



# National Air and Space Museum (NASM) – Mall Building Revitalize Building Envelope and Infrastructure



Sept 2020:  
Zone 1, 3<sup>rd</sup>  
Fl. Skylight



Oct 2020: Looking Northeast – Zone 1 Stone Install Complete and Install of New Topping Slab at West Terrace On-going (lower right in picture)

### Mission/Scope:

NASM on the National Mall in Washington DC opened in 1976. This 69,480 gross sq. meters (747,877 gross sq. feet) facility includes approximately 14,971 sq. meters (161,145 sq. feet) of exhibit galleries and holds the world’s largest collection of historic air and spacecraft.

The mechanical and plumbing systems, original to the 1976 building, have exceeded their useful life spans and are unable to maintain desired environmental conditions. Extensive analysis of the cupping/cracking of portions of the existing “Tennessee Pink marble” exterior has concluded that the entire façade (13,000 stone panels) must be replaced. This LEED-Gold candidate project will revitalize the building envelope and terraces, improve energy efficiency, upgrade the structure’s blast and seismic resistance, modernize the building MEP systems, and improve functionality of spaces affected by the systems renewal.

The museum plans to renew the exhibits with privately raised funds.

### Budget (current working estimate)

|                          |        |
|--------------------------|--------|
| Federal Capital          | \$650M |
| Trust Funding (exhibits) | \$250M |

### Funding (federal capital)

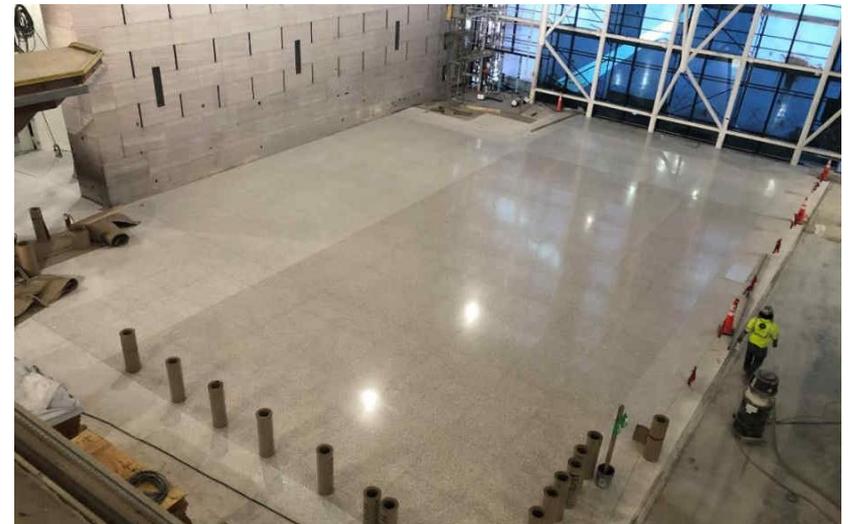
|  |          |
|--|----------|
| FY16 and prior funding (planning/design/pre-constr.) | \$43.0M  |
| FY17 funding (design/pre-constr.)                    | \$9.0M   |
| FY18 – FY20 funding (major revitalization)           | \$543.0M |
| FY21 (major revitalization)                          | \$55.0M  |

### Schedule

|                 | % Complete | Timeframe   |
|-----------------|------------|-------------|
| Planning/Design | 100%       | FY13 – FY18 |
| Construction    | 41%        | FY18 – FY24 |

### Upcoming Milestone(s)

Start Install of Stone at Delta Solar Sculpture Pedestal Nov 2020



Oct 2020: Gallery 102 – West Half Terrazzo Floor...Poured, Sealed, and Ready for Installation Review



### National Air and Space Museum (NASM) – National Mall Building (NMB) Replace Restaurant Addition



Concept Building Massing Options



Smithsonian National Air and Space Museum Restaurant Addition

AnnBehaArchitects

#### Mission/Scope:

The existing NASM-NMB restaurant, a 3,281 sq. meter (35,312 sq. feet) addition, is a steel and glass structure designed by HOK and constructed from 1987 to 1988. Opened on Sept 17, 1988, the restaurant was in full operation until September 2017. Several SI studies have indicated that the existing structure no longer meets the original goals and has mechanical systems (original to the existing building) that have reached the end of their anticipated useful life of 30 years.

The Smithsonian Institution (SI) plans to replace the restaurant addition during the on-going NASM Revitalization with a LEED certified facility. Timing for the replacement would be from mid-2022 to early 2025, when the east half of the Museum would be closed to the public. The target date to complete construction is by late 2024, with the restaurant set-up complete by and opened early 2025 to meet the Museum’s full reopening. The project will be funded with Trust provided funds.

#### Budget (current working estimate)

Trust Funding \$62M

#### Funding (Trust)

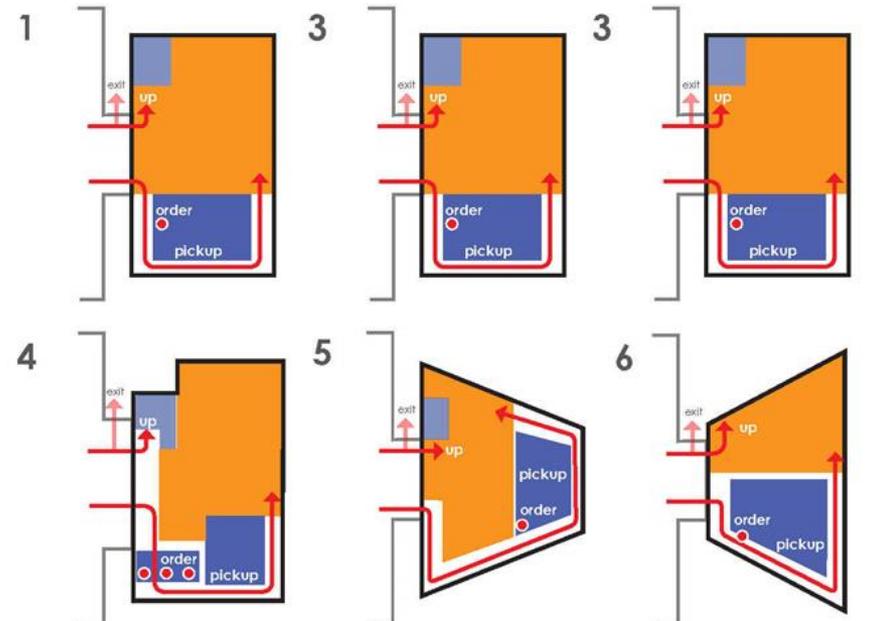
FY20 – FY25 \$62M

#### Schedule

|                 | % Complete | Timeframe   |
|-----------------|------------|-------------|
| Planning/Design | 0%         | FY20 – FY22 |
| Construction    | 0%         | FY18 – FY24 |

#### Upcoming Milestone(s)

Concept Design Complete April 2021



Smithsonian National Air and Space Museum Restaurant Addition

AnnBehaArchitects

Concept Servery and Seating Options



## Hirshhorn Museum and Sculpture Garden Repair Building Envelope - Roof and Panels



Section 106 documentation of existing condition of building

### Scope

The Hirshhorn Museum and Sculpture Garden has multiple Building Envelope deficiencies due to age and method of construction. These deficiencies contribute to leaking and poor thermal performance. Phased construction is planned to address these problems. Replacement of the roof, plus removal of the panels to provide a new attachment system, vapor barrier and insulation will be first due to the urgent need for these repairs. New panels will be installed. Design for these repairs is underway now. Other major building envelope deficiencies, such as the plaza water-proofing, repair of plaza walls, and window replacement will be addressed when the building closes for major revitalization in FY 2025.

|                                |                  |
|--------------------------------|------------------|
| <b>Budget</b>                  | <b>\$29.26 M</b> |
| Design – Federal Capital       | \$3.76 M         |
| Construction – Federal Capital | \$25.02 M        |
| Other Costs                    | \$.48 M          |

| Schedule     | % Complete | Timeframe |
|--------------|------------|-----------|
| Design       | 100%       | 2020      |
| Construction |            | 2020-22   |

### Upcoming Milestones:

Construction Kickoff October 2020

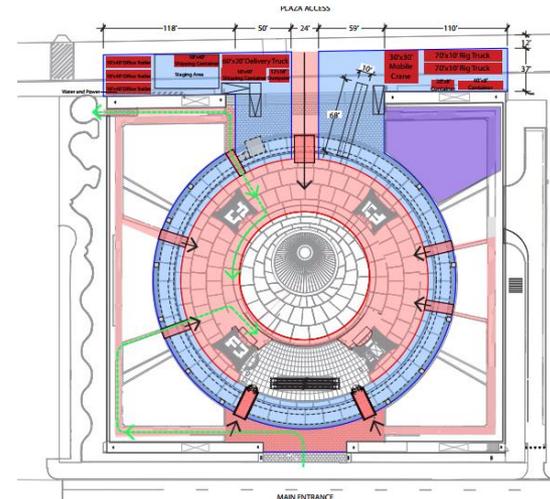


Diagram of public access to museum through scaffolding around drum



## Hirshhorn Museum and Sculpture Garden Revitalize Sculpture Garden

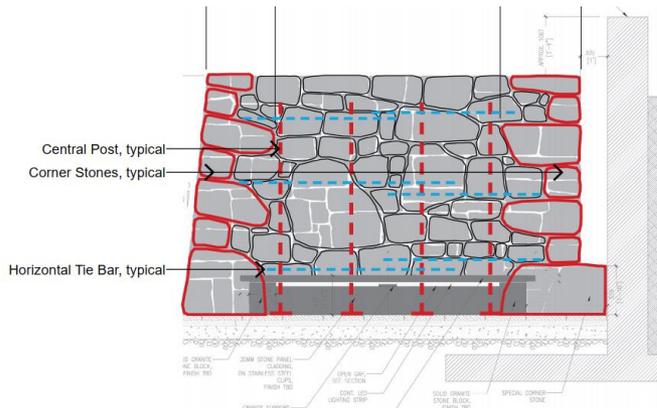


Diagram showing structural system embedded  
inside stacked stone wall.

### Scope

The Hirshhorn Museum and Sculpture Garden infrastructure will be revitalized and design modifications will be made to suit the current programmatic needs for sculpture display, performances, and public events. Improvements to the landscape planting, major repair or replacement of the deteriorated garden walls and replacement of waterproofing at the tunnel are required. The tunnel will be re-opened to connect to the plaza. This project will be jointly funded with Federal and Museum funding. The federal contribution to this project is capped at \$20M, per the Decision Memorandum signed in December, 2019.

|                 |                   |                  |
|-----------------|-------------------|------------------|
| <b>Budget</b>   |                   | <b>\$57.35M</b>  |
| Design          |                   |                  |
| Federal         |                   | \$2.34M          |
| Trust           |                   | \$5.16M          |
| Construction    |                   |                  |
| Federal         |                   | \$17.66M         |
| Trust           |                   | \$32.19M         |
| <b>Schedule</b> | <b>% Complete</b> | <b>Timeframe</b> |
| Design          | 35%               | 2021             |
| Construction    |                   | 2022-24          |

### Upcoming Milestones:

Kick-Off 65% design October 2020



Tree species chart showing garden foliage color throughout the year.



## Hirshhorn Museum and Sculpture Garden Revitalize Building Systems and Infrastructure

### Budget – Planning

Federal Capital - FY 20 -21

~\$1.5M



*Interior courtyard glazing will be replaced*

| Schedule            | % Complete | Timeframe |
|---------------------|------------|-----------|
| Planning            |            | 2020-21   |
| Design              |            | 2022-24   |
| Move to Swing Space |            | 2024-25   |
| Construction        |            | 2026-30   |

### Upcoming Milestones:

AE Contract Award

October 2020

### Scope

HMSG opened in 1974, but has never undergone major renovation. Major Revitalization will include upgrades to all building systems, new windows, replacement of plaza waterproofing, and repairs to the plaza walls. The Planning Phase will explore modifications to improve energy efficiency and functionality, as well as modifications to meeting programmatic needs of the museum. Negotiations are underway with the selected A/E with the goal that the contract will be awarded in October of 2020. This contract will include both the Planning and Design Phases.



*Hirshhorn Museum and Sculpture Garden- 1974*