



# Smithsonian Facilities

## Suitland Collections Facility MSC Replace Lab and Pod AHUs



Typical Existing MSC POD Air Handling Unit

<b>Budget</b>	<b>\$29.92M</b>
FY16-19 Federal Funding	\$2.02M
FY20-24 Federal Funding	\$27.90M

<b>Schedule</b>	<b>% Complete</b>	<b>Timeframe</b>
Planning and Design	100%	2018-2019
Construction, Phase 1		2020-2021
Construction, Phase 2		2022-2024

<b>Upcoming Milestones</b>	
Prepare Phase 1 Construction Bid Package	June 2020

### Mission/Scope:

The 11 air handling units (AHUs) serving the lab/office areas and Pods 1, 2 and 4 in MSC are well past their useful lives, and are in need of replacement. This project will replace the AHUs with new, state-of-the-art equipment. The project will also include upgrade of other mechanical systems serving the lab/office spaces. The project will be executed in several phases. The first phase will be replacement of the AHUs supporting the Lab 3 and 4 areas.



Alternate View of Air Handling Unit



**NZP-VA: Renew Building 1 for Bio-repository  
“Center for Species Survival”**



Artist's rendering of the Dorrance Hamilton Cryo-Conservation Lab

**Mission / Scope**

The National Zoo’s Conservation Biology Institute is located in Front Royal, VA. The Center for Species Survival studies rare and critically endangered species, reproductive sciences and biomaterial mysteries. The mission is to be a Pan-Institutional home to the Genome Resource Bank which will contain germ plasm, DNA samples and cell lines of hundreds of species from around the planet.

The scope includes major infrastructure renewal of mechanical, electrical, fire alarm and life safety upgrades, roof and façade repairs, window replacement, accessibility improvements, restroom modernization, code compliance and laboratory improvements. The project scope is limited to 878 SM (9,450 SF) in the West Wing - Building 1 and the Center Hyphen area only of this H-shaped building. The East Wing - Building 2, is not included.

<b>Budget</b>	<b>\$10.93M</b>
Federal Funding (major revitalization)	\$9.23M
Trust Funding (capital and non-cap)	\$1.70M

<b>Funding</b>	
FY16 and prior funding	\$0.64M
FY17 funding	\$1.17M
FY17-20 funding	\$9.12M

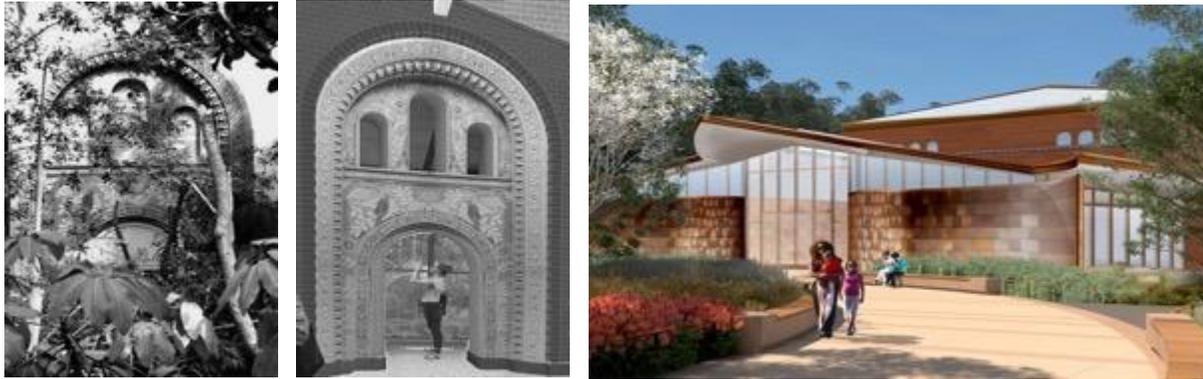
<b>Schedule</b>	<b>% Complete</b>	<b>Timeframe</b>
Design	100%	2016 – 2017
Construction	100%	2018 – 2020

**Upcoming and Recent Milestones**  
Substantial Completion                      February 21, 2020





### NZP – Renew Bird House and Great Flight Aviary “Experience Migration” Exhibit



The original entry arch & restored condition

Expanded new entrance

**MISSION / SCOPE:**

The Bird House (BH), designed by Architect Albert Harris, opened in 1928 and remains a historically significant example of the zoo’s early architecture. An addition was completed in 1938; significant interior and exterior modifications occurred in 1965 as well as the addition of the Great Flight Cage and bridge.

This LEED-Gold candidate project renews the 4,282 sq meter (46,090 sf) Bird House/Great Flight Cage and approximately .4 hectares (1 acre) of the Bird House Plateau to house the “Experience Migration” exhibit, emphasizing the global importance of migration to species survival through innovative conservation-based education. Facility improvements include new site utilities and replacement of HVAC equipment, storm and management systems, animal/human life safety, electrical, waste- water plumbing, security and data systems. The undersized entrance area will be expanded for improved accessibility, public restrooms and programmatic space for the Congressionally established Smithsonian Migratory Bird Center.

<b>Budget</b>	<b>\$67.11M</b>
Federal Funding (major revitalization)	\$57.50M
Trust Funding (capital and non-cap)	\$ 9.61M

<b>Funding</b>	
FY20 and prior funds in hand (93%)	\$62.11M
Trust funds (Non -Capital) expected (7%)	\$ 5.00M

<b>Schedule</b>	<b>% Complete</b>	<b>Timeframe</b>
Construction	66%	2018 – 2021

<b>Upcoming Milestones</b>	
Complete Rooftop Work	Summer 2020



Great Flight Aviary



Skylight Steel



### Revitalize Historic Core



#### MISSION / SCOPE:

The Smithsonian Institution Building, the “Castle,” is the Institution’s first home and its symbolic heart. The Arts and Industries Building opened in 1881 as the first home of the National Museum. Together, these two buildings comprise the Smithsonian’s Historic Core. Both buildings are in need of major revitalization, work that will include new, efficient heating, air conditioning, and ventilation systems; new electrical and plumbing systems, and new telecommunications, security and life safety systems. A new, underground Central Utility Plant will provide mechanical and electrical infrastructure and a new Consolidated Loading Facility will improve the efficiency and safety of materials handling in the South Mall Campus. A goal of the revitalization will be to provide efficient and accessible space for visitors and staff. Public spaces will be restored after years of piecemeal remodeling that has diminished their original proportions and appearance.

#### Budget and Funding – Design and Construction

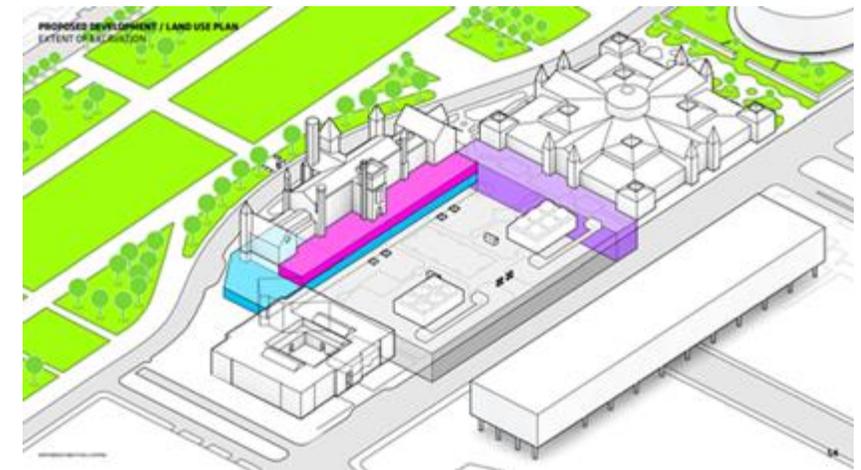
Federal (FY19-25)	<b>\$900M</b>
Construction	\$650M
Design	Approx. \$586M
	Approx. \$64M
Trust (FY20-25)	\$250M

#### Schedule

	% complete	Timeframe
Design:	0%	2020 – 2022
Construction:	0%	2021 – 2025+

#### Upcoming Milestones:

Concept Design Kickoff	TBD
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# National Museum of the American Indian - NY

## Replace AHUs 1-4

**AHU 1&3**

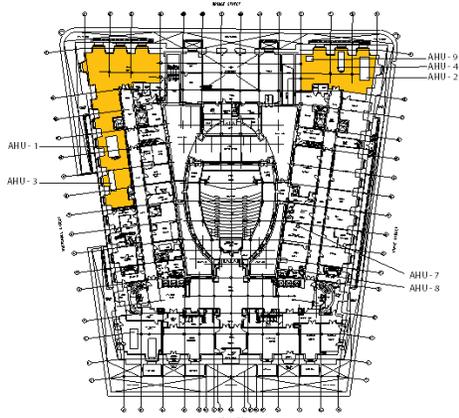
East

Custom House Basement

**AHU 2&4**

West

Smithsonian Mechanical Rms (yellow)



Bridge Street

Whitehall Street

Locations for temporary AHU ductwork façade entry; Whitehall & Bridge Streets

<b>Budget</b>	<b>\$10.52M</b>
Federal Capital (FY16-22)	\$10.52M

<b>Schedule</b>	<b>% Complete</b>	<b>Time frame</b>
Survey/Study:	100%	2016 - 2017
Design:	97%	2018 - 2020
Construction:	0%	2021 - 2022

<b>Upcoming Milestones:</b>	
100% Back check Complete	8/31/2020

### Mission/Scope:

The existing four HVAC air handling units were installed with the initial construction of the NMAI-NY museum in the 1990s and have reached the end of their expected life cycle. The system to convert GSA steam to hot water in support of the AHUs will also be replaced. So continuous conditioned air is maintained to the Museum during construction, a temporary exterior air handler will shift from the west side of the building to the east with the work sequence. The AHU replacement complements the new chillers and cooling towers currently in construction (PN 1295604). After all upgrades are completed, a significant improvement to the energy use profile is expected.



Facilities Committee Meeting July 16, 2020  
Existing HVAC AHU-2 in West Mechanical Room Page 82