is noted that the site is linked by pedestrian facilities that also serve intermediate visitor attractions, such as the Washington Monument

and the Bureau of Printing and Engraving. The general area is also served by WMATA bus routes along the 14<sup>th</sup> Street/I-395 corridor, Constitution Avenue and the Arlington Memorial Bridge, as well as along 23<sup>rd</sup> Street, 19<sup>th</sup> Street, 18<sup>th</sup> Street, and Virginia Avenue. These bus routes serve the Monumental Core and the site with stops in the vicinity of 14<sup>th</sup> Street at Independence Avenue, Constitution Avenue at 17<sup>th</sup> Street, and Constitution Avenue near the Lincoln Memorial Circle.

The site area is also close to the current Tourmobile route. The Tourmobile also serves the Franklin Delano Roosevelt and Thomas Jefferson Memorials, with stops along Ohio Drive in the vicinity of the Franklin Delano Roosevelt Memorial. The locations of transit stops constitute an important link between the public transportation and that pedestrian network.

### **3.4.4 Pedestrian and Bicycle Circulation**

The site is located within the northeast section of the West Potomac Park, which includes several popular visitor attractions including nearby monuments and the Japanese Cherry Trees along the Tidal Basin. A continuous pedestrian promenade forms a rim along the Tidal Basin and borders the site on the south, offering pedestrians access to the Franklin Delano Roosevelt Memorial and the Jefferson Memorial. The existing site also incorporates extensive segments of concrete walkways with handicap access ramps. These sidewalks connect to sidewalks located along Independence Avenue and into West Potomac Park. However, the pedestrian access across Independence Avenue toward the north is deficient and potentially unsafe. In terms of bicycle circulation, the area of the site is served by a number of trails within the West Potomac Park area. These are shown on Exhibit 3.4-2.



### 3.4.5 Stormwater Management

Currently, the site does not have a stormwater management facility. Runoff from Tidal Basin Drive drains directly into the Tidal Basin without being treated.

### 3.4.6 Site Utilities

#### *Energy Systems*

Electric conduits along both spurs of the West Basin Drive feed light poles and other site electrical appurtenances. A four-way Electric Duct Bank enters the West Potomac Park from the north side of Independence Avenue along the western spur of Tidal Basin Drive. The main electrical service to the park is from lines under Independence Avenue.

#### *Water Supply and Sanitary Sewer*

There is 1.25-inch water line running along the eastern edge of West Basin Drive. This line services an irrigation line and provides domestic water to the Franklin Delano Roosevelt Memorial. There is currently no sanitary sewer service to the site. The closest sanitary sewer to the site is under Independence Avenue. Treated water from the fountains and pools will have to be discharged by permit into the Tidal Basin.

#### *Telecommunications*

Telephone line conduits maintained by Verizon cross the site.

### 3.4.7 Community Facilities

In the Monumental Core area, the US Park Police is responsible for law enforcement. The Park Police is divided into three Districts:

Central, East, and West. Central District (D-1) is headquartered at Hains Point and patrols West Potomac Park, the National Mall, and downtown Washington. The Central District personnel have jurisdiction over the Memorial site. The District of Columbia provides fire protection and emergency medical services for the site and the study area.

The National Park Service staffs West Potomac Park. Refreshment stands are located near the Lincoln Memorial and in Constitution Gardens. The closest restroom to the Memorial site is located at the Franklin Delano Roosevelt Memorial. Restrooms are also located near the Lincoln Memorial, Constitution Gardens, the Washington Monument Grounds, and the Ellipse. Additionally, as part of the new World War II Memorial, a new comfort station/restroom facility has been constructed.



*The site has a variety of site utilities, including electric conduits and water lines.*