



Executive Director's Recommendation

Commission Meeting: December 1, 2016

PROJECT National Air and Space Museum Steven F. Udvar-Hazy Center Dulles Collections Center Expansion 14390 Air and Space Museum Parkway Chantilly, VA	NCPC FILE NUMBER 7817
SUBMITTED BY Smithsonian Institution	NCPC MAP FILE NUMBER 2208.00(38.00)44415
REVIEW AUTHORITY Federal Projects in the Environs per 40 U.S.C. § 8722(b)(1)	APPLICANT'S REQUEST Preliminary and final approval of site and building plans
	PROPOSED ACTION Approve preliminary and final site and building plans
	ACTION ITEM TYPE Consent Calendar

PROJECT SUMMARY

The Smithsonian Institution has submitted preliminary and final site and building plans for the expansion of the Dulles Collections Center at the Steven F. Udvar-Hazy Center (UHC) of the National Air and Space Museum (NASM). The facility is located at Dulles International Airport in Chantilly, Virginia and is operated under a long-term lease with Metropolitan Washington Airports Authority (MWAA). The three proposed storage modules will provide permanent storage space for NASM collections, currently housed in outdated facilities at the Paul E. Garber Preservation, Restoration and Storage Facility in Suitland, Maryland. The collections include a variety of objects and artifacts related to the mission of NASM. According to the Smithsonian, the Garber facility does not provide proper environmental conditions for collections storage. In addition, the modules will temporarily house artifacts that must be moved due to revitalization work at the NASM building on the National Mall. The project will be phased, and Module 1 will be constructed first, starting in 2017.

KEY INFORMATION

- The Dulles Collections Center expansion project is located at the Steven F. Udvar-Hazy Center of the National Air and Space Museum, which is found on the grounds of Dulles International Airport in Chantilly, Virginia.
- In 2013, the Smithsonian Institution prepared a facilities master plan which identified the need for new collections space and swing space for the renovation of the National Mall Building of the NASM.
- The expansion includes three modules to be built in phases, with Module 1 to be constructed starting in 2017.

RECOMMENDATION

Approves the preliminary and final site and building plans for the Dulles Collection Center Storage Modules Expansion at the Steven F. Udvar-Hazy Center of the National Air and Space Museum in Chantilly, Virginia.

PROJECT REVIEW TIMELINE

Previous actions	None
Remaining actions (anticipated)	None

PROJECT ANALYSIS

Executive Summary

Staff evaluated the project by reviewing its consistency with relevant policies within the Federal Workplace, Historic Preservation and Federal Environment Elements of the *Comprehensive Plan for the National Capital*. In particular, this project is generally consistent with regional federal policies relating to employee parking, site development, and stormwater management. Therefore, staff recommends that the **Commission approves the preliminary and final site and building plans for the Dulles Collection Center Storage Modules Expansion at the Steven F. Udvar-Hazy Center of the National Air and Space Museum in Chantilly, Virginia.**

Analysis

The storage facilities will be constructed on approximately 3.5 acres of clear land located immediately south of the UHC. The site is previously disturbed, and is primarily lawn with no other vegetation. Haul and access roads surround the site. Driveways will be added from the adjacent roads to the modules. Stormwater retention basins will be added adjacent to the expansion with each module phase. Little to no new staff will be added as a result of the project, and no new employee parking is proposed.

A total of three modules are proposed. The two (2) three-story modules would be 63 feet tall, and the one (1) single-story module would be 45 feet tall. The proposed length of the modules is 269 feet, slightly longer than the adjacent UHC building, in order to maximize the storage capacity for

large objects. The three-story modules would each provide 107,820 net square feet of collections storage and the single-story free span module would provide 26,240 net square feet of storage for large air and space craft. The full build-out provides 241,880 net square feet of collections storage space. The ground flood includes storage space, egress stairs, restrooms and mechanical space. The upper floors are generally set aside for collections space, along with some vertical circulation and mechanical rooms.

The expansion project is subject to compliance with state, MWAA and federal stormwater management requirements, including the Energy Independence and Security Act of 2007. No standing water is permitted adjacent to the runways as it attracts birds which may pose a hazard to airport operations. As such, bioretention facilities were selected for stormwater management because they allow for phased implementation and provide a low-impact approach. These will be located east and west of each module.

The modules will be constructed of precast architectural concrete composite panels which accommodate the envelope requirements necessary for maintaining the collections environment. Light and dark gray panels, along with form liners, will provide architectural variation and detailing. Metal louvers and overhead doors will also be provided. The exterior materials are intended to be compatible with the existing UHC building. No new signage is indicated in the submission.

In general, the proposed expansion will provide the collections space necessary for continuing the mission of NASM. The applicant has provided detailed construction drawings for the first phase improvements. Subsequent phases will be nearly identical in configuration. When fully completed, the entire project will appear seamless and integrated with the UHC building.

CONFORMANCE TO EXISTING PLANS, POLICIES AND RELATED GUIDANCE

Comprehensive Plan for the National Capital

As noted above, the project meets basic goals of the Comprehensive Plan

National Historic Preservation Act

The project is located outside the Dulles Airport Historic District, but within MWAA's 1987 Programmatic Memorandum of Agreement regarding Section 106 of the National Historic Preservation Act (NHPA). Consultation with Virginia State Historic Preservation Officer (VASHPO) resulted in a determination of "No Historic Properties Affected" for architectural and archaeological resources.

National Environmental Policy Act

The Smithsonian, in cooperation with WMAA and the Federal Aviation Administration (FAA), prepared an Environmental Assessment (EA) for the project. A finding of no significant impact (FONSI) was signed by FAA on September 12, 2016. NCPC does not have independent NEPA responsibility for the project.

CONSULTATION

The project submission was referred out to the following State and local agencies for review pursuant to NCPC referral policies:

- Fairfax County Department of Planning and Zoning
- Northern Virginia Regional Commission
- Northern Virginia Transportation Commission
- Virginia Department of Transportation
- Virginia Department of Environmental Quality

Fairfax County submitted a response letter stating they did not expect any negative environmental impacts from the proposed project. The Virginia Department of Transportation also provided a letter stating no concerns with the project.

ONLINE REFERENCE

The following supporting documents for this project are available online:

- Submission Package

Prepared by Matthew Flis
11/22/2016

POWERPOINT (ATTACHED)

NCPC File #7817

**Steven F. Udvar-Hazy Center
Dulles Collections Center Storage Modules**

**14390 Air and Space Parkway
Chantilly, Virginia**

Smithsonian Institution

Preliminary and Final Site and Building Plans

Commission meeting date: December 1, 2016

NCPC review authority: Advisory – Federal Project in the Environs (40 U.S.C. § 8722(b)(1))

Applicant request: Preliminary and Final Review – Site and Building Plans

Delegated / consent / open / executive session: Consent

NCPC Review Officer: M. Flis

NCPC File number: 7817

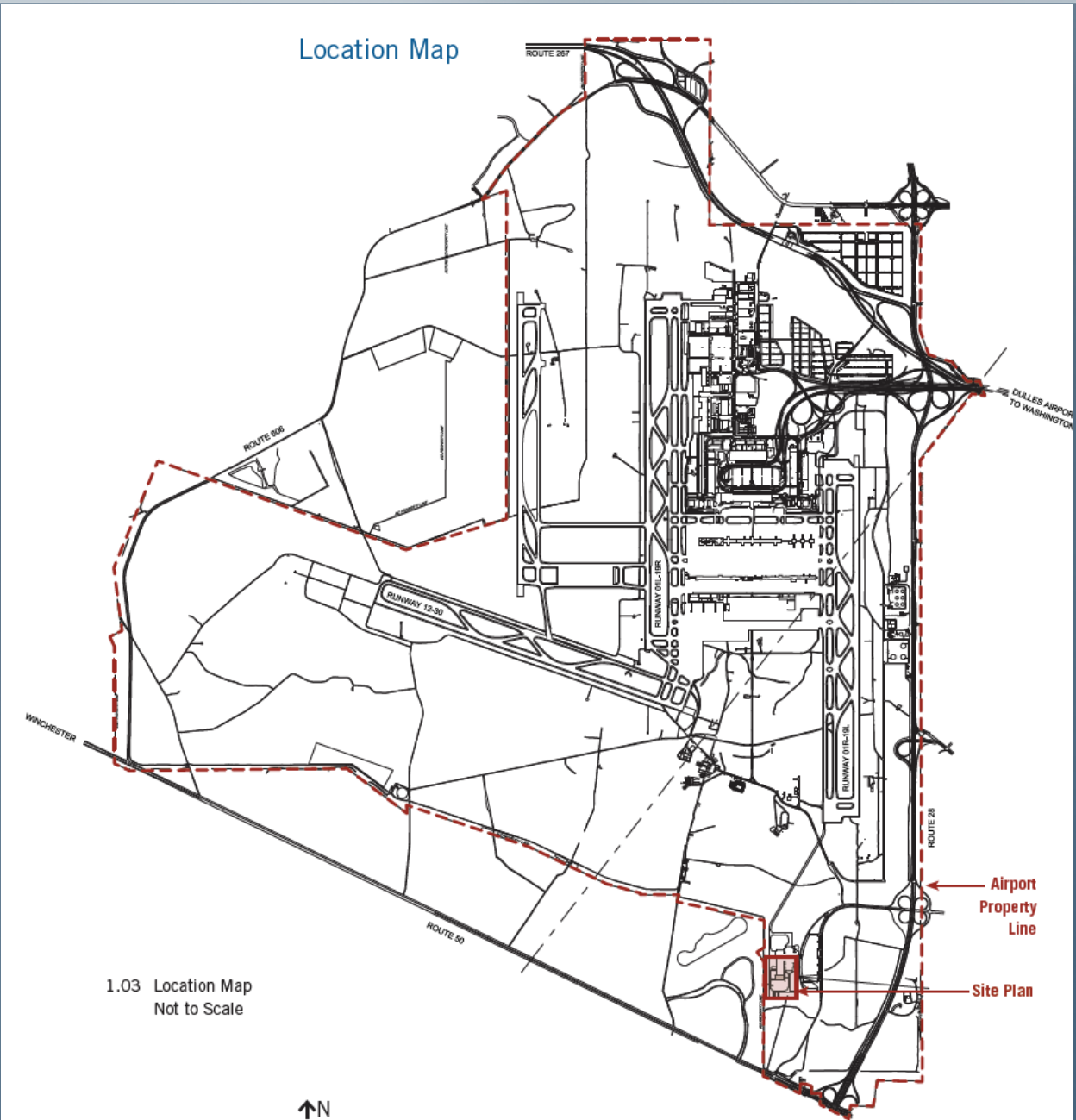
Project summary:

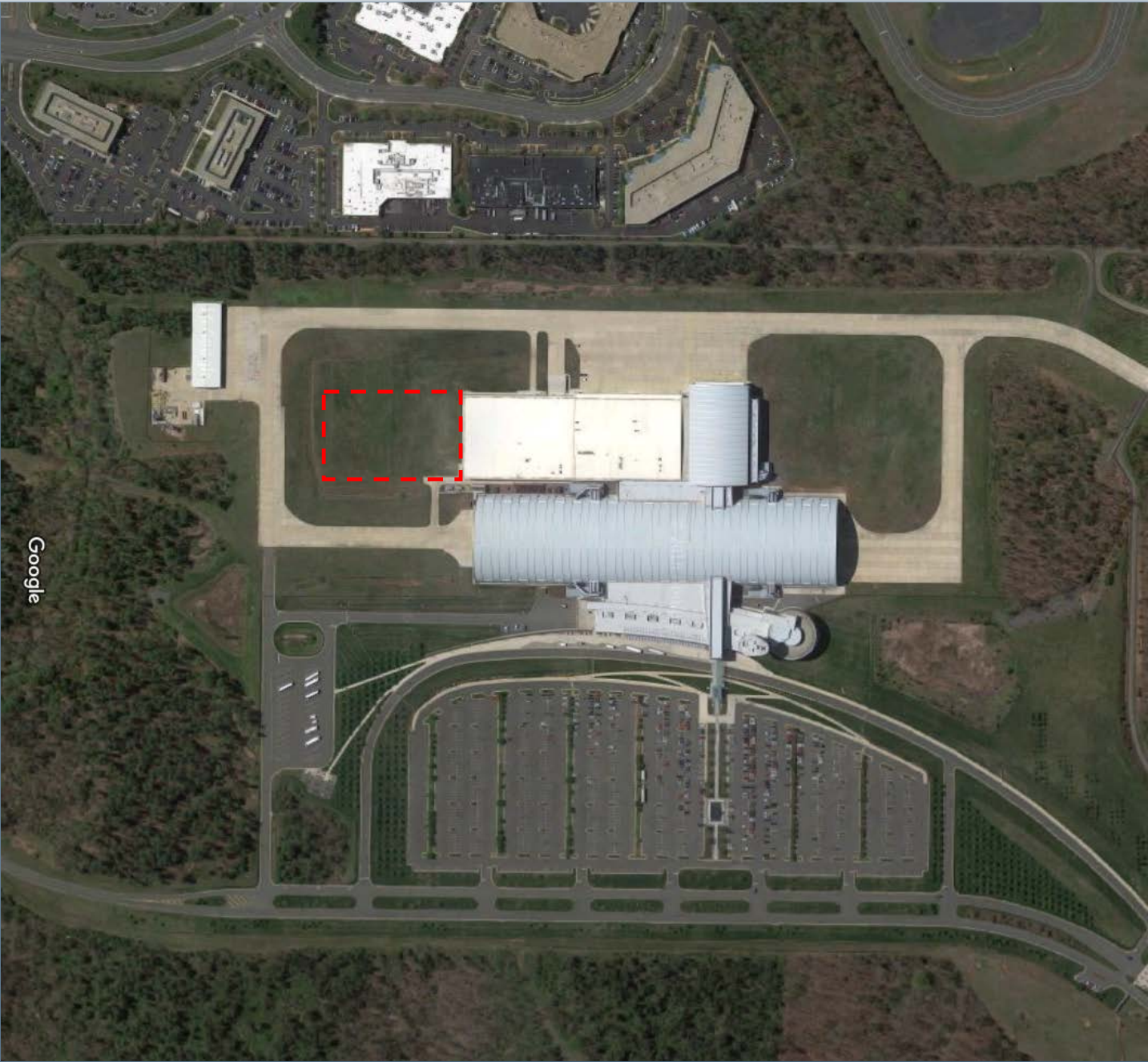
The Smithsonian Institution has submitted preliminary and final site and building plans for three storage modules to be constructed adjacent to the Steven F. Udvar-Hazy Center (UHC), located at Dulles International Airport in Chantilly, Virginia. The facility is operated under a long-term lease with Metropolitan Washington Airports Authority (MWAA). The proposed storage modules will provide permanent storage space for NASM collections, currently housed in outdated facilities at the Paul E. Garber Preservation, Restoration and Storage Facility in Suitland, Maryland. According to the Smithsonian, the Garber facility does not provide proper environmental conditions for collections storage. In addition, the modules will temporarily house artifacts that must be moved due to revitalization work at the NASM building on the National Mall. The project will be phased, and Module 1 will be the first to be constructed.

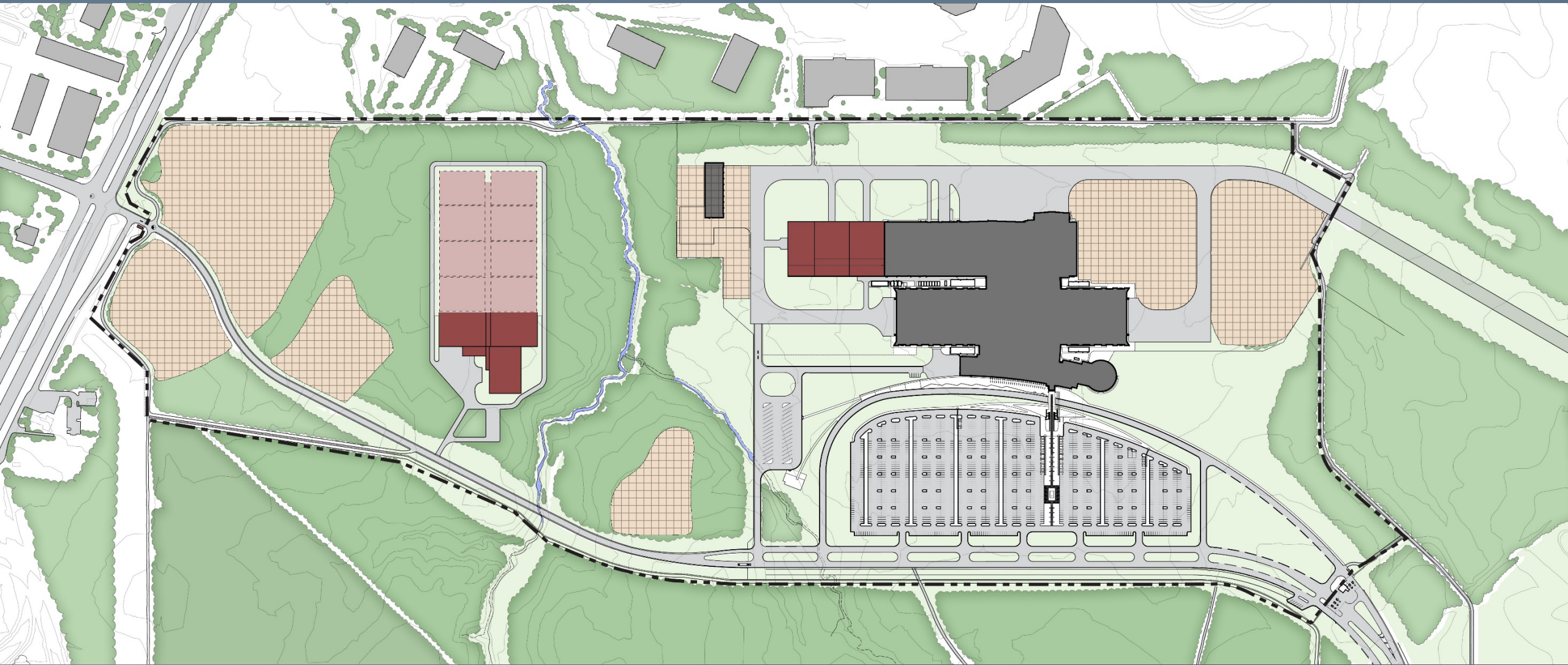
The storage facilities will be constructed on approximately 3.5 acres of clear land located immediately south of the UHC. The site is previously disturbed, and is primarily lawn with no other vegetation. Haul and access roads surround the site. Driveways will be added from the adjacent roads to the modules. Stormwater retention basins will be added to the east and west sides of the expansion.

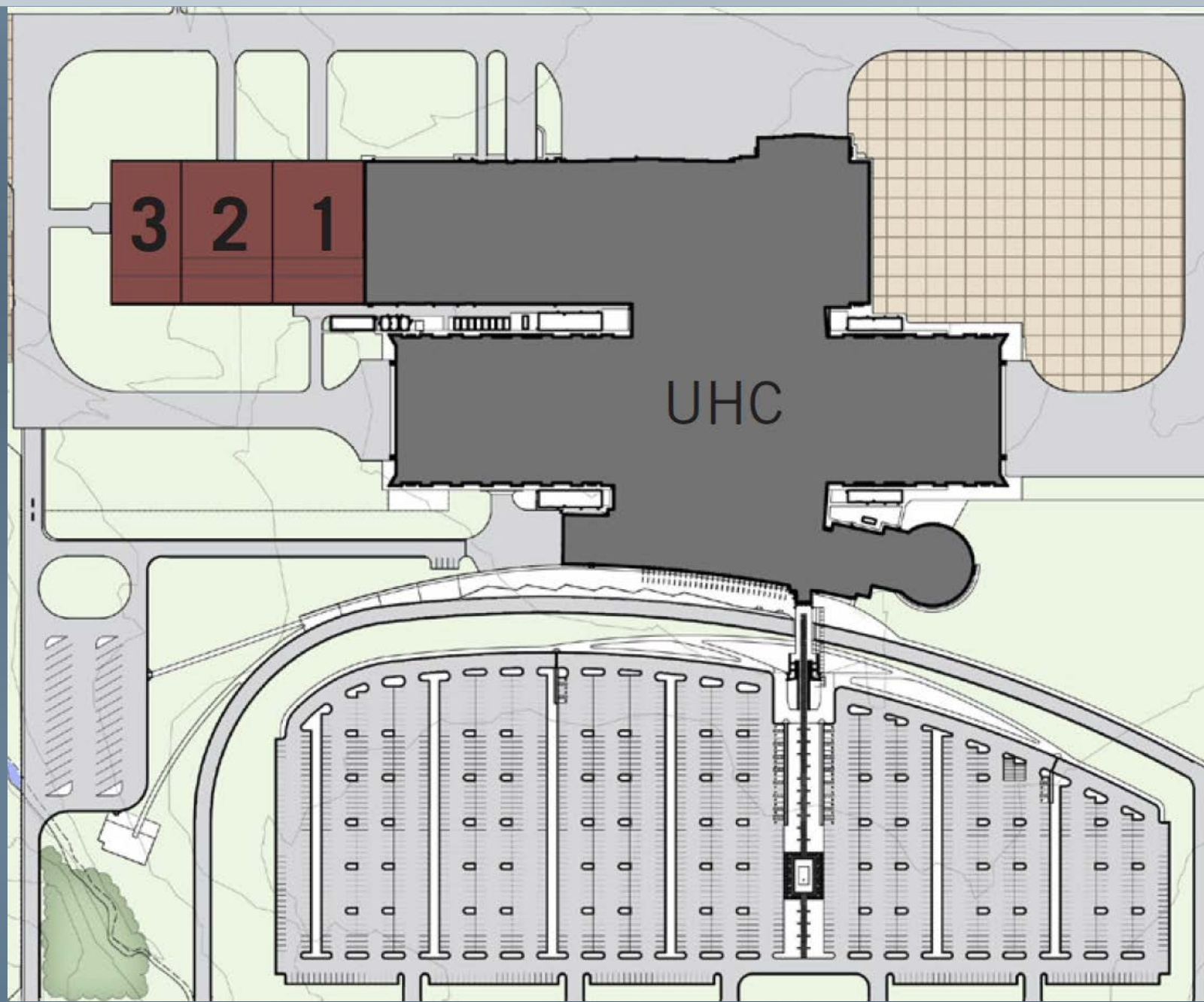
The three-story modules would be 63 feet tall, and the single-story module would be 45 feet tall. The proposed length of the modules is 269 feet, slightly longer than the adjacent UHC building, in order to maximize the storage capacity for large objects. The three-story modules would each provide 107,820 nsf of collections storage and the single-story free span module would provide 26,240 net square feet of storage for large air and space craft. The full build-out provides 241,880 nsf of collections storage space within 283,795 gsf of construction.

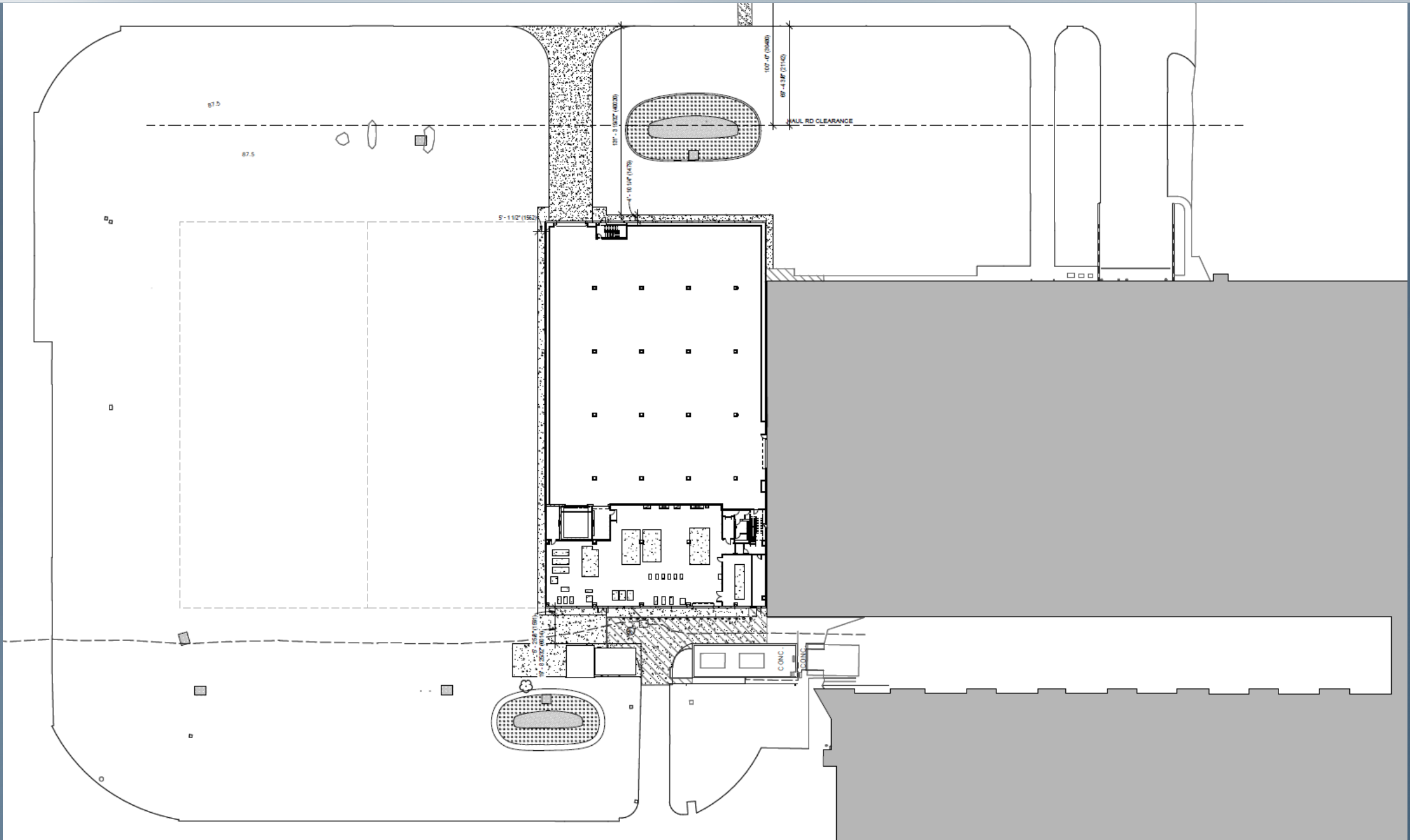






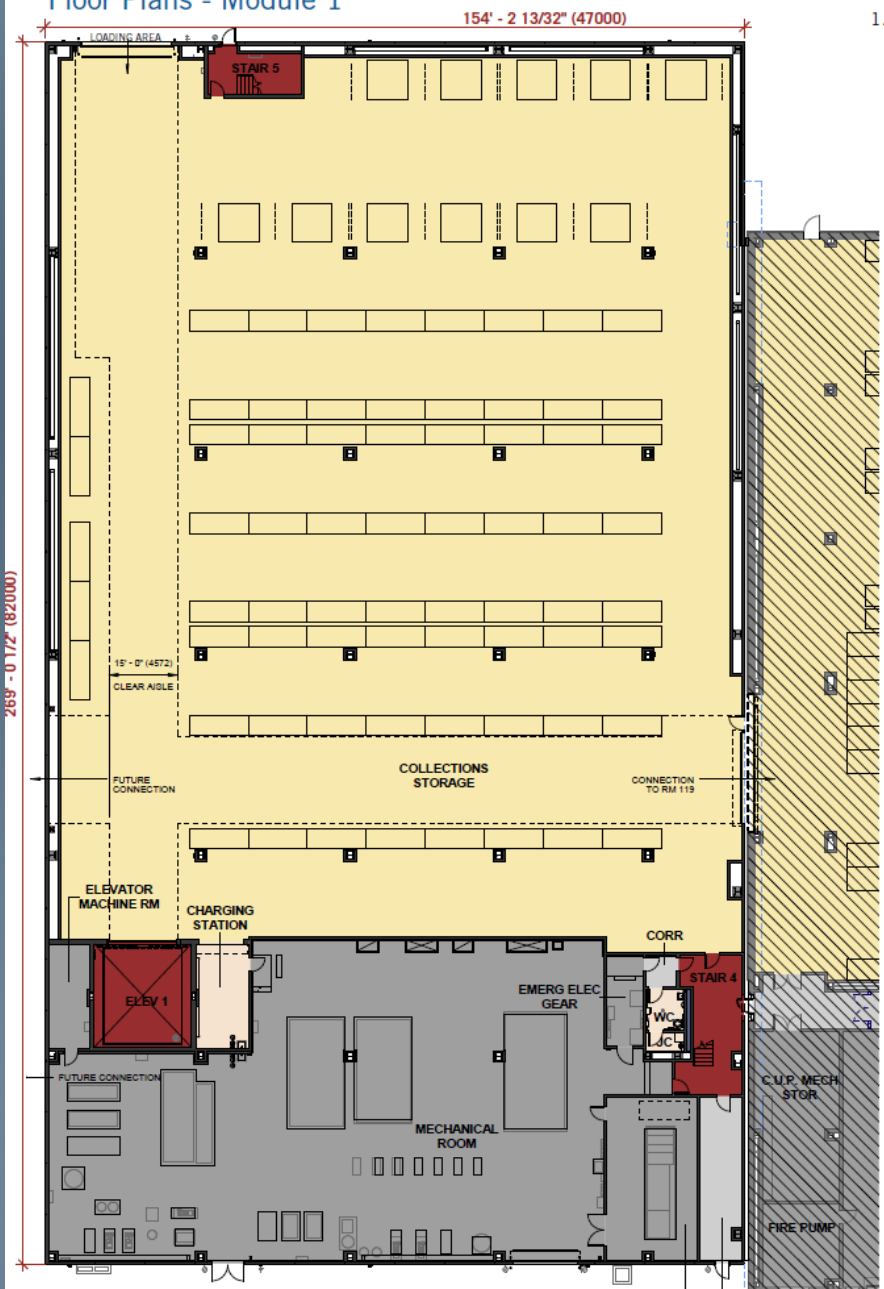






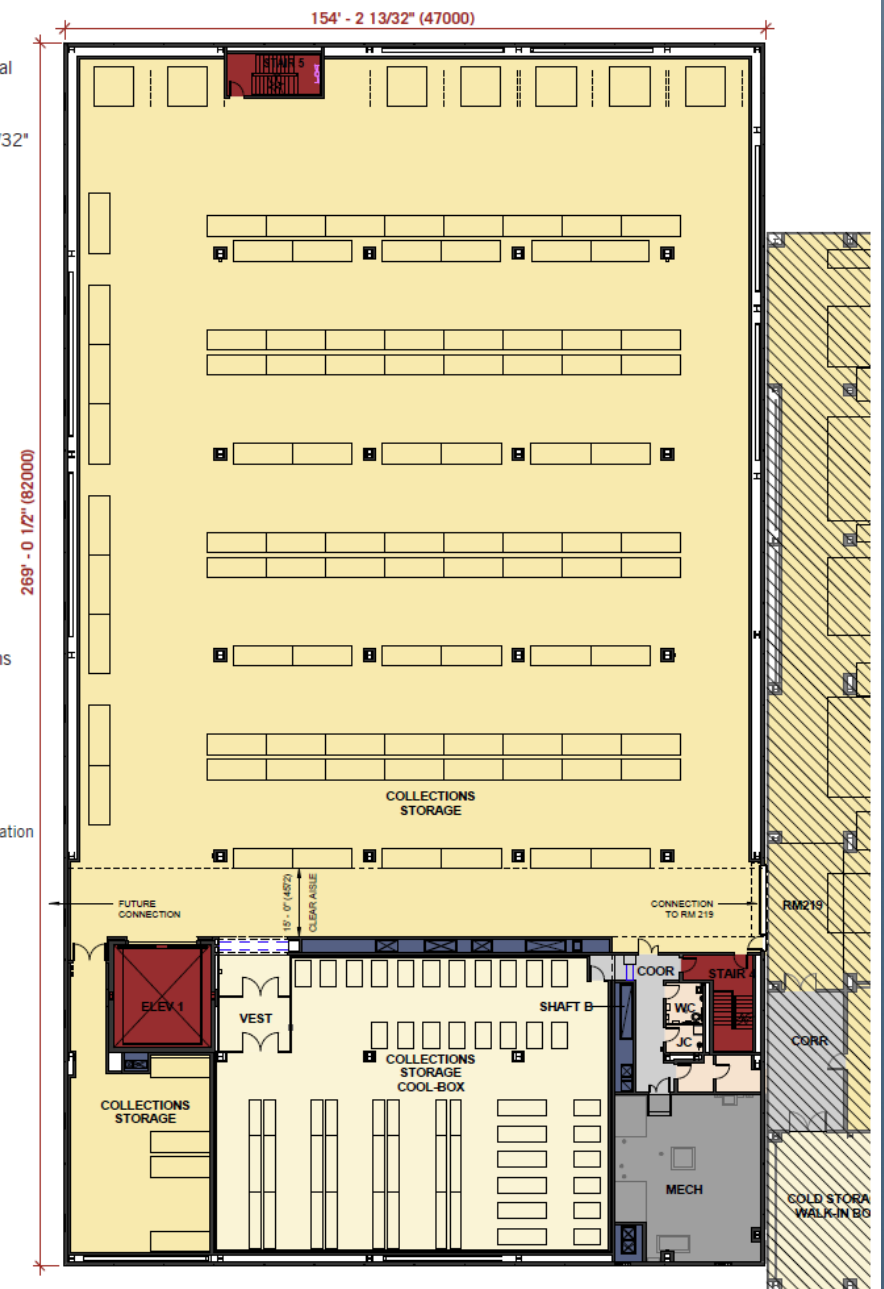
Floor Plans - Module 1

1.15 Level One Plan
Scale 1' = 1/32"



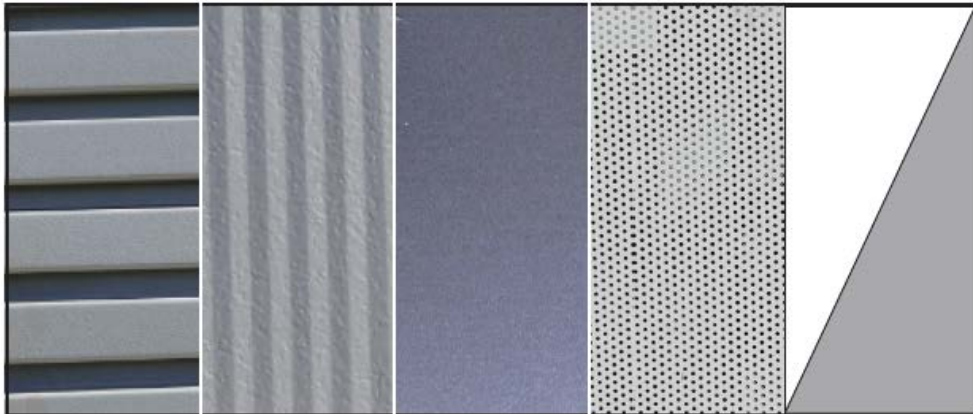
1.16 Level Two
Plan with
Environmental
Chamber
(Cool Box)
Scale 1' = 1/32"

- Room Classifications
- Collection
 - Non Storage
 - Storage - Refrigerated
 - Mechanical
 - Horizontal Circulation
 - Vertical Circulation
 - Shaft





1.26 Module 1
Rendering

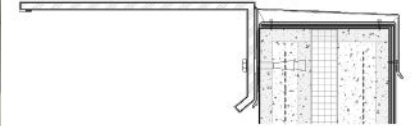


1.27 Gray formed
metal panel; gray
metal (louvers);
metallic gray
metal; perforated
metal; interior
pallet (left to
right)

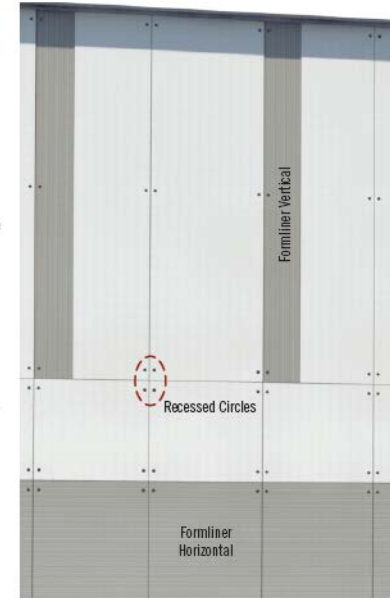
1.28 Coping at
building corner
perspective (left)



1.29 Coping Detail at
parapet (right)

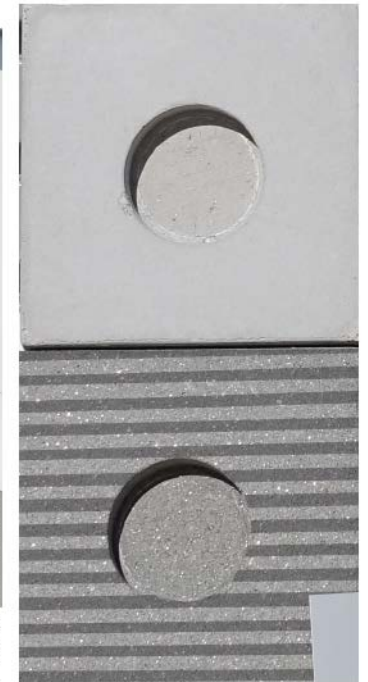
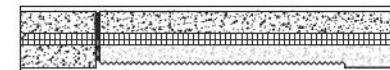


1.30 Typical precast
architectural
concrete (PAC)
panels with circle
recess (right)



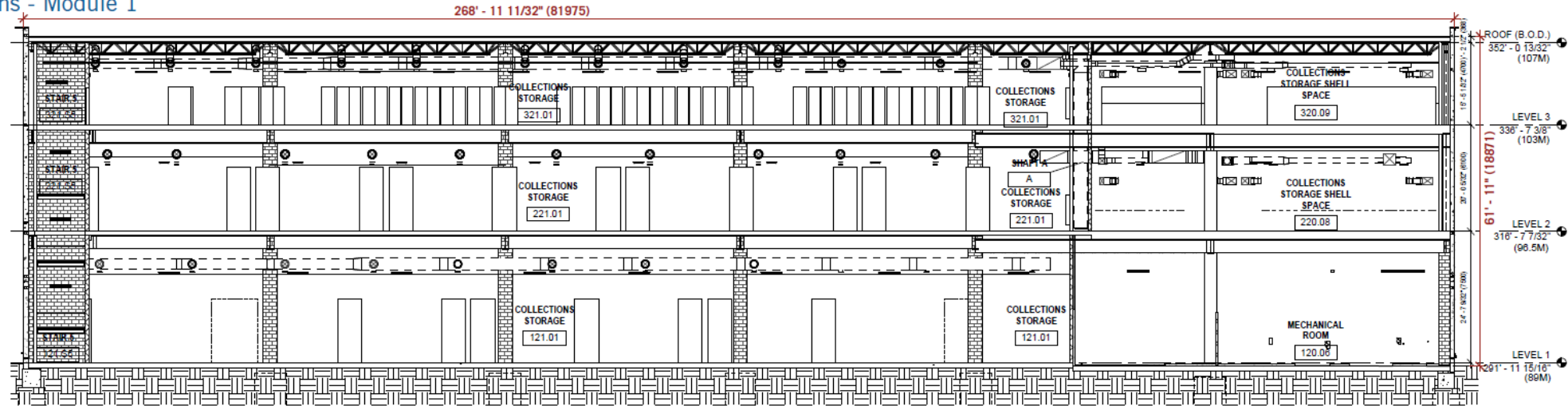
1.31 Light Gray
concrete w/ As-
Cast finish (top)

Dark Gray
concrete w/ acid-
washed finish &
formliner with
circle recess
(bottom)

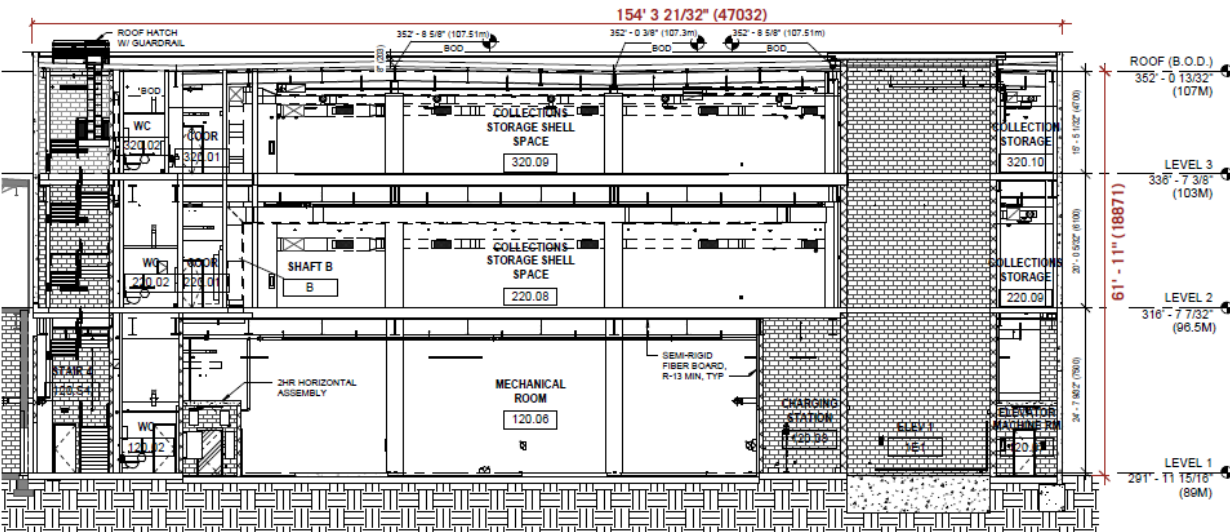


Building Sections - Module 1

1.19 A-301SC
East/West
Section
Scale 1' = 3/64"



1.20 A-301SC
North/South
Section
Scale 1' = 3/64"



1.21 UHC Rm. 219
(Facing Page)
Level 3 Collections
will be similar to
UHC Rm. 219
without the ceiling









