



FINAL ENVIRONMENTAL IMPACT STATEMENT SOUTH MALL CAMPUS MASTER PLAN

APRIL 2018

Responsible Agency:



Project Owner:



Smithsonian Institution

In cooperation with:



With technical assistance from:



FINAL ENVIRONMENTAL IMPACT STATEMENT

Responsible Agency:
National Capital Planning Commission
401 9th Street, NW, Suite 500
Washington, DC 20004

Project Owner:
Smithsonian Institution

In cooperation with:
National Park Service

South Mall Campus Master Plan

The National Capital Planning Commission (NCPC), acting as lead federal agency, along with the Smithsonian Institution (SI) as the project owner, and in cooperation with the National Park Service (NPS), has prepared this Final Environmental Impact Statement (EIS) to evaluate the potential environmental impacts associated with implementing the South Mall Campus Master Plan. The No-Action Alternative and three action alternatives are studied in detail in this Final EIS.

Questions or comments on the Final Environmental Impact Statement should be addressed to:

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EXECUTIVE SUMMARY

The Final Environmental Impact Statement has been prepared pursuant to:

- National Environmental Policy Act (NEPA) of 1969;
- Council on Environmental Quality's Regulations of Implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508);
- NCPC's implementing regulations (1 CFR § 601);
- National Capital Planning Act (40 United States Code [USC] § 8722 (a) and (b)(1) approval of Master Plan and (d) approval of individual projects).

ES.1 PROPOSED ACTION

The Smithsonian Institution (SI) is preparing a Master Plan for its South Mall Campus to guide future short-term and long-term renovation and development of the 17-acre campus by establishing holistic planning and design principles. The Campus includes the Smithsonian Institution Building, the Arts and Industries Building, the Freer Gallery of Art, the Quadrangle Building, and the Hirshhorn Museum and Sculpture Garden, and associated Gardens and landscaped settings. The proposed Master Plan would be implemented over a 10- to 20-year period beginning in 2018.

The proposed Master Plan has four primary goals:

- To preserve and protect the historic buildings and features of the Campus;
- To improve and expand visitor services and education;
- To create clear accessible entrances and connections between the museums and gardens of the South Mall Campus, the National Mall, and the neighborhood; and
- To replace aging building systems that have reached the end of their lifespan.

The Master Plan is needed to meet SI's long-term space requirements and to address physical and operational deficiencies across the campus that impact visitor use and experience as well as SI's ability to implement its programs effectively and safely. SI identified the following needs for the campus:

- Restore, repair, and rehabilitate historic properties;
- Replace roofs and building systems that are at the end of their useful lives;
- Improve accessibility and usability by individuals with disabilities;
- Improve circulation throughout the campus, including creation of a clear east-west at-grade pedestrian connection from the east side of the Freer Gallery to the Hirshhorn Museum entry plaza;
- Improve access and visibility from the National Mall and the Castle for the NMAfA and Sackler Gallery entrances;
- Create expanded and linked centralized visitor services and education spaces;
- Provide additional museum and event space;
- Establish a new central utility plant and related infrastructure to reduce energy and operating costs and greenhouse gas emissions;
- Provide expanded below grade loading and delivery facilities serving the Quadrangle Building, Castle, AIB and Freer buildings; and
- Update security measures to meet SI and federal requirements.

NCPC and SI will make a decision on which alternative would be implemented in the Master Plan for the South Mall Campus. NCPC and SI will consider comments received on the EIS when making their decision. This decision will be documented in a Record of Decision (ROD). The ROD will outline the selected alternative for the South Mall Campus Master Plan and describe measures the SI will take to reduce impacts associated with implementation of the Master Plan.

Environmental issues were identified through the initial scoping efforts and through the Section 106 Consultation process. These issues are addressed throughout the Draft Environmental Impact Statement.

ES.2 ALTERNATIVES

ES.2.1 NO-ACTION ALTERNATIVE

Under the No Action Alternative, the Smithsonian would continue to use the existing interior building spaces and exterior spaces as they do currently with minor adjustments over time to accommodate organizational changes in office areas, minor exhibit-related changes, seasonal garden changes and similar. Desired programmatic changes such as a central loading and mechanical plant would not be implemented. Programmed spaces for restrooms, kitchen, offices and other uses that are currently impinging on the Castle Great Hall and Upper Great Hall would not be relocated. Additional visitor amenities, galleries and educational spaces would not be added to any of the buildings. Specifically, under the No-Action Alternative, SI would continue its current management of the South Mall Campus including the following:

CASTLE

- Continue basic maintenance of interior and exterior façade.
- Upkeep of existing outdated and inefficient mechanical systems
- Retain undersized and inadequate visitor services.

QUADRANGLE BUILDING AND HAUPT GARDEN

- Patch and repair of roof membrane, as required.
- Replant the Haupt Garden following Quadrangle Building roofing membrane repairs.
- Retain pavilions for each component in the Quadrangle Building with no shared or integrated services.

UTILITIES, LOADING, AND OTHER MUSEUMS

- Retain GSA steam and chilled water, which does not meet museum curatorial exhibit criteria, and continue repairs to individual outdated mechanical systems.
- Patch and repair building envelopes, as required.
- Retain undersized existing loading docks which are not currently accessible to larger vehicles and requires curbside loading. The limited size of the existing loading facility also provides inadequate separation of collections, food services, recycling, and refuse.

ES.2.2 ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

SMITHSONIAN INSTITUTION BUILDING (CASTLE)

With all Action Alternatives, a permanent relocation of many of the offices now housed on upper levels of the Castle to an offsite Central Administrative Headquarters, essential to the restoration of the Upper Great Hall and its return to use by the public would occur. These large spaces would provide additional education and assembly space. Similarly, uses currently impinging on the full length of the Great Hall would be relocated to below grade spaces in the renovated Castle Basement and new visitor amenities would be located underground between the Castle and Quadrangle. The east wing of the Castle would remain as office space for central Smithsonian leadership. The Schermer Lounge and Castle Commons would continue to be public space, made more useful by the lowering of the Commons floor to eliminate the need for a ramp in the Lounge. All Master Plan Alternatives would also enhance the security of the Castle through blast mitigation of the building's exterior envelope. Excavation beneath the Castle and the addition of seismic upgrades beneath the foundation would occur to protect from seismic occurrences. The Castle would also be structurally braced to protect it from seismic occurrence, if deemed necessary. The basement floor would be lowered to provide code-

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FREER GALLERY OF ART

The Freer Gallery of Art remains largely unchanged with the exception of altering the east wall and historic window configuration to create an Americans with Disabilities Act (ADA) accessible entrance, the new loading ramp descending from Independence Avenue on its west side, and below grade service connections to the new loading and central utilities.

QUADRANGLE BUILDING AND HAUPT GARDEN

Elements common to all Action Alternatives include replacing the roof membrane of the Quadrangle Building and demolishing the Ripley Center entry pavilion (Ripley Center education facilities to be accessed through the new Visitor Center).

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

For all Action Alternatives, the Hirshhorn Museum and Sculpture Garden retains its current public exhibits space and office areas housed in above grade levels, with the benefit of an improved building envelope and renovated mechanical systems. The Hirshhorn building would be rehabilitated. A new connecting path from its plaza to the AIB would be implemented and the Hirshhorn Plaza and the Sculpture Garden perimeter walls would be restored.

ARTS AND INDUSTRIES BUILDING

For all Action Alternatives, the AIB would continue its current use as a location for a variety of interim uses, special events and exhibits until renovation for a

permanent use for AIB, to accommodate a future museum and exhibition-related programming as well as rotating exhibits, is complete. Accommodation for a permanent use of AIB has been taken into account in the sizing and location of the central loading and mechanical facilities. The non-historic east door of the AIB would be removed and the interior of the AIB would be opened to provide a continuous connection from the Haupt Garden to the Hirshhorn Plaza. The surface parking lot east of AIB would be removed to expand the Ripley Garden. Structural underpinning to the west side of the AIB foundation would be added to accommodate below-grade excavation for the central utility plant. Lastly, progressive collapse measures to address seismic vulnerability would be implemented when the building is renovated.

UTILITIES, LOADING, AND OTHER MUSEUMS

Elements common to all Master Plan Alternatives include the addition of a central mechanical plant to be located below grade between the existing Quadrangle building and the Arts and Industries Building. A central underground loading dock would be below the west end of the Castle and the Freer Gallery's north plaza would be constructed and would be accessed from a ramp to the west of the Freer Gallery. This larger loading facility would allow the current Sackler loading ramp to be removed from the Haupt Garden and would eliminate the need for the surface loading and parking lot to the east of the AIB building. Centralizing loading allows for the Smithsonian to accommodate the larger trucks used to deliver traveling exhibits and avoids the need for trucks to maneuver in the street or back down the existing one-way ramp at the Sackler. The new loading would also provide additional recycling space and storage for Smithsonian Gardens grounds keeping equipment and supplies. It would allow a more distinct separation of collections loading from other loading, improving the security and environmental protection of the Smithsonian's national collections and collections loaned by others.

PERIMETER SECURITY

Perimeter security elements would be installed around the entire South Mall Campus.

ES.2.3 ALTERNATIVE B: LIMITED ABOVE GROUND CHANGE

In this alternative, above grade changes would be minimized while still accommodating improvements to the South Mall Campus' infrastructure. For the Quadrangle Building, the current museum pavilions would remain. Consideration would be given to relocating the entrances to the existing full height pavilion windows facing north to provide greater visibility from the Castle and north side of the Haupt Garden. Alterations to the Haupt Garden would be limited to replacement of the Quadrangle Building's roof membrane and improvements to circulation. To protect the Castle from seismic events, seismic upgrades would be used in conjunction with limited reinforcement. Related to the construction of a central loading facility, the Ripley pavilion would be demolished. At the east of the Hirshhorn Museum, the Sculpture Garden wall and existing tunnel would be restored. To better segregate exhibit, event, and trash delivery / transfer an enlarged below grade central loading dock would be built.

Below grade changes would be limited to those needed to create a minimal public connection to the Visitor Center in the Castle - if this is deemed feasible without relocating the museums' vertical circulation cores - and to connect the new loading and mechanical facilities to the existing circulation and air distribution systems of the Quadrangle. Remaining portions of the former Sackler loading dock would be repurposed for back-of-house support. Smithsonian Associates offices and NMAfA and the Sackler Gallery museum uses would be expanded into space made available by the relocation of some or all of the classroom and Discovery Theater education spaces to the new Castle. The connection to the Visitor Center would require further study to determine if this

would still be worthwhile because of the distances involved and the conflicts created by crossing paths with museum collections circulation which occurs when the museum public entrances and circulation are not moved closer to the Castle as in Alternatives D and F. Therefore, as shown in Figures 3-3, 3-4, and 3-5, in addition to the elements that are common to all Master Plan Alternatives, under Alternative B, SI would:

CASTLE

- Excavate a limited sub-basement area beneath the west end of the building footprint to provide loading and utility support.
- Construct new below-grade visitor amenities in previously unoccupied area between Castle basement and Quadrangle Building.
- Introduce new access stairs to below-grade Visitor Center.

QUADRANGLE BUILDING AND HAUPT GARDEN

- Make minor renovations to sublevels to connect the new loading dock to existing Collections circulation system and to connect the new central utility plant to the existing distribution system.
- Reinstall the Haupt Garden, and retain existing features, after replacement of the Quadrangle Building roof membrane.
- Maintain Quadrangle Building Museum Pavilions (Sackler and NMAfA) and relocate entries to north-facing elevations of existing pavilions.

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

- Remove a small portion of west-facing Hirshhorn Plaza wall to create east-west circulation.
- Restore/reopen the original tunnel connection between the Hirshhorn Plaza and Sculpture Garden.

UTILITIES AND LOADING

- Construct a new below-grade utility plant in an unexcavated area west of AIB.

ES.2.4 ALTERNATIVE D: PLAN CHANGES ABOVE AND BELOW GRADE

Under Alternative D there would be increased visibility and access entries from the National Mall, new museum pavilions, direct access from garden to amenities, cohesive Campus circulation, and connections between the Castle and Quadrangle Building. The Castle would continue to serve as the Visitor Center for the Smithsonian and a new visitor amenities and education center would be constructed below-grade that would extend between the Castle basement and the Quadrangle Building. It would be accessed via a sloped Haupt Garden that provides for an at grade garden entrance and windows to the garden. Current visitor amenities including a cafe, museum shop, and restrooms would be located below-grade in the Castle so as to enable a less encumbered restoration of the historic above grade public spaces of the Castle and to double the number of visitors accommodated from 1 million to 2 million annually. The amount of space for Smithsonian Associates and other educational programs would similarly significantly increase and would be housed in the Visitor Center as well as at the north end of the reconfigured Quadrangle building. Importantly, the visitor amenities and education spaces would be adjacent and connected and would provide the Smithsonian with a location that includes a central large assembly space with adjacent smaller rooms for breakout sessions, a requirement for many conferences. This would significantly improve the Smithsonian's ability to host scientific meetings and similar gatherings as there are no comparable venues currently.

Alternative D reconfigures the Quadrangle Building to better meet the program needs of the Sackler Gallery and NMAfA and the Smithsonian education programs currently housed there. A key priority for the museums is the location of their entrances closer to the Castle Visitor Center and the National Mall, providing better visitor access as well as benefitting from the ability to share

direct access to amenities including the new assembly and education spaces in the Visitor Center. The museums currently are adjacent but separated with little ability to share space and activities and circulate between them. Alternative D would provide greater connectivity between the museums, supporting the increasingly pan-Institutional emphasis in Smithsonian programming and research. This alternative would provide the ability for each museum to expand both galleries and back of house spaces while maintaining required separations between public space and collections processing and storage space. The roof of the building would include a substantially reconfigured and expanded Haupt Garden with direct access to the Visitor Center, amenities, and education spaces and improved ability to host educational programs and events in the garden.

At the Hirshhorn Museum, Alternative D would provide substantial expansion of gallery space suited to large contemporary artworks through a redesign of the Sculpture Garden that would raise the level of portions of the garden with the new galleries located below. These new galleries would be connected back to the museum through an expanded tunnel beneath Jefferson Drive to reconfigured basement level public space. The Hirshhorn Museum has recently enjoyed a substantial increase in visitation and this expansion below grade would allow it to better serve its visitors and support its ambitious program of changing exhibitions and educational programs.

In addition to circulation enhancements, Campus infrastructure would be developed. At the Castle, seismic base isolation would be installed in conjunction with a central utility plant. To better segregate exhibit, event, and trash delivery / transfer an enlarged below grade central loading dock would be built. Related to the construction of a central loading facility, the Ripley pavilion would be demolished. Therefore, as shown in Figures 3-6, 3-7, and 3-8, in addition to the elements common to all Master Plan Alternatives, under Alternative D, SI would:

CASTLE

- Excavate a sub-basement area that extends beyond the footprint of the Castle to provide loading and utility support.
- Reconfigure Castle basement for use as a Visitor Center and improve connection to Quadrangle Building.

QUADRANGLE BUILDING AND HAUPT GARDEN

- Introduce new, exterior, below-grade dip entrance with universal ADA accessibility to the Visitor Center.
- Replace a portion of Quadrangle Building's roof to allow for a sloped landscape-grade entry to the Visitor Center.
- Expand Haupt Garden and reconfigure garden pathways on to the former footprints of the museum pavilions and loading dock.
- Remove Sackler Gallery and NMAfA museum pavilions and Install new museum entry pavilions closer to the National Mall.
- Remove existing Quadrangle Building roof bulkheads.
- Expand extent of existing skylights and install new skylights immediately south of the Castle.
- Reestablish historic view of the Washington Monument from south of the Castle.
- Improve historic view of Castle from Independence Avenue, SW.

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

- Remove the Hirshhorn Plaza walls to the north, east and west to open the Museum to the National Mall.
- Expand the tunnel from the Hirshhorn Museum to the Sculpture Garden.
- Remove and reconfigure interior Sculpture Garden walls.
- Reconfigure Sculpture Garden to add new below-grade galleries. The Sculpture Garden would maintain a recessed relationship to the National Mall.

UTILITIES AND LOADING

- Construct a new central utility plant at sub-basement level beneath the Castle.

ES.2.5 ALTERNATIVE F – MAINTAIN FLAT PLAN ON CASTLE AXIS

Alternative F provides Increased visibility and access entries from the National Mall, new museum pavilions, direct access from garden to amenities, cohesive Campus circulation, and connections between the Castle and Quadrangle.

With Alternative F, the Castle would continue to serve as the Visitor Center for the SI and a new visitor amenities space and education center would be located between the Castle basement and the Quadrangle Building. It would be accessed via a new public stairways from the Haupt Garden. Alternative F maintains the character of the Haupt Garden while remaining at grade. Gardens focus on creating both intimate and education spaces. New pavilions provide accessible entry to the Castle Visitor Center and new visitor amenities and education space. Current visitor amenities including a cafe, museum shop, and restrooms would be located below-grade in the Castle so as to enable a less encumbered restoration of the historic above grade public spaces of the Castle and to double the number of visitors accommodated from 1 million to 2 million annually. The amount of space for Smithsonian Associates and other educational programs would similarly significantly increase and would be housed in the Visitor Center as well as in a new assembly space at the north end of the reconfigured Quadrangle Building. Importantly, the visitor amenities and education spaces would be adjacent and connected and would provide the Smithsonian with a location that includes a central large assembly space with adjacent smaller rooms for breakout sessions, a requirement for many conferences. This would significantly improve the Smithsonian's ability to host scientific meetings and similar gatherings as there are no comparable venues currently.

Alternative F reconfigures the Quadrangle Building to better meet the program needs of the Sackler Gallery and the NMAfA and the Smithsonian education programs currently housed there. A key priority for the museums is the location of their above grade entrances closer to the Castle and the National Mall, providing better visitor access as well as benefitting from the ability to share direct access to amenities including the new assembly and education spaces. The two new entrance pavilions would be smaller than the current three pavilions, increasing the area available for the Haupt Garden. The museums currently are adjacent but separated with little ability to share space and activities and circulate between them. Alternative F would provide greater connectivity between the museums, supporting the increasingly pan-Institutional emphasis in Smithsonian programming and research. This alternative would provide the ability for each museum to expand both galleries and back of house spaces while maintaining required separations between public space and collections processing and storage space. The roof of the building would include a reconfigured and expanded Haupt Garden with improved access to the Visitor Center, amenities, and education spaces; and improved ability to host educational programs and events in the garden. Alternative F would retain many of the characteristics and specific features of the present Haupt Garden including a parterre on axis with the Castle, intimate gardens, gardens themed to adjacent museums and the Renwick Gates at Independence Avenue.

At the Hirshhorn Museum and Sculpture Garden, Alternative F would provide substantial expansion of gallery space suited to large contemporary artworks through a redesign of the Sculpture Garden that would raise the level of portions of the garden with the new galleries located below. These new galleries would be connected back to the museum through an expanded tunnel beneath Jefferson Drive to reconfigured basement level public space. The Hirshhorn Museum has recently enjoyed a substantial increase in visitation and

this expansion below grade would allow it to better serve its visitors and support its ambitious program of changing exhibitions and educational programs.

In addition to circulation enhancements, Campus infrastructure would be developed. At the Castle, seismic reinforcement would occur. To better segregate exhibit, event, and trash delivery / transfer an enlarged below grade central loading dock would be built. Related to the construction of a central loading facility, the Ripley Pavilion would be demolished. Therefore, in addition to the elements common to all Master Plan Alternatives, under Alternative F, as shown in Figures 3-9, 3-10, and 3-11, SI would:

CASTLE

- Excavate a limited sub-basement area beneath the west end of the building footprint to provide loading and utility support.
- Construct new below-grade visitor amenities in previously unoccupied area between Castle basement and Quadrangle Building and with a new entrance to the south of the Castle.

QUADRANGLE BUILDING AND HAUPT GARDEN

- Construct exterior entrance stairs to the Visitor Center at north edge of Quadrangle Building and Haupt Garden.
- Expand the Haupt Garden, while remaining at grade.
- Reconfigure garden pathways on to the former footprints of the museum pavilions and loading dock.
- Maintain intimate garden spaces, parterre, and Renwick Gates in the Haupt Garden.
- Remove Sackler Gallery and NMAfA museum pavilions and construct new entry pavilions closer to the National Mall.

- Expand extent of skylights around the Quadrangle Building and Castle.
- Reestablish historic view of the Washington Monument from south of the Castle.
- Improve historic view of Castle from Independence Avenue, SW.

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

- Remove a small portion of west-facing Hirshhorn Plaza wall to create east-west circulation.
- Expand the tunnel from the Hirshhorn Plaza to the Sculpture Garden.
- Reconfigure the Sculpture Garden to add new below-grade galleries. The Sculpture Garden would maintain a recessed relationship to the National Mall.

UTILITIES AND LOADING

- Construct a new below-grade utility plant in an unexcavated area west of AIB.

ES.3 ENVIRONMENTAL IMPACTS SUMMARY

More detailed analysis for each alternative can be found in Chapter 4: Affected Environment and Environmental Consequences.

ES.3.1 IMPACTS ON TOPOGRAPHY

NO-ACTION ALTERNATIVE

- Minimal ground disturbance during routine repairs would result in direct and indirect short-term, negligible, adverse impacts.

ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

- Exposure and disturbance of soils during construction would result in direct and indirect short-term, minor adverse impacts.

- Excavation would result in direct, short and long-term, minor, adverse impacts to previously disturbed soils and Campus' topography.

ALTERNATIVE B

- Exposure and disturbance of soils during construction would result in direct and indirect short-term, minor, adverse impacts.
- Excavation would result in direct, short and long-term, moderate, adverse impacts to previously disturbed soils and Campus' topography.

ALTERNATIVE D

- Exposure and disturbance of soils during construction would result in direct and indirect short-term, minor, adverse impacts.
- Excavation would result in direct, short and long-term, major, adverse impacts to previously disturbed soils and Campus' topography.

ALTERNATIVE F

- Exposure and disturbance of soils during construction would result in direct and indirect short-term, minor, adverse impacts.
- Excavation would result in direct, short and long-term, moderate, adverse impacts to previously disturbed soils and Campus' topography.

ES.3.2 IMPACTS ON SEISMIC VULNERABILITY

NO-ACTION ALTERNATIVE

- Direct, long-term, major, adverse impacts from lack of seismic protection.

ALL MASTER PLAN ALTERNATIVES

- Direct, short-term, minor, adverse impacts during construction due to increased vulnerability.
- Seismic upgrades would result in a direct, long-term, major, beneficial impact.

ES.3.3 IMPACTS ON STORMWATER

NO-ACTION ALTERNATIVE

- There would continue to be a limited ability to retain and filter stormwater resulting in an indirect, long-term, minor adverse impact would occur.

ALL MASTER PLAN ALTERNATIVES

- Direct and indirect, short-term, minor, adverse impacts during construction.
- Direct and indirect, long-term, moderate, beneficial impacts from reduction of impervious surface and implementation of stormwater management.

ES.3.4 IMPACTS ON AIR QUALITY

NO-ACTION ALTERNATIVE

- Construction activities during routine repairs would result in direct, short-term, minor, adverse impacts.
- Direct, long-term, minor, adverse impacts would occur from continued use of GSA steam and chilled water and existing mechanical systems.
- Indirect, long-term, negligible, adverse impacts from emissions created by additional traffic.

ALL MASTER PLAN ALTERNATIVES

- Construction activities would result in direct, short-term, minor, adverse impacts.
- New mechanical systems and central utility plant would result in direct and indirect, long-term, minor, beneficial impacts.
- A minor increase in vehicular trips would result in an indirect, long-term, negligible, adverse impact.

ES.3.5 IMPACTS ON GREENHOUSE GASES, CLIMATE CHANGE & ENERGY CONSUMPTION

NO-ACTION ALTERNATIVE

- Direct and indirect, short and long-term negligible, minor, adverse impacts from continued use of GSA steam and chilled water and existing mechanical systems.

ALL MASTER PLAN ALTERNATIVES

- Construction activities would result in direct, short-term, minor, adverse impacts.
- New mechanical systems and central utility plant would result in direct and indirect, long-term, negligible, beneficial impacts

ES.3.6 IMPACTS ON CULTURAL RESOURCES

NO-ACTION ALTERNATIVES

- Direct, long-term, moderate, adverse impacts from minor repairs and potential seismic and blast vulnerability.

ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

- Construction activities would result in direct, short-term, moderate to major, adverse impacts.
- There would be long-term, minor, adverse impacts to the Freer Gallery from the alteration of the east wall.
- Blast protection, base isolation, and seismic bracing of the Castle would not result in adverse effects. Protecting the Castle from potential blast and/or seismic events would result in a long-term beneficial impact.
- Lowering the basement floor of the Castle and restoring the Castle would result in long-term, beneficial impacts.
- Removing the parking lot at AIB and restoring the east door to use would result in long-term, beneficial impacts.

- Renovating the Hirshhorn Building and Plaza and replacing the garden walls would result in long-term, beneficial impacts.
- Replacing the Quadrangle Building roof membrane would not adversely impact cultural resources.
- Perimeter security has the potential to have a long-term adverse adversely impact to the character of the National Mall.

ALTERNATIVE B

- Construction activities would result in direct, short-term, moderate to major, adverse impacts.
- The small opening that would be inserted on the west plaza wall of the Hirshhorn would create, long-term, minor adverse impacts.
- Reopening the tunnel would result in long-term, beneficial impacts.
- Minor, long-term, adverse impact would result from the reconfiguration of the Haupt Garden.
- Reorienting the Quadrangle Building Museum pavilions would not have an adverse impact on cultural resources.
- Impacts to cultural resources associated with the creation of a New Visitor Center, central utility plant, sub-basement excavation of the Castle, and excavation for a new loading ramp would be evaluated at the time of project design.
- There would be no indirect impacts.

ALTERNATIVE D

- Construction activities would result in direct, short-term, moderate to major, adverse impacts.
- Sub-basement excavation of the entire Castle would create a long-term, moderate, adverse impact.
- Below-grade “dip” entrance to the Visitor Center would result in direct, long-term, major adverse impacts to the Castle.

- Reconfiguration of the Haupt Garden and removal and replacement of the Quadrangle Museum Pavilions would result in direct, long-term, major, adverse impacts by improving visibility
- Direct, long-term, major adverse impacts from the removal of plaza walls at the Hirshhorn.
- Major, indirect, long-term impacts from the changes to the Hirshhorn Sculpture Garden and the reconfiguration of tunnel would result in moderate, long-term, adverse impacts.
- Removal of the pavilions would result in a long-term, major, adverse impact to the Quadrangle building.
- Removal and replacement of skylights would result in a long-term, moderate adverse impact.
- Impacts to cultural resources associated with the creation of a central utility plant would be evaluated at the time of project design.
- There would be no indirect impacts.

ALTERNATIVE F

- Construction activities would result in direct, short-term, moderate to major, adverse impacts.
- The new Visitor Center entrance may result in long-term, moderate adverse impacts to the Castle.
- The small opening that would be inserted on the west plaza wall of the Hirshhorn would create, long-term, minor adverse impacts.
- Major, indirect, long-term impacts from the changes to the Hirshhorn Sculpture Garden and the reconfiguration of tunnel would result in moderate, long-term, adverse impacts.
- Reconfiguration of the Haupt Garden and removal and replacement of the Quadrangle Museum Pavilions would result in direct, long-term, major, adverse impacts by improving visibility.
- Removal of the pavilions would result in a long-term, major, adverse impact to the Quadrangle building.

- Removal and replacement of skylights would result in a long-term, moderate adverse impact.
- Impacts to cultural resources associated with the creation of a New Visitor Center, central utility plant, sub-basement excavation of the Castle, and excavation for a new loading ramp would be evaluated at the time of project design.
- There would be no indirect impacts.

ES.3.7 IMPACTS ON VISUAL QUALITY

NO-ACTION ALTERNATIVE

- Direct, short-term, negligible, adverse impacts due to minor renovations.
- There would be no indirect impacts.

ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

- Direct, short-term, negligible, adverse impacts from construction activities.
- Direct, long-term, minor, adverse impact from new Visitor Center entrance.
- Removal of Ripley Pavilion and the addition of permanent security design would result in direct, long-term, minor, beneficial impacts.
- Rehabilitation of the Castle would result in negligible, long-term, adverse impacts.
- There would be no indirect impacts.

ALTERNATIVE B

- Direct, short-term, negligible, adverse impacts from construction activities.
- Direct, long-term, minor adverse impacts from the creation of a small opening in the Hirshhorn Plaza and the restoration of the Hirshhorn tunnel.
- Reconfiguration of the Haupt Garden would result in direct, long-term, minor to moderate adverse impacts.
- There would be no indirect impacts.

ALTERNATIVE D

- Direct, short-term, negligible, adverse impacts from construction activities.

- Below-grade “dip” entrance to the Visitor Center would result in direct, long-term, major adverse impacts to the Castle.
- Reconfiguration of the Haupt Garden would result in direct, long-term, beneficial impacts by improving visibility and long-term, minor to moderate, adverse impacts by altering the secluded nature of the Garden and the addition of vents for the central utility plant.
- Direct, long-term, minor adverse impacts from the removal of plaza walls at the Hirshhorn and the raising of the Sculpture Garden would result in moderate, long-term, adverse impacts.
- Moderate, indirect, long-term impacts from the changes to the Hirshhorn Sculpture Garden.

ALTERNATIVE F

- Direct, short-term, negligible, adverse impacts from construction activities.
- Below-grade entrance to the Visitor Center would result in direct, long-term, moderate adverse impacts to the Castle.
- Reconfiguration of the Haupt Garden would result in direct, long-term, beneficial impacts by improving visibility and long-term, minor to moderate, adverse impacts by altering the secluded nature of the Garden and the addition of vents for the central utility plant.
- Direct, long-term, minor adverse impacts from the creation of a small opening in the Hirshhorn Plaza and the raising of the Sculpture Garden would result in minor to moderate, long-term, adverse impacts.
- Minor, indirect, long-term impacts from the changes to the Hirshhorn Sculpture Garden.

ES.3.8 IMPACTS ON LAND USE PLANNING & POLICIES

NO-ACTION ALTERNATIVE

- No Impacts.

ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

- Direct and indirect, long and short-term moderate, beneficial impacts by complimenting other planning efforts.

ALTERNATIVE B

- Alternative B would have a minor to moderate, long-term, adverse impact in strengthening the connection of the South Mall Campus to the SW Ecodistrict as it would continue to block out of the neighborhood across Independence Avenue, SW from within the site and continue to block views into the gardens and to the Castle from outside.

ALTERNATIVE D

- A moderate, long-term, beneficial impact would occur by strengthening the connection of the South Mall Campus to the SW Ecodistrict and would increase views into the gardens and to the Castle from outside. It would be consistent with the SW Ecodistrict goals for a pedestrian-oriented development and improved connection to public space. Due to impacts to the historic character of the South Mall Campus, this alternative may not be fully consistent with the Urban Design or Historic Preservation Elements of the Comprehensive Plan. It would restore and renovate historic buildings consistent with the National Mall Plan's cultural resource goals.

ALTERNATIVE F

- A moderate, long-term, beneficial impact would occur by strengthening the connection of the South Mall Campus to the SW Ecodistrict as it would continue to block out of the neighborhood across Independence Avenue, SW from within the site and would increase views into the gardens and to the Castle from outside. Alternative F is consistent with the Comprehensive Plan and SW Ecodistrict Plan goals for pedestrian-oriented development and for improved connections to public space, and the most consistent with the Urban Design and Historic Preservation Elements of the Comprehensive Plan. It would restore and renovate historic buildings consistent with the National Mall Plan's cultural resource goals.

ES.3.9 IMPACTS ON TRAFFIC AND TRANSPORTATION

NO-ACTION ALTERNATIVE

- There would be long-term, negligible, adverse impacts from development in the area. The No-Action Alternative would not add any traffic.

ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

- Would not result in additional vehicular, bicycle, pedestrian, or transit trips.

ALTERNATIVE B

- Direct, long-term, negligible, adverse impacts from a minor increase in vehicular trips.
- Direct, long-term, negligible, adverse impacts from a minor increase in bicycle, pedestrian, and transit trips.

ALTERNATIVES D AND F

- Direct, long-term, negligible, adverse impacts from a minor increase in vehicular trips.
- Direct, long-term, negligible, adverse impacts from a minor increase in bicycle, pedestrian, and transit trips.

ES.3.10 IMPACTS ON VISITOR USE & EXPERIENCE

NO-ACTION ALTERNATIVE

- Direct, long-term, moderate, adverse impacts from lack of improvements to the Campus.

ALTERNATIVE B

- Direct and indirect, short-term, minor, adverse impacts from noise and access disruptions.
- Direct, long-term, minor, beneficial impacts from Campus improvements.

ALTERNATIVE D

- Direct and indirect, short-term, minor, adverse impacts from noise and access disruptions.
- Direct, long-term, moderate, beneficial impacts from Campus improvements.

ALTERNATIVE F

- Direct and indirect, short-term, minor, adverse impacts from noise and access disruptions.
- Direct, long-term, major, beneficial impacts from Campus improvements.

ES.3.11 IMPACTS ON HUMAN HEALTH AND SAFETY

NO-ACTION ALTERNATIVE

- Direct, long and short-term, minor, adverse impacts from the disturbance of hazardous materials and lack of security upgrades.
- Direct, long-term, minor, beneficial impact from removal of hazardous materials.

ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

- Direct, short-term, minor, adverse impacts from the disturbance of hazardous materials and safety hazards during construction.
- Direct, long-term, minor, and moderate, beneficial impact from removal of hazardous materials and installation of Campus seismic and blast protection.
- Direct, long-term, major, beneficial impacts would result from security upgrades including blast protection, perimeter security elements, and visitor screening upgrades.

ALTERNATIVE B

- Direct, short-term, minor, adverse impacts from the disturbance of hazardous materials and safety hazards during construction.
- Direct, long-term, minor, and moderate, beneficial impact from removal of hazardous materials and installation of Campus seismic and blast protection.

- Direct, long-term, moderate, beneficial impacts would result from security upgrades including blast protection, perimeter security elements, and visitor screening upgrades.
- Does provide adequate daylight for staff that would result in minor, long-term, adverse impacts.

ALTERNATIVES D AND F

- Direct, short-term, minor, adverse impacts from the disturbance of hazardous materials and safety hazards during construction.
- Direct, long-term, minor, and moderate, beneficial impact from removal of hazardous materials and installation of Campus seismic and blast protection.
- Direct, long-term, major, beneficial impacts would result from security upgrades including blast protection, perimeter security elements, and visitor screening upgrades.

ES.3.12 IMPACTS ON UTILITIES

NO-ACTION ALTERNATIVE

- Continual need to repair utilities would result in direct, long-term, minor, adverse impacts.
- Remaining on GSA steam and chilled water would result in indirect, long-term, moderate, adverse impacts to SI collections.

ALL MASTER PLAN ALTERNATIVES

- Direct, short-term, negligible, adverse impacts from temporary increase in utility demand.
- Direct and indirect, long-term, moderate, beneficial impact from overall reduction in utility use.
- Indirect, short-term, minor, adverse impacts from disruption to utilities.

ES.3.13 IMPACTS ON WASTE MANAGEMENT

NO-ACTION ALTERNATIVE

- No impacts.

ALL MASTER PLAN ALTERNATIVES

- Direct, short-term, minor, adverse impacts from increased waste generation during construction.
- Direct, long-term, moderate, beneficial impacts from streamlined waste management.
- Indirect, short and long-term, negligible, adverse impacts from waste generated on the Campus.

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APPENDICES

Appendix A – Consultation and Coordination

Appendix B – Consulting Parties – Assessment of Effects

Appendix C – Public Scoping Report

Appendix D – Comprehensive Traffic Report

Appendix E – Draft Programmatic Agreement

Appendix F - Transcripts From Public Hearings

ACRONYMS

AADT	Annual Average Daily Traffic	EA	Environmental Assessment
ACHP	Advisory Council on Historic Preservation	EIS	Environment Impact Statement
ACM	Asbestos Containing Material	EO	Executive Order
ADA	American's with Disabilities Act	EPA	Environmental Protection Agency
AIB	Arts and Industries Building	ESA	Endangered Species Act
ANC	Area Neighborhood Commission	FEMA	Federal Emergency Management Agency
APE	Area of Potential Effect	FEMS	Fire and Emergency Medical Services
ASCE	American Society of Civil Engineers	FHWA	Federal Highway Administration
BIG	Bjarke Ingles Group	FIRM	Flood Insurance Rate Map
BMP	Best Management Practices	FR	Federal Register
CAA	Clean Air Act	FSL	Facility Security Level
CEQ	Council on Environmental Quality	FY	Fiscal Year
CFA	Commission of Fine Arts	GAR	Green Area Ratio
CFR	Code of Federal Regulations	GDP	Gross Domestic Product
CH ₄	Methane	GHG	Greenhouse Gas
CLR	Cultural Landscape Report	GSA	General Services Administration
CO	Carbon Monoxide	HCM	Highway Capacity Manual
CSS	Combined Sewer System	HCS	Highway Capacity Software
CWA	Clean Water Act	HOTD	Heating Operations and Transmission District
CZMA	Coastal Zone Management Act	HUD	Housing and Urban Development
dBa	Decibels (A-weighted scale)	IBC	International Building Codes
DC	District of Columbia	IEBC	International Existing Building Codes
DCMR	DC Municipal Regulations	IPaC	Information for Planning and Conservation
DCOP	DC Office of Planning	ISC	Interagency Security Committee
DDOT	District Department of Transportation	LBP	Lead Based Paint
DOEE	District Department of Energy and Environment	LOMR	Letter of Map Revision

LOS	Level of Service	OSHA	Occupational Health and Safety
MPD	Metro Police Department	Pb	Lead
MS4	Municipal Separate Storm Sewer System	PCBs	Polychlorinated Biphenyls
MTA	Maryland Transit Authority	PM ₁₀	Particulate Matter
MWCOG	Metropolitan Washington Council of Governments	PM _{2.5}	Particulate Matter
NAAQS	National Ambient Air Quality Standards	PRTC	Potomac and Rappahannock
NASM	National Air and Space Museum	ROD	Record of Decision
NCPC	National Capital Planning Commission	RP	recommended practice
NEPA	National Environmental Policy Act	SD	Smithsonian Directive
NESHAP	National Emissions Standards for Hazardous Air Pollutants	SFWG	Sustainably Facilities Working Group
NHD	National Hydrography Dataset	SHPO	State Historic Preservation Office
NHPA	National Historic Preservation Act	SI	Smithsonian Institution
NMAfA	National Museum of African Art	SIP	State Implementation Plan
NMNH	National Museum of Natural History	SO ₂	Sulfur Dioxide
NO ₂	Nitrogen Dioxide	SOM	Skidmore, Owings, and Merrill
NOAA	National Oceanic and Atmospheric Association	SWMP	Stormwater Management Plan
NOI	Notice of Intent	TCP	Traditional Cultural Properties
NO _x	Nitrous Oxides	USACE	US Army Corps of Engineers
NPS	National Park Service	USC	United States Code
NRCS	Natural Resource Conservation Service	USDA	US Department of Agriculture
NRHP	National Register of Historic Places	USFWS	US Fish and Wildlife Service
NWI	National Wetlands Inventory	USGS	US Geological Survey
O ₃	Ozone	v/c	volume to capacity
OFMR	Office of Facilities Management and Reliability	VOCs	Volatile Organic Compounds
OMB	Office of Management and Budget	WMATA	Washington Metropolitan Area Transit Authority

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CHAPTER 1

INTRODUCTION

The National Capital Planning Commission (NCPC), acting as lead federal agency, along with the Smithsonian Institution (SI) as the project owner, and in cooperation with the National Park Service (NPS), has prepared this Environmental Impact Statement (EIS) to evaluate the potential environmental impacts associated with implementing the South Mall Campus Master Plan.

This EIS has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969; the Council on Environmental Quality's (CEQ) Regulations of Implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508); NCPC's implementing regulations (1 CFR § 601); and the National Capital Planning Act (40 United States Code [USC] § 8722 (a) and (b)(1)) (master plans) and (40 USC 8722 (b)(1) and (d)) (individual projects). SI and NCPC have prepared this report to document the evaluation of impacts from the implementation of the proposed South Mall Campus Master Plan on the environment, including natural resources such as air quality and vegetation, social resources such as community facilities and services, and cultural resources such as historic sites. NCPC and SI are also using this EIS to provide information on historic resources affected by the proposed Master Plan inside the campus and historic resources outside of the campus whose views could be affected. More information on the laws and regulations that NCPC and SI must comply with can be found at the end of this chapter.

1.1 WHAT IS SI PROPOSING?

SI proposes to prepare a Master Plan for its South Mall Campus to guide future short-term and long-term renovation and development of the 12-acre campus by

establishing holistic planning and design principles. The proposed Master Plan would be implemented over a 20- to 30-year period beginning in 2018.

The proposed Master Plan has four primary goals:

- To preserve and protect the historic buildings and features of the Campus;
- To improve and expand visitor services and education;
- To create clear accessible entrances and connections between the museums and gardens of the South Mall Campus, the National Mall, and the neighborhood; and
- To replace aging building systems that have reached the end of their lifespan.

The centerpiece of the proposed South Mall Campus Master Plan is the revitalization of the iconic Smithsonian Institution Building (Smithsonian Castle or the Castle). Opened in 1855, the Castle now serves as a visitor information center and the headquarters of the Institution. The proposed Master Plan combines several major projects, some of which address failing infrastructure, including leaking roofs, failing mechanical systems, and inefficient energy use. Integrated planning for the projects allows the SI to optimize the connections between the museums and gardens, while taking advantage of cost and energy space saving synergies, such as shared use of utility plants and a central loading dock. The Master Plan also includes expanded visitor services, new National Mall-facing entrances, and improved east-west visibility and access.

What is a Master Plan?

A Master Plan is an integrated series of documents present in graphic, narrative, and tabular form, the present composition of an installation and the plan for its orderly and comprehensive long-range development, generally over a period of 20 years.

1.2 WHERE IS THE SOUTH MALL CAMPUS?

The campus is located on the NPS National Mall (“National Mall”), within the monumental core of the District of Columbia. The National Mall is defined by the scale and regularity of its landscape and architectural features: a central lawn flanked by quadruple rows of American Elm trees, lined with nationally significant cultural institutions and memorial sites. SI itself is a major

institutional presence on the National Mall, and through various building projects, has made a substantial contribution to its physical and architectural character. Located across Independence Avenue, SW, the Southwest Quadrant is more urban in character, with large-scale office building development, much of which is occupied by federal agencies that date to the second half of the 20th century (see Figure 1-1).

The South Mall Campus is in southwest Washington, DC, occupying land along the southern half of the National Mall. The South Mall Campus is bounded by 12th Street, SW to the west; Independence Avenue, SW to the south; 7th Street, SW to the east; and Jefferson Drive, SW to the north,. A portion of the South Mall Campus (the Hirshhorn Museum Sculpture Garden and its flanking tree panels) extends beyond Jefferson Drive, SW to the north (see Figure 1-2).

The South Mall Campus contains five principal buildings and four designed gardens, in addition to a myriad of subsidiary structures, interstitial landscapes, circulation features, and infrastructure. The buildings house a range of SI programs, offices, and institutions, including four major museums: the Freer Gallery of Art (Freer Gallery), the Arthur M. Sackler Gallery (Sackler Gallery), the National Museum of African Art (NMAfA), and the Hirshhorn Museum and Sculpture Garden. The Castle is the iconic heart of the Institution, and it incorporates several functions, including the office of the SI Secretary and the SI Information Center for visitors to the Smithsonian Museums on the National Mall. The Arts and Industries Building (AIB) is regularly used for events, and programming uses are currently under study.

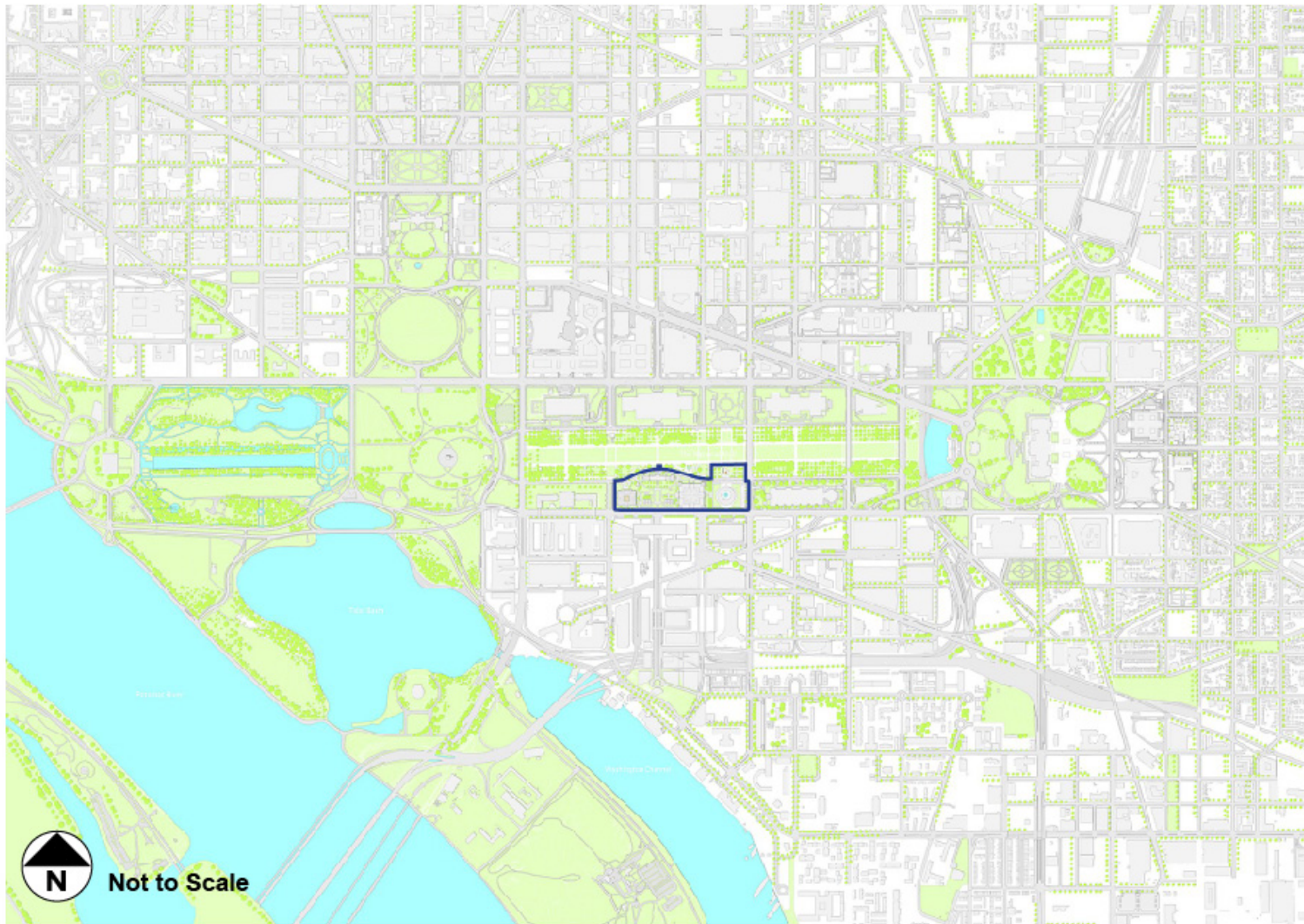


Figure 1-1. Map of the South Mall Campus and surrounding buildings.

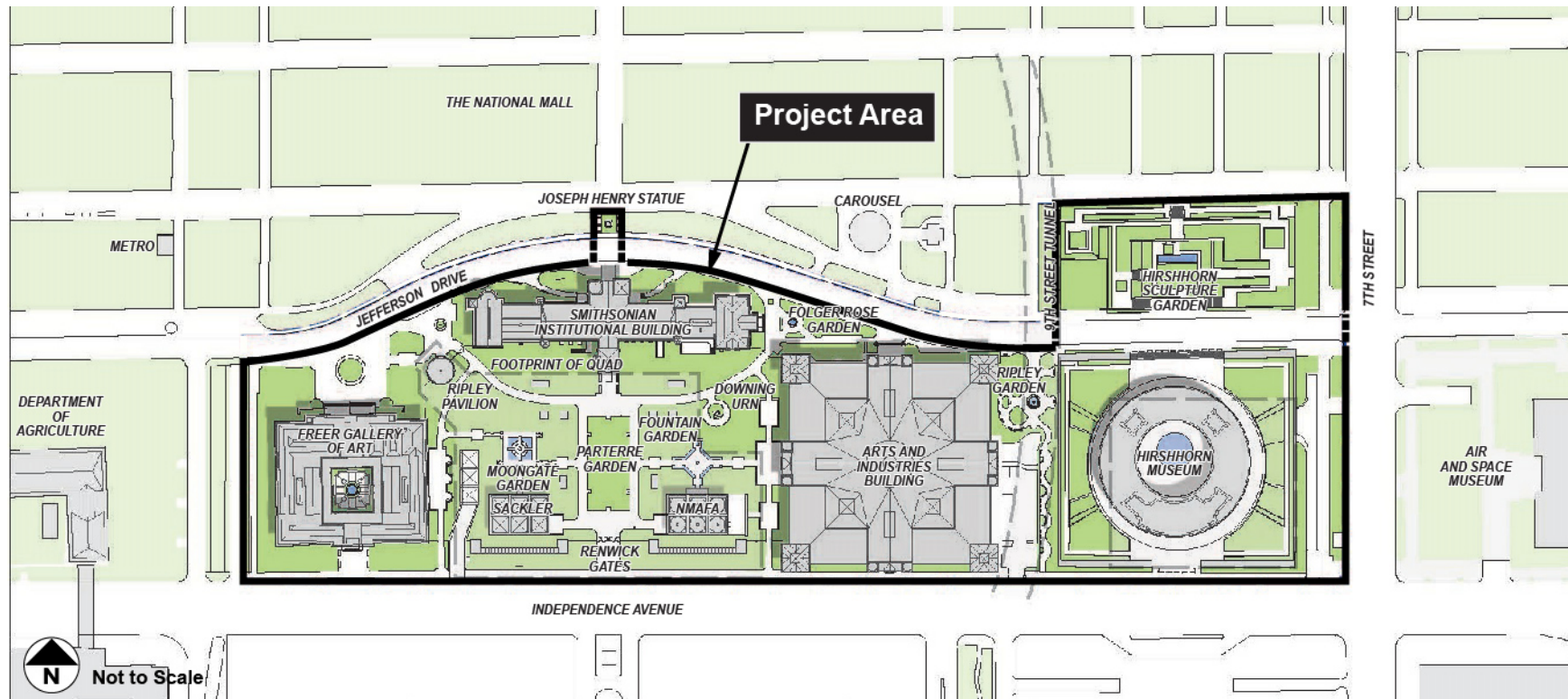


Figure 1-2. South Mall Campus Study Boundary Map.

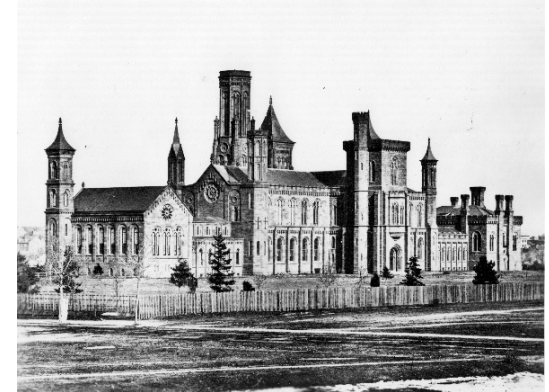
1.3 WHAT IS THE HISTORY OF THE SOUTH MALL CAMPUS?

Smithsonian Institution Building (1855)

The enabling legislation of the Smithsonian Institution was passed by Congress and was signed into law by President James K. Polk in August 1846. The law provided structure and definition to the bequest of Englishman James Smithson, whose will gifted his estate, worth about 500,000 American dollars, to the United States of America. The 1846 legislation expanded the scope of Smithson's bequest, creating an executive structure to be governed by a Board of Regents and a Secretary. The first duty of the Board of Regents was to construct a headquarters to house the Institution. The enabling legislation stipulated that the site be chosen from the available public grounds in the City of Washington.

Following lengthy negotiations, a site for the SI's headquarters was chosen on the southern half of the National Mall between 9th and 12th Streets, SW in January 1847. The Building Committee selected the plans of James Renwick, Jr. for the Smithsonian Institution Building. Renwick, who had submitted two of 13 competition entries for the building, was a New York architect whose work—particularly in the design of several Gothic Revival churches— and demeanor had favorably impressed the committee during their national tour. James Dixon & Co. of Washington was chosen to construct the building. With great fanfare, the cornerstone of the Castle was laid on May 1, 1847. The building was constructed and occupied in several stages, but was fully complete in 1855 and is approximately 111,173 square feet (sf).

Following the construction of the Smithsonian Institution Building, the following buildings that make up the South Mall Campus were constructed:



Smithsonian Institution Building (1855)



Arts and Industries Building

ARTS AND INDUSTRIES BUILDING AND SURROUNDING GARDENS (FOLGER AND RIPLEY)

The AIB, which is 152,718 sf, is located southeast of the Castle and was completed in 1881 to serve as the U.S. National Museum, and displayed the collections of the Smithsonian Institution. The building was rehabilitated between 1972 and 1976 and was reopened to the public as the AIB in 1976 to coincide with the nation's Bicentennial. The two gardens surrounding the AIB, the Kathrine Dulin Folger Rose Garden (the Folger Garden) (1998) and the Mary Livingston Ripley Garden (the Ripley Garden) (1981), are located north and east of the AIB, respectively (EHT Tracerics, 2015).



Freer Gallery of Art

FREER GALLERY OF ART

The Freer Gallery of Art (128,980 sf) and Courtyard, are located on the western portion of the South Mall Campus. Construction of the Freer Gallery of Art began in 1916 but, due to World War I, was not completed until 1923. The Freer Gallery of Art houses a collection of Asian and American art and is connected to the underground Sackler Gallery. The central courtyard includes a fountain. The Freer Gallery of Art and courtyard have remained largely unchanged since completion (EHT Tracerics, 2015).



Hirshhorn Museum

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

Located on the eastern portion of the South Mall Campus, the Hirshhorn Museum is a four-story, circular building with a hollow center that forms an outdoor plaza with a large fountain. The museum was constructed between 1966 and 1974. The Sculpture Garden is located to the north of the Hirshhorn Museum across Jefferson Drive, SW. Approximately 50 pieces of sculpture are on display at any given time in the Sculpture Garden and on the Hirshhorn Plaza. The pieces are irregularly displayed and are periodically alternated or moved. An underground tunnel (the "tunnel") formerly connected the Hirshhorn Museum and Sculpture Garden; however, that space has since been enclosed and serves as a multimedia arts education center (EHT Tracerics, 2015). The Hirshhorn Museum and Sculpture Garden are 149,158 sf.

QUADRANGLE BUILDING

The Quadrangle Building is a predominately below-ground structure accessed from three above-ground pavilions. The Enid A. Haupt Garden sits on the “roof” of the Quadrangle Building below. The Quadrangle Building (332,681 sf), its pavilions, and the Haupt Garden were constructed from 1983 to 1987. The pavilions include the S. Dillion Ripley Center Pavilion, which is located in the northwest corner of the Haupt Garden; the Arthur M. Sackler Gallery Pavilion, located in the southwest corner of the Haupt Garden; and the National Museum of African Art Pavilion (NMAfA), located in the southeast corner of the Haupt Garden (EHT Traceries, 2015).



Quadrangle Complex & Enid A. Haupt Garden

1.4 WHAT IS THE BACKGROUND & HISTORY OF THE PROJECT?

In spring 2012, prior to engaging an architectural team for the South Mall Campus Master Plan, the SI conducted a facilitated retreat with a Steering Committee drawn from senior SI leadership (including representation from the Secretary; Regents Facilities Committee; Assistant Secretary for Education and Access; Undersecretaries for Science and History, Art, and Culture; Chief of Staff to the Secretary, Director of Advancement and Philanthropic Giving; General Counsel; museum directors; and other senior leaders) to develop a statement of project goals and priorities for the South Mall Campus. The goals as outlined previously in Section 1.1 are:

- To preserve and protect the historic buildings and features of the South Mall Campus;
- To improve and expand visitor services and education;
- To create clear accessible entrances and connections between the museums and gardens of the South Mall Campus, the National Mall, the neighborhood; and
- Replace aging building systems that have reached the end of their lifespan.

Using the statement of project goals, the SI held a qualification-based federal selection process to select an architectural team (SI, 2012). A team led by the New York City office of Bjarke Ingels Group (BIG) was selected as the Master Plan architect towards the end of 2012 and began working with the SI Facilities staff and the Steering Committee in spring 2013.

BIG began developing the Master Plan through extensive engagement and discussion with SI to identify needs, priorities, and values for the South Mall Campus that were in line with the goals previously established for the Master Plan. BIG and SI's Facilities staff interviewed members of the Steering Committee and other key staff to determine priorities for the plans and to identify existing and future project needs. As the vision for the South Mall Campus developed over a one-year period, the Steering Committee members were repeatedly engaged through a series of meetings to present and discuss major issues, findings, and solutions. These were synthesized into seven key priorities described below.

1. Enter & Experience – Make points of entry clearer, more accessible, and easier to find through improved orientation, wayfinding, and location.
2. Upgrade the Underground – Better utilize the existing below-grade space through clearer circulation, increased daylighting, and easier access to amenities.
3. Activate the Afterhours – Provide the experiential, program, and technical capacity to support active nightlife within the South Mall Campus museums and gardens.
4. Expand Education – Update and expand educational facilities to provide greater flexibility, incorporate new technology, and connect with other SI programs.
5. Engage the Gardens – Capitalize on the beauty and popularity of the existing gardens by improving circulation, providing better maintenance facilities, integrating with museum programs, and expanding their ability to accommodate large groups.

6. Connect the Campus – Improve circulation across the campus to encourage entry from the National Mall, facilitate east-west pedestrian flow both at- and below-grade, and remove impediments to a connected campus.
7. Convene & Collaborate – Provide opportunities and venues for pan-Institutional collaboration, meetings, and events.

The resulting vision for the South Mall Campus Master Plan evolved throughout this process and is reflective of intense and iterative dialogue between the SI and the Master Plan team. The seven key priorities shaped the purpose and need for the proposed Master Plan.

1.5 WHAT IS THE PURPOSE OF PREPARING A MASTER PLAN FOR THE SOUTH MALL CAMPUS AND WHY IS IT NEEDED?

The purpose of a proposed South Mall Campus Master Plan is to guide future short-term and long-term renovation and development of the 17-acre area known as the South Mall Campus, which includes the Castle, the Quadrangle Building (the Ripley Center, the Sackler Gallery, the NMAfA, and the rooftop Enid A. Haupt Garden), the Freer Gallery, the AIB, the Hirshhorn Museum and Sculpture Garden, the Folger Garden, and the Ripley Garden.

The Master Plan is needed to meet SI's long-term space requirements and to address physical and operational deficiencies across the campus that impact visitor use and experience as well as SI's ability to implement its programs effectively and safely. SI identified the following needs for the campus:

- Restore, repair, and rehabilitate historic properties;
- Replace roofs and building systems that are at the end of their useful lives;
- Improve accessibility and usability by individuals with disabilities;

- Improve circulation throughout the campus, including creation of a clear east-west at-grade pedestrian connection from the east side of the Freer Gallery to the Hirshhorn Museum Plaza;
- Improve access and visibility from the National Mall and the Castle for the NMAfA and Sackler Gallery entrances;
- Create expanded and linked centralized visitor services and education spaces;
- Provide additional museum and event space;
- Establish a new central utility plant and related infrastructure to reduce energy and operating costs and greenhouse gas (GHG) emissions;
- Provide expanded below grade loading and delivery facilities serving the Quadrangle Building, Castle, AIB and Freer buildings; and
- Update security measures to meet SI and federal requirements.

1.6 WHAT ELEMENTS WILL BE INCLUDED IN THE MASTER PLAN?

The Master Plan will be based on holistic planning principles and objectives for supporting the mission, responsibilities, and functions of SI, and it will document existing conditions and proposed developments and changes. The Master Plan will provide a cohesive urban design framework to guide land use and the character of future individual projects and historic preservation for buildings and landscapes. The Master Plan will include analysis of and a physical planning approach to address the needs for:

- Additional and repurposed space;
- Land and building uses;
- Adjacency requirements;
- Projected visitor and staff populations;
- Sustainable traffic, service, and parking solutions;
- Coordination for consistency with relevant SI, federal, and local plans, regulations, and policies;
- Analysis of the effects on historic resources; and

- Proposed strategies for energy conservation and storm water management.

Finally, the Master Plan will include a proposed phasing plan for projects. This will help inform SI's capital plan for federal and trust (private) funding, including projects related to temporarily or permanently relocating programs, staff, and collections as necessary to implement the Master Plan.

1.7 RELEVANT ENVIRONMENTAL LAWS AND REGULATIONS

1.7.1 WHAT IS NEPA AND THE NEPA PROCESS?

NEPA is the nation's legislative charter for protection of the environment. NEPA requires federal agencies to consider environmental impacts of their projects during federal agency planning and decision making. NEPA requires federal agencies to prepare an EIS if the project may have significant impacts or if the significance of the impacts that may result from the proposed action is unknown. This EIS has been prepared in accordance with the CEQ regulations for implementing NEPA (40 Code of Federal Regulations (CFR) 1500-1508). Public involvement is an important part of the NEPA process. Title 40 CFR Part 1500.1(b) states, "NEPA procedures must ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken." By involving citizens, stakeholder groups, and local, state, and federal agencies, the federal government can make better informed decisions.

Through the NEPA process, the public has had and will continue to have opportunities to comment on the proposed South Mall Campus Master Plan. As described in **Chapter 2: Public and Agency Involvement**, the public was given an opportunity to participate in the scoping process. "Scoping" is a tool for identifying the issues that should be addressed in an EIS and in accordance with Section 106 of the National Historic Preservation Act (NHPA). Scoping allows the public to help define priorities and express stakeholder and community issues

to the agency through oral and written comments. NCPC and SI also held public hearings on the Draft EIS on December 11, 2017 and December 18, 2017 at the NCPC to provide an opportunity for the public to learn more about the project and its potential impacts and to document their comments and concerns about the content of the EIS. The meetings were also live-streamed online. More information on scoping, scoping meetings with the public and agencies, and the review of the Draft EIS are discussed in detail in **Chapter 2: Public and Agency Involvement**.

NCPC and SI have considered impacts to these and other resources in this EIS. Under NEPA, individuals and agencies have 30 days to review the Final EIS. Following the 30-day review period for the Final EIS, SI and NCPC will make a decision on which alternative will be implemented as part of the South Mall Campus Master Plan. SI and NCPC will base their decision upon the comments received on the EIS and through consultations with Federal and District agencies. This decision will be documented in a Record of Decision (ROD). The ROD will outline the selected alternative for the Master Plan and describe measures the government will take to reduce impacts to the environment.

1.7.2 WHAT IS SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT?

The [National Register of Historic Places](#) is the nation's official list of cultural resources worthy of preservation. Properties listed in the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture.

The National Historic Preservation Act of 1966 (NHPA) requires federal agencies take into account the effects of their actions on historic resources. Section 106 of the NHPA requires federal agencies to consider the effects of their undertakings on historic properties, and afford the Advisory Council on Historic Preservation (ACHP) as well as interested Consulting Parties, a reasonable opportunity to comment. Under the historic preservation review process mandated by Section 106 of the NHPA as outlined in regulations issued by the ACHP (CFR 36 § 800.4), SI must evaluate the undertaking to determine if it is a type of activity that could affect historic properties, which are defined as a district, site, structure, building, or object listed in or eligible for listing in the National Register of Historic Places (NRHP). The entire South Mall Campus is

located within the National Mall Historic District, which is listed in the DC Inventory of Historic Sites and the NRHP. The Freer Gallery, the Castle, and the AIB are individually listed on the DC Inventory and the NRHP. The Castle and AIB buildings have additionally been designated as National Historic Landmarks. The Smithsonian Quadrangle Historic District was recently listed on the DC Inventory, and encompasses the Quadrangle Building, Castle, Freer Gallery, and AIB. The Hirshhorn Museum and Sculpture Garden has been determined eligible for the National Register and the National Register nomination is currently underway. The entire campus is set within the framework of the Plan of the City of Washington, which is listed on the DC Inventory and in the NRHP

National Historic Landmarks are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States.

Section 106 review encourages preservation of historic properties; however, at times, impacts to historic resources cannot be avoided. When an undertaking must impact historic resources, the federal government is required to consult with local, state, and federal agencies responsible for historic preservation, local citizens, and groups with an interest in historic preservation. Opportunities for public comment on historic preservation issues were provided during scoping and Consulting Parties meetings held between 2014 and the present. The public is also encouraged to comment on historic preservation issues during the public review period of this EIS.

Additional information regarding Section 106 consultation can be found in **Chapter 2: Public and Agency Involvement**.

1.7.3 WHAT OTHER ENVIRONMENTAL LAWS AND REGULATIONS ARE RELEVANT TO THIS PROJECT?

NCPC and SI must comply with all applicable federal, state and local laws and regulations. NCPC and SI are incorporating compliance with these laws and regulations into their project planning and NEPA compliance. A listing of these laws and regulations can be found in the box below.

STATUTES, REGULATIONS, PLANS, AND EXECUTIVE ORDERS

Statutes

Clean Air Act of 1970 as amended (42 U.S.C. § 7401, et seq.)
Clean Water Act of 1977 as amended (33 U.S.C. § 1251, et seq.)
Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. § 9601, et seq.)
Archaeological Resources Protection Act of 1979 (16 U.S.C. §470aa-mm)
Endangered Species Act of 1973 (16 U.S.C. §1531-1544)
Section 5 of the National Capital Planning Act of 1952 (82 P.L. 592; 66 Stat. 781, et seq.); (codified as amended at 40 U.S.C. §8722(b)(1))
Resource Conservation and Recovery Act of 1976 (42 U.S.C. § 6901, et seq.)
National Energy Conservation Policy Act (42 U.S.C. §8231, et seq.)
Energy Independence and Security Act (42 U.S.C. §17001, et seq.)
National Historic Preservation Act of 1966 (16 U.S.C. § 470, et seq.) (89 P.L. 665 (1966)); (referred to herein as "Section 106")

Regulations

Council on Environmental Quality Regulations (40 Code of Federal Regulations Parts 1500-1508)
36 CFR Part 800 – Protection of Historic Properties
32 CFR Part 229 – Protection of Archaeological Resources: Uniform Regulations
40 CFR 6, 51, and 93 – Conformity of General Federal Actions to State or Federal Implementation Plans
33 CFR 320-330 – U.S. Army Corps of Engineers Regulations
40 CFR Parts 300 through 399 – Hazardous Substance Regulations
Secretary of the Interior Standards and Guidelines for Archaeology and Historic Preservation (48 Federal Register 44716)

Executive Orders

Executive Order 11593 – Protection and Enhancement of the Cultural Environment
Executive Order 11988 – Floodplain Management
Executive Order 11990 – Protection of Wetlands
Executive Order 12699 – Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction
Executive Order 12898 – Environmental Justice
Executive Order 13287 – Preserve America
Executive Order 13327 – Federal Real Property Asset Management
Executive Order 13693 – Planning for Federal Sustainability in the Next Decade

1.8 WHAT INTERRELATED PLANS AND PROJECTS GUIDE THE DEVELOPMENT OF THE SOUTH MALL CAMPUS?

There are many coordinated federal, District of Columbia, and interagency planning efforts in effect in the National Mall and South Mall Campus area. NCPC, the District of Columbia, the NPS, and many other agencies and organizations share the goal of preserving and protecting the history and character of the National Mall and the SI while promoting urban growth and development in nearby areas. These interrelated efforts are summarized below.

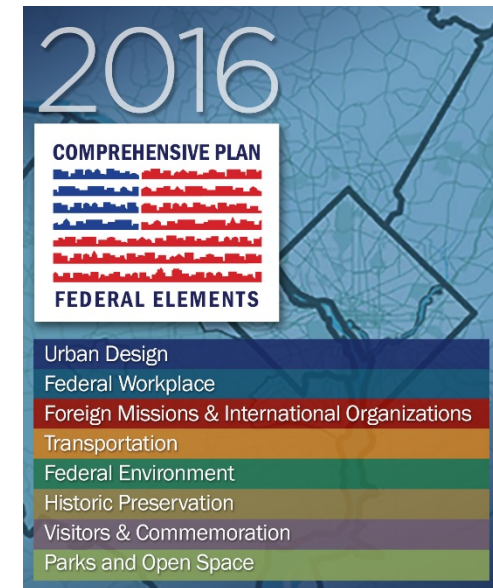
1.8.1 WHAT INTERAGENCY PLANNING EFFORTS ARE APPLICABLE TO THE SOUTH MALL CAMPUS MASTER PLAN?

1.8.1.1 THE COMPREHENSIVE PLAN FOR THE NATIONAL CAPITAL

Development within the District of Columbia is guided by *The Comprehensive Plan for the National Capital*, which includes goals, objectives, and planning policies to direct and manage growth. This plan contains both Federal Elements and District of Columbia Elements.

The Federal Elements of the Comprehensive Plan are prepared by NCPC and provide a policy framework for the federal government in managing its operations and activity in the National Capital Region (NCPC, 2016). The Federal Elements primarily address issues related to federal property and interests in the National Capital Region. Federal Elements include:

- Urban Design
- Federal Workplace
- Foreign Missions & International Organizations
- Transportation
- Federal Environment
- Historic Preservation
- Visitors & Commemoration
- Parks & Open Space



The Comprehensive Plan for the National Capital: Federal Elements

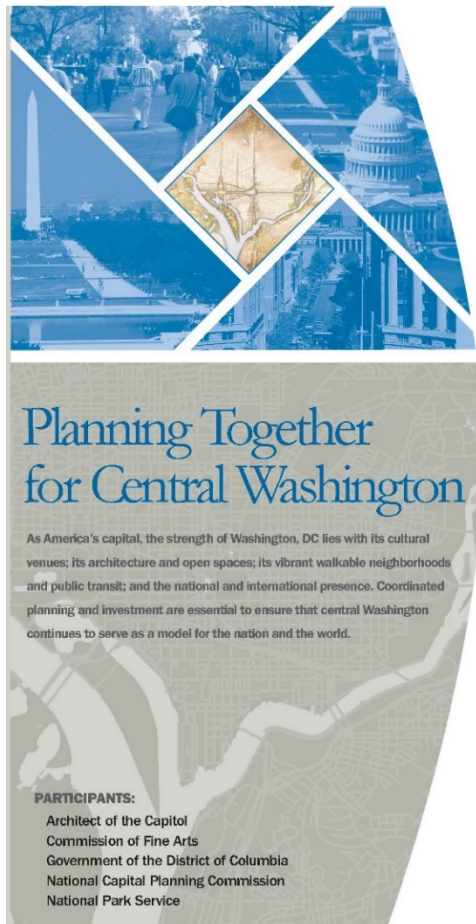
The District Elements of the *Comprehensive Plan* are prepared by the DC Office of Planning (DCOP) and provide a long-term planning framework for 13 Citywide Elements and 10 Area Elements (DCOP, 2007). DCOP is currently in the process of updating the District Elements. The citywide elements address topics that have planning implications for the entire District and include:

- Framework
- Land Use
- Transportation
- Housing
- Economic Development
- Parks, Recreation, and Open Space
- Educational Facilities
- Environmental Protection
- Infrastructure
- Urban Design
- Historic Preservation
- Community Services and Facilities
- Arts and Culture

Goals such as improving pedestrian access, security, and supply delivery are outlined throughout both the Federal and District Elements of the *Comprehensive Plan* and are in line with SI's goals for the South Mall Campus.

1.8.1.2 PLANNING TOGETHER FOR CENTRAL WASHINGTON

In 2008, the District of Columbia, NCP, Commission of Fine Arts (CFA), NPS, and the Architect of the Capitol prepared separate, but overlapping, planning initiatives to establish central Washington, DC as the centerpiece of the region



Planning Together for Central Washington

(the *Center City Action Agenda*, the *Framework Plan*, the *National Mall Plan*, and the *Capitol Complex Master Plan*). These agencies collaborated on the Planning Together for Central Washington brochure to establish common objectives and priorities (NCPC, 2008). Overall, these plans have five of the core objectives in common:

1. Creating a welcoming atmosphere in central DC that is equally attractive to all types of visitors and residents;
2. Connecting key destinations and public space throughout the city by removing barriers and increasing walkability and transit options;
3. Creating and revitalizing neighborhoods and distinctive public spaces to maintain the cultural dignity of America's beloved landmarks and government buildings;
4. Creating a livable, healthy, and sustainable urban environment by reducing emissions and pollutants, planting trees, connecting open spaces, encouraging green building practices, and conserving water and energy; and
5. Establishing a comprehensive, efficient, convenient, and integrated public transit network.

The objectives highlighted in the brochure support SI's vision for the South Mall Campus.

1.8.2 WHAT NATIONAL CAPITAL PLANNING COMMISSION PLANS ARE APPLICABLE TO THE SOUTH MALL CAMPUS MASTER PLAN?

1.8.2.1 Extending the Legacy Plan

The *Extending the Legacy Plan* (Legacy Plan) is a District-wide plan that proposes to extend the monumental core of the city into all quadrants of the District to reduce development pressure around the historic National Mall and surrounding areas (NCPC, 1997). The Legacy Plan, which was introduced in 1997, encourages federal development of museums, memorials, and office buildings into all city quadrants and also proposes public transit improvements to make these areas



Extending the legacy Plan

more accessible from the monumental core. The Legacy Plan builds upon the 1791 L'Enfant Plan and the 1901 McMillan Plan for the District. Since its inception, several proposals from the Legacy Plan have been implemented, such as the DC Circulator bus system, the revitalization of South Capitol Street, and the Yards along the Anacostia Riverfront. Current efforts include transforming the riverfront with recreational trails, parks, and commercial activity, with the goal of revitalizing the adjacent neighborhoods and improving water quality in the Anacostia River (NCPC, 2017).

1.8.2.2 SW ECODISTRICT PLAN

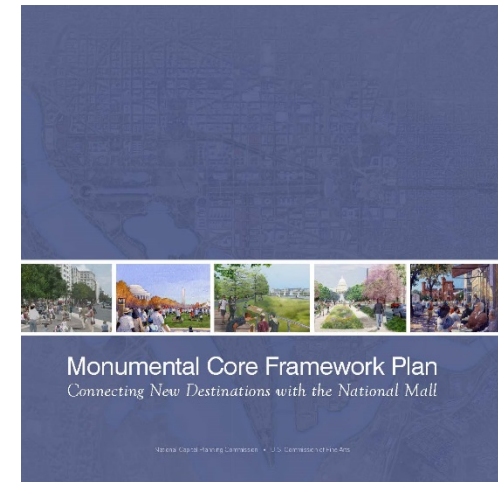
The *SW Ecodistrict Plan*, approved by NCPC in 2013, is a comprehensive approach to revitalize an isolated federal precinct in southwest Washington, DC into a sustainable, connected, mixed-use neighborhood by 2030 (NCPC, 2013). The SW Ecodistrict is a 110-acre area located immediately south of the South Mall Campus project area, bounded by Independence Avenue, SW to the north, Maine Avenue, SW to the south, 12th Street, SW to the west, and 4th Street, SW to the east. The area consists of eight federal buildings, including the Federal Aviation Administration, General Services Administration (GSA), US Department of Housing and Urban Development, US Department of Energy, and US Postal Service offices, as well as eight privately owned buildings and three parks administered by the NPS. The plan recommends district-scale sustainable practices to integrate land use, public transit and transportation, and environmental planning with high-performance buildings, landscapes, and infrastructure, rather than traditional single-building-scale strategies. The plan also seeks to extend the civic qualities of the National Mall to the waterfront and Benjamin Banneker Park and establish new cultural destinations such as museums and memorials in the SW Ecodistrict. As part of the Plan and GSA's redevelopment plan for this area, the Department of Energy building would be transferred out of federal ownership and redeveloped. The buildings along the south side of Independence Avenue, SW could potentially be taller and closer to Independence Avenue, SW. An addendum to the SW Ecodistrict Plan was issued

in September 2014 to incorporate follow-up studies and other plans since 2013 (NCPC, 2014). Ultimately, the implementation of the SW Ecodistrict Plan will increase area connectivity, including to and from the National Mall and the South Mall Campus.

1.8.2.3 MONUMENTAL CORE FRAMEWORK PLAN

The *Monumental Core Framework Plan*, prepared by NCPC and CFA in 2009, builds upon the Legacy Plan's goals to locate future cultural attractions and federal buildings outside of the immediate National Mall area into all four quadrants of the city (NCPC/CFA, 2009). Locating federal workspaces and cultural destinations in developing neighborhoods would encourage local investment and revitalize those communities. In support of this goal, the Framework Plan also establishes the need to create and strengthen connections to these new locations through infrastructure improvements, walkable corridors, and multimodal transit. Like the Legacy Plan and the Memorials and Museums Master Plan, this plan will alleviate pressure to add new memorials to the National Mall while encouraging greater accessibility.

The South Mall Campus Master Plan addresses revitalization, restoration and expansion of existing museums and the Castle Visitor Center within their current site, with the expansion occurring below grade. By consolidating entrances and loading, the amount of open space adjacent to the Mall will increase. By opening up the site and the visibility of the iconic Castle towards the southwest, the plan facilitates connections to that neighborhood's expanding mixed-use development to the south, including cultural facilities such as the Anthem at the Wharf and the Spy Museum along the 10th Street/L'Enfant Plaza SW. To facilitate implementation of the South Mall Plan's Castle Restoration, the Smithsonian plans to expand its current Administrative Headquarters presence with additional office space in southwest DC.

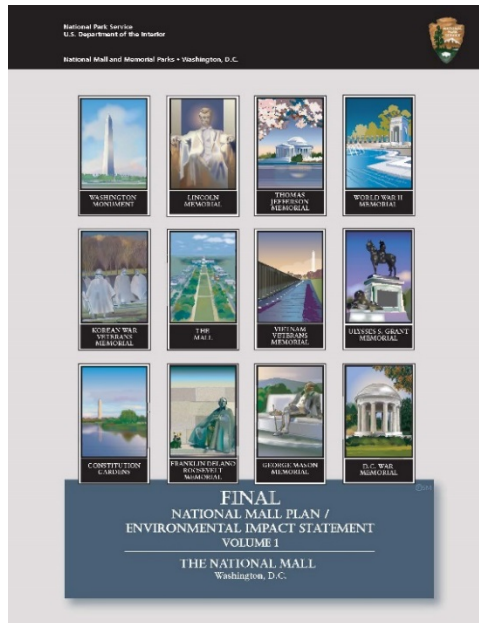


The Monumental Core Framework Plan

1.8.3 WHAT NATIONAL PARK SERVICE PLANS ARE APPLICABLE TO THE SOUTH MALL CAMPUS MASTER PLAN?

1.8.3.1 NATIONAL MALL PLAN

The *National Mall Plan and Environmental Impact Statement* proposes to rehabilitate and refurbish the National Mall to maintain its value as a premier civic and symbolic space (NPS, 2010a). The Plan includes strategies to rehabilitate the historic landscape, including memorials and planned views; maintain and improve the open areas of the National Mall in support of public gatherings, demonstrations, events, and other intense uses; and enhance urban recreation and sustainable urban ecology. The document evaluates the potential impacts of the Preferred Alternative, three other action alternatives, and a No-Action Alternative on cultural, natural, civic use, and socioeconomic resources in the National Mall area. The Plan was prepared by NPS, with consultation and input from several federal, regional, and District agencies, including SI. The improvements made under this plan will continue to make the National Mall a premier destination in DC and encourage visitation to the surrounding amenities such as the South Mall Campus.



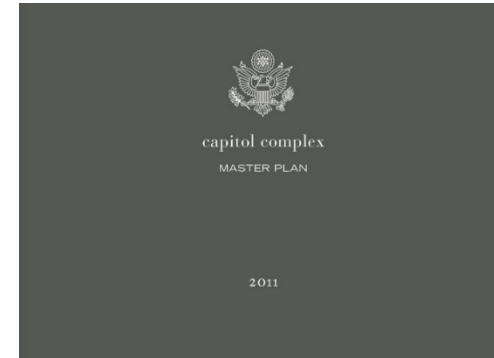
The National Mall Plan

1.8.4 HOW DOES THE ARCHITECT OF THE CAPITOL-CAPITOL COMPLEX MASTER PLAN APPLY TO THE SOUTH MALL CAMPUS?

The *Capitol Complex Master Plan* is a long-range plan and implementation strategy for the maintenance and rehabilitation of the Capitol Complex, including the Capitol Building, congressional office buildings, the Library of Congress, the Supreme Court, the US Botanic Garden, the Capitol Power Plant, and other federal facilities around the eastern portions of the National Mall. This plan sets forth the Architect of the Capitol's goals for stewardship, urban planning, and office and tourist needs. The overall goal of the Capitol Complex Master Plan is to ensure that Congress and the public have sustainable, safe, and high-quality facilities and grounds in which to work and visit (NCPC, 2008). Improving visitor use and experience around the National Mall supports SI's efforts on the South Mall Campus.

1.8.5 HOW DOES THE DC MULTIMODAL LONG-RANGE TRANSPORTATION PLAN (*moveDC*) APPLY TO THE SOUTH MALL CAMPUS MASTER PLAN?

The *moveDC Plan* presents a sustainable, safe, and efficient multimodal transportation network for the District that meets the needs of residents, commuters, and visitors for the next 25 years. The plan aims to expand transportation choices throughout the city, improve the reliability of all transportation modes, strengthen connections between neighborhoods, and address congestion in the monumental core and downtown areas of the District. *moveDC* will improve visitor use and experience at the South Mall Campus by providing reliable, efficient, and safe transportation options for campus visitors. The SI does not provide any parking for the public and provides a limited amount for staff and volunteers at locations other than the South Mall, so is highly reliant on a robust public transit system.



The Capitol Complex Master Plan



MoveDC

CHAPTER 2

NEPA PUBLIC INVOLVEMENT PROCESS

Scoping
December 16, 2014 – January 30, 2015

Public Scoping Meeting
December 16, 2014

Notice of Intent to Prepare EIS
January 13, 2016

Additional Scoping Period
January 13 – February 22, 2016

Publication of Draft EIS in Federal Register
November 17, 2017

Public Review of Draft EIS
November 17, 2017 – January 16, 2018
(60-day review)

Public Hearings
December 11, 2017 (5:00-7:00PM)
December 18, 2017 (10:00AM-12:00PM)

Final EIS Review Period
April 20 – May 21, 2018

NCPC **Draft Master Plan Review**
April 5, 2018

Record of Decision June 2018

NCPC Final **Master Plan Review**
June 7, 2018

PUBLIC AND AGENCY INVOLVEMENT

2.1 HOW WERE THE PUBLIC AND GOVERNMENT AGENCIES INVOLVED IN THE PREPARATION OF THE EIS?

Recognizing that the South Mall Campus, particularly the iconic Smithsonian Castle and gardens, are of great importance to all Americans, the South Mall Master Planning effort has and will continue to emphasize open and inclusive communications to engage the public and to understand their desires and concerns. NCPC and SI began the preparation of an Environmental Assessment (EA) in 2014 for the proposed South Mall Campus Master Plan. In September 2014, SI Facilities staff met with representatives of DC and federal external agencies and neighbors, including CFA, NCPC, DCOP, District Department of Transportation (DDOT), the US Department of Agriculture, the GSA, and the NPS among others, to introduce them to the project as a first step in the public phase of input to the plan.

As part of the EA process, the public was given an opportunity to participate in the scoping process through a scoping meeting held at the Castle on December 16, 2014. The scoping comment period for the proposed South Mall Campus Master Plan was open from December 16, 2014 through January 30, 2015. SI and NCPC initiated the public involvement processes through the distribution of scoping letters to federal, state, local agencies, elected officials, and other interested parties. The scoping meeting provided a forum for the project team to present the proposed action to the public and explain the NEPA and Section 106 processes. The meeting included a presentation of potential Master Plan alternatives and SI and consultant staff were on hand to address additional questions and receive public comments. Based on the information obtained and additional coordination with local and federal agencies, NCPC and SI determined

that preparation of an EIS was warranted rather than an EA. NCPC issued a Notice of Intent (NOI) to prepare an EIS on January 13, 2016 and reopened the scoping period until February 22, 2016. NCPC and SI have prepared this EIS to ensure that changes to the area in and around the South Mall Campus resulting from the proposed Master Plan are assessed and to identify the significant issues related to this action.

2.2 WHAT ISSUES WERE RAISED BY THE PUBLIC AND OTHER GOVERNMENT AGENCIES DURING SCOPING AND HOW ARE THEY ADDRESSED IN THE EIS?

During the scoping period, SI received 88 comments on the proposed South Mall Campus Master Plan. The issues identified during scoping are documented in a Scoping Report included in Appendix C. The key issues include the following:

Museum accessibility:

- Concerns over removing pavilion entrances.
- Support for improved signage to address accessibility concerns.
- Opposition to underground improvements.

Budget:

- Concerns over cost of implementing the Master Plan.

Specific issues relating to the buildings on the South Mall Campus:

- Support for converting AIB to a visitor center.
- Opposition to lowering the walls surrounding the Hirshhorn Plaza.
- Support for renovations to increase access to the National Mall from the Hirshhorn.
- Opposition to altering the Freer to provide accessible access from the Haupt Garden.

Castle renovations:

- Renovations, seismic upgrades, and system updating should be top priority while preserving the historical integrity of the Castle.
- Opposition to extensive underground construction.
- Support for restoring character of the Castle to its period of significance.

Historic preservation/design concerns:

- Opposition to below-grade access to Visitor's Center, which disassociates the Castle from the Haupt Garden.
- Concerns that the design does not fit with character of the National Mall or follow historic planning documents.
- Concerns that natural light may hurt art collections housed in the Quadrangle Building.

Historic gardens:

- Opposition to changing the designs of any of the gardens in the South Mall Campus.

Environmental:

- Support for implementing renewable energy resources in design concepts.
- Request that climate change and sea-level rise should be considered in design concepts.
- Support for adding trees and vegetation to achieve environmental goals.

Comments received during the scoping period were taken into consideration during the development of the EIS.

During the scoping period, SI received comments from several special interest groups including: Committee of 100 on the Federal City, National Mall Coalition, National Trust for Historic Preservation, Waterfront Gateway Neighborhood Association, American Society of Landscape Architects, Bethesda Community Garden Club, University of Maryland, American Folk Art Museum, and the Guild

of Professional Tour Guides. SI also received scoping comments from NPS and held an informational meeting with CFA. Scoping comment letters received can be found in Appendix C.

A public comment period on the Draft EIS was held from November 17, 2017 through January 16, 2018. A total of 99 comments were received. SI and NCPC also held two public hearings on December 11th and December 18, 2017 at NCPC. Approximately 22 people attended the hearings. A presentation was shown, providing details regarding the impacts of the proposed action on natural, cultural, and socio-economic resources for all of the proposed alternatives. Comment forms were available for attendees to complete. Transcripts of the public hearings can be found in Appendix F.

The comments and responses to the comments that were received on the Draft EIS can be found in Chapter 8. SI and NCPC considered the comments received in the development of the Final EIS. Individuals and agencies will have 30-days to review the Final EIS. Following the 30-day review period, NCPC and SI will make a decision on the Master Plan for the South Mall Campus. NCPC and SI will consider comments received on the EIS when making their decision. This decision will be documented in a Record of Decision (ROD). The ROD will outline the selected alternative for the South Mall Campus Master Plan and describe measures the SI will take to reduce impacts associated with implementation of the Master Plan.

2.3 HOW IS SI CARRYING OUT THEIR REGULATORY OBLIGATIONS UNDER SECTION 106 OF THE NHPA?

Section 106 of the NHPA requires federal agencies to afford the ACHP, the State Historic Preservation Officer (SHPO), and other Consulting Parties a reasonable opportunity to comment on a proposed project (undertaking). While SI is not a “federal agency” as defined by NEPA, SI has a responsibility to comply with Section 106 of the NHPA. SI formally initiated the Section 106 consultation with

the DC SHPO for the South Mall Campus Master Plan undertaking on October 9, 2014. A list of Consulting Parties for Section 106 review was determined, and consultation between NCPC, SI, the project team, review agencies, and Consulting Parties began in December 2014 when a joint NEPA scoping/Section 106 meeting was held and has continued through the EIS preparation period. In addition to consultation at these meetings, representatives of several Consulting Parties have relayed their ideas and concerns regarding the South Mall Campus Master Plan through written communication. A list of Consulting Parties for the South Mall Campus Master Plan is included in Appendix B.

Throughout the project planning for the South Mall Campus Master Plan, NCPC and SI have been seeking input from Consulting Parties on the impacts to the historic resources and ways to avoid and minimize potential adverse effects. As the Consulting Parties meetings have progressed, NCPC, SI, and the Master Planning team have been further refining its plans for the South Mall Campus. Following the presentation of Alternative F to the Consulting Parties at its May 2017 meeting, SI considered alternative designs to incorporate the operational efficiencies of the Alternative F design in such a way that would not intensify or create new adverse effects within Alternative B. The resulting modified Alternative B incorporated a central utility plant within the unexcavated area between the existing Quadrangle and AIB. Table 2-1 provides a summary of Consulting Parties meetings held to date. Complete minutes and presentation materials for these meetings are available on the project website at www.southmallcampus.si.edu.

Table 2-1. Consulting Parties Meetings.

Consulting Parties Meeting Date	Meeting Summary
December 16, 2014	<p>The first Consulting Parties meeting was conducted jointly with the NEPA Public Scoping Meeting. The purpose of this meeting was to provide an overview of the project and its major goals and objectives. To introduce the Section 106 process, NCPC and SI defined the undertaking; presented a draft Area of Potential Effects (APE); and identified historic properties within the APE, including the findings of the ongoing Cultural Landscape Report (CLR) for the South Mall Campus. For the purposes of NEPA, NCPC and SI presented the purpose and need for the project, the potential environmental issues to be addressed in the EIS, and the preliminary alternatives to be analyzed in the EIS. They also provided information on the coordination of the Section 106 and NEPA processes. The presentation was followed by an open house in which attendees could review the alternatives under consideration, provide written or verbal comments, or ask questions.</p> <p>Comments provided by Consulting Parties and meeting attendees were recorded in the South Mall Campus Master Plan Public Scoping Report (June 2015).</p>
March 30, 2015	<p>The second Consulting Parties meeting reiterated several pieces of information from the previous meeting, including the draft APE and preliminary identification of historic properties. NCPC and SI also outlined the roles and responsibility of the Consulting Parties and the anticipated Section 106 consultation schedule.</p> <p>SI presented the Master Plan objectives, including: visitor experience, education programs, museum programs, garden programs, collections, special events and retail, historic preservation, building systems, sustainability, loading and service, safety, security, and urban design.</p> <p>Comments provided by the Consulting Parties included preservation of the campus's historic buildings, public outreach, the availability of technical reports, and seismic protection of the Castle.</p> <p>The presentation was followed by a tour of the South Mall Campus.</p>
June 9, 2015	<p>This meeting focused on a more detailed presentation of the range of alternatives being considered under the EIS and Section 106 processes. It also included a description of alternatives that had been considered but dismissed from further environmental review under the EIS. SI reiterated the historic properties within the campus area and also provided additional information on the goals and objectives that contributed to the development of the Master Plan alternatives.</p> <p>Consulting Parties asked a number of questions for additional information and clarification on the range of alternatives under consideration,</p>
October 7, 2015	<p>This meeting focused on the treatment of the Smithsonian Castle, including historic preservation, seismic protection, and programming needs. SI presented a comparative study of major museum complexes worldwide to benchmark the programmatic needs of the South Mall Campus. SI described the historic development of the Castle and how its varying degrees of integrity would correspond to treatment approaches in the building.</p> <p>SI's consulting structural engineer provided a detailed presentation of the seismic vulnerabilities of the Castle and potential mitigation options, including a comparison of conventional structural reinforcement versus base isolation. The meeting concluded with a recap of the Master Plan alternatives under consideration, illustrating specifically how closely each alternative met its programmatic area needs.</p> <p>Consulting Party comments focused on base isolation and Castle seismic protection.</p>

Consulting Parties Meeting Date	Meeting Summary
January 27, 2016	<p>This meeting focused on the findings of the CLR being prepared for the South Mall Campus. The report was being developed to document the history of the campus and to inform both long-term and immediate treatment options.</p> <p>Smithsonian Gardens also presented its ongoing mission and goals as well as its objectives for the South Mall Campus Master Plan.</p> <p>During the presentation, SI identified several major periods of development and illustrated those with historic photographs and period plan diagrams. During this meeting, SI also provided an update to the ongoing NEPA process, including loading traffic counts and the NOI to prepare an EIS.</p> <p>Consulting Parties commented on the scope and purpose of the CLR and the maintenance of Smithsonian Gardens. They also asked for additional clarification regarding the development of alternatives and the Master Plan and EIS processes.</p>
April 13, 2016	<p>This meeting provided detailed, revised alternatives based on Consulting Party comments and additional material gathered to inform the Master Plan. SI also presented an update to the inventory of historic properties within the APE and project area. Consulting Parties discussed details of the master plan alternatives and how comments would be addressed.</p>
October 26, 2016	<p>To aid in the evaluation of the undertaking's effects on historic properties, SI completed Determinations of Eligibility for listing in the NRHP for the Hirshhorn Museum and Sculpture Garden and the Quadrangle Building. The former determined that the Hirshhorn Museum was eligible for National Register-listing; the latter determined that the Quadrangle Building and landscape were not individually eligible for National Register-listing at this time. SI presented the findings of these reports and the research and evaluation process that led to their conclusions. SI also presented a consolidated matrix of historic resources within the APE.</p> <p>Consulting Parties responded to the findings presented by SI and discussed implications for the Master Plan design.</p>
May 3, 2017	<p>SI presented Alternatives E and F, developed to respond to Consulting Party comments. SI determined the design of Alternative E to be unsuccessful, and dismissed it from evaluation in the EIS. Alternative F, however, was presented in greater detail and would be carried forward for analysis. SI also presented a general update to alternatives presented previously.</p>
July 26, 2017	<p>The purpose of this meeting was to present and discuss potential adverse effects on historic resources across the master plan alternatives. The Consulting Parties offered responses to these findings and discussed approaches to avoid or minimize potential adverse effects. SI also stated that it would dismiss Alternative A from further analysis in the EIS.</p>
May 9, 2018 (expected)	<p>The purpose of this meeting will be to discuss the content of a draft Programmatic Agreement and proposed mitigation.</p>

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CHAPTER 3

ALTERNATIVES

SI has developed **benchmarks** to determine if the Alternatives that SI considered, including those considered and dismissed, meet the **purpose and need**.

3.1 HOW WERE THE SI SOUTH MALL CAMPUS MASTER PLAN ALTERNATIVES DETERMINED?

SI developed the Master Plan for the South Mall Campus by assembling a project team of urban planners, architects, architectural historians, environmental scientists, and engineers. In order to meet the purpose and need of the South Mall Campus Master Plan (as discussed in Chapter 1), SI has defined the following benchmarks for the Master Plan:

- Restore and renovate historic buildings;
- Replace roofs and mechanical systems that have reached the end of their useful life;
- Improve access for persons with disabilities;
- Improve circulation and connectivity within the South Mall Campus and to the SW Ecodistrict and National Mall;
- Improve visibility of the Sackler Gallery and NMAfA entrance pavilions from the National Mall and the Castle;
- Create expanded and linked visitor and education spaces;
- Provide additional museum and event space;
- Establish a new central utility plant that reduces greenhouse gas (GHG) emissions and energy cost;
- Improve and expand underground loading space; and
- Update perimeter and building security.

The Master Plan team considered a range of options for achieving the goals and meeting the purpose and need of the Master Plan. Alternatives were developed

on a spectrum from minimizing impacts on historic resources to fulfilling all benchmarks defined by the purpose and need.

During the development of the alternatives, SI engaged Consulting Parties as is required by Section 106 of the NHPA, as described in Chapter 2. Concept plans were presented on several occasions and the Consulting Parties expressed concerns and provided feedback on each concept. Consulting Parties requested SI and the Master Plan team develop or revise alternatives that:

- Reduce, or eliminate entirely, excavation that would occur beneath the Castle;
- Relocate the centralized utility plant from underneath the Castle
- Remove the realignment of Jefferson Drive;
- Eliminate connecting the Hirshhorn Museum loading dock to the consolidated loading dock which requires boring underneath the 9th Street Tunnel;
- Include a full interior restoration of the Castle;
- Preserve larger portions of the Hirshhorn Plaza walls;
- Preserve the Haupt Garden and Quadrangle Building, including the museum pavilions, garden elements, and associated landscape features;
- Remove the widening of the Independence Avenue, SW sidewalk; and
- Retain the “gardenesque” quality of the Haupt Garden as a compatible setting for the Castle and AIB.

As a result, SI and the Master Plan team developed Alternatives E and F to address the comments and concerns expressed by the Consulting Parties.

Throughout the master planning process and the development of the alternatives, the Master Plan team sought input from public and government agencies through scoping; stakeholder meetings; public meetings with Area Neighborhood Commissions (ANCs) and the general public. The Master Plan

team also sought input from the Consulting Parties in accordance with the Section 106 process.

3.2 WHAT IS THE NO-ACTION AND WHY IS IT CONSIDERED?

Section 1502.14(d) of the CEQ's NEPA regulations requires the alternatives analysis in the EIS to "include the alternative of no action." NEPA requires federal agencies to consider the No-Action Alternative because it provides a baseline for evaluating the environmental impacts against the action alternatives. This baseline allows for a comparison of each of the South Mall Campus Master Plan Action Alternatives to what would happen if a Master Plan for the South Mall Campus was not implemented.

3.3 WHAT WOULD HAPPEN TO THE SOUTH MALL CAMPUS UNDER THE NO-ACTION ALTERNATIVE?

Under the No Action Alternative, the Smithsonian would continue to use the existing interior building spaces and exterior spaces as they do currently with minor adjustments over time to accommodate organizational changes in office areas, minor exhibit-related changes, seasonal garden changes and similar. Desired programmatic changes such as a central loading and mechanical plant would not be implemented. Programmed spaces for restrooms, kitchen, offices, and other uses that are currently impinging on the Castle Great Hall and Upper Great Hall would not be relocated. Additional visitor amenities, galleries and educational spaces would not be added to any of the buildings. Specifically, under the No-Action Alternative, the following occur (See Figures 3-1 and 3-2):

CASTLE

- Continue basic maintenance of interior and exterior façade.
- Upkeep of existing outdated and inefficient mechanical systems.
- Retain undersized and inadequate visitor services.

QUADRANGLE BUILDING AND HAUPT GARDEN

- Patch and repair of roof membrane, as required.
- Replant the Haupt Garden following Quadrangle Building roofing membrane repairs.
- Retain pavilions for each component in the Quadrangle Building with no shared or integrated services.

UTILITIES, LOADING, AND OTHER MUSEUMS

- Retain GSA steam and chilled water, which does not meet museum curatorial exhibit criteria, and continue repairs to individual outdated mechanical systems.
- Patch and repair building envelopes, as required.
- Retain undersized existing loading docks which is not currently accessible to larger vehicles and requires curbside loading. The limited size of the existing loading facility also provides inadequate separation of collections, food services, recycling, and refuse and is undersized for the three facilities it serves.

The No-Action Alternative would not meet the benchmarks for the Master Plan (found on page 3-1). Specifically, it would not:

- Replace outdated mechanical systems with a centralized and energy efficient modern system.
- Adequately serve visitor needs.
- Replace the Quadrangle Building roof.
- Provide a central loading facility.
- Improve Campus circulation, wayfinding, and accessibility.
- Restore the Castle and other museum buildings.
- Provide additional education and event space.
- Update perimeter and building security.

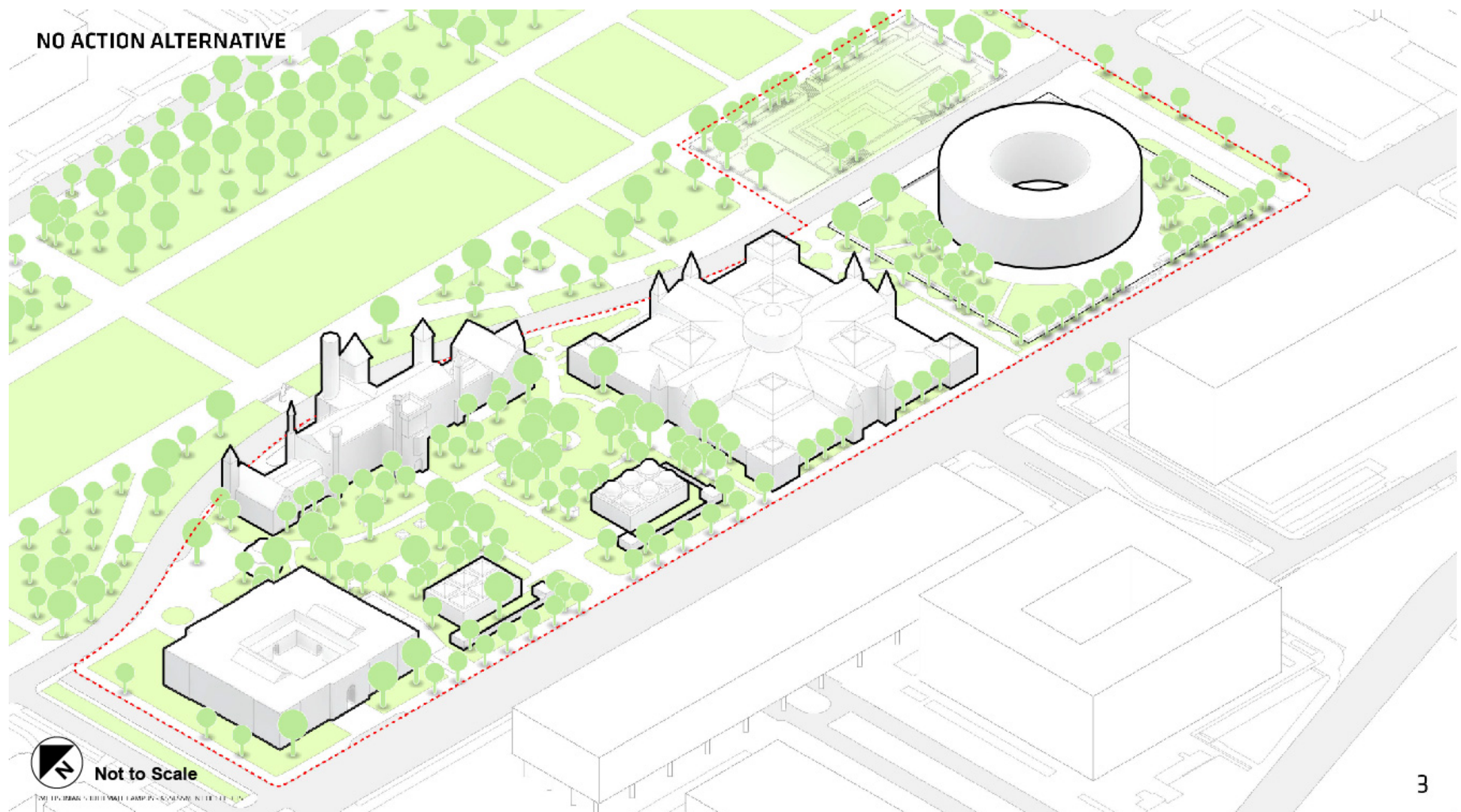
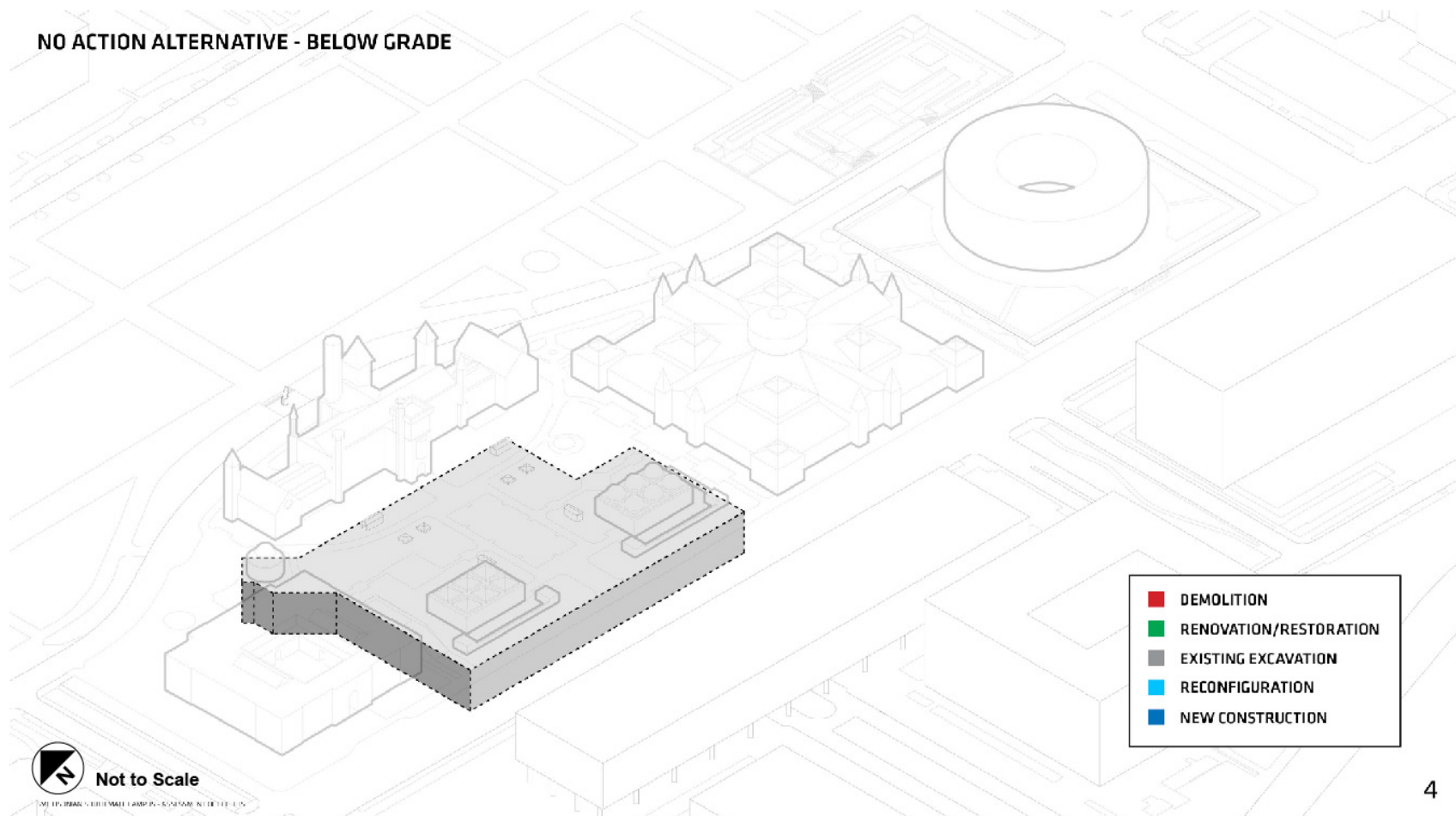


Figure 3- 1 No-Action Alternative.



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Figure 3- 2. Actions Occurring Below Grade – No-Action Alternative.

3.4 WHAT MASTER PLAN ALTERNATIVES HAS SI EVALUATED IN THIS DOCUMENT?

Below follows a discussion of Master Plan Alternatives that have been analyzed in this EIS. It was determined that these alternatives best meet the purpose and need of the project. A discussion of dismissed alternatives and justification for their dismissal can be found in Section 3.5.

3.4.1 WHAT ELEMENTS ARE COMMON TO ALL MASTER PLAN ALTERNATIVES?

SMITHSONIAN INSTITUTION BUILDING (CASTLE)

With all Action Alternatives, a permanent relocation of many of the offices now housed on upper levels of the Castle to an offsite Central Administrative Headquarters, essential to the rehabilitation of the Upper Great Hall and its return to use by the public would occur. These large spaces would provide additional education and assembly space. Similarly, uses currently impinging on the full length of the Great Hall would be relocated to below grade spaces in the rehabilitated Castle Basement and new education and amenities area between the Castle and Quadrangle. The east wing of the Castle would remain as office space for central Smithsonian leadership. The Schermer Hall and the Castle Commons would continue to be public space, made more useful by the lowering of the Commons floor to eliminate the need for a ramp in Schermer Hall. All Master Plan Alternatives would also enhance the security of the Castle through blast mitigation of the building's exterior envelope. Excavation beneath the Castle and seismic upgrades would occur to protect from seismic occurrences. The basement floor would be lowered to provide code-compliant floor to ceiling height and the existing mechanical elements would be removed to expose the

historic masonry vaults, piers, and walls. The new lowered basement floor would allow for a connection from the basement to the new, below-grade education and amenities facility south of the Castle.

FREER GALLERY OF ART

The Freer Gallery of Art remains largely unchanged with the exception of altering the east wall and historic window configuration to create an Americans with Disabilities Act (ADA) accessible entrance, the new loading ramp descending from Independence Avenue on its west side, and below grade service connections to the new loading and central utilities.

QUADRANGLE BUILDING AND HAUPT GARDEN

Elements common to all Action Alternatives include the replacement of the roof membrane of the Quadrangle Building and demolishing the Ripley Center entry pavilion (Ripley Center education facilities to be accessed through the new Visitor Center entrances).

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

For all Action Alternatives, the Hirshhorn Museum and Sculpture Garden retains its current public exhibits space and office areas housed in above grade levels, with the benefit of an improved building envelope and renovated mechanical systems. The Hirshhorn building would be rehabilitated. A new connecting path from its plaza to the AIB would be implemented and the Hirshhorn Plaza and the Sculpture Garden perimeter walls would be restored.

ARTS AND INDUSTRIES BUILDING

For all Action Alternatives, the AIB would continue its current use as a location for a variety of interim uses, special events and exhibits until renovation for a permanent use for AIB, to accommodate a future museum and exhibition-related programming as well as rotating exhibits, is complete.

Accommodation for a permanent use of AIB has been taken into account in the sizing and location of the central loading and mechanical facilities. The non-historic east door of the AIB would be removed and the interior of the AIB would be opened to provide a continuous connection from the Haupt Garden to the Hirshhorn Plaza. The surface parking lot east of AIB would be removed to expand the Ripley Garden. Structural underpinning to the west side of the AIB foundation would be added to accommodate below-grade excavation for the central utility plant.

UTILITIES, LOADING, AND OTHER MUSEUMS

Elements common to all Master Plan Alternatives include the addition of a central mechanical plant to be located below grade between the existing Quadrangle building and the Arts and Industries Building. A central underground loading dock would be below the west end of the Castle and the Freer Gallery's north plaza constructed and would be accessed from a ramp to the west of the Freer Gallery. This larger loading facility would allow the current Sackler loading ramp to be removed from the Haupt Garden and would eliminate the need for the surface loading and parking lot to the east of the AIB building. Centralizing loading allows for the Smithsonian to accommodate the larger trucks used to deliver exhibitions and avoids the need for trucks to maneuver in the street or back down the existing one-way ramp at the Sackler. The new loading would also provide additional recycling space and storage for Smithsonian Gardens grounds keeping equipment and supplies. It would allow a more distinct separation of collections loading from other loading, improving the security and environmental protection of the Smithsonian's national collections and collections loaned by others.

PERIMETER SECURITY ELEMENTS

Perimeter security elements would be installed around the entire South Mall Campus.

3.4.2 ALTERNATIVE B: LIMITED ABOVE GROUND CHANGE

As previously mentioned in Chapter 2, following the presentation of Alternative F to the Consulting Parties at its May 2017 meeting, SI considered alternative plans to incorporate the operational efficiencies of Alternative F in such a way that would not intensify or create new adverse effects within Alternative B. The resulting modified Alternative B incorporated a central utility plant within the unexcavated area between the existing Quadrangle and AIB.

In this alternative, above grade changes would be minimized while still accommodating improvements to the South Mall Campus' infrastructure. For the Quadrangle Building, the current museum pavilions would remain. Consideration would be given to relocating the entrances to the existing full height pavilion windows facing north to provide greater visibility from the Castle and north side of the Haupt Garden. Alterations to the Haupt Garden would be limited to replacement of the Quadrangle Building's roof membrane and improvements to circulation. To protect the Castle from seismic events, base isolation would be used in conjunction with limited reinforcement. Related to the construction of a central loading facility, the Ripley pavilion would be demolished. At the east of the Hirshhorn Museum, the Sculpture Garden wall and existing tunnel would be restored. To better segregate exhibit, event, and trash delivery / transfer an enlarged below grade central loading dock would be built.

Below grade changes would be limited to those needed to create a minimal public connection to the Visitor Center in the Castle – if this was deemed feasible without relocating the museums' vertical circulation cores – and to connect the new loading and mechanical facilities to the existing circulation and

air distribution systems of the Quadrangle. Remaining portions of the former Sackler loading dock would be repurposed for back-of-house support. Smithsonian Associates offices and NMAfA and the Sackler Gallery museum uses would be expanded into space made available by the relocation of some or all of the classroom and Discovery Theater education spaces to the new Castle Visitor Center. An internal connection to the education and amenities center would require further study to determine if this would still be worthwhile because of the distances involved and the conflicts created by crossing paths with secured museum collections circulation that would occur were the museum public entrances and circulation are not moved closer to the Castle as in Alternatives D and F. Therefore, as shown in Figures 3-3, 3-4, and 3-5, in addition to the elements that are common to all Master Plan Alternatives, under Alternative B, SI would:

CASTLE

- Excavate a limited sub-basement area beneath the west end of the building footprint to provide loading and utility support.
- Construct new below-grade amenities and education center in previously unoccupied area between Castle basement and Quadrangle Building.
- Introduce new access stairs to below-grade Visitor Center.

QUADRANGLE BUILDING AND HAUPT GARDEN

- Make minor renovations to sublevels to connect the new loading dock to existing Collections circulation system and to connect the new central utility plant to the existing distribution system.
- Reinstall the Haupt Garden, and retain existing features, after replacement of the Quadrangle Building roof membrane.
- Maintain Quadrangle Building Museum Pavilions (Sackler and NMAfA) and relocate entries to north-facing elevations of existing pavilions.

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

- Remove a small portion of west-facing Hirshhorn Plaza wall to create east-west circulation.
- Restore/reopen the original tunnel connection between the Hirshhorn Plaza and Sculpture Garden.

UTILITIES AND LOADING

- Construct a new below-grade utility plant in an unexcavated area west of AIB.

Alternative B meets some of the benchmarks of the Master Plan (found on page 3-1). Specifically, these actions would:

- Restore and renovate historic buildings.
- Replace roofs and mechanical systems that are at the end of their useful life.
- Improve access for persons with disabilities.
- Improve circulation and connectivity within the South Mall Campus.
- Create expanded visitor and education spaces.
- Provide additional museum spaces.
- Establish a new central utility plant that reduces greenhouse gas emission and energy cost.
- Improve, consolidate, and expand underground loading and delivery space.
- Update perimeter and building security.

The actions under Alternative B would not meet the following Master Plan benchmarks:

- Increase access for persons with disabilities;
- Link visitor amenities in the Quadrangle Building;
- Improve circulation and connectivity within the South Mall Campus;

- Improve daylight below grade;
- Increase visibility of the Sackler Gallery and NMAfA Entrance pavilions; and from the National Mall and the Castle.

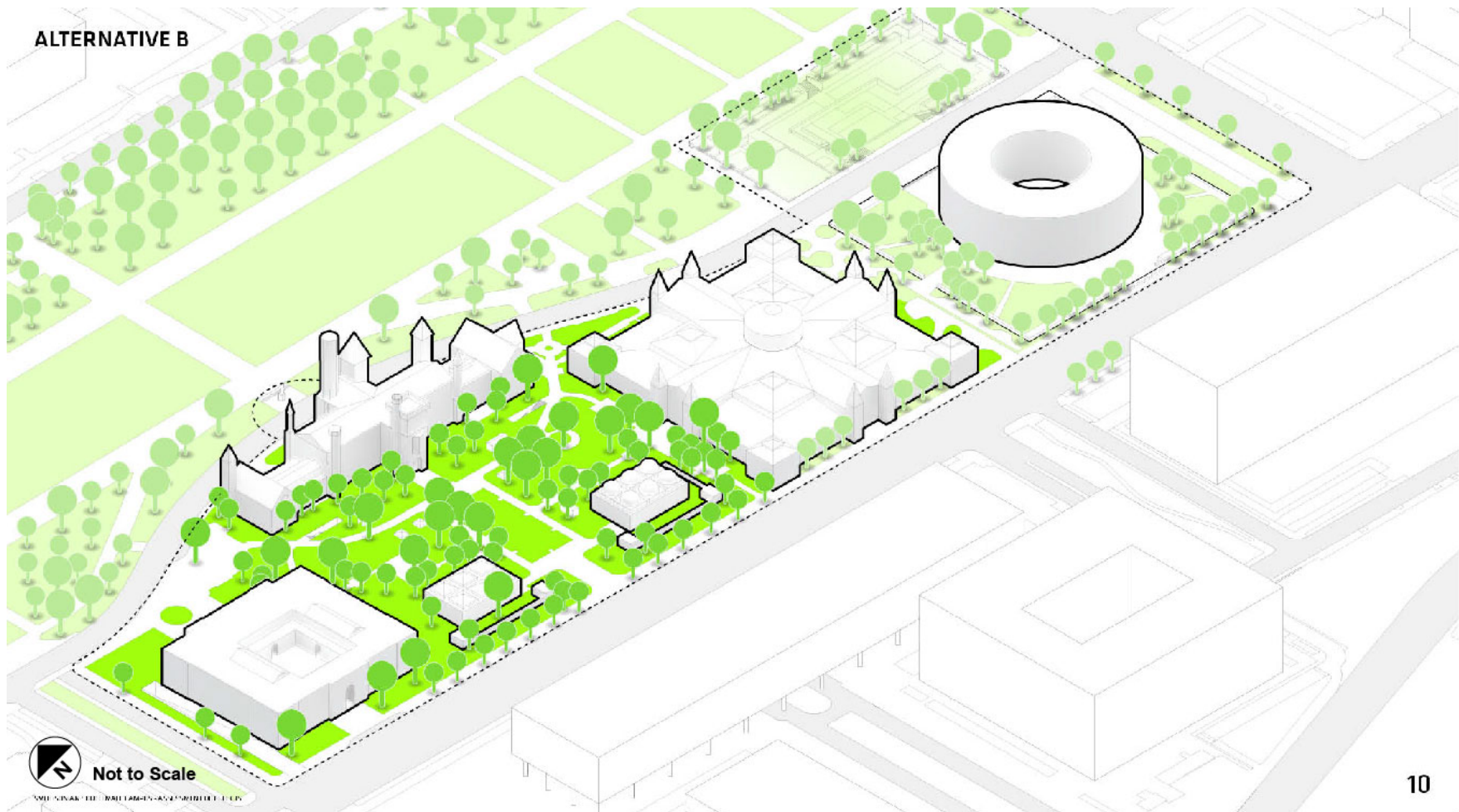


Figure 3-3. Alternative B

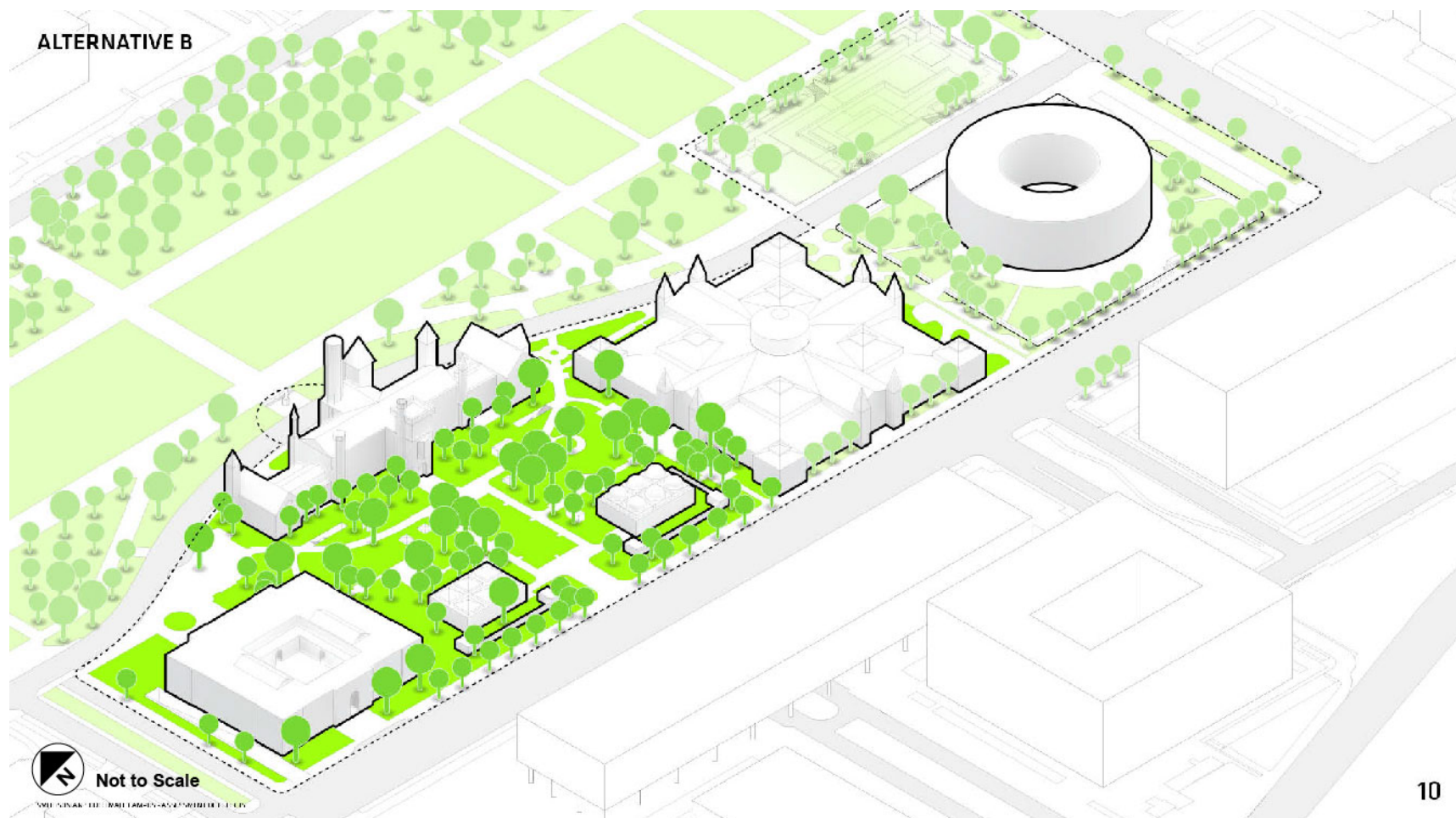
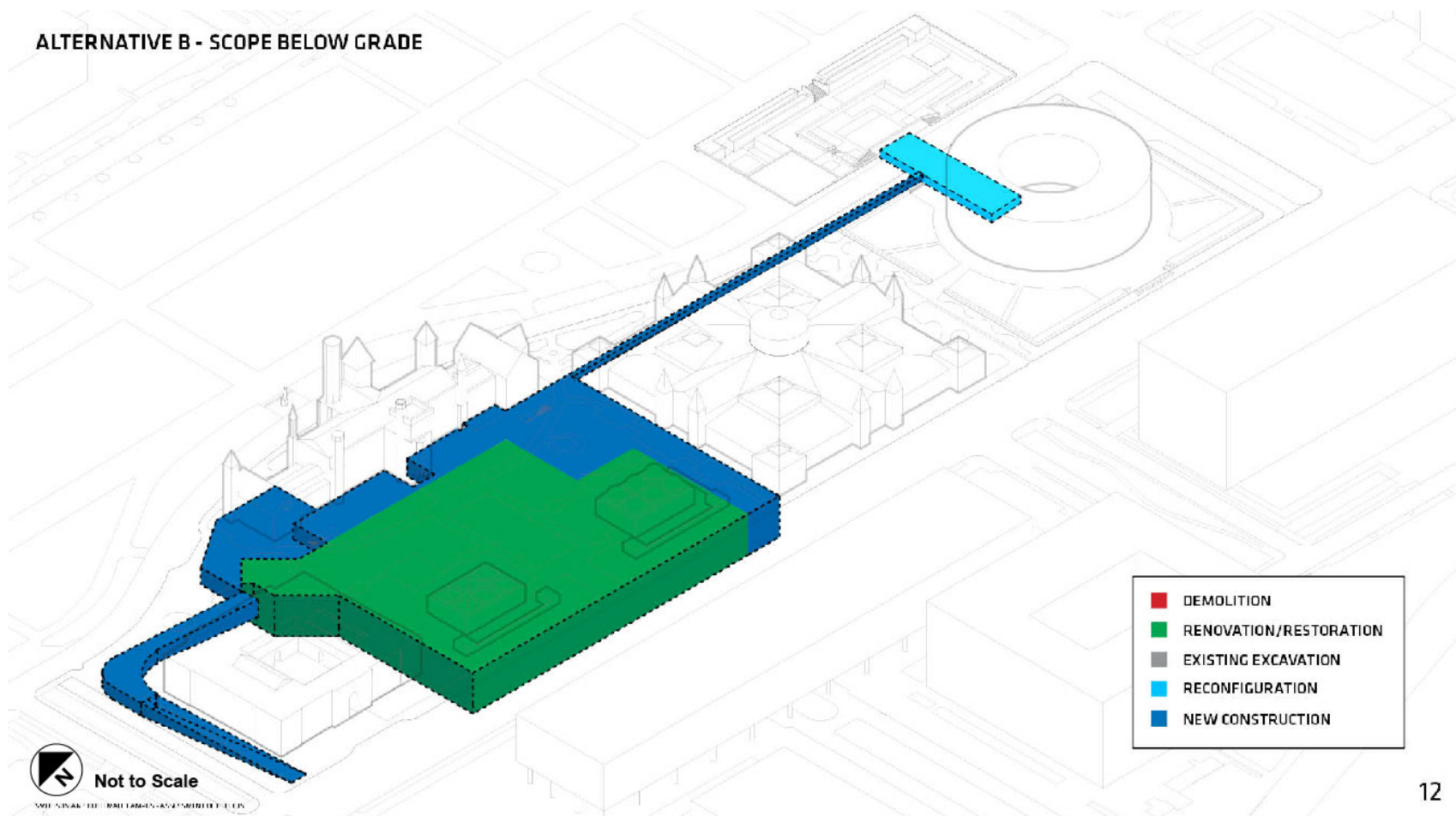


Figure 3- 4. Actions Occurring Above Grade – Alternative B.

ALTERNATIVE B - SCOPE BELOW GRADE



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Figure 3- 5. Actions Occurring Below Grade – Alternative B.

3.4.3 ALTERNATIVE D: PLANE CHANGES ABOVE AND BELOW GRADE

Under Alternative D there would be increased visibility and access entries from the National Mall, new museum pavilions, direct access from garden to amenities, cohesive Campus circulation, and connections between the Castle and Quadrangle Building. The Castle would continue to serve as the Visitor Center for the Smithsonian and a new visitor amenities and education center would be constructed below-grade that would extend between the Castle basement and the Quadrangle Building. It would be accessed via a sloped Haupt Garden that provides for an at grade garden entrance and windows to the garden. Current visitor amenities including a cafe, museum shop, and restrooms would be located below-grade in the Castle so as to enable a less encumbered restoration of the historic above grade public spaces of the Castle and to double the number of visitors accommodated from 1 million to 2 million annually. The amount of space for Smithsonian Associates and other educational programs would similarly significantly increase and would be housed in the Visitor Center as well as at the north end of the reconfigured Quadrangle building. Importantly, the visitor amenities and education spaces would be adjacent and connected and would provide the Smithsonian with a location that includes a central large assembly space with adjacent smaller rooms for breakout sessions, a requirement for many conferences. This would significantly improve the Smithsonian's ability to host scientific meetings and similar gatherings as there are no comparable venues currently.

Alternative D reconfigures the Quadrangle Building to better meet the program needs of the Sackler Gallery and NMAfA and the Smithsonian education programs currently housed there. A key priority for the museums is the location of their entrances closer to the Castle Visitor Center and the National Mall, providing better visitor access as well as benefitting from the ability to share direct access to amenities including the new assembly and education spaces in the Visitor Center. The museums currently are adjacent but separated with little ability to share space and activities and circulate between them. A

Alternative D would provide greater connectivity between the museums, supporting the increasingly pan-Institutional emphasis in Smithsonian programming and research. This alternative would provide the ability for each museum to expand both galleries and back of house spaces while maintaining required separations between public space and collections processing and storage space. The roof of the building would include a substantially reconfigured and expanded Haupt Garden with direct access to the Visitor Center, amenities and education spaces and improved ability to host educational programs and events in the garden.

At the Hirshhorn Museum, Alternative D would provide substantial expansion of gallery space suited to large contemporary artworks through a redesign of the Sculpture Garden that would raise the level of portions of the garden with the new galleries located below. These new galleries would be connected back to the museum through an expanded tunnel beneath Jefferson Drive to reconfigured basement level public space. The Hirshhorn Museum has recently enjoyed a substantial increase in visitation and this expansion below grade would allow it to better serve its visitors and support its ambitious program of changing exhibitions and educational programs.

In addition to circulation enhancements, Campus infrastructure would be developed. At the Castle, seismic base isolation would be installed in conjunction with a central utility plant. To better segregate exhibit, event, and trash delivery / transfer an enlarged below grade central loading dock would be built. Related to the construction of a central loading facility, the Ripley pavilion would be demolished. Therefore, as shown in Figures 3-6, 3-7, and 3-8, in addition to the elements common to all Master Plan Alternatives, under Alternative D, SI would:

CASTLE

- Excavate a sub-basement area that extends beyond the footprint of the Castle to provide loading and utility support.

- Reconfigure Castle basement for use as a Visitor Center and improve connection to Quadrangle Building.

QUADRANGLE BUILDING AND HAUPT GARDEN

- Introduce new, exterior, below-grade dip entrance with universal ADA accessibility to the Visitor Center.
- Replace a portion of Quadrangle Building's roof to allow for a sloped landscape-grade entry to the Visitor Center.
- Expand Haupt Garden and reconfigure garden pathways on to the former footprints of the museum pavilions and loading dock.
- Remove Sackler Gallery and NMAfA museum pavilions and Install new museum entry pavilions closer to the National Mall.
- Remove existing Quadrangle Building egress and skylight structures.
- Expand extent of existing skylights and install new skylights immediately south of the Castle.
- Reestablish historic view of the Washington Monument from south of the Castle.
- Improve historic view of Castle from Independence Avenue, SW.

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

- Remove the Hirshhorn Plaza walls to the north, east and west to open the Museum to the National Mall.
- Expand the tunnel from the Hirshhorn Museum to the Sculpture Garden.
- Remove and reconfigure interior Sculpture Garden walls.
- Reconfigure Sculpture Garden to add new below-grade galleries. The Sculpture Garden would maintain a recessed relationship to the National Mall.

UTILITIES AND LOADING

- Construct a new central utility plant at sub-basement level beneath the Castle.

Alternative D, meets the benchmarks of the Master Plan (found on page 3-1); however, through the Section 106 process, concerns were raised about its potential adverse effects on historic resources because it does not:

- Retain the Quadrangle Building pavilions;
- Limit excavation beneath the Castle;
- Minimize changes to the grade in front of the Castle;
- Preserve Haupt Garden features including intimate garden spaces, parterre, and the Renwick Gates; and
- Preserve walled enclosure of the Hirshhorn Plaza.

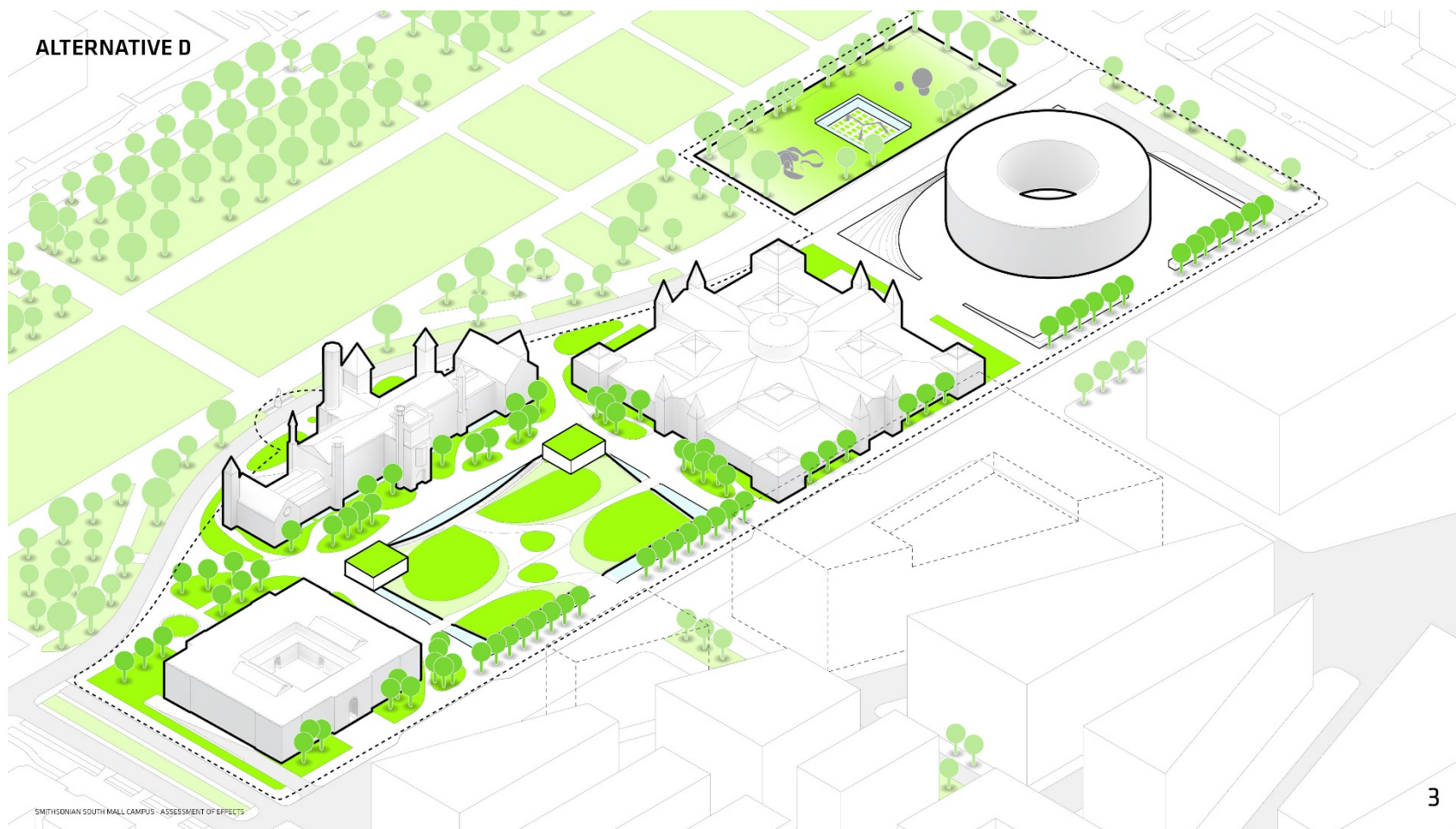
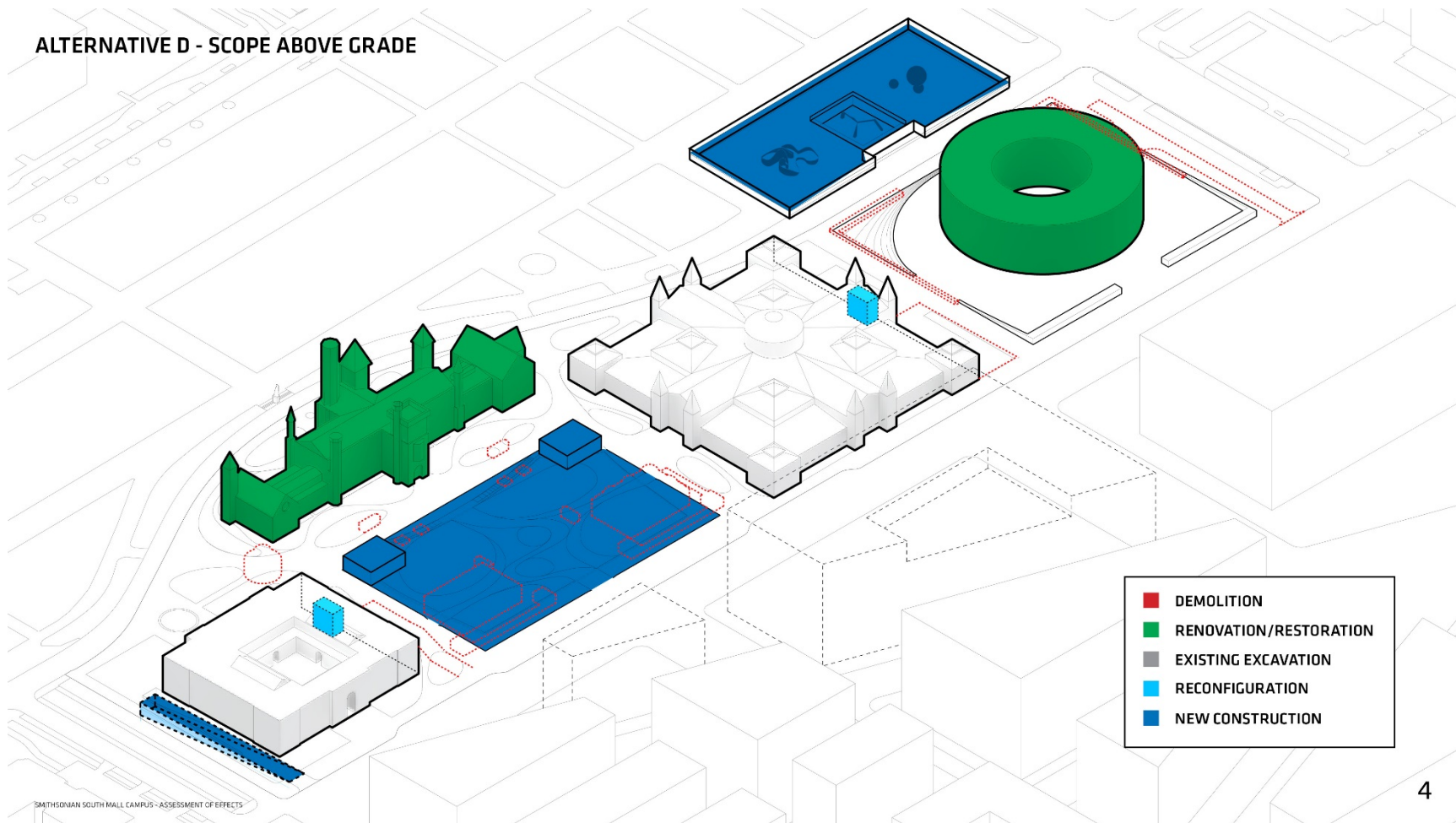


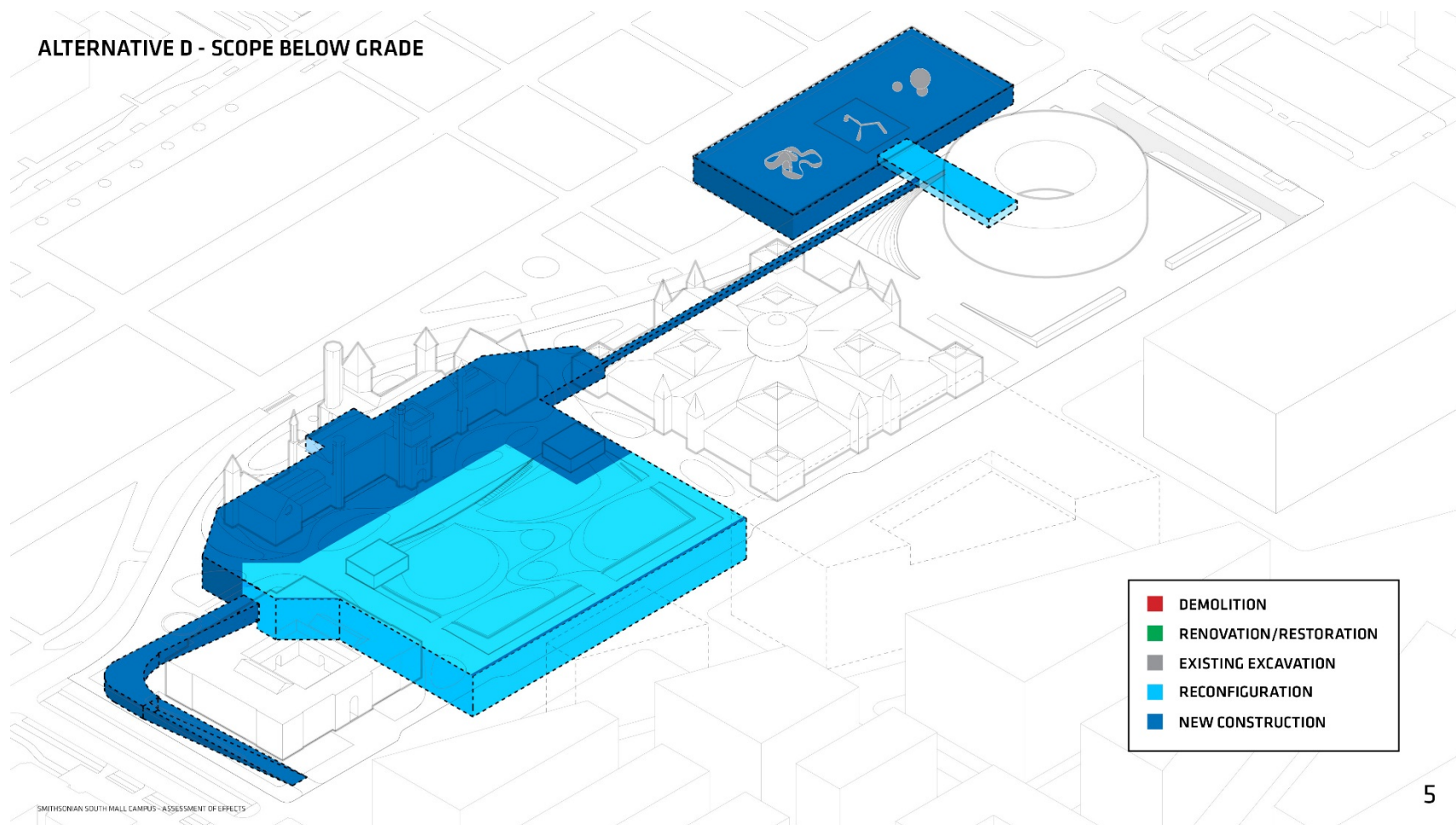
Figure 3- 6. Alternative D.

ALTERNATIVE D - SCOPE ABOVE GRADE



4

Figure 3- 7. Actions Occurring Above Grade – Alternative D.



5

Figure 3- 8. Actions Occurring Below Grade – Alternative D.

3.4.4 ALTERNATIVE F: MAINTAIN FLAT PLANE OF CASTLE AXIS

Alternative F provides Increased visibility and access entries from the National Mall, new museum pavilions, direct access from garden to amenities, cohesive Campus circulation, and connections between the Castle and Quadrangle.

With Alternative F, the Castle would continue to serve as the Visitor Center for the SI and a new visitor amenities space and education center would be located between the Castle basement and the Quadrangle Building. It would be accessed via a new public stairways from the Haupt Garden. Alternative F maintains the character of the Haupt Garden while remaining at grade. Gardens focus on creating both intimate and education spaces. New pavilions provide accessible entry to the Castle Visitor Center and new visitor amenities and education space. Current visitor amenities including a cafe, museum shop, and restrooms would be located below-grade in the Castle so as to enable a less encumbered restoration of the historic above grade public spaces of the Castle and to double the number of visitors accommodated from 1 million to 2 million annually. The amount of space for Smithsonian Associates and other educational programs would similarly significantly increase and would be housed in the Visitor Center as well as in a new assembly space at the north end of the reconfigured Quadrangle Building. Importantly, the visitor amenities and education spaces would be adjacent and connected and would provide the Smithsonian with a location that includes a central large assembly space with adjacent smaller rooms for breakout sessions, a requirement for many conferences. This would significantly improve the Smithsonian's ability to host scientific meetings and similar gatherings as there are no comparable venues currently.

Alternative F reconfigures the Quadrangle Building to better meet the program needs of the Sackler Gallery and the NMAfA and the Smithsonian education programs currently housed there. A key priority for the museums is the location of their above grade entrances closer to the Castle and the National Mall, providing better visitor access as well as benefitting from the

ability to share direct access to amenities including the new assembly and education spaces. The two new entrance pavilions would be smaller than the current three pavilions, increasing the area available for the Haupt Garden. The museums currently are adjacent but separated with little ability to share space and activities and circulate between them. Alternative F would provide greater connectivity between the museums, supporting the increasingly pan-Institutional emphasis in Smithsonian programming and research. This alternative would provide the ability for each museum to expand both galleries and back of house spaces while maintaining required separations between public space and collections processing and storage space. The roof of the building would include a reconfigured and expanded Haupt Garden with improved access to the Visitor Center, amenities, and education spaces; and improved ability to host educational programs and events in the garden. Alternative F would retain many of the characteristics and specific features of the present Haupt Garden including a parterre on axis with the Castle, intimate gardens, gardens themed to adjacent museums and the Renwick Gates at Independence Avenue.

At the Hirshhorn Museum and Sculpture Garden, Alternative F would provide substantial expansion of gallery space suited to large contemporary artworks through a redesign of the Sculpture Garden that would raise the level of portions of the garden with the new galleries located below. These new galleries would be connected back to the museum through an expanded tunnel beneath Jefferson Drive to reconfigured basement level public space. The Hirshhorn Museum has recently enjoyed a substantial increase in visitation and this expansion below grade would allow it to better serve its visitors and support its ambitious program of changing exhibitions and educational programs.

In addition to circulation enhancements, Campus infrastructure would be developed. At the Castle, seismic reinforcement would occur.

To better segregate exhibit, event, and trash delivery / transfer an enlarged below grade central loading dock would be built. Related to the construction of a central loading facility, the Ripley Pavilion would be demolished. Therefore, in addition to the elements common to all Master Plan Alternatives, under Alternative F, as shown in Figures 3-9, 3-10, and 3-11, SI would:

CASTLE

- Excavate a limited sub-basement area beneath the west end of the building footprint to provide loading and utility support.
- Construct new below-grade visitor amenities space in previously unoccupied area between the Castle basement and Quadrangle Building with a new entrance to the visitor amenities space south of the Castle.

QUADRANGLE BUILDING AND HAUPT GARDEN

- Construct exterior entrance stairs to the Visitor Center at north edge of Quadrangle Building and Haupt Garden.
- Expand the Haupt Garden, while remaining at grade.
- Reconfigure garden pathways on to the former footprints of the museum pavilions and loading dock.
- Maintain intimate garden spaces, parterre, and Renwick Gates in the Haupt Garden.
- Remove Sackler Gallery and NMAfA museum pavilions and construct new entry pavilions closer to the National Mall.
- Expand extent of skylights around the Quadrangle Building and Castle.
- Reestablish historic view of the Washington Monument from south of the Castle.
- Improve historic view of Castle from Independence Avenue, SW.

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

- Remove a small portion of west-facing Hirshhorn Plaza wall to create east-west circulation.
- Expand the tunnel from the Hirshhorn Plaza to the Sculpture Garden.
- Reconfigure the Sculpture Garden to add new below-grade galleries. The Sculpture Garden would maintain a recessed relationship to the National Mall.

UTILITIES AND LOADING

- Construct a new below-grade utility plant in an unexcavated area west of AIB.

Under Alternative F, all Master Plan benchmarks (found on page 3-1) would be met and the major concerns raised during the Section 106 process would be addressed because Alternative F would:

- Minimize excavation below the Castle by removing the central utility plant from underneath the Castle;
- Improve intimate Haupt Garden spaces, and retaining Garden features; and
- Reduce grade changes in front of the Castle.

However, the Quadrangle Building pavilions would not be retained.

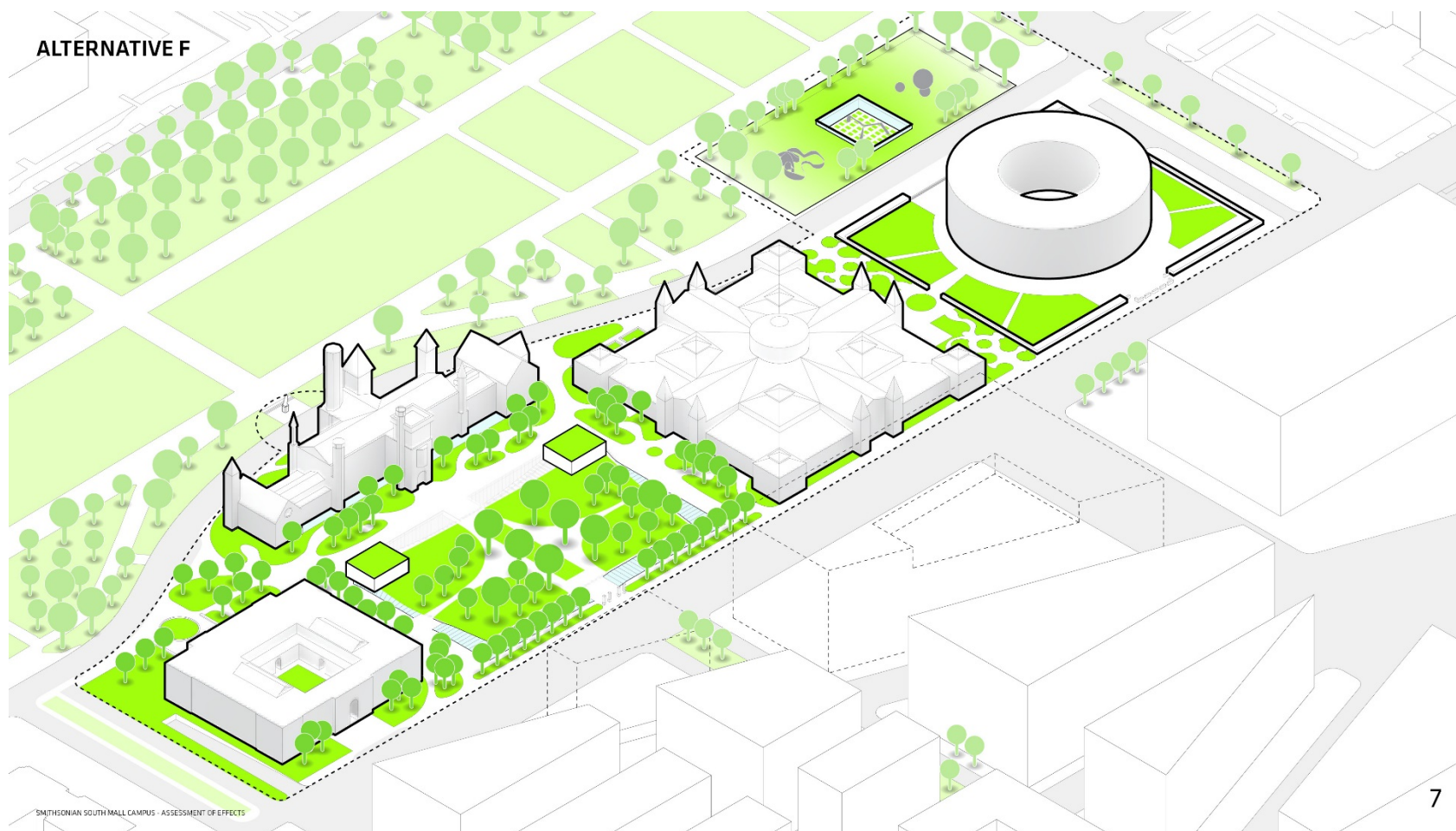
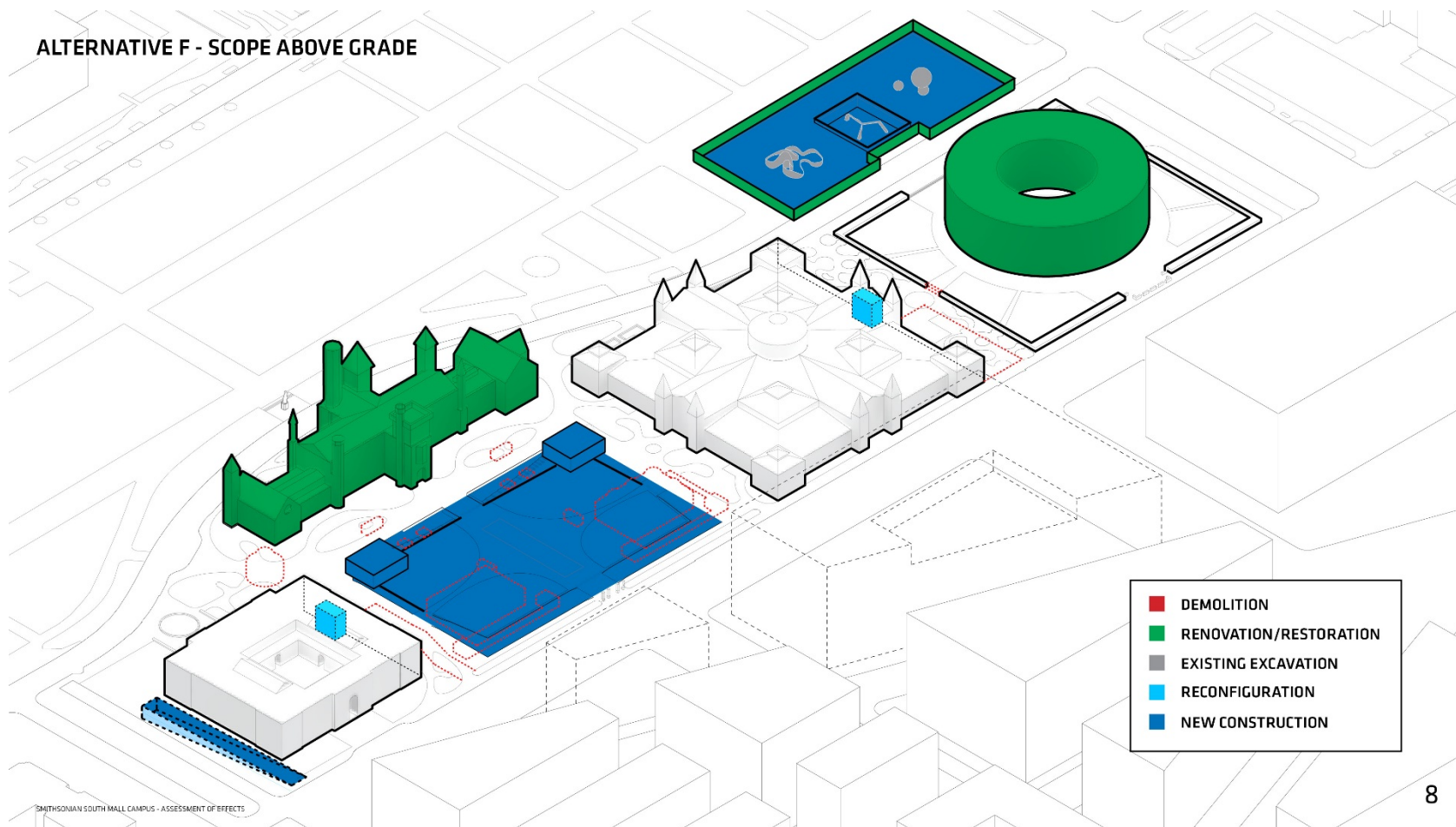


Figure 3- 9. Alternative F.

ALTERNATIVE F - SCOPE ABOVE GRADE



8

Figure 3- 10. Actions Occurring Above Grade – Alternative F.

ALTERNATIVE F - SCOPE BELOW GRADE

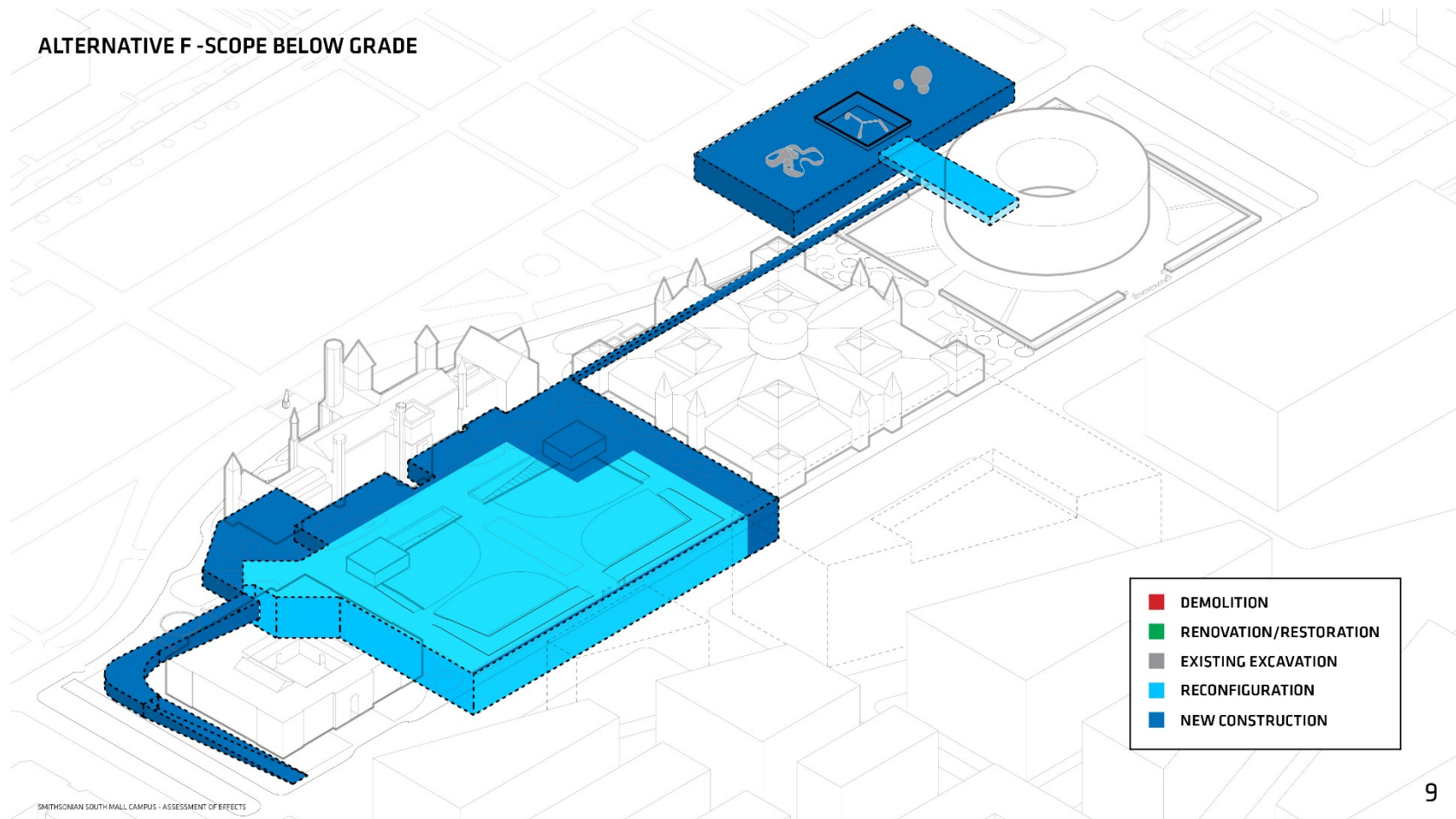


Figure 3- 11. Actions Occurring Below Grade – Alternative F.

3.5 WHAT IS SI'S AND NCPC'S PREFERRED ALTERNATIVE?

In accordance with 40 CFR 1502.14(e), which requires that a preferred alternative be identified in the Final EIS, SI and NCPC have identified Alternative F: Maintain Flat Plane on Castle Axis as the preferred alternative for the South Mall Campus Master Plan. The “preferred alternative” is the alternative which SI and NCPC believe would best meet the purpose and need that will guide future short-term and long-term renovation and development of the South Mall Campus. Alternative F will address SI's long-term space requirements and address physical and operational deficiencies across the campus that impact visitor use and experience as well as SI's ability to implement its programs effectively and safely. However, it is important to understand that the selection of a preferred alternative is not a final alternative selection. A recommendation will be made to the NCPC Commissioners, who will have final approval on the alternative selection and final master plan. This decision will be documented in the ROD.

3.6 WHAT OTHER ALTERNATIVES DID SI CONSIDER, BUT NOT EVALUATE IN THE EIS?

SI undertook extensive analysis of alternatives to meet the project's benchmarks. SI modified and eliminated alternatives based on whether or not they met the purpose and need for the South Mall Campus and the project's benchmarks listed on page 3-1. Alternatives eliminated from further consideration are described below.

3.6.1 ALTERNATIVE A: LIMITED BELOW GROUND CHANGE

Alternative A would minimize above and below grade changes while still accommodating improvements to the South Mall Campus' infrastructure. Throughout the ongoing maintenance of buildings and systems, the facilities would be kept operable. To protect the Castle from seismic events, base isolation would be used in conjunction with limited reinforcement. The Castle

basement floor to ceiling height would be increased. Existing loading facilities would remain. The existing maintenance program for individual mechanical systems would continue. Mechanical systems would remain on GSA supplied steam and chilled water. The Quadrangle Building roof would be replaced under Alternative A.

Alternative A would have the least impact on the existing configuration of buildings; however, this alternative would not fully meet the purpose and need of the South Mall Campus Master Plan nor meet the benchmarks. Specifically, Alternative A would not:

- Replace outdated mechanical systems;
- Adequately serve visitor needs;
- Provide adequate loading;
- Provide new program space; and
- Improve campus circulation and wayfinding

Therefore, this alternative was dismissed from further analysis in this EIS as it failed to meet the greatest number of benchmarks set forth for the project. However, the adverse effects of this alternative were studied in the Assessment of Effects found in Appendix B because the Consulting Parties felt it had the least impact to cultural resources.

3.6.2 ALTERNATIVE C: MAINTAIN FLAT PLANE WITH CHANGES ABOVE AND BELOW GRADE

Alternative C would increase the visibility of access entries from the National Mall, construct new museum pavilions, create cohesive Campus circulation, and connect the Castle and Quadrangle Building. In addition to circulation enhancements, Campus infrastructure would also be developed. At the Castle, seismic base isolation would be installed. In conjunction with the seismic upgrade, a central utility plant would be built beneath the Castle basement. To

better segregate exhibit, event, and trash delivery/transfer an enlarged below grade central loading dock would be built. Related to the construction of a central loading facility, the Ripley pavilion would be demolished. At the Hirshhorn, a new lower level Sculpture Garden gallery would be installed, as well as an expansion of the restored tunnel.

While Alternative C meets the purpose and need, it is similar to Alternative F. After reviewing with the Consulting Parties, it was agreed that Alternative C should be dismissed since its major components are shared with Alternatives D and F, and Alternative F more fully addresses the concerns raised through the Section 106 process. Therefore, it has been dismissed from further analysis in this EIS.

3.6.3 ALTERNATIVE E: MAINTAIN CHARACTER OF GARDENS AND MINIMIZE PLANE CHANGES

Alternative E was developed to address Consulting Parties comments about the preservation of the Haupt Garden's existing features and configuration. The Master Plan team looked at the following:

- A sloped entry to the Visitor Center as found in Alternative D.
- The Haupt Garden features would be transferred to a sloped grade to provide access to the Visitor Center.
- The extent of excavation for the central utility plant and combined loading facility under the Castle.

After consideration, Alternative E was dismissed from further analysis in this EIS because sloping the Haupt Garden into the entry for the Visitor Center did not preserve the character of the Haupt Garden and its features or the historic setting of the Castle.

3.7 WHAT ARE THE IMPACTS FROM EACH ALTERNATIVE?

Table 3-1 provides a concise summary of each alternative's program areas in square footages for comparison. Table 3-1 potential impacts by resource topic, including the No-Action Alternative. More detailed analysis for each alternative can be found in Chapter 4: Affected Environment and Environmental Consequences.

Table 3-1. Comparison of Program Areas

Project Component	No-Action Alternative		Alternative B		Alternative D		Alternative F	
	Above Grade	Above + Below Grade	Above Grade	Above + Below Grade	Above Grade	Above + Below Grade	Above Grade	Above + Below Grade
Castle (SIB)*	120,000	147,000	98,000	235,000	98,000	268,000	98,000	235,000
Quadrangle Building	12,000	340,000	12,000	340,000	3,000	332,000	2,000	355,000
Freer Gallery	84,000	130,000	84,000	130,000	84,000	130,000	84,000	130,000
AIB	179,000	186,000	TBD**	TBD**	TBD**	TBD**	TBD**	TBD**
Hirshhorn Museum and Sculpture Garden	104,000	177,000	103,000	182,000	103,000	288,000	103,000	288,000
SI Garden Areas								
Haupt Garden	76,000	n/a	79,000	n/a	81,000	n/a	90,000	n/a
Folger Rose Garden	4,000	n/a	4,000	n/a	3,000	n/a	4,000	n/a
Ripley Garden	13,000	n/a	13,000	n/a	15,000	n/a	21,000	n/a
Hirshhorn Museum Sculpture Garden	34,000	n/a	34,000	n/a	40,000	n/a	40,000	n/a

* Includes basement, visitor center, loading, central utility plant, and restored above-grade reductions in area as applicable

** Potential future museum and exhibition-related programming as well as special events and rotating exhibits

Table 3-2. Comparison of Impacts

Resource Topic	No – Action Alternative	Elements Common to All Master Plan Alternatives	Alternative B	Alternative D	Alternative F
Topography & Soils	Minimal ground disturbance during routine repairs would result in direct and indirect short-term, negligible, adverse impacts.	Exposure and disturbance of soils during construction would result in direct and indirect short-term, minor adverse impacts. Excavation would result in direct, short and long-term, minor, adverse impacts to previously disturbed soils and Campus' topography.	Exposure and disturbance of soils during construction would result in direct and indirect short-term, minor, adverse impacts. Excavation would result in direct, short and long-term, moderate, adverse impacts to previously disturbed soils and Campus' topography.	Exposure and disturbance of soils during construction would result in direct and indirect short-term, minor, adverse impacts. Excavation would result in direct, short and long-term, major, adverse impacts to previously disturbed soils and Campus' topography.	Exposure and disturbance of soils during construction would result in direct and indirect short-term, minor, adverse impacts. Excavation would result in direct, short and long-term, moderate, adverse impacts to previously disturbed soils and Campus' topography.
Seismic Vulnerability	Direct, long-term, major, adverse impacts from lack of seismic protection.	Direct, short-term, minor, adverse impacts during construction due to increased vulnerability. Seismic upgrades would result in a direct, long-term, major, beneficial impact.			
Stormwater Resources	There would continue to be a limited ability to retain and filter stormwater resulting in an indirect, long-term, minor adverse impact would occur.	Direct and indirect, short-term, minor, adverse impacts during construction. Direct and indirect, long-term, moderate, beneficial impacts from reduction of impervious surface and implementation of SWM.			
Air Quality	Construction activities during routine repairs would result in direct, short-term, minor, adverse impacts. Direct, long-term, minor, adverse impacts would occur from continued use of GSA steam and chilled water and existing mechanical systems.	Construction activities would result in direct, short-term, minor, adverse impacts. New mechanical systems and central utility plant would result in direct and indirect, long-term, minor, beneficial impacts. A minor increase in vehicular trips would result in an indirect, long-term, negligible, adverse impact.			

Resource Topic	No – Action Alternative	Elements Common to All Master Plan Alternatives	Alternative B	Alternative D	Alternative F
Greenhouse Gases, Climate Change & Energy Consumption	Direct and indirect, short and long-term negligible, minor, adverse impacts from continued use of GSA steam and chilled water and existing mechanical systems.	Construction activities would result in direct, short-term, minor, adverse impacts. New mechanical systems and central utility plant would result in direct and indirect, long-term, negligible, beneficial impacts			
Cultural Resources	Direct, long-term, moderate, adverse impacts from minor repairs and potential seismic and blast vulnerability. Minor repairs and renovations would negatively impact the character and setting of resources undergoing the repairs/renovations.	Construction activities would result in direct, short-term, moderate to major, adverse impacts. There would be long-term, minor, adverse impacts to the Freer Gallery from the alteration of the east wall. Blast protection, base isolation, and seismic bracing of the Castle would not result in adverse effects. Protecting the Castle from potential blast and/or seismic events would result in a long-term beneficial impact. Lowering the basement floor of the Castle and restoring the Castle would	Construction activities would result in direct, short-term, moderate to major, adverse impacts. The small opening that would be inserted on the west plaza wall of the Hirshhorn would create, long-term, minor adverse impacts. Reopening the tunnel would result in long-term, beneficial impacts. Minor, long-term, adverse impact would result from the reconfiguration of the Haupt Garden. Reorienting the Quadrangle Building Museum pavilions would not have an adverse	Construction activities would result in direct, short-term, moderate to major, adverse impacts. Sub-basement excavation of the entire Castle would create a long-term, moderate, adverse impact. Below-grade “dip” entrance to the Visitor Center would result in direct, long-term, major adverse impacts to the Castle. Reconfiguration of the Haupt Garden and removal and replacement of the Quadrangle Museum Pavilions would result in direct, long-term, major, adverse impacts by improving visibility	Construction activities would result in direct, short-term, moderate to major, adverse impacts. The new Visitor Center entrance may result in long-term, moderate adverse impacts to the Castle. The small opening that would be inserted on the west plaza wall of the Hirshhorn would create, long-term, minor adverse impacts. Major, indirect, long-term impacts from the changes to the Hirshhorn Sculpture Garden and the reconfiguration of tunnel would result in moderate,

Resource Topic	No – Action Alternative	Elements Common to All Master Plan Alternatives	Alternative B	Alternative D	Alternative F
		<p>result in long-term, beneficial impacts.</p> <p>Removing the parking lot at AIB and restoring the east door to use would result in long-term, beneficial impacts.</p> <p>Renovating the Hirshhorn Building and Plaza and replacing the garden walls would result in long-term, beneficial impacts.</p> <p>Replacing the Quadrangle Building roof membrane would not adversely impact cultural resources.</p> <p>Perimeter security has the potential to have a long-term adverse adversely impact to the character of the National Mall.</p> <p>Expansion of below-grade facilities, including the Visitor Center and loading, has the potential to generate long-term, minor adverse impacts on cultural resources. These will be further evaluated at the time of project design.</p> <p>The addition of at-grade ventilation and egress enclosures has the potential to create adverse</p>	<p>impact on cultural resources.</p> <p>Impacts to cultural resources associated with the creation of a New Visitor Center, central utility plant, sub-basement excavation of the Castle, and excavation for a new loading ramp would be evaluated at the time of project design.</p> <p>There would be no indirect impacts.</p>	<p>Direct, long-term, major adverse impacts from the removal of plaza walls at the Hirshhorn.</p> <p>Major, indirect, long-term impacts from the changes to the Hirshhorn Sculpture Garden and the reconfiguration of tunnel would result in moderate, long-term, adverse impacts.</p> <p>Removal of the pavilions would result in a long-term, major, adverse impact to the Quadrangle building.</p> <p>Removal and replacement of skylights would result in a long-term, moderate adverse impact.</p> <p>Impacts to cultural resources associated with the creation of a New Visitor Center, central utility plant, sub-basement excavation of the Castle, and excavation for a new loading ramp would be evaluated at the time of project design.</p> <p>There would be no indirect impacts.</p>	<p>long-term, adverse impacts.</p> <p>Reconfiguration of the Haupt Garden and removal and replacement of the Quadrangle Museum Pavilions would result in direct, long-term, major, adverse impacts.</p> <p>Removal of the pavilions would result in a long-term, major, adverse impact to the Quadrangle building.</p> <p>Removal and replacement of skylights would result in a long-term, moderate adverse impact.</p> <p>Impacts to cultural resources associated with the creation of a New Visitor Center, central utility plant, sub-basement excavation of the Castle, and excavation for a new loading ramp would be evaluated at the time of project design.</p> <p>There would be no indirect impacts.</p>

Resource Topic	No – Action Alternative	Elements Common to All Master Plan Alternatives	Alternative B	Alternative D	Alternative F
		impacts on cultural resources and landscapes. These impacts will be minimized by sensitively integrating these enclosures into the landscape design.			

Resource Topic	No – Action Alternative	Elements Common to All Master Plan Alternatives	Alternative B	Alternative D	Alternative F
Visual Quality	Direct, short-term, negligible, adverse impacts due to minor renovations. There would be no indirect impacts.	<p>Direct, short-term, negligible, adverse impacts from construction activities.</p> <p>Direct, long-term, minor, adverse impact from new Visitor Center entrance.</p> <p>Removal of Ripley Pavilion and the addition of permanent security design would result in direct, long-term, minor, beneficial impacts because it would open views to the National Mall.</p> <p>Rehabilitation of the Castle would result in negligible, long-term, adverse impacts.</p> <p>Potential indirect impacts to contributing views and vistas will be evaluated at the time of project design.</p>	<p>Direct, short-term, negligible, adverse impacts from construction activities.</p> <p>Direct, long-term, minor adverse impacts from the creation of a small opening in the Hirshhorn Plaza and the restoration of the Hirshhorn tunnel.</p> <p>Reconfiguration of the Haupt Garden would result in direct, long-term, minor to moderate adverse impacts.</p> <p>There would be no indirect impacts.</p>	<p>Direct, short-term, negligible, adverse impacts from construction activities.</p> <p>Below-grade “dip” entrance to the Visitor Center would result in direct, long-term, major adverse impacts to the Castle.</p> <p>Reconfiguration of the Haupt Garden would result in direct, long-term, beneficial impacts by improving visibility and long-term, minor to moderate, adverse impacts by altering the secluded nature of the Garden and the addition of vents for the central utility plant.</p> <p>Direct, long-term, minor adverse impacts from the removal of plaza walls at the Hirshhorn and the raising of the Sculpture Garden would result in moderate, long-term, adverse impacts.</p> <p>Moderate, indirect, long-term impacts from the changes to the Hirshhorn Sculpture Garden.</p>	<p>Direct, short-term, negligible, adverse impacts from construction activities.</p> <p>Below-grade entrance to the Visitor Center would result in direct, long-term, moderate adverse impacts to the Castle.</p> <p>Reconfiguration of the Haupt Garden would result in direct, long-term, beneficial impacts by improving visibility and long-term, minor to moderate, adverse impacts by altering the secluded nature of the Garden and the addition of vents for the central utility plant.</p> <p>Direct, long-term, minor adverse impacts from the creation of a small opening in the Hirshhorn Plaza and the raising of the Sculpture Garden would result in minor to moderate, long-term, adverse impacts.</p> <p>Minor, indirect, long-term impacts from the changes to the Hirshhorn Sculpture Garden.</p>

Land Use Planning & Policies	There would be no impacts under the No-Action Alternative.	Direct and indirect, long and short-term moderate, beneficial impacts by complimenting other planning efforts.	Alternative B would have a minor to moderate, long-term, adverse impact in strengthening the connection of the South Mall Campus to the SW Ecodistrict as it would continue to block out of the neighborhood across Independence Avenue, SW from within the site and continue to block views into the gardens and to the Castle from outside.	A moderate, long-term, beneficial impact would occur by strengthening the connection of the South Mall Campus to the SW Ecodistrict and would increase views into the gardens and to the Castle from outside. It would be consistent with the SW Ecodistrict goals for a pedestrian-oriented development and improved connection to public space. Due to impacts to the historic character of the South Mall Campus, this alternative may not be fully consistent with the Urban Design or Historic Preservation Elements of the Comprehensive Plan. It would restore and renovate historic buildings consistent with the National Mall Plan's cultural resource goals. It is also consistent with the National Mall Plan in the following areas: access and circulation, particularly pedestrian improvements; visitor experience (education, information and enjoyment); and health, safety, and security.	A moderate, long-term, beneficial impact would occur by strengthening the connection of the South Mall Campus to the SW Ecodistrict as it would continue to block out of the neighborhood across Independence Avenue, SW from within the site and would increase views into the gardens and to the Castle from outside. Alternative F is consistent with the Comprehensive Plan and SW Ecodistrict Plan goals for pedestrian-oriented development and for improved connections to public space, and the most consistent with the Urban Design and Historic Preservation Elements of the Comprehensive Plan. It would restore and renovate historic buildings consistent with the National Mall Plan's cultural resource goals. It is also consistent with the National Mall Plan in the following areas: access and circulation, particularly pedestrian improvements; visitor experience (education, information and enjoyment); and health, safety, and security.
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Resource Topic	No – Action Alternative	Elements Common to All Master Plan Alternatives	Alternative B	Alternative D	Alternative F
Traffic and Transportation	There would be long-term, negligible, adverse impacts from development in the area. The No-Action Alternative would not add any traffic.	Would not result in additional vehicular, bicycle, pedestrian, or transit trips.	Direct, long-term, negligible, adverse impacts from a minor increase in vehicular trips. Direct, long-term, negligible, adverse impacts from a minor increase in bicycle, pedestrian, and transit trips.		
Visitor Use & Experience	Direct, long-term, moderate, adverse impacts from lack of improvements to the South Mall Campus.	Direct and indirect, short-term, minor, adverse impacts from noise and access disruptions. Direct, long-term, minor, beneficial impacts from Campus improvements.	Direct and indirect, short-term, minor, adverse impacts from noise and access disruptions. Direct, long-term, minor, beneficial impacts from Campus improvements.	Direct and indirect, short-term, minor, adverse impacts from noise and access disruptions. Direct, long-term, moderate, beneficial impacts from Campus improvements.	Direct and indirect, short-term, minor, adverse impacts from noise and access disruptions. Direct, long-term, major, beneficial impacts from Campus improvements.
Human Health and Safety	Direct, long and short-term, minor, adverse impacts from the disturbance of hazardous materials and lack of security upgrades. Direct, long-term, minor, beneficial impact from removal of hazardous materials.	Direct, short-term, minor, adverse impacts from the disturbance of hazardous materials and safety hazards during construction. Direct, long-term, minor, and moderate, beneficial impact from removal of hazardous materials and installation of Campus seismic and blast protection. Direct, long-term, major, beneficial impacts would result from security upgrades including blast protection, perimeter security elements, and visitor screening upgrades.	Direct, short-term, minor, adverse impacts from the disturbance of hazardous materials and safety hazards during construction. Direct, long-term, minor, and moderate, beneficial impact from removal of hazardous materials and installation of Campus seismic and blast protection. Direct, long-term, moderate, beneficial impacts would result from security upgrades including blast protection, perimeter security elements, and visitor screening upgrades. However, this alternative does not provide adequate daylight for staff that would	Direct, short-term, minor, adverse impacts from the disturbance of hazardous materials and safety hazards during construction. Direct, long-term, minor, and moderate, beneficial impact from removal of hazardous materials and installation of Campus seismic and blast protection. Direct, long-term, major, beneficial impacts would result from security upgrades including blast protection, perimeter security elements, and visitor screening upgrades. These alternatives provide additional daylight for staff.	

Resource Topic	No – Action Alternative	Elements Common to All Master Plan Alternatives	Alternative B	Alternative D	Alternative F
			result in minor, long-term, adverse impacts.		
Utilities	Continual need to repair utilities would result in direct, long-term, minor, adverse impacts. Remaining on GSA steam and chilled water would result in indirect, long-term, moderate, adverse impacts to SI collections.	Direct, short-term, negligible, adverse impacts from temporary increase in utility demand. Direct and indirect, long-term, moderate, beneficial impact from overall reduction in utility use. Indirect, short-term, minor, adverse impacts from disruption to utilities.			
Waste Management	No impacts.	Direct, short-term, minor, adverse impacts from increased waste generation during construction. Direct, long-term, moderate, beneficial impacts from streamlined waste management. Indirect, short and long-term, negligible, adverse impacts from waste generated on the South Mall Campus.			

3.8 WHAT MITIGATION MEASURES WOULD BE IMPLEMENTED UNDER EACH ALTERNATIVE?

TOPOGRAPHY AND SOILS

By implementing an erosion and sediment control plan as described under elements common to All Master Plan Alternatives, the South Mall Campus Master Plan would be in compliance with DOEE regulations. Stormwater impacts would be temporary and would be minimized as much as possible by implementing BMPs during construction, including but not limited to silt fence, erosion matting, curb inlet protection, hay bales, and revegetation of exposed sediment. Soils to be used as fill would be tested for hazardous materials and structural stability before use. Excavation and soil disturbance could increase the risk of uneven foundation settlement during construction. To reduce these risks, a

preconstruction survey would be conducted prior to any underground excavation. Monitoring systems would be established in the interior and exterior of affected buildings to protect against vibration and settlement related damage during construction (RSA, 2015a). If soils are to be impacted on NPS land, SI would get permits needed from NPS for use of NPS land. No additional mitigation is required.

SEISMIC VULNERABILITY

The Castle and the AIB are NHLs that warrant the best and most comprehensive approach to protecting the resources. To this end, preconstruction surveys would be conducted for future projects of the Master Plan prior to any underground excavation to identify seismic deficiencies. Underpinning would be installed in accordance with all applicable codes and standards. Monitoring systems would be established in the interior and exterior of each building to protect against vibration and settlement related damage during construction (RSA, 2015a). If an earthquake were to occur during construction, the temporary methods used to underpin or stabilize the foundations of the Castle and other Campus buildings may temporarily increase their seismic vulnerability.

STORMWATER MANAGEMENT

By implementing an erosion and sediment control plan and SWMP, reducing impervious surface, installing the stormwater capture and reuse system, and providing green infrastructure as described under elements common to all Master Plan Alternatives, the Master Plan would be in compliance with the District's 2013 Stormwater Rule. One or more cisterns would be provided either near the central utility plant or in the sub-basement of the Castle to capture and store stormwater drainage from the Castle and AIB roofs. Oil-water separators would be installed in the central loading facility and ramp to ensure that no contaminated water enters the cisterns or drains offsite. No additional mitigation is required.

A [Programmatic Agreement](#) is Section 106 resolution document used for complex projects or those that address multiple undertakings. Programmatic Agreements are on occasions when the federal agency cannot fully determine how an undertaking may affect historic properties prior to its approval during Section 106 process.

The Programmatic Agreement is a legally binding document that outlines the manner in which the federal agency will carry out the undertaking and address future potential adverse effects of the project.

AIR QUALITY

During construction, demolition, excavation, or renovations, short-term impacts would be mitigated through the use of proper control measures including minimizing vehicle idling times; maintaining emission controls on construction vehicles and equipment; and covering/wetting exposed soils to reduce fugitive dust. In order to reduce long-term adverse impacts to air quality, SI would replace outdated mechanical systems that are at the end of their useful lives. A new central utility plant would be constructed with modern, efficient units which would result in a long-term reduction in air emissions.

In order to reduce impacts from additional vehicular trips generated by the implementation of the Master Plan, adjustments to signal timing and phasing would be made to minimize idling times and therefore minimize impacts to air quality. These mitigation measures are discussed in further detail below in the Traffic and Transportation Section.

CULTURAL RESOURCES

In order to reduce adverse impacts on cultural resources, SI would continue to consult with NCPC, NPS, DC SHPO, and the Consulting Parties through the Section 106 consultation process to minimize or avoid adverse impacts. A Programmatic Agreement would be prepared that would outline a process for identifying, avoiding, and minimizing adverse impacts on cultural resources for those components of the Master Plan that cannot be fully evaluated at this time.

VISUAL QUALITY

Impacts to visual resources resulting from the Master Plan Alternatives would be minimized through sensitive, context-aware designs that reference, and are compatible, with existing features. Any above-grade structures and landscape features proposed for the South Mall Campus would be limited in their size and

placement in order to preserve and enhance existing views and historic viewsheds. For any changes where replanting of existing vegetation is necessary, such as in the Haupt Garden, Smithsonian would endeavor to specify mature replacements to shorten or minimize the temporary effects of construction. Where possible, infrastructure elements—such as the new loading dock ramp, perimeter security features, and central utility plant ventilation—would be integrated into landscape features to create a cohesive, aesthetically compatible design. Further measures to minimize impacts to visual quality would be identified at the time individual projects are brought forward for design.

LAND USE PLANNING AND POLICIES

The Master Plan Alternatives were developed with extensive input from NCPC, DC SHPO, CFA, DCOP, DDOT, USDA, GSA, and NPS, among others, to ensure that the alternatives are consistent with federal and local planning ordinances. The South Mall Campus Master Plan would be subject to review and approval by NCPC.

TRAFFIC AND TRANSPORTATION

Given the built-out nature of the transportation network within the area, emphasis was placed on improving the overall intersection operations through adjustments to signal timing and phasing. No new capacity (i.e. additional lanes) are proposed. To address the capacity deficiencies identified utilizing DDOT criteria, the following mitigation measures are recommended:

- Develop a robust TDM program to reduce potential auto travel. Strategies could include providing transit or bikeshare passes to visitors, providing real-time transit information onsite, and providing showers and changing facilities for employees and staff, among others.

- Modify the existing unsignalized intersection of SW Jefferson Drive, SW and 12th Street, SW from a two-way stop controlled intersection to an all-way stop controlled intersection. Modifying the SW Jefferson Drive, SW eastbound shared thru-right movement from a free movement to a stop-controlled movement would grant more acceptable gaps for pedestrians to cross Jefferson Drive, SW, along with reducing delay for right turning vehicles on 12th Street, SW. This would be subject to NPS approval. SI would get NPS approval on any permits needed for use of NPS land.
- Modify the southbound 14th Street, SW approach to Jefferson Drive, SW to include a protected-permitted left-turn phase.

In addition to vehicular mitigation measures, SI would continue to work with DDOT on the implementation of the curb cut and intersection changes for the proposed new loading dock. The following mitigation measures are recommended for bicycles, pedestrians, and loading:

- Monitor utilization of onsite bicycle parking, as well as Capital Bikeshare stations within ¼ mile. If demand exceeds capacity install new bike racks and/or a Capital Bikeshare Station. If a new Capital Bikeshare Station is required, consider locating it near the intersection of 7th Street, SW and Jefferson Drive, SW to fill an existing gap in the system.
- Upgrade all curb ramps connecting to/from the South Mall Campus to meet current ADA standards.
- Provide a new crosswalk across the westbound approach of Independence Avenue, SW at the intersection with 12th Street, SW.
- Monitor passenger loading areas to determine if they continue to meet SI needs without impacting traffic operations on Jefferson Drive, SW or Independence Avenue, SW.
- Create a loading management plan.
- Schedule all deliveries made with trucks WB-50 or larger in advance. These deliveries would be scheduled to avoid the AM (7:00 AM – 9:00

AM) and PM (4:00 PM – 6:00 PM) peak periods, unless necessary. This would likely have a minimal impact on the South Mall Campus facilities, as the majority of deliveries with larger trucks currently occur during off-peak periods.

- Deliveries made in vehicles larger than a single unit truck should enter from northbound 12th Street, SW or eastbound Independence Avenue, SW to avoid wide right-turns into the proposed ramped loading dock driveway.
- Right-turns on red should be restricted at the proposed ramped loading dock driveway and the westbound Independence Avenue, SW approach at the signalized intersection with 12th Street, SW.

VISITOR USE AND EXPERIENCE

In addition to phasing the implementation of the Master Plan, the SI would provide appropriate signage and fencing would be used to keep passersby out of construction areas. Visitors to the South Mall Campus would be notified via SI's websites to alert visitors to the potential for closed exhibits and/or constructions areas. In concert with using the SI's website, the SI would provide potential notifications via signage, postings on social media webpages, email blasts, and press releases in accordance with its communications policies and protocols. In addition, construction activities would be coordinated with SI in a manner that would minimize disruptions during planned events. Pathways through the South Mall Campus would be rerouted during construction to maintain bike and pedestrian flow.

UTILITIES

SI would implement campus-wide energy efficiency and sustainability measures, such as energy-efficient lighting, improved building envelopes, modernized HVAC systems, skylights and natural ventilation, low-flow plumbing fixtures, and renewable energy systems. Stormwater throughout the South Mall Campus would be collected and stored, to the maximum extent practicable, in the central utility plant and would be reused for irrigation, reducing stormwater runoff and demand for potable water. By adopting the energy efficiency measures described above, the South Mall Campus would reduce its energy usage by over 30 percent, reduce its carbon emission by 40 percent, and reduce its overall energy costs by over 50 percent per year. If any utilities that are to be impacted are on NPS-owned land, SI would get any permits needed from NPS for use of NPS land and would similarly do the same for any DC public space adjacent to the South Mall Campus.

WASTE MANAGEMENT

In addition to SI's existing recycling program, SI would also implement expanded composting, recycling, reuse, and return-to-vendor programs to reduce the amount of waste generated on the South Mall Campus. The proposed food and beverage systems on the South Mall Campus would use reusable, recyclable, or compostable dishes, cups, silverware, napkins, and other food service items. Recyclable and compostable materials would be separated from the landfill-bound waste stream to the maximum extent practicable. These waste diversion and reduction methods would further SI's goal for 80 percent of institutional waste to be diverted from landfills by 2020.

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CHAPTER 4

Impacts include:

Direct impacts, which are caused by the action and occur at the same time and place.

Indirect impacts are caused by the action and occur later in time or further removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Cumulative impacts result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

(40 CFR 1508.7 and 1508.8)

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

4.1 WHAT IS THE AFFECTED ENVIRONMENT AND HOW ARE IMPACTS EVALUATED?

This chapter of the EIS describes the existing conditions at the South Mall Campus and the effects the proposed Master Plan would have on the South Mall Campus and the surrounding area. The alternatives described in Chapter 3 have varying impacts to natural resources, the social and economic environment, historic resources, and infrastructure (transportation network and utilities).

Impacts can occur from the implementation of any portion of the Master Plan. Impacts can also occur both directly at the South Mall Campus as well as off-site (for example, an increase in the number of visitors to the South Mall Campus could affect existing traffic on roads in the surrounding area). Cumulative impacts from the proposed South Mall Campus Master Plan, when added to other past, present, and future projects are discussed at the end of this chapter.

Potential impacts are described in terms of:

- *Intensity* - negligible, minor, moderate, or major effects;
- *Type* - beneficial or adverse effects;
- *Duration* - short-term effects, lasting through construction or less than one year, or long-term effects, lasting more than one year; and
- *Context* - site-specific, local, or even regional effects.

The thresholds for the intensity of impacts are defined as follows:

- *Negligible*, effects are localized and not measurable at the lowest level of detection;
- *Minor*, effects are localized and slight, but detectable;
- *Moderate*, effects are readily apparent and appreciable; or
- *Major*, effects are severely adverse, significant, and highly noticeable.

Existing conditions data was collected and potential environmental impacts were assessed using best available scientific studies, guidance documents, and information. Information used to analyze the impacts were obtained from federal, state, and local resources. These include, but are not limited to, the following:

- Environmental Protection Agency (EPA) analyses and reports
- US Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Soil Surveys
- Federal Emergency Management Agency (FEMA) Floodplain Maps
- US Army Corps of Engineers (USACE) wetland manuals
- US Fish and Wildlife Service (USFWS) threatened and endangered species lists
- Federal Highway Administration (FHWA) traffic guidance

A complete list of references is included at the end of this EIS.

4.2 WHAT RESOURCE ISSUES HAVE BEEN ELIMINATED FROM FURTHER ANALYSIS?

The impact topics below would not be effected or would be negligibly effected by each of the Master Plan Alternatives evaluated in this EIS. In general, negligible effects are effects that are localized and immeasurable. Topics that

have either no or negligible impacts are briefly discussed in this section and then dismissed from further consideration or evaluation.

4.2.1 GEOLOGY

The South Mall Campus is within the Atlantic Coastal Plain physiographic province (USGS, 1994), which is characterized by alternating layers of silt, sand, and clay underlain by metamorphic and igneous rock (DC WRRRC, 1995). Specifically, the South Mall Campus is within the Quaternary (Pleistocene) geologic map unit, consisting of sand, gravel, and/or peat intercut with silt and clay beds containing scattered pebbles and wood fragments. The depth to bedrock at the South Mall Campus is between 120 to 140 feet below the surface (GSA/NCPC/Edaw Inc, 1980).

Implementation of the South Mall Campus Master Plan would not alter the geology of the project area. Therefore, this impact topic was not studied in detail in this EIS.

4.2.2 WILDLIFE AND VEGETATION

The South Mall Campus consists of five principal buildings and four designed gardens, in addition to subsidiary structures, circulation features, and infrastructure. The gardens include a mixture of native and exotic plants. Other landscaped areas within the South Mall Campus consist of turfgrass and ornamental trees, shrubs, hedges, and vines. No natural vegetation exists onsite. Any vegetation that would be removed with implementation of the Master Plan Alternatives would be replaced with similar vegetation, resulting in a negligible, short-term, direct, adverse impact to vegetation. No long-term impacts are anticipated because vegetation removed during construction would be reestablished. Impacts to vegetation as it relates to historic landscapes are discussed in further detail in Section 4.10 Visual Quality. Therefore, vegetation has been dismissed from further analysis.

None of the landscaped areas located within the South Mall Campus have been specifically designed to attract native birds or wildlife, but they may support birds such as sparrows, pigeons, crows, robins, and other bird species common to urban environments. Due to the South Mall Campus' location in a heavily trafficked urban area, wildlife species in the project area are limited to those highly adapted to urban environments, such as gray squirrels, chipmunks, rats, bats, and possibly raccoons. Wildlife and birds may be temporarily displaced during construction activities due to noise. The removal of any trees would be done outside the nesting season. These species would be expected to return following construction, resulting in a negligible, short-term, indirect, adverse impact to wildlife. No long-term impacts would occur. Therefore, wildlife has been dismissed from further analysis.

4.2.3 THREATENED AND ENDANGERED SPECIES

The Endangered Species Act (ESA) of 1973 protects and recovers imperiled species and the ecosystems upon which they depend. Under the ESA, species may be listed as either endangered or threatened. "Endangered" means a species is in danger of extinction throughout all or a significant portion of its range. "Threatened" means a species is likely to become endangered within the foreseeable future. Under Section 7 of the ESA, federal agencies are required to consult with USFWS to ensure that their actions do not adversely affect listed species.

On behalf of NCPC and SI, Stantec Consulting Services Inc. consulted the USFWS Information for Planning and Conservation (IPaC) system and the District Department of Energy and Environment (DOEE) in compliance with Section 7 of the ESA. In an Official Species List generated on January 31, 2017, USFWS confirmed that no federally-listed endangered or threatened species or critical habitats are present near the South Mall Campus, and no additional coordination under Section 7 of the ESA is required. The Fish and Wildlife Division of the DOEE was contacted on February 13, 2017. In a letter dated

February 14, 2017, DOEE indicated that the South Mall Campus does not harbor any listed species. All consultation items related to threatened and endangered species can be found in Appendix A. As no listed species or critical habitat are present within the South Mall Campus, threatened and endangered species have been dismissed from further analysis.

4.2.4 GROUNDWATER AND HYDROLOGY

Historically, groundwater at the South Mall Campus and throughout the National Mall area generally flows west and southwest toward the Potomac River (NPS, 2010a). The depth of groundwater at the South Mall Campus ranges from 23 to 40 feet below the ground surface, with an average depth of 33 feet (Haley and Aldrich, 2014). Groundwater is not used as a potable water supply in the District.

Currently, the South Mall Campus consists of approximately 56 percent impervious surface, including buildings, parking areas, roads, sidewalks, and contained water features. The pervious surfaces within the Haupt Garden are underlain by the underground portions of the Quadrangle Building. Due to the location of the underground Quadrangle Building, the connection to the water table in the Haupt Garden has been interrupted, and the potential for groundwater infiltration and recharge is minimal. The Master Plan Alternatives would not alter the recharge of groundwater or affect the water table. Therefore, groundwater and hydrology have been dismissed from detailed analysis in this EIS.

4.2.5 SURFACE WATER AND WETLANDS

The US EPA and the USACE are responsible for enforcing certain provisions of the Clean Water Act (CWA) (33 U.S.C. §1251 et seq.) which was enacted by Congress "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" including wetlands and Waters of the US. One of the mechanisms adopted by Congress to achieve that purpose is a prohibition

on the discharge of any pollutants, including dredged or fill material, into wetlands or Waters of the US except in compliance with a permit issued pursuant to CWA §402 or §404.

The ACOE defines wetlands as “areas saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for line in saturated soil conditions” (33 CFR 328.3). Wetlands generally include swamps, marshes, bogs, and similar areas. The technical approach for the identification and delineation of wetlands is that, except in certain abnormal situations, evidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a wetland determination.

The South Mall Campus is within the Middle Potomac-Anacostia-Occoquan watershed (HUC 02070010). A review of National Hydrography Dataset (NHD) mapping, USFWS National Wetland Inventory (NWI) mapping (USFWS, 2017c), topographic mapping (USGS, 2014), soils data (NRCS, 2017), and the DOEE map of Known Wetlands within the District (DDOE, 2001) indicated that no Waters of the US, including wetlands, are present onsite. Therefore, surface waters and wetlands have been dismissed from further analysis.

4.2.6 FLOODPLAINS

Federal activities that take place within floodplains must be in compliance with Executive Order (EO) 11988: Floodplain Management, 33 2 C.F.R. 1977. Per this executive order, federal agencies are required to avoid adverse effects associated with the occupancy and modification of floodplains to the extent possible, thereby minimizing flood risk and risks to human safety (FEMA, 2017). They must also be in compliance with NCPC’s Submission Guidelines for Master Plans.

The South Mall Campus is located on FEMA Flood Insurance Rate Map (FIRM) Number 1100010019C, effective September 27, 2010 (Figure 4-1). The Potomac Park flood control levee, located just south of the intersection of 17th Street, SW and Constitution Avenue, NW, was altered in 2014 to provide a more reliable removable flood control system that meets FEMA's standards. As a result, FEMA has issued a Letter of Map Revision (LOMR), effective September 14, 2016 (Appendix A), that includes the South Mall Campus.

As shown on both the FIRM and LOMR, the majority of the South Mall Campus is outside of the 100-year and 500-year floodplain. The Hirshhorn Sculpture Garden is within the 500-year floodplain, which has a 0.2 percent chance of flooding annually. The Sculpture Garden is not considered a critical facility and therefore is not required to be located outside of the 500-year floodplain. Existing and future sculptures within the Sculpture Garden are not likely to increase flood levels, impede flood flow, or adversely impact floodplain function.

Under the Master Plan Alternatives, the design of the new loading dock would incorporate a flood gate at the top of the ramp to protect the loading dock from flooding, even though it is out of the 100- and 500-year floodplain. The surface elevation of the Sculpture Garden would change slightly to accommodate below-grade amenities and galleries. Additionally, the underground connection between the Sculpture Garden and the Hirshhorn Plaza would be restored. The proposed underground connection would be designed to protect any SI collections that might be placed in the tunnel. Although these actions would occur within the floodplain, they are not expected to have a measurable impact on the frequency, elevation, intensity, or duration of floods, nor would they impact floodplain function. Therefore, floodplains was dismissed from further analysis within this EIS.



Figure 4- 1. FEMA Mapped Floodplains.

4.2.7 COASTAL ZONE

The Federal Coastal Zone Management Act of 1972 (CZMA) encourages States to “preserve, protect, develop, and where possible, restore or enhance the resources of the nation’s coastal zone” (16 U.S.C. § 1456). All federal development projects inside the coastal zone must comply with Section 307 of the CZMA. The National Coastal Zone Management Program, administered by the National Oceanic and Atmospheric Administration (NOAA), ensures that federal actions in the designated coastal zone of a state or territory are consistent with the enforceable policies of that state’s approved coastal management program.

The District of Columbia has no designated Coastal Zone nor does it have a Coastal Zone Management Plan. Therefore, the CZMA does not apply, and coastal zone management has been dismissed from further analysis in this EIS.

4.2.8 ARCHAEOLOGICAL RESOURCES

Historic grading, filling, and construction activities for the surrounding museum buildings likely disturbed any intact archaeological resources in this area. There are a few locations on the South Mall Campus that have not been significantly disturbed. While there is the potential for archaeological resources to be present in these areas, the potential for resources has been determined to be low. The area of the South Mall Campus has been heavily disturbed since the mid-1800s greatly reducing potential for intact archaeological resources. Should any archaeological resources be discovered during ground-disturbing activities associated with any of the proposed actions, SI would consult with the DC SHPO to ensure the discovery is assessed and treated appropriately. A Programmatic Agreement is currently being developed and would include the process SI would follow for dealing with unanticipated discoveries as each project in the Master Plan is implemented. Due to the low potential of archaeological resources in the area of the South Mall Campus, the topic is not studied in detail in this EIS.

4.2.9 NOISE

The EPA defines noise pollution as “unwanted or disturbing sound” and noise pollution is regulated under the Noise Control Act of 1972 (EPA, 2017a). Noise is measured in decibels on the “A” weighted scale (dBa) which represents the range of sounds that can be heard by the human ear. The EPA has declared sound in excess of 55 dBA to be “normally unacceptable” for sensitive populations such as schools and residences. The South Mall Campus is located in an urban area of Washington, DC surrounded by commercial buildings, other museums and monuments, and the National Mall. Noise sources in the vicinity of the South Mall Campus is common to those found in urban areas including traffic, emergency sirens, playing children and human conversations. The typical noise level for urban areas is approximately 70 dbA and can temporarily reach up to 120 dbA due to sirens and other loud vehicles (EPA, 1971).

The entire National Mall including the South Mall Campus is considered a sensitive noise receptor. Relatively low noise levels are appreciated within the buildings of the South Mall Campus and in the various gardens as tourists admire exhibits and the beauty of the grounds. Implementation of the South Mall Campus Master Plan would not add any new, permanent noise sources and therefore noise has been dismissed from further analysis in this EIS.

Temporary increases in noise during construction would impact visitor enjoyment of the South Mall Campus and surrounding area including the National Mall. These impacts are discussed under the Visitor Use and Experience section of this EIS.

4.2.10 COMMUNITY FACILITIES AND SERVICES

A wide variety of parks, open space, recreation, and community facilities are present in the area surrounding the South Mall Campus. The National Mall contains approximately 684 acres of public land. The South Mall Campus itself is a community resource that provides open space and encourages public

engagement with the arts. The South Mall Campus is located on the National Mall and is surrounded by many other parks, museums, memorials, monuments, gardens, recreational areas, and general open space. Additionally, there are many libraries located near the South Mall Campus and in many of the museums on the National Mall.

The South Mall Campus is generally surrounded by federally-owned land, and therefore there are no schools, universities, healthcare facilities, or religious facilities in proximity to the South Mall Campus. Although implementation of the South Mall Campus Master Plan may increase the number of visitors to the South Mall Campus, community facilities and services would be able to handle the additional patronage and would not be adversely affected. Therefore, this topic was not studied in detail in this EIS.

4.2.11 POPULATION AND HOUSING

The South Mall Campus is surrounded to the north, east, and west by the National Mall and related buildings. The Smithsonian National Air and Space Museum is adjacent to the Hirshhorn Museum to the east and the US Department of Agriculture Jamie L. Whitten Building is adjacent to the Freer Gallery to the west. The general area south, southwest, and southeast of the South Mall Campus is populated by federal office buildings such as the Federal Aviation Administration, US Department of Energy, GSA, US Department of Housing and Urban Development, US Department of Homeland Security, and the US Postal Service. The closest residential neighborhood is located approximately ½-mile south of the South Mall Campus in the area known as Southwest DC. Implementation of the Master Plan would not require any current SI employees to relocate their residence nor would it include the construction of any new housing. Although SI intends a modest increase in employment at the South Mall Campus, this would not have a measurable impact on available housing in the vicinity. Therefore, this topic was not studied in detail in this EIS.

4.2.12 ECONOMY AND EMPLOYMENT

Washington, DC serves as the economic core of the Washington Metropolitan Area, which includes Northern Virginia, central and southern Maryland, and West Virginia. This area has 6.1 million residents, 3.28 million jobs and a gross domestic product (GDP) of \$491 billion, which is the fifth largest in the country (Washington DC Economic Partnership 2010).

The hospitality and tourism industry is a substantial contributor to the District and regional economy and supports almost 75,000 jobs in the District. The number of visitors to DC has steadily increased since 2012, reaching a record 21.3 million visitors in 2015. This generated approximately \$757 million in tax revenue for the District. The hospitality and tourism industry is expected to continue to grow as Washington, DC expands its restaurant and nightlife scene and adds to its cultural offerings (DC Economic Strategy Report, 2017).

Implementation of the Master Plan would result in a short-term need for construction workers. The number of construction workers involved in implementing the South Mall Campus Master Plan would be minimal in comparison to the overall number of construction workers employed in the DC area and most would already be employed. Spending by construction companies and construction workers would provide temporary increases in revenue for local businesses.

The South Mall Campus Master Plan would add program space and visitor amenities which could draw additional visitors to the South Mall Campus from other Smithsonian Museums and the surrounding area. The increase in visitors would positively affect the local and regional economy, especially the hospitality and tourism industry, by increasing spending on food and beverages, overnight amenities, and retail purchases.

SI would add a modest amount of retail, operations and management, and audio and visual staff to support new programs expanded under the Master Plan. This

would result in an increase in employment opportunities and a long-term benefit to the local economy. The number of employees to be added is not known at this time, but it is not likely to be substantial. The largest potential for increased employment is at the AIB, but its permanent use is not yet determined.

Because impacts to the local and regional economy and area employment are expected to be beneficial, this topic is not studied in detail in this EIS.

4.2.13 ENVIRONMENTAL JUSTICE

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," directs federal agencies to identify and address disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority or low-income populations.

A low-income individual is defined as any individual receiving a total family income below the applicable poverty threshold, as derived from the Office of Management and Budget's (OMB) Statistical Policy Directive 14. Information regarding poverty status of individuals is available from the US Census Bureau at the census tract level. A low-income population is defined as any census tract with a higher percentage of low-income individuals than the county population as a whole. A minority individual is defined as any individual that is nonwhite or identifies as Hispanic or Latino. A minority population is defined as any group of people living in geographic proximity with a population that is 50 percent minority or greater (CEQ, 1997).

The South Mall Campus is located within Census Tract 62.02 which is comprised almost entirely of federally-owned land. The adjacent Census Tract, Census Tract 102, is comprised mostly of federal office buildings and a portion of the

Southwest DC neighborhood. Selected population data within these Census Tracts are shown below in Table 4-1.

Table 4- 1. Selected Census Tract Population Data

Geography	Total Population	Minority (%)	Poverty Level (%)
Census Tract 62.02	33	78.8	0
Census Tract 102	2,324	51.3	10.6
Washington, DC	584,400	61.9	18.5

Source: US Census Bureau, 2010

Based on population statistics from the 2010 Census, minority populations occur within Census Tract 62.02. The minority population residing in Census Tract 62.02 is likely located over 1 mile away from the South Mall Campus, in the vicinity of the Library of Congress located at 101 Independence Avenue, SE. Low income and minority individuals also reside within Census Tract 102. Implementation of the Master Plan would result in increased access to SI exhibits and programs by all populations in the vicinity of the South Mall Campus. SI facilities are free to the public which encourages visitors of all socioeconomic status. The implementation of the Master Plan would not have disproportionately high adverse human health or environmental effects on these individuals and groups. Any adverse impacts experienced by low income and minority populations would be the same as those experienced by the overall population; therefore, Environmental Justice has not been studied in detail in this EIS.

4.3 WHAT RESOURCES HAVE BEEN INCLUDED FOR FURTHER ANALYSIS?

Impact topics analyzed in detail in this EIS are those resources of concern that would see a minor, moderate, or major effect, either beneficially or adversely, with implementation of the South Mall Campus Master Plan. The following resources have been assessed in detail for the No-Action Alternative and Alternatives B, D, and F:

- Topography and Soils
- Seismic Vulnerability
- Stormwater Management
- Air Quality
- Greenhouse Gases, Climate Change, and Energy Consumption
- Cultural Resources
- Visual Quality
- Land Use Planning and Policies
- Traffic and Transportation
- Visitor Use and Experience
- Human Health and Safety
- Utilities
- Waste Management

4.4 TOPOGRAPHY AND SOILS

4.4.1 WHAT ARE THE TOPOGRAPHIC AND SOIL CONDITIONS AT THE SOUTH MALL CAMPUS?

The South Mall Campus is shown on the Washington West US Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 4-2) . Topography throughout the South Mall Campus is generally flat, with the exception of the sunken Sculpture Garden across Jefferson Drive, SW.

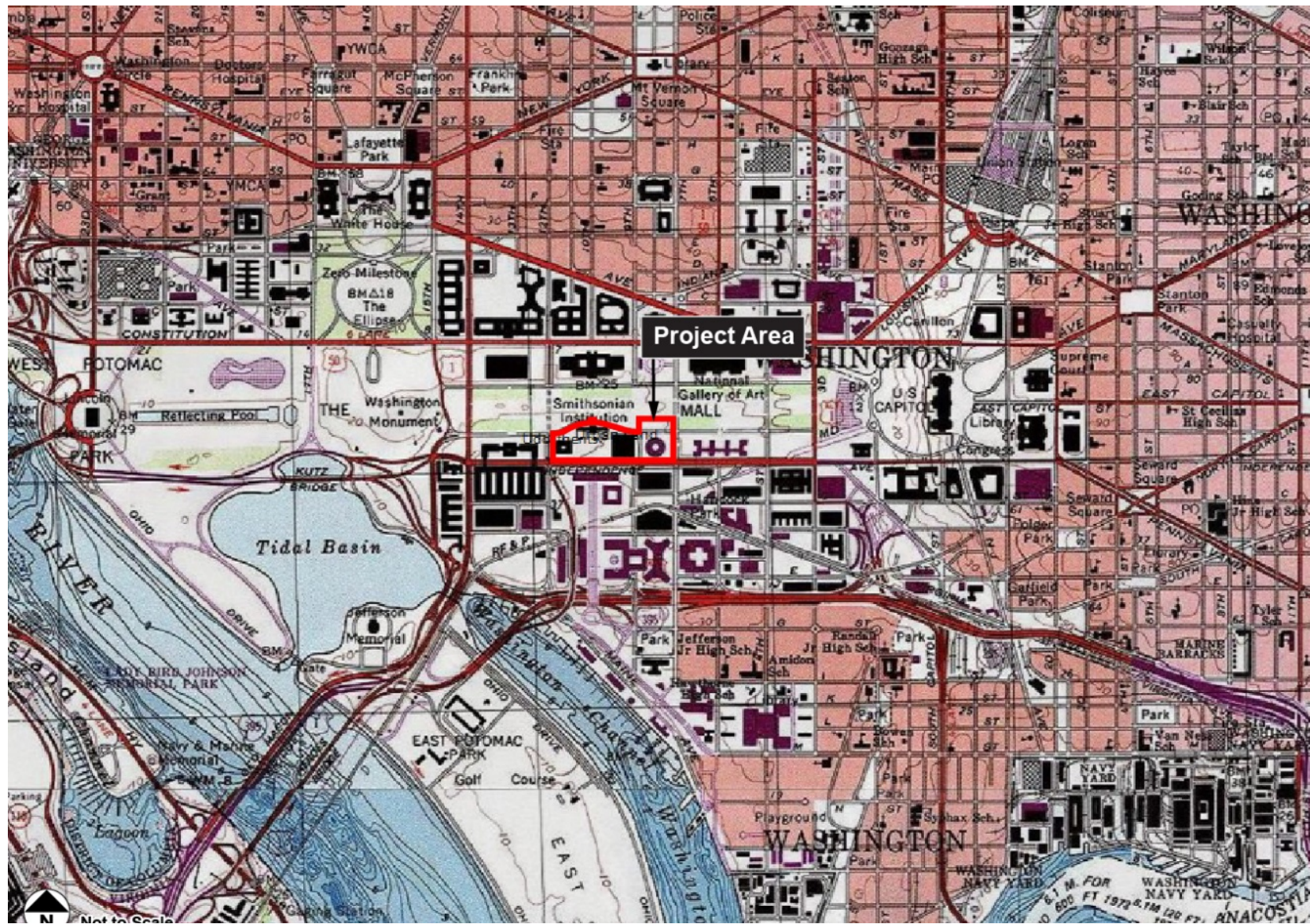


Figure 4- 2. USGS Topographic Map (Source: USGS 2014).

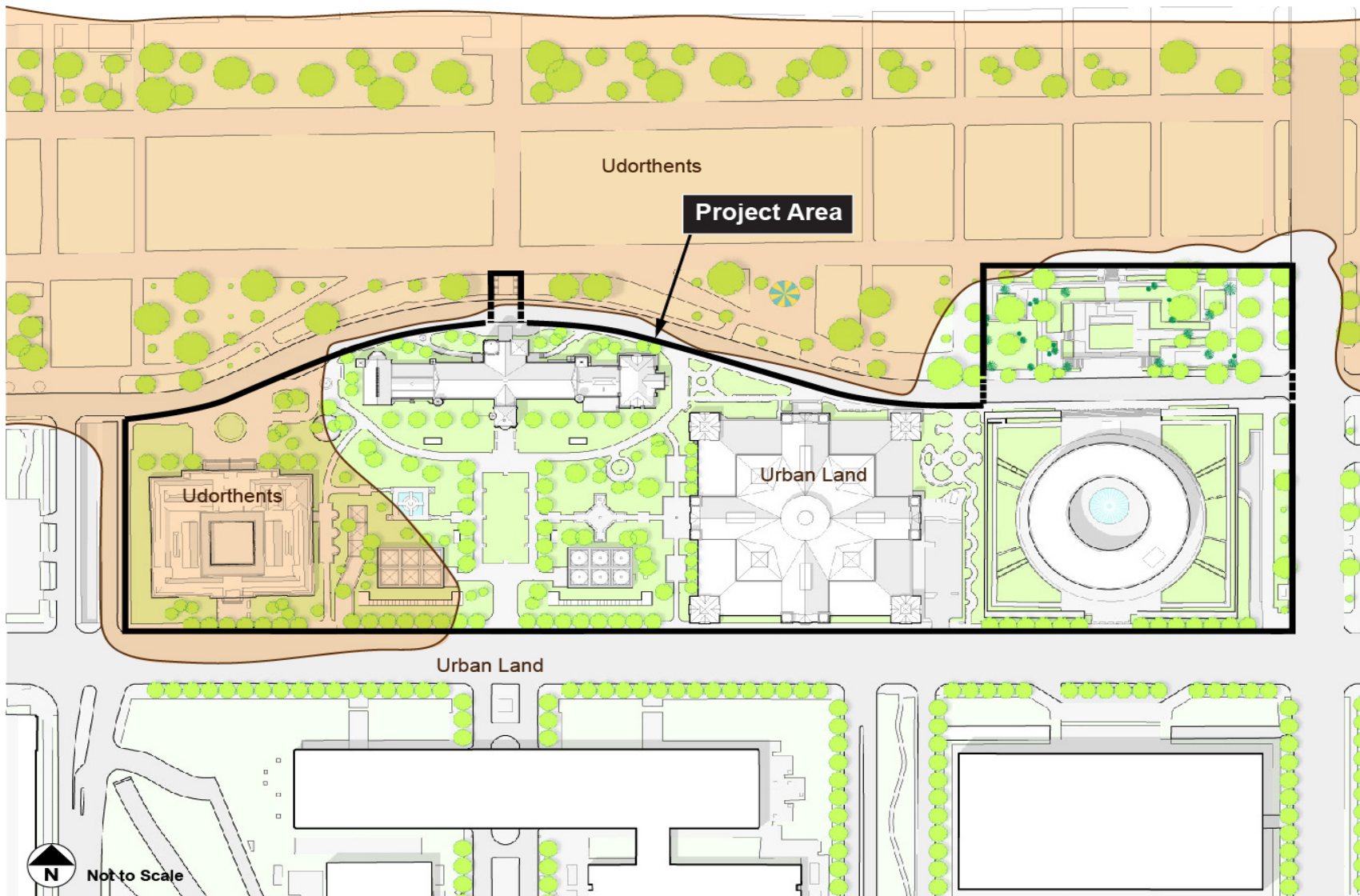


Figure 4- 3. Existing Soils on the South Mall Campus (Source: NRCS, 2017).

Two soil types are present within the South Mall Campus (NRCS, 2017). The western portion of the South Mall Campus consists of Udorthents, a highly heterogeneous type of fill material, and the remaining 78 percent consists of urban fill (Figure 4-3). These soils consist primarily of sand and gravel with various amounts of silt (Haley & Aldrich, 2014). No undisturbed soil profile currently exists anywhere onsite. The South Mall Campus has been heavily disturbed beginning in the mid-1800s, when construction of the Castle and AIB began. The underground Quadrangle Building, which was completed in 1987, extends 56 feet below grade. Soils in the Haupt Garden above the Quadrangle Building are a maximum of 6 feet deep and are managed to support vegetation.

4.4.2 HOW WILL TOPOGRAPHY AND SOILS BE AFFECTED BY THE PROPOSED MASTER PLAN ALTERNATIVES?

4.4.2.1 NO-ACTION ALTERNATIVE

DIRECT IMPACTS

Under the No-Action Alternative, no major excavation of soils would occur and there would be no changes in the topography of the site. The soils in the Haupt Garden would be temporarily displaced to repair the existing roof membrane of the Quadrangle Building. Soils in the Haupt Garden are managed for vegetation, and no natural or undisturbed soil profiles exist. Minimal ground disturbance may occur as a result of continued repairs to existing underground utilities throughout the South Mall Campus. Since soils in the areas of existing utilities have already been disturbed, routine repairs to existing utility systems would not impact any undisturbed, intact soil layers. Therefore, the No-Action Alternative would result in short-term, negligible, adverse impacts to soils that have been previously disturbed.

After construction, displaced soil would be reused or replaced with soil of a similar type. Disturbed areas would be restored to pre-construction conditions. Therefore, no long-term adverse impacts are anticipated.

INDIRECT IMPACTS

Construction activities would temporarily expose and disturb soils which would potentially result in soils migrating offsite or entering the municipal stormwater system. An erosion and sediment control plan would be developed and implemented to minimize the potential for exposed soils to be transported offsite during construction. With implementation of an erosion and sediment control plan, there would be short-term, negligible, adverse indirect impacts from soil exposure. No long-term, indirect impacts to soils are anticipated because the site would be restored and disturbed soils would be stabilized.

4.4.2.2 ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

DIRECT IMPACTS

Construction activities, including excavation, demolition, and grading, would temporarily expose and disturb existing soils underneath and immediately surrounding the South Mall Campus buildings. Under all of the Master Plan Alternatives, soils would be excavated to a depth of at least 20-30 feet beneath the entire footprint of the Castle to underpin the foundation, complete the seismic reinforcement/enhancement, and lower the basement floor to provide adequate headroom. Excavation of soils would also occur immediately south of the Castle to construct new below-grade visitor amenities and to create associated connections to the Castle and the Quadrangle Building. Soils would also be excavated to construct the new below grade central loading facility and loading ramp entrance to the west of the Freer Gallery.

The Quadrangle Building roof membrane would be replaced, which would require the removal of the soils in the Haupt Garden. The Ripley Garden would be expanded and would remain at-grade under all Master Plan Alternatives, so minor grading, leveling, and soil disturbance would be required in this area.

In addition, under all of the Master Plan Alternatives, soils would be disturbed to remove the surface parking lot east of AIB, expand the Ripley Garden, and to install perimeter security elements around the entire Campus.

Soils onsite currently consist of urban fill and were mostly previously disturbed and compacted from previous development, so no impacts to previously undisturbed soil would occur. If any fill is needed, excavated soils would be reused to the extent practical. Any other fill used would be similar to the existing urban soil types onsite. Fill would be tested for hazardous materials and structural suitability prior to use.

Excavation and soil disturbance could increase the risk of uneven foundation settlement during construction. To reduce these risks, a preconstruction survey would be conducted prior to any underground excavation. Monitoring systems would be established in the interior and exterior of affected buildings to protect against vibration and settlement related damage during construction (RSA, 2015a).

The exposure of soils during construction of the elements common to all Master Plan Alternatives would result in short-term, minor, adverse impacts to soils.

The proposed excavation described above would permanently remove soils and potentially alter the soil profile on the South Mall Campus. Buildings and underground structures adjacent to excavated areas would be permanently underpinned to prevent any long-term settlement related damage. The topography of the site would be permanently altered through the construction of the loading ramp along to the west of the Freer Gallery. Therefore, the elements common to all Master Plan Alternatives would result in long-term, minor, adverse impacts to previously disturbed, urban soils and to the South Mall Campus' topography. However, the removal of the parking lot at AIB to expand the Ripley Garden and the removal of the loading area next to the Freer Gallery would add soils where none currently exist.

INDIRECT IMPACTS

Construction activities would temporarily expose and disturb soils which would potentially result in soils migrating offsite or entering the municipal stormwater system. An erosion and sediment control plan would be developed and implemented, in accordance with DOEE regulations, to minimize the potential for exposed soils to be transported offsite during construction. With implementation of an erosion and sediment control plan, there would be short-term, negligible, adverse indirect impacts from soil exposure.

Disturbed areas would be revegetated and/or permanently stabilized following construction. Therefore, no long-term, indirect impacts to soils are anticipated.

4.4.2.3 ALTERNATIVE B

DIRECT IMPACTS

Alternative B includes the elements common to all Master Plan Alternatives. In addition to the impacts of the common elements, additional soils would be excavated under Alternative B. Under Alternative B, limited sub-basement excavation would occur under the west wing of the Castle for the central loading facility. Construction of the proposed visitor center, visitor amenities, and new entrance would require further excavation under the Castle. Excavation of soils would be necessary for construction of the proposed central utility plant and would require underpinning of the west wall of the AIB, the west foundation of the Freer Gallery, and the retaining wall along the 12th Street underpass.

Soils would be brought into the site to replant the Haupt Garden in its current location after replacement of the Quadrangle Building roof membrane.

The Sculpture Garden would remain at its current grade, and no excavation for the Sculpture Garden or for restoration of the tunnel would be required. While Alternative B would require more extensive excavation and underpinning for the AIB compared to Alternative D, Alternative B minimizes the total footprint of

excavation on the South Mall Campus compared to Alternative D, particularly underneath the Castle and the Sculpture Garden (See Figure 4-4). Therefore, Alternative B would result in short- and long-term, moderate, adverse impacts to soils that have been previously disturbed.

INDIRECT IMPACTS

Indirect impacts to soils under Alternative B would be similar to the impacts discussed under elements common to all Master Plan Alternatives.

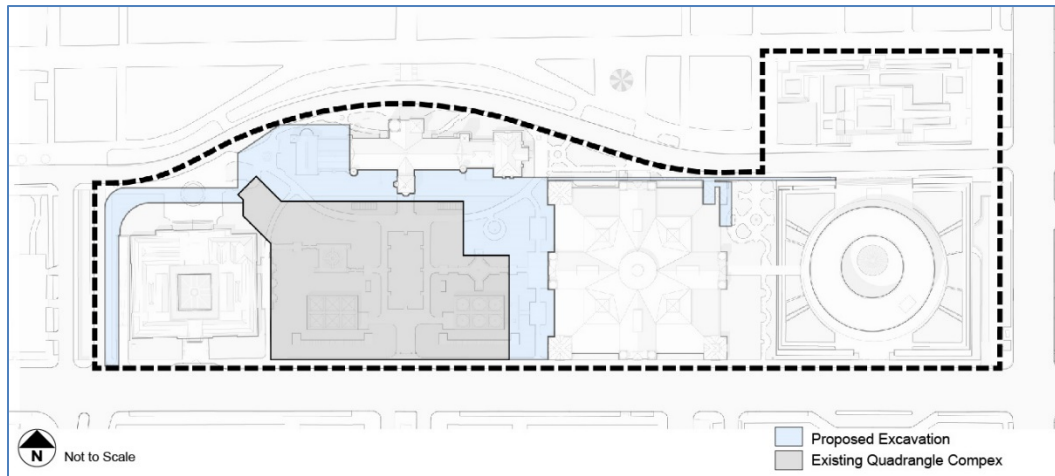


Figure 4- 4. Proposed Excavation Footprint under Alternative B (Source: BIG, 2017).

4.4.2.4 ALTERNATIVE D

DIRECT IMPACTS

Alternative D includes the elements common to all Master Plan Alternatives. In addition to the impacts of the common actions, additional soils would be excavated under Alternative D. Under Alternative D, the subbasement excavation of the Castle would include the entire footprint of the Castle and

beyond the footprint to accommodate the central utility plant and loading facility. The Visitor Center would be located in the basement directly underneath the Castle and a new visitor amenities and education space would connect to the Quadrangle Building. The tunnel from the Hirshhorn Museum to the Sculpture Garden would be expanded, and the Sculpture Garden would be elevated and reconfigured to accommodate new below-grade galleries. These activities would require permanent associated excavation under Jefferson Drive, SW and the existing Sculpture Garden. By locating the central utility plant underneath the Castle basement, extensive excavation would be required under the Castle. The northwest corner foundation of the AIB would need to be underpinned, so minor excavation would still be required adjacent to the AIB. Alternative D would result in the largest overall footprint of excavation compared to the other Master Plan Alternatives (see Figure 4-5). Therefore, Alternative D would result in short- and long-term, major, adverse impacts to soils that have been previously disturbed.

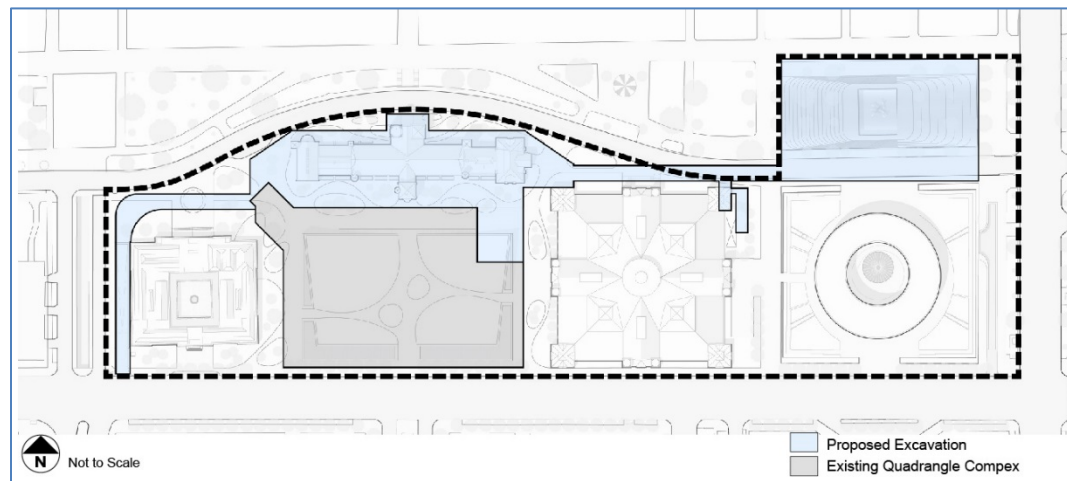


Figure 4- 5. Proposed Excavation Footprint under Alternative D (Source: BIG, 2017).

INDIRECT IMPACTS

Indirect impacts to soils under Alternative D would be similar to the impacts discussed under elements common to all Master Plan Alternatives.

4.4.2.5 ALTERNATIVE F

DIRECT IMPACTS

Alternative F includes the elements common to all Master Plan Alternatives. In addition to the impacts of the common actions, additional soils would be excavated under Alternative F. Alternative F would result in the same depth and footprint of excavation in the area of the Castle and AIB as Alternative B. Under Alternative F, the tunnel from the Hirshhorn Museum to the Sculpture Garden would be expanded, and the Sculpture Garden would be elevated and reconfigured to accommodate new below-grade galleries. These activities would require permanent excavation under Jefferson Drive, SW and the existing Sculpture Garden. Similar to Alternative B, Alternative F would require more extensive excavation and underpinning for the AIB compared to Alternative D. However, Alternative F minimizes excavation underneath the Castle (see Figure 4-6).

INDIRECT IMPACTS

Indirect impacts to soils under Alternative F would be similar to the impacts discussed under elements common to all Master Plan Alternatives.

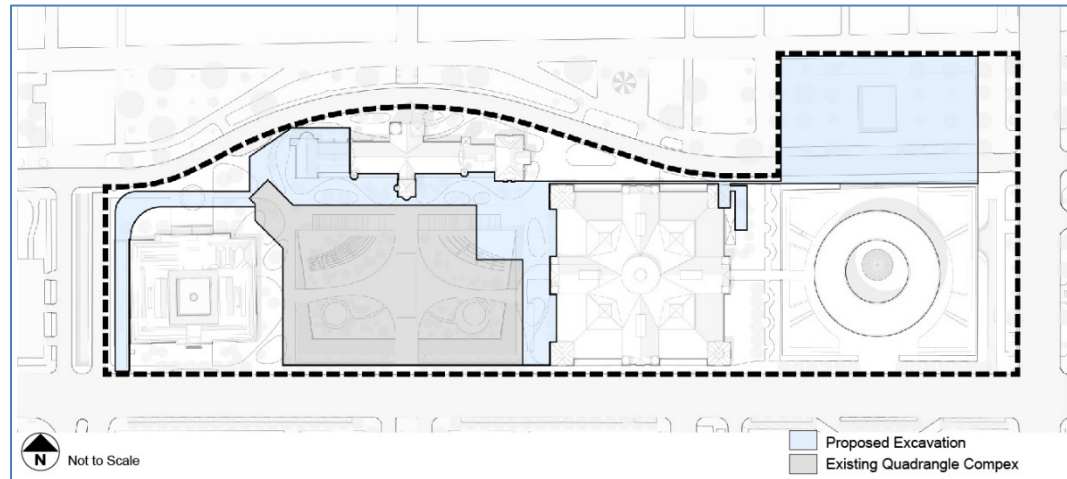


Figure 4- 6. Proposed Excavation Footprint under Alternative F (Source: BIG, 2017).

4.4.3 WHAT MEASURES WILL BE TAKEN TO ENSURE THAT EROSION AND SEDIMENTATION ARE CONTROLLED DURING CONSTRUCTION?

By implementing an erosion and sediment control plan as described under elements common to all Master Plan Alternatives, the South Mall Campus Master Plan would be in compliance with DOEE regulations. If soils are to be impacted on NPS land, SI would get permits needed from NPS for use of NPS land. No additional mitigation is required.

4.5 SEISMIC VULNERABILITY

4.5.1 WHAT ARE THE SEISMIC CONDITIONS AT THE SOUTH MALL CAMPUS?

The District of Columbia is within the Central Virginia Seismic Zone (USGS, 2011). Although the District of Columbia is within a low seismic hazard area, earthquakes have been reported as early as 1774 in central Virginia and the surrounding region. A total of six earthquakes of at least 4.0 magnitude have been recorded in the Central Virginia Seismic Zone since 1973. The most severe

earthquake ever detected in this area, at magnitude 5.8, occurred in August 2011 near Mineral, Virginia, approximately 82.5 miles southwest of the South Mall Campus. All Smithsonian structures in the Washington, DC area were affected (SI Facilities, 2015). The structures on the South Mall Campus in particular are reported to have experienced moderate shaking.

The following codes and standards apply to seismic reinforcements in existing buildings:

- International Building Code (IBC 2012);
- International Existing Building Code (IEBC 2012);
- Seismic Rehabilitation of Existing Buildings (American Society of Civil Engineers [ASCE] 41-13);
- Minimum Design Loads for Buildings and Other Structures (ASCE 7-10); and
- Standards of Seismic Safety for Existing Federally Owned and Leased Buildings, ICSSC Recommended Practice 8 (RP 8).
- Executive Order 13717: Establishing a Federal Earthquake Risk Management Standard

CASTLE

Six seismic reports and studies have been prepared between 1988 and 2015 to assess the Castle's needs for seismic reinforcement. These studies show that the Castle building is not currently in compliance with the above referenced seismic codes and regulations.

In the 2015, Seismic Feasibility Study for the Castle (RSA, 2015b), the above referenced codes were used to develop various models to test the resilience of the Castle during a seismic event. The Castle is particularly vulnerable to seismic activity due to its high, long, narrow shape; tall, unbraced towers and chimneys; and construction of unreinforced masonry walls that lack sturdy

connections to the floors and roof. The study found that an earthquake could result in cracking in the masonry, non-linear rocking in the towers, separations between the main building and the towers, and collapses of towers and floors. Due to extensive visitor and employee use, the Castle's seismic weaknesses represent a substantial risk to human life, substantial economic impact, loss or damage to NHL building fabric, and mass disruption if the building were to fail or collapse.

These weaknesses were evident in the aftermath of the 2011 earthquake. The Castle experienced significant damage and had to be closed to the public and staff for several days. Several of the chimneys and roof ornaments cracked or lost stones. Plaster walls and ceilings in the interior of the building cracked or fell. The unreinforced masonry partitions led to cracks in the walls of the East Wing of the Castle and the stairwells in the North Tower. Some immediate repairs and stabilization took place, and repairs continued through 2013. Additional construction is still needed, including reinforcing the foundation and shear walls, in order to protect the Castle from earthquake damage and bring it up to code.

ARTS AND INDUSTRIES BUILDING

A seismic reinforcing feasibility study for the AIB, conducted in 2009 by McMullan & Associates, identified several seismic deficiencies that are inconsistent with current codes. The deficiencies include walls, piers, and chimney that are constructed of unreinforced masonry; inadequate horizontal bracing between masonry piers; poor connections between walls, piers, towers, and roof; and non-uniform stiffness throughout the building. These deficiencies could result in cracking and separations at the connections between stiff and flexible elements (McMullan & Associates, 2009).

No additional seismic studies have been completed for the Freer Gallery, Hirshhorn Museum and Sculpture Garden, or the Quadrangle Building. These buildings are less vulnerable due to their newer construction.

4.5.2 WHAT IMPACTS WILL SEISMIC UPGRADES HAVE ON THE SOUTH MALL CAMPUS?

4.5.2.1 NO-ACTION ALTERNATIVE

DIRECT IMPACTS

Under the No-Action Alternative, no seismic retrofits would be performed. The seismic deficiencies in the Castle and AIB would not be addressed, and the buildings on the South Mall Campus would remain vulnerable to seismic activity. Since the South Mall Campus's vulnerability to earthquakes would not change, the No-Action Alternative would have no short-term impacts to seismic vulnerability.

However, in the event of an earthquake in the future, the Castle and AIB would likely experience additional damage, including but not limited to cracking in the masonry, non-linear rocking in the towers, separations between the main building and the towers, and collapses of towers and floors. Due to extensive visitor and employee use, the No-Action Alternative presents a risk to human life and economic impact in the event of a future earthquake. Therefore, the No-Action Alternative would not protect buildings on the South Mall Campus from seismic vulnerability and would result in long-term, major, adverse impacts in the event of a seismic event.

INDIRECT IMPACTS

There would be no indirect impacts to seismic vulnerability under the No-Action Alternative.

4.5.2.2 ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

DIRECT IMPACTS

Section 110 of the NHPA requires federal agencies to exercise a higher standard of care when considering undertakings and to undertake planning and actions to minimize the harm to National Historic Landmarks (NHL). The Castle and the AIB are NHLs that warrant the best and most comprehensive approach to protecting the resources. To this end, preconstruction surveys would be conducted for future projects of the Master Plan prior to any underground excavation to identify seismic deficiencies. Underpinning would be installed in accordance with all applicable codes and standards. Monitoring systems would be established in the interior and exterior of each building to protect against vibration and settlement related damage during construction (RSA, 2015a). If an earthquake were to occur during construction, the temporary methods used to underpin or stabilize the foundations of the Castle and other Campus buildings may temporarily increase their seismic vulnerability. Therefore, the elements common to all Master Plan Alternatives would result in short-term, minor, adverse impacts to the seismic vulnerability of the South Mall Campus buildings.

Under all Master Plan Alternatives, the Castle would be retrofitted for seismic resistance. The base isolation method would require limited aboveground reinforcement in the towers, parapets, and chimneys, which would minimize the impacts to the historic character of the Castle (See Figure 4-7). Traditional seismic reinforcement would require extensive cross-bracing and stiffening throughout the Castle, which would substantially impact the historic fabric of the Castle (See Figure 4-8). Therefore, a combination of the two methods would be utilized because the base isolation method would limit the forces a seismic event would have on the building. By limiting the force, you can limit the amount of cross-bracing that would be needed, which would allow for more of the Castle's defining historic features to be preserved (e.g., double height spaces, vaulted ceilings, etc.). The proposed base isolation and limited

aboveground reinforcement would reduce seismic risks to the Castle by two to three times compared to its current condition (RSA, 2015c).

Under all of the Master Plan Alternatives, the AIB would be protected against seismic events with progressive collapse measures. Additional structural underpinning would be added to the west side of the AIB foundation to support the building and allow for below-grade excavation.

While no specific seismic retrofits are proposed for the other South Mall Campus buildings at this time, preconstruction surveys would be conducted for each phase of the Master Plan to identify seismic deficiencies and to determine if retrofits are needed to protect structures. If needed, all foundation underpinning and improvements to building envelopes would be constructed to comply with current codes and standards, including seismic, resulting in an overall improvement to seismic vulnerability. Therefore, the seismic upgrades proposed under all Master Plan Alternatives would result in a long-term, major, beneficial impact to the seismic vulnerability of the South Mall Campus.

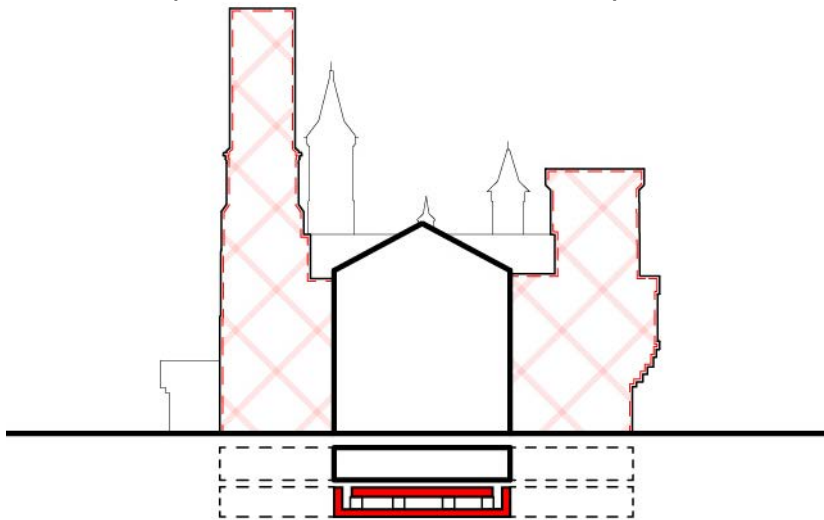


Figure 4- 7. Base Isolation Method

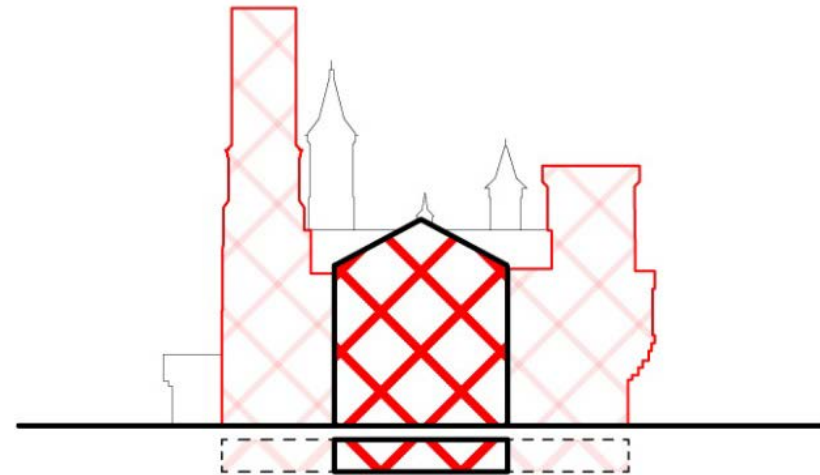


Figure 4- 8. Traditional Cross-Bracing Method

INDIRECT IMPACTS

There would be no indirect impacts to seismic vulnerability from the elements common to all Master Plan Alternatives.

4.6 STORMWATER MANAGEMENT

4.6.1 HOW HAS STORMWATER MANAGEMENT AT THE SOUTH MALL CAMPUS BEEN PROVIDED?

Most stormwater on the South Mall Campus drains directly to the District's Municipal Separate Storm Sewer System (MS4), operated by DOEE. A small portion of the South Mall Campus around the Hirshhorn Sculpture Garden adjoins the combined sewer system (CSS) and stormwater in that area could drain into the CSS. The South Mall Campus consists of approximately 56 percent impervious surface, including buildings, parking areas, roads, sidewalks, and contained water features. This includes the Parterre of the Haupt Garden, which is underlain by the Quadrangle Building, so the potential for stormwater retention and infiltration is limited. Drainage systems on the buildings in the South Mall Campus are generally deteriorated, which has led to rust, uncoupling, and/or leaks. Several of the buildings do not have emergency secondary drains or overflow systems, which can lead to backups, pooling, and water damage to the building interior.

In 2013, the District issued the 2013 Rule on Stormwater Management and Soil Erosion and Sediment Control (21 DCMR Chapter 5), which aims to reduce the overall volume of stormwater pollution entering District waterbodies. Under the 2013 Rule, major land-disturbing activities are required to retain on-site a minimum of 50 percent of all rainfall up to a 1.2-inch storm event. The remaining volume retention can be accomplished off-site, if necessary. All major regulated projects are required to submit a Stormwater Management Plan (SWMP) in accordance with the 2013 Rule and the details outlined within the

2013 Stormwater Management Guidebook (DDOE/Center for Watershed Protection, 2013).

4.6.2 HOW WOULD THE ALTERNATIVES AFFECT STORMWATER?

4.6.2.1 NO-ACTION ALTERNATIVE

DIRECT IMPACTS

Under the No-Action Alternative, no changes to the configuration of the existing stormwater system, the amount of impervious surface, or the amount of green space on the South Mall Campus would occur. Basic maintenance and localized repair of the existing stormwater system would continue as needed. Therefore, no new short- or long-term impacts to stormwater would occur under the No-Action Alternative.

INDIRECT IMPACTS

Construction activities related to the repair of the Quadrangle Building roof membrane and maintenance of existing underground utilities could temporarily expose and disturb soils, which would potentially result in increased soil erosion that could travel offsite or enter the municipal stormwater system. An erosion and sediment control plan would be developed in accordance with DCEE regulations to minimize the potential for eroded soils to be transported offsite during construction. Therefore, the No-Action Alternative would result in short-term, negligible, and adverse impacts related to stormwater. Stormwater on the South Mall Campus would continue to drain to the MS4 and to some extent the CSS indefinitely, with no changes to stormwater quantity or quality. However, there would continue to be a limited ability to retain and filter stormwater before it is discharged. Therefore, a long-term, minor, indirect impact to stormwater would continue under the No-Action Alternative.

4.6.2.2 ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

DIRECT IMPACTS

Under all Master Plan Alternatives, clearing of vegetation and green space during construction would temporarily reduce the site's ability to absorb stormwater, which could potentially increase the amount of stormwater generated onsite during storm events. The operation of construction equipment could potentially result in spills of hazardous materials or petroleum products onsite. These impacts would be temporary and would be minimized by implementing Best Management Practices (BMPs) during construction, including but not limited to silt fences, erosion matting, curb inlet protection, hay bales, and revegetation of exposed sediment. An erosion and sediment control plan and SWMP would be developed in accordance with DOEE regulations and implemented during construction. Therefore, the elements common to all Master Plan Alternatives would have short-term, minor, adverse impacts to stormwater.

Under all of the Master Plan Alternatives, a loading ramp entrance would be constructed to the west of the Freer Gallery. This action may result in an increase in impervious surface and, therefore, increase stormwater runoff on the site. However, the surface parking lot east of the AIB would be removed, the Quadrangle loading adjacent to the Sackler Gallery would be removed and relocated, and the Ripley Garden would be expanded resulting in a decrease in impervious surfaces. In comparison to the existing condition, the amount of impervious surface, overall, would decrease as follows:

- Alt B: approx. 4,500 sf less impervious surface;
- Alt D: approx. 11,000 sf less impervious surface; and
- Alt F: approx. 18,000 sf less impervious surface.

Under all Master Plan Alternatives, the Haupt Garden would be replaced and expanded and would function as an upgraded green roof above the

Quadrangle Building including expansion into the area now occupied by the Sackler service ramp. Pervious pavers, bioretention areas, and additional plantings and green space would be added wherever possible.

Under all Master Plan Alternatives, the existing stormwater drainage systems throughout the South Mall Campus would be upgraded. One or more cisterns would be provided either near the central utility plant or in the sub-basement of the Castle to capture and store stormwater drainage from the Castle and AIB roofs. This stormwater would then be reused to irrigate the South Mall Campus gardens or to flush toilets. An ultra-violet treatment system would be installed in the stormwater capture system to prevent harmful bacteria growth. Oil-water separators would be installed in the central loading facility and ramp to ensure that no contaminated water enters the cisterns or drains offsite.

By reducing impervious surface, installing the stormwater capture and reuse system, and providing green infrastructure, all Master Plan Alternatives would comply with the District's 2013 Stormwater Rule. Therefore, the elements common to all Master Plan Alternatives would have a long-term, moderate, beneficial impact related to stormwater.

INDIRECT IMPACTS

Under all Master Plan Alternatives, construction activities would temporarily expose and disturb soils, which could potentially result in increased soil erosion. The operation of construction equipment could potentially result in spills of hazardous materials or petroleum products. During storm eventtablets, these eroded sediments and contaminants could travel off-site or enter the municipal stormwater system. These impacts would be temporary and would be minimized as much as possible by implementing BMPs during construction, including but not limited to silt fence, erosion matting, curb inlet protection, hay bales, and revegetation of exposed sediment. An erosion and sediment control plan and SWMP would be developed in accordance with DOEE regulations and

implemented during construction. Therefore, the elements common to all Master Plan Alternatives would have a short-term, minor, adverse impact to stormwater.

All Master Plan Alternatives would reduce the overall volume of stormwater entering the MS4 and the CSS and therefore reduce stormwater pollution in the Potomac River, the Anacostia River, and other District waterways compared to the No-Action Alternative. Therefore, the elements common to all Master Plan Alternatives would have long-term, moderate, beneficial, indirect impacts to stormwater in the overall region.

4.6.2.3 ALTERNATIVE B

DIRECT IMPACTS

Alternative B includes the elements common to all Master Plan Alternatives. The additional construction activities included in Alternative B such as excavations for a limited sub-basement area and visitor amenities and education center adjacent to the Castle and construction of a new utility plant would occur below-grade and therefore would not add to the stormwater impacts of the proposed action. Therefore, Alternative B, like the elements common to all Master Plan Alternatives, would have long-term, moderate, beneficial, indirect impacts to stormwater in the overall region.

INDIRECT IMPACTS

In addition to the impacts of elements common to all Master Plan Alternatives, under Alternative B, soils would be disturbed for excavations for sub-basement area and visitor center adjacent to the Castle and construction of a new utility plant below-grade, and for removing a portion of the Hirshhorn Plaza west wall. During storm events, exposed soils could travel off-site or enter the municipal stormwater system. As described under elements common to all Master Plan Alternatives, these impacts would be temporary and would be minimized as much as possible by implementing BMPs in accordance with an erosion and

sediment control plan and SWMP. Therefore, Alternative B would have a short-term, minor, adverse impact to stormwater.

Alternative B would have the same long-term, moderate, beneficial, indirect impacts to stormwater in the overall region as the elements common to all Master Plan Alternatives.

4.6.2.4 ALTERNATIVE D

DIRECT IMPACTS

Alternative D includes the elements common to all Master Plan Alternatives. Alternative D also includes excavations for sub-basement loading facilities and visitor center under the Castle and construction of a new utility plant. These actions would occur below-grade and therefore would not add to the stormwater impacts of the proposed action.

Expanding the Haupt Garden by reducing the footprint of the Quadrangle Building entry pavilions and removing the Sackler loading ramp and reconfiguring garden pathways would decrease impervious surfaces on the South Mall Campus which in turn would improve infiltration of stormwater and reduce runoff. Therefore, Alternative D would have a long-term, moderate, beneficial, indirect impacts to stormwater in the overall region.

INDIRECT IMPACTS

In addition to the impacts of elements common to all Master Plan Alternatives, under Alternative D, soils would be disturbed for excavations for sub-basement loading facilities and visitor center under the Castle and construction of a new utility plant below-grade; to reconfigure the Sculpture Garden to include new gallery space; to expand the tunnel from the Hirshhorn Museum to the Sculpture Garden; and to remove a portion of the Hirshhorn Plaza north, east, and west wall. During storm events, exposed soils could travel off-site or enter the municipal stormwater system. As described under elements common to all

Master Plan Alternatives, these impacts would be temporary and would be minimized as much as possible by implementing BMPs in accordance with an erosion and sediment control plan and SWMP. Therefore, Alternative D would have a short-term, minor, adverse impact to stormwater.

Alternative D would have the same long-term, moderate, beneficial, indirect impacts to stormwater in the overall region as the elements common to all Master Plan Alternatives.

4.6.2.5 ALTERNATIVE F

DIRECT IMPACTS

Alternative F includes the elements common to all Master Plan Alternatives. Alternative F also includes excavations for limited sub-basement loading space and visitor amenities and education center between the Castle and the Quadrangle Building and construction of a new utility plant. These actions would occur below-grade and therefore would not add to the stormwater impacts of the proposed action.

Expanding the Haupt Garden would decrease impervious surfaces on the South Mall Campus which in turn would improve infiltration of stormwater and reduce runoff. Therefore, Alternative F would have a long-term, moderate, beneficial, indirect impacts to stormwater in the overall region.

INDIRECT IMPACTS

In addition to the impacts of elements common to all Master Plan Alternatives, under Alternative F, soils would be disturbed for excavations for a limited sub-basement loading facility and visitor center adjacent to the Castle and construction of a new utility plant below-grade; to install new museum entrance pavilions; to reconfigure the Sculpture Garden to include new gallery space; to expand the tunnel from the Hirshhorn Museum to the Sculpture Garden; and to remove a portion of the Hirshhorn Plaza west wall. During storm events, exposed soils could travel off-site or enter the municipal stormwater system. As

described under elements common to all Master Plan Alternatives, these impacts would be temporary and would be minimized as much as possible by implementing BMPs in accordance with an erosion and sediment control plan and SWMP. Therefore, Alternative F would have a short-term, minor, adverse impact to stormwater.

Alternative F would have the same long-term, moderate, beneficial, indirect impacts to stormwater in the overall region as the elements common to all Master Plan Alternatives.

4.6.3 WHAT TYPES OF STORMWATER QUANTITY AND QUALITY CONTROL MEASURES WOULD BE IMPLEMENTED UNDER THE MASTER PLAN ALTERNATIVES?

By implementing an erosion and sediment control plan and SWMP, reducing impervious surface, installing the stormwater capture and reuse system, and providing green infrastructure as described under elements common to all Master Plan Alternatives, the Master Plan would be in compliance with the District's 2013 Stormwater Rule. No additional mitigation is required.

4.7 AIR QUALITY

4.7.1 ARE THERE ANY AIR QUALITY ISSUES IN THE WASHINGTON METROPOLITAN REGION?

Under the authority of the Clean Air Act (CAA) (USC. Title 42, Chapter 85, 1970, as amended in 1990), the EPA has developed National Ambient Air Quality Standards (NAAQS) for certain air pollutants (criteria pollutants) deemed harmful to public health and the environment. These criteria pollutants include: nitrogen dioxide (NO₂), sulfur dioxide (SO₂), carbon monoxide (CO), ozone (O₃), particulate matter (PM_{2.5}/PM₁₀), and lead (Pb). The EPA designates areas where ambient concentrations are below the NAAQS as being in "attainment" and

Geographic Areas Included in the
Washington Metropolitan Region:

Maryland
Montgomery County
Prince George's County
Frederick County
Charles County
Calvert County
Virginia
Fairfax County
Arlington County
Prince William County
Loudoun County
City of Alexandria
City of Falls Church
City of Fairfax
City of Manassas
City of Manassas Park
District of Columbia

designates areas where a criteria pollutant level exceeds the NAAQS as being in “nonattainment.”

The Washington Metropolitan Region is designated as a nonattainment area for ground-level O₃ under the 8-hour standard (EPA, 2017b). The 8-hour standard is defined as the 3-year average of the fourth highest daily maximum 8-hour average ozone concentration. In response to the designation the Metropolitan Washington Council of Governments (MWCOC) prepared a State Implementation Plan (SIP) to reduce O₃ in the region. The plan provides an inventory of existing conditions, a projection of future conditions in consideration of regional growth, and an outline of control strategies to achieve air pollutant reduction. The SIP to meet O₃ attainment standards was adopted in May 2007.

In accordance with the CAA, DOEE is responsible for air quality monitoring to protect public health and the environment. The DOEE carries out an EPA-approved air quality management program that includes monitoring, identifying, and implementing control strategies, assessing the results of the control strategies, and measuring progress. Over the last 20 years, the DOEE reports that criteria pollutants have decreased significantly from historic levels due to the implementation of control measures. In the 1980s, the introduction of vehicles equipped with the catalytic converter helped to reduce NO₂ and CO in the air, and the phasing out of leaded gasoline resulted in a significant drop in airborne lead levels. Controls at stationary sources have reduced SO₂ and NO₂. Ozone pollution has also been reduced, but Metropolitan Washington remains in nonattainment (DOEE 2014).

The largest source of air emissions in the District is the operation of motor vehicles. To combat these emissions, DOEE has passed the Engine Anti-Idling Law (DCMR 20-900), which prohibits any vehicle to idle for more than three minutes while parked, stopped, or standing. Exceptions to this rule include the

operation of power takeoff equipment such as dumping beds, cement mixers, content delivery equipment, etc.

In addition to the regional ambient air quality standards, the CAA also imposes National Emission Standards for Hazardous Air Pollutants (NESHAP) for known indoor toxic air pollutants such as asbestos and lead, which are known or suspected carcinogens or other serious health effects. Due to the age of the existing buildings on the South Mall Campus, it is assumed that one or more of the materials described above can be found within portions of buildings to be renovated.

4.7.2 WOULD THE SOUTH MALL CAMPUS MASTER PLAN IMPACT AIR QUALITY IN THE AREA?

4.7.2.1 NO-ACTION ALTERNATIVE

DIRECT IMPACTS

Under the No-Action Alternative, SI would not undertake any major activities that would involve construction, demolition, or excavation. Minor repairs to the Quadrangle Building roof membrane and other building facades would generate fugitive dust. Emissions from construction vehicles and equipment would generate VOCs and Nitrous Oxides (NO_x) which, when combined in the atmosphere, create harmful ground-level O₃. BMPs would be implemented to reduce fugitive dust and harmful emissions and they would ensure the project is in conformance with the MWCOG SIP. With the implementation of these control measures, construction activities would have a short-term, minor, adverse impact to air quality. In accordance with the District's Air Pollution Control Act, activities related to construction and demolition, which are likely to create fugitive dust, and exhaust emissions would be subject to DOEE's Air Quality Division review and oversight.

Ozone (O₃)

- Common Sources Industrial facilities and electric utilities, motor vehicle exhaust, gasoline vapors, and chemical solvents are sources of VOCs and Nox, which combine in the presence of sunlight to form ozone.
- FDA White Oak Master Plan Update Sources : Gas turbines associated with Central Utility Plant, Motor Vehicles

Particulate Matter (PM_{2.5}, PM₁₀)

- Common Sources Power plants, industrial sites, automobiles, construction sites, unpaved roads, smokestacks.
- FDA White Oak Master Plan Update Sources : Gas turbines associated with Central Utility Plant, Motor Vehicles, Construction (temporary)

Carbon Monoxide (CO)

- Common Sources: Motor vehicles, power plants, industrial sites, Construction sites.
- FDA White Oak Master Plan Update Sources : Gas turbines associated with Central Utility Plant, Motor Vehicles, Construction (temporary)

Nitrogen Oxides (NO_x)

- Common Sources Power plants, motor vehicles, construction sites, unpaved roads, smokestacks.
- FDA White Oak Master Plan Update Sources : Gas turbines associated with Central Utility Plant, Motor Vehicles

Sulfur Dioxide (SO₂)

- Common Sources Power plants, motor vehicles
- FDA White Oak Master Plan Update Sources : Gas turbines associated with Central Utility Plant, Motor Vehicles

Lead (Pb)

- Common Sources Industrial Sites, Electricity Generation
- FDA White Oak Master Plan Update Sources : None.

Minor repairs and renovations could result in the disturbance of hazardous materials such as which may cause them to become airborne. Impacts due to the disturbance of hazardous materials are discussed in Section 4.14: Human Health and Safety of this EIS.

Under the No-Action Alternative, outdated mechanical systems would not be replaced with modern efficient units. SI would continue to use GSA steam and chilled water and would repair existing mechanical systems on an as-needed basis. The antiquated mechanical systems contribute to indoor air quality issues and the demand for energy from these units would generate emissions and result in a long-term, minor, adverse impact to air quality.

INDIRECT IMPACTS

No indirect impacts to air quality would occur under the No-Action Alternative.

4.7.2.2 ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

DIRECT IMPACTS

Under all Master Plan Alternatives, construction, demolition, excavation, and renovation activities would temporarily impact air quality. These activities include installing Castle blast protection and seismic bracing; restoring the Castle; renovating the Hirshhorn Museum and Sculpture Garden; replacing the roof membrane of the Quadrangle Building; relocating the loading dock and connecting it to underground facilities; excavating below-grade to accommodate a central utility plant; excavating below the Castle to accommodate seismic bracing and an expanded basement; and installing perimeter security measures. Fugitive dust would be generated during these activities, particularly from the excavation of soil. Emissions from construction vehicles and equipment would generate VOCs and NO_x which, when combined in the atmosphere, create harmful ground-level O₃. BMPs would be implemented to reduce fugitive dust and harmful emissions, and they would ensure the project is in conformance with the MWCOG SIP. With the implementation of these control measures,

construction activities would have a short-term, minor, adverse impact to air quality. In accordance with the District's Air Pollution Control Act, activities related to construction and demolition, which are likely to create fugitive dust, and exhaust emissions would be subject to DOEE's Air Quality Division review and oversight.

Minor repairs and renovations could result in the disturbance of hazardous materials such as which may cause them to become airborne. Impacts due to the disturbance of hazardous materials are discussed in Section 4.14: Human Health and Safety of this EIS.

Under all Master Plan Alternatives, outdated existing mechanical systems would be replaced with modern, energy efficient units. The South Mall Campus would cease the use of GSA steam and chilled water from their Central Heating Plant and SI would construct a below-grade central utility plant (location varies by Master Plan Alternative) to serve the entire South Mall Campus. GSA's Central Heating Plant currently generates electricity and steam using gas-fired turbines while simultaneously generating chilled water using electricity generated by the turbines. Utility plants like the one proposed by SI emit NO_x; however, the new central utility plant would operate using new energy efficient equipment, emissions controls, and natural gas which would have lower emissions than older plants like the GSA facility (Atelier Ten, 2014). Since the project is currently in the Master Plan phase, the size of the central utility plant and equipment are preliminary and not yet known. During the design phase of this project, SI would determine whether the central utility plant would require a New Source Review by DOEE. SI would ensure all mechanical systems would not produce emissions above *de minimis* thresholds or would obtain a Title V permit if the central utility plant is determined to exceed the major source pollutant threshold, and therefore would ensure the project was in conformity with the CAA. Ultimately there would be a long-term, minor, beneficial impact to air

quality as the newer, energy efficient mechanical systems and central utility plant would reduce emissions associated with the South Mall Campus.

INDIRECT IMPACTS

The improvements to mechanical equipment and the use of a natural-gas powered central utility plant would reduce the overall emissions of the South Mall Campus resulting in long-term, minor, beneficial impacts to regional air quality. The elements common to all Master Plan Alternatives would not generate additional vehicular trips and therefore there would be no indirect impacts to air quality.

4.7.2.3 ALTERNATIVE B

DIRECT IMPACTS

Alternative B includes the elements common to all Master Plan Alternatives. In addition to the impacts of the common actions, Alternative B construction activities would include removing the Ripley Center entry pavilion; relocating the entrance of the Sackler Gallery and NMAfA to the north side of the buildings; restoring the original tunnel connection between the Hirshhorn Plaza and Sculpture Garden; and removing a limited portion of the Hirshhorn Plaza west wall. These activities would temporarily impact air quality by creating fugitive dust and exhaust emissions from construction equipment and would add to the short-term, minor, adverse impacts to air quality that would occur due to elements common to all Master Plan Alternatives.

INDIRECT IMPACTS

Indirect impacts from improvements to mechanical equipment and the use of a natural-gas powered central utility plant under Alternative B would be the same as those described under elements common to all Master Plan Alternatives since no additional efficiency measures would be implemented.

Alternative B would result in approximately 46 and 164 additional vehicular trips during week day and Saturday peak hours, respectively. Increases in delay are primarily due to background growth in the study area that is anticipated to occur between 2017 and 2040. Background growth will exceed existing roadway capacity even without the additional trips generated by Alternative B. Mitigation measures, such as adjustments to signal timing and phasing, would be implemented to address the projected delays that were identified in the traffic analysis. With mitigation measures to address projected traffic delays, there would not be a measurable increase in vehicle emissions. Therefore, traffic would have a negligible, long-term, adverse impact on air quality.

4.7.2.4 ALTERNATIVE D

DIRECT IMPACTS

Alternative D includes the elements common to all Master Plan Alternatives. In addition to the impacts of the common actions, additional construction would include constructing a below-grade dip entrance to the Visitor Center; installing new museum entry pavilions; installing new skylights; removing the Ripley Center pavilion; removing Hirshhorn Plaza walls; and expanding the tunnel connection between the Hirshhorn Plaza and Sculpture Garden and Gallery. These activities would temporarily impact air quality by creating fugitive dust and exhaust emissions from construction equipment and would add to the short-term, minor, adverse impacts to air quality that would occur due to elements common to all Master Plan Alternatives.

INDIRECT IMPACTS

Indirect impacts under Alternative D would be the same as those described under elements common to all Master Plan Alternatives since no additional efficiency measures would be implemented and no additional vehicular trips would be generated.

4.7.2.5 ALTERNATIVE F

DIRECT IMPACTS

Alternative F includes the elements common to all Master Plan Alternatives. In addition to the impacts of the common actions, construction would include constructing entrance stairs to the visitor amenities and education space; expanding the extent of skylights; removing the Ripley pavilion; relocating the Sackler Gallery and NMAfA museum pavilions; removing a small portion of the Hirshhorn Plaza west wall; and expanding the tunnel connection between the Hirshhorn Plaza and Sculpture Garden and Gallery. These activities would temporarily impact air quality by creating fugitive dust and exhaust emissions from construction equipment and add to the short-term, minor, adverse impacts to air quality that would occur due to elements common to all Master Plan Alternatives.

INDIRECT IMPACTS

Indirect impacts under Alternative F would be the same as those described under elements common to all Master Plan Alternatives since no additional efficiency measures would be implemented and no additional vehicular trips would be generated.

4.7.3 WHAT WOULD BE DONE TO PROTECT AIR QUALITY DURING CONSTRUCTION?

During construction, demolition, excavation, or renovations, short-term impacts would be mitigated through the use of proper control measures including minimizing vehicle idling times; maintaining emission controls on construction vehicles and equipment; and covering/wetting exposed soils to reduce fugitive dust.

4.7.4 WHAT PERMANENT MEASURES WOULD BE TAKEN TO REDUCE LONG-TERM IMPACTS TO AIR QUALITY?

In order to reduce long-term adverse impacts to air quality, SI would replace outdated mechanical systems that are at the end of their useful lives and construct a new central utility plant. These systems would be replaced with modern, efficient units which would result in a long-term reduction in air emissions.

In order to reduce impacts from additional vehicular trips generated by the implementation of the Master Plan, adjustments to signal timing and phasing would be made to minimize idling times and therefore minimize impacts to air quality. These mitigation measures are discussed in further detail below in the Traffic and Transportation Section.

4.8 GREENHOUSE GASES, CLIMATE CHANGE, AND ENERGY CONSUMPTION

4.8.1 WHAT ARE GREENHOUSE GASES AND HOW DO THEY CONTRIBUTE TO CLIMATE CHANGE?

GHG emissions, released from activities that involve the combustion of fossil fuels, are widely recognized as the main contributing factor to climate change. GHGs such as CO₂, NO_x, and methane (CH₄) absorb and trap heat that is radiated by the earth, preventing it from escaping into the atmosphere. As nations around the world become more industrialized, more GHGs are being emitted, intensifying this natural phenomenon known as the “greenhouse effect”. The result is a change in global temperatures and can also cause changes to patterns and intensities of precipitation, increased frequency, and magnitude of severe weather and/or sea level rise (EPA, 2017).

In 2015, President Obama issued Executive Order 13693, *Planning for Federal Sustainability in the Next Decade* which directs federal agencies to reduce GHG

emissions by 40-percent below 2008 levels by 2025 (The White House, 2015). Additionally, DC has set a goal to reduce GHG emissions by 50-percent below 2006 levels by 2032 and by 80-percent by 2050 (DOEE, 2017).

4.8.2 HOW DOES SI CURRENTLY ADDRESS GHG AND CLIMATE CHANGE CONCERNS?

The Energy Management Team of Smithsonian Facilities has prioritized sustainability goals at SI buildings. The Energy Management Team operates a Sustainable Facilities Working Group (SFWG) to evaluate the feasibility of LEED® certification for Smithsonian buildings. Smithsonian Facilities also tracks utility usage data and implements various BMPs to reduce fossil fuel emissions from SI buildings (SI, 2017).

In 2014, SI performed an energy analysis and determined the CO₂ emissions for each of the buildings on the South Mall Campus. The findings are detailed below in Table 4-2.

Table 4- 2. Carbon Dioxide Emissions for Buildings within the South Mall Campus

Building	Emissions Metric Tons of CO ₂ (MTCO ₂)
Castle	1,175
AIB	1,713
Quadrangle Building (includes Sackler Gallery and NMAfA)	5,380
Freer Gallery	2,364
Hirshhorn Museum and Sculpture Garden	4,606

Source: (Atelier ten, 2014)

4.8.3 WHAT TYPES OF ENERGY CONSERVATION MEASURES DOES SI CURRENTLY USE ON THE SOUTH MALL CAMPUS?

SI policies regarding sustainability include Smithsonian Directive (SD) 414: SI Energy Management Program and Water Supply Emergency Plan and SD 422: Sustainable Design of Smithsonian Facilities. The Energy Management branch continually tracks utility usage at all SI facilities, reviews capital projects for compliance with SI's sustainability goals, and implements building-level and system wide tools and processes to increase sustainability at existing facilities. This group also manages LEED® certifications for SI and assists facility managers with LEED® documentation. LEED® certification is required for all new construction, and SI is also pursuing LEED® certification for many existing facilities.

Currently, none of the exterior and shell of the buildings on the South Mall Campus are LEED® certified, although the recent renovation of the AIB was designed to LEED® Gold standards.

4.8.4 WOULD THE SOUTH MALL CAMPUS MASTER PLAN IMPACT GREENHOUSE GAS EMISSIONS THEREBY CONTRIBUTING TO CLIMATE CHANGE?

4.8.4.1 NO-ACTION ALTERNATIVE

DIRECT IMPACTS

The No-Action alternative includes the upkeep and maintenance of the outdated and inefficient mechanical system and continued reliance on the GSA steam and chilled water plant. Under this alternative, and assuming no substantial upgrades or fuel source changes to the GSA plant, the systems would not be upgraded thereby the improvements in emissions achieved by newer more efficient units would be negated. Direct impacts result from indirect CO₂ emissions derived from the purchase of electricity. In the short-term, the CO₂ emission rates would stay at their current rate, 15,238 MTCO₂ (Atelier ten,

2014). Short-term direct impacts to climate change would be negligible due to the minor emissions contributed by SI to the larger atmosphere. Under the No-Action Alternative, the buildings would not be renovated to achieve LEED® status; therefore, the benefits achieved in energy and water use reduction would not be achieved. In the long-term as building systems continue to age the amount of energy needed to power the facilities could increase resulting in an increase in CO₂ emissions. Assuming no major changes to the GSA plant, the potential increase in emissions would result in a direct, negligible, long-term, adverse impact to GHG emissions.

INDIRECT IMPACTS

The demand for energy from existing inefficient mechanical systems and older buildings would generate emissions and would result in short-and long-term, indirect, negligible adverse impacts to climate change.

4.8.4.2 ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

Construction equipment used for construction, demolition, excavation, and renovation activities would emit CO₂. These emissions would have short-term, minor, adverse impacts to GHG levels.

All Master Plan Alternatives include upgrading current mechanical systems to more energy efficient units. Proposed system upgrades include shifting from steam and chilled water provided by GSA's Central Heating Plant to an on-site central utility plant powered by natural gas. Improved systems and sustainable building design would allow SI to reduce the amount of energy needed to be purchased from the local energy grid. The proposed central utility plant would emit NO_x; however, it would operate using new energy efficient equipment, emissions controls, and natural gas which would have lower emissions. This shift is predicted to result in a 39 percent CO₂ reduction (Atelier ten, 2014). Ongoing maintenance would be necessary to promote efficient and clean operation of the mechanical system. Efficiency measures promoted by SI to

reduce energy consumption such as motion sensitive, high efficiency lights would increase the efficiency and lower energy demands.

The improvements to mechanical equipment and the use of a natural-gas powered central utility plant would result in long-term direct impacts to GHG that are beneficial but negligible.

INDIRECT IMPACTS

The improvements to mechanical equipment and the use of a natural-gas powered central utility plant would reduce the overall CO₂ contribution of the South Mall Campus resulting in long-term, beneficial but negligible, indirect impacts to climate change.

4.8.4.3 ALTERNATIVE B

DIRECT IMPACTS

Alternative B includes the elements common to all Master Plan Alternatives. In addition, this alternative includes a consolidated delivery area. Organizing and centralizing deliveries would reduce the amount of time that trucks are idling, thereby reducing their emissions.

Under Alternative B, buildings would be renovated with the goal of achieving LEED® Gold Certification. GHGs come from many components of the built environment, including building systems and energy use, transportation, water use and treatment, land-cover change, materials, and construction (Huynh, 2017). Improving the efficiency of buildings can reduce greenhouse gas emissions. LEED®-certified buildings are more resource efficient and therefore use less water and energy ultimately reducing GHG emissions. Even with the implementation of these measures the short- and long-term direct impacts are beneficial but negligible. The reduction in energy consumption, water use and waste production would result in long-term, minor, beneficial impacts to GHG emissions.

INDIRECT IMPACTS

The improvements to mechanical equipment and the use of a natural-gas powered central utility plant would reduce the overall CO₂ contribution of the South Mall Campus resulting in long-term, beneficial but negligible, direct impacts to climate change.

4.8.4.4 ALTERNATIVE D

Under Alternative D, the direct impacts to GHG emissions would be the same as those under Alternative B.

INDIRECT IMPACTS

Under Alternative D, the indirect impacts to climate change would be the same as those under Alternative B.

4.8.4.5 ALTERNATIVE F

DIRECT IMPACTS

Under Alternative F, the direct impacts to GHG emissions would be the same as those under Alternative B.

INDIRECT IMPACTS

Under Alternative F, the indirect impacts to climate change would be the same as those under Alternative B.

4.9 CULTURAL RESOURCES

In accordance with Section 106 of the National Historic Preservation Act (NHPA), NCPC, as the lead federal agency, is required to consider the effects of the proposed action on historic properties. Pursuant to Public Law 108-72 Stat. 888 (August 15, 2003), for projects in the District of Columbia that are subject to review and approval by the NCPC, the SI is deemed to be a federal agency for purposes of compliance with Section 106. The SI is the lead agency for Section

106 purposes pursuant to 36 CFR 800.2(a)(2) for the undertaking to fulfill their Section 106 responsibilities. Historic properties, as defined by the implementing regulations of the NHPA, are any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP). This term includes artifacts, records, and remains that are related to and located within such properties, as well as properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

To be included in, or found eligible for inclusion in, the NRHP, historic properties must meet one of the following criteria (as defined in CFR 36 § 60.4):

- A) Be associated with events that have made a significant contribution to the broad patterns of our history; or
- B) Be associated with the lives of persons significant in our past; or
- C) Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, or
- D) Have yielded, or are likely to yield, information important in prehistory or history.

Certain types of properties, including those less than 50 years of age, are not usually considered for National Register listing unless they meet special requirements, known as Criteria Considerations. Historic properties must also possess sufficient integrity to convey their significance, including their location, design, setting, materials, workmanship, feeling and association.

NEPA requires federal agencies to consider the degree to which an action "...may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the NRHP or may cause loss or destruction of significant

scientific, cultural, or historical resources.” The term “cultural resource” is not specifically defined in NEPA, NHPA, or any other federal law. Generally speaking, however, cultural resources include all resources that have significant cultural associations between the human environment and the natural or built environment. The term cultural resources includes all resources included within the Section 106 definitions of “historic properties”, as well as additional resources such as sacred sites, traditional cultural properties (TCPs), archaeological sites not eligible for listing in the NRHP, archaeological collections, and cultural landscapes. Also included are significant local and state monuments, properties listed in local and state historic registers, and other sites of cultural significance that are not otherwise eligible for National Register listing.

4.9.1 WHAT IS THE AREA OF POTENTIAL EFFECTS?

An early step in the Section 106 process is the determination and documentation of the area of potential effect (APE). As defined by 36 CFR § 800.16 (d), the APE is “the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.”

SI and NCPC developed the APE for the proposed action by completing research, site visits, and photographic documentation, and through consultation with the DC HPO and other consulting agencies (Figure 4-9 and Figure 4-10). As the Smithsonian South Mall Campus is situated in a prominent location along the south boundary of the National Mall between 12th and 7th Streets, SW, the APE was delineated to account for the high visibility of the site within the National Mall, its component landscapes, and the surrounding urban context. The APE boundaries reflect the outer limits from which views toward the property may reasonably generate indirect adverse effects.

The APE is irregularly shaped, but is roughly bound by 1st Street, NE/SE to the east and 17th Street, SW to the west. To the north, the APE is primarily bound by Constitution Avenue, NW. The APE's north boundary extends approximately one block north between 9th and 7th streets, before returning to Constitution Avenue. To the south, the APE is bound by: Independence Avenue, SW between 17th and 14th Streets, SW, and 2nd Street, SW, and 1st Street, SE; C Street, SW, between 14th and 12th Streets, SW, and 9th and 2nd Streets, SW; and Maine Avenue, SW, between 12th and 9th Streets, SW.

4.9.2 WHAT IS THE HISTORIC SIGNIFICANCE OF THE SOUTH MALL CAMPUS?

The Smithsonian South Mall Campus is approximately 20 acres of land within Reservations 3 and 4 along the southern side of the National Mall. The South Mall Campus is bound by 7th Street, SW to the east, Independence Avenue, SW to the south, 12th Street, SW to the west, and Jefferson Avenue, SW to the north. A portion of the South Mall Campus extends to the north of Jefferson Avenue, SW around the Hirshhorn Museum Sculpture Garden.

The Smithsonian was among the earliest federal institutions to be established on the National Mall in the mid-19th century. One year after the Smithsonian was established in 1846, Congress granted the southern half of the National Mall between 12th and 9th Streets, SW to the Smithsonian (known as the Smithsonian Grounds). The Smithsonian Institution Building was constructed on the Grounds and opened to the public in 1855.

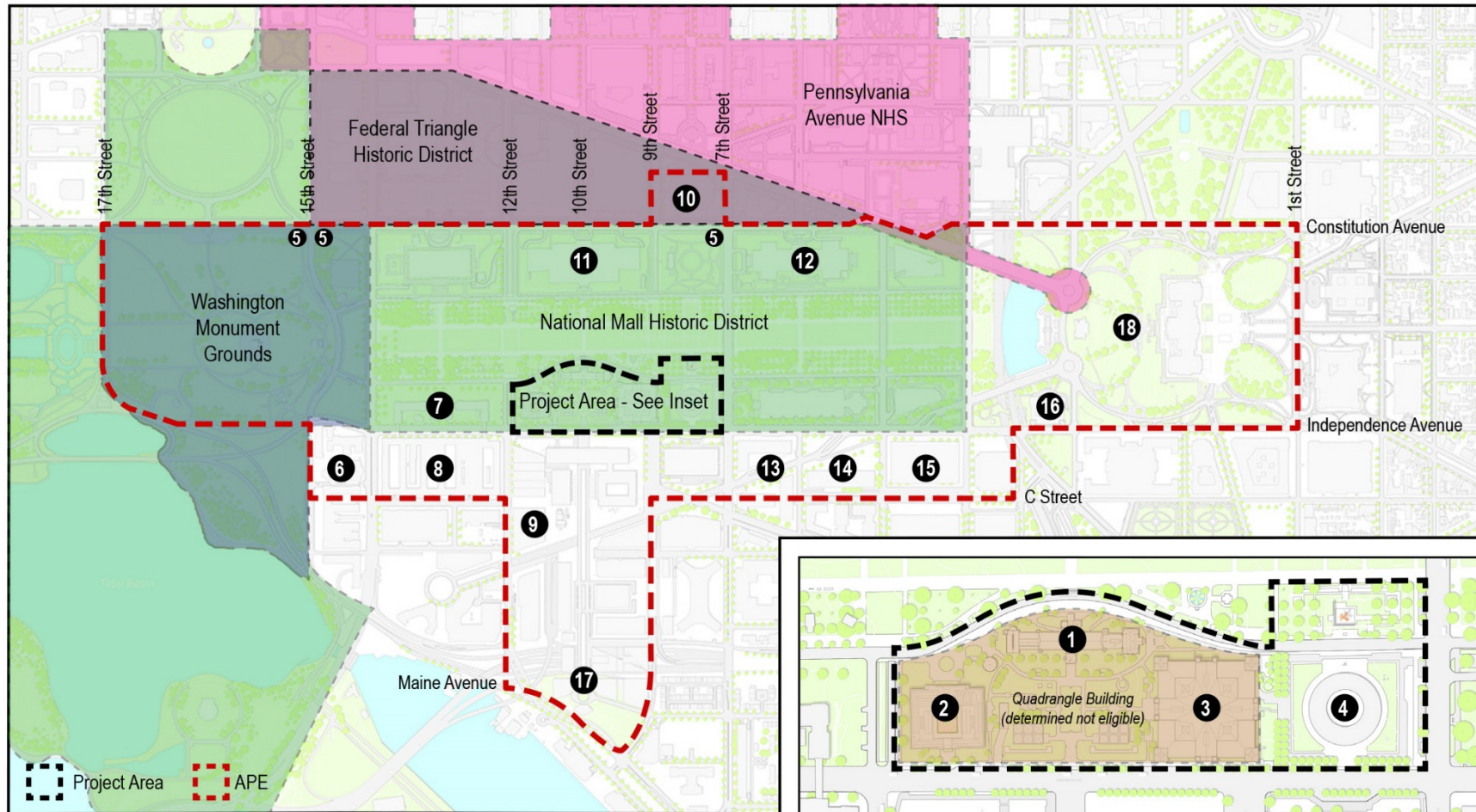


Figure 4-9. Project Area and APE Map (numbered resources are on following page).

Within Project Area		Within Area of Potential Effects (APE)			
	National Mall Historic District		Washington Monument Grounds	11	National Museum of Natural History
	Smithsonian Institution Quadrangle Historic District		Pennsylvania Avenue NHS	12	National Gallery of Art (West Building)
	Plan of the City of Washington		Federal Triangle Historic District	13	Federal Office Building 10B
1	Smithsonian Institution Building	5	Bulfinch Gatehouses and Gateposts	14	Federal Office Building 6
2	Freer Gallery of Art	6	Auditor's Building Complex	15	Social Security Administration
3	Arts and Industries Building	7	USDA Administration Building	16	United States Botanic Garden
4	Hirshhorn Museum and Sculpture Garden	8	USDA South Building	17	Benjamin Banneker Park
		9	USDA Cotton Annex	18	U.S. Capitol and Grounds
		10	National Archives		

Figure 4-10. List of Historic Properties within Project Area and APE. The list above documents historic district and individual resources that have been listed in or determined eligible for NRHP listing, or that have been listed in the D.C. Inventor.

The South Mall Campus is significant for its representation of broad patterns of development in Washington, DC, particularly the National Mall. The Smithsonian was among the earliest federal institutions to stake a permanent claim on the National Mall in the mid-19th century and the South Mall Campus today represents a continuous pattern of use and development. The buildings and landscapes found throughout the South Mall Campus are representations of the evolving needs and values of a unique national institution of science, history, culture, and the arts dedicated “for the increase and diffusion of knowledge.” The South Mall Campus is also significant for its association with the growth and evolution of the Smithsonian Institution from its establishment in 1846 to the present and for museum collections that embrace non-Western art and culture.

4.9.3 WHAT CULTURAL RESOURCES ARE THERE IN THE SOUTH MALL CAMPUS?

The following cultural resources are located within the South Mall Campus. Unless otherwise cited, resource descriptions were derived from the resource listings in the DC Inventory of Historic Sites (DC SHPO, 2009).

SMITHSONIAN INSTITUTION BUILDING

Location: Jefferson Drive, SW between 9th and 12th Streets, NW.

Designation: DC Inventory of Historic Sites, 1964; National Historic Landmark, 1965; NRHP, 1966; Contributing building to the National Mall Historic District (DC/NRHP); Contributing building to the Smithsonian Institution Quadrangle Historic District (DC)

The Smithsonian Institution Building (the Castle) (Figure 4-11), designed by James Renwick, Jr., is a premier example of Norman Revival-style architecture, a blend of late Romanesque and early Gothic styles, in the United States. Constructed between 1847 and 1855, the building underwent significant repairs in 1865 after a fire destroyed portions of its upper story. Constructed of red sandstone, the building’s towers, buttresses, and crenellations epitomize the Romantic architectural movement. The building originally housed all of the Institution’s operations, including the administrative offices, research rooms,

laboratories, and libraries. Other Renwick buildings include Renwick Gallery (Old Corcoran Gallery) in Washington, DC, and St. Patrick's Cathedral and Grace Church, both located in New York City.

FREER GALLERY OF ART

Location: 12th Street, SW and Jefferson Drive, SW.

Designation: DC Inventory of Historic Sites, 1964; NRHP, 1969; Contributing building to the National Mall Historic District (DC/NRHP); Contributing building to the Smithsonian Institution Quadrangle Historic District (DC)

The Freer Gallery of Art (Figure 4-12) was positioned in accordance with the McMillan Commission's Plan to restore L'Enfant's original vision for the National Mall. Charles Platt designed the building around an open courtyard, referencing a Florentine Renaissance palazzo. Completed in 1923, the gallery was built to house Charles Freer's donated collection of American and Oriental Art. Clad in gray granite, the building features a rusticated ashlar façade and finely detailed balustrade.

ARTS AND INDUSTRIES BUILDING

Location: 900 Jefferson Drive, SW.

Designation: DC Inventory of Historic Sites, 1964; National Historic Landmark and NRHP, 1971; Contributing building to the National Mall Historic District (DC/NRHP); Contributing building to the Smithsonian Institution Quadrangle Historic District (DC)

The AIB (Figure 4-13), originally known as the US National Museum, was constructed to house the international exhibits from the 1876 Philadelphia Centennial Exhibition. Completed between 1879 and 1881, the building is the premier example of 19th-century exposition or "world's fair" architecture in America. The building is also significant for its polychrome brick facades and dynamic roofline.

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

Location: Independence Avenue, SW, between 7th Street, SW, and the 9th Street Expressway.

Designation: Determined Eligible for Individual Listing on the National Register of Historic Places; Contributing building to the National Mall Historic District (DC/NRHP)

The Hirshhorn Museum and Sculpture Garden (Figure 4-14) was designed by Gordon Bunshaft of Skidmore, Owings & Merrill (SOM). Construction of the Modernist style, cylindrical building and its sunken sculpture garden began in 1969, and the museum opened to the public in 1974. The museum houses the collection of Joseph H. Hirshhorn, a self-made millionaire and prolific art collector who formally offered his collection of modern and contemporary art to the United States in 1966. Landscape architect Lester Collins redesigned the sculpture garden in 1977-81.

QUADRANGLE

Location: Within the National Mall bound by the Freer Gallery to the west, the Castle to the north, the AIB to the east, and Independence Avenue, SW to the south.

Designation: Contributing building to the Smithsonian Institution Quadrangle Historic District (DC); Contributing building to the National Mall Historic District (NRHP/DC)

The Quadrangle Building is comprised of a multi-level, below-grade structure with three aboveground entrance pavilions located within the Enid A. Haupt Garden (Figure 4-15). The Haupt Garden sits on the roof of the Quadrangle Building. The Postmodern style structure was designed by Shepley, Bulfinch, Richardson and Abbott (Jean Paul Carlhian, Design Principal) following a conceptual design by Japanese architect Junzo Yoshimura, with Sasaki Associates serving as landscape architect. The Quadrangle Building was constructed between 1983 and 1987 and houses the S. Dillon Ripley Center, Sackler Gallery, and the NMAfA (Robinson & Associates, 2016). The Haupt Garden was a collaborative design effort by Carlhian, Sasaki Associates, Lester Collins, and the SI Office of Horticulture.



Figure 4-11. Smithsonian Institution Building, south (rear) elevation.



Figure 4-12. Freer Gallery, north elevation, facing south.



Figure 4-13. Arts and Industries Building, west elevation, facing southeast.



Figure 4-14. Hirshhorn Museum, north elevation, facing south.

SMITHSONIAN INSTITUTION QUADRANGLE HISTORIC DISTRICT

Location: Bound by Jefferson Drive, SW, on the north, the axis of 12th Street, SW, on the west, Independence Avenue, SW, on the south, and the axis 9th Street, SW, on the east.

Designation: DC Inventory of Historic Sites, 2017

The Smithsonian Institution Quadrangle Historic District has four contributing resources: Smithsonian Institution Building, Arts and Industries Building, Freer Gallery, and the Quadrangle Building, the major elements of which are the Arthur M. Sackler Gallery (Figure 4-16), NMAfA, (Figure 4-17) and S. Dillon Ripley Center (and their entrance pavilions) (Figure 4-18), the Enid A. Haupt Garden, and the sandstone structures that provide emergency egress, skylights, air intake, and ventilation for the below ground galleries.

All of the above individual resources (except for the Smithsonian Institution Quadrangle Historic District), as well as the Downing Urn (Figure 4-19), and the Joseph Henry Statue (Figure 4-20), are also contributing objects to the National Mall Historic District.



Figure 4-15. View of the Enid A. Haupt Garden and Smithsonian Institution Building, within the Smithsonian Institution Quadrangle Historic District.



Figure 4-16. Arthur M. Sackler Gallery, facing west.



Figure 4-17. National Museum of African Art, facing northeast.



Figure 4-18. Ripley Center Pavilion, facing east.



Figure 4- 19. Downing Urn.



Figure 4- 20. Joseph Henry Statue, facing south.

NATIONAL MALL HISTORIC DISTRICT

Location: Bound by 3rd Street, SW; Independence Avenue, SW; Raoul Wallenberg Place, SW; a CSX Railroad; the Potomac River; Constitution Avenue, NW; 17th Street, NW; the White House Grounds; and 15th Street, NW.

Designation: DC Inventory of Historic Sites, 1964; NRHP, 1966 (amendment and boundary expansion, 2016)

The National Mall Historic District (Figure 4-21) includes much of the monumental core of Washington, DC, an original design element of Major General Pierre Charles L'Enfant's plan for the Capital City that was further refined and expanded in the McMillan Commission's 1901-1902 plan for the City of Washington. L'Enfant designed the National Mall to serve as the central axis of Washington's monumental core. The plan called for the National Mall to be a 400-foot-wide, mile long, "grand avenue" from the Capitol to a point directly south of the President's house. The site was to be lined with landscaped areas and gardens. The 1901 McMillan Commission restored and supplemented the L'Enfant Plan primarily by removing obtrusive elements and bordering the National Mall with public buildings.

The National Mall Historic District has 110 contributing resources, including 17 buildings, 24 sites, 38 structures, and 31 objects. The resources within the bounds of the project area—including the Smithsonian Institution Building, the Freer Gallery of Art, the Arts and Industries Building, the Hirshhorn Museum and Sculpture Garden, the Quadrangle Building, the Downing Urn, the Joseph Henry Statue, and Jefferson Drive—are contributing resources to the historic district. Additionally, the National Mall Cultural Landscape, which is roughly bound by Constitution Avenue to the north, Jefferson Drive to the south, 14th Street to the west, and 3rd Street to the east, is located within the National Mall Historic District and forms the central unifying element of the district (NPS 2006).

THE PLAN OF THE CITY OF WASHINGTON

Location: Portions of the plan that fall within the APE include Constitution Avenue, NW, Pennsylvania Avenue, NW, Madison Drive, NW, Jefferson Drive, SW, Independence Avenue, SW, Maryland Avenue, SW, D Street, SW, Frontage Road, SW, 15th Street, SW, 14th Street, NW, 12th Street, SW, 9th Street, NW, 7th Street, NW, 4th Street, SW, and 3rd Street, NW.

Designation: DC Inventory of Historic Sites, 1964 (Major elements, 1971; expansion, 1997); NRHP, 1997

In 1790, the passage of Residence Act provided for the establishment of a permanent seat of government for the United States. The act authorized the selection of a site on the Potomac River and stipulated that suitable accommodations be constructed to house Congress, the President, and other public offices before it officially became the nation's capital in 1800. The chosen site was located at the confluence of the Potomac River and its Eastern Branch (now the Anacostia River), covering a ten-mile-square district bridging portions of Maryland and Virginia. In 1791, George Washington invited Major General Pierre Charles L'Enfant, a French émigré and architect, to design a plan for the City of Washington (the central area of the District of Columbia). L'Enfant's plan was inspired by European Baroque precedents defined by avenues, radiating diagonally from fifteen public squares and circles, overlaid with an irregularly spaced grid. A central feature of the plan was the "Grand Avenue, 400 feet [121.9 meters] in breadth and about a mile in length, bordered with gardens, ending in a slope from the houses on each side." The Grand Avenue formed a major east-west axis between the Capitol Building ("Congress House") and a planned equestrian statue of Washington (L'Enfant, 1887). The McMillan Commission included Daniel Burham, Frederick Law Olmsted, and Charles McKim, whose plan improved the urban environment, restored and reestablished L'Enfant's plan for the monumental core of the Capital and Mall, and created a comprehensive park system.

The Plan of the City of Washington (Figure 4-22) is comprised of contributing streets and avenues, parks and public reservations, and views and vistas. The following contributing elements to the Plan of the City of Washington are located within or directly adjacent to the South Mall Campus:

- National Mall/Part of Original Appropriation No. 2
- Independence Avenue
- Jefferson Drive
- 7th Street, SW
- 12th Street, SW
- Frontal Vista of Smithsonian Institution Building “Castle” from Tenth Street, SW (NPS, 2001)



Figure 4-21. National Mall from 3rd Street, SW facing west. EHT Traceries.

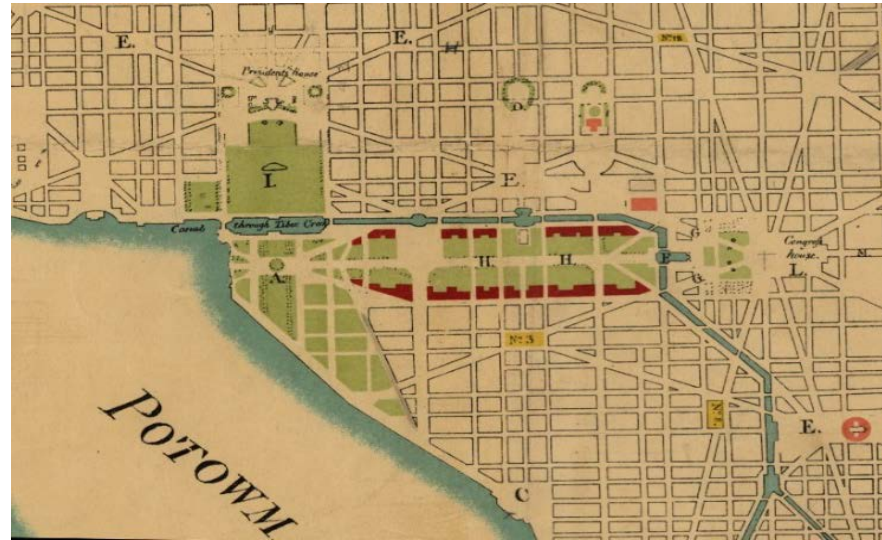


Figure 4-22. Detail, L'Enfant Plan Facsimile, 1887. Library of Congress.

What is a Cultural Landscape?

The National Park Service defines a Cultural Landscape as a geographic area, including both cultural and natural resources, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. There are four general types of cultural landscapes: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes.

A site's identification as a cultural landscape confers no official historic designation. Cultural landscapes fall within the umbrella of "cultural resources" for NEPA purposes.

4.9.4 WHAT CULTURAL LANDSCAPES ARE THERE IN THE SOUTH MALL CAMPUS?

In 2015, SI completed a Cultural Landscape Report (CLR) for the South Mall Campus. The CLR documented the South Mall Campus as a single cultural landscape, with a history and character that reflected the growth and development of the Smithsonian Institution between the mid-19th and late-20th centuries. Additionally, the report identified several component landscapes located within of the South Mall Campus. These landscapes are located in the National Mall Historic District, but are not listed as contributing sites. Additionally, the Haupt Garden is located in the Smithsonian Quadrangle Historic District (DC Inventory of Historic Sites), but it was not identified as a contributing site to that historic district. These component landscapes have no additional historic designation. Nevertheless, they contribute to the visual and landscape character of the South Mall Campus Cultural Landscape.

FOLGER ROSE GARDEN

Location: Bound by the Castle, AIB, and Jefferson Drive, SW

The Smithsonian Institution installed the current configuration of the Folger Rose Garden in 1998 (Figure 4-23). Beginning in the 1940s, the small triangular plaza hosted a series of planting schemes, and by the 1970s, the plaza was the site of the Andrew Jackson Downing urn. The 1998 garden design was composed of four at-grade planting beds with granite curbs encircling a 19th-century fountain placed in a new, granite basin. Brick-paved walkways cut through the site, connecting the central fountain to the surrounding sidewalks. Horticulturally, the garden was primarily devoted to the display of roses, although it also featured evergreen shrubs and perennials, allowing for a year-round display of color. The garden was dedicated in October 1998, named in honor of Kathrine Dulin Folger. In 2016, Smithsonian Gardens completed a comprehensive replanting of the Folger Garden (EHT Tracerics, 2015).

RIPLEY GARDEN

Location: Bound by the AIB, Hirshhorn Museum Plaza, Independence Avenue, SW, and Jefferson Drive, SW.

Mary Livingston Ripley, wife of Secretary S. Dillon Ripley (1964-1984), first recognized the potential for the creation of a “Sensory Garden” in the underused plaza between the Arts and Industries Building and the Hirshhorn Museum and Sculpture Garden. After the tunneling of 9th Street was completed in 1971, the space was used as a storage yard for the rehabilitation of the Arts and Industries Building. In 1978, Smithsonian commissioned architectural firm Hugh Newell Jacobsen and Associates to prepare the architectural plans for the garden. Jacobsen’s design for the garden featured a linear path that extended from Independence Avenue to Jefferson Drive. The meandering brick walkway was bordered by serpentine brick retaining walls that contained planting beds (Figure 4-24). The Smithsonian Office of Horticulture oversaw the selection of plants, intended to stimulate the senses of touch, taste, sight, hearing, and especially smell through colorful and aromatic plants and herbs, textured hardscape, and a large fountain. The Sensory Garden opened to the public in 1981. In 1988, it was rededicated as the Mary Livingston Ripley Garden (EHT Traceries, 2015).

ENID A. HAUPT GARDEN

Location: Approximately bound by the Castle, AIB, Freer Gallery, and Independence Avenue, SW.

Developed between 1983 and 1987, the Smithsonian Quadrangle Building and Enid A. Haupt Garden were constructed in the parcel bound by the Castle, Freer Gallery, AIB, and Independence Avenue. Formerly known as the South Yard, this area had long served utilitarian uses for the Smithsonian Institution. It housed an assemblage of buildings and uses, including an astronomical observatory, a stable and carriage house, a taxidermy studio, and—briefly—enclosures for animals in the collection of the National Zoo. In the 1970s, SI rehabilitated a

portion of the South Yard to install a period garden designed in the Victorian style.

Completed in May 1987, the 4.2-acre Enid A. Haupt Garden sits atop the roof of the primarily below-ground Quadrangle Building museum and education complex. Designed by Jean-Paul Carlhian of the architectural firm Shepley Bulfinch Richardson and Abbott with landscape architects Sasaki Associates, in consultation with landscape architect Lester Collins and the Smithsonian Office of Horticulture, the Haupt Garden formed a vibrant and intimate setting for the Quad (see Figure 4-25). Funded by and named for philanthropist Enid A. Haupt, the garden design borrowed a number of elements from earlier iterations of the landscape, such as a central parterre from the Victorian Garden and sandstone gates inspired by James Renwick. (The gates were constructed and installed in 1987.) It also integrated contemporary interpretations of traditional ethnic landscapes that reflected the collections of the museums below (EHT Traceries, 2015).



Figure 4-23. *Folger Rose Garden, facing west, Smithsonian Garden. EHT Traceries.*



Figure 4-24. *Ripley Garden, facing southeast. EHT Traceries.*



Figure 4-25. *Ripley Garden, facing southeast. EHT Traceries.*

4.9.5 WHAT OTHER CULTURAL RESOURCES ARE THERE IN THE AREA OF POTENTIAL EFFECTS?

The following cultural resources are located outside of the South Mall Campus Plan project area but fall within the Area of Potential Effects.

WASHINGTON MONUMENT AND GROUNDS

Location: 14th Street, NW, between Constitution Avenue, NW and Independence Avenue, SW
Designation: DC Inventory of Historic Sites, 1964; NRHP, 1966 (amendment, 2016)



Figure 4- 26. Washington Monument and grounds.

The Washington Monument and Grounds (Figure 4-26), Original Appropriation No. 3, Reservation 2, is located at the juncture of the National Mall, extending west from the Capitol, and President's Park, extending south from the White House. Contributing resources to the Monument and its Grounds include the Washington Monument, Survey Lodge, Memorial Lodge, Jefferson Pier Marker, Sylvan Theater, an encirclement of American flags, a parking lot, and various paths (NPS, 1981). The equestrian statue envisioned by L'Enfant as the western terminus of the great axis from the Capitol was never built; instead, the obelisk designed by Robert Mills was constructed over an extended period from 1848 to 1884. The McMillan Commission's plans for a formal, geometric garden to improve the grounds were never implemented.

PENNSYLVANIA AVENUE NATIONAL HISTORIC SITE

Location: Roughly bound by 3rd Street, NW, on the east, Constitution Avenue, NW on the south, East Executive Avenue, NW on the west, and E and F Streets, NW on the north
Designation: National Historic Site and NRHP, 1966 (NR listing amended in 2007); DC Inventory of Historic Sites, 1973

Pennsylvania Avenue National Historic Site (Figure 4-27) is comprised of the national ceremonial route and its surroundings which lie between the White House and the Capitol. Originally designed as part of L'Enfant's 1791 plan for the Capitol City, the historic thoroughfare has served as the site of inaugural parades and civic processions. The commercial heart of the city, the area

contains both monumental civic buildings and smaller commercial structures. Approximately 161 features are within the bounds of the site, 111 of which are contributing resources. The site's historic and architectural significance includes its streets, vistas, buildings, memorials, parks, and sculptures (NPS 2007).

FEDERAL TRIANGLE HISTORIC DISTRICT

Location: Between 15th Street, NW and Constitution and Pennsylvania Avenues, NW.

Designation: DC Inventory of Historic Sites, 1968; Determined Eligible for Listing on the NRHP;

Located within the Pennsylvania Avenue National Historic Site

Federal Triangle (Figure 4-28) is comprised of a unified group of federal, neoclassical-style office buildings that were constructed as a result of the passage of the Public Buildings Act in 1926. Design guidelines for the site were developed by U.S. Secretary of the Treasury Andrew W. Mellon and a Board of Architectural Consultants, led by Edward H. Bennett of the Chicago architectural firm of Bennett, Parsons, and Frost. Mellon wanted the Neoclassical buildings to share certain architectural elements including limestone facades, red tiled roofs, and classical colonnades. Each member of the Board designed one building within the complex, including: Commerce Building (1927-1932) by York and Sawyer; Post Office Department (1931-1934) by Delano and Aldrich; Labor Department, Interstate Commerce Commission, and Departmental Auditorium (1931-1935) by Arthur Brown; Internal Revenue Service (1927-1935) Louis Simon; Justice Department (1931-1935) by Zantzinger, Borie and Medary; National Archives (1931-1937) by John Russell Pope; and Federal Trade Commission (1937-1938) by Bennett, Parsons and Frost. Two earlier buildings, Old Post Office (1891-1899) by Willoughby J. Edbrooke and the District Building (1904-1908) by Cope and Stewardson, are also located within the Federal Triangle Historic District (NPS, 1968).

BULFINCH GATEHOUSES AND GATEPOSTS

Location: Constitution Avenue, SW at 7th, 15th, and 17th Streets, NW.

Designation: DC Inventory of Historic Sites, 1964; NRHP, 1973

The former gate structures of the Capitol, constructed of Aquia Creek sandstone at the foot of the Capitol grounds between 1824 and 1829, were part of the reconstruction of the Capitol after the War of 1812. They are attributed to Charles Bulfinch, the architect in charge of the restoration. The gatehouses and posts were removed in 1874, reconstructed at their present locations circa 1880, and were restored circa 1938 (Figure 4-29). The two one-room gatehouses of rusticated sandstone were designed to harmonize with the U.S. Capitol's basement story. Their design is of a classical style with Doric columns and arched doorways. The four remaining sandstone gateposts are similar, topped with acanthus motifs and volutes.



Figure 4-27. *Pennsylvania Avenue, at its intersection with 14th Street, SW looking southeast, EHT Traceries.*



Figure 4-28. *The Andrew W. Mellon Auditorium at Federal Triangle from Constitution Avenue, NW, looking north.*



Figure 4-29. *Bulfinch gatepost at the corner of 15th Street, SW and Constitution Avenue, looking south. EHT Traceries.*

4.9.6 HOW ARE IMPACTS TO CULTURAL RESOURCES EVALUATED?

Direct and Indirect Impacts on cultural resources in this section would be evaluated within the framework provided at the beginning of this chapter. Potential impacts are described in terms of intensity, type, duration, and context. Additionally, the thresholds for the intensity of impacts are defined as negligible, minor, moderate, and major.

Additional criteria for the evaluation of impacts on cultural resources is provided by NHPA Section 106 implementing regulations (36 CFR § 800). Effects are evaluated as “adverse” or “not adverse.” The criteria of adverse effect are defined as follows:

An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property’s eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative (36 CFR 800.5(a)(1).

Examples of adverse effects may include: physical destruction or damage; alterations that are inconsistent with the Secretary’s Standards for the Treatment of Historic Properties, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access; removal of the property from its historic location; change of the character of the property’s use or of contributing physical features within the property’s setting; introduction of visual, atmospheric, or audible elements that diminish the property’s integrity of the property’s significant historic features;

neglect or deterioration (except in certain religious or cultural cases); and transfer, lease, or sale of property out of federal ownership or control without adequate preservation controls.

In some cases, insufficient information is available to definitively evaluate the impacts of a proposed action on cultural resources at the master planning level. These impacts would be reevaluated when individual projects are brought forward for design and implementation. A Programmatic Agreement would outline a process for identifying and evaluating effects on historic properties at the implementation.

For the purposes of this analysis, a minor, moderate, or major adverse impact is equated with an adverse effect. A negligible adverse impact does not rise to the level of intensity to constitute an adverse effect for the purposes of Section 106. The discussion of impacts for cultural resources has been arranged in a table format, organized by resource, and with a description of the proposed action and associated impacts.

4.9.7 HOW WOULD THE SOUTH MALL CAMPUS MASTER PLAN IMPACT CULTURAL RESOURCES ON THE SOUTH MALL CAMPUS?

4.9.7.1 NO-ACTION ALTERNATIVE

DIRECT IMPACTS

Under the No-Action Alternative, SI would not undertake any major activities that would involve construction, demolition, or excavation. Minor repairs to the Quadrangle Building roof membrane, existing building utilities, and other building facades could cause temporary, short-term, minor adverse impacts to cultural resources in the South Mall Campus. Minor repairs and renovations, with associated construction disturbance and staging, would negatively impact the character and setting of these resources.

The No-Action Alternative would not result in necessary comprehensive repairs to the Smithsonian Institution Building “Castle”; the Quadrangle Building; or the Hirshhorn Museum Building, Plaza, and Sculpture Garden. The lack of a coordinated approach to stabilizing, repairing, and protecting these resources would make them vulnerable to continued deterioration or future seismic or blast events. This lack of necessary repairs would result in a long-term, moderate, adverse impact to these resources.

INDIRECT IMPACTS

There would be no indirect impacts to cultural resources under the No-Action Alternative.

4.9.7.2 ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

DIRECT IMPACTS

Table 4-3 describes the elements and associated direct impacts that are common to all Master Plan Alternatives. These represent long-term impacts. In all cases, the construction disturbance and staging associated with each action would create short-term adverse impacts on the character and setting of these resources.

Table 4-3. Elements and Associated Direct Impacts Common to All Master Plan Alternatives

Resource	Action	Impacts
Freer Gallery of Art	Freer Gallery East Accessible Entrance: An existing window on the east side of the Freer Gallery would be lowered to create an accessible entrance from Haupt Garden.	Alteration of the east wall would create a long-term, minor adverse impact to the historic window configuration. Minor adverse impact has been further minimized by designing the new entrance to correspond to the existing facade bay configuration and to remove a minimal amount of historic fabric. Interior lobby would be located in a modified area and would not affect significant historic interior spaces.

Resource	Action	Impacts
	New Loading Ramp: A new loading ramp would be constructed on the west lawn of the Freer Gallery to connect with centralized loading facilities.	Ramp and associated infrastructure has potential to adversely impact the character and setting of the Freer Gallery. Excavation may require structural underpinning to Freer Gallery. Impacts would be further evaluated at time of project design.
The Castle	Castle Blast Protection: Castle retrofit would include blast resistance to be coordinated with perimeter security elements.	Blast protection would include hardening and replacement of non-original components, including windows. Blast protection is consistent with Security Design Criteria for SI Facilities. No adverse impacts would result. This action would protect the Castle from potential blast events, resulting in a beneficial long-term impact.
	Castle Base Isolation: Base isolation would include excavation beneath the Castle and introduction of base isolators beneath the existing foundation.	Base isolation would be designed and monitored to ensure protection of Castle. Consistent with best practices for base isolation, SI would solicit third-party review by qualified engineers to ensure protection of Castle. No adverse impacts would result. This action would protect the Castle from potential seismic events, resulting in a beneficial long-term impact. Base isolation requires a neutral perimeter around base of the Castle. Perimeter buffer would be integrated into the landscape and would not result in long-term adverse impacts.
	Castle Seismic Bracing: Structural bracing would be added to supplement the Castle's existing structure.	Structural bracing would be limited to building interior and would not be visible from the exterior. Bracing would not adversely or visually impact significant historic interior spaces. Non-significant interior spaces may be impacted by the addition of structural bracing. Effects would be further evaluated at time of project design. This action would protect the Castle from potential seismic events, resulting in a beneficial long-term impact.
	Castle Basement Floor Lowering: In connection with seismic retrofit, the basement floor level would be lowered to create additional headroom for the Visitor Center and other program uses.	Undertaking would remove incompatible infill construction and allow for the restoration of historic masonry vaults, piers, and walls. Detailing of historic structural elements would be designed to meet the Secretary of the Interior Standards. The beneficial impact of removing non-original infill construction would be offset by the adverse impact of altering the proportions of basement spaces and the potential loss of historic fabric. The net impact would result in a minor, long-term, adverse impact on the character and integrity of the Castle.

Resource	Action	Impacts
	Castle Interior Restoration: The ground and upper floors of the Castle would be rehabilitated, with significant interior spaces restored to their period(s) of significance.	Undertaking would remove incompatible infill construction and would be designed to meet the Secretary of the Interior Standards. This action would restore the character of these spaces, resulting in a beneficial long-term impact.
AIB	Reopen AIB for Public Circulation: The non-historic east security door would be removed and AIB would be opened to allow interior east-west circulation.	Returning the east door to use would not adversely impact the character or integrity of AIB. Removing the non-historic security door would allow the extant door (a restored version of the original door) to be visible, resulting in a beneficial long-term impact.
	Remove Surface Parking Lot and Expand Ripley Garden: The non-historic parking lot to the east of AIB would be removed, allowing for the expansion of the adjacent Ripley Garden.	Removing the parking lot and expanding the existing garden would create a minor, beneficial, long-term impact to the character and setting of AIB.
	Central Utility Plant: Unexcavated areas adjacent to the Quad would be excavated to create a central utility plant for the South Mall Campus.	The location and extent of excavation varies by alternative. Excavation may require structural underpinning to be performed on west side of AIB foundations. Impacts would be further evaluated at time of project design. Excavation would be monitored to ensure safety of AIB during implementation.
Hirshhorn Museum and Sculpture Garden	Hirshhorn Building Renovation: Hirshhorn Building and Plaza would be renovated.	Action would be designed to meet the Secretary of the Interior Standards. This action would preserve the character of this resource, resulting in a beneficial long-term impact.
	Hirshhorn Sculpture Garden Walls: Perimeter sculpture garden walls would be repaired in kind.	Repairs to walls are necessary to prevent further deterioration of their condition and appearance. This action would preserve the character of this resource, resulting in a beneficial long-term impact.
National Mall Historic District	Replace Quadrangle Building Roof Membrane: Quadrangle Building roof membrane would be replaced.	Replacement of the roof membrane would not adversely impact the contributing Quad building. The associated treatment of the above-ground Quad pavilions and Haupt Garden would be addressed separately by alternative.
	Perimeter Security: Perimeter security elements would be installed around the South Mall Campus.	Perimeter security has the potential to adversely impact the character of the National Mall, including the relationship of buildings to the surrounding landscapes. Perimeter security elements would be integrated into hardened landscape features to the greatest degree possible, and will be designed in such a way as to minimize their visual impact to the National Mall. Impacts would be further evaluated at time of project design.

Resource	Action	Impacts
	All Plan Components: Implementation of the Master Plan Alternatives may necessitate the removal of existing Mall vegetation to allow for construction access, staging, and excavation.	Removal of contributing Mall vegetation, especially the significant Mall elm trees, will have an adverse impact on the Mall cultural landscape. The degree of impact will vary depending on the nature and extent of plant material to be removed. In all cases, this impact will be mitigated by limiting the extent of the work and specifying replacement plantings of an appropriate species, size, and maturity.
Smithsonian Quadrangle Historic District	The Freer Gallery, Smithsonian Institution Building, Arts and Industries Building, and Quadrangle Building are contributing buildings to the Smithsonian Quadrangle Historic District. These buildings also all contribute to the National Mall Historic District. All direct impacts described above for the National Mall Historic District and its contributing buildings also apply to the Smithsonian Quadrangle Historic District.	The Freer Gallery, Smithsonian Institution Building, Arts and Industries Building, and Quadrangle Building are contributing buildings to the Smithsonian Quadrangle Historic District. These buildings also all contribute to the National Mall Historic District. All direct impacts described above for the National Mall Historic District and its contributing buildings also apply to the Smithsonian Quadrangle Historic District.
L'Enfant Plan	All Plan Components: The Master Plan Alternatives propose no major alterations to contributing streets and avenues within the project area.	Adverse impacts have been avoided by removing alterations to Jefferson Drive, SW and Independence Avenue, SW from all Alternatives.
South Mall Campus Cultural Landscape	Replace Quadrangle Building Roof Membrane: Quadrangle Building roof membrane beneath the Haupt Garden would be replaced.	Replacement of the roof membrane would generate major, temporary adverse impacts for the Haupt Garden component landscape. The associated permanent treatment of the above-ground Quad pavilions and Haupt Garden would be addressed separately by alternative.

INDIRECT IMPACTS

There would not be indirect impacts to cultural resources in the South Mall Campus common to all Master Plan Alternatives.

4.9.7.3 ALTERNATIVE B

DIRECT IMPACTS

Alternative B includes the elements common to all Master Plan Alternatives. Table 4-4 describes the actions and associated long-term, direct impacts that additionally apply to Alternative B. In all cases, the construction disturbance and staging associated with each action would create negative short-term impacts on the character and setting of these resources.

Table 4-4. Elements and Associated Direct Impacts – Alternative B

Resource	Action	Impacts
The Castle	Consolidated Loading Facility: A partial new sub-basement would be excavated beneath the existing basement to provide loading and building support.	Sub-basement excavation is limited to the east and west Castle ranges and wings. Excavation would be monitored to ensure safety of building during implementation. Impacts would be further evaluated at time of project design.
	Visitor Center Entrance: Removal of the Ripley Pavilion may require a new entrance adjacent to Castle.	New Visitor Center entrance has potential to adversely impact character and setting of Castle. Impacts would be further evaluated at time of project design.
Hirshhorn Museum and Sculpture Garden	Hirshhorn Plaza Walls: Portions of the plaza walls would be removed to allow a direct pedestrian connection to AIB and the Ripley Garden.	Small opening would be inserted on the west plaza wall. Action would create a long-term, minor adverse impact to the integrity of this resource.
	Hirshhorn Tunnel: A direct connection between the Hirshhorn Plaza and Sculpture Garden beneath Jefferson Drive would be restored.	The existing tunnel would be reopened and restored to its original configuration. This represents a beneficial, long-term impact to the character of this resource.
National Mall Historic District	Reconfigure Haupt Garden: In coordination with roof membrane replacement, the Haupt Garden would be reconfigured to accommodate new Quad museum and Visitor Center access.	Haupt Garden features would be substantially replaced in kind following roof membrane replacement. A long-term, minor, adverse impact would result.
	Central Utility Plant: Unexcavated areas adjacent to the Quad would be excavated to create a central utility plant for the South Mall Campus.	In Alternative B, the plant would be located in the unexcavated area between the Quad and AIB. Excavation would require structural underpinning. Exhaust and intake vents would be integrated into the Haupt Garden landscape with potential for adverse impacts. Impacts would be evaluated at time of project design.
	Quad Museum Pavilions: Museum entrances would be reoriented to existing openings in the north walls of the museum pavilions.	This action would not negatively impact the character of this resource.
Smithsonian Quadrangle Historic District	The Freer Gallery, Smithsonian Institution Building, Arts and Industries Building, and Quadrangle Building are contributing buildings to the Smithsonian Quadrangle Historic District. These buildings also all contribute to the National Mall Historic District. All direct impacts described above for the National Mall Historic District and its contributing buildings also apply to the Smithsonian Quadrangle Historic District.	
South Mall Campus Cultural Landscape	Reconfigure Haupt Garden: In coordination with roof membrane replacement, the Haupt Garden would be reconfigured to accommodate new Quad museum and Visitor Center access.	Haupt Garden features would be substantially replaced in kind following roof membrane replacement. A long-term, minor, adverse impact would result.

INDIRECT IMPACTS

There would not be indirect impacts to cultural resources in the South Mall Campus under Alternative B.

4.9.7.4 ALTERNATIVE D

DIRECT IMPACTS

Alternative D includes the elements common to all Master Plan Alternatives. Table 4-5 describes the actions and associated direct impacts that additionally apply to Alternative D. These represent long-term impacts. In all cases, the construction disturbance and staging associated with each action would create negative, short-term impacts on the character and setting of these resources.

Table 4-5. Elements and Associated Direct Impacts – Alternative D

Resource	Action	Impacts
The Castle	Castle Sub-Basement Expansion: A new sub-basement would be excavated beneath the existing basement level. Sub-basement would provide loading, utility, and building support.	Sub-basement excavation would include entire Castle footprint and would require extensive structural bracing. Bracing would create a long-term, moderate, adverse impact on the character and integrity of the Castle.
	Visitor Center Entrance: A new means of entrance and egress from the below-grade Visitor Center is proposed in Alternative D. The entrance would face the Quadrangle Building below grade in a “dip” configuration, allowing for direct access and daylight to the Visitor Center.	Below-grade “dip” entrance to Visitor Center would diminish the historical setting and character of Castle and would result in a long-term, major, adverse impact.
Hirshhorn Museum and Sculpture Garden	Hirshhorn Plaza Walls: Large portions of the north, west, and east plaza walls would be removed.	Removing large portions of the Hirshhorn Plaza walls would create a long-term, major, adverse impact on a contributing feature of this resource.
	Hirshhorn Tunnel: The existing tunnel between the Hirshhorn Plaza and sculpture garden beneath Jefferson Drive would be reopened, expanded, and reconfigured to create a new pedestrian connection.	The reconfiguration of a contributing feature of this resource would create a long-term, major, adverse impact on this resource.
	New Galleries Beneath Sculpture Garden: In Alternative D, the interior walls of the Sculpture Garden would be reconfigured to allow for high-ceilinged galleries below.	Existing Sculpture Garden elements would be removed and replaced with an elevated sculpture garden and high-ceilinged galleries below. The new Sculpture Garden floor would be set below the prevailing grade, and would maintain a recessed relationship to the National Mall. This would result in a long-term, major, adverse impact on the Hirshhorn Museum Sculpture Garden. This would also result in a long-term, major, adverse impact to the

Resource	Action	Impacts
		National Mall Historic District, as the Hirshhorn Museum Sculpture Garden is a contributing element to the historic district.
National Mall Historic District	Reconfigure Haupt Garden: In coordination with roof membrane replacement, the Haupt Garden would be reconfigured to accommodate new Quad museum and Visitor Center access.	Haupt Garden would be substantially reconfigured. Removal of Haupt Garden features would adversely affect character and integrity of the contributing Quad building and would result in a long-term, major, adverse impact.
	Central Utility Plant: Unexcavated areas adjacent to the Quad would be excavated to create a central utility plant for the South Mall Campus.	In Alternative D, the plant would be located in the sub-basement beneath the Castle. Excavation may require structural underpinning. Exhaust and intake vents would be integrated into the Haupt Garden landscape with potential for adverse impacts. Impacts would be evaluated at time of project design.
	Quad Museum Pavilions: Existing museum pavilions would be removed and replaced with new pavilions further to the north.	Removal of the pavilions would adversely affect character and integrity of the contributing Quad building and would result in a long-term, major, adverse impact.
	Quad Skylights: In Alternatives D, the existing skylights would be removed and new expanded skylights would be integrated into the Haupt Garden design to provide interior daylighting for the Quad museums and Visitor Center south of the Castle.	Removal and replacement of existing features and integration of new skylights would result in a loss of integrity and setting of the contributing Quad building. This would generate a long-term, moderate, adverse impact on the resource. Impacts would be further evaluated at time of project design.
Smithsonian Quadrangle Historic District	The Freer Gallery, Smithsonian Institution Building, Arts and Industries Building, and Quadrangle Building are contributing buildings to the Smithsonian Quadrangle Historic District. These buildings also all contribute to the National Mall Historic District. All direct impacts described above for the National Mall Historic District and its contributing buildings also apply to the Smithsonian Quadrangle Historic District.	
South Mall Campus Cultural Landscape	Reconfigure Haupt Garden: In coordination with roof membrane replacement, the Haupt Garden would be reconfigured to accommodate new Quad museum and Visitor Center access.	Haupt Garden would be substantially reconfigured. Removal of Haupt Garden features would adversely affect character and integrity of this cultural landscape and would result in a long-term, major, adverse impact.

INDIRECT IMPACTS

There would not be indirect impacts to cultural resources in the South Mall Campus under Alternative D.

4.9.7.5 ALTERNATIVE F

DIRECT IMPACTS

Alternative F includes the elements common to all Master Plan Alternatives. Table 4-6 describes the actions and associated direct impacts that additionally apply to Alternative F. These represent long-term impacts. In some cases, the adverse impacts described in Alternative D have been minimized or avoided in Alternative F. These changes are reflected in Alternative F and are described individually by action in the Table 4-6.

In all cases, the construction disturbance and staging associated with each action would create short-term, negative impacts on the character and setting of these resources.

Table 4-6. Elements and Associated Direct Impacts – Alternative F

Resource	Action	Impacts
The Castle	Castle Sub-Basement Expansion: A new sub-basement would be excavated beneath the existing basement level. Sub-basement would provide loading, utility, and building support.	Sub-basement excavation is limited to the west range and wing. Excavation would be monitored to ensure safety of building during implementation. Impacts would be further evaluated at time of project design.
	Visitor Center Entrance: A new means of entrance and egress from the below-grade Visitor Center is proposed in Alternative F. Visitor Center entrance would be provided in below-grade court located to the south of the Castle.	In Alternative F, the adverse impact of a visible grade change has been avoided by reducing the size of the entrance and limiting its visibility from the south. The entrance, in addition to the Quad skylights, has the potential to adversely impact the character and setting of the Castle. Impacts would be further evaluated at time of project design.
Hirshhorn Museum and Sculpture Garden	Hirshhorn Plaza Walls: Portions of the plaza walls would be removed to allow a direct pedestrian connection to AIB and the Ripley Garden.	Small opening would be inserted on the west plaza wall. Action would create a long-term, minor adverse impact to the integrity of this resource.
	Hirshhorn Tunnel: The existing tunnel between the Hirshhorn Plaza and Sculpture Garden beneath Jefferson Drive would be reopened, expanded, and reconfigured to create a new pedestrian connection.	The reconfiguration of a contributing feature of this resource would create a long-term, major, adverse impact on this resource.
	New Galleries Beneath Sculpture Garden: In Alternative F, the interior walls of the sculpture garden would be reconfigured to allow for high-ceilinged galleries below.	Existing Sculpture Garden elements would be removed and replaced with an elevated Sculpture Garden and high-ceilinged galleries below. The new Sculpture Garden floor would be set below the prevailing grade and would maintain a recessed relationship to the National Mall. This would result in a long-term, major, adverse impact on the Hirshhorn Museum Sculpture Garden.
National Mall Historic District	Reconfigure Haupt Garden: In coordination with roof membrane replacement, the Haupt Garden would be reconfigured to accommodate new Quad museum and Visitor Center access.	Haupt Garden would be reconfigured. Removal of Haupt Garden features would adversely affect character and integrity of the contributing Quad building and would result in a long-term, moderate, adverse impact. Adverse impact has been minimized in Alternative F by retaining the garden-like quality of the existing Haupt Garden and repurposing existing features in the garden.
	Central Utility Plant: Unexcavated areas adjacent to the Quad would be excavated to create a central utility plant for the South Mall Campus.	In Alternative F, the plant would be located in the unexcavated area between the Quad and AIB. Excavation would require structural underpinning. Exhaust and intake vents would be integrated into the Haupt Garden landscape with potential for long-term, minor, adverse impacts. Impacts would be evaluated at time of project design.

Resource	Action	Impacts
	Quad Museum Pavilions: Existing museum pavilions would be removed and replaced with new pavilions further to the north.	Removal of the pavilions would adversely affect character and integrity of the contributing Quad building and would result in a long-term, major, adverse impact.
	Quad Skylights: In Alternative F, the existing skylights would be removed and new, expanded daylighting would be integrated into the Haupt Garden design to provide interior daylighting for the Quadrangle Building museums and Visitor Center south of the Castle.	Removal of existing features and integration of new skylights would result in a loss of integrity of the contributing Quad building. This would generate a long-term, moderate, adverse impact on the resource. Impacts would be further evaluated at time of project design.
Smithsonian Quadrangle Historic District	The Freer Gallery, Smithsonian Institution Building, Arts and Industries Building, and Quadrangle Building are contributing buildings to the Smithsonian Quadrangle Historic District. These buildings also all contribute to the National Mall Historic District. All direct impacts described above for the National Mall Historic District and its contributing buildings also apply to the Smithsonian Quadrangle Historic District.	
South Mall Campus Cultural Landscape	Reconfigure Haupt Garden: In coordination with roof membrane replacement, the Haupt Garden would be reconfigured to accommodate new Quad museum and Visitor Center access.	Haupt Garden would be reconfigured. Removal of Haupt Garden features would adversely affect character and integrity of this cultural landscape and would result in a long-term, moderate, adverse impact. Adverse impact has been minimized in Alternative F by retaining the garden-like quality of the existing Haupt Garden. Adverse impact has been minimized in Alternative F by retaining the garden-like quality of the existing Haupt Garden and repurposing existing features in the garden.

INDIRECT IMPACTS

There would not be indirect impacts to cultural resources in the South Mall Campus under Alternative F.

4.9.8 HOW WOULD THE SOUTH MALL CAMPUS MASTER PLAN IMPACT OFF-CAMPUS CULTURAL RESOURCES ON THE SOUTH MALL CAMPUS?

This section describes impacts to cultural resources within the Area of Potential Effects, but outside the South Mall Campus project area. None of the actions proposed has the potential to directly impact these cultural resources. Indirect impacts include visual, atmospheric, or audible elements that diminish the integrity of a property's significant historic features.

4.9.8.1 NO-ACTION ALTERNATIVE

DIRECT IMPACTS

There would be no direct impacts to off-campus cultural resources from the No-Action Alternative.

INDIRECT IMPACTS

Under the No-Action Alternative, SI would not undertake any major activities that would involve construction, demolition, or excavation. Minor repairs to the Quadrangle Building roof membrane, existing building utilities, and other building facades would cause negligible short-term adverse impacts to off-campus cultural resources in the APE. No long-term adverse impacts would result.

4.9.8.2 ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

DIRECT IMPACTS

There would be no direct impacts to off-campus cultural resources from elements common to all Master Plan Alternatives.

INDIRECT IMPACTS

Table 4-7 below describes the actions and associated long-term, indirect impacts that are common to all Master Plan Alternatives. In all cases, the construction disturbance and staging associated with each action would create a negligible indirect impact on these resources.

Table 4-7. Elements and Associated Indirect Impacts – Elements Common to All Master Plan Alternatives

Resource	Action	Impacts
National Mall Historic District	New Loading Ramp: The existing loading dock and ramp in the Haupt Garden would be removed and a new loading ramp would be constructed on the west lawn of the Freer Gallery to connect with centralized loading facilities.	The new loading dock would be only minimally visible from the central Mall greensward and would create a negligible adverse impact.
	Perimeter Security: Perimeter security elements would be installed around the South Mall Campus.	Addition of perimeter security elements has the potential to create indirect adverse impacts on the character of the National Mall, including impacts to views, topography, and access. These impacts will be further evaluated at the time of project design.

4.9.8.3 ALTERNATIVE B

DIRECT IMPACTS

There would be no direct impacts to off-campus cultural resources from Alternative B.

INDIRECT IMPACTS

Impacts to off-campus cultural resources under Alternative B would be similar to those occurring from elements common to all Master Plan Alternatives. Alternative B proposes no additional major above-grade changes that would add to those impacts discussed above.

4.9.8.4 ALTERNATIVE D

DIRECT IMPACTS

There would be no direct impacts to off-campus cultural resources from Alternative D.

INDIRECT IMPACTS

Indirect impacts to cultural resources under Alternative D would be similar to those occurring from elements common to all Master Plan Alternatives. Table 4-

8 describes the actions and associated long-term, indirect impacts that additionally apply to Alternative D.

Table 4-8. Elements and Associated Indirect Impacts – Alternative D

Resource	Action	Impacts
National Mall Historic District	Grade Changes Across Project Area: Alternative D proposes grade changes across the project area, specifically the changes to elevation of the Hirshhorn Sculpture Garden.	Modifications to existing grades throughout the South Mall Campus have the potential to impact contributing Mall viewsheds, specifically the principal E-W viewshed, the vista along 8 th Street NW-SW, and views to the elms and the buildings along the Mall from its walks and central grass panels, as identified in the National Mall Cultural Landscape Inventory and National Register Amendment." Modifications to the Hirshhorn Museum Sculpture Garden, including changing the elevation of the garden floor and potential replanting of Mall elm trees, will have the potential to adversely impact these views. These impacts will be further evaluated at the time of project design.
L'Enfant Plan	Changes to Quadrangle Building pavilions: Alternative D proposes the removal of existing museum pavilions and new museum pavilions adjacent to the Castle, including a below-grade Visitor Center entrance.	The proposed changes have the potential to impede, and therefore negatively impact, the contributing Tenth Street vista to the Castle. These impacts will be further evaluated at the time of project design.

4.9.8.5 ALTERNATIVE F

DIRECT IMPACTS

There would be no direct impacts to off-campus cultural resources from Alternative F.

INDIRECT IMPACTS

Indirect impacts to cultural resources under Alternative F would be similar to those occurring from elements common to all Master Plan Alternatives. .

Table 4-9 describes the actions and associated long-term, indirect impacts that additionally apply to Alternative F.

Table 4-9. Elements and Associated Indirect Impacts – Alternative F

Resource	Action	Impacts
National Mall Historic District	Grade Changes Across Project Area: Alternative F proposes grade changes across the project area, specifically the changes to elevation of the Hirshhorn Sculpture Garden.	Modifications to existing grades throughout the South Mall Campus have the potential to impact contributing Mall viewsheds, specifically the principal E-W viewshed, the vista along 8 th Street NW-SW, and views to the elms and the buildings along the Mall from its walks and central grass panels, as identified in the National Mall Cultural Landscape Inventory and National Register Amendment." Modifications to the Hirshhorn Museum Sculpture Garden, including changing the elevation of the garden floor and potential replanting of Mall elm trees, will have the potential to adversely impact these views. These impacts will be further evaluated at the time of project design.
L'Enfant Plan	Changes to Quadrangle Building pavilions: Alternative F proposes the removal of existing museum pavilions and new museum pavilions adjacent to the Castle, including a below-grade Visitor Center entrance.	The proposed changes have the potential to impede, and therefore negatively impact, the contributing Tenth Street vista to the Castle. These impacts will be further evaluated at the time of project design.

4.9.9 WHAT MEASURES WOULD BE TAKEN TO MINIMIZE IMPACTS TO CULTURAL RESOURCES ON AND OFF THE SOUTH MALL CAMPUS?

In order to reduce adverse impacts on cultural resources, SI would continue to consult with NCPC, NPS, ACHP, DCSHPO, and the Consulting Parties through the Section 106 consultation process to minimize or avoid adverse impacts. TA Programmatic Agreement is being negotiated that outlines a process for identifying, avoiding, and minimizing adverse impacts on cultural resources for those components of the Master Plan that cannot be fully evaluated at this time and may further define measures to be taken. Examples of protection and minimization measures typically taken when working on historic properties include, but are not limited to: stabilization and monitoring during construction; having qualified staff overseeing all work; completing research and documentation which may take the form of Historic Structure Reports (HSRs) or condition assessment reports to support and inform preservation treatments; and applying The Secretary of the Interior's Standards for the Treatment of Historic Properties when developing designs. Where adverse impacts cannot be

avoided or minimized, SI would identify mitigation strategies to provide a related preservation benefit that is comparable with the scale of the undertaking and the degree of impact.

4.10 VISUAL QUALITY

The visual quality of the site and surrounding area were evaluated in several ways. A number of visits were made to the site during various times of the year including spring, summer, and fall. During these visits, photography was used to document the site and the surrounding area, including views and viewsheds. This information was supplemented by historic research, which further informed this evaluation by identifying the historic importance of visual resources, views, and vistas. A change to the site's visual quality is constituted as a permanent alteration that directly or indirectly effects either the views and/or visual resources within or in the vicinity of the project area. Changes to the site's visual quality are important because they may impact the site's integrity of setting.

4.10.1 WHAT ARE THE VISUAL (AESTHETIC) CHARACTERISTICS OF THE SOUTH MALL CAMPUS AND SURROUNDING AREA?

The South Mall Campus is located on the south side of the National Mall, just to the east of the USDA Administration Building and to the west of the National Air and Space Museum. The site contains five Smithsonian Institution buildings, several gardens, lawns, walkways, small-scale features, and a staff parking lot and loading area. The site is relatively flat from several vantage points. Metered street parking is available during different times of the day on Jefferson Drive, SW, Independence Avenue, SW, and 7th Street, SW. Parking and vehicular traffic, including traffic on 12th Street, SW, are visible from most areas of the South Mall Campus.

The spatial organization of the South Mall Campus is informed by its relationship to the National Mall and the major roadways that encircle the Campus. The major buildings throughout the Campus provide both enclosure and orientation. This enclosure contributes to a sense of seclusion within the Campus' various gardens, particularly within the Haupt and Ripley gardens and in the Hirshhorn Plaza and Sculpture Garden. In general, the buildings of the Campus are arrayed east-west with major north and south points of entry. There is little east-west continuity between the buildings or across the South Mall Campus in general.

The individual landscape areas within the South Mall Campus are self-contained with limited views and vistas both inward and outward. This condition is largely the product of the scale of the buildings and walls within the South Mall Campus, as well as the size and maturity of the vegetation. Major views include views to and from the Hirshhorn Plaza from the 8th Street, SW axis (north), reciprocal views between the northern edge of the South Mall Campus and the National Mall, reciprocal views between the southern edge of the South Mall Campus and Independence Avenue, and those to and from the Castle along the 10th Street, SW axis (north and south). The landscape surrounding the Freer Gallery has a greater degree of exposure than that of the Hirshhorn, extending some distance along the National Mall, 12th Street, SW, and Independence Avenue, SW. The 10th Street, SW promenade was an important element of the mid-20th century urban renewal plan for the Southwest Quadrant of the District, and was meant to serve as "grand parkway entrance connecting the Southwest with the rest of Washington, DC" (Russello Ammon, 2004).

Construction of Federal Office Building No. 5 (James Forrestal Building) in 1969, however, partially obstructed the intended view from the Smithsonian Grounds to the promenade's southern terminus at Benjamin Banneker Park. The SW Ecodistrict Plan prepared by NCPC proposed the removal of the Forrestal

Building and proposed the strengthening of the 10th Street axis through roadway improvements, plantings, and fortifying the street wall along the promenade.

4.10.2 HOW WOULD THE SOUTH MALL CAMPUS MASTER PLAN IMPACT THE VISUAL QUALITY OF THE SOUTH MALL CAMPUS AND SURROUNDING AREA?

4.10.2.1 NO-ACTION ALTERNATIVE

DIRECT IMPACTS

Under the No-Action Alternative, no major above-grade changes would occur and there would be no permanent changes to views or visual resources within or in the vicinity of the project area (see Figures 4-30 to 4-33). Minor repairs to the Quadrangle Building roof membrane, existing building utilities, and other building facades could cause short-term adverse impacts to visual resources due to construction disturbance, staging, and equipment. These activities are temporary and would result in a long-term, negligible, adverse impact on visual resources.

INDIRECT IMPACTS

There would be no indirect impacts to visual resources under the No-Action Alternative.



Figure 4- 30. Current view of Hirshhorn Plaza Walls looking toward the AIB.



Figure 4-31. Current view of Castle, Haupt Garden, and Freer facing east.



Figure 4- 32. Current view of South Mall Campus facing north.



Figure 4- 33. Current view of Haupt Garden facing northwest.

4.10.2.2 ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

DIRECT IMPACTS

Under all Master Plan Alternatives, permanent alterations to building exteriors and landscapes on the South Mall Campus have the potential to impact visual resources both inside and outside the project area. These actions are described separately below.

In all the Master Plan Alternatives, the common interventions proposed for the Freer Gallery, the Hirshhorn Museum, and Sculpture Garden, and the AIB have a long-term, negligible adverse impact to visual resources. These alterations would result in a minimal change to the visual quality of these buildings and their immediate surroundings.

The alterations proposed for the Castle Building are greater in intensity and include a comprehensive building rehabilitation; seismic and blast upgrade; basement and sub-basement expansion; and a Visitor Center addition, including the addition of egress and ingress facilities to the immediate south of the Castle. Changes proposed to the Castle Building itself have a long-term, negligible, adverse impact to visual resources on the South Mall Campus. However, the addition of a new visitor amenities entrance to the south of the Castle has the potential to impede on the northerly views along 10th Street, SW to the Castle, creating a minor, long-term, adverse impact. The specific intervention varies by alternative.

Similarly, the greater degree of intervention proposed in all Master Plan Alternatives for the Quadrangle Building and Haupt Garden have a greater potential to adversely impact visual resources. Replacement of the Quadrangle Building roof membrane and Haupt Garden planting would alter the aesthetic character of this landscape, although the resulting impacts would be dependent on the final Haupt Garden design and the configuration and maturity of the new vegetation. The removal of the Ripley Pavilion would restore the historic

reciprocal views between the South Yard and National Mall, resulting in a minor, long-term, beneficial impact. Visual quality would be improved as a result of removing parking near the AIB and loading near the Sackler.

All Master Plan Alternatives propose the implementation of perimeter security elements, which have the potential to impede or alter visual relationships, especially between the South Mall Campus and the greater National Mall landscape and urban context. To mitigate the impact of the perimeter security design, the elements would be integrated into existing structures and hardened landscape features wherever possible. Implementation of perimeter security would protect and preserve buildings in the event of a blast occurrence resulting in a moderate, beneficial, long-term, impact.

In all Master Plan Alternatives, construction activities would cause short-term adverse impacts to visual resources due to construction disturbance, staging, excavation, construction fencing, and equipment. These activities are temporary and would result in a negligible adverse impact on visual resources.

INDIRECT IMPACTS

The implementation of perimeter security elements has the potential to indirectly impact visual resources, specifically views and vistas between the South Mall Campus and National Mall. Impacts will be further evaluated at time of project design. Otherwise, there would be no indirect impacts to visual resources.

4.10.2.3 ALTERNATIVE B

DIRECT IMPACTS

Alternative B includes the elements common to all Master Plan Alternatives. In addition to the impacts of the common actions, interventions proposed under Alternative B have the potential to impact visual resources in the South Mall Campus (see Figures 4-34 to 3-37).

The insertion of a small opening in the side of the Hirshhorn Plaza would have a minor, long-term, adverse impact to the integrity of the resource and will effect

the visual character of this space. The restoration of the Hirshhorn Tunnel will have a beneficial long-term impact to the character of the resource and the spaces' visual character.

The reconfiguration of the Haupt Garden—including the in-kind replacement of planting and the addition of exhaust and intake vents supporting the Central Utility Plant—have the potential to create a minor to moderate, long-term, adverse impact on the aesthetic character of this landscape.

INDIRECT IMPACTS

Alternative B primarily entails minor alterations to existing buildings, minor interventions in existing landscapes, and in-kind replacement of existing garden and hardscape features. Therefore, the changes proposed under Alternative B would be minimally perceptible from surrounding vantage points, and would have no potential indirect impacts to visual resources. The changes proposed have no potential to indirectly impact significant aesthetic characteristics that contribute to the Plan of the City of Washington, the National Mall, the Washington Monument Grounds, or other resources.



Figure 4-34. View of Hirshhorn Plaza Walls looking toward the AIB under Alternative B.



Figure 4-35. View of Castle, Haupt Garden, and Freer facing east under Alternative B.



Figure 4- 36. View of South Mall Campus, facing north under Alternative B.



Figure 4- 38. View of Haupt Garden facing northwest under Alternative B.

4.10.2.4 ALTERNATIVE D

DIRECT IMPACTS

Alternative D includes the elements common to all Master Plan Alternatives. In addition to the impacts of the common elements, interventions proposed under Alternative D have the potential to impact visual resources in the South Mall Campus (see Figures 4-38 to 4-41).

The below-grade “dip” entrance would alter the aesthetic character of the Haupt Garden as well as the north-facing viewshed toward the Castle from 10th Street, SW, resulting in a major, long-term, adverse impact to these visual resources. Additionally, the more extensive reconfiguration of the Quadrangle Building and Haupt Garden—including the replacement of the museum pavilions and skylights in new locations—carries both beneficial and adverse effects. The visual quality of the South Mall Campus would benefit by improving the visibility of the museum pavilions from the National Mall, in addition to expanding the viewshed from 10th Street, SW and along Independence Avenue. Conversely, this change has the potential to alter the secluded and intimate character of the Haupt Garden as compared to its environs, resulting in a moderate, long-term, adverse impact.

The reconfiguration of the Haupt Garden—including the in-kind replacement of planting and the addition of exhaust and intake vents supporting the Central Utility Plant—have the potential to create a minor to moderate, long-term, adverse impact on the aesthetic character of this landscape. This impact would be mitigated by limiting the number and size of new exhaust and intake vents in the landscape. SI would explore opportunities to utilize existing Castle towers and chimneys to provide exhaust, thereby minimizing the number of structures in the landscape at grade.

Alternative D also proposes a greater degree of change to the Hirshhorn Museum, specifically the plaza and Sculpture Garden. Removal of large portions

of the plaza walls would diminish the quality of the plaza as a self-contained space, improving views but also diminishing its aesthetic character, resulting in a net adverse impact. Raising the Sculpture Garden to allow for high-ceilinged galleries below would alter the intimate nature of the existing Sculpture Garden landscape and has the potential to impede the north-west view along the 8th Street axis, resulting in a long-term, moderate, adverse impact.

INDIRECT IMPACTS

Changes proposed to the Hirshhorn Sculpture Garden under Alternative D have the potential to indirectly impact the principal, east-west National Mall viewshed. Although the changes proposed would not impede on the central greensward, the changes may alter extant landscape features, including mature trees, which would result in a minor, long-term, adverse impact to the continuity of that visual resource. Replanting the four rows of elm trees in this area would mitigate this impact on the National Mall.

Otherwise, there would be no indirect impacts to visual resources under Alternative D. The changes proposed have no potential to indirectly impact significant aesthetic characteristics that contribute to the Plan of the City of Washington, the Washington Monument Grounds, or other resources.



Figure 4- 39. View of Hirshhorn Plaza Walls looking toward the AIB under Alternative D.

MASTER PLAN DEVELOPMENT
ALTERNATIVE D - VIEWSHED A



Figure 4- 40. View of Castle, Haupt Garden, and Freer facing east under Alternative D.

MASTER PLAN DEVELOPMENT
ALTERNATIVE D - VIEWSHED B



Figure 4- 41. View of South Mall Campus facing north under Alternative D.

MASTER PLAN DEVELOPMENT
ALTERNATIVE D - VIEWSHED C



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Figure 4- 42. View of Haupt Garden facing northwest under Alternative D.

4.10.2.5 ALTERNATIVE F

Alternative F includes the elements common to all Master Plan Alternatives. In addition to the impacts of the common actions, interventions proposed under Alternative F have the potential to impact visual resources in the South Mall Campus (see Figure 4-42 to Figure 4-45).

The below-grade channel entrance to the Castle Visitor Center and new visitor amenities space would alter the aesthetic character of the Haupt Garden as well as the north-facing viewshed toward the Castle from 10th Street, SW, resulting in a moderate, long-term, adverse impact to these visual resources. Additionally, the more extensive reconfiguration of the Quadrangle Building and Haupt Garden—including the replacement of the museum pavilions and skylights in new locations—carries both beneficial and adverse effects. The visual quality of the South Mall Campus would benefit by improving the visibility of the museum pavilions from the National Mall, in addition to expanding the viewshed from 10th Street, SW and along Independence Avenue creating a minor beneficial impact. Conversely, this change has the potential to alter the secluded and intimate character of the Haupt Garden as compared to its environs, resulting in a moderate, long-term, adverse impact. This impact has been minimized in Alternative F by retaining the garden-like quality and certain features of the existing Haupt Garden, which would result in a similar aesthetic character as exists today.

However, the reconfiguration of the Haupt Garden—including the in-kind replacement of planting and the addition of exhaust and intake vents supporting the Central Utility Plant—has the potential to create a minor to moderate, long-term, adverse impact on the aesthetic character of this landscape. This impact would be mitigated by limiting the number and size of new exhaust and intake vents in the landscape. SI would also explore opportunities to utilize existing Castle towers and chimneys to provide exhaust, thereby minimizing the number of structures in the landscape at grade.

Alternative F also proposes a greater degree of change to the Hirshhorn Museum, specifically the Sculpture Garden. Raising the Sculpture Garden to allow for high-ceilinged galleries below would alter the intimate nature of the existing Sculpture Garden landscape and has the potential to impede the north-south view along the 8th Street axis, resulting in a long-term, moderate, adverse impact. In Alternative F, the treatment of the plaza walls would be undertaken in a similar manner to Alternative B, resulting in the same long-term, minor adverse impact.

INDIRECT IMPACTS

Changes proposed to the Hirshhorn Sculpture Garden under Alternative F have the potential to indirectly impact the principal, east-west National Mall viewshed. Although the changes proposed would not impede on the central greensward, the changes may alter extant landscape features, including mature trees, which would result in a minor, long-term, adverse impact to the continuity of that visual resource. Replanting the four rows of elm trees in this area would mitigate this impact on the National Mall.

Otherwise, there would be no indirect impacts to visual resources under Alternative F. The changes proposed have no potential to indirectly impact significant aesthetic characteristics that contribute to the Plan of the City of Washington, the Washington Monument Grounds, or other resources.



Figure 4- 43. View of Hirshhorn Plaza Walls looking toward the AIB under Alternative F.

MASTER PLAN DEVELOPMENT
ALTERNATIVE F - VIEWSHED A



Figure 4- 44. View of Castle, Haupt Garden, and Freer facing east under Alternative F.

MASTER PLAN DEVELOPMENT
ALTERNATIVE F - VIEWSHED B



Figure 4- 45. View of South Mall Campus facing north under Alternative F.

MASTER PLAN DEVELOPMENT
ALTERNATIVE F - VIEWSHED C



Figure 4- 46. View of Haupt Garden facing northwest under Alternative F.

4.10.3 WHAT MEASURES WOULD BE TAKEN TO MINIMIZE IMPACTS TO AREA AESTHETICS AND VISUAL RESOURCES?

Impacts to visual resources resulting from the Master Plan Alternatives would be minimized through sensitive, context-aware designs that reference and are compatible with existing features. Any above-grade structures and landscape features proposed for the South Mall Campus would be limited in their size and placement in order to preserve and enhance existing views and viewsheds. For any changes where replanting of existing vegetation is necessary, such as in the Haupt Garden, Smithsonian would endeavor to specify appropriately mature replacements to shorten or minimize the temporary effects of construction. Where possible, infrastructure elements—such as the new loading dock ramp, perimeter security features, and central utility plant ventilation—would be integrated into landscape features to create a cohesive, aesthetically compatible design. Further measures to minimize impacts to visual would be identified at the time individual projects are brought forward for design.

4.11 LAND USE PLANNING AND POLICIES

4.11.1 WHAT ARE THE LOCAL AND FEDERAL PLANNING AND ZONING ORDINANCES?

Since the South Mall Campus is federally-owned, it is not subject to District zoning requirements, plans, or DCRA building permits. In developing alternatives for the South Mall Campus Master Plan, SI consulted with the DC Office of Planning and considered the connections between the South Mall Campus and the active, growing city in which it is located. SI does obtain District permits related to stormwater, curb cuts, and work in DC public space.

COMPREHENSIVE PLAN FOR THE NATIONAL CAPITAL

Development within the District of Columbia is guided by The Comprehensive Plan for the National Capital, which includes goals, objectives, and planning policies to direct and manage growth. This plan contains both Federal Elements

and District of Columbia Elements. Although the Smithsonian is not an executive branch agency, it is an instrument of the United States and because it is located within the monumental core of the city, SI and the South Mall Campus are guided by the Federal Elements of the Comprehensive Plan.

The Federal Elements, prepared by NCPC and revised in 2016, provide a policy framework for the federal government in managing its operations and activity in the National Capital Region. The Federal Elements primarily address issues related to federal property and interests in the National Capital Region. Federal elements include: Urban Design, Federal Workplace, Foreign Missions and International Organizations, Transportation, Federal Environment, Historic Preservation, Visitors and Commemoration, and Parks and Open Space (NCPC, 2016).

The Urban Design element regulates the historic and character-defining resources of the District as the Nation's Capital, as well as the center of the federal government. This element has many aspects in common with the Monumental Core Framework Plan, which identifies new sites for memorials and museums, eliminates physical barriers between sites, promotes diverse land uses that support day and night activities, and designing for a more pedestrian-friendly experience at the street level. According to the Urban Design element, development along the National Mall should be carefully planned to preserve historic open space and monumental character, but should also support public space programs and connections between sites.

In addition to the Comprehensive Plan, the South Mall Campus is situated between two major planning areas: The SW Ecodistrict to the south, and the National Mall to the north.

SW ECODISTRICT PLAN

The area immediately south of the South Mall Campus across Independence Avenue, SW is the subject of the SW Ecodistrict Plan, prepared by NCPC in 2013,

which recommends extending the civic qualities of the National Mall to the waterfront (NCPC, 2013). The SW Ecodistrict would connect Banneker Park to the National Mall with a green thoroughfare along 10th Street, SW. This plan proposes to transform the Maryland Avenue, SW and 10th Street, SW area into a highly sustainable mixed-use community. Along with planned waterfront redevelopment, this would create new places to live, develop new cultural destinations, and promote a vibrant walkable neighborhood to the south of the South Mall Campus. Independence Avenue, SW and the South Mall Campus are viewed as a transition area between the open space of the National Mall and the urban character of the SW Ecodistrict. In support of this concept of transition, the SW Ecodistrict Plan proposes to redevelop most of the buildings along the south side of Independence Avenue, with careful attention to building massing, roofline sculpting, and materials. The plan calls for up to an additional 1.8 million square feet of residential and/or hotel development directly across Independence Avenue, SW from the South Mall Campus. Ultimately the implementation of the SW Ecodistrict Plan would increase area connectivity including to and from the National Mall and the South Mall Campus. The District has also designated the Independence Avenue Sub-Area along the south side of Independence Avenue, SW between 2nd and 12th Streets, SW, which further protects the viewshed of the National Mall.

NATIONAL MALL PLAN

The National Mall Plan, prepared by NPS in 2010, proposes to rehabilitate and refurbish the National Mall to maintain its value as a premier civic and symbolic space (NPS, 2010a). The Plan includes strategies to rehabilitate the historic landscape, including memorials and planned views; maintain and improve the open areas of the National Mall in support of public gatherings, demonstrations, events, and other intense uses; and enhance urban recreation and sustainable urban ecology.

4.11.2 IS THE SOUTH MALL CAMPUS MASTER PLAN CONSISTENT WITH FEDERAL AND LOCAL PLANNING LAND USE PLANS?

4.11.2.1 NO-ACTION ALTERNATIVE

Under the No-Action Alternative, no changes to the South Mall Campus layout, wayfinding, pathway configurations, or viewsheds would occur. No improvements to circulation or connectivity within the South Mall Campus or to adjacent areas would occur. There would be no improvement in visual and pedestrian connections to neighboring sites. Therefore, the No-Action Alternative would have no impacts to land use or planning.

4.11.2.2 ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

DIRECT IMPACTS

Due to the long-range scope of planning efforts in the area, the elements common to all Master Plan Alternatives would not have short-term impacts to land use planning.

Under the Action Alternatives, the land use of the South Mall Campus would not change. Under all Master Plan Alternatives, the demolition of the Ripley Center pavilion, the removal of the existing loading ramp next to the Freer Gallery, and the reconfiguration of the Ripley Garden would create more visible and inviting pedestrian connections between the National Mall and the SW Ecodistrict. Perimeter security measures would be designed to blend in with landscape elements throughout the South Mall Campus.

The elements common to all Master Plan Alternatives would be consistent with the goals of the SW Ecodistrict Plan. The replacement and upgrade of mechanical, electrical, water, sanitary, and stormwater infrastructure in all campus buildings and throughout the South Mall Campus, along with construction of a new energy efficient central utility plant, would be consistent with the energy efficiency and sustainability goals of the SW Ecodistrict Plan.

The addition of stormwater best management practices including reinstalling the Haupt Garden that would function as an upgraded green roof above the Quadrangle Building and the addition of pervious pavers, bioretention areas, and additional plantings and green space would be added wherever possible would support the green infrastructure goals of the SW Ecodistrict Plan. Lastly, the improved connections between the South Mall Campus, the National Mall, and the SW Ecodistrict would be consistent with the SW Ecodistrict goals for improved connections to public space.

The elements common to all Master Plan Alternatives include measures to restore and renovate historic buildings consistent with the National Mall Plan's cultural resource goals of improving buildings and architectural features. The elements common to all Master Plan Alternatives also include improvements to stormwater management, utilities, and mechanical systems that will result in decreased water quality impacts and energy usage consistent with the National Mall Plan's goals for natural resources and sustainability. The NPS' National Mall Plan calls for improved visitor facilities and wayfinding including a welcome plaza near the Metro station in front of the Smithsonian Castle to orient visitors to the National Mall and inform them about opportunities. This goal is consistent with the South Mall Campus Master Plans' improved connections between the museums and gardens of the South Mall Campus, the National Mall, and the neighborhood.

The elements common to all Master Plan Alternatives would also be consistent with the guiding principles of the Federal Elements of the *Comprehensive Plan for the National Capital*. The South Mall Campus Master Plan will promote high quality design, a goal of the Comprehensive Plan. Installing perimeter security elements around the entire South Mall Campus while also improving connections between museums, the National Mall, and the surrounding community is consistent with the Comprehensive Plan's goal of balancing accessibility and security. The energy efficient, sustainable, and green

infrastructure features of the South Mall Campus Master Plan are consistent with the Comprehensive Plan's goals to address climate change; and the improved connections between the South Mall Campus, the National Mall, and the SW Ecodistrict are consistent with the Comprehensive Plans goals to support pedestrian-oriented development that adds vitality and visual interest to urban areas.

Therefore, the elements common to all Master Plan Alternatives would have a long-term beneficial impact on land use planning.

INDIRECT IMPACTS

By enhancing walkability, removing physical and visual barriers, and linking the civic qualities of the National Mall to the SW Ecodistrict and the waterfront, the South Mall Campus Master Plan would contribute to the federal and local long-term goals for a welcoming, well-connected, sustainable, and iconic capital city with the National Mall as its centerpiece. The Master Plan combined with other planning efforts in the area would attract more visitors, private developers, and residents over time, contributing to economic growth and vitality in the National Mall area and the District as a whole. Therefore, the elements common to all Master Plan Alternatives would result in a long-term, moderate, beneficial indirect impact to land use planning in the District.

4.11.2.3 ALTERNATIVE B

DIRECT IMPACTS

Alternative B includes the elements common to all Master Plan Alternatives. In addition, the limited changes to the Haupt Garden and building entrances under Alternative B would result in the preservation of historic open space and monumental character. However, Alternative B would also result in the least improvement in visual and pedestrian connections to neighboring sites. Under Alternative B, the pathways in the Haupt Garden would be replaced in their current configuration, which would not improve campus circulation or

wayfinding. The Hirshhorn perimeter walls and the Sackler Gallery and NMAfA pavilions would continue to act as physical and visual barriers between the South Mall Campus, the National Mall, and the SW Ecodistrict. By reorienting the Sackler Gallery and NMAfA pavilion entrances toward the National Mall, Alternative B would slightly improve the visibility of these museums to and from the National Mall compared to the No-Action Alternative, but to a lesser extent than the other Master Plan Alternatives. Overall, due to the limited improvements to visibility and pedestrian connections, Alternative B, when compared to the other Master Plan Alternatives, is the least consistent with the Comprehensive Plan goal of pedestrian-oriented development that adds vitality and visual interest to urban areas and the SW Ecodistrict Plan goals for improved connections to public space. Although Alternative B would have adverse effects on historic properties, the rehabilitation of buildings on the South Mall Campus would be consistent with the Comprehensive Plan's goals for preserving, protecting, and rehabilitating historic properties.

Alternative B would restore and renovate historic buildings and minimize changes to above ground spaces consistent with the National Mall Plan's cultural resource goals of improving buildings and architectural features while protecting and preserving planned vistas and open spaces. Alternative B includes additional program space and visitor amenities which are consistent with the National Mall Plan's goals for the civic stage and portions of the visitor experience. However, visibility of museum entrances and consolidation of amenities would not occur under Alternative B which is not in keeping with the National Mall Plan's goals for improved access and circulation and improved visitor experience.

INDIRECT IMPACTS

The indirect impacts to land use planning under Alternative B would be similar to those discussed under elements common to all Master Plan Alternatives.

4.11.2.4 ALTERNATIVE D

DIRECT IMPACTS

Alternative D includes the elements common to all Master Plan Alternatives. In addition, the grade changes proposed under Alternative D would potentially affect the historic character of the South Mall Campus to a greater degree compared to Alternative B. The “dip” entrance to the proposed below-grade Visitor Center underneath the Castle would alter the relationship between the Castle and the Haupt Garden. However, under Alternative D, the pathways in the Haupt Garden would be reconfigured to improve campus circulation and wayfinding. The Haupt Garden would be expanded and restored, providing more space for programming and special events and adding to the symbolic and functional importance of the South Mall Campus. By removing the Sackler Gallery and NMAfA pavilions and relocating them closer to the National Mall, Alternative D would strengthen museum identities, to reestablish historic views from the National Mall, and open the Haupt Garden up to Independence Avenue and the SW Ecodistrict. The north, east, and west perimeter walls of the Hirshhorn Plaza would be lowered or eliminated, which would improve the visibility, access, and integration of the Hirshhorn Museum to Jefferson Drive, SW and the National Mall. Compared to the other Master Plan Alternatives, Alternative D would eliminate the greatest number of physical and visual barriers between the South Mall Campus, the National Mall, and the SW Ecodistrict promoting the Comprehensive Plan and SW Ecodistrict Plan goals of pedestrian-oriented development and improved connections to public space. Due to the impacts to the historic character of the South Mall Campus, Alternative D is consistent with the SW Ecodistrict Plan, but may not be fully consistent with the Urban Design or Historic Preservation Elements of the Comprehensive Plan.

Alternative D would restore and renovate historic buildings consistent with the National Mall Plan’s cultural resource goals of improving buildings and

architectural features. However, changes to Castle, Haupt Garden, and Quadrangle pavilions would alter the landscape. Alternative D includes additional program space which is consistent with the National Mall Plan's goals for the civic stage. Alternative D also adds and consolidates visitor amenities and improves visibility of museum entrances which are in keeping with the National Mall Plan's goals for improved visitor experience and improved access and circulation.

INDIRECT IMPACTS

The indirect impacts to land use planning under Alternative D would be similar to those discussed under elements common to all Master Plan Alternatives.

4.11.2.5 ALTERNATIVE F

DIRECT IMPACTS

Alternative F includes the elements common to all Master Plan Alternatives. In addition, the changes to the Haupt Garden proposed under Alternative F would potentially affect the historic character of the South Mall Campus to a greater degree compared to Alternative B. However, Alternative F would maintain the current grade of the Haupt Garden, and the entrance to the proposed below-grade Visitor Center under the Castle and the new amenities space would be located at-grade between the Castle and the Haupt Garden, resulting in fewer impacts to the historic relationship between the Castle and the Haupt Garden as compared to Alternative D. Under Alternative F, the pathways in the Haupt Garden would be reconfigured to improve campus circulation and wayfinding. The Haupt Garden would be expanded and restored, providing more space for programming and special events and adding to the symbolic and functional importance of the South Mall Campus. By removing the Sackler Gallery and NMAfA pavilions and relocating them closer to the National Mall, Alternative F would greatly improve the views of these museums to and from the National Mall and open up the Haupt Garden to the SW Ecodistrict. Under Alternative F, one portion of the west perimeter wall

of the Hirshhorn Plaza would be removed to create a connection to the Ripley Garden and AIB, which would enhance east-west connectivity. The remainder of the historic perimeter walls of the Hirshhorn Plaza would not be altered and would continue to act as physical and visual barriers between the South Mall Campus, the National Mall, and the SW Ecodistrict. Compared to the other Master Plan Alternatives, Alternative F would eliminate some physical and visual barriers and improve connections between the South Mall Campus, the National Mall, and the SW Ecodistrict, while still maintaining the historic character of the South Mall Campus to the greatest extent possible. Therefore, Alternative F is consistent with the Comprehensive Plan and SW Ecodistrict Plan goals for pedestrian-oriented development and for improved connections to public space, and the most consistent with the Urban Design and Historic Preservation Elements of the Comprehensive Plan compared to the other Master Plan Alternatives.

Alternative F would restore and renovate historic buildings consistent with the National Mall Plan's cultural resource goals of improving buildings and architectural features. However, removal of the Quadrangle pavilions would alter the landscape. Alternative F includes additional program space which is consistent with the National Mall Plan's goals for the civic stage. Alternative F also adds and consolidates visitor amenities and improves visibility of museum entrances which are in keeping with the National Mall Plan's goals for improved visitor experience and improved access and circulation.

INDIRECT IMPACTS

The indirect impacts to land use planning under Alternative F would be similar to those discussed under elements common to all Master Plan Alternatives.

4.11.3 WHAT MEASURES WOULD BE TAKEN TO ENSURE THE SOUTH MALL CAMPUS MASTER PLAN IS CONSISTENT WITH FEDERAL AND LOCAL PLANNING ORDINANCES?

The Master Plan Alternatives were developed to provide a long-term, holistic plan for the entire South Mall with extensive input from NCPC, CFA, DCOP, DDOT, USDA, GSA, and NPS, among others, to ensure that the alternatives are consistent with federal and local planning ordinances. The South Mall Campus Master Plan would be subject to review and approval by NCPC.

4.12 TRAFFIC AND TRANSPORTATION

4.12.1 WHAT MAKES UP THE LOCAL ROADWAY NETWORK?

The study area is formally located in the Southwest Federal Center neighborhood, in Ward 6, between the National Mall and I-395. The neighborhood is primarily a business district and almost entirely occupied by offices for various branches of the federal government and many of SI's museums. Bounded by Jefferson Drive, SW to the north, Independence Avenue, SW to the south, 14th Street, SW to the west, and 7th Street, SW to the east, the study area includes the South Mall Campus. The study area includes the following signalized intersections:

- Independence Avenue, SW and 14th Street, SW
- Independence Avenue, SW and 12th Street, SW
- Independence Avenue, SW and L'Enfant Plaza, SW
- Independence Avenue, SW and 9th Street, SW
- Independence Avenue, SW and 7th Street, SW
- Jefferson Drive, SW and 14th Street, SW
- Jefferson Drive, SW and 12th Street, SW
- Jefferson Drive, SW and 7th Street, SW

Characteristics of the study area roadways were obtained from maps on the DDOT website denoting functional classification, 2015 Average Annual Daily

Traffic (AADT), speed limits, and truck routes/loading zones. This information is summarized in Table 4-10. The table also lists the number of lanes and parking types as observed during a roadway inventory.

Table 4-10. Study Area Roadway Characteristics

Roadway	Functional Class	2015 AADT	Number of Lanes, Division	Parking Type	Speed Limit (mph)	Primary Truck Route/Designated Loading Zones?
Jefferson Drive, SW	Local	6,300	1, Undivided	On-street 3 Hour Limit	15	No/No
Independence Avenue, SW	Principal Arterial	27,500	8, Undivided	On-street Metered	25	Yes/No
14 th Street, SW	Principal Arterial	41,500	7, Divided south of Independence Avenue SW	On-street Metered Special Permit	25	Yes/No
12 th Street, SW	Local	15,800	5, Divided south of Independence Avenue SW	On-street Metered	25	Yes/No
9 th Street, SW	Local	21,300	1, Undivided	On-street Metered	25	Yes/No
7 th Street, SW	Principal Arterial	17,300	8, Undivided	On-street Metered	25	Yes/No

*It should be noted that most on-street, metered parking in the study area is only permitted between specific hours. At all other times on arterials, the parking lane operates as a travel lane.

4.12.2 HOW WERE IMPACTS TO THE LOCAL ROADWAY NETWORK ASSESSED?

Stantec Consulting Services Inc. conducted a comprehensive data collection program to establish “average day” baseline conditions for vehicular, transit, pedestrian, and cyclist traffic within the study area. The program consisted of manual turning movement counts and queuing and loading activity observations. All data were collected on a typical weekday when District schools and Congress were in session and there were no major special events on the National Mall.

Saturday data was also collected on September 30th and October 7th, 2017. No issues were noted with the data collected on Saturday, September 30th at the intersections on Independence Avenue, SW and 9th Street, SW, and Independence Avenue, SW and 7th Street, SW. However, the intersections of Independence Avenue, SW and 14th Street, SW, Independence Avenue, SW and 12th Street, SW, and Independence Avenue, SW and L’Enfant Plaza, SW had inflated eastbound through volumes resulting from a baseball game occurring at Nationals Park in the Navy Yard neighborhood of Washington, DC on Saturday, October 7th, 2017. Volumes are adjusted for the incoming traffic by balancing them with turning movement counts taken on Saturday September 30th, 2017.

TURNING MOVEMENT COUNTS

Manual turning movement counts were collected during the PM peak period (3:30PM – 6:30PM) and Saturday peak period (12:00PM – 4:00PM) at the seven study intersections in September and October 2017. It should be noted that the weekday AM peak period is not included. Most of the SI facilities do not open until 10:00 AM, with the exception of the Castle, which opens at 8:30 AM. However, SI is planning to relocate many office staff from the Castle to another location as part of the Master Plan. Therefore, the proposed modifications to the

South Mall Campus are anticipated to have a negligible impact on the weekday AM peak hour operations of the adjacent roadway network.

QUEUEING OBSERVATIONS

Queuing observations were conducted during the turning movement counts to determine if additional unmet demand would need to be considered in the traffic analysis. Despite clear peak hour directional volume (westbound in the PM), the results of the queue observations show minimal to no queuing along Independence Avenue, SW and Jefferson Drive, SW. Therefore, it was determined that the traffic analysis did not need to consider additional unmet demand.

ANALYSIS METHODOLOGY

Capacity analysis, a procedure used to estimate the traffic-carrying ability of roadway facilities over a range of defined operating conditions, was performed for study area intersections using Synchro 9 traffic analysis software. This software package provides average control delay and level of service (LOS) for each lane group and for the overall intersection. LOS is an evaluation of the quality of operation of an intersection and is a measure of the average delay a driver experiences while traveling through the intersection. LOS is dependent upon a range of defined operating conditions such as traffic demand, lane geometry, and traffic signal timing and phasing.

Utilizing Synchro instead of the more basic Highway Capacity Software (HCS) is preferable for transportation networks with a series of closely-spaced signalized intersections, such as the Independence Avenue corridor. Under these conditions, Synchro is able to more accurately model the effects that the traffic operations (such as poor LOS or extensive queuing) at one intersection have on operations at an adjacent intersection. Furthermore, HCS cannot analyze complex intersections with more than four legs.

LOS can range from A to F and is based on the average control delay per vehicle. For a signalized intersection, LOS A indicates operations with an average control delay less than 10 seconds per vehicle, while LOS F describes operations with an average control delay in excess of 80 seconds per vehicle, or a volume-to-capacity (v/c) ratio greater than 1.0. Table 4-11 summarizes the 2010 Highway Capacity Manual (HCM) delay criteria for signalized intersections.

Table 4- 11. LOS Criteria for Signalized Intersections

Level of Service	Average Control Delay (seconds/vehicle)
A	Less than or equal to 10.0
B	> 10.0 and ≤ 20.0
C	> 20.0 and ≤ 35.0
D	> 35.0 and ≤ 55.0
E	> 55.0 and ≤ 80.0
F	Greater than 80.0 or v/c > 1.0

Source: 2010 Highway Capacity Manual

While LOS D or better operations are generally deemed satisfactory from a traffic operations perspective, LOS E or F operations are often indicative of queuing and congestion. Improvements as recommended in this study seek to maintain or improve traffic operations to LOS D or better, as reported by Synchro.

Signal plans and timing directives were delivered by DDOT and were field-verified to accurately model signal operation type, phasing, detection, and cycle length in the Synchro files utilized for capacity analysis.

4.12.3 HOW WOULD THE SOUTH MALL CAMPUS MASTER PLAN IMPACT THE LOCAL ROADWAY NETWORK?

4.12.3.1 NO-ACTION ALTERNATIVE

DIRECT IMPACTS

The No-Action Alternative consists of the existing roadway network with future traffic growth due to background volume growth and nearby developments. No site enhancements would be constructed; thus, no additional vehicle trips from the South Mall Campus are anticipated. Therefore, the No-Action Alternative would have a long-term, negligible, adverse impact on the study area transportation network. Table 4-12, below shows the overall intersection delay (seconds per vehicle) and LOS for the No-Action Alternative.

Table 4-12. 2040 No Action Capacity Analysis Results

Intersection	PM Peak Hour	Saturday Peak Hour
14 th Street, SW, and Jefferson Drive, SW	(43.7) D	(13.1) B
14 th Street, SW and Independence Avenue, SW	(94.1) F	(23.5) C
Independence Avenue, SW and 12 th Street, SW	(130.2) F	(20.4) C
Independence Avenue, SW, and L'Enfant Plaza	(23.7) C	(9.7) A
Independence Avenue, SW, and 9 th Street, SW	(26.9) C	(10.0) A
Independence Avenue, SW, and 7 th Street, SW	(57.0) E	(14.2) B
Jefferson Drive, SW, and 12 th Street, SW	(0.7) A	(4.0) A
Jefferson Drive, SW, and 7 th Street, SW	(10.0) A	(10.4) B

INDIRECT IMPACTS

There would be no indirect impacts to the local roadway network from the No-Action Alternative.

4.12.3.2 ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

DIRECT IMPACTS

The elements common to all Master Plan Alternatives would not generate additional vehicular trips and therefore there would be no direct impacts to the local roadway network.

INDIRECT IMPACTS

There would be no indirect impacts to the local roadway network from elements common to all Master Plan Alternatives.

4.12.3.3 ALTERNATIVE B

DIRECT IMPACTS

Alternatives B, D, and F would all generate similar additional visitors and employees is anticipated to be similar in each alternative. The difference in square footage between alternatives reflects support spaces, which do not generate additional employee or visitor trips.

A person-trip generation and mode split estimate was calculated utilizing existing door counts, which include visitors and employees, as well as visitor mode share data provided by SI. It is anticipated that up to 602 new person-trips would be generated during the PM peak hour, and 2,144 new person-trips would be generated during the Saturday peak hour (Table 4-13). While transit, walking, and other non-auto modes will be represented in the analysis as person-trips walking to/from nearby transit stops or other major origins and destinations near the South Mall Campus, it is not appropriate to equate individual person-trips with vehicle trips. Information obtained from SI indicates an average group size is approximately three people. Thus, the number of vehicle person-trips

was divided by three to estimate the number of new vehicle trips that would be generated by the expansion (Table 4-13).

It is anticipated that up to 200 office staff members that currently occupy a portion of the Castle building will be relocated off-site as part of the Master Plan. The proposed expansion of the South Mall campus facilities would also likely require additional exhibit support staff and volunteers, although the exact number of additional staff is not known at this Master Plan level. However, it should be noted that the door count data includes visitors, staff, and volunteers. Therefore, it can be assumed that the trip generation figures shown in Table 4-13 include additional staff and volunteers. Furthermore, no PM peak hour credit was taken for the 200 existing employees that may potentially be relocated, due to the uncertainty around future staffing levels at this stage of the Master Plan effort. This provides for a conservative analysis which is flexible to future Master Plan changes and likely represents a maximum trip generation rate.

Table 4-13. Trip Generation and Mode Split

	PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total
Total Person Trips	91	511	602	1,149	995	2,144
Public Transit (49%)	45	251	295	563	487	1,051
Walking (20%)	18	102	120	230	199	429
Bike (6%)	5	31	36	69	60	129
Other (2%)	2	10	12	23	20	43
Total Non-Auto Person Trips	70	394	463	885	766	1,652
Vehicle (23%)	21	118	139	264	229	492
Total New Vehicle Trips	7	39	46	88	76	164

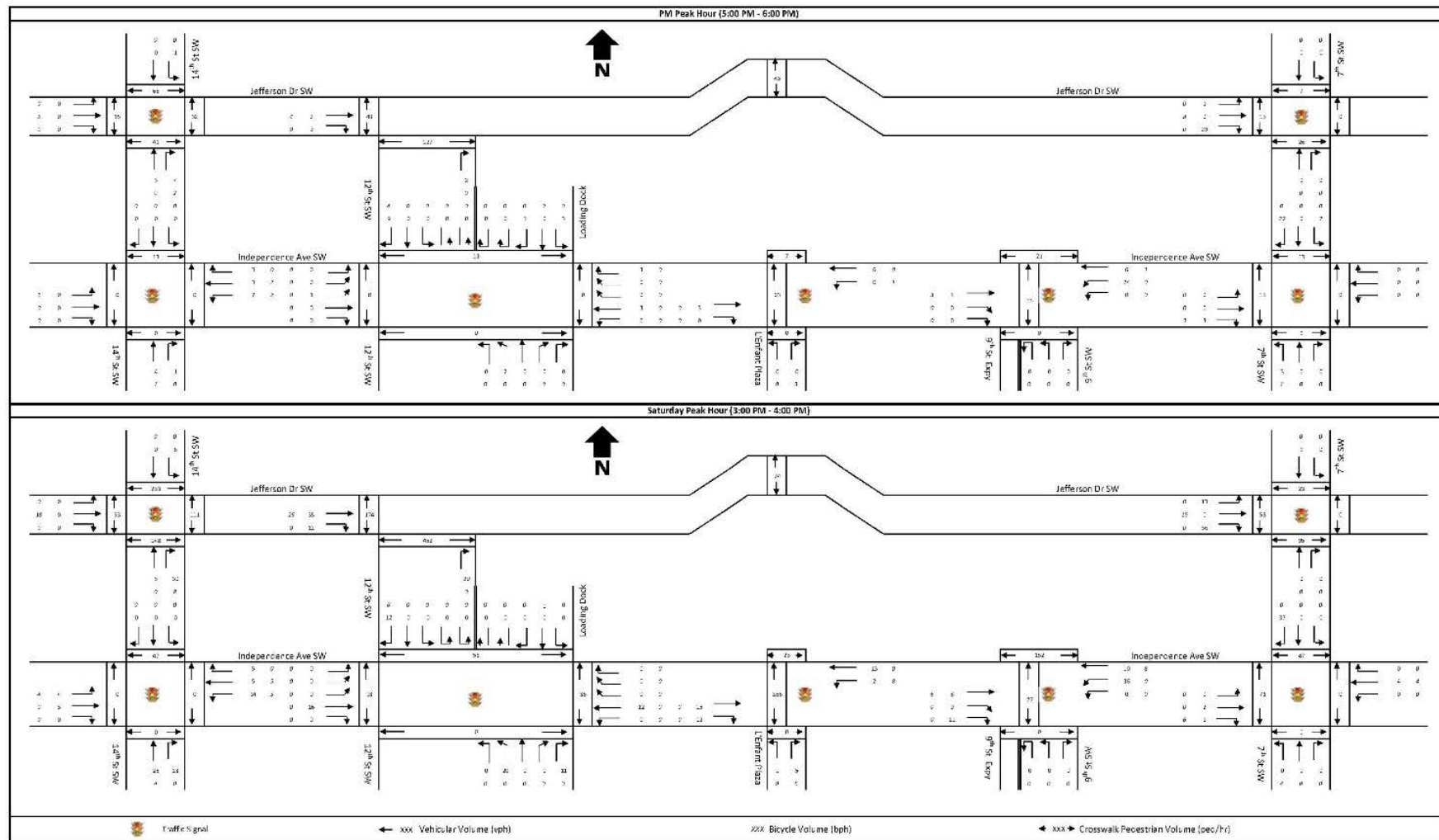


Figure 4- 47. Distribution of Additional Trips Generated by the Master Plan Alternatives.

Table 4-14. 2040 No Action, Action, and Action with Mitigation Capacity Analysis Results

Intersection	PM Peak Hour		Saturday Peak Hour	
	No Action	Action	No Action	Action
14 th Street, SW and Jefferson Drive, SW	(43.7) D	(44.5) D	(13.1) B	(14.4) B
14 th Street, SW and Independence Avenue, SW	(94.1) F	(102.9) F	(23.5) C	(23.7) C
Independence Avenue, SW and 12 th Street, SW	(130.2) F	(108.7) F	(20.4) C	(32.8) C
Independence Avenue, SW and L'Enfant Plaza	(23.7) C	(23.0) C	(9.7) A	(10.1) B
Independence Avenue, SW and 9 th Street, SW	(26.9) C	(28.9) C	(10.0) A	(9.7) A
Independence Avenue, SW and 7 th Street, SW	(57.0) E	(58.1) E	(14.2) B	(14.0) B
Jefferson Drive, SW and 12 th Street, SW	(0.7) A	(1.2) A	(4.0) A	(121.6) F
Jefferson Drive, SW and 7 th Street, SW	(10.0) A	(10.5) B	(10.4) B	(12.0) B

INDIRECT IMPACTS

There would be no indirect impacts to the local roadway network from Alternative B.

4.12.3.4 ALTERNATIVE D

DIRECT IMPACTS

Direct impacts to the local roadway network under Alternative D would be the same as those described under Alternative B.

INDIRECT IMPACTS

There would be no indirect impacts to the local roadway network from Alternative D.

4.12.3.5 ALTERNATIVE F

DIRECT IMPACTS

Direct impacts to the local roadway network under Alternative F would be the same as those described under Alternative B.

INDIRECT IMPACTS

There would be no indirect impacts to the local roadway network from Alternative F.

4.12.4 WHAT PUBLIC TRANSIT FACILITIES AND SERVICES ARE AVAILABLE IN THE VICINITY OF THE SOUTH MALL CAMPUS?

4.12.4.1 BICYCLE

Bicycle facilities within a 1-mile bikeshed of the study area were assessed. Dedicated bicycle lanes and/or bicycle street right-of-way provided on the following streets: 4th, 6th, 8th, 9th, 10th, 11th, 12th, 15th, E, F, G, I, and Pennsylvania Avenue, SW. Off-street bike trails exist throughout the areas of the National Mall, Tidal Basin, and Washington Channel (see Figure 4-47). Bike routes and trails are signed on 4th Street SW and along the Washington Channel. There are no dedicated bicycle facilities along Independence Avenue, SW, or Jefferson Drive, SW. However, given the width of the sidewalks along this corridor, bicyclists were observed to ride both on street and on the sidewalks, particularly on the eastbound side of Independence Avenue, SW.

In addition to the network bicycle facilities, there are nine Capital Bikeshare stations within ¼ mile of the South Mall Campus. In addition, there are currently two public bicycle racks providing approximately 24 bicycle parking spaces along Jefferson Drive, SW at the South Mall Campus, and an additional public bicycle parking area that provides approximately 10 bicycle parking spaces across Jefferson Drive, SW from the South Mall Campus.



Figure 4- 48. Bicycle rack outside of Haupt Garden.

4.12.4.2 PEDESTRIAN

Pedestrian facilities within a ¼-mile walkshed were also assessed. Sidewalks varying in width from nine to 16 feet are along all study area roadways. Wide and clearly striped crosswalks are provided at intersection approaches and at two mid-block locations. Curb ramps and pedestrian countdown signal heads are provided at each crosswalk at each signalized intersection. Only two curb ramps at L'Enfant Plaza and Independence Avenue, SW; three curb ramps at 12th Street, SW and Jefferson Drive, SW; and one each at the mid-block crosswalks on Jefferson Drive, SW, have detectable warning surfaces.

4.12.4.3 TRANSIT SERVICES

Transit services within ¼-mile of the study area are provided by the following organizations:

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY (WMATA)

WMATA provides the most extensive services through its Metrorail and bus. Services generally begin at 5:00 AM Monday through Friday and 7:00 AM Saturdays and Sundays, and end at 12:00 AM Sunday through Thursday and 3:00 AM Friday and Saturday. The study area has one Metrorail station (Smithsonian/National Mall) on the Blue, Silver, and Orange lines. Bus stops for the 16X, 52, and V1 routes are located at or near the intersection of Independence Avenue, SW and 12th Street, SW for connections to Metrorail via the Smithsonian/National Mall station.

It should also be noted that the L'Enfant Plaza station, while outside of the study area, is located within walking distance, just south of the South Mall campus, and provides connection to the Blue, Silver, Orange, Green, and Yellow Lines.

DC CIRCULATOR (BY WMATA AND DDOT)

The DC Circulator's new National Mall Service operates from Union Station to various memorials and the Tidal Basin. From October to March, service begins at 7:00 AM on weekdays and 9:00 AM on weekends through 7:00 PM daily. Service is extended one hour during the summer months from April to September. The study area has two stops on Jefferson Drive, SW at 12th Street, SW and near 7th Street, SW. There is also another stop on Madison Drive, NW at 12th Street, NW.

MARYLAND TRANSPORTATION AUTHORITY (MTA)

The MTA runs many commuter bus lines into the District. Four routes, including the 230, 250, 630, and 725, have stops at the intersection of Independence Avenue, SW and 12th Street, SW. Connections to MTA are also available at the Smithsonian Metrorail station.

POTOMAC AND RAPPAHANNOCK TRANSPORTATION COMMISSION (PRTC)

PRTC operates the OmniRide commuter bus service into the heart of the District. Routes that service the study area include GV-R and LR-R (including select trips around the National Mall). Bus stops are located at the intersection of Independence Avenue, SW and 12th Street, SW near the Smithsonian Metro station.

LOUDOUN COUNTY TRANSIT COMMUTER BUS ROUTES

Loudoun County operates the LC Transit Commuter Bus Routes that make daily trips from Arlington, VA to the District in the AM and from the District to Arlington, VA in the PM. Marked stops are provided at the intersections of Independence Avenue, SW and 12th Street, SW; and Independence Avenue, SW and 10th Street, SW (L'Enfant Promenade).

4.12.4.4 PASSENGER LOADING FOR BUSES, TAXIS, AND TRANSPORTATION NETWORK COMPANIES

Passenger loading for buses primarily occurs along the Jefferson Drive, SW frontage between 12th Street, SW and 14th Street, SW, where parking is not permitted. Bus loading also sometimes occurs on Independence Avenue, SW during off-peak periods. There are no specific designated areas for taxis or transportation network companies to drop-off or pick-up passengers. It is likely that most of that activity occurs along Jefferson Drive, SW and Independence Avenue, SW.

4.12.5 HOW WOULD THE SOUTH MALL CAMPUS MASTER PLAN IMPACT BICYCLE, PEDESTRIAN, AND THE LOCAL TRANSIT NETWORK?

4.12.5.1 NO-ACTION ALTERNATIVE

The No-Action Alternative would not generate new bicycle, pedestrian or transit trips and therefore would not result in any direct or indirect impacts to the bicycle, pedestrian or local transit network.

4.12.5.2 ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

The elements common to all Master Plan Alternatives would not generate new bicycle, pedestrian or transit trips, and, therefore, there would be no direct impacts to the bicycle, pedestrian or local transit network.

The South Mall Campus is located in the National Mall, which is an area characterized by extensive bicycle, pedestrian, and transit facilities. The proposed South Mall Campus Master Plan is anticipated to have a negligible impact on bicycle, pedestrian, and the local transit network because the extensive existing facilities are designed to accommodate large volumes of people on a daily basis, as well as for large events. Furthermore, the consolidation of the loading areas to one loading driveway would have a net benefit to pedestrian and bicycle safety because up to three existing

uncontrolled curb cuts, which provide the potential for pedestrian and bicycle to vehicle conflicts, would be closed. The proposed consolidated driveway would be controlled by a signal which would control pedestrian, vehicle, and bicycle interactions.

INDIRECT IMPACTS

There would be no indirect impacts to the bicycle, pedestrian, or transit network from elements common to all Master Plan Alternatives.

4.12.5.3 ALTERNATIVE B

Alternative B is anticipated to generate approximately 36 new bicycle trips in the PM peak hour and 129 new bicycle trips in the Saturday peak hour. While there is available capacity on the Capital Bikeshare system, as well as at existing public bike racks, capacity should be monitored in the future to determine if additional capacity is needed. Furthermore, the consolidation of the loading areas to one loading driveway would have a net benefit to bicycle safety because up to three existing uncontrolled curb cuts, which provide the potential for bicycle to vehicle conflicts, would be closed. The proposed consolidated driveway would be controlled by a signal which would control vehicle and bicycle interactions.

PEDESTRIAN

Most pedestrian trips generated by the proposed expansion are anticipated to come from the National Mall. The South Mall Campus facilities and National Mall are interconnected by signalized crosswalks at 7th Street, SW and 14th Street, SW, as well as 11 unsignalized crossings, which would be more than capable of accommodating existing and future pedestrian trips. Furthermore, the consolidation of the loading areas to one loading driveway would have a net benefit to pedestrian safety because up to three existing uncontrolled curb cuts, which provide the potential for pedestrian to vehicle conflicts, would be closed.

The proposed consolidated driveway would be controlled by a signal which would control pedestrian and vehicle interactions resulting in long-term, beneficial impacts. Smithsonian should identify crosswalks adjacent to the project site that need to be updated to current standards as the project moves from Master Planning to design.

TRANSIT

Transit services within ¼-mile of the study area are provided by the following organizations:

The implementation of the Master Plan is anticipated to generate 295 new transit trips during the PM peak hour, and 1,051 new transit trips during the Saturday peak hour, the majority of which are anticipated to utilize Metro. The Smithsonian Metro station is directly across Jefferson Drive, SW from the South Mall Campus, and would likely be capable of supporting the additional transit trips, as the transit trips peak on the weekends when the overall Metro system is running under capacity.

INDIRECT IMPACTS

There would be no indirect impacts to the bicycle, pedestrian, or transit network from Alternative B.

4.12.5.4 ALTERNATIVE D

Direct and indirect impacts to the bicycle, pedestrian, and transit network under Alternative D are the same as those described under Alternative B.

4.12.5.5 ALTERNATIVE F

Direct and indirect impacts to the bicycle, pedestrian, and transit network under Alternative F are the same as those described under Alternative B.

4.12.6 HOW WOULD THE NEW LOADING DOCK IMPACT THE LOCAL TRANSPORTATION NETWORK?

4.12.6.1 NO-ACTION ALTERNATIVE

Under the No-Action Alternative, three existing loading docks would remain. The existing loading facilities do not meet Smithsonian Institution Facilities Design Standards or DC loading requirements, and do not meet any of the design criteria for future servicing of the museums, which include two-way traffic, on-site vehicle turn around, and height clearance and sizing for large vehicles. Large box trucks and tractor trailers often back into or out of the loading areas, creating disruptions to traffic flow on Independence Avenue, SW. Large exhibition deliveries, which typically arrive in larger tractor trailers (WB-67), must park and load/unload on Independence Avenue, SW, which exposes the exhibit materials to unnecessary risk. The use of the existing loading docks would continue to have a long-term, moderate, adverse impact on Independence Avenue, SW.

4.12.6.2 ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

A consolidated loading dock is proposed in all three Master Plan Alternatives at the intersection of Independence Avenue, SW and 12th Street, SW, on the west side of the Freer Gallery of Art. The consolidated loading driveway would have a net benefit to the overall traffic operations and safety along Independence Avenue, SW. The proposed loading dock would eliminate breaks in the current campus site plan, allowing for a cohesive connection across the entire campus for visitors, and will provide SI with an underground loading area that provides adequate space to separate collections loading from food and garbage loading, and that allows for large trucks to maneuver below grade rather than in the street. Trucks, up to WB-67 tractor trailers would be able to turn around within the underground loading area, minimizing disruptions to the traffic, pedestrian, and bicycle operations on Independence Avenue, SW. This would create a long-term, beneficial impact to local roadways and the transportation network.

The proposed consolidated loading driveway is not anticipated to generate new truck trips. A new actuated signal phase would be required at the intersection of Independence Avenue, SW and 12th Street, SW to accommodate the proposed loading driveway. However, most deliveries are scheduled for off-peak periods. Therefore, the impact of the additional signal phase is anticipated to be minimal during peak periods because of the low number of trucks that are anticipated to use the driveway during those times. Furthermore, the consolidation of the loading areas to one loading driveway would have a net benefit to pedestrian and bicycle safety because up to three existing uncontrolled curb cuts, which provide the potential for pedestrian and bicycle to vehicle conflicts, would be closed. The proposed consolidated driveway would be controlled by a signal which would control pedestrian, vehicle, and bicycle interactions. This would create a long-term, beneficial impact to local roadways and the transportation network.

INDIRECT IMPACTS

There would be no indirect impacts to the local roadway network from the loading dock proposed under elements common to all Master Plan Alternatives.

4.12.6.3 ALTERNATIVE B

Under Alternative B, direct and indirect impacts on the local transportation network from a consolidated loading dock are the same as those described under elements common to all Master Plan Alternatives.

4.12.6.4 ALTERNATIVE D

Under Alternative D, direct and indirect impacts on the local transportation network from a consolidated loading dock are the same as those described under elements common to all Master Plan Alternatives.

4.12.6.5 ALTERNATIVE F

Under Alternative F, direct and indirect impacts on the local transportation network from a consolidated loading dock are the same as those described under elements common to all Master Plan Alternatives.

4.12.7 WHAT MEASURES WOULD BE TAKEN TO MINIMIZE IMPACTS TO THE LOCAL TRANSPORTATION NETWORK?

Given the built-out nature of the transportation network within the area, emphasis was placed on improving the overall intersection operations through adjustments to signal timing and phasing. No new capacity (i.e. additional lanes) are proposed. To address the capacity deficiencies identified utilizing DDOT criteria, the following mitigation measures are recommended:

- Develop a robust TDM program to reduce potential auto travel. Strategies could include providing transit or bikeshare passes to visitors, providing real-time transit information onsite, and providing showers and changing facilities for employees and staff; among others.
- Modify the existing unsignalized intersection of Jefferson Drive, SW and 12th Street, SW from a two-way stop controlled intersection to an all-way stop controlled intersection. Modifying the Jefferson Drive, SW eastbound shared thru-right movement from a free movement to a stop-controlled movement would grant more acceptable gaps for pedestrians to cross Jefferson Drive, SW, along with reducing delay for right turning vehicles on 12th Street, SW. This would be subject to NPS approval. SI would get NPS approval on any permits needed for use of NPS land.
- Modify the southbound 14th Street, SW approach to Jefferson Drive, SW to include a protected-permitted left-turn phase.

The results of the capacity analysis reveal that the proposed mitigation measures would address the additional delay and queueing that was identified in the 2040 Action Alternatives capacity analysis (Table 4-15).

Table 4-15. 2040 No Action, Action, and Action with Mitigation Capacity Analysis Results

Intersection	PM Peak Hour			Saturday Peak Hour		
	No Action	Action	Mitigation	No Action	Action	Mitigation
14 th Street, SW and Jefferson Drive, SW	(43.7) D	(44.5) D	(26.3) D	(13.1) B	(14.4) B	(16.9) B
14 th Street, SW and Independence Avenue, SW	(94.1) F	(102.9) F	(88.5) F	(23.5) C	(23.7) C	(25.2) C
Independence Avenue, SW and 12 th Street, SW	(130.2) F	(108.7) F	(133.6) F	(20.4) C	(32.8) C	(30.6) C
Independence Avenue, SW and L'Enfant Plaza	(23.7) C	(23.0) C	(17.6) B	(9.7) A	(10.1) B	(10.0) A
Independence Avenue, SW and 9 th Street, SW	(26.9) C	(28.9) C	(16.4) B	(10.0) A	(9.7) A	(9.7) A
Independence Avenue, SW and 7 th Street, SW	(57.0) E	(58.1) E	(53.1) E	(14.2) B	(14.0) B	(14.0) B
Jefferson Drive, SW and 12 th Street, SW	(0.7) A	(1.2) A	(8.9) A	(4.0) A	(121.6) F	(9.6) A
Jefferson Drive, SW and 7 th Street, SW	(10.0) A	(10.5) B	(19.4) B	(10.4) B	(12.0) B	(11.2) B

In addition to vehicular mitigation measures, SI would continue to work with DDOT on the approval of the curb cut for the proposed new loading dock. The following mitigation measures are recommended for bicycles, pedestrians, and loading:

- Monitor utilization of onsite bicycle parking, as well as Capital Bikeshare stations within ¼ mile. If demand exceeds capacity install new bike racks

and/or a Capital Bikeshare Station. If a new Capital Bikeshare Station is required, consider locating it near the intersection of 7th Street, SW and Jefferson Drive, SW to fill an existing gap in the system.

- Upgrade all curb ramps connecting to/from the South Mall Campus to meet current ADA standards.
- Provide a new crosswalk across the westbound approach of Independence Avenue, SW at the intersection with 12th Street, SW.
- Monitor passenger loading areas to determine if they continue to meet SI needs without impacting traffic operations on Jefferson Drive, SW or Independence Avenue, SW.
- Create a loading management plan.
- Schedule all deliveries made with trucks WB-50 or larger in advance. These deliveries will be scheduled to avoid the AM (7:00 AM – 9:00 AM) and PM (4:00 PM – 6:00 PM) peak periods, unless necessary. This would likely have a minimal impact on the South Mall Campus facilities, as the majority of deliveries with larger trucks currently occur during off-peak periods.
- Deliveries made in vehicles larger than a single unit truck should enter from northbound 12th Street, SW or eastbound Independence Avenue, SW to avoid wide right-turns into the proposed driveway.
- Right-turns on red should be restricted at the proposed driveway and the westbound Independence Avenue, SW approach at the signalized intersection with 12th Street, SW.

4.13 VISITOR USE AND EXPERIENCE

4.13.1 HOW DO VISITORS ACCESS THE SOUTH MALL CAMPUS MUSEUMS AND GARDENS?

The Castle's main entrance is on Jefferson Drive, SW, facing the Mall. The south entrance of the Castle opens to the Haupt Garden.

The Quadrangle Building is a predominately below-ground structure that connects to three above-ground pavilions, including the Ripley Center Pavilion (commonly known as “the kiosk”), which is located in the northwest corner of the Haupt Garden; the Sackler Gallery Pavilion, located in the southwest of the Haupt Garden; and the NMAfA Pavilion, located in the southeast corner of the Haupt Garden. The entrances to the Sackler Gallery and NMAfA pavilions are inconspicuous and are not visible from the National Mall. They are visible from Independence Avenue, SW, but partially obscure vistas to the Haupt Garden and surrounding historic buildings. These pavilions are the only aboveground entrances to these facilities, which are separated above- and below-ground by gardens, walls, service drives, and tunnels. The Quadrangle Building facilities connect to the Freer Gallery and are all connected via underground passageways, but moving between museums often requires visitors to take the stairs and/or elevators to move from one to another. There is also a service and loading connection from the Quadrangle Building to the Castle.

The Haupt Garden serves as the “roof” for the Quadrangle Building below. This garden is the only gated garden on the South Mall Campus and has five entrances. The main entrance is through the Renwick Gates, facing south along Independence Avenue, SW between the Sackler Gallery and the NMAfA entrance pavilions with an additional entrance between NMAfA and AIB. The garden can also be accessed from the north directly from the Castle’s south doors. Other entrances are located to either side of the Castle on the northwest and northeast corners of the Garden.

The Freer Gallery and Courtyard are located on the western portion of the South Mall Campus. The building is accessed through two entrances on the National Mall (Jefferson Drive, SW) and Independence Avenue, SW. The Freer Gallery is also connected to the Quadrangle Building via an underground passageway to the Sackler Gallery. There is no universally ADA accessible public entrance to the

Freer Gallery. There is limited access for persons with disabilities through an employee side door entrance along Independence Avenue, SW.

The Hirshhorn Museum is a four-story, circular building with a hollow center over an outdoor plaza with a large fountain. The Hirshhorn's visitor entrance is from the south on Independence Avenue, SW and an ADA accessible entrance is located on the north side of the building that connects to the museum lobby. Currently, the Hirshhorn is not connected to any other buildings. The Sculpture Garden is located to the north of the Hirshhorn Museum across Jefferson Drive, SW. The Hirshhorn and the Sculpture Garden were formerly connected by an underground tunnel which has since been enclosed. The Ripley Garden and a loading area for service and delivery vehicles separate the Hirshhorn from the AIB. There are currently ADA accessible ramps on the north side of the Sculpture Garden, but not on the south side from Jefferson Avenue, SW.

The Ripley Garden is located east of the AIB. The main entrance to the Ripley Garden is located on Jefferson Drive, SW between the AIB and the Hirshhorn, although the garden can also be accessed from a south entrance on Independence Avenue, SW. The Folger Rose Garden is located east of the Castle and north of the AIB along Jefferson Drive, SW, and is openly accessible to pedestrians.

Pedestrians have unrestricted access to all gardens on the South Mall Campus during public hours. The only vehicles that are permitted within the gardens are SI garden maintenance and collections management vehicles.

4.13.2 WHAT ARE THE VISITOR DEMOGRAPHICS AND CHARACTERISTICS OF VISITORS TO THE SOUTH MALL CAMPUS?

SI is the world's largest museum, education, and research complex, including 17 museums in the Washington, DC area alone. SI has attracted over 25 million visitors per year since FY 2009. Over the last 10 years visitation to the

Smithsonian museums along the National Mall has increased 12 percent (overall Smithsonian visitation has increased 16 percent over the last ten years). In fiscal year 2016 the Smithsonian welcomed 29.3 million in-person visits to its museums and Zoo. More Smithsonian visitors are entering the museums from the surrounding city streets. Whereas historically, 65 percent of National Mall museum visitors have entered through the Mall doors, over the last five years that number has lowered in favor of the entrances off of the Constitution Avenue, NW for American History and Natural History museums. One possible reason is the renaissance of the downtown neighborhood Penn Quarter. Therefore, with the newly founded South West Business Improvement District and the multi-billion dollar Wharf along the south west water front SI expects the museum entrances along Independence Avenue, SW to see a similar increase in foot traffic.

A study of SI visitorship in 2017 indicates that SI museums attract people of all ages, from infants to senior citizens. Approximately 75 percent of SI visitors are non-local U.S. residents, while 15 percent of visitors are local, and 10 percent are from other countries. Over half of visitors to SI museums are repeat visitors who have been to the Smithsonian at least once before. Over 85 percent of visitors come with a group, such as families, school groups, and tour groups (SI OPA, 2017).

The South Mall Campus contains five principal buildings and four designated gardens. The buildings house a range of Smithsonian programs, offices, and institutions, including the Castle and four major museums. All of these museums are open 364 days a year, excluding December 25th. Visitation at the South Mall Campus occurs year-round, although peak visitation occurs in the summer months. The Castle and Visitor Center are open from 8:30 AM to 5:30 PM All other SI buildings on the South Mall Campus are open from 10:00 AM to 5:30 PM. The Smithsonian Gardens are open 365 days a year. The Haupt Garden

is the only garden with restricted hours and is only open from dawn to dusk year-round.

The museums on the South Mall Campus are exclusively art museums, which face particular challenges in attracting and engaging audiences due to the public's lack of familiarity with their subject matter (SI OPA, 2001). The study of SI visitorship in 2004 found that these art museums tend to attract a higher percentage of repeating or experienced visitors and adults than the science and American culture museums found elsewhere on the National Mall, which tend to attract more first-time visitors and families with children. The South Mall Campus museums are visited by a higher percentage of DC area residents than the science and American culture museums, which are primarily visited by non-locals (OPA, 2004).

The Smithsonian Castle is the iconic heart of SI, and it incorporates several functions, including the office of the Smithsonian Secretary and the Visitor Center which provides information on the National Mall, including the South Mall Campus. Most of the visitors to the Castle are seeking information from the Visitor Center about Smithsonian museums, but a similar number of visitors are attracted to the Castle itself as an architectural and historical landmark. The Castle also frequently hosts its own museum exhibitions, which is another attraction for visitors. On average, the Castle has over a million visits per year (SI OPA, 2012). The Castle Commons area features other museums and exhibits throughout the Smithsonian.

The AIB was constructed in 1881 and originally served as the US National Museum. The building was rehabilitated between 1972 and 1976 and was reopened to the public in 1976 to coincide with the Bicentennial. The AIB is currently only open to the public when it is hosting a special event or exhibition. In 2016 and 2017, the AIB hosted the two-day Crosslines Culture Lab art exhibition sponsored by the Smithsonian Asian Pacific American Center and the

marketplace for the Smithsonian Folklife Festival. The building can be made available for private, Smithsonian-sponsored events.

The Freer Gallery of Art and the Sackler Gallery, within the Quadrangle Building, contain the SI's collection of Asian art, dating from Neolithic times to the present. The Freer closed for renovation in January 2016 and reopened in October 2017. Prior to its closure for renovations the Freer Gallery hosted 89,000 visitors in the first four months of FY 2016 (October-January). In years prior to the closure, the Freer Gallery hosted an average of 500,000 visitors per year. The Sackler Gallery has averaged 272,000 visitors per year since FY 2008. A visitor study was conducted in 2007 for the Freer and Sackler Galleries. According to the study, approximately one-third of total visitors to the Freer and Sackler Galleries visit both galleries; one-third visit only the Freer, and one-third visit only the Sackler Gallery. Visitation and audience characteristics vary greatly depending on the current exhibitions on display at the galleries. Certain exhibitions attract a high percentage of local residents, while others attract more non-local residents. The study indicated that the Freer Gallery is generally more attractive to non-local visitors than the Sackler Gallery, likely due to the Freer's National Mall-facing main entrance. The Sackler Gallery is more attractive to DC area residents, especially those who are visiting a specific exhibition. Local residents are also much more likely to know about and use the aboveground Sackler Gallery entrance in the Haupt Garden than non-local residents (SI OPA, 2007).

NMAfA, within the Quadrangle Building, exhibits traditional and modern/contemporary art from the entire continent of Africa. The museum has attracted an average of 293,000 visitors per year since FY 2008. As of February 2017, almost 52,000 people have visited during FY 2017. NMAfA attracts a much larger African and African-American visitor pool (40 percent of visitors) than the other museums on the South Mall Campus and the Smithsonian as a whole (7 percent) (SI OPA, 2004a).

The Hirshhorn Museum and Sculpture Garden contains SI's collection of more than 12,000 pieces of contemporary art. Approximately 50 pieces of sculpture are on display at any given time in the Sculpture Garden. The Hirshhorn hosts an average of 585,000 visitors per year. A 2006 study of visitors to the Hirshhorn indicates that the most common reasons for visiting the museum are an interest in contemporary art and an opportunity to have a unique experience with friends or family. Approximately 35 percent of visitors to the Hirshhorn are DC area residents; the remaining visitors consist of 55 percent non-local U.S. residents and 9 percent international visitors. The museum attracts a roughly even distribution of age groups and generations, although older visitors report higher interest in contemporary art and exhibitions while younger visitors attend for social reasons. Approximately a quarter of visitors come to the Hirshhorn specifically to see the Sculpture Garden. Almost 80 percent of respondents state that the Hirshhorn is a must-see museum for anyone visiting the Smithsonian (SI OPA, 2006).

The Smithsonian Gardens are considered outdoor museums that were designed to complement and enhance nearby buildings. Visitors are present in the South Mall Campus gardens year-round, although visitation tends to drop in the winter. Almost half of visitors to these gardens live and/or work locally, which is much higher than the percentage of local visitors to the Smithsonian overall (15 percent). Many local residents report walking through the Haupt or Ripley Garden on a daily basis, although most repeat visitors come weekly or several times per year. The South Mall Campus gardens experience the most visitors in the afternoons (SI OPA, 2005).

4.13.3 WHAT RESOURCES AND PROGRAMS ARE AVAILABLE TO VISITORS AT THE SOUTH MALL CAMPUS?

Educational programs within the SI have attracted an average of 5.4 million people per year since 2012. These programs, offered in collaboration with Smithsonian Associates, include on-site docent-led tours and programs, digital

learning, field trips for school groups, performances, seminars, lectures, studio art classes, film screenings, summer camps, and special events. In addition to the Smithsonian Associates programs, each museum and building within the South Mall Campus hosts its own series of programs, events, and exhibitions. Information about these events can be found at the Smithsonian Castle Visitor Center, as well as the information desks and websites of each individual museum.

The Castle houses the Smithsonian Visitor Center and provides information and advice about what to see and do during a visit to any of the Smithsonian museums. The Castle includes an information desk, a member services desk, roving staff members and volunteers, and a Trip Planner kiosk through which visitors can plan a personalized route throughout the Smithsonian museums and National Mall. Also on display are collection highlights from each Smithsonian museum. A café, gift shop, and restrooms are also available. The SI OPA conducted a study of visitors to the Castle in 2012 to identify the types of information visitors are looking for when they enter the Castle and the methods by which visitors prefer to get this information (e.g. roving or desk staff members, handouts, computers, smartphone apps, etc).

Over 70 percent of visitors make an effort to plan their visit ahead of time. The Smithsonian website is the most commonly cited resource for planning visits ahead of time, followed by word-of-mouth recommendations, guidebooks, and other sources. Once inside the Castle, almost half of visitors tend to prefer printed materials as the primary means of getting information. However, the study indicates that other methods, such as talking to staff, computers, graphic displays, and smartphone apps, were important to almost equal numbers of visitors, demonstrating that a mix of all of these methods is necessary to distribute information (SI OPA, 2012).

The Freer and Sackler Galleries host films, musical and theater performances, tours, talks/lectures, studio exhibitions, and teens' and children's programs showcasing Asian art and culture. Both galleries have roaming docents who engage visitors and answer questions about collections, exhibitions, and the museums. The Freer Courtyard includes a fountain and a Japanese granite lantern.

NMAfA provides programs for audiences of all ages, including artist talks, films, lectures, literature programs, and monthly workshops and hands-on activities for DC public school attendees. In addition, NMAfA hosts an annual Community Day in September, during which performers, artists, musicians, and other creative people can come together to celebrate African culture.

The S. Dillon Ripley Center is the home of the International Gallery, Smithsonian Associates, the Discovery Theater, and the Smithsonian Traveling Exhibition Service. Discovery Theater at the Ripley Center is a program of the Smithsonian Associates and presents over 300 live educational performances for children, school groups, and families each year. The Center also includes a conference center, meeting rooms, and classrooms.

Programs at the Hirshhorn include lectures, gallery talks, films, guided and self-guided tours, and daily highlights tours. The Hirshhorn also has a library containing books and materials related to artists in the Hirshhorn's collection and exhibitions. Members of the public must make an appointment to use this library.

The Hirshhorn Sculpture Garden pieces are irregularly displayed and moved or alternated approximately four to five times per year. The Sculpture Garden also houses ARTLAB+, a free digital arts program that provides professional technological equipment, art tools, materials, mentoring, and workshops for aspiring digital artists between the ages of 13 and 19 during after-school hours.

The Smithsonian Gardens provide educational opportunities through plant labels, interpretive signage, historical artifacts, and weekly guided tours and talks between May and September.

The National Mall and Memorial Parks, an administrative unit of the NPS, has its own mobile application (app) for iOS and Android, which includes information on 70 sites, including the Smithsonian Museums at the South Mall Campus. The app provides a map, walking directions, transit options, interactive guided tours, ranger-led program schedules, events and news, and an augmented reality lens. NPS park rangers are on duty throughout the National Mall from 9:30 AM to 10:00 PM daily. All ranger-led programs and activities, including talks, walking and bike tours, book discussions, and volunteer events, are free of charge. The National Mall itself is open year-round, 24 hours a day.

4.13.4 HOW WOULD THE SOUTH MALL CAMPUS MASTER PLAN IMPACT VISITOR USE AND EXPERIENCE AT THE SOUTH MALL CAMPUS

4.13.34.1 NO-ACTION ALTERNATIVE

DIRECT IMPACTS

The No-Action Alternative represents a continuation of the existing visitor use and experiences provided by the SI. The SI would continue to provide visitors access to the facilities within the South Mall Campus. However, under the No-Action Alternative no clear east-west pedestrian connection from the east side of the Freer Gallery to the Hirshhorn Museum would be created. Visitors would continue to have to maneuver their way through the Quadrangle from the Castle in order to find the underground entrances to the NMAfA and the Sackler Gallery; and improved access and visibility from the National Mall and the Castle to these museums would not occur. The No-Action Alternative would not improve access and visibility from the National Mall and the Castle for the NMAfA and Sackler Gallery. Visitor services would also not be centralized into one location. Lastly, no new amenities such as new educational, museum and

event spaces would be constructed. The overall experience would continue to be less than one would expect of world class institution and museums. Under the No-Action Alternative, outdated mechanical systems would not be replaced with modern efficient units. SI would continue to use GSA steam and chilled water and would repair existing mechanical systems on an as-needed basis. Various exhibits would have to be closed to take care of building maintenance. The continued use of the GSA steam and chilled water service would remain below museum standards for preservation and protection of collections, which could affect the visitor experience if collections have to be taken out of circulation. Therefore, the No-Action Alternative would have a long-term, moderate, adverse impact on visitor use and experience.

INDIRECT IMPACTS

The SW Ecodistrict plan calls for up to an additional 1.8 million square feet of residential and/or hotel development directly across Independence Avenue, SW from the South Mall Campus. By expanding the residential development in this area, the South Mall Campus would be expected to see a rise in visitorship. Because visitor services would not be enhanced under the No-Action Alternative, the increase in visitors would result in an indirect, long-term, adverse impact to visitor use and experience.

4.13.4.2 ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

DIRECT IMPACTS

Under all of the Master Plan Alternatives, construction, demolition, excavation, and renovation activities are planned which would result in temporary short-term, moderate, adverse impacts to visitor use and experience. Localized noise levels would increase on the South Mall Campus as a result of construction equipment and activities and disrupt the visitor experience. The Castle would be closed during seismic bracing and restoration of the Castle, and construction of the new Visitor Center. Visitor Services would temporarily move to the AIB.

The Haupt Garden and Quadrangle Building would be temporarily closed for the replacement of roof membrane. The offices and exhibits in these buildings would also be temporarily closed during construction. Lastly, the AIB would need to be closed for a period of time to underpin the west side of the foundation to support the AIB after below-grade excavations occur. The Master Plan would be completed in phases to help minimize disturbances, to the extent possible, to the visitor experience. Planned events would be coordinated to minimize disruptions to visitors during construction.

Upon completion of the Master Plan, a new centralized Visitor Center would be created that would enhance orientation by providing a central entrance to the Smithsonian. The Visitor Center would connect the Castle to new amenities within the Quadrangle Building. A new ADA visitor entrance would be installed on the east side of the Freer Gallery that would provide better access for persons with disabilities. The east door of the AIB would be improved to provide an east-west connection from the Haupt Garden to the Hirshhorn Plaza that is not currently there; thereby increasing the connectivity of the South Mall Campus. The surface parking lot east of the AIB would be removed and an expanded Ripley Garden would be created in its place, allowing for additional gardens and contemplative spaces for visitors. Perimeter security elements would be installed around the entire South Mall Campus to better protect visitors and the historic buildings that make up the South Mall Campus. Overall the visitor experience would be improved. Circulation throughout the South Mall Campus would be enhanced and visitors would be able to orient themselves and plan their visit to all SI facilities and museums on the National Mall. The actions that are common to all of the Master Plan Alternatives would have a long-term, major, beneficial impact to visitor use and experience on the South Mall Campus.

INDIRECT IMPACTS

During construction, portions of the South West Campus would be closed to pedestrians and bicyclists affecting their ability to travel directly between memorials, monuments, and recreational spots on the east, west, north, and south sides of the South Mall Campus. Visitors would be required to take longer routes to reach their destination resulting in minor, indirect, short-term, adverse impacts to visitor use and experience.

The SW Ecodistrict plan calls for up to an additional 1.8 million square feet of residential and/or hotel development directly across Independence Avenue, SW from the South Mall Campus. By expanding the residential development in this area, the South Mall Campus would be expected to see a rise in visitorship. Implementation of the Master Plan would enhance visitor services in the South Mall Campus; therefore, the SW Ecodistrict and the South Mall Campus would indirectly have mutual beneficial, long-term, impacts on the visitor experience.

4.13.4.3 ALTERNATIVE B

DIRECT IMPACTS

Alternative B includes the elements common to all Master Plan Alternatives. Under Alternative B, construction, demolition, excavation, and renovation activities are planned which would result in temporary short-term, moderate, adverse impacts to visitor use and experience. Parts of the Hirshhorn Museum and Sculpture Garden would need to be closed during renovations. The removal of the Ripley Pavilion and the relocation of the Sackler Gallery and NMAfA entrances to the north side would occur at the same time as the replacement of the Quadrangle Building roof membrane. The Master Plan would be completed in phases to help minimize disturbances, to the extent possible, to the visitor experience. Planned events would be coordinated to minimize disruptions to visitors during construction.

In addition to the elements that are common to all Master Plan Alternatives, overall visitor experience would be improved upon completion of the Master

Plan under Alternative B. At the Hirshhorn a small opening would be inserted on the west plaza wall that would make accessing the Hirshhorn from the Ripley Garden easier and would enhance circulation through the South Mall Campus. In addition, the tunnel between the Hirshhorn Plaza and Sculpture Garden beneath Jefferson Drive, SW would be restored allowing visitors to access the Sculpture Garden from the Museum and vice versa. The removal of the Ripley Pavilion would allow for a new entrance to the improved Visitor Center south of the Castle that would better connect the Visitor Center to the Quadrangle Building where new amenities, office and exhibit space would be placed. The relocation of the Sackler Gallery and NMAfA entrances to the north side would reorient these two museums with the Quadrangle Building, the Haupt Garden, and the Castle. These projects would improve the visitor use and experience of the South Mall Campus resulting in a moderate, direct, long-term beneficial impact. However, even though a new centralized Visitor Center that properly connects to the Quadrangle Building underground and the entrances to the Sackler Gallery and the NMAfA would be relocated to the north side of the museums, underground museum spaces would continue to be hidden from the National Mall resulting in moderate, long-term, adverse impacts to visitor use and experience.

INDIRECT IMPACTS

During construction, part of the South West Campus would be closed to pedestrians and bicyclists affecting their ability to travel directly between memorials, monuments, and recreational spots on the east, west, north, and south sides of the South Mall Campus. Visitors would be required to take longer routes to reach their destination resulting in minor, indirect, short-term, adverse impacts to visitor use and experience. After each phase of construction is complete, there would be long-term indirect beneficial impacts to visitor use and experience by providing a centralized Visitor Center would allow visitors to orient themselves and plan their visit to all SI facilities and museums on the

National Mall and allow for better access and connectivity to visitor destinations east, west, north, and south the South Mall Campus.

4.13.4.4 ALTERNATIVE D

DIRECT IMPACTS

Alternative D includes the elements common to all Master Plan Alternatives. The In addition, the Hirshhorn Museum and Sculpture Garden would need to be closed during renovations. The removal of the Ripley, the Sackler Gallery and NMAfA pavilions would occur at the same time as the replacement of the Quadrangle Building roof membrane and the construction of the new entrance to the Visitor Center; as would the Haupt Garden expansion and addition of skylights. Under Alternative D, construction, demolition, excavation, and renovation activities would result in temporary short-term, moderate, adverse impacts to visitor use and experience. The Master Plan would be completed in phases to help minimize disturbances, to the extent possible, to the visitor experience. Planned events would be coordinated to minimize disruptions to visitors during construction.

In addition to the elements that are common to all Master Plan Alternatives, overall visitor experience would be improved upon completion of the Master Plan under Alternative D. The removal of the east security door at the AIB would allow for interior east/west circulation through the AIB and enhance circulation throughout the South Mall Campus. The north, east, and west walls of the Hirshhorn Plaza would be removed to provide greater accessibility to the museum and Sculpture Garden from the National Mall. In addition, the tunnel between the Hirshhorn Museum and Sculpture Garden beneath Jefferson Drive, SW would be reopened and expanded allowing visitors to access the Sculpture Garden from the Museum and vice versa. New below-grade galleries in the Sculpture Garden would provide space for larger exhibitions of modern art, which SI currently cannot procure for exhibition due to space constraints. This would require the removal of the existing walls of the Sculpture Garden. The

removal of the Ripley Pavilion would allow for a new below-grade dipped entrance into the Castle that would better connect the Visitor Center to the Quadrangle Building, which would house new educational and museum spaces. This would provide greater connectivity for visitors moving between buildings, which are currently separated above- and below-ground by gardens, walls, service drives, and tunnels. The entrances to the Sackler Gallery and the NMAfA pavilions would be removed and new museum pavilion entries would be constructed closer to the Castle that would be a part of the new below-grade entrance to allow for better visibility and access from the National Mall. Lastly, the Haupt Garden would be expanded and the pathways would be reconfigured to improve the circulation for visitors through the South Mall Campus. Skylights would be added to improve the interior daylighting into the Quadrangle Building museums and the Visitor Center. These projects would provide greater connection between the Castle and The Ripley Center, which would improve wayfinding and would increase the interaction of the visitor with the South Mall's educational facilities. A centralized Visitor Center would include expanded restroom, retail, and food services. These projects would improve the visitor use and experience of the South Mall Campus and would have a moderate, direct, long-term beneficial impact.

INDIRECT IMPACTS

The indirect impacts of Alternative D would be the same as those for Alternative B.

4.13.4.5 ALTERNATIVE F

DIRECT IMPACTS

The short-term impacts of Alternative F would be similar to Alternative D. Therefore, under Alternative F, construction, demolition, excavation, and renovation activities would result in temporary short-term, moderate, adverse impacts to visitor use and experience. However, Alternative F offers alternate

phasing for the Master Plan which would minimize construction disturbances better than Alternatives B and D. The Master Plan would be completed in phases to help minimize disturbances, to the extent possible, to the visitor experience. Planned events would be coordinated to minimize disruptions to visitors during construction.

The impacts of Alternative F would be similar to Alternative D; except, under Alternative F a small opening would be inserted on the west plaza wall of the Hirshhorn that would make accessing the Hirshhorn from the Ripley Garden easier and would enhance circulation through the South Mall Campus. Furthermore, unlike Alternative D, where the Haupt Garden would be sloped, the Haupt Garden under Alternative F would maintain its current grade and the Parterre would remain. The Haupt Garden would also incorporate intimate and teaching gardens, and east-west circulation, which further enhances the visitor experience. In addition, Alternative F would provide new entrances to the Visitor Center closer to the Castle and the National Mall, which would stay on grade with the Castle and the Haupt Garden, providing greater connectivity from the National Mall and throughout the South Mall Campus. These enhancements would result in a major, direct long-term, beneficial impact to visitor use and experience.

INDIRECT IMPACTS

The indirect impacts of Alternative F would be the same as those for Alternative B.

4.13.5 WHAT MEASURES WOULD BE TAKEN TO MINIMIZE ADVERSE IMPACTS TO VISITATION AND EXPERIENCE AT THE SOUTH MALL CAMPUS DURING IMPLEMENTATION OF THE MASTER PLAN?

In addition to phasing the implementation of the Master Plan, the SI would provide appropriate signage and fencing would be used to keep passersby out of construction areas. Visitors to the South Mall Campus would be notified via

SI's website to alert visitors to the potential for closed exhibits and/or constructions areas. In concert with using the SI's website, the SI would provide potential notifications via signage, postings on social media webpages, email blasts, and press releases. In addition, construction activities would be coordinated with SI in a manner that would minimize disruptions during planned events. Pathways through the South Mall Campus would be rerouted during construction to maintain bike and pedestrian flow.

4.14 HUMAN HEALTH AND SAFETY

4.14.1 ARE THERE ANY HAZARDOUS MATERIALS AT THE SOUTH MALL CAMPUS?

By 1978, the use of asbestos containing materials (ACMs) and lead-based paint (LBP) for building construction had been mostly banned by the EPA under the authority of the CAA. Federal regulations (40 CFR 61) require that an appropriate asbestos inspection be conducted prior to construction or demolition activities that could potentially disturb ACMs. An ACM is defined by the EPA as any material containing greater than 1.0 percent asbestos by weight. Friable ACM is defined by the EPA as any material which, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM is not considered toxic unless the material is disturbed or damaged in a way that releases asbestos fibers into the air (EPA, 2017d).

The US Department of Housing and Urban Development and District Code 6-997 define LBP as any paint containing more than 1.0 milligrams per square centimeter (mg/cm²). Painted and glazed surfaces that contain detectable concentrations of lead, including concentrations less than the definition of LBP, must be handled in accordance with the Occupational Safety and Health Administration (OSHA) Lead in Construction Standard (29 CFR 1926.62). Other hazardous materials regulated by the EPA and DOE include mold, and Polychlorinated Biphenyls (PCBs), which can be found in certain types of

electrical equipment. Due to the age of the buildings on the South Mall Campus, it is assumed that one or more of the hazardous materials described above can be found within portions of the buildings to be renovated.

Smithsonian Directive 419 outlines SI's Safety and Health Program, which is designed to provide a safe and healthful environment for its staff, volunteers, visitors, and collections.

4.14.2 WHAT SECURITY MEASURES ARE PROVIDED AT THE SOUTH MALL CAMPUS?

The South Mall Campus grounds and its various galleries and museums are open to the public on a daily basis, except for certain holidays. The buildings open in the morning from 8:00 to 10:00 AM and close from 5:00 to 7:00 PM. The Haupt Garden is the only garden with restricted hours, and is open from dawn to dusk year-round. There are special summer hours for the South Mall Campus and hours of operation may change for special exhibits. Security personnel are stationed at all entrances/exits to buildings on the South Mall Campus and in other strategic locations in buildings and around the grounds. None of the galleries require additional security screening to enter. Areas restricted to the public are blocked off with signs, ropes, and/or monitored by security personnel. According to the 2014 Blast/Security Report for the South Mall Campus, all buildings except for the Castle on the Campus are currently operating at a Facility Security Level (FSL) III and increased to a FSL IV by accounting for "intangible factors," which is permissible by the Interagency Security Committee (ISC) Determination Methodology (Weidlinger 2014).

The South Mall Campus is served by two law enforcement bodies, the US Park Police, and the DC Metropolitan Police Department (MPD). The US Park Police's jurisdiction encompasses "any unit of the National Park system, the District of Columbia and the environs of the District of Columbia" (NPS 2017). The South Mall Campus is within the Park Police Central District, located at 960 Ohio Drive,

SW. The South Mall Campus also falls within MPDs First District, Sector 1D1, Police Service Area (101), located at 101 M Street, SW (MPD 2017).

Fire and EMS Service is provided to the South Mall Campus by the DC Fire and EMS Department (FEMS). The South Mall Campus is generally served by FEMS Battalion 6 which includes Fire Companies 2, 3, 7, 8, and 18.

4.14.3 WHAT ARE THE POTENTIAL IMPACTS TO HUMAN HEALTH AND SAFETY FROM THE PROPOSED ACTION?

4.14.3.1 NO-ACTION ALTERNATIVE

DIRECT IMPACTS

Under the No-Action Alternative, only minor interior renovations to buildings would occur on an as-needed basis. If hazardous materials such as ACM or LBP are to be disturbed during basic maintenance of the buildings on the South Mall Campus, they would be abated in accordance with Subpart M of the EPA NESHAPS regulations, the OSHA Asbestos Standard for the Construction Industry, the OSHA Lead in Construction Standard, DC's Lead-Hazard Prevention and Elimination Act, and DC's asbestos program. SI's policies in the Safety and Health Program found in Smithsonian Directive 419 would also be followed. The disturbance of hazardous materials may cause them to become airborne which would result in increased health risks to construction workers. Strict adherence to the regulations and SI policies would ensure only a short-term, minor, adverse impact to human health and safety.

The removal of ACM and LBP would result in a long-term beneficial impact to human health and safety as prolonged exposure would be minimized.

Under the No-Action Alternative, no safety or security upgrades would be made to the South Mall Campus. Current security protocols would remain in place to maintain a safe experience for visitors which could leave the South Mall Campus

vulnerable to security breaches. This would result in a long-term, minor, adverse impact to human health and safety.

INDIRECT IMPACTS

There would be no indirect impacts to human health and safety from the No-Action Alternative.

4.14.3.2 ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

DIRECT IMPACTS

Under all Master Plan Alternatives, construction, demolition, excavation, and renovation activities are planned which could disturb ACM and LBP. These activities include the removing existing mechanical systems; renovating the Castle, the Hirshhorn Building, and the Sculpture Garden; and replacing the roof membrane of the Quadrangle Building. Any ACM or LBP materials would be abated in accordance with Subpart M of the EPA NESHAPS regulations, the OSHA Asbestos Standard for the Construction Industry, the OSHA Lead in Construction Standard, DC's Lead-Hazard Prevention and Elimination Act, and DC's asbestos program. SI's policies in the Safety and Health Program found in Smithsonian Directive 419 would also be followed. The disturbance of hazardous materials may cause them to become airborne which would result in increased health risks to construction workers. Strict adherence to the regulations and SI policies would ensure only a short-term, minor, adverse impact to human health and safety.

The removal of ACM and LBP would result in a long-term, minor, beneficial impact to human health and safety.

Additionally, as with any construction project, the potential exists for the proposed action to create safety hazards. Construction safety hazards include operating heavy machinery, working underground, working on ladders or scaffolding, and lifting heavy materials. Visitors would also be exposed to safety

risks during construction which could include falling construction materials, construction equipment, and below-grade access points. Site workers would adhere to a health and safety plan and Smithsonian Directive 419 that describes potential hazards and the controls and practices selected to minimize hazards. Signage and fencing would be used to keep visitors out of construction areas and appropriate distances would be maintained between construction workers and vehicle traffic (if appropriate). Implementation of these plans and procedures would result in only short-term, minor, adverse impacts to human health and safety.

Under all Master Plan Alternatives, security upgrades would be implemented on the South Mall Campus to preserve buildings which would include blast protection, perimeter security elements, and visitor screening upgrades. These upgrades would serve to reduce the likelihood and impact of a Campus security breach which would protect the safety of visitors and employees. This would result in a long-term major beneficial impact to human health and security.

INDIRECT IMPACTS

The addition of security upgrades would also result in indirect beneficial impacts to human health and safety by providing visitor protection well into the future.

4.14.3.3 ALTERNATIVE B

Alternative B includes the elements common to all Master Plan Alternatives. Additional construction would occur in order to construct the visitor center under the Castle, relocate the entries to Sackler Gallery and NMAfA, remove a portion of the Hirshhorn Plaza west wall, restore the tunnel between the Hirshhorn and the Sculpture Garden, and construct a new below-grade central utility plant. These additional construction activities would adhere to the same health and safety measures described in the elements common to all Master Plan Alternatives. Therefore, the short-term impacts to safety and security

would be the same as those described under elements common to all Master Plan Alternatives.

Alternative B would not provide adequate natural light for staff because there would be no skylights in the design for the Quadrangle. In addition, the Quadrangle Building would be mostly configured as it is under the No-Action Alternative resulting in less room for security improvements as there would be under Alternatives D and F. These long-term impacts would be minor and adverse to the safety and security of the campus.

4.14.3.4 ALTERNATIVE D

Alternative D includes the elements common to all Master Plan Alternatives. Additional construction would occur in order to construct the visitor center under the Castle, remove the existing Quadrangle Building roof bulkheads, expand the extent of existing skylights and add new skylights to provide natural light, relocate and reconfigure the Sackler and NMAfA pavilions, remove portions of the Hirshhorn Plaza wall, restore, and expand the tunnel between the Hirshhorn and the Sculpture Garden, and construct a new below-grade central utility plant. These additional construction activities would adhere to the same health and safety measures described in the elements common to all Master Plan Alternatives. In addition, Alternative D has the advantage of consolidating entry locations throughout the South Mall Campus, thereby having the potential for increased security. Therefore, impacts to safety and security would be the same as those described under elements common to all Master Plan Alternatives, but slightly improved.

4.14.3.5 ALTERNATIVE F

Alternative F includes the elements common to all Master Plan Alternatives. Additional construction would occur in order to construct the visitor center under the Castle, expand the Haupt Garden, relocate the entries to Sackler Gallery and NMAfA, expand the extent of skylights to provide natural light,

remove a portion of the Hirshhorn Plaza west wall, reconfigure the Sculpture Garden, restore and expand the tunnel between the Hirshhorn and the Sculpture Garden, and construct a new below-grade central utility plant west of the AIB. These additional construction activities would adhere to the same health and safety measures described in the elements common to all Master Plan Alternatives. In addition, like Alternative D, Alternative F has the advantage of consolidating entry locations throughout the South Mall Campus, thereby having the potential for increased security. Therefore, impacts to safety and security would be the same as those described under elements common to all Master Plan Alternatives but consolidated entry locations add to improved security.

4.15 UTILITIES

4.15.1 WHO PROVIDES UTILITY SERVICE TO THE SOUTH MALL CAMPUS?

STEAM AND CHILLED WATER

SI purchases high-pressure steam and chilled water from GSA's Heating Operations and Transmission District (HOTD). High-pressure steam is fed from the National Museum of Natural History (NMNH) to the Castle basement for its use and also distributed to the AIB and the Freer Gallery. The GSA system does not allow SI to control the quality of its energy supply or the humidification levels in Campus buildings, which does not meet museum standards for preservation and protection of collections.

ELECTRICITY

PEPCO provides electrical service to the South Mall Campus buildings via SI's own Museum Campus power distribution system. Power on the South Mall Campus originates from the NMNH basement. Power is then distributed to the Castle and the South Mall Campus via underground ductbanks and manholes. An onsite diesel generator provides emergency power to the Castle and the AIB (SI, 2009).

WATER AND SANITARY SEWER

DC Water provides potable water and sanitary service to each building on the South Mall Campus individually. DC Water purchases treated drinking water from the Washington Aqueduct, operated by the U.S. Army Corps of Engineers. The Aqueduct draws water from the Potomac River, which is then treated at either the Dalecarlia or McMillan treatment plant. The South Mall Campus is within DC Water's Low Service Area, which is served by the Dalecarlia and Bryant Street Pumping Stations. Wastewater from the South Mall Campus is treated at the Blue Plains Wastewater Treatment Plant located along I-295 in southwest DC (DC Water, 2016). Most stormwater on the South Mall Campus drains directly to the District's MS4, operated by DOEE.

NATURAL GAS

The South Mall Campus is within the Washington Gas service area, and natural gas lines are present at the South Mall Campus; however, since heat is provided by GSA's steam service, these gas lines are not used.

Each building on the South Mall Campus uses individual mechanical, electrical, and plumbing systems that are scattered throughout the Campus. With the exception of the recently renovated AIB, these existing systems are reaching the end of their useful lives and require partial or total replacement. The Quadrangle Building and Hirshhorn Museum and Sculpture Garden systems are original to those buildings and have never been upgraded. Because the South Mall Campus is approximately 160 years old, the buildings are not energy efficient. The existing utilities are found in Figure 4-48.

4.15.2 HOW WOULD UTILITIES BE IMPACTED BY THE SOUTH MALL CAMPUS MASTER PLAN?

4.15.2.1 NO-ACTION ALTERNATIVE

DIRECT IMPACTS

Under the No-Action Alternative, GSA, PEPCO, and DC Water would continue to provide steam, chilled water, electricity, drinking water, and sanitary service. No changes to utility demands would occur. Existing maintenance programs and

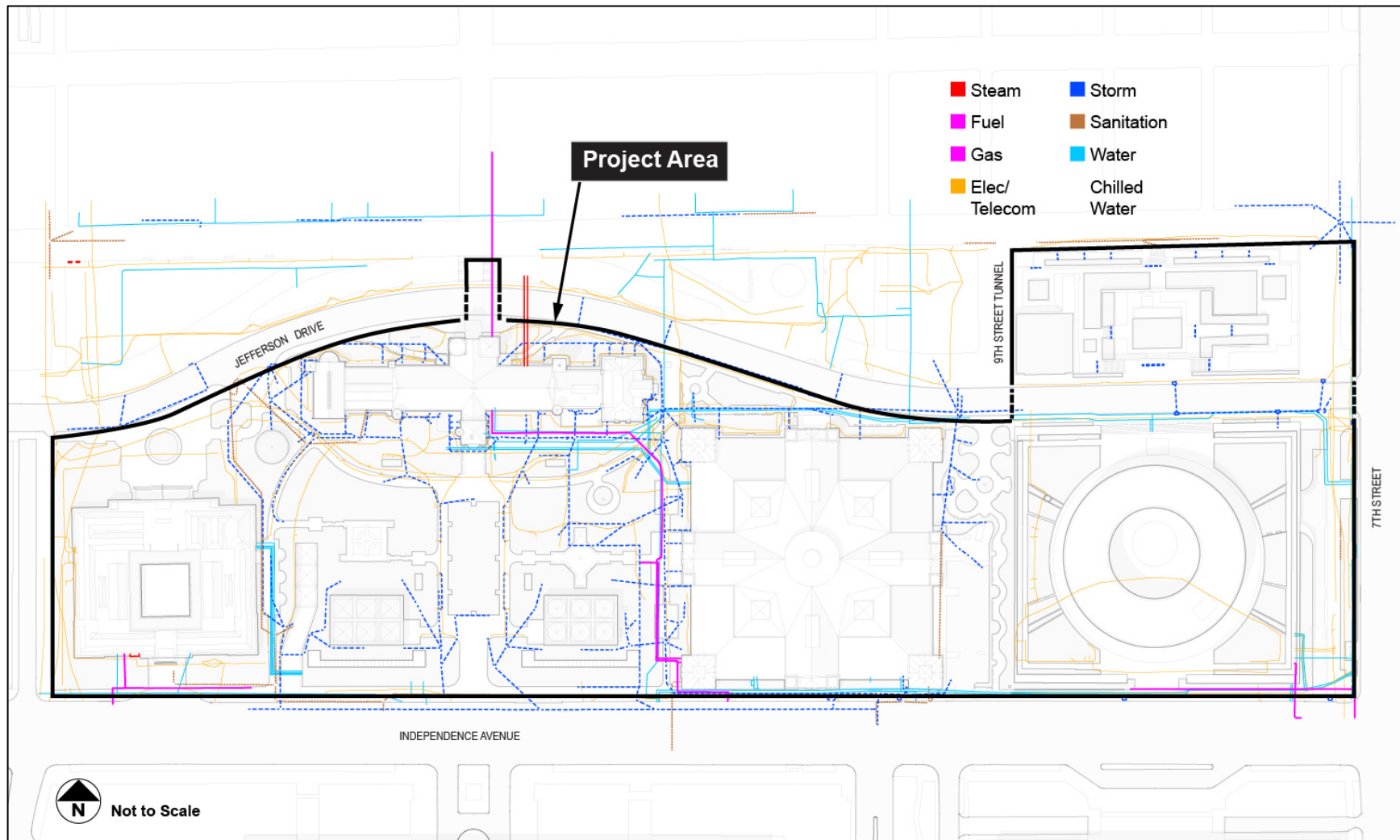


Figure 4-49. Existing Utilities Plan (Source: SIB Existing Conditions Report, 2009).

individualized repairs for the mechanical systems at each building would continue. The continual need to repair mechanical systems would have a short-term, minor, adverse impact on utilities.

No sustainability measures, such as energy-efficient lighting, low-flow plumbing fixtures, stormwater capture, or improvements to building envelopes would be implemented. Therefore, utility usage would continue to be high, and there would be a long-term, minor, adverse impact on utilities.

INDIRECT IMPACTS

Under the No-Action Alternative, energy consumption may increase as mechanical systems continue to age and become less efficient. In addition, the continued use of the GSA steam and chilled water service would remain below museum standards for preservation and protection of collections, potentially resulting in deterioration of museum artifacts and artwork over time. Therefore, the No-Action Alternative would result in indirect, long-term, moderate, adverse impacts related to utilities.

4.15.2.2 ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

DIRECT IMPACTS

Under all of the Master Plan Alternatives, the AIB would be used as interim flexible space to accommodate the collections and programs of the buildings under construction. The AIB would require temporary additional utilities to support these interim uses. In addition, the permanent use for AIB, to accommodate a future museum and exhibition-related programming as well as rotating exhibits would require additional utilities. Temporary connections to the existing GSA steam and chilled water lines, PEPCO grid, and DC Water plumbing lines may be necessary until the new central utility plant is operational. The slight temporary increase in utility demands during construction would therefore have a short-term, negligible, adverse impact to utility providers. Due to the proposed excavation throughout the South Mall Campus, existing utility lines would need to be relocated prior to construction.

Utility providers would be consulted and investigations would be performed prior to construction to verify the locations of existing utilities. Many of the buildings on the South Mall Campus would close and offices would be relocated during construction, so temporary utility disruptions would likely have a minimal effect on Campus operations. Construction would be phased to the maximum extent practicable to avoid service disruptions to Campus buildings that are still in use. Most of these utility lines would ultimately be removed, replaced, and/or rerouted to the central utility plant. Therefore, the elements common to all Master Plan Alternatives would result in short-term, minor, adverse impacts to utilities.

All Master Plan Alternatives propose the complete replacement and upgrade of mechanical, electrical, water, sanitary, and stormwater infrastructure in all campus buildings and throughout the South Mall Campus. A central utility plant would be constructed to serve the entire South Mall Campus.

The South Mall Campus would be permanently removed from the GSA chilled water and steam service. Chilled and hot water equipment would be installed in the central utility plant to service the entire South Mall Campus from a centralized location. The system would include redundancies in the production and distribution of chilled and hot water to minimize system disruptions.

PEPCO would continue to provide electricity to the South Mall Campus, but it would be routed through the central utility plant. Existing electric service rooms along Independence Avenue, SW would be removed, and a new single connection to the PEPCO grid would be installed in the central utility plant. The plant would include a centralized electrical system to power the chilled and hot water equipment and provide for the electrical needs of the Campus buildings. The system would include built-in redundancy to minimize power failures. A diesel emergency generator would also be installed in the central utility plant, which would provide power to elevators, fire alarms, stormwater pumps, and smoke control in the event of a power outage.

DC Water would continue to provide water and sanitary service. Water distribution would be routed through the central utility plant, rather than to each building individually. A new single water supply line to the central utility plant would be installed, and the existing water lines serving individual Campus buildings would be removed. Sanitary lines would be replaced and rerouted, and would ultimately drain to the city sewer lines on Independence Avenue. New sanitary and sump pump stations would be installed in any areas that cannot be drained by gravity, such as the Sculpture Garden. The existing stormwater systems throughout the South Mall Campus would be reconfigured to allow the capture and storage of stormwater, which would be reused to irrigate the South Mall Campus gardens, effectively reducing the demand for potable water. Green infrastructure, including the green roof above the Quadrangle Building and bioretention areas, would also reduce the amount of storm drainage entering the District's MS4 system.

Under all Master Plan Alternatives, the South Mall Campus would require natural gas service from Washington Gas, which is not currently used. New gas service would be installed from Independence Avenue, SW to the new central utility plant. New natural gas lines would be constructed to connect Campus buildings to the central gas system. The unused gas lines present throughout the South Mall Campus would be removed or upgraded.

Under all Master Plan Alternatives, the proposed changes in programming and addition of food service in several of the South Mall Campus buildings would require additional utility service compared to the current condition. However, the central utility plant would consolidate utility service in one location, providing a more efficient and reliable system and it would return space previously used for HVAC systems to education and collection spaces. SI would also implement campus-wide energy efficiency and sustainability measures, such as energy-efficient lighting, improved building envelopes, modernized HVAC systems, skylights, low-flow plumbing fixtures, and renewable energy

systems. By disconnecting from GSA steam and chilled water service, SI would have more control over the humidification of the South Mall Campus buildings, allowing for better protection and preservation of museum collections. By consolidating utility distribution in the central utility plant, upgrading infrastructure, and adopting sustainability measures throughout the South Mall Campus, the elements common to all Master Plan Alternatives would reduce the overall demand for utilities, resulting in a long-term, moderate, beneficial impact.

INDIRECT IMPACTS

Due to the proposed excavation throughout the South Mall Campus, existing utility lines would need to be relocated prior to construction, which could potentially result in disruptions to utility service for neighboring properties. This impact would be temporary, and relocations and new connections of utility lines would be completed with the least amount of disruption possible to other users. Utility providers would be consulted prior to construction, and any proposed relocations of utility lines would be coordinated with utility providers. Therefore, the elements common to all Master Plan Alternatives would result in short-term, minor, adverse impacts to utilities in the surrounding area.

By reducing demand for energy and water supplies throughout the South Mall Campus, all Master Plan Alternatives would lessen the burden on utility providers in the region. Stormwater collection and reuse would reduce the amount of storm drainage entering the District's MS4 system, ultimately reducing stormwater pollution in the Potomac River, the Anacostia River, and other District waterways. Therefore, the elements common to all Master Plan Alternatives would result in long-term, moderate, beneficial impacts to utilities on a regional basis.

4.15.3 WHAT CONSERVATION MEASURES WOULD BE INCORPORATED INTO THE DEVELOPMENT AT THE SOUTH MALL CAMPUS?

The central utility plant would consolidate utility service in one location, providing a more efficient and reliable system and overall reducing the demands to utility providers. SI would also implement campus-wide energy efficiency and sustainability measures, such as energy-efficient lighting, improved building envelopes, modernized HVAC systems, skylights, low-flow plumbing fixtures, and renewable energy systems. Stormwater throughout the South Mall Campus would be collected and stored to the maximum extent practicable in the central utility plant and would be reused for irrigation, reducing stormwater runoff and demand for potable water.

4.15.4 HOW WOULD OPERATION OF THE SOUTH MALL CAMPUS INCREASE ENERGY EFFICIENCY?

By adopting the energy efficiency measures described above, the South Mall Campus would reduce its energy usage by over 30 percent, reduce its carbon emission by 40 percent, and reduce its overall energy costs by over 50 percent per year. If any utilities that are to be impacted are on NPS-owned land, SI would get any permits needed from NPS for use of NPS land.

4.16 WASTE MANAGEMENT

4.16.1 HOW IS WASTE MANAGED ON THE SOUTH MALL CAMPUS?

Solid waste on the South Mall Campus is managed by SI's OFMR. Waste generated on the South Mall Campus include non-hazardous solid waste and recyclable materials, including but not limited to: beverage containers, paper, cardboard, scrap metal, wood pallets, batteries, cooking oil, food scraps, light bulbs, printer cartridges, compact disks, electronics of all types, and acrylic (SI, 2016). SI participates in the GSA National Capital Region's Recycling Program and also operates its own agency-wide Recycling Task Force. SI's current goal is to divert 80 percent of all solid waste generated at SI facilities from landfills by

2020 (SI OFMR, 2017). In addition, SI is committed to recycling or salvaging at least 50 percent of waste generated from construction projects at its facilities (SI OEDC, 2011).

GSA provides trash and recycling collection services at the South Mall Campus. Waste and recycling is collected from three loading facilities, which are scattered throughout the Campus. An underground loading dock in the Quadrangle Building, which is accessed via a vehicle ramp in the Haupt Garden, serves the Quadrangle Building, the Castle, and the Freer Gallery. The AIB has a surface loading dock and parking lot to the east, between the AIB and the Hirshhorn. The Hirshhorn is served by an underground loading facility that is accessed via a vehicle ramp along 7th Street, SW. Waste is then hauled to a District Department of Public Works transfer station and ultimately disposed at the Covanta Fairfax Energy/Resource Recovery Facility in Lorton, Virginia.

The existing loading facilities on the South Mall Campus are generally inadequately sized and cannot support multiple or large vehicles. Multiple locations for trash and recycling throughout the Campus requires multiple stops and trips, which is inefficient and time consuming. Due to the risks of damage to collections during transport and delivery, the SI Facilities Design Standards recommend that collections deliveries be kept as separate as possible from non-collections deliveries, food service, and trash and recycling streams (SI, 2012). The current loading docks on the South Mall Campus do not have dedicated collections docks; collections deliveries must share space with trash and recycling, food service, and other non-collections streams, which is inconsistent with the SI Facilities Design Standards.

4.16.2 HOW WOULD THE SOUTH MALL CAMPUS MASTER PLAN AFFECT WASTE MANAGEMENT?

4.16.2.1 NO-ACTION ALTERNATIVE

DIRECT IMPACTS

Under the No-Action Alternative, minimal construction waste would be generated as a result of basic maintenance and repairs throughout the South Mall Campus. No additional food service or programs would be implemented at the South Mall Campus, so waste would continue to be generated at its current level. The SI recycling initiatives would continue. The current loading docks would operate at their current level of efficiency. Since no changes would be made to waste generation or management, the No-Action Alternative would have no short- or long-term impacts to waste management on the South Mall Campus.

INDIRECT IMPACTS

Under the No-Action Alternative, waste would continue to be generated, managed, and disposed offsite at the current level, so no impacts to waste collection and management in the region would occur. Collections delivery and distribution would continue to share space with food and waste streams, which would be inconsistent with the SI Facilities Design Standards and would increase the risks of damage or deterioration of collection items over time. Due to the potential risks to collections, the No-Action Alternative would have a long-term, minor, adverse impact to waste management.

4.16.2.2 ELEMENTS COMMENT TO ALL MASTER PLAN ALTERNATIVES

DIRECT IMPACTS

Under all of the Master Plan Alternatives, solid waste would be generated from construction, demolition, excavation, and land-clearing during construction. Construction waste could include building components and structures, concrete, asphalt, wood, metals, roofing, flooring, and piping. A minimum of 50 percent

of construction waste would be reused, salvaged, or recycled in accordance with GSA and SI requirements. The remaining construction waste would be disposed at a landfill. The temporary increase in construction waste under all Master Plan Alternatives would result in a short-term, minor, adverse impact to waste management.

Under all Master Plan Alternatives, the proposed changes in programming and addition of food service in several of the South Mall Campus buildings would generate additional solid waste, food waste, and recyclable materials. To complement the existing recycling program, SI would also implement expanded composting, recycling, reuse, and return-to-vendor programs to reduce the amount of waste generated on the South Mall Campus (BIG/Kleinfelder, 2014). The proposed food and beverage systems on the South Mall Campus would use reusable, recyclable, or compostable dishes, cups, silverware, napkins, and other food service items. Recyclable and compostable materials would be separated from the landfill-bound waste stream to the maximum extent practicable. A central loading facility would be constructed beneath the Castle to service the Castle, the Freer Gallery, the Quadrangle Building, and the AIB. The central loading facility would consolidate the waste streams of several Campus buildings, which would provide a centralized, efficient system for trash and recycling sorting, storage, and removal. Dedicated loading bays would be provided for trash and recycling, collection deliveries, non-collection deliveries and services, and food service, in accordance with the SI Facilities Design Standards. Therefore, the elements common to all Master Plan Alternatives would result in long-term, moderate, beneficial impacts to waste management.

INDIRECT IMPACTS

Waste and debris generated during construction activities would be disposed of in a landfill, reducing the already-limited landfill capacity of the DC area. To minimize the amount of construction waste entering landfills, at least 50 percent of construction waste would be reused, salvaged, or recycled. The

contribution of construction waste from the South Mall Campus would be negligible compared to the overall volume of waste generated in the area. Therefore, the elements common to all Master Plan Alternatives would result in an indirect, short-term, negligible, adverse impact to waste management on a regional level.

The long-term efforts to divert waste from landfills on the South Mall Campus would result in an overall reduction in landfill waste. At least 80 percent of municipal waste would be diverted. The contribution of waste from the South Mall Campus would be negligible compared to the overall volume of waste generated in the area. Therefore, the elements common to all Master Plan Alternatives would have a long-term, negligible, adverse impact on waste management on a regional level.

4.16.3 WHAT MEASURES WOULD BE IMPLEMENTED TO REDUCE WASTE GENERATED AT THE SOUTH MALL CAMPUS?

In addition to SI's existing recycling program, SI would also implement expanded composting, recycling, reuse, and return-to-vendor programs to reduce the amount of waste generated on the South Mall Campus. The proposed food and beverage systems on the South Mall Campus would use reusable, recyclable, or compostable dishes, cups, silverware, napkins, and other food service items. Recyclable and compostable materials would be separated from the landfill-bound waste stream to the maximum extent practicable. These waste diversion and reduction methods would further SI's goal for 80 percent of institutional waste to be diverted from landfills by 2020.

4.17 CUMULATIVE EFFECTS

4.17.1 WHAT ARE CUMULATIVE EFFECTS AND WHY ARE THEY DISCUSSED?

CEQ regulations require federal agencies to assess the cumulative effects of federal projects during the decision-making process. Cumulative effects are defined as:

“the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonable foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions” (40 CFR 1508.7).

In other words, would the proposed federal project add to or interact with the environmental impacts of past, present, or future projects, regardless of the agency or group implementing those actions? This section of the EIS provides a description of the cumulative impacts that the proposed action, combined with other projects in the area, may have on the human environment.

4.17.2 WHAT PAST, PRESENT, AND FUTURE PROJECTS COULD ADD TO OR INTERACT WITH THE IMPACTS OF THE SOUTH MALL CAMPUS MASTER PLAN?

Development related to present and future projects, including the SW Ecodistrict, Monumental Core Framework Plan, National Mall Plan, Capitol Complex Master Plan, and moveDC could add to or interact with the impacts of the South Mall Campus Master Plan.

In addition, to the above-mentioned Plans, past, present, future projects that could add or interact with the impacts of the South Mall Campus Master Plan include:

Past Projects

- Woodrow Wilson International Center for Scholars – Established by an Act of Congress in 1968 as a living memorial to the 28th President. It was placed under jurisdiction of the SI and was given offices and a library and meeting room in the Upper Main Hall of the Castle in 1970. They remained there until 1998.
- Castle Great Hall renovations – Renovations in the 1960s, 1970s, and 1980s greatly changed the interior of the Castle that included refurbishing the Great Hall, developed the Great Hall into a Visitor Center, and culminated in the Castle as a welcome center for visitors.
- Hirshhorn Sculpture Garden Rehabilitation – Landscape architect Lester Collins redesigned the Sculpture Garden in 1977 to 1981 to address the vast expanses of gravel and limited vegetation within the Sculpture Garden, and to provide easier access for those with strollers and in wheelchairs.
- Hirshhorn Plaza Rehabilitation – Landscape architects Urban & Associates rehabilitated the Hirshhorn Plaza to include large granite pavers that extend from the original circular fountain. Beyond the paving, the plaza was divided into six garden spaces. At this time, the original stair and tunnel that provided access to Sculpture Garden beneath Jefferson Drive were covered.
- Changes to the Quadrangle Building – These changes include the 2004 redesign of the third sublevel of the Ripley Center to accommodate a theater, installation of wall board panels along the great hall and the removal of the basin of the fountain within the great hall was removed at an unknown date. Alterations to entrance pavilion of the NMAfA included installation of wallboard panels and placement of decorative wood screens in the arched openings of the south wall of the gallery.

Current and Future Projects

- National Air and Space Museum (NASM) Revitalization – Due to start in 2018, this project would replace NASM’s building exterior envelope, HVAC, plumbing, and fire protection systems. The project would also include revitalization of the landscape, portions of perimeter security, and addition of vestibules at the north and south entrances.
- International Spy Museum Relocation – The International Spy Museum is scheduled to relocate to a permanent home in L’Enfant Plaza in 2018. The new museum is 140,000 square feet and includes new resources for educational programming, a lecture hall/theater, and multifunction event space.
- Eisenhower Memorial – NPS, in association with the Dwight D. Eisenhower Memorial Commission, has developed a design for a Memorial to President Eisenhower. The project was approved by CFA and NCPC in July 2015 and its construction began in November 2017. The project is located on a four-acre site directly south of NASM.
- National Museum of Natural History (NMMH) Southside Improvements – The SI would be renovating the south entrance of the NMNH to provide an accessible pathway to the south entrance for visitors who cannot use stairs. The project is currently underway.
- U.S. Department of Agriculture (USDA) Site Improvement and Perimeter Security Plan - The USDA completed an EA that would provide landscaping and site improvements at both the Jamie Lloyd Whitten Building and the Agricultural South Building to implement the proposed People’s Garden, install permanent upgrades to perimeter security of the Whitten Building, and replace the guard booths along C Street, SW, at the South Building. The plan is currently underway.
- Museum of the Bible - The 430,000- square foot Museum of the Bible explores the history and impact of the Bible.

- National Women’s History Museum – Congress introduced legislation in 2017 to establish a National Women’s History Museum on the National Mall. A location for the museum has not yet been identified.
- Banneker Park Pedestrian Access Improvements – NPS is currently constructing an improved pedestrian connection between the National Mall and the waterfront along Maine Avenue, SW in Washington, DC, as identified in the SW Ecodistrict Plan and the National Mall Plan.
- Smithsonian National Mall Metro Station Welcome Plaza – As part of the National Mall Plan, NPS is currently looking to provide a visitor contact station that would include high-capacity public restrooms, multiple orientation maps, and a large tactile model or placement map of the National Mall.

4.17.3 WHAT ARE THE CUMULATIVE EFFECTS FOR EACH IMPACT TOPIC?

GEOLOGY, TOPOGRAPHY, AND SOILS

Past construction and development has resulted in disturbance to soils and topography from clearing, grading, and subsurface activities throughout the District of Columbia. The South Mall Campus Master Plan could potentially contribute to short-term, indirect, adverse, cumulative impacts to soils due to increased soil erosion during construction activities in the area. Erosion and sediment control measures would be implemented during construction, which would ensure that short-term cumulative impacts to soils are negligible. Long-term, adverse, cumulative impacts would occur as a result of the continued development of land in the District of Columbia. However, since the District is already an intensely developed urban area with very few undisturbed areas, the overall long-term, adverse, cumulative impacts of the Master Plan Alternatives would be negligible.

SEISMIC VULNERABILITY

The impacts of the proposed seismic improvements would be localized to the South Mall Campus. No cumulative impacts would result.

STORMWATER RESOURCES

The South Mall Campus Master Plan could potentially contribute to short-term, indirect, adverse, cumulative impacts to stormwater due to increased soil erosion during construction activities in the area. Land-disturbing activities in the District would be required to implement erosion and sediment control measures during construction in accordance with the 2013 Stormwater Rule, which would ensure that short-term impacts to stormwater are negligible. Development plans and projects in the District would also be required to comply with the onsite retention requirements of the 2013 Stormwater Rule, resulting in a long-term reduction in the volume of stormwater runoff entering District waterways. The South Mall Campus Master Plan would contribute to the indirect, long-term, major, beneficial cumulative impacts to stormwater in the District by retaining stormwater onsite to the maximum extent practicable.

AIR QUALITY

Construction of present and future development projects near the South Mall Campus would generate fugitive dust and emissions from construction activities and equipment resulting in a cumulative, short-term, adverse impact to air quality.

The Federal and District Elements of the Comprehensive Plan, SW Ecodistrict Plan, National Mall Plan, Center City Action Agenda, and many other District plans and policies include sustainability and efficiency initiatives that would ultimately reduce air emissions in the region. The installation or gradual replacement of mechanical systems with new, efficient units in existing

buildings would reduce the potential effect new sources of emissions would have on air quality, resulting in a long-term, beneficial cumulative impact.

GREENHOUSE GASES, CLIMATE CHANGE, AND ENERGY CONSUMPTION

Nearby present and future projects, including the SW Ecodistrict, Monumental Core Framework Plan, National Mall Plan, Capitol Complex Master Plan, moveDC, and the International Spy Museum would have and would continue to have long-term impacts on the overall DC CO₂ emissions resulting from energy consumption within the facilities. The work within the district is focused on improvement of existing assets as opposed to creating new facilities. For example, the SW Ecodistrict Plan is a revitalization project focused on sustainability practices to integrate land use, public transit and transportation, and environmental planning with high-performance buildings, landscapes, and infrastructure, rather than traditional single-building-scale strategies. The South Mall Campus Master Plan in combination with these other plans result in beneficial impacts to emissions as buildings/facilities are upgraded to increase water and energy efficiency. The overall cumulative impact of these past, present, and reasonably foreseeable future actions on GHG and climate change would be long-term and beneficial. The Master Plan Alternatives would contribute to the long-term beneficial cumulative impacts by decreasing the amount of energy use and improving the way energy is produced thereby decreasing their contribution to localized emissions.

CULTURAL RESOURCES

4.17.3.1 NO-ACTION ALTERNATIVE

The cumulative result of the lack of a coordinated approach to the protection, maintenance, and stabilization of cultural resources in the South Mall Campus—namely the Quadrangle Building, Castle, and Hirshhorn Museum buildings and the Hirshhorn Plaza and Sculpture Garden—would result in a moderate, long-

term, adverse impacts to these resources. Reasonably foreseeable deterioration could be prevented and addressed in the short term in the absence of a Master Plan; however, longer term deferred maintenance needs, construction phasing, funding sources, and catastrophic events would be more comprehensively identified and addressed with the implementation of a master plan. The adverse impacts associated with the No-Action Alternative will have a lesser degree of intensity than the cumulative impacts associated with the Action Alternatives. This particularly applies to Alternatives D and F, which propose a greater degree of change to cultural resources across the project area.

4.17.3.2 ELEMENTS COMMON TO ALL MASTER PLAN ALTERNATIVES

Under the elements common to all Master Plan Alternatives, the degree of change proposed for the Castle Building—including interior restoration and rehabilitation, blast protection, base isolation, seismic bracing, basement expansion, and sub-basement excavation—has the potential to generate moderate to major cumulative adverse impacts on this resource, and by association on the National Mall and Smithsonian Quadrangle Historic Districts (to which the Castle is a contributing resource). To mitigate this cumulative adverse impact, the Castle treatment must be carefully designed and implemented to meet or exceed historic preservation standards for the treatment of historic properties.

4.17.3.3 ALTERNATIVE B

As noted in the elements common to all Master Plan Alternatives section, the degree of change proposed for the Castle has the potential to cause major adverse impacts on this resource as well as the National Mall and Quadrangle Historic Districts.

Additionally, the related actions proposed for the Quadrangle Building and Haupt Garden component landscape—including the replacement of the Quadrangle Building roof membrane, the relocation of the Quadrangle Building

loading dock, the removal of the Ripley Pavilion, the potential construction of a new entrance near the Castle, and the restoration of the Haupt Garden in its current configuration—have the potential to create moderate adverse impacts on those resources.

4.17.3.4 ALTERNATIVE D

Cumulative impacts to cultural resources under Alternative D would be similar to those discussed under Alternative B, but more intensified as a reflection of the greater degree of change to the site and grade proposed under Alternative D. This includes the extensive sub-basement excavation beneath the Castle and the associated additional seismic bracing. Similarly, the changes proposed for the Quadrangle pavilions and Haupt Garden features would result in a greater cumulative adverse impact to those resources.

Additionally, the greater degree of change proposed for the Hirshhorn Plaza walls, Sculpture Garden, and tunnel would result in a major cumulative adverse impact on the Hirshhorn Museum and Sculpture Garden. The additional demolition and design interventions proposed for the Castle under this alternative would elevate the moderate cumulative adverse impact to a major cumulative adverse impact.

4.17.3.5 ALTERNATIVE F

Cumulative impacts to cultural resources under Alternative F would be similar to those discussed under Alternative B, but more intensified as a reflection of the greater degree of change proposed under Alternative F. This would include changes proposed for the Quadrangle Building pavilions and Haupt Garden features, resulting in a greater cumulative adverse impact to those resources. However, Alternative F maintains the existing plain of the Quadrangle and Haupt Garden, mitigating the cumulative adverse impact of this alternative on the character and setting of the Castle and Haupt Garden, specifically.

Additionally, the greater degree of change proposed for the Hirshhorn Building Sculpture Garden and tunnel would result in a moderate cumulative adverse impact on the Hirshhorn Museum and Sculpture Garden.

VISUAL QUALITY

Construction projects from present and future projects, including the SW Ecodistrict, Monumental Core Framework Plan, National Mall Plan, Capitol Complex Master Plan, moveDC, Banneker Park Improvements, and the International Spy Museum have and would continue to have short-term impacts to the views and vistas in the area surrounding the South Mall Campus. The South Mall Campus Master Plan would be completed in phases. Any one particular phase could occur at the same time as the implementation for these other plans; therefore, the Master Plan Alternatives would add to the short-term adverse cumulative impacts to visual resources.

4.17.3.6 NO-ACTION ALTERNATIVE

The result of the lack of a coordinated approach to the protection, maintenance, and stabilization of cultural resources in the South Mall Campus—namely the Quadrangle, Castle, and Hirshhorn Museum buildings and the Hirshhorn Plaza and Sculpture Garden—would result in long-term cumulative adverse impacts.

4.17.3.7 ACTION ALTERNATIVES

Past and future projects such as the SW Ecodistrict Plan, Monumental Core Framework Plan, National Mall Plan, Museum of the Bible, the National Museum of Women's History, Capitol Complex Master Plan, Comprehensive Plan for the National Capital and moveDC would have minor to moderate impacts to visual resources from permanent changes to views and vistas. To varying degrees the Master Plan Alternatives would contribute to the long-term cumulative impacts. The changes proposed under Alternative B would have a negligible potential for cumulative impacts to visual resources.

The greater degree of change proposed for Alternatives D and F would create minor to moderate cumulative impacts on visual resources on and around the South Mall Campus. In Alternatives D and F, altering the existing grades in the Haupt Garden and Hirshhorn Sculpture Garden would create moderate adverse impacts on the aesthetic character of these landscapes. These changes have been minimized in Alternative F by retaining the existing flat plane within the Haupt Garden.

LAND USE PLANNING AND POLICIES

The Federal and District Elements of the Comprehensive Plan, SW Ecodistrict Plan, Monumental Core Framework Plan, National Mall Plan, Capitol Complex Master Plan, the Center City Action Agenda, and the Banneker Park Improvements, when implemented would seek to create a welcoming, well-connected, sustainable, and iconic capital city with the National Mall as its centerpiece. By enhancing walkability, removing physical and visual barriers, and extending the civic qualities of the National Mall to the south, the South Mall Campus Master Plan would contribute to the goals common to these planning efforts. Once implemented, the Master Plan combined with other planning efforts in the area would attract more visitors, private developers, and residents over time, contributing to economic growth and vitality in the National Mall area and the District as a whole. Therefore, the Master Plan Alternatives would contribute to the long-term, moderate, beneficial, cumulative impacts to land use planning in the District.

TRAFFIC AND TRANSPORTATION

Construction projects from present and future projects, including the SW Ecodistrict, Monumental Core Framework Plan, National Mall Plan, Capitol Complex Master Plan, moveDC, NASM Revitalization, Eisenhower Memorial, NMNH Southside Improvements, Museum of the Bible, the National Museum of Women's History, Banneker Park Improvements, and the USDA Site

Improvements would cause an increase in traffic on the local roadway network. When added to anticipated increases in traffic volumes from these projects, the minor increase in vehicular trips that would be generated by the implementation of the Master Plan would result in a cumulative, long-term, adverse impact to the local roadway network.

VISITOR USE AND EXPERIENCE

Construction projects from present and future projects, including the SW Ecodistrict, Monumental Core Framework Plan, National Mall Plan, Capitol Complex Master Plan, moveDC, NASM Revitalization, Eisenhower Memorial, NMNH Southside Improvements, Museum of the Bible, the National Museum of Women's History, Banneker Park Improvements, and the USDA Site Improvements have and would continue to have short-term impacts to the visitor use and experience in the area surrounding the South Mall Campus. The South Mall Campus Master Plan would be completed in phases. Any one particular phase could occur at the same time as the implementation for these other plans; therefore, the Master Plan Alternatives would add to the short-term adverse cumulative impacts to visitor use and experience.

All of the plans and projects previously mentioned above and The Comprehensive Plan for the National Capital and the International Spy Museum cumulatively contribute to the overall visitor experience surrounding the National Mall by enhancing existing and/or creating new resources. However, additional visitation results in more intensive uses within the National Mall. Despite the disruption from construction activities and the increase in visitation, the overall cumulative impact of these past, present, and reasonably foreseeable future actions on visitor use and experience would be long-term and beneficial. The Master Plan Alternatives would contribute to the long-term beneficial cumulative impacts by enhancing the visitor use and experience to the Smithsonian's South Mall Campus.

HUMAN HEALTH AND SAFETY

Construction from present and future projects, including the SW Ecodistrict, Monumental Core Framework Plan, National Mall Plan, Capitol Complex Master Plan, moveDC, NASM Revitalization, Eisenhower Memorial, Banneker Park Improvements, NMNH Southside Improvements, and the USDA Site Improvements have and would continue to have the potential to expose visitors and construction personnel to safety hazards, including hazardous materials exposure, construction equipment, falling construction materials, etc., resulting in short-term impacts to human health and safety in the area surrounding the South Mall Campus. The South Mall Campus Master Plan would be completed in phases. Any one particular phase could occur at the same time as the implementation for these other plans; therefore, the Master Plan Alternatives would add to the short-term adverse cumulative impacts to human health and safety.

The Comprehensive Plan for the National Capital, SW Ecodistrict, Monumental Core Framework Plan, National Mall Plan, Capitol Complex Master Plan, moveDC, NASM Revitalization, and the USDA Site Improvements cumulatively contribute to the overall safety and security surrounding the National Mall by enhancing existing and/or adding new security measures. The overall cumulative impact of these past, present, and reasonably foreseeable future actions on human health and safety would be long-term and beneficial. The Master Plan Alternatives would contribute to the long-term beneficial cumulative impacts by enhancing blast protection, perimeter security, and visitor screening on the Smithsonian's South Mall Campus.

UTILITIES

Construction of present and future development projects near the South Mall Campus may temporarily disrupt utility service to neighboring properties,

resulting in short-term, minor, adverse, cumulative impacts to users. The Master Plan Alternatives would potentially contribute to these temporary impacts.

The Federal and District Elements of the Comprehensive Plan, SW Ecodistrict Plan, National Mall Plan, Center City Action Agenda, and many other District plans and policies; and the NASM Revitalization, International Spy Museum, NMNH Southside Improvements, and the USDA Site Improvements include sustainability initiatives that would ultimately reduce demand for energy and water supplies and lessen the burden on utility providers in the region. The overall cumulative impacts of present and reasonably foreseeable future actions would be long-term and beneficial. By implementing energy efficiency and sustainability measures at the South Mall Campus, the Master Plan Alternatives would reduce energy and water usage and contribute to the long-term, beneficial, cumulative impacts to utilities.

WASTE MANAGEMENT

Construction of present and future development projects near the South Mall Campus would generate construction waste, which would be reclaimed or disposed of in landfills. The construction waste generated under the Master Plan Alternatives would contribute to the short- and long-term, adverse, cumulative impacts of construction waste, but the additional impacts would be negligible compared to the overall volume of waste generated in the area.

The Federal and District Elements of the Comprehensive Plan, SW Ecodistrict Plan, National Mall Plan, Center City Action Agenda, and many other District plans and policies; and the NASM Revitalization, International Spy Museum, NMNH Southside Improvements, and the USDA Site Improvements include waste reduction, recycling, and composting initiatives to divert as much waste as possible from landfills. The overall cumulative impacts of present and reasonably foreseeable future actions would be long-term and beneficial. By implementing recycling and composting initiatives on the South Mall Campus

and diverting 80 percent of municipal waste from landfills, waste generated at the South Mall Campus would be reduced, contributing to the long-term, beneficial cumulative impacts to waste management.

4.18 ARE THERE ANY IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES ASSOCIATED WITH THE MASTER PLAN?

The proposed Master Plan would require the removal of some character defining features of the cultural resources and landscapes that are a part of the South Mall Campus. The loss would be greatest under Alternative D and F since they require a much higher degree of demolition of extant resources than Alternative B. This would be permanent and considered irreversibly committed. See Section 4.9 for the discussion of impacts to cultural resources.

The proposed Master Plan would require a commitment of fuel, including natural gas and energy which would be required to construct new facilities. Other resource commitments during the construction period would include construction materials and labor. There would be an additional long-term commitment of labor for the maintenance of the central utility plant and infrastructure. In addition, once the facilities are in place, there is a commitment of utilities, fuel, and power. All of the resources relating to the maintenance of the South Mall Campus and its infrastructure are considered irretrievably committed.

While there would be the above commitment of resources, through conservation practices some of these resources, such as water supply, may be retrieved and reused in the Central Utility Plant and for irrigation purposes throughout the South Mall Campus. This would include the use of rain water to water the gardens throughout the South Mall Campus. In addition, it is assumed that

once the Master Plan is fully executed a lower expenditure of energy and fuel than presently occurring on the South Mall Campus.

4.19 ARE THERE ANY ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED AS A RESULT OF THE PROPOSED PROJECT?

The environmental impacts for all of the Master Plan Alternatives, including the No-Action Alternative have been described in detail in the previous sections of this chapter. In general, there would be unavoidable adverse effects to soils, air quality, cultural and visual resources, traffic and transportation, visitor use and experience, and utilities. In all cases, SI would continue to work to minimize impacts and mitigate unavoidable impacts, as projects in the Master Plan are implemented.

4.20 WHAT RELATIONSHIPS EXIST BETWEEN THE LOCAL SHORT-TERM USES OF THE MASTER PLAN AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY?

The long-term benefits of the South Mall Campus Master Plan would occur at the expense of short-term impacts in the vicinity of the South Mall Campus. These short-term impacts would occur during the period of construction, and would include disruptions to the visitor experience, localized air pollution and minor delays in traffic from detours. However, these impacts are temporary and proper controls would be used to prevent these impacts from having a lasting effect on the human environment. Alternatives B and F also offer alternate methods of phasing the projects in the Master Plan which could minimize construction disturbances in comparison to Alternative D. Under Alternative D SI would have to close larger portions of the site at one time in order to complete projects. With Alternatives B & F, SI would be able to stagger projects and therefore, would be able to keep constant access to the exhibits.

Short-term gains to the local economy would occur as local companies and workers are hired, and local businesses provide services and supplies during the construction or renovation of buildings. However, upon completion of the project, the gains to the local economy would evolve into a long-term benefit as the Master Plan is completed. Increased visitorship would occur by providing an integrated campus worthy of a world-class institution, which would provide consistent business to the South Mall Campus, other museums on the National Mall, and local businesses and merchants. In addition, there would be a greater

Furthermore, upon completion of the South Mall Campus Master Plan, there would be a long-term increase in energy efficiency because aging building systems would be replaced with newer, more efficient systems. While there would be a loss of some character defining features of cultural resources and landscapes, the Master Plan would allow for the long-term preservation of important historic resources, such as the Smithsonian Castle and the AIB.

CHAPTER 5

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CHAPTER 8
RESPONSES TO
COMMENTS
RECEIVED ON THE
DRAFT EIS



CHAPTER 8

RESPONSES TO COMMENTS ON DRAFT EIS

The Draft Environmental Impact Statement (EIS) for the South Mall Campus Master Plan was released to the public and the Notice of Availability was published in the Federal Register on November 15th and 17th, 2017. Written comments on the Draft EIS were accepted until January 16, 2018, and are addressed herein. Two Public Hearings were held on the Draft EIS on December 11, 2017 from 5 – 7pm and December 18, 2017 10am – 12pm at NCPC’s offices in Washington, DC. A transcript of the hearing and responses to comments received at the hearing follow the written comments.

The following table of contents can be referenced in order to find comments from specific people/organizations and the responses to those comments. Responses to individual comment letters are provided with each letter.

WRITTEN COMMENTS

Federal Agencies	3
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January 16, 2018

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Subject: Smithsonian Institution's proposed South Mall Campus Master Plan Draft
Environmental Impact Statement

Dear Mr. Flis and Ms. Spofford:

This letter provides the Department of the Interior's (DOI) comments on Draft Environmental Impact Statement (DEIS) for the Smithsonian Institution's proposed South Mall Campus Master Plan in Washington, D.C. The DEIS has been prepared by the Smithsonian Institution (SI) and the National Capital Planning Commission (NCPC) as joint-lead agencies, in cooperation with the National Park Service (NPS). The NPS is a Cooperating Agency because of its role in managing the open space and monuments on the National Mall, which are located adjacent to the Smithsonian South Mall Campus. In addition to NPS responsibilities related to the resources of the National Mall, National Historic Landmarks (NHLs) are designated by the Secretary of the Interior, and administered by the NPS, as authorized under the 1935 Historic Sites Act (16 U.S.C. sec. 461-467.) and implemented in accordance with 36 CFR Part 65. Under these regulations and those that implement the National Historic Preservation Act (36 CFR 800.10), NPS has the responsibility to monitor the integrity of established NHLs and to provide technical assistance & advice to NHL owners, and to participate in Section 106 consultations to resolve adverse effects to NHLs. This letter contains general comments with more specific comments attached from the DOI and is submitted in accordance with provisions of the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 *et seq.*).

General Comments

Both the Castle and AIB buildings are designated as National Historic Landmarks. The DOI notes that the NPS has worked closely with the SI and has provided input on elements of the DEIS that they deemed important with regards to potential impacts to the resources of the National Mall and lands administered by the NPS, as well as any potential future NPS decision-making responsibilities.

In general, the DOI believes that all of the plan alternatives, except for the “no action” alternative, will clearly have adverse effects to the historic character of the South Mall Campus and its constituent historic buildings, structures, and landscapes. A goal of this Master Plan should be to develop strategies that avoid and minimize the most detrimental of these adverse effects, particularly those that involve the NHL buildings, in order to balance the needed improvements with the historic character of the site. Of the alternatives presented in the DEIS, we believe that Alternative B best accomplishes this balance. Alternative B minimizes the impacts to historic resources while fulfilling all benchmarks defined by the purpose and need of this project. In our view, Alternative B could, however, be enhanced to meet the purpose and need more effectively, without demolishing the quadrangle pavilions. For example, revisions could be made to the landscape and circulation that could better direct visitors to the reoriented museum entrances. This could be done through the use of wayfinding elements, such as a distinctive emblem or sculpture near the Mall that directs and entices visitors onto the campus. Also, as a means of minimizing the footprint and overall adverse impacts to the Castle and surrounding settings, consideration should be given to designing the entrances to the new underground visitor center closer to the existing quad pavilions and by using stairs and elevators instead of ramps.

In the initial review of the agency draft DEIS, the NPS noted that the document was silent on any potential federal decision-making responsibilities that may be required by the NPS. In this revised DEIS, the document was revised to state “Special use permits from NPS would also be required to use NPS roads including Jefferson Drive, SW for construction activities or movement of construction equipment and supplies.” There was no further discussion in the document that expanded this statement nor were there any considerations of the impacts of these permitted actions. Through SI’s response to NPS’s initial comment, it was stated that, “SI will seek permits as necessary as each project is implemented and that they will analyze the impacts to those in each project specific NEPA document.” By this statement, DOI is assuming that this is a programmatic EIS, and future NEPA/106 compliance will be needed for the implementation of each of the subsequent actions described in the Master Plan. If this assumption is correct, it must be clear in the subsequent final EIS and record of decision. Furthermore, the DOI assumes that there is no federal action required by the NPS that would necessitate the adoption of this EIS and preparation of a Record of Decision.

The DOI, as well as NPS, has a continuing interest in working closely with the SI and the NCPC to ensure that the impacts to resources of concern are adequately addressed for all parties. For continued consultation and coordination with the NPS, please contact Peter May, Associate Regional Director for Lands and Planning, National Park Service, National Capital Region, 1100 Ohio Drive, S.W., Washington, D.C., 20242. Mr. May can be reached by telephone at (202) 619-7025.

1

Comment 1 – Comment noted

2

Comment 2 – SI and NCPC agree that there will be adverse effects to historic properties. As stated on pages 1-3 and 1-9, a goal of the Master Plan is to preserve and protect historic buildings and features. In addition, as stated on page 1-11, a Master Plan is needed “to restore, repair, and rehabilitate historic properties”. It is SI’s desire to avoid, minimize, and mitigate adverse effects to historic resources.

3

Comment 3 – With Alternative B the layout of the Quadrangle Building is not changing, and the current museum would remain. Interior circulation would be problematic as visitors would still be required to maneuver through back-of-house spaces in order to move from the NMAfA and the Sackler Galleries to the Visitor Center in the Castle. This does not meet the purpose and need for the Master Plan to improve circulation throughout the campus, improving access and visibility from the National Mall and the Castle for the NMAfA and Sackler Gallery entrances, and creating expanded and linked centralized visitor services and education spaces.

4

Comment 4 – The following language has been added into the Final EIS, “SI will seek permits as necessary as specific projects in the South Mall Campus are implemented. SI will conduct project specific NEPA compliance as necessary.”

5

Comment 5 – Comment noted

The Department appreciates the opportunity to provide these comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'Lindy Nelson', with a stylized flourish at the end.

Lindy Nelson
Regional Environmental Officer

Enclosure: DOI comments on Smithsonian Institution's proposed South Mall Campus Master Plan
Draft Environmental Impact Statement

Date: 01/16/2018

PROJECT: SMITHSONIAN INSTITUTION'S PROPOSED SOUTH MALL CAMPUS MASTER PLAN DRAFT
ENVIRONMENTAL IMPACT STATEMENT

REVIEWING AGENCY: Department of Interior – National Park Service: National Mall and Memorial
Park (NAMA) and National Capital Regional Office (NCR)

SMITHSONIAN INSTITUTION SOUTH CAMPUS MASTER PLAN DRAFT EIS COMMENTS		
INTRODUCTION		
PAGE	LOCATION	COMMENT
vii	Freer	What does "Specifically:" refer to? Also applies to 3-8
bullets 2-6		Paired bullets for alternatives appear to be identical - so why not common to all master plan alternatives? Check spelling "Alternative" before D and F
		"Lowering the basement floor of the Castle and restoring the Castle would result in long-term, beneficial impacts." While the restoration would have beneficial impacts, lowering the floor does not. "Renovating the Hirshhorn Building and Plaza and replacing the garden walls would result in long-term, beneficial impacts." We suggest rephrasing this to "replacing or repairing the garden walls." "Replacing the Quadrangle Building roof membrane would not adversely impact cultural resources." Not true – It would adversely affect Haupt Garden/Quad & district
CHAPTERS 1 AND 2		
4		NPS defines the South Campus as within the "Mall," which is within the much larger National Mall - that also includes the Washington Monument grounds and the all the areas within West Potomac Park - major memorials and the Tidal Basin. The Mall is between 3rd and 14th Streets between Independence and Constitution - based on the McMillan Plan Mall systems area B - The Mall. When generally referring to the NPS-managed public space, National Mall is correct. When referring to the area north of the South Campus area, use Mall. Therefore, South Mall Campus is very accurate. This comment affects both 1st and 2nd paragraph of this page as well as other areas throughout the document.
19		Legacy is the overall plan for central Washington DC - and others fall under it. Because it represents the 3rd century plan it should come before area plans such as SW EcoDistrict. In essence it remains the successor to L'Enfant and McMillan.
CHAPTER 3		
2		In previous discussions, NPS, as well as other consulting parties, stated that they do not favor the realignment of Jefferson Drive, a road under the jurisdiction of the NPS. NPS requested removal of this idea. As stated on page 3-2: "Consulting Parties requested SI and the Master Plan team develop or revise alternatives that: <ul style="list-style-type: none"> • Reduce, or eliminate entirely, excavation that would occur beneath the Castle; • Relocate the centralized utility plant from underneath the Castle • Remove the realignment of Jefferson Drive; • Eliminate connecting the Hirshhorn Museum loading dock to the consolidated loading dock which requires boring underneath the 9th Street Tunnel; • Include a full interior restoration of the Castle; • Preserve larger portions of the Hirshhorn Plaza walls; • Preserve the Haupt Garden and Quadrangle Building, including the museum pavilions, garden elements, and associated landscape features; • Remove the widening of the Independence Avenue, SW sidewalk; and • Retain the "gardenesque" quality of the Haupt Garden as a compatible setting for the Castle and AIB. As a result, SI and the Master Plan team developed Alternatives E and F to address the comments

Comment 6 – This is in error and will be removed from the Final EIS.

Comment 7 – Unsure what the comment is referring to.

Comment 8 - Regarding lowering the basement floor, Page 4-78 states, "The beneficial impact of removing non-original infill construction would be offset by the adverse impact of altering the proportion of basement spaces and the potential loss of historic fabric. The net impact would result in a minor, long-term, adverse impact on the character and integrity of the Castle." Regarding the Hirshhorn building renovation, page 4-79 states, "Action would be designed to meet the Secretary of the Interior Standards. This action would preserve the character of this resource, resulting in a long-term beneficial impact." Regarding the replacement of the Quadrangle Building's roof membrane, page 4-79 of the EIS states, "Replacement of the roof membrane would not adversely impact the contributing Quad Building." The Executive Summary will be updated to reflect these analyses.

Comment 9 – Comment noted. The EIS has been updated to reflect this.

Comment 10 – Comment noted. The Extending the Legacy Plan has been moved in front of the SW Ecodistrict Plan.

Comment 11 – As shown in Chapter 3, none of the alternatives include the realignment of Jefferson Drive. As noted, SI has stated the proposed idea of realigning Jefferson Drive was no longer being considered. This was formally presented to the Consulting Parties during its May 3, 2017 meeting.

		<i>and concerns expressed by the Consulting Parties."</i> Through subsequent conversations, SI indicated that the proposed idea of realigning Jefferson Drive was no longer being considered. This proposal was never formally dismissed in the DEIS, nor is it clear whether the other bulleted items were dismissed or retained. Please formalize this understanding within the FEIS.
7		The lowering of the basement floor may constitute an adverse effect. What is the "code-compliant height" that is needed? Is the proposal to lower the floor farther to extend the ceiling height beyond what is required by code?
7		We suggest to characterize the overall interior work as rehabilitation (upper & lower great halls) and renovation (basement)
9		Has a structural engineer weighed in on the safety of excavating up to the foundation of the AIB and Castle? Will there be potential for damage either during construction or long-term to the NHL buildings?
10		Call out perimeter security as a separate common element. Currently it's thrown in at the end of the Utilities, Loading discussion. It's a separate benchmark item, so it deserves a separate description. Give more detail of what it would entail.
12		Alt. B on page 3-12 -- lists Master Plan benchmarks that would not be met. The following bullets do not appear on the list of 10 benchmarks that appears on page 3-1: "Consolidate visitor amenities in the Quadrangle Building", "Improve daylight below grade", "Secure multiple points of entry;" "Significantly improve campus circulation and wayfinding" The list of benchmarks that will be met also does not align with the benchmarks list on page 3-1. All of these need to be revisited so there is a consistent understanding of which alternatives meet which stated needs/goals.
26	3rd bullet	How big would the grade change be in the garden? Would it still feel recessed?
35-36	Hirshhorn	Is tunnel reopening and reconfiguration common to all action alternatives?
36	Future evaluations	You can also assume that the impacts of below grade visitor center, utility area and sub-basement would not be very visible on cultural resources. Why not say they are expected to be Minor but would undergo continual consultation and evaluation during project design? Note that utility area vents are mentioned only in the visual quality analysis on page 37.
36		Please add that there may be potential indirect impacts to the views and vistas that should be evaluated at the time of project design.
36		Remove phrase "by improving visibility" from Alt F. column, 1st sentence.
38	Land Use Planning and Policies	The project is also consistent with the National Mall Plan in the following areas: access and circulation, particularly pedestrian improvements; visitor experience (education, information and enjoyment); health, safety and security.
40	Human health and safety	Not clear why natural daylight could be not also be part of Alt F or D
41		In addition to installing underpinning in accordance with codes & standards, the SI should consult with historic structure engineers and other specialists and apply best preservation practice in stabilization of historic properties. Standard code practice may not be adequate.

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Comment 12 – As stated in the Assessment of Effects, the project requires additional study to determine the historic integrity of Castle basement and effects to masonry vaults, piers, and walls Altering the proportions of the basement will likely result in an adverse effect.

The "code compliant" ceiling height, according to international building code, is 7'6" minimum. However, a taller space is more adequate for the programming and use of the Castle basement.

Comment 13 – According to the Secretary of Interior Standards, SI has classified the Great Hall as restoration and the Upper Hall and basement as rehabilitation.

Comment 14 – Silman has been part of the team since the inception of the project and has developed the proposed approach to preserving the Castle. The proposed design for the Castle combines the need for excavation beneath the foundations of the original building while maintaining a high level of sensitivity to the historic integrity of the building. The excavation beneath and adjacent to sensitive historically significant buildings has become a safe and more economical solution in recent history. There are several advances in the sophistication in construction technology that make this possible. The use of hydraulic jacking systems with redundant supports, combined with electronic monitoring systems allow such operations to be performed with minimal risk and great controls. In addition, there has been an increased availability of highly qualified specialty trade contractors due to increasing number of such project in the Washington DC region.

- Safety is assured and maintained by redundant supports at each stage of construction. If a hydraulic jack fails, there is passive support for the element being jacked at all times.
- Protection of the historic fabric against damage is achieved through monitoring systems to assure that the movement of the building during the load transfer operations does not exceed pre-established limits determined to be acceptable. Often contingency measures are designed into the operation and protocol are established such that, in the event of a movement limit being exceeded, immediate corrective measures can be taken. In addition, Geotechnical investigations are used to assure that long term settlements do not cause added risk as a result of the proposed construction.

As part of their various presentations on this project, several recent examples of similar projects that have been executed successfully of similar National Historic Landmarks. One recent example is 1789 Massachusetts Ave, the former Headquarters of the National Trust for Historic Preservation. See article here (<http://www.enr.com/articles/38952-historic-renovation-demands-delicate-structural-work>).

(responses continued on next page.)

	<p>The success of such efforts is highly depended on having a highly qualified team effort consisting of Preservation Architects, Structural Preservation Engineers, Geotechnical Engineers, and Contractors experienced in Preservation projects. These teams will conduct initial building and geotechnical investigations that are critical to understanding the nature and sensitivity of the structure to settlement induced damaged, and to understanding the potential foundation options.</p> <p>Comment 15 – Comment noted. Perimeter security will be a separate item under the Elements Common to All Master Plan Alternatives.</p> <p>Comment 16 – The Final EIS will be reworded so that the reader can better reference the benchmarks.</p> <p>Comment 17 – The sculpture garden would have a recessed relationship to the National Mall.</p> <p>Comment 18 – The tunnel would be reopened under each alternative; however, it would be configured differently under each alternative. Alternative D and F would expand the tunnel and Alternative B would restore/reopen the original tunnel, not reconfigure.</p> <p>Comment 19 – The following has been added to the EIS – The cultural resources topic has been updated under the “Elements Common to All Master Plan Alternatives column to add at the end: “Expansion of below-grade facilities, including the Visitor Center and loading, has the potential to generate long-term, minor adverse impacts on cultural resources. These will be further evaluated at the time of project design.”</p> <p>“The addition of at-grade ventilation and egress enclosures has the potential to create adverse impacts on cultural resources and landscapes. These impacts will be minimized by sensitively integrating these enclosures into the landscape design.”</p> <p>Comment 20 – The EIS has been revised with the following – “Potential indirect impacts to contributing views and vistas will be evaluated at the time of project design.”</p> <p>Comment 21 – Comment noted. EIS was updated to reflect comment.</p> <p>Comment 22 – Comment noted. EIS was updated to reflect comment.</p> <p>Comment 23 – Section 4.14 Human Health and Safety of the EIS has been updated in to reflect that Alternative B does not provide adequate natural daylight, and Alternatives D and F would provide adequate daylight.</p> <p>Comment 24 – Comment noted. SI has consulted with Silman, the historic structural engineers throughout the master plan development. SI will continue to consult with historic structural engineers as each project is designed. Also, please see response to Comment 14.</p>
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43-44	Traffic	The Interagency Streetscape Manual will guide street related portions of projects, curb cuts, seating, lighting, etc.
CHAPTER 4		
55-56 and 64		The Ellipse should be identified as part of the White House and President's Park, there was no use of the "National Mall." Also on p 64, the National Mall Historic District does include the Ellipse which is not part of the National Mall and is managed by a separate NPS unit. This is a part of a separate NPS unit and also contains Bullfinch Gatehouse.
66	Fig 21	Photo is Mall not National Mall
4.9.7	elms	Issues with the elm panels should be discussed in all alternatives. Would the removal of these historic elms for construction staging be necessary? This would adversely affect the cultural landscape as well as be detrimental to our natural resources. Need clarity on how staging would occur.
86		Page 4-86 - This statement needs to be changed regarding indirect effects on the National Mall for the alternatives that alter the sculpture garden: "There would not be indirect impacts to cultural resources in the South Mall Campus under Alternative" It should read something like: "Indirect effects of the alternative on the National Mall will need to be evaluated further during consultation." Or we need to assess the effects now.
88	table 7	Perimeter security should be added - the impacts would be visible from the Mall and could affect topography, access, etc. See also p 99
90	4.9.9	Reference the Programmatic Agreement as something that may further define measures to be taken.
98		Think this is common to all. Visual quality will be improved as the result of removing parking near AIB and loading near Sackler.
109-110		Looks like the fence along Independence is removed. Possibly for D and F. This could have a number of consequences and needed more discussion.
115		Volume of trees illustrated alters character too.
141	B	Why isn't this first paragraph used for common to all masterplan alternatives
149		Refer to Mall not National Mall - because the views and impacts are very confined
164		Thought there was some difference at Hirshhorn Sculpture Garden from D. Do both need to remove walls?
186		Dwight D. Eisenhower Memorial – NPS, in association with the Dwight D. Eisenhower Memorial Commission, has developed a design for a Memorial to President Eisenhower. The project was approved by CFA and NCPC in July 2015 and its construction began in November. The project is located on a four-acre site directly south of NASM
186		Museum of the Bible is open now.
187		Might want to add Smithsonian National Mall Metro Station Welcome Plaza proposed in NMP would include additional info, restrooms, wayfinding, seating, etc. Would support multimodal circulation and improve visitor access and wayfinding.
187		Banneker Access is now under construction.
190		4.17.3.2 - Not sure how you concluded that the common elements cumulatively have potential for major cumulative adverse impacts. Table 4-3 starting on page 4-77 lists only minor long-term adverse negative impacts for the common elements. There are a number of items that have yet to be fully assessed in the table and they certainly do have potential for moderate to major negative impacts. But I think it's more reasonable to evaluate the cumulative impacts for the common elements as "moderate long-term negative impacts" and then note for alternatives D & F

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Comment 25 – The Streetscape Manual applies to work in the Jefferson, Independence, 12th and 7th St sidewalk zones surrounding the South Mall but not to landscape design beyond the back of sidewalk and within the building Campus. SI follows the Manual where it applies and may choose to use it for some site furnishings within the sites.

Comment 26 – Figures 4-9 and 4-10 have been revised in the EIS.

Comment 27 – Comment noted.

Comment 28 – The elm panel affected by the alternatives is the panel where the Hirshhorn Sculpture garden is located. There will be no excavation beneath the rows of existing elms on this panel. The construction documents will note that tree protection is necessary and arborists from Smithsonian Gardens and SI will seek advice from the National Park Service.

Comment 29 – Section 4.9.7 discusses the impacts to the South Mall Campus. Indirect effects to off-campus cultural resources are discussed in Section 4.9.8.

Comment 30 – The following has been added to Table 4-7:

Perimeter Security: Perimeter security elements would be installed around the South Mall Campus.

Impacts Column

Addition of perimeter security elements has the potential to create indirect adverse impacts on the character of the National Mall, including impacts to views, topography, and access. These impacts will be further evaluated at the time of project design.

Section 4.10.2.2 Indirect Impacts was changed to: "The implementation of perimeter security elements has the potential to indirectly impact visual resources, specifically views and vistas between the South Mall Campus and National Mall. Impacts will be further evaluated at time of project design. Otherwise, there would be no indirect impacts to visual resources."

Comment 31 – At the time the Draft EIS was submitted for public review, it had not been determined what type of Section 106 resolution document would be formalized. The Final EIS references that a Draft Programmatic Agreement (PA) is being prepared and the Draft PA has been included as an Appendix to the Final EIS.

Comment 32 – This has been added to the EIS.

Comment 33 – In Alternative D the fence is removed. In Alternative F the Renwick Gates are retained and the fence is replaced.
(Responses to comments are continued on the next page.)

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		that the additional design and demolition elements will have major cumulative effects.
192		Plans are implemented - they are not projects by themselves. They will all be implemented to various degrees but it is probably safe to say that visitor experiences, transportation, energy efficiency and so on will be improved
196		4.18 - first paragraph should elaborate on which alternatives include the greatest degree of irretrievable loss of cultural resources (alternatives D and F) since they include a much higher degree of demolition of extant resources than the other alternatives.
198		"Alternative F also offers alternate methods of phasing the projects in the Master Plan which could minimize construction disturbances in comparison to Alternative B and D." Is this statement explained anywhere? Why does F allow for alternative phasing benefits when the others don't or were phasing plans not developed for Alternatives B and D?
CHAPTERS 5-7		
7-9		In the organization list, the American Society of Landscape Architects, the Garden Clubs of America, The Garden Conservancy, or the Cultural Landscape Foundation were omitted. We believe all these groups have demonstrated an interest in this project.
31	1st sentence	Make it clear Jefferson Drive is metered parking.

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Comment 34 – The figures 44 and 45 were for illustrative purposes only to show where trees may be placed. New renderings have replaced these graphics to better depict the views.

Comment 35 – Text has been moved to Elements Common to All Master Plan Alternatives.

Comment 36 – EIS has been updated to reflect comment.

Comment 37 – Alternative D removes all of the plaza walls and Alternative F only removes a small portion of the west plaza wall.

Comment 38 – EIS has been updated to reflect comment.

Comment 39 – EIS has been updated to reflect comment.

Comment 40 – EIS has been updated to reflect comment.

Comment 41 – EIS has been updated to reflect comment.

Comment 42 – The cumulative impact in 4.17.3.2 has been changed from “major cumulative adverse...” to “moderate to major cumulative adverse...”

The following has been added between the first and second paragraphs of Sections 4.17.3.4 and 4.17.3.5:

“The additional demolition and design interventions proposed for the Castle under this alternative would elevate the moderate cumulative adverse impact to a major cumulative adverse impact.”

Comment 43 - EIS has been updated to reflect comment.

Comment 44 – EIS has been updated to reflect comment.

Comment 45 – Alternatives B and F would have similar impacts to visitor use and experience during construction. Alternative D would have the most significant impacts to visitor use and experience during construction. Under Alternative D SI would have to close larger portions of the site in order to complete projects. With Alternatives B & F, SI would be able to stagger projects and therefore, would be able to keep constant access to the exhibits.

Comment 46 – The organizations listed have been added to the distribution list provided in Chapter 7.

Comment 47 – EIS has been updated to reflect comment.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

January 16, 2018

Mr. Matthew Fils
Senior Urban Designer
National Capital Planning Commission
Urban Design and Plan Review
401 9th Street, NW
Washington, DC 20004

Re: Draft Environmental Impact Statement for the Smithsonian Institution's South Mall Campus Master Plan, Washington, D.C. November 2017 (CEQ #20170223)

Dear Mr. Fils:

In accordance with the National Environmental Policy Act (NEPA) of 1969, Section 309 of the Clean Air Act, and Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR 1500-1508), the U.S. Environmental Protection Agency (EPA) has reviewed the Smithsonian Institution's (SI) Draft Environmental Impact Statement (DEIS) for the South Mall Campus Master Plan in Washington, DC prepared by the National Capital Planning Commission (NCPC).

The Master Plan is needed to meet SI's long-term space requirements and to address physical and operational deficiencies across the campus which impact visitor use and SI's ability to implement its program effectively and safely. The proposed Master Plan would be implemented over a 10- to 20-year period. Four alternatives were considered in the DEIS including the No Action Alternative; Alternative B: Limited Above Ground Change; Alternative D: Plan Change Above and Below Grade; and Alternative F: Maintain Flat Plan on Castle Axis. A preferred alternative has not yet been identified.

As a way of evaluating NEPA projects, EPA has developed a set of criteria for rating Draft Environmental Impact Statements. EPA has rated the DEIS a Lack of Objections (LO). The LO rating means the review has not identified any potential environmental impacts requiring substantive changes to the presented alternatives. Our review, however, did identify minor areas where clarification and some additional information may improve the study documentation (please see the enclosed Technical Comments). A copy of our rating system can be found at: <https://www.epa.gov/nepa/environmental-impact-statement-rating-system-criteria>.

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Comment 1 – Comment noted.



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Thank you for the opportunity to review this project. If you have questions regarding these comments, the staff contact for this project is Nora Theodore; she can be reached at 215-814-2728 or theodore.nora@epa.gov.

Sincerely,



Barbara Rudnick
NEPA Review Coordinator

Enclosure (1)



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Technical Comments
Draft Environmental Impact Statement
Smithsonian Institution's South Mall Campus Master Plan

- EPA recommends the Erosion and Sediment Control Plan be detailed to the greatest extent practicable in the EIS in order to thoroughly communicate how erosion will be minimized and controlled. It would be helpful if the study included which BMPs would be employed under all Alternative scenarios.
- It is recommended NCPC include more information on the stormwater system reconfiguration including the capture, storage, and reuse of water.
- The project alternatives, particularly D and F, will significantly impact visitor use and experience during construction. The DEIS states that Alternative F offers alternate phasing for the Master Plan which would minimize construction disturbances better than Alternatives B and D. The phasing of the proposed actions is mentioned throughout the DEIS. We recommend including more information on the proposed phasing of the three action alternatives, with emphasis on how visitor use and experience would benefit from the phasing.
- It is recommended that NCPC state in the Final EIS the next steps in the master planning process. It would be helpful to public understanding to present anticipated additional studies for facilities impacted by the proposed actions.
- Localized noise levels will increase as a result of construction equipment and activities, disrupting visitor experience. EPA recommends certain time restrictions be considered to minimize this impact on the public.
- EPA suggests that an estimate of the number of jobs created as a result of the proposed actions could be included in the Final EIS and would be useful to public understanding of the projects.
- Though impacts are anticipated to be minor or beneficial in the long term due to decreased impervious surface, EPA recommends the EIS include a wider watershed context and briefly discuss the potential for this project to influence the Potomac River, and more broadly, the Chesapeake Bay.

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Comment 2 – Comment noted. As stated in the EIS, the Master Plan will comply with the District's 2013 rule on stormwater management and erosion and sediment control (21DCMR Chapter5). SI will obtain any DOEE permits that are required prior to construction.

Comment 3 – Currently, stormwater captured within the South Mall Campus is directly discharged to the District's combined sewer system. Alternative F proposes to install a management system that complies with the District's 2013 Stormwater Rules. According to the District's construction classification, the Master Plan will be classified as a Major Land Disturbing Activity. The proposed stormwater system will be designed maintain at least the 90th percentile rainfall event (1.2" of runoff).

Comment 4 – Alternatives B and F would have similar impacts to visitor use and experience during construction. Alternative D would have the most significant impacts to visitor use and experience during construction.

Comment 5 – This is provided at the beginning of Chapter 2.

Comment 6 – Comment noted.

Comment 7 – This is an EIS for a Master Plan. SI cannot determine the exact amount of jobs that would be created as a result of the full implementation of the Master Plan. As visitor services increase, the SI will be able to better determine the amount of additional hires that would be necessary to carry out their day-to-day operations.

Comment 8 – Comment noted.



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GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION



d. Planning and Sustainability Division

January 16, 2018

Matthew Flis
Senior Urban Designer
National Capital Planning Commission
401 9th Street, NW, Suite 500
Washington, DC, 20004

Michelle Spofford
Architect / Senior Planning Manager
Smithsonian Institution
Facilities Master Planning
P.O. Box 37012, MRC 511
Washington, DC, 20013

RE: Draft Environmental Impact Statement (DEIS) for the Smithsonian South Mall Campus Master Plan

Dear Mr. Flis and Ms. Spofford:

The District Department of Transportation (DDOT) appreciates the opportunity to submit a letter detailing DDOT's review of the Smithsonian South Mall Campus Master Plan DEIS. DDOT is committed to achieving an exceptional quality of life in the nation's capital by encouraging sustainable travel practices, constructing safer streets, and providing outstanding access to goods and services. As one means to achieve this vision, DDOT works with federal projects to ensure that impacts from new developments take advantage of the District's multimodal transportation network and minimize impacts on neighborhood streets and the broader transportation network. To accomplish this, all federal projects are expected to develop a Comprehensive Transportation Review (CTR) to appropriately document and mitigate their impacts on the District's transportation network.

After an extensive, multi-administration review of the DEIS dated November 2017 and the appended CTR dated October 24, 2017, DDOT cannot support any of the build alternatives until such time that approval has been

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District Department of Transportation | 55 M Street, SE, Suite 500, Washington, DC 20003 | 202.673.6813 | ddot.dc.gov

Comment 1 – The SI received conceptual approval for the curb cut and intersection changes on Independence Avenue from the Public Space Commission on January 25, 2018.

granted for the loading facility curb cut since denial of the curb cut request would preclude all of the build alternatives.

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cont

Specifically, DDOT finds:

Site Design

- All build alternatives are dependent on the construction of a centralized loading facility that would replace existing loading facilities for individual buildings in the South Campus;
- The centralized loading facility would be accessed via a curb cut in close proximity to the Independence Avenue & 12th Street intersection, which does not meet DDOT standards. As such, DDOT has directed the Smithsonian Institution (SI) to seek conceptual curb cut approval from the Public Space Committee prior to the release of the DEIS. At the present time, SI has not yet gone before the Public Space Committee;
- Until such time that approval has been granted for the loading facility curb cut, DDOT cannot support any of the build alternatives since rejection of the curb cut request would preclude all of the build alternatives; and
- All build alternatives would result in improved pedestrian connectivity within the South Campus and between the South Campus and destinations in the vicinity.

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Travel Assumptions

- The analysis was performed based on the Alternative with the most intensive land use program, which appropriately represents a conservative analysis of new trips expected from the South Campus Master Plan;
- The proposed mode split assumptions are achievable if supported by commensurate TDM (Transportation Demand Management) strategies. Failure to provide a robust TDM plan and infrastructure improvements could result in higher auto usage and impacts to the network not anticipated in the CTR; and
- The action is expected to generate a significant number of new vehicular and non-vehicular trips.

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Analysis

- The action is projected to significantly increase travel delay at eight (8) intersections in the study area at full build-out:
 - Jefferson Drive & 14th Street SW during the PM peak period;
 - Independence Avenue & 14th Street SW during the PM peak period;
 - Independence Avenue & 12th Street SW during the Saturday peak period, which is partially attributable to the proposed consolidated loading facilities that requires the additional of an additional signal phase to the intersection;
 - Independence Avenue SW & L'Enfant Plaza during the PM peak period;
 - Independence Avenue SW & 9th Street during the PM peak period;
 - Independence Avenue SW & 7th Street SW during the PM peak period;
 - 12th Street SW & Jefferson Drive SW, which is a National Park Service controlled intersection, during the Saturday peak period.
 - Independence Avenue SW & 9th Street SW

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Comment 2 - The SI received conceptual approval for the curb cut and intersection changes on Independence Avenue from the Public Space Commission on January 25, 2018.

Comment 3 – Comment noted.

Comment 4 – Comment noted.

Comment 5 – Comment noted.

Mitigations

As part of all major development review cases, DDOT requires the Applicant to mitigate the impacts of the development in order to positively contribute to the District's transportation network. The mitigations must sufficiently diminish the action's vehicle impact and promote non-auto travel modes. This can be done through Transportation Demand Management (TDM) measures, physical improvements, operational changes, and performance monitoring.

DDOT's preference is to mitigate vehicle traffic impacts first through establishing an optimal site design and operations to support efficient site circulation. When these efforts alone cannot properly mitigate an action's impact, TDM measures may be necessary to manage travel behavior to minimize impact. Only when these other options are exhausted will DDOT consider capacity-increasing changes to the transportation network because such changes often have detrimental impacts on non-auto travel and are often contrary to the District's multi-modal transportation goals.

As discussed below, some mitigations identified in the CTR are inappropriate and should not be pursued. Instead, other mitigations as identified below should be pursued.

Site Access & Design

As noted above, all build alternatives are dependent on the construction of a centralized loading facility that would replace existing loading facilities for individual buildings in the South Campus. DDOT and SI have coordinated extensively on this issue over the last several years, and a CTR specific to the curb cut's impacts was completed per DDOT direction.

Given how integral the consolidated loading facility is to each of the build alternatives, certainty around the curb cut to enable the consolidated loading facility was identified as a key issue to resolve prior to the advancement of the EIS. As such, DDOT and SI agreed at several meetings that the most prudent path to securing certainty around the curb cut was to pursue concept approval for the curb cut from the Public Space Committee, the multi-agency board that adjudicates non-standard public space uses affecting the District's right-of-way. DDOT submitted two formal comments to SI, included here as attachments, to this effect, and DDOT's understanding was that SI intended to follow this route.

To date, SI has not yet gone before the Public Space Committee. This process will determine if the curb cut is permissible and, if so, any conditions required to mitigate anticipated multimodal transportation impacts caused by the curb cut. If approved, mitigations are likely to include signal modification work to integrate the curb cut into the Independence Avenue & 12th Street signal, pedestrian facility improvements at this intersection, a Loading Management Plan that limits use of the curb cut in a manner that minimizes vehicular impacts during peak periods, and closure of curb cuts to existing loading facilities. The details of the overall mitigation package would be determined as part of the public space permitting process. Any mitigations identified as part of that process would need to be included as part of the EIS.

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Comment 6 – SI is committed to encouraging visitors to arrive by non-auto modes. The TDM measures detailed in the CTR will be updated to provide more detail regarding TDM strategies for visitors and employees.

Comment 7 - The SI received conceptual approval for the curb cut and intersection changes on Independence Avenue from the Public Space Committee on January 25, 2018.

Comment 8 - The SI received conceptual approval for the curb cut and intersection changes on Independence Avenue from the Public Space Commission on January 25, 2018.

Until such time that approval has been granted for the loading facility curb cut, DDOT cannot support any of the build alternatives since rejection of the curb cut request would preclude all of the build alternatives. Should the curb cut be denied, SI would be required to revise the build alternatives under consideration as part of the DEIS.

Operations and Signalization Changes

The EIS identifies a series of operations and signal changes to mitigate anticipated impacts to the roadway network. DDOT's review of these proposed mitigations is below:

Intersection	Proposed Mitigation	DDOT Evaluation
Multiple (specific intersections are unspecified)	Signal timing, phasing, and offset modifications, including an increase in cycle lengths is proposed at multiple unspecified intersections.	<p>The DEIS should be revised to reflect the specific intersections where changes to signal operations are proposed.</p> <p>Any adjustments to signal timings to improve one movement at an intersection will negatively impact other movements, as well as intersections up- and down-stream. Thus, signal timings for intersections in the vicinity will be reviewed comprehensively within the context of DDOT's ongoing Signal Optimization efforts to determine optimal timings for the network. As such, DoS initiated signal retimings for this intersection are inappropriate mitigations. Further, DDOT operates its signals on 110 second phases. Expanding phases to 150 is wholly incompatible with DDOT's approach to signal operations.</p> <p>Instead, the Applicant should focus on mitigations that reduce auto travel. This includes providing a robust TDM plan (described below) and commit to provide funding and first year's operating expenses for a minimum of 19-dock Capital Bikeshare station within close proximity to the South Campus.</p>
Independence Avenue & 14 th Street SW	Modify the southbound 14th Street, SW approach to Jefferson Drive, SW to include a protected-permitted left-turn phase.	DDOT agrees subject to approval at permitting. SI will be required to upgrade any signal hardware required to implement the mitigation.
12 th Street SW & Jefferson Drive SW	Modify the existing unsignalized intersection of Jefferson Drive, SW and 12th Street, SW from a two-way stop controlled intersection to an all-way stop controlled intersection.	As noted by SI, this intersection is on NPS property and is therefore subject to NPS approval. SI is expected to coordinate with DDOT through the permitting process to ensure that any proposed changes at this intersection do not negatively impact operations at adjacent intersections on the District's road network.
Mitigations related to the	The DEIS identifies multiple mitigations to address impacts	The details of the overall mitigation package for the loading curb cut would be determined as part of the public space permitting process. Any mitigations identified as

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Comment 9. Signal timing modifications will be removed from the CTR. The TDM measures detailed in the CTR will be updated to provide more detail regarding TDM strategies for visitors and employees.

Comment 10. SI will comply during permitting if it is determined that this measure is still required and/or approved.

Comment 11. SI will comply during permitting.

Comment 12. The concept-level approval obtained from the Public Space Committee is contingent on the mitigation measures listed in the DEIS as well as revisions to the TDM plan to address DDOT comments.

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Intersection	Proposed Mitigation	DDOT Evaluation
consolidated loading curb cut	<p>from the consolidated loading facility curb cut:</p> <ul style="list-style-type: none"> • Install new bike racks or a Capital Bikeshare location; • Upgrade all curb ramps to/from the South Campus; • Provide a new crosswalk across the westbound approach of Independence Avenue, SW at the intersection with 12th Street, SW; • Monitor passenger loading areas; • Create a Loading Management Plan; and • Restrict right turns on red for the westbound approach of Independence Avenue at 12th Street SW. 	part of that process would need to be included as part of the EIS.

Transportation Demand Management

As part of all major development review cases, DDOT requires Applicants to produce a comprehensive TDM plan to help mitigate an action's transportation impacts. TDM is a set of strategies, programs, services, and physical elements that influence travel behavior by mode, frequency, time, route, or trip length in order to help achieve highly efficient and sustainable use of transportation facilities. In the District, this typically means implementing infrastructure or programs to maximize the use of mass transit, bicycle and pedestrian facilities, and reduce single occupancy vehicle trips during peak periods. The Applicant's proposed TDM measures play a role in achieving the desired and expected mode split.

The specific elements within the TDM plan vary depending on the land uses, site context, proximity to transit, scale of the development, and other factors. The TDM plan must help achieve the assumed trip generation rates to ensure that an action's impacts will be properly mitigated. Failure to provide a robust TDM plan could lead to unanticipated additional vehicle trips that could negatively impact the District's transportation network.

Per the CTR scoping process, DDOT requested a description of current and proposed TDM measures for staff and visitors to encourage non-auto travel. This description was not included in the DEIS or supporting documents. Failure to provide a robust TDM plan and infrastructure improvements could result in higher auto usage and impacts to the network not anticipated in the CTR. Accordingly, the DEIS should be revised to include a robust TDM plan as a means to reduce impacts that are proposed by SI to be mitigated with signal timing changes not supported by DDOT. TDM measures are expected to include supportive bicycle infrastructure such as short- and long-term bike parking spaces, showers, and changing facilities, incentives for non-auto use, and

Comment 13. The TDM section of the CTR will be revised to discuss existing and proposed TDM strategies.

promotions/information for non-auto use.

Continued Coordination

In addition to the issues identified in the DEIS, SI will be expected to obtain public space permits for all proposed changes to the District's public space. DDOT's review of the DEIS should not be viewed as an approval of public space elements. If any portion of the project has elements in the public space requiring approval, SI is required to pursue a public space permit through DDOT's permitting process. SI may refer to the District of Columbia Municipal Regulations and DDOT's Design and Engineering Manual for specific controls of public space. A summary can be found in DDOT's Public Realm Design Manual.

Given the complexity and size of the project, DDOT expects to continue to work with on the following matters:


- Satisfactory resolution to the proposed consolidated loading facility requiring DDOT approval for a non-standard curb cut;
- Public space design, including curb & gutter, street trees and landscaping, street lights, sidewalks, and other appropriate features within the public rights of way bordering the site. Careful attention should be paid to pedestrian and bicycle connections along the site's perimeter and the adjacent infrastructure;
- Quantity and location of short- and long-term bicycle parking;
- Location of the Capital Bikeshare station; and
- Phasing of needed mitigation measures, which should be reflected in the DEIS.

Conclusion

DDOT anticipates that all outstanding mitigation measures will be appropriately resolved in advance of the Final Environmental Impact Statement, particularly the loading facility curb cut. Until such time that approval has been granted for the loading facility curb cut, DDOT cannot support any of the build alternatives since denial of the curb cut request would preclude all of the build alternatives. Should the curb cut be denied, SI would be required to revise the build alternatives under consideration as part of the DEIS.

Please contact Jonathan D. Rogers, the Case Manager for the project at jonathan.rogers2@dc.gov or 202-671-3022, with any questions.

Sincerely,


Jim Sebastian
Associate Director

cc: Anna Chamberlin, DDOT
Megan Kanagy, DDOT
Jonathan Rogers, DDOT

Comment 14 – Comment noted.

Comment 15 – Comment noted.

Comment 16 – Comment noted.

From: [Eutsler, Earl \(DDOT\)](#)
To: [Comments on Campus Plan](#)
Subject: Save the Haupt Garden
Date: Wednesday, January 10, 2018 8:32:10 AM
Attachments: [image001.png](#)

I strongly oppose changes to the Haupt Garden as outlined in Smithsonian Institution's South Mall Campus Master Plan. The Haupt Garden is a local and national treasure, and an important oasis for pollinators and other wildlife in the area of the National Mall. Grassy areas are an environmental waste land, and the National Mall otherwise creates a relative nutritional desert. Even the built landscape of Washington, where it has come to include green roofs, offers more. Furthermore, this garden is often used for plant identification courses by the USDA Graduate School, and other educational groups. Why deprive the public of such a wonderful resource? The Smithsonian (with its many missions including historical preservation and environmental education) needs to better, not to do damage.

The NCPD should send this plan back to the drawing board: perhaps the development of clearer, more informed requirements and assessments of existing underused facilities (the Arts and Industries Building, the lackluster eating facilities within most of the Mall Museums). Both financial and irreplaceable green resources could be more responsibly preserved.

Thank you for your consideration of this feedback.

Earl Eutsler

Associate Director/State Forester

Urban Forestry Division
District Department of Transportation
55 M Street SE, Suite 400
Washington, DC 20003
o. 202.671.5133
m. 202.497.0227
f. 202.671.0650
e. earl.eutsler@dc.gov
w. ddot.dc.gov



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Comment 1 – Comment noted.

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Comment 2 – Comment noted.

District of Columbia Office of Planning



Office of the Director

January 16, 2018

Michelle Spofford
Architect/Senior Planning Manager
Smithsonian Institution
Facilities Master Planning
P.O. Box 37012, MRC 511
Washington, DC 20013

Matthew Flis, Senior Urban Planner
National Capital Planning Commission
Urban Design and Planning Review
401 9th Street NW – Suite 500
Washington, DC 29994

RE: Environmental Impact Statement (EIS) for the Smithsonian Institution's South Mall Campus
Master Plan

Dear Ms. Spofford and Mr. Flis:

Thank you for the opportunity to comment on the Smithsonian Institution's South Mall Campus Master Plan Draft Environmental Impact Statement (EIS). This letter serves to supplement the verbal comments which I provided at the National Capital Planning Commission Meeting on January 4, 2018. These comments were drafted in consultation with the Neighborhood Planning Division, the Design Division, and the Historic Preservation Office (HPO). They worked together to provide the following comments on behalf of the District of Columbia Office of Planning (DCOP), while recognizing that HPO also has a role in the ongoing Section 106 process.

Over the last ten years, the District has engaged in several planning efforts to shape the neighborhoods surrounding the Smithsonian Institution's South Mall Campus, such as:

- The [Center City Action Agenda](#) (2008), which recommends targeted investment at and around the National Mall and improved connections between neighborhoods;
- The [Maryland Avenue Small Area Plan](#) (2012), which identifies redevelopment opportunities, open space improvements, zoning tools, and the steps necessary to achieve the vibrant residential mixed-use corridor called for in the Comprehensive Plan; and
- The [Southwest Ecodistrict Plan](#) (2013), which redefines the areas south of the National Mall as mixed-use neighborhoods with integrated public space, and an improved pedestrian experience;

1100 4th Street SW, Suite E650, Washington, DC 20024 voice 202.442.7600 fax 202.442.7638



- The [Southwest Neighborhood Plan](#) (2015), which establishes Southwest DC as a prime location for increased mixed-use density and cultural destinations that are connected to the rest of the city.

These efforts are yielding results. The neighborhood within Southwest DC are some of the District's fastest growing areas. The population is expected to double, growing to 34,597 residents by 2045, along with a projected 30% increase in employment. The area south of Independence Avenue SW towards the Southwest Waterfront has been seen primarily as a Federal workplace due to the concentration of Federal facilities, but is rapidly transforming into an 18-hour, mixed-use environment with over 30 new developments that include residences, office, retail, hotel, cultural, and entertainment uses. The largest of these, the Wharf, recently completed its first phase (1,590,788 square feet of new development), and anticipates several million visitors annually.

The Smithsonian Institution site is a critical juncture of two axes of growth: the east-west axis along the National Mall, and the north-south axis across the Mall. Along the east-west axis, several cultural amenities have been developed both on and off the Smithsonian Campus, such as the National Museum of African American History and Culture and the Holocaust Museum. The north-south axis has experienced significant residential and mixed-use development as well as the arrival of new cultural institutions. The Smithsonian Institution has an opportunity to embrace its role as part of the cultural network, built environment, and economic life of Central Washington by ensuring that its design and programming activity along the National Mall and along Independence Avenue are south-facing, and seamlessly integrate into the current and future development activity south of Independence Avenue, towards L'Enfant Plaza, and on to the revitalizing waterfront in Southwest DC.

The Federal and District governments have worked together to guide current and future development in these areas and improve the District's vibrancy, equity, and livability through planning that emphasizes exceptional urban design, connectivity, dynamic street life, and integration into the neighborhoods of the District. These goals are reflected in our general comments for the Draft EIS, listed below:

1. On September 29, 2017, DCOP met with the Smithsonian Institution to discuss the draft [Cultural Plan](#), which defines cultural amenities as a core pillar of sustainable development. The Smithsonian Institution is a cultural asset for District residents, and this relationship should be underscored by physical and programmatic integration into the District in any alternative proposed in the EIS process. By prioritizing connectivity from the Mall towards Southwest DC, this cluster can function as a part of the ever-growing network of museums and national and regional destinations in the area. These include long-standing cultural amenities, such as the Arena Stage, Banneker Park, and East Potomac Park, and new attractions, such as the Anthem, the Museum of the Bible, and the soon-to-be-relocated International Spy Museum.
2. Long-term planning for the surrounding neighborhood anticipates—and current zoning allows—high density, mixed-use development along Independence Avenue, SW. In the future, street-level building frontages and open space on both sides of Independence Avenue should be programmed and designed to accomplish the following objectives, which are also recommended for the Smithsonian South Mall:
 - a. Actively engage Independence Avenue with improved facade performance, landscaping, environmental resiliency, and wayfinding treatments on the site. These enhancements

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Comment 1 – Connecting to an increasingly vibrant mixed use Southwest neighborhood is central to the goals of the master plan, including accommodation of increased program space including the expansion of space for public programs such as Smithsonian Associates classes and lectures, as well as increased food service amenities and the expansion of the Haupt and Ripley gardens that will occur with the consolidation of underground loading that will remove the ramp at the Haupt Garden and the surface lot east of the Arts and Industries Building.

Comment 2 – Comment noted.

Comment 3 – Connecting to an increasingly vibrant mixed use Southwest neighborhood is central to the goals of the master plan, including accommodation of increased program space including the expansion of space for public programs such as Smithsonian Associates classes and lectures, as well as increased food service amenities and the expansion of the Haupt and Ripley gardens that will occur with the consolidation of underground loading that will remove the ramp at the Haupt Garden and the surface lot east of the Arts and Industries Building.

- will help to clearly identify the Smithsonian South Campus as an accessible and welcoming public amenity.
- b. Apply *National Mall Streetscape Manual* standards to walkway design as part of an overall public realm strategy that connects surrounding streetscapes and relates to adjacent public sidewalk standards.
 - c. Embrace pedestrian circulation by incorporating improved pedestrian facilities such as street crossings, street furniture, lighting, and improved shading.
 - d. Act as a *front door* to and from Southwest DC that visually and programmatically connects the Smithsonian Institution and the National Mall to the 10th Street SW promenade and neighborhoods beyond, including the future proposed development in the [Southwest Ecodistrict Plan](#), the [Southwest Neighborhood Plan](#) and the [Buzzard Point Vision Framework](#).
3. Improvements to the quadrangle should recognize the relationship between the garden and surrounding buildings in activating the space, and acknowledge its new significance as an active space for people coming from the south.
- The Office of Planning recommends the incorporation of detailed visitation targets, rationale for improvements, clarity of future programming for existing and proposed structures, and project phasing as the Master Plan process continues. While the absence of this important contextual and programmatic information has made it difficult to evaluate the proposed alternatives, DCOP has reviewed available information for Alternatives B, D, and F, and has the following specific comments:
1. Overall
 - a. The preservation and restoration of the grandeur and appeal of the Castle proposed in each of the alternatives is supported by DCOP.
 - b. The Arts and Industries Building needs to be a far more integral component of the Smithsonian Institution's South Mall Campus Master Plan with a clearly defined vision for its role on the campus and performance metrics against which future use scenarios can be evaluated. DCOP recommends the facility be reused in a way that activates the interior and creates new amenities, including food options, indoors and outdoors, for visitors.
 - c. The small opening in the Hirshhorn's western perimeter wall is endorsed because it will create greater connectivity east-west, as well as seamless links between the Sculpture Garden and the museum.
 - d. Given the significance of the Haupt Garden as part of the historic context of the Smithsonian, the character and some sense of enclosure of the Haupt Garden should be maintained.
 - e. Subterranean circulation should be carefully designed in a way that increases natural light, establishes wayfinding clarity, is exciting and welcoming, and encourages activity at the street level, orienting visitors as they move seamlessly above and below ground.
 - f. Greater effort needs to be made to draw visitors into Quadrangle and the Sackler and Freer Museums and make the flow and circulation both to and between them much clearer. The use of symmetrical entrances to the Quadrangle should be reconsidered, given the picturesque asymmetry of the Castle and the differing conditions at the east and west garden entrances from the Mall. The Quadrangle entrances should provide clarity of wayfinding and ease of pedestrian arrival and circulation.

- Comment 4 – Comment noted. The National Mall Streetscape Manual will be referenced.
- Comment 5 – Comment noted. Pedestrian circulation will be embraced by incorporating improved pedestrian facilities such as street crossings, street furniture, lighting, and improved shading.
- Comment 6 – Connecting to an increasingly vibrant mixed use Southwest neighborhood is central to the goals of the master plan, including accommodation of increased program space including the expansion of space for public programs such as Smithsonian Associates classes and lectures, as well as increased food service amenities and the expansion of the Haupt and Ripley gardens that will occur with the consolidation of underground loading that will remove the ramp at the Haupt Garden and the surface lot east of the Arts and Industries Building. As stated on pages 1-120 and 1-121 of the Draft EIS, the alternatives would be consistent with the goals of the SW Ecodistrict. In addition, as stated on page 1-126 of the EIS, Alternative F would eliminate some physical and visual barriers and improve connections between the South Mall Campus, the National Mall, and the SW Ecodistrict, while still maintaining the historic character of the South Mall Campus to the greatest extent possible.
- Comment 7 – Comment noted.
- Comment 8 – Comment noted.
- Comment 9 – Comment noted.
- Comment 10 – SI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylight at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.
- Comment 11 – Comment noted.
- Comment 12 – The character and some items from the Haupt Garden will be retained. The sense of enclosure of the Haupt Garden will be maintained through vegetation, street furnishing, fences and other perimeter features.
- Comment 13 – Comment noted.

- g. The proposed loading dock west of the Freer Gallery should be designed to minimally impact the pedestrian experience, and multi-modal circulation in general, along Independence Avenue SW. The curb cut at Independence Avenue SW should be designed to continue and emphasize the pedestrian walkway. | 15
- 2. Alternative B
 - a. This alternative meets many Master Plan goals while resulting in the fewest adverse impacts on historic properties. Contextually appropriate modifications may make it possible to achieve additional goals without causing or significantly increasing adverse impacts. | 16
 - b. The proposed relocation of entrances into the pavilions will require adequate indicators, including wayfinding and other environmental cues to direct and welcome visitors into the space and ensure that passerby understand the space as one for public use and access. | 17
- 3. Alternative D
 - a. Altering the Haupt Garden in the way proposed in this alternative, most notably in the changes to grade, will adversely impact the historic character and functionality of the space. | 18
 - b. Fewer physical barriers east to west will improve pedestrian access through the site; however, the proposed treatment of the Hirshhorn street walls may impact the historic character of the site. | 19
- 4. Alternative F
 - a. Creating openings east to west will improve pedestrian access through the site, while preserving the historic character of the interior gardens. | 20

We look forward to continued engagement on the Master Plan and ongoing historic review through the Section 106 process. Should you have any questions, please contact Valecia Wilson, Neighborhood Planner, at valecia.wilson@dc.gov or 202-420-7614.

Sincerely,



Eric D. Shaw

cc: Brian Kenner, Deputy Mayor for Planning and Economic Development
Jim Sebastian, Associate Director for Planning and Sustainability, District Department of Transportation
Eugene Kinlow, Director, Office of Federal and Regional Affairs, Executive Office of the Mayor
Marcel Acosta, Executive Director, National Capital Planning Commission

Comment 15 – Comment noted. SI will continue to work with the District to ensure the design of the new centralized loading dock and curb cut would not impact the pedestrian walkway.

Comment 16 – Comment noted.

Comment 17 – Comment noted.

Comment 18 – Comment noted.

Comment 19 – Comment noted.

Comment 20 – Comment noted.

From: Fern Allison
To: pbryant@nwcic.com; info@nwcic.org; Comments on Campus Plan
Cc: anne.gerald@nwcic.com; petrified@gmail.com
Subject: Enid A. Haupt Garden
Date: Monday, January 15, 2018 10:02:57 PM

Dear Chairman Bryant, Secretary Koster, Mr. Flis, Ms. Spofford and Members of the Commission,

I am president of The Garden Club of Evanston (GCE), a member of The Garden Club of America (GCA). Like GCA, we have advocated since our founding in 1915 for the preservation of historically and culturally significant landscapes. The Quadrangle District is one of those landscapes. We have been following and endeavoring to participate in the process—and to have our voice heard. We believe it is premature to move forward with any programmatic agreement until certain material details are resolved and urge you to delay any decision.

Thousands of citizens and a wide array of organizations—including the District of Columbia Historic Preservation Office, Committee of 100, the National Trust for Historic Preservation, and the DC Preservation League—have raised serious concerns about the Smithsonian's \$2,000,000 master plan and most especially demolition of the Enid A. Haupt Garden, the Carlhian Pavilions and Renwick Gates. GCA first submitted concerns in May 2016 and renewed our opposition most recently in a letter to Secretary Skorton in September 2017. KGC has been in touch with the Smithsonian as well.

Over many months, the Smithsonian has responded with numerous presentations and an array of alternatives. Unfortunately, none clearly and definitively answers what will be done with the Haupt Garden. Instead, it seems that the historic landscape is simply an afterthought in the Master Plan. We cannot rely upon vague promises that the Haupt Garden's "character" will be preserved.

The Haupt Garden was no fly-by-night whim. Instead, then-Secretary Ripley cultivated Mrs. Haupt for a \$3 million endowment for, in Secretary Ripley's words --"a garden for the ages" to front the Castle building and to serve as a gateway to Secretary Ripley's new complex of Asian and African art museums.

As part of the donor transaction, the Smithsonian made a commitment to Mrs. Haupt and to the public-at-large in consideration for the \$3,000,000 donation.

As we understand it, this very recent gift was made for the care and maintenance of the Enid A. Haupt Garden, including garden management and maintenance, public education and a fellowship. Moreover, Mrs. Haupt's gift and pledge was conditioned upon the Garden, Endowment and Fellowship being named after her in perpetuity.

Given clear donor intent, the intense donor cultivation by Secretary Ripley and the Smithsonian, and the fact that this is a recent \$3,000,000 gift, it would be an outrage to now ignore Smithsonian's commitments and to make a mockery of the system of charitable donations that are the lifeblood of the Smithsonian and other similarly situated institutions. Indeed, the Smithsonian is setting—and the National Capital Planning Commission would be endorsing--a dangerous precedent, paving the way for future donors to lose faith in America's strong charity system.

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Comment 1 – Comment noted.

Comment 2- The Haupt Garden will be retained. As stated in Section 1.5 of the Draft EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden. The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections.

As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates -- as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

Comment 3 – The SI takes seriously the commitments we make to donors. We, along with our Office of General Counsel, have determined that the South Mall Campus Master Plan does not violate our obligations to Mrs. Haupt (or any of our other donors). The SI will continue to honor our agreement with Mrs. Haupt to retain the garden's name in perpetuity. We expect to continue to increase the resources that supplement her endowment of the garden to ensure its continued high level of horticultural excellence. In addition, SI is in the process of developing Garden Advisory Committee to collaborate with SI on future garden designs.

The Commission's agreeing to one of the various undefined alternatives would, we fear, effectively give the Smithsonian the green light to proceed with plans that undermine Mrs. Haupt's and Secretary Ripley's vision—and the Smithsonian's prior commitment.

Those of us who care deeply about the iconic and beloved Haupt Garden need reassurance from the Smithsonian that the garden will be preserved, and that donor Enid A. Haupt's clear, unequivocal intent will be followed. In the absence of that firm commitment, we respectfully request the Commission to delay action. We understand that this is a "concept plan", but "concept plans" often become reality. I am sure that you understand that we cannot rely upon words alone.

Although we sit on the shores Lake Michigan just north of Chicago, we are no less interested and engaged in what happens at the Smithsonian. It is, after all, our "attic" too.

We raise these issues as sincere and long-time friends and supporters of the Smithsonian. Please note that the core images and slides of the Archives of American Gardens were a gift from The Garden Club of America in 1992 and we have submitted materials to the Archive, enhancing the Smithsonian's collection and legacy. The current Smithsonian exhibit, Cultivating America's Gardens, outlines the long and important history of gardens and relies upon our, the GCA's and our local sister clubs' documentation.

Please know that this is not just a local Washington, D.C., issue, but one that impacts the entire nation, as well going to the heart of America's long-standing charitable system.

Thank you very much for your consideration.

Sincerely yours,

Fern Allison
President, the Garden Club of Evanston
847-370-2293

NOTE TO MS. KOSTER: PLEASE DELIVER THESE COMMENTS TO ALL COMMISSIONERS. THANK YOU

- *Laugh when you can, apologize when you should, and let go of what you can't change. Life is too short to be anything but happy. ~Anonymous*

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Comment 4 – The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and any museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt Garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates – as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

The public will have other opportunities to comment on the South Mall Campus Master Plan, currently during its Draft review and during Final review by the NCPC. As each project is designed, the public will have the opportunity to provide comments through supplemental NEPA and NHPA processes.

D O N N A A R I

Washington, DC

dbari@mac.com

Mr. Stephen A. Hansen, Chair
Committee of 100 on the Federal City
945 G Street, NW
Washington, DC 20001

January 24, 2018

Re: Smithsonian Institution's Enid A. Haupt Garden - Donor Intent

Dear Mr. Hansen,

This is a follow-up to your letter of January 16, 2018, to the National Capital Planning Commission (NCPC) providing information on **Issue 2: Haupt Garden Donor Intent** in response to questions raised by the Commissioners at the January 4th meeting which I attended. I also learned similar questions were raised at the Commission of Fine Arts (CFA) meeting of January 18th. The following is based on personal experience as former Smithsonian Director of Individual Giving and on Smithsonian documents and letters made public by a recent FOIA request. I encourage you to share this letter with the NCPC, the CFA and others who have questions regarding Mrs. Haupt's and the Smithsonian's intent.

From 1984 to 1998 under Secretaries Ripley, Adams, and Heyman, I served in the Smithsonian Development Office. Assignments included fundraising and donor involvement related to the Quadrangle as the first Director of Development for the National Museum of African Art and as Smithsonian Director of Individual Giving at the time of Mrs. Haupt's endowment donation.

Actually, there were two major gifts. During Secretary Ripley's tenure, the first gift from Mrs. Haupt created the Garden. A knowledgeable gardener and "the greatest patron American horticulture has ever known" (*Gregory Long, President of the New York Botanical Garden*), Mrs. Haupt was personally and intensely engaged with the design as witnessed by the letters, plant lists and site plans sent to Mrs. Haupt by Secretaries Ripley and Adams. Her vision went way beyond a naming opportunity. "I want you to join me in thinking of details of the garden as you may choose," wrote Secretary Ripley to Mrs. Haupt (01/27/83) and further "... this is going to be a project of which we will not only be tremendously proud, but a **project for the 21st Century**...". The pledge agreement (03/17/83) states "The entire garden shall be designated and known in perpetuity as the Enid A. Haupt Garden".

Mrs. Haupt was very pleased with the Garden and its public acclaim. So in 1992 the Smithsonian approached her for another gift, "to endow in perpetuity the care and maintenance of the Enid A. Haupt Garden." My colleague, Barbara Freeman, Senior Development Officer, **who met personally with Mrs. Haupt**, and I developed the endowment proposal for Secretary Adams. Secretary Adams wrote to Mrs. Haupt (01/24/92), "The Enid Haupt Garden is an integral part of the Smithsonian Institution and

DONNA ARI

Washington, DC

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Page 2.

our nation's capital. Because of your generosity, this legacy is assured and will continue decade after decade ..." and continued, "... I know you share the same sense of pride that we are ... knowing that **future generations will continued to be enriched** by your generous contribution." Mrs. Haupt (11/16/92) wrote, "This letter is in response to the Proposal for the Endowment of The Enid A. Haupt Garden submitted with your recent letter which I accept with pleasure." Mrs. Haupt established the endowment fund.

The words "**in perpetuity**" were stated or implied several times in writing from the Smithsonian to Mrs. Haupt -- first to build the garden in the 1980's and second to endow the garden in the 1990's. From our experiences, Mrs. Freeman and I believe strongly that it was the intent of the Smithsonian leadership and the donor that **the 4.2 acre Enid A. Haupt Garden as built would exist as the centerpiece uniting the surrounding buildings - including the Sackler and African Art Pavilions - on the National Mall for generations**. Further, the entire Quadrangle, as built, and as it exists today reflects the legacies which both Mrs. Haupt and Secretary Ripley -- and hundreds of other donors, including the U.S. Government, who contributed to building the Quadrangle complex -- believed they had created for the very long term or "in perpetuity".

Sincerely,



Donna Ari

1

Comment 1 – Comment noted. The SI takes seriously the commitments we make to donors. We, along with our Office of General Counsel, have determined that the South Mall Campus Master Plan does not violate our obligations to Mrs. Haupt (or any of our other donors). The SI will continue to honor our agreement with Mrs. Haupt to retain the garden's name in perpetuity. We expect to continue to increase the resources that supplement her endowment of the garden to ensure its continued high level of horticultural excellence. In addition, SI is in the process of developing Garden Advisory Committee to collaborate with SI on future garden designs.



1865

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202-342-1865

Web site: www.aoidc.org
E-mail: aoidc@gmail.com

The Association of the Oldest Inhabitants of the District of Columbia – the District's oldest civic organization -- was established on December 7, 1865, to preserve memories and matters of historic interest. By virtue of our long presence and participation in the city's prosperity and improvement, we continue to work and strive for the city's stability, security and advancement -- to aid in every way the prosperity and well-being of the District while preserving the heritage of its past. Effective June 1, 1871, Congress revoked the charters of the cities of Washington, Georgetown and the County of Washington and established a consolidated government of the District of Columbia. For all intents and purposes, on that date Washington -- as far as a jurisdiction -- ceased to exist.



2018

The Association of Oldest Inhabitants of The District of Columbia¹

Established Dec. 7, 1865 – Celebrating our 153rd year

January 12, 2018

Smithsonian Institution South Mall Campus Plan
1000 Jefferson Drive SW
District of Columbia 20560
(and via email)

Re: South Mall Campus Draft EIS Public Hearings

The Association of the Oldest Inhabitants of the District of Columbia is the city's oldest civic organization. We are devoted to the maintenance, preservation and promotion of the L'Enfant, McMillan and Capital Framework Plans and provide comment on matters affecting historic preservation in the District of Columbia.

We are opposed to the drastic plans that the Smithsonian has proposed for its South Mall Campus that would destroy/remove/disturb the Enid Haupt Gardens, the Remick Gate and the pavilions to both the Sackler Gallery and Museum of African Art.

It was first brought to our attention during our November 2015 member luncheon that plans were underway which would severely undermine the design of the quadrangle complex which includes the Enid A. Haupt Garden, the Remick-inspired entrance gate and entrances to the Freer/Sackler Galleries, the National Museum of African Art and the Ripley Center. Responding to the reaction of the 73 members and guests present at that luncheon, we wrote to Smithsonian Secretary David Skorton on March 29, 2016 and expressed our opposition to the plans. Copies of that letter were provided to Mr. Thomas Leubke, Secretary, CFA; Mr. Marcel Acosta, Executive Director, NCPG; Mr. David Maloney, DC SHPO; Mr. Robert Kogod, Smithsonian Regent; Congressman Ken Calvert; and Congresswoman Eleanor Holmes Norton.

While the formal National Register of Historic Places Registration Form submitted by the Committee of 100 speaks for itself in its detail and comprehensiveness, we believe the November 10, 2016 letter written by James Goode expresses succinctly and eloquently the sentiments of many of us in the preservation community.

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Comment 1 – Comment noted. The SI will retain the Haupt Gardens once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. The Ripley gate will be retained.

Comment 2 – Comment noted.

We encourage the leadership of the Smithsonian to preserve the Smithsonian's South Mall Quadrangle as it was designed by S. Dillon Ripley, Jean Paul Carlhian, Lester Collins and Enid Haupt and use the funds that would be designated for that portion of the project to rehabilitate the Castle, improve access to the nearby buildings, work with the National Park Service, the National Coalition to Save Our Mall and the Architect of the Capitol to make the Arts and Industries Building a National Mall & Smithsonian Welcome Center to provide many of the guest amenities that the Smithsonian cites in their plans.

Thank you for your attention to and consideration of this matter.

Respectfully submitted by



President, Association of Oldest Inhabitants of the District of Columbia

Cc's via email:

Mr. Thomas Leubke, U.S. Commission on Fine Arts
Mr. Marcel Acosta, National Capital Planning Commission
Mr. David Maloney, State Historic Preservation Officer
Mr. Stephen Hansen, Chairman, The Committee of 100
Dr. Judy Scott Feldman, National Coalition to Save Our Mall
Mr. John Akridge, Trust for the National Mall

3

Comment 3 – SI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylit at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.



DC Beekeepers Alliance
318 12th Street NE
Washington, DC 20002
(202) 255-4318, dcbees@dcbeekeepers.org

January 9, 2018

Matthew Flis
Senior Urban Designer
National Capital Planning Commission
401 9th Street, NW, Suite 500
Washington, DC, 20004

RE: Smithsonian Institution South Mall Campus Master Plan

Dear Mr. Flis:

As president of a local beekeeping and pollinator advocacy organization, I strongly oppose changes to the Haupt Garden as outlined in Smithsonian Institution's South Mall Campus Master Plan. The Haupt Garden is a local and national treasure, and an important oasis for pollinators and other wildlife in the area of the National Mall. Grassy areas are an environmental waste land, and the National Mall otherwise creates a relative nutritional desert. Even the built landscape of Washington, where it has come to include green roofs, offers more. The Smithsonian (with its many missions including historical preservation and environmental education) needs to better, not to do damage.

The NCPC should send this plan back to the drawing board: perhaps the development of clearer, more informed requirements and assessments of existing underused facilities (the Arts and Industries Building, the lackluster eating facilities within most of the Mall Museums). Both financial and irreplaceable green resources could be more responsibly preserved.

Thank you for your consideration of this feedback.

Sincerely,

Antoinette Burnham
President, The Center for Urban Bee Research/DC Beekeepers Alliance
www.dcbeekeepers.org
(202)255-4318

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Comment 1 – As stated in Section 1.5 of the Draft EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden. The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates – as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies. In addition, the SI will provide a variety of plant materials to support pollinator health.

Comment 2 – SI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylight at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.



January 16, 2018

Matthew Flis
Senior Urban Designer
National Capitol Planning Commission
Urban Design and Plan Review
401 9th Street, NW, Suite 500
Washington, DC 20004

Michelle Spofford
Architect/Senior Planning Manager
Smithsonian Institution
Facilities Master Planning
P.O. Box 37012, MRC 511
Washington, DC 20013

Re: Comments on Draft Environmental Impact Statement (Draft EIS) for
South Mall Campus Master Plan

Dear Ms. Spofford and Mr. Flis:

The National Trust for Historic Preservation writes to submit comments on the Draft EIS for the Smithsonian South Mall Campus Master Plan. As a general matter, we applaud the Smithsonian's efforts to focus on this extraordinary collection of historic resources in order to ensure their future preservation and maintenance. Indeed, this area, which the Smithsonian has labeled as its "South Mall Campus" for purposes of this master planning process—is one of the most historically and culturally significant places in the United States, one which thousands of visitors explore and navigate ably every day.

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Comment 1 – Comment noted.

The National Trust commends the Smithsonian for the planned restoration and seismic protection of the Castle. We support the measures proposed in the Draft EIS to activate the Castle and to bring even more visitors into the Castle. Although the consultation process has helped to minimize the amount of excavation below the Castle for purposes of the Master Plan, we recommend continued caution with respect to any future excavation plans.

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Comment 2 – Comment noted.

The consultation process has also helped to minimize proposed changes to the character-defining features of the Hirshhorn. However, we urge the Smithsonian to eliminate new openings in the Hirshhorn's exterior wall because they would undermine the architect's original vision. To the extent that new openings are anticipated, they are not supported by the evidence and would yield minimal advantages to visitors, if any.

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Comment 3 – Comment noted.

The Watergate Office Building 2600 Virginia Avenue NW Suite 1100 Washington, DC 20037
E law@savingplaces.org P 202.588.6035 F 202.588.6272 www.savingplaces.org

Finally, as we have testified during public comment sessions, the National Trust believes that master planning for the South Mall Campus is incomplete without meaningful long-term planning for the Arts & Industries Building, a National Historic Landmark that deserves the highest level of protection. At the very least, the Draft EIS should evaluate fully a range of conceptual reuses for the historic building, regardless of pending congressional legislation that may or may not result in a decision over its future use.

4

In conclusion, the National Trust appreciates the opportunity to submit these comments on the Draft EIS. We applaud the Smithsonian Historic Preservation Office's ongoing stewardship and commitment to the future preservation of the museum's unique and irreplaceable historic resources. As we move forward with other stakeholders in finding ways to avoid, minimize, or mitigate adverse effects that the Master Plan has the potential to cause, we look forward to continued engagement with the Smithsonian as part of the ongoing Section 106 process under the National Historic Preservation Act.

5

Respectfully submitted,



William J. Cook
Associate General Counsel

cc: Lee Webb, Federal Preservation Officer, NCPC
Chris Wilson, Tom McCulloch, and Reid Nelson,
Advisory Council on Historic Preservation
Sharon Park, Federal Preservation Officer, Smithsonian Institution
David Maloney, DC State Historic Preservation Officer
Rebecca Miller, DC Preservation League
Robert Nieweg and Elizabeth Merritt, National Trust for Historic Preservation

Comment 4 – SI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylit at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.

Comment 5 – Comment noted.

National Mall Coalition

formerly National Coalition to Save Our Mall

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public policy and innovative
ideas*

www.nationalmallcoalition.org

NATIONAL MALL COALITION
P.O. BOX 4709
ROCKVILLE, MD 20849

January 16, 2018

Smithsonian South Mall Campus Master Plan Draft EIS

Via email: commentsoncampusplan@si.edu

The National Mall Coalition, a DC-based nonprofit organization, is dedicated to advancing the legacy of the National Mall – the visionary 1791 L'Enfant Plan and 1901-2 McMillan Commission Plan – through sound public policy, innovative ideas, and comprehensive planning that will ensure the vitality of this symbolic landscape and national treasure for future generations.

The Coalition commented on the South Mall Campus plan in January 2015 and again in May 2016. We continue to be concerned that the plan disregards the larger context of the project area as part of the National Mall and the City of Washington, and that the Plan will damage the design and quiet, contemplative quality of the Haupt Garden.

We offer the following comments:

- Treating the project area as a separate "Campus," in isolation from the rest of the Mall of which it is an integral part, threatens to undermine the integrity of the L'Enfant and McMillan plans as well as the unity of the Mall as experienced and cherished by the American public.
- This inward-looking concept also seems to ignore the larger connection to the surrounding city and local community, when in truth upgrading this area should be seen as an opportunity to strengthen that connection.
- The Coalition has been developing plans for a multi-use flood reservoir and bus and car parking facility under the grass panel adjacent to the Smithsonian Castle. We ask that this facility be considered in the Smithsonian's evaluation of its Plan, including how it can serve some of the Smithsonian's future needs that are not being addressed currently.
- The newly renovated Arts & Industries Building should be included as part of the Plan, able to fulfill some of the much-needed public functions. One idea promoted by the Coalition and others is to create here a Mall Welcome Center.

While the Smithsonian does not have authority to plan for the central grassy area of the Mall in front of the Castle – which traditionally has been the location for lively public activities including the Folklife Festival but which is under jurisdiction of the National Park Service --, that does not absolve the Smithsonian of the responsibility to integrate the South Mall Campus Plan within the context of the Mall overall design and public function. Therefore, we call on the Smithsonian -- as well as the National Capital Planning Commission and the National Park Service -- to recognize that piecemeal planning undermines the historic visions and to support formation of a new McMillan-type Commission to create a new unified, visionary plan for the Mall for the 21st century.

Sincerely,

Judy Scott Feldman, Chair
National Mall Coalition (formerly National Coalition to Save Our Mall)

cc. Tom Luebke CFA, Marcel Acosta NCPC, Stephen Hansen Committee of 100, David Maloney DCHPO, William Brown Association of Oldest Inhabitants of DC

Comment 1 – Comment noted.

Comment 2 – Connecting to an increasingly vibrant mixed use Southwest neighborhood is central to the goals of the master plan, including accommodation of increased program space including the expansion of space for public programs such as Smithsonian Associates classes and lectures, as well as increased food service amenities and the expansion of the Haupt and Ripley gardens that will occur with the consolidation of underground loading that will remove the ramp at the Haupt Garden and the surface lot east of the Arts and Industries Building. As stated on pages 1-120 and 1-121 of the Draft EIS, the alternatives would be consistent with the goals of the SW Ecodistrict. In addition, as stated on page 1-126 of the EIS, Alternative F would eliminate some physical and visual barriers and improve connections between the South Mall Campus, the National Mall, and the SW Ecodistrict, while still maintaining the historic character of the South Mall Campus to the greatest extent possible.

Comment 3 – There is nothing in the Master Plan that would preclude this facility from occurring.

Comment 4 – SI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylight at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.

Comment 5 – Comment noted.

The Committee of 100
on the Federal City



www.committeeof100.net

Founded 1923

January 16, 2018

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pbrvant@mwelc.com

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National Capital Planning Commission

401 9th Street, NW, Suite 500N

Washington, DC 20004

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Re: Smithsonian South Mall Campus Master Plan [NCPC Action Item No. 7630]

Judy Chesser

Dear Messrs. Bryant and Acosta:

George Clark

Monte Edwards

Larry Hargrove

Kathy Henderson

Kate Montague Perry

Elizabeth Purcell

Laura M. Richards, Esq.

Marilyn Simon

Jim Smailes

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945 G Street, N.W.

Washington, D.C. 20001

202.681.0225

info@committeeof100.net

Thank you for the recent opportunity to address the National Capital Planning Commission (NCPC) on the proposed Smithsonian South Mall Campus Master Plan. The hearing provided an important opportunity for NCPC to explore officially and publically this nationally-important undertaking. As I testified on January 4, there are aspects of the Master Plan which the **Committee of 100 on the Federal City** (C100) supports and others we find problematic - all of which are on the record.

As a follow-up to that Commission meeting, I write with concern given the number of Commissioner questions raised to which incomplete, incorrect, or no answers were provided by Smithsonian Institution representatives. Each issue, we believe, touches on vital base information needed by the Commission before executing its due diligence in approving/ disapproving the Master Plan. We have outlined these below as brief summaries with recommended "Actions". We trust this proves helpful in this important process.

Issue 1: Understanding Better the Historic and Cultural Significance of the Haupt Garden Landscape: At the January 4 meeting, Commissioner Beth White suggested that Commissioners needed to understand better the cultural significance of the Haupt Garden before making any decisions affecting its

Comment 1 – This comment refers to the Concept Master Plan hearing that was heard by the NCPC on January 4, 2018. This was a concept level document and SI has taken into consideration the comments of the Committee in their Master Plan that was heard before the Commission on April 5, 2018. Please refer to Section 4.9 of the EIS for information on cultural resources, including the Haupt Garden, and the impacts to these resources.

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January 16, 2018
National Capital Planning Commission
Page Two

preservation/ destruction. Smithsonian staff did not respond. The Committee of 100 and the Garden Club of America agree with Commissioner Wright. **Response:** The Quadrangle Historic District and the Haupt Garden are widely regarded as: 1) a historically-significant and sophisticated, mid-20th century example of new design compatibility within a historic precinct; 2) the largest and most accomplished U.S. project to date to preserve historic character by adding new construction underground; 3) masterworks of nationally-significant architects, planners, and landscape architects; 4) the most personal and cherished physical vision on the National Mall of Smithsonian Secretary Dillon Ripley; and, 5) a gift to the nation of philanthropist and landscape enthusiast Enid A. Haupt. The Haupt Garden is publically popular as documented by the thousands of signatures to the online petition, "Save the Haupt Garden." **Action:** We attach documentation in support of these points excerpted from the successful District of Columbia, Historic Landmarks nomination for the Quadrangle Historic District submitted by the Committee of 100.

Issue 2: Haupt Garden Donor Intent. Is There a Fiduciary Responsibility to Preserve the Garden?: Attending the January 4 Commission hearing was Donna Ari, former Smithsonian Director of Individual Giving in the 1990's. Ms. Ari assisted Mrs. Haupt and Smithsonian Secretary Ripley to establish Mrs. Haupt's endowment for the garden. [Note: the design and construction of the garden was supported with an earlier and separate gift from Mrs. Haupt.] The first sentence of that endowment proposal reads, "The Smithsonian Institution requests a gift of three million dollars to endow, in perpetuity, the care and maintenance of the Enid A. Haupt Garden". Further, Mrs. Haupt wrote, "A private endowment ... is the way to assure the GARDEN's future quality, including the **original** philosophy, **design, planting [emphasis added]**, and maintenance ...". The Committee of 100, the Garden Club of America, and Mrs. Ari believe that the Smithsonian Institution does, indeed, have a clear fiduciary responsibility to preserve the Enid A. Haupt Garden and abide by the donor's intent based upon documents obtained through the Freedom of Information Act as well as Mrs. Ari's professional knowledge. **Recommended Action:** Contact and consult with Ms. Ari. The Committee of 100 would be pleased to facilitate this.

Issue 3: Restore or Replace the Haupt Garden: Commissioners asked whether or not the Smithsonian intended to "restore" any adversely affected elements of the Haupt Garden when the South Mall Campus Project construction was complete. Smithsonian Associate Director for Planning, Ann Trowbridge assured the Commissioners in the affirmative on multiple instances. However, each answer was qualified with words such as, "in the spirit of" or "very much like" or "similar to." The Committee of 100 and the Garden Club of America believe these answers were neither responsive nor accurate. **Recommended Action:** Master Plan approval (even at this stage) should be contingent on reinstallation or re-creation of any elements of the Haupt Garden regrettably disturbed during construction – ranging from original design to landscape details to plant material following Mrs. Haupt's dicta for the endowment.

Issue 4: Repair Leaking Quadrangle Roof: In response to questions on the feasibility of repairing the Quadrangle roof from below grade versus excavating from above, Smithsonian Under-Secretary for Finance and Administration and CEO Albert Horvath replied, "not possible." However,

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Comment 2 – The SI takes seriously the commitments we make to donors. We, along with our Office of General Counsel, have determined that the South Mall Campus Master Plan does not violate our obligations to Mrs. Haupt (or any of our other donors). The SI will continue to honor our agreement with Mrs. Haupt to retain the garden's name in perpetuity. We expect to continue to increase the resources that supplement her endowment of the garden to ensure its continued high level of horticultural excellence. In addition, SI is in the process of developing Garden Advisory Committee to collaborate with SI on future garden designs.

Comment 3 – The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden – such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates – as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

January 16, 2018
National Capital Planning Commission
Page Three

there was neither further explanation nor documentation supporting his statement provided NCPC. On what basis does Mr. Horvath make his reply? The Committee of 100 believes this is not correct and that repairs can be made from below grade and done so less destructively to the Quadrangle Historic District and at a significant, comparative cost savings. **Recommended Action:** Request that the Smithsonian provide NCPC with the engineering assessment report(s) on which Mr. Horvath's statement was based, including: 1) extent of current conditions/damage; 2) their causes; and, 3) comparative engineering remediation recommendations and associated costs.

Issue 5: Better Using the Arts and Industries Building: Commissioners also questioned why the Arts and Industries Building is not part of the South Mall Campus Master Plan – instead of costly and destructive new construction. Given the 50+ million public dollars spent in its recent exterior restoration and the importance of providing a sustained use for the historic building, it seems reasonable to ask if many of the South Mall Campus Master Plan programming needs such as visitor services, gift shops, educational venues, meeting space, Smithsonian office and support facilities cannot be better (and more cost-effectively) housed in the Arts & Industries Building. **Recommended Action:** Request the Smithsonian to provide the cost-benefit analyses between the two options justifying/ explaining leaving this National Historic Landmark vacant for yet another decade.

Issue 6: Castle Seismic Upgrade: Greater clarity on the potential impact of various seismic retrofit options on the Smithsonian Castle was requested by Commissioners on January 4. Smithsonian representatives explained that the seismic engineering study currently underway would inform best the questions. **Recommended Action:** Even at the Master Plan stage, the impact of seismic retrofit to the Smithsonian Institution's flagship building (and National Historic Landmark) is of national, if not international, interest and concern. The Committee of 100 urges NCPC to defer Master Plan approval until potential seismic retrofit impacts of the Castle are made clearer and can be evaluated by the Commission and interested public. This is too important a historic building not to do it correctly.

Issue 7: Hirshhorn Plaza Walls: While some earlier design alternatives included options to demolish significant portions of the Hirshhorn Plaza Walls, the Smithsonian reported on January 4 that these have been rejected. That notwithstanding, the option remains "in play" in some of the design alternatives still under consideration by NCPC. **Recommended Action:** Contingent on NCPC Master Plan approval, the Committee of 100 recommends clearly prohibiting such action from further consideration in the South Mall Campus Master Plan.

I trust our thoughts and recommendations are helpful to you. As I stated in my January 4 remarks before the Commission, by the Smithsonian Institution's own reckoning the South Mall Campus Project is many years, if not decades, in the future. Funding has neither been appropriated nor raised. And despite pressure to get the Master Plan approved, the Committee of 100 believes it is worthwhile to place this nationally-important undertaking on the right track at its earliest stages and to ensure that NCPC's intentions and priorities are clearly understood. Simply put, these historic

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Comment 4 – As stated in Section 1.5 of the Draft EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. In addition, expert testimony was provided at the Draft Master Plan NCPC hearing. This testimony further provided information on the roof's assembly. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden. The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections.

As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates – as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

(responses continued on next page)

January 16, 2018
National Capital Planning Commission
Page Two

properties are too important, there are too many variables in play, and too many questions must be answered before NCPC's imprimatur is granted the Smithsonian South Mall Campus Master Plan.

Thank you again for the opportunity to testify before the Commission. If I may answer any questions in this letter or in the testimony, please do not hesitate to contact me.

Sincerely,



Stephen A. Hansen, Chair
Committee of 100 on the Federal City

Attachment

cc's: [National Capital Planning Commission Members](#): Thomas Gallas tmgallas@tortigallas.com
Arrington Dixon adanc@adanc.net Geoffrey Griffis ggriffis@citypartnersdc.com Phil
Mendelson pmendelson@dccouncil.us Peter May Peter_May@nns.gov Mina Wright
mina.wright@gsa.gov Scott MacRae Scott.macrae@gsa.gov Eric Shaw eric.shaw@dc.gov
planning@dc.gov Evan Cash ecash@dccouncil.us Beth White Rachael@houstonparksboard.org
Beth@houstonparksboard.org

David Maloney, DC SHPO, OP david.maloney@dc.gov
Robert Vogel, NPS Bob_Vogel@nps.gov
Thomas Luebke, Secretary, CFA tluebke@cfa.gov
Matthew Flis, Diane Sullivan, Lee Webb, NCPC matthew.flis@ncpc.gov
lee.webb@ncpc.gov diane.sullivan@ncpc.gov
Rob Nieweg, Betsy Merritt, Will Cook, NTHP mnieuweg@savingplaces.org
emerritt@savingplaces.org wcook@savingplaces.org
Rebecca Miller, Peter Sefton, DCPL Rebecca@dcpresevation.org
psefton@comcast.net
Charlene Dwin-Vaughn, ACHP cvaughn@achp.gov
Peggy McGlone, Washington Post peggy.mcglone@washpost.com
David Maxfield dmaxfield10@gmail.com
Richard Longstreth, George Washington University rwl@gwu.edu
Alexandra Graubert/ Dede Petri petridede@gmail.com
Donna Ari dari@me.com
Barbara Freeman bfreemanwdc@gmail.com
William Brown, AOI aiofilc@gmail.com
Peter Sefton psefton@comcast.net
James Goode james-goode@comcast.net

Comment 5 SI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylight at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.

Comment 6 – Base isolation and seismic bracing have been recommended by Silman, the design team's structural engineers, to protect the Castle from seismic events. Seismic studies are currently underway.

Comment 7 – Comment noted

From: [Lenore Macdonald](#)
To: pbryant@mwcllc.com; info@ncpc.org; [Comments on Campus Plan](#)
Cc: anne.gerald@gcamerica.org; petridede@gmail.com
Subject: Comments relating to the South Mall Plan
Date: Tuesday, January 16, 2018 2:31:23 PM
Attachments: [image001.png](#)



Kenilworth Garden Club

Dear Chairman Bryant, Secretary Koster, Mr. Flis, Ms. Spofford and Members of the Commission,

I am president of Kenilworth Garden Club (KGC), a member of The Garden Club of America (GCA). Like GCA, we have advocated since our founding in 1915 for the preservation of historically and culturally significant landscapes. The Quadrangle District is one of those landscapes. We have been following and endeavoring to participate in the process—and to have our voice heard. We believe it is premature to move forward with any programmatic agreement until certain material details are resolved and urge you to delay any decision.

Thousands of citizens and a wide array of organizations—including the District of Columbia Historic Preservation Office, Committee of 100, the National Trust for Historic Preservation, and the DC Preservation League—have raised serious concerns about the Smithsonian's \$2,000,000 master plan and most especially demolition of the Enid A. Haupt Garden, the Carlhian Pavilions and Renwick Gates. GCA first submitted concerns in May 2016 and renewed our opposition most recently in a letter to Secretary Skorton in September 2017. KGC has been in touch with the Smithsonian as well. Over many months, the Smithsonian has responded with numerous presentations and an array of alternatives. Unfortunately, none clearly and definitively answers what will be done with the Haupt Garden. Instead, it seems that the historic landscape is simply an afterthought in the Master Plan. We cannot rely upon vague promises that the Haupt Garden's "character" will be preserved.

The Haupt Garden was no fly-by-night whim. Instead, then-Secretary Ripley cultivated Mrs. Haupt for a \$3 million endowment for, in Secretary Ripley's words—"a garden for the ages" to front the Castle building and to serve as a gateway to Secretary Ripley's new complex of Asian and African art museums.

\$3,000,000 was not "chump change", especially in the early 1990's when Mrs. Haupt made her generous donation. As part of that donor transaction, the Smithsonian made a commitment to Mrs. Haupt and to the public-at-large in consideration for the \$3,000,000 donation.

As we understand it, this very recent gift was made for the care and maintenance of the Enid A. Haupt Garden, including garden management and maintenance, public education and a fellowship. Moreover, Mrs. Haupt's gift and pledge was conditioned upon the Garden, Endowment and Fellowship being named after her in perpetuity.

Given clear donor intent, the intense donor cultivation by Secretary Ripley and the Smithsonian, and

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Comment 1 – Comment noted.

2

Comment 2 – The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and any museum collections.

3

Comment 3 – The SI takes seriously the commitments we make to donors. We, along with our Office of General Counsel, have determined that the South Mall Campus Master Plan does not violate our obligations to Mrs. Haupt (or our other donors). The SI will continue to honor our agreement with Mrs. Haupt to retain the garden's name in perpetuity. We expect to continue to increase the resources that supplement her endowment of the garden to ensure its continued high level of horticultural excellence. In addition, SI is in the process of developing Garden Advisory Committee to collaborate with SI on future garden designs.

the fact that this is a recent \$3,000,000 gift, it would be an outrage to now ignore Smithsonian's commitments and to make a mockery of the system of charitable donations that are the lifeblood of the Smithsonian and other similarly situated institutions. Indeed, the Smithsonian is setting—and the National Capital Planning Commission would be endorsing—a dangerous precedent, paving the way for future donors to lose faith in America's strong charity system.

3
(cont)

The Commission's agreeing to one of the various undefined alternatives would, we fear, effectively give the Smithsonian the green light to proceed with plans that undermine Mrs. Haupt's and Secretary Ripley's vision—and the Smithsonian's prior commitment. Those of us who care deeply about the iconic and beloved Haupt Garden need reassurance from the Smithsonian that the garden will be preserved, and that donor Enid A. Haupt's clear, unequivocal intent will be followed. In the absence of that firm commitment, we respectfully request the Commission to delay action. We understand that this is a "concept plan", but "concept plans" often become reality. I am sure that you understand that we cannot rely upon words alone.

4

Although we sit on the shores Lake Michigan just north of Chicago, we are no less interested and engaged in what happens at the Smithsonian. It is, after all, our "attic" too.

We raise these issues as sincere and long-time friends and supporters of the Smithsonian. Please note that the core images and slides of the Archives of American Gardens were a gift from The Garden Club of America in 1992 and we have submitted materials to the Archive, enhancing the Smithsonian's collection and legacy. The current Smithsonian exhibit, Cultivating America's Gardens, outlines the long and important history of gardens and relies upon our, the GCA's and our local sister clubs' documentation.

Please know that this is not just a local Washington, D.C., issue, but one that impacts the entire nation, as well going to the heart of America's long-standing charitable system.
Thank you very much for your consideration.
Sincerely yours,
Lenore Macdonald

NOTE TO MS. KOSTER: PLEASE DELIVER THESE COMMENTS TO ALL COMMISSIONERS. THANK YOU

Lenore Macdonald
President
Kenilworth Garden Club
847.835.3335
mail@macdonald.in
www.kenilworthgardenclub.org

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The public has had opportunities to comment on the South Mall Campus Draft Master Plan and they will continue to during Final review by the NCPC. As each project is designed, the public will have the opportunity to provide comments through supplemental NEPA and NHPA processes.

The SI takes seriously the commitments we make to donors. We, along with our Office of General Counsel, have determined that the South Mall Campus Master Plan does not violate our obligations to Mrs. Haupt (or any other donors). The SI will continue to honor our agreement with Mrs. Haupt to retain the garden's name in perpetuity. We expect to continue to increase the resources that supplement her endowment of the garden to ensure its continued high level of horticultural excellence. In addition, SI is in the process of developing Garden Advisory Committee to collaborate with SI on future garden designs.



January 11, 2018

David J. Skorton, Secretary
Smithsonian Institution
P.O. Box 37012, MRC 012
Washington, D.C. 20013-7012

Dear Secretary Skorton:

On behalf of the over 3,300 individual members of the Garden Club of Virginia, I am writing to express our strong opposition to the proposed destruction of the Enid A. Haupt Garden as part of the Smithsonian's South Mall Master Plan.

The Garden Club of Virginia, founded in 1920, exists to celebrate the beauty of the land, to conserve the gifts of nature, and to challenge future generations to build upon this heritage. We have a well-documented history of safeguarding our natural resources. Our vision for an environmentally sound Virginia, where beauty and historical significance in the landscape abound has centered our focus and our commitment to investments in numerous garden restoration projects throughout the years.

Enid A. Haupt gave the Smithsonian and the nation a wonderful gift with this 4.2 acre formal Victorian garden. This carefully designed and maintained space is a treasured refuge in the Nation's Capital and is frequented by many. As the Smithsonian's own website states "The only unexpected part (of her assistance) was how generous her gift would be. By offering an endowment of over three million dollars, Mrs. Haupt has ensured not only that her garden was created, but that it would flourish and remain a haven".

The design was a collaborative effort and is a modern representation of American Victorian gardens as they appeared in the mid to late 19th century. James Goode, a former Smithsonian curator, described the suggested replacement as a wasteland of skylights reminiscent of a shopping mall with erupting "swoops" of turf, glass and steel. We believe such a design would clash with the surrounding historic buildings and would not provide the peaceful sanctuary that is there today.

We urge the Smithsonian to reject the demolition of the Haupt Garden and find another alternative to repair the roof upon which it rests. Such an effort will show your respect for Enid A. Haupt and her generosity, the iconic Castle and the Smithsonian's noble history.

Sincerely,

Nina Mustard

Nina Mustard
President, Garden Club of Virginia

CC: Dede Petri
President, Garden Club of America

KENT-VALENTINE HOUSE • 12 EAST FRANKLIN STREET • RICHMOND, VA 23219 • 804.643.4137 (PH) • 804.644.7778 (FX)
WWW.GCVIRGINIA.ORG

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2

Comment 1 – Comment noted.

Comment 2 – The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and any museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates – as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies. In addition, tree replacement will seek to prevent net loss of tree canopy in accordance with the policies set forth in the Comprehensive Plan for the National Capital.

January 12, 2018

Matthew Flis
National Capital Planning Commission
401 9th Street NW
Washington, D.C. 20004

Re: South Mall Campus Master Plan Draft Environmental Impact Statement (EIS)

Dear Matthew Flis,

Casey Trees is a Washington, D.C.-based nonprofit, with a mission "to restore, enhance, and protect the tree canopy of the nation's capital." To fulfill this mission, we plant trees; monitor the city's tree canopy; and work with government officials, developers, and residents to prioritize the District's trees. We are dedicated to helping D.C. reach its [40 percent tree canopy goal by 2032](#). As a city, we will achieve this goal when development projects and city plans ensure no net loss in tree canopy. Therefore, we are excited to provide comments on the [Draft Environmental Impact Statement \(EIS\)](#) for the South Mall Campus Master Plan.

The Smithsonian Institution's (SI) master plan to renovate the south mall campus involves replacing the roof system of the underground Quadrangle Building situated below the Enid A. Haupt Garden (the Garden). The most recent version of the EIS identifies Master Plan Alternatives B, D, and F.

After reviewing all alternatives in detail, we urge the National Capital Planning Commission (NCPC) and SI to select Alternative B as the ideal master plan and adopt the recommendations below:

1. Select Alternative B to Preserve Tree Canopy and Comply with the Federal Comprehensive Plan

Alternative B would replace all existing trees and, in turn, preserve the Garden's "intimate garden spaces" that SI has committed to maintain after renovation. Alternative B also complies with [policy FE.G.2 of the Federal Comprehensive Plan](#), which states "when tree removal is necessary, trees should be replaced to prevent a net tree loss to the project area." Specifically, smaller trees with a 10 inch diameter or less must be replaced at a minimum of a one-to-one basis. Larger trees with a diameter greater than 10 inches must be replaced at a rate derived from a formula developed by the International Society of Arboriculture.

2. Adopt A 20% Tree Canopy Goal in the Final Master Plan

Our analysis shows that 20% of the south mall campus is covered by tree canopy today (Figure 1). The EIS is an opportunity to highlight the importance of tree habitat by committing to covering no less than 20% of the south mall with tree canopy post-construction. Today, 35% of the south mall campus is plantable space (Figure 2). A 20% tree canopy will be easily attainable by adopting Alternative B, which strives to maintain the same area of plantable space long term.

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Comment 1 – Comment noted.

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Comment 2 – The percentage of tree canopy will be determined at the time of design. Each of the alternatives calls for an expanded Ripley Garden. Tree replacement will seek to prevent net loss of tree canopy in accordance with the policies set forth in the Comprehensive Plan for the National Capital. Additionally, Alternatives D and F call for an expanded Haupt Garden.



3030 12th Street NE • W DC 20017
202.833.4010 • f202.833.4092 • caseytrees.org

Maintaining a 20% tree canopy will also provide a vital connection to the future tree-lined pedestrian corridor along 10th Street SW, established in the [Southwest EcoDistrict plan](#), which will intersect with and lead pedestrians directly to the Garden.

3. Include Trees in All Bioretention Areas

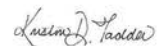
One of the stated goals of the EIS is to establish multiple bioretention areas within the south mall campus. Any bioretention areas designed to manage stormwater runoff should include trees. Trees in bioretention areas further slow stormwater runoff and reduce pollution through interception, evapotranspiration, and nutrient removal. [Casey Trees' Urban Tree Selection Guide](#) can be consulted to select trees that perform best in bioretention areas.

4. Incorporate Four Edits into the Draft EIS

1. In sections 4.10.2.4 and 4.10.2.5 under "Direct Impacts," it is noted that Alternatives D and F "may alter the secluded and intimate character" of the Garden, resulting in a "moderate, long-term, adverse impact." When discussing the intimate character of the Garden – preserved in Alternative B – it should be noted that this secluded nature is created through the use of trees and vegetation, and that removing trees and vegetation, even temporarily, results in a direct, major, long-term, beneficial impact.
2. Move the "Wildlife and Vegetation" impact topic from section 4.2, which highlights resources eliminated from further analysis, to section 4.3, which covers resources to be included in further analysis. Trees provide their maximum benefits at maturity. For this reason, we also recommend changing the language describing the impact of removing vegetation from "negligible, short-term, direct, adverse" to "major, long-term, direct, adverse." Removing and reestablishing vegetation is a long-term impact because it will take at least 5-10 years, depending on the tree species selected, for new trees to grow to a comparable level of maturity and supply the same benefits.
3. Throughout the EIS, it is mentioned that soils will be temporarily displaced. Amend these statements to indicate that both soils and vegetation will be temporarily displaced.
4. As written in sections 4.10.2.4 and 4.10.2.5 about Alternatives D and F, indirect impacts include changes to the landscape features of the central greensward, which would be mitigated by replanting four rows of elm trees on the National Mall near the Hirshhorn Sculpture Garden. Include a map or detailed description in the EIS to clarify what trees will be replanted and where.

Thank you for the opportunity to comment. Casey Trees would be happy to work with you to provide tree-related analyses for the EIS or become a member of the landscape design task force. If you have any questions about these recommendations, please feel free to contact me at ktaddei@caseytrees.org.

Sincerely,



Kristin Taddei
Planning Advocate

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Comment 3 – Comment noted.

Comment 4 – The second to last sentence in Section 4.10.2.1 Direct impacts has been changed in the Final EIS to read:

"Minor repairs to the Quadrangle Building roof membrane, existing building utilities, and other building facades could cause short-term adverse impacts to visual resources due to the temporary removal of trees and other vegetation and to construction disturbance, staging, and equipment."

The first sentence in the last paragraph in Section 4.10.2.2 Direct impacts was changed in the Final EIS to read:

"In all Master Plan Alternatives, construction activities would cause short-term adverse impacts to visual resources due to the temporary removal of trees and other vegetation to construction disturbance, staging, excavation, construction fencing, and equipment."

The following sentence has been added to end of second paragraph in Section 4.10.2.4 Direct Impacts:

"Included within this moderate adverse impact are the temporary and permanent removal of mature trees necessitated by the Quadrangle roof replacement and Haupt Garden reconfiguration."

The following sentence has been added to end of second paragraph in Section 4.10.2.5 Direct Impacts:

"Included within this moderate adverse impact are the temporary and permanent removal of mature trees necessitated by the Quadrangle roof replacement and Haupt Garden reconfiguration."

Comment 5 – As stated in Section 4.2.2, any vegetation that would be removed would be replaced with similar vegetation. There would be no long-term impacts because the vegetation removed during construction would be reestablished.

Comment 6 – Comment noted.

Comment 7 – A final tree planting plan will be developed during that phase of design. During its review of the Draft Master Plan, NCPD requested SI evaluate opportunities to save, store and replant trees and other plantings after construction has been completed.

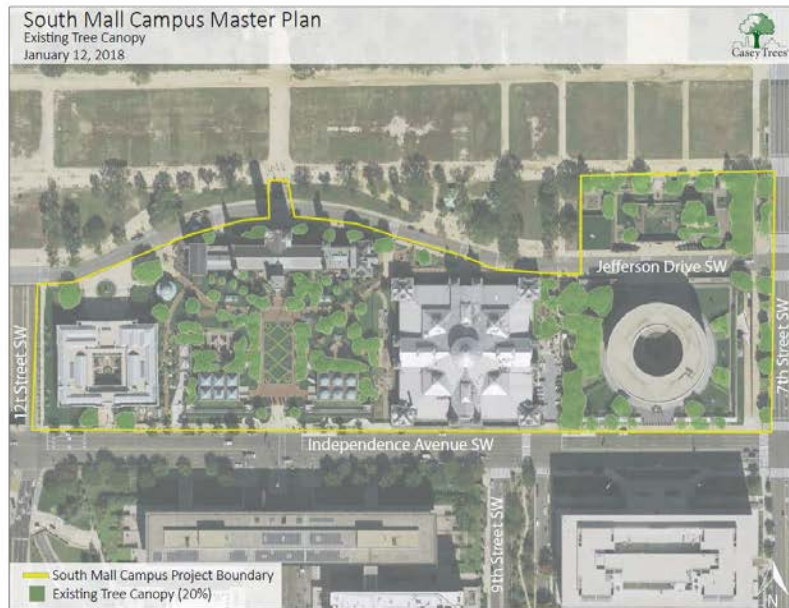


Figure 1. Twenty percent of the south mall campus is covered by tree canopy today.

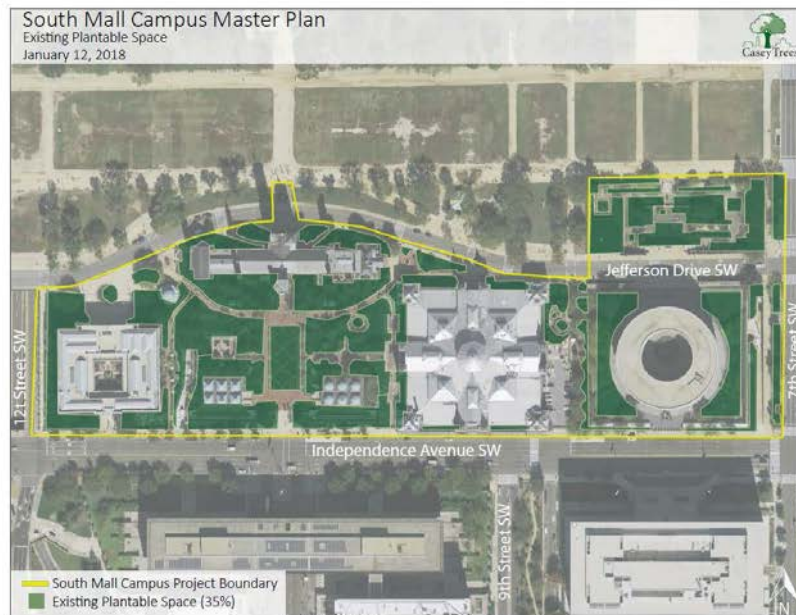


Figure 2. Thirty-five percent of the south mall campus is plantable space today.

From: Janet Wyman
To: phryad@smithsonian.edu; info@ncc.org; Comments on Campus Plan
Cc: anne.gerald@gcaamerica.org; petridedes@gmail.com
Subject: Important: Preservation of the iconic Quadrangle District and Haupt Garden at the Smithsonian
Date: Tuesday, January 16, 2018 1:20:04 PM
Attachments: petridedesGraphic.pdf

Dear Chairman Bryant,
Secretary Koster,
Mr. Flis,
Ms. Spofford and Members of the Commission,

I am president of The Garden Guild of Winnetka, a member of The Garden Club of America (GCA). Since our founding in 1949, we like the GCA have advocated for the preservation of historically and culturally significant landscapes. The Quadrangle District is one of those landscapes. We have been following and endeavoring to participate in the process—and to have our voice heard. We believe it is premature to move forward with any programmatic agreement until certain material details are resolved and urge you to delay any decision.

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Given clear donor intent, the intense donor cultivation by Secretary Ripley and the Smithsonian, and the fact that this is a recent \$3,000,000 gift, it would be an outrage to now ignore Smithsonian's commitments and to make a mockery of the system of charitable donations that are the lifeblood of the Smithsonian and other similarly situated institutions. Indeed, the Smithsonian is setting—and the National Capital Planning Commission would be endorsing—a dangerous precedent, paving the way for future donors to lose faith in America's strong charity system.

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The Commission's agreeing to one of the various undefined alternatives would, we fear, effectively give the Smithsonian the green light to proceed with plans that undermine Mrs. Haupt's and Secretary Ripley's vision—and the Smithsonian's prior commitment.

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4

The Smithsonian is a collective national treasure, one which the Garden Guild of Winnetka is deeply committed to seeing improved but also preserved for future generations. We hope our comments elevate the importance of the preserving the Quadrangle District, and specifically the Haupt Garden, as part of this vision.

We raise these issues as sincere and long-time friends and supporters of the Smithsonian. Please note that the core images and slides of the Archives of American Gardens were a gift from The Garden Club of America in 1992 and we have submitted materials to the Archive, enhancing the Smithsonian's collection and legacy. The current Smithsonian exhibit, Cultivating America's Gardens, outlines the long and important history of gardens and relies upon our, the GCA's and our local sister clubs' documentation.

Please know that this is not just a local Washington, D.C., issue, but one that impacts the entire nation, as well going to the heart of America's long-standing charitable system.

Thank you very much for your consideration.

Best Regards,
Janet M Wyman
President- Garden Guild of Winnetka

Garden Guild Of Winnetka - Winnetka Illinois 60093

Comment 4 – Please see responses to Comments 2 and 3.

From: [Chani Adams](#)
To: [Comments on Campus Plan](#)
Subject: re: Smithsonian South Mall Campus Master Plan
Date: Friday, January 05, 2018 1:38:40 PM

Please do not destroy the Haupt and surrounding gardens. These are sacred spaces where our children have grown up and our family memories have been created. They are one of the best “nooks” on the mall, a welcome respite from the heat and crowds. Delightful features such as the ground level water, the nooks and giant Jade in the water garden, and the tranquility of the zen garden, make these some of the most unique and welcoming spaces in the entire mall and surrounding area.

Chani Adams
571.643.9957
chani.adams@gmail.com

1

Comment 1 - The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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From: [Duane Arenales](#)
To: [Comments on Campus Plan](#)
Subject: DEIS for the Smithsonian Institution's (SI) South Mall Campus Master Plan
Date: Tuesday, January 16, 2018 8:56:45 AM

Please save the Enid A. Haupt Garden, an oasis of calm, color, and beauty connecting the Smithsonian Castle, the African Art Museum and the Freer and Sackler Galleries

The DEIS for the future of the South Mall, even though somewhat improved, still calls for replacing the garden and the current entrances to two of the museums.

I urge you to ensure that after needed repairs to the structures underlying the Enid A. Haupt Garden are made, the Garden is restored to its current beauty and the entrances to museums in the quadrangle area are left alone. People who want to visit these museums are able to find them.

The mall is a national treasure appropriate for large gatherings and festivals, but it is also a hot expanse of grass -- not welcoming to tourists and residents who want a quiet beautiful place to relax and recoup.

The Enid A Haupt Garden is one of those rare places. Don't destroy it.

Statement from a long time resident of the capitol area and a host to many out of town visitors.

Duane Arenales
8315 North Brook Lane
Apt. 806
Bethesda, MD 20814

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Comment 1 - The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced. As stated in Section 1.5 of the Draft EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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Comment 2 -- Comment noted.

From: [Nadine Bernard](#)
To: [Comments on Campus Plan](#)
Subject: comments on the campus plan
Date: Tuesday, January 09, 2018 1:23:46 PM

I am opposed to removing the Enid Haupt garden. It appears you are widening walkways, opening up doors and removing what is an amazing garden. The Hirshorn should be more inviting from the mall, the Freer and Sackler are interesting and cool as the entrances are now, and the building, Arts and Industries building, that you seem to have no real plans for, should do something more than a temporary space for the castle. Although I didn't see a reference in your plans for a cafeteria, the Washington Post referenced one, and frankly, I believe one more cafeteria is certainly not necessary, particularly if it takes away from the garden. Why not have outdoor tables that can accommodate people getting their food from food trucks? This supports the local economy and there are many, many food trucks in that area. The garden provides respite, offers a place to rest, and enjoy the most beautiful space surrounding you. More brick and mortar just add coldness. The Hirshorn is probably the coldest and least friendly building on the mall. Yet, it has a feel to it, that is appropriate. There is space in that courtyard for tables and chairs as well. So, to be clear, I want the Enid A. Haupt Garden, repairs do need to be made that might necessitate changing the garden somewhat, but the overall feel and beauty should remain, not be replaced with another cafeteria there are enough of them to be found around the mall. Thank you for reviewing my comment. I hope it matters.

Sincerely,

Nadine Bernard
301-490-9022 (H)
443-745-6845 (C)

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Comment 2 – Comment noted. The café is currently located in the Great hall of the Castle and is being relocated under the Master Plan.

Comment 3 – Comment noted.

Comment 4 – Please see response to Comment 1.

April 2018

From: [Dace Blaumanis](#)
To: [Comments on Campus Plan](#)
Subject: Project#7630
Date: Sunday, January 07, 2018 9:04:57 PM

Dear Commissioners:

Please do not destroy the Enid A. Haupt Garden in your plans to redevelop the area between the Sackler Gallery, the African Art Museum and the Smithsonian Castle. The existing garden is a treasure. It is well-designed, inviting space at an intimate human scale that offers delight in the beauty of nature through all seasons. For decades now, spring arrives for me when the magnolia trees there bloom. I take visitors to the garden when we visit the monumental National Mall area, knowing the well-cared-for garden with its inviting human scale will bring joy to us.

Thank you for this opportunity to comment.

Dace Blaumanis
10348 Castleledge Terrace
Silver Spring, MD 20902

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Comment 1 - The Haupt Garden is not being destroyed. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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From: [Kay Bushman](#)
To: [Comments on Campus Plan](#)
Subject: Smithsonian South Mall Campus Master Plan public comments
Date: Saturday, January 13, 2018 6:26:14 PM

I have two main comments:

1. You need to retain more of the current Haupt gardens. They are beautiful and should not be altered so dramatically as you propose.
2. You should use your imagination to make the Arts and Industries the visitor center instead of digging up more dirt. This building has not had a coherent purpose for at least 20 years. But has been restored and is a fantastic building.



Kay Bushman
1908 Swan Terrace
Alexandria, VA 22307

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Comment 2 - SI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylight at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.

From: [Spofford, Michelle](#)
To: [Estes, Liz](#); [Trowbridge, Ann](#); [Park, Sharon](#); [Lethbridge, Christopher](#); [Bond, Carly](#)
Subject: Fwd: enid haupt garden planning
Date: Tuesday, January 30, 2018 11:40:24 AM

FYI

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----- Forwarded message -----

From: "Flis, Matthew" <matthew.flis@ncpc.gov>
Date: Tue, Jan 30, 2018 at 11:39 AM -0500
Subject: FW: enid haupt garden planning
To: "Spofford, Michelle" <SpoffordM@si.edu>

FYI



The Federal Planning Agency for America's Capital

Matthew J. Flis, AICP-CUD, LEED-AP
Senior Urban Designer | Urban Design & Plan Review Division
Main: 202.482.7200 | Direct: 202.482.7236
401 9th Street, NW | Washington, DC 20004
matthew.flis@ncpc.gov | www.ncpc.gov

From: NCPC General Information
Sent: Tuesday, January 30, 2018 10:05 AM
To: Sullivan, Diane <diane.sullivan@ncpc.gov>; Flis, Matthew <matthew.flis@ncpc.gov>; Koster, Julia <julia.koster@ncpc.gov>; Brown, Marcella <marcella.brown@ncpc.gov>
Subject: FW: enid haupt garden planning

FYI

From: mary busse [<mailto:mary.busse1@gmail.com>]
Sent: Friday, January 26, 2018 10:55 AM
To: NCPC General Information <info@ncpc.gov>
Subject: enid haupt garden planning

Dear members,

It is with great dismay that I read about the proposed demolition of the Enid Haupt gardens. They are the highlight of every visit to the National Mall. How can one assume that they are not of interest to tourists as well as locals. I certainly see enough photos being taken, and people sitting on the benches enjoying the shade, peace, and quiet of the area. We have more than enough

Comment 1 - The Haupt Garden is not being demolished. As stated in Section 1.5 of the Draft EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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Comment 2 – Comment noted.

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lawn space. I certainly hope that a way can be found to meet your goals, keeping the gardens intact. I am especially fond of the space between the

I am just an ordinary citizen, not usually given to voicing my opinion. I feel very strongly about this issue.

Thank you for your kind attention,

Sincerely,

Mary Busse

From: [Carol Clausen](#)
To: [Comments on Campus Plan](#)
Subject: Enid Haupt Garden
Date: Saturday, January 06, 2018 2:09:13 PM

I am greatly disappointed with the plans to destroy the Enid Haupt Garden. It is a treasure, a place to sit quietly and rest, in a area in which there is little opportunity to do either. I am not a District resident, but frequently take Saturday courses at the Ripley Center. In good weather I always sit in the garden to have lunch and enjoy the beautiful surroundings. It would be a mistake to substantially alter the lovely space.

Carol Clausen
8315 N Brook Lane
Bethesda MD 20814

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From: [Brenda Clough](#)
To: [Comments on Campus Plan](#)
Subject: New Smithsonian plans
Date: Friday, January 05, 2018 1:43:44 PM

I would be very sorry to lose the Enid Haupt Gardens! They are a truly gracious outdoor space – compare them to the Mall on the other side of the A&I building.

Brenda Clough

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From: SARAH DACHOS
To: Comments on Campus Plan
Subject: Pollinator friendly garden with the South Mall Campus Development Plan
Date: Tuesday, January 09, 2018 8:04:53 PM

Dear Ms. Spofford and Mr. Fils:

As a local beekeeper and part of the a local pollinator advocacy organization, I strongly oppose changes to the Haupt Garden as outlined in Smithsonian Institution's South Mall Campus Master Plan. The Haupt Garden is a local and national treasure, and an important oasis for pollinators and other wildlife in the area of the National Mall. Grassy areas are an environmental waste land, and the National Mall otherwise creates a relative nutritional desert. Even the built landscape of Washington, where it has come to include green roofs, offers more. The Smithsonian (with its many missions including historical preservation and environmental education) needs to better, not to do damage.

The NCPC should send this plan back to the drawing board: perhaps the development of clearer, more informed requirements and assessments of existing underused facilities (the Arts and Industries Building, the lackluster eating facilities within most of the Mall Museums). Both financial and irreplaceable green resources could be more responsibly preserved.

Thank you for your consideration of this feedback.

Best,
Sarah Dachos
202.577.8178

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Comment 2 - SSI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylight-at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.

From: [Imani Damali](#)
To: [Comments on Campus Plan](#)
Date: Wednesday, January 10, 2018 7:58:26 AM

To Whom It May Concern,

As a local beekeeper, I strongly oppose changes to the Haupt Garden as outlined in Smithsonian Institution's South Mall Campus Master Plan. The Haupt Garden is a local and national treasure, and an important oasis for pollinators and other wildlife in the area of the National Mall. Grassy areas are an environmental waste land, and the National Mall otherwise creates a relative nutritional desert. Even the built landscape of Washington, where it has come to include green roofs, offers more. The Smithsonian (with its many missions including historical preservation and environmental education) needs to better, not to do damage.

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Thank you for your consideration of this feedback.

Sincerely,

Imani Damali

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From: [Robert Dardano](#)
To: [Comments on Campus Plan](#)
Subject: Enid A. Haupt Garden
Date: Wednesday, January 10, 2018 7:18:32 PM

To whom it may concern,

I write to oppose any effort to demolish, redevelop, or otherwise alter the Enid A. Haupt Garden which sits just south of the Smithsonian Castle. I know that the Smithsonian wishes to redevelop the entire area on the south side of the Mall from 7th to 12th St. SW. There are many improvements that can be made—better access to restrooms, the underground Ripley Center, and/or eating facilities, for example. And I can't for the life of me understand why the Smithsonian has failed to repurpose the magnificent Arts and Industries Building. More exhibit space for current museums? A newly purposed museum? Dining facilities? All of the above?

But whatever you do, leave the Enid A. Haupt Garden alone! It is a beautiful space for tourists and DC residents alike. I go there year round but particularly every spring to see the magnolias and other flowers, and it's always crowded with admirers. It's a wonderful space year round and should be preserved. As National Capital Planning Commissioner Beth White said, it is indeed "a sacred space." Please save the Enid A. Haupt Garden!

Sincerely,
Bob Dardano
629 Constitution Ave. NE #301
WDC 20002

Sent from [Mail](#) for Windows 10

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Comment 1 - The Haupt Garden is not being demolished. As stated in Section 1.5 of the Draft EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden. The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and any museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates -- as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

Comment 2 - SI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylight at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.

Comment 3 - Comment noted.

writing & editing
rights management
content & image research



Martha Davidson

2520 41st Street NW #3 • Washington DC 20007 • tel/fax 202.298.6937 • mdwdc@sprintmail.com

DEC 27 2017 PM 1:30
3122400(1)

18 December 2017

David J. Skorton, Secretary
Smithsonian Institution
1000 Jefferson Drive, SW
Washington, DC 20560

Dear Secretary Skorton:

I wish to express my concerns about the Smithsonian Institutions's South Mall Campus Master Plan, and specifically about its design to eliminate the Enid Haupt Garden and the three museum pavillions adjacent to it.

The Enid Haupt Garden is a Smithsonian gem and one of the District of Columbia's most appealing and accessible small public green spaces. It offers shady seating in the summer, with the refreshing sound of water gurgling in its fountains.

The garden educates and enchants visitors with its unusual botanical specimens—among my favorites are the *Mussaenda fronsa*, or dhobi tree, with its green and white leaves and bright orange blossoms, and the monkey tree, *Araucaria araucana*, which delights visitors at the entrance near the Ripley Center pavillion.

I've spent many pleasant hours in the Enid Haupt Garden, fascinated by the varieties of birds that alight there on their migrations or settle in its trees for the spring and summer. It is a place where I meet friends, or simply enjoy the beauty of the changing flower beds designed by the Smithsonian's horticultural department.

But I most often go to the site to see exhibitions at the Sackler, the National Museum of African Art, or the Ripley Center. I love the way the the two museum pavillions complement each other architecturally while maintaining harmonious distictions, and I appreciate the direct, ground-level access the three pavillions provide to the different exhibition areas below. The garden also seems perfectl suited to the Victorian architecture of the Arts & Industries building and the Smithsonian Castle.

In contrast, I find the Master Plan design for this area to be harsh, boring, and ugly, lacking the grace, intimacy, and charm that characterizes the Enid Haupt Garden in its present state. I realize this Master Plan was developed before your tenure as Secretary of the Smithsonian Institution, but I urge you to use your influence to preserve the Enid Haupt Garden as a vital and vibrant center of the South Mall Campus.

Sincerely,

Martha Davidson

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From: [Laura Donnelly](#)
To: [Comments on Campus Plan](#)
Cc: mike.donnellydc@gmail.com
Subject: Destruction of Enid Haupt Garden
Date: Friday, January 05, 2018 1:35:15 PM

Dear Sir or Madam: your first plan to "Gehry-ize" the space now occupied by the Enid Haupt Garden was atrocious. This new one to make it a tree haven is equally destructive. We have lived in the DC area for 45 years and have visited the Enid Haupt garden many times each spring, summer, and fall since it was created. Our children spent many afternoons walking through the Moon Gate and learning the names of the flowers when they went to Smithsonian summer camp. We have been Smithsonian Associates since 1974, and visit the garden whenever we take a Resident Associates class. Please do not spend any of our taxpayer money--let alone \$2 Billion--to destroy such a beautiful venue.

Michael and Laura Donnelly
4421 Underwood St
University Park, MD 20782
(301) 927-6550

cc's mailed to Senators Cardin and Van Hollen and the Honorable Steny Hoyer, our elected officials

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Comment 1 – Comment noted. The character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces.

Comment 2 - As stated in Section 1.5 of the Draft EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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From: [Faust, Barbara](#)
To: [Comments on Campus Plan](#)
Subject: FW: Public Input re Preserving Enid Haupt Garden
Date: Friday, January 05, 2018 10:50:20 AM

Please find the following comments below from Andree C. Dumermuth concerning the Smithsonian South Mall Master Plan.

From: Andree [<mailto:andree@arrisinc.com>]
Sent: Friday, January 05, 2018 8:38 AM
To: Gardens <Gardens@si.edu>
Subject: Public Input re Preserving Enid Haupt Garden

For what it's worth: Please add my voice to the countless others who want to keep the Enid Haupt Garden as is (vs. the proposed plan to eliminate it as part of the Mall refurb). The garden is that rare thing in a public space: a little oasis of serenity, calm and beauty – a kind of private courtyard but open to the public. Please ensure that it remains that way – both for the many locals (who work and live in DC) and for foot-weary tourists looking for a quiet place to recharge after all the expansive Mall-walking.

The garden serves as a perfect complement to the historic castle. If anything, the Castle can be far better/more extensively utilized to meet all the prosaic needs of Mall visitors (food, lavatories, etc.). Indeed: How cool is it for visitors to enter a castle to tend to their mundane needs and then step outside into beautiful seasonal gardens to refresh their souls before heading out to energize their minds in all the museums. Seems like a perfect path of progression.... Don't ruin this fine balance by taking out such a key "restorative" piece as the Enid Haupt Gardens.

Thank you for taking these thoughts under consideration.

Sincerely,

(Smithsonian member and long-time Metro-DC area resident)
Andree C. Dumermuth

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Comment 1 - The Haupt Garden will not be eliminated. As stated in Section 1.5 of the Draft EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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Comment 2 – Comment noted.

From: [Tom Edmondson](#)
To: [Comments on Campus Plan](#)
Subject: Redevelopment of Castle Area
Date: Monday, January 08, 2018 7:41:01 AM

Please totally revamp or drop current plans to redevelop the Castle and Haupt Garden. As Commissioner Beth White argues in a recent WaPo article, https://www.washingtonpost.com/entertainment/museums/smithsonian-2-billion-plan-that-includes-gutting-haupt-garden-criticized/2018/01/04/aa53e59c-f168-11e7-b3bf-ab90a706e175_story.html?utm_term=.350369ff0c2d, the Haupt Garden is indeed a "sacred space," especially for frazzled feds seeking some peace at lunchtime. And as Stephen A. Hanson urges in that article, the Castle should not be razed, but could much better be used for bathrooms and food service, to avoid harm to the building's exterior and save taxpayers funds compared to other plans.

Save money, avoid harm! Save the building! Save the garden! Thank you.

Thomas D. Edmondson
Alexandria, Va. 22301

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Comment 1 - The Haupt Garden is not being redeveloped. As stated in Section 1.5 of the Draft EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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Comment 2 -- Comment noted. The Castle would also be structurally braced to protect it from seismic occurrence, if deemed necessary. The basement floor would be lowered to provide code-compliant height and the existing mechanical elements would be removed. The new lowered basement floor would allow for a connection from the basement to the new, below-grade Visitor Center south of the Castle.

From: [Matt Eldridge](#)
To: [Comments on Campus Plan](#)
Subject: Comments on south campus plan
Date: Friday, December 22, 2017 9:24:11 AM

Hi,

Thank you for providing this opportunity to comment on the proposed South Campus Plan. Overall, I think many of goals of the plan (achieving more efficient use of space, better engagement with visitors, etc.) are worthwhile ones.

However, I am strongly opposed to the proposed changes to the structures, planes, and fundamental ambiance of the Enid Haupt Garden. This garden, a relatively recent addition to the mall at a mere three decades old, provides a beautiful sanctuary for tourists and locals alike. It fits well with the character of the Smithsonian Castle, provides an intimate entrance to the Sackler and Freer galleries, and offers a welcome calming counterbalance to the exuberant activity and stunning vistas of the National Mall on the castle's other side.

While there is always room to update space to ensure it is serving the needs of its users, the proposed changes present a cold, disjointed, and dystopian space and significantly and adversely impact the character of the much loved existing garden. The changes amount to tearing down a neighborhood with character and charm and erecting in its place the cold and unloved L'Enfant Promenade.

My fear is that this garden, a true jewel of the National Mall area and, indeed, the entire city, will be irreparably lost by this oddly futuristic plan that seeks to present a bold vision without an appreciation for what makes the space so great to begin with. I urge you, for the millions of visitors from near and far, to reconsider this destructive element of the plan.

Best,
Matt Eldridge
202-604-1721

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Comment 1 – Comment noted.

Comment 2 - As stated in Section 1.5 of the Draft EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

Comment 3 – Comment noted.

Comment 4 - The Haupt Garden will not be lost under the new Master Plan. The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and any museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates – as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

From: Ellen P.
To: Comments on Campus Plan
Subject: Haupt Garden
Date: Monday, January 08, 2018 12:14:28 PM

Please do not remove this serene, restorative slice of heaven on the Mall. We need all the peace we can get. This garden is our first stop when we visit the Smithsonian, and it has been for years.

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Comment 1 - The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced. As stated in Section 1.5 of the Draft EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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From: [Amanda Farber](#)
To: [Comments on Campus Plan](#)
Subject: Haupt Garden Plans comments
Date: Tuesday, January 09, 2018 10:35:52 AM

To the National Capital Planning Commission:

I am a proud DC native. One of the things that has made me most proud of my home city is how DC has really stepped up to take care of its tree canopy - especially in recent years. Not all places are doing that and it shows. DC is - and was always meant to be - a city of trees. That includes the National Mall and Smithsonian grounds. Trees are needed to relieve heat island effects (I love hot DC summers - but only when there is shade!), provide beauty for the landscape, contribute to better stormwater management and clean air, and help sustain wildlife. They are the solution to many urban environmental problems. And they are definitely missed when they are removed and not replaced.

Thus, I am writing to urge you to — at a minimum — include the following in plans for the Haupt Garden:

- Select Alternative B, which replaces trees and green space after construction
- Adopt a 20% tree canopy goal in the final master plan
- Include water-loving trees in planned bioretention areas

Thank you,
Amanda Farber

240-271-9033
TREES MAKE A DIFFERENCE

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Comment 1 – Comment noted. Alternative F will replace trees and green spaces after construction.

Comment 2 – The percentage of tree canopy will be determined at the time of design. Each of the alternatives calls for an expanded Ripley Garden. Additionally, Alternatives D and F call for an expanded Haupt Garden. At the time of garden design, SI will prevent net loss of tree canopy in accordance with the policies set forth in the Comprehensive Plan for the National Capital.

Comment 3 – Comment noted.

From: [Flis, Matthew](#)
To: [Schofford, Michelle](#); [Fries, Liz](#)
Subject: FW: NCPC Website Email
Date: Monday, January 08, 2018 3:04:47 PM

FYI, another that went our general NCPC email.

The Federal Planning Agency for America's Capital

Matthew J. Flis, AICP-CUD, LEED-AP
Senior Urban Designer | Urban Design & Plan Review Division
Main: 202.482.7200 | Direct: 202.482.7236
401 9th Street, NW | Washington, DC 20004
matthew.flis@ncpc.gov | www.ncpc.gov

-----Original Message-----

From: Lori Farnsworth [<mailto:info@ncpc.gov>]
Sent: Friday, January 5, 2018 9:12 AM
To: NCPC General Information <info@ncpc.gov>
Subject: NCPC Website Email

Smithsonian Redevelopment Plan

I am writing to oppose this plan that will demolish treasured gardens in favor of streamlining services and offering more amenities. I strongly agree with Commissioner Eric Shaw's question about how this huge expenditure and the accompanying destruction serves the institution's core mission. The gardens further meaningful and memorable connections between people and their natural environment, whether they are tourists or locals, thus furthering the education of our citizenry. This is why the Smithsonian was established and why I have been a contributing member over the years.

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Comment 1 - The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced. As stated in Section 1.5 of the Draft EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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From: [leanna.fenske](#)
To: [Comments on Campus Plan](#)
Subject: Project # 7630
Date: Tuesday, January 16, 2018 4:53:03 PM

To: The National Capital Planning Commission

Comments: I have lived in Washington DC for the last 47 years. When I came here the District of Columbia was often referred to as the "City of Trees". I would like to see the tree canopy percentage returned to what it was 50 years ago. I understand that you are planning to take out the beautiful Enid A. Haupt Garden in order to replace the roof that is under the garden. Please select a master plan that replaces all the trees that need to be removed. Please include water loving trees in bioretention areas. Plant trees such as red maple (*Acer rubrum*), Fringe tree (*Chionanthus virginicus*), River birch (*Betula nigra*), Sycamore (*Platanus virginiana*), and Willow oak (*Quercus phellos*). All the gardens and trees on the mall are lovely. Please plan for their continued maintenance and improvement. They provide beauty, shade, erosion protection, and carbon dioxide adsorption.

Thank you,
Leanna Fenske
810 E St. NE
Washington, DC 20002
301-332-5557

Comment 1 – Comment noted.
Comment 2 – Comment noted.
Comment 3 – Comment noted.
Comment 4 – Comment noted.
Comment 5 – Comment noted.

From: [Pie Friendly](#)
To: [Comments on Campus Plan](#)
Subject: PLEASE, no!
Date: Saturday, January 06, 2018 4:04:29 PM

There is absolutely no reason to dig up the Enid Haupt Garden nor reassign entries to African Art & the Sackler - any intelligent visitor to either does find his/her way there. The price tag is beyond belief: what about more support for existing Smithsonian bureaux: study centers, museums, etc. There's the old Arts & Industries Building which was rehabilitated at enormous expense & could easily house rest rooms, a decent cafeteria, & additional exhibition space.

PLEASE: more consideration for reason ...

Pie Friendly

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**** Please note my new email address - mlpfriendly@gmail.com ****

Pie Friendly
3506 Macomb St., N.W.
Washington, DC 20016
(202) 966-5572

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From: [Michael and Cheryl Gibezy](#)
To: [Comments on Campus Plan](#)
Subject: Comments about the SI South Mall Master Plan
Date: Wednesday, January 10, 2018 1:42:32 PM

Please save the Haupt Garden (and don't make it any smaller), which is used by so many on a daily basis as a respite from work and all the craziness going on for very-much needed rest/breaks. It is some of the most beautiful green space in the DC area, and I believe that is what Mrs. Enid A. Haupt intended when she made the donation to create the gardens in the first place - for the public to enjoy them and find some peaceful time in those gardens.

Also please do what is necessary to reopen A&I to the public rather than just for special events. It has been mothballed for too long, and along with the Castle is the oldest and most iconic building belonging to the SI. It is far too valuable and beautiful to sit closed to the public on a daily basis.

Thank you.

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Comment 2 - SI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylight at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.

From: [Jackson Giuricich](#)
To: [Comments on Campus Plan](#)
Subject: South Campus Plan
Date: Tuesday, January 16, 2018 6:27:08 AM

Hello,

Replacing the garden with a grass field ("all vegetation restored") means that there will be no more shade in that part of the Mall. Those trees, several of them many decades old, can't be replaced. Do we really need another food court?

The whole garden would have to go in order to build the underground visitors center, utility plant and loading dock. This is a spot of historic aesthetic, and even natural interest that should be preserved. A fox used to live in the garden.

Best,

Jackson Giuricich

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From: [Judith Giuricich](#)
To: [Comments on Campus Plan](#)
Subject: Enid Haupt Garden
Date: Monday, January 15, 2018 3:18:23 PM

To who it may concern

Please do not go forward with the plans to destroy the Enid Haupt gardens . All good cities have lovely parks and this park is one of the best in Washington DC . It's one of my favorite parts of the Smithsonian .

Judith Giuricich

Sent from my iPhone

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From: [Laurie Hall](#)
To: [Comments on Campus Plan](#)
Subject: possible demolition of Enid Haupt Garden
Date: Friday, January 05, 2018 10:15:17 AM

As a long-time resident in the DC area, I would like to comment on the possible demolition of the Haupt garden and future of the Arts and Industries Building.

The Haupt garden is a unique gem on the Mall. Not only is the garden beautiful but it is a lovely oasis on the Mall. whenever I am touring the Mall with out of town visitors, I always take them through the garden. It provides a wonderful balance to the openness of the Mall and provides a opportunity to enjoy beauty in a relatively uncrowded area.

I vote NO on removing the garden. Laurie Hall, Arlington, VA

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From: [Craig Hoogstra](#)
To: [Comments on Campus Plan](#)
Subject: Enid Haupt garden
Date: Friday, January 05, 2018 10:54:13 AM

Sir:

We strongly recommend that the Enid Haupt Garden survive the plan. It is probably the most spectacular garden in the downtown, in our opinion. It is one of the first places we have taken our children, now grown, and our grandchildren, as we begin a tour of the Museums. We loved the look of awe and surprise the first time they saw and see it still.

The garden is also one of the first places we take visitors to see because we know they will enjoy it so much. Indeed, if the master plan were to propose to remove the castle and expand the garden, we would be supporters.

We hope many many others will feel the same way and express that to you.

Thank you for the opportunity to comment,

Craig and Marcia Hoogstra, Corrie Hoogstra, Dirk Hoogstra and their families.

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John Jameson, II
404 Berry Street, SE
Vienna, VA 22180-4811

January 7, 2018

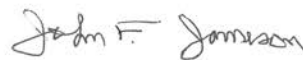
L. Preston Bryant, Jr.
Chairman
National Capital Planning Commission
401 9th Street, N.W., Suite 500N
Washington, D. C. 20004

Dear Chairman Bryant:

I read with some dismay the Smithsonian hodgepodge of construction described in the *Washington Post* on January 5th. I worked for 36 years in the Castle, Arts and Industries Building, and in offices below the beautiful Haupt Garden. I detected no public problems in finding those spaces.

While I can understand that every Secretary or museum director wants to leave some bricks and mortar structure to his or her credit, the amount of \$1 billion or more to implement the plan is much too much in these times. I have read that a similar amount may be needed to renovate the Air and Space Museum and additional funds to renovate the Castle and put the Arts and Industries Building to good use. But the need to tinker with a wide stretch of Jefferson Drive will be a waste of money.

Sincerely,



John F. Jameson, II

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From: [Nancy Jerdan](#)
To: [Comments on Campus Plan](#)
Subject: DO NOT Destroy
Date: Friday, January 05, 2018 4:12:55 PM

I am totally opposed to the destruction of the Enid Haupt Gardens. If you proceed with this plan, I sincerely hope the ghost of Enid Haupt comes and haunts each and everyone of you for the rest of your lives. Dante would have reserved a place in Hell for those of you who are behind this plan.

Nancy Jerdan

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From: [Comments on Campus Plan](#)
To: [Estey, Liz](#)
Subject: FW: Where do I submit comments to the South Mall Campus Master Plan?
Date: Friday, January 26, 2018 1:09:26 PM
Attachments: [image001.png](#)

From: Elizabeth Jose [mailto:ejose@law.gwu.edu]
Sent: Wednesday, January 10, 2018 8:51 AM
To: Spofford, Michelle <SpoffordM@si.edu>
Subject: Re: Where do I submit comments to the South Mall Campus Master Plan?

Michelle,

Please accept my comments on the South Mall Campus Master Plan:

I oppose the South Mall Campus Master Plan. The whole plan seems like a totally unnecessary waste of billions of dollars. If the entrance to the Sackler and African Art museums are too far off the mall (and I don't understand how the Plan really changes that), then put up signs along the mall to direct people to those museums and do more advertising of those museums. There are already plenty of restrooms in the Freer right near the entrance - just direct people to them. If more restrooms and a visitor's center are needed, I am sure there is a way to add them without spending billions of dollars and destroying the Haupt Garden. (And if those new restrooms are underground, why would they be any more accessible than the entrance to the Sackler and African Art museums already are?)

It is also glaring that there is no plan for the Arts and Industries building. I have lived in the DC area for over 10 years and it is only in the last two years or so that I have even been able to see inside the Arts and Industries Building, and even then only for rare events. In fact, the additional restrooms you seek are already available in the Arts and Industries Building. So much money has been poured into the Arts and Industries Building and for so little use. Use some of that estimated \$2 billion price tag to complete renovations of the Arts and Industries building and to come up with a real plan to use it year round.

In particular, I oppose the removal of the Haupt Garden. The Haupt Garden is a beautiful garden which matches the Smithsonian Castle in style. It is a great favorite of many people, including me and my mom. It is the perfect place to rest, cool off during the summer, and enjoy the beautiful plants. Removing it or replacing it with a "modern" garden would be a great mistake.

I am also concerned about the lack of public notice and opportunity to comment. I heard about this comment period only from an article in the middle of the metro section of the Washington Post, which many people may have overlooked. The article gave the due date for comments but did not say how to submit comments. I googled and found the website for the master plan, expecting a large notice about the due date and directions for comments to be prominent on the homepage. Instead, I had to dig around on the website until I found a page with the date that comments were due, but again no explanation of how to submit comments. I was only after sending an email to the email address provided for general questions that I learned this was the correct email address to submit comments. I do not believe this has provided sufficient public notice or opportunity to submit comments. At the least, the

Comment 1 – Comment noted.

Comment 2 - SI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylight-at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.

Comment 3 - As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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(See next page for response to Comment 4.)

deadline and directions for comments should be prominent on the homepage of si.edu, freersackler.si.edu, africa.si.edu, gardens.si.edu, an email should be sent to all Smithsonian members, and notice with clear directions on comments should be posted in the Haupt Garden, if they are not already. Without sufficient opportunity for the public to comment I believe the plan cannot go forward.

Thank you for considering these comments,

Elizabeth Jose
Arlington, VA

Comment 4 - NCPC and SI have made great efforts to solicit comments on the Draft EIS. NCPC and SI held two public hearings, one on December 11th from 5 - 7pm and a second one on December 18 from 10 am to 12 pm. The Draft EIS was available for public review on NCPC's (<https://www.ncpc.gov/projects/southmall/>) and SI's website (www.southmallcampus.si.edu). A printed copy was also made available at each of their offices. Additionally, NCPC and the EPA published notices in the Federal Register on November 15, 2017 and November 17, 2017, respectively.

NCPC solicited comments via their E-Newsletter in November and December (<https://www.ncpc.gov/newsletters/november2017/> and <https://www.ncpc.gov/newsletters/december2017/>).

NCPC issued a general notice on December 8, 2017 and it was announced as part of the Executive Director's Report at the December 7, 2017 NCPC meeting.

NCPC also solicited comments through the WaPO Express Newspaper, NCPC Instagram post (November 14, 2017), and NCPC Facebook Posts (November 14, December 8, December 19, and January 4).

NCPC issued a final media release on January 4, 2018. The SI published a media release on November 30th.

From: [Linda Keenan](#)
To: [Comments on Campus Plan](#)
Subject: Draft Environmental Impact Statement (DEIS) for the Smithsonian South Mall Campus Master Plan
Date: Monday, January 08, 2018 3:35:06 PM

Regarding the Smithsonian South Mall Campus Master Plan, I don't see why the Enid A. Haupt Garden needs to be destroyed. Maybe parts of it should be redesigned, but the wholesale removal of the garden would be a terrible mistake.

I agree with locating restrooms and food service in the Arts and Industries building, but it is a beautiful building and could be used for other purposes. The Arts & Industries building could host exhibits about the arts and industries today.

Linda Keenan
9503 Saint Andrews Way
Silver Spring, MD 20901
linda@linda-keen-an.org
240.605.8871

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From: [Elaine Kelly](#)
To: [Comments on Campus Plan](#)
Subject: Enid Haupt Garden Removal/Arts and Industries Building
Date: Friday, January 05, 2018 10:27:22 PM

I would like to state my objection to the removal of the Enid Haupt Garden as part of the south campus renovation of the Smithsonian Mall. The garden has been part of our family's lives since the garden's inception. We, fellow DMV residents, and visitors from all over the country and the world enjoy the respite the garden offers. I have had wonderful conversations with visitors who cannot believe the beauty this green oasis offers. To uproot the magnificent magnolias, weeping cherries, and other beautiful plant life would truly be a sin.

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The money spent on this project would be better spent opening the Arts and Industries Building which has had a great renovation from the outside, but no one is allowed inside. Rest room facilities and eateries could be located inside this building which has been closed to the public for years. I remember this lovely building and would like to enter it again. Why spend renovation money on a building only to deny public access to it?

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In short, I believe renovation money should be spent wisely – not on ruining existing beautiful spaces and spent on reopening an existing renovation which we, the public, cannot enjoy.

3

Respectfully,

Elaine Kelly

Sent from [Mail](#) for Windows 10

Comment 1 - The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden. The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden – such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates – as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

Comment 2 - SI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylight-at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.

Comment 3 – Comment noted.

From: [Nancy Kelly](#)
To: [Comments on Campus Plan](#)
Subject: Enid Haupt Garden
Date: Wednesday, January 10, 2018 2:16:27 PM

Dear Commissioners,

In regard to plans for revamping the Smithsonian Mall, please assure the public that the Enid Haupt Garden will be preserved.

The garden is an oasis of beautiful plants and art, both relaxing and sensually stimulating. It strikes a wonderful balance between formality and ease. In summer, the Haupt Garden is the very rare shady refuge, not otherwise to be found around the Mall. As a Master Gardener, I am acutely aware of the tremendous investment and care needed to create and maintain a fine garden. To discard it like a no-longer-fashionable object and replace it with something trendy would be folly.

Thank you for preserving this garden which is a major asset to the Mall and to the District of Columbia.

Yours truly,

Nancy Kelly
2402 Cameron Mills Rd
Alexandria VA 22302
703-299-1212

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Comment 1 - The Haupt Garden will be preserved. The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces.

Comment 2 - As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates -- as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

From: [Mamie Kerr](#)
To: [Comments on Campus Plan](#)
Subject: Save the garden - South Project
Date: Sunday, January 14, 2018 8:28:09 AM

Dear Madams & Sirs:

I'll keep it short and sweet, we all understand they need to offer the touring public better facilities.

Please do not alter or change the Garden at the The Castle. The Gardens not only serves an oasis of respite and education, it serves as a critical area for birds, pollinators, and the small creatures that learned how to survive in the area. The Gardens are crucial in describing our national identity to Tourists and they also are a tremendous, incalculable value to our citizens.

Beyond the lawn itself, we have so little to offer of nature in the area. Please preserve the gorgeous and significant Gardens around and near The Castle.

Mamie Kerr
Atlanta, Georgia

Sent from my iPad

1

Comment 1 - As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden. The gardens will continue to accommodate a variety of native plants as well as those that will help support pollinator health.

The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates -- as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

From: Kathryn Krogh
To: Comments on Campus Plan
Subject: Enid Haupt Garden
Date: Monday, January 08, 2018 8:17:47 AM

To Whom It May Concern:

I was glad to discover a way to express my concern about the Smithsonian's plan to redesign the Enid Haupt Garden and garden areas next to the Sackler and African Art Museums. I had previously written to the Smithsonian and received a chilly response indicating that the plan was determined and the changes were needed to accommodate food courts and foot traffic. I am very relieved to find that approval has not yet been granted.

I have lived in the area for many years and raised my children here. I brought them with their classmates on many trips to these garden areas. I have taken classes in pastel drawing and photography through the Smithsonian that used these spaces as landscape subjects. I have taken visiting friends from around the country and world to show them these gardens with pride and delight. They are gems of garden design and provide priceless breaks from the noise of the city.

Please find a way to preserve these glorious spaces that reflect the changing seasons and connect our community with the natural world.

Sincerely,
Kathryn Miller Krogh
Licensed Clinical Psychologist and Resident of Arlington Virginia

Sent from my iPad

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Comment 1 – Comment noted.

Comment 2 - The Haupt Garden will be preserved. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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From: [Krogh, Frank](#)
To: [Comments on Campus Plan](#)
Subject: Proposed Destruction of Enid Haupt Garden
Date: Monday, January 08, 2018 4:18:46 PM

Dear Mr. Flis:

I am opposed to the proposed elimination of the Enid Haupt Garden as part of the Smithsonian Institution's South Mall Campus Plan. Perhaps the most astonishing aspect of this element of the plan is the absence of any reasonable justification. Given the destructive nature of the proposal, from any environmental or aesthetic perspective, one would have expected that the elimination of this priceless treasure was absolutely necessary for the accomplishment of paramount goals going to the core of the Smithsonian's mission. Instead, the rationale seems to be that the roof of the Dillon Ripley Center leaks. Surely, the necessary repairs can be made and the garden restored, rather than eliminating it entirely. The Smithsonian should be pressed on this issue to ensure that the Haupt Garden is not lost. Thank you.

Frank W. Krogh

WILKINSON) BARKER) KNAUER) LLP

FRANK W. KROGH
OF COUNSEL
1800 M STREET, NW
SUITE 800N
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Comment 1 - The Haupt Garden is not being eliminated. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates -- as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

Comment 2 - SI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylight-at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.

From: [HCPC General Information](#)
To: [Koster, Julia](#); [Brown, Marcella](#); [Sullivan, Diane](#); [Eis, Matthew](#)
Subject: FW: NCPC Website Email
Date: Monday, January 8, 2018 3:34:25 PM

-----Original Message-----

From: Eric Kravetz [<mailto:info@ncpc.gov>]
Sent: Monday, January 8, 2018 2:18 PM
To: NCPC General Information <info@ncpc.gov>
Subject: NCPC Website Email

The gardens behind the Castle are a simple, beautiful, pleasant oasis. Why can't an architect just leave something like that alone!

1

Comment 1 - As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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From: [Jerome Morley Larson Sr](#)
To: [Comments on Campus Plan; blueke@cfa.gov](#)
Cc: [Susan; bio@hio.dk; newsletter@archdaily.com](#)
Subject: Haupt Garden
Date: Friday, January 26, 2018 9:35:54 AM
Attachments: [washington smithsonian BIG.pdf](#)

BIG's magnificent idea of bending up the corners of the park is undermined by neglecting THE RULE (Architecture 101) — easily fixed by remembering and simply reversing the quadrants, thus exposing a place for people where they naturally expect it — hiding in plain sight, dead center.

1

Comment 1 – Comment noted.

Haupt Garden is recreated at the lower level flanked by Spanish Steps style steps north, east and south and five percent ramp winding down from the west al meeting at the circular fountain in the center that pulls the whole composition together, with the upswept park corners enhancing the space by suggesting a center dome.

2

Comment 2 – Comment noted.

Jerome Morley Larson Sr EAIA
E A R T H A R C H I T E C T
732 996 8121
architect.morley@gmail.com

From: [Gail Mackiernan](#)
To: [Comments on Campus Plan](#)
Subject: Comments on Master Plan
Date: Friday, January 05, 2018 4:45:43 PM

Thank you for the opportunity to comment on the plan. First, some background: I am a resident of the Washington suburbs, and have been visiting the Smithsonian since I was 5. I am now 75, so you see I have a long association with the institution. In the late 1970s and 80s I was a volunteer at the Naturalist Center, and also collected insects for the NMNH during two trips to Amazonian Peru in the 1980s. I am a member of the SI, and for much of the time a Resident Associate. (By profession I am a marine biologist, now retired from the University of Maryland.)

Over the years I have seen many additions to, and modifications of, the Smithsonian. I recall when the American History, the Hirschhorn, and Air and Space were built, when the "temps" which marred the mall were torn down, and multiple revamping of the exhibits at Natural History.

So I am not opposed to change, and feel that some aspects of this plan are well-designed. However I do have two negative comments:

1) The proposed replacement of the Enid Haupt Garden is, bluntly, ugly and unnecessary. It is taking away a beloved space and replacing it with someone's idea of modern design. But its surroundings are NOT modern, but a Medieval-design castle and a Victorian structure. The Haupt Garden fits in perfectly, and it should stay.

2) The recently restored Arts and Industries Building needs to be used for something. It is a beautiful space and I recall vividly the earlier exhibits. Why can't it be used as a visitor's center cum restaurant and leave the Garden alone?

I hope you will take my comments into consideration,

Yours,
(Dr.) Gail B. Mackiernan

Sent from my iPad

Comment 1 – Comment noted.

Comment 2 - As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden. The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates – as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

Comment 3 - The improvements to AIB, were to the outside facades of the building. SI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylight at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.

From: [Jackie Maki](#)
To: [Comments on Campus Plan](#)
Subject: Please preserve Haupt Garden
Date: Friday, January 05, 2018 11:57:26 AM

Please preserve the Haupt Garden in its current form. So many of us love that serene spot just as it is!
Thank you,
Jacqueline Maki

Carpe diem!

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Comment 1 - The Haupt Garden will be preserved. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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From: [lynne.martin](#)
To: [Comments on Campus Plan](#)
Subject: smithsonian castle/south mall plans
Date: Monday, January 08, 2018 12:38:44 PM

I like the Enid Haupt Garden just the way it is, no need for expensive makeovers. I also have not objection to the currently configured entrances for Sackler and African Art museums.

Lynne Martin
3001 Veazey Terrace NW, Apt. 1226 Washington DC 20008, Tel. 202-363-0180

1

Comment 1 - As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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Comment 2 - SI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylight at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.

From: [Flis, Matthew](#)
To: [Schofford, Michelle](#); [Estes, Liz](#)
Subject: FW: Nix the Smithsonian Plan
Date: Monday, January 08, 2018 3:02:53 PM

FYI

The Federal Planning Agency for America's Capital

Matthew J. Flis, AICP-CUD, LEED-AP
Senior Urban Designer | Urban Design & Plan Review Division
Main: 202.482.7200 | Direct: 202.482.7236
401 9th Street, NW | Washington, DC 20004
matthew.flis@ncpc.gov | www.ncpc.gov

-----Original Message-----

From: NCPC General Information
Sent: Monday, January 8, 2018 1:54 PM
To: Koster, Julia <julia.koster@ncpc.gov>; Brown, Marcella <marcella.brown@ncpc.gov>; Sullivan, Diane <diane.sullivan@ncpc.gov>; Flis, Matthew <matthew.flis@ncpc.gov>
Subject: FW: Nix the Smithsonian Plan

-----Original Message-----

From: Sylvia Martinez [<mailto:sylviamartinez@gmail.com>]
Sent: Saturday, January 6, 2018 8:29 AM
To: NCPC General Information <info@ncpc.gov>
Subject: Nix the Smithsonian Plan

Please do not compromise on the Smithsonian's plan to demolish the garden. Let's preserve the gracious dignity and open spaces of this city. We do not need more structures. And for that matter, who on earth will care about a Desert Storm Memorial. It diminishes those memorial structures of greater historical significance. There's a tendency for museum administrators to gild their resumes with ambitious capital projects. Please hold your ground and do not compromise! Preserve the gardens!

Comment 1 - The Haupt Garden is not being demolished. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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From: [Spofford, Michelle](#)
To: [Trowbridge, Ann](#); [Park, Sharon](#); [Lethbridge, Christopher](#); [Bond, Carly](#); [Aran-Coakley, Estes, Liz](#)
Subject: FW: EIS Comments: Jan. 16, 2018
Date: Tuesday, January 16, 2018 4:13:34 PM
Attachments: [image001.png](#)
[SD 418--Historic Preservation Policy \(1\).pdf](#)
[SD418-AppA.pdf](#)
[SD418-AppC.pdf](#)

FYI



Smithsonian Institution

Michelle Spofford, LEED AP
Architect + Senior Planning Manager
Office of Planning Design + Construction
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From: David Maxfield [mailto:dmmxfield10@gmail.com]
Sent: Tuesday, January 16, 2018 11:51 AM
To: Flis, Matthew <matthew.flis@ncpc.gov>; Spofford, Michelle <SpoffordM@si.edu>
Subject: EIS Comments: Jan. 16, 2018

To: National Capitol Planning Commission and Smithsonian Institution
From: The Coalition to Save the Haupt Garden/David M. Maxfield

On behalf of the Coalition to Save the Haupt Garden, I have reviewed the 358 pages of the Smithsonian South Campus Master Plan DRAFT EIS.

In one illustration, I noted a schematic image showing large trees (evergreens?) planted along the south border of the Quadrangle which, as shown, would block the view of the Castle Building and in the foreground, the Enid A. Haupt Garden. What irony this image is: the Smithsonian advocates destroying the original entry pavilions to the Sackler Gallery and the African Art Museum at this same location to open new sight lines to the Castle from Independence Avenue.

Nevertheless, it is the very first page of the Executive Summary that concerns the Coalition. It states: The Draft Environmental Impact Statement has been prepared pursuant to four NEPA and NCPC acts and/or regulations. (see p. iii)

Conspicuously absent at the outset of the EIS is the Smithsonian's own Directive 418: the Institution's History Preservation Policy, last dated May 30, 2015, including Appendix A: Historic Preservation Policy Standards and Appendix C: Qualifying Smithsonian Structures and Sites. (attached)

Moreover, within the 358 pages of the Draft EIS, there is no mention of Directive 418. Why is this? By its actions, including actively opposing the Quadrangle's nomination to be listed on the National Register of Historic Places—and despite its May 2017 commitment to advance that listing—the Smithsonian claims and will likely contend that the Quadrangle does not qualify as an "historic" property by any standard, including its own!

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Comment 1 – Comment noted. Images in the EIS have been updated. The garden has not been designed yet, but one of the goals of SI is to keep the viewshed open.

Comment 2 – This is internal SI policy and these policies are not appropriate for inclusion in the EIS.

Comment 3 – The Keeper of the National Register determined that the Quadrangle Building was not eligible for individual listing in the National Register of Historic Places in their letter dated July 13, 2017.

Ironically, this position is advanced today by the Smithsonian's own Office of Architectural History and Historic Preservation. It must be mentioned that anyone or any agency can define a property as "historic"—as it wishes, according to veteran federal employee-preservationists. With Directive 418, the Smithsonian clearly considers its properties "historic." Although the Keeper of the National Register declared in 2017 that the Quadrangle was not eligible for National Register designation, that judgment does not preclude its listing in the near future given an appeal or other change of circumstances.

Furthermore, the Institution bypassed sending the nomination to the DC Historic Preservation Office for submittal to the Keeper of the National Register. While that omission is not illegal, it is a irregular and raises questions of the Smithsonian's ethical standards.

The EIS further fails to mention that the DC Historic Preservation Board recently voted to include the Quadrangle as part of the Smithsonian Historic District in the DC Inventory of Historic Sites, raising awareness of a Smithsonian site threatened by future development. (During the Jan. 4, 2018 NCPC meeting, Commissioners Eric Shaw and Mina Wright addressed the need for the Smithsonian to be respectful and responsive to local interest in the Quadrangle's future.)

Public concerns about the Smithsonian's Master Plan—specifically, the fate of the Haupt Garden were also omitted from the EIS Draft—although more than 2,600 citizens have expressed support for leaving the Garden *As Is* by a Petition initiated by Sylvia Cabus in April 2016.

To recap: The DRAFT EIS has been forwarded publicly without any mention of the Smithsonian's own Directive 418, or the DC Preservation Board's recent action, or most important, increasing negative public opinion. The Draft EIS raises profound questions about the Institution's integrity in collaboration with NCPC in advancing an already troubling Master Plan.

Thank You
DMM

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(cont)

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Comment 4 – SI did submit a Determination of Eligibility (DOE) for DC SHPO review and signature on February 24, 2017 with a request for “not individually eligible.” DC SHPO did not act on this document within the 30-day window for posting that is usual for this action and within an additional 45-day review period for signature. Therefore, under Section 106 timelines, the SI was within its rights to submit on the DOE without DC SHPO concurrence directly to the National Register of Historic Places for their action. This occurred on May 30, 2017. The Keeper of the National Register for Historic Places determined that the Quadrangle Building, while it contributes to the National Mall Historic District, was “not individually eligible” for the National Register in a letter dated July 13, 2017.

Comment 5 – Section 4.9.3 of the EIS states the Quadrangle is listed in the DC Inventory of Historic Places.

Comment 6 – Section 3.1 of the EIS provides a listing of information on the concerns that have been expressed by the Consulting Parties. Please refer to the seventh bullet that states, “Preserve the Haupt Garden and Quadrangle Building, including museum buildings, garden elements, and associated landscape features;”

Comment 7 – Comment noted.



SMITHSONIAN DIRECTIVE 418,
April 18, 2005,
Date Last Declared Current: May 30, 2015

SMITHSONIAN INSTITUTION HISTORIC PRESERVATION POLICY

Purpose	1
Authority	1
Policy	3
Definitions	3
Responsibilities	3

[Appendix A, Historic Preservation Policy Standards](#)

[Appendix B, Historic Preservation Terms](#)

[Appendix C, Qualifying Smithsonian Structures and Sites](#)

Purpose

This directive establishes policy for carrying out the Institution's commitment to protect and preserve those Smithsonian buildings, structures, and sites in its care that contribute to our national cultural heritage.

The Smithsonian's responsibility for its museum buildings and other facilities requires a continuing program of maintenance, repair, renovation, and restoration. Many are significant National Historic Landmarks in their own right and are listed on or eligible for inclusion on the National Register of Historic Places.

Maintenance and preservation of these buildings and facilities is one of the Institution's highest priorities. This priority reflects the Smithsonian's recognition of its unique role as trustee for present and future generations.

Authority

National preservation policy was established by the National Historic Preservation Act (NHPA) of 1966, Public Law 89-665, 80 Stat. 915 (codified as amended at 16 USC 470-470w-6 (1988). NHPA outlines specific actions required by federal agencies to protect cultural

Smithsonian Directive 418
04/18/05

Authority
(continued)

resources listed on or eligible for listing on the National Register of Historic Places.

Section 106 of NHPA establishes a requirement for review of undertakings to determine their effect on historic resources and to mitigate any adverse effects. Regulations (36 CFR Part 800) developed by the Advisory Council on Historic Preservation describe the Section 106 process in detail.

The Secretary of the Interior's Standards and Guidelines for Treatment of Historic Properties are the accepted principles and practices for the prudent management and preservation of historic resources.

Although the Smithsonian is not a federal agency as defined in NHPA, it is the policy of the Institution to be guided by the principles of NHPA in managing its historic properties. In addition, for Smithsonian design and construction projects in the District of Columbia that are subject to review and approval by the National Capital Planning Commission, the Institution is deemed to be an agency for the purposes of compliance with Section 106 of the NHPA regulations. (See the Smithsonian Facilities Authorization Act, PL108-72)

The National Environmental Policy Act (NEPA), 42 USC 4321 et seq., enacted in 1970, requires federal agencies to develop a detailed statement on the environmental impact of major federal actions significantly affecting the human environment, including effects on urban quality, historic and cultural resources, and the design of the built environment. Although the Smithsonian is not a federal agency as defined in NEPA, when a project will require approval or action from a federal agency the Smithsonian may conduct a NEPA review. When possible, the NEPA review will be coordinated with the review under Section 106 of the NHPA, as described above.

<p style="text-align: center;">Smithsonian Directive 418 04/18/05</p>	
Policy	<p>Smithsonian policy provides that all undertakings with regard to preservation of its buildings shall conform to the <i>Secretary of the Interior's Standards and Guidelines for Treatment of Historic Properties</i> and be guided by the principles of the NHPA for renovation and restoration projects and for all major capital revitalization. This policy applies to all repair and alteration of Smithsonian properties, owned or leased, and to all undertakings that include new construction, demolition, and disposition of Institution property. The Institution's historic preservation policy standards are found in the attached Appendix A.</p>
Definitions	<p>The attached Appendix B provides definitions for terms pertaining to historic preservation.</p>
Responsibilities	<p>The Secretary of the Smithsonian Institution delegates authority through the Under Secretary for Finance and Administration (USF&A), and the Director, Office of Facilities, Engineering, and Operations (OFEO), to the Associate Director, Architectural History and Historic Preservation Division (AHHP), as the Historic Preservation Officer for the Institution. Accordingly, the Associate Director, AHHP, is responsible for implementing the Smithsonian's historic preservation policy. The Historic Preservation Officer is authorized to review every restoration, renovation, design and construction project initiated by any Smithsonian museum, research center, or office to determine its effect and conformance with this policy.</p> <p>AHHP shall take into account the effect of a project on any historic district, site, building, structure, object, or landscape that is included in or eligible for inclusion on the National Register of Historic Places. Identification of the historic structure and character of all Smithsonian buildings and grounds is the responsibility of AHHP. The attached Appendix C provides a list of Smithsonian buildings and sites that are on or eligible for inclusion on the National Register of Historic Places.</p>
<p style="text-align: center;">3</p>	

Smithsonian Directive 418
04/18/05

Responsibilities
(continued)

AHHP ensures preservation compliance by internal review of all design and construction projects. In its review, AHHP applies the *Secretary of the Interior's Standards and Guidelines for Treatment of Historic Properties*. In fulfilling this responsibility, AHHP ensures Smithsonian adherence to the recognized processes and procedures of historic preservation and is authorized to represent the Institution in historic preservation matters.

The Office of the General Counsel is responsible for the legal and regulatory interpretation of historic preservation policy.

The Director, OFEO, is responsible for making a final decision in the event of disagreement with the AHHP determination of a project's effect and conformance with this policy, and serves as the Agency Official for purposes of compliance with Section 106 of the NHPA.

Smithsonian museums, research centers, and offices are responsible for adhering to historic preservation policy. Their cooperation ensures that the Institution will meet its obligation in providing outstanding stewardship of its buildings and sites.

Smithsonian employees are responsible for ensuring that both the spirit and intent of this policy are fully implemented throughout the Institution.

CANCELLATION:
INQUIRIES:
RETENTION:

SD 418, March 19, 1993
Architectural History and Historic Preservation Division, OFEO
Indefinite. Subject to review for currency 24 months from date of issue

Smithsonian Directive 418
Appendix A
04/18/05

HISTORIC PRESERVATION POLICY STANDARDS

The Institution's historic preservation policy ensures continued fulfillment of historic preservation responsibility with sound preservation methodology. For this reason, the Smithsonian follows the *Secretary of the Interior's Standards and Guidelines for Treatment of Historic Properties* when repairs, alterations, or renovations are to be performed on designated historic properties.

Any undertaking should be reversible, and those which are not reversible are to be selected only after a complete analysis of feasible alternatives. Further, any Smithsonian alteration, addition, or change shall be sympathetic to the historical or architectural integrity of the structure and shall enhance the historic features of the structure.

The following guidelines are taken from these standards:

- A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
- The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

Historic materials are stone, wood, brick or other original fabrics found in both the external and internal construction of the building, including original walls, ceilings and floors. Historic features are capitols, arches, columns, windows and finishes. Historic elements that define the character of the building may be public spaces and areas which bear evidence to the building's historical or architectural significance. Examples of further character-defining elements are decorative detail, lighting fixtures, mechanical devices, finish materials, doors and original hardware.

- Each Smithsonian property shall be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development or changes based solely on conjectural features or architectural elements from other buildings shall not be undertaken.
- Most properties change over time. Those changes that have acquired historic significance in their own right shall be retained and preserved.

Smithsonian Directive 418
Appendix A
04/18/05

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- Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
 - Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacements of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical or pictorial evidence.
 - Chemical or physical treatments such as sandblasting that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
 - Significant archaeological resources affected by a project shall be protected and preserved. Prior to new construction, a survey must be conducted of the area to determine if any archaeological resources exist. If such resources must be disturbed, mitigation measures must be undertaken for their documentation and preservation if possible or desirable.
 - New additions, exterior alterations or related new construction shall not destroy historic materials that characterize the property or its environment. The new work shall be differentiated from the old to protect the historic integrity of the property and shall be compatible with the massing, size, scale and architectural details to protect the historic integrity of the building.
 - New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and environment would be unimpaired.
-

Smithsonian Directive 418,
Appendix C
05/30/15

QUALIFYING SMITHSONIAN STRUCTURES AND SITES

The following buildings, sites, and objects under Smithsonian care (owned or leased) are on or eligible for inclusion on the National Register of Historic Places:

National Historic Landmarks: Smithsonian Institution Building, Old National Museum Building (Arts and Industries Building), Patent Office Building (American Art and Portrait Gallery), Carnegie Mansion (Cooper-Hewitt), Alexander Hamilton U.S. Custom House (The George Gustav Heye Center, National Museum of the American Indian), Renwick Gallery, the Gunboat *Philadelphia*, and the Saturn V Rocket at Huntsville.

Buildings in Historic Districts Listed on the National Register: McAlpin Miller-McAlpin Fox houses, Carnegie Mansion (Carnegie Hill Historic District, New York City), and all elements, buildings and new construction on the National Mall. These include the Freer Gallery of Art, Smithsonian Institution Building, Arts and Industries Building, Hirshhorn Museum and Sculpture Garden, National Air and Space Museum, National Museum of the American Indian, National Museum of Natural History, and National Museum of American History. The National Mall includes all gardens such as the Enid A. Haupt and Mary Ripley Gardens and the landscaping around the Smithsonian buildings.

Buildings/Sites Listed on the National Register of Historic Places: Saturn V Rocket, Johnson Space Center, National Zoological Park, including landscape planning and buildings, Holt House, and Freer Gallery of Art.

Buildings/Sites Potentially Eligible for Individual Listing to the National Register of Historic Places National Mall Revised Nomination: National Museum of Natural History, National Air and Space Museum, Hirshhorn Museum and Sculpture Garden, Quadrangle Complex, and the National Museum of American Indian, National Museum of African American History and Culture.

Archaeological Sites Investigated: New construction on open land at the National Museum of African American History and Culture, Smithsonian Environmental Research Center, Museum Support Center, National Museum of the American Indian (Suitland and Mall sites), Fred I. Whipple Observatory and

From: [Dana McCoskey](#)
To: [Comments on Campus Plan](#)
Subject: Comment on Smithsonian South Campus EIS
Date: Sunday, December 10, 2017 3:06:08 PM

Hello,

I am a DC resident and supporter of urban nature. The garden in the South campus behind and next to the Smithsonian Castle, while largely non-native, and all planted, provides a needed natural environment and green space for the busy lives of federal and contractor employees in this area.

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I work across the street at the US Department of Energy and our team often takes bag lunches to the garden to see the magnolias or to sit on the benches, view the garden, watch the mockingbirds, and to take a break outside. I also often walk my bike through the side garden on my way to work and admire the plants and try to learn about new ones that are labeled. I really love this place.

I support Alternative B, as it provides the opportunity to retain some of the more serene surroundings of the garden in the long run, and maintains the open space feel of the current situation. This allows for needed repairs, without significantly disrupting the very historic feel and beauty of the area.

2

Sincerely,

Dana N. McCoskey, M.S.
Biologist, supporting U.S. Department of Energy
Office of Energy Efficiency and Renewable Energy, Water Power Technologies Office
Email: dana.mccoskey@gmail.com
Mobile: 503.381.3390

Comment 1 – Comment noted.

Comment 2 – Comment noted. Under Alternative F, as stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates – as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

From: [Richard Moats](#)
To: [Comments on Campus Plan](#)
Subject: Changes to Emid A. Haupt Garden
Date: Tuesday, January 16, 2018 11:49:52 AM

I have only recently become aware that the Haupt Garden is in jeopardy of being significantly changed under the Smithsonian South Mall Campus Master plan. There appears to be a comment period that ends today. However it is difficult to find the appropriate entity or individuals to provide comments that the garden should be preserved in its current state. The garden is a true jewel in the nation's Capital and should not be disturbed.

Richard Moats

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Comment 1 - The Haupt Garden is being replaced and expanded. The character of the Garden will be maintained. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates -- as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

From: [Heidi Most](#)
To: [Comments on Campus Plan](#)
Subject: Redevelopment Plan for the Enid A. Haupt gardens around the Castle - I vote against
Date: Sunday, January 07, 2018 1:53:18 PM

To Whom It May Concern,

The Enid A. Haupt Gardens are a treasure in DC, an oasis to retreat to amidst the crowded streets and museums, with a blessed absence of commercial activities. It is a place of beauty, and a place for contemplation and meditation. Your current redevelopment plans will destroy this special place. Please retain the gardens in their business-free beauty.

1

Comment 1 - The Haupt Gardens will be retained upon replacement of the Quadrangle roof membraned. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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From: natcpc@aol.com
To: Comments on Campus Plan
Subject: south campus plan
Date: Tuesday, January 16, 2018 11:03:18 AM

To Whom it may concern;

I am very concerned and disheartened regarding the Smithsonian's south campus plan. I am getting this short note in at the 11th hour. I do not believe the public was given enough notice to send in their thoughts.

The Smithsonian Institution and the National Mall serve many many audiences. Millions of visitors to the Mall each year use its **diverse spaces**. Runners, players, picnickers, photographers, lovers, strolling tourists, very young, very old. The design of this space needs to serve all of these people. Thousands of SI and other government workers are on the Mall as well, inside museums, outside on a break enjoying an outdoor space - we all need green space - for lunch, or for a needed break to think over and plan an assignment that needs deep thought. There is running space and space for contemplation. Quiet. Away from machines and loud noises that take over the city. Away from the crowds and into an intimate space. More people are living downtown that will be using these spaces into the evening. Our gardens not only give needed space to pollinators and migrating birds but educate our tourists worldwide about nature in such an unlikely spot. When Mrs. Ripley's Garden was designed - for scent, touch, I believe to serve an underserved audience. Its beauty is astounding. I watch photographers go from one Smithsonian Garden to another. People study outside, rest, contemplate.

I am not sure that the firm hired to create this plan has looked into all of the uses of this outdoor space. It does not seem to have seen all of the visitors I see on my regular trips to the Mall. I saw the 3D plans at the Building Museum, and understand it has been changed a bit since that time. I also understand the need to fix roof leaks for underground structures. However, what appears to be created is a sterile, open space that just gives more non-permeable ground to people running around. I first visited the Smithsonian in 1960 as a young Girl Scout from NY. I was impressed by the gardens that suited the Castle so well - and the gorgeous Arts and Industries Building - inside and out. Gardens are so very important. With the recreation of the waterfront, there should be more visitors - both local and out of town entering the space from the south. Going through the beautiful gates to the Haupt Garden is such an impressive way to be introduced to the Smithsonian Institution.

The entryways for the African Art Museum and Sackler Gallery in the garden are so beautiful. Please do not close these spaces that so well set up the experience of the Museums below.

Thank you for taking this into consideration.

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Comment 1 – NCPC and SI have made great efforts to solicit comments on the Draft EIS. NCPC and SI held two public hearings, one on December 11th from 5 - 7pm and a second one on December 18 from 10 am to 12 pm. The Draft EIS was available for public review on NCPC's (<https://www.ncpc.gov/projects/southmall/>) and SI's website (www.southmallcampus.si.edu). A printed copy was also made available at each of their offices. Additionally, NCPC and the EPA published notices in the Federal Register on November 15, 2017 and November 17, 2017, respectively. NCPC solicited comments via their E-Newsletter in November and December (<https://www.ncpc.gov/newsletters/november2017/> and <https://www.ncpc.gov/newsletters/december2017/>). NCPC issued a general notice on December 8, 2017 and it was announced as part of the Executive Director's Report at the December 7, 2017 NCPC meeting. NCPC also solicited comments through the WaPO Express Newspaper, NCPC Instagram post (November 14, 2017), and NCPC Facebook Posts (November 14, December 8, December 19, and January 4). NCPC issued a final media release on January 4, 2018. The SI published a media release on November 30th.

Comment 2 – Comment noted.

Comment 3 - As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden. The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates -- as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies. .

Comment 4 – Comment noted.

From: [R&F northrop](#)
To: [Comments on Campus Plan](#)
Subject: Comment on Proposed South Mall Renovation Project
Date: Tuesday, January 16, 2018 10:18:25 AM

South Mall Project – Comments (Submitted January 15, 2018)

The spaces addressed by this project are dear to my heart.

I spent a lot of time in the Haupt garden on lunch breaks over the years. Its identity as a peaceful, restful retreat, and its nooks-and-crannies feel away from the central area, need to be preserved.

I saw nothing in the proposal about the fate of the saucer magnolia trees behind the castle. Retention or replacement of the existing trees is crucial. The magnolias in bloom are spectacular, easily rivaling the cherry blossoms in their effects. A photograph I took of the castle amid these blossoms won a spot in the 2015 calendar published by the National Active and Retired Federal Employees Association. Future visitors should be able to enjoy this experience.

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The Ripley Garden is another favorite spot. Its expansion into the parking area is important, but it's equally important to retain the feeling of intimacy of this marvelous space.

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The Arts and Industries building is a national treasure. As a young boy in the forties, I spent many hours among the exhibits there and loved the feel of the place. More recently, during the renovation, I saw many tourists attracted to the closed building trying to peer through the glass-paneled doors, curious to see if the interior lived up to the ornate exterior that draws people from a distance. Any plan should exploit this natural attraction and make it a public space again.

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Pre-renovation, A & I offered a snack shop and was an oasis – a treat for the eye and a balm for the weary body and soul – it could, and should, provide the same in the future.

Submitted by Ralph C. Northrop
6920 Old Stage Road
Rockville, MD 20852

Comment 1 – Comment noted.

Comment 2 – Comment noted.

Comment 3 - SI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylight at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.

Durinda O'Brien
1020 East Capitol Street, NE
Washington, DC 20003

January 6, 2018

Matthew Flis
Senior Urban Designer
National Capital Planning Commission
401 9th Street, NW, Suite 500
Washington, DC, 20004

Michelle Spofford
Architect / Senior Planning Manager
Smithsonian Institution
Facilities Master Planning
P.O. Box 37012, MRC 511
Washington, DC, 20013

Dear National Capital Planning Commission:

I write today to ask that in your decision-making regarding the South Mall Campus Master Plan Environmental Assessment that the Commission **preserves** the Enid A. Haupt Garden.

The garden is a place of respite and solace to many of us that live in the city, and the beauty of the garden enhances the visit for others as well. The years of tender care for the garden by hundreds of volunteer gardeners also should be considered in your decision-making. The garden is a living tribute to the Smithsonian. It is greatly cherished by many. It truly is a national treasure.

I am pleased to see that some of the plan has already been changed. Not sure why better signage to the museums would not resolve the visitation problem rather than spend billions moving the entrances. Sadly, these two museums are never going to have the visitor numbers of an Air Space Museum – as the appeal of the subject matter has a much smaller demographic. Please save the Enid A. Haupt Garden.

Sincerely,


Durinda O'Brien
1020 East Capitol Street, NE
Washington, DC 20003

*I have attended a number of the public meetings at the Smithsonian over the past few years regarding this issue.

Comment 1 - The Haupt Garden will be removed and replaced in order to replace the Quadrangle roof membrane. SI is in the process of developing Garden Advisory Committee to collaborate with SI on future garden designs. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates – as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

Comment 2 – Comment noted.

From: [Elaine Auby O'Hora](#)
To: [Comments on Campus Plan](#)
Subject: Saving the Enid A. Haupt Garden
Date: Friday, January 05, 2018 2:51:32 PM

I am writing to implore you to save the Enid A. Haupt Garden by removing it from your list of redevelopment considerations. We are losing some of our most precious treasures to war, climate change, and shortsightedness. Demolishing the Enid A. Haupt Garden falls into the latter category, especially when other options are available. I have been a proud member of the Smithsonian since the 1980s. Any meddling with the garden would be heartbreaking. It is one of my most – and perhaps single most – favorite places in Washington, D.C.

Sincerely,

Elaine Auby O'Hora

ohora4@cox.net

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Comment 1 - The Haupt Garden has not been removed from SI's list of redevelopment considerations. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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From: [Mike Painter](#)
To: [Comments on Campus Plan](#)
Subject: Enid A. Haupt Garden
Date: Friday, January 05, 2018 1:06:40 PM

I visit Washington, DC at least once a year on business. I always add an extra day or two to my travels to give me time to visit the Smithsonian and the National Gallery of Art. I almost always walk the length of the Mall.

One of the treasures is the Enid Haupt Garden. It is a formal, but relaxing, respite from the hustle and bustle of the city, and I always sit and enjoy it before continuing on my way. Please leave it exactly as it is.

(The proposed plans look horrid by comparison.)

Thank you.

Michael J. Painter
790 - 22nd Avenue, Apt. 4
San Francisco, CA 94121

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Comment 1 - Concur. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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From: [Cindy](#)
To: [Comments on Campus Plan](#)
Subject: South Mall Campus Master Plan
Date: Friday, January 05, 2018 11:46:33 AM

I was very distressed to learn that this plan involves the destruction of the Enid Haupt Memorial Garden. The garden is one of my favorite attractions in this part of the Mall. I visit it whenever I go downtown to the museums. When I'm there I see many other people enjoying the gardens also. The arrangement of the flowers is always so beautiful.

I hope you will find a way to preserve this beautiful, peaceful retreat.

Cindy Pitts
4338 Jonathan Court
Montclair, VA

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Comment 1 - The Haupt Garden will be retained. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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From: [Tina Rhea](#)
To: [Comments on Campus Plan](#)
Subject: Haupt Garden
Date: Saturday, January 06, 2018 11:28:47 PM

Please do not demolish the Haupt Garden.

Why not use the Arts & Industries building for food service and restrooms, and find another way to fulfill the other purposes of the garden's destruction, or reconsider whether those purposes are necessary or the best use of the Smithsonian's funds?

I understand that the destruction of the garden would actually violate the terms and spirit of the endowment established by Haupt in 1992 for the design and maintenance "in perpetuity" of the Castle's garden that Haupt funded in the 1980's. Why open the Smithsonian to a potential lawsuit over the terms of the endowment?

At worst, could not the garden, if torn up for construction, be recreated afterward?

So many people enjoy the garden, some every day, that it would be a great loss to the city to destroy it.

Thank you.

Tina Rhea
Greenbelt MD

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Comment 1 - The Haupt Garden is not being destroyed. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden. The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates -- as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

Comment 2 - SI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylight-at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.

Comment 3 -- Please see the response to comment 1.
Comment 4 -- Comment noted.

From: [Mike Reim](#)
To: [Comments on Campus Plan](#)
Subject: Haupt Garden
Date: Monday, January 15, 2018 11:16:34 PM

I strongly object to any plan that removes, minimizes or disrupts the iconic Haupt Garden. The garden is admired and enjoyed by locals and tourists alike and any plan to minimize or remove it is short sighted at best. The garden is a constant source of beauty in DC for three quarters or more of the year. Quiet reflection, dates, lunches, and tourists use the garden on a daily basis and any plan to renovate the Smithsonian should do everything possible to preserve it.

Thanks for your consideration.

Mike Reim

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Comment 1 - As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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From: Katherine Ripley
To: Comments on Campus Plan
Subject: New plan for Haupt Garden space aka "South Campus"
Date: Saturday, January 06, 2018 4:36:56 PM

As a 28-year SI employee who worked in the Castle throughout that period, I am appalled at the idea that this space could be destroyed. The garden is the one place one can go to recoup and refresh...and the designs, particularly with the ethnic-specific areas with plants pertaining to Africa and Asia next to their pertinent museums, are unique. It would be a tragedy to lose the feeling of tranquility...not to mention the experience of discovering new plants that one could grow (with luck...) at home. The garden definitely fulfills the educational mission of the SI.

Further, to believe that entrances to African Art and Sackler would improve museum visitation if moved closer to the Mall is unrealistic. They are not able to compete with the "big three" for visitors--it's simply fear of the unknown on the part of the public (and definitely their loss!). The special festivals held periodically definitely help build awareness..but the audiences are largely locals, albeit big fans of these museums.

Those who are looking for a way to "modernize" that space need to spend their hoped-for billion dollar budget on preserving and enhancing the treasures the Institution already has. The irreplaceable Castle is already a mess...high tech wizardry and streaming-screaming videos have replaced welcoming elegance and substance in the Great Hall. A site that attracted 1 million+ annual visitors and other museum professionals wanting to meet to learn how the success of a successful and award-winning visitor center could be emulated? Long gone. It's become largely a messy food court and generic museum store.

Secretary S. Dillon Ripley and Enid Haupt must be rolling their graves.

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Comment 1 - The Haupt Garden will not be destroyed. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden. The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates -- as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

Comment 2 – The retention of the three pavilions (Sackler, NMAfA, Ripley) would not allow the SI to adequately address the current and future needs of the two museums (Sackler and NMAfA) and the Smithsonian Associates, responsible for many of our educational lectures, classes and events. The Haupt Garden shares its location with these major stakeholders and additional ones including the Smithsonian Libraries, our Office of Protective Services, our International Programs and Smithsonian Facilities to name a few. Their long-term needs cannot be met without changes to the entrances, and in turn the garden. Leaving the three pavilions in place would preclude the consolidation and expansion of our underground loading that is essential to serving the expected doubling of visitors to the restored Castle and an increase in the amount of food service, special events and exhibits.

Comment 3 - Comment noted.

From: [Kunicki, Ed](#)
To: [Comments on Campus Plan](#)
Cc: [Gaskins, Shelley](#)
Subject: South Mall Plan
Date: Tuesday, January 16, 2018 9:55:22 AM

Dear NCPC members:

The United States is a young country and as such we have very few architectural treasures. The Smithsonian Castle is one of our greatest treasures. I love the feeling that I am experiencing the building just as visitors did in the 19th Century.

When the underground museum complex was proposed in the 1980s the Fine Arts Commission insisted that the African Art and Sackler pavilions be situated on Independence Avenue as far from the castle as possible. They also insisted that the buildings be surrounded with trees so that it was the distinctive architecture of the Castle which dominated its setting. This was the right decision then – and it still is.

The African Art and Sackler museums suffer from low visitation and they believe moving their entrance pavilions 100 feet to the north will make them more visible to passersby on Jefferson Drive. Nonsense. If anything, traffic on Independence Avenue is many times greater than the traffic on Jefferson Drive. Perhaps they should relocate the primary entrance of the existing pavilions from the Garden side (which admittedly is obscure) directly onto Independence Avenue.

I have worked as a gardener in the Enid Haupt Garden for over 20 years and although I expect to be retired before this project begins it is clear to me that the removal or alteration of the garden is a secondary issue. At stake is the visual and historic integrity of one of the most beautiful buildings in our country.

When so much is at stake I hope the NCPC will step in at this time when reason and good judgement are so very much needed.

Respectfully,
Michael Riordan

Comment 1 – Comment noted.

Comment 2 – Comment noted.

Comment 3 - As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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From: [John Roberts](#)
To: [Comments on Campus Plan](#); [john.roberts](#)
Subject: Southmall comments
Date: Thursday, January 11, 2018 5:01:58 PM

Sirs,

The Haupt garden must be fully protected in any changes to the outside surrounding the Smithsonian. With the deterioration of our nation's mall and the lack of a similar public garden within as much as a mile in some directions, we will lose an oasis of calm and reflection, attributes much needed in Washington D.C.

John M Roberts

Saving biodiversity saves us.

3204 Hawthorne Ave Richmond , VA 23222 USA 804 329-6879

Please note, I may not access internet for a few days, or longer if travelling. You can always leave a message on my home phone.



Virus-free. www.avast.com

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Comment 1 - The Haupt Garden will be retained. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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From: [luke.alan.rollins](#)
To: [Comments on Campus Plan](#)
Subject: Do not destroy Haupt Gardens
Date: Sunday, January 14, 2018 11:31:07 AM

The gardens are beautiful. We don't need more places to buy \$4 sodas.

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Comment 1 – Comment noted.

Sent from my Verizon, Samsung Galaxy smartphone

From: [Michelle Rosenfeld](#)
To: [Comments on Campus Plan](#)
Subject: South Mall Campus Master Plan
Date: Monday, January 15, 2018 4:48:44 AM

I am a resident of the DC metro area, and the family-friendly elements that Smithsonian provides the city were a big draw to moving here. Removing gardens to build more food stalls and bathrooms would be a mistake. There are plenty of food and bathroom options in the nearby Smithsonian facilities. I am against this master plan.

Michelle Rosenfeld

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Comment 1 - The Haupt Garden is not being removed. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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From: [Flis, Matthew](#)
To: [Spofford, Michelle](#); [Estes, Liz](#)
Subject: FW: a quick SI south mall project comment
Date: Tuesday, January 23, 2018 9:30:32 AM

FYI



Matthew J. Flis, AICP-CUD, LEED-AP
Senior Urban Designer | Urban Design & Plan Review Division
Main: 202.482.7200 | Direct: 202.482.7236
401 9th Street, NW | Washington, DC 20004
matthew.flis@ncpc.gov | www.ncpc.gov

From: Deborah Rothberg [mailto:derothb@gmail.com]
Sent: Saturday, January 20, 2018 11:44 AM
To: Flis, Matthew <matthew.flis@ncpc.gov>
Subject: a quick SI south mall project comment

My own first thought is that it appears unimaginative. . . for whatever that's worth.

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Debbie Rothberg
retired SI staff

Comment 1 – Comment noted.

From: [RUTH SANDO](#)
To: [Comments on Campus Plan](#)
Subject: South Mall Campus Master Plan Draft Environmental Impact Statement Comment
Date: Friday, January 05, 2018 1:27:02 PM

The Washington Post had an article today about the South Mall Master Plan, and I have heard several presentations about it as a member of the Association of the Oldest Inhabitants of DC.

I want to comment as both a resident of DC and as a frequent visitor (often with guests) to the Smithsonian Museums. My particular concern is with the preservation of the Enid A. Haupt gardens which provide sorely needed green space in what is a tangle of buildings and sidewalks facing Independence Avenue.

I can't think of another garden in that area. The sculpture garden is of an entirely different nature and the foci there are the sculptures, the fountain/skating rink and concession stand. I recall hearing that it was originally a cement-covered area until it was found that the cement made it so hot in the summer that people found it intolerable, and the cement then had to be ripped out. The experience with that space should be kept in mind when thinking about paving over so much of the Mall.

Visiting the museums can be a tiring experience, particularly in the summer. The Haupt garden provides a needed space to relax and rejuvenate in a lovely space. I've often thought it was a mark of genius to put it there and maintain it so well. It also humanizes the Castle, entrance to the African Art and Sakler Gallery, which have very little design relationship to each other.

Gardens fill a different need from just planting grass, although we are becoming more aware of the need for both in terms of preventing run-off into the Potomac and Chesapeake Bay. The Haupt Garden may seem like a small, inconsequential area, but it is a precious spot to residents and visitors alike and I believe it fills an important role in the overall environment of the Mall.

I would like to see it maintained as a part of the Master Plan and not removed or made smaller.

Thank you for the opportunity to comment.

Ruth Ann Sando
2122 California St., NW
Washington DC 20008

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Comment 1 – Comment noted.

Comment 2 – Comment noted.

Comment 3 – Comment noted.

Comment 4 – The Haupt Garden will be retained and expanded. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates – as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

From: [Natalia Saraeva](#)
To: [Comments on Campus Plan](#)
Subject: South Mall Campus Plan
Date: Tuesday, January 16, 2018 9:29:11 PM

Dear Commissioners,

As a Washington DC resident, and a US citizen, I am pleased to hear about considerations for improvements of the National Mall. However, I believe that the Haupt Garden needs to be preserved.

Haupt Garden is a hidden gem of the Mall. It provides a place for relaxation, thoughts gathering and contemplation to both people who work in the area, and tourists strolling around.

I first fell in love with it as a tourist. This quiet, beautiful place provided a much needed contrast to the Mall area, allowing for needed break to continue observing the greatness of the Nation's Capital.

Now, I take breaks there from a busy day at work, almost every day. For me and many of my coworkers it is a place to find a peace of mind.

I take every visitor there and proudly show them the Garden.

Please, preserve the Haupt Garden!

Sincerely,
Natalia Saraeva
N.saraeva@gmail.com

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Comment 1 - The Haupt Garden is being preserved. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates -- as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

From: greg.schaler@gmail.com
To: [Comments on Campus Plan](#)
Subject: Preserve Haupt Garden and create new pollinator gardens
Date: Tuesday, January 09, 2018 5:43:24 PM

Dear Ms. Spofford,

I strongly oppose changes to the Haupt Garden as outlined in Smithsonian Institution's South Mall Campus Master Plan. The Haupt Garden is a local and national treasure, and an important oasis for pollinators and other wildlife in the area of the National Mall. The NCPC should send this plan back to the drawing board: perhaps the development of clearer, more informed requirements and assessments of existing underused facilities (the Arts and Industries Building, the lackluster eating facilities within most of the Mall Museums). Both financial and irreplaceable green resources could be more responsibly preserved.

Please consider creating new pollinator gardens that will not only enhance the environment by also educate the public.

Thank you.

Sincerely,

Greg Schaler

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Comment 1 - The Haupt Garden is being preserved. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates -- as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies. In addition, the SI will provide a variety of plant materials to support pollinator health.

Comment 2 - Comment noted.

From: [Marilyn Schiff](#)
To: [Comments on Campus Plan](#)
Subject: SAVE THE ENID HAUPT GARDEN!!
Date: Tuesday, January 09, 2018 8:12:23 PM

Don't destroy a unique gem! Any season, the Enid Haupt garden is is delight.
Please save it.
Marilyn Schiff



Virus-free. www.avast.com

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Comment 1 - The Haupt Garden will be preserved and will not be destroyed. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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From: [Emily Schweich](#)
To: [Comments on Campus Plan](#)
Subject: Comments on Smithsonian Institution South Campus Master Plan
Date: Sunday, January 14, 2018 11:53:49 AM

Mr. Flis and Ms. Spofford:

Thank you for the opportunity to offer comments on the Smithsonian Institution's South Mall Campus Master Plan. My name is Emily Schweich, and I currently work in Washington, D.C., just two blocks from the National Mall. A lifelong Marylander, I have enjoyed visiting the Smithsonian for years, and I especially enjoy the Enid A. Haupt Garden, where I visit often on lunch breaks and before and after work.

I support the proposed South Mall Campus Master Plan Alternative F's efforts to renovate the Castle, provide seismic protection, and create a clearer pathway between the Castle property and the Hirshhorn Plaza. However, I am concerned that Alternative F will gut the Enid A. Haupt Garden, which serves as a cool respite from the city heat for tourists and D.C. natives alike. I am troubled by the potential environmental impacts of additional building and additional concrete in this area. As most visitors know, the wide, open Mall is often oppressively hot during the summer months, when tourism is at its peak. The Haupt Garden provides environmental benefits and an outdoor respite for visitors. I believe this garden is one of the most beautiful spots in Washington, with a unique multicultural character that is vital to the Smithsonian campus and the greater city that needs to be preserved.

I have reviewed the proposed alternatives, and I believe that Alternative B best maintains the character of the garden while providing necessary restoration to the Castle, improving campus circulation, and improving accessibility. I understand the Institution's concern about addressing visitor needs, such as restrooms and food services. I believe these needs are sufficiently addressed through the restrooms in the Castle and in the museum buildings and through the many food kiosks on the Mall, but if these existing restrooms and food kiosks are not sufficient to visitors, I recommend that the Smithsonian Institution better utilize the newly-renovated Arts and Industries Building, which could serve as a supplemental "home base" to visitors.

Again, I appreciate the Smithsonian Institution's efforts to create a better visitor experience, but I stress the importance of preserving the character and layout of the Enid A. Haupt Garden as you consider alternatives for development. Any diminishment of the Enid A. Haupt Garden should be at the absolute minimum to improve access and accommodate visitor needs. Thank you for your time and for considering my comments.

Sincerely,
Emily Schweich
202.585.0119

Comment 1 – Comment noted.

Comment 2 - The Haupt Garden is being preserved. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden. The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates -- as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

Comment 3 - SI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylight-at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.

Comment 4 – See response to comment 1.

From: [Laura Sessums](#)
To: [Comments on Campus Plan](#)
Subject: Enid A. Haupt Garden
Date: Sunday, January 07, 2018 3:23:15 PM

To Whom It May Concern:

I have been horrified to learn of the continued plans to demolish the Enid A. Haupt Garden. I first learned of this during the Garden Conservancy's Open Days DC tour in the Fall of 2016. I was quite shocked to hear of this plan and was gratified to know that the Garden Conservancy had sent a letter in support of the garden's continued existence. To learn from a recent Washington Post article that these plans have not changed is very troubling.

The garden is gorgeous in its own right and has been an inspiration to me in refinements in my own garden. In that, I am sure I am not alone. More important, though, is the incredible example of nature and beauty it provides in the urban "concrete jungle" that surrounds it. To walk through the garden at dusk in the summer and hear the crickets nearly louder than the ambient street noise is a much needed respite for all who stumble upon it.

Rather than demolish this unique and beautiful garden, I urge you to conserve and even enlarge it.

Sincerely,

Laura L. Sessums
5081 Lowell St NW
Washington, DC 20016

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Comment 1 - The Haupt Garden is not being demolished. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates -- as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

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Mr. David J. Skorton
Secretary
Smithsonian Institution
1000 Jefferson Drive, SW
Washington, DC 20560

December 20, 2017

Dear Secretary Skorton:

I would like to add my voice to the many others who are deeply upset with the proposed new South Mall Campus Master Plan. It is not just because as a former employee of the Smithsonian (23 years) that I so enjoyed the jewel of a space known as the Enid Haupt Garden—although that is a partial reason. It is because I see no aesthetic connection between the harsh and contemporary, mostly hard-surfaced new plan for this space and the facades of the Victorian Castle and Arts and Industries Building. And the destruction of the pavilions for African Art, Sackler and the S. Dillon Ripley Center seem particularly unnecessary and expensive.

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Comment 1 - Comment noted.

Please, please do not destroy what is one of the most beautiful spaces in Washington for a plan whose architecture does not fit the surroundings and whose gathering space is neither green nor welcoming. Surely, the leaks in the roof can be remedied and the garden put back without such a drastic and unnecessary re-design. And given the enormous maintenance costs the Smithsonian continually faces, why would you spend so many dollars on such an ugly project?

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Comment 2 – Comment noted.

Respectfully,



Martha Cappelletti Sewell
3800 Whispering Lane
Falls Church, VA 22041

cc: Marcel Acosta, Chairman
National Capital Planning Commission

From: [Carol Shull](#)
To: [Comments on Campus Plan](#)
Subject: Comments on Enid Haupt Garden and Surrounding Area
Date: Monday, January 08, 2018 10:13:18 AM

To Whom It May Concern:

I was glad to discover a way to express my concern about the Smithsonian's plan to redesign the Enid Haupt Garden and garden areas next to the Sackler and African Art Museums. I earlier signed a petition to the Smithsonian with many others, all of whom oppose destroying the gardens.

We have lived in the area for many years and made many trips to these garden areas, which have historic value and are gems of garden design. Surely the Smithsonian can find a way to address any of its needs to accommodate visitors and address structural issues without destroying the Enid Haupt Garden and the surrounding areas that so many Americans appreciate and value.

Please find a way to preserve these glorious spaces that have historic significance and give so many visitors pleasure.

Sincerely,

Carol Shull
2201 South Knoll Street
Arlington, Virginia 22202
Cell: 703-568-5607
carolshull@comcast.net

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Comment 1 - The Haupt Garden is not being destroyed. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates -- as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

From: [Roxane Sismanidis](#)
To: [Comments on Campus Plan](#)
Subject: Comments on the South Mall Campus Master Plan
Date: Thursday, January 11, 2018 1:05:05 PM

Dear National Capital Planning Commission,

I respectfully submit three recommendations regarding the Smithsonian Institution's South Mall Campus Master Plan:

1. Select Alternative B, which replaces trees and green space after construction;
2. Adopt a 20% tree canopy goal in the final master plan; and
3. Include water-loving trees in planned bio-retention areas.

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I believe that by following these recommendations, the South Mall will become a more attractive, welcoming, and "green" venue for visitors, be more environmentally friendly, and help sustain Washington, DC's reputation as the City of Trees.

Thank you for your consideration.

Best regards,

Roxane Sismanidis
2843 29th Street NW
Washington, DC 20008

Comment 1 – Comment noted.

Comment 2 – The percentage of tree canopy will be determined at the time of design. Each of the alternatives calls for an expanded Ripley Garden. Tree replacement will seek to prevent net loss of tree canopy in accordance with the policies set forth in the Comprehensive Plan for the National Capital. Additionally, Alternatives D and F call for an expanded Haupt Garden.

Comment 3 – Comment noted.

From: [Michael Stout](#)
To: [Comments on Campus Plan](#)
Subject: Proposed Changes to South Mall
Date: Monday, January 15, 2018 4:29:03 PM

Dear Madam/Sir:

The landscape and gardens of the south mall are a treasure to both local residents and tourists. It is a peaceful retreat, year round, from the sometimes frantic action of a vibrant city with multiple attractions that at times may overwhelm. That aside, it's beauty and varied plantings are a delight to both experienced horticulturists and those, like myself, untrained in plants but still thrilled by the colorful and dynamic sites of the garden area.

IF you need to readjust, alter, re-form the landscape space, for good reason, then do so.
BUT leave the essentials alone.

MINIMIZE surface changes to perhaps at most a couple of above ground entry ways into the museum spaces below ground.

You may believe that the below ground museum is underutilized because of access problems. that is possibly valid in a small per cent of cases. Mostly, the museum area there is going to attract a smaller audience than other Smithsonian spots because of its more narrow focus and especially because the focus is of limited interest to the larger public audience. "Improving access" will alter that equation only to a very small extent. Those who have an interest in the offerings below ground will find them (as many did for the "Cosby" exhibition). The visitors numbers for that exhibit surely indicate that access is not an issue at all.

I have read through the various proposals for design changes. Frankly, the rationale offered for the more extensive changes is not impressive, and it seems to me only reinforces pre-determined notion of what some "planner" wants, or what the "planner" thinks the organizer wants, and not what is good, or best, for the public.

SO: make minor changes, okay. Make minimal changes / entry areas that will actually enhance visiting opportunities. BUT please leave the gardens and the public open spaces untouched as much as possible.

IF you put this up to a vote, I vote for the most limited, minimal changes that are suggested.
In fact, I suggest you consider allowing or soliciting votes from the public -- I believe you will see that a vast majority will favor limited alterations.

Sincerely,

Michael Stout

Sent from my iPad

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Comment 1 - The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and any museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates -- as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

Comment 2 -- Comment noted.

Comment 3 -- Comment noted.

Comment 4 -- Comment noted.

Comment 5 -- Comment noted.

From: [Caroline C. Timbers](#)
To: [Comments on Campus Plan](#)
Subject: SAVE HAUPT GARDEN
Date: Thursday, January 11, 2018 11:36:37 AM

Dear Commissioners:

I strongly oppose changes to the Haupt Garden as outlined in Smithsonian Institution's South Mall Campus Master Plan.

The gardens are a beautiful green space enjoyed by families, tourists, federal workers, and it is integral to DC's wildlife, especially insects. It balances out the long stretch of grass to the North and the concrete jungle to the south of it, bringing color and interesting design to two pretty boring stretches.

The Smithsonian (with its many missions including historical preservation and environmental education) needs to better, not to do damage.

The NCPG should send this plan back to the drawing board: perhaps the development of clearer, more informed requirements and assessments of existing underused facilities (the Arts and Industries Building, the lackluster eating facilities within most of the Mall Museums). Both financial and irreplaceable green resources could be more responsibly preserved.

Thank you for your consideration of this feedback.

Sincerely,
Caroline Timbers

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Comment 1 - As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden. The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates -- as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

Comment 2 – Comment noted.

Comment 3 - SI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylight at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.

From: [Judy Treible](#)
To: [Comments on Campus Plan](#)
Subject: Objection to South Mall Campus Master Plan
Date: Tuesday, January 09, 2018 5:27:24 PM

Dear planners,

I oppose the proposed changes to the Haupt Garden as outlined in the Smithsonian Institution's South Mall Campus Master Plan. The Haupt Garden is an important oasis for tourists and workers as well as pollinators and other wildlife in the area of the National Mall.

Rather than tear up vital green space, why not use the near empty Arts and Industries Building to build the needed bathrooms and places to eat? It could be cheaper and easier to repurpose an existing building.

The Smithsonian, with missions that include historical preservation and environmental education, should preserve the Haupt Garden.

Sincerely,

Judy Treible

Takoma Park

jatreible@gmail.com

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Comment 1 - As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden. The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates -- as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

Comment 2 - SI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylit at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.

Comment 3 -- Please see response to Comment 1.

From: [Lynn Trundle](#)
To: [Comments on Campus Plan](#)
Subject: Do not change the Enid Haupt Garden!
Date: Friday, January 05, 2018 3:51:19 PM

It is devastating that anyone is even thinking of ruining the Enid Haupt Garden. DO NOT CHANGE THIS IN ANY WAY! It isn't just, as many people have said, a lovely oasis on the Mall. It is, of course, but the point is, its design matches perfectly the architecture of the Smithsonian Castle, which is its backdrop. Not to mention the obvious: the Garden is supremely beautiful as is. Who in their right mind would want to do away with it?

Why is everyone worried about tourists not finding the entrances to the Sackler and Freer? Even if they didn't know about the entrances, which maybe the Smithsonian should do more to publicize, anyone could find them because they would naturally be drawn to the beauty of the Haupt Garden and would go in there. They'd then see the entrances. What a non-issue. Why are you only worried about tourists? What about those of us who live here, and enjoy the garden all year? Why don't we count?

Besides, as I have recently read, what you propose would violate the terms and spirit of the endowment Ms. Haupt established in 1992 for the design and maintenance "in perpetuity" of the garden, which Ms. Haupt fully funded in the mid-1980s.

I was born in DC and have lived in the area all my life. I have been a Smithsonian (Resident Associate) member for approximately 35 years. I would not continue to support an institution that would be so callous as to ruin this lovely, perfect spot. The Smithsonian is all about preservation, isn't it? Well, this is precious, and one of the city's treasures. It's sacred. Preserve it.

Hands off the Haupt!

Lynn Trundle

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Comment 1 - The Haupt Garden will be retained. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden. The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates -- as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

Comment 2 -- The retention of the three pavilions (Sackler, NMAfA, Ripley) would not allow the SI to adequately address the current and future needs of the two museums (Sackler and NMAfA) and the Smithsonian Associates, responsible for many of our educational lectures, classes and events. The Haupt Garden shares its location with these major stakeholders and additional ones including the Smithsonian Libraries, our Office of Protective Services, our International Programs and Smithsonian Facilities to name a few. Their long term needs cannot be met without changes to the entrances, and in turn the garden. Leaving the three pavilions in place would preclude the consolidation and expansion of our underground loading that is essential to serving the expected doubling of visitors to the restored Castle and an increase in the amount of food service, special events and exhibits.

(Responses to comments continued on next page.)

	<p>Comment 3 – The SI takes seriously the commitments we make to donors. We, along with our Office of General Counsel, have determined that the South Mall Campus Master Plan does not violate our obligations to Mrs. Haupt (or any other donors). The SI will continue to honor our agreement with Mrs. Haupt to retain the garden’s name in perpetuity. We expect to continue to increase the resources that supplement her endowment of the garden to ensure its continued high level of horticultural excellence. In addition, SI is in the process of developing Garden Advisory Committee to collaborate with SI on future garden designs.</p> <p>4 – Comment noted.</p>
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From: [Gregory Turner](#)
To: [Comments on Campus Plan](#)
Subject: Haupt Garden
Date: Tuesday, January 09, 2018 3:49:29 PM

Smithsonian Gardens. This is one of the gems of the Smithsonian. It appears that the grand plan for redesign does away with these for what to all ends and purposes are useless architectural frill.

When I wrote this to info@si.edu, I got back a canned reply to visit the website. I did it (again) and the design supposedly "restores the vegetation" and so does not consider it as an issue. What restoration? Where are the magnolias? gone. Where is the paperbushes (edgeworthia) to mention one of the many many lovely plants that appear (in the image of the monoculture grass replacement) to be gone. What about the Moongate Garden?

<http://www.gardens.si.edu/our-gardens/haupt-garden.html>

This is completely mind boogling. I can only hope that my feeling here is echoed by many others so that this plan will be revised to actually restore (means bring back the way it was) Haupt Garden. Keep the garden! Have the decision makers ever visited when the magnolias are in bloom?

Greg Turner
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Please support (\$\$) Wikipedia
who's next?

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Comment 1 - As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden. The SI will replace and expand the Haupt Garden once the Quadrangle roof membrane has been replaced with a better and more reliable membrane that will protect the Quadrangle Building and museum collections. As stated in section 3.4.4, the character of the Haupt Garden will be maintained, and the gardens will focus on creating both intimate and educational spaces. SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates -- as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

Comment 2 -- Even though the design for the Haupt Garden has not taken place, SI is committed to an expanded Haupt garden that would exceed the success of what we have now and address some of its needs for improvement. We expect the revitalized Haupt Garden will incorporate characteristics and most likely some specific beloved elements of the present garden -- such as a central parterre, the Downing Urn, sculpture and features related to the museums and Smithsonian history, and the 1987 Renwick Gates -- as well as better spaces for its growing array of popular educational programs and practical support for the equipment and supplies.

Comment 3 -- Comment noted.

From: [Gregory Turner](#)
To: [Comments on Campus Plan](#)
Subject: Haupt Garden and Arts and Industry Building vis a vis South Campus plan
Date: Wednesday, January 10, 2018 6:33:50 PM

I echo many in making the appeal for the Preservation of Haupt Garden. It is, quite simply, beautiful and soul-comforting. The magnolias in bloom and the great variety of plants (e.g. the lovely Paperbush aka Edgeworthia), the Moon Gate Garden, the formal garden area - these must not be sacrificed for the plan. Many have said the the Arts and Industry Building can serve as the public restrooms and restaurant(s) space and that would obviate the need to situate such things in a structure that would destroy the Garden.

Greg Turner, Michigan and DC
734 644 9715

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Please support (\$\$) Wikipedia
who's next?

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Comment 1 - The Haupt Garden will be retained. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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From: [Vivian Van Horne](#)
To: [Comments on Campus Plan](#)
Subject: The Haupt Garden
Date: Friday, January 12, 2018 12:12:33 PM

I volunteer near the Haupt Garden and must add my voice to the protest against the possible destruction of this beautiful garden for a modern overpriced monstrosity which is not at all in sync with the historic beauty of the castle. What were you thinking to even consider this outrageously expensive project? Walk through the garden any day and you will see people catching a moment of peace and beauty, birds singing, families enjoying the beautiful plants and birds, artists sketching the flowers.

The federal budget should not be abused by this terribly unaffordable design. How many research scientists would have to be sacrificed to this horror?

Do not do this!! Protect this beautiful place as it is.

Vivian Van Horne

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Comment 2 – Comment noted.

Comment 3 – Comment noted.

From: [Emily Vargas-Baron](#)
To: [Comments on Campus Plan](#)
Subject: Please do not destroy the Enid Haupt Garden
Date: Monday, January 08, 2018 11:26:35 AM
Importance: High

Dear Colleagues,

I am a long-time Friend and Associate of the Smithsonian. In addition, I am a founding member of the Museum of the American Indian and the Museum of African American History.

For many years, I have loved and enjoyed the Enid Haupt Garden. I consider it to be one of the most beautiful and wonderful places in the Mall. Everyone I know loves it too, and I often take people to the Garden.

Enid Haupt donated over \$1 million to ensure this place of beauty and repose would be provided in perpetuity. She died knowing she had made a lasting gift to the Smithsonian and to future generations. At least, she thought so...

I gave a large donation to the University of Washington in my father's name. Subsequently, the University abrogated its promise and placed the funds in their general development fund. I was beyond saddened. I feel that the Smithsonian entered into a covenant with Enid Haupt. The Smithsonian should not abrogate this covenant. It would be a blemish on our record and set a bad example for all future possible donors.

I implore you to save the Garden and conduct your planned activities elsewhere. In any case, that corner of the Mall is fully used at present with the Sackler, African Art, Dillon and Smithsonian structures.

Please kindly respond to this message.

Thank you,

Emily Vargas-Baron
Director, RISE Institute

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Comment 1 – The SI takes seriously the commitments we make to donors. We, along with our Office of General Counsel, have determined that the South Mall Campus Master Plan does not violate our obligations to Mrs. Haupt (or any other donors).

Comment 2 - The Haupt Garden will be retained. As stated in Section 1.5 of the EIS, one of the needs of a Master Plan for the South Mall Campus is to replace roofs and buildings systems that are at the end of their useful lives. The Quadrangle roof system features two independent waterproofing systems. The first system is a waterproof membrane fully adhered to the structural concrete roof slab. The first system is followed by a rigid insulation layer and second waterproofing membrane which is then followed by another layer of rigid insulation. On top of these materials are a series of concrete pavers, gravel, scrim, and with 4 to 6 feet of soil. The Haupt Garden sits on top of all of these materials. The Quadrangle required leak mitigation as early as 1997, only 10 years after the building was complete. The patch and repair methods that have taken place over the past 20 years have not fixed the underlying problem that the roof has reached the end of its useful life and needs to be completely replaced. As previously mentioned, the Haupt Garden sits on the top of the Quadrangle Building, and it is not possible to fully replace the roof without temporarily removing the Haupt Garden.

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From: [Barton Veret](#)
To: [Comments on Campus Plan](#)
Subject: Smithsonian planning
Date: Friday, January 05, 2018 11:28:33 PM

Why is there virtually NO publicly available and/or understandable information regarding this planning and proposals. The only images I have seen are simply awful and totally out of keeping with the historic architecture and landscaping in the area.
One terrible looking modernistic mess.
And why does the elephant in the room continue to be the disgraceful lack of doing anything useful with the so-called Arts and Industry building which has been closed with little or nothing going on there for almost 15 years. Is this symbolic of the state of arts and industry in the US or just total incompetence?
Surely we should expect better from the Smithsonian!
Barton Veret

Sent from my iPad

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Comment 1 –NCPC and SI have made great efforts to solicit comments on the Draft EIS. NCPC and SI held two public hearings, one on December 11th from 5 - 7pm and a second one on December 18 from 10 am to 12 pm. The Draft EIS was available for public review on NCPC's (<https://www.ncpc.gov/projects/southmall/>)and SI's website (www.southmallcampus.si.edu). A printed copy was also made available at each of their offices. Additionally, NCPC and the EPA published notices in the Federal Register on November 15, 2017 and November 17,2017, respectively.

NCPC solicited comments via their E-Newsletter in November and December (<https://www.ncpc.gov/newsletters/november2017/> and <https://www.ncpc.gov/newsletters/december2017/>).

NCPC issued a general notice on December 8, 2017 and it was announced as part of the Executive Director's Report at the December 7, 2017 NCPC meeting.

NCPC also solicited comments through the WaPO Express Newspaper, NCPC Instagram post (November 14, 2017), and NCPC Facebook Posts (November 14, December 8, December 19, and January 4).

NCPC issued a final media release on January 4, 2018. The SI published a media release on November 30th.

Comment 2 - SI's master plan was undertaken with the understanding that the Arts and Industries Building will accommodate a future museum and exhibition-related programming consistent with the building's original character and design to the greatest extent possible, as well as, interim use for special events and rotating exhibits. That has not changed, nor has our conviction that the Castle should remain as our visitor center to allow a more flexible and appropriate use of the Arts and Industries Building. Due to nature of the AIB building, the building is most suited to museum programs that have fewer delicate collections, particularly ones that are sensitive to light and humidity change. Any museum use would have to have to maintain the architectural integrity of the daylight at-grade space by having less collections displayed in enclosed space, especially solid enclosed spaces. The Master Plan has calculated the future utility and service support for the building and expect that in the future it will include a variety of public uses. In the meantime, the Smithsonian is implementing code compliant changes to allow the building to be more fully used on a regular basis for educational and special programs.

From: [Eli, Matthew](#)
To: [Estes, Liz](#); [Spofford, Michelle](#)
Subject: FW: South Mall Campus Master Plan Comment
Date: Monday, December 04, 2017 9:55:46 AM
Attachments: [image011.png](#)
[image008.png](#)
[image010.png](#)
[image009.png](#)



Matthew J. Flis, AICP-CUD, LEED-AP
Senior Urban Designer | Urban Design & Plan Review Division
Main: 202.482.7200 | Direct: 202.482.7235
401 9th Street, NW | Washington, DC 20004
matthew.flis@ncpc.gov | www.ncpc.gov

From: Vincent Verweij [<mailto:v.w.verweij@gmail.com>]
Sent: Monday, December 4, 2017 9:54 AM
To: Flis, Matthew <matthew.flis@ncpc.gov>
Cc: Kristin Taddei <ktaddei@caseytrees.org>; Morgan, Steven <steven.morgan@ncpc.gov>; Suraj Sazawal <ssazawal@caseytrees.org>
Subject: Re: Broken Comment Link: South Mall Campus Master Plan

Hello Mr. Flis,

Thank you for the opportunity to comment on this project.

I am a DC resident, and a big supporter of urban nature and ecology. The garden in the South campus, while largely non-native, and all planted, provides a needed respite from the busy lives of federal employees in this area.

I support Alternative B, as it provides the opportunity to retain some of the more serene surroundings of the garden in the long run, and maintains the open space feel of the current situation. This allows for needed repairs, without significantly disrupting the very historic feel of the area.

Sincerely,

Vincent Verweij
138 Thomas St NW
Washington, DC 20001

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Comment 1 – Comment noted.

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Comment 2 – Comment noted.

From: Sam
To: Comments on Campus Plan
Subject: Keep the Haupt Garden
Date: Wednesday, January 10, 2018 9:09:19 AM

To whom it may concern:

As a member of a local beekeeping and pollinator advocacy organization, I strongly oppose changes to the Haupt Garden as outlined in Smithsonian Institution's South Mall Campus Master Plan. The Haupt Garden is a local and national treasure, and an important oasis for pollinators and other wildlife in the area of the National Mall. Grassy areas are an environmental waste land, and the National Mall otherwise creates a relative nutritional desert. Even the built landscape of Washington, where it has come to include green roofs, offers more. The Smithsonian (with its many missions including historical preservation and environmental education) needs to better, not to do damage.

The NCPG should send this plan back to the drawing board: perhaps the development of clearer, more informed requirements and assessments of existing underused facilities (the Arts and Industries Building, the lackluster eating facilities within most of the Mall Museums). Both financial and irreplaceable green resources could be more responsibly preserved.

Thank you for your consideration of this feedback.

Samantha Wetzel

Washington, DC

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