

Criteria of Adverse Effect

This report provides an assessment of effects on historic resources associated with the Revitalization of the Historic Core (RoHC) Revitalize Castle project. Effect assessments are based on the criteria of adverse effect as defined in the implementing regulations of Section 106 of the National Historic Preservation Act (36 CFR Part 800). 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 of Historic Places 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)).

Project Background and Section 106 Compliance

This project provides a comprehensive rehabilitation of the Smithsonian Institution Building (Castle) to address physical deterioration, obsolete infrastructure and systems, non-compliance with building codes, and provide below-grade mechanical and building support space connected to the adjacent Quadrangle Building loading dock.

The Castle is a National Historic Landmark, individually listed in the National Register of Historic Places and the DC Inventory of Historic Sites, and is a contributing element of the National Mall Historic District listed in the National Register. The Castle is also a contributing element of the Smithsonian Quadrangle Historic District listed in the DC Inventory of Historic Sites.

Initial Section 106 compliance resulted in a 2018 Programmatic Agreement for the larger South Mall Campus Master Plan of which the RoHC is a subset. The RoHC was further divided into two phases as described below. A Programmatic Agreement will be developed to oversee the two phases of the project, and a subsequent Memorandum of Agreement for the second phase.



Smithsonian Institution Building, Aerial Photograph.



Smithsonian Institution Building, South Elevation.

Smithsonian Institution Building – Character Defining Features *

The Smithsonian Institution Building (Castle), designed by James Renwick, Jr., in the Romanesque Revival or Norman Revival style, is nationally significant for associations with the history of science and scientific institutions, museums and

education; for association with prominent American scientists (National Register Criterion A); as a premiere example of mid-19th century romantic architecture and as a seminal work of Renwick; and for incorporation of innovative fireproof floor construction methods (National Register Criterion C).

The period of significance for the Castle is 1847-1910, to reflect the period of time that best demonstrates significance and historic associations. This date range reflects the lengthy construction that spanned a destructive fire, and later modifications by Adolf Cluss (fireproofing and East Wing reconstruction) and Hornblower and Marshall (Great Hall modifications, Smithson Crypt, and Children’s Room).

Character Defining Feature	Notes
Setting – Area surrounding base of the building to the north, east, and west, and the South Yard (Haupt Garden)	<ul style="list-style-type: none"> - Current hardscape and landscape were significantly modified in the last 30 years. - Jefferson Drive is the only extant roadway from the original landscape setting. - Independence Avenue (B Street) remains but is significantly altered. - Building entrances maintain relationship with grade as original configuration.
Building Massing and Materials	<ul style="list-style-type: none"> - Seneca sandstone exterior. - Decorative masonry trim, carved corbels, parapets, cornices, finials, arches, piers, and texture of hand chiseled stone faces. - Original pointing mortar was tinted red to match Seneca sandstone. - Building massing characterized by a central block with similarly scaled wings and hierarchically arranged towers.
Windows	<ul style="list-style-type: none"> - Majority of the windows are replacements dating to 1987-1992. - c. 1915 windows are extant in the West Range Clerestory and West Wing apse. - Original fenestration was wood muntins of square panes set in a diamond pattern. Mostly double-hung sash. - Photographic documentation pre-1887 shows the size of the diamond pane varied for each window type.
Roof Materials and Profiles	<ul style="list-style-type: none"> - Slate shingles and flat seamed lead coated copper. - Dynamic roofline follows the massing of the building.
North and South Towers	<ul style="list-style-type: none"> - Significant scale and decorative stone directs visitors to the primary entrances leading to the primary interior public space (Great Hall). Original doors were wood. - North porte cochere indicates primary reception point for visitors by vehicle. Access ramp and stair flanking the North Tower were added in 1987. - Original sandstone steps at the South Tower are extant beneath access ramp. - Clock added to the Flag Tower in 1966.
Perimeter Towers – West Tower, Northwest Tower, Octagon Tower, Campanile Tower, and Southeast Tower.	<ul style="list-style-type: none"> - Three of the perimeter towers provide vertical circulation. - Each tower has distinct design detailing.

* Original National Historic Landmark and National Register nominations are short. Character defining features are referenced from “Historic Structure Report, Smithsonian Institution Building, Smith-Group, December 2009.” The Historic Structure Report is available on the project webpage.

Phased Section 106 Consultation

SI identified a need to phase design and Section 106 consultation for the RoHC Revitalize Castle project to meet a March 2023 construction start. Phase 1 design actions are baseline project early construction activities, required to procure a contractor. Phase 1 actions are connected to below-grade construction work, including excavation below and adjacent to the Castle, insertion of seismic base isolation, and creation of areaways and window wells.

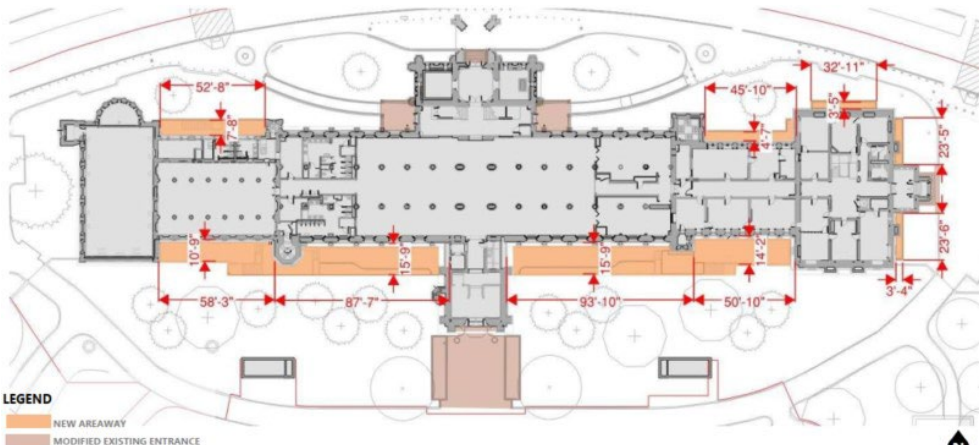
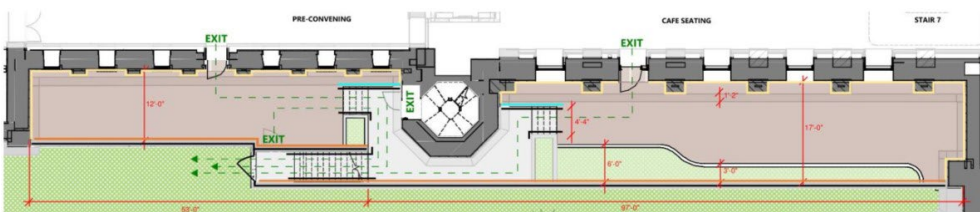
Design development and Section 106 consultation on Phase 2 design actions will continue without pause through 2023. Phase 2 consists of changes to the Castle exterior, restoration work, landscape, and perimeter security. Phase 2 includes some interior alterations that lack independent utility, meaning the interior change is directly related to an exterior change. Note that the interior scope of the RoHC project is broader than the work addressed in this report. These other interior changes are not subject to 106 consultation, because this work can function as stand-alone projects.

Smithsonian does not conduct Section 106 consultation on interior building changes because interior projects are not subject to National Capital Planning Commission (NCPC) review. Public Law No. 108-72, 117 Stat. 888, deems the Smithsonian a federal agency for purposes of compliance with Section 106 of the National Historic Preservation act for projects in the District of Columbia requiring NCPC review and approval. Interior alterations that lack independent utility are included in 106 consultation to fulfill NCPC's Section 106 consultation obligation.

This Assessment of Effects report contains effect determinations for Phase 1 actions. Phase 2 effects are preliminary, and the Assessment report will be updated in consultation when more information is available.

Assessment of Effects on Historic Resources – Phase 1

The following provides an assessment of effects of each feature or action of the RoHC Revitalize Castle. The effect determination is based on the criteria of adverse effect. For more images and information on each action and assessment, please refer to the presentation materials from past Section 106 Consulting Parties meetings available on the project webpage. Phase 1 is the baseline project required to start construction in March 2023.

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Introduction of New Areaways and Window Wells (Locations and Dimensions)</p>  <p>Castle site plan, with proposed below-grade areaways and window wells noted with orange shading.</p>	<ul style="list-style-type: none"> - Recessed areaways and window wells are proposed in various locations around the Castle perimeter. - Recessed areaways and window wells bring light to public spaces in the basement level, or provide egress. - Areaways are sized to provide egress paths and to align with the Castle’s massing. Areaways are wider on the south side. - Recessed areaways and window wells require fall protection railings. - Egress areaways contain stairs within the recessed areaway. Fall protection railings will incorporate a gate to egress from the stairs.
Images	Additional Information
<p>SOUTHWEST AREAWAY LAYOUT (SOUTHEAST AREAWAY SIMILAR)</p>  <p>Detail plan of the Castle’s proposed southwest areaway. Orange lines note the areaway dimensional alignment with the Castle’s walls and buttresses. Green dotted lines note the egress paths connected to stairs.</p>	<ul style="list-style-type: none"> - Setting is a character defining feature. - Castle currently has 393’ linear feet of areaway (recessed well), and 220’ existing linear feet of apron (paving at grade) at its base. - Proposed below-grade areaways and wells alter the Castle’s relationship with the ground plane. - Areaways, egress stairs, window wells, and their fall protection railings will be visible within the setting at the base of the Castle. Railing design alternatives will be finalized in Phase 2 of 106 consultation.



Existing southeast façade.



Rendering of the visibility of the Castle’s proposed southeast areaway, taken from the Haupt Garden hardscape path. The fall protection railing and plantings will be finalized in Phase 2 of Section 106 consultation. Egress stair gate location is noted with a red arrow.



PARTIAL PLAN | SOUTHWEST AREAWAY

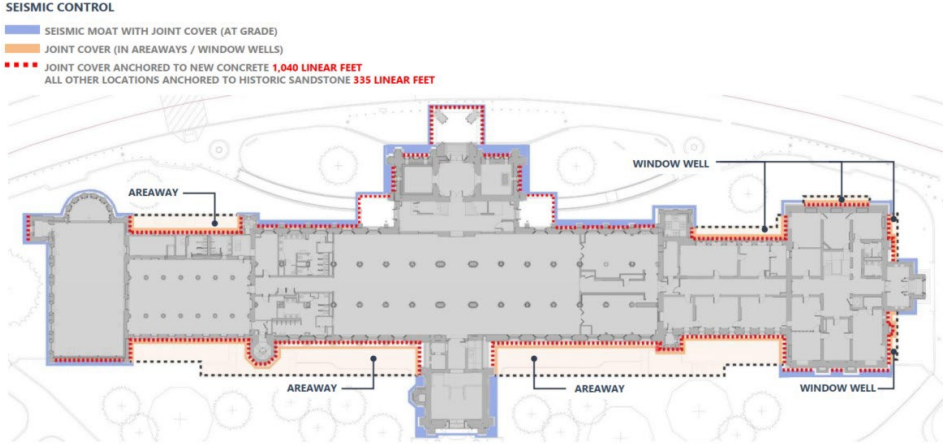
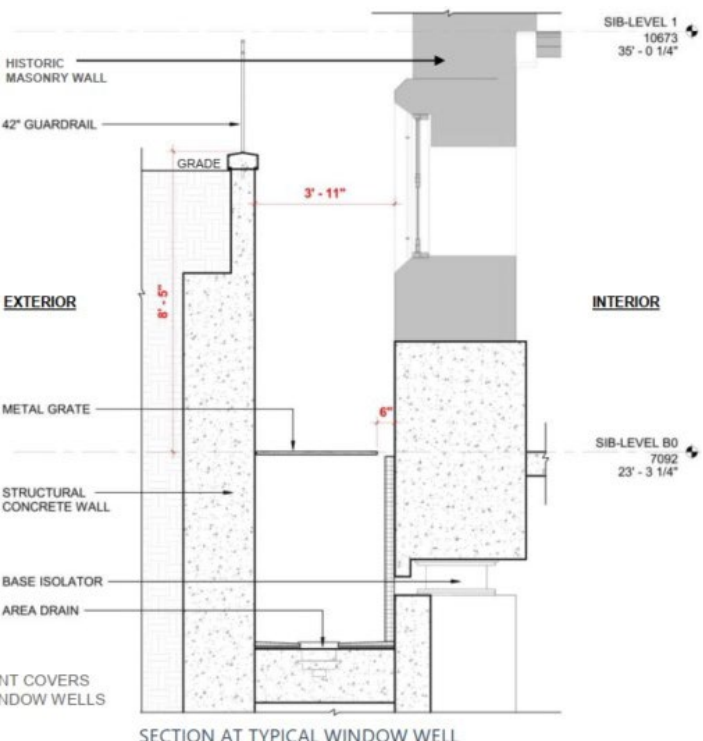


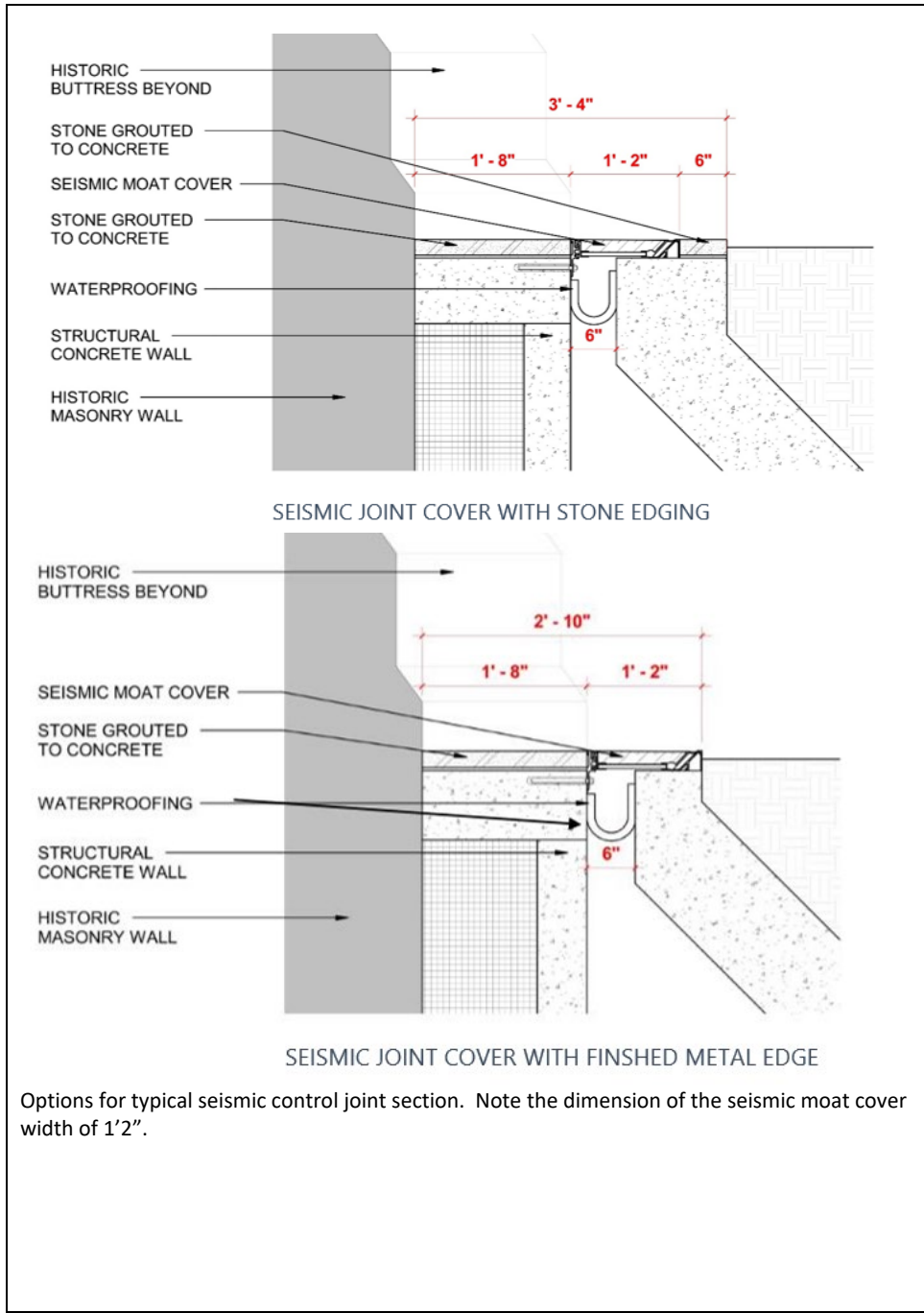
PLANTER
 SEATING AREA

Concept rendering of the southeast areaway.

- Adverse effect may be minimized through maintaining the landscape character within the Haupt Garden and setting north of the Castle. Landscape plan and plantings will be finalized in Phase 2 of 106 consultation.
- Seismic base isolation joint will be incorporated into the recessed areaways and aprons.
- Areaways will expose new portions of the foundations, with options for surface treatments and materials to minimize adverse effect, pending mock-ups and design development in Phase 2 of 106 consultation.
- Existing sidewalks and pedestrian paths in the Haupt Garden will be maintained, which restricts some visibility in combination with the landscaped plan and minimizes adverse effect.
- Contributes to the cumulative adverse effect on the Setting of the Castle.

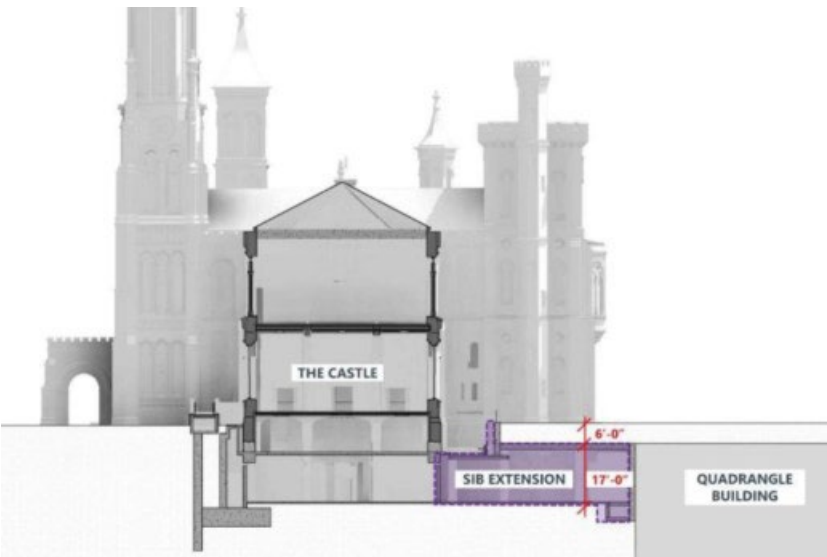

Proposed Effect Determination – Adverse Effect

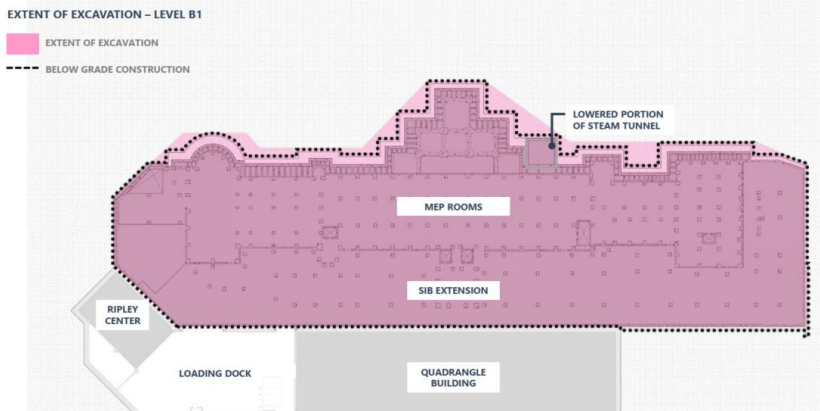
Smithsonian Institution Building	
Feature/Action	Design Details
<p>Installation of Seismic Control Joints Around the Castle Perimeter (Location and Width)</p>  <p>Proposed Castle site plan. Blue shading notes at-grade seismic joint cover; orange shading notes below-grade seismic joint cover in areaways or window wells.</p>	<ul style="list-style-type: none"> - Seismic base isolation joint is required around the entire Castle perimeter. - Seismic control joint must be as regular as possible around the Castle’s unique footprint. - Seismic control joint will have an at-grade cover plate to prevent water infiltration into the joint. - Seismic control joint moat cover is 1’2” in width, but the overall visual assembly width varies to account for buttresses or other architectural features. - Seismic control joint cover plate overall assembly width will be the minimum dimension possible.
Images	Additional Information
 <p>Section of a typical window well. Note that a seismic control joint cover is not required in window wells.</p>	<ul style="list-style-type: none"> - Setting is a character defining feature. - Castle is an unreinforced masonry structure with complex building massing. Castle experienced significant damage from the 2011 Mineral, VA earthquake. - Seismic base isolation provides protection for the Castle with minimal visual impact. Seismic base isolation avoids the installation of visually intrusive steel and cable supports. - Seismic control joint is associated with base isolation, which separates the building from the ground motion. Base isolation is achieved by creating a plane of separation between the superstructure and the foundations. - Seismic control joint covers the seismic moat to prevent water infiltration. - Seismic control joint cover is not required in the proposed window wells because water infiltration is handled through floor drains.



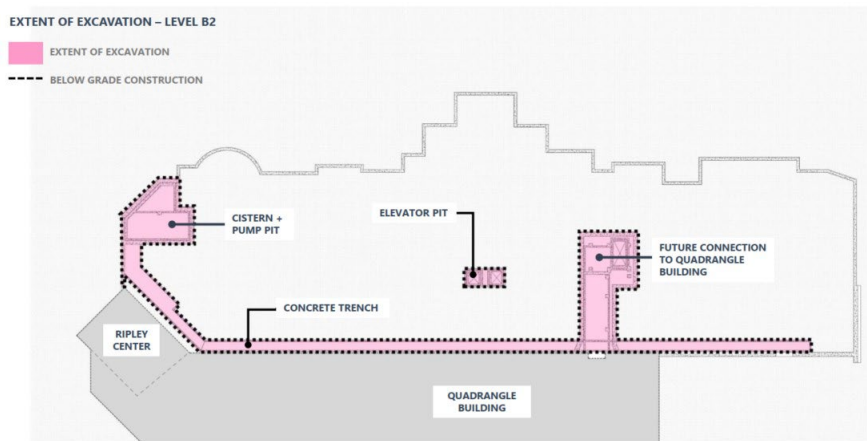
- Seismic base isolation joint will be incorporated into the recessed areaways and under projecting building elements such as the porte cochere and east entrance stairs.
- Seismic control joint will be visible immediately adjacent to the base of the Castle at-grade, and visible around the porte cochere in the sidewalk. This has an adverse effect on the Castle and National Mall Settings.
- Seismic control joint cover plate can accept a variety of finishes, including pavers and architectural features.
- Adverse effect may be minimized through selection of seismic cover plate materials pending mock-ups and design development in Phase 2 of 106 consultation.
- Seismic joint cover is anchored to new concrete for the majority of the Castle perimeter (1,040 linear feet), which minimizes adverse effect by limiting the amount of attachment to historic fabric.
- Seismic joint cover is anchored to sandstone for 335 linear feet of the Castle perimeter.
- Adverse effect is minimized through limiting the width dimensions and the control joint cover plate edge treatment.
- Contributes to the cumulative adverse effect on the Setting of the Castle.

Proposed Effect Determination – Adverse Effect

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Extent of Excavation Adjacent to Castle – SIB Extension (B1 Level), B2 Level Cistern*</p> <p>* This project labels the current Castle basement level B0; the mechanical distribution level and SIB Extension level B1; and the cistern and future Quadrangle connection B2.</p>  <p>Proposed transverse section through the Castle showing the depths of excavation. SIB Extension is shaded purple.</p>	<ul style="list-style-type: none"> - Excavation occurs adjacent to the Castle for the SIB Extension at the B1 level proposed in an unexcavated area between the Quadrangle and Castle. - SIB Extension will be 23’ below-grade. - SIB Extension aligns with the depth of the B1 level of the Quadrangle Building. - SIB Extension provides connection to the existing Quadrangle loading dock, and spaces for service functions to support the Castle. - Stormwater management cistern will be located at the B2 level adjacent to the west of the Castle.
Images	Additional Information
<p>LONGITUDINAL SECTION – EAST-WEST</p> <p>SIB EXTENSION</p>  <p>Proposed longitudinal section.</p>	<ul style="list-style-type: none"> - SIB Extension will allow for the majority of service functions and infrastructure to be placed outside the Castle footprint, prioritizing the historic interiors for public programming and use. - There is the potential for construction related adverse effects from excavation or building vibration. The SI will not put the Castle at risk for constructed related damage and adverse effects. - Excavation for this project is connected to Stipulation 7.C (Monitoring of Adjacent Historic Properties) of the South Mall Master Plan Programmatic Agreement which requires monitoring adjacent to historic properties. - Effects of excavation adjacent to the Castle may not be adverse provided the following conditions are met: <ol style="list-style-type: none"> 1. Pre-construction monitoring is carried out to establish a baseline for movement



Extent of excavation at the B1 Level.




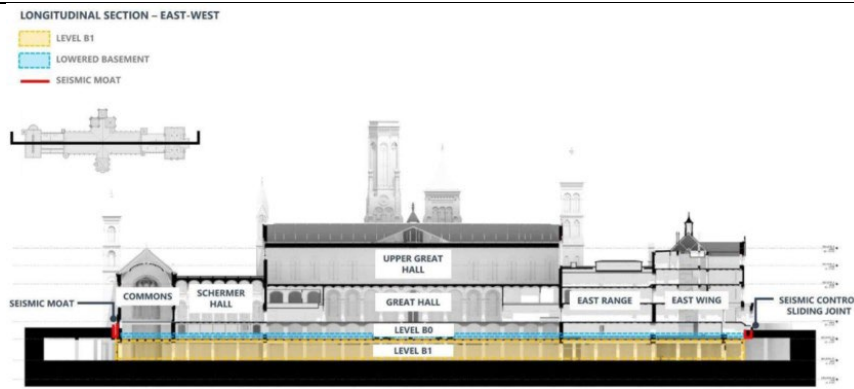
Extent of excavation at the B2 level.

and vibrations (Note: this monitoring is already underway);

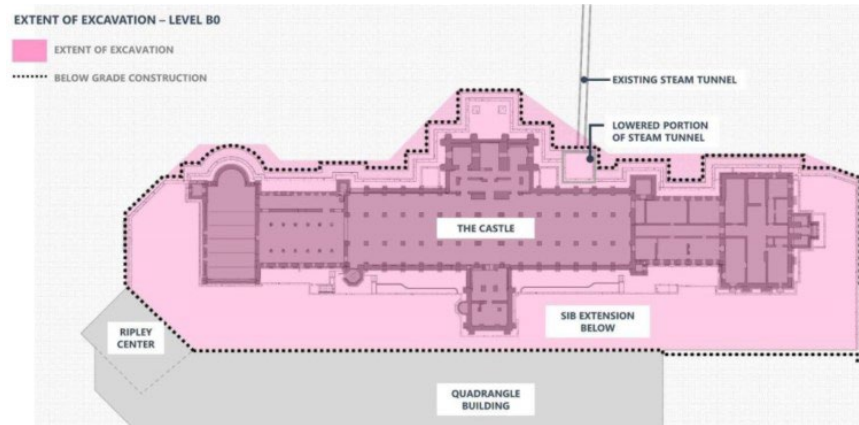
2. A Monitoring Plan will be prepared to identify safe vibration limits based upon the pre-construction monitoring;
3. Monitoring will be carried out for entire project duration to measure vibration during the proposed excavation and other construction activities;
4. Construction activities will be temporarily halted should any vibration, settlement, or unanticipated circumstances exceed the safe limits outlined in the pending Monitoring Plan; and
5. If safe limits are exceeded, the SI shall stop work, notify the Signatories and other parties as appropriate, and follow Stipulation 8 (Emergency Actions) of the South Mall Master Plan Programmatic Agreement.

Proposed Effect Determination – Conditional No Adverse Effect

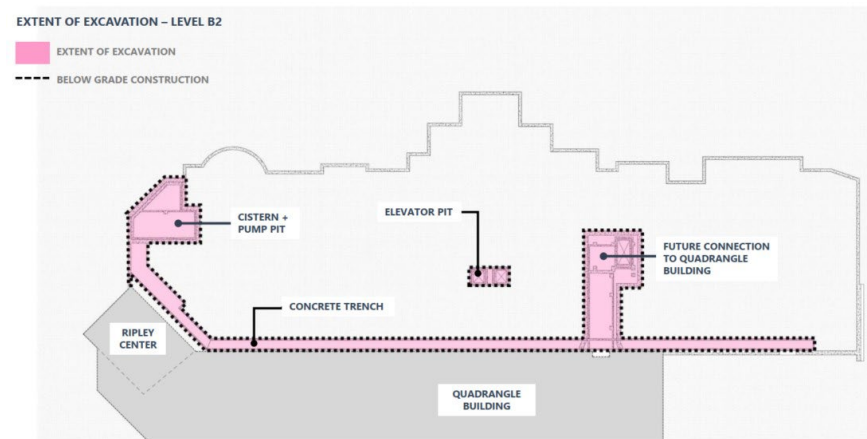
Smithsonian Institution Building	
Feature/Action	Design Details
<p>Excavation Beneath the Castle – Base Isolation, Lowering of the Basement Level, Future Quadrangle Building B2 Connection, and Mechanical Distribution Level*</p> <p>* This project labels the current Castle basement level B0; the mechanical distribution level and SIB Extension level B1; and the cistern and future Quadrangle connection B2.</p>	<ul style="list-style-type: none"> - Basement floor level (B0) will be lowered 3’ to accommodate public use and programming. - Seismic base isolation will be inserted. - New mechanical distribution level (B1) with a 15’ floor to ceiling height is proposed below the Castle basement for building specific mechanical equipment. - Mechanical distribution level is aligned with the existing Quadrangle loading dock, Quadrangle B1 level, and the SIB Extension. - B2 level will contain an excavated but not enabled future connection to the Quadrangle Building B2 level.
Images	Additional Information
 <p>Proposed transverse section through the Castle showing the depths of excavation. Lowered basement is shaded blue. Mechanical distribution level is shaded yellow.</p>	<ul style="list-style-type: none"> - Castle is an unreinforced masonry building, with a long and narrow profile, and complex building massing. - Castle is at risk for significant seismic related damage, experienced during the 2011 earthquake. - Base isolation separates the building from the ground motion, achieved by creating a plane of separation between the superstructure and the foundations. - Proposed mechanical distribution level reduces the impact of new systems on the exterior or historic interior. - Mechanical distribution level is proposed at 15’ for sufficient space for equipment operations and maintenance. - Excavation of the B0 and B1 levels has the potential to adversely affect historic fabric such as the existing floor material and the “reverse arch” construction that may exist below grade, and by altering the historic character of the existing basement. Consideration of these interior alterations will be part of Phase 2 of 106 consultation. - There is the potential for construction related adverse effects from excavation or building vibration. The SI will not put the



Proposed longitudinal section.



Extent of excavation at the B0 level (current Castle basement).



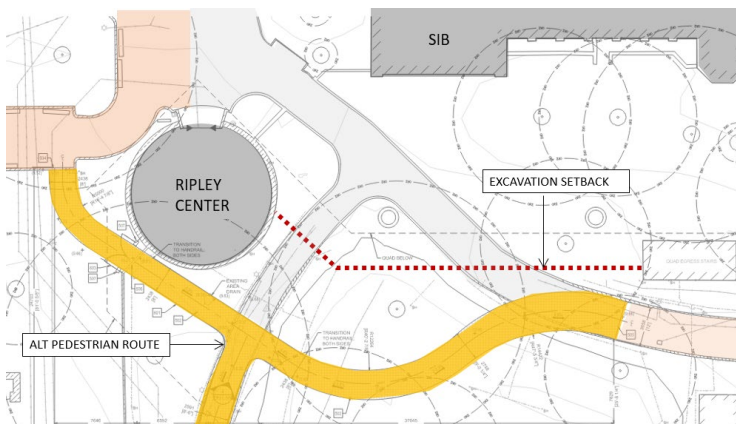
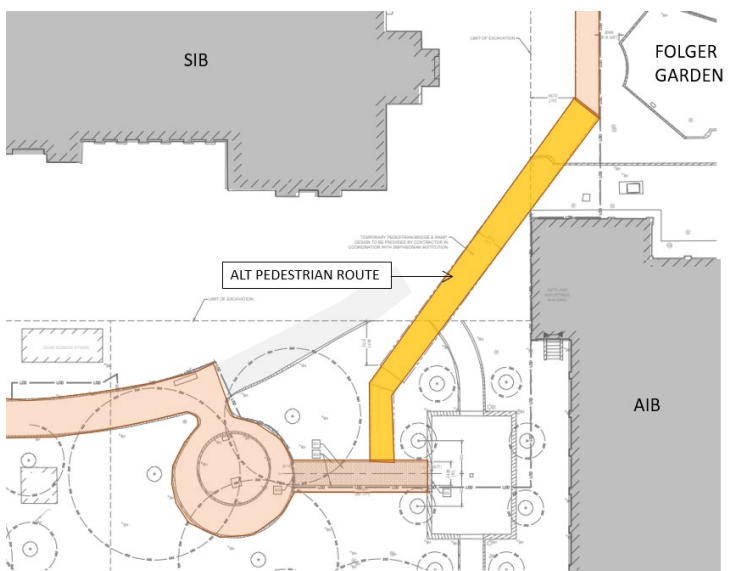
Extent of excavation at the B2 level.

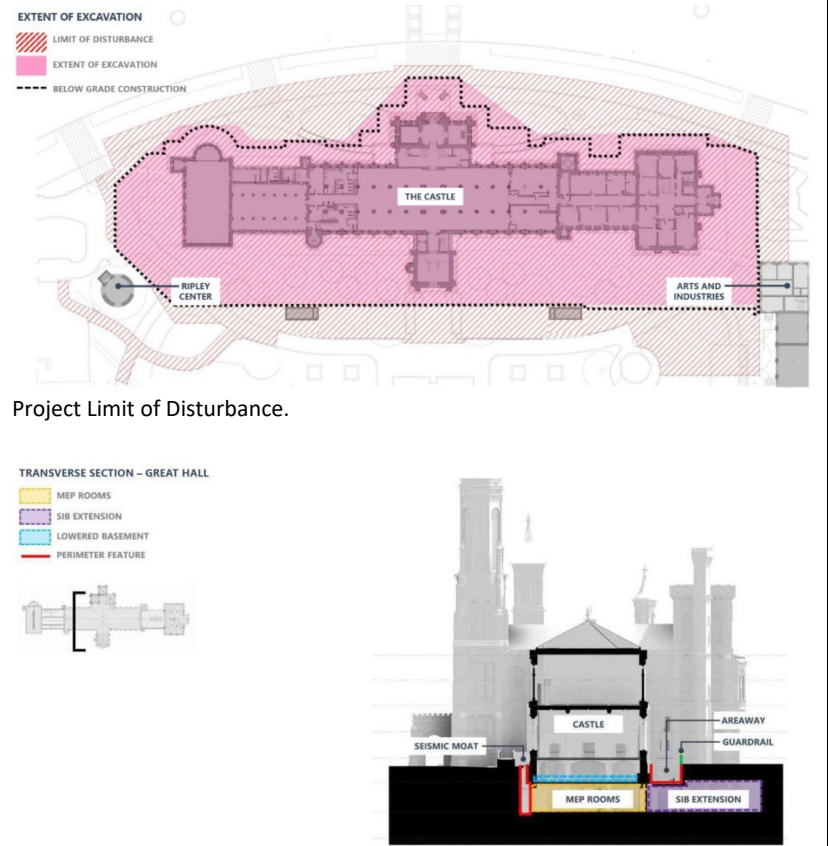
Castle at risk for constructed related damage and adverse effect.
 - Excavation for this project is connected to Stipulation 7.C (Monitoring of Adjacent Historic Properties) of the South Mall Master Plan Programmatic Agreement which requires monitoring adjacent to historic properties.

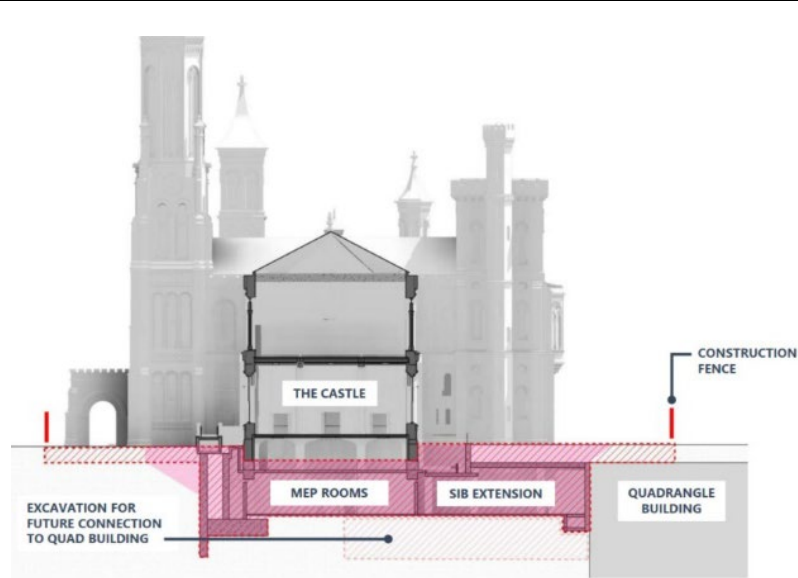
- Effects of excavation adjacent to Castle may not be adverse provided the following conditions are met:

1. Pre-construction monitoring is carried out to establish a baseline for movement and vibrations (Note: this monitoring is already underway);
2. A Monitoring Plan will be prepared to identify safe vibration limits based upon the pre-construction monitoring;
3. Monitoring will be carried out for entire project duration to measure vibration during the proposed excavation and other construction activities;
4. Construction activities will be temporarily halted should any vibration, settlement, or unanticipated circumstances exceed the safe limits outlined in the pending Monitoring Plan; and
5. If safe limits are exceeded, the SI shall stop work, notify the Signatories and other parties as appropriate, and follow Stipulation 8 (Emergency Actions) of the South Mall Master Plan Programmatic Agreement.

Proposed Effect Determination – Conditional No Adverse Effect

Site - Smithsonian Institution Building	
Feature/Action	Design Details
Creation of Alternate Pedestrian Routes for Circulation Around the Castle	<ul style="list-style-type: none"> - Limit of Disturbance for Phase 1 construction activities will temporarily affect part of Jefferson Drive, Folger Rose Garden, and Haupt Garden. - Existing pedestrian pathways south of the Castle will be temporarily blocked due to construction fencing and ground disturbance activities. - Alternate pedestrian routes are required to access the Haupt Garden and the Quadrangle Building programs.
Images	Additional Information
 <p>Alternate pedestrian route around Ripley Pavilion.</p>  <p>Alternate pedestrian route around the Castle's east side.</p>	<ul style="list-style-type: none"> - Pedestrian route around the Castle's east side must span the excavation work and project Limit of Disturbance using a temporary pedestrian bridge structure with accessible ramps. - Pedestrian route around the Castle's west side is located and slightly elevated to avoid impacts to root systems of mature trees. - Alternate pedestrian routes may remain in place during the entire RoHC Revitalize Castle construction (Phase 1 and 2). - Hardscape materials will be salvaged and reinstalled in their original locations. - Maintenance of pedestrian access and circulation during construction is in accordance with Stipulation 7.D (Implementation of Projects – Campus Circulation) of the South Mall Master Plan Programmatic Agreement. - The creation of alternate pedestrian routes has the potential to adversely effect the Castle's Setting due to changed pathways and/or landbridge. - Effects of the alternate pedestrian routes may not be adverse provided the following conditions are met after the completion of construction activities in 2028: <ol style="list-style-type: none"> 1. Construction fencing is removed and land disturbance activities are completed allowing returned use of the Haupt Garden circulation path south of the Castle. 2. Hardscape materials are salvaged and reinstalled in their original locations. 3. Turf and landscape plantings are returned.
Proposed Effect Determination – Conditional No Adverse Effect	

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Cumulative Effects of Phase 1 Activities</p>	<ul style="list-style-type: none"> - Limit of Disturbance for Phase 1 construction activities will temporarily affect part of Jefferson Drive, Folger Rose Garden, and Haupt Garden. - Construction fencing will obscure the base of the Castle around the Limit of Disturbance during Phase 1 construction activities. - Landscape within the project limit of disturbance will temporarily be turf to facilitate 2026 activities prior to mobilization for Phase 2 construction activities. - Recessed areaways and window wells are proposed in various locations around the Castle perimeter. - Seismic base isolation joint with a visible cover plate assembly is required around the Castle perimeter at-grade.
Images	Additional Information
 <p>The top diagram is a site plan titled 'Project Limit of Disturbance'. It shows the layout of 'THE CASTLE', 'RIPLEY CENTER', and 'ARTS AND INDUSTRIES'. A pink hatched area indicates the 'LIMIT OF DISTURBANCE', which encompasses the castle and surrounding gardens. A solid pink area shows the 'EXTENT OF EXCAVATION' within the castle. A dashed line indicates 'BELOW GRADE CONSTRUCTION'. The bottom diagram is a 'TRANSVERSE SECTION - GREAT HALL' showing a cross-section of the castle's base. It labels 'MEP ROOMS' (yellow), 'SIB EXTENSION' (purple), 'LOWERED BASEMENT' (blue), and 'PERIMETER FEATURE' (red lines). Other features include 'SEISMIC MOAT', 'CASTLE', 'AREAWAY', and 'GUARDRAIL'.</p> <p>Project Limit of Disturbance.</p> <p>Transverse Castle section. Red lines annotate visible changes at the Castle's base.</p>	<ul style="list-style-type: none"> - The Andrew Jackson Downing Urn, a memorial and public artwork located in the Haupt Garden, will be protected-in-place or temporarily relocated to a SI storage facility. - Haupt Garden, Folger Rose Garden, and landscape building settings will be restored in all disturbed areas related to construction. - Phase 1 construction activities will be complete and demobilized by Spring 2026. - There is the potential for construction related adverse effects from excavation or building vibration. Construction activities will be temporarily halted should any vibration, settlement, or unanticipated circumstances exceed the safe limits outlined in the Monitoring Plan. - Alternate pedestrian routes may remain in place during the entire RoHC Revitalize Castle construction (Phase 1 and 2). - Construction fencing and alternate pedestrian routes will have a temporary adverse effect on the Castle and its setting. When the Castle opens for 2026 activities, construction fencing will be removed. When construction resumes, construction fencing will be erected. - Cumulative adverse effects from excavation work, construction fencing, and alternate pedestrian routes are conditional, provided the



Transverse Castle section. Limit of Disturbance noted with a red hatch mark, and construction fencing with red.


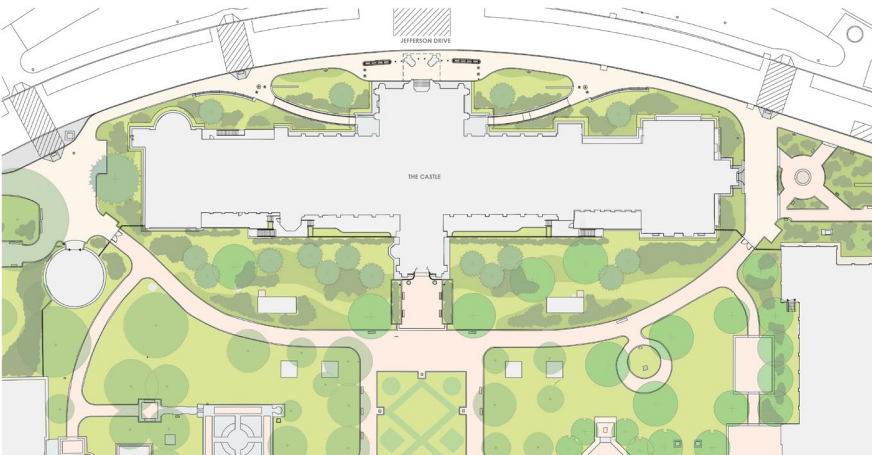
site is restored after construction is complete, including reinstallation of salvaged hardscape pavers and plantings.

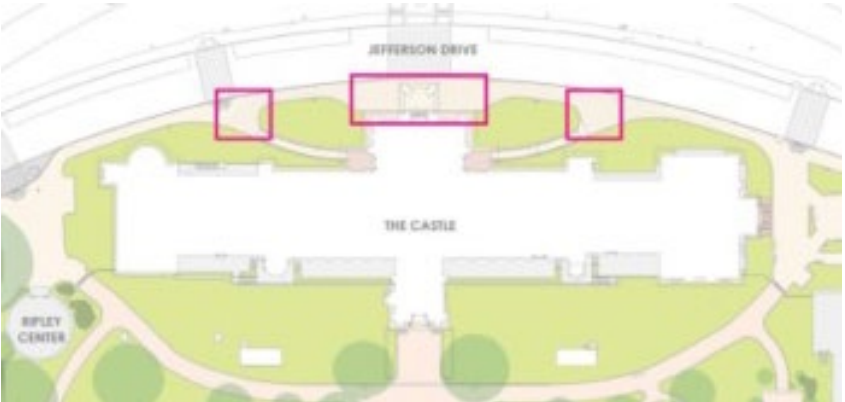
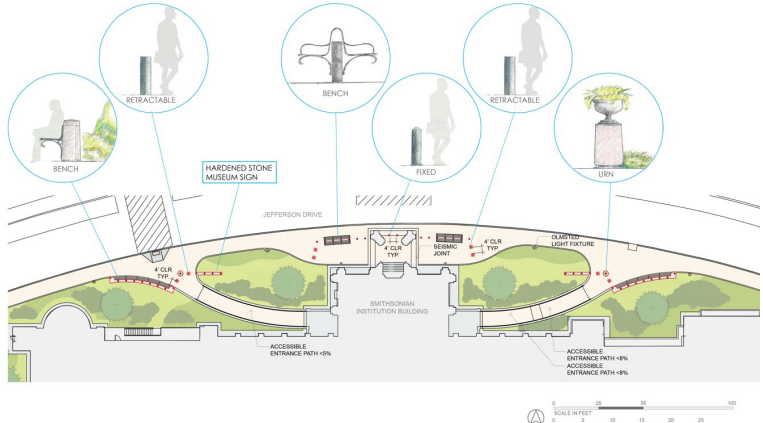

- Seismic control joint will be visible immediately adjacent to the base of the Castle at-grade, and visible around the porte cochere in the sidewalk. This has an adverse effect on the Castle and National Mall Settings.
- Proposed below-grade areaways and wells alter the Castle's relationship with the ground plane.
- Areaways, window wells, and their fall protection railings will be visible within the setting at the base of the Castle. Railing design alternatives will be finalized in Phase 2 of 106 consultation.
- There is a cumulative adverse effect on the Castle's Setting from the seismic control joint, areaways, and window wells.

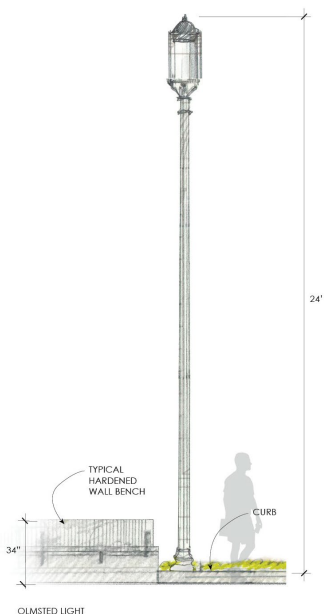
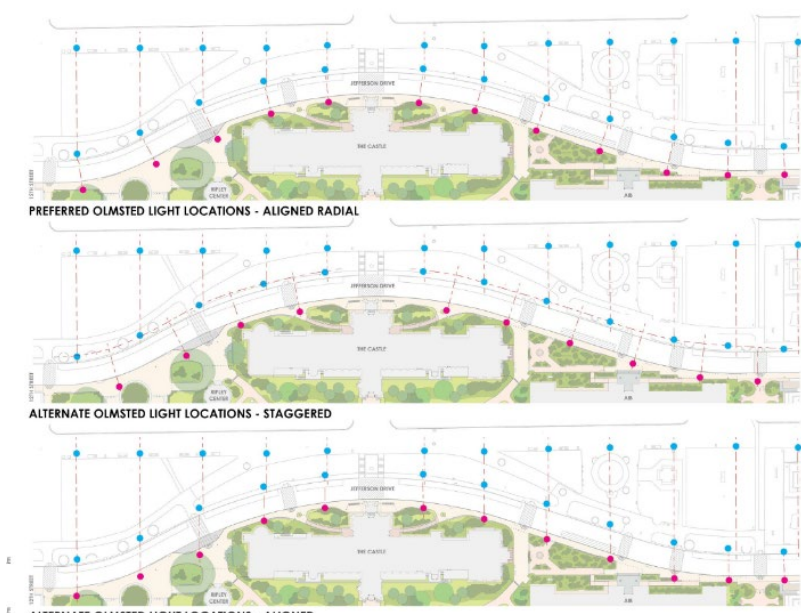
Proposed Effect Determination – Adverse Effect



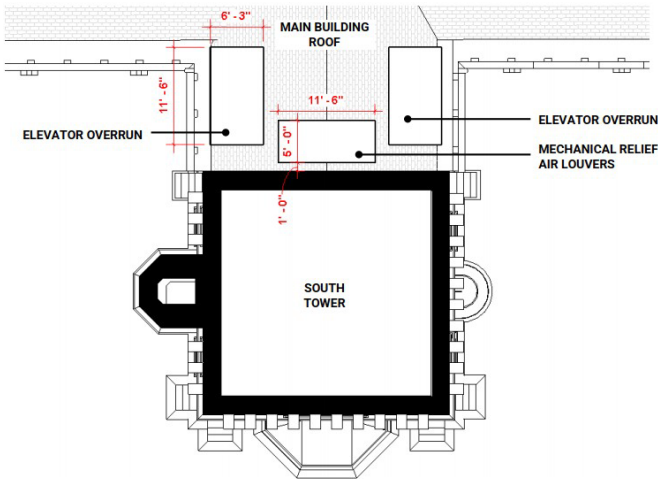
Assessment of Effects on Historic Resources – Phase 2


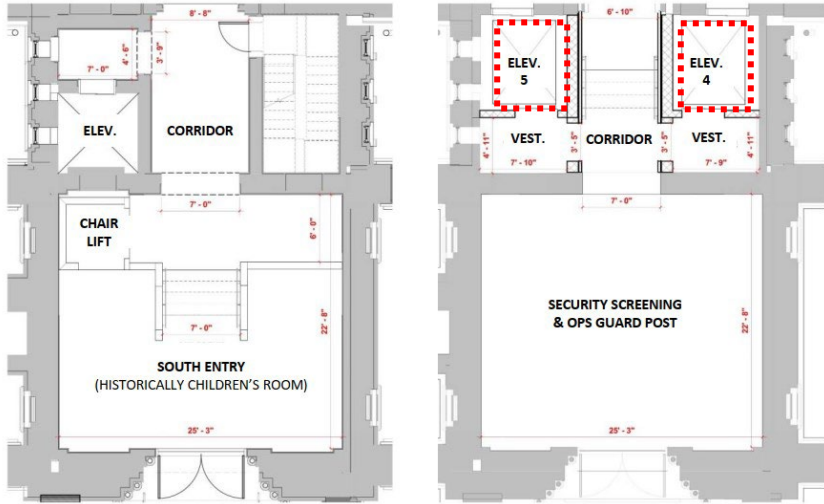

The following provides an assessment of effects of each feature or action of the RoHC Revitalize Castle. The effect determination is based on the criteria of adverse effect. For more images and information on each action and assessment, please refer to the presentation materials from past Section 106 Consulting Parties meetings available on the project webpage. Phase 2 contains the remaining design actions for consultation to complete the RoHC Revitalize Castle project.

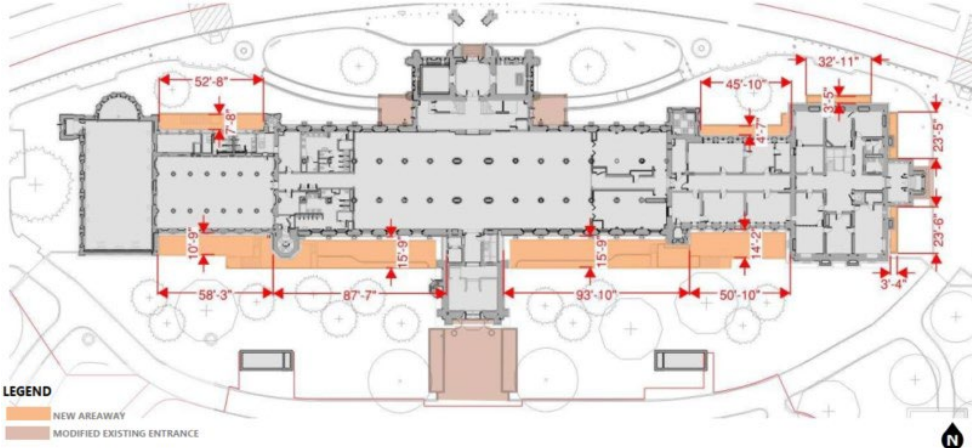
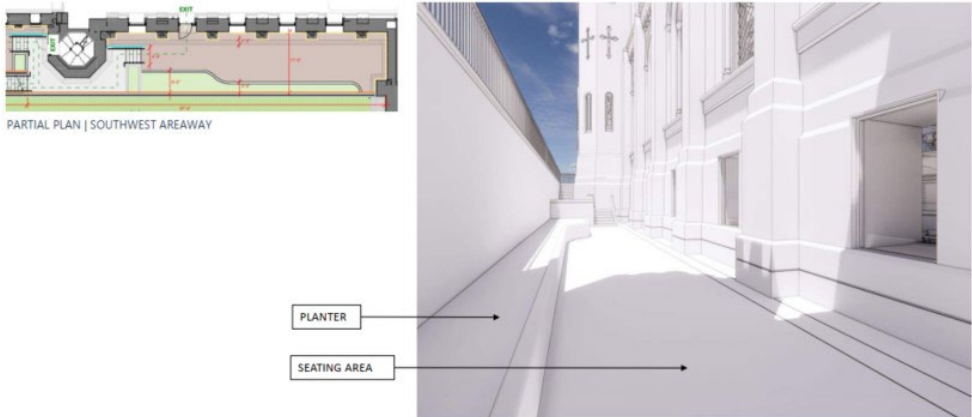
Site	
Feature/Action	Design Details
<p>New Landscape Planting Plan</p>	<ul style="list-style-type: none"> - Landscape features and hardscape displaced by the project limit of disturbance will be replaced in-kind. - Character of the landscape will be maintained. - Tree plantings will be setback from the Castle.
Images	
<div style="display: flex; flex-direction: column; align-items: center;">  <p data-bbox="110 1318 584 1348">Existing landscape character, south of the Castle.</p>  <p data-bbox="110 1822 706 1852">Final landscape plan – To be updated in Phase 2 consultation.</p> </div>	<p>Additional Information</p> <ul style="list-style-type: none"> - Setting of the Castle is a character defining feature. - Haupt Garden is documented in the National Mall Historic District nomination as part of the landscape setting, not as a contributing element. - Current tree plantings are immediately adjacent to the Castle causing biological growth on the Seneca sandstone. Setting the trees back slightly from the Castle will remediate this problem. - Landscape settings feature a mix of large structural trees (evergreen and deciduous), large shrubs/small trees, low shrubs, and groundcover. Diversity and hierarchy of plantings will be maintained.
<p>Preliminary Effect Determination – No Adverse Effect</p>	

Site	
Feature/Action	Design Details
<p>Perimeter Security</p>  <p>Castle and partial Haupt Garden site plan. Locations that require perimeter security are noted with pink outlines.</p>	<ul style="list-style-type: none"> - Secure perimeter is required at building entrances and visitor queuing areas. - Design is a combination of hardened metal bollards (fixed and retractable), landscape wall features, and benches. - Design alternatives are in development for Phase 2 of consultation, including: size and placement of the integral bollard benches; bollard finish; granite material; integral bollard bench designs; placement of bollards within the porte cochere piers; and size of wall benches adjacent to the accessible walkways.
Images	Additional Information
 <p>Proposed perimeter security elements at north entry along Jefferson Drive at the end of Phase 1 of 106 consultation.</p>  <p>Visualization of north entry security elements at porte-cochere along Jefferson Drive.</p>	<ul style="list-style-type: none"> - Setting is a character defining feature. - Castle porte cochere is less than 4' from the roadbed curb. - At the beginning of consultation, perimeter security proposed a continuous line of bollards and site walls to create a barrier along the Jefferson Drive curb. This design had significant adverse effects on the Castle and National Mall settings. - Phase 1 of 106 consultation developed alternatives for symmetrical benches that incorporate bollards adjacent to the porte cochere, to minimize the visual presence of bollards. - Retractable and fixed bollards measure 30" in height and 8" in diameter for visual continuity between the two types. - Contributes to the cumulative adverse effect on the Setting of the Castle and the National Mall Historic District.
<p>Preliminary Effect Determination – Adverse Effect</p>	

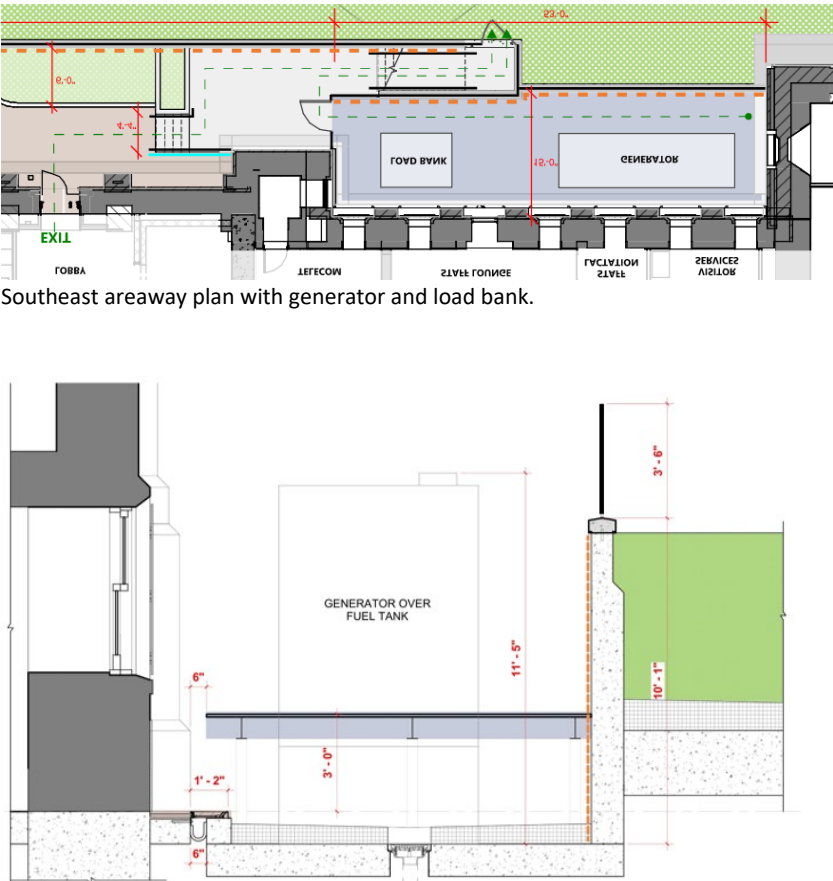
Site	
Feature/Action	Design Details
<p>Lighting</p>  <p>Olmsted light post details.</p>	<ul style="list-style-type: none"> - Light posts are proposed along the south side of Jefferson Drive in keeping with the historic context and National Mall existing light posts. - Olmsted light posts will be used. - Building façade lighting will be accomplished through fixtures hidden within the landscape plantings. - In Phase 2 of 106 consultation, the final design alternative will be determined for the placement of the Olmsted light posts.
Images	Additional Information
 <p>Three design alternatives for the placement of the Olmsted light posts on Jefferson Drive. Blue dots note existing Mall posts. Pink dots note the proposed Olmsted posts.</p>	<ul style="list-style-type: none"> - Light post design aligns with District of Columbia standards and the National Capital Planning Commission’s Monumental Core Streetscape Framework. - Light posts conform with dark sky requirements in the National Mall setting. - Existing building specific fixtures will be restored and rehabilitated with energy efficient lighting. - Building façade lighting will not be attached to the Castle or damage historic fabric. - Phase 1 of 106 consultation developed three alternatives for the arrangements of the light posts on Jefferson Drive, in coordination with the existing National Mall Olmsted light posts.
<p>Preliminary Effect Determination – No Adverse Effect</p>	

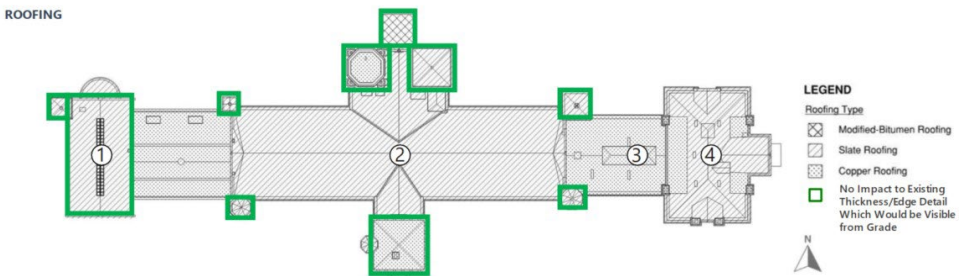

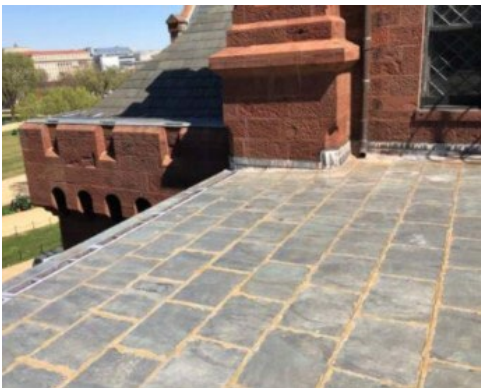
Smithsonian Institution Building	
Feature/Action	Design Details
<p>South Tower Elevator – Exterior Alterations</p>  <p>Existing condition of the South Tower peaked roof and mechanical bulkhead.</p>	<ul style="list-style-type: none"> - Two new elevators replace an existing elevator and stair in the Castle’s South Tower. - Proposed elevators are accessible and code compliant, and will be the primary vertical circulation for the public for all levels of the Castle. - New elevators require a visible overrun for each, and mechanical air relief bulkhead. - Phase 2 of 106 consultation will consider an alternative location for the mechanical relief bulkhead, and design alternatives and materials for cladding the exterior additions.
Images	Additional Information
 <p>Existing view looking NE. Proposed view looking NE.</p>  <p>Proposed roof plan noting locations of the elevator overruns and mechanical bulkhead.</p>	<ul style="list-style-type: none"> - Roof Profile is a character defining feature. - Proposed work enables the removal of the non-code compliant elevator and its visible elevator overrun from the North Tower. - Existing South Tower elevator is not code compliant. - South Tower has a steep peaked roof clad in slate shingles. The existing non-historic mechanical relief tower for the existing elevator is freestanding from the Tower masonry. - Existing elevator bulkhead is visible from the east and west of the South Tower. - Proposed elevator overruns and mechanical louver bulkhead are visible from the east and west of the South Tower. - Proposed elevators use Machine Room Less technology, which does not require overhead mechanical equipment above the elevator shaft. If this technology was not used, the elevator overruns would be significantly taller. - Phase 1 of 106 consultation developed two cladding designs for the exterior features, an utilitarian low sloped and decorative sloped roof profiles. - Proposed exterior changes have an adverse effect on the Castle’s roofline, South Tower massing, and will remove historic roofing materials. - Contributes to the cumulative adverse effect on the Castle’s Building Massing, Perimeter Tower, and Roof Profile
<p>Preliminary Effect Determination – Adverse Effect</p>	

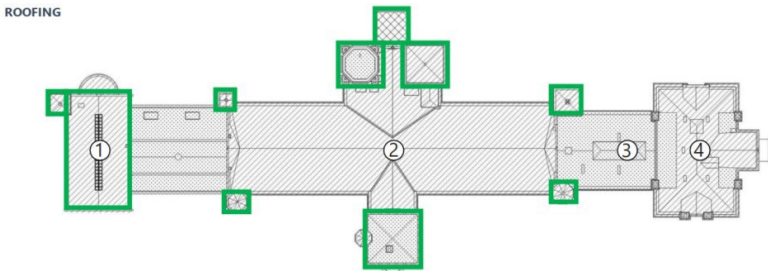
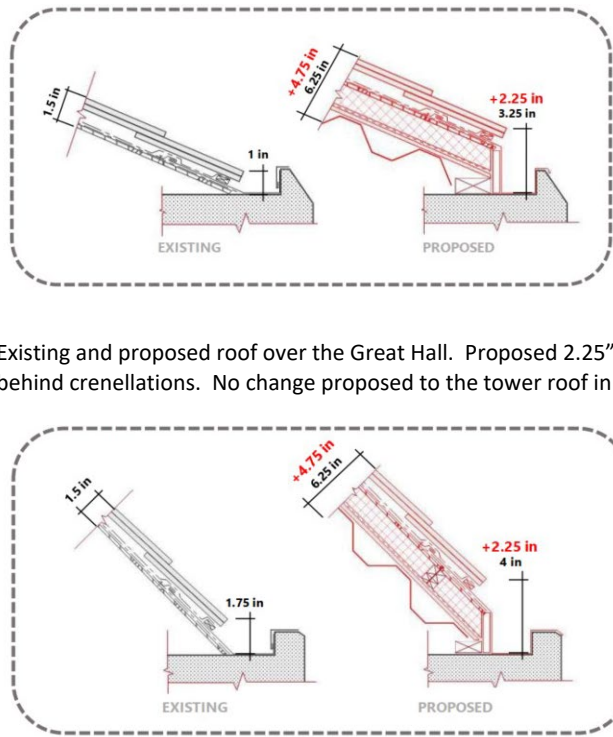


Smithsonian Institution Building	
Feature/Action	Design Details
<p>South Tower Elevator - Interior Effects</p>  <p>Existing conditions in the Children's Room. Note the non-historic stairs and barrier-free access lift.</p>	<ul style="list-style-type: none"> - South Tower elevators have associated interior alterations to accommodate the shafts and access the elevators. - West elevator replaces a non-historic elevator. East elevator replaces a circulation stair. Elevator cabs are accessed from a proposed vestibule at each level. - Phase 2 of 106 consultation will develop design details and alternatives for: appearance of the elevator doors within the Great Hall; elevator cab door appearance; details for modifications to the Children's Room and third level floor mosaics; and access to the elevator vestibules.
Images	Additional Information
 <p>Existing south entry plan.</p> <p>Proposed elevator locations noted with red dotted outlines.</p>  <p>Existing mosaic at corridor of third level Regent's Room.</p>	<ul style="list-style-type: none"> - Interior alterations for the South Tower elevators lack independent utility and are part of Section 106 consultation. - Elevators are double-sided to address floor level changes between the South Tower and the Main Building. For example, for the first floor the elevator has a stop at-grade in the Children's Room, and a quarter level up for access to the Great Hall. - Proposed alterations will affect historic fabric at the first and third levels, including decorative floor mosaics and creating openings. - New elevators will enable the restoration of the historic footprint of the Children's Room, currently half occupied with a barrier-free access lift, platform, and stairs.
<p>Preliminary Effect Determination – Adverse Effect</p>	


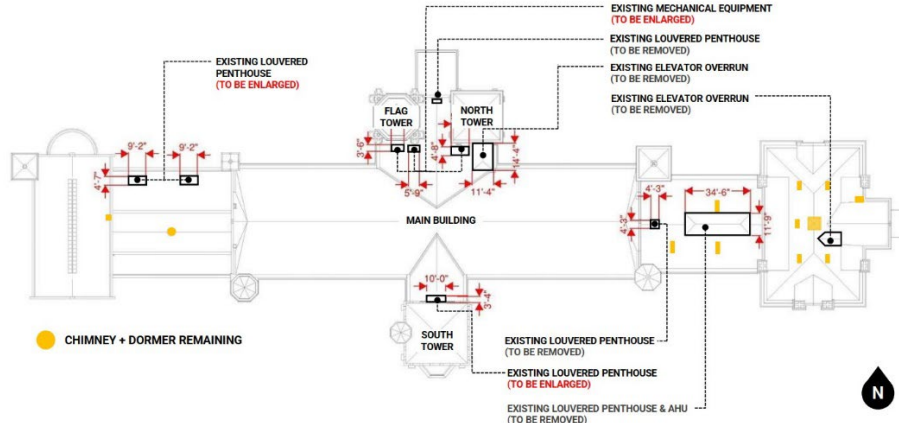
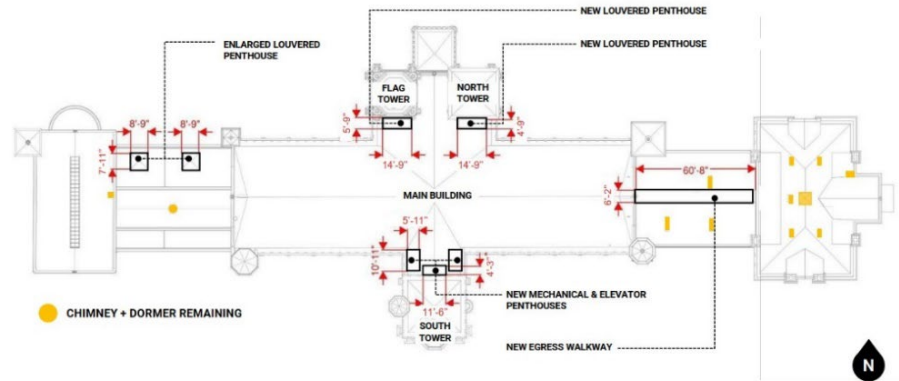
Smithsonian Institution Building	
Feature/Action	Design Details
<p>New Areaways and Window Wells – Finishes</p>  <p>Castle site plan, with proposed below-grade areaways and window wells noted with orange shading.</p>	<ul style="list-style-type: none"> - Recessed areaways and window wells are proposed at locations around the Castle perimeter. - Recessed areaways expose up to 9 feet of the Castle’s foundations. - Phase 2 of 106 consultation will consider alternatives for: surface material treatments for the Castle’s foundations; materials for the areaway finishes and capstones; designs for the fall protection railings; and landscape plantings.
Images	Additional Information
 <p>Concept rendering of the proposed Southwest Areaway.</p>	<ul style="list-style-type: none"> - Setting is a character defining feature. - Castle currently has 393’ linear feet of areaway (recessed well), and 220’ existing linear feet of apron (paving at grade). - Phase 1 determined that the Areaways and Window Wells (Locations and Dimensions) adversely affect the Castle’s Setting and relationship with the ground plane. - Areaways, egress stairs, window wells, and their fall protection railings will be visible at the base of the Castle, and adversely effect the Setting. - Adverse effects may be minimized through consultation during Phase 2 of 106 consultation.
<p>Phase 1 Effect Determination – Adverse Effect</p>	

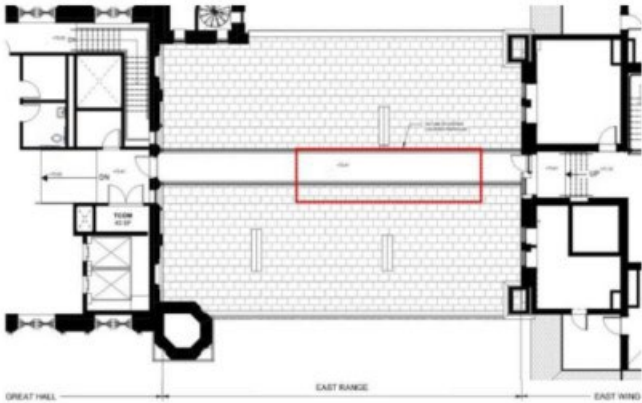
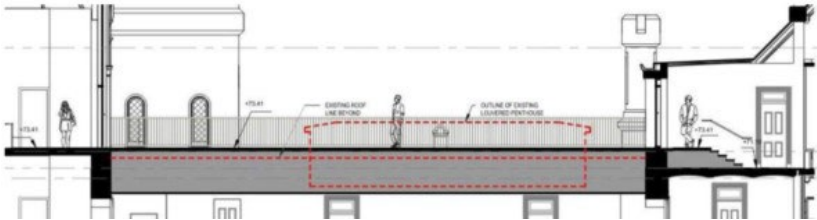

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Seismic Control Joint Cover Plate - Finishes</p>	<ul style="list-style-type: none"> - Seismic base isolation joint is required around the Castle perimeter at-grade. - Seismic control joint moat cover is 1'2" in width, but the overall visual assembly width varies to account for buttresses or other architectural features. - Phase 2 of 106 consultation will consider alternatives for: joint cover material; and paving material under the porte cochere.
Images	Additional Information
<p style="text-align: center;">SEISMIC JOINT COVER WITH STONE EDGING</p> <p style="text-align: center;">SEISMIC JOINT COVER WITH FINISHED METAL EDGE</p> <p>Options for typical seismic control joint section. Note the dimension of the seismic moat cover width of 1'2".</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <p><small>Academy Black - Coldspring Granite</small></p> </div> <div style="text-align: center;"> <p><small>Charcoal Black - Coldspring Granite</small></p> </div> <div style="text-align: center;"> <p><small>Olympic Black - Vermont Stone Art</small></p> </div> </div> <p>Granite material options for the cover plate finish material</p>	<ul style="list-style-type: none"> - Setting is a character defining feature. - Phase 1 determined that the visibility of the Seismic Control Joint has an adverse effect on the Castle and National Mall settings. - Phase 1 determined that the Seismic Control Joint (Location and Width) overall assembly width will be the minimum dimension possible to minimize visual impact. - Comments from Consulting Parties during Phase 1 consultation preferred a gray granite for the cover plate material, as a neutral change in material at the Castle base and contextual to the landscape. - Seismic control joint will be incorporated into the recessed areaways and under projecting building elements such as the porte cochere and east entrance stairs. - Seismic control joint cover plate material will either minimize or intensify the adverse effect. - Adverse effects may be minimized through consultation during Phase 2 of 106 consultation.
<p>Phase 1 Effect Determination – Adverse Effect</p>	

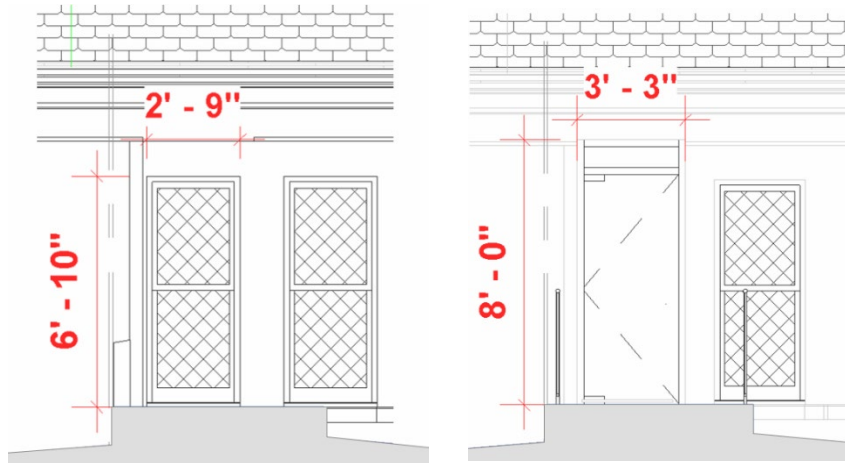
Smithsonian Institution Building	
Feature/Action	Design Details
Emergency Generator	<ul style="list-style-type: none"> - Emergency generator will be located within the proposed southeast areaway. - Emergency generator may be visible within the Castle’s setting. - Phase 2 of 106 consultation will consider the following: generator visibility; and visual screening.
Images	Additional Information
 <p>Southeast areaway plan with generator and load bank.</p> <p>Visibility of generator beyond areaway and railing.</p>	<ul style="list-style-type: none"> - Removal of the Central Utility Plant from the project required alternate placement for the emergency generator. - Emergency generator may contribute to the cumulative adverse effect on the Castle Setting.
Preliminary Effect Determination – Adverse Effect	

Smithsonian Institution Building	
Feature/Action	Design Details
In-Kind Replacement of Roof Materials	<ul style="list-style-type: none"> - Removal and replacement of existing roofing system, with new underlayments, insulation, gutters, and metal flashing. - In-kind replacement of the slate shingles. - Lead coated copper roofing will be replaced with zinc-tin coated copper.
Images	Additional Information
<p>ROOFING</p>  <p>Proposed roof plan noting locations of slate and copper cladding.</p>  <p>Typical conditions of slate roofing shingles.</p>  <p>Typical conditions of flat-seamed copper roofing.</p>	<ul style="list-style-type: none"> - Slate shingles are present at the Main Hall, North Tower, and West Wing exteriors. - Flat-seamed lead-coated copper is present at the West Wing Apse, Flag Tower, West Range, South Tower, and East Wing. - Roof materials are a character-defining feature. - Widespread conditions for the slate include missing, broken, or loose shingles. - Lead-coated copper roofing has widespread thin solders and heavy-handed sealant repairs. - Materials, shingle exposure, and appearance of the existing roof will be maintained.
<p>Preliminary Effect Determination – No Adverse Effect</p>	

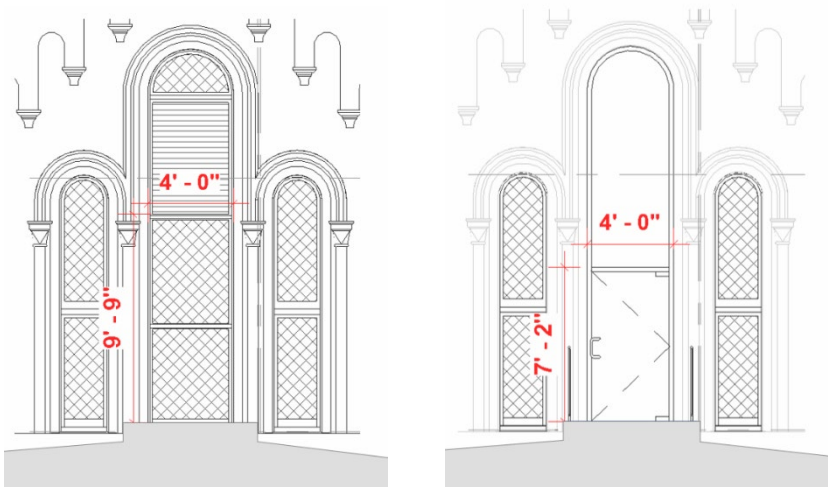
Smithsonian Institution Building	
Feature/Action	Design Details
<p>Roof Modifications – Energy Improvements, Including Increases in Roof Thickness</p>  <p>Proposed roof plan noting locations of slate and copper cladding. Green annotation notes areas with no proposed dimensional changes due to visible impacts.</p>	<ul style="list-style-type: none"> - Removal and replacement of existing roofing system, with new underlayments and insulation will be implemented to meet prescriptive energy requirements. - Increases to roof height/thickness will be limited to locations where the dimensional change will not be perceptible due to parapets, towers, and roof features. - Dimensional change varies, and will not exceed 5 inches. - No changes to roof thickness are proposed at visible roof edges such as the West Wing, or at high peaked tower roofs.
Images	Additional Information
 <p>Existing and proposed roof over the Great Hall. Proposed 2.25" dimensional change, non-visible behind crenellations. No change proposed to the tower roof in the photograph.</p> <p>Existing and proposed roof at the East Wing, with a proposed 2.25" dimension change behind the crenellated parapet. No change proposed to the tower roof in the photograph.</p>  	<ul style="list-style-type: none"> - Roof Materials and Profiles are character defining features. - Existing roof system includes little to no insulation. - The addition of rigid insulation beneath the slate and zinc-tin cladding improves the Castle's energy performance. - Majority of the Castle's roof edges are behind crenellated parapets and other architectural features, and are at least 30' above grade. - Dimensional changes at the roof will not be visible from distances around the Castle, and the potential for this adverse effect was considered and dismissed. - Proposed work will not result in visible impacts at the roof edges and ridgelines. - Dimensional changes are not proposed in visible locations to avoid adverse effect.
<p>Preliminary Effect Determination – No Adverse Effect</p>	

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Modifications to Rooftop Mechanical Penthouses</p>  <p>Existing mechanical penthouse over the West Range.</p>	<ul style="list-style-type: none"> - West Range has two mechanical penthouses that will be expanded. Location and height remain the same, and only the width expands. - Flag Tower has one mechanical penthouse that will expand in plan, and remain the same height. - North Tower has one mechanical penthouse that will be a similar footprint and reduced height. - Phase 2 of 106 consultation will further analyze the visibility of the proposed changes to the rooftop mechanical penthouses.
Images	Additional Information
 <p>Existing roof plan. Existing rooftop features with all black text in the tags will be removed.</p>  <p>Proposed roof plan. Historic chimneys and dormers that will be retained are noted in yellow.</p>	<ul style="list-style-type: none"> - Roof Profile and Building Massing are character defining features. - Existing visible non-historic mechanical penthouse on the East Wing will be removed for the 4th Floor Egress Path. - Existing historic cupola with louvers at the East Wing will be re-used without expansion. - Majority of the associated mechanical modifications occur within the interior attic space. There will not be additional rooftop mechanical features beyond the penthouses. - There is the potential for adverse effect on the Roof Profile and Building Massing character defining features. Further analysis of visual impacts and consultation are required. - Retention of historic visible chimneys and dormers may minimize adverse effects. - May contribute to cumulative adverse effects on Roof Profile and Building Massing, and overall visual effects.
<p>Preliminary Effect Determination – Adverse Effect</p>	

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Installation of New East Wing 4th Floor Egress</p>  <p>Plan of the proposed egress path. Red line notes the plan the existing mechanical penthouse to be removed.</p>	<ul style="list-style-type: none"> - Installation of an exterior egress pathway at the East Range roof provides a second means of egress from the East Wing. - Exterior egress pathway will be unenclosed with fall protection railings. - One window opening will be enlarged to accommodate an egress door. Non-historic window sash will be removed from one opening to accommodate an egress door assembly. - Phase 2 of 106 consultation will consider design alternatives for the fall protection railings.
Images	Additional Information
 <p>Section elevation of the proposed egress path and railings. Red dotted line notes the section elevation of the existing mechanical penthouse to be removed.</p>  <p>Walkway railing visibility from the middle of the National Mall.</p>	<ul style="list-style-type: none"> - Roof Profile is a character defining feature. - Fourth floor of the East Wing currently has only one means of egress. A second means is required for occupancy. - Egress walkway replaces an existing visible mechanical penthouse added in 1973. Egress pathway fall protection railings and the existing mechanical penthouse are comparable in height. - Adjacent historic brick chimneys on the East Wing roof installed c. 1900 will be retained and restored, which minimizes visibility and adverse effect. - Egress path fall protection railings will be visible from various locations within the National Mall and to the south. - Modifications to masonry openings to accommodate egress doors will remove minimal historic fabric, and will not be visible in proximity or at a distance from the Castle. - May contribute to cumulative adverse effects on Roof Profile and Building Massing, and overall visual effects.

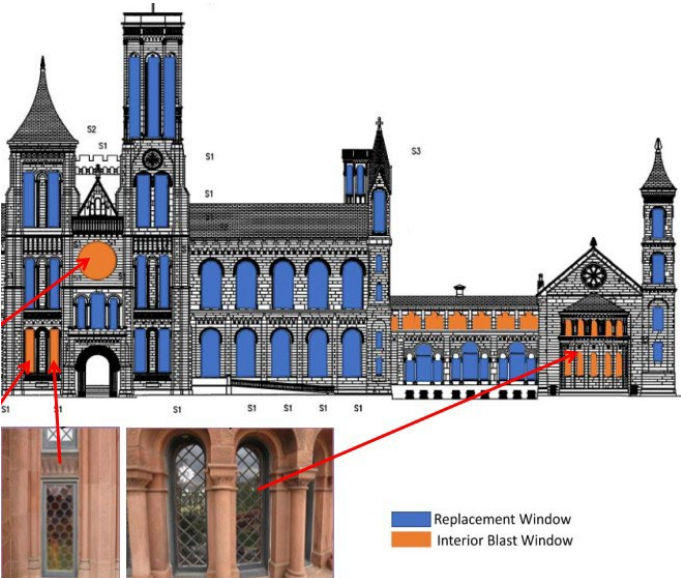
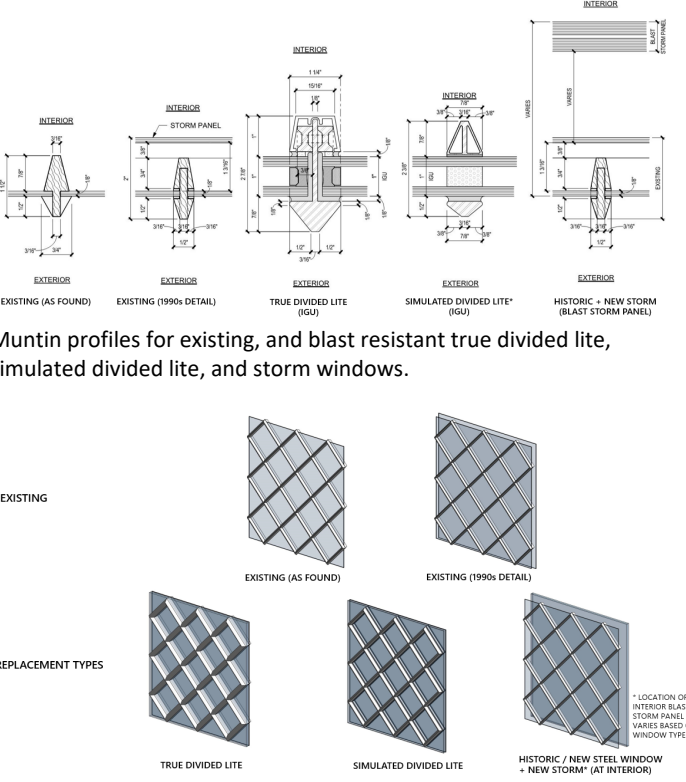


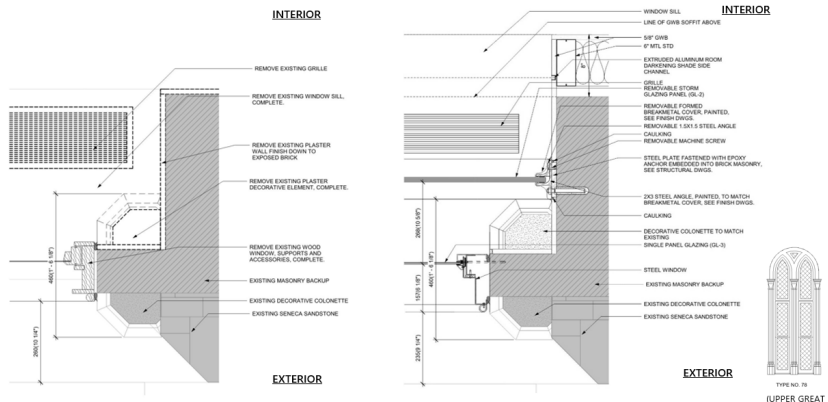

Existing Proposed
4th Level East Wing, east elevation. Masonry opening will be enlarged to accommodate an egress door.





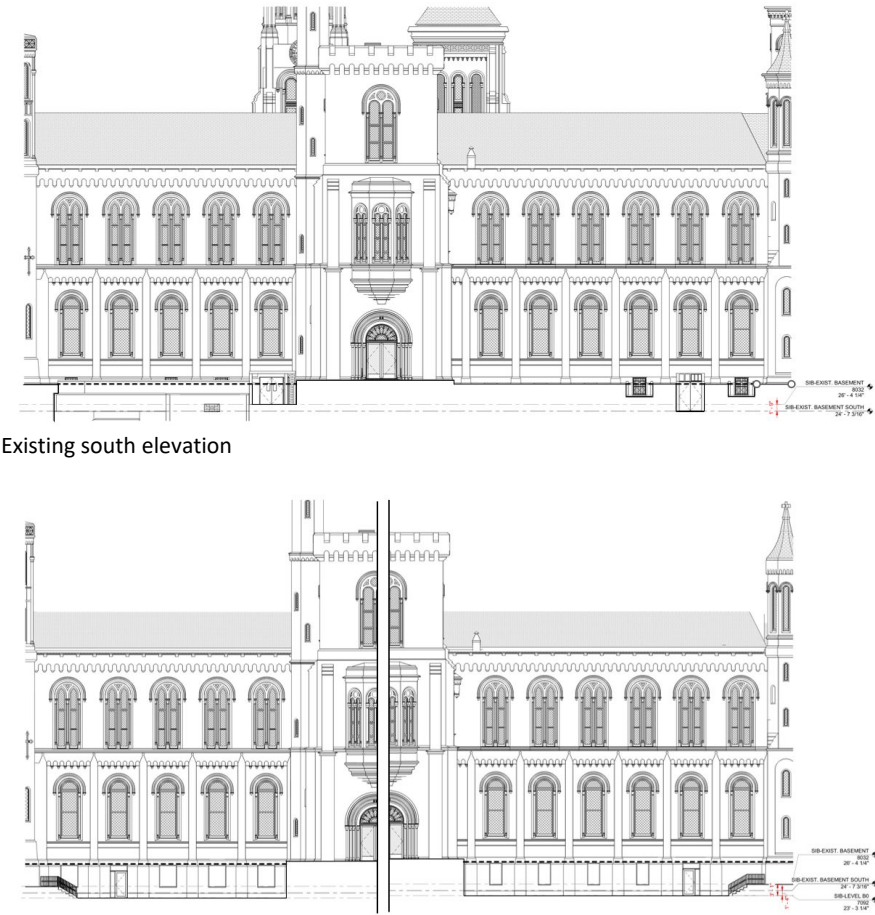
Existing Proposed
4th Level East Wing, west elevation. Non-historic window sash will be replaced with an egress door assembly.

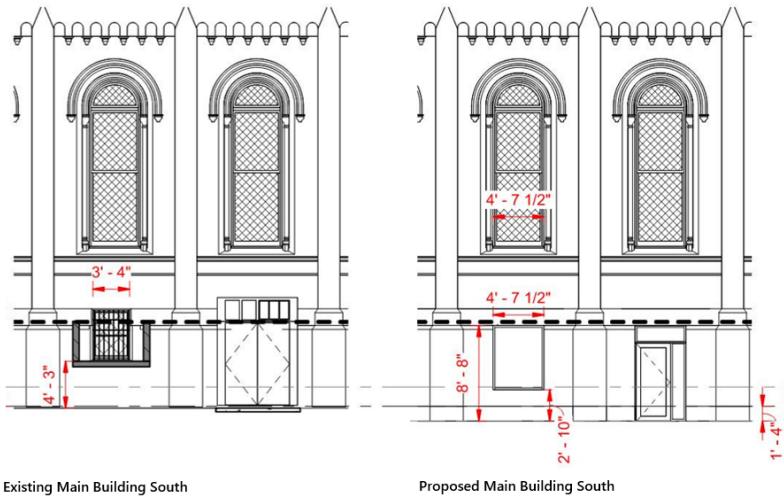
Preliminary Effect Determination – Adverse Effect

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Replacement and Restoration of Windows</p>  <p>Partial Castle north elevation.</p>	<ul style="list-style-type: none"> - Building-wide window replacement of the non-historic window sash with blast resistant windows. - Historic windows c. 1915 that are present in the West Range Clerestory, West Wing Apsse, Smithson Crypt, and West Wing skylights will be restored and retained in-place. Blast resistant storm windows will be installed on the building interior to maintain the exterior appearance. - Replacement windows will restore the historic finish color and will retain a diamond pane multi-light configuration. - Phase 2 of 106 consultation will evaluate the use of simulated divided lite or true divided lite blast resistant window sash.
Images	Additional Information
 <p>Muntin profiles for existing, and blast resistant true divided lite, simulated divided lite, and storm windows.</p> <p>Muntin patterns for existing, true divided lite, simulated divided lite, and storm windows.</p>	<ul style="list-style-type: none"> - Windows are a character defining feature. Majority of the existing windows are wood non-historic replacements installed in 1987-1992. - Historic documentation indicates the original window fenestration was primarily wood double-hung sash with wood muntins of square panes set in a diamond pattern. - Photographic documentation pre-1887 indicates the size of the diamond pane varied for each window type. - Blast resistant windows are required to meet Facility Security Level III. - Blast resistant windows will not be able to completely replicate the existing and historic window details, and there is the potential for adverse effect. - Consultation on window details and finish color may minimize adverse effect.
<p>Preliminary Effect Determination – Adverse Effect</p>	

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Replacement and Restoration of Windows Windows – Interior Effects</p>	<ul style="list-style-type: none"> - Building-wide window replacement of the non-historic window sash with blast resistant windows. - Historic windows c. 1915 will be restored and retained in-place. Blast resistant storm windows will be installed on the building interior to maintain the exterior appearance. - Installation of blast resistant windows requires the removal of interior finishes to anchor the windows into the building structure. - Phase 2 of 106 consultation will evaluate the effects of the removal and replacement of historic finishes for each window configuration.
Images	Additional Information
 <p>REMOVAL OF EXISTING WOOD WINDOW</p> <p>Jamb detail of an interior storm window at the Upper Great Hall.</p>  <p>Interior view of a window at the Upper Great Hall.</p>	<ul style="list-style-type: none"> - Blast resistant windows are required to meet Facility Security Level III. - Removal and replacement of interior finishes around window openings lacks independent utility without the blast window installation, and is part of Section 106 consultation. - Some window configurations feature decorative interior plaster work around the masonry openings. - Design intent is to replace displaced historic finishes in-kind, including flat and decorative plaster. - Blast or storm window bracing may prevent the replication of decorative plasterwork, and may result in adverse effect.
<p>Preliminary Effect Determination – Adverse Effect</p>	

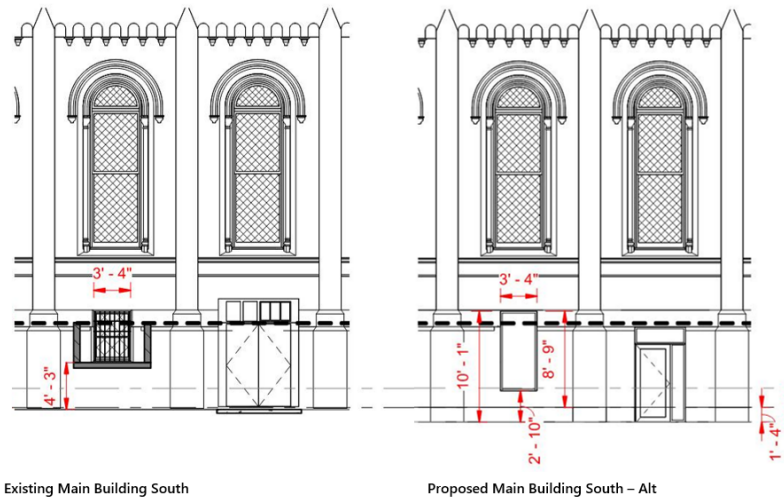
Smithsonian Institution Building	
Feature/Action	Design Details
<p>Exterior Masonry Restoration</p>	<ul style="list-style-type: none"> - Exterior red Seneca sandstone will be restored, including façade cleaning, and pointing. - Maximum amount of sound sandstone will be preserved. - Stone repairs include reattachment of displaced masonry, Dutchmen repairs, and select full replacement stones. - Phase 2 of 106 consultation will evaluate an alternative stone to use for restoration repairs after Seneca sandstone reserves are exhausted.
Images	Additional Information
 <p>Seneca sandstone with biological growth staining.</p>  <p>Displaced Seneca sandstone masonry at the Octagon Tower.</p>	<ul style="list-style-type: none"> - Seneca sandstone exterior is a character defining feature. - Seneca sandstone is no longer quarried, and the SI retains a significant stockpile at a Smithsonian storage facility that will be used for the restoration work. - Stone replacement pieces will be in-kind, with hand tooling and finishing to maintain consistency with the stone color ranges, texture, and detailing. - Consistent with the <i>Secretary of the Interior's Standards</i> Preservation approach. - Four red sandstones have been identified for evaluation in Phase 2 of 106 consultation.
Preliminary Effect Determination – No Adverse Effect	

Smithsonian Institution Building	
Feature/Action	Design Details
<p>New Basement Windows</p>	<ul style="list-style-type: none"> - New basement windows are proposed within the basement level areaways below-grade on the Castle south elevation. - Castle south elevation at the basement level contains some window openings. Proposed work will enlarge existing window openings and create new masonry openings. - Phase 2 of 106 consultation will evaluate: alternatives for the size of the window openings; alternatives for the window fenestration; visibility; and the extent of historic fabric removal.
Images	Additional Information
 <p>Existing south elevation</p> <p>Proposed south elevation, with Options A and B depicted.</p>	<ul style="list-style-type: none"> - Proposed windows increase natural light to newly occupied public basement spaces utilizing existing window openings and creating new masonry openings. - Proposed window fenestration will be differentiated from the historic consistent with the <i>Secretary of the Interior's Standards</i>. - Proposed work requires the removal and alteration of historic building fabric. - New window openings will be visible from within the Haupt Garden. - Existing sidewalks and pedestrian paths in the Haupt Garden will be maintained, which restricts some visibility in combination with the landscaped setting and minimizes adverse effect. - New window openings alter the façade composition of the Castle, and results in adverse effect. - Adverse effect may be minimized through consultation on the masonry opening size and window fenestration. - Contributes to the cumulative adverse effect on the Castle.



Existing Main Building South Proposed Main Building South



Elevation comparison – Option A. Option A aligns the width of the new window openings with the above historic window openings.

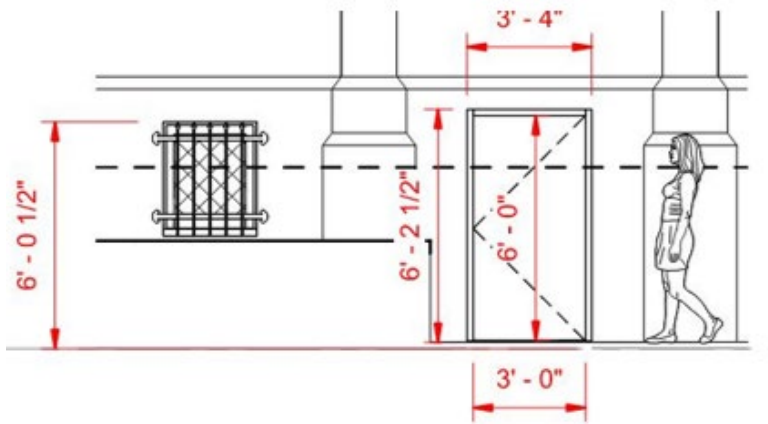


Existing Main Building South Proposed Main Building South – Alt

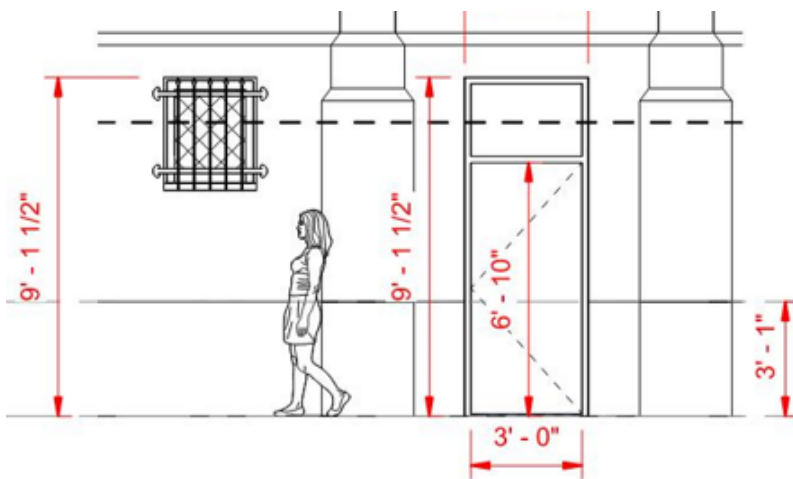
Elevation comparison – Option B aligns the width of the new window openings with the existing basement windows.

Proposed Effect Determination – Adverse Effect

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Basement Egress Doors</p>  <p>Existing egress door at the East Range south areaway.</p>	<ul style="list-style-type: none"> - On the Castle's south elevation, two existing doors (East and West Range areaways) will be modified and re-used. Two (2) new doors openings will be created (Great Hall areaways). - On the Castle's north, one (1) new egress door opening will be created (West Range areaway) - Phase 2 of 106 consultation will develop alternatives for the egress doors material(s) and configuration(s), and evaluate the removal of historic fabric.
Images	Additional Information
 <p>Existing windows.</p> <p>Partial elevation of North Elevation, West Range areaway with new egress door.</p> <p>New egress door at proposed areaway.</p> <p>Existing windows and areaway door.</p> <p>Partial elevation of South Elevation, West Range areaway with modified egress door.</p> <p>New door at existing door opening - opening has been modified (lowered) to match level of proposed areaway.</p>	<ul style="list-style-type: none"> - Additional egress doors are required for life safety based on the increased building population. - All egress doors will be located at the Castle basement level within below-grade areaways. - Proposed work requires the removal and alteration of historic building fabric. - Egress doors will have some visibility within the setting and Haupt Garden. - Existing sidewalks and pedestrian paths in the Haupt Garden will be maintained, which restricts some visibility in combination with the landscaped setting and minimizes adverse effect. - Contributes to cumulative adverse effects on the Castle's Setting.

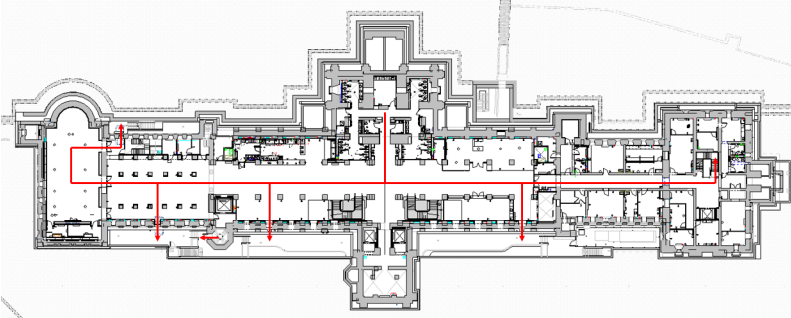



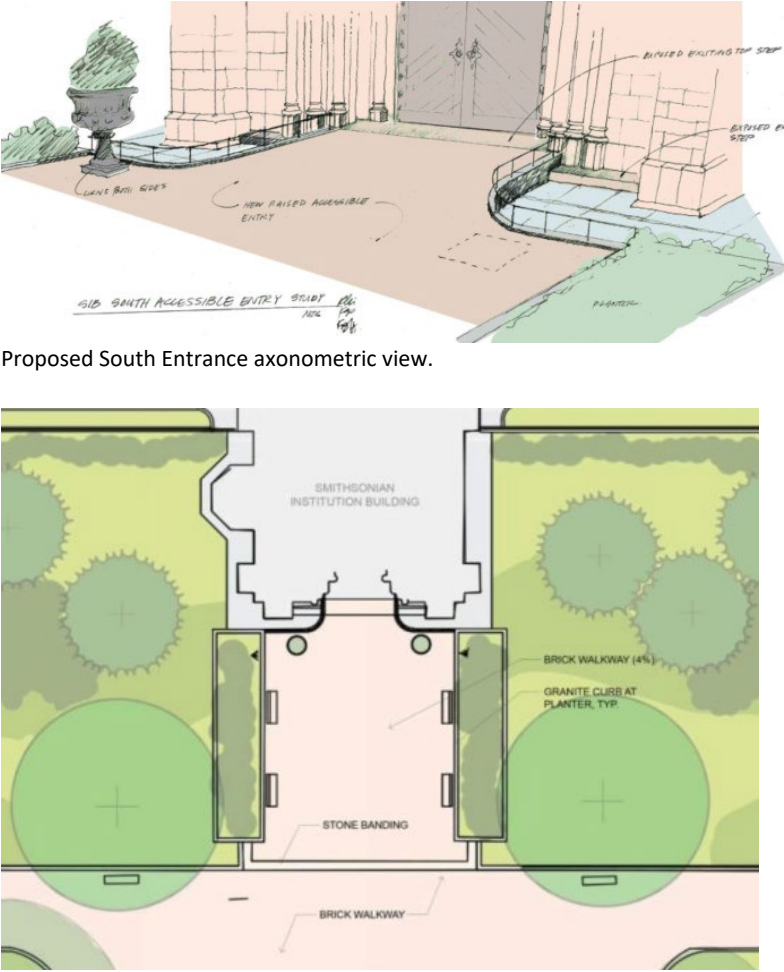
South Elevation, West Range existing door and dimensions.


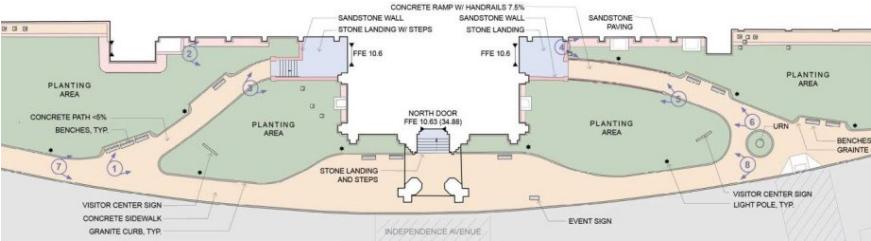
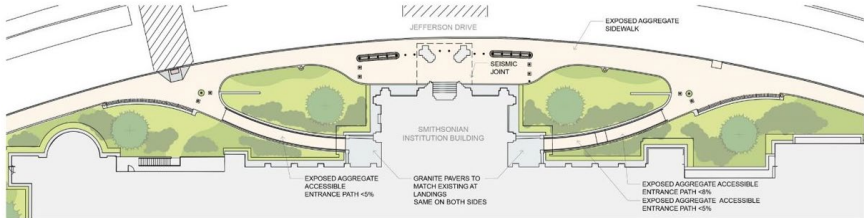




South Elevation, West Range proposed door and dimensions

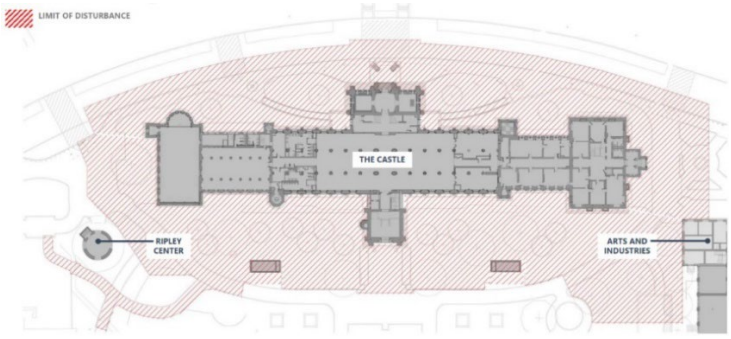
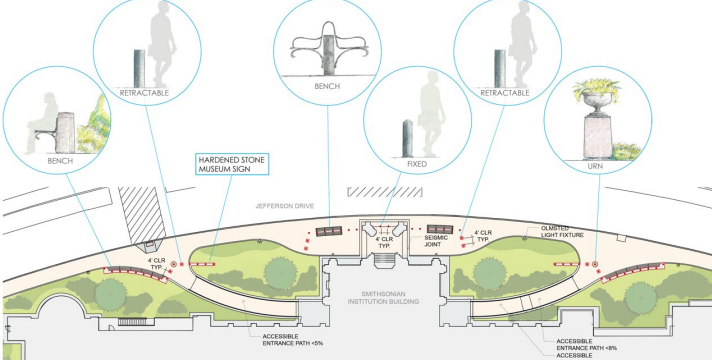

Preliminary Effect Determination – Adverse Effect

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Basement Level Interior Alterations – Lowering of the Basement Floor, New Basement Window Openings, and Egress Paths to Basement Level Egress Doors</p>	<ul style="list-style-type: none"> - Interior alterations at the Castle basement level (B0) are connected to exterior alterations. - Lowering of the historic basement floor level 3’ alters the appearance of the historic masonry piers. - New basement level window openings will be created in the Castle’s south elevation. - Exterior egress doors will be connected to an interior egress path. - Phase 2 of 106 consultation will consider: alternatives for the finish treatment for the historic piers; egress path analyses; and alternatives for the incorporation of the new window openings into the adjacent interior masonry.
Images	Additional Information
 <p>Basement level (B0) egress path noted with red lines.</p>	<ul style="list-style-type: none"> - These alterations to the basement level historic finishes lack independent utility without the associated exterior alterations, and are part of Section 106 consultation. - Egress paths and doors added are required to account for visitor occupancy loads. - Where grade is changed and underpinning is added to the historic piers, existing and new construction are to be integrated in appearance. - Excavation of the B0 and B1 levels has the potential to adversely affect historic fabric such as the existing floor material and the “reverse arch” construction that may exist below grade, and by altering the historic character of the existing basement. Consideration of these interior alterations will be part of Phase 2 of 106 consultation.
<p>Preliminary Effect Determination – Adverse Effect</p>	

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Alterations at the South Entrance to Improve Accessibility</p>  <p>Existing South Entrance condition.</p>	<ul style="list-style-type: none"> - Universally accessible walkway is proposed on axis with the South Tower entrance. Current ramp is not universally accessible. - Universal walkway slope eliminates the need for a handrail. - Walkway will be paved with salvaged brick and granite curbs in keeping with the Haupt Garden materials palette. - Phase 2 of 106 consultation will consider: design of the low edge metal railing; and material options for the granite paving adjacent to the walkway and Castle, selected in coordination with the seismic control joint cover plate.
Images	Additional Information
 <p>Proposed South Entrance axonometric view.</p> <p>Proposed South Entrance plan.</p>	<ul style="list-style-type: none"> - Setting and the South Tower are character defining features. - South Tower entrance retains historic Seneca sandstone stairs (two risers). - Existing access ramp installed c. 2015 is constructed over the Seneca sandstone historic stairs. - Universal accessibility is the goal for SI projects, inclusive of all ages and abilities. - Universal walkway slope eliminates the need for a handrail, which minimizes adverse effect by incorporating the walkway into the Haupt Garden hardscape. - Walkway design does not obscure the architectural features of the decorative south entrance surround. - Adverse effect is avoided through the use of salvaged brick paving and granite curbs from the existing condition. - Adverse effect is avoided through retaining historic fabric beneath the walkway construction. - Contributes to the cumulative adverse effect on the Castle's setting.
<p>Preliminary Effect Determination – No Adverse Effect</p>	

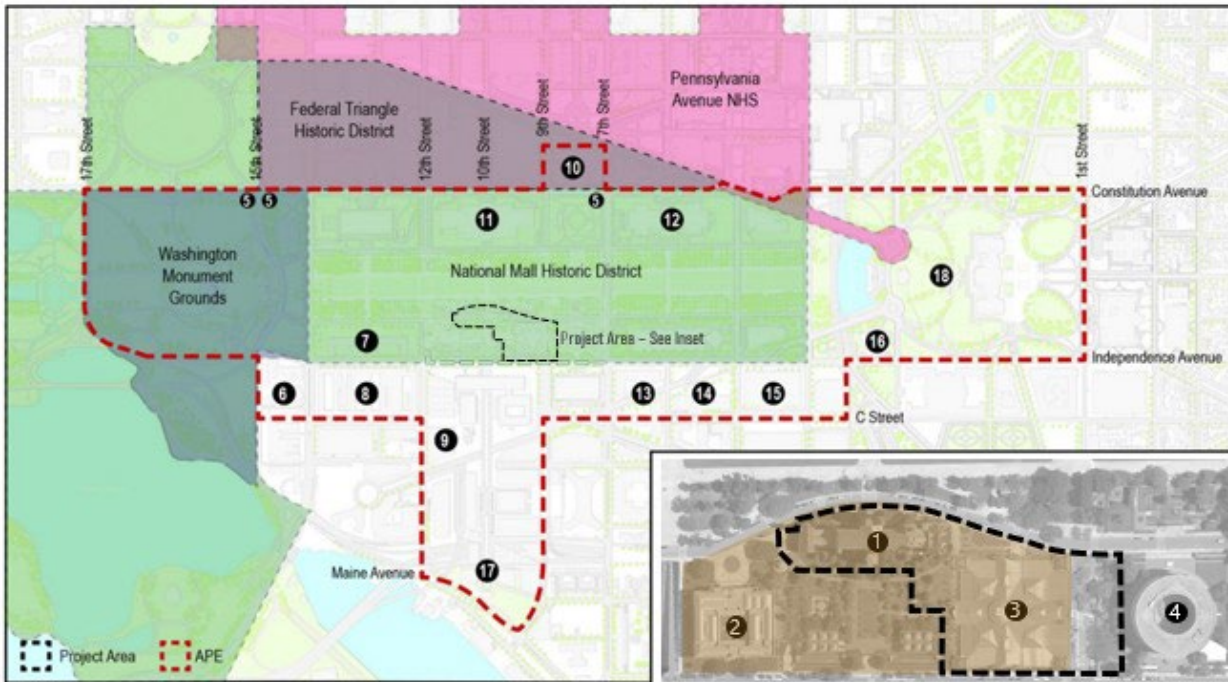
Smithsonian Institution Building	
Feature/Action	Design Details
<p>Accessible Walkways at the North Entrance</p>  <p>Existing west accessible ramp to the Castle's North Tower.</p>	<ul style="list-style-type: none"> - Two universally accessible walkways are proposed in a symmetrical plan to the east and west entrances of the North Tower. - Walkway paving surface will be aggregate concrete to connect with the National Mall sidewalk context. - Adjacent landscape beds will be adjusted to a symmetrical configuration. - Non-historic east and west doors to the North Tower will be replaced. - Phase 2 of 106 consultation will consider: material alternatives for the stone landings adjacent to the North Tower.
Images	Additional Information
 <p>Existing site plan.</p> <p>PAVING AT RAMPS</p> <ul style="list-style-type: none"> • Exposed aggregate concrete on ramps leading to landings • Exposed aggregate concrete in keeping with the sidewalks • Stone proposed for landings, material alternatives in development  <p>Proposed site plan and materials.</p>	<ul style="list-style-type: none"> - Setting is a character defining feature. - East entrance to the North Tower features stairs and stone newel posts installed c. 1987. West entrance to the North Tower features an access ramp installed c. 1987. These non-historic entry materials will be removed. - North Tower setting features a semi-symmetrical path arrangement to the east and west entrances around undulating planting beds with lush plantings. - Historic fabric will not be removed or obscured by the construction of the walkways. - Adverse effect is avoided through maintaining the existing landscape character and setting through the proposed curvilinear paths, planting beds, and planting diversity.
<p>Preliminary Effect Determination – No Adverse Effect</p>	

Smithsonian Institution Building	
Feature/Action	Design Details
<p>Cumulative Effects on the Castle</p>  <p>Castle aerial photograph.</p>	<ul style="list-style-type: none"> - Following actions were identified with a preliminary adverse effect determination: <ul style="list-style-type: none"> • Perimeter Security • South Tower Elevator (including Interior Effects) • Emergency Generator • Rooftop Mechanical Vents • East Wing 4th Floor Egress • Replacement and Restoration of Windows (including Interior Effects) • New Basement Windows • Basement Egress Doors • Basement Level (B0) Interior Alterations - Following actions were identified with an adverse effect determination in Phase 1: <ul style="list-style-type: none"> • Areaways and Window Wells (Locations and Dimensions) • Seismic Control Joint (Location and Width) - Project Limit of Disturbance and construction fencing will affect a significant area around the entire Castle, including part of Jefferson Drive and the Haupt Garden for the duration of construction (5-6 years). - Limit of Disturbance for construction activities will temporarily affect part of Jefferson Drive, Folger Rose Garden, and Haupt Garden.
Images	Additional Information
 <p>Mock-up of bollards inside the porte cochere.</p>	<ul style="list-style-type: none"> - Haupt Garden, Folger Rose Garden, and landscape building settings will be restored in all disturbed areas related to construction. - Alternate pedestrian routes may remain in place during the entire RoHC Revitalize Castle construction (Phase 1 and 2). Construction fencing and alternate pedestrian routes will have a temporary adverse effect on the Castle and its setting. - Cumulative adverse effects from excavation work, construction fencing, and alternate pedestrian routes are conditional, provided the site is restored after construction is complete, including reinstallation of salvaged hardscape pavers and plantings. - Seismic Control Joints, Areaways, South Entrance modifications, Perimeter Security, and the Emergency Generator have a cumulative adverse effect on the Castle's Setting, a character defining feature. - New Basement Windows, Egress Doors, Replacement of Windows, 4th Floor Egress, and Rooftop Mechanical Vents, result in a cumulative adverse effect on the Castle exterior, affecting character defining features and overall exterior appearance: Building Massing, Roof Profile, North and South Towers, and façade configurations.
<p>Preliminary Effect Determination – Adverse Effect</p>	

National Mall Historic District	
Feature/Action	Design Details
<p>Cumulative Effects on the National Mall Historic District</p>  <p>Project Limit of Disturbance noted with red hatch shading.</p>	<p>- Following actions were identified with a preliminary adverse effect for the National Mall Historic District:</p> <ul style="list-style-type: none"> • Perimeter Security • Seismic Control Joint <p>- Project Limit of Disturbance and construction fencing will affect a significant area around the entire Castle, including part of Jefferson Drive and the Haupt Garden for the duration of construction (5-6 years).</p> <p>- Limit of Disturbance for construction activities will temporarily affect part of Jefferson Drive, Folger Rose Garden, and Haupt Garden.</p>
Images	Additional Information
 <p>Proposed perimeter security elements at north entry along Jefferson Drive.</p>  <p>Visualization of proposed seismic joint cover at the porte cochere.</p>	<p>- Castle is a contributing element to the National Mall Historic District, prominently sited in the Mall.</p> <p>- Rooftop additions for egress and mechanical equipment have limited visibility and may disrupt the Castle's roofline within the National Mall setting.</p> <p>- Haupt Garden, Folger Rose Garden, landscape building setting, and the Jefferson Drive roadbed and sidewalk will be restored in all disturbed areas related to construction.</p> <p>- The Andrew Jackson Downing Urn, a memorial and public artwork located in the Haupt Garden, will be protected-in-place or temporarily relocated to a SI storage facility.</p> <p>- Cumulative adverse effects from excavation work, construction fencing, and alternate pedestrian routes are conditional, provided the site is restored after construction is complete, including reinstallation of salvaged hardscape pavers and plantings.</p> <p>- Seismic control joint and perimeter security will be visible immediately adjacent to the base of the Castle at-grade, and visible around the porte cochere in the sidewalk. This has a cumulative adverse effect on the Castle and National Mall Settings.</p> <p>- New Basement Windows, Egress Doors, Replacement of Windows, 4th Floor Egress, and Rooftop Mechanical Vents, result in a cumulative adverse effect on the Castle exterior, which may affect how the exterior and Roof Profile appears within the Historic District context.</p>
<p>Preliminary Effect Determination – Adverse Effect</p>	

Area of Potential Effects

The area of potential effects is defined as the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. This Assessment of Effects on Historic Resources considered the effects of the Revitalization of the Historic Core project within the below mapped area. This area of potential effects was set by the Programmatic Agreement for the South Mall Campus Master Plan.



Area of potential effects map, noted with the red dotted line. The RoHC project area is noted with the black dotted line on the overall and inset maps.

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

The historic properties identified in the above maps and table indicate properties that are individually listed in, or have been determined as eligible for individual listing in the National Register of Historic Places.