

# Potomac Park Levee Project

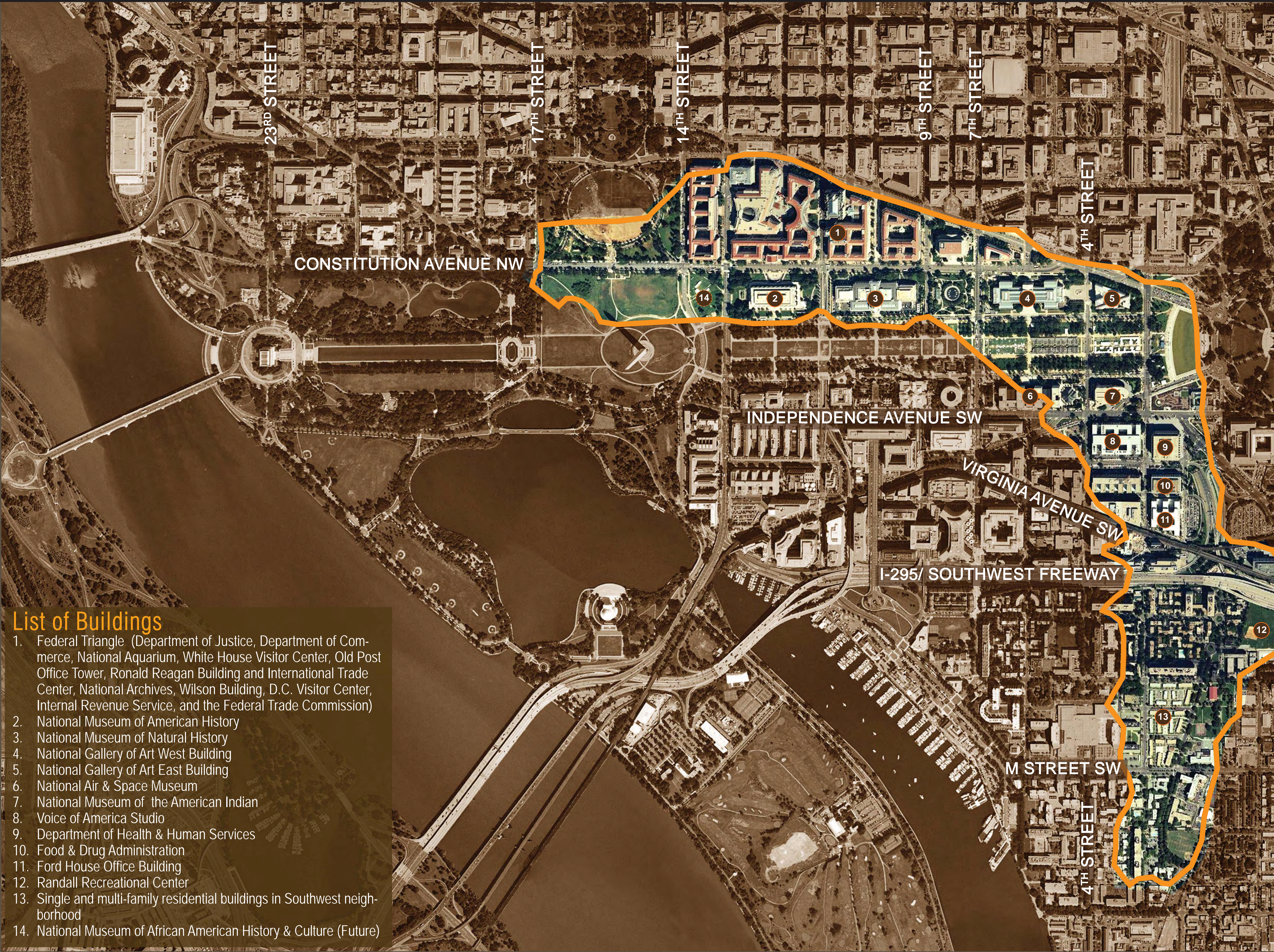


## Area of Impact

The boundary above delineates the area of the District that is at risk for flooding, according to the USACE, if the Potomac Park levee fails. The National Park Service (NPS), at present and by agreement, is the federal agency responsible for the closure of the levee at 17th street.

## Current Status

The District of Columbia requested FEMA delay issuing new floodplain maps in March 2008 in order to perform the necessary engineering analysis that may either substantially reduce the flood risk area, or more importantly, provide an interim levee solution to protect the District from a 100-year storm, FEMA agreed to delay the final issuance of the maps until November 2009 provided that the District design and construct an interim levee solution by that time. The agreement requires the District and the affected federal agencies to meet several interim deadlines and demonstrate adequate progress in designing and constructing a viable flood protection solution. If the conditions of the agreement cannot be met, FEMA will issue new floodplain maps for the District.



### List of Buildings

1. Federal Triangle (Department of Justice, Department of Commerce, National Aquarium, White House Visitor Center, Old Post Office Tower, Ronald Reagan Building and International Trade Center, National Archives, Wilson Building, D.C. Visitor Center, Internal Revenue Service, and the Federal Trade Commission)
2. National Museum of American History
3. National Museum of Natural History
4. National Gallery of Art West Building
5. National Gallery of Art East Building
6. National Air & Space Museum
7. National Museum of the American Indian
8. Voice of America Studio
9. Department of Health & Human Services
10. Food & Drug Administration
11. Ford House Office Building
12. Randall Recreation Center
13. Single and multi-family residential buildings in Southwest neighborhood
14. National Museum of African American History & Culture (Future)





# Potomac Park Levee Project



1936                      1939                      1942                      1946                      1990 -1992                      1996                      2007

March Flood  
  
Flood Control Act  
of 1936

As a result of the 1936 flood, the existing project was authorized for construction by the Flood Control Act of 1936 whereby the USACE was directed by Congress to design and construct flood measures to protect downtown Washington during flood emergencies.

Flood levee components  
completed

- concrete retaining wall along the length of the Reflecting Pool
- substantial fill from 17th Street to the raised earthen mound of the Washington Monument

October Flood

In October 1942, portions of Washington were flooded when a high tide coincided with the third highest flow of record (447,000 cfs) on the Potomac River. The resulting flood stage was the highest on record and caused an estimated \$7,407,000 in damages

Flood Control Act  
of 1946

In the Flood Control Act of 1946, Congress authorized the Chief of Engineers to modify the existing project to reduce the amount of emergency work required to close openings in the line of protection during a flood event.

Environmental Assessment  
for Modifications to Wash-  
ington, DC and Vicinity Flood  
Control Project

Alternative methods of accomplishing an acceptable closure at 17th Street were the subject of an Environmental Assessment in 1992, and an October 1990 Section 106 finding of no adverse effect for the preferred alternatives by the DC State Historic Preservation Officer

Supplemental  
EA for additional  
modifications

Project was re-evaluated  
and failed by the USACE

September, FEMA pro-  
posed modifying the base  
100 year and 500 year  
floodplains

Federal funds to design and construct the project were not provided to the USACE in subsequent appropriations, and the project remained dormant until 2007, when in January, the Potomac Park Levees System received an Unacceptable Inspection Rating by USACE.

2008

JAN                      MAR                      JUNE                      SEPT                      DEC                      MAR                      JUNE                      SEPT                      DEC

Environmental Assessment & Section 106

NCPC & CFA Review

Final Design Plans

Construction

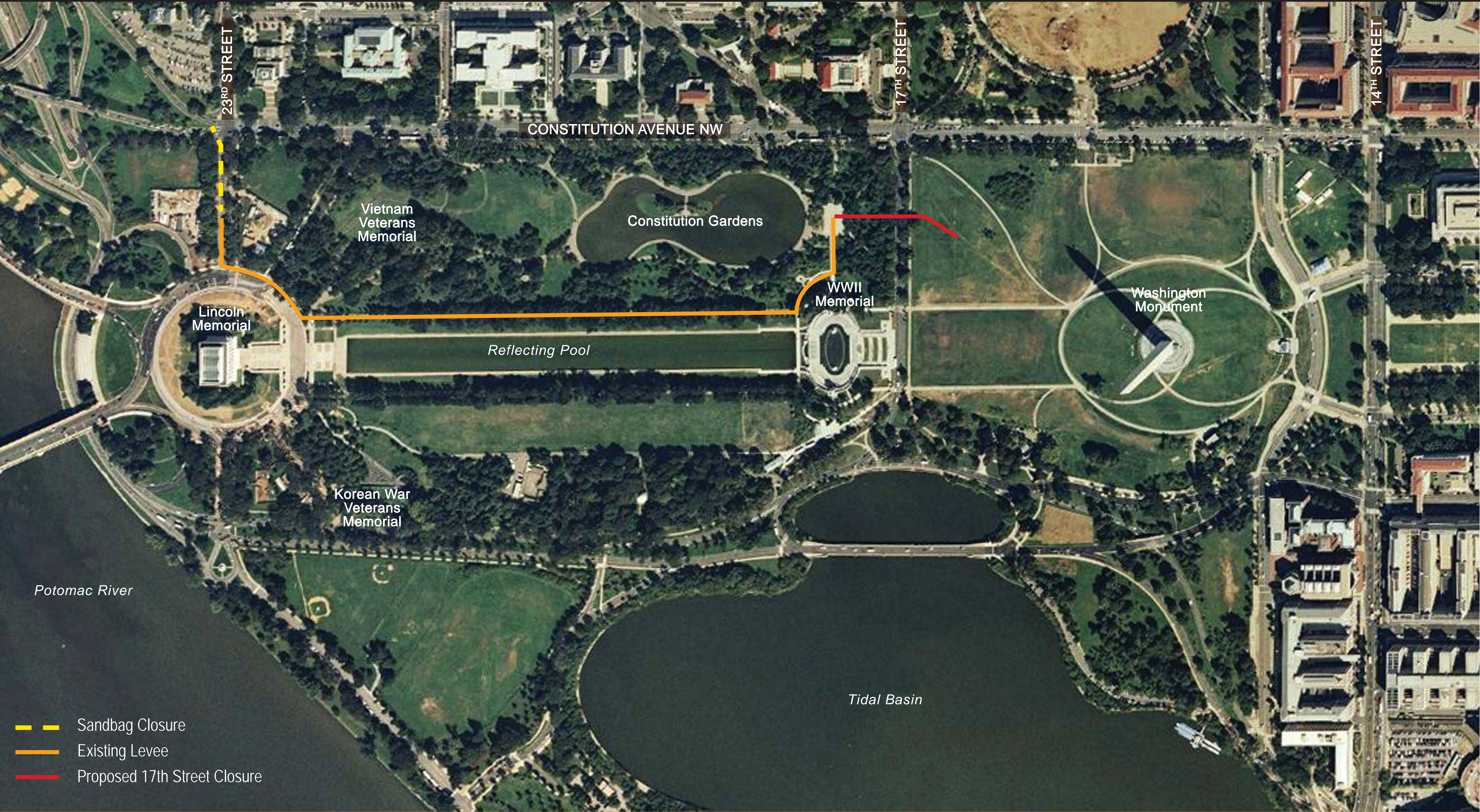
FEMA Final  
Determination Map





# Potomac Park Levee Project

U.S. Department of the Interior  
National Park Service







## The Proposed Action

The purpose of this action is to improve the reliability of river flood protection provided by the Potomac Park levee system to a portion of the monumental core and downtown Washington D.C. in a manner that respects the resources and values of the National Mall. Without reliable flood protection measures, many major facilities in downtown Washington D.C., including portions of the monumental core, portions of Pennsylvania and Constitution Avenues, Federal Triangle, and areas south of the U.S. Capitol to Fort McNair, are at risk of flooding from a major (100-year plus) flood event.

The current Potomac Park levee structure, completed in 1938, includes a permanent earthen barrier, sandbags along 23rd Street, and construction of a temporary earthen levee across 17th Street. NPS constructs the 17th Street closure once notified of an impending flood.

This temporary levee system has not been favored by the U.S. Army Corps of Engineers (USACE) due to the large scope of this type of emergency closure project, coupled by unknown weather conditions and logistic requirements. Based on new policies since Hurricane Katrina (33 CFR 208.10), this system is unacceptable and no longer meets USACE design standards.

Moreover, in 1936 Congress authorized USACE to construct a higher level of flood protection to ensure that Washington, DC was protected from a 185-year flood event. As a result, USACE will only certify a permanent levee that meets this higher level of protection. At this time, USACE has not received funds to construct a permanent levee that would meet the congressionally-authorized protection level. However, the Environmental Assessment (EA) will analyze proposed designs that meet the authorized 185-year flood event level.

## Objectives

- Provide immediate protection to downtown Washington D.C and the monumental core in the event of a 100-year storm, thereby meeting the National Flood Insurance Program requirements (interim level of protection).
- Ensure that the selected design can be easily modified or enhanced to meet the 185-year flood protection requirements (authorized or permanent level of protection)
- Minimize adverse impacts to the cultural landscapes, historic structures, and other cultural resources of the National Mall and the project area.
- Minimize adverse impacts to the viewsheds of the National Mall and the monumental core, and the visual quality of the project area.
- Minimize disruption to visitor use and experience in the National Mall and monumental core.
- Minimize adverse impacts to park management and operations and provide the NPS with the most effective and reliable closure system in advance of a flood event.
- Avoid additional costs of insurance or construction to property owners in the project area.
- Minimize disruption to traffic in the downtown Washington D.C. project area during construction







## The National Environmental Policy Act (NEPA)

NEPA requires all federal agencies to consider and document the potential impacts of management actions on the human environment. The National Park Service (NPS) applies NEPA in the planning process to evaluate alternative courses of action and impacts so decisions are made in accord with the conservation and preservation mandate of the NPS Organic Act of 1916.

The NPS utilizes Director's Order 12, Conservation Planning, Environmental Impact Analysis, and Decision-making, and Handbook 12 to establish these guidelines. Handbook 12 defines the steps within the NEPA process and outlines the necessary requirements and contents for environmental document preparation.

An Environmental Assessment (EA) is a NEPA document that is prepared to assist in planning and decision-making and to determine if an action has the potential for significant impact. The NPS is completing a new EA for this project so that present conditions and the potential impacts to historic and other resources at 17th Street and the park areas can be assessed. The USACE and NCPC are cooperating agencies.

## The NEPA Process

1. Notice of Intent
2. Define Purpose & Need
3. Data Collection, Begin resource inventory and analysis
4. Define Preliminary Alternatives
5. Internal and External Scoping to introduce project and identify issues
6. Public Scoping meeting
7. Refine Alternatives
8. Affected Environment
9. Environmental Consequences
10. Prepare draft Environmental Assessment
11. Internal Agency review of draft Environmental Assessment
12. Release Environmental Assessment for 30-day Public Comment Period
13. Public Comment Period
14. Decision Document

## EA Impact Topics

- Floodplains
- Vegetation (trees)
- Land use/Socioeconomics
- Transportation
- Aesthetics
- Archeology
- Historic plans and structures
- Cultural landscapes
- Visitor use and experience
- Utilities and infrastructure
- Park management and operations
- Public safety





## Section 106

Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires Federal agencies to take into account the effects of their undertakings on historic properties.

If it is determined that the proposed action could affect historic properties, S106 is triggered. The Section 106 task and the NEPA assessment need to be closely coordinated. The results of the EA analysis will determine the type of decision document required.

In the Spring of 2008, pursuant to Section 106 regulations implemented by the ACHP that encourage early coordination with groups or individuals who have a demonstrated interest in historic properties that may be affected by a proposed project, the NPS invited a number of constituents to participate in the Section 106 process as consulting parties.

## The Section Process

1. Define Undertaking/ Initiate Section 106
2. Identify Consulting Parties
3. Plan to Involve the Public
4. Define Area of Potential Effect (APE)
5. Identify Significant Cultural Resources in APE
6. Assess Effects on Significant Resources
7. Identify "Adverse" Effects
8. Resolve Adverse Effects
9. Programmatic Agreement (PA)





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U.S. Department of the Interior  
National Park Service



## Preliminary Area of Potential Effect

According to 36 CFR 800.16(d), the Area of Potential Effects is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist. The area of potential effects is influenced by the scale and nature of the undertaking and may be different for different kinds of effects caused by the undertaking.

Determining APE is a hypothetical process that considers the interplay of Geographic Area, the Scale and Nature of the Undertaking, and potential effects.

The preliminary Area of Potential Effect for the Potomac Park Levee project includes the Contributing Reservations 3 and 332.







## Opportunities to Comment

### In Writing

Submit a comment form tonight or write:

Glenn DeMarr  
Project Manager  
Office of Lands, Resources and Planning  
National Capital Region  
National Park Service  
1100 Ohio Drive, SW  
Washington, DC 20242

### Email

[comments@potomaclevee.com](mailto:comments@potomaclevee.com)

### Website

You may submit electronic comments on the National Park Service’s Planning, Environment and Public Comment Site:

<http://parkplanning.nps.gov/>

Search for National Mall and Memorial Parks,  
Environmental Assessment for Design  
Alternatives for the Potomac Park Levee System  
or go to:

<http://parkplanning.nps.gov/projectHome.cfm?parkId=427&projectId=22260>

Your comments are essential to this environmental assessment and the development and assessment of interim and permanent alternatives. We seek your comments on the scope of issues to be addressed and identifying any issues related to the proposed action.

Additional opportunities to provide comment on this project will occur during the public release of the EA later this summer.

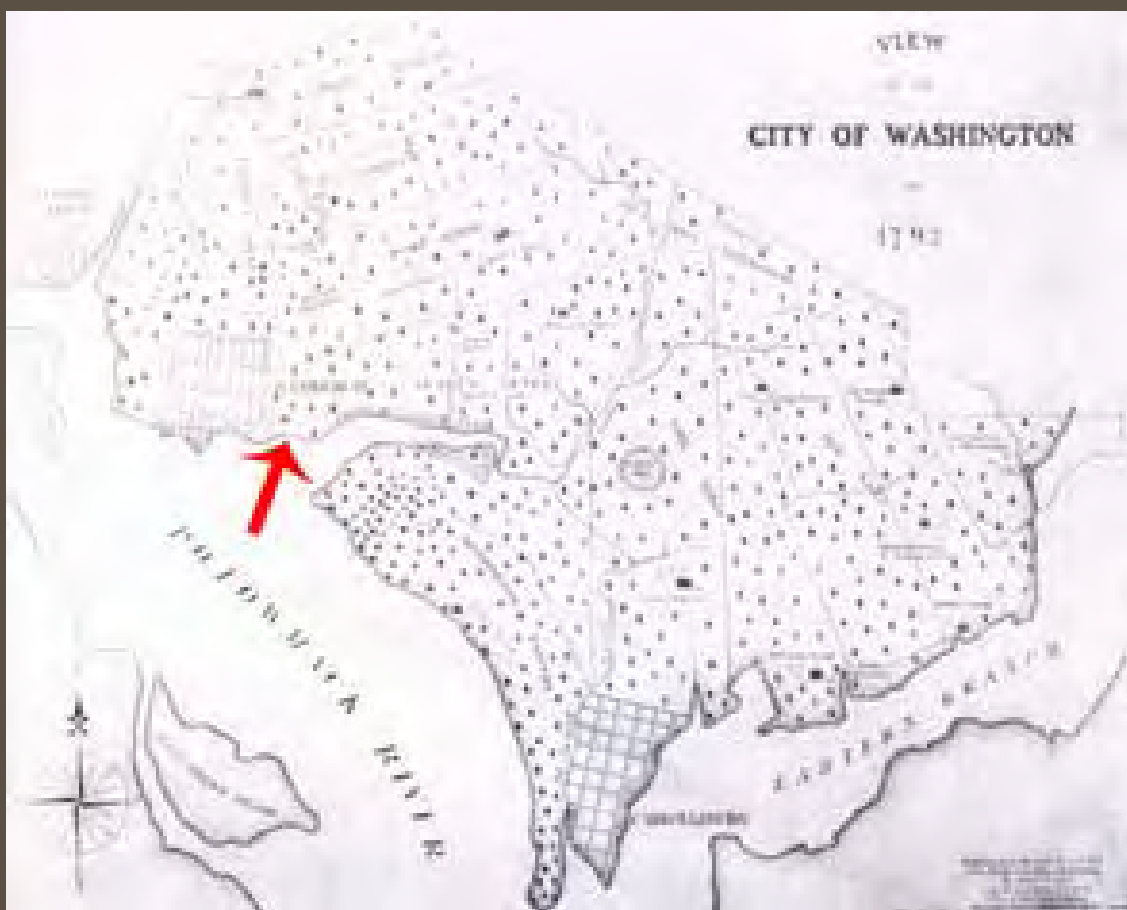




# Potomac Park Levee Project



L'Enfant Plan, 1791



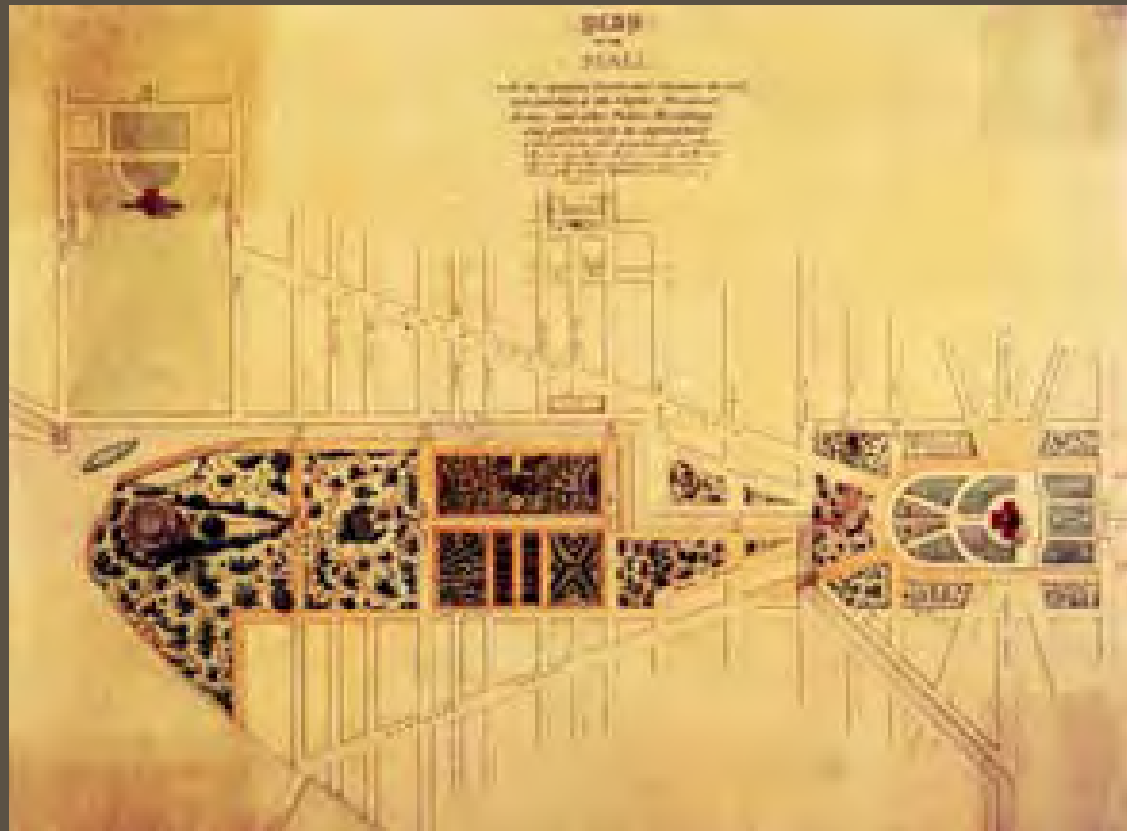
View of the City of Washington in 1792 (Cutter 1952)



City of Washington, 1800 (T.L. Loftin)



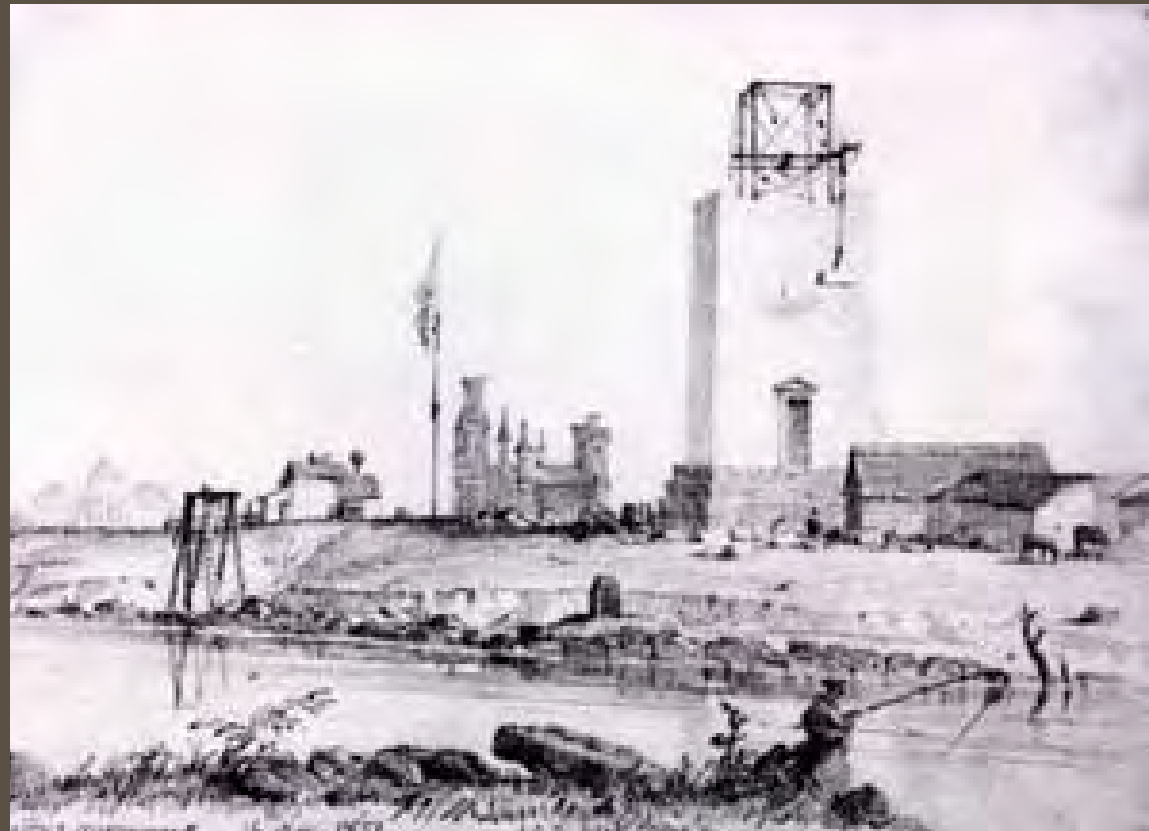
Map of the City of Washington, 1839 (W. J. Stone)



Plan of the Mall, 1841 (R. Mills)



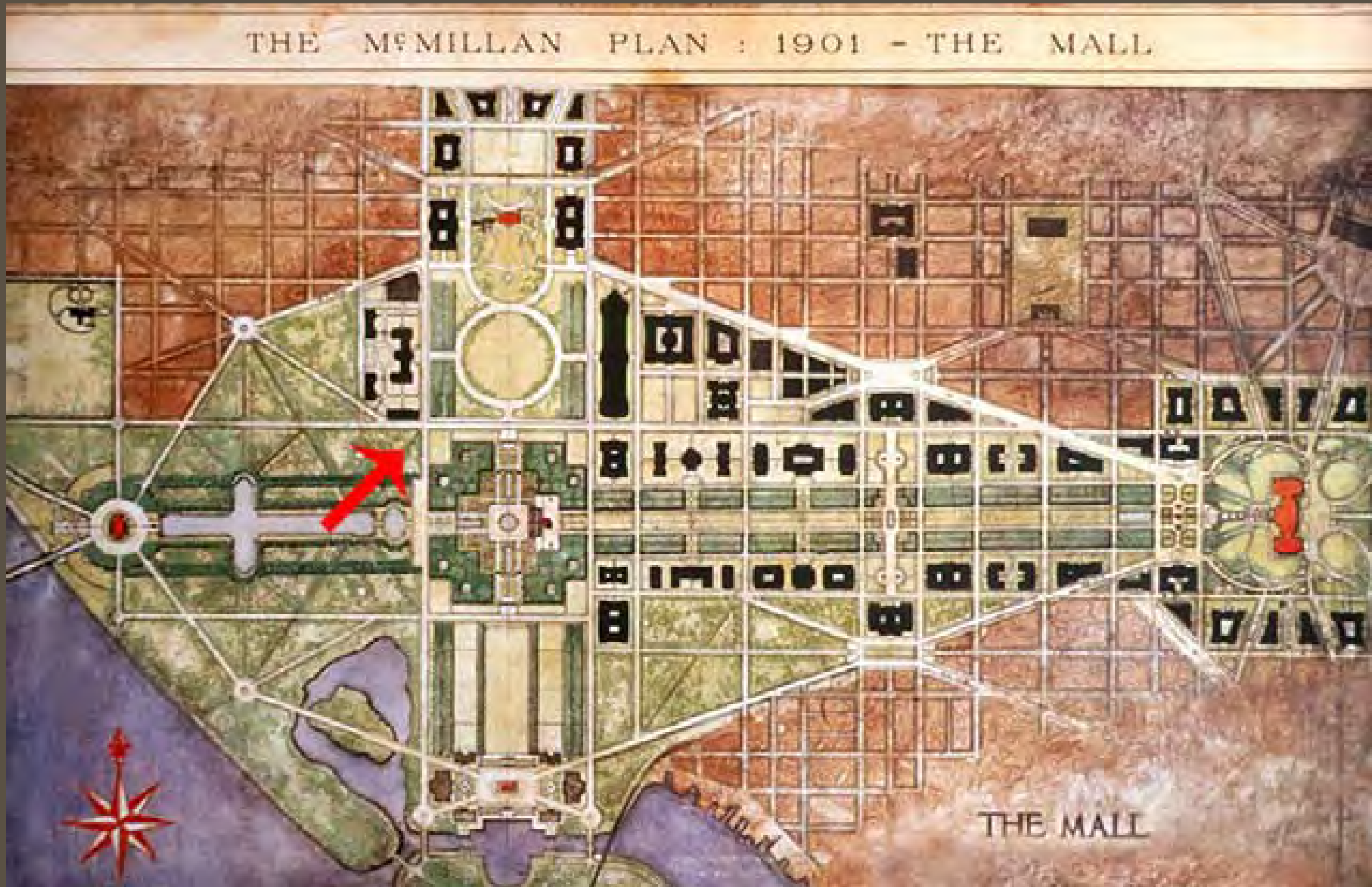
Elements of National Thrift and Empire, 1847 (E. Weber)



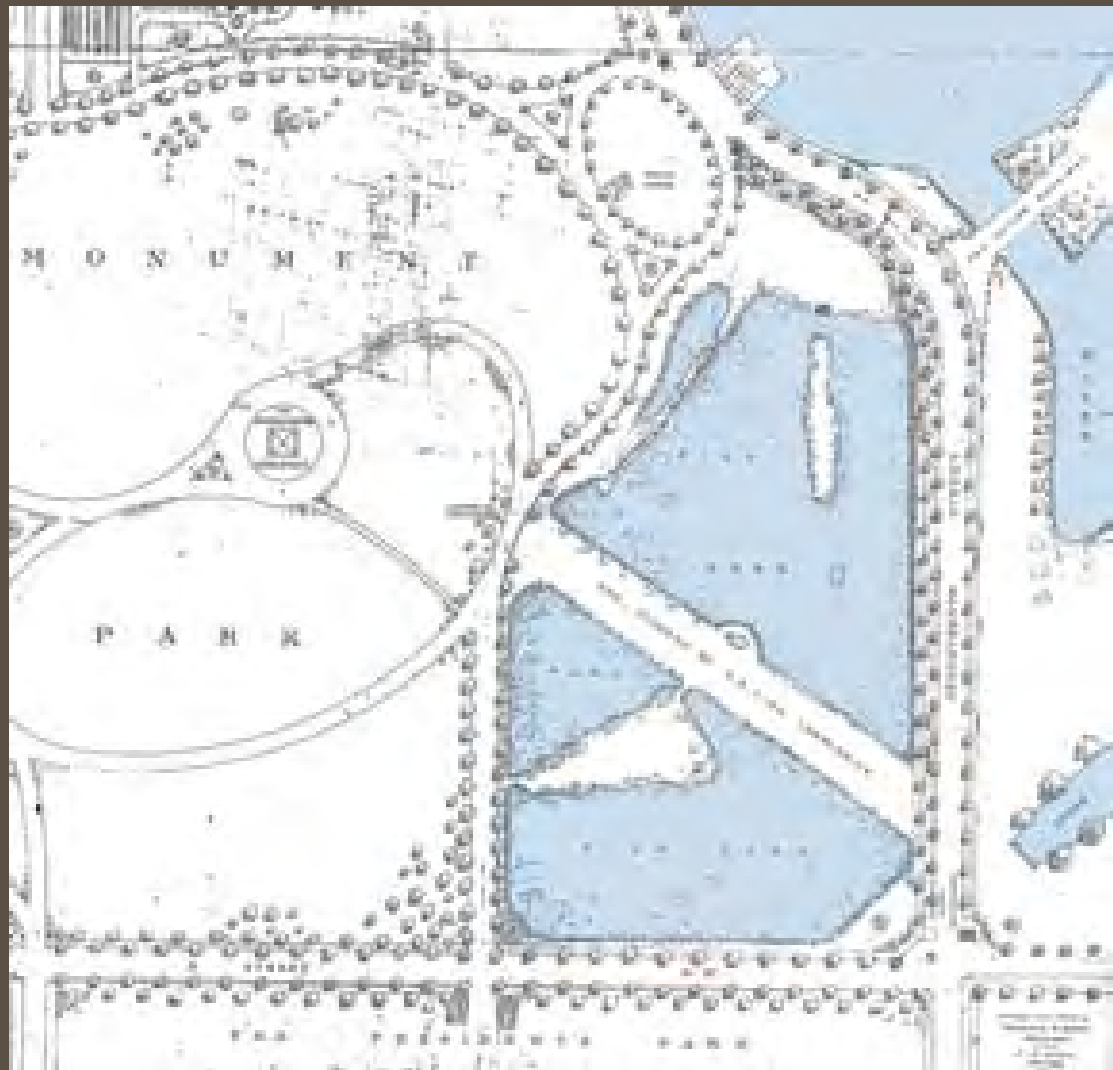
Washington's Monument, sketch from Tiber Creek, 1851 (S. Eastman)



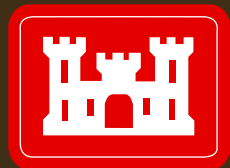
View of Washington, 1852 (E. Sachse)



The McMillan Plan, 1901



Plan for the Improvement of the West Side of Monument Park, 1902-3 (F.D. Owen)

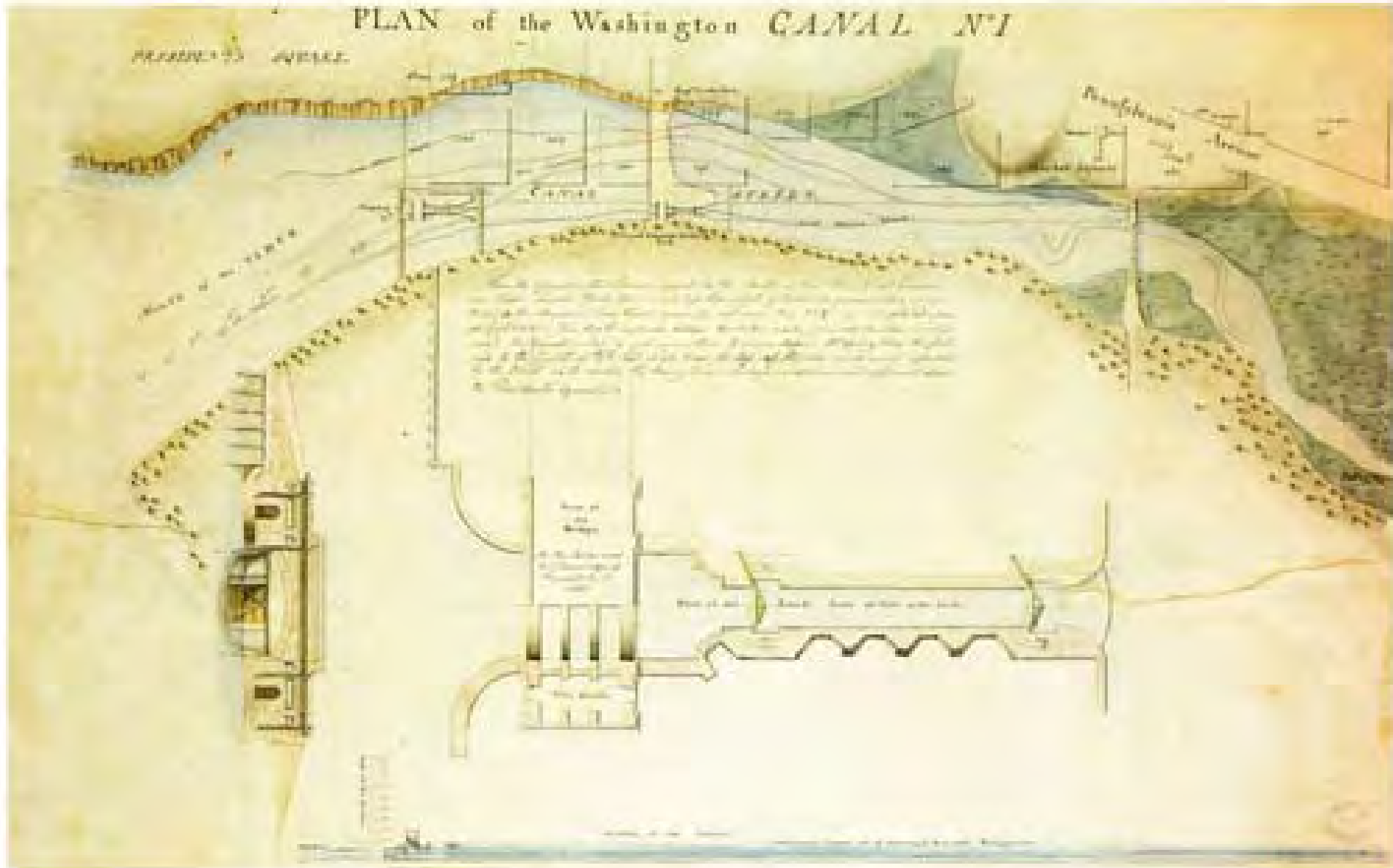




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CITY OF WASHINGTON 1855



Plan of Washington City Canal, 1804 (B.H. Latrobe)



Lock Keeper's House, present day



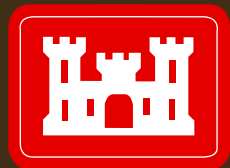
Lock Keeper's House, 1860



AFTER DESTRUCTION OF THE CANAL 1880'S



Lock Keeper's House, 1934

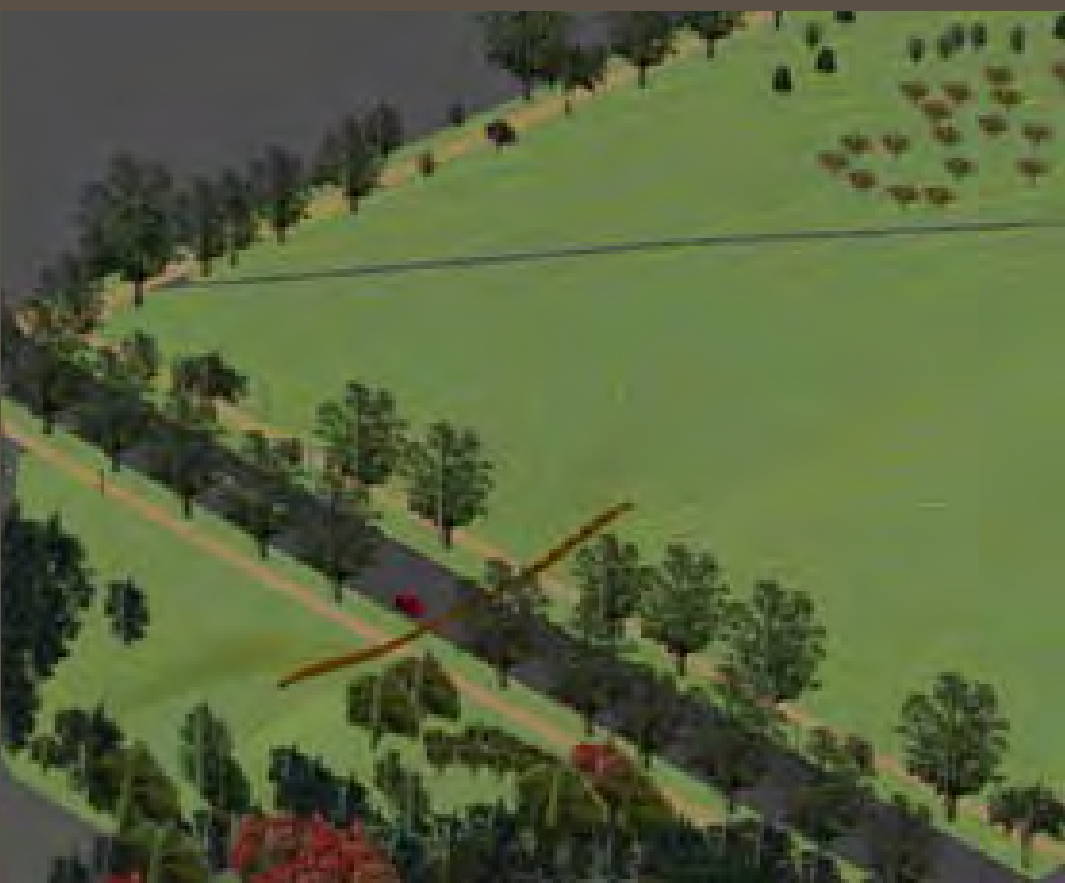




# Potomac Park Levee Project



ACOE Post and Panel Closure System



The C&O Canal at Georgetown



The C&O Canal at Georgetown



The C&O Canal at Georgetown



Canal Lock Detail



The C&O Canal at Georgetown



The C&O Canal at Four Locks



The C&O Canal at Georgetown



Canal Lock Detail



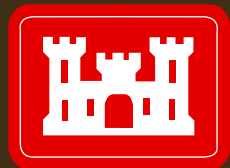
An Aqueduct on C&O Canal at Lock 24



Lockhouse on the C&O Canal at Lock 24



Lockhouse on the C&O Canal at Lock 6





# Potomac Park Levee Project



Key Plan

2. Constitution Garden



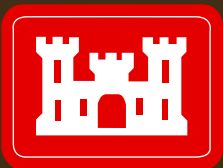
3. WWII Memorial



4. The Washington Monument

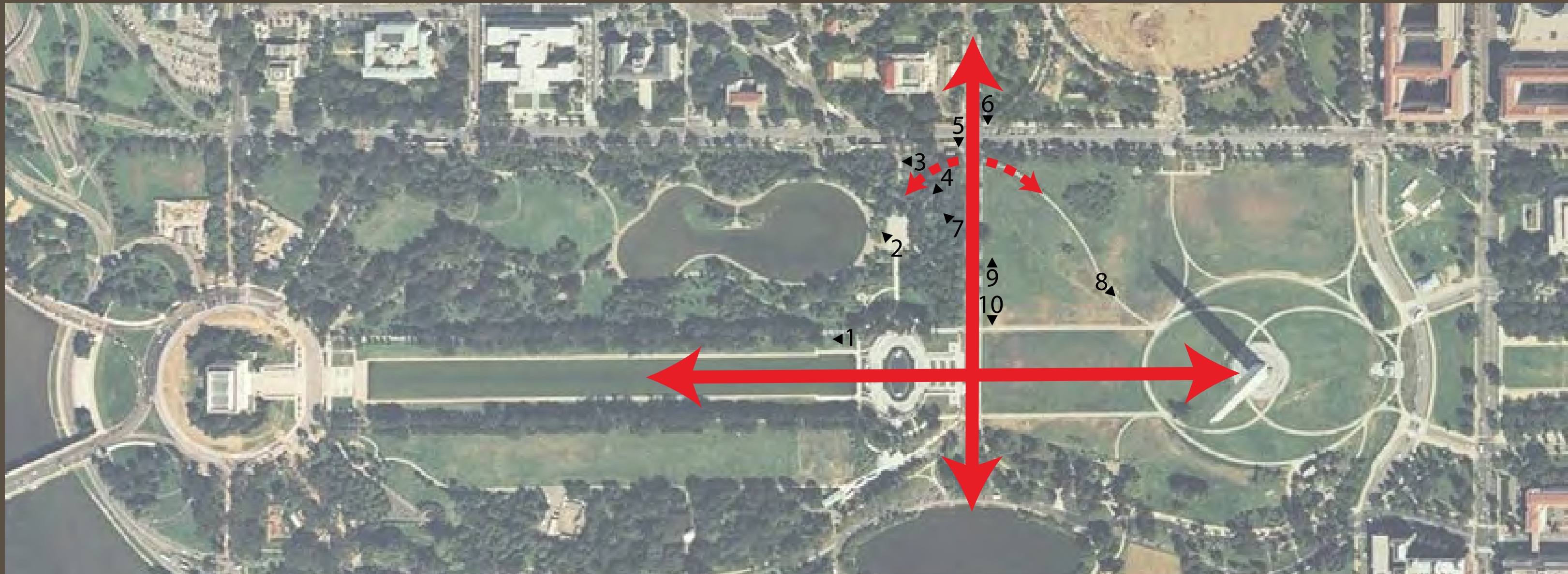


1. Lock Keeper's House





# Potomac Park Levee Project



Key Plan



1. Levee at Reflecting Pond looking West



2. Constitution Gardens looking Northwest



3. Grove West of 17th Street looking West



4. Corner of Constitution Avenue and 17th Street looking Southwest



5. 17th Street looking South



6. Corner of Constitution Avenue and 17th Street looking South



7. 17th Street looking Northwest



8. 17th Street looking Southeast



9. 17th Street looking North



10. 17th Street looking South

