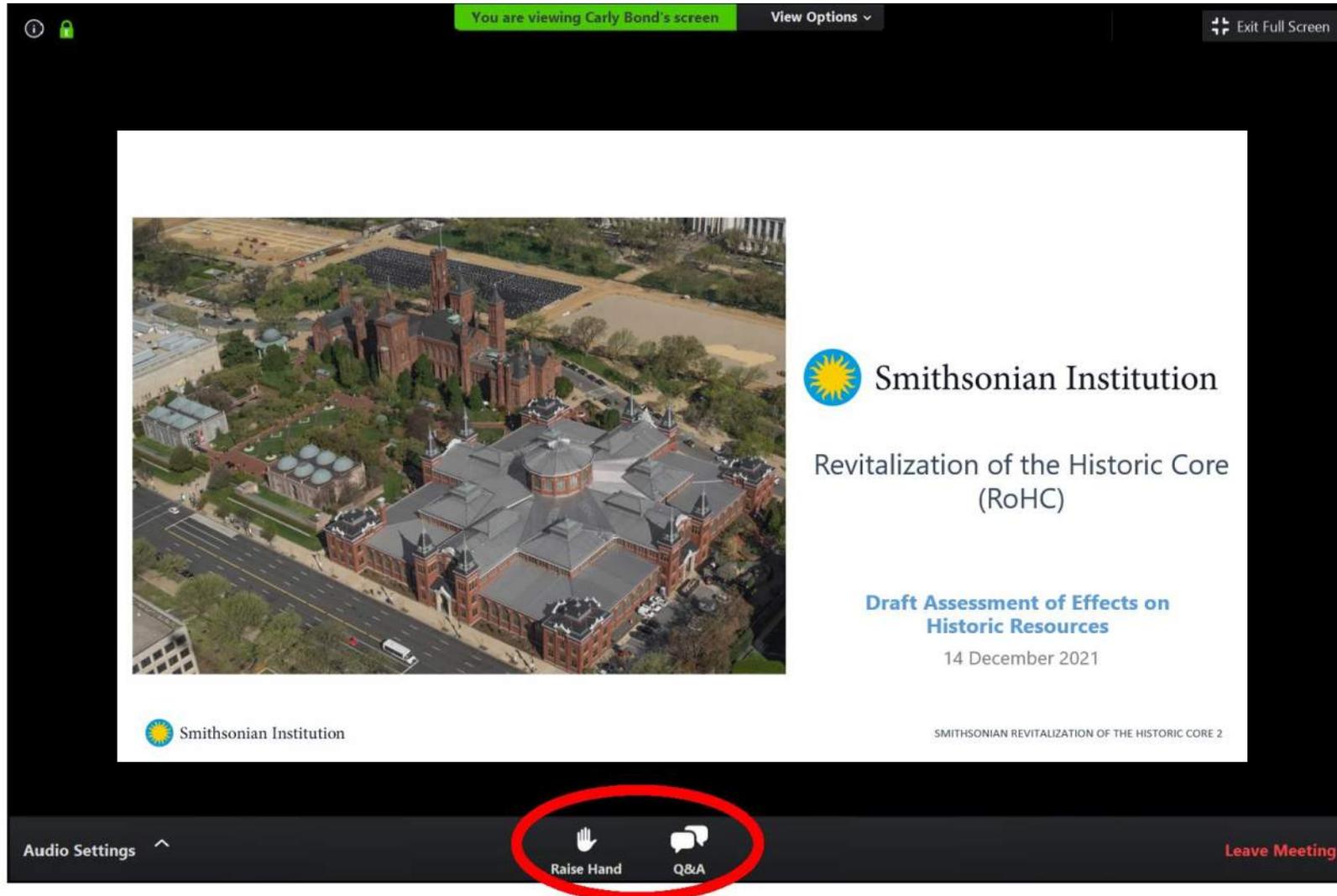


# Welcome!

The meeting will begin momentarily.



The screenshot shows a Zoom webinar interface. At the top, there is a green bar indicating "You are viewing Carly Bond's screen" and a "View Options" dropdown. In the top right corner, there is an "Exit Full Screen" button. The main content area displays a presentation slide with an aerial photograph of the Smithsonian Institution's historic core on the left. The slide text includes the Smithsonian logo, the title "Revitalization of the Historic Core (RoHC)", and the subtitle "Draft Assessment of Effects on Historic Resources" dated "14 December 2021". At the bottom of the slide, there is a small Smithsonian logo and the text "SMITHSONIAN REVITALIZATION OF THE HISTORIC CORE 2". Below the slide, the Zoom meeting controls are visible, with the "Raise Hand" and "Q&A" buttons circled in red. Other controls include "Audio Settings", "Leave Meeting", and a lock icon.

## How to Use Zoom Webinar:

- Zoom webinar will not permit access to your camera.
- Please submit comments/questions in writing through the Q&A function.
- Written comments/questions can be submitted at any time and will be answered or discussed at designated points during the meeting by the panelists.
- Click "Raise Hand" if you would like to speak your comments/questions at designated points with the panelists. A moderator will grant temporary access to your device's microphone.



Smithsonian Institution

## Revitalization of the Historic Core (RoHC)

**Draft Assessment of Effects on  
Historic Resources**

14 December 2021



Smithsonian Institution

## PANEL OF SPEAKERS

### MODERATOR

**Carly Bond**, Historic Preservation Specialist, Smithsonian Facilities

### PRESENTERS / PANELISTS

**Sharon Park**, FAIA, Assoc. Director of Historic Preservation, Smithsonian Facilities

**Christopher Lethbridge**, Architect/Program Manager, Smithsonian Facilities

**Ann Trowbridge**, AIA, Associate Director for Planning, Smithsonian Facilities

**Brenda Sanchez**, FAIA, Sr. Design Manager, Smithsonian Facilities

**Marisa Scalera**, RLA, ASLA, Landscape Architect Smithsonian Gardens

**Matthew Chalifoux**, FAIA, Senior Historic Preservation Architect, EYP-Loring, LLC

**Faye Harwell**, FASLA, Director/Landscape Architect, RHI (Rhodeside Harwell)

**Kirk Mettam**, PE, Senior Principal, Silman

**Michael Galway**, PE, Sr. Mechanical Engineer, EYP-Loring, LLC



# MEETING AGENDA

- **Section 106 Overview**
- **Draft Assessment of Effects on Historic Resources**
- **Schedule and Next Steps**

## **How to Use Zoom Webinar:**

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Written comments/questions can be submitted at any time and will be answered or discussed at designated points during the meeting by the panelists

Click "Raise Hand" if you would like to speak your comments/questions at designated points with the panelists. A moderator will grant temporary access to your device's microphone.

## SECTION 106 OVERVIEW

Consulting Parties Meeting #1 – Project Scope	January 13, 2021
Consulting Parties Meeting #2 – Concept Design	May 26, 2021 May 27, 2021
Schematic Design	August – December 2021

<b>Consulting Parties Meeting #3 – Held in Two-Parts</b>	
Schematic Design Update	November 16, 2021
Draft Assessment of Effects Shared with Consulting Parties	November 19, 2021
Draft Assessment of Effects Presentation	December 14, 2021
Public Comment Period	November 19, 2021 -January 7, 2022
Assessment of Effects Finalized	January 2022

**We are Here**



# DRAFT ASSESSMENT OF EFFECTS ON HISTORIC RESOURCES

## Criteria of Adverse Effect

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:

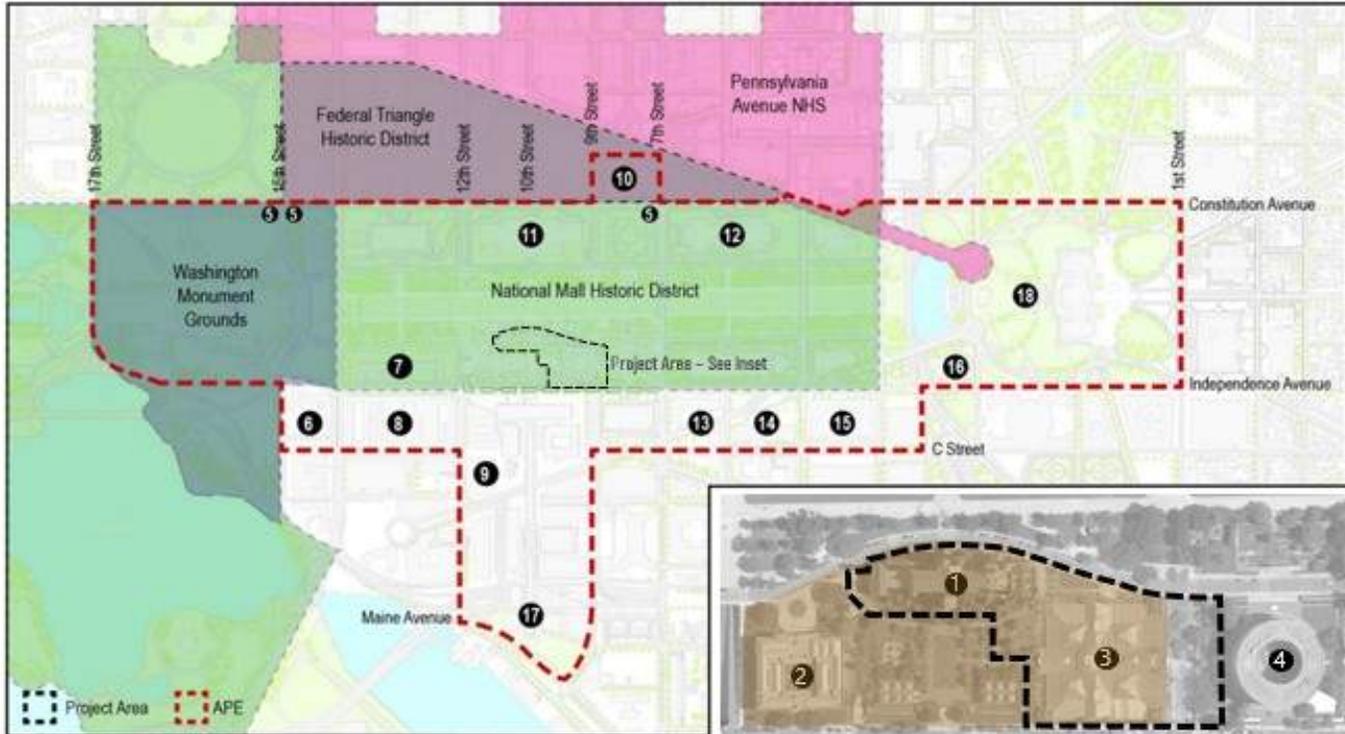
An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register of Historic Places in a manner that would diminish the integrity of the property's location, design, setting, 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)).

Revitalization of the Historic Core Assessment of Effects on Historic Resources - Draft		November 2021
<b>Assessment of Effects on Historic Resources</b>		
The following provides an assessment of effects of each feature or action of the Revitalization of the Historic Core. An effect determination is proposed based on the criteria of adverse effect, with additional information or comments provided as applicable. For more images and information on each action and assessment please review the presentation materials from Section 106 Consulting Parties Meeting #3 (Schematic Design – November 16, 2021 and Draft Assessment of Effects – December 14, 2021) available on the project webpage.		
Site - General		
Feature/Action	Design Details	
Landscape	<ul style="list-style-type: none"><li>- Landscape features and hardscape disturbed by the project limit of disturbance will be replaced in-kind, including a portion of the Folger Rose Garden, Ripley Garden, Haupt Garden, and its Fountain Garden.</li><li>- Character of the existing hardscape and landscape will be maintained.</li><li>- Tree plantings will be setback from the Castle.</li><li>- Haupt Garden west hardscaped path will be reduced to accommodate AIB areaways.</li></ul>	
Images	Additional Information	
 <p>Existing landscape character, south of the SIB.</p>  <p>Existing landscape character, west of the AIB.</p>	<ul style="list-style-type: none"><li>- Setting of the Castle and the AIB are character defining features.</li><li>- Ripley Garden, Haupt Garden, and Folger Rose Garden are documented in the National Mall Historic District nomination as part of the landscape settings, not as a contributing resource.</li><li>- Current tree plantings are immediately adjacent to the Castle causing biological growth on the Seneca sandstone.</li><li>- 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.</li><li>- Modifications to the eastern portion of the Folger Rose Garden required for accommodation of accessibility within the narrow public sidewalk and site condition.</li><li>- See also "AIB North Entrance – Accessibility" and "AIB – Areaways" for more information.</li></ul>	
<b>Proposed Effect Determination – No Adverse Effect</b>		

# DRAFT ASSESSMENT OF EFFECTS ON HISTORIC RESOURCES

## Area of Potential Effects

- 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.
- Area of potential effects was set by the Programmatic Agreement for the South Mall Campus Master Plan.
- Historic properties identified in the adjacent 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.



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

# DRAFT ASSESSMENT OF EFFECTS ON HISTORIC RESOURCES

## Effect Assessment Organization

- Each design action of the project has an individual effect assessment chart
- Minimization of adverse effect through design development opportunities are noted
- Design actions are grouped within categories:
  - Site - General
  - Site – AIB
  - Site – Castle
  - Below-Grade Central Utility Plant – Castle Expansion (B1 Level)
  - Cooling Towers
  - Arts & Industries Building
  - Smithsonian Castle
  - Cumulative Effects
- Images in the chart are for reference, more images can be found on the project webpage:
  - November 16, 2021, Presentation Material
  - December 14, 2021, Presentation Material – Slide deck follows the order of the draft Assessment of Effects on Historic Resources

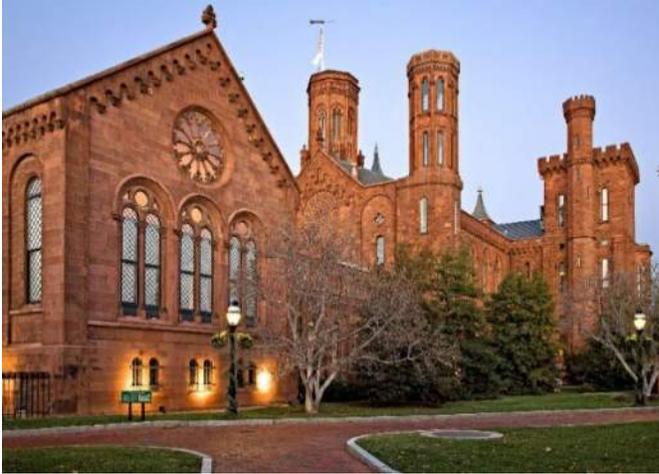
Revitalization of the Historic Core Assessment of Effects on Historic Resources - Draft		November 2021
<b>Site - General</b>		
Feature/Action	Design Details	
Perimeter Security	- Secure perimeter required around both buildings. Both buildings have no available setback and narrow sidewalks. - Pursuing a combination of hardened bollards (stone and metal), fencing, landscape wall features, benches, and lighting.	
Images	Additional Information	
 <p>Detail elevation of Castle perimeter security at Jefferson Drive.</p>  <p>Rendering of Castle perimeter security at Jefferson Drive.</p>  <p>Rendering of AIB perimeter security at Jefferson Drive.</p>	- Setting is a character defining feature of both buildings. - Perimeter security adversely effects the setting of both buildings, and relationship with the National Mall context. - Buildings have no stand-off distance available from the roadbeds. Castle porte cochere is less than 5' from the roadbed curb. - Bollards proposed at the curbs to maximize security distance. - Retractable bollards at key locations to facilitate maintenance and emergency vehicle access. - Potential to minimize adverse effect through consultation as the design develops. - Perimeter security design must provide a secure perimeter without obstructing access to the buildings and sites. - Adverse effect may be minimized through material selections and site-specific design detailing.	
<b>Proposed Effect Determination – Adverse Effect</b>		

Example Page from the Draft Assessment of Effects

# DRAFT ASSESSMENT OF EFFECTS ON HISTORIC RESOURCES

## Character Defining Features

### Smithsonian Institution Building (Castle)



#### Period of Significance– 1847-1910

- Setting – Area surrounding the base of the building and the South Yard (Haupt Garden)
- Building Massing and Materials
- Windows
- Roof Materials and Profiles
- North and South Towers – Situated at building entrances
- Perimeter Towers – West Tower, Northwest Tower, Octagon Tower, Campanile Tower, and Southeast Tower

### Arts & Industries Building (AIB)



#### Period of Significance– 1881-1902

- Setting
- Building Massing
- Roof Materials and Profiles
- Exterior Masonry
- Windows
- Entrances
- Decorative Metal – Acroteria, finials, cornice, and sculpture

# LANDSCAPE



Existing landscape character, south of the SIB.



Existing landscape character, west of the AIB.

## No Adverse Effect

- Setting of the Castle and the AIB are character defining features.
- Landscape features and hardscape disturbed by the project limit of disturbance will be replaced in-kind, including a portion of the Folger Rose Garden, Ripley Garden, Haupt Garden, and its Fountain Garden.
- Modifications to the eastern portion of the Folger Rose Garden required for accessibility.
- Haupt Garden west hardscaped path reduced to accommodate AIB areaways.
- Character of the existing hardscape and landscape maintained.
- Tree plantings setback from the Castle.
- Diversity and hierarchy of plantings maintained.

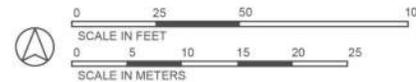
# LANDSCAPE

## Preliminary Planting Schematics at Castle



### LEGEND

	DECIDUOUS TREE		SHRUBS (4-10'HT)
	EVERGREEN TREE		GROUNDCOVER (1-3' HT)
			LAWN / STEPABLES (<1'HT)

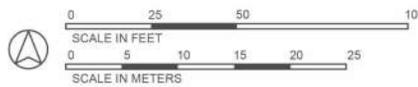
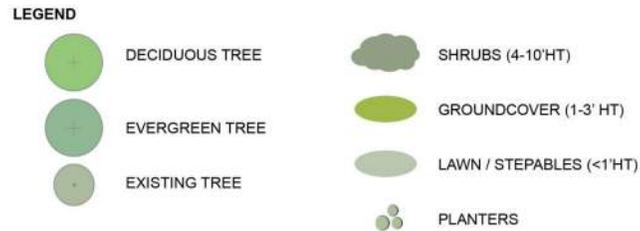
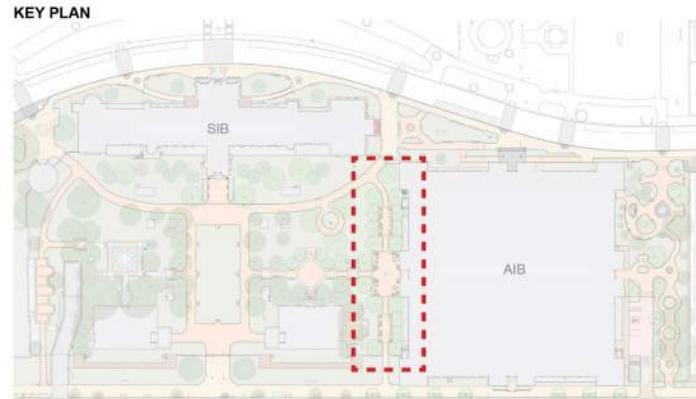
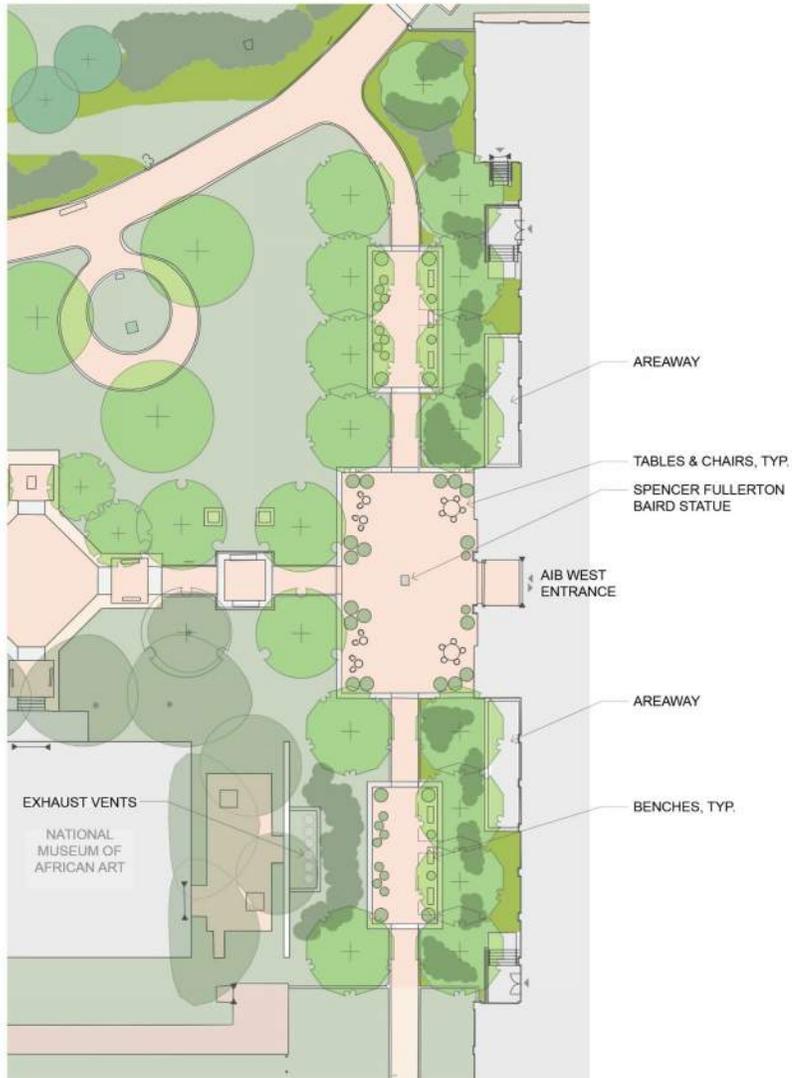


### Planting Strategy

- Provides diversity and hierarchy of plantings
- Provide adequate screening of existing Quad egress structures and new areaways around castle base
- Allows open areas to facilitate access for garden and façade maintenance
- Preserves (2) existing ginkgo trees near south entrance
- New plantings will provide more visibility of the historic castle facade

# LANDSCAPE

## Preliminary Planting Schematics at AIB West



### Proposed Condition

- Plantings will provide adequate screening of new stairs, areaways and potential exhaust vents
- Minimize impacts to setting – utilize existing features and planting strategies to integrate potential exhaust into the landscape

# LANDSCAPE

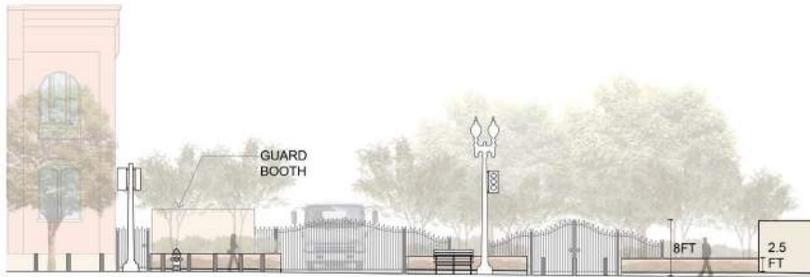
## Ripley Garden Expansion Considerations



### LEGEND



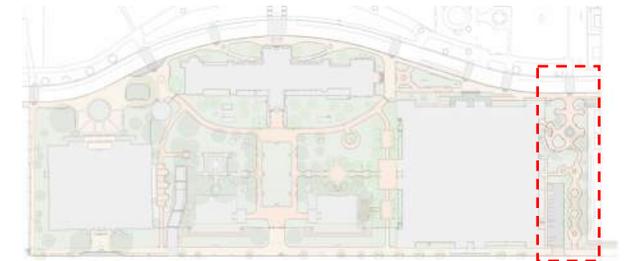
- Reduced parking and service area size allows expansion of Ripley Garden. Expansion will be in keeping with original design.
- Incorporates perimeter security and new pedestrian fencing to secure garden and parking/service area
- Preserves the existing Ripley Garden walks, walls, and planting and new spaces reflect the character of the existing



ELEVATION LOOKING NORTH FROM INDEPENDENCE AVENUE



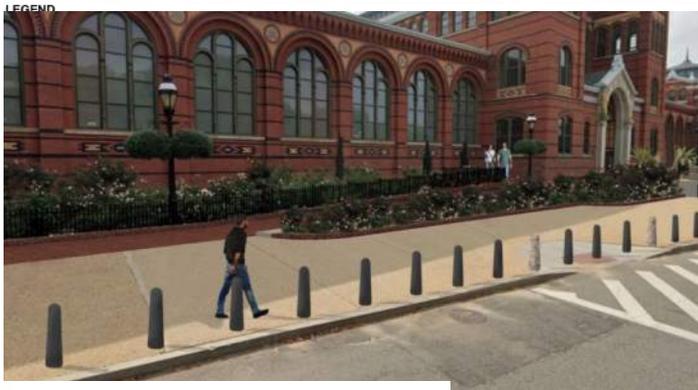
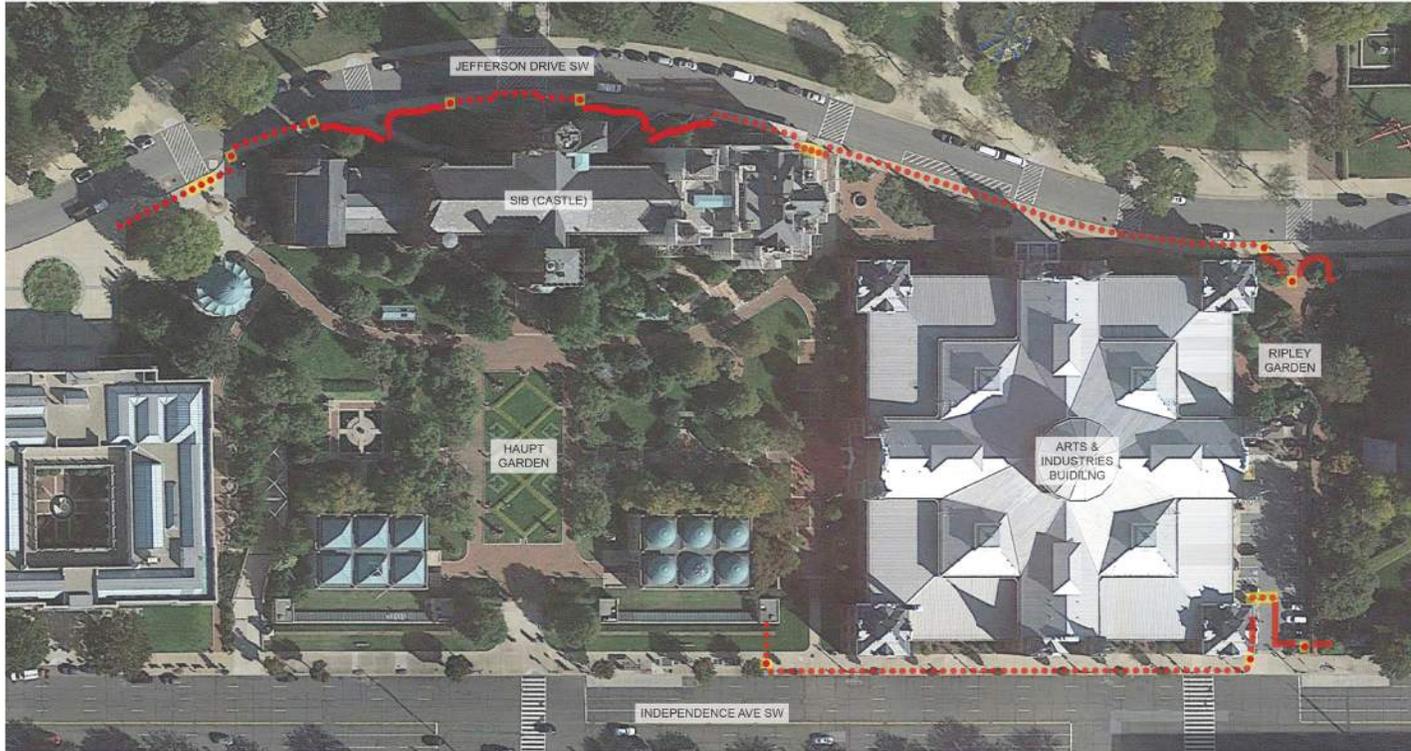
ELEVATION LOOKING SOUTH FROM JEFFERSON DRIVE



Key Plan

# PERIMETER SECURITY

## Site- General

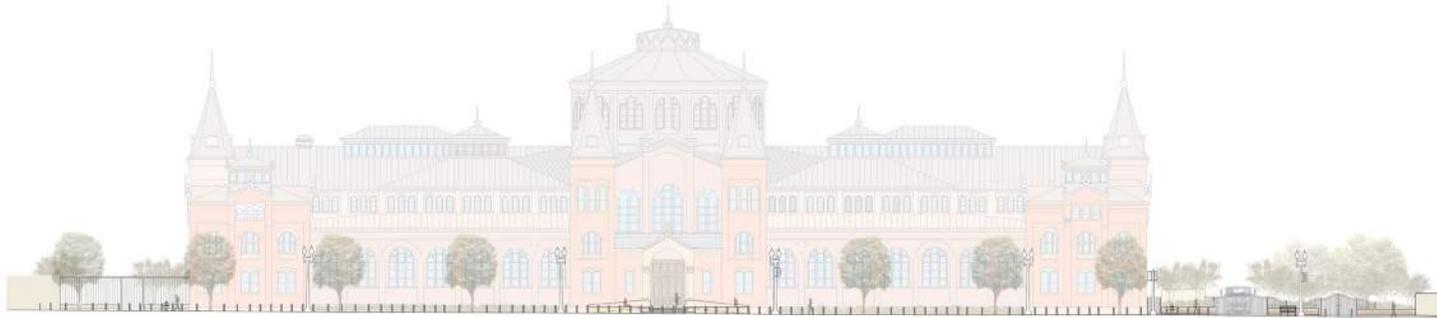


### Adverse Effect

- Setting is a character defining feature of both buildings
- Secure perimeter required around both buildings.
- Both buildings have no available setback and narrow sidewalks.
- Buildings have no stand-off distance available from the roadbeds.
- Pursuing a combination of hardened bollards (stone and metal), fencing, landscape wall features, benches, and lighting.
- Bollards proposed at the curbs to maximize security distance.
- Retractable bollards at key locations to facilitate maintenance and emergency vehicle access.

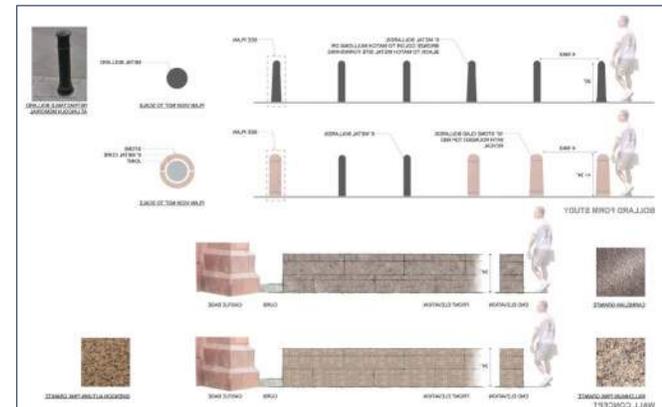
# PERIMETER SECURITY

Site - General



## Adverse Effect

- Perimeter security adversely effects the setting of both buildings, and relationship with the National Mall context.
- Potential to minimize adverse effect through consultation as the design develops.
- Perimeter security design must provide a secure perimeter without obstructing access to the buildings and sites.
- Adverse effect may be minimized through material selections and site-specific design detailing.



Proposed Perimeter Security Elements

# LIGHTING

## Site - General



Plan of Existing Light Fixtures



Existing Lamp Post at Haunt Garden



Existing Site Lighting at AIB

### No Adverse Effect

- Light posts proposed along sidewalks and garden visitor pathways in keeping with the historic context and National Mall light posts.
- Light posts will provide a unified treatment, and a contextual design for the historic core setting.
- Light post design is under development and will align with District of Columbia standards and the National Capital Planning Commission's Monumental Core Streetscape Framework.
- Existing building specific fixtures will be restored and rehabilitated for energy efficient lighting.
- Building façade lighting will be accomplished through discreet fixtures placed in the landscape.



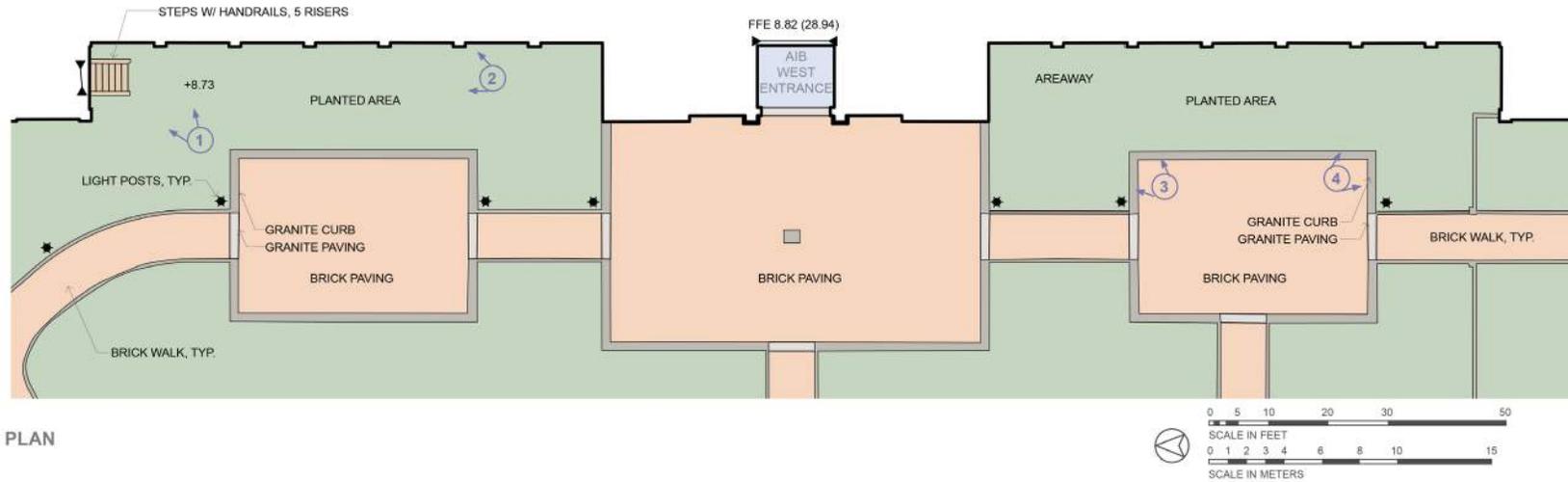
# AREAWAYS

## Site – Arts & Industries Building

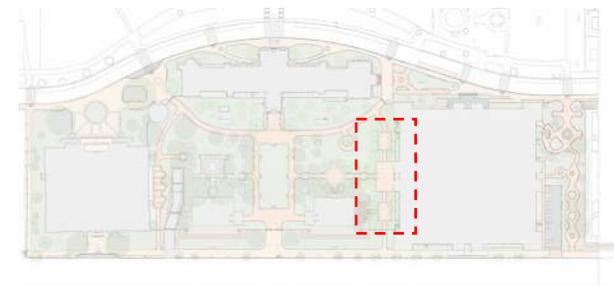


### No Adverse Effect

- Setting is a character defining feature.
- Hardscape and vegetation displaced or disturbed by installation of egress and mechanical areaways will be replaced with compatible materials and layout.
- Egress areaway landings are partially below-grade.
- At-grade mechanical areaways are related to the CUP.



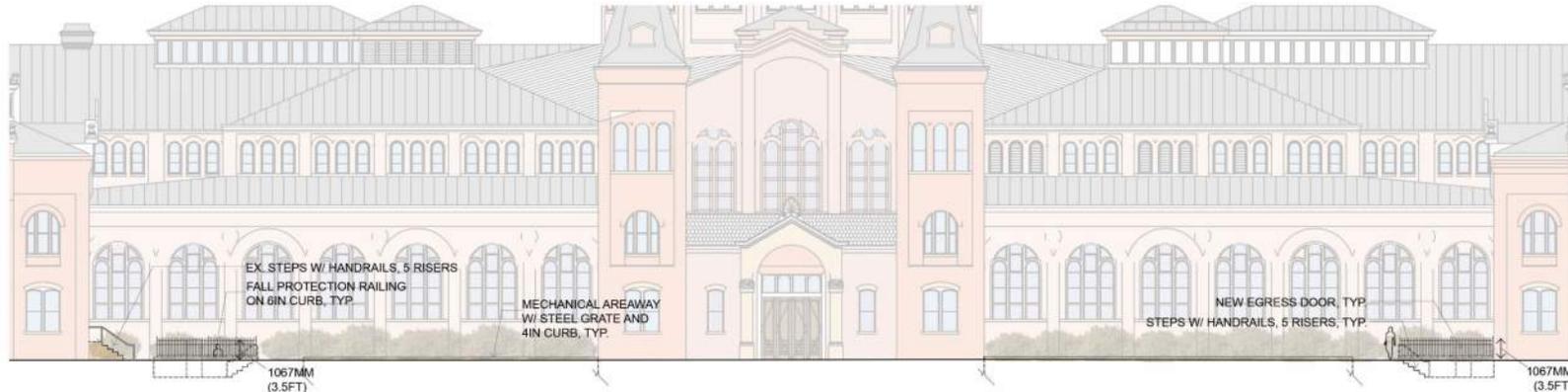
PLAN  
Existing West Entrance Plan



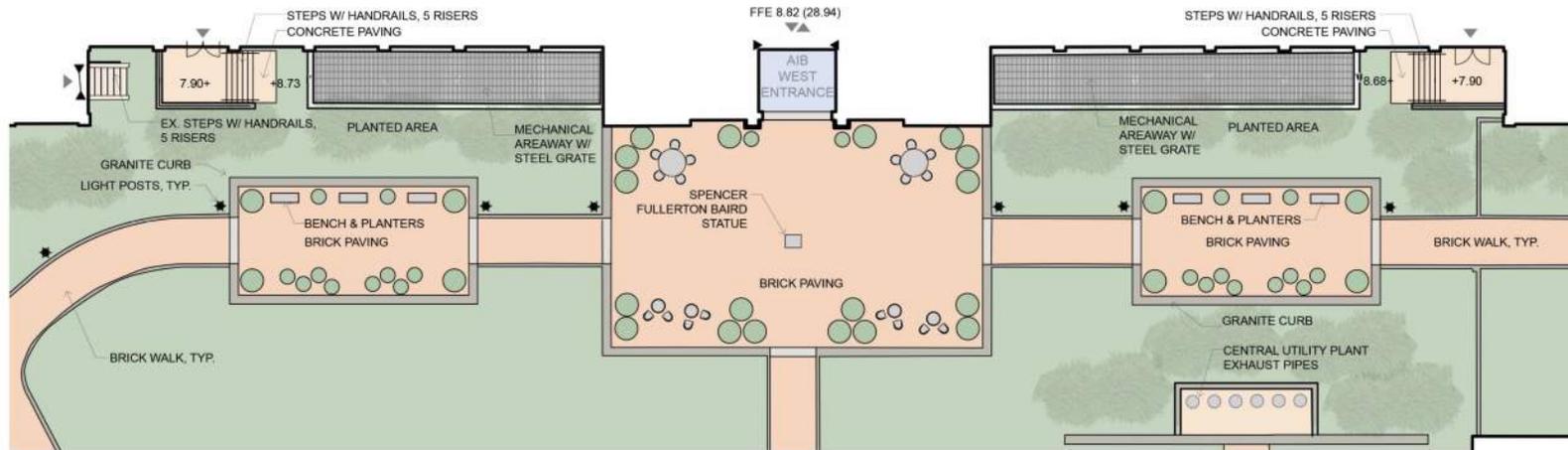
Key Plan

# AREAWAYS

## Site – Arts & Industries Building



ELEVATION LOOKING EAST

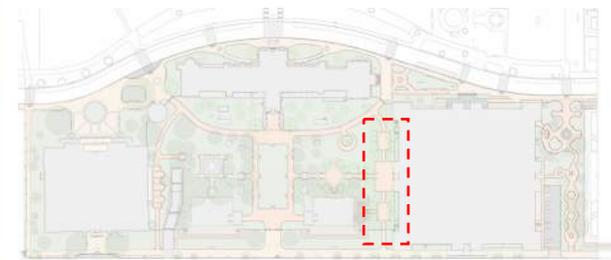


PLAN

Proposed West Areaways – Plan & Elevation

### No Adverse Effect

- Hardscape and landscape character of the Ripley and Haupt Gardens will be maintained.
- Haupt Garden west hardscaped path slightly reduced to accommodate egress and mechanical areaways.
- Mechanical areaways and steel grates adjacent to the Haupt Garden will be obscured with plantings.
- Fall protection railings for the egress landings visible within the Haupt Garden.



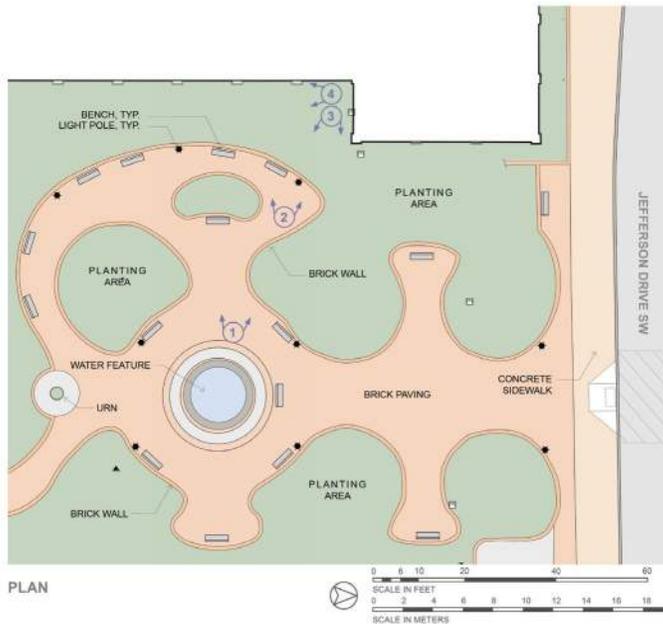
Key Plan

# NORTHEAST BUILDING EGRESS – RIPLEY GARDEN

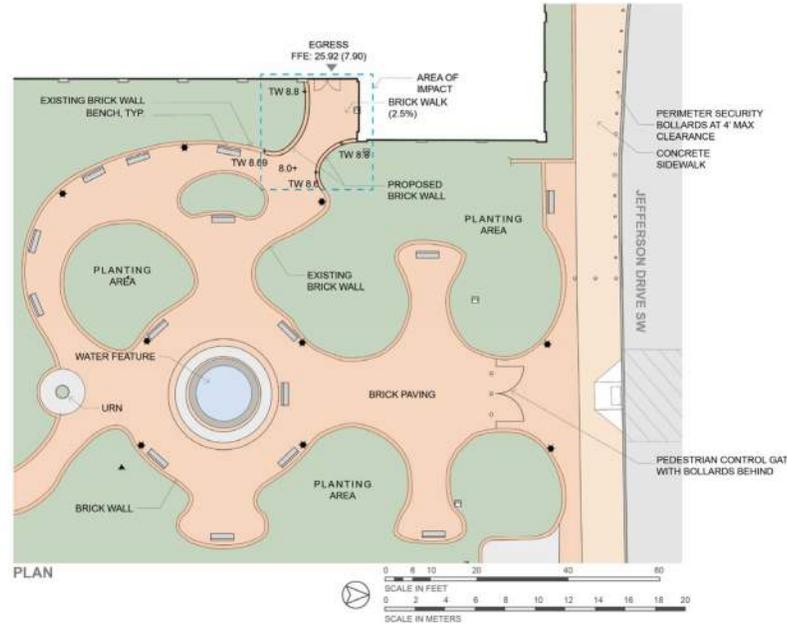
Site – Arts & Industries Building



Existing Elements



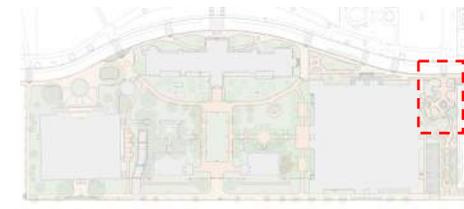
Existing Plan



Proposed Plan

## No Adverse Effect

- Proposed egress door at AIB east elevation, north side, requires modifications to site walls and a planting bed within the Ripley Garden.
- Opening created in the elevated brick Ripley Garden planter walls.
- Brick garden walls and brick paving extended to create a connection to the new egress door.
- Ripley Garden planter walls are retaining and are 3' above grade.
- Proposed egress door provides emergency egress from AIB.
- Curvilinear hardscape paths, brick material, and landscape character of the Ripley Garden will be maintained.



Key Plan

# SURFACE PARKING AREA EAST OF AIB

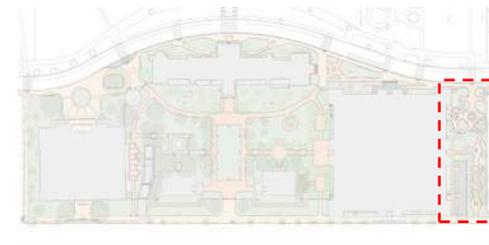
## Site – Arts & Industries Building



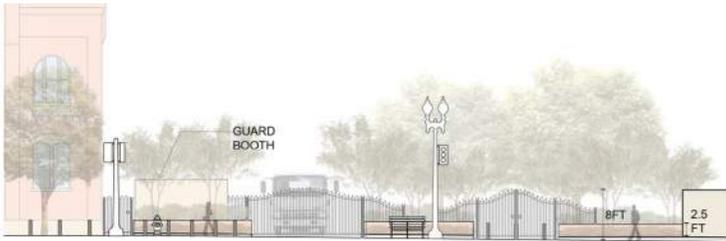
Existing Ripley Garden Plan



Proposed Ripley Garden Plan



Key Plan



Proposed Elevation Looking North from Independence



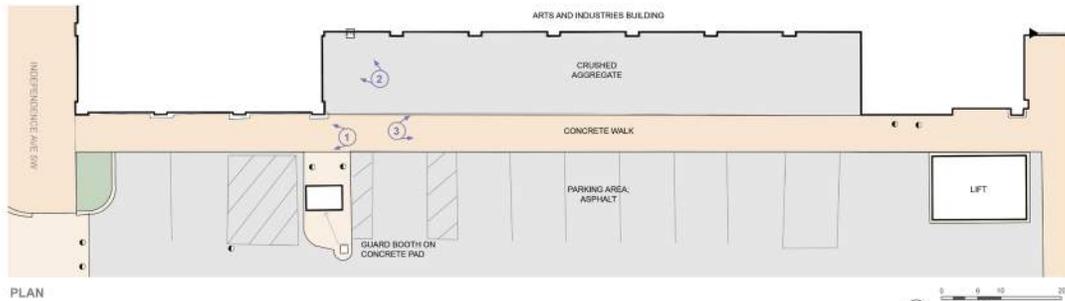
Proposed Elevation Looking South from Jefferson Drive

### No Adverse Effect

- Reduction of the existing amount of paved area and parking spaces.
- Expansion of the existing design and planted areas at the pedestrian path connecting the Ripley Garden to Independence Avenue.
- Installation of decorative iron fencing and gates at the pedestrian path and Ripley Garden entrance at Jefferson Drive for security closure off-hours.
- Guard booth at Independence Avenue will be replaced.
- Parking area currently obscured with a wood fence at the perimeter of the paved area, which includes workspace for Smithsonian Gardens.

# SURFACE PARKING AREA EAST OF AIB

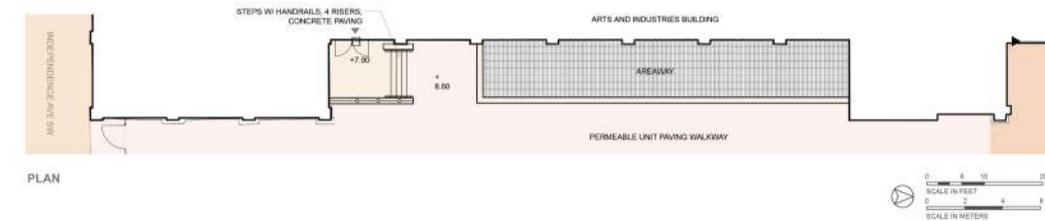
Site – Arts & Industries Building



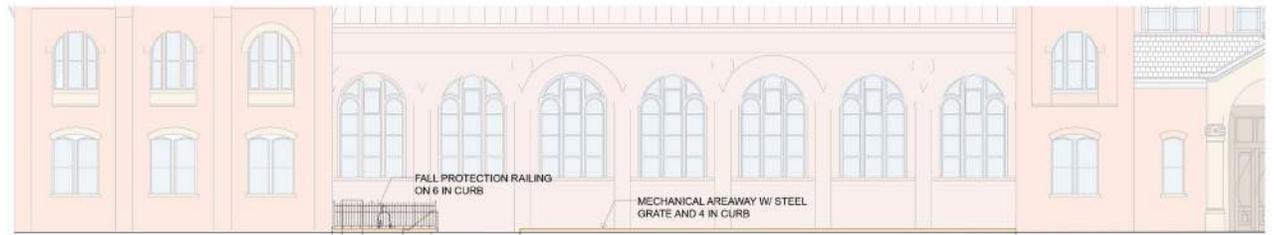
Existing Plan



Key Plan



Proposed Plan



Proposed Elevation

## No Adverse Effect

- Hardscape and landscape character of the Ripley Garden will be applied to the expansion.
- Decorative iron security gates are proposed at the pedestrian entrances to secure the Ripley Garden and path to Independence Avenue during closed hours.
- Proposed security gates are consistent with the decorative gate security measures currently in place at the adjacent Haupt Garden.

# AREAWAYS

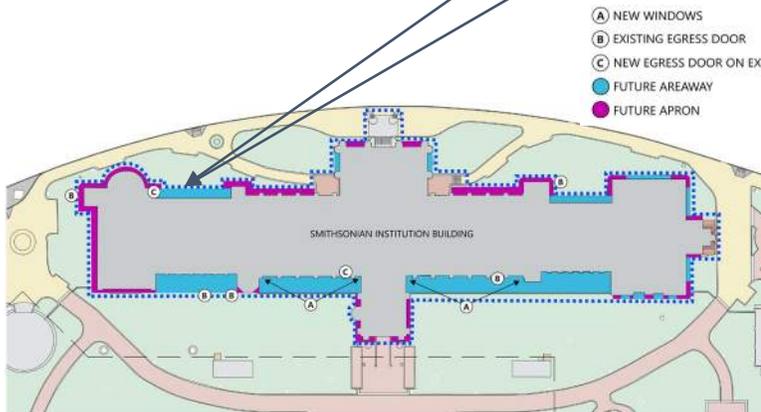
Site – Castle



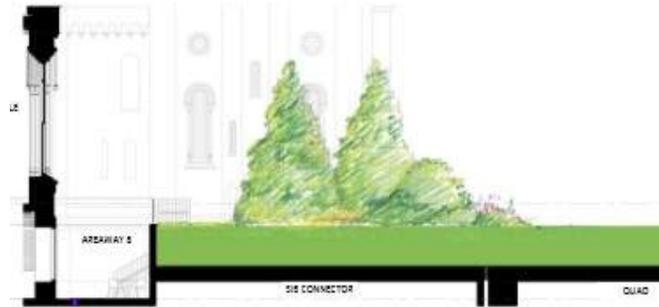
Existing Areaway at West Range - North



Existing Areaway at West Range - North



Proposed Plan of Areaways



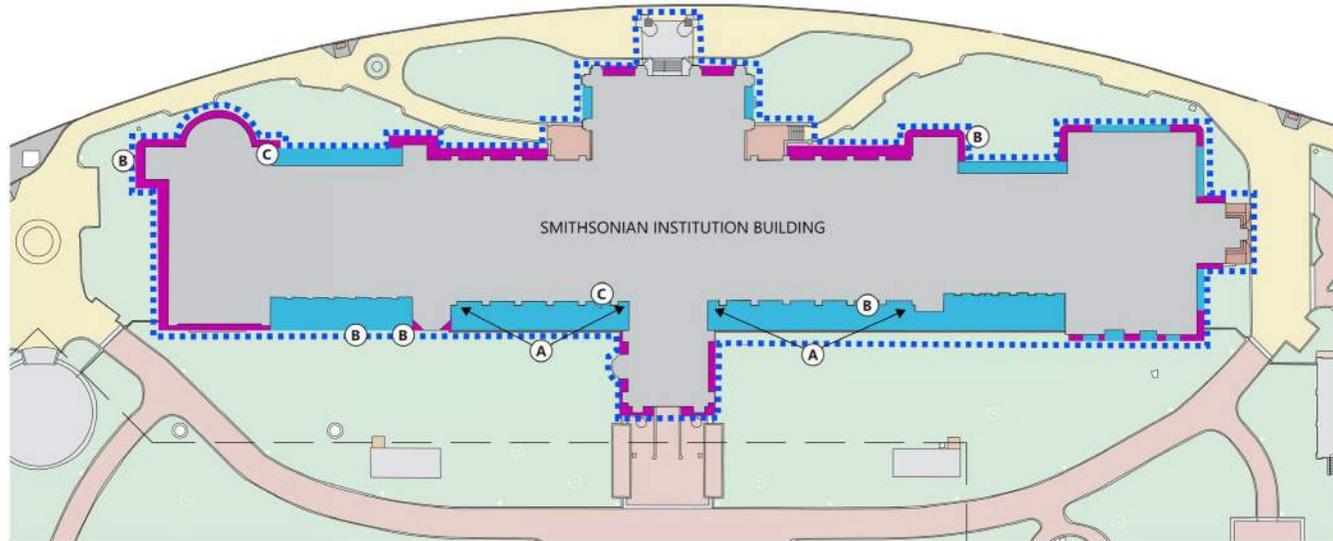
Proposed Section of Areaway

## Adverse Effect

- Setting is a character defining feature.
- Recessed areaways and at-grade aprons proposed around the Castle perimeter.
- Proposed condition combines and regularizes the Castle base condition with 575' of areaways and 640' of apron.
- Recessed areaways require fall protection metal railings.
- Recessed areaways obscured through placement of public paths and vegetation in the Haupt Garden and landscaped setting north of the Castle.
- Character of the hardscape and landscape of the Haupt Garden and setting north of the Castle will be maintained.

# SEISMIC CONTROL JOINT

Site – Castle

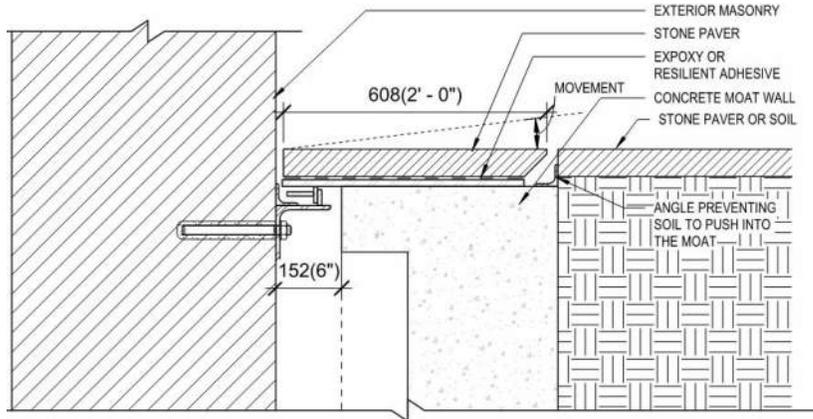


Proposed Seismic Joint Location

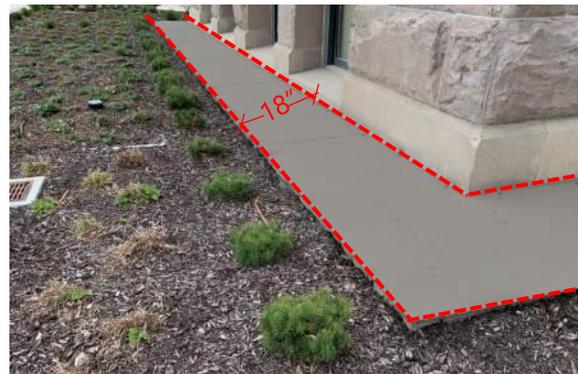
■ ■ ■ PRELIMINARY SEISMIC JOINT LOCATION

## Adverse Effect

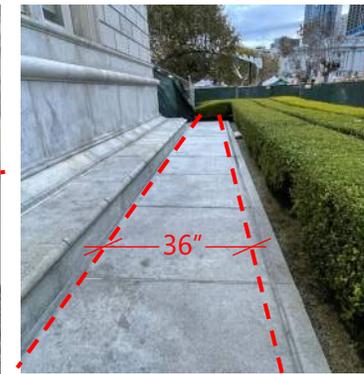
- Setting is a character defining feature.
- Seismic base isolation joint is required around the Castle perimeter.
- Seismic control joint cover is 18-24" in width and visible at grade.
- Seismic control joint is associated with base isolation, which separates the building from the ground motion.
- Achieved by creating a plane of separation between the superstructure and the foundations.



Proposed Seismic Joint Cover Detail



Example: Salt Lake City County Building

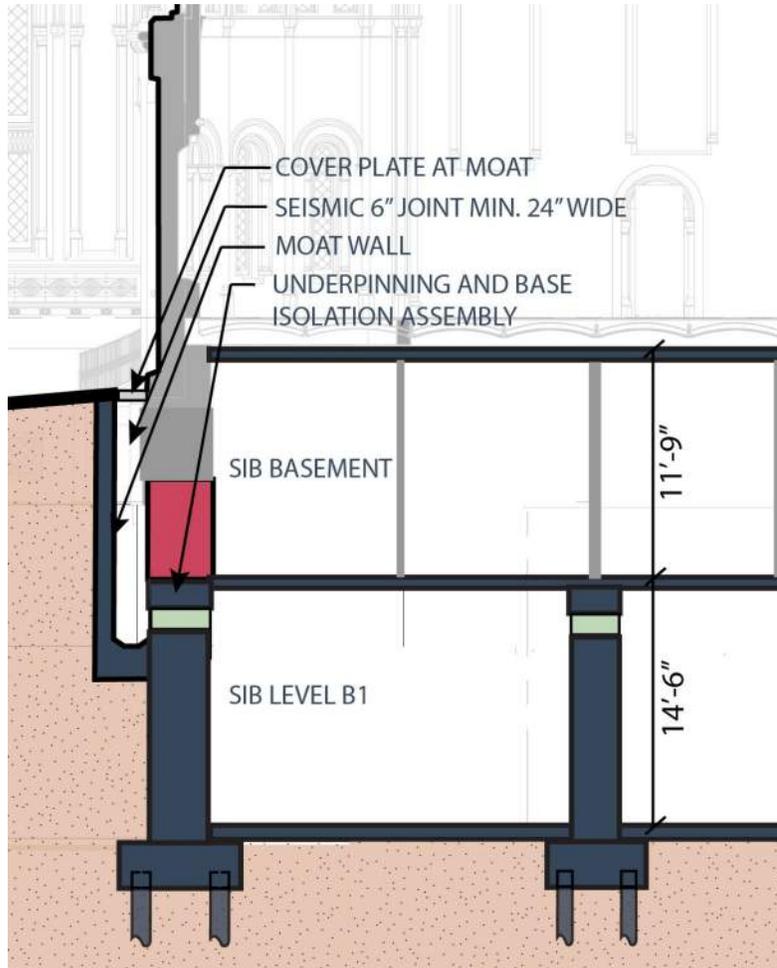


--- SEISMIC JOINT

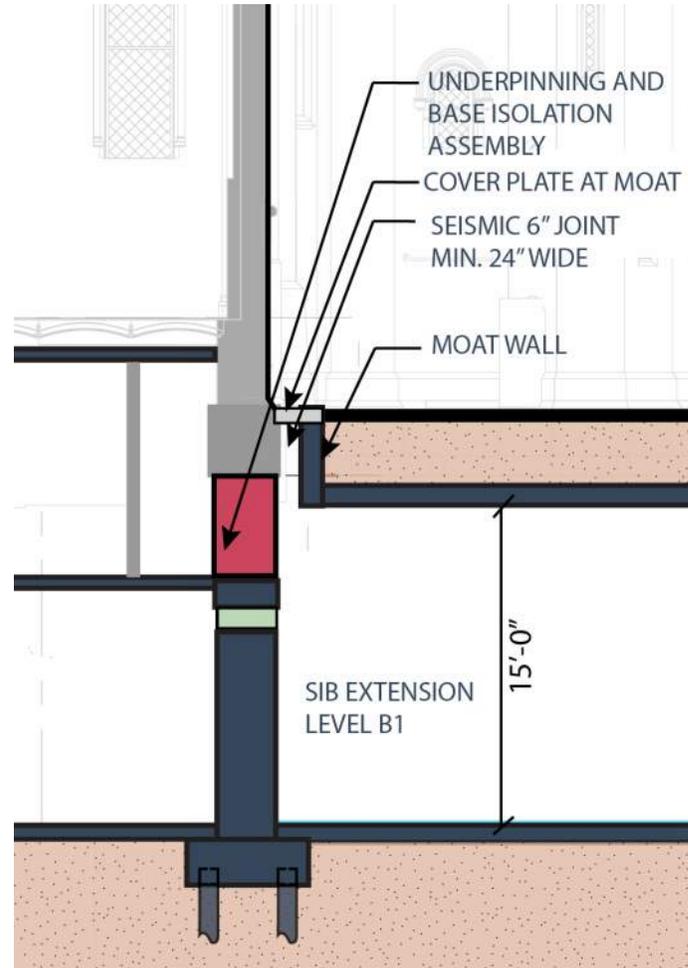
Example: San Francisco Art Museum

# SEISMIC CONTROL JOINT

Site – Castle



Proposed Seismic Joint – The Commons North



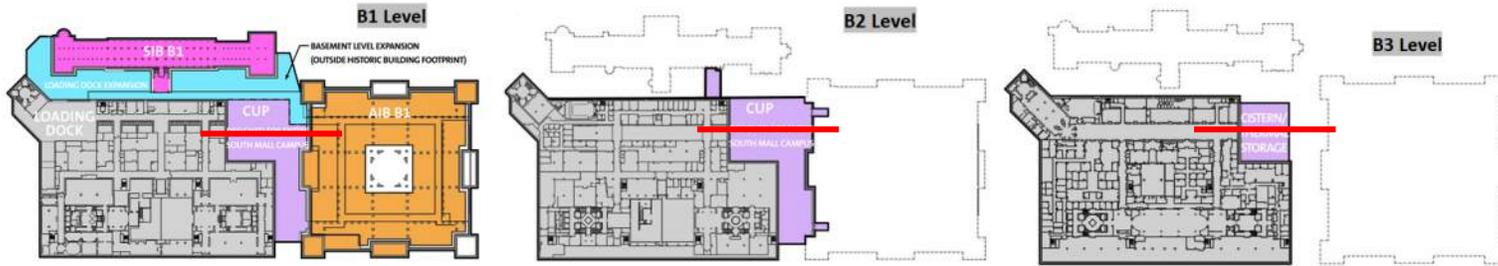
Proposed Seismic Joint – The Commons South

## Adverse Effect

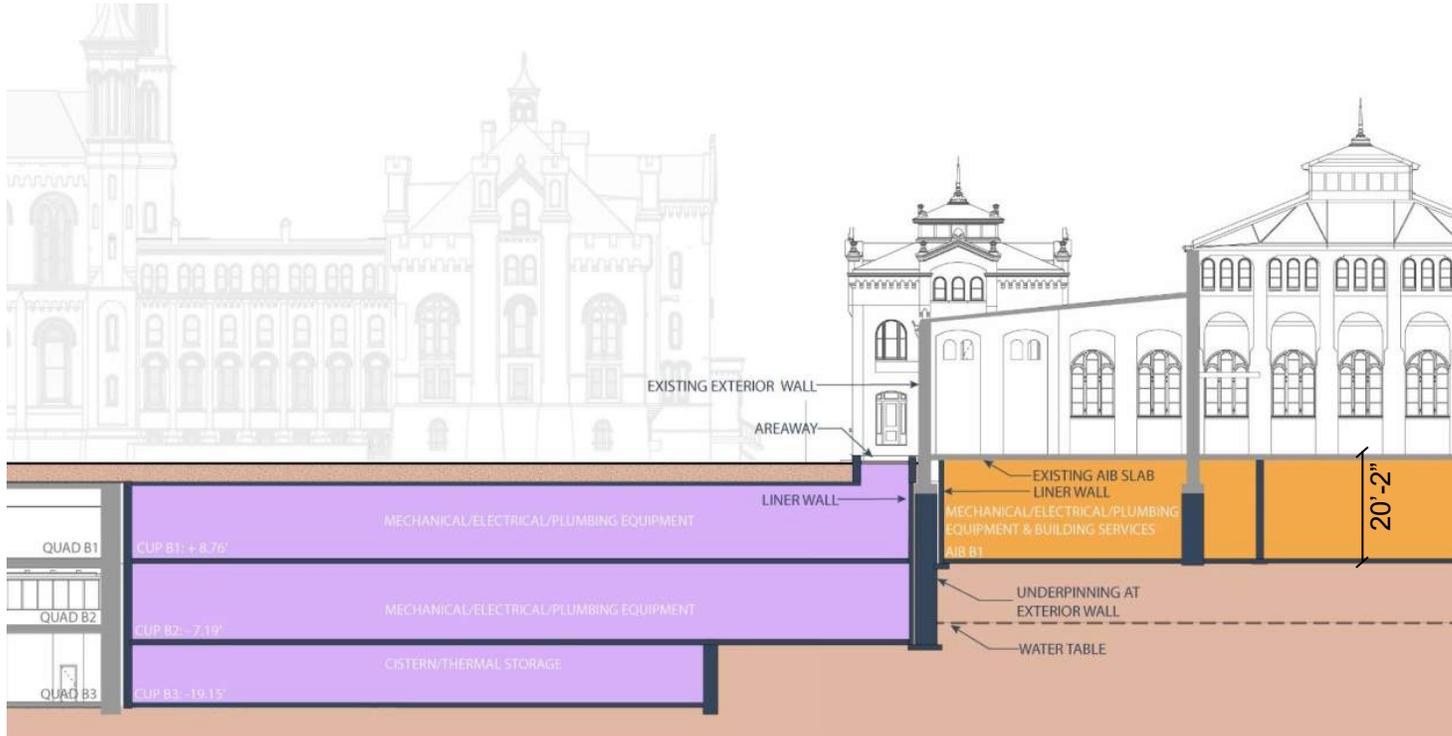
- Seismic base isolation joint incorporated into the recessed areaways and aprons.
- Seismic control joint cover plate can accept a variety of finishes, including planting, gravel, pavers, and architectural features.
- Adverse effect may be minimized through consultation as the design develops considering materials and treatments that minimize visual impact.
- Seismic control joint finish options will be reviewed in consultation through field mock-ups.

# CENTRAL UTILITY PLANT EXCAVATION

## Below-Grade Central Utility Plant – Castle Expansion (B1 Level)



Proposed Below-Grade Plans



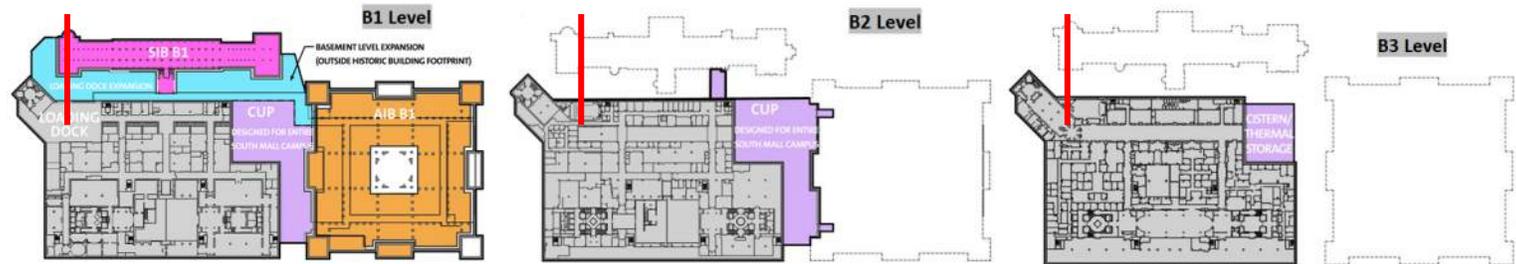
Below-Grade Section – Quadrangle, CUP, and AIB

### Adverse Effect

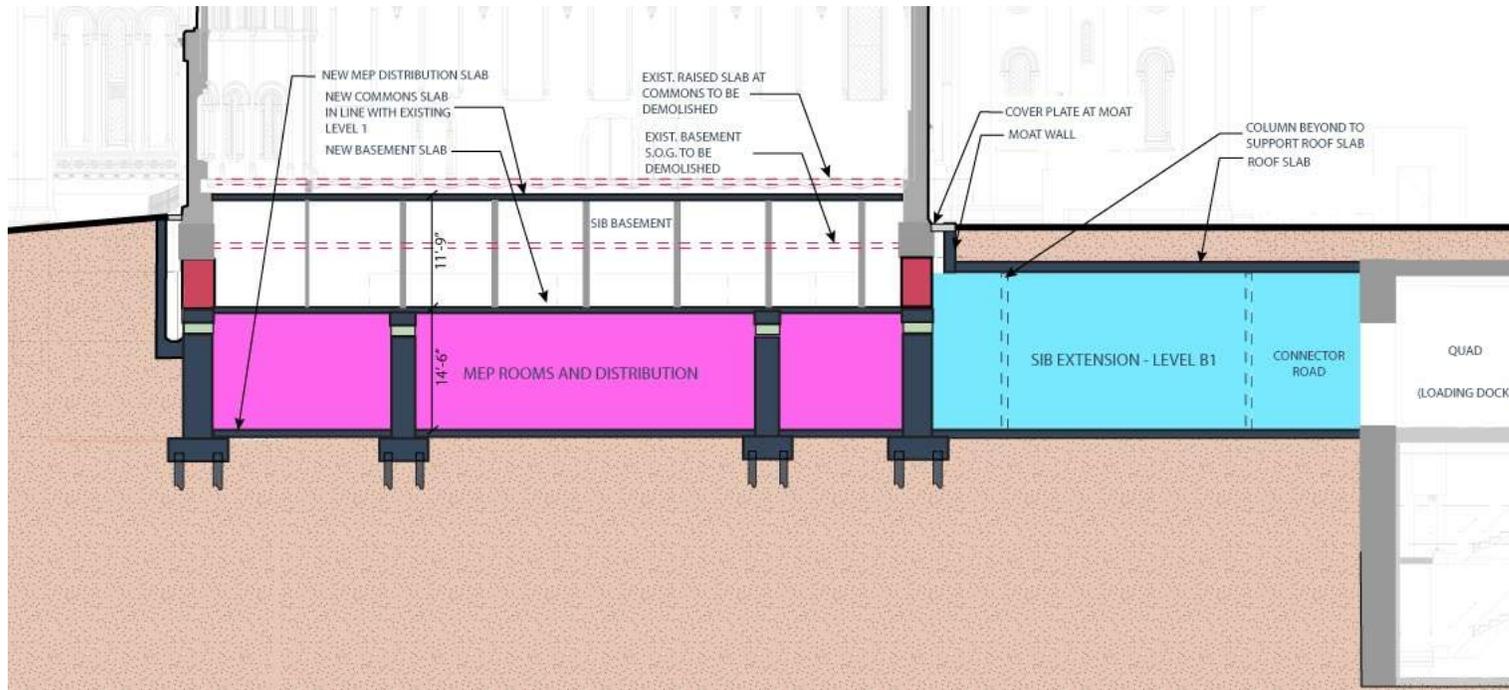
- Central Utility Plant (CUP) proposed in unexcavated areas between the AIB, Quadrangle, and Castle.
- CUP is connected to an expansion outside of the Castle footprint at the B1 level, which provides connection to the existing Quadrangle loading dock, and service functions.
- CUP will initially serve the SIB and AIB but is designed to serve all the buildings in the South Mall Campus.
- CUP provides two levels of mechanical, electrical, and plumbing equipment housing. Cistern for stormwater management is at the B3 level.

# CENTRAL UTILITY PLANT EXCAVATION

Below-Grade Central Utility Plant – Castle Expansion (B1 Level)



Proposed Below-Grade Plans



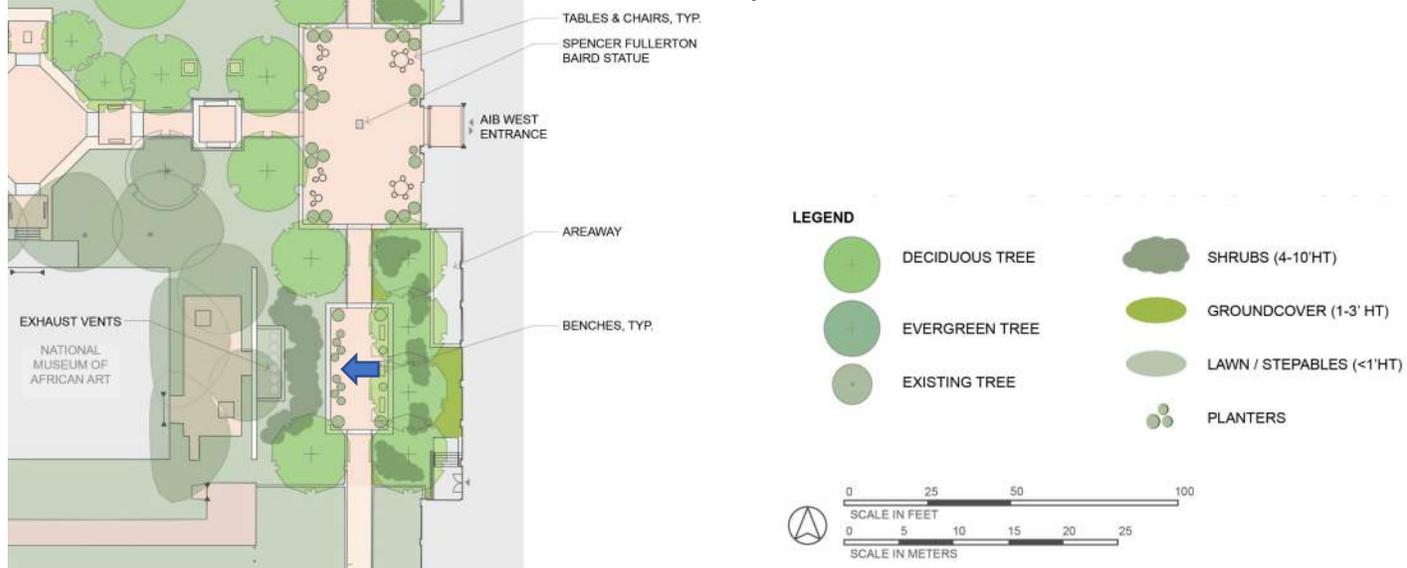
Below-Grade Section – Quadrangle, CUP, and SIB

## Adverse Effect

- Requires construction related temporary removals and restoration of portions of the Haupt Garden and its Fountain Garden.
- Depth of the CUP does not exceed the below-grade depth of the Quadrangle Building.
- CUP enhances all utilities service for the South Mall Campus buildings and reduces greenhouse gas emissions through modern and efficient mechanical systems.
- Potential construction related adverse effects from excavation or building vibration.

# VISUAL IMPACTS ABOVE-GRADE - EXHAUST

## Below-Grade Central Utility Plant – Castle Expansion (B1 Level)



Plan of Proposed CUP Exhaust



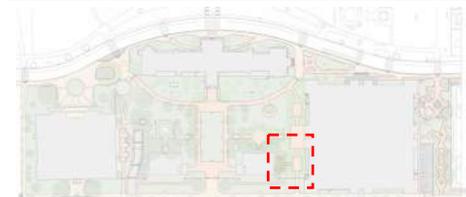
View from Independence Avenue



View from Haupt Garden

### Adverse Effect

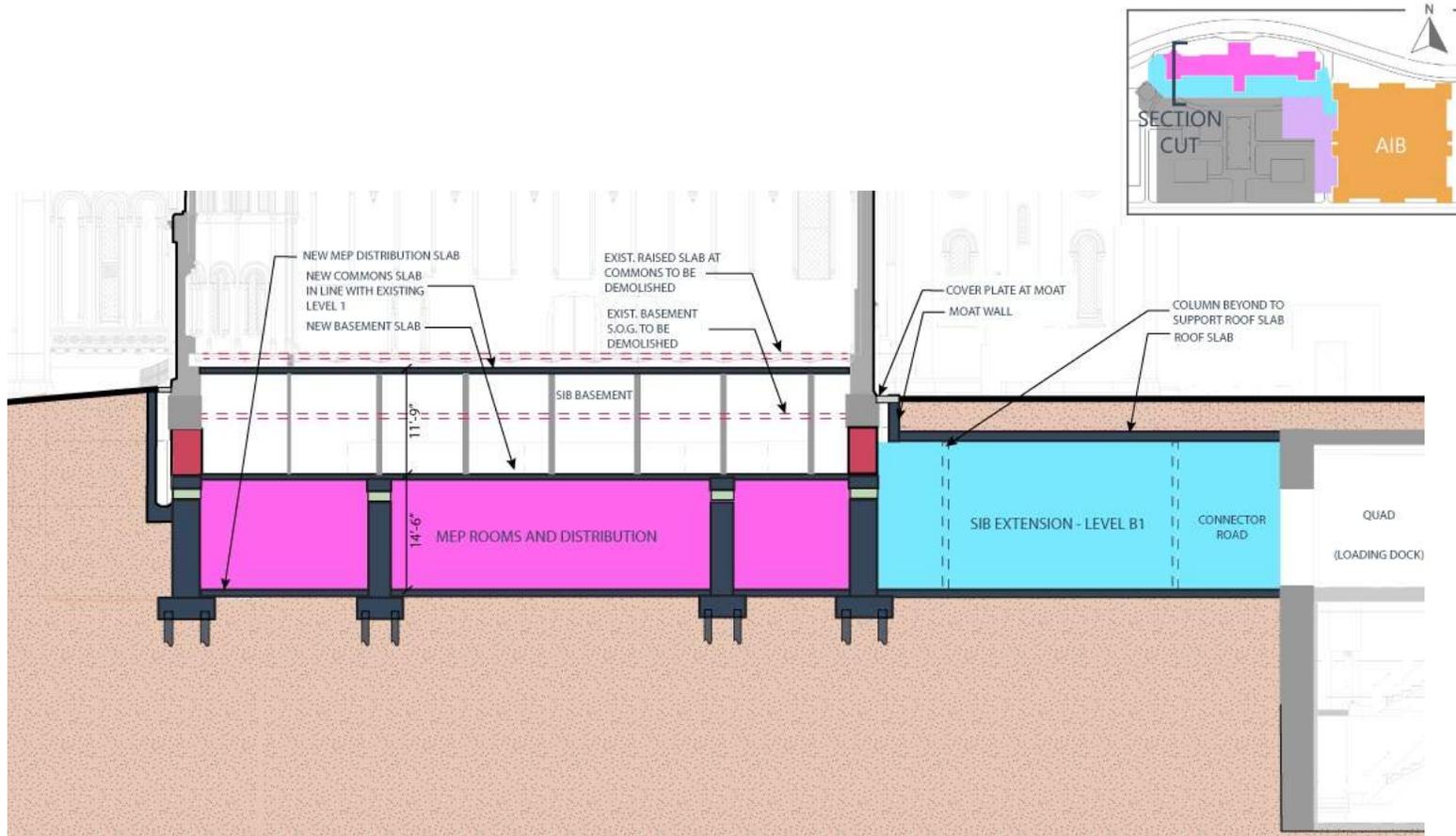
- Exhaust for the Central Utility Plant (CUP) is grouped together at the southeast corner of the Haupt Garden.
- Exhaust proposed at the National Museum of African Art pavilion paved area, screened with an extension of the existing high granite wall (9'6") adjacent to a paved area.
- Air intake for the CUP occurs through the mechanical areaways on the west and east sides of the AIB.
- Egress from the CUP occurs through the Castle south areaways or loading dock.
- Exhaust equipment will not be visible, but the stone enclosure wall will be visible from Independence Avenue and within the Haupt Garden.



Key Plan

# EXTENT OF EXCAVATION – ADJACENT TO CASTLE

Below-Grade Central Utility Plant – Castle Expansion (B1 Level)



Section through SIB, SIB Extension, and Quad

## Adverse Effect

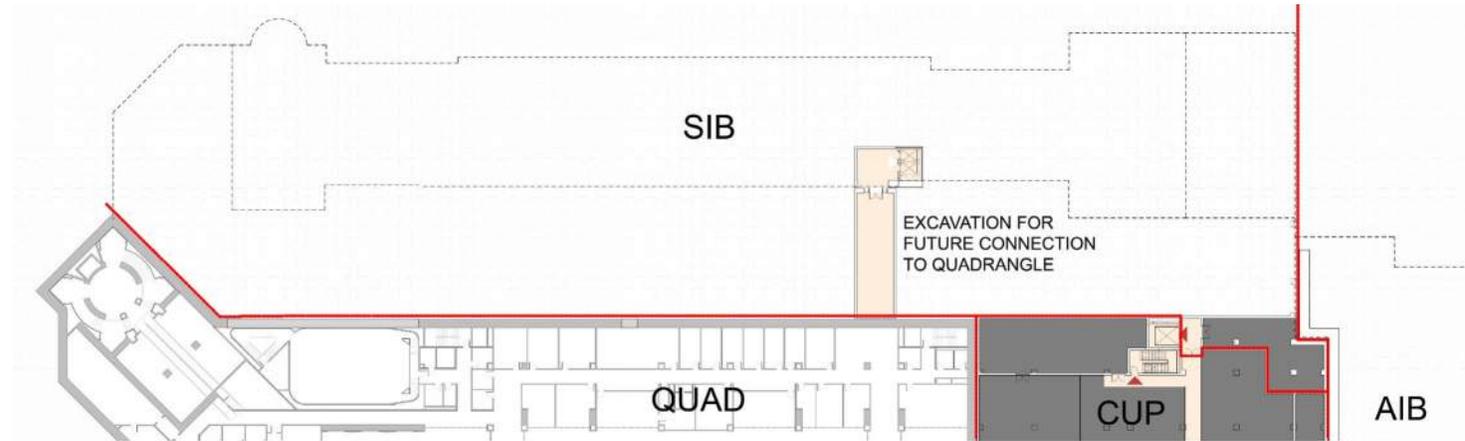
- Excavation occurs adjacent to the Castle for the B1 level Castle Expansion proposed in an unexcavated area between the Quadrangle and Castle.
- Castle Expansion aligns with the depth of the B1 level of the Quadrangle Building.
- CUP is connected to this expansion at the B1 level, which provides connection to the existing Quadrangle loading dock, and service functions.
- B1 level Castle expansion houses service functions and infrastructure outside the Castle footprint, prioritizing the historic interiors for public programming and use.
- Potential construction related adverse effects from excavation or building vibration.

# PENETRATIONS AT CASTLE BASEMENT LEVEL OR FOUNDATIONS

Below-Grade Central Utility Plant – Castle Expansion (B1 Level)



Proposed Level B1 Plan



Proposed Level B2 Plan

## Adverse Effect

- CUP is connected to the expansion outside of the Castle footprint at the B1 level, which provides connection to the existing Quadrangle loading dock, and service functions.
- Four penetrations through the Castle basement or foundation are proposed for staff access to the B1 level Castle expansion.
- Utilities will not penetrate historic foundations of the Castle or AIB.
- Narrow future public connection at the B2 level will be constructed. No modifications to the Quadrangle Building are proposed under this project.
- Potential construction related adverse effects from creating the openings or building vibration.

## Program Legend

- Smithsonian Offices
- Smithsonian Building Services
- Restrooms
- Circulation



# QUESTIONS

## MODERATOR

**Carly Bond**, Historic Preservation Specialist, Smithsonian Facilities

## PRESENTERS / PANELISTS

**Sharon Park**, FAIA, Assoc. Director of Historic Preservation, Smithsonian Facilities

**Christopher Lethbridge**, Architect/Program Manager, Smithsonian Facilities

**Ann Trowbridge**, AIA, Associate Director for Planning, Smithsonian Facilities

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**Kirk Mettam**, PE, Senior Principal, Silman

**Michael Galway**, PE, Sr. Mechanical Engineer, EYP-Loring, LLC



# ENCLOSURE

## Cooling Towers



NMNH - Existing Southeast Cooling Tower & Enclosure Walls



Proposed Cooling Tower Location Plan at NMNH

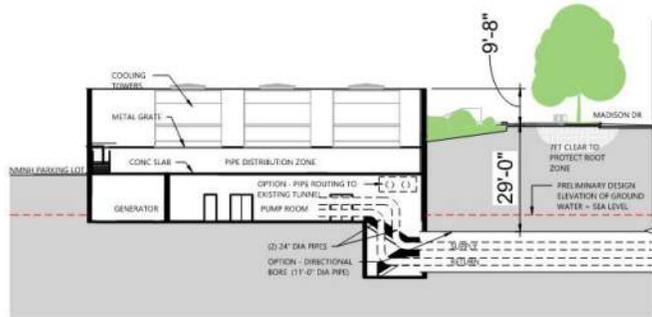


Existing Cooling Tower Location Plan at NMNH

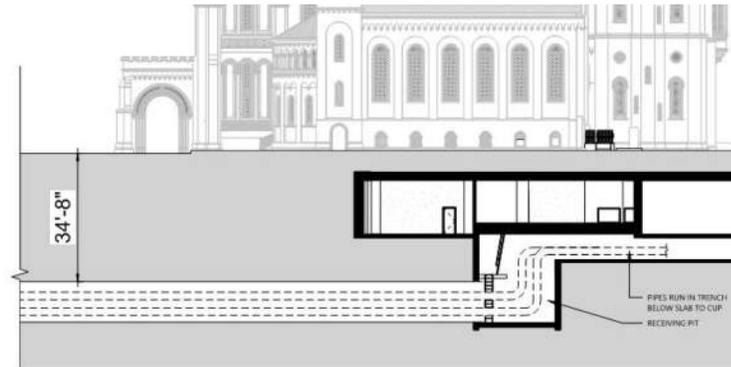


### No Adverse Effect

- Exterior cooling towers proposed within the southwest corner of the parking lot of the National Museum of Natural History (NMNH) connected below-grade to the Central Utility Plant within the South Mall Campus.
- Cooling towers and enclosure proposed behind existing granite perimeter security walls and plantings.
- Existing cooling tower enclosure at the southeast corner of the NMNH site installed c. 1991 is approximately 7' above the Madison Drive sidewalk grade.
- Existing cooling tower enclosure is visible from the sidewalk and is articulated to relate to the NMNH's architectural features.



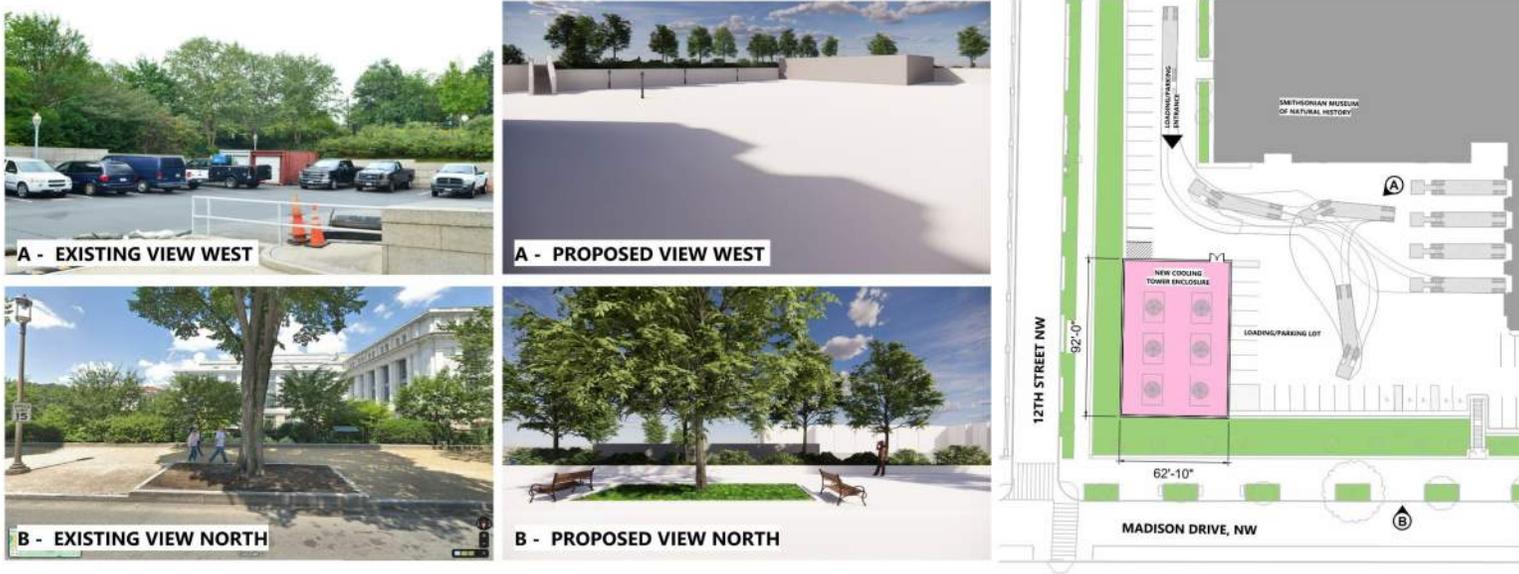
Proposed Cooling Tower Section at NMNH



Proposed Section Connection at CUP

# ENCLOSURE

## Cooling Towers



Existing Views and Proposed Enclosure Massing at NMNH

### No Adverse Effect

- Cooling towers and enclosure proposed behind existing granite perimeter security walls and plantings.
- Proposed cooling tower location is adjacent to the building loading dock and other small existing service structures at the southwest corner of the NMNH parking lot.
- Parking lot recessed below the grade of Madison Drive and 12<sup>th</sup> Street approximately 23’.
- Proposed cooling tower enclosure will be 9’8” above the grade of the sidewalks.
- Paved area at NMNH has less adverse impacts than locating the cooling towers at the South Mall Campus with very little available area.

# VISUAL IMPACT TO NMNH AND THE NATIONAL MALL HISTORIC DISTRICT

## Cooling Towers



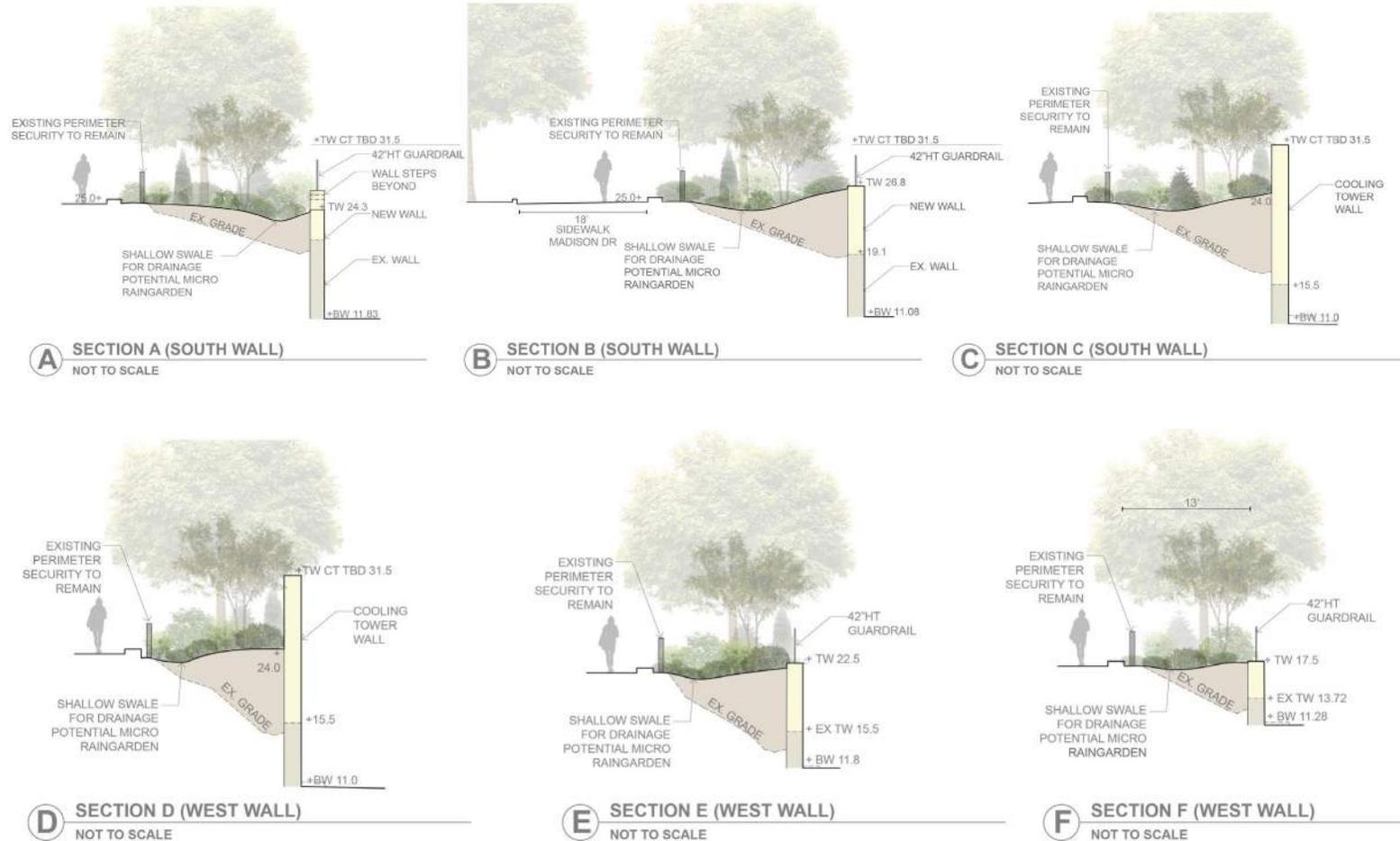
Proposed Landscape Treatment at NMNH

### No Adverse Effect

- Cooling towers and associated enclosure are proposed at the southwest corner of the NMNH site at a below-grade paved parking area.
- Proposed cooling tower enclosure will be 9'8" above the grade of the sidewalks.
- Fall protection railings proposed mounted to the top of the retaining walls.
- Parking lot recessed below the grade of Madison Drive and 12<sup>th</sup> Street approximately 23'. Fall protection railings are not currently present and is an unsafe condition.
- Cooling tower enclosure does not directly obscure visibility of NMNH but is visible from adjacent locations at the perimeter of the site from 12<sup>th</sup> Street and Madison Drive.

# VISUAL IMPACT TO NMNH AND THE NATIONAL MALL HISTORIC DISTRICT

## Cooling Towers



Proposed Sections of Landscape Treatment at NMNH

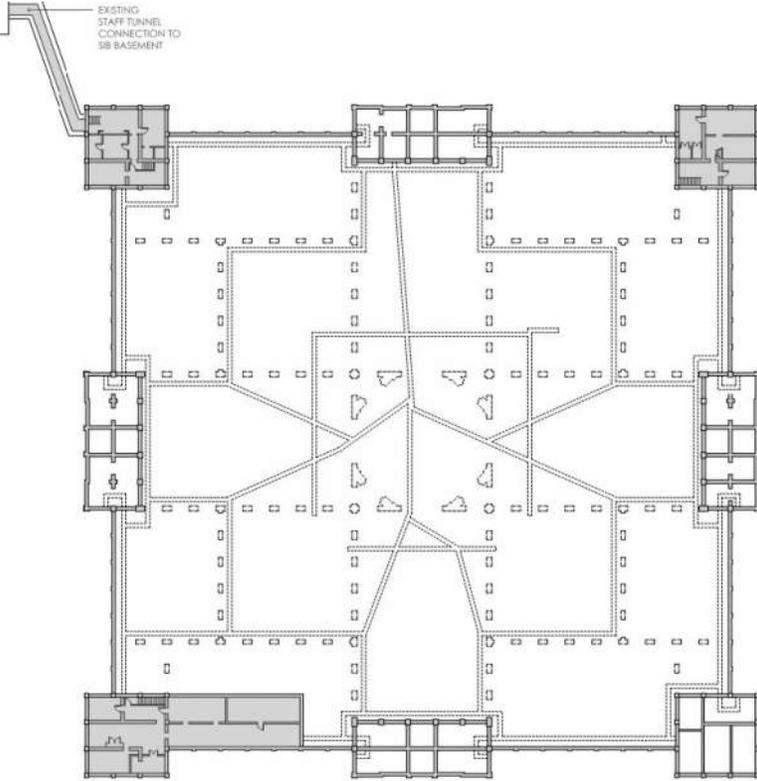
### No Adverse Effect

- Existing vehicular rated perimeter security fencing will be maintained.
- Landscaped replaced in-kind. Landscape is part of Smithsonian Gardens' Urban Bird Habitat.
- Cooling tower enclosure is obscured by dense plantings, existing perimeter security walls, and tree plantings on Madison Drive.
- The 10<sup>th</sup> Street vista looking north and south is a significant viewshed that contributes to the significance of the National Mall Historic District.
- Appearance of two visible plumes from the existing and proposed cooling towers may adversely effect the 10<sup>th</sup> Street vista and the National Mall Historic District.
- Visibility of cooling tower plumes is seasonal to colder months.



# EXCAVATION OF BASEMENT LEVEL (B1)

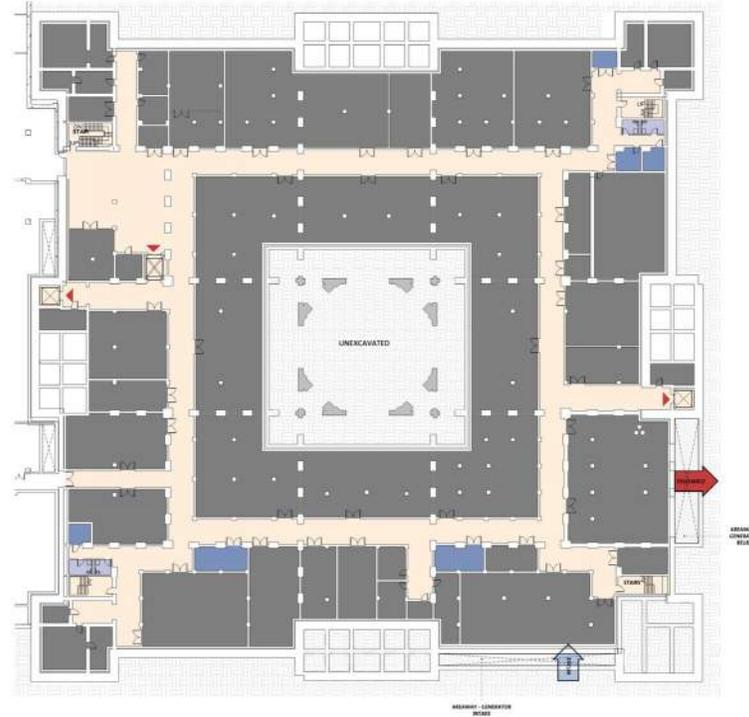
## Arts & Industries Building



### Program Legend

Existing Usable Spaces

Existing Basement Plan



### Program Legend

Smithsonian Offices  
Smithsonian Building Services  
Restrooms  
Circulation



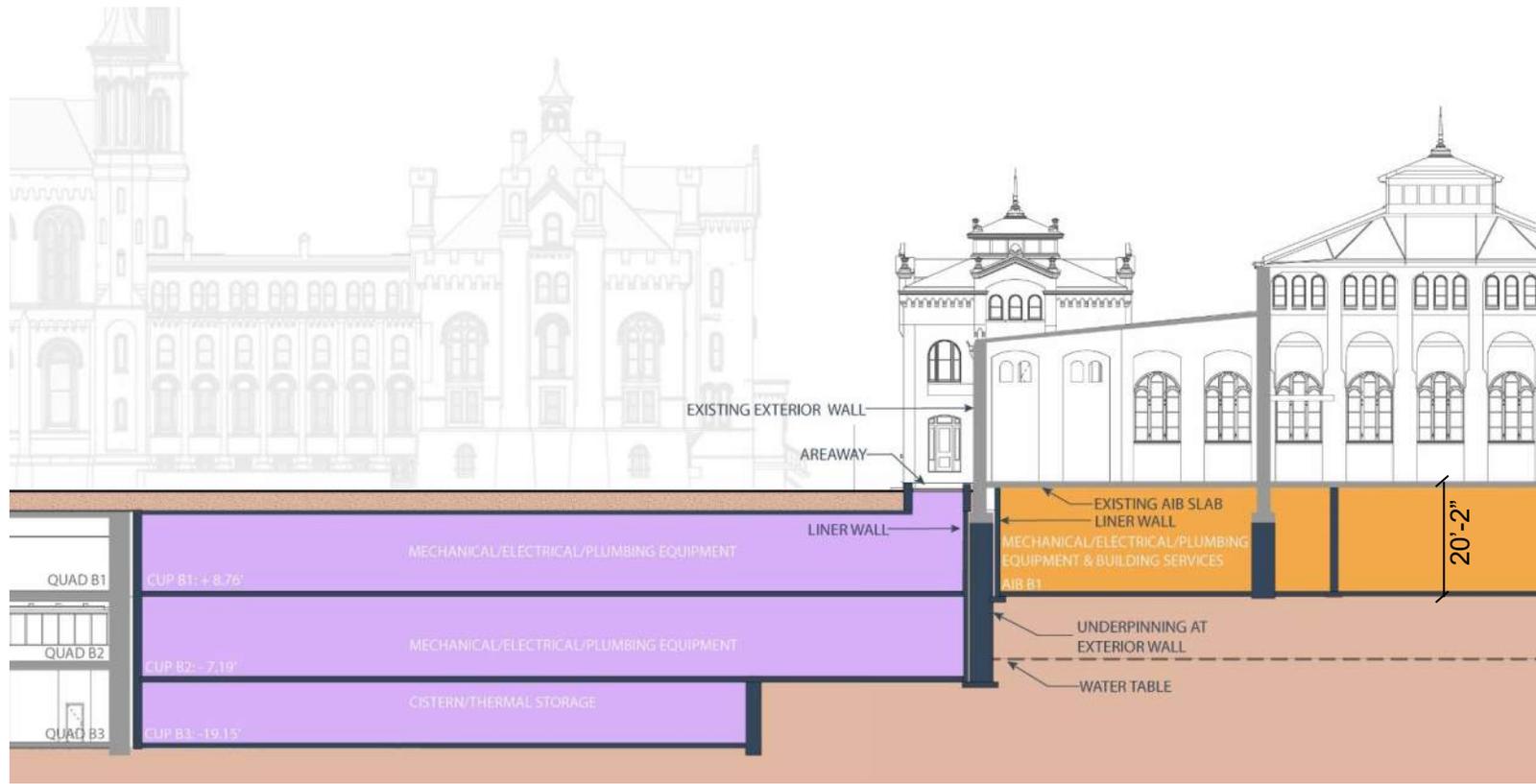
Proposed Basement Plan

### Adverse Effect

- Expanded excavated basement level provides building support and infrastructure space.
- Foundation walls will be underpinned.
- Basement level exists at the Pavilion Towers (southwest, northwest, northeast), Central Towers (north, east).
- Proposed basement level facilitates the use of the historic interiors for public use and programming by providing separate support space for building functions and infrastructure.

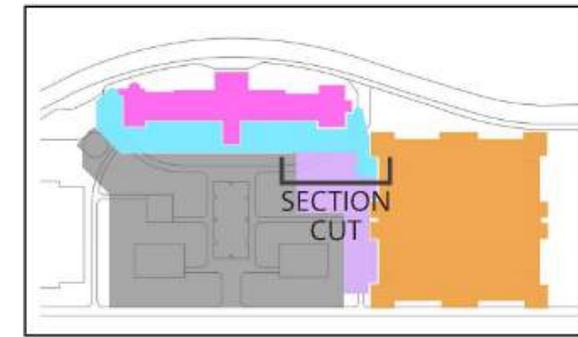
# EXCAVATION OF BASEMENT LEVEL (B1)

Arts & Industries Building



## Adverse Effect

- Proposed basement level aligns with the loading dock, CUP, and the Castle Expansion.
- Historic marble in the Halls will be salvaged and reinstalled.
- Basement excavation avoids the Rotunda and construction related adverse effects to the dome.
- Potential construction related adverse effects from excavation or building vibration.



Below Grade Section – Quadrangle, CUP, and AIB

# LOUVERS AT COURTS CLERESTORY WINDOWS

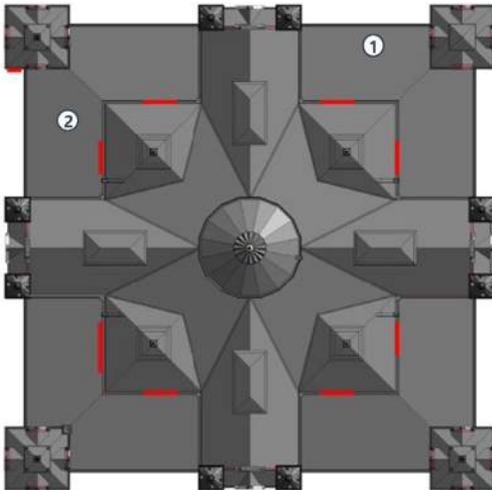
Arts & Industries Building



View of Existing Louvers from Haupt Garden



→ Photo View



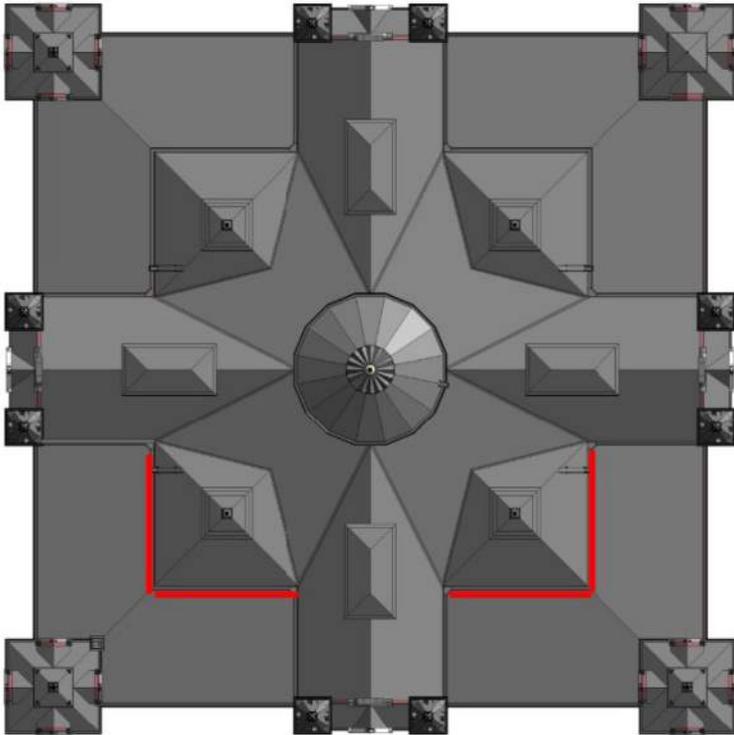
Roof Plan of Existing Louvers

## Adverse Effect

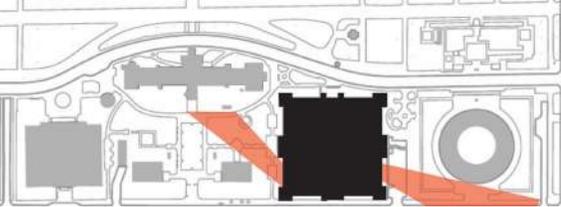
- Removal of non-historic c. 2014 window sash and installation of mechanical louvers.
- Louvers concentrated at the southwest and southeast Courts clerestories.
- Louvers will not be visible from the National Mall side of the building.
- Louvers will have limited visibility from Independence Avenue.
- Courts historically and currently have monitors with clerestory windows.
- Louvers currently exist at all Court clerestories in select locations, with some visibility from the National Mall.
- Louvers finished to match the adjacent window fenestration to minimize adverse effect.

# LOUVERS AT COURTS CLERESTORY WINDOWS

Arts & Industries Building



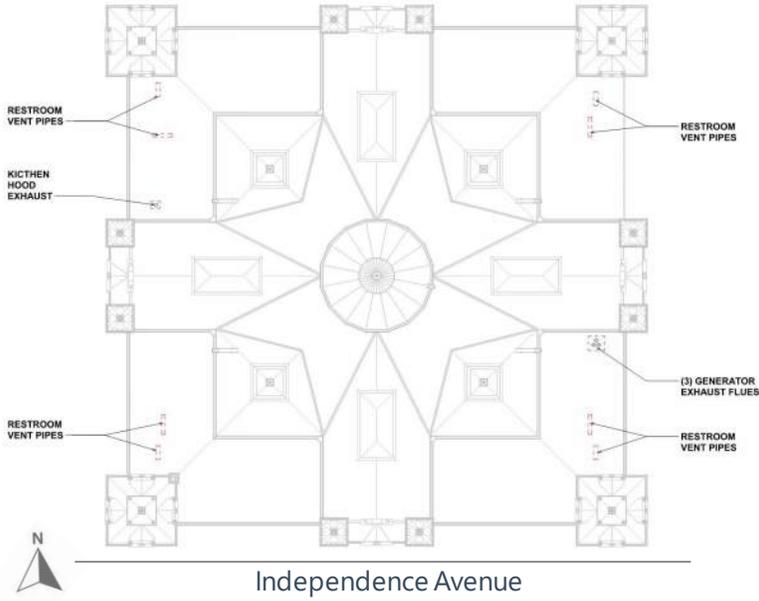
Roof Plan of Proposed Louvers



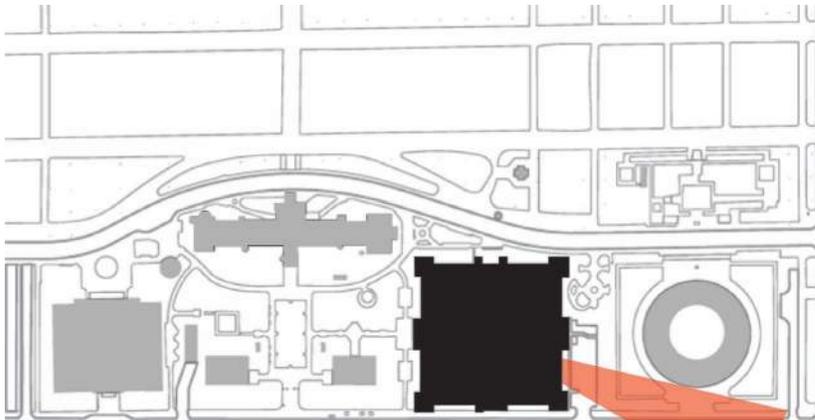
Visibility Diagram

# ROOFTOP MECHANICAL VENTS

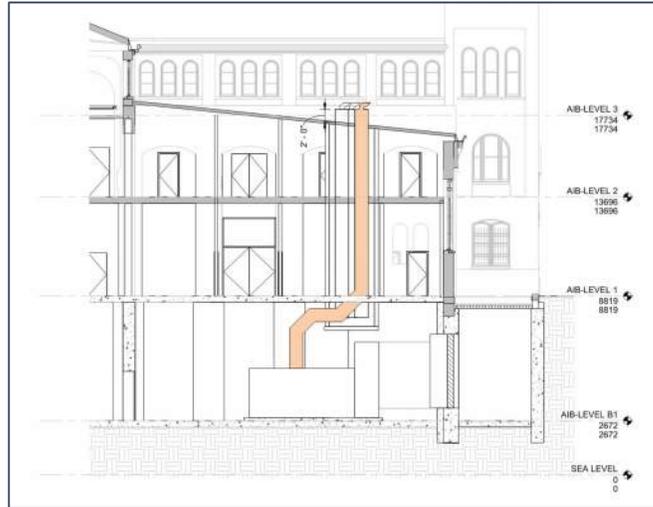
## Arts & Industries Building



Proposed Roof Plan



Visibility Diagram



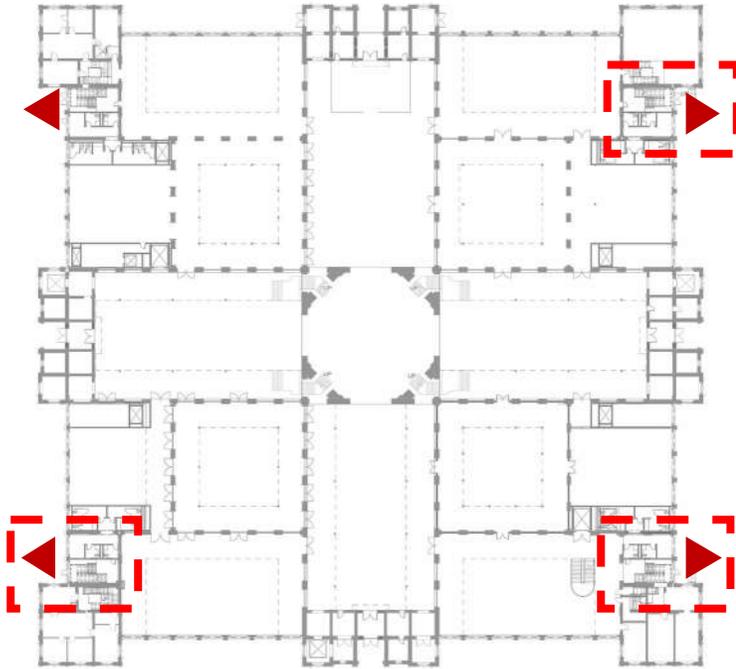
Section at SE Range- Emergency Generator Exhaust

### No Adverse Effect

- Exhaust flues required in limited locations at the AIB roof for restrooms, kitchen equipment, and emergency generators.
- Flues do not exceed 24" in diameter and do not project more than 2' above the sloped roofs of the Ranges.
- Proposed design minimizes and consolidates number of required flues.
- Flue locations limited to the large sloped roofs on the Ranges that lack special roof profiles or clerestories. Full extent of the Range roofs are not visible in AIB's context.
- Three (3) emergency generator exhausts grouped together at the southeast quadrant range roof will have minimal visibility from Independence Avenue.

# EGRESS DOORS ON EAST AND WEST ELEVATIONS

Arts & Industries Building



Key Plan of New Egress Door Locations



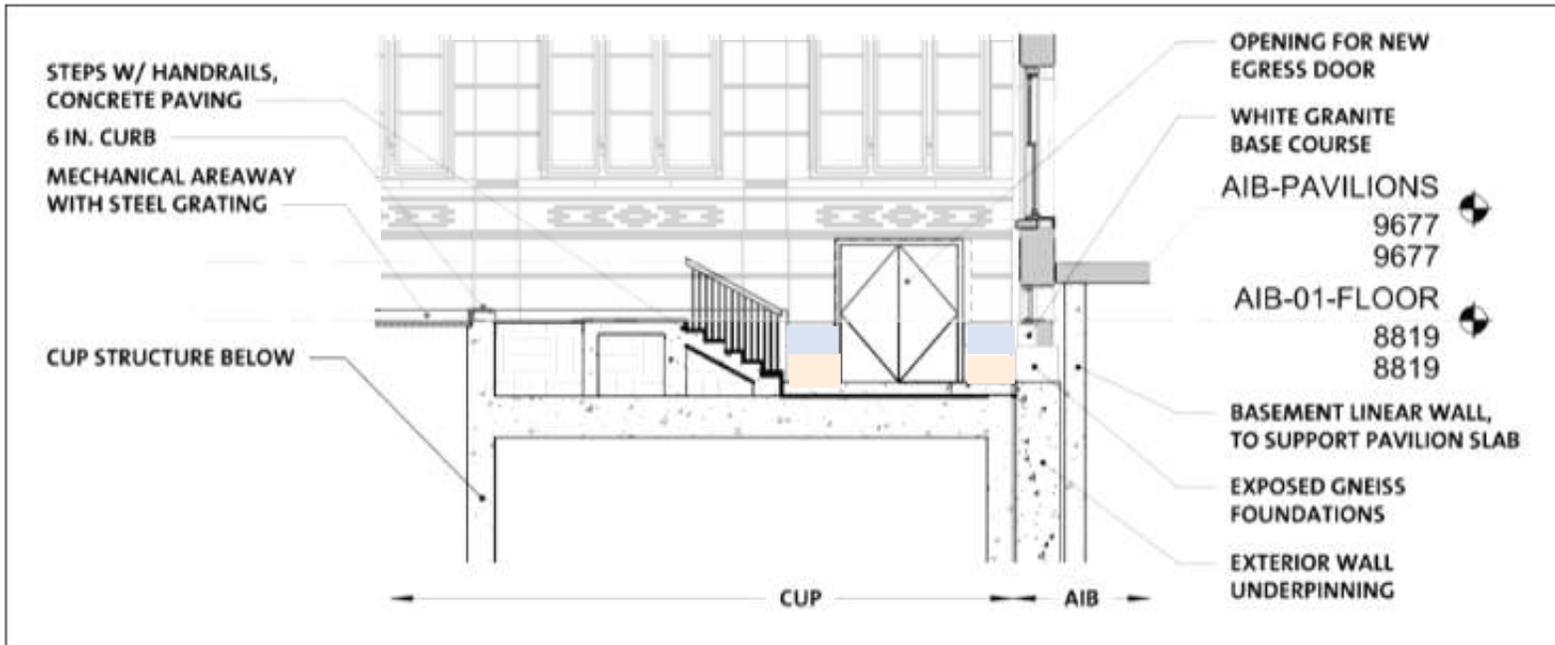
Existing Condition

## Adverse Effect

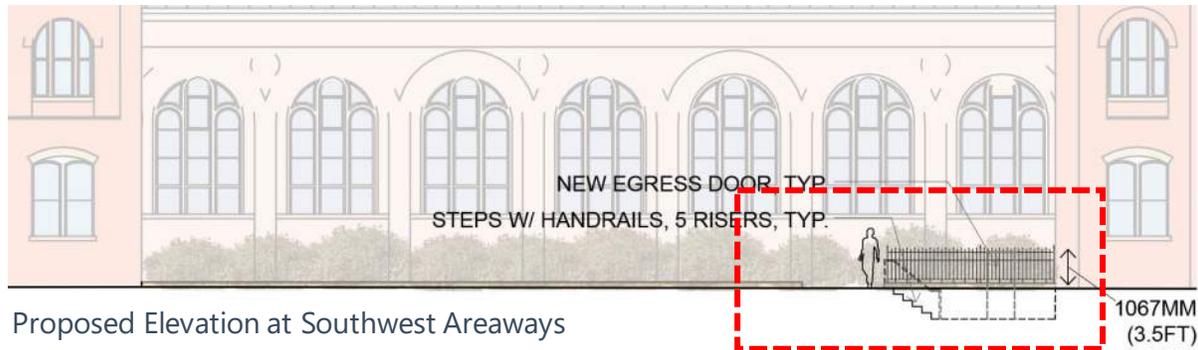
- New masonry openings required for four (4) egress doors on the east and west elevations.
- Egress door at the northeast portion of the building on the east elevation close to grade to minimize impacts to the Ripley Garden.
- Other egress doors partially below-grade and connected to a below-grade landing.
- AIB has brickwork, white granite course, and exposed gneiss foundations (dressed and rough finish) at the base of the building.
- New masonry openings require the removal of historic fabric.

# EGRESS DOORS ON EAST AND WEST ELEVATIONS

Arts & Industries Building



Proposed Conditions at West Range



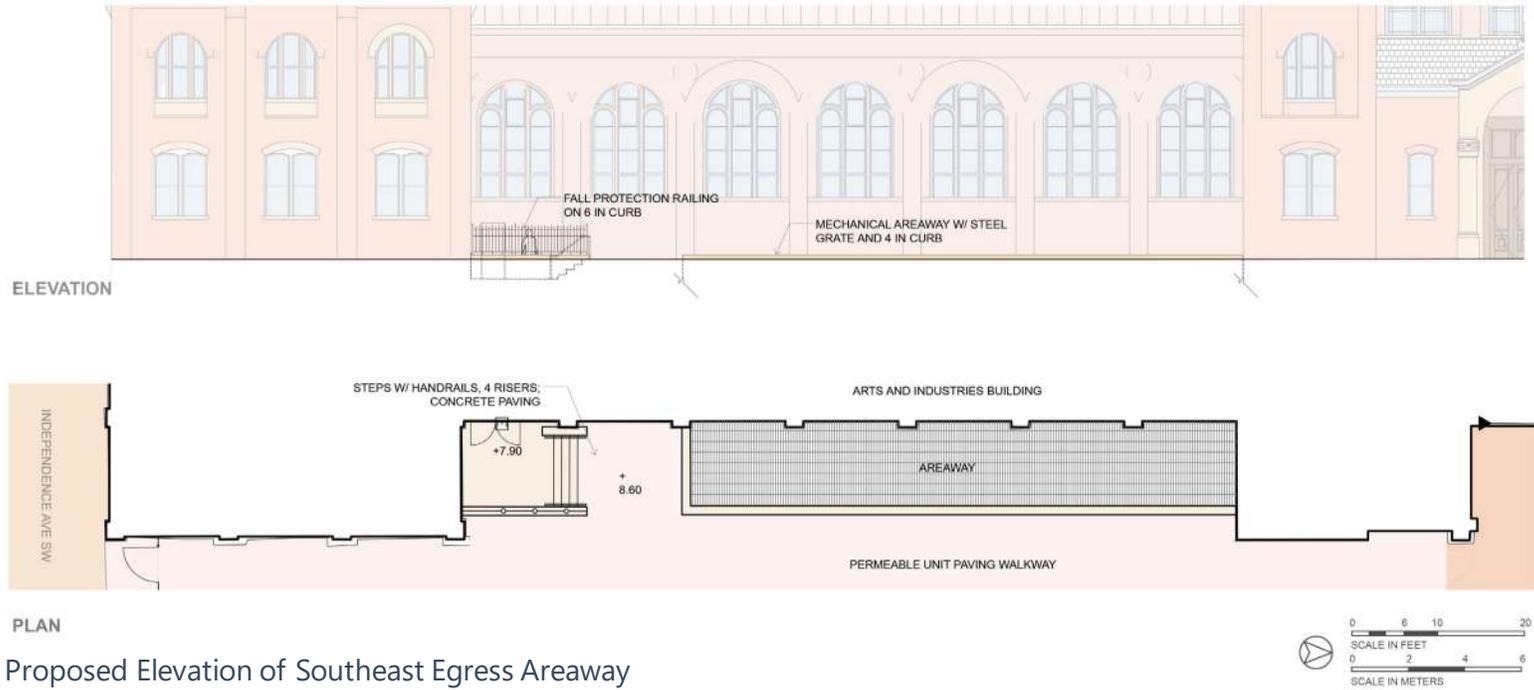
Proposed Elevation at Southwest Areaways

## Adverse Effect

- Historic wood door at the northwest Pavilion Tower will be restored and maintained in situ.
- Hardscape and landscape character of the Ripley and Haupt Gardens will be maintained.
- Doors and masonry openings will be partially 3' below-grade. Adverse effect may be minimized through exposed wall finish treatments as design develops through consultation.
- Wall finish treatment options will be reviewed in consultation through field mock-ups.
- Adverse effect may be minimized through door design details.

# AREAWAYS

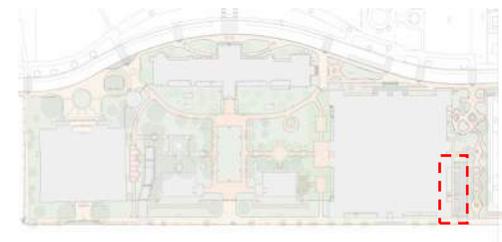
## Arts & Industries Building



Proposed Elevation of Southeast Egress Areaway

### Adverse Effect

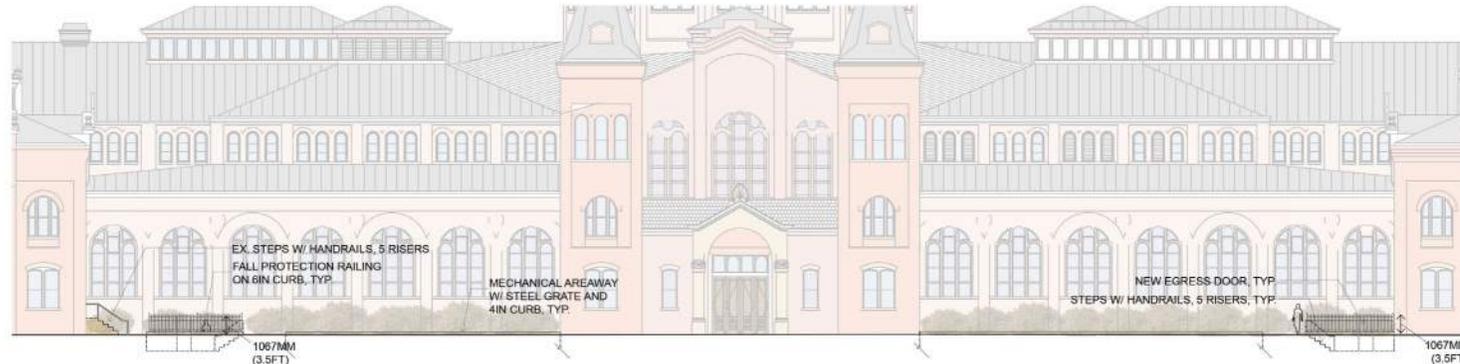
- New egress doors on east and west elevations require associated paved landings and stairs up to grade.
- Egress landings are approximately 3' below grade and require fall protection railings.
- Mechanical areaways covered with steel grates proposed at grade, adjacent to the east and west towers.
- At-grade mechanical areaways are related to the CUP.
- AIB has brickwork, white granite course, and exposed gneiss foundations (dressed and rough finish) at the base of the building.



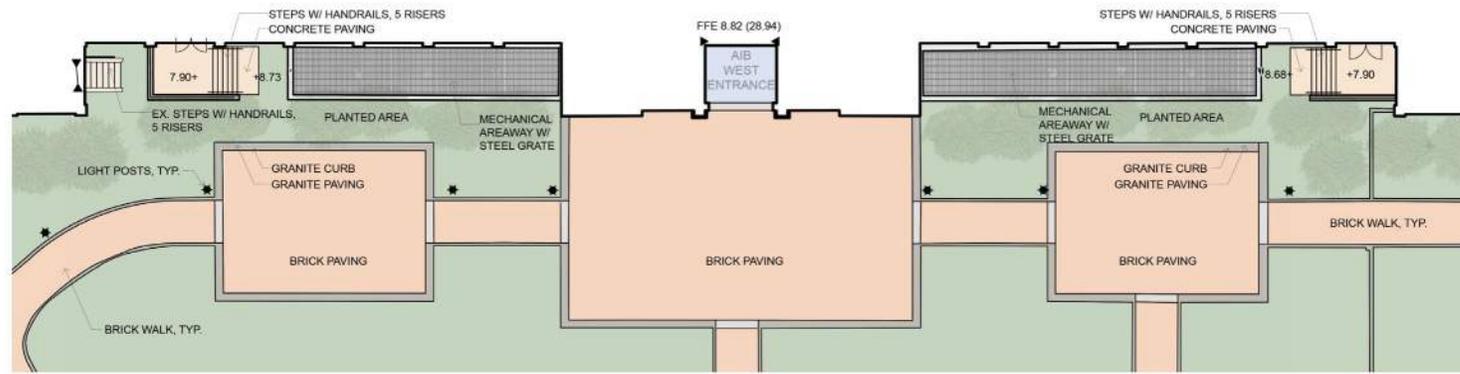
Key Plan

# AREAWAYS

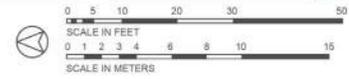
## Arts & Industries Building



ELEVATION LOOKING EAST



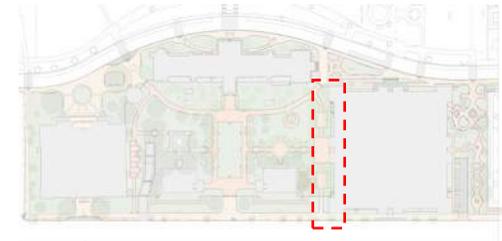
PLAN



Proposed Elevation and Plan West Egress Areaway

### Adverse Effect

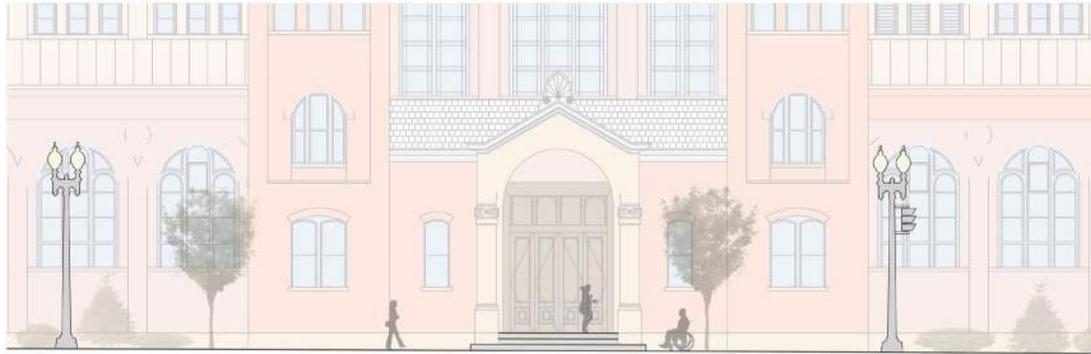
- Historic door at the northwest pavilion tower will be restored and maintained.
- Egress landings will expose new portions of the foundations, with options under design development for surface treatments and materials to minimize adverse effect.
- Wall finish treatment options will be reviewed in consultation through field mock-ups.
- Fall protection railings for the egress landings will be visible within the Haupt Garden.
- Mechanical areaways and steel grates adjacent to the Haupt Garden will be obscured with plantings.
- Mechanical areaway adjacent to the east elevation will be obscured by the surface parking lot and ornamental fence.



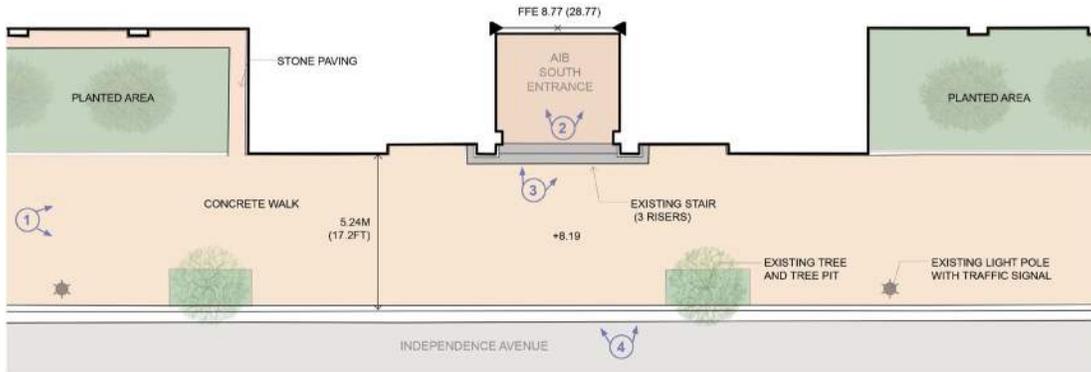
Key Plan

# SOUTH ENTRANCE - ACCESSIBILITY

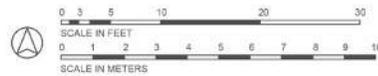
## Arts & Industries Building



ELEVATION LOOKING NORTH



PLAN



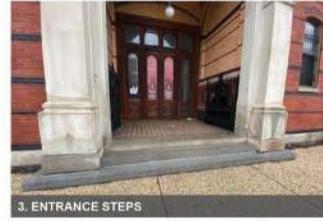
### South Entrance Existing Conditions



1. SIDEWALK VIEW TO EAST



2. ENTRANCE GATE



3. ENTRANCE STEPS



4. VIEW FROM INDEPENDENCE AVE

### Adverse Effect

- Symmetrical accessible walkways to the South Entrance landing proposed.
- Accessible walkways are 4.5' in width, placed behind a low stone seat wall.
- Accessible walkways include a handrail, fall protection railings are not required.
- Setting is a character defining feature.
- South entrance currently has non-historic granite stairs (three risers) up to the South Entrance landing, which features decorative tile and replicated iron security gates.
- South entrance is a primary entrance and accessibility is required from Independence Avenue.
- Independence Avenue sidewalk is approximately 17' wide.



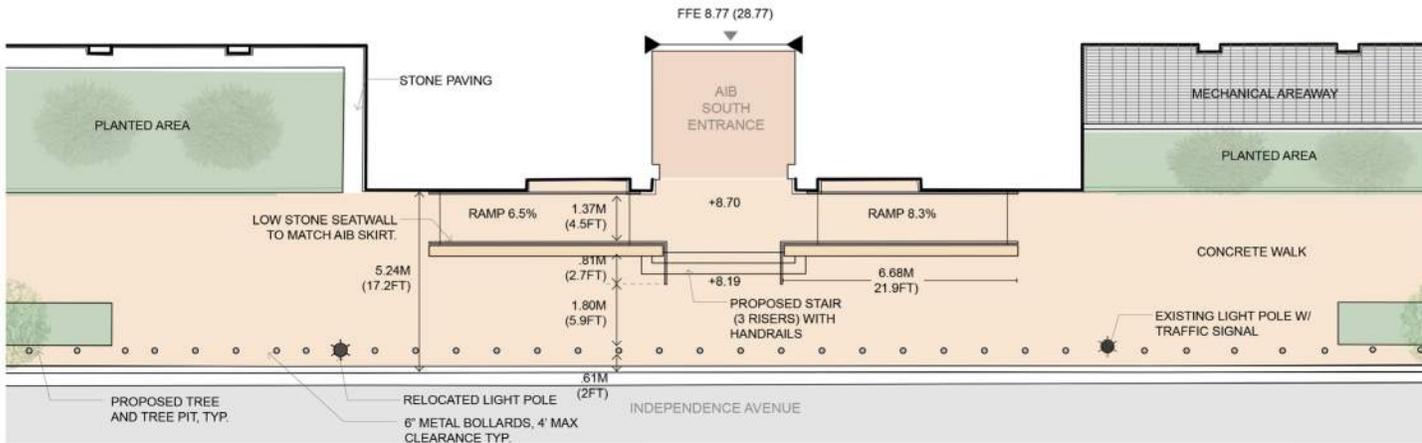
Key Plan

# SOUTH ENTRANCE - ACCESSIBILITY

Arts & Industries Building

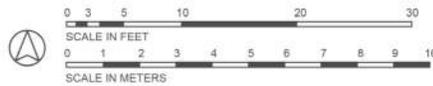


ELEVATION LOOKING NORTH



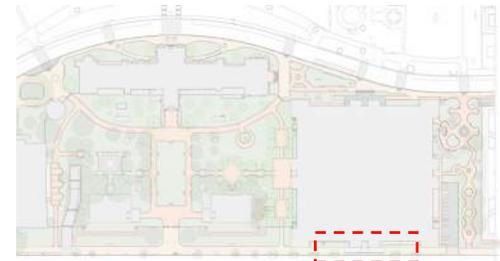
PLAN

Proposed South Entrance



## Adverse Effect

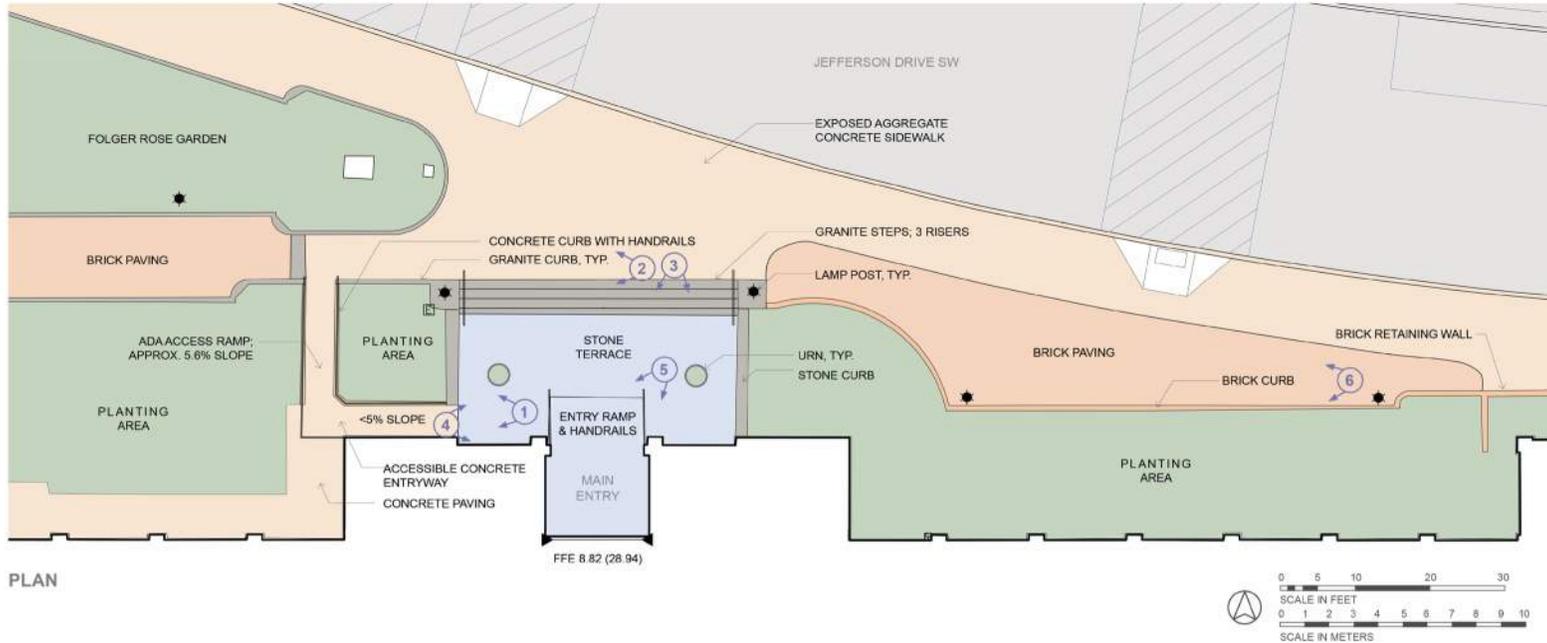
- Central axis maintained through the symmetrical walkway arrangement and extended landing with central stairs.
- Adverse effect minimized through the stone seat wall design and material to contextualize the walkways with the base of the AIB.
- Adverse effect minimized through the maintenance of the historic landing material and iron security gates.
- Walkways remove or obscure historic fabric at the sandstone piers and landing stairs.



Key Plan

# NORTH ENTRANCE - ACCESSIBILITY

## Arts & Industries Building



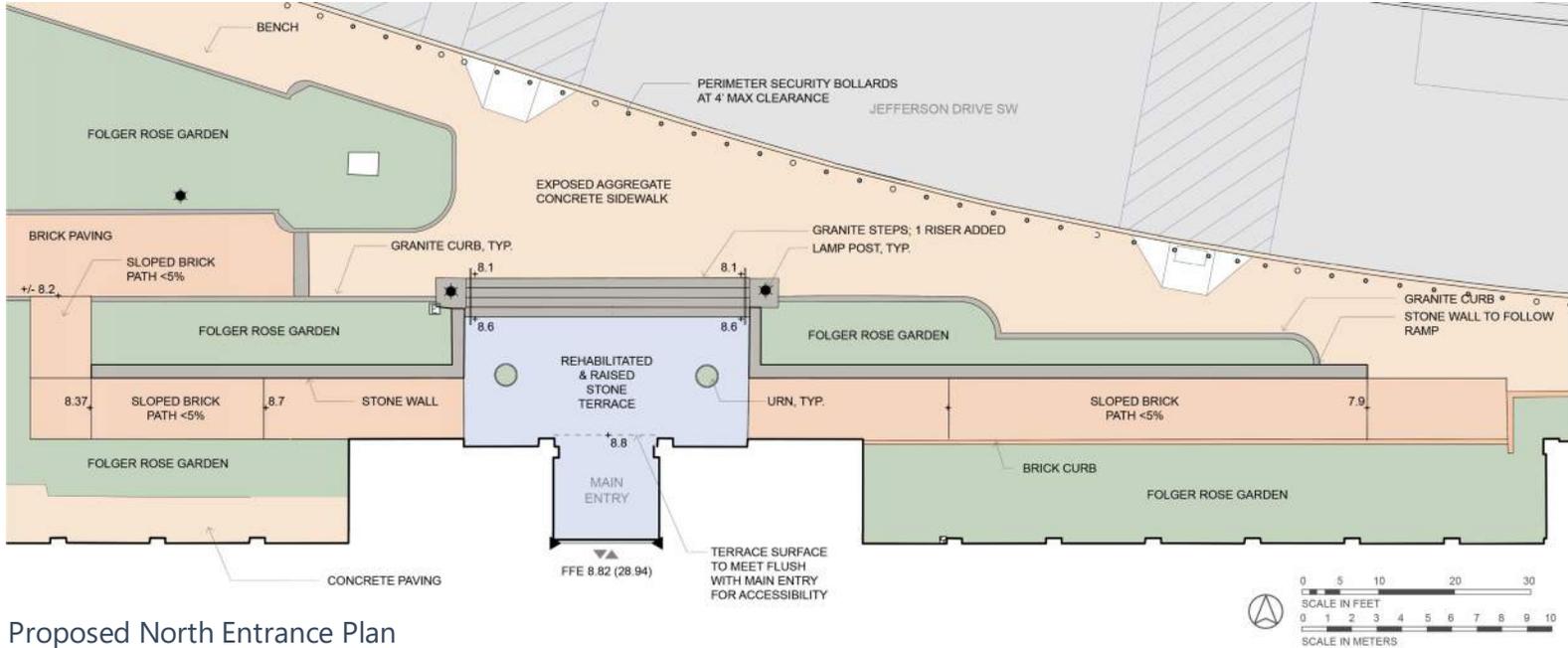
Existing North Entrance Conditions

### Adverse Effect

- Two universally accessible walkways are proposed in an asymmetric plan.
- Each walkway responds to site constraints, the Folger Rose Garden to the west, and narrow sidewalk conditions to the east.
- North entrance currently has an elevated marble terrace with granite stairs. Secondary short ramp provides access to the North Entrance landing.
- Elevation of the terrace allows the removal of the short access ramp to the North Entrance landing, with the differential accomplished by adding one additional riser at the granite stairs.
- Existing non-historic ramp to the west of the raised terrace will be removed.

# NORTH ENTRANCE - ACCESSIBILITY

## Arts & Industries Building



Proposed North Entrance Plan

### Adverse Effect

- Setting is a character defining feature.
- North entrance landing features decorative tile and replicated iron security gates.
- Adverse effect minimized through the stone seat wall design and material to contextualize the walkways with the base of the AIB.
- Adverse effect minimized through the maintenance of the historic landing material, terrace paving, and iron security gates.
- Elevation of the raised terrace obscures historic fabric at the sandstone piers.
- Landscaped areas maintained adjacent to the AIB and installed north of the walkway stone walls to minimize their visual presence and maintain the Folger Rose Garden landscape character.

# REHABILITATION OF HISTORIC INTERIORS

## Arts & Industries Building – North Hall



Rendering of Potential Space Use



Existing Condition



Historical Context (1903)

- Smithsonian does not conduct Section 106 consultation on interior building changes because interior projects are not subject to NCPC review. (See Public Law No. 108-72, 117 Stat. 888, which 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.)
- Rehabilitation and public use of the historic interiors are a primary goal of the project and are shown for informational purposes.



# REHABILITATION OF HISTORIC INTERIORS

Arts & Industries Building- Range



Rendering of Potential Space Use



Historical Context (1880)



Existing Condition

- Primary historic interior spaces (Halls, Courts, Ranges, northwest Pavilion Tower) will be rehabilitated to the period of significance of 1881-1902.
- Sound and salvageable historic material will be reused or restored.
- Historic finishes will be restored or replicated.
- Historic open floor plan will be retained to the maximum extent possible.
- Modifications to the historic interiors will be in accordance with the *Secretary of the Interior's Standards* Rehabilitation approach.
- Historic interiors will sensitively accommodate modern system requirements.

# QUESTIONS

## MODERATOR

**Carly Bond**, Historic Preservation Specialist, Smithsonian Facilities

## PRESENTERS / PANELISTS

**Sharon Park**, FAIA, Assoc. Director of Historic Preservation, Smithsonian Facilities

**Christopher Lethbridge**, Architect/Program Manager, Smithsonian Facilities

**Ann Trowbridge**, AIA, Associate Director for Planning, Smithsonian Facilities

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**Kirk Mettam**, PE, Senior Principal, Silman

**Michael Galway**, PE, Sr. Mechanical Engineer, EYP-Loring, LLC



# ROOF REPLACEMENT

## Smithsonian Institution Building



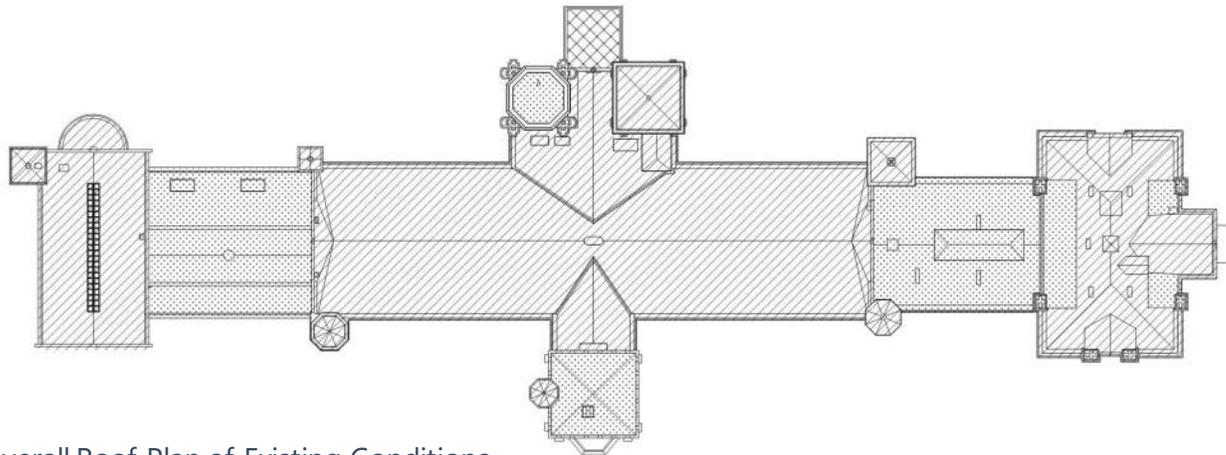
Existing Slate Roofing at East Wing



Existing Copper Roofing at East Range

### No Adverse Effect

- 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.
- 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.



Overall Roof Plan of Existing Conditions

### LEGEND

#### Roofing Type

- ⊗ Modified-Bitumen Roofing
- ▨ Slate Roofing
- ⊙ Copper Roofing

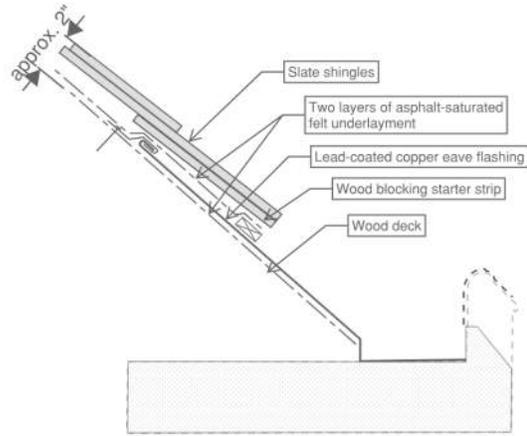


# ROOF MODIFICATIONS – ENERGY IMPROVEMENTS

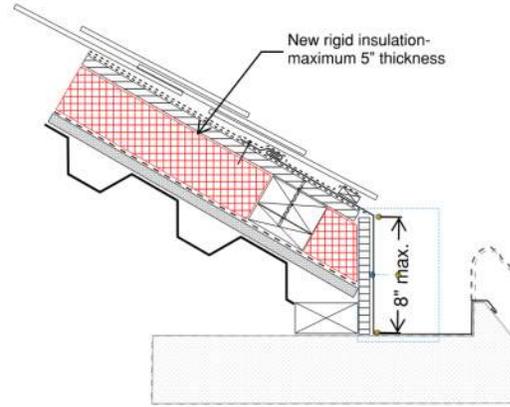
Smithsonian Institution Building



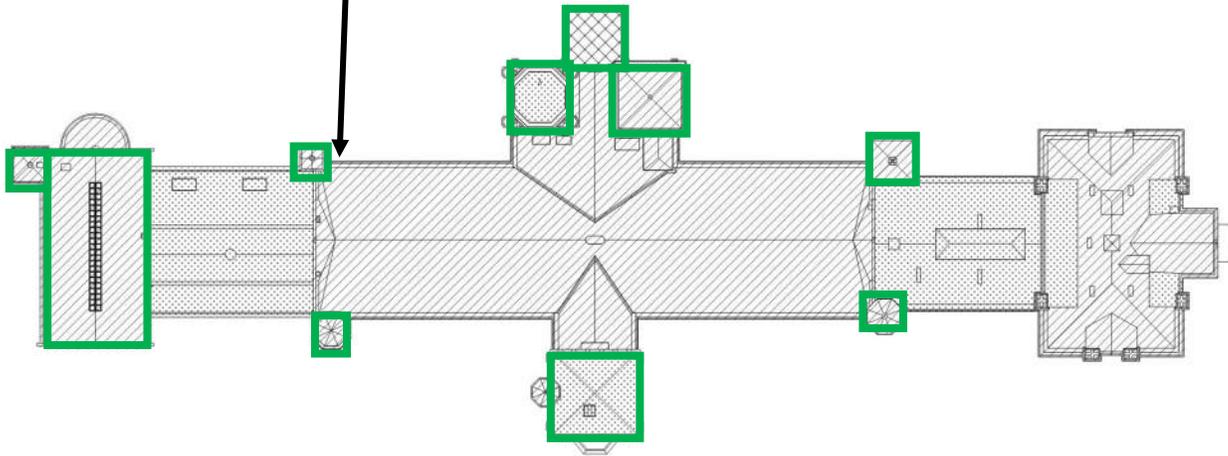
Existing View of Gutter – Great Hall Northwest



Existing Gutter Detail – Great Hall



Proposed Gutter Detail – Great Hall



Overall Roof Plan of Existing Conditions

## No Adverse Effect

- Removal and replacement of existing roofing system, with new underlayments and insulation to meet prescriptive energy requirements.
- Roof thickness to increase 5” at roof locations where the dimensional change will not be perceptible.
- No changes to roof thickness are proposed at visible roof edges such as the West Wing, or at high peaked tower roofs.
- Roof Materials and Profiles are character defining features.
- Existing roof system includes little to no insulation.
- Most of the Castle’s roof edges are behind crenellated parapets and other architectural feature and are at least 30’ above grade.

### LEGEND

#### Roofing Type

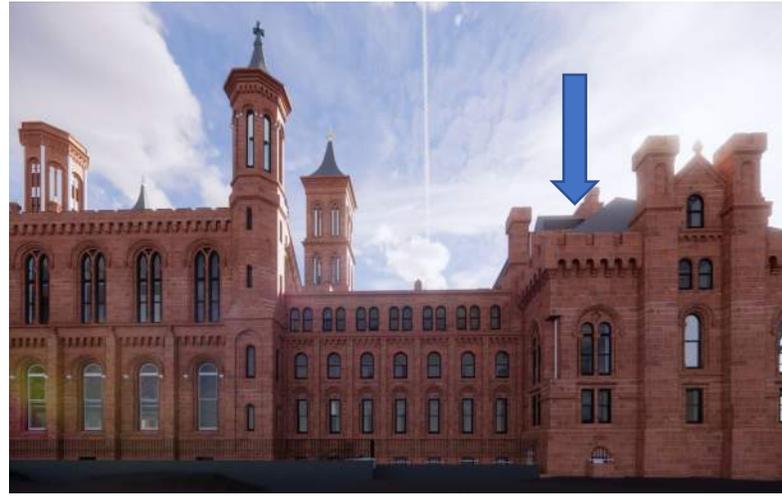
-  Modified-Bitumen Roofing
-  Slate Roofing
-  Copper Roofing
-  No Impact on existing thickness / edge detail

# ROOF MODIFICATIONS – ACCESSIBLE ELEVATOR PENTHOUSE

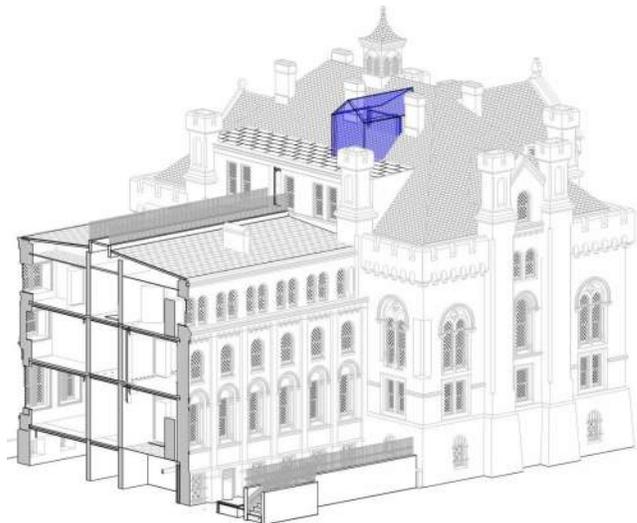
Smithsonian Institution Building



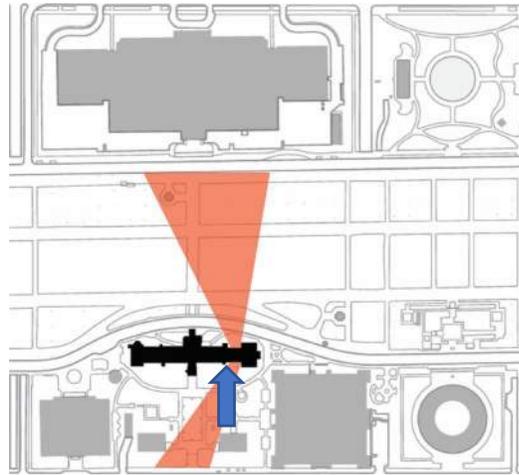
Existing East Wing South View from Haupt Garden



Visualization of Proposed East Wing South View from Haupt Garden



Visualization of Roof Impact – East Wing Southwest View



Visibility & Visualization Diagram

## Adverse Effect

- New accessible elevator at the East Wing requires an elevator rooftop overrun bulkhead.
- Existing East Wing elevator bulkhead will be removed.
- Roof profile is a character defining feature.
- Existing East Wing elevator is not code compliant.
- Proposed bulkhead will be visible from the south in the Haupt Garden and the National Mall within the East Wing roofscape, featuring decorative chimneys and hip and gable roof profile.
- Adverse effect may be minimized by cladding the bulkhead in a matching material to the surrounding slate roof.
- Adverse effect may be minimized through the bulkhead height and profile.

# ROOF MODIFICATIONS – ACCESSIBLE ELEVATOR PENTHOUSE

Smithsonian Institution Building



Visualization of Proposed East Wing Southeast View from Haupt Garden



Existing East Wing Southeast View from Haupt Garden



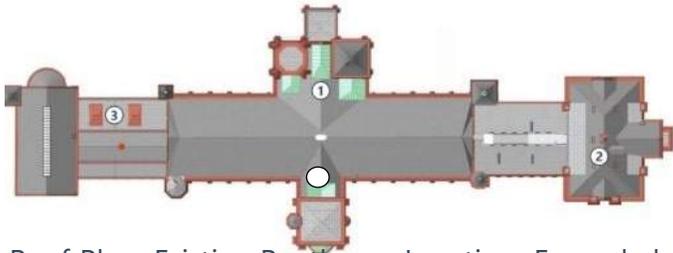
Visualization of Proposed from NMNH



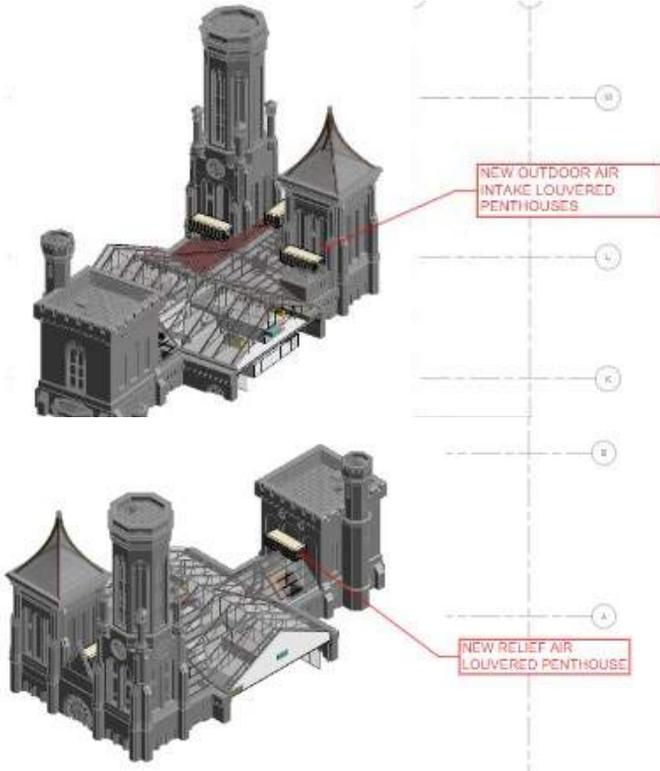
Key Plan of View

# ROOFTOP MECHANICAL VENTS

## Smithsonian Institution Building



Roof Plan- Existing Penthouse Locations Expanded



Perspectives of Proposed Penthouses



Existing Copper Clad Elevator Penthouse

### No Adverse Effect

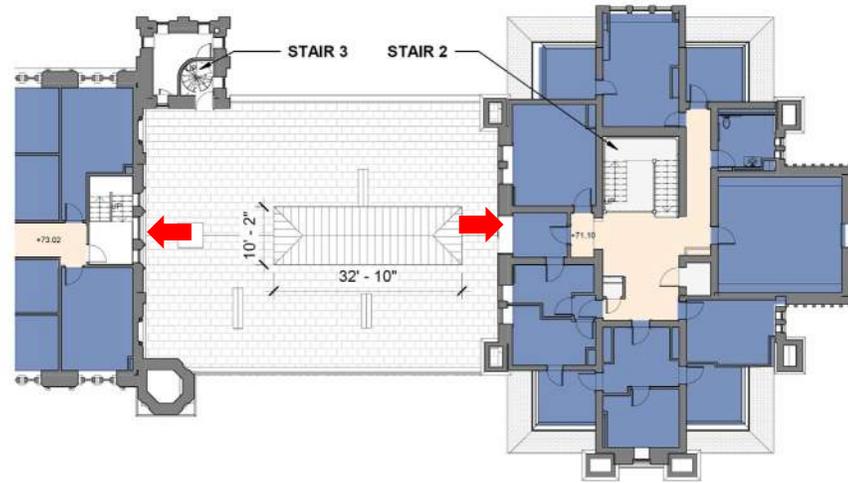
- Six (6) existing rooftop louvered penthouses will be re-used.
- Four (4) penthouses on center of the Main Building expanded for air intake and exhaust and are non-visible behind existing architectural features.
- Roof Profile and Building Massing are character defining features.
- Expansion of the existing louvered penthouses at the West Range will have minimal visual impact from the National Mall.
- Enlarged existing outdoor air intake roof penthouses concealed behind the North and South Towers.
- Existing historic cupola with louvers at the East Wing will be re-used without expansion.

# EAST WING – 4<sup>TH</sup> FLOOR EGRESS

Smithsonian Institution Building



Existing Window to be modified Great Hall



Existing 4<sup>th</sup> Floor Plan East Wing & East Range

## Adverse Effect

- Installation of an exterior egress pathway at the East Range roof provides a second means of egress from the East Wing.
- Exterior egress pathway is unenclosed with fall protection guardrails.
- Modifications to two (2) windows to create access doors.



Existing Window to be modified at East Wing (Exterior)



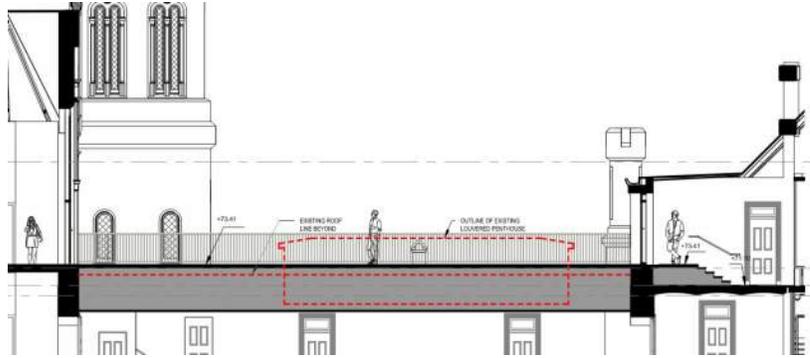
Existing Window to be modified at East Wing (Interior)



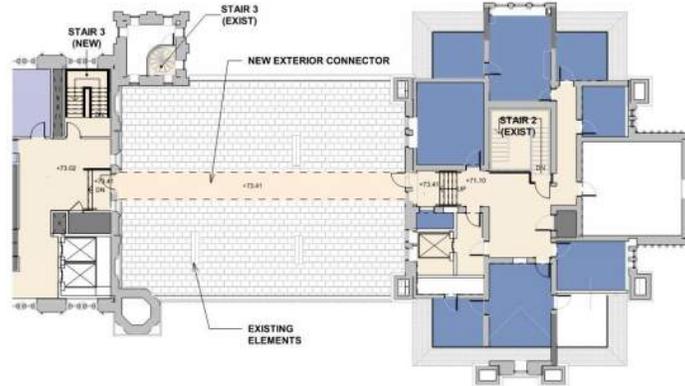
Existing View of East Wing and Range from Haupt Garden

# EAST WING – 4<sup>TH</sup> FLOOR EGRESS

Smithsonian Institution Building



Section of Proposed East Wing – 4<sup>th</sup> Floor Egress



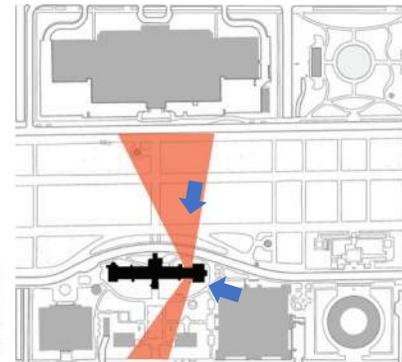
Plan of Proposed East Wing – 4<sup>th</sup> Floor Egress

## Adverse Effect

- Roof Profile is a character defining feature.
- Historic brick chimneys on the East Wing roof installed c. 1900 will be retained.
- Replaces existing visible mechanical penthouse added in 1973. Egress pathway railing and mechanical penthouse are comparable in height.
- Egress path railing will be visible from various locations within the National Mall and to the south.
- Adverse effect may be minimized through the railing design to reduce visibility.



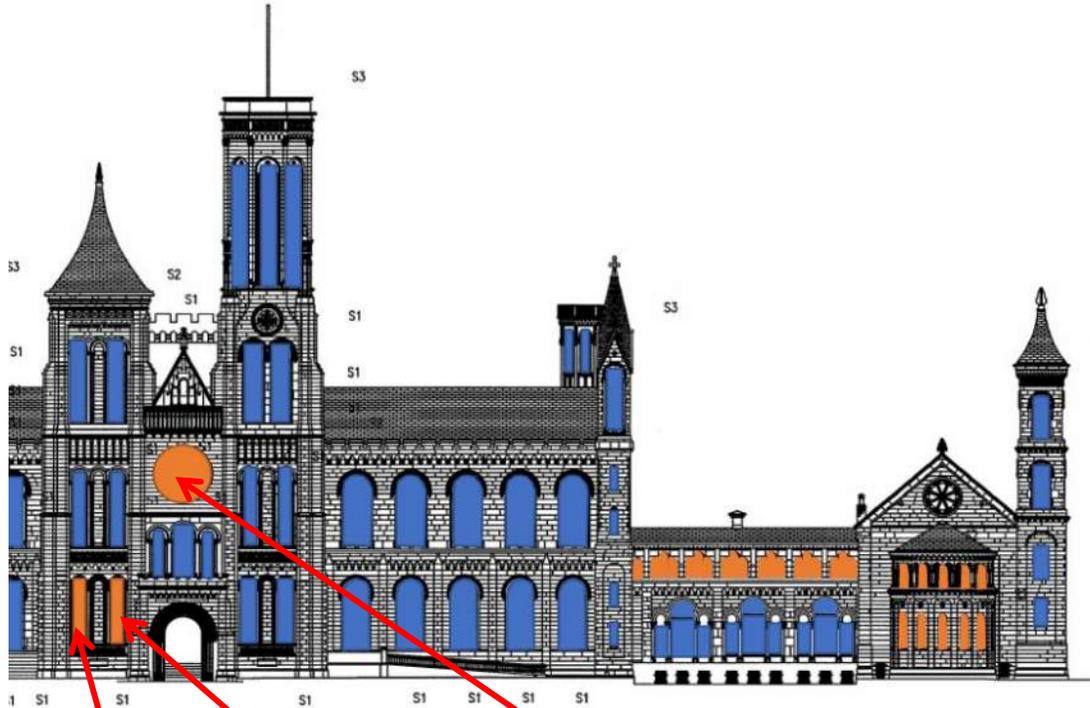
Proposed East Wing – 4<sup>th</sup> Floor Egress from Northeast at Grade



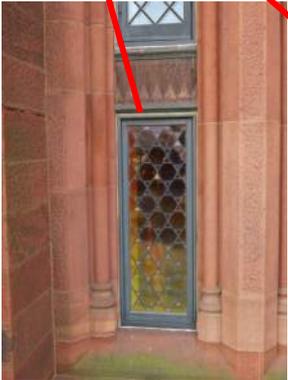
Visibility & Visualization Diagram Proposed East Wing – 4<sup>th</sup> Floor Egress Southeast

# WINDOWS

## Smithsonian Institution Building



Partial Northwest Elevation



Existing Windows at North Tower



Existing Rose Window at North

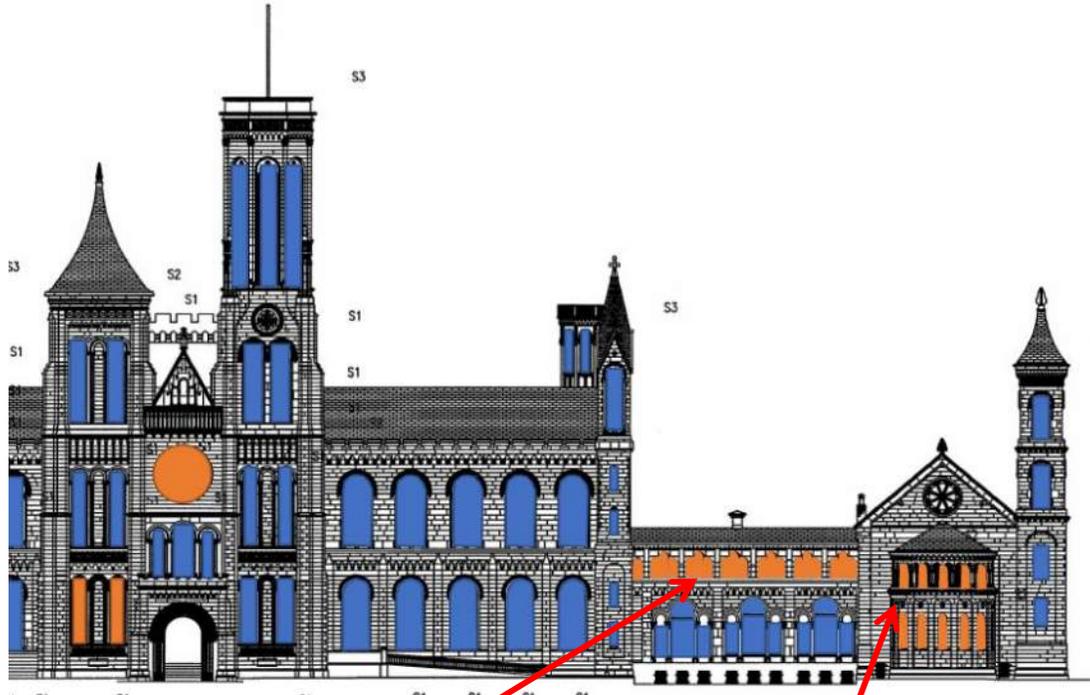
Blue Replacement Window  
Orange Interior Blast Window

### No Adverse Effect

- Building-wide window replacement of the non-historic window sash with blast resistant windows.
- Majority of the existing windows are wood non-historic replacements installed in 1987-1992.
- Historic windows c. 1915 present in the West Range Clerestory and West Wing Apse, Smithson Crypt, and West Wing skylights will be restored and retained in-place. Blast resistant storm windows will be installed.
- Replacement windows will restore the historic finish color.
- Replacement windows will retain a diamond pane multi-light configuration

# WINDOWS

## Smithsonian Institution Building



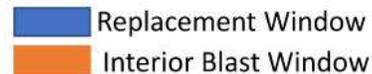
Partial Northwest Elevation



Existing at West Range



Existing at the Commons

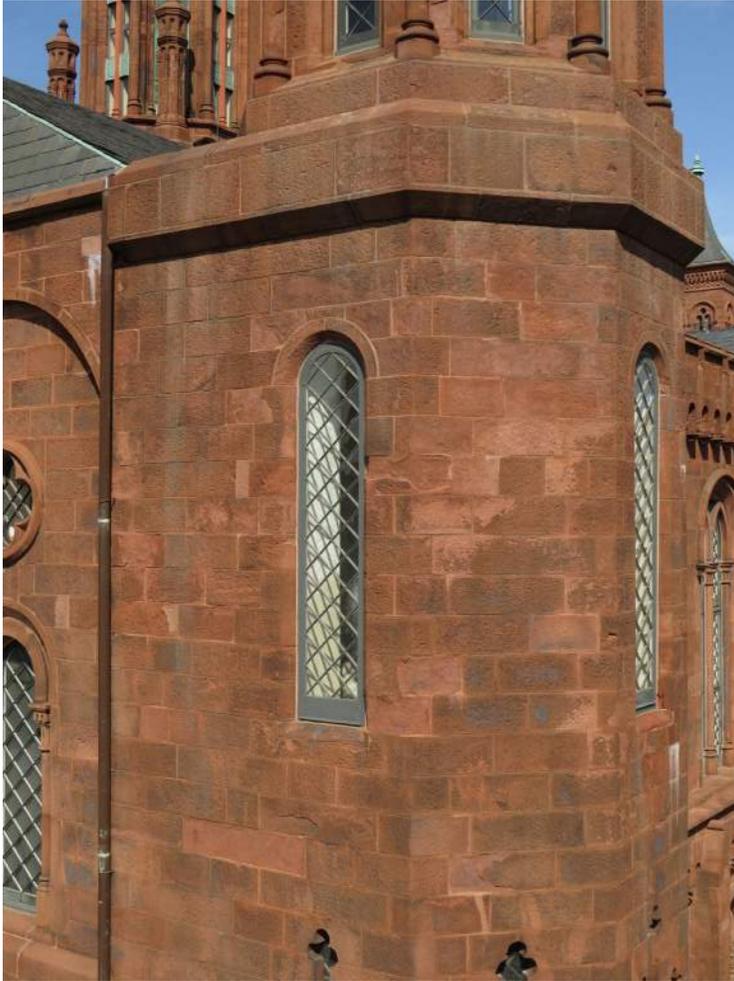


### No Adverse Effect

- Windows are a character defining feature.
- Historic documentation notes that 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.
- Representative examples of historic windows at the West Range and North Tower will be retained in an off-site Smithsonian location to serve as an historic record.
- Blast resistant windows are required to meet Facility Security Level III.

# EXTERIOR MASONRY RESTORATION

Smithsonian Institution Building



Example of Masonry Spalling & Detachment



Example of Masonry Spalling



Example of Masonry Failure

## No Adverse Effect

- Exterior red Seneca sandstone will be restored, including façade cleaning, and pointing.
- Maximum amount of sound sandstone preserved.
- Stone repairs include reattachment of displaced masonry, Dutchmen repairs, and select full replacement stones.
- 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.
- 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 *Secretary of the Interior's Standards* Preservation approach.

# AREAWAYS

## Smithsonian Institution Building



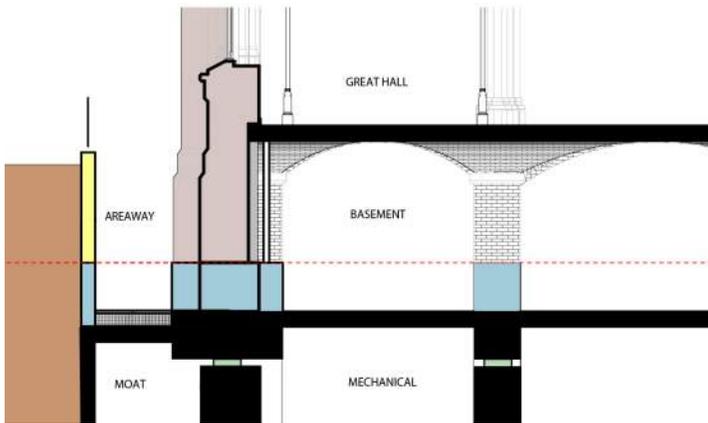
Existing Areaway – Southwest from Haupt Garden



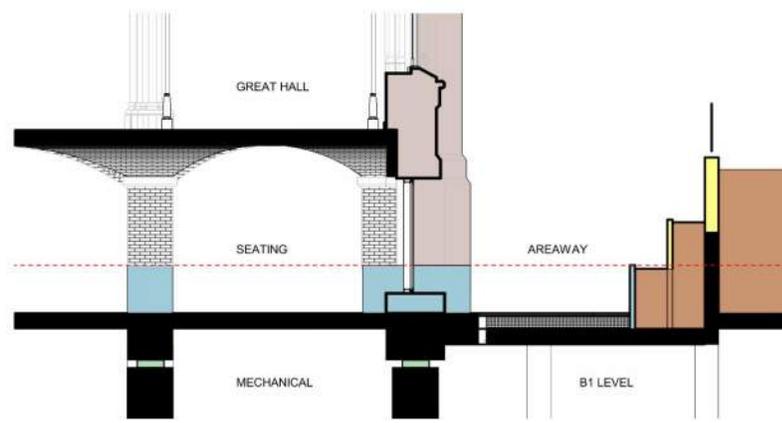
View of SW areaway – new walls were constructed of new tinted concrete while exposed foundations were parged

### Adverse Effect

- Recessed areaways and at-grade aprons proposed around the Castle perimeter.
- Recessed areaways bring light to public spaces in the basement level.
- Recessed areaways are wider on the south side.
- Castle currently has 393' linear feet of areaways (recessed well), and 220' existing linear feet of apron (paving at grade).
- Proposed conditions combine and regularize the Castle base condition with 575' of areaways and 640' of apron.
- Seismic base isolation joint incorporated into the recessed areaways and aprons.



Section of proposed North Areaways



Section of proposed SW Areaway

### Material Legend

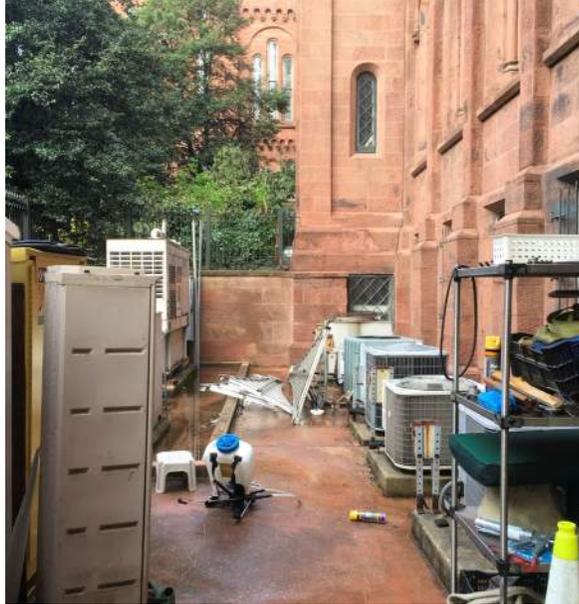
- Parged Concrete (Color TBD)
- Existing Seneca Sandstone
- Cast Stone
- Soil / Landscaping
- Base Isolation

# AREAWAYS

## Smithsonian Institution Building



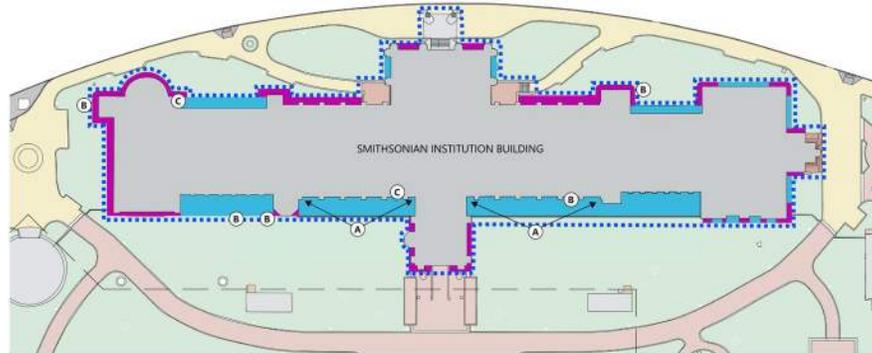
Existing Southeast Areaway – View from Haupt Garden



View of SE areaway – walls were finished with sandstone that matches the building



Examples in SIB showing the existing rubble stone and/or brick wall construction



Plan of Proposed Areaways

### Adverse Effect

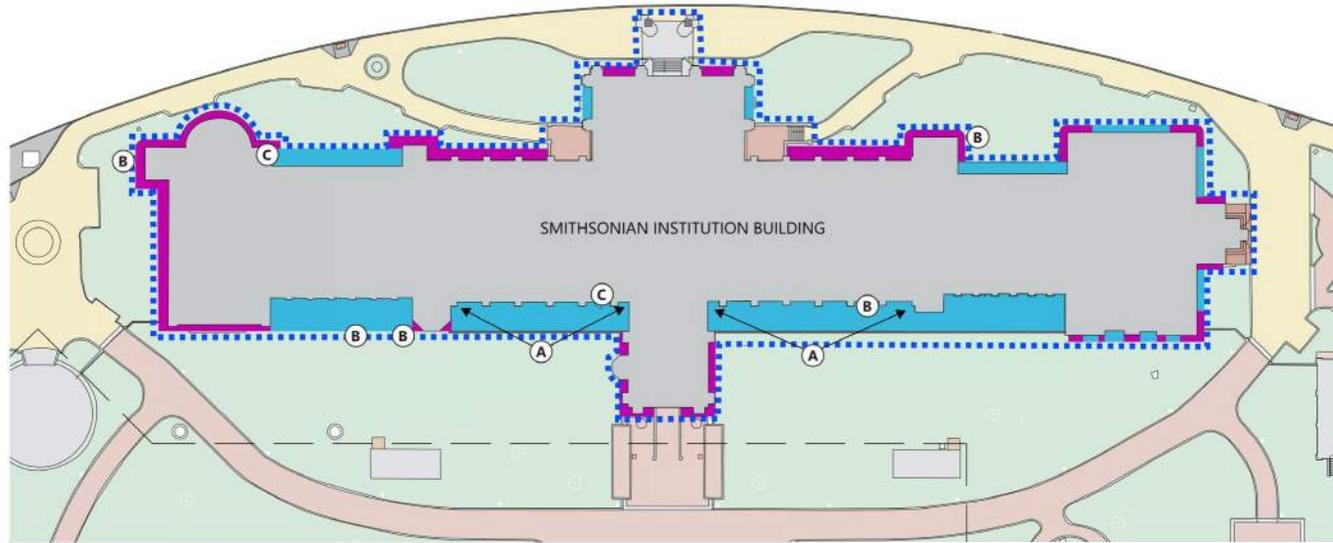
- Setting is a character defining feature.
- Recessed areaways screened from view with placement of public paths and vegetation to obscure visibility from the Haupt Garden.
- Existing areaways feature tinted concrete and dressed sandstone where the grade was lowered.
- Adverse effect associated with the grade change may be minimized through exposed wall finish treatments as design develops through consultation.
- Wall finish treatment options will be reviewed in consultation through field mock-ups.



Proposed Areaway

# SEISMIC CONTROL JOINT

## Smithsonian Institution Building

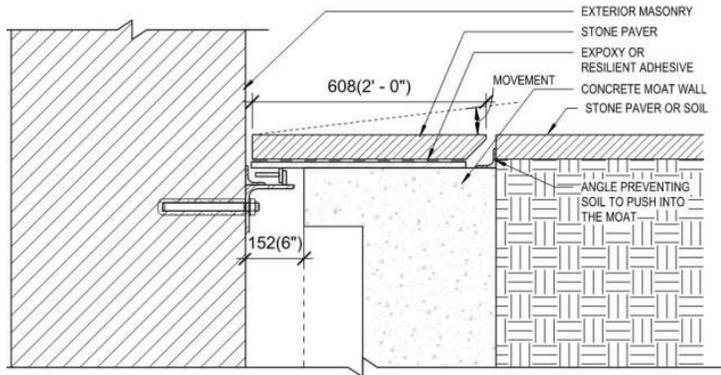


Proposed Seismic Joint Location

■ ■ ■ PRELIMINARY SEISMIC JOINT LOCATION

### Adverse Effect

- Seismic base isolation joint is required around the Castle perimeter.
- Seismic control joint cover is 18-24" and visible at grade and adjacent to the Castle.
- Seismic control joint is associated with base isolation, which separates the building from the ground motion. Achieved by creating a plane of separation between the superstructure and the foundations.
- Seismic base isolation joint will be incorporated into the recessed areaways and aprons.



Proposed Seismic Joint Cover Detail



Integrated Seismic Joint Cover Example – Salt Lake City County Building

# SEISMIC CONTROL JOINT

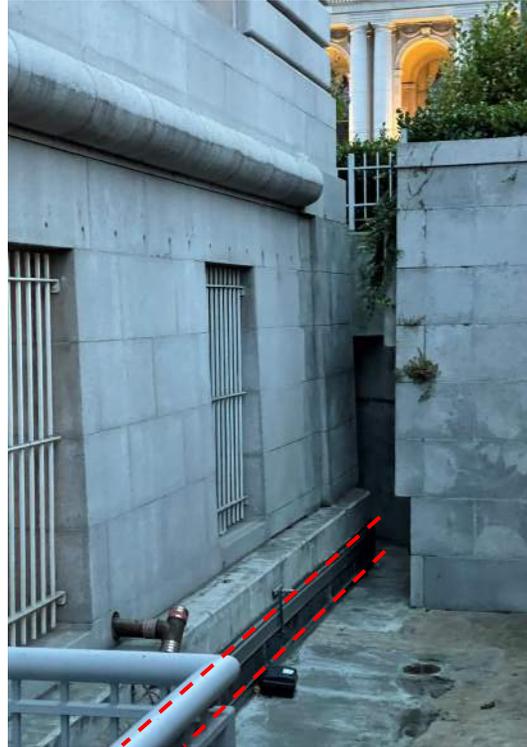
## Smithsonian Institution Building



*Example of Seismic Joint Below Bottom Tread of Stair*



*Example of Areaway With Vertical Seismic Joint at Wall*



--- SEISMIC JOINT

### Adverse Effect

- Setting and Building Materials are character defining features.
- Seismic control joint will be immediately adjacent to the base of the Castle.
- Seismic control joint cover plate can accept a variety of finishes, including planting, gravel, pavers, and architectural features.
- Adverse effect may be minimized through consultation as the design develops through considering materials and treatments that minimize visual impact.
- Seismic control joint finish options will be reviewed in consultation through field mock-ups.

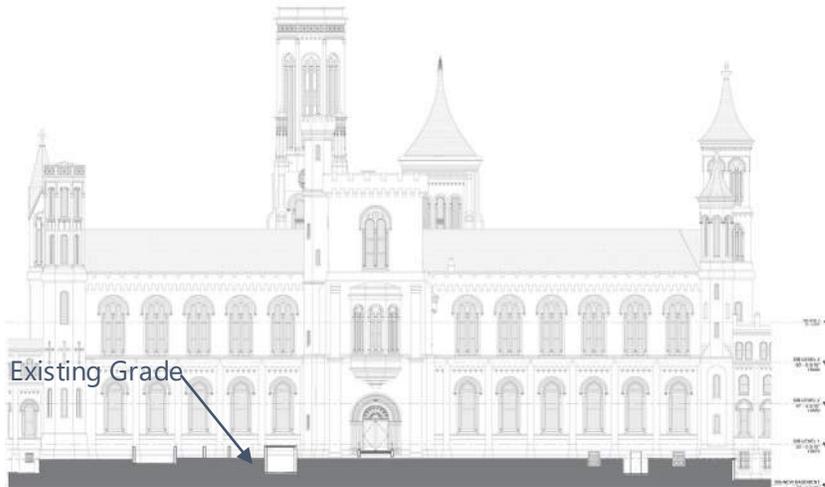
Integrated Seismic Joint Examples – San Francisco City Hall

# NEW BASEMENT WINDOWS

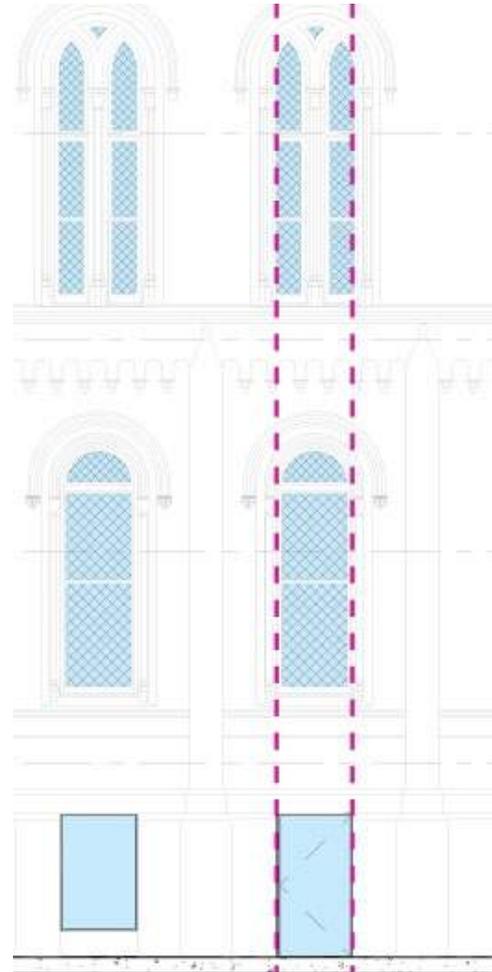
Smithsonian Institution Building



Existing South Elevation of Great Hall from Haupt Garden



Existing South Elevation of Great Hall from Haupt Garden



Proposed Door and Window Strategy

## No Adverse Effect

- Nine (9) basement windows proposed at the basement level areaways on the Castle south elevation.
- Castle south elevation at the basement level contains some window openings.
- Proposed will enlarge existing window openings and create new masonry openings.
- Proposed windows increase natural light to newly occupied public basement spaces utilizing existing window openings and creating new masonry openings.



Proposed South Elevation of Great Hall from Haupt Garden

# NEW BASEMENT WINDOWS

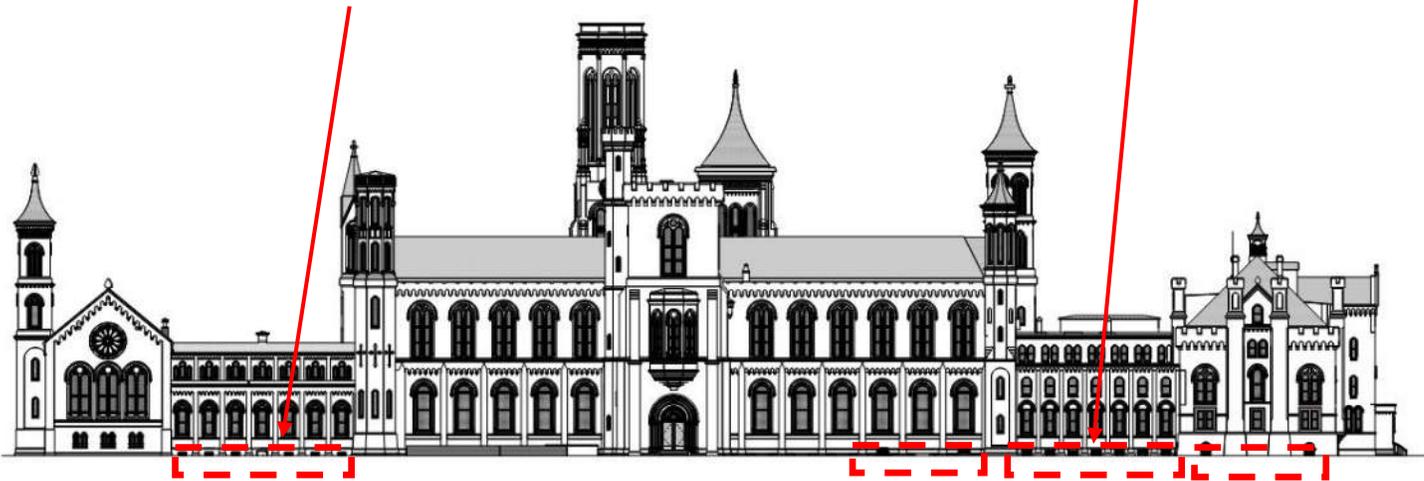
Smithsonian Institution Building



Existing Southwest View of from Haupt Garden



Existing Southeast View of from Haupt Garden



Existing South Elevation Indicating Basement Windows

## No Adverse Effect

- Proposed alterations are below-grade within the areaways obscured from view in the Haupt Garden through placement of public paths and landscape.
- Masonry opening width align with the width of the historic windows on the upper floors of the South Elevation.
- Proposed window fenestration will be differentiated from the historic consistent with the *Secretary of the Interior's Standards*.
- Proposed work is accommodated through the removal of a minimal amount of historic building fabric.

# BASEMENT DOORS

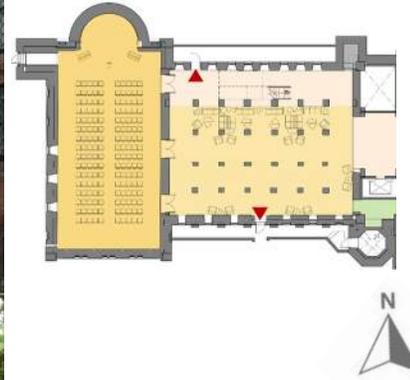
## Smithsonian Institution Building



Existing North Elevation of West Range



South Elevation of East Range  
Showing Existing Basement Door



Proposed New Egress Doors  
at Existing Window Openings  
– West Range Basement Level



North Elevation of West Range Showing Existing  
Windows



North Elevation of West Range Showing New Egress Door at  
Proposed Areaway

### No Adverse Effect

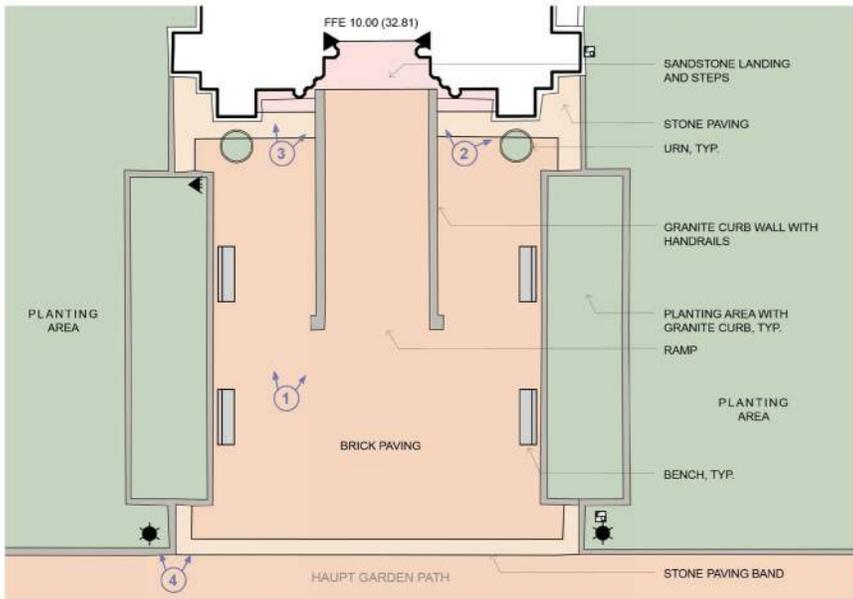
- Total of five (5) exterior doors required at the basement level for emergency egress.
- -Two existing doors (Ranges) will be modified and re-used. One (1) existing window will be modified to serve as a door. Two (2) new doors openings will be created (Great Hall areaways).
- Egress doors will be solid metal or glazed.
- Additional egress doors 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.
- Areaways will be screened from view through the proposed landscape planting plan.
- Basement egress doors accommodated with the removal of minimal historic building fabric.

# SOUTH ENTRANCE - ACCESSIBILITY

## Smithsonian Institution Building



ELEVATION LOOKING NORTH



PLAN



1. RAMP TO BUILDING ENTRANCE



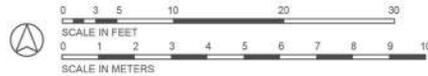
2. EAST CORNER DETAIL AT RAMP



3. WEST CORNER DETAIL AT RAMP

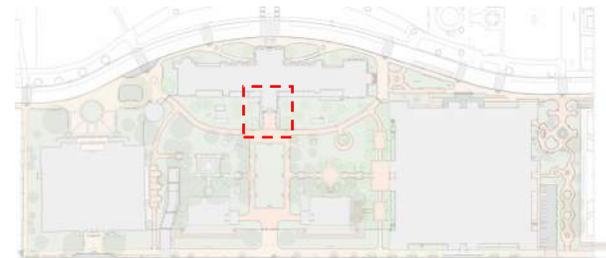


4. PLANTING AREA



### No Adverse Effect

- Universally accessible walkway proposed on axis with the south entrance.
- Setting is a character defining feature.
- South entrance retains historic Seneca sandstone stairs (two risers).
- Existing access ramp installed c. 2005 is constructed over the Seneca sandstone historic stairs.



Key Plan

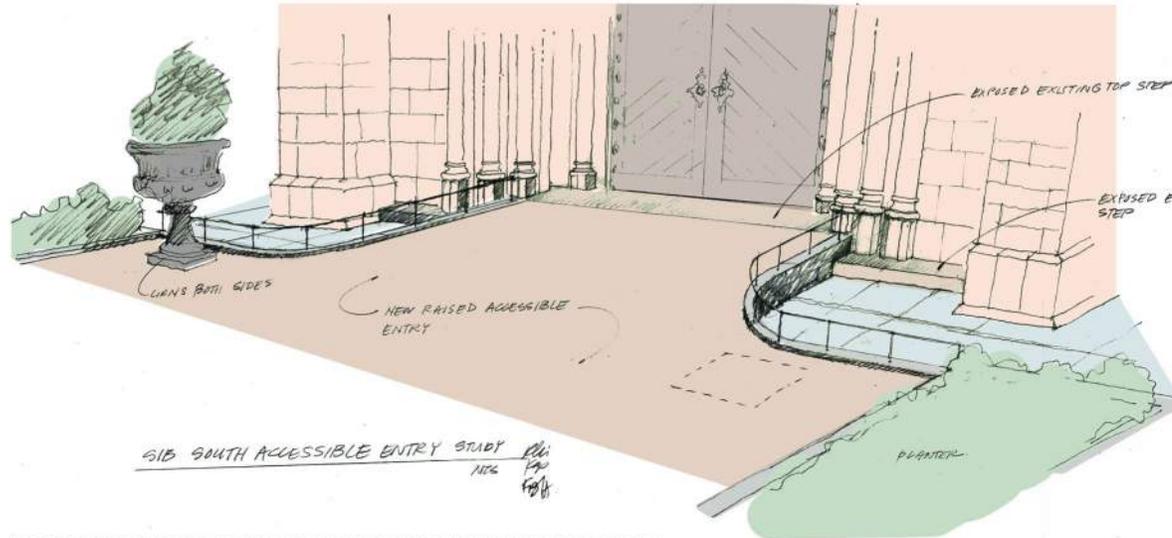
Existing Conditions

# SOUTH ENTRANCE - ACCESSIBILITY

## Smithsonian Institution Building



EXISTING CONDITIONS



ACCESSIBLE ENTRANCE STUDY (HISTORIC COLUMNS PRESERVATION)

Proposed Concept

### No Adverse Effect

- Proposed walkway flanked with sloping planted areas to grade.
- Walkway design does not obscure the architectural features of the decorative south entrance surround.
- Historic fabric will remain beneath the walkway construction.
- Universal design eliminates the need for a handrail, incorporating the walkway into the Haupt Garden landscape.
- Adverse effect is avoided with brick paving and granite curbs in keeping with the Haupt Garden material palette.
- Adverse effect is avoided through the design revealing the sandstone door surround colonnettes and top sandstone tread.
- Adverse effect is avoided through retaining historic fabric beneath the walkway construction.

# NORTH ENTRANCE - ACCESSIBILITY

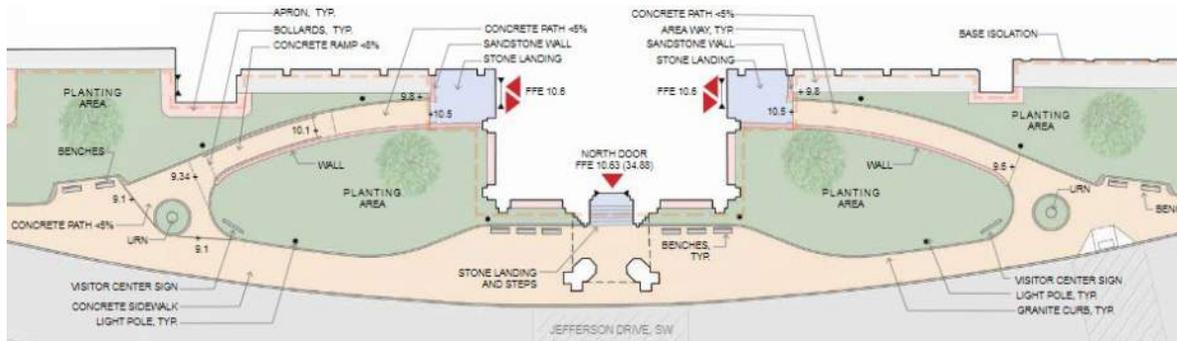
## Smithsonian Institution Building



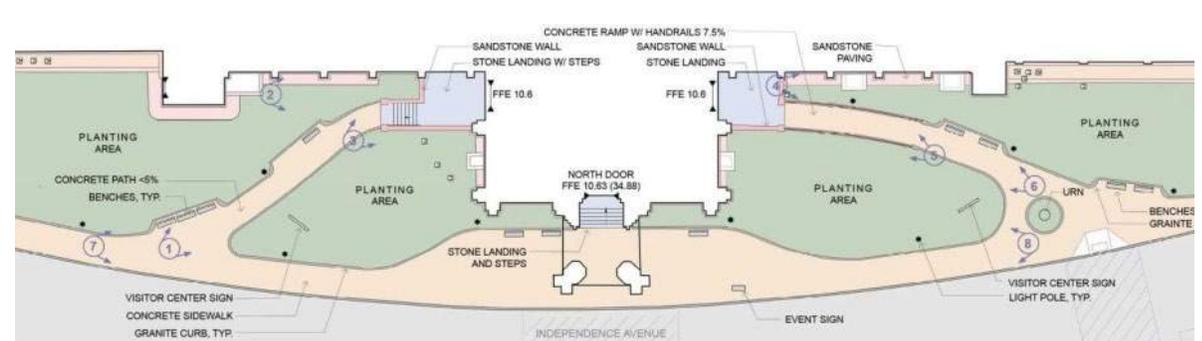
Proposed North Entrance



Existing North Entrance



Proposed Plan – North Entrance



Existing Plan – North Entrance

### No Adverse Effect

- Two universally accessible walkways proposed in a symmetrical plan to the east and west entrances of the North Tower.
- Walkways connected to proposed stone landings with Seneca sandstone walls.
- 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.

## NORTH ENTRANCE - ACCESSIBILITY

### Smithsonian Institution Building



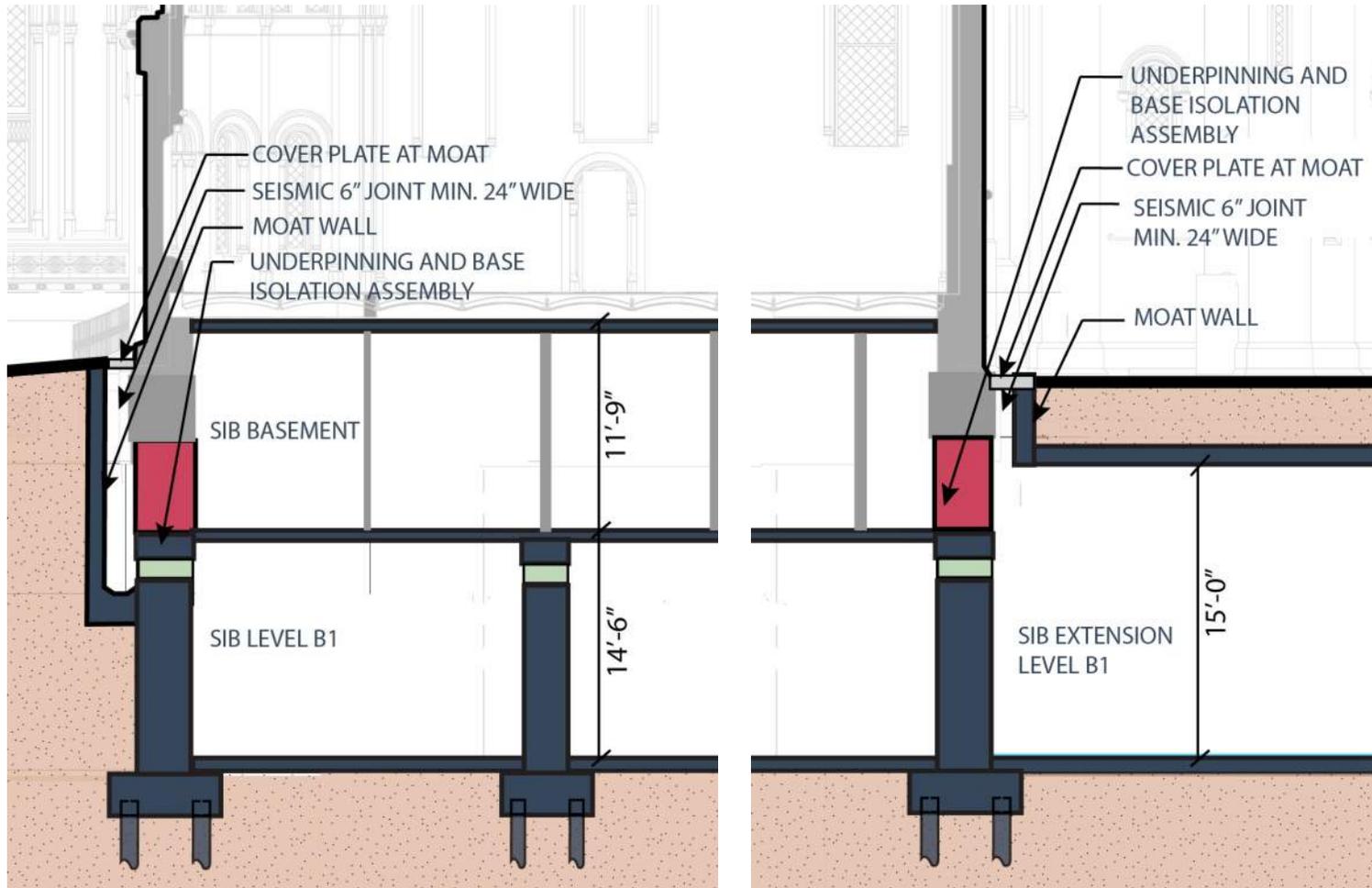
Existing – North Tower (NW View)

### No Adverse Effect

- 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 lush plantings.

# EXCAVATION BENEATH THE CASTLE – BASE ISOLATION

Smithsonian Institution Building



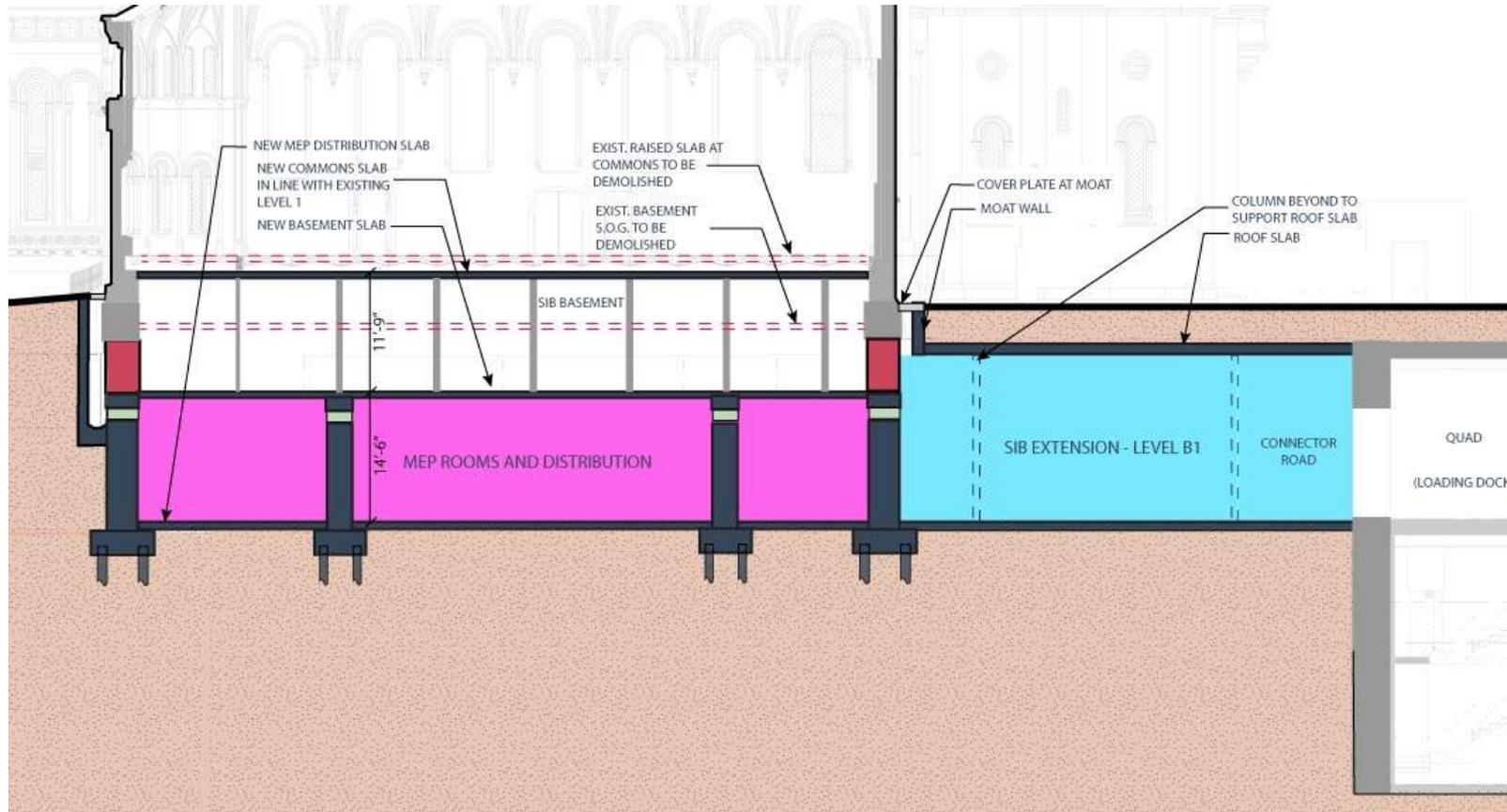
Proposed Base Isolation – The Commons

## Adverse Effect

- Basement floor level lowered to accommodate public programming.
- Seismic base isolation will be inserted.
- 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.
- Base isolation separates the building from the ground motion, achieved by creating a plane of separation between the superstructure and the foundations.
- Potential construction related adverse effects from excavation beneath and adjacent to the Castle.

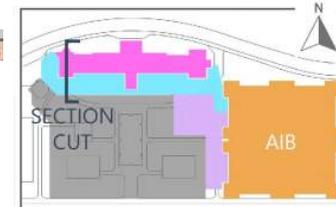
# EXCAVATION BENEATH THE CASTLE FOR MECHANICAL SYSTEMS AND DISTRIBUTION

Smithsonian Institution Building



## Adverse Effect

- New mechanical level proposed below the Castle basement for building specific mechanical equipment.
- Mechanical distribution level is aligned with the existing loading dock, Quadrangle B1 level, and the SIB Expansion.
- Proposed mechanical distribution level reduces the impact of new systems on historic interior spaces.
- Mechanical distribution level is 14'6" for sufficient space for operations and maintenance.
- Potential construction related adverse effects from excavation beneath and adjacent to the Castle.



Key Plan

SIB-CUP-Quadrangle Section Through Level B1

# REHABILITATION OF HISTORIC INTERIORS

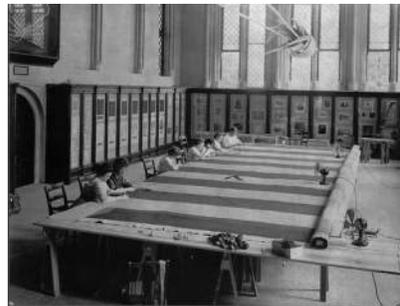
## Smithsonian Institution Building – the Commons



Rendering of Potential Space Use

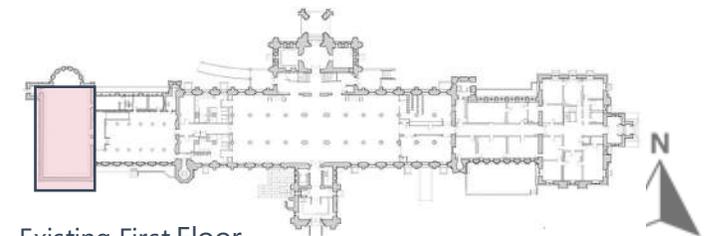


Existing Condition



Historical Context (1914)

- Modifications to the historic interiors will be in accordance with the *Secretary of the Interior's Standards* Rehabilitation approach.
- Smithsonian does not conduct Section 106 consultation on interior building changes because interior projects are not subject to NCPD review. (See Public Law No. 108-72, 117 Stat. 888, which 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 NCPD review and approval.)
- Rehabilitation and public use of the historic interiors are a primary goal of the project and are shown for informational purposes.



Existing First Floor

# REHABILITATION OF HISTORIC INTERIORS

Smithsonian Institution Building - Basement



Rendering of Potential Space Use

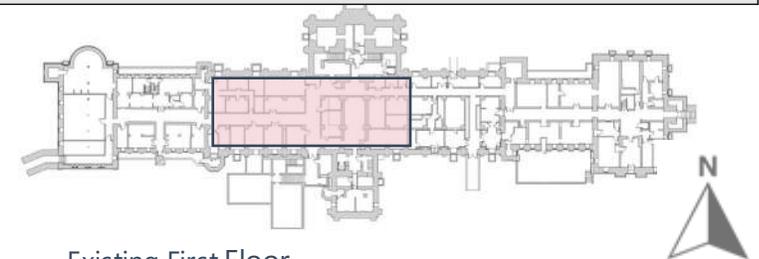


Existing Condition



Historical Context (1900)

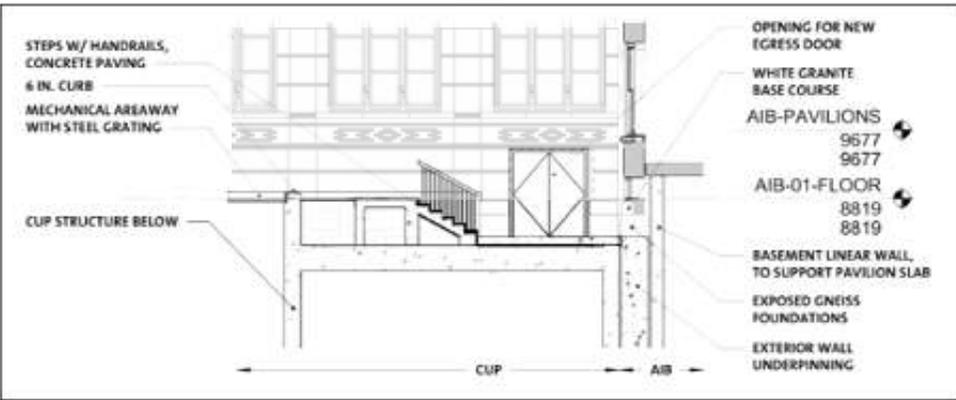
- Historic interiors will be restored to their appearance within the period of significance of 1847-1910.
- Upper Great Hall will return to public use and programming.
- Principal historic interiors include the Lower Great Hall, Upper Great Hall, Schermer Hall, Children's Room, Smithson Crypt, and the Commons (West Wing).
- Basement level will be reprogrammed for public use.
- Sound and salvageable historic material will be reused or restored.
- Historic finishes will be restored or replicated.
- Historic interiors will sensitively accommodate modern system requirements.



Existing First Floor

# CUMULATIVE EFFECTS

## Arts & Industries Building



Proposed Conditions at West Range

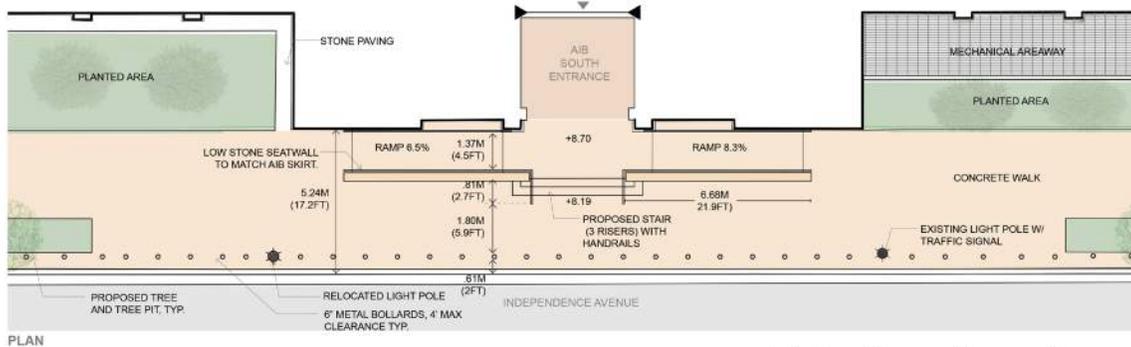


Existing Condition

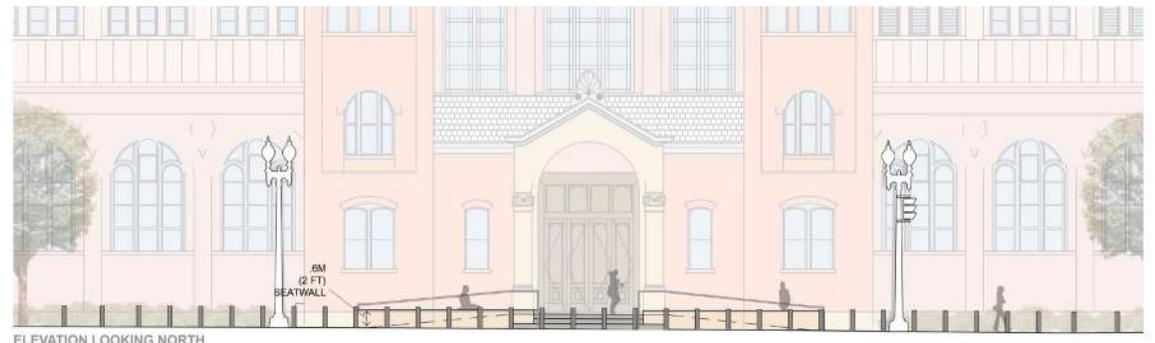
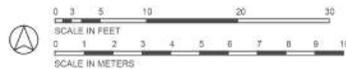
### No Cumulative Adverse Effect

Following actions identified with an adverse effect or potential adverse effect (construction related) for the Arts & Industries Building:

- Excavation of Basement Level (B1)
- Louvers at Courts Clerestory Windows
- Egress Doors on East and West Elevations
- Areaways
- South Entrance – Accessibility
- North Entrance - Accessibility



Proposed South Entrance Plan



Proposed South Entrance Elevation

# CUMULATIVE EFFECTS

## Arts & Industries Building



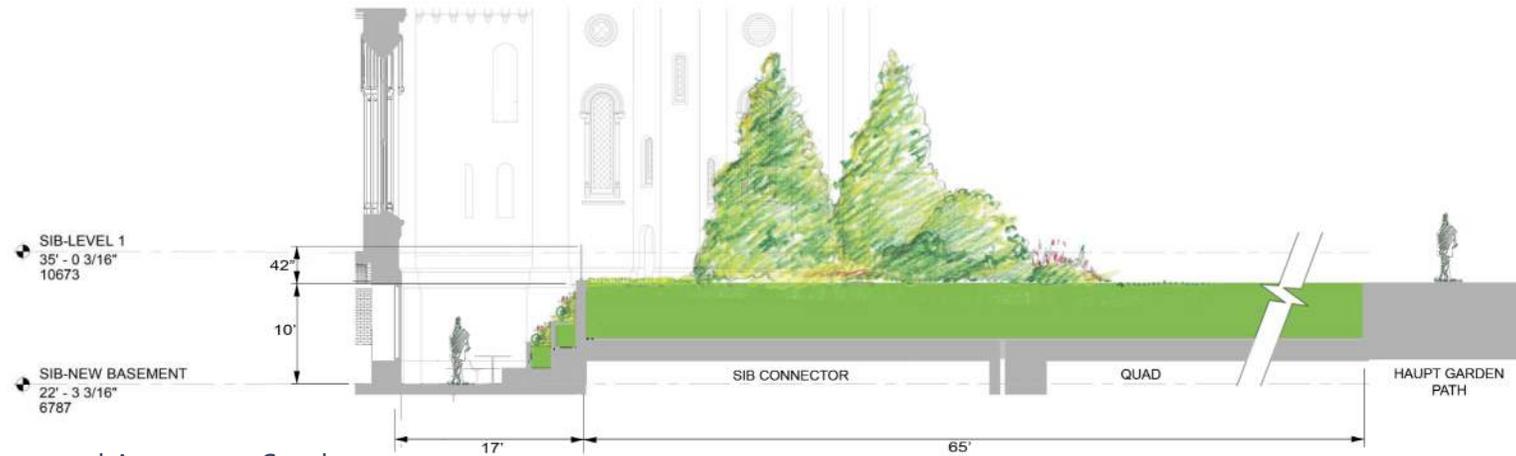
Aerial View of Arts & Industries Building

### No Cumulative Adverse Effect

- Potential construction related adverse effects from excavation or building vibration.
- Considering the scale of the AIB, the cumulative extent of removal of historic fabric or alteration character defining features is minimal and isolated to select locations.
- Alterations to historic fabric are limited to discreet masonry openings, limiting visible impact to the National Mall side of the building, or obscuring minimal amounts of architectural features.
- Visibility of the lowered grade and basement finish treatment will be screened behind vegetation in the Haupt Garden or semi-public areas at the surface parking on the east elevation.

# CUMULATIVE EFFECTS

## Smithsonian Institution Building



Proposed Areaways - South



Proposed Seismic Control Joint - North



Proposed East Wing - 4<sup>th</sup> Floor Egress

### Cumulative Adverse Effect

Following actions identified with an adverse effect or potential adverse effect (construction related) for the Smithsonian Institution Building:

- Roof Modifications – Accessible Elevator Penthouse
- East Wing – 4<sup>th</sup> Floor Egress
- Areaways
- Seismic Control Joint
- Excavation Beneath the Castle – Base Isolation
- Excavation Beneath the Castle for Mechanical Systems and Distribution

# CUMULATIVE EFFECTS

## Smithsonian Institution Building



Aerial View of the Smithsonian Institution Building

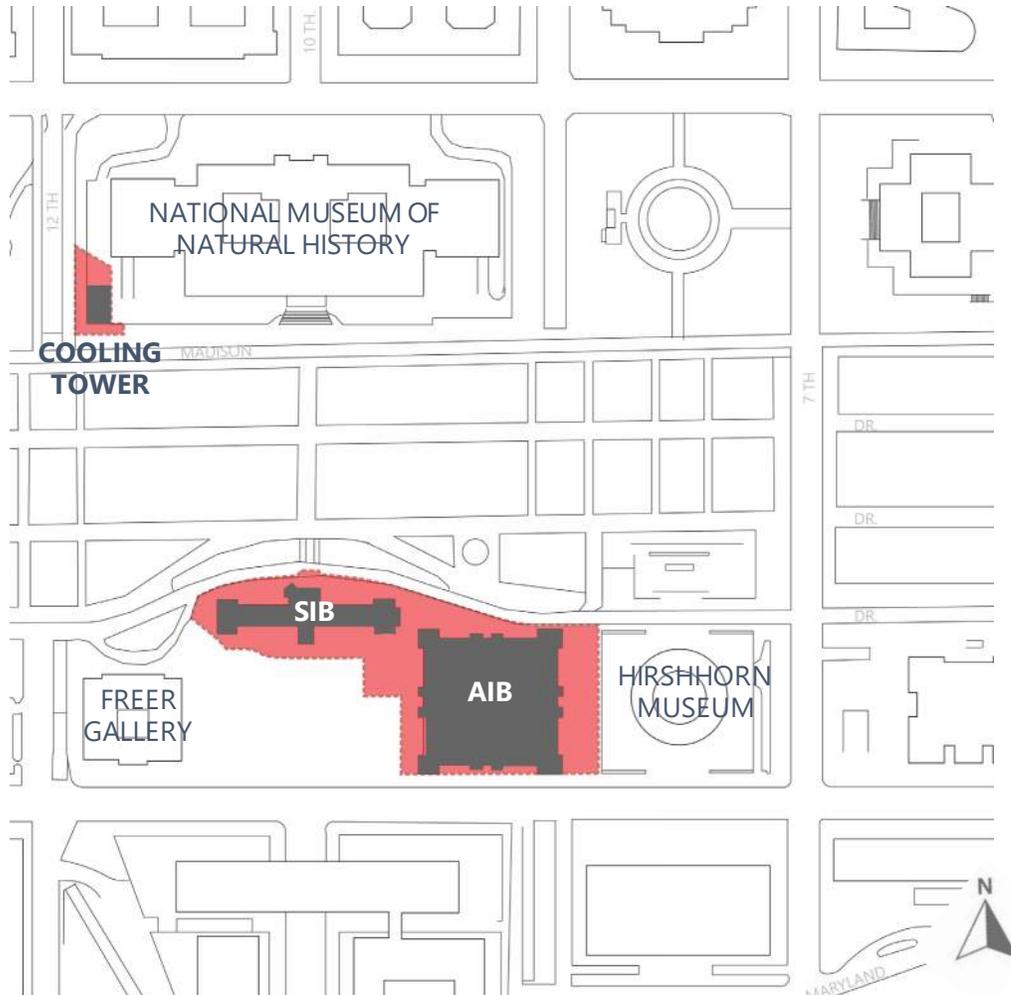
### Cumulative Adverse Effect

- Potential construction related adverse effects from excavation or building vibration.
- Considering the longitudinal scale of the Castle, the cumulative effect of minor rooftop additions does not alter the roof profile or building massing.
- Alterations to historic fabric removals are limited and mostly below-grade, minimizing visible impact and maintaining façade configurations.
- Seismic control joint detailing will adversely effect the base of the Castle, and how its architecture interacts with grade and other building features such as the porte cochere.
- Extensive below-grade areaways alter the Castle's relationship with grade and introduce significant new building features.



# CUMULATIVE EFFECTS

## National Mall Historic District



Potential Area of Disturbance RoHC and Cooling Tower Site



Vicinity Map

### Cumulative Adverse Effect

- Perimeter security adversely effects the setting of both buildings, and relationship with the National Mall context.
- Potential construction related adverse effects from excavation or building vibration.
- Haupt Garden, Ripley, Garden, and landscape building settings will be restored in all disturbed areas related to construction.
- The 10<sup>th</sup> Street vista looking north and south is a significant viewshed that contributes to the significance of the National Mall Historic District.
- Appearance of two visible plumes from the existing and proposed cooling towers may adversely effect the 10<sup>th</sup> Street vista and the National Mall Historic District.
- Temporary construction related impacts will adversely effect the National Mall Historic District.

# SCHEDULE AND NEXT STEPS

## SCHEDULE AND NEXT STEPS

Written comments are welcome through **January 7, 2022** to [BondC@si.edu](mailto:BondC@si.edu). Comments are welcome on:

- **Schematic Design presentation material from November 16, 2021 public meeting**
- **Today's presentation material**
- **Draft Assessment of Effects on Historic Resources**

Review and Comment Period on Draft Assessment of Effects on Historic Resources	November 19, 2021 – January 7, 2022
Assessment of Effects Finalized	After close of the comment period on January 7, 2022
National Capital Planning Commission Review	March 2022
Commission of Fine Arts Review	February 2022
Section 106 Consulting Parties Meeting #4	May 2022

# QUESTIONS

## MODERATOR

**Carly Bond**, Historic Preservation Specialist, Smithsonian Facilities

## PRESENTERS / PANELISTS

**Sharon Park**, FAIA, Assoc. Director of Historic Preservation, Smithsonian Facilities

**Christopher Lethbridge**, Architect/Program Manager, Smithsonian Facilities

**Ann Trowbridge**, AIA, Associate Director for Planning, Smithsonian Facilities

**Brenda Sanchez**, FAIA, Sr. Design Manager, Smithsonian Facilities

**Marisa Scalera**, RLA, ASLA, Landscape Architect Smithsonian Gardens

**Matthew Chalifoux**, FAIA, Senior Historic Preservation Architect, EYP-Loring, LLC

**Faye Harwell**, FASLA, Director/Landscape Architect, RHI (Rhodeside Harwell)

**Kirk Mettam**, PE, Senior Principal, Silman

**Michael Galway**, PE, Sr. Mechanical Engineer, EYP-Loring, LLC





Smithsonian Institution

