

A Review of Access and Circulation on the National Mall in Washington, D.C.

Submitted to: The National Mall Conservancy



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Transportation Policy, Operations, and Logistics (TPOL) Practicum Reports

TPOL students at or near their final semester participate in a practicum, an in-depth field study of ongoing transportation policy, operations and logistics challenges. Students focus on the design and delivery of actions to manage or resolve problems as part of a group task. Projects are chosen based on relevance to the degree program, interests of the student body and faculty, and opportunity.

The spring 2008 Practicum conducted a study of access issues for the National Mall in Washington, D.C. The study was conducted in cooperation with the National Mall Conservancy, a 501c(3) non-profit organization headquartered in Washington, D.C. and under the supervision of the Practicum course instructor Dr. Jonathan Gifford, Professor, School of Public Policy, George Mason University.

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Disclaimer

This report was prepared by student of the Transportation Policy, Operations, and Logistics program in the School of Public Policy at George Mason University. The information in this report reflects the views of the students and not necessarily those of George Mason University or the National Mall Conservancy. The intent of the report is to encourage discussion among interested parties.



February 6, 2008

To Whom It May Concern:

George Mason University's School of Public Policy is conducting a study of access issues for the National Mall in Washington, D.C. The study is being conducted in cooperation with the National Mall Conservancy, a 501c(3) non-profit organization headquartered in Washington, D.C.

The study is a semester-long research project conducted by students in George Mason University's Master's in Transportation Policy, Operations and Logistics (TPOL) program. A final report will be completed and presented in May of 2008.

We would like to request your cooperation with the study team identified below in answering questions and providing background materials and referrals to other individuals with important knowledge and input.

The study team consists of:

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Jonathan L. Gifford is the faculty supervisor. The executive director of the National Mall Conservancy is Marjorie Share. Please feel free to contact either of us if you should have any questions. Our contact information is below.

Thank you in advance for your cooperation.

Sincerely,

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Executive Summary

Graduate students of George Mason University School of Public Policy's Transportation Policy, Operations, and Logistics Program (TPO) have researched and analyzed access and circulation issues at the National Mall in Washington, D.C. as part of the requirements for the spring 2008 capstone practicum course. The request for the study came from the National Mall Conservancy, which is a non-profit citizen organization that focuses on preserving the National Mall area based on the historic views encompassed in the L'Enfant and McMillan Plans. The Conservancy requested that the TPO students focus their efforts on determining the best approach to address the adequacy of access and circulation for visitors within and around the National Mall.

The National Mall is a national park displaying the rich American history that shaped our country as it stands today. Monuments, museums, and memorials adorn the landscape and bring visitors to the area to learn about the history of our nation. As the area grows and more buildings are developed the issue of accessibility comes into focus.

To address these issues the group developed a problem statement to define the areas of research. The report assesses the challenges of providing adequate accessibility and circulation to a variety of users by categorizing mall visitors, determining access points to the Mall, reviewing the existing transportation in the area, and examining best practices of comparable sites. Finally, the study draws conclusions about the current state of access and circulation to the National Mall and offers recommendations to facilitate improved accessibility.

The recommendations offered will provide additional transportation options to reach areas of the Mall that have previously been less accessible, attempt to relieve parking capacity issues, develop a working group for public input, and provide informational resources using a standardized approach.

Findings and Recommendations:

Finding #1: Public transit to the eastern Mall area is adequate while circulation was found to be insufficient. Meanwhile, the western portion of the Mall is neither accessible nor is it easy to circulate around or through.

Recommendation #1: Expand D.C. Circulator hours of operation on the eastern half of the Mall and enforce loading/unloading no parking zones to improve Circulator efficiency. Implement a Memorial Shuttle Service to increase circulation on the western half of the Mall.

Finding #2: Bike riding remains underutilized as a means of accessing and circulating the National Mall.

Recommendation #2: Implement a bike-share program on the National Mall.

Finding #3: Twenty-five percent of visitors to the National Mall had an individual in the group that could only walk a limited distance. Programs implemented at the Royal Parks in London provide services to meet the needs of disabled visitors.

Recommendation #3: Provide programs for circulation and movement around the Mall to assist people with disabilities.

Finding #4: Access to the Mall from the greater Washington region via public transit on weekends is limited due to the commuter-oriented scheduling of current services offered by MARC and VRE.

Recommendation #4: Expand operating hours for VRE and MARC to provide weekend service during peak periods to Union Station.

Finding #5: Lack of collaboration between the general public and public organizations.

Recommendation #5: Expand the planning and development role of the general public and public organizations through the creation of an advising committee or working group that seeks public input on projects that may affect the National Mall and allows for open and free discussion with federal and state agencies prior to a formal implementation process.

Finding #6: Parking is inadequate and inconsistent at the National Mall.

Recommendation #6: Create consistency for metered/permit parking and increase enforcement measures for parking on the National Mall to promote turnover and gain more curbside capacity. Conduct feasibility studies to evaluate parking solutions.

Finding #7: Parking is a challenge for tour buses along the National Mall.

Recommendation #7: Create parking spaces or loading and unloading areas for tour buses.

Finding #8: Signs and Maps displayed for visitors are inconsistent and do not provide enough information to help navigate visitors to specific destinations.

Recommendation #8: Create universal signs and maps to improve clarity, reduce visitor confusion and increase coordination among the entities involved in oversight of the Mall.

Finding #9: The National Mall makes limited use of technology to either reduce visitor transportation costs or improve circulation and accessibility.

Recommendation #9: Provide users with podcasts, location-based services, and cross-vehicle transfers that allow individuals to move about the Mall freely and inexpensively.

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Acronyms

ADA – Americans with Disabilities Act
AIA – American Institute of Architects
CFA – Commission of Fine Arts
CI/KR – Critical Infrastructure/Key Resources
CWA – Commemorative Works Act
DBID – Downtown D.C. Business Improvement District
DCPG – Downtown Circulator Partner Group
DDOT – District Department of Transportation
GAO – General Accounting Office
GSA – General Services Administration
HSPD – Homeland Security Presidential Directives
MARC – Maryland Rail Commuter
NCPC – National Capital Planning Commission
NIPP – National Infrastructure Protection Plan
NPS – National Park Service
RFK – Robert F. Kennedy Stadium
SSA – Sector Specific Agencies
SSP – Sector Specific Plans
SOM – Skidmore, Owings, Merrill
TPOL – Transportation Policy, Operations, and Logistics
VRE – Virginia Railway Express
W&OD – Washington and Old Dominion
WMATC – Washington Metropolitan Area Transit Commission
WMATA – Washington Metropolitan Area Transit Authority

1. Introduction

The National Mall symbolizes America's history, freedom and democracy. It is a destination for tourists, protestors, government officials, workers, and local residents. As the Mall grows and changes to accommodate new monuments, more visitors, and additional security measures, access has become an area of concern.

1.1 Background

The National Mall is one of the most significant destinations in the United States, if not the world. According to the National Park Service (NPS), approximately 25 million people visit the National Mall annually. Tourists, local residents, recreational users, workers, and demonstrators alike require access to what has been described by the D.C. Preservation League as, “America’s premier civic expression.” Access to the Mall and circulation around the Mall are therefore, significant concerns of public policy. The adequacy of access and circulation have become concerns, especially with proposals to expand the Mall. Furthermore, NPS has proposed limiting the size and extent of demonstrations on the Mall. Disabled and mobility-impaired visitors also face significant challenges to visiting parts of the Mall. Moreover, access to the Mall is the product of multiple stakeholders with varying levels of authority and no unified definition of accessibility. To address these issues, this study will first define the term “accessibility.” It will then assess the challenges of providing adequate accessibility and circulation to a variety of users by categorizing mall visitors, determining access points to the Mall, reviewing the existing transportation situation in the area, and examining best practices of comparable sites. Finally, the study will draw some conclusions about the current state of access and circulation to the National Mall and offer some recommendations to facilitate improved accessibility.

1.2 Organization

The National Mall Conservancy, a non-profit organization, made up of local citizens committed to providing Americans and foreign visitors with a positive and lasting impression of their visit to the National Mall, requested that students enrolled in the Master’s in Transportation Policy, Operations and Logistics degree at George Mason University’s School of Public Policy research and make recommendations on how access to the National Mall can be improved. This report presents the findings and recommendations of that research.

1.3 Research Approach

To gain insight into the issues of accessibility and circulation a detailed assessment utilizing various documents and reports was conducted. The majority of the documents obtained were from various entities having specific interest in the operations of the National Mall. Employees of NPS, National Capital Planning Commission (NCPC), Downtown D.C. Business Improvement District, the Smithsonian Institution, and other entities were interviewed in order to gain knowledge about jurisdictional issues, the functions of the organizations and how they are connected to the National Mall. Data on visitors and use of transportation modes were obtained from NPS’s *Environmental Assessment and Visitor Transportation Study*. Each of these resources mentioned provided the necessary information to study accessibility and circulation at the National Mall.

1.4 Definitions

1.4.1 Access Defined

Access can be described as the ease of movement to destinations in order to meet needs or wants. Susan Handy writes, in *Access to Destination*, that, “Planning for accessibility means making it easier to get where you need to go.”¹ One of the issues concerning access to the National Mall comes in determining the extent to which the various plans for the Mall focus on access. Handy suggests that accessibility plans have several common elements. First, these plans focus on reaching specific destinations reduce the need to travel, increase mode choices, or address the need of a specific group. Second, the plans measure travel options and the needs of specific groups. Third, strategies are geared toward reducing the need to travel and promote alternatives to driving. She also notes that public transportation services, bicycle, and pedestrian projects are linked to key origins and destinations.² In addition, NCPC defines accessibility as a reasonable walking distance of 2,000 feet. Beyond that distance, individuals are likely to want alternative transportation. When this is applied to the D.C. area, it equates to six blocks from the Northern and Southern borders of the Mall. These criteria will be utilized to assist in determining the extent to which accessibility issues have been applied to the National Mall.

1.4.2 The Mall Area

Determining the boundaries of the National Mall is not simple. There are multiple definitions of the geographic area. One is that the National Mall is the area between 1st and 14th Streets and Constitution and Independence Avenue. A second broadens the area to include the grounds of the Washington Monument and the Lincoln and Jefferson Memorials. The third includes the U.S. Capitol, the White House, the Ellipse, and West Potomac Park.³ For the purposes of this study, the Mall area includes the U.S. Capitol, Union Station, the White House, the Ellipse, National Mall Memorial Parks, Lincoln Memorial, the Tidal Basin, West Potomac Park, East Potomac Park and the Jefferson Memorial. The map below displays this area.

¹Susan Handy, *Access to Destinations*, ed. David M. Levinson and Kevin J. Krizek, (Amsterdam, Boston: Elsevier, 2005), 134.

² Ibid, 137.

³ U.S. Government Accountability Office, *National Mall Steps Identified by Stakeholders Facilitate Design and Approval of Security Enhancements*, 2005, 5, <http://www.gao.gov/new.items/d05518.pdf> (accessed April 4, 2008).

Figure 1 – Map of Mall Area



Source: Google Maps, <http://maps.google.com/>.

2.0 History

The history of the National Mall began with George Washington's vision. L'Enfant designed the original city in 1791 but his plan was left incomplete for many years. Thanks to the McMillan Commission, the plan was revived and adjusted in 1901 to meet the needs of the time. The 1970s and the bicentennial celebration brought renewed interest to the Mall area. Today, the National Mall continues to evolve, as plans have been developed to add monuments and memorials.

2.1 L'Enfant

French engineer, Major Pierre (Peter) Charles L'Enfant was commissioned by President George Washington to design the plan for the "Federal City," in 1791. In a letter to Washington written a year earlier, L'Enfant requested the opportunity to design the city. Washington accepted his offer, knowing L'Enfant through his service at Valley Forge and again as the designer who transformed New York's City Hall into Federal Hall for his inauguration in 1789. L'Enfant believed that it was his destiny to design the capital city.⁴

Secretary of State, Thomas Jefferson, sent L'Enfant a letter authorizing him to survey an area along the Potomac River between Rock Creek and the mouth of the Eastern Branch.⁵ At the time of the survey, the area was largely undeveloped with the exception of the ports of Alexandria on the Virginia side and Georgetown on the Maryland side of the Potomac River. Although the area was made up of forests and wetlands, L'Enfant drew on his training at the Royal Academy in Paris and Baroque style to develop his plan.⁶ The plan shows "Congress House" (the Capitol) located on Jenkins Hill with the "President's House" (the White House) on a second hill a mile and a half away connected by a broad boulevard (Pennsylvania Avenue). The Capitol served as the axis and the center for the four quadrants, northwest, northeast,

⁴ Scott W. Berg. *Grand Avenues: The Story of the French Visionary Who Designed Washington, D.C.* (London: Pantheon Books, 2006), 4.

⁵ Ibid, 4.

⁶ National Park Service, "The L'Enfant & McMillan Plans," <http://www.nps.gov/nr/travel/wash/lenfant.htm> (accessed April 5, 2008).

southeast, and southwest. The streets from north to south were letters, those from east to west were numbers and the avenues were named after the states⁷. L'Enfant noted on his plan that the avenues were to be wide and lined with trees, and visually connect sites throughout the city where monuments and fountains were to be erected.⁸ West of the capitol was what L'Enfant called the "Grand Avenue," a place set aside to be accessible by all visitors to the city. He envisioned the area to be used for recreation and surrounded by spaces for entertainment, homes of statesmen, and education buildings that would encourage visitors to linger.⁹ The central garden, the Mall, would include a water feature and be bordered by trees. An equestrian statue of George Washington was to be located on the axis south of the "President's House" and west of the capital. L'Enfant presented his plan to Washington in June 1791. Unfortunately, less than a year later, he was fired from his position due to his inability to work with the Commissioners appointed by George Washington to oversee the new capital.¹⁰ Of the elements that L'Enfant presented, Pennsylvania Avenue, the White House and the Washington Monument were constructed prior to the end of the 19th Century.

Figure 2 - Map of Federal City



Source: *Federal City Map* <http://xroads.virginia.edu/~CAP/CITYBEAUTIFUL/plan>.

2.2 McMillan Plan

Interest in the capital was renewed in 1898 when the American Institute of Architects (AIA) requested its redesign in commemoration of Washington D.C.'s approaching centennial. As a result, the Senate passed a resolution in 1901 to create the Senate Park Commission or McMillan Commission¹¹ Committee members included, in part, architects and a sculptor whose goal was to study the park system and make recommendations for improvements. The committee concluded that by extending B Street northeast to Pennsylvania Avenue, the Mall would be a uniform 1600 feet allowing for the creation envisioned by L'Enfant's original plan.¹² The plan called for the area south of Pennsylvania Avenue to be used for public purposes. This required removing the railroad from the Mall and forming an axis between the Capitol, the Washington Monument, and the White House. North and south of B Street was to be the site for

⁷ National Park Service, *Cultural Landscape Inventory 2006 National Mall & Memorial Parks Union Square*, November 2006, 14, <http://www.nps.gov/nationalmallplan/Documents/Studies/u1.pdf> (accessed March 3, 2008).

⁸ National Park Service, "The L'Enfant & McMillan Plans."

⁹ Berg, *Grand Avenues*, 6.

¹⁰ James Thomas Flexner, "The Great Columbian Federal City," *American Art Journal* 2, no. 1 (Spring 1970): 43.

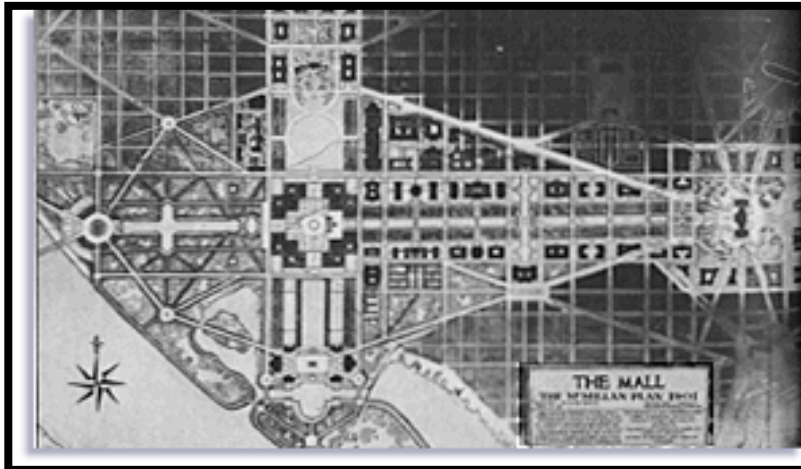
¹¹ National Park Service, *A History of the National Mall and Pennsylvania Avenue National Historic Park*, 1, <http://www.nps.gov/nationalmallplan/Documents/mallpaavhistory.pdf> (accessed March 3, 2008).

¹² U.S. Senate, *Report of the Senate Committee on the District of Columbia on the Improvements of the Park System of the District of Columbi*, (Washington, D.C.: Government Printing Office, 1902), 5, <http://www.library.cornell.edu/Reps/DOCS/parkcomm.htm> (accessed March 5, 2008).

scientific buildings and museums. The committee described the area between the Capitol and the Washington Monument as an “undulating” green, walled by trees planted in a formal design and compared it to a similar design used in Central Park, New York.¹³ Between Seventh and Ninth streets, the area was to be park-like with large water features and seating that encouraged visitors to linger. Recreational areas included Washington Common south of the Washington Monument and the Tidal Basin, which included boating, and swimming in the summer and ice skating in the winter.¹⁴ A site for the Lincoln Memorial was set aside west of the Washington Monument and a site south of the Washington Monument was established for what would be the Jefferson Memorial. Finally, the plan called for a bridge to be constructed between the Lincoln Memorial and Arlington National Cemetery.

Completion of the Tidal Basin, the Reflecting Pool and the Lincoln and Jefferson Memorials were significant accomplishments for the McMillan Commission. The Commission was also responsible for ensuring that its vision would continue to be implemented through the establishment of the Commission of Fine Arts in 1910. In 1924 the National Capital Park and Planning (later known as NCPC), was charged with developing a consistent plan for parks in the Nation’s Capital and its environs in Maryland and Virginia.¹⁵ In 1933, the parks in Washington, D.C. were consolidated and NPS took over management of them.¹⁶

Figure 3 – 1901 National Mall Plan



Source: 1901 National Mall Plan <http://xroads.virginia.edu/~CAP/CITYBEAUTIFUL/plan>.

2.3 1966 Washington Mall Plan and 1973 Washington Circulation System

Starting again in the 1960s, major events once again brought attention to the state of the capital area. After Kennedy’s inauguration in 1961, Pennsylvania Avenue became an area of concern and was revitalized. The 1966 *Washington Mall Plan*, prepared by the architectural firm Skidmore, Owings, & Merrill (SOM), produced a report proposing that the National Mall Area from the Capitol grounds to the Potomac and from the White House to Potomac become a National Monument.¹⁷ Under the Antiquities Act of 1906, the President can declare an area

¹³ Ibid, 6.

¹⁴ Ibid, 7.

¹⁵ National Park Service, *A History of the National Mall*, 6.

¹⁶ Ibid, 7.

¹⁷ National Park Service, *Cultural Landscape Inventory 2006*, 41.

already under Federal jurisdiction to be a national monument.¹⁸ Further, as a monument, the area would be set aside for public enjoyment. The report also examined circulation issues, lack of services for visitors, disjointed land use, and lack of planning. The plan called for removing Jefferson, Adams, Washington, and Madison Drives and making them pedestrian walkways. It also called for removing on-street parking from the area and relying on tour and shuttle buses. Parking would be provided through underground parking lots at 8th, 12th and 14th Streets and satellite parking facilities would be located at Robert F. Kennedy (RFK) Stadium, Union Station, and the Pentagon. First, Second and Third Streets were removed and replaced with a reflecting pool and tunnels were to be built under 4th, 9th, 12th, and 14th Streets. Finally, the plan called for providing an interpretive tour bus service.¹⁹ Much of this plan was never implemented, with the notable exception of the interpretive transportation service, known as the Tourmobile.

The 1976 bicentennial celebration brought a second report, *The Washington Mall Circulation System*, from SOM in 1973. This report reflected many of the same issues as the previous report. Once again, the goal was to remove vehicular traffic from the area in favor of pedestrian walkways and tour buses. The Tourmobile routes were reduced from seven to three figure-eight-shaped loops with its main terminal at Union Station and gathering areas between 14th and 15th Streets.²⁰ A Ceremonial Drive was proposed to replace 3rd Street that included a forty-five foot wide pedestrian path that would include visitor information services, bike racks, benches, water fountains, and trashcans. Crosswalks and wheelchair accommodations were also included in the plan. At 14th and 15th Streets, restrooms and vendor areas would be provided. However, because of the potential for large amounts of trash created by visitors and security issues associated with public restrooms as well as the feeling that the land was too valuable to use for this purpose, public bathrooms were not built.²¹ Finally, the plan called for First Street to be reserved for the Tourmobile and the tunneling of 9th and 12th Streets.²²

Again, few elements of the plan were carried out. Washington and Adams Drives were removed but vehicle traffic and on-street parking were retained on Jefferson and Madison Drives. Ninth and 12th Streets were tunneled but this left scars on the Mall, which caused further tunneling to be reevaluated. From 1976 to 2006, few changes have been made to the Mall with the exception of several food stands that were added near the museums and Metro entrance that was opened in 1976.²³

2.4 Current Plans

NPS through the National Mall & Memorial Parks has created three alternative plans for managing the National Mall and Pennsylvania Avenue National Historic Park. In its Fall/Winter 2007, *Making Choices for the Future of the National Mall and Pennsylvania Avenue National Historic Park*, the Park Service has requested public feedback on the alternatives. The three plans are compared to the no-action alternative, which is retaining how the park is currently maintained. Plan A focuses on preserving the historic aspects of the L'Enfant and McMillan plans while accommodating future demands. Plan B focuses on visitors by providing

¹⁸ National Atlas, "A National Monument, Memorial, Park . . . What's the Difference?"

http://nationalatlas.gov/articles/government/a_nationalparks.html (accessed March 28, 2008).

¹⁹ National Park Service, *Cultural Landscape Inventory 2006 National Mall & Memorial Parks*, November 2006, 78, <http://www.nps.gov/nationalmallplan/Documents/Studies/m3.pdf> (accessed March 3, 2008).

²⁰ Ibid, 79.

²¹ Ibid, 81.

²² Ibid, 79.

²³ Ibid, 81.

multilingual educational opportunities and an increased focus on pedestrians. It includes changing the design of areas to accommodate demonstrations and events. Finally, Plan C provides additional open space that adapts to the public's changing demands. It also connects East Potomac Park, the Georgetown Waterfront, Rock Creek Park, and the Southwest Waterfront. All of the alternatives preserve Pennsylvania Avenue as it is.²⁴ In 2008, NPS will release a draft plan and an environmental impact statement that will include the preferred alternative.

In 2006, NCPC and the Commission of Fine Arts (CFA) joined forces to develop the National Capital Framework Plan. The plan, scheduled for completion in 2008, focuses on improving the monumental core and discusses the additions of new cultural attractions on the outskirts of the National Mall. The framework addresses challenges and barriers that inhibit the use of available resources. The plan focuses on enhancing waterfront areas and open space to better accommodate visitors. To preserve the National Mall area new monuments are proposed throughout the city area. To revitalize the National Mall the plan encourages improvements to the area including retail stores, restaurants, and visitor accommodations. The plan discusses the success of the Circulator, which has been in operation since 2005 and the significance of this public-private partnership that has allowed a low-cost transportation service to be provided to residents and businesses. The success of this service may lead to additional routes in the future.

2.5 National Mall Facts

NPS has a list of little-known facts about the National Mall. Some facts pertinent to this study include the following:

There are over 25 million visits to the Mall annually.

More than 440,000 vehicles travel along Constitution and Independence Avenue as well as side streets daily.

- Besides the most famous parks and memorials, there are over 65 lesser known monuments and memorials in the National Mall & Memorial Parks
- Roughly, 30,000 people use the 15 softball fields, 8 volleyball courts, 2 rugby fields, 2 multi-purpose fields and the Washington Monument grounds annually.
- Over 6,000 permits are submitted to NPS annually. Of those, 3,800 are approved, which averages out to more than 30 permitted events occurring on the Mall every day.
- The United States Park Police, the Metropolitan Police Department, United States Capital Police, and the Secret Service provide security for major events.
- Each year, 200,000 tour buses bring 8 million visitors to the National Mall.
- Before Metrorail and the Tourmobile, access to the Mall was available only by walking and by automobile.²⁵

²⁴ National Park Service, *Legal Considerations for the National Mall and Pennsylvania Avenue National Historic Park*, http://www.nps.gov/nationalmallplan/Documents/Symposium%20Papers/Legal_Considerations_29_Oct.pdf (accessed March 8, 2008).

²⁵ National Park Service, "National Mall & Memorial Parks Little-Known Facts," <http://www.nps.gov/nationalmallplan/Documents/Media/NAMA%20Fact%20Sheet.pdf> (accessed March 3, 2008).

3.0 Governmental Entities and Oversight of the National Mall

Oversight of the National Mall involves multiple public and private entities with differing responsibilities that work together to preserve the historic grounds and enhance the experience of visiting Washington, D.C. Congress has the authority to decide which monuments and memorials will be constructed within the National Mall area while the daily management of the Mall is split between various government agencies. NPS has jurisdiction of the park area, monuments, and memorials and District Government is responsible for maintaining cross streets within the vicinity. According to Alexa Viets at NPS, the curbs and roads on Madison and Jefferson Drives are owned by NPS. Independence and Constitution Avenues on the outer perimeter of the Smithsonian Institution buildings are under D.C. jurisdiction. The NCPC, CFA, General Services Administration (GSA), and the District Department of Transportation (DDOT) also play a role in the planning and location for improvements within the National Capital Region.

3.1 Legislation

3.1.1 1916 Organic Act

The Organic Act of 1916 (16 USC 1) created NPS. The act required that NPS “promote and regulate the use of the Federal areas known as national parks, monuments, and reservations hereinafter specified...by such means and measures as conform to the fundamental purpose of the said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.”²⁶ Sixty square miles of parkland within the National Capital Region fall under the care of NPS.²⁷ Because NPS is under the Department of the Interior, the Secretary of the Interior oversees the Park Service.²⁸ Additionally, NPS receives guidance for management of the national park system through the Constitution, public laws, regulations, executive orders, and the Assistant Secretary for Fish and Wildlife and Parks.

3.1.2 General Authorities Act of 1970

The General Authorities Act of 1970, listed in 16 USC 1a-1 is a key mandate directing responsibilities of NPS. It was developed to clarify the protection and management of the national park system. The Act states that these areas of the national park system “though distinct in character, are united through their interrelated purposes and resources into one national park system as cumulative expressions of a single national heritage; that, individually and collectively, these areas derive increased national dignity and recognition of their superb environmental quality through their inclusion jointly with each other in one national park system preserved and managed for the benefit and inspiration of all people of the United States.” In discussions with NPS, it has been made clear that the National Mall faces different challenges

²⁶ National Park Service, *Legal Considerations for the National Mall and Pennsylvania Avenue National Historic Park*, 2.

²⁷ National Capital Planning Commission. *Comprehensive Plan: Federal Elements*, August 5, 2004, 5, http://www.ncpc.gov/UserFiles/File/publications_press/CompPlan/Final/1-CP%20Intro.pdf (accessed April 9, 2008).

²⁸ U.S. Department of the Interior. *U.S. Department of the Interior: DOI Mission*. <http://www.doi.gov/secretary/mission.html> (accessed February 24, 2008).

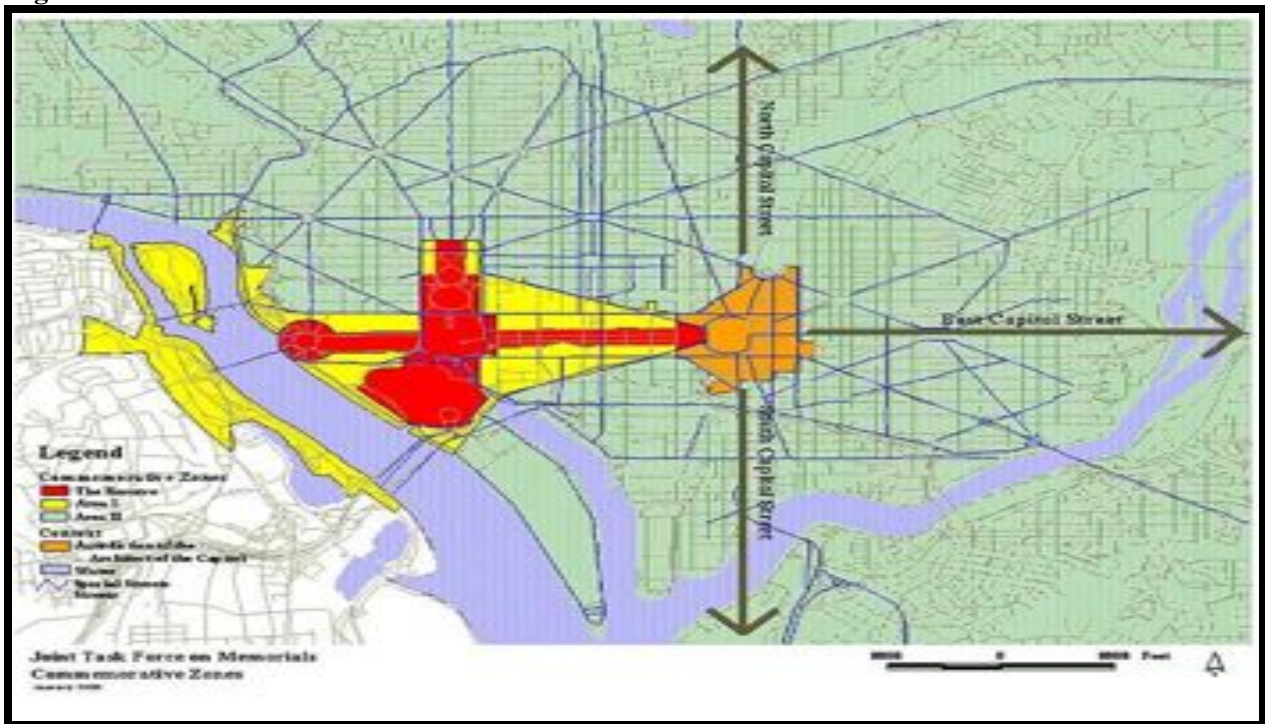
than other parks overseen by NPS because of its urban setting. As a result, it is often difficult to follow guidelines that are used at other federal parks.

3.1.3 Commemorative Works Act of 1986

“The Commemorative Works Act of 1986 (CWA) provides standards for the placement of memorials on certain federal land in the District of Columbia and environs.”²⁹ However, museums are not subject to the Commemorative Works Act and do not have a formal process like that of the memorials. Approval for the design and construction of a memorial must come from NCPC, Commission of Fine Arts, and the Secretary of the Interior or GSA Administrator. Congress must approve memorials on NPS or GSA administered property. In 2003, Congress amended the Act to establish the National Mall as a “substantially completed work of civic art.”³⁰

The Act defined the areas within the National Mall as the Reserve, Area I and Area II. The Reserve is the central location of the monumental core where new memorials are prohibited. Congress defined the “Reserve” to include the cross-axis which extends from the Capitol to the Lincoln Memorial and from the White House to the Jefferson Memorial. Area I, as depicted on the map, is designated as a sensitive area for commemorative works of historical significance to the United States.

Figure 4 – Area I of the National Mall



Source: NCPC, <http://www.ncpc.gov/initiatives/pg.asp?p=commemorativezonepolicy>.

The Secretary of the Interior or Administrator for the GSA shall advise the CFA, House Committee on House Administration and the Senate Committee on Energy and Natural Resources that the commemorative work should be located within this designated area. The

²⁹ National Capital Planning Commission, *Memorials and Museums Master Plan*, September 2001, 5, http://www.ncpc.gov/UserFiles/File/2M1_33.pdf (accessed March 8, 2008).

³⁰ National Park Service, *A History of the National Mall*, 12.

memorial must be approved no later than 150 days after notification. Area II designates locations where commemorative works should be encouraged in the future.³¹

The Commemorative Works Act also establishes the National Capital Memorial Advisory Commission. The Commission's members include the Director of NPS, Architect of the Capitol, Chairman of the American Battle Monuments Commission, Chairman of CFA, Chairman of the NCPC, Mayor of D.C., the Commissioner of the Public Buildings Service of GSA, and the Secretary of Defense. The Commission is required to meet at least twice annually. The purpose of this Commission is to advise the Secretary of the Interior and Administrator of General Services on proposals received to establish memorials and develop policies for the establishment of commemorative works within the capital region.³²

3.1.4 National Park Service Concessions Management Improvement Act

In 1998, Congress enacted NPS Concessions Management Improvement Act, which directed the Secretary of the Interior to use concession contracts to provide accommodations and services to visitors of the National Park System. This Act provides guidance on entering into contracts with private entities to provide needed services, accommodations, and facilities for public use and enjoyment of the national park system. The Act states that concession contracts are normally awarded for 10 years or less. The Secretary may award a contract for up to 20 years if the terms and conditions of the contract justify a longer agreement. The Secretary is required to approve the rates and fees established by the concessionaire for services offered. A special provision is also included in the Act that relates to contracts awarded for transportation services. The service contract may not be for more than 10 years, including a base period of 5 years. The Secretary may offer annual extensions for an additional five-year period based on satisfactory performance.³³

4.0 NPS and National Mall Policies

NPS works with other government agencies to develop plans to provide adequate services to the general public. A key component to promote movement within national parks is to provide needed transportation services. The *NPS Management Policies 2006* state that NPS will “encourage alternative transportation systems, which may include a mix of buses, trains, ferries, trams, and—preferably—nonmotorized modes of access to and moving within parks.”³⁴ NPS focuses on utilizing transportation that preserves the natural resources of the park area while providing appropriate service to visitors.

4.1 Tourmobile

To enhance the experience of visiting the National Mall and providing adequate service to meet the transportation needs of visitors, NPS contracted with Universal Interpretive Shuttle Corporation in the late 1960s to conduct guided tours of the National Mall. In 1968, the

³¹ U.S. Code, 40 USC 8908, <http://uscode.house.gov/download/pls/40C89.txt> (accessed April 15, 2008).

³² U.S. Code, 40 USC 8904, <http://uscode.house.gov/download/pls/40C89.txt> (accessed April 15, 2008).

³³ National Park Service, “National Parks Omnibus Management Act of 1998,” <http://www.concessions.nps.gov/document/National%20Parks%20Omnibus%20Management%20Act%20of%201998.pdf> (accessed March 15, 2008).

³⁴ National Park Service, *Management Policies 2006*, <http://www.nps.gov/policy/MP2006.pdf> (accessed March 8, 2008).

Washington Metropolitan Area Transit Commission (WMATC now WMATA, the Washington Metropolitan Area Transit Authority) sued Universal Interpretive Shuttle Corporation, under contract with the Secretary of the Interior. WMATC argued that the Secretary must obtain approval from WMATC to contract out tour services. WMATC claimed that the concessionaire was conducting tour services without a certificate of convenience and necessity from WMATC. WMATC argued that it was given responsibility over transit service within the D.C. area. In 1898, according to D.C. statute § 10-104, the United States Army Chief of Engineers was given “exclusive charge and control” of the park system in D.C. In 1925, this power was given to the Director of Public Buildings and Public Parks of the National Capital. This power now resides with NPS.³⁵ Furthermore, the Director of NPS is authorized to make and enforce regulations controlling vehicles and traffic within public areas, in D.C., under his control.³⁶ NPS has complete control to authorize the use of interpretative transportation without obtaining approval from WMATC. The United States Code provides the Secretary of the interior with the authority to enter into contracts for services to be provided in national parks for the public under contract with the Department of the Interior.³⁷ The court case found that WMATC did not have jurisdiction over the Mall and did not have the authority to require certification of a carrier that has contracted with NPS. As a result, NPS entered into a concession with Landmark Service, Inc to provide interpretive shuttle services on the National Mall through TourmobileSM Sightseeing, which began operating in 1969. NPS must approve the rates charged by Tourmobile based on accessibility, percentage of occupancy, peak loads, and cost of labor and materials.³⁸ The Tourmobile remains the sole provider of transportation contracted through NPS. Currently, the contract is signed on an annual basis.

³⁵ D.C. Code, § 10-104,

<http://weblinks.westlaw.com/Find/Default.wl?DB=DC%2DST%2DTOC%3BSTADCTOC&DocName=DCCODES10%2D104&FindType=W&AP=&fn=top&rs=WEBL8.04&vr=2.0&spa=DCC-1000&trailtype=26&Cnt=Document> (accessed May 2, 2008).

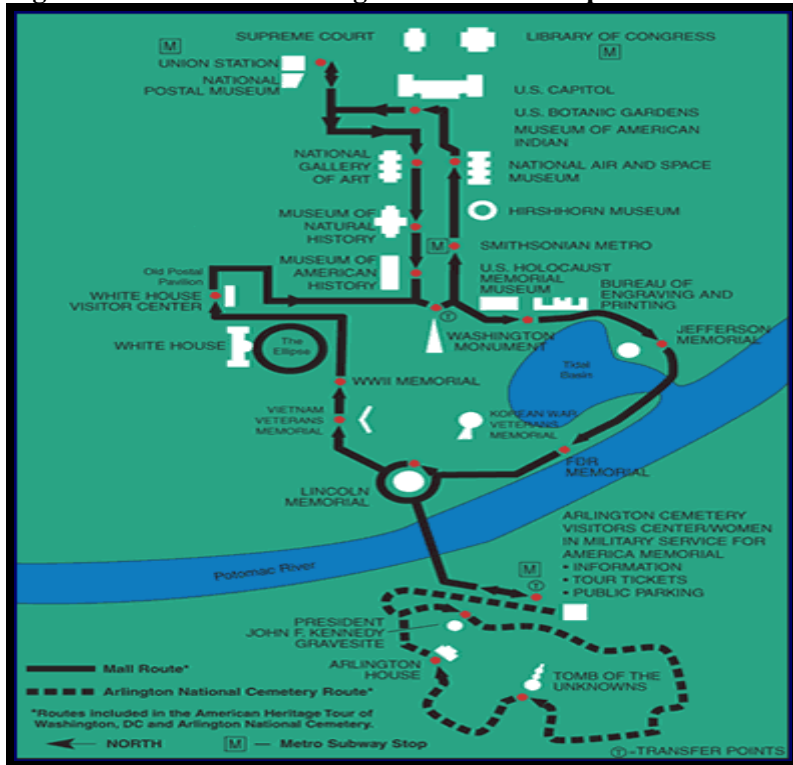
³⁶ D.C. Code, § 10-105,

<http://weblinks.westlaw.com/Find/Default.wl?DB=DC%2DST%2DTOC%3BSTADCTOC&DocName=DCCODES10%2D105&FindType=W&AP=&fn=top&rs=WEBL8.04&vr=2.0&spa=DCC-1000&trailtype=26&Cnt=Document> (accessed May 2, 2008).

³⁷ U.S. Code, 16 USC 17b, <http://uscode.house.gov/download/pls/16C1.txt> (accessed April 15, 2008).

³⁸ National Park Service, *Management Policies 2006*, 146.

Figure 5 – American Heritage Tourmobile Map



Source: Tourmobile, http://www.tourmobile.com/tours_map.php.

4.2 NPS Parking Policies

NPS manages parking lots and street parking within the National Mall area. According to NPS Management Policies, parking will be provided to the smallest degree appropriate. Permanent facilities will be provided for peak periods of use during the weekend or a particular season, but increases in visitation may lead to the need for temporary parking facilities that will be provided in a manner that does not negatively impact park resources or cause environmental damage. This may explain the reason for limited parking provided within the National Capital Region.³⁹

4.3 NPS Signs

NPS is required to develop park signs that conform to standards in the Director's Order #52C. The order requires that NPS signs help guide motorists to and within the park area. Additionally, signs must be posted throughout the park relating to wayfinding, safety, and general information. Alexa Viets, of NPS, noted that the current maps have been in place since the 1976 Bicentennial. NPS is in the process of creating signs similar to those used by DDOT and has received funding for this project.⁴⁰

4.4 Through Traffic

NPS works with local and federal transportation entities to ensure that traffic within the area of the Mall has a minimal impact on park resources. Traffic that negatively impacts the park may be rerouted to an alternative route or, if the road is no longer needed, it may be closed

³⁹ Ibid, 135.

⁴⁰ Ibid.

and restored to its natural condition. If possible, commercial traffic is prohibited within the park setting unless it is providing service for park visitors.

According to the Organic Act, NPS can object to proposals planning to construct or expand roads that may impact park areas. If no other alternative exists, the proposal may minimally impact park areas. However, the proposal must be in the best interest of the public and ensure that there are no health or safety risks to visitors or staff. NPS coordinates the review of these proposals and works with the United States Department of Transportation to ensure compliance with federal regulations.⁴¹

5.0 Commissions and DDOT

The National Capital Region is known for its beauty, architectural designs, and historic presence, which are displayed throughout the National Mall. Although this area is maintained and controlled by NPS, various entities are involved in the planning and approval of enhancements to the area and must work together in order to maintain the historical nature of the area, and provide a high level of service for visitors.

5.1 National Capital Planning Commission (NCPC)

NCPC is a federal government agency established to handle planning and development of federal buildings and lands within the nation's capital as well as to conserve its natural and historical characteristics. The Commission is responsible for preparing long-range plans and conducting studies to ensure that the government is functioning effectively. Legislation in 1924 created the NCPC to "plan for the park, parkway, and playground systems of Washington; and in 1926 its duties were extended to include consideration of all elements of city and regional planning, such as land use, major thoroughfares, systems of parks, parkways, and recreation, mass transportation, and community facilities."⁴²

5.2 Commission of Fine Arts

Congress established the Commission of Fine Arts in 1910 to provide advice to the President, Congress, and heads of other federal and District of Columbia governmental entities on ways to preserve the historic nature of the nation's capital. The Commission approves the design and location of national memorials in accordance with the Commemorative Works Act and the American Battle Monuments Act.⁴³

The American Battle Monuments Act created the American Battle Monuments Commission in 1923 to design, construct, and maintain memorials and monuments within the United States and in foreign countries. Three memorials in D.C. established by the American Battle Monuments Commission, are now maintained by NPS the Korean War Veterans Memorial, World War II Memorial, and the American Expeditionary Forces Memorial. The role of CFA is to approve the design of the memorial before the American Battle Monuments Commission can accept it.⁴⁴

⁴¹ Ibid, 133.

⁴² National Capital Planning Commission, *Comprehensive Plan: Federal Elements*, 9.

⁴³ U.S. Commission of Fine Arts, <http://www.cfa.gov> (accessed March 8, 2008).

⁴⁴ American Battle Monuments Commission, "Memorials," <http://www.abmc.gov/memorials/index.php> (accessed April 1, 2008).

5.3 District Of Columbia Department of Transportation (DDOT)

DDOT is responsible for planning, designing, building, and maintaining the street system within the District and coordinating the District's mass transit services. Metrorail and bus systems transport visitors and residents to the downtown area. To provide circulation around the National Mall and D.C. area, a public-private partnership was formed between WMATA, DDOT, and D.C. Surface Transit, Inc. to provide transit service through the D.C. Circulator.

DDOT is responsible for working with NPS in areas within the Monumental Core because this area is in the jurisdiction of NPS. These two entities work together to provide access for visitors and residents within the region. According to the *City Center Action Agenda* for 2008, NPS and DDOT, along with other entities are working to enhance specific areas for bicyclists, pedestrians, and transit users. One idea is to work with NPS and NCPC to develop pedestrian friendly streets within the area closest to the National Mall. This also includes a redesign of 14th Street to connect pedestrians to the north and south areas of the Mall.⁴⁵

6.0 Categories of Users

The openness of the National Mall presents a challenge to transportation planners. As a park that is located in the heart of a major urban area, planners must take into consideration a variety of users who access the Mall for both business and pleasure. To provide equal and adequate levels of access, planners are obligated to understand that users have different travel needs, based on their degree of mobility and purpose.

For the purpose of this study, users shall be determined based on statistics and studies looking at individuals and groups who utilize D.C. and are therefore more likely to use the Mall. There are few residential areas directly connected to the Mall, therefore, residents and visitors would be on the Mall or circulating around it for business and leisure and will be generically referred to as visitors.

It is essential that the users of the Mall be provided with a variety of transportation options that allow them to experience all that the Mall has to offer. In February 2004, President George W. Bush signed Executive Order 13330 that states in part:

- (a) A strong America depends on citizens who are productive and who actively participate in the life of their communities.
- (b) Transportation plays a critical role in providing access to employment, ... education, and other community services and amenities. The importance of this role is underscored by the variety of transportation programs that have been created ... by the significant Federal investment in accessible public transportation systems throughout the Nation.⁴⁶

It seems very much within the spirit of this executive guidance that, because the Mall is a central meeting point and used for countless recreational activities, access to it is essential to an

⁴⁵ D.C. Office of Planning, *City Center Action Agenda*, December 2006, http://planning.dc.gov/planning/frames.asp?doc=/planning/lib/planning/city_center_action_agenda/corridors_for_focused_investment.pdf (accessed March 8, 2008).

⁴⁶ George W. Bush, "Executive Order 13330 – Human Service Transportation Coordination," February 24, 2004, <http://www.whitehouse.gov/news/releases/2004/02/20040224-9.html> (accessed May 2, 2008).

individual participating in the “life of their communities.” Surrounding the Mall are numerous federal buildings and a number of private employers, thus providing access to employment, as well as monuments and museums is important. A NPS study highlighted the top 15 visitor connections in the downtown D.C. area. The study found that the top connection was between the Lincoln, Vietnam Veterans, and Korean War Veterans Memorials area and East Potomac Park, location of the Franklin Delano Roosevelt and Thomas Jefferson Memorials. The second most popular connection was between the Lincoln Memorial area and the Washington Monument.⁴⁷ However, the connections between these areas are not adequately accessible by vehicle, transit, or walking. In order to make these connections, visitors must utilize tour services provided through NPS.

6.1 Challenges

6.1.1 Quantifying Visitors

Understanding why individuals have entered, or will enter, the Mall area is essential to understanding what accessibility and circulation needs will be. A major challenge is determining the number of visitors that come to the Mall. Individual entities develop numbers in different manners based on various methods employed to count visitors. An example of the challenge in quantifying visitors to the Mall can be found in the methodology used by NPS at various attractions around the Mall to determine the number of visitors.

- Standard Memorial Method
 - Count the number of visitors six times a day, for 15 minutes each, at randomly selected times. Sum the counts and then divide by six to get the average number of visitors for the samples. Multiply that number by 64 (number of 15 minute periods the park is open) to determine the number of memorial visitors each day. The sum of the each day is added together to produce the monthly and annual visitation number.
- Washington Monument
 - Count the visitors who use the elevator
- White House
 - Count the number of public tour visitors
 - Count the number of Congressional and special tour visitors using data supplied by the Secret Service
 - Count the number of attendees to special events like Rose Garden Ceremonies⁴⁸

6.1.2 Determining Visitor Needs

Understanding visitor needs is another challenge. The ability of an individual or group to circulate among the sites is key. It is expected that small children and seniors move slower; have greater need for benches, restrooms, food and beverage. It is also more likely that these visitors

⁴⁷ National Park Service, *Environmental Assessment, Washington, D.C., Visitor Transportation Study for the National Mall and Surrounding Park Areas*, November 2006, <http://parkplanning.nps.gov/document.cfm?parkId=427&projectId=17349&documentID=17350> (accessed February 13, 2008).

⁴⁸ Gordon Cessford and Andreas Muhar, “Monitoring Options for Visitor Numbers in National Parks and Natural Areas,” *Journal for Nature Conservation* 11, no. 3 (2003): 240-250.

will use assisted movement devices such as strollers, wheelchairs, or canes/walkers. In addition, federal law requires transportation for the disabled. According to the Code of Federal Regulations - Title 49, Transportation; Part 37 “Transportation Services for Individuals with Disabilities (ADA)”, physical or mental impairment includes, a diverse listing of disabilities that must be considered when providing services to users. (See Appendix B) Other users include Mall employees who need to cross the Mall to get to work or move around the perimeter of the Mall for work. Users also include visitors who are on the Mall for education and sightseeing or recreational sports and relaxation. The needs and perspectives of Mall visitors vary tremendously and can even fluctuate from day to day for the same individual.

6.2 Potential Mall Users

Attempts to statistically subdivide Mall users are complicated. As an urban park integrated into the framework of the area, additional challenges exist. There are a variety of entities that count or provide estimates on the number of users for specific functions. Though there is no way to estimate how many unique visitors leave a footprint on the Mall, it is possible to look at how people use the Mall - how they arrive, how they get around, and what they do.

6.2.1 Census Data of Geographic Area

The National Capital Region is home to approximately 3,735,390 people, according to the US Census Bureau. The following Census Bureau demographic breakdown (Figure 6) provides a core group of users who would most likely frequent the downtown D.C. area and thus the Mall. It also looks at three groups, under 5, over 65, and disabled, with the greatest potential for mobility difficulties.

Figure 6 – US Census Bureau 2006 American Community Survey

Geographic Area	Population Estimates	Under 5	Over 65	Disabled
Washington, DC (2006)	581,530	34,980	71,455	74,795
Montgomery County, MD (2006)	932,131	65,884	110,787	83,600
Prince George’s County, MD (2006)	841,315	60,466	72,637	78,970
Fairfax County, VA (2006)	1,010,443	73,356	92,662	81,134
City of Fairfax, VA (2000)	22,422	1,289	2,753	2,961
City of Falls Church, VA (2000)	10,799	571	1,262	1,171
Arlington County, VA (2006)	199,776	12,861	19,890	15,572
City of Alexandria, VA (2006)	136,974	10,534	14,844	12,301
Total Regional Population	3,735,390	259,941	386,290	350,504
Regional Average		7.0%	10.3%	9.4%
National Average		7.3%	9.2%	15.1%

Source: US Census Bureau, 2006 American Community Survey; 2000 US Census

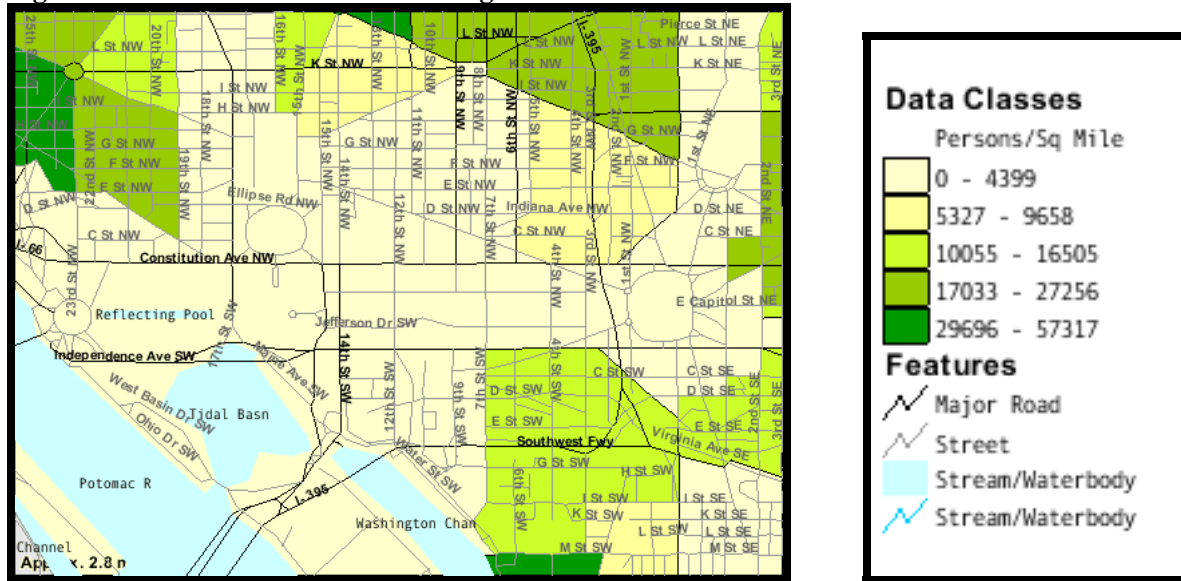
Source: US Census Bureau, 2006 American Community Survey; 2000 US Census, http://factfinder.census.gov/servlet/ADPTable?_bm=y&-geo_id=05000US11001&-qr_name=ACS_2006_EST_G00_DP3&-ds_name=ACS_2006_EST_G00_-lang=en&-sse=on.

In the 2000 Census, D.C. ranked 21st in total population on the list of incorporated places, ranking it between Boston and Nashville.⁴⁹ As with other urban areas, the population is not evenly distributed. The area surrounding the Mall is not heavily populated as the following map illustrates (Figure 7). It is an area of government and private offices, museums, and parkland.

⁴⁹ U.S. Census Bureau, “Incorporated Places of 100,000 or More, Ranked by Population: 2000,” <http://www.census.gov/population/cen2000/phc-t5/tab02.xls> (accessed March 20, 2008).

Like many downtown areas, local residents and visitors enter for work or for leisure during the day and then leave the area by early evening.

Figure 7 – US Census Bureau Washington D.C. Census Tract



Source: US Census Bureau - Washington, District of Columbia by Census Tract: 2000, http://factfinder.census.gov/servlet/ADPTable?_bm=y&-geo_id=05000US11001&-qr_name=ACS_2006_EST_G00_DP3&-ds_name=ACS_2006_EST_G00_&-lang=en&-sse=on.

6.2.2 Penn Quarter and Chinatown

While the Central Washington area of D.C. makes up a small percentage of D.C.'s population, it does have a growing populace and a unique demographic breakdown. This area is bordered by Interstate 395 on the South, the Potomac River to the West, and 3rd Street (NE and SE) to the East, as well as taking in the areas towards the Dupont Circle, Mt. Vernon Square/Convention Center, and New York Avenue Metro stations. Beginning in the late 1990s with the building of the Verizon Center, a multi-use indoor sports arena, and the revitalization of the Penn Quarter and Chinatown areas, this 6.8 square miles of land area has seen a 40 percent increase in population in just six years - to an estimated 15,700. Young singles, couples, and seniors, living in large apartment and condominium buildings and attracted by the proximity to work, culture, and entertainment are making this area home.⁵⁰

6.2.3 D.C. Visitors

Visitors to Washington, D.C. make up an important group of potential Mall users. According to data compiled by the Washington, D.C. Convention and Tourism Corporation, D.C. (the city, not the metropolitan region) ranked as the sixth most visited US city by domestic visitors (13.9 million) and eighth among international visitors (1.2 million).⁵¹ Domestic visitors were split in their travel purpose with 59 percent coming to D.C. for leisure and 41 percent for business. The *D.C. Visitor Transportation Survey* noted that children under five and adults older

⁵⁰ The National Capital Planning Commission, *The Comprehensive Plan for the National Capital: District Elements*, August 5, 2004, 16-6 & 16-7, http://www.npcp.gov/UserFiles/File/publications_press/CompPlan/Final/1-CP%20Intro.pdf (accessed April 2, 2008).

⁵¹ Washington, D.C. Convention & Tourism Corporation, <http://www.washington.org> (accessed April 3, 2008).

than 65 make up about 11 percent of visitors. It also found that 24 percent of the visitors reported having an “individual in [their] immediate travel party who can only walk a limited distance,” with the most common reasons being pain or discomfort, having small children, having breathing difficulties, and wheelchair or walker/cane users.⁵² Both reports indicate that summer is the most popular time for leisure visitors to the D.C. area.

The study also noted that in 2006, 73.9 million visits were made to D.C. area attractions, with 44.2 million visits to NPS sites and 22.8 million visits to Smithsonian sites.⁵³ Most visitors had either never been to D.C. or went very infrequently. The *D.C. Visitor Transportation Survey* found that 34 percent of respondents were visiting D.C. for the first time. An additional 42 percent went to D.C. less than once a year.⁵⁴

Figure 8 - Smithsonian Institution Museums on the National Mall

Smithsonian Institution, Total Visits (2007)		24.2 million
Arts and Industries Building		Closed for renovation
Freer Gallery of Art		590,000
Hirshhorn Museum and Sculpture Garden		740,000
National Air and Space Museum		6 million
National Museum of African Art		310,000
National Museum of American History		Closed for renovation
National Museum of the American Indian (Washington, D.C.)		1.8 million
National Museum of Natural History		7.1 million
Arthur M. Sackler Gallery		308,000
S. Dillon Ripley Center		296,000
Smithsonian Institution Building, "The Castle"		1.6 million
Smithsonian Institution Sites on the National Mall, Total Visits		18,744,000
(source: Smithsonian Institution, Smithsonian Vital Statistics - Total for 2007)		

Source: Smithsonian Institution, <http://newsdesk.si.edu/visits/default.htm>.

Figure 9 - Monuments and Memorial Visits

National Park Service, Total Visits (2007)	
Franklin Delano Roosevelt Memorial	2,751,725
Korean War Memorial	3,433,663
Abraham Lincoln Memorial	4,214,167
World War II Memorial	4,079,606
Thomas Jefferson Memorial	2,327,254
Vietnam Veterans Memorial	3,633,793
* George Washington Monument	591,081
(source: National Park Service Public Use Statistics Office)	
Monuments and Memorials on the National Mall, Total Visits	21,031,289

Source: Smithsonian Institution, <http://newsdesk.si.edu/visits/default.htm>.

6.2.4 Protestors

Protestors are an important category of user because the National Mall is one of the great gathering points for public expression. Prior to 1996, the United States Park Police provided an

⁵² PricewaterhouseCoopers LLP, *National Capital Parks Central Washington, DC Visitor Transportation Survey*, 2003, 84, http://image1.nps.gov/lizardtech/iserv/getdoc?cat=SocSci&item=/Documents/NCR_Transportation_Survey_2003.djvu&DJVUOPTS&thumbnails=true (accessed March 11, 2008).

⁵³ Washington, D.C. Convention and Tourism Corporation.

⁵⁴ PricewaterhouseCoopers LLP, *D.C. Visitor Transportation Survey*, 19.

estimate for protest size. Following the Million Man March in 1996, which drew substantially fewer people than the name suggested, Congress prohibited the Park Police from providing such estimates. The result is that current estimates are not based on sound methodology. One way to count protestors may be to look at the number of demonstrations. According to the article, “Who Counts and How, Estimating the Size of Protests,” there are thousands of demonstrations in the District every year; however most of these have fewer than 25 demonstrators. There may be 50 demonstrations every year that draw more than 1,000 demonstrators. In the class of major demonstrations, based on newspaper estimates, there have been 30 demonstrations with turnouts that exceeded 100,000 since Martin Luther King Jr.’s 1963 “I Have a Dream” speech. While not providing an estimate as to how many protestors are on the Mall annually, a method described by McPhail and McCarty to estimate the number of protestors is determined based on the knowledge that a crowd of 1,000, depending on its density, could fill an area between 2,500 and 10,000 square feet (a baseball infield is 8,100 square feet). The National Mall is a of over 2.6 million square feet.⁵⁵ Thus, based on the area that protestors use for a demonstration, an estimate of the number of protestors can be determined.

6.3 Mall Uses

6.3.1 Recreation

Though not definitive, one way to view recreational use of the Mall is by non-attraction use. NPS defines general use of the Mall under the category of National Capital Parks Central (See Appendix C). The total number of users estimated by NPS for these activities in 2007 was just over 2.5 million. However, this number seems conservative based on following information. An estimated 150,000 rounds of golf are played at East Potomac Park every year.⁵⁶ The Capital Alumni Network has 67 alumni chapter softball teams, playing about 14 games each, and 56 alumni football teams, playing about 10 games each, on the Mall. Combined, this represents about 27,000 visits by the 1,500 softball players and 1,000 football players for the respective leagues.⁵⁷ The World Adult Kickball Association has 16 divisions that play on the Mall; each division has six teams with 26 players each and each team plays eight games. That brings over 6,500 players to the Mall with over 53,000 visits.⁵⁸ In addition, the congressional softball leagues and countless other organized athletic contests are played on the Mall each year.

Along with the recreational activities noted, the Mall hosts many events during the course of the year.

- Thousands of attendees - St. Patrick’s Day parade on the Mall
- One million visitors - Cherry Blossom Festival
- One million visitors - Smithsonian Folklife Festival
- 500,000 visitors - Independence Day 2008
- 500,000 visitors - Black Family Reunion Celebration
- 85,000 visitors - National Book Festival

⁵⁵ John McCarthy and Clark McPhail, “Who Counts and How; Estimating the Size of Protests,” *Contexts* 3, no. 3 (Summer 2004): 12-18.

⁵⁶ Bill Myers, “Contractor Scorches Greens at Hains Point Golf Course,” *The Examiner*, July 26, 2007, http://www.examiner.com/a-847350~Contractor_scorches_greens_at_Hains_Point_golf_course.html (accessed February 20, 2008).

⁵⁷ Capital Alumni Network, <http://www.dalum.org> (accessed March 4, 2008).

⁵⁸ World Adult Kickball Association, <http://www.kickball.com/map.php#D.C> (accessed February 28, 2008).

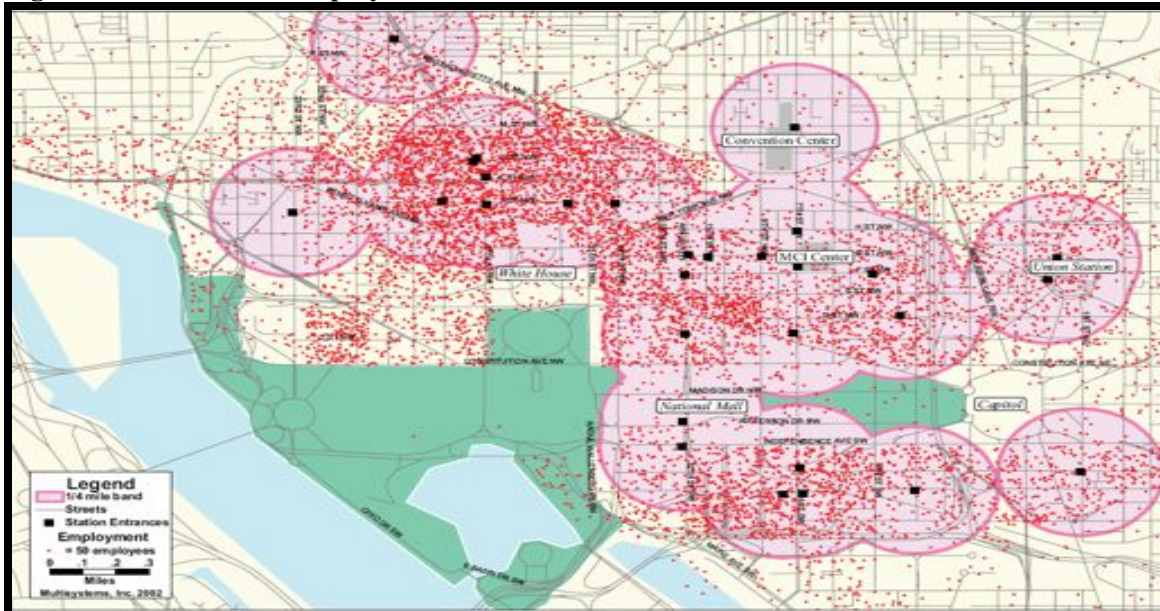
- 30,000 visitors - Marine Corps Marathon⁵⁹

The National Mall also hosts other events, including Public Service Recognition Week⁶⁰, the Help the Homeless Walkathon⁶¹, and many others. With just the few sources noted, it is possible to account for well over 3 million visitors to the Mall each year. Not included and almost impossible to quantify are the walkers and bikers who use the Mall as a place to relax and/or exercise.

6.3.2 Employment

The workplaces around the Mall are responsible for bringing many people into downtown D.C. The federal government, both civilian and military, employed 193,835 individuals in the District in 2002.⁶² Including private sector employment, approximately 350,000 people work in the Downtown D.C. area. The map below (Figure 10) illustrates the core area of employment that exists within ¼ of a mile of Metrorail.

Figure 10 - Core Area Employment Within 1/4 Mile of Metrorail



Source: NCPC, *Comprehensive Plan: Federal Workplace: Location, Impact and the Community Element*, http://www.ncpc.gov/UserFiles/File/publications_press/CompPlan/Final/2-CP%20FedWorkplace.pdf

7.0 Circulation On and Around the Mall

A variety of choices is available for traveling to the D.C. area and the Mall. (See Appendix A) According to the *D.C. Visitor Transportation Survey*, more than 26 million people

⁵⁹ Washington, D.C. Convention and Tourism Corporation.

⁶⁰ Council for Excellence in Government, “Public Service Recognition Week,” <http://www.excelgov.org/index.php?keyword=a43bda2ade1cbd> (accessed February 21, 2008).

⁶¹ Fannie Mae, “Walk to Help the Homeless,” http://www.helpthehomelessD.C.org/site/c.pll4IcNWJyE/b.2699647/k.1CD/Welcome_to_the_Washington_D.C.br_Help_the_Homeless_Program_Web_site.htm. (accessed April 8, 2008).

⁶² National Capital Planning Commission, *Comprehensive Plan: Federal Workplace: Location, Impact and the Community Element*, August 5, 2004, 22. http://www.ncpc.gov/UserFiles/File/publications_press/CompPlan/Final/2-CP%20FedWorkplace.pdf (accessed April 2, 2008).

visit the National Mall and other nearby destinations each year, for an average of over 71,000 daily visitors.⁶³ However, this number can be misleading because some of the peak months have five times the number of visitors as the non-peak months.⁶⁴ In addition, a large concentration of federal government and private offices is located in the area adjacent to the Mall. This concentration of visitors and daily workers can put a tremendous strain on the local transportation system. Because sites on the Mall can be up to two miles apart, visitors, who travel to several sites, use various modes to move around the Mall area. The *D.C. Visitor Transportation Survey* found that, the top three modes of transportation to visit all sites in the metropolitan D.C. area were walking (43 percent), Metrorail (19 percent), and car (16 percent). Of visitors to the Mall, many had used at least one other means of vehicular transportation than the private automobile during their visit. Sixty-one percent used Metrorail, 22 percent used taxicab, 18 percent used sightseeing services and 13 percent used public buses.⁶⁵

7.1 Walking

Walking is the dominant means of moving between the sites and around the Mall. According to the *D.C. Visitor Transportation Survey*, over 50 percent of the respondents walked to many of the most visited sites on the Mall including the Washington Monument, Lincoln Memorial, Vietnam Veterans Memorial, and the National Museum of American History.⁶⁶ Within the National Mall and Memorial Parks, 26 miles of gravel, bituminous and concrete pedestrian walks and eight miles of bike trails facilitate walking and biking.⁶⁷ Adjacent to the Mall and throughout the downtown area, an extensive pedestrian sidewalk system provides access to other sites of interest, Metro stations, and parking areas. Guided walking tours are available through NPS Service Rangers and private companies.⁶⁸ Though walking is the dominant means of circulating, the *D.C. Visitor Transportation Survey* reported that almost 25 percent of visitors had an individual in their group who could only walk limited distances.⁶⁹

7.2 Services for Disabled Visitors

For visitors with an identified disability, NPS has a liberal policy on the use of self-propelled personal transportation devices. Persons with disabilities are permitted to use such devices as Segway HTs and electric scooters on all National Park roads, sidewalks, and trails. These mobility-assisting devices are also permitted within all park facilities, including memorials and monuments. However, for visitors with limited mobility but no identified disability, the use of these devices falls under the definition of recreational use of a self-propelled vehicle and can only be used on park roadways. Outside the jurisdiction of the park, D.C. does not regard these devices as motor vehicles. Therefore, they are permitted on roadways and sidewalks except in the downtown area (near the Mall), where Segway HTs are restricted to roadways due to high pedestrian density.⁷⁰ Consequently, visitors who are mobility impaired but who do not have identified disabilities must seek other means of transportation around the Mall.

⁶³ National Park Service, *Environmental Assessment*, 4.

⁶⁴ D.C. Department of Transportation, *District of Columbia Downtown Circulator Implementation Plan*, July 2003, http://ddot.D.C..gov/ddot/lib/ddot/information/studies/D.C._congestion_taskforce/pdf/final_implementation_plan-c.pdf (accessed February 25, 2008).

⁶⁵ PricewaterhouseCoopers LLP, *D.C. Visitor Transportation Survey*, 48.

⁶⁶ *Ibid.*, 49.

⁶⁷ National Park Service, *National Mall & Memorial Parks Little-Known Facts*.

⁶⁸ National Park Service, *Environmental Assessment*, 108.

⁶⁹ PricewaterhouseCoopers LLP, *D.C. Visitor Transportation Survey*, 25.

⁷⁰ National Park Service, *Environmental Assessment*, 12-13.

7.3 Mass Transit

7.3.1 Metro

Approximately 42 percent of downtown D.C. employees use mass transit to get to and from work.⁷¹ In addition, 61 percent of visitors to the Mall reported using Metrorail and 13 percent reported using public buses. It is apparent that mass transit plays a significant role in the movement of people to and around the Mall area.⁷² Metrorail is the second most popular mode of transportation for accessing the Mall and at least 14 Metrorail stations are within approximately seven blocks of the National Mall and Memorial Parks. In addition, more than 100 Metrobus routes serve the National Mall area, many of which are within short walking distances to popular tourist sites.⁷³

Figure 11 – Metrorail



Source: WMATA, <http://www.wmata.com/about/metrofacts.pdf>.

Figure 12 – Metrobus



Source: WMATA <http://www.wmata.com/about/metrofacts.pdf>.

⁷¹ Ibid, 102.

⁷² PricewaterhouseCoopers LLP, *D.C. Visitor Transportation Survey*, 28.

⁷³ Washington Metropolitan Area Transit Authority, "Metro," <http://www.wmata.com/default.cfm> (accessed April 25, 2008).

7.3.2 Downtown Circulator

Along with the Metrorail and Metrobus system, the Downtown Circulator bus system began operating in July 2005 as an additional means of mass transit in the area of the National Mall and downtown D.C.⁷⁴ This bus system is a partnership of four agencies, NCPC, DDOT, the Downtown D.C. Business Improvement District (DBID), and WMATA.⁷⁵ These agencies formed the Downtown Circulator Partner Group (DCPG). DDOT owns the Circulator, WMATA manages the service, and First Transit, a private sector transit operator, operates the system. The Washington, D.C. and federal governments, along with city business leaders who supported the project, fund the operating costs.⁷⁶

Currently, the Circulator operates a fleet of 29 buses on three routes. The first route runs in a north-south direction from the Washington Convention Center to the Southwest Waterfront along 7th and 9th Streets (which have bus lanes). The second route runs in an east-west direction from Union Station to Georgetown along Massachusetts Avenue and K Street. These two routes have published operating times from 7:00 a.m. until 9:00 p.m. daily and may offer extended operating hours at other times. The third route, which operates on weekends only from 10:00 a.m. until 6:00 p.m., runs along the National Mall on Constitution and Independence Avenues between 4th and 17th Streets. Buses for all three routes usually run in ten-minute intervals. Fares range from \$1.00 per ride to \$3.00 per day, with a variety of methods to pay and some discounts available.⁷⁷

Figure 13 – D.C. Downtown Circulator



Source: D.C. Circulator, <http://www.dccirculator.com/index.html>.

7.4 Automobile

Private vehicles play a major role in movement of people around the National Mall. The *D.C. Visitor Transportation Survey* found that approximately 40 percent of visitors drove or parked a car. Of those using private vehicles to arrive at the Mall, 53 percent continued to use their car as their primary means of transportation around the Mall. Thirty-six percent of these

⁷⁴ National Capital Planning Commission, *Federal Capital Improvements Program, 2008- 2013*, 2007, 132 <http://www.ncpc.gov/UserFiles/File/publications/fcip/Adopted%20FCIP%202008-13.pdf> (accessed March 8, 2008).

⁷⁵ D.C. Department of Transportation, *District of Columbia Downtown Circulator Implementation Plan*, 3.

⁷⁶ Downtown D.C. Business Improvement District, "From Union Station to Georgetown..." July 10, 2005, <http://www.downtowndc.org/news/releases/item/from-union-station-to-georgetown> (accessed March 28, 2008).

⁷⁷ Downtown D.C. Business Improvement District, *Downtown Circulator*, <http://www.dccirculator.com/index.html> (accessed April 20, 2008).

visitors also used Metrorail, 35 percent used taxicabs, and 34 percent used sightseeing services.⁷⁸ Every weekday, more than 440,000 vehicles travel along the National Mall, and on-street parking is hard to find.⁷⁹ Depending upon the direction of approach, several main roads offer a means of getting to the Mall. Interstates 395 and 295 provide access to the Mall from the south. New York Avenue (U.S. Route 50), Rock Creek Parkway, and George Washington Memorial Parkway are the major access roads from the north. Interstate 66, Lee Highway (U.S. Route 50) and Arlington Boulevard (U.S. Route 29) provide access from the west. New York Avenue (U.S. Routes 50), Pennsylvania Avenue (U.S. Route 4), and East Capital Street (Route 214) provide access from the east.⁸⁰

7.5 Tourmobile

Sightseeing is another major means of circulating around the Mall. Tourmobile Sightseeing is among the most popular services, chosen by 54 percent of visitors using sightseeing services.⁸¹ It is also the official interpretive visitor transportation service for the National Mall & Memorial Parks. Landmark Services Tourmobile, Inc. owns and operates Tourmobile through a concession contract with NPS. The service has grown from three trams during its first year of operation to its present fleet of 42 vehicles serving over two million riders annually. Narrators on each vehicle provide information about the sites along the route. Passengers may get off and reboard the shuttle as many times as they like during the day. For disabled individuals, Tourmobile offer two options. Visitors who can climb two or three steps, can access regular Tourmobile vehicles, which have priority seating and wheel chair storage. Tourmobile also offers a chair lift through its on-call service, which is available by making a request with any Tourmobile employee. Disabled visitors may get off at all stops and arrange for reboarding with the vehicle driver.⁸²

Figure 14 – Tourmobile Virtual Tourist



Source: Tourmobile <http://www.tourmobile.com/>.

7.5.1 American Heritage Tour

Tourmobile offers two scheduled routes and three seasonal tours. The longest route is the American Heritage Tour of Washington, D.C. and Arlington National Cemetery. It travels from Union Station to the Lincoln Memorial and then through Arlington National Cemetery and back along both sides of the Mall, with 19 stops. The fare for this tour is \$25.00 for adults and \$12.00 for children ages three through 11. Prices for two-day ticket are \$35.00 for adults and \$24.00 for

⁷⁸ PricewaterhouseCoopers LLP, *D.C. Visitor Transportation Survey*, 4.

⁷⁹ National Park Service, *National Mall & Memorial Parks Little-Known Facts*.

⁸⁰ Google Maps, <http://maps.google.com/> (accessed April 13, 2008).

⁸¹ PricewaterhouseCoopers LLP, *D.C. Visitor Transportation Survey*, 31.

⁸² Tourmobile Inc., “Tourmobile Sightseeing.” <http://www.tourmobile.com/> (accessed February 1, 2008).

children. Tours operate from 9:30 a.m. until 4:30 p.m. every day except Christmas and New Year's Day. Vehicles arrive at the stops every 30 minutes throughout the day. Tickets may be purchased from drivers, Tourmobile booths and Ticketmaster.⁸³

7.5.2 Arlington National Cemetery Tour

A shorter tour is offered through Arlington National Cemetery only. This tour begins and ends at the Arlington National Cemetery Visitors Center and has three stops within the cemetery. The fare for the Cemetery tour only is \$7.00 for Adults and \$3.50 for children ages three through 11. Tours depart every 20 minutes from 8:30 a.m. until 4:30 p.m. (October through March) or 6:30 p.m. (April through September) every day except Christmas Day. Tickets may only be purchased at the Arlington National Cemetery Visitors Center.⁸⁴

7.5.3 Seasonal Tours

The three seasonal tours are the Twilight Ride through History, the Mount Vernon Tour and the Frederick Douglas Tour. The Twilight Ride through History is a three and a half hour tour along several points of interest around the Mall. It departs at 7:00 p.m. from Union Station and tickets can only be purchased there or in advance from Ticketmaster. The fare for this tour is \$25.00 for adults and \$12.00 for children ages three through 11 and it operates from mid-March through November 11. The Mount Vernon Tour is a five-hour trip to George Washington's estate at Mount Vernon. It departs at 11:00 a.m. from the Arlington National Cemetery Visitors Center and tickets can only be purchased there, beginning at 8:00 a.m. The fare for this tour is \$30.00 for adults and \$15.00 for children ages three through 11 and includes admission to the Mount Vernon estate. The tour operates daily from June 15 through Labor Day. The Frederick Douglas Tour is a two and a half hour trip to Cedar Hill, the home of former slave Frederick Douglas. It departs at 12:00 p.m. from the Washington Monument or Arlington National Cemetery. Tickets can only be obtained at the two departure locations by reservation at least thirty minutes before departure. The fare for this tour is \$7.00 for adults and \$3.50 for children. The tour operates from June 15 through Labor Day.

For the 2008 National Cherry Blossom Festival, Tourmobile provided a free shuttle running from East Basin Drive near the Jefferson Memorial Festival Welcome Area along East Potomac Park to Hains Point. New this year, the shuttle service provided convenient access to hundreds of free parking spaces in this area.⁸⁵ The service operated daily beginning March 29 through April 13. Shuttles ran every 20 to 30 minutes from 10:00 a.m. until 7:00 p.m.⁸⁶

7.6 Old Town Trolley

The next most popular sightseeing service is Old Town Trolley Tours, chosen by 29 percent of visitors using sightseeing services.⁸⁷ Old Town Trolley Tours began operation in Key

⁸³ Ibid.

⁸⁴ Ibid.

⁸⁵ National Park Service, National Mall & Memorial Parks, "Directions," <http://www.nps.gov/nama/planyourvisit/directions.htm> (accessed March 1, 2008).

⁸⁶ National Cherry Blossom Festival, "Transportation Initiatives Ease Congestion at the 2008 National Cherry Blossom Festival: Tourmobile Sightseeing to Offer Complimentary Shuttle Service," March 6, 2008, http://www.nationalcherryblossomfestival.org/cms/fileadmin/user_upload/2008_Press_Releases/Transportation.doc (accessed March 10, 2008).

⁸⁷ PricewaterhouseCoopers LLP, *D.C. Visitor Transportation Survey*, 31.

West, Florida in the 1970s and is owned and operated by Historic Tours of America, Inc.⁸⁸ Narrators on each vehicle offer entertaining stories and facts about the sights along the routes. Like Tourmobile, passengers may get on and off the trolleys as many times as they like during the day. Unlike Tourmobile, the tour has three loops, only one of which goes to the National Mall. One loop serves the National Mall and Downtown, the second loop serves the National Cathedral, Uptown and Georgetown, and the third loop serves the Arlington National Cemetery. The regular fare, which includes all three loops, is \$32.00 for adults and \$16.00 for children ages four through 12. The Old Town Trolley Tour's main ticket booth is at Union Station; however, tickets may be purchased online and at the Washington Welcome Center. Those with tickets can board at any of the 17 Trolley stops. Tours operate from 9:00 a.m. until 5:30 p.m. daily with shorter hours in the winter. The service does not operate on Christmas, Thanksgiving and a few other days. Trolleys arrive at the stops approximately every thirty minutes throughout the day.⁸⁹

Figure 15 – Old Town Trolley



Source: Old Town Trolley <http://www.trolleytours.com/Washington-DC/day-tour.asp>.

7.7 L'il Red Trolley

L'il Red Trolley Tour is the next most popular sightseeing service in the *D.C. Visitor Transportation Survey*, selected by nine percent of those using sightseeing services.⁹⁰ L'il Red Trolley is owned by Martz Gold Line/ Gray Line of Washington D.C. Passengers can get on and off the trolley as many times as they like or they can stay aboard for the complete two and a half hour tour. Stops along the Mall include the U.S. Capitol, White House, Lincoln Memorial and Washington Monument. The tour also includes some major sights off the Mall such as Union Station, Washington Harbour, Georgetown, Embassy Row, and the Washington National Cathedral.⁹¹ The current regular fare for 2008 is \$52.00 for adults and \$32.00 for children ages three through 11 and includes admission to the International Spy Museum.⁹² Tours begin at 8:30 a.m. from Union Station and continue at 20-minute intervals until 5:30 p.m. daily except Thanksgiving, Christmas and New Year's Day.⁹³

⁸⁸ Historic Tours of America, Inc., "Trolley Tours," <http://www.trolleytours.com/Washington-DC/day-tour.asp> (accessed March 3, 2008).

⁸⁹ Ibid.

⁹⁰ PricewaterhouseCoopers LLP, *D.C. Visitor Transportation Survey*, 31.

⁹¹ GotoBus.com, "L'il Red Trolley Tour – Hop On – Hop Off All Day Pass," http://www.gotobus.com/cs/c540/ilredtrolleytour_hopon_hopoffalldaypass.html (accessed March 1, 2008).

⁹² GotoBus.com, "International Spy Museum / L'il Red Trolley Tour," http://www.gotobus.com/cs/c540/internationalspymuseum_ilredtrolleytour.html (accessed March 1, 2008).

⁹³ Ibid.

Figure 16 - L'il Red Trolley



Source: Alexa Viets, *Washington, D.C. Local Comparables Report*

7.8 D.C. Ducks

The final sightseeing service mentioned in the *D.C. Visitor Transportation Survey* is the D.C. Ducks, which eight percent of those using sightseeing services chose.⁹⁴ Historic Tours of America owns and operates the D.C. Ducks. According to its website, D.C. Ducks claims it is the newest and most unique way to see Washington. Drivers act as narrators and offer entertaining stories and historical facts about the sights along the Mall. A unique aspect of the tour vehicles is that the restored 1942 amphibious trucks enter the Potomac River to cruise across to Ronald Reagan Washington National Airport and then return to the beginning. The tour lasts about ninety minutes and does not include any on-off stops. The regular fare is \$29.00 for adults and \$14.00 for children ages four through 12. D.C. Duck tickets are sold at Union Station. Tours depart from Union Station once every hour from 10:00 a.m. until 4:00 p.m. daily. The tour operates from mid-March through October with the exception of Memorial Day, July 4, and a few other days.⁹⁵

Figure 17 – D.C. Ducks



Source: *D.C. Ducks Tour*, <http://www.DCducks.com/>.

⁹⁴ PricewaterhouseCoopers LLP, *D.C. Visitor Transportation Survey*, 31.

⁹⁵ Historic Tours of America, Inc., "Washington, D.C. Land and Sea Tours: The D.C. Ducks Tour of Washington D.C.," <http://www.DCducks.com/> (accessed March 5, 2008).

7.9 Taxi

Taxis serve as another means of circulating around the Mall. Approximately 22 percent of all visitors to the Mall reported using taxis.⁹⁶ Taxis serve as supplemental transportation for visitors who are staying in the downtown area and for those who do not wish to use mass transit services. Even those who do use mass transit may sometimes find the need to use taxi services. Taxi service is plentiful in Washington, D.C.; 88 independently owned taxi companies employ over 6,200 drivers. Taxis can be hailed on the street or called and they tend to congregate around major hotels. Washington, D.C. taxis are the only taxis allowed to carry passenger from point to point within the city. Taxis from Maryland and Virginia may only bring passengers into the city and take passengers to points outside the city. However, many drivers pick up point-to-point passengers anyway.⁹⁷

Figure 18 – D.C. Taxicab



Source: *Taxi in Washington, D.C. Washington D.C. City Pages*, <http://dcpages.com/travel/reviews/taxi.shtml>.

Since 1931, Washington, D.C. had a zone system instead of a meter for calculating taxi fares. As of spring 2008, a shift to time and distance fare calculation is pending implementation. Fares will be based on a flag drop rate of \$3.00 plus a fee for time and distance not to exceed the maximum normal fare of \$18.90 for trips beginning and ending in Washington, D.C. Surcharges for additional passengers and rush hour service will be eliminated and only an additional 25 percent snow emergency surcharge will be allowed instead of the former 200 percent.⁹⁸

7.10 Water Tours

Another less used means of circulation around the Mall is by water. Several companies offer tours along the Potomac River. Capital River Cruises offers a forty-five minute historical narrative tour aboard a small riverboat, taking in such sights as the Kennedy Center, Lincoln Memorial and the Jefferson Memorial. This tour leaves hourly from noon until 9:00 p.m. and operates from April through October. The fare is \$13.00 for adults and \$6.00 for children ages three through 12 years.⁹⁹ A similarly priced ticket on the Potomac Riverboat Company's Water

⁹⁶ PricewaterhouseCoopers LLP, *D.C. Visitor Transportation Survey*, 28.

⁹⁷ Leslie Yezerinac, "Get to Know Washington's Cab System," <http://www.dcpages.com/Travel/Reviews/taxi.shtml> (accessed March 9, 2008).

⁹⁸ D.C. Mayor's Office, "Fenty Announces Lower Taxi Rates for Time and Distance Meters," January 16, 2008, <http://www.dc.gov/mayor/news/release.asp?id=1206&mon=200801> (accessed March 8, 2008).

⁹⁹ Capital River Cruises, "Tours," <http://www.capitolrivercruises.com/tours.html> (accessed March 4, 2008).

taxi/Washington by Water Monuments Cruise buys one-way passage from Old Town Alexandria to Georgetown.¹⁰⁰ Other tours are available and some include meals and evening cruises.

Figure 19 – Capital River Boat Tour

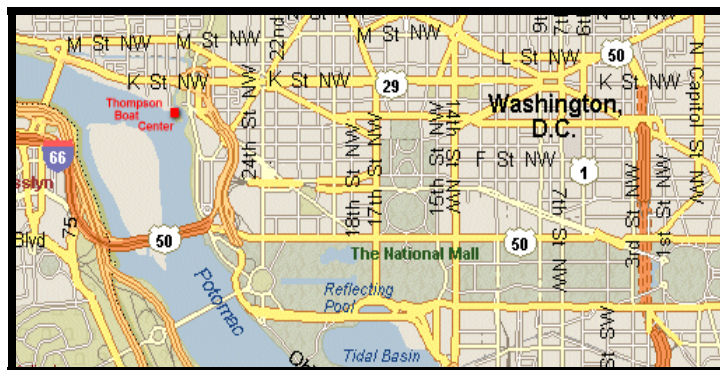


Sources: Thompson Boat Center, <http://www.thompsonboatcenter.com/boatrent.htm>.

7.11 Boat

Boat rentals are also available for those wishing to independently explore the sights. Thompson Boat Center, located north of the Kennedy Center offers boat rentals. Guest Services, Inc. operates the Center for NPS. The center has been in operation since 1952. Kayaks, canoes, rowing shells and sailboats are available for hourly or daily rental. When the water temperature reaches at least fifty-five degrees, boat rentals begin at 8:00 a.m. and are due back by 6:00 p.m. daily. Prices range from \$8.00 per hour for a single kayak or canoe up to \$30.00 per day for a double kayak. Sailboats can be rented for \$10.00 per hour.¹⁰¹

Figure 20 – Thompson Boat Center



Source: Thomas Boat Center, <http://www.thompsonboatcenter.com/boatrent.htm>.

7.12 Bicycle

Bicycles offer another means of getting around on the Mall. NPS allows bicycles on almost all pedestrian walkways on the Mall between 3rd Street and 14th Street. From the Washington Memorial to the Lincoln Memorial, bikes are allowed on the south sidewalk along Constitution Avenue and on the north sidewalk along Independence Avenue. Bikes are also permitted along other sidewalks within the area and DDOT has a map showing bike routes in and around the Mall.¹⁰² NPS's web site on the National Mall and Memorial Parks indicates that

¹⁰⁰ Potomac Riverboat Company, "Water Taxi / Sightseeing Cruises," <http://www.potomacriverboatco.com/monumentscruise.php> (accessed March 12, 2008).

¹⁰¹ Thompson Boat Center, "Boat Rentals," <http://www.thompsonboatcenter.com/boatrent.htm> (accessed April 1, 2008).

¹⁰² D.C. Department of Transportation, "Bicycle Map," <http://ddot.dc.gov/ddot/cwp/view,a,1245,q,629849,ddotNav,%7C32399%7C.asp> (accessed May 1, 2008).

bikes are welcome on the Mall and that bicycle parking is provided at the major memorials and along the Mall.¹⁰³ Additionally, *NPS Environmental Assessment* dated November 2006 states under the topic of Multimodal Access that all alternatives being studied would include the replacement of bicycle racks in disrepair and the installation of additional racks at key locations within the Mall area. The document also calls for the installation of bike racks on transit vehicles currently not so equipped.¹⁰⁴ These provisions indicate that the Park Service intends to improve bike access to the Mall.

7.12.1 Bicycle Tours

NPS Rangers conduct free-guided bicycle tours through the Mall on weekends from the end of March through the end of November. Tours are offered for adults and families beginning at the Thomas Jefferson Memorial Plaza.¹⁰⁵ Other groups also offer guided bicycle tours around the Mall for a fee. Bike the Sites, otherwise known as Bike and Roll Washington, D.C, offers tours of the Mall area. The company began offering guided bike tours of the Mall in 1996. Two daytime tours are offered daily from March 1 through August 24, then every day except Wednesdays through December 14. One tour includes an expanded area of Washington, D.C., and the other concentrates on the monuments around the Mall. Both tours last approximately three hours and include bike and helmet rental. The price for either tour is \$40.00 for adults and \$30.00 for children ages 12 and under.¹⁰⁶

Figure 21 – NPS Rangers Bike Tour



Source: NPS, <http://www.nps.gov/mall/planyourvisit/national-mall-bike-tour-page.htm>.

¹⁰³ National Park Service, “National Mall: Bicycling Information,” <http://www.nps.gov/mall/planyourvisit/bicyclinginformation.htm> (accessed April 8, 2008).

¹⁰⁴ National Park Service, *Environmental Assessment*, 31.

¹⁰⁵ National Park Service, “National Mall Bike Tour Page,” <http://www.nps.gov/mall/planyourvisit/national-mall-bike-tour-page.htm> (accessed April 1, 2008).

¹⁰⁶ Bike and Roll Washington, D.C., “Rentals,” <http://www.bikethesites.com/rentals.htm#include> (accessed April 1, 2008).

Figure 22 – Bike the Sites



Source: *Bike the Sites Group* <http://www.bikethesites.com/rentals.htm#include>.

7.12.2 Bike Rental

Visitors may rent bikes through Bike the Sites. This company rents bikes from two hours up to 24 hours. Several bike styles are available, including bikes for children. The company also offers electric mobility scooters and manual wheelchairs for rent. Bike rental rates range from \$10.00 for up to a two-hour rental to \$70.00 for a road bike for 24 hours.¹⁰⁷ Thompson Boat Center also rents bikes by the hour beginning at 8:00 a.m. However, bikes must be returned by 6:00 p.m. Rates range from \$4.00 per hour for an adult cruiser bike to \$25.00 per day for an adult all-terrain bike.¹⁰⁸ From Thompson Boat Center, riders can gain access to the National Mall by way of the Rock Creek Park Trail along the Potomac River.

Through a public-private partnership, the D.C. government and Clear Channel Outdoor are implementing a pilot automated bicycle-sharing program called SmartBike D.C. This pilot program plans to place 120 bikes and 10 kiosks in the downtown area by mid May 2008. For an annual fee of \$40.00, riders can rent these bikes an unlimited number of times for up to three hours. Bikes can be rented and returned at any kiosk and several of the 10 pilot kiosks are conveniently located near Metro stations around the Mall; however, none are located on the Mall.¹⁰⁹

8.0 Parking on the National Mall

Parking on the National Mall is limited to street parking at free non-metered or inconsistently metered spots. Because parking near the National Mall is limited, NPS encourages visitors to utilize public transportation to access the Mall and surrounding neighborhoods. However, as has been noted 40 percent of visitors choose private automobiles to access the Mall, making parking a significant concern for many Mall users.¹¹⁰ The 1966 National Mall Plan called for underground parking garages, but this plan was never realized. Additionally, NPS notes that, “Major underground public parking structures within the Mall area are no longer consistent with regional transportation plans and would likely cause the

¹⁰⁷ Ibid.

¹⁰⁸ Thompson Boat Center, “Bicycle Rentals,” <http://www.thompsonboatcenter.com/bikerent.htm> (accessed April 1, 2008).

¹⁰⁹ Elissa Silverman, “Bicycle-Sharing Program to Debut,” *The Washington Post*, April 19, 2008, <http://www.washingtonpost.com/wp-dyn/content/article/2008/04/18/AR2008041803037.html> (accessed May 1, 2008).

¹¹⁰ Pricewaterhouse Cooper LLP, *D.C. Visitor Transportation Survey*.

capacity of roads to be exceeded.”¹¹¹ Consequently, the issues facing parking around the Mall include the number of spaces, the proximity to destinations, and walking distances. Other issues of concern are how parking affects travel behavior on, to and from the Mall, as well as regulations and laws.

The *NPS Environmental Assessment* report outlined five alternatives for interpretive transportation services for the National Mall, Memorials, and Parks. Four of the five alternatives concluded that parking is sufficient as it currently stands, and NPS will continue to advocate the use of public transit for visitors and local residents to access the National Mall and surrounding areas. NCPC concurs and believes that the most accessible, inexpensive and convenient way to get to the National Mall is by Metro.¹¹²

8.1 Parking on the National Mall and in the District of Columbia

In 1952, NCPC evolved out of the National Capital Park Commission and the National Capital Park and Planning Commission. In 1969, *The Elements of the Comprehensive Plan* was presented to the District of Columbia. This plan contained plans for underground parking around the National Mall area, specifically at the Ellipse and underneath the Mall by digging tunnels outshooting from major thoroughfares. The plan most notably established the idea of creating a municipal parking authority run by the District of Columbia where parking garages would be located at the edge of the central business district to limit congestion in the center areas.

8.1.1 Smithsonian Institution

Although there are parking garages underneath the National Air and Space Museum and the Museum of Natural History, these garages are not open to the public. The Smithsonian would not release studies concerning these parking facilities, as the reports are considered internal documents and the information in them “obsolete.”¹¹³ Similarly, the consulting firm Skidmore Owings and Merrill produced a design that was incorporated as part of the National Mall Plan in the 1960s. However, this idea and report are now kept in Smithsonian archives and the Smithsonian Institution would not release them for review.¹¹⁴

8.1.2 Paid Parking on the Mall

Parking is available at Union Station for \$10-16, but visitors must take the Circulator Bus to the Reserve Area, which costs \$1. At the west end of the National Mall north of the White House, Center City parking charges \$10 and requires a bus ride to access the Reserve Area. Also available is Colonial Parking Garages, a private company with numerous garages, near the White House, the Ronald Reagan Building & International Trade Center and the Holocaust museum. *NPS Environmental Assessment* estimates that daily parking in a private downtown lot in Washington, D.C. may cost up to \$20 a day.

¹¹¹ National Park Service, *A History of the National Mall*, 13.

¹¹² National Park Service. *Environmental Assessment*.

¹¹³ Wilbur, Smith and Associates, *Smithsonian: Washington Mall Parking Facilities Feasibility Analysis*, January 1971.

¹¹⁴ Thomas Dempsey, e-mail message, March 25, 2008.

8.1.3 NPS Parking

NPS manages approximately 427 parking spaces on the National Mall near the museums with 27 of those designated as handicapped spaces. Of all the parking spaces, the most contested among the various jurisdictions on the Mall is the parking along Jefferson and Madison Drives. These spaces are free and are available during non-rush hour periods however, from 10 p.m. to 2 a.m. no parking is permitted. In an interview with Alexa Viets, of NPS, she noted that the parking heading into East Potomac Park near the Thomas Jefferson Memorial has been closed since September 11th, 2001 because of security concerns. Due to a shortage of staff in the U.S. Park Police organization, the parking may no longer be used. However, these parking lots were used during the 2008 Cherry Blossom Festival as an area to set up tents and tables so that visitors eating and drinking did not compromise the integrity of the surrounding memorials and monuments.¹¹⁵

8.1.4 D.C. Parking

Within D.C., free parking is limited. However, metered parking is provided with the intent of encouraging turnover.¹¹⁶ Seventy percent of respondents to the NPS survey stated that they would be willing to park and take a shuttle to major attractions along the National Mall and its surrounding neighborhoods from a distant parking site.¹¹⁷ Of the 260,000 on-street parallel-parking type spaces in D.C., six percent (16,000 spaces) have parking meters. Additionally, there are 140,000 parking spaces in lots and garages and most are located in the Central Business District. The *Mayor's Parking Taskforce Report* notes, "A limited number of public off-street parking spaces are located... at some of the parks and recreations centers in the District."¹¹⁸

8.2 Handicapped Parking

The ADA stipulates that the U.S. Department of Transportation and the Department of Justice are charged with the oversight of accessible parking and accessible loading and unloading zones, though the responsibility of implementation lies mostly with the states. If a facility or building provides parking for visitors or employees, one of every 25 spaces must be designated as handicapped parking.¹¹⁹ Therefore, because NPS has jurisdiction over parking lots on the National Mall, one handicapped space must be set aside for every 25 parking spaces.

The NPS has designated 36 free handicapped parking spaces near the Smithsonian museums with seven spaces on Jefferson Drive, in front of the Freer Gallery of Art, seven spaces between the carousel and the Hirshhorn Sculpture Garden, seven spaces in front of the National Air and Space Museum, three spaces on Madison Drive at the east end of the National Museum of Natural History along with two spaces in front of the museum, five

¹¹⁵ Alexa Viets, In-class Interview, March 5, 2008.

¹¹⁶ National Park Service, *Environmental Assessment*, 14.

¹¹⁷ Ibid.

¹¹⁸ Ibid, 5.

¹¹⁹ Access Board, "A: Parking and Passenger Loading Zones," <http://www.access-board.gov/adaag/checklist/ParkingLoadingZones.html> (accessed May 2, 2008).

spaces in front of the American History museum and five spaces close to the National Gallery of Art.¹²⁰

According to *Washington: The Nation's Capital* map, there is public and free parking on either side of the Arland D. Williams, Jr. Memorial Bridge at the entrance of East Potomac Park, Arlington National Cemetery across the Potomac River, along the Tidal Basin on Maine Avenue and in Lyndon Baines Johnson Memorial Grove across the Potomac River. However, a large portion of this parking is handicapped parking and a few spaces are reserved for Park Police and NPS rangers.

8.3 Curbside Parking

On street parking is available on and around the Mall. A diverse set of travelers including tourists, tour bus operators, police officers, taxicabs, and local residents utilize the available parking.¹²¹ DDOT, in coordination with the NCPC, NPS, the Smithsonian Institution and the Architect of the Capitol have been examining issues surrounding curbside parking on the Mall and surrounding neighborhoods beginning with the publication of the *1966 Master Plan for the National Mall* and the passage of the Commemorative Works Act of 1966.¹²²

8.3.1 The Mayor's Parking Taskforce Report

One of the most notable and recent attempts to address parking issues in D.C. was former Mayor Anthony Williams' formation of a parking task force and the production of the *Mayor's Parking Taskforce Report*.¹²³ The study focused on street parking as the changing demands and decreasing capacity continue to be challenging problems. The task force was comprised of various stakeholders, including district agencies, citizens from various wards and neighborhoods, and business associations. It is important to note that the committee was chaired by a private citizen, in order to ensure that residents' voices were adequately heard during the policy making process. Completed in 2003, the report focused on forming consistent guiding principles for parking policies in the District which included, "prioritizing parking in residential areas for residents; prioritizing customer parking in commercial areas to promote and facilitate commerce; introducing demand-based pricing strategies; and ensuring the safety of pedestrians, motorists and parking enforcement personnel, while improving tracking mechanisms of localized parking demand."¹²⁴

Under the recommendations from the Mayor's parking task force, studies and pilot programs were conducted to make better use of limited space. The report indicated that as of December of 2003, enforcement levels had increased dramatically on metered spaces and that funding levels had increased from ticket revenues and permit sales. Also, in commercial areas like the National Mall, in loading and unloading zones, such as near the Smithsonian Institution buildings or up 14th and 15th Streets, respectively, the number of curb space had

¹²⁰ Rachel Cooper, "Parking Near the National Mall in Washington, DC Parking Lots, Parking Garages, Handicapped Parking Near the National Mall," <http://dc.about.com/od/transportation/a/ParkingNearMal.htm> (accessed February 29, 2008).

¹²¹ George Schaubhut, "Walking Tour of the National Mall and Capitol," Presentation, March 12, 2008.

¹²² National Capital Planning Commission, *Comprehensive Elements of the 1966 National Mall Plan*, 1969.

¹²³ Anthony A. Williams, *Mayor's Parking Taskforce Report*, December 2003, <http://www.ddot.dc.gov/ddot/frames.asp?doc=/ddot/lib/ddot/ParkingReport-Final.pdf> (accessed February 29, 2008).

¹²⁴ *Ibid*, 2.

increased to accommodate demand. At the same time, these spaces were metered in order to encourage turnover.¹²⁵ The District of Columbia Department of Public Works is currently evaluating several systems that would enable parking officers to move quickly through neighborhoods with a license plate reader or similar technology to catch violators.”¹²⁶

8.4 Tour Bus Loading Zones and Parking

According to the *Washington, D.C. Comparables Report* the local tour transportation market in D.C. is dominated by motor coaches.¹²⁷ Exact data on the traffic volume of motor coaches in the District is not public information and is protected by the American Bus Association.¹²⁸ The majority of passengers on tour motor coaches are from out of town. This mode provides an easy way to transport large groups of sightseers but presents a problem for loading and unloading with limited parking around the Mall and in surrounding neighborhoods. In response to this demand, the DDOT has composed, *Motorcoach Guide to Washington* for D.C. As of August 1, 2007, D.C. began enforcing new charter bus laws and notes that NPS has jurisdiction over the National Memorials and Parks region in regards to tour bus loading and unloading.¹²⁹ To preserve the aesthetic value of the museums and the reserve region of the Mall, DDOT proposed these policy changes in its *Tour Bus Management Initiative*.

8.4.1 Tour Bus Curbside Parking

Presently, the curbside parking on Madison and Jefferson Drives along the National Mall is free, with no time limit. The *Tour Bus Management Initiative*, prepared by DDOT, proposed that these spaces be reserved to accommodate 25 bus loading and unloading pads to relieve congestion and traffic around the museums. It also suggested that both these streets be limited to one-way traffic and become permit spaces for tour buses.¹³⁰ The downside to this proposal is that it would eliminate curbside parking for visitors and have a negative impact on the recreational sports league participants that play at Potomac Park, requiring them to relocate to Anacostia fields and place strain on other spring/summer sport leagues currently using the site.¹³¹

8.4.2 Passenger Drop Off at the Mall

To bring visitors to the National Mall and drop them off at the Smithsonian Institutions, Monuments and Memorials, buses are allowed to enter the Capitol Grounds at 3rd Street and Maryland Avenue, SW or 3rd Street and Pennsylvania Avenue, NW. Loading and unloading passengers must occur at the east curb of 1st Street SW/NW between Pennsylvania and Maryland Avenues. Closer to the Mall, an entire block in front of the American Indian Museum, the 300 block of Jefferson Drive, is dedicated to loading and unloading passengers and there is space for approximately nine buses. Due to security restrictions, NPS prohibits tour buses from traveling

¹²⁵ Ibid, 20.

¹²⁶ Michael E. Ruane, “Ferretting Out Meter Feeders: D.C.’s Parking Enforcers Are Testing High-Tech Gizmos To Identify Scofflaws and Free Up Spaces for Shoppers,” *The Washington Post*, February 19, 2008, <http://www.washingtonpost.com/wp-dyn/content/article/2008/02/18/AR2008021802132.html> (accessed March 1, 2008).

¹²⁷ Alexa Viets, *Washington D.C. Local Comparables Report*, 3.

¹²⁸ Ibid, 7.

¹²⁹ D.C. Department of Transportation, “Motorcoach Guide to Washington,” <http://ddot.dc.gov/ddot/cwp/view.a,1250,q,639306.asp> (accessed April 25, 2008).

¹³⁰ Ibid.

¹³¹ Ibid.

on Independence Avenue between Washington Avenue, SW and 2nd Street, SE; Constitution Avenue between Louisiana Avenue, NW and 2nd Street, NE; 1st Street between D Street, NE and D Street, SE; 1st Street between Maryland and Independence Avenues, SW and 2nd Street between D Street NE and D Street, SE.¹³²

Security blockades make the Thomas Jefferson Memorial one of the most difficult sites to navigate by tour bus, especially during the Cherry Blossom Festival. “The best way for buses to enter the Memorial is around the Tidal Basin on the east side. Passenger discharge only is permitted just past the Memorial along the right curb lane of East Basin Drive, SW. No buses are allowed to park or discharge passengers at any time in the parking lot.”¹³³ Further west for the Lincoln, Vietnam Veterans and Korean War Veterans Memorials, there is a twelve feet, six-inch height restriction to get from the Franklin Delano Roosevelt Memorial to this portion of the Mall.

8.4.3 Bus Parking at the Mall

In close proximity to the Washington Monument, there is tour bus parking only along the north curb of Independence Avenue between 15th and 17th Streets, SW. Because tour bus operators must wait until visitors are done for the day, free parking that accommodates 11 tour buses is provided at the Hains Point parking lot.¹³⁴

From the Washington Memorial further west the regulations and limitations on tour bus operators increase. However, tour buses are the third most used mode of transportation by visitors accessing the National Mall and certainly the most profitable according to the *Washington D.C. Local Comparables Report*.¹³⁵ With as many as 1,100 buses per day arriving at the Mall, parking for tour buses is a major concern.

8.5 Parking Proposals and Policies

Current parking proposals and policies have been established by various entities garnering say over the National Mall. Adopting plans that alleviate some of the parking issues are an important element in access and circulation around the Mall.

8.5.1 National Park Service Proposal

NPS’s core mission focuses on environmental preservation and creating an educational environment in which visitors may enjoy themselves in the Nation’s parks. Therefore, NPS encourages visitors to take public transit, noting that public transit is an environmentally friendly alternative to driving and it also relieves congestion and capacity strains on parking availability. However, Alexa Viets noted in an interview at GMU that NPS’s core mission of environmental preservation is often a serious challenge for transportation planning, especially in urban parks such as the National Mall.¹³⁶

NPS is also concerned with aesthetic appeal and has determined that parking meters and tour bus loading and unloading zones along the Mall detract from the aesthetic appeal of the area. As a result, NPS, along with DDOT advocate that the street parking on Jefferson and

¹³² Ibid.

¹³³ Ibid.

¹³⁴ Ibid.

¹³⁵ Viets, *Washington D.C. Local Comparables Report*, 3.

¹³⁶ Viets, *In-Class Interview*.

Madison Drives become permit only parking for tour bus loading and unloading. In addition, unmetered street parking at the Mall should remain free of charge, because parking meters detract from the aesthetic aspects of the area in front of the Smithsonian museums and federal government office buildings in that area.¹³⁷

Figure 23 – Tour Bus



Source: Lindsey Collins, Photograph, *Tour Bus on the Mall During Cherry Blossom Festival 2008*

NPS notes that there is parking available away from the Mall, at Hains Point, the George Mason Memorial, at numerous private parking garages downtown, and one conveniently located under the U.S. Agency for International Development that is \$10 a day.¹³⁸ However, in a commentary meeting regarding NPS's *National Mall Plan*, representatives told the public that they would revisit the idea of underground parking and providing a shuttle from RFK Stadium to provide more capacity for those who chose to drive to the Mall area. Any written documentation on revisiting these proposals is yet to be seen until the final revisions of NPS's *Environmental Assessment* are published.¹³⁹

8.5.2 NCPC Proposal

Similar to NPS, the NCPC encourages visitors to the area to travel via public transit. However, the public transit system alone is unable to accommodate all visitors to the Mall. There is a need for parking on the National Mall and the NCPC recognizes that the current situation is a quagmire, as plans from the 1960s were never fully realized.¹⁴⁰ When NCPC was formed in the 1960s, it advocated that D.C. establish a municipal parking authority to provide affordable parking to those who chose to drive into the District. The revenue collected by the parking authority would go to the city.¹⁴¹ Additionally, *The Comprehensive Elements of the National Mall Plan*, published by NCPC in the 1960s, lays out an elaborate parking proposal. The proposal included constructing parking underneath the Ellipse and city-owned parking garages located at key freeway connections to D.C. in order to utilize minimal space and accommodate automobiles around the Mall and in surrounding neighborhoods.¹⁴² George Oberlander, formerly with the NCPC from the 1960s to 1995, noted that their feasible idea to create a municipal parking authority was never realized because of funding shortfalls in the D.C. Office of

¹³⁷ U.S. Department of the Interior. *DOI Mission*.

¹³⁸ Rachel Cooper, Washington, D.C.: Parking Near the National Mall.

¹³⁹ National Park Service, *Environmental Assessment*.

¹⁴⁰ National Capital Planning Commission, *Comprehensive Elements of the 1966 National Mall Plan*.

¹⁴¹ Viets, *Washington D.C. Local Comparables Report*, 3

¹⁴² National Capital Planning Commission, *Comprehensive Elements of the 1966 National Mall Plan*.

Planning. As the years went by, the cost of construction continued to become larger, making the plan increasingly difficult to implement.¹⁴³

Figure 24 – Smithsonian Metro



Source: Lindsey Collins, Photograph, Visitors at Smithsonian Metro during Cherry Blossom Festival 2008

Currently, NCPD recognizes parking in D.C. is limited, especially in the region of the Mall and surrounding parks and memorials. However, their solution does not directly address the issue of parking capacity or examine the possible feasibility of other unique programs, throughout the District, that have brought economic revitalization to certain neighborhoods and that have begun to ease parking headaches. As the policies and plans of the NCPD have evolved since the 1960s, taking public transit is NCPD's solution to the lack of parking availability in D.C.¹⁴⁴

8.5.3 DDOT Proposal

DDOT plays a large planning and research role in regards to parking regulations and enforcement within D.C. In December 2003, the *Mayor's Parking Taskforce Report* recommended that commercial curbside parking be reformed. The report suggested an adjustment to meter zones and meter parking rates according to market pricing methodologies. This proposal also included improved enforcement, metered loading zones, tax incentives to private parking operators to reduce parking fees, and changes to zoning laws for new construction.¹⁴⁵

8.5.4 National Mall Conservancy Proposals

The National Mall Conservancy believes that lack of parking on the National Mall is a serious hindrance to visiting memorials, museums and the surrounding parks. Though tour bus and some automobile parking exist, the Conservancy points out that there is no other method of transportation for visitors to access the Reserve Area. The only option is walking and this presents a problem for the handicapped, elderly and young children. The Conservancy recommends that a free shuttle be provided from Hains Point and East Potomac Park where additional visitor parking could also be provided. This parking proposal may be found in *The National Mall Conservancy: A Citizens Initiative*.¹⁴⁶

¹⁴³ George Oberlander, *Phone Interview*, March 21, 2008.

¹⁴⁴ National Capital Planning Commission, *Comprehensive Elements of the 1966 National Mall Plan*.

¹⁴⁵ Williams, *Mayor's Parking Taskforce Report*.

¹⁴⁶ National Mall Conservancy, "The National Mall Conservancy: A Citizens' Initiative," <http://www.nationalmallconservancy.org/> (accessed February 5, 2008).

9.0 Security

Even prior to the events of September 11th, security was a major concern surrounding the National Mall. Site to some of our nation's most enduring and significant landmarks, the National Mall represents history and projects American prominence. As such, it is not only a showcase for monuments but serves as a platform for historic speeches, protests, and events. All of this requires a level of security to protect the Mall and the public that also impacts accessibility not only during the events but also on a daily basis.

The threats faced today have heightened the need for security to combat possible terrorist threats to our most critical and cherished infrastructure that also includes the Mall. In order to meet these challenges policy changes, increased awareness, and design changes in physical security have been required. This section provides an overview of the significant security policies that affect the Mall and addresses changes that have influenced its accessibility.

9.1 Presidential Directives

Faced with the preservation of national monuments as a primary objective, new regulations and policies have required many agencies, including NPS, to focus their workforce and resources on security related priorities. Two such directives that have had a significant impact on NPS and the preservation of parks are Homeland Security Presidential Directives (HSPD) 7 - Critical Infrastructure Identification, Prioritization, and Protection and (HSPD) 19 - Combating Terrorist Use of Explosives in the United States. Established in 2003 and 2007 respectively, the Directives necessitated changes that included visible security measures.

9.1.1 HSDP-7

HSPD-7 establishes a national policy for federal departments and agencies to identify and prioritize United States critical infrastructure and key resources (CI/KR) and to protect them from terrorist attacks.¹⁴⁷ Although monuments and parks do not fit the conventional definition of critical infrastructure, they are a symbol of the United States and represent its values and polices throughout the world. An attack on, damage to, or destruction of such historic monuments could have a debilitating affect on the American people and change the standing of the United States in the eyes of other nations.

Under HSPD-7, Sector Specific Agencies (SSA) are assigned to manage and identify specific sectors of CI/KR. As an SSA, the NPS is required to perform numerous duties including identifying, prioritizing, and coordinating the protection of sector-level CI/KR, managing the overall process for building security partnerships, leveraging CI/KR security expertise, and developing Sector Specific Plans.¹⁴⁸ Because of its unique knowledge of parks and monuments, the NPS was the obvious choice to develop the SSP.

9.1.2 HSDP-19

HSDP-19 focuses on protecting the critical infrastructure, the public, and other facilities from attack by explosive device. This is of particular concern with the open spaces of the

¹⁴⁷ George W. Bush, "Homeland Security Presidential Directive/HSPD-7," December 17, 2003, <http://www.whitehouse.gov/news/releases/2003/12/20031217-5.html> (accessed March 16, 2008).

¹⁴⁸ U.S. Department of Homeland Security, *National Infrastructure Protection Plan (NIPP)*, 2006. http://www.dhs.gov/xlibrary/assets/NIPP_Plan.pdf (accessed March 16, 2008).

National Mall and traffic patterns that allow for vehicles to transit near the monuments. With the monuments on the Mall, mitigation strategies and techniques play a vital role in combating the threat of explosive devices. Design changes and barriers were needed to protect from potential attacks. Although these measures are required, accessibility to the Mall has been affected along with hindering visitor movement.

9.2 National Infrastructure Protection Plan

Expanding on the presidential directives and the Homeland Security Act, the National Infrastructure Protection Plan (NIPP) formed a cohesive and overarching structure for identification and protection of critical infrastructure. This was accomplished through a risk-based approach focusing on three primary objectives; deterring threats, mitigating vulnerabilities, and minimizing the consequences of attack.¹⁴⁹

The Monuments and Icon annex to the NIPP categorizes critical infrastructure as structures recognized both nationally and internationally as representing the Nation's heritage, traditions, and/or values. It also stipulates that the monuments memorialize or represent significant aspects of our Nation's heritage, traditions, or values and serve as points of interest for visitors and educational activities.¹⁵⁰ All the monuments on the Mall fall under this category. Using a risk-based approach, monuments were assessed using a variety of matrices; threat conditions, sustainability, and impact to determine risk and needed security. Once these security measures were determined, they were implemented at the specific sites. Most detailed information on specific security measures is considered Sensitive Security Information and could not be included in this report.

9.3 National Mall Security

According to a 2005 General Accounting Office (GAO) report, approximately \$132 million has been spent for physical security improvements on the National Mall with the NPS and Smithsonian accounting for about 75 percent of the total.¹⁵¹ These improvements not only focus on physical security but must also confront the challenges of accessibility for the public while preserving the architectural and historic nature of the Mall and monuments. To achieve this task, several key practices were used that incorporated Homeland Security regulations and procedures such as the previously mentioned NIPP. These include information sharing and coordination, technology (including design), and resource management.

9.3.1 Security Coordination

With the number of federal and local agencies involved with the security of the Mall, coordination of design and operations is critical. Of particular concern, agency officials noted the overlap in consultations and reviews of projects that can result in multiple design changes being put forward for review.¹⁵² However, agency officials also noted that although the review process for implementing security changes was cited as time consuming and inefficient, agencies found that early and frequent consultation with all stakeholders could result in a more efficient

¹⁴⁹ Ibid.

¹⁵⁰ U.S. Department of Homeland Security, *National Monuments & Icons - Critical Infrastructure and Key Resources Sector-Specific Plan as input to the National Infrastructure Protection Plan*, 2006, <http://www.dhs.gov/xlibrary/assets/nipp-ssp-national-monuments-icons.pdf> (accessed March 16, 2008)

¹⁵¹ U.S. Government Accountability Office, *National Mall- Steps Identified by Stakeholders*.

¹⁵² Ibid.

review process.¹⁵³ Similarly, security operations must coordinate on day-to-day activities and include numerous law enforcement agencies, as well as the Park Police and D.C. Police. In large event planning, an Incident Command System is typically instituted with the lead agency being assigned as the event sponsor. For example, NPS would be designated as the incident commander for events like the Cherry Blossom Festival and the July 4th celebration.

9.3.2 Security Designs

Designing for security in the Mall area had unique challenges especially when considering access and preservation. Keeping in mind that physical security changes should not deter from the original intent and design of a monument but must be able to withstand potential attacks was particularly challenging. The NCPC 2001 report, *Designing for Security in the Nation's Capital*, realized this when addressing the monument core as an independent section of D.C. and the need for a phased plan to design security changes for the Mall.¹⁵⁴ For example, temporary cement barriers were erected around the Washington Monument to prevent vehicle attacks. However, the barriers looked like a permanent construction zone to visitors. This was further stated in another NCPS report; *Designing and Testing of Perimeter Security Elements*, which stated poorly designed security measures negatively impacts Washington's dramatic views, gracious open spaces, and historic urban design.¹⁵⁵ Elements such as planting beds, knee walls, and bollards that were typically used by landscape architects were now being incorporated as security deterrence around the monuments and building. As a result, *The National Capital Urban Design and Security Plan* was implemented to address security of the monuments, memorials, surrounding streets, adjacent city areas, and design concepts. Specifically for the Mall, the Washington, Jefferson, and Lincoln Memorials perimeter and entrance security was designed to reinforce setback requirements and barriers to vehicles.

9.4 Mall Security Examples

9.4.1 Washington Monument

Although surrounded by open green space, the relatively flat terrain encompassing the Washington Monument makes it susceptible to vehicle attack from nearby roadways. To prevent this, barriers were needed that could block vehicles from approaching the Monument but provide visitor accessibility and accessibility for emergency and maintenance equipment. Temporary barriers were initially put in place but served as a constant reminder that a more permanent and pleasing solution was required.¹⁵⁶ The renovations that were completed in 2005 were touted for the subtlety of their design and for finishing on time with a budget of \$15 million.¹⁵⁷ The design included reconfiguring existing walkways as a series of partial ovals extending east and west

¹⁵³ Ibid.

¹⁵⁴ National Capital Planning Commission, *Designing for Security in the Nation's Capital – A report by the Interagency Task Force of the National Capital Planning Commission*, 2001, http://www.ncpc.gov/UserFiles/File/publications_press/DesigningSec.pdf (accessed March 18, 2008).

¹⁵⁵ National Capital Planning Commission, *Designing and Testing of Perimeter Security Elements*, 2001, http://www.ncpc.gov/UserFiles/File/publications_press/DesignTestPerimSecurity.pdf (accessed March 28, 2008).

¹⁵⁶ National Capital Planning Commission, *The National Capital Urban Design and Security Plan*, October 2001, <http://www.ncpc.gov/initiatives/pg.asp?p=urbandesignsecurity> (accessed March 5, 2008).

¹⁵⁷ Petula Dvorak, "Washington Monument Subtly Fortified – Security Project Completed with Granite Walls Designed to Provide Terror Protection," *The Washington Post*, July 1, 2005, <http://www.washingtonpost.com/wp-dyn/content/article/2005/06/30/AR2005063001731.html> (accessed March 3, 2008).

from the monument plaza to serve as a vehicle barrier. It also included removable bollards located at the intersection of the walkways to allow access by service and emergency vehicles.¹⁵⁸

Figure 25 – Washington Monument Temporary Barriers



Source: NCPC, The National Capital Urban Design and Security Plan.

Figure 26 – Washington Monument Permanent Retaining Walls



Source: American Society of Landscape Architects, <http://www.asla.org/land/2006/0410/olin3.html>.

¹⁵⁸ National Capital Planning Commission, *The National Capital Urban Design and Security Plan*.

Figure 27 – Washington Monument Bollards



Source: American Society of Landscape Architects, <http://www.asla.org/land/2006/0410/olin3.html>.

9.4.2 Jefferson Memorial

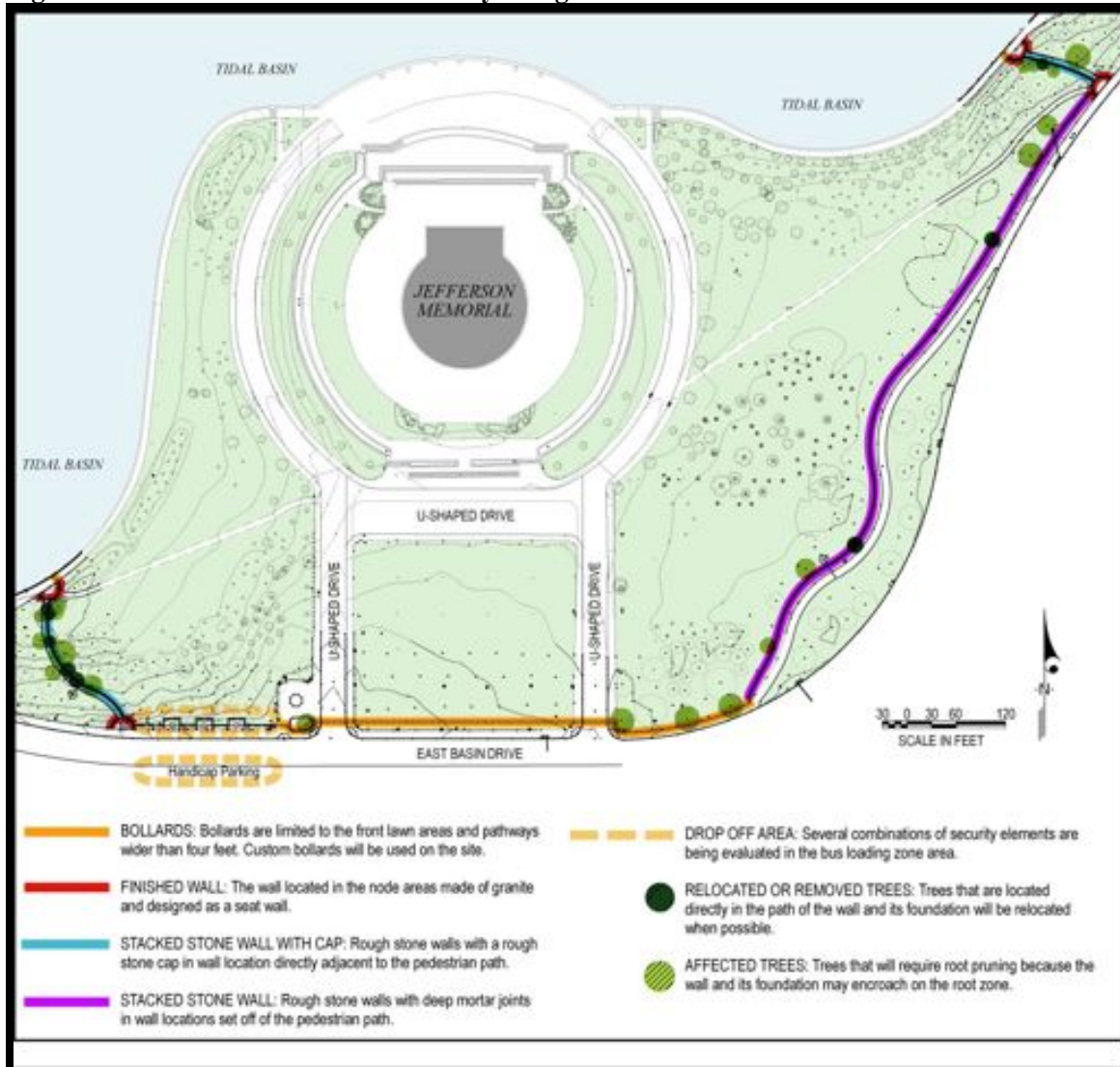
The Jefferson Memorial also saw its share of temporary concrete barriers. In addition to barriers, the U-shaped drive on the south side of the memorial was closed to traffic and the parking lot adjacent to the memorial was closed to the public.¹⁵⁹ This hampered the flow of traffic on the west end of the mall and removed valuable parking spaces for visitors. Security design concepts for the Jefferson Memorial incorporated site grading, low retaining walls, and bollards.¹⁶⁰ Final approval and funding from the Department of Interior is in the approval process.¹⁶¹

¹⁵⁹ U.S. Government Accountability Office, *National Mall- Steps Identified by Stakeholders*.

¹⁶⁰ Ibid.

¹⁶¹ Viets, *In-Class Interview*.

Figure 28 – Jefferson Memorial Security Design



Source: NPS, *Environmental Assessment, Washington, D.C., Visitor Transportation Study for the National Mall and Surrounding Park Areas*,
<http://parkplanning.nps.gov/document.cfm?parkId=427&projectId=17349&documentID=17350>

9.4.3 Fourth of July Fireworks Celebration

The Fourth of July Celebration is one of the largest events to take place on the National Mall with hundreds of thousands of people attending to part in the festivities. However, due to the large number of people and possible security threats that accompany them, many of the adjacent streets, parking areas, and metro stops are closed for security reasons. Many streets surrounding the Mall have restricted parking throughout the day and are closed during the actual fireworks display. This includes parts of Independence, Constitution, and Pennsylvania Avenues. In addition, a security zone is put in place along the Potomac waterfront to prevent approach from the waterside. The Smithsonian Metrorail station, the main station for the Mall, is closed for the day, but special accommodations are made with additional bus and train service to and from the Mall in order to facilitate the movement of visitors into and out of the area. Of final note, the Park Service establishes a security perimeter around the Mall with limited access points to control movement and provide security-screening locations.

Figure 29 – July 4th Security Perimeter



Source: Google Images, <http://www.nbc4.com/news/4671226/detail.html>

Figure 30 - July 4th Road Closures



Source: Google Images, <http://www.nbc4.com/news/4671226/detail.html>

10.0 Comparison of Similar Venues

Large public city parks are one of the few inventions of the last century that have remained generally unchanged and which serve the same purpose as when created; providing unrestricted space to the general public for recreation and leisure. This section compares the National Mall to Central Park in New York City and The Royal Parks in London. Although the National Mall is maintained by NPS, the commonality of the park locations provides insights for comparison purpose. (See Appendix D)

10.1 Central Park, New York

Central Park, the 843-acre green oasis in the center of Manhattan is New York's most well known park. It spans two and a half miles from 59th Street to 110th Street and half a mile from Fifth Avenue to Eighth Avenue. Frederick Law Olmsted and Calvert Vaux, the founders of the landscape architecture profession in the United States, conceived the design in 1857. With about 25 million visitors annually, Central Park is the most visited city park in the United States, and its appearance in many movies and television shows has made it famous.

Originally conceived in the salons of wealthy New Yorkers in the early 1850's, the park project spanned more than a decade and cost the city \$10 million. The purpose was to refute the European view that Americans lacked a sense of civic duty and appreciation for cultural refinement and instead possessed an unhealthy and individualistic materialism that precluded interest in the common good.¹⁶²

10.1.1 Management of Central Park

The Central Park Conservancy manages Central Park under a contract with the City of New York Department of Parks and Recreation. It is a private, not-for-profit organization, founded in 1980, whose mission is to restore, manage, and preserve Central Park, in partnership with the public, for the enjoyment of present and future generations.¹⁶³

Through support of individuals, corporations, and foundations, the conservancy has set new standards of excellence in park care. As of 2007, the Conservancy had invested approximately \$450 million in the restoration and management of the Park. The organization contributes approximately 85 percent of Central Park's annual operating budget of over \$25 million.¹⁶⁴

10.1.2 Access to Central Park

Multiple subway stops surround Central Park: Lines B and C with connections at 72nd street, 81st street, 86th street, 96th street, 103rd street and 110th street; Lines 2 and 3 with connections at Central Park North and 110th street; Lines N, R, and W with connections at 59th street; Lines A, B, C, D, and 1 with connections at 59th street and Columbus Circle.¹⁶⁵

Park Drive is open to automobile traffic during weekday commute hours only, and drivers are limited to a speed limit of 25 miles per hour. The design called for three specific types of roadways for the park: footpaths, carriageways, and bridle paths. To allow traffic to move easily and to eliminate any awkwardness among the three, a series of bridges and arches were planned.¹⁶⁶

¹⁶² Sarah Waxman, "The History of Central Park," <http://www.ny.com/articles/centralpark.html> (accessed April 9, 2008).

¹⁶³ Ibid.

¹⁶⁴ Ibid.

¹⁶⁵ Ibid.

¹⁶⁶ Ibid.

10.1.3 Maintenance of Central Park

As the Conservancy rebuilt the Park beginning in the mid-1980s, it instituted a revolutionary new zone-management system, in which Central Park was divided into territories. This system designated a supervisor to be held responsible for maintaining restored areas. However, citywide budget cuts in the early 1990s resulted in attrition of the Park staff responsible for routine maintenance. As a result, the Conservancy began to hire staff to replace these workers. Management of the restored landscapes by the Conservancy's "zone gardeners" proved so successful that core maintenance and operations staff was reorganized in 1996 and a zone-based system of management was implemented throughout the Park.¹⁶⁷ The Park is currently divided into 49 zones with a specific individual accountable for its day-to-day maintenance.

Today the Conservancy employs four out of five maintenance and operations staff in the Park. It also oversees the work of both the private and public employees under the authority of the Central Park Administrator, a publicly appointed position reporting to the Park's Commissioner, who is also the President of the Conservancy. New York's Central Park Conservancy has a full time staff of 170 and 30 seasonal staff dedicated to maintenance and operations.¹⁶⁸

10.1.4 Central Park Security

The park has its own New York City Police Department precinct (Central Park Precinct), which employs both regular police and Auxiliary officers. In 2005, safety measures held the number of crimes in the park to fewer than one hundred per year.¹⁶⁹ Consequently, Central Park is considered one of the safest urban parks in the world.

10.1.5 Activities at Central Park

Central Park does not have events that are specifically required by law, nor do they have published criteria describing what permitted events must embody. However, priority events focus on those types related to freedom of expression and events with an established history within the park. Each year, there are six major permitted events on the Great Lawn, with a maximum of 50,000 attendees.¹⁷⁰ In addition, runners, joggers, bicyclists, and inline skaters heavily utilize Park Drive, which is just over six miles long.

The Public Theater presents free open-air theatre productions, throughout the summer. In addition to its 21 playgrounds, Central Park offers dozens of activities for children, including performances by master puppeteers at the historic Swedish Cottage Marionette Theatre. The Central Park Conservancy sponsors a variety of free, volunteer-led walking tours, which take place rain or shine and do not require reservations.

¹⁶⁷ Ibid.

¹⁶⁸ National Park Service, *Best Management Practices Used at Urban Parks in National and International Locations: A Background Report for the National Mall Plan*, March 2007, 27, <http://www.nps.gov/nationalmallplan/Documents/National%20Mall%20Plan%20-%20Best%20Management%20Practices%20Used%20at%20Urban%20Parks%20in%20National%20and%20International%20Locations.pdf> (accessed April 11, 2008).

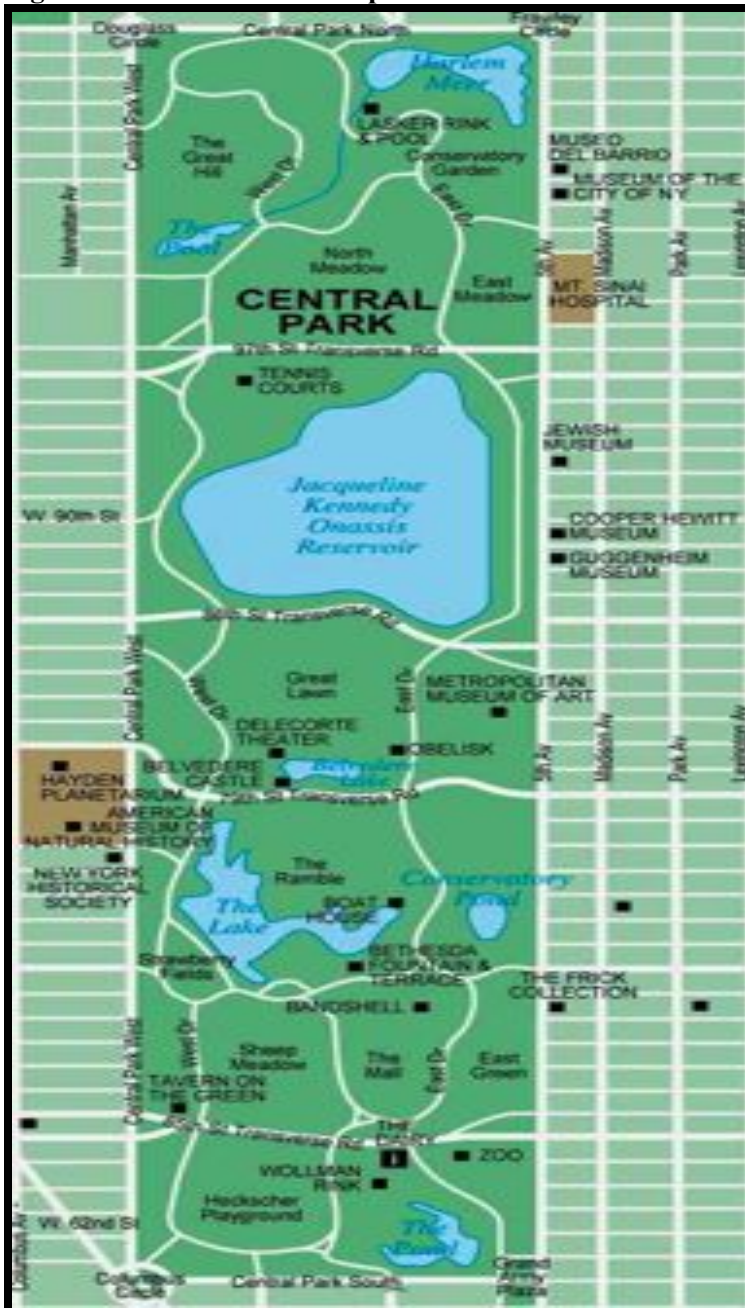
¹⁶⁹ Ibid.

¹⁷⁰ Ibid.

10.1.6 Maps and Signage

Central Park uses consistent maps and signage to communicate general information, park rules and directions. Additionally, Red Flag signs are used to remind visitors to “keep the park clean.”

Figure 31 – Central Park Map



Source: New York City Travel, <http://gonyc.about.com/od/maps/l/blcentralpark.htm>.

10.2 Royal Parks of London

The Royal Parks of London are lands originally owned by the monarchy of England or the United Kingdom for the recreation of the royal family. The parks were part of the hereditary possessions of the Crown and the public did not have any legal right to use them. Therefore,

public access was dependent on the grace and favor of the Crown, although there may have been public right of way across the land.

With the increasing urbanization of London, some of these parks have been preserved as freely accessible open space and become public parks. Today there are eight Royal Parks covering approximately 5,500 acres of land in Greater London: Bushy Park, The Green Park, Greenwich Park, Hyde Park, Kensington Gardens, The Regent's Park with Primrose Hill, Richmond Park and St. James's Park.

Stretching across the capital with over 60 million visitors each year, the Royal Parks provide a unique historical heritage and unparalleled opportunities for enjoyment, recreation, and entertainment. This large estate of Crown lands constitutes a significant area of London's wildlife habitat, including a considerable amount of wetland.

10.2.1 Management of Royal Parks

Royal Parks of London are managed by The Royal Parks Agency, an executive agency of the Department for Culture, Media and Sport. As part of its statutory management function, the Agency permits the public to use the Parks for recreational purposes, subject to regulations issued under the Parks Regulation Acts 1872-1926. These acts are considered necessary to secure proper management, preserve order and prevent abuse within the Parks.

The importance of this natural resource and historic landscape, within a capital city, is recognized by the Agency, whose primary aim is to conserve this unique heritage for present and future generations. The Agency employs 250 staff directly and an additional 650 employees during peak summer periods through contracts and concessions. Similar to Central Park, contractors are assigned specific areas of the park and develop expertise of the individual area.¹⁷¹

10.2.2 Access to the Royal Parks

Running through The Royal Parks are roads, which are heavily used by through traffic as well as by visitors to the Parks. A review in 1996 identified traffic as the most contentious issue facing the Parks. The Royal Parks put forward a number of proposals designed to reduce traffic and to safeguard the Parks. In the case of Richmond Park, traffic in the Park presented a threat to the delicate balance. Within the park, cars were considered a significant visual intrusion, and the noise they created disturbed the tranquility which many visitors valued. Additionally, speeding traffic presented an obvious threat to visitor safety. As a result, multi-use trails were installed to accommodate pedestrians, bikes, and equestrian users. In addition, roads are closed during peak periods to allow for easier pedestrian movement.¹⁷²

10.2.3 Movement and Circulation

Like most parks, walking is the main means of movement within the area. However, two notable programs at the Royal Parks assist visitors with disabilities access Hyde Park and Bushy Park. The first program, Liberty Drive, is a volunteer based organization that provides free thirty minute rides throughout the park.¹⁷³ The electric buggies seat 5 and are wheelchair accessible. Donations from the community support the program. The second program, Companion Cycling,

¹⁷¹ Ibid, 29.

¹⁷² Ibid, 17.

¹⁷³ The Hyde Park Appeal, <http://www.hydeparkappeal.org> (accessed April 5, 2008).

enables people who cannot operate a bike alone to participate in riding a bicycle around Bushy Park.¹⁷⁴ A ‘pilot’ controls the bicycle with assistance of the rider who can pedal or sit back and enjoy the ride. Membership is required in order to ride the bikes, which are available in several styles.

10.2.4 Maintenance of Royal Parks

All maintenance has been contracted out for the past 14 years, with the contracts spread over a number of companies. However, to maintain a strong connection to The Royal Parks’ brand, all contractor vehicles display clear and consistent park messaging.¹⁷⁵ The Agency’s main contractors employ nearly 800 people during the summer, mainly to carry out grounds and maintenance work as well as catering services.

10.2.5 Royal Parks Funding

The primary source of funding for the Royal Parks is a central government grant. The Royal Parks Agency generates additional income from commercial activities such as catering and staging public events such as concerts to supplement its annual grant. In 2002-03, the Agency’s grant from the Department was \$47.10 million and its self-generated income amounted to \$12.12 million, making a total income that year of \$59.22 million.¹⁷⁶ With the aim of achieving a step change in its self-generated income, the Agency has established an independent charity, The Royal Parks Foundation that promotes additional financial and public support for the Agency.

10.2.6 Activities within Royal Parks

Each day, tens of thousands of people jog, cycle, roller blade, swim, rest and play in the eight Royal Parks. Other visitors prefer horseback riding, bird watching, picnicking, playing hockey, tennis, softball, or participating in organized living history walks and nature treks. In addition to the ad-hoc activities, the Parks also host organized events, such as the London Marathon, Stride for Life and World Sprint Rowing Championships. A range of activities held throughout the year includes The Golden Jubilee, Indian Summer in Regent’s Park, and Refugee Week.

Among the eight parks, Hyde Park is the site used for national celebrations and national political and civil rights protests. Since 1872, people have been allowed to speak at Speaker’s Corner, the Park’s free speech area, on any subject they wish. Hyde Park is in high demand from the government, commercial, and charitable sectors. To meet the constant demand of pedestrian activity, this portion of the park is a hardscape area.¹⁷⁷

10.2.7 Royal Parks Maps and Signage

To assist visitors and cyclists using the Royal Parks, new maps were introduced in 2007. The maps depict buildings, monuments, and other features realistically. Walking and bicycle routes cafes, and restrooms are also shown on the maps. The maps are on information posters

¹⁷⁴ Companion Cycling, <http://www.companioncycling.org> (accessed April 5, 2008).

¹⁷⁵ National Park Service, *Best Management Practices*, 27.

¹⁷⁶ National Audit Office, *The Royal Parks An Executive Agency*, April 2, 2004, 1, http://www.nao.org.uk/publications/nao_reports/03-04/0304485.pdf (accessed April 28, 2008).

¹⁷⁷ National Park Service, *Best Management Practices*, 21.

and leaflets. Simon Higgins, Marketing Manager for The Royal Parks, notes, “The maps show the surrounding areas and how to get to, from and around parks so people can plan their whole experience.”¹⁷⁸

Figure 32 – New Royal Parks Map



Source: *Smart Moves 3*, <http://www.tfl.gov.uk/assets/downloads/businessandpartners/smart-moves-07-08.pdf>

London’s Mayor agreed to a prototype wayfinding system called “Legible London.” The scheme allows visitors to locate shops, hotels, Tube stations, bathrooms, theaters, museums, cafes and restaurants on maps located throughout the West End of London. The signs also provide an audio feature that describes the user’s current location. Legible London resulted from a study that found that the current pedestrian sign system was ineffective. It also found that tourists were relying on the tube map to navigate around the city. As a result, people were taking motorized transportation to locations that were easily accessible by a short walk because the tube maps depict underground locations that do not translate equally to above ground locations.¹⁷⁹

10.2.8 Royal Parks Security

Royal Parks are policed by the Metropolitan Police. It provides 24-hour coverage to the eight Royal Parks, Gardens and other open spaces within the Metropolitan Police District, an area in excess of 6,000 acres. Effectively communicating with visitors required a different style of policing from that provided elsewhere. Various methods of working have been introduced, including increasing the use of pedal cycles for patrol purposes, thus reducing dependence on police cars. A particular success has been the very positive public response to the introduction of Police Community Support Officers to the Parks. Although millions of people visit the Parks each year, only 857 criminal offenses were recorded in 2005/2006.¹⁸⁰

¹⁷⁸ Philip Darnton, “My View: Cycling,” *Smart Moves 3* (August 2007), <http://www.tfl.gov.uk/assets/downloads/businessandpartners/smart-moves-07-08.pdf> (accessed April 28, 2008).

¹⁷⁹ Legible London, <http://www.legiblelondon.info/wp01/index.php> (accessed April 8, 2008).

¹⁸⁰ The Royal Parks, *Annual Reports and Accounts 2006-07: This Season’s Report*, <http://www.official-documents.gov.uk/document/hc0607/hc09/0925/0925.pdf> (accessed March 28, 2008).

11.0 Findings and Recommendations

The research conducted for this report provided findings of inadequate services or other areas that warrant changes to enhance visitor experiences at the National Mall. This section categorizes the recommendations based on four subject areas: Access and Circulation, Organization and Coordination, Parking, and Signage and Informational Resources.

11.1 Access and Circulation

Finding #1: Public transit to the eastern Mall area is adequate while circulation was found to be insufficient. Meanwhile, the western portion of the Mall is neither accessible nor is it easy to circulate around or through.

The National Mall is one geographic area with museums, monuments, memorials, and recreational open space. However, due to differences in access and circulation, the Mall presents itself as two distinct areas - the eastern portion, considered the “Mall” and the western portion, considered the “Memorial” area.

Boundaries for the western portion of the Mall are from West to East - the Potomac River to 17th Street - and from North to South - Constitution Avenue to East Basin Drive. There are no Metro stations within half a mile of the monuments, memorials, or parkland. In addition, this area lacks a convenient and inexpensive means of circulating the Mall area. Therefore, improvements to both circulation and accessibility are necessary.

Recommendation #1: Expand D.C. Circulator hours of operation on the eastern half of the Mall and enforce loading/unloading no parking zones to improve Circulator efficiency. Implement a Memorial Shuttle Service to increase circulation on the western half of the Mall.

Having the D.C. Circulator available seven days a week from 7 a.m. to 9 p.m. would improve accessibility to the eastern portion of the Mall. This is similar to the Georgetown-Union Station and Shaw-SW Waterfront D.C. Circulator routes. The efficiency of this route would be greatly enhanced by creating a special Circulator loading/unloading no parking zone. This route could base its headways on the seasonality of visits to the Mall. Spring and summer are peak visitor seasons with the highest traffic. Therefore, headways of five minutes would encourage greater use. The fall and winter seasons have reduced visitor traffic and headways of 15 minutes could be utilized, reducing wear on buses during non-peak periods and reducing operating costs. Operational times could also be altered to meet passenger demand.

While changes to improve either the eastern or western areas would be useful, the greatest benefit would be observed if improvements to both areas were implemented in a coordinated manner. The first challenge would be moving visitors around the Memorial area more effectively. This could be accomplished with the addition of a Memorial Shuttle service. As the area around the Memorials is controlled by NPS, it should be the lead agency in implementing any circulation proposal around the Memorials. Under this recommendation, a Memorial Shuttle would operate one of two routes depending on need, with each circulating the Memorials and including a stop at Arlington National Cemetery, in part because of its popularity as an attraction and also because it eases movement around the Lincoln Memorial. Both route options would start at the Smithsonian Metro Station near the Smithsonian Castle/Visitor Center. One route would run along the western side of the Potomac, passing by Lady Bird Johnson Memorial Park, before returning to the District via the Memorial Bridge. The other route would continue on the

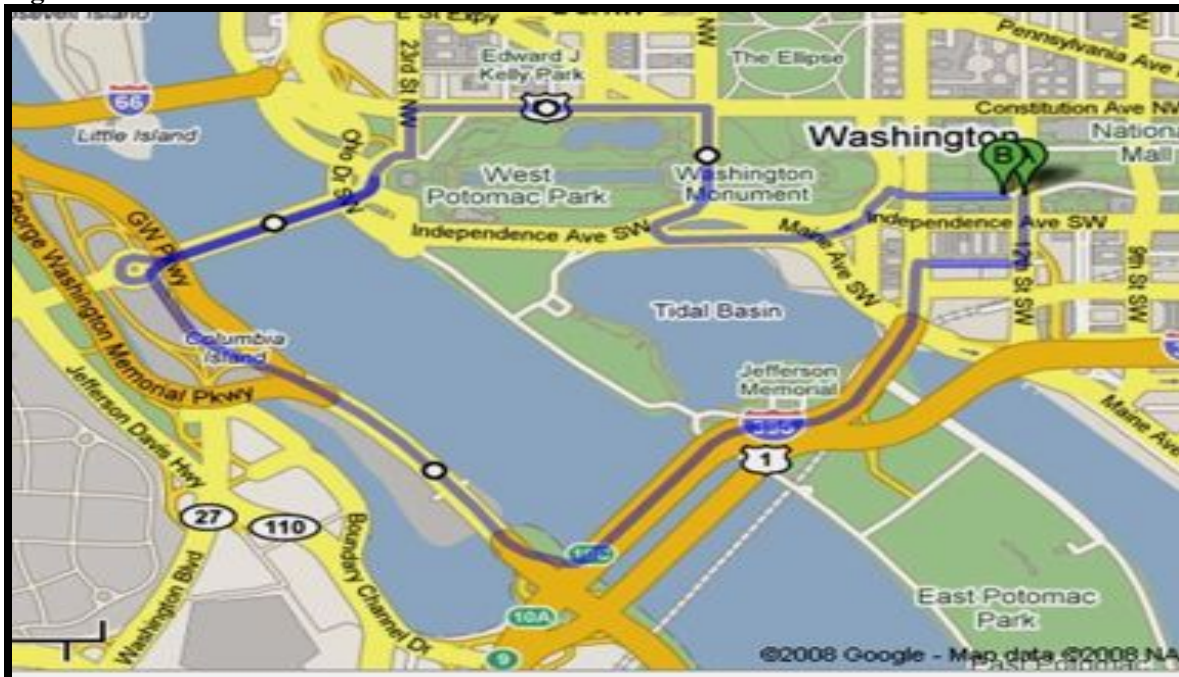
eastern or D.C. side of the Potomac, following East Basin Drive to Ohio Drive and provide access to the Franklin Delano Roosevelt Memorial. Each route would cross the Memorial Bridge into Virginia and stop at Arlington National Cemetery. Upon reentering the D.C. via the Memorial Bridge, both routes would conclude with stops in front of the World War II Memorial and at 15th Street and Jefferson Avenue, SW of the Washington Monument. Use of this shuttle would be almost entirely by visitors wishing to board and reboard, thus a single day or multi-day pass would be the most likely choice. If provided with premium stopping privileges in front of the memorials, \$5 a day would be a reasonable charge.

Figure 33 - Memorial Route #1 – George Washington Parkway



Source: Google Maps, <http://maps.google.com/>.

Figure 34 - Memorial Route #2 – Ohio Drive



Source: Google Maps, <http://maps.google.com/>.

To improve accessibility, travelers should be able to move from Metro stations to the Mall without having to rely on a personal vehicle, thus negating the need for a car. As D.C. streets would be utilized, DDOT should be the lead agency in implementing either accessibility plan. Planners could achieve the goal of improved accessibility using one of two options. The first option is a Downtown-Mall transit bus operating westbound along Constitution Avenue, north on 23rd Street, and east on K Street, south on 17th Street, east on H Street, south on 14th Street, and finally west on Constitution Avenue. This route would serve both tourists and downtown employees moving from Foggy Bottom, Farragut North and West, and McPherson Square Metro stations to offices along the Mall or from the Foggy Bottom area to the business district east of the White House. By running along Constitution Avenue, this route also improves circulation by moving in the opposite direction of the proposed Memorial Shuttle. The second option is a shuttle running north on 23rd Street to the Foggy Bottom Metro Station and south on 21st Street to the Mall. This option meets the accessibility needs from a Metro Station to the Mall. A drawback to this plan would be not having the added benefit of providing East-West movement along the Mall.

Figure 35 - Memorial and Downtown Accessibility Transit Bus



Source: Google Maps, <http://maps.google.com/>.

Figure 36 - Metro to Mall Accessibility Only Route



Source: Google Maps, <http://maps.google.com/>.

To enhance the capabilities of each recommendation, these transportation services could accept transfers from other public transit services. Using a SmartTrip card or other mutually agreeable payment solution, the transportation services would entice greater ridership, reduce time lost en route due to processing payments during boarding, and facilitate paperless transfers between services. The transfers do not need to be free of charge but should reflect the mutual desire of all parties to reduce traffic on the Mall and facilitate efficient movement for anyone who comes to the Mall.

Finding #2: Bike riding remains underutilized as a means of accessing and circulating the National Mall.

The *D.C. Visitor Transportation Survey* indicated that the top three modes of transportation to visit all sites in the metropolitan Washington, D.C. area were walking (43%), Metrorail (19%), and car (16%).¹⁸¹ It was also noted that of those visitors who chose to access the Mall via automobile, 53 percent continued to use their personal vehicles to move around the Mall.

Because NPS is actively seeking nonmotorized modes of transportation for visitors to move around the Mall, bicycling is an obvious choice to be encouraged. However, the study found that for bicyclists who do access the Mall, the number of available bike racks is inadequate and cyclists are using trees and fences to secure their bikes.

As an example, D.C. Government is partnering with Clear Channel Outdoor to operate SmartBike D.C. Under this agreement, Clear Channel Outdoor is responsible for the

¹⁸¹ PricewaterhouseCoopers LLP, *D.C. Visitor Transportation Survey*, 48.

maintenance of the bikes and other operation costs for the program. For an annual fee of \$40, users can rent bikes for three hours on each occasion and are provided with an unlimited number of rentals. In addition, Arlington County is also looking into implementing a bike-share program.¹⁸²

Recommendation #2: Implement a bike-share program on the National Mall.

One recommendation to improve access and circulation to the Mall is to implement a “bike-share program.” The concept evolved from utopian bike-sharing programs in Europe in the 1960s, aimed at reducing the use of cars for short trips inside the city and cutting down on traffic congestion and air pollution. The most famous program was in Amsterdam and was called the “white bicycle project.” This program provided free bicycles that were to be used for one trip and then left for someone else to use. Unfortunately, the program did not work because the bikes were either stolen or too broken to ride. However, in July 2007, Paris launched the largest and the most successful bike-share program to-date called “Velib” which means free bike in French. The City placed more than 10,600 bicycles at 750 stations and has plans to double that number by 2008. With this program, riders take bikes from one station and drop them off at another.¹⁸³ Everyone from businessmen to tourists seems to be commuting or just enjoying the city on two wheels.

In the case of the National Mall, tourists, visitors and residents who are tired of walking and driving and sense their curiosity ground away by sheer locomotion might consider biking. The “bike-share program” would provide bikes at key locations throughout the Mall with an opportunity for users to quickly retrieve a bicycle from a self-service bike station. The bicyclist would then be able to return the bike at another self-service bike station location on the Mall. Users can either purchase an annual membership or pay for short-term daily or weekly usage. Terminals at each station would allow the purchase of a short-term subscription with a credit card or bank card. Annual members would be issued a card to unlock the bikes at the parking stand instead of going to the terminal. Popular monuments and memorials within the Mall would be easily accessible by riding safely on paths, trails and sidewalks. In an effort to prevent thefts from crippling the network, bikes would be equipped with a lock and an alarm that sounds if the bike is not returned to a station. In addition, the bikes would be painted bright colors and have unique components that do not fit normal bicycles in order to discourage thieves. A security deposit could be required to ensure the bike’s return. The first half-hour or the first fifteen minutes of use would be free and additional time would be available at a reasonable cost. NPS would determine the rates based on the percentage of occupancy, peak loads, and cost of labor and materials.

¹⁸² Silverman, “Bicycle-Sharing Program to Debut.”

¹⁸³ Alexandra Steigrad, “Paris Set for Bike-Share Scheme to Cut Congestion,” *Planet Ark World Environment News*, June 14, 2007, <http://www.planetark.org/avantgo/dailynewsstory.cfm?newsid=42591> (accessed April 8, 2008).

Figure 37 – Bike Docking Station



Source: *Bike docking-station in Paris, France*, <http://www.popmatters.com/pm/columns/article/51852/move-over-iphone-the-french-ibike-is-the-new-black/>.

The implementation of a “bike-share program” on the Mall necessitates the improvement of bike parking at Mall destinations by adding new parking racks, replacing broken bike racks, widening and improving Mall trails, and increasing connections between area parks and the D.C. network. In a recent tour of the Mall during the 2008 Cherry Blossom Festival, people were locking their bikes on trees and fences because bike racks were not available.

Figure 38 – Bike Locked to Tree on National Mall



Source: *Lindsey Collins, Photograph, Bike locked on a tree during the Cherry Blossom Festival*

Figure 39 – Bike Locked to Fence on National Mall



Source: Lindsey Collins, Photograph, Bikes locked on the fence at the National Mall

Along with the Bike-docking stations, located within a few hundred feet of each other along the Mall, stations would be installed next to all monuments and memorials on the Mall, metro stations, hotels, restaurants, and parking garages in the surrounding area. This would allow tourists, visitors and residents to have easy access to the bikes. Similar to bikes accessed on the Mall, the bikes could be unlocked with a swipe of a credit card, bank card or a pre-paid card a user can obtain at either a station or online. Each station would have an electronic vending machine with instructions to walk users through the process. In addition, NPS would integrate bicycle information in all communications regarding transportation to and through the Mall, such as, websites, wayfinding and directional signage, maps and brochures.

A successful “bike share program,” requires size and density. Rental bikes should also be added at all major D.C. bike trails such as Washington and Old Dominion Trail (W&OD), The Custis Trail, Capital Crescent Trail, Mount Vernon Trail, Chesapeake and Ohio Towpath, Rock Creek Hiker/Biker Trail, Sligo Creek Trail, Anacostia Northwest and Northeast Trails, and North Bethesda Trail.¹⁸⁴

A “bike-share program” on the Mall fits into the D.C. Mayor’s plan for safe and convenient bicycle transportation as part of a broader initiative to create a sustainable, multi-modal transportation system in the Nation’s Capitol. D.C. has added 26 miles of bike lanes and 400 bike racks in the past six years with plans for 60 miles by 2015.¹⁸⁵ SmartBike D.C. will begin operating in May 2008 with 120 bicycles for use around the D.C. area.¹⁸⁶ In addition, *NPS Management Policies 2006* states that NPS will “emphasize and encourage alternative transportation systems, which may include a mix of buses, trains, ferries, trams, and preferably nonmotorized modes of access to and moving within parks.”¹⁸⁷ NPS Park Rangers also offer free guided bicycle tours for adults and families on weekends through November. All of these

¹⁸⁴ Bike Washington, “The Visitor’s Biking Guide to Washington, D.C.,” <http://www.bikewashington.org/visitor.htm> (accessed April 1, 2008).

¹⁸⁵ Ibid.

¹⁸⁶ Silverman, “Bicycle-Sharing Program to Debut.”

¹⁸⁷ National Park Service, *Management Policies 2006*.

tours, including family tours, begin at the Thomas Jefferson Memorial Plaza, at the base of the memorial's steps.¹⁸⁸

To finance the project, NPS can secure contracts with companies that would supply the Mall with bicycles free of charge and are responsible for maintenance. In return, the companies would be permitted to sell advertisements, both on the bikes themselves and other select locations on or near the Mall. Advertising on the Mall itself is difficult and would require negotiations with NPS. Although NPS has concerns with advertising on the Mall, it would receive concessionary fees and the revenue directly generated by subscription and rental fees to run the "bike -share program." Additionally, NPS or the company that provides the bikes may qualify for grants that could be used to help finance the purchase of the bikes. This program would be similar to the Arlington Bike Share Program where the government provides the services.

Implementing a "bike-share program" would provide lower overall transportation costs for tourists, visitors and residents in the Mall area. In addition, it is a means of improving air quality and reducing congestion on existing roadways. In contrast to the automobile, the bicycle is non-polluting, uses less space, and is considerably quieter than other modes of transportation. Bike sharing offers a great way to experience and navigate the Mall area. It also complements existing transportation choices of public transit, private vehicles and pedestrian activity by increasing access and mobility through the Mall. Cycling on the Mall allows the rider to become part of the environment rather than isolated from it by getting to know different places on the Mall and finding attractions that could otherwise be missed in an automobile or bus. A bicycle is the perfect vehicle for touring and sightseeing.

Finding #3: Twenty-five percent of visitors to the National Mall had an individual in the group that could only walk a limited distance. Programs implemented at the Royal Parks in London provide services to meet the needs of disabled visitors.

Recommendation #3: Provide programs for circulation and movement around the Mall to assist people with disabilities.

Circulation options are needed for visitors with disabilities. One recommendation is to provide similar programs to those implemented by the Royal Parks to assist this group of users.

The Royal Parks offer two programs that help visitors with disabilities move around the parks. The first service is Companion Cycling, a volunteer program at Bushy Park, which allows people who cannot ride a bike on their own to cycle with a partner. The second program, Liberty Drives, provides free service at Hyde Park and Kensington Gardens to anyone who has difficulty getting around the 760 acre park.

Companion Cycling is a non-profit organization run by volunteers. The program started in 1995 with a few specialized side-by-side bikes.¹⁸⁹ People interested in the service become members by filling out a membership application and pay a U.S. equivalent \$20 registration fee. Each ride is then \$4. Members can ride in groups or with an individual 'pilot' who can be a family member, friend, caregiver, or volunteer.¹⁹⁰

¹⁸⁸ National Park Service, "National Mall Bike Tour Page."

¹⁸⁹ Companion Cycling.

¹⁹⁰ Ibid.

There are several styles of bikes to choose from. All of the bikes are controlled by the rider on the right, who is considered the pilot. The rider on the left can help by pedaling or by hand cranking. The Howie and Ross bike is two BMX bikes joined together. Gambol is a side-by-side semi-recumbent tricycle that allows both riders to pedal together or independently. The Plum is also a semi-recumbent tricycle but has a hand crank on one side. Silver is a pair of side-by-side bikes that look like traditional bicycles. Finally, the duet is a combination wheelchair with a mountain bike.¹⁹¹ The newest addition is the Velo Plus, which has a platform on the front that allows a wheelchair to be placed on the platform and fastened with security straps.¹⁹² All of the bikes are equipped with parking brakes and other safety features.

Figure 40 – Bike Styles Companion Biking



Source: *Companion Cycling*, <http://www.companioncycling.org>.

Liberty Drives is a program run by The Hyde Park Appeal. It is supported by community donations and run by volunteers. Started in 1997, the service is available from May to October. It provides rides for up to 12,000 people annually.¹⁹³

Electric buggies that seat up to five passengers move around the park providing 30 minute rides. Each buggy is wheelchair accessible and riders can be dropped off and picked up later. The service is free and offers a means for elderly and disabled and visitors the opportunity to enjoy the park.

¹⁹¹ Ibid.

¹⁹² Ibid.

¹⁹³ The Hyde Park Appeal.

Figure 41 – Liberty Drives Electric Buggy



Source: *The Hyde Park Appeal*. <http://www.hydeparkappeal.org>.

Programs such as these could be easily incorporated at the Mall. Funding could be obtained by grants or through volunteer organizations. The services could require a nominal fee that could be incorporated similar to those described under the bike-share program or visitors could purchase an access card that would allow them to use the electric buggies. These are two ideas with proven track records that would meet the needs of a variety of Mall visitors.

Finding #4: Access to the Mall from the greater Washington region via public transit on weekends is limited due to the commuter-oriented scheduling of current services offered by MARC and VRE.

NPS Management Policies state that parking will be available at the least degree possible and the Organic Act provides that NPS will object to proposals endorsing the construction of new roads. As noted in Appendix A, Virginia Railway Express (VRE) offers weekday service to L’Enfant and Union Stations while Maryland Rail Commuter (MARC) offers weekday service to Union Station.

Recommendation #4: Expand operating hours for VRE and MARC to provide weekend service during peak periods to Union Station.

Weekend service for VRE and MARC, especially during peak tourist season, would allow visitors to access the Mall without adding vehicular traffic to the Mall area and is in line with NPS policies. L’Enfant Station is located between 6th and 7th Streets at C Street, which is on the south side of the Mall. Union Station itself is a tourist attraction and is often considered part of the National Mall. From Union Station, visitors have access to Metro, the Circulator, and major tour bus operators.

The cost of providing weekend service is beyond the scope of this report. However, both VRE and MARC have included the potential expansion of weekend service. VRE’s Strategic

Plan includes increased off-peak service, and part of that expanded service includes weekends.¹⁹⁴ Similarly, MARC's Growth and Investment Plan includes the addition of weekend service to the Penn Line. According to the plan summary, the Penn Line expansion would include increased capacity of 1,500 seats, customer service initiatives, additional peak and reverse peak trains, as well as late evening and weekend service. MARC's initial capital increase would be approximately \$10 million and the operating cost would be approximately \$6 million per year.¹⁹⁵

Adding weekend service is dependent on multiple factors. Because MARC does not own the tracks, right-of-way, or train dispatching operations expanding services would be dependent on reaching an agreement with CSX and Amtrak.¹⁹⁶ Similarly, VRE must reach an agreement with CSX, Amtrak, and Norfolk Southern and increased funding must be made available to meet this and other goals.¹⁹⁷

Although there are challenges involved in expanding service on VRE, it would provide a means for visitors in Fredericksburg and surrounding Virginia suburbs another option to access the Mall area. For visitors coming from West Virginia and Maryland, expanding the Penn Line would allow an alternate means of getting to the Mall area. This recommendation fits well with NPS objectives, is currently part of both commuter rail objectives, and would meet the needs of visitors to the Mall.

11.2 Organization and Coordination

Finding #5: Lack of collaboration between the general public and public organizations.

Observations and research found that multiple organizational and planning committees exist. These committees vary in jurisdictional power, but none bring together citizen input.

The NPS Advisory Board was created to advise the Director of NPS and the Secretary of the Department of the Interior on issues relating to the National Park System. The Board does not require citizen input on specific issues being discussed and may request input from outside sources at its discretion. Of particular concern is the lack of public input on issues involving planning and development of the National Mall.

Recommendation #5: Expand the planning and development role of the general public and public organizations through the creation of an advising committee or working group that seeks public input on projects that may affect the National Mall and allows for open and free discussion with federal and state agencies prior to a formal implementation process.

To alleviate the cumbersome process and political nature involving National Mall projects, a more informal committee is needed where coordination, planning, and general discussion concerning the Mall can take place that involves the public. In addition to public participation, this committee will include the involvement of government agencies and other important stakeholders with interest in planning and development of the National Mall.

¹⁹⁴ Parsons Brinckerhoff, *Virginia Railway Express Strategic Plan 2004-2025*, May 2004, <http://www.vre.org/about/strategic/strategic-plan.pdf> (accessed May 1, 2008).

¹⁹⁵ MTA, *MARC Growth & Investment Plan*, September 2007, 17, <http://www.mtmaryland.com/marc%20plan%20full.pdf> (accessed May 1, 2008).

¹⁹⁶ *Ibid*, 10.

¹⁹⁷ Parsons Brinckerhoff, *Virginia Railway Express Strategic Plan*, 33.

This type of committee, at a lower administrative or “deck plate” level, would facilitate free and open discussion involving the general public and governmental agencies prior to the formal submission process involving National Mall projects. For example, a similar committee that currently advises on matters relating to port security is the Area Maritime Security Committee. This committee, established under the MTSA of 2002 and implemented under Title 33 CFR Part 103, assists in the development, review, and update of the local security plans and is comprised of federal, state, and local governments and other pertinent stakeholders who have a vested interest in the local port community.¹⁹⁸ This might include shipping companies, labor organizations, and community groups. Although plans and projects discussed in the committee would be reviewed using mandated legal requirements or agencies’ current policies and procedures for approval, proposals could be discussed and adjudicated among the committee to resolve differences and come to a final consensus.

Procedural oversight for this proposed committee should rest in a public and non-partisan agency to help eliminate burdensome federal procedures and political agendas. One such committee might be the National Mall Conservancy. A final committee membership and procedural method would have to be determined by the various agencies that choose to participate and have oversight of the National Mall. A proposed membership would include, but not be limited to, NPS, NCPC, Washington D.C. government, and public representation either through organizations or appointed members. Even with committee membership, co-chairs would be required to direct meetings and have final approval on committee matters. Since the National Mall is principally NPS land, a Department of the Interior or Park Service individual should fill one of these positions with the director of the Conservancy holding the other. Administrative control would remain under the Conservancy or be divided among the member agencies.

As noted in several reports, including the 2005 GAO report *National Mall – Steps Identified by Stakeholders Facilitate Design and Approval of Security Enhancements*, the review process for design changes to and surrounding the National Mall is time consuming and involves many agencies and organizations. As such, each agency and organization has its own policies, procedures, and objectives that must be followed in reviewing proposed plans. This process does not provide for a coordinated effort especially when a reviewing agency proposes additions, deletions, or changes to existing plans. In addition, public input is typically limited to hearings and comments within the Administrative Procedures process.

Under the Federal Advisory Committee Act, Congress found that “committees, boards, commissions, councils, and similar groups...are frequently a useful and beneficial means of furnishing expert advice, ideas, and diverse opinions to the Federal Government.”¹⁹⁹ This type of committee would be very useful in gathering information from a diverse set of individuals and groups pertaining to National Mall projects and events. Unfortunately, this type of committee is established when specifically authorized by statute or by the President and must follow detailed procedures such as notice of the meeting in the Federal Register and maintaining detailed records for public review.²⁰⁰

¹⁹⁸ U.S. Government Printing Office, Title 33 Code of Federal Regulations (CFR) Part 103, http://www.access.gpo.gov/nara/cfr/waisidx_07/33cfr103_07.html (accessed 2 April 2008).

¹⁹⁹ U.S. Government Printing Office, TITLE 5—APPENDIX, Federal Advisory Committee Act, http://www.access.gpo.gov/uscode/title5a/5a_1_.html (accessed April 2, 2008).

²⁰⁰ Ibid.

Unlike Federal Advisory Committees, this proposed committee would meet at its own discretion following general procedures to gather information from interested parties and advise in the planning and development of Mall projects. For example, expanding bike trails to the Mall and placing bike racks on Monument grounds would require a detailed effort by the NPS. Before the formal and detailed process began, this proposal could be brought before the informal Mall committee to work out details and develop alternate initiatives that might not have otherwise been created.

11.3 Parking

Finding #6: Parking is inadequate and inconsistent at the National Mall.

The research indicates that parking on the National Mall is inadequate for the number of visitors who choose to drive.²⁰¹ A lack of coordination among jurisdictions on the National Mall has led to inconsistencies in metering and enforcement. And, although creating additional parking space may seem contradictory to increasing access, at least from a transit perspective, in the case of the National Mall, the lack of parking and parking inconsistencies seriously inhibit enjoyment for visitors who choose to drive.

Parking meters around the National Mall are inconsistently marked and are inconsistently placed on curbside and street parking. In fact, according to the *Mayor's Parking Task Force Report* of 2003, parking signage and interpreting that signage was a District-wide problem.²⁰² The National Mall is a unique area for parking meters because of the jurisdictional boundaries mainly between NPS and DDOT.²⁰³ The pictures below (Figures 42 and 43) depict the difference between the metered parking on the Mall in DDOT jurisdiction and the free parking provided by NPS.

Figure 42 – Parking Meters



Source: Lindsey Collins, Photograph, Parking Meters.

²⁰¹ Price Waterhouse Coopers LLP, *D.C. Visitor Transportation Survey*.

²⁰² Williams, *Mayor's Parking Taskforce Report*.

²⁰³ Viets, *In-Class Interview*.

Figure 43 – Inconsistent Parking



Source: Lindsey Collins, Photograph, *Inconsistent Parking*.

One of the key issues addressed by the Mayor’s report was parking valuation and pricing. Recognizing that there are jurisdictional struggles on the Mall, NPS should consider the revenue generated from parking meters, and DDOT should reexamine its parking signage consistency and metering according to the recommendations of this task force.²⁰⁴ “Parking and valuation pricing: These market mechanisms include increasing existing fees so that pricing better reflects the true cost of providing parking as well as providing price signals to consumers to shift their parking demands by locations, time of day, length of time, or to shift travel modes altogether.”²⁰⁵

Recommendation #6: Create consistency for metered/permit parking and increase enforcement measures for parking on the National Mall to promote turnover and gain more curbside capacity. Conduct feasibility studies to evaluate parking solutions.

Consistently metering parking along the National Mall would increase parking turnover, generate revenue to maintain the spaces or provide funding for other public works projects, and encourage use of Metro and other forms of public transit. The increased use of public transit is an area of agreement between all of the jurisdictional powers on the National Mall.

As was found in the report, NPS is against placing parking meters along the National Mall, believing that it will take away from the aesthetics of the Park and that it is charging patrons a fee to enter an otherwise public place. In an interview with Alexa Viets, of NPS, she compared the National Mall to the Presidio Trust maintained by NPS in the San Francisco Bay Area. NPS charges an entrance fee to most national parks, i.e.: Shenandoah Valley National Park or Yosemite National Park. Parking at the Presidio is \$5 per space and patrons are required to garner a certificate from the Trust.²⁰⁶ Aesthetically speaking, the National Mall is an urban park and DDOT has already set up meters on its jurisdiction. Coordination between NPS and DDOT with regards to parking maintenance and monitoring is needed. Additionally, NPS should do more than provide minimal parking because this approach does not fulfill the needs of visitors and does not encourage visitor enjoyment of national parks.²⁰⁷

After the recommendations of the *Mayor’s Parking Task Force Report* of 2003 were implemented and the revenues from permit sales and parking meters in residential areas began to come in, D.C. used these revenues to increase enforcement measures.

²⁰⁴ Williams, *Mayor’s Parking Taskforce Report*, 15.

²⁰⁵ Ibid.

²⁰⁶ The Presidio, “The Presidio Trust,” <http://www.presidio.gov/event/permits/parking.htm> (accessed May 1, 2008).

²⁰⁷ Viets, *In-Class Interview*.

In a March 7, 2008, interview with Lance Hinrichs, an employee at the Federal Energy Regulatory Commission near Union Station in D.C., he talked about lack of parking enforcement of handicap spaces on the National Mall. Lance lives in Falls Church, Virginia with his wife and 3 small children. When Lance was in his early twenties, he fell off the roof of his parent's house which left him paralyzed. Lance is an active member of society but is wheelchair bound. He enjoys taking his family to the National Mall but has noticed that handicap parking violations are rampant. Handicapped parking spots that are offered under the ADA legislation are being ticketed, but towing is not being enforced. This is an unfortunate situation for Lance and others who find accessibility to our nation's landmarks a challenge.²⁰⁸

Parking enforcement is essential to maintaining an adequate level of access for disabled visitors. Consequently, the D.C. Department of Public Works is doing something about meter feeders, parking turnover, and improving parking enforcement through use of new technologies. The Department of Public Works has invested in SUVs that are equipped with technology that reads license plate numbers of vehicles parked at metered sites. The "meter feeder beater" also knows whether a car is registered handicapped by the license plate. This technology could not only work downtown, but the Park Police and Metropolitan Police Department contractors could utilize it along the National Mall as well. Turnover is the key; it increases traffic flow and creates additional parking capacity from existing spaces.

In the 1970s, NCPC recommended that a shuttle operate from RFK Stadium to the National Mall. The *D.C. Visitor Transportation Survey* noted that, if given the choice, 75 percent of those visitors polled at the National Mall would take a shuttle from a location less than two and a half miles from parking in order to gain parking capacity, making driving to the Mall area less expensive and more accessible.²⁰⁹

Further study should be done on how to provide a shuttle from RFK Stadium to the National Mall. Additionally, further study should be done on creating a municipal parking authority for D.C. and the findings should be presented to DDOT. As expressed in the *Mayor's Parking Task Force Report* of 2003, increased revenues from permit sales and parking enforcement fees can be put towards new enforcement technologies or towards other public works projects.²¹⁰ Providing a shuttle service would allow for increased mobility and direct accessibility to the most visited memorials and monuments, while simultaneously allowing parking spaces to be more spread out, and increasing capacity.²¹¹

The Dupont Circle Valet Main Streets Program was mentioned as a unique path to solving parking problems due to increases in neighborhood development and traffic. The Office of Construction at the Smithsonian Institution stated that following the terrorist attacks in the late 1980s, the underground parking, most notably at the National Air and Space Museum and the Museum of Natural History, was closed in the early 1990s because of security concerns.²¹² A study should be done to determine whether the Smithsonian Institution would be more amenable to providing valet parking underneath these museums, which would allow for appropriate security and provide more capacity for parking at the National Mall.

²⁰⁸ Lance Hinrichs, Interview. March 7, 2008.

²⁰⁹ PricewaterhouseCoopers, LLP, *D.C. Visitor Transportation Survey*.

²¹⁰ Williams, *Mayor's Parking Taskforce Report*.

²¹¹ PricewaterhouseCoopers, LLP, *D.C. Visitor Transportation Survey*.

²¹² Dempsey.

These three innovative ideas for studies may bring diverse entities back to the brainstorming and negotiating table to do what is in the best interest of visitors to the National Mall and the residents of the D.C. Metro area.

After reviewing the current viewpoints, policies and programs in place for parking in D.C. and at the National Mall, the recommendations are meant to encourage more joint stakeholder participation as well as increase parking turnover, allowing for a greater flow of traffic and opportunity to relieve strain on the region's parking capacity, and also spur creative ideas to relieve parking congestion along the National Mall.

Finding #7: Parking is a challenge for tour buses along the National Mall.

The research found that parking is a challenge for tour buses along the National Mall. Limited parking is provided for the loading and unloading of passengers, and there are a limited number of spaces close to the Mall. Security blockades that are numerous and always changing further restrict tour buses. Additionally, local entities, such as DDOT, continue to impose new regulations on tour bus operators that present them with fewer options for routes, loading and unloading locations, and parking.

Recommendation #7: Create parking spaces or loading and unloading areas for tour buses.

Because there is an apparent capacity problem with parking on the National Mall, it is understandable why tour buses find parking on the Mall to be very difficult. The following recommendations provide a means of relieving parking capacity strain on tour buses and allows a more efficient and safe flow of traffic for their daily treks to the memorials, monuments and museums.

The first proposal is to make East Potomac Park available for daily tour bus parking. Hains Point, just south of the Reserve Area of the National Mall, is maintained by NPS. As stated in the parking section of the report, there are currently 11 spots at Hains Point for tour buses to park and wait for tour groups to finish sightseeing. These spots are free of charge for tour buses. Southwest from Hains Point is East Potomac Park, which is also under NPS jurisdiction. At East Potomac Park, there is a golf course, Park Police headquarters and multiple empty, but reserved parking spaces. Making East Potomac Park permanently available to tour buses would more than double the existing 11 spaces at Hains Point. It would also relieve congestion elsewhere along the Mall as long term parking capacity for tour buses would increase.

Another idea, originally proposed by DDOT in the *Tour Bus Management Initiative* is to convert the free street parking on Madison and Jefferson Drives into permit parking for up to 25 buses. Although parking is currently not available, bus loading and unloading zones are provided in front of all the Smithsonian Museums for pick-up and drop off of tour groups. Idling longer than the three minutes is illegal and DDOT confirms that this is a commonly ticketed offense in this area.²¹³ This recommendation would relieve congestion around the museums' confusing loading and unloading zones and improve aesthetics. The downside to this proposal is

²¹³ Michael E. Ruane, "Captains of the Interstate: Tour Bus Drivers Roll With the Rules, However Demanding," *The Washington Post*, August 5, 2008, <http://www.washingtonpost.com/wp-dyn/content/story/2008/04/05/ST2008040500286.html> (accessed April 26, 2008).

that it would eliminate free street parking regulated by NPS for visitors and have a negative impact on the recreational sports league participants that play at Potomac Park.²¹⁴ Also, if the loading and unloading zones in front of the museums are then subject to elimination after permitting Jefferson and Madison Drives, this diversion of traffic may present an accessibility problem for vulnerable populations because of the walking distance to the museums. Even so, this proposal would alleviate congestion closer to the Reserve Area of the Mall, improve aesthetics and provide a clear loading and unloading zone for tour buses.

A third proposal is that security checkpoints could replace blockades. Security blockades and traffic detours have posed huge difficulties for tour bus operators coming to and from the National Mall. As noted earlier, accessing many of the major attractions has become extremely difficult, as access by tour buses has even been banned at the Jefferson Memorial. Park Police instituted the blockades shortly after September 11, 2001, and there has been no contingency plan to simultaneously improve security and access to this area.²¹⁵

A final recommendation is to develop a real time travel information system for tour bus operators that will limit travel surprises and allow operators of the third largest mode of travel to the National Mall to better plan trips, thus reducing delays and making for more enjoyable and less stressful visits.

11.4 Signage and Informational Resources

Finding #8: Signs and Maps displayed for visitors are inconsistent and do not provide enough information to help navigate visitors to specific destinations.

Recommendation #8: Create universal signs and maps to improve clarity, reduce visitor confusion and increase coordination among the entities involved in oversight of the Mall.

Signage on the Mall is an important resource used by visitors to navigate around the Mall. Many visitors coming to the Mall are not familiar with the D.C. area. Signs provide information on location of landmarks, transportation services, parking areas, and other accommodations. Appropriately displaying all information necessary to visitors will enhance their ability to circulate around the Mall and help make their experience more enjoyable and easily navigated.

Listed below are two examples of Smithsonian signs (Figures 44 and 45) that point in the appropriate direction of various museums and other points of interest. One sign also includes the symbol for a Metro stop. More clarification may be needed because some visitors may not know what the symbol represents. If this sign included distance information, visitors would know the approximate distance required to reach each destination. The second picture does not mention anything about transportation services provided within the area. The sign provides plenty of room for this type of information to be included.

²¹⁴ Ibid.

²¹⁵ U.S. Government Accountability Office, *National Mall- Steps Identified by Stakeholders*, 3.

Figure 44 – Smithsonian Wayfinding Sign



Source: George Schaubhut, Photograph.

Figure 45 – Smithsonian Wayfinding Sign



Source: George Schaubhut, Photograph.

The Tourmobile is an interpretative transportation service provided to visitors describing historic landmarks around the National Mall. In order to gain ridership, visitors need to know the operation hours for the Tourmobile. The sign shown below (Figure 46) is posted at the Tourmobile kiosk. The kiosk does not display any information about the operation schedule for the Tourmobile. It is recommended that information regarding operation hours, price, and stop locations of various transportation services be prominently displayed in order to better inform customers and increase accessibility around the Mall.

Figure 46 – Kiosk Sign



Source: George Schaubhut, Photograph.

Handicap accessible locations are hard to read on signs displayed around the Mall. The sign below (Figure 47) for the Rayburn Office Building is the only visible sign for the building indicating the location of the handicap entrance. The sign is only legible from about two feet away. In other locations around the Mall, handicap signage is not located near a handicap

entrance. Increasing the size of the handicap symbol and number of signs depicting appropriate entrances can help direct visitors to the appropriate areas.

Figure 47 – Sign Depicting Handicap Indication



Source: George Schaubhut, Photograph.

Different entities are responsible for different signs located around the Mall. The Architect of the Capitol, Smithsonian, NPS, Downtown BID, etc. all provide different signs within the National Mall area. These entities should work together to develop a standardized signing system. The different entities would continue to have their own signage but similar elements would be depicted on all signs. For example, the Smithsonian has a free-standing map sign displaying the locations for Metro and Circulator stops. The NPS map, located below (Figure 48), of the Mall provides information on Tourmobile stops. If these two entities worked together to develop one map describing all the transportation modes available for movement around and within the Mall and the cost of each service, visitors would be able to choose the most appropriate transportation service in order to meet their needs. Additionally, the two entities could save money by producing one map.

All maps within the Mall area should also include locations for food, restrooms, and parking facilities. These maps would provide all the information visitors would need without having to look at different maps owned by different entities. Maps should also be available as pamphlets and stationed around the Mall for visitors to pick-up and take with them on their journey through D.C. Park Service kiosks should have a place where visitors can pick up the maps at any time of the day. It was noted that the kiosks were open during the Cherry Blossom Festival, but were closed on a regular weekend day. These kiosks should have regular operating hours in order to provide information that may facilitate movement around the Mall.

This recommendation is similar to a proposed practice NPS is considering. According to the NPS document, *Best Management Practices Used at Urban Parks in National and International Locations*, a best practice is to “provide information that is identifiable, consistent, understandable, and current.”²¹⁶ The document focuses on the intent of NPS to coordinate with other entities to reduce confusion and improve information provided to visitors. In order to accomplish this, NPS will “coordinate signage with other parks, museums, and visitor attractions to reduce visitor confusion.”²¹⁷ More specifically, signs and maps will be developed that are universally accessible for all visitors and use a standardized set of symbols to identify visitor facilities (food locations, restrooms, etc.).

²¹⁶ National Park Service, *Best Management Practices*, 23.

²¹⁷ Ibid.

Figure 48 – NPS Map



Source: George Schaubhut, Photograph.

In comparing the best practices of other similar venues, Royal Parks in London implemented a wayfinding system that may also be beneficial to the National Mall. As explained in this paper, this system called “Legible London” provides numerous signs around the city to assist pedestrians in getting to their destination. The signs tell pedestrians which direction to walk, how long it will take, and various attractions located along the route. Some of the signs include audio which can provide detailed information about the surroundings in a specific area.

This recommendation will help to improve the experience visitors have at the National Mall. Creating universal signs and maps will decrease confusion and increase coordination among the entities involved in oversight of the Mall.

Finding #9: The National Mall makes limited use of technology to either reduce visitor transportation costs or improve circulation and accessibility.

Circulating around the Mall can be expensive, too structured, too slow or not possible for many visitors. Currently, users of the National Mall are tethered to interpretive tour services; tour guides, or transportation services with no guidance.

Recommendation #9: Provide users with podcasts, location-based services, and cross-vehicle transfers that allow individuals to move about the Mall freely and inexpensively.

Through the use of podcasts, location-based services, and cross vehicle transfers, users can move around the Mall more freely and less expensively. Location-based services provide information through mobile devices. More importantly, these technologies can reclaim the freedom of exploration. The Mall is a symbol of freedom, yet only those who are able to walk the two miles from the Capitol to the Lincoln Memorial can appreciate it, and even that “as the crow flies” approach would force a user to miss many attractions or destinations. According to the *D.C. Visitor Transportation Study*, while users like the existing interpretive service, many prefer to walk or to receive general/introductory information as opposed to the interpretive service currently offered. With 25 million visits to the Mall each year, according to NPS, if only

10 percent of visitors were looking for an alternative option; 2.5 million people could view and use the Mall in new ways.

One method of freeing users is to allow them to take their own tours. By providing downloadable podcasts, users could store guided tours or introductory commentary about a single attraction or every attraction. This concept is not new. It has been mentioned by the *National Coalition to Save Our Mall* as well as other organizations. With 22 million iPods sold in the final fiscal quarter of 2007, more than 140 million sold overall, and millions of other MP3 players in the hands of users, this recommendation requires only the time and cost of recording and posting the podcasts online.

Location-based services are another way to provide users with useful information. Whether through a cell phone or global positioning system, digital mapping technology is getting into the hands of an increasing number of users. The National Mall could provide users with downloads or easy to access mobile maps with wayfinders for restrooms, restaurants, parking, public transit, and distances to other attractions.

Finally, cross-vehicle transfers would allow a user on the Mall to move about via a single payment method. Users would not have to find kiosks, cash, or constantly be pulling out their credit cards to make payments. With a card such as WMATA's SmarTrip card, users could transfer from Metro to Circulator to Tourmobile to Segway to Bicycle-Sharing all with the same card. The card could act like a SmarTrip in which individuals deposit money into an account or like an EZPass in which the account is tied to a credit card or checking account to ensure funds.

Appendix A

Modes of Travel to Washington, D.C.

As the Nation's Capitol, Washington, D.C., has many federal government buildings, museums, and memorials. More than half a million residents live in D.C. and another half a million commute into the city every workday.²¹⁸ As one of the top tourist destinations in the country, people arrive in the area using various modes of transportation including air, train, bus, private vehicle, bike, and foot. The *D.C. Visitor Transportation Survey* reported that for those living outside the metropolitan Washington, D.C., area, 40 percent traveled to the area by car, 36 percent traveled by air, 11 percent traveled by train, 9 percent traveled by charter or tour buses, and 3 percent traveled by other means.²¹⁹ This appendix provides an overview of the modes of transportation available to move visitors, commuters, and residents into the Washington, D.C. area.

Airports

Airplanes are a significant means of travel to the Washington, D.C. area for visitors to the National Mall. Three major airports serve the metropolitan Washington, D.C. area; Washington Dulles International Airport, Baltimore/Washington International Airport and Ronald Reagan Washington National Airport. Dulles Airport, located approximately 26 miles west of the city, served 23 million passengers in 2006 and, as of January 2008, offered service to 87 domestic and 40 international destinations.²²⁰ Ground transportation from Dulles to D.C. is available by taxi, rental car, shared ride van service, and bus service to the West Falls Church Metro Station.²²¹ Metro is the metropolitan D.C. area's subway and bus system. Baltimore/Washington Airport is located about 30 miles north of the city and it served almost 21 million passengers in 2006 and, as of February, 2008, it offered service to 62 domestic and 8 international destinations.²²² Ground transportation options from the airport into D.C., include train, taxi, shuttle, and express bus. Finally, Reagan National Airport, located on the west side of the Potomac River just south of the city, served 18.5 million passengers in 2006 and, as of January, 2008, offered service to 69 domestic and 4 international destinations.²²³ Metrorail's yellow and blue lines serve the airport and taxis and a shared ride van service provides access to the Mall area.²²⁴

Trains

Trains offering service to the D.C. area include Amtrak, Virginia Railway Express (VRE) and Maryland Rail Commuter (MARC). Amtrak serves the metropolitan D.C. area and links with the local commuter rail services in Virginia and Maryland. Amtrak, the National Railroad

²¹⁸ District of Columbia Department of Transportation, *District of Columbia Downtown Circulator Implementation Plan*, 1.

²¹⁹ PricewaterhouseCoopers LLP, *D.C. Visitor Transportation Study*, 21.

²²⁰ Metropolitan Washington Airports Authority, *Dulles International Airport*, http://www.metwashairports.com/dulles/about_dulles_international_2/about_dulles_international (accessed April 3, 2008).

²²¹ Washington, D.C. Convention & Tourism Corporation.

²²² Baltimore/Washington International Airport, http://www.bwiairport.com/about_bwi/general_statistics/ (accessed April 3, 2008).

²²³ Metropolitan Washington Airports Authority, "Reagan National Airport," http://www.metwashairports.com/reagan/about_reagan_national/about_reagan_national_2 (accessed March 27, 2008).

²²⁴ Washington, D.C. Convention & Tourism Corporation.

Passenger Corporation, is a government owned corporation that provides inter-city passenger train service in the United States. Amtrak operates a nationwide rail network with over 500 destinations in 46 states and, during the 2007 fiscal year, carried almost 26 million passengers. Amtrak operates approximately 85 trains daily into Union Station in Washington, D.C. Over four million riders either came through or left from Union Station in the 2007 fiscal year.²²⁵ Tickets can be purchased at Union Station or Amtrak service tickets are available on their website. The posted fare from Washington, D.C. to New York on May 14, 2008, ranged from \$69.00 for basic service taking about three hours and ten minutes to \$188.00 for express service taking two hours and forty-five minutes.²²⁶

Virginia Railway Express (VRE) is a commuter-focused rail system operating between the northern Virginia suburbs and Alexandria, Crystal City and downtown D.C. VRE operates two lines, covering 89 miles, and serving 18 stations in three Virginia counties and several cities. It operates 32 trains each weekday, primarily inbound to Washington during the morning peak period and outbound from Washington during the afternoon peak period. The system carried well over three million riders in fiscal year 2007. VRE is a partnership between the Northern Virginia Transportation Commission and the Potomac and Rappahannock Transportation Commission, and is operated by Amtrak through a contract with the commissions. VRE began operations in 1992 with an agreement to use existing tracks owned by CSX, Norfolk Southern Corporation and Amtrak.²²⁷ Currently the highest one-way fare is \$8.80 for a single ride from Fredericksburg to Union Station. Trains begin running at 5:10 a.m. and continue until 6:50 p.m. on weekdays with no service on weekends or federal holidays.²²⁸

VRE serves two stations near the Mall. The stop most convenient for visitors primarily interested in walking around the Mall is at L'Enfant Station, located between 6th and 7th Streets at C Street on the south side of the Mall. This stop also offers convenient access to the Metro bus and rail system and Downtown Circulator bus system. The second stop is at Union Station, a couple of blocks north of the U. S. Capital on Massachusetts Avenue.²²⁹ This station is a transportation hub and offers links to Amtrak, the Metro system, the Downtown Circulator, most major tours that operate in the vicinity of the Mall, and a large paid parking lot.

Maryland Rail Commuter (MARC) Trains serve the D.C. area as well. The MARC service is primarily focused on moving commuters into and out of the Baltimore and D.C. areas on a daily basis. Lines extend as far west as Martinsburg, West Virginia and as far north as Perryville, Maryland. MARC operates three lines, covering two hundred miles and serving 43 stations in eight counties and several cities. All three lines serve Washington, D.C. through Union Station. In fiscal year 2007, the three lines had a daily average ridership of over 30,000, which translates into almost 8 million riders annually.²³⁰ MARC began operations in 1984; however, prior to that time it operated as the Maryland Rail Commuter Service. MARC trains are owned by the State of Maryland, but they are operated under contract with CSX and Amtrak,

²²⁵ AMTRAK, "Amtrak National Facts,"

http://www.amtrak.com/servlet/ContentServer?pagename=Amtrak/am2Copy/Title_Image_Copy_Page&c=am2Copy&cid=1081442674300&ssid=542 (accessed March 25, 2008).

²²⁶ AMTRAK, "Reservations," <http://tickets.amtrak.com/itd/amtrak> (accessed April 3, 2008).

²²⁷ Virginia Railway Express, *VRE Strategic Plan*, http://www.vre.org/about/strategic/StratPlan_Sect1.pdf (accessed April 9, 2008).

²²⁸ Virginia Railway Express, "Service Information," <http://www.vre.org/service/systmmp.htm> (accessed April 9, 2008).

²²⁹ Ibid.

²³⁰ Maryland Transit Administration, "MARC Train Service," <https://mtamaryland.com/services/marc/> (accessed April 9, 2008).

who also own most of the tracks. The Camden line began operating in 1830 between Baltimore and Washington, D.C., making it the oldest passenger rail line in the U.S.²³¹ Fares range from \$4.00 to \$14.00 with a typical fare from Washington, D.C. to Baltimore, Maryland costing \$7.00. Trains begin running around 5:00 a.m. and operate until after midnight for some stations. There is no service on weekends and federal holidays.²³²

Bus Service

Bus services offering access to the metropolitan Washington area include Greyhound Bus Lines, Peter Pan Bus Lines, and multiple privately owned charter and tour bus companies. Greyhound, the largest inter-city bus carrier in North America, serves the area with a station on 1st Street and a stop at Union Station.²³³ Peter Pan is another long distance bus carrier operating primarily in the Northeast with scheduled service to Washington, D.C.²³⁴ Many other charter and tour bus services bring numerous visitors to the D.C. area. NPS estimates that each year 200,000 tour buses bring about 8 million people (about one-third of the visitors) to the National Mall.²³⁵ A 2003 tour bus study prepared for the District of Columbia revealed that as many as 1,100 tour buses per day come to the National Mall during the peak season from mid-March to mid-June.²³⁶ While these tour buses do provide transportation to destinations throughout the metropolitan Washington, D.C. area, they are not fully integrated into the existing transportation network and may not provide convenient access to other means of transportation, including public transit.²³⁷

Automobile

For visitors driving into Washington, D.C., the city is accessible from several directions by multi-lane interstate highways. Interstate 95 serves as the major route from both the north and south, while Interstates 81 and 66 provide access from the south and west. From Maryland and points further west and north, Interstate 270 is the major route. The Interstate 495 Capital Beltway surrounds Washington and provides links to these highways that allow travelers to either bypass the city or access their destination within the beltway. In addition, many primary roads serve as access points to the Washington area. The road system in the D.C. metropolitan area is the third most congested in the country and, with the projected growth in jobs and population, this congestion is expected to increase in the coming years.²³⁸

Public Transportation

Once in the Washington metropolitan area, public transit services offer a convenient means of getting to and circulating around the National Mall. WMATA operates a regional transportation system (Metro) consisting of bus (Metrobus), train (Metrorail), and paratransit (MetroAccess). The entire Metro system serves approximately 3.5 million people within an approximately 1,500 square mile area including the District of Columbia, Montgomery and Prince George's counties in Maryland, and Arlington, Fairfax and Loudoun counties and the

²³¹ Ibid.

²³² Ibid.

²³³ Greyhound Lines, Inc., "The New Greyhound," <http://www.greyhound.com/home/> (accessed April 28, 2008).

²³⁴ Peter Pan Bus Lines, "Welcome to Peter Pan Online," <http://www.peterpanbus.com/> (accessed April 28, 2008).

²³⁵ National Park Service, *National Mall & Memorial Parks Little-Known Facts*.

²³⁶ National Park Service, *Environmental Assessment*, 106.

²³⁷ Ibid, 102.

²³⁸ Ibid, 101.

cities of Alexandria, Fairfax, and Falls Church in Virginia. Metrobus is the fifth largest bus network and Metrorail is the second largest rail transit system in the United States.²³⁹ The Metrorail lines radiate out from the downtown D.C. area, and Metrobuses feed into the Metrorail stations, creating an efficient public transit network.²⁴⁰

Metrobus operates 338 routes on 171 lines serving 12,301 bus stops. In fiscal year 2007, Metrobus provided 131.5 million trips for riders. The system operates 24 hours a day, seven days a week; however, service intervals vary based on time and day of week. Fares range from \$1.25 for regular service to \$3.10 for express service. Metrobus lines serve nearly every Metrorail station, making transfers safe and convenient. Each bus is equipped with a front mounted bike rack for riders wishing to bike and ride. All buses are wheelchair accessible and equipped with either low-floor ramps or lifts.²⁴¹

Metrorail, more commonly known as Metro, operates 86 Metro stations within a 106-mile rail network. There are 40 stations located within the city of Washington, D.C.; 11 in Montgomery County, Maryland; 15 in Prince George's County, Maryland; 3 in the city of Alexandria, Virginia; 6 in Fairfax County, Virginia; and 11 in Arlington County, Virginia. In fiscal year 2007, Metrorail provided 208 million trips. Metrorail set a new record for ridership in July 2007 with over 19.2 million riders for the month, which is an average of 768,831 riders per weekday. The system begins operating at 5:00 a.m. on weekdays and 7:00 a.m. on weekends. It shuts down at 3:00 a.m. on Friday and Saturday nights and 12:00 a.m. on the other nights. Fares range from \$1.35 to a maximum of \$4.50 per ride based on the distance traveled. There are bicycle racks at most stations and bikes are allowed on trains at most non-peak times. All Metrorail trains and stations are accessible for those with disabilities.²⁴²

MetroAccess is a curb-to-curb transit service for those unable to use the regular transit services due to a disability. It operates in the same area as the Metro system. Patrons must go through an application process to qualify for MetroAccess. Vehicle types and sizes vary from location to location, and drivers are required to assist all customers with boarding and exiting. Reservations must be made from one to seven days in advance. Fares range from \$2.50 to a maximum of \$6.50, depending upon the distance the origin or destination is from the nearest Metro system stop. Additionally, anyone with a valid MetroAccess photo ID and one companion can ride free on Metrobus, Metrorail, D.C. Circulator, and many local bus services in the metropolitan area. Normal hours of operation for this service are from 5:00 a.m. until 12:00 a.m., except on Friday and Saturday when service continues until 3:00 a.m. Those needing service outside of these hours can make special arrangements when calling for reservations. Visitors to the Washington, D.C. area who cannot use the normal transit services because of a disability can also use the MetroAccess service for 21 days before being required to submit an application.²⁴³

Thirty five Metrorail stations serve federal facilities, and approximately half of peak period travelers are federal employees. As a result, the system is a partnership between WMATA and the federal government. From its beginning in 1969, the federal government has funded 65 percent of the system's capital costs. Fares and other revenue provide approximately

²³⁹ Washington Metropolitan Area Transit Authority, "Metro Facts," <http://www.wmata.com/about/metrofacts.pdf> (accessed February 5, 2008).

²⁴⁰ U.S. Department of the Interior, National Park Service, *Environmental Assessment*, 102.

²⁴¹ Washington Metropolitan Area Transit Authority, "Metro Facts."

²⁴² Ibid.

²⁴³ Ibid.

58 percent of daily operational costs and state and local governments provide the remaining 42 percent.²⁴⁴

Bicycle

For visitors interested in accessing the area on bicycle, numerous trails are available. One major bike trail is the Washington and Old Dominion (W&OD) Trail. It is a paved, continuously maintained 45-mile long route between Shirlington and Purcellville, Virginia. The four-mile Curtis Trail runs parallel to Interstate 66 through Arlington and connects the W&OD trail to the downtown area of Washington. Another major trail is the 184-mile long Chesapeake and Ohio Towpath that runs between Georgetown and Cumberland, Maryland. The Mount Vernon Trail is an 18-mile trail along the Potomac River from Roosevelt Island to George Washington's estate at Mount Vernon.²⁴⁵ These trails and many others serve as access to the D.C. area. Additionally, there is a guaranteed ride home program for qualifying bike commuters that encounter an emergency and an immediate way home.²⁴⁶ Even with these trails and other incentives, bike riding remains an underutilized means of accessing the D.C. area.

Walking

The final mode of transportation to be examined is walking. While the distances are too great for the majority of visitors to walk to Washington, many of the same bike trails mentioned above are also available for walkers. In addition, many roads have sidewalks making it safer for pedestrians to travel. These trails and sidewalks do make it possible for those living or staying in Arlington and other bordering communities to access the area on foot. The *D.C. Visitor Transportation Survey* indicated that less than three percent of visitors to the Mall living outside the metropolitan Washington area walked or biked to the Mall.²⁴⁷ Walking plays a much larger role in movement within D.C. According to U.S. Census Bureau, of those employed and living within Washington, D.C., almost 12 percent walk to work.²⁴⁸

Appendix B

The Americans with Disabilities Act describes, “*physical or mental impairment* includes, but is not limited to, such contagious or noncontagious diseases and conditions as orthopedic, visual, speech, and hearing impairments; cerebral palsy, epilepsy, muscular dystrophy, multiple sclerosis, cancer, heart disease, diabetes, mental retardation, emotional illness, specific learning disabilities, HIV disease, tuberculosis, drug addiction and alcoholism.”

²⁴⁴ Ibid.

²⁴⁵ Bike Washington, “The Visitor’s Biking Guide.”

²⁴⁶ Arlington County Commuter Services, <http://www.commuterpage.com/ridehome.htm> (accessed March 18, 2008).

²⁴⁷ PricewaterhouseCoopers LLP, *D.C. Visitor Transportation Survey*, 21.

²⁴⁸ U.S. Census Bureau, “American Fact Finder, District of Columbia,” http://factfinder.census.gov/servlet/ADPTable?_bm=y&-geo_id=05000US11001&-qr_name=ACS_2006_EST_G00_DP3&-ds_name=ACS_2006_EST_G00_&-lang=en&-sse=on (accessed March 20, 2008).

Appendix C

NPS non-attraction categories includes:

- Visitors using the Paddle Boat and Marina Snack Bar
- Visitors using the Monument Snack Bar
- Number of visitors using the Monument Gift Shop
- Visitors using the Jefferson Gift Shop
- Visitors using the Jefferson Snack Shop
- Visitors using the Lincoln Gift Shop
- Visitors using the Lincoln Snack Shop
- Visitors using the Constitution Gardens Snack Bar
- Number of tennis players at East Potomac Tennis Courts
- Number of visitors on the tourmobiles
- Number of golfers
 - 9 hole weekdays
 - 9 hole weekend days
 - 18 holes weekdays
 - 19 holes weekend days
 - Miniature golf
 - Driving Range
- The number of visitors participating in and spectators of the following events:
 - Softball
 - Baseball
 - Cricket
 - Soccer
 - Field Hockey
 - Polo
 - Volleyball
 - Rugby
- The number of persons attending programs, demonstrations, and celebrations as estimated by park police
- The number of visitors attending miscellaneous programs
- The number of visitors attending the Sylvan Theater
- The number of visitors attending Independence Day activities

Appendix D

Comparison of some basic site characteristics									
Location	Mission & Purpose	Size	Landownership	Annual number of visitors	Management	Financing	Security	Annual number of event permits	Events
National Mall in Washington D.C.	Development of a particular space at the symbolic and economic center of the nation's capital.	600 acres	The Federal Government	26 million	National Park Service	The District, the Federal Government and Private Sector.	Four police departments provide security and protection on the Mall. The United States Park Police, the Metropolitan Police Department, United States Capital Police and the Secret Service.	Over 3,800 permitted events.	First amendment demonstrations, annual celebrations, concerts and festivals.
Central Park in New York City	Refute the European view that Americans lacked a sense of civic duty and appreciation for cultural refinement.	843 acres	New York City Parks Development	25-30 million	Central Park Conservancy	Central Park Conservancy contributes for roughly 85% of the annual operating budget.	The park has its own New York City Police Department precinct. It employs both regular police and auxiliary officers.	Six major events per year on Great Lawn, with maximum of 50,000 attendees.	None, although many recurring events.
The Royal Parks in London	Provide a unique historical heritage and unparalleled opportunities for enjoyment and healthy living in London.	5500 acres	The Crown	60-65 million	The Royal Parks Agency, an executive agency of the Department for Culture, Media and Sport.(D.C.MS)	Central government grant in majority and income generated by Royal Parks' activities.	Royal Parks are policed by the Metropolitan Police.	Staging around 12 major events each year and hosting national sporting events, for example the London Marathon.	An average of 70 national or State ceremonials and commemorative events each year.

Source: The authors

Appendix E

Interviews and Contacts

Alexa Viets, Transportation Planner for the National Park Service, personal interview with PUBP 722 students, March 5, 2008 and email interviews by Lindsey Collins through April 29, 2008.

Anne Carey (District Department of Transportation - Washington, D.C.), e-mail interview with George Schaubhut, February 26, 2008.

Bill Nesper (League of American Bicyclists), e-mail and phone interview by George Schaubhut, February 13-20, 2008.

Ellen Jones (Downtown BID - Washington, D.C.), e-mail and phone interviews by George Schaubhut, February 20-25, 2008

Eric Gilliland (Washington Area Bicyclists Association), e-mail interview by George Schaubhut, February 13, 2008

George Oberlander, Retired Employee from the National Capital Planning Commission, phone interview by Lindsey Collins, March 21, 2008.

Jason Martz (National Park Service), e-mail and phone interviews by George Schaubhut, February 13, 2008.

Michael Weil (National Capital Planning Commission), telephone interview by George Schaubhut, March 6, 2008.

Paul Demaio (MetroBike), personal interview with PUBP 722 students, February 20, 2008 and e-mail and phone interviews by George Schaubhut, February 8-20, 2008.

Rick Reinhard (Downtown BID - Washington, D.C.), e-mail interview by George Schaubhut, February 21, 2008.

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