

# DISCOVERY MUSEUM 524 EAST MAIN STREET CHARLOTTESVILLE, VIRGINIA

ECS PROJECT NO. 46:6713

**FOR** 

CITY OF CHARLOTTESVILLE - FACILITIES DEVELOPMENT

OCTOBER 26, 2021





#### Geotechnical • Construction Materials • Environmental • Facilities

October 26, 2021

Mr. Josh Bontrager City of Charlottesville - Facilities Development 305 4th Street NW Charlottesville, Virginia, 22903

ECS Project No. 46:6713

Reference: Facility Condition Assessment Report for Discovery Museum, 524 East Main Street, Charlottesville, Virginia

Dear Mr. Bontrager:

ECS Mid-Atlantic, LLC is pleased to provide the results of our Facility Condition Assessment (FCA) for the referenced property. The scope of the FCA was performed in general accordance with ASTM and industry guidelines and items contained within the ECS Proposal No. 46:7239-FP, dated June 12, 2020. We understand that our work is being performed under the City of Charlottesville Purchase Order Number 4500313133.

It has been our pleasure to be of service to you on this project. Should you have any questions or comments with regard to the findings and recommendations, please feel free to contact us at your convenience.

Respectfully,

ECS Mid-Atlantic, LLC

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# **Project Summary**

Construction System	Good	Fair	Poor	Action	Immediate	Over Term Years 1-20
3.2.1 Topography	X			None		
3.2.2 Storm Water Drainage	X			None		
3.2.3 Access and Egress		NA		None		
3.2.4 Flatwork	Х			None		
3.2.5 Landscaping and Appurtenances		NA		None		
3.2.6 Recreational Facilities		NA		None		
3.2.7 Special Utility Systems		NA		None		
3.3.1 Foundation	Х			None		
3.3.2 Building Frame	Х			None		
3.3.3 Building Exteriors		Х		Replace		\$45,000
3.3.4 Exterior Doors		Х		Replace	\$2,400	
3.3.5 Exterior Windows	Х	Х		Repair		\$10,000
3.3.6 Roofing Systems		Х		Replace		\$91,000
3.4.1.1 Supply and Waste Piping	Х			None		
3.4.1.2 Domestic Hot Water Production		X		Replace		\$2,000
3.4.2.1 Equipment		Х		Replace		\$47,500
3.4.2.2 Distribution System	Х			None		
3.4.2.3 Control Systems	Х			None		
3.4.3.1 Service and Metering	Х			None		
3.4.3.2 Distribution	Х			None		
3.5 VERTICAL TRANSPORTATION SYSTEMS		NA		None		
3.6.1 Sprinklers and Suppression Systems	Х			None		
3.6.2 Alarm Systems	Х			None		
3.6.3 Security and Other Systems	Х			None		
3.7.1 Tenant Spaces		NA		None		
3.8 Accessibility (ADA) Compliance	Х			None		
5.1 MOISTURE AND MOLD	Х			None		
Totals					\$2,400	\$195,500

Summary	Today's Dollars	\$/Square Feet
Immediate Repairs	\$2,400	\$0.37

	Today's Dollars	\$/Square Feet	\$/Square Feet/Year
Replacement Reserves, today's dollars	\$195,500.00	\$29.85	\$1.49
Replacement Reserves, w/20, 2.5% escalation	\$207,441.00	\$31.68	\$1.58

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#### **1.0 EXECUTIVE SUMMARY**

#### 1.1 BACKGROUND

ECS Mid-Atlantic, LLC (ECS) performed a Facility Condition Assessment (FCA) in general conformance with ASTM guidelines and general scope items contained within the ECS Proposal 46:7239-FP dated June 12, 2020 for the Discovery Museum property in Charlottesville, Virginia - hereinafter known as the Property.

The FCA was conducted by ECS in response to the authorization of our Proposal by Ms. Susan Dyer on November 23, 2020. The report was completed and reviewed by the following team members:

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## Reliance

This report is provided for the exclusive use of City of Charlottesville - Facilities Development. This report is not intended to be used or relied upon in connection with other projects or by other unidentified third parties. The use of this report by any undesignated third party or parties will be at such party's sole risk and ECS disclaims liability for any such third party use or reliance.

#### **1.2 METHODOLOGY**

ECS observations and historical property data provided by the owner were utilized to determine the effective age of the property components. Various factors including exposure to weather elements, system manufacturer quality, level of maintenance, and usage determine the effective age of property components. Depending on the impact of these various factors, the effective age of property components can reduce the Remaining Useful Life (RUL) of a property component. The general requirements of the owner to address facility needs were requested to be prioritized based on the RUL and type of property component. The following Priorities were established by the Owner as follows:

**Priority 1: Immediately Critical Items (Year 0)** 



Items in this Priority category include physical deficiencies that require immediate action as a result of (i) existing or potentially unsafe conditions, (ii) significant negative conditions impacting tenancy, (iii) material building code violations or Title II American with Disabilities Act (ADA) items.

## **Priority 2: Critical Items (Year 0-1)**

Items in this Priority category include physical deficiencies that require immediate action as a result of (i) poor or deteriorated condition of critical element or system, or (ii) a condition that is left "as is," with an extensive delay in addressing same, would result in or contribute to critical element or system failure within one year.

# **Priority 3: Near Term Items (Years 2-5)**

Items in this category include physical deficiencies that require near term action as a result of (i) poor or deteriorated condition of critical element or system, or (ii) a condition that is left "as is," with an extensive delay in addressing same, would result in or contribute to critical element or system failure within two to five years.

#### **Priority 4: Reserve Items (Years 5-20)**

Items in this Priority category include Capital Reserves for recurring probable expenditures, which are not classified as operational or maintenance expenses, which should be annually budgeted for in advance. Capital reserves are reasonably predictable both in terms of frequency and cost. However, they may also include components or systems that have an indeterminable life but nonetheless have a potential liability for failure within an estimated time period. A component method has also been included within this report as well.

Reserve items excludes systems or components that are estimated to expire after the reserve term and that are not considered material to the structural and mechanical integrity of the subject property. Furthermore, systems and components that were not deemed to have a material affect on the use were also excluded. Costs that are caused by acts of God, accidents or other occurrences that are typically covered by insurance, rather than reserved funds, are also excluded.

Replacement costs were solicited from ownership/property management, ECS' discussions with service companies, manufacturers' representatives, and previous experience in preparing such schedules for other similar facilities. Costs for work performed by ownership's or property management's maintenance staff were also considered.

ECS's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the evaluation period. Additional information concerning systems or components respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule could be prepared. The Capital Reserve Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined in the Immediate Needs Cost Estimates.



## **1.3 PROPERTY DESCRIPTION**

The Discovery Museum property, located at 524 East Main Street, in Charlottesville, Virginia, consists of a Two-story building. The building totals approximately 6,549 square feet. Parking is provided with Street parking. The Government Building building was reportedly constructed in 1928 and was recently renovated in 2016.

SURVEY INFORMATION		
Date of Assessment	June 8, 2021	
Assessor	William R. Pratt, P.E.	
Weather Conditions	Sunny   88	
Property Contact	Josh Bontrager, Project Manager for City of Charlottesville - Facilities Development	

SITE INFORMATION		
Land Area	0.15 acres	
Major Cross Streets	5th Street	
Pavement - Parking	Street parking	
Number of Parking Spaces	Street parking	
Number of Accessible Spaces	Street parking	
Number of Van Accessible Spaces	Street parking	
Pedestrian Sidewalks	Brick paver sidewalks	

BUILDING INFORMATION		
Building Type	Government Building	
Number of Buildings	One	
Building Height	Two-story	
Square Footage	6,549	
Year Constructed	1928	
Year Remodeled	2016	



BUILDING CONSTRUCTION		
Foundation	Assumed shallow spread footings	
Structural System	Brick masonry bearing walls with steel framing and concrete topped metal decks	
Roof	Single-ply membrane	
Exterior Finishes	Brick and painted stucco	
Windows	Wood-frame double-pane and metal frame single pane - operable	
Entrance	Wood doors with glass	

BUILDING SYSTEMS		
HVAC System	Split systems	
Domestic Hot Water	Electric domestic water heater	
Water Distribution	Copper	
Sanitary Waste Line	Cast iron/PVC	
Electrical Service	Single-phase 3-wire 200 amps	
Branch Wiring	Copper	
Elevators	None	
Fire Suppression System	Fire extinguishers with smoke alarms	

UTILITY SERVICE PROVIDERS		
Water	Charlottesville Water	
Sewer	Charlottesville Public Utilities - Wastewater	
Electric	Dominion Virginia Power	
Natural Gas	City of Charlottesville	

## **1.4 OPINIONS OF COST**

The opinions of cost are provided in the attached reserve replacement table and a summary of immediate repairs included in this report. The reserve replacement table covers capital expenditure items only. Items less than \$1,000 in cost have been excluded, except for immediate repairs, ADA or safety issues. Please refer to section 6.0 of this report for a detailed explanation on how these costs are derived.



# 1.5 COST TABLES



# **Immediate Repair Cost**

Item	Quantity	Unit	Unit Cost	Replacement Percent	Immediate Total
3.3.4 Exterior Doors					
REPLACE EXTERIOR DOOR AND INFILL	1	EA	\$2,400.00	100%	\$2,400
Total Repair Cost					\$2,400.00

# **Capital Reserve Schedule**

		_											tui itesei															
ltem	EUL	EFF AGE	RUL	Quantity	Unit	Unit Cost	Cycle Replace	Replace Percent	Year 1 2021	Year 2 2022	Year 3 2023	Year 4 2024	Year 5 2025	6	Year 7 2027	8	9	Year 10 2030	Year 11 2031	Year 12 2032	Year 13 2033	Year 14 2034	Year 15 2035	16	Year 17 2037	18		ear 20 040 Total Cost
3.3.3 Building	g Exte	riors																										
REMOVE VEGETATION AND REPOINT BRICKWORK	20	19	1	25,000	LS	\$1.00	\$25,000	100%	\$25,000																			\$25,000
PAINT STUCCO	7	5	2	3	LS	\$5,000.00	\$15,000	100%		\$5,000								\$5,000							\$5,000			\$15,000
REPLACE SEALANTS	12	11	1	1	LS	\$2,500.00	\$2,500	200%	\$2,500											\$2,500								\$5,000
3.3.5 Exterior	Wind	dows																										
REPAIR WINDOWS AS NEEDED	30	25	5	1	LS	\$10,000.00	\$10,000	100%					\$10,000															\$10,000
3.3.6 Roofing	Syste	ems																										
REPLACE SINGLE-PLY ROOFING SYSTEM	20	18	2	6,500	SF	\$14.00	\$91,000	100%		\$91,000																		\$91,000
3.4.1.2 Dome	stic H	lot Wa	ater Pro	oduction																								
REPLACE WATER HEATER	12	10	2	2	EA	\$1,000.00	\$2,000	100%		\$1,000												\$1,000						\$2,000
3.4.2.1 Equip	ment																											
REPLACE HEAT PUMP	15	11	4	1	EA	\$5,500.00	\$5,500	100%				\$5,500																\$5,500
REPLACE CONDENSER UNITS	15	11	4	4	EA	\$5,500.00	\$22,000	100%				\$22,000																\$22,000
REPLACE GAS FURNACE UNITS	15	11	4	4	EA	\$5,000.00	\$20,000	100%				\$20,000																\$20,000
Total (Uninfla	ited)								\$27.500 00	\$97.000.00	\$0.00	\$47.500.00	\$10,000 00	\$0.00	\$0.00	\$0.00	\$0.00	\$5.000.00	\$0.00	\$2.500.00	\$0.00	\$1,000,00	\$0.00	\$0.00	\$5,000,00	\$0.00	\$0.00 \$0	.00 \$195,500.00
Inflation Fact	-	50%)							1.0	1.025	1.051		1.104				1.218		1.28			1.379	1.413				1.56 1.5	
	JI (Z.	J 10)							1.0	1.023	1.051	1.077	1.104	1.151	1.10	1.109	1.210	1.279	1.20	1.512	1.545	1.575	1+13	10	1.705	1.522	1.50	

Item	EUL	EFF AGE	RUL	Quantity	Unit	Unit Cost	Cycle Replace	Replace Percent		Year 2 2022	Year 3 2023	Year 4 2024	Year 5 2025	6	Year 7 2027	8	9	Year 10 2030	Year 11 2031	Year 12 2032	Year 13 2033	Year 14 2034	Year 15 2035	Year 16 2036	Year 17 2037	18	19	20	Total Cost
Total (inflated	d)								\$27,500.00	\$99,425.00	\$0.00	\$51,152.30	\$11,038.13	\$0.00	\$0.00	\$0.00	\$0.00	\$6,244.31	\$0.00	\$3,280.22	\$0.00	\$1,378.51	\$0.00	\$0.00	\$7,422.53	\$0.00	\$0.00	\$0.00	\$207,441.00
Evaluation Pe	eriod:								20																				
# of Square F	Feet:								6,549																				
Reserve per S	Square	e Feet	per ye	ear (Uninflat	ted)				\$1.49																				
Reserve per S	Square	e Feet	per ye	ar (Inflated	)				\$1.58																				

#### 2.0 PURPOSE AND SCOPE

#### 2.1 SCOPE OF SERVICES

This Facility Condition Assessment (FCA) was conducted in general accordance with items and terminology requested by the Owner herein and ASTM E 2018-15, "Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process".

The primary purpose of a FCA is to note construction deficiencies and to identify components which appear to exhibit less than expected service life or which have been poorly maintained. The assessment is not intended to develop detailed remedial plans for identified problems. The services are qualitative in nature and do not include engineering calculations or design. Photographic documentation of our observations is attached.

The following building systems were observed in accordance with ASTM E 2018-15:

- Site Conditions
- Structural Frame and Building Envelope
- Plumbing, Mechanical and Electrical Systems
- Vertical Transportation Systems
- Life Safety and Fire Protection
- Interior Elements
- ADA Considerations
- · Building Code Violations

## **Out of Scope Items**

Environmental issues and concerns are considered to be outside of the ASTM scope of services for a Facility Condition Assessment. Although properties may have possible environmental contamination, including, but not limited to radon, mold, lead based paint, asbestos, lead piping, PCB's or volatile chemicals, these issues and concerns should be addressed by an Environmental Assessment, as defined by ASTM Guidelines. ECS recommends that properties be studied by a qualified environmental assessor who can appropriately access, identify, and quantify issues related to environmental safety concerns.

ECS is providing a Facility Condition Assessment consistent with commercial and customary practices and the ASTM E-2018, current at the time the services are provided. The parties expressly acknowledge and agree that ECS is not providing a Reserve Study, which is subject to the National Reserve Study Standards and requires much more detail than a typical Facility Condition Assessment.

#### 2.2 Deviations from Guide (ASTM E2018-15)

ASTM E2018-15 requires that any deviations from the Guide be noted within the report. ECS reduced the cost threshold from \$3,000 to \$1,000 to allow for smaller items needing repair, replacement or refurbishment. Therefore items with costs less than \$1,000 are typically not included in this report unless related to life, safety or accessibility items.



ECS interviewed personnel associated with the Discovery Museum facility and other government agencies based upon availability. These individuals are identified in Section 4.2. Information obtained from the interviews are included in the applicable sections of this report.

#### 2.3 ASSESSMENT PROCEDURES

The FCA included site reconnaissance, limited interviews with property management, and inquiries or attempted inquiries with the local building and fire departments. Operational testing of building systems or components was not conducted. During the FCA, ECS conducted observations of the following facility features: site development systems; building structure systems; building exterior systems; building interior systems; roof systems; mechanical systems; electrical systems; plumbing systems; and life and fire safety systems.

This report is intended for review as a complete document. Therefore, interpretations and conclusions drawn from the review of any individual section are the sole responsibility of the User.

#### 2.4 DEFINITIONS

**Fair**, adj - the property or component is functional but will likely require immediate maintenance or repairs during the duration of the term.

**Good**, adj - the property or component is functional and should continue to provide its intended service with continued routine maintenance through the duration of the term.

**Poor**, adj - the property or component is not functional. Immediate or near term repairs are required to bring the component back into service or replacement is expected during the duration of the term.

#### 2.4.1 Partial List of ASTM Definitions

**de minimis condition** - a physical deficiency that is not material to the conclusions of the report.

**deferred maintenance**, n - physical deficiencies that could have been remedied with routine maintenance, normal operating maintenance, etc., excluding de minimis conditions that generally do not present a material physical deficiency to the subject property.

**easily visible**, adj - describes items, components, and systems that are conspicuous, patent, and which may be observed visually during the walk-though survey without: intrusion, relocation or removal of materials, exploratory probing, use of special protective clothing, or use of any equipment (hand tools, meters of any kind, telescope instruments, stools, ladders, lighting devices, etc.).

**effective age**, n - the estimated age of a building component that considers actual age as affected by maintenance history, location, weather conditions, and other factors. Effective age may be more or less than actual age.

**expected useful life (EUL)**, n - the average amount of time in years that an item, component or system is estimated to function without material repair when installed new and assuming routine maintenance is practiced.



**immediate cost**, n - opinions of costs that require immediate action as a result of any of the following: (1) material existing or potentially unsafe conditions, (2) material building or fire code violations, (3) physical deficiencies that if left uncorrected would be expected to result in or contribute to critical element or system failure within on year or will result most probably in significant escalation of its remedial cost.

**observation**, n - the visual survey of items, systems, conditions, or components that are readily accessible and easily visible during a walk-through survey of the subject property.

**observe**, v - to conduct an observation pursuant to this guide within the context of easily visible and readily accessible.

**obvious**, adj - plain, evident, and readily accessible; a condition easily visible or fact not likely to be ignored or overlooked by a field observer when conducting a walk-through survey or that which is practically reviewable and would be understood easily by a person conducting the FCA.

**opinions of costs**, n - opinion of costs that may be encountered in correction of physical deficiencies.

**physical deficiency**, n - a conspicuous defect or deferred maintenance of a subject property's material systems, components, or equipment as observed during the completion of the FCA. - This definition specifically excludes deficiencies that may be remedied with routine maintenance, miscellaneous minor repairs, normal operating maintenance, etc., and excludes de minimis conditions that generally do not present material physical deficiencies of the subject property.

**Point of Contact (POC)**, n - owner, owner's agent, or user-identified person or persons knowledgeable about the physical characteristics, maintenance, and repair of the subject property.

**practically reviewable**, adj - describes information that is provided by the source in a manner and form that, upon review, yields information relevant to the subject property without the need for significant analysis, measurements, or calculations. Records or information that feasibly cannot be retrieved by reference to the location of the subject property are not generally considered practically reviewable.

**primary commercial real estate improvements**, n - the site and building improvements that are of fundamental importance with respect to the commercial real estate. This definition specifically excludes ancillary structures, that may have been constructed to provide support uses such as maintenance sheds, security booths, utility garages, pool filter and equipment buildings, etc.

**property**, n - the site improvements, which are inclusive of both site work and buildings.

**readily accessible**, adj - describes areas of the subject property that are promptly made available for observation by the field observer at the time of the walk-through survey and do not require the removal or relocation of materials or personal property, such as furniture, floor, wall, or ceiling coverings; and that are safely accessible in the opinion of the field observer.

**readily available**, adj - describes information or records that are easily and promptly provided to the consultant upon making a request in compliance with an appropriate inquiry and without the need for the consultant to research archive files.



**reasonably ascertainable**, adj - describes information that is publicly available, as well as readily available, provided to the consultant's offices from either its source or an information research/retrieval service within reasonable time, practically reviewable, and available at a nominal cost for either retrieval, reproduction or forwarding.

**remaining useful life (RUL)**, n - a subjective estimate based upon observations, or average estimates of similar items, components, or systems, or a combination thereof, of the number of remaining years that an item, component, or system is estimated to be able to function in accordance with its intended purpose before warranting replacement. Such period of time is affected by the initial quality of an item, component, or system, the quality of the initial installation, the quality and amount of preventive maintenance exercised, climatic conditions, extent of use, etc.

**representative observations**, n - observations of a reasonable number of samples of repetitive systems, components, areas, etc., which are conducted by the field observer during the walk-through survey. The concept of representative observations extends to all conditions, areas, equipment, components, systems, buildings, etc., to the extent that they are similar and representative of one another.

**routine maintenance**, n - a repair that does not require specialized equipment, profession services, or contractors, but rather can be corrected within budget and skill set of typical property maintenance staff.

**short term cost**, n - opinions of costs to remedy physical deficiencies, such as deferred maintenance, that may not warrant immediate attention, but require repairs or replacements that should be undertaken on a priority basis in addition to routine preventive maintenance.

**technically exhaustive**, adj - describes the use of measurements, instruments, testing, calculations, exploratory probing or discovery, or other means to discover, or a combination thereof, or troubleshoot physical deficiencies or develop architectural or engineering findings, conclusions, and recommendations, or combination thereof.



#### **3.0 SYSTEM DESCRIPTION AND OBSERVATIONS**

#### 3.1 PROPERTY DESCRIPTION

The Property contains a Two-story Government Building building.

# 3.1.1 Property Location

The Property is located at 524 East Main Street in Charlottesville, Virginia.

	Surrounding Properties									
North	East Main Street									
East	Commercial properties									
South	Commercial properties									
West	Commercial properties									

A Site Location Map and Aerial View are included in Appendix I.

## 3.1.2 Construction History

We understand that the building was constructed approximately 93 years ago in 1928 and renovated in 2016.

#### **3.1.3 Current Property Improvements**

The Government Building building, located at 524 East Main Street, in Charlottesville, Virginia, consists of a Two-story building. The building totals approximately 6,549 square feet. Parking is provided with Street parking.

#### 3.2 SITE CONDITIONS

#### 3.2.1 Topography

TOPOGRAPHY										
ltem	Description	Condition								
Slope of the property	The property generally slopes away from the building	Good								
Adjoining Properties	Down gradient	Good								

#### **Comments**

The property is generally level and slopes to the east. The adjoining properties are located down gradient from the property.



# 3.2.2 Storm Water Drainage

	STORM WATER DRAINAGE	
ltem	Description	Condition
Storm Water Collection System	Municipal system	Good
Storm Water (Retention) Pond		N/A
Storm Water Filtration Structure		N/A
Pavement Drainage		N/A
Landscape Drainage		N/A
Sump Pumps		N/A

## **Comments**

The storm water collection system includes a municipal system.

# 3.2.3 Access and Egress

SITE ACCESS AND EGRESS										
ltem	Description	Condition								
Entrance Aprons		N/A								
Fire Truck Access	North side of the building	Good								
Easements		N/A								

#### **Comments**

Vehicular access to the site is located on the adjacent streets to the building. Fire truck access is available on the north side of the building.

#### 3.2.4 Flatwork

SIDEWALKS									
Item	Description	Condition							
Walkways	Brick paver sidewalks at the north side of the building	Good							



## Comments

There are brick paver sidewalks at the north side of the building. The brick paver sidewalks were generally in good condition.

# 3.2.5 Landscaping and Appurtenances

#### **Comments**

The Property does not contain landscaping items.

# **Photographs**



Trash container pad

#### 3.2.6 Recreational Facilities

#### **Comments**

The Property does not contain recreational facilities.

# 3.2.7 Special Utility Systems

# **Comments**

The Property does not contain special utility systems.



## 3.3 STRUCTURAL FRAME AND BUILDING EXTERIOR

#### 3.3.1 Foundation

FOUNDATION										
ltem	Description	Condition								
Load Bearing Support	Assumed shallow spread footings	Good								
Basement	Brick masonry walls	Good								

#### **Comments**

The foundation of the building includes Assumed shallow spread footings. Large cracks were not observed in the exterior walls. The foundation system appeared to provide adequate structural support to the building. The foundation was generally in good condition.

## 3.3.2 Building Frame

BUILDING FRAME										
Item	Description	Condition								
Floor Framing	Steel frame with concrete topped metal deck	Good								
Roof Framing	Metal diaphram	Good								
Columns	Concrete columns in basement	Good								
Load Bearing Walls	Brick masonry	Good								

#### **Comments**

The structure of the building consists of Brick masonry bearing walls with steel framing and concrete topped metal decks for upper levels with concrete columns in the basement and wood framing at the ground level. The structural frame of the building was generally in good condition.



# **Photographs**



Structural framing at first level

## 3.3.3 Building Exteriors

EXTERIOR FINISHES									
ltem	Description	Condition							
Brick	Some deterioration observed	Fair							
Painted Stucco	Some deterioration observed	Good/Fair							
Sealants	Various	Fair							

#### **Comments**

The primary exterior of the building consists of brick at the south, east, and west walls and painted stucco located at the north wall. The building exteriors were generally in good to fair condition. The expected useful life of mortared joints is approximately 20 years before re-pointing is required. Deterioration of mortar joints was observed and vegetation was observed growing on the southeast façade of the building. We recommend removing the vegetation growth and re-pointing of the deteriorated mortar joints.

The stucco at the north side is painted. The paint was in good to fair condition. Painting of exterior components is typically recommended every 5 to 7 years. We recommend the stucco be painted during the report period.

Exterior sealants are located around the window and door frames, horizontal joints, and vertical joints in the brick. The expected useful life of exterior sealants is approximately 10 to 12 years before replacement is needed. The exterior sealants were generally in fair condition. We recommend that the exterior sealants be replaced.



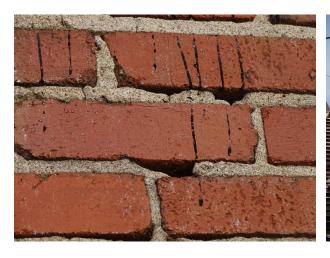
# **Photographs**



Brick exterior at west side of the building - note deterioration above window



Brick exterior at west side of the building - note deterioration above window



Brick exterior at west side of the building - note deterioration above window



Typical exterior wall







Typical exterior wall

Typical exterior wall - note deterioration







Exterior stucco wall - note deterioration

## **Recommendations**

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REMOVE VEGETATION AND REPOINT BRICKWORK	20	19	1	1	\$25,000
PAINT STUCCO	7	5	2	2 10 17	\$5,000 \$5,000 \$5,000
REPLACE SEALANTS	12	11	1	1 12	\$2,500 \$2,500



Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
Total					\$45,000

#### 3.3.4 Exterior Doors

DOORS						
Item	Description	Condition				
Main Entrance Doors	Wood doors with glass at north side of the building	Good				
Personnel Doors	Located at southeast side of the building	Poor				
Door Hardware	Operable	Good				

#### **Comments**

The main entrance includes Wood doors with glass. The main entrance doors were generally in good condition. Exterior doors typically have an expected useful life of 20 to 30 years.

A steel personnel door is located at the south end, east side of the building. The personnel door was generally in poor condition with noticeable deterioration of the door slab and surrounding wood elements. A piece of plywood covers a former transom over the door and was also deteriorated. We recommend re-pointing the brick opening, replacing the wood infill, replacing the door and frame, and replacing or infilling the transom.

## **Photographs**



Main entrance door and window on north side of building



Rear entrance







Rear door sealant condition

Rear door jamb condition

# Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE EXTERIOR DOOR AND INFILL	20	20	0	Immediate	\$2,400
Total					\$2,400

# 3.3.5 Exterior Windows

WINDOWS					
ltem	Description	Condition			
Window Frame	Metal framed on second level and wood framed at ground level	Good/Fair			
Glass Pane	Double and single pane	Good/Fair			
Operation	Operable on second level	Good/Fair			
Exterior Header	Varies with condition	Good/Fair			
Exterior Sill	Varies with condition	Good/Fair			
Gaskets or Glazing	Varies	Good/Fair			



## **Comments**

The window system for the building primarily consists of Wood-frame double-pane window units at the ground level with metal frame single pane - operable window units located on the second level. The windows can be considered historical in nature. Based on the historical requirements, we recommend repair and/or replacement of the window units as needed.

## **Photographs**



Typical exterior window on north side of the building



Typical exterior window on north side of the building



Typical exterior window on north side of the building



#### Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPAIR WINDOWS AS NEEDED	30	25	5	5	\$10,000
Total					\$10,000

## 3.3.6 Roofing Systems

ROOFING					
ltem	Description	Condition			
Single-Ply Sheet Membrane	Observations of blistering	Fair			
Parapet Walls	Single-ply membrane	Fair			
Cap Flashing/Coping	Metal	Fair			
Insulation	Rigid	Fair			
Substrate/Deck	Steel	Fair			
Slope/Pitch	Observations of previous ponding observed	Fair			
Drainage	Internal drains	Fair			
Plumbing Vents	Clamped flashing	Fair			
Exhaust Vents	Counter flashed	Fair			
Equipment Curbs	Counter flashed	Fair			
Skylights	Various	Fair			

## **Comments**

The main roofing system consists of a Single-ply membrane roofing system over the building. Access was provided to the roof through a small second story office window that may not be an egress size. The roofing system was reportedly installed in 2003. Blistering of the roofing system was observed in areas of previous ponding. Based on the age of the roofing system and deterioration observed, we recommend replacement of the roofing system.

Drainage for the roofing system is provided by interior drains. The drainage was observed to be in generally fair condition with areas of previous ponding observed. The parapet walls consisted of single-ply membrane and were capped with metal coping. The parapet walls were observed to be in generally fair condition. We recommend the parapet wall flashing and capping be replaced with the above noted roofing replacement.



Skylights are located on the roof. The expected useful life of the skylight is approximately 20 years. We recommend that the skylights be replaced during the above noted roofing system replacement.

# **Photographs**

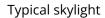




Roofing system looking south

Roofing system parapet walls







Typical skylight







Typical interior drain

Roofing system - note patching

# Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE SINGLE-PLY ROOFING SYSTEM	20	18	2	2	\$91,000
Total					\$91,000

# 3.4 PLUMBING, MECHANICAL, AND ELECTRICAL SYSTEMS

# 3.4.1 Plumbing Systems

# 3.4.1.1 Supply and Waste Piping

PLUMBING - WATER SUPPLY SYSTEM					
ltem	Description	Condition			
Piping Material	Copper	Good			
Pipe Insulation		N/A			
Water Shut-offs	Ball valve	Good			
Water Flow and Pressure		Good			

PLUMBING - WASTE SUPPLY SYSTEM						
Item	Description	Condition				
Piping Material	Cast iron/PVC	Good				



PLUMBING - WASTE SUPPLY SYSTEM					
Item	Description	Condition			
Vertical Vent Stacks	Cast iron/PVC	Good			
Clean-outs	Cast iron/PVC	Good			

#### **Comments**

#### **Water Lines**

The main water supply lines inside the building are Copper. The expected useful life of Copper piping is approximately 40 years. The water supply pipes were generally in good condition.

#### **Waste Lines**

The waste lines in the building are Cast iron/PVC. The expected useful life of Cast iron/PVC waste line is approximately 50 years. The waste lines were generally in good condition.

#### 3.4.1.2 Domestic Hot Water Production

HOT WATER PRODUCTION						
ltem	Description	Condition				
Heating Equipment	Electric domestic water heater	Fair				
Water Storage		Fair				

#### **Comments**

Domestic hot water to the building is provided by Electric domestic water heater located in the basement. The Electric domestic water heater were manufactured by A.O. Smith Water Products Company in 2011. The expected useful life of a Electric domestic water heater is approximately 12 to 15 years. We recommend replacing the water heater during the report period.

#### Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE WATER HEATER	12	10	2	2 14	\$1,000 \$1,000
Total					\$2,000

#### 3.4.2 HVAC Systems



## 3.4.2.1 Equipment

EQUIPMENT			
ltem	Description	Condition	
Air Handlers	Located in first floor equipment room and second floor ceiling	Fair	
Gas Furnaces	Located in first floor equipment room and basement	Fair	
Condensing Units (split system)	Located on roof	Fair	
Heat Pumps (split system)	Located on roof	Fair	

#### **Comments**

The building is served by Split systems and includes four condensers, a heat pump, four gas furnaces, and associated air handlers.

#### **Heat Pump**

A heat pump is located on the roof at the north side of the building. The heat pump was manufactured by Carrier in 2010. The expected useful life of a condensing unit is 15 years with proper maintenance. The heat pump was observed to be in fair condition. We recommend that the heat pump be replaced.

#### **Condenser Units**

The condenser units are located on the roof near the center of the building. The condensing units were manufactured by Carrier in 2010. The expected useful life of a condensing unit is 15 years with proper maintenance. The condensing units were observed to be in fair condition. We recommend that the condensing units be replaced.

#### Gas furnace-Air Handlers

The air handlers are located in the basement, first floor, and second floor ceiling. The furnace units were manufactured by Carrier in 2010. The expected useful life furnace units is 15 years with proper maintenance. The furnace units were observed to be in good to fair condition. We recommend that the air handlers be replaced during the report period.

It was reported that the HVAC system was leaking and causing damage to the ceiling tiles below. We recommend the leaks are repaired as part of regular system maintenance.



# **Photographs**







Typical gas furnace and air handler units



Typical air handler unit



Typical ceiling - note water leakage





Typical ceiling - note water leakage

## **Recommendations**

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE HEAT PUMP	15	11	4	4	\$5,500
REPLACE CONDENSER UNITS	15	11	4	4	\$22,000
REPLACE GAS FURNACE UNITS	15	11	4	4	\$20,000
Total					\$47,500

# 3.4.2.2 Distribution System

HVAC DISTRIBUTION		
Item Description		Condition
Ducts	Sheet metal	Good
Return Air	Sheet metal	Good

# **Comments**

The distribution system includes ducted supply and return. The ductwork was observed to be in generally good condition.



## 3.4.2.3 Control Systems

HVAC CONTROL SYSTEMS			
ltem	Description	Condition	
Thermostats	Digital	Good	

#### **Comments**

The thermostats are digital. The thermostats were observed to be in generally good condition.

#### 3.4.3 Electrical Systems

#### 3.4.3.1 Service and Metering

SERVICE AND METERING		
ltem	Description	Condition
Service Entrance	West side of the building	Good
Master (House) Meter	In basement	Good

#### **Comments**

Electricity is provided to the building by Dominion Virginia Power through a pole-mounted transformer located outside the building. The main electrical entrance is located on the west side of the building and provides single-phase 3-wire 200 amps service. The switchgear was manufactured by Square D and was generally in good condition. The expected useful life of switchgear is 50 years with proper maintenance.

## 3.4.3.2 Distribution

ELECTRICAL DISTRIBUTION SYSTEM		
Item Description		Condition
Electrical Sub-panels	Square D	Good
Branch Wiring	Copper	Good

#### **Comments**

Power is distributed by copper wire from circuit breaker panels located throughout the building. The circuit breaker panels were manufactured by Square D and observed to be in generally good condition.



#### 3.5 VERTICAL TRANSPORTATION SYSTEMS

#### **Comments**

The building does not contain vertical transportation systems.

#### 3.6 LIFE SAFETY AND FIRE PROTECTION

#### 3.6.1 Sprinklers and Suppression Systems

SPRINKLER AND SUPPRESSION SYSTEMS					
ltem	Description	Condition			
Fire Extinguishers	Throughout building	Good			
Date of Last Inspection (Fire Extinguishers)	June 9, 2021	Good			
Fire Hydrants	On street	Good			

#### **Comments**

The fire suppression system consists of Fire extinguishers. The fire suppression system was observed but not tested.

Fire extinguishers were observed throughout the building. The fire extinguishers were observed to have recent inspection tags issued by Fire Solutions in June 2021. These devices are required to be inspected annually. Replacement of the fire extinguishers is considered routine maintenance.

#### 3.6.2 Alarm Systems

ALARM SYSTEMS					
ltem	Description	Condition			
Alarm Panel	Located in storage room	Good			
Exit Signs	Located throughout building	Good			
Exit Lights	Located throughout building	Good			
Smoke Detectors	Located throughout building	Good			

#### **Comments**

The fire alarm system was observed but not tested. A fire alarm panel is located in the storage room. The fire alarm panel was observed to be in good condition. Emergency exit signs, lighting, and smoke detectors are located throughout the building.



#### 3.6.3 Security and Other Systems

SECURITY AND OTHER SYSTEMS						
Item	Item Description					
Alarm System	Unmonitored	Good				

#### Comments

The building contains an electronic alarm security system with keypad control The security system was generally in good condition.

#### **3.7 INTERIOR BUILDING COMPONENTS**

#### 3.7.1 Tenant Spaces

OFFICES					
ltem	Description	Condition			
Floor Finishes	Carpet	Good			
Wall Finishes	Painted gypsum board	Good			
Ceiling Finishes	Suspended acoustical tile	Good			
Lighting	Fluorescent fixtures	Good			
Doors	Wood	Good			
Door Hardware	Operable	Good			

RESTROOMS						
ltem	Item Description					
Floor Finishes	Ceramic tile	Good				
Wall Finishes	Painted gypsum board and ceramic tile	Good				
Ceiling Finishes	Suspended acoustical tile	Good				
Fixtures	Toilets, urinal, countertop lavatories	Good				
Accessories	Partitions, mirrors, grab bars, soap dispensers, hand dryers	Good				
Ventilation	Exhaust fans	Good				
Lighting	fluorescent fixtures	Good				
Doors		N/A				
Door Hardware		N/A				



KITCHEN/KITCHENETTES						
ltem	Description	Condition				
Floor Finishes	Vinyl tile					
Wall Finishes	Painted gypsum board					
Ceiling Finishes	Suspended acoustical tile					
Counters	Laminate					
Sink	Stainless					
Cabinets	Laminate					
Appliances	Residential					
Stove/Range	Electric					
Exhaust Vent/Hood	Microwave					
Refrigerator	Standard					
Dish Washer	Built-in					
Microwave Oven	OTR					

#### **Comments**

The interior building areas include an entrance area, offices, kitchen, restrooms, and museum exhibit areas. The interior areas were recently renovated with the exception of restrooms and office areas.

The office finishes included carpeted floors, painted gypsum walls, and acoustical tile ceilings. The offices were in good condition.

The kitchen finishes include vinyl flooring, painted gypsum walls, and acoustical tile ceiling. The kitchen was observed to be in good condition.

The restroom finishes include ceramic tile floors, ceramic tile and painted gypsum walls, and acoustical tile ceilings. The restrooms were observed to be in good condition.

The museum exhibit areas were in good condition with various finishes throughout.

#### 3.8 Accessibility (ADA) Compliance

#### **Comments**

Facilities, including site features and buildings, completed and occupied after January 26, 1992 are required to comply fully with the Americans with Disabilities Act (ADA). Facilities constructed after this date must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG). Existing facilities constructed prior to this date are held to the lesser standard of complying with the extent allowed by structural feasibility and the financial resources



available, or a reasonable accommodation must be made. Title III, for the purposes of the ECS scope of work is to address public accommodations. ECS will note work that shall remove architectural barriers in existing facilities, including communication barriers, that are structural in nature, where such

The Discovery Museum property is considered by the City of Charlottesville - Facilities Development to be within "areas of public accommodations" or a "commercial facility" and is therefore is subject to compliance with Title III of the ADA.

The parking area serving the property consists of Street parking.

#### **Photographs**



Typical water fountain

Uniform Abbreviated Screening Checklist for the 2010 Americans with Disabilities Act							
	ltem	Yes/ No	Comments				
A.	History						
1.	Has an ADA Survey been completed for this property?	Yes	EMG Report dated November 3, 2006				
2.	Have any ADA improvements been made to the property since original construction?	Yes	reportedly accessible restroom improvements				
3.	Has building ownership/management reported any ADA complaints or litigation?	No					
В.	Parking						
1.	Does the required number of standard ADA-designated spaces appear to be provided?	N/A	street parking				



Uni	iform Abbreviated Screening Checklist for the	2010 America	ns with Disabilities Act
	ltem	Yes/ No	Comments
2.	Does the required number of van-accessible designated spaces appear to be provided?	N/A	
3.	Are accessible spaces part of the shortest accessible route to an accessible building entrance?	N/A	
4.	Is a sign with the International Symbol of Accessibility at the head of each space?	N/A	
5.	Does each accessible space have an adjacent access aisle?	N/A	
6.	Do parking spaces and access aisles appear to be relatively level and without obstruction?	N/A	
C.	Exterior Accessible Route		
1.	Is an accessible route present from public transportation stops and municipal sidewalks in the property?	Yes	
2.	Are curb cut ramps present at transitions through curbs on an accessible route?	N/A	
3.	Do curb cut ramps appear to have the proper slope for all components?	N/A	
4.	Do ramps on an accessible route appear to have a compliant slope?	N/A	
5.	Do ramps on an accessible route appear to have a compliant length and width?	N/A	
6.	Do ramps on an accessible route appear to have a compliant end and intermediate landings?	N/A	
7.	Do ramps on an accessible route appear to have compliant handrails?	N/A	
D.	Building Entrances		
1.	Do a sufficient number of accessible entrances appear to be provided?	Yes	
2.	If the main entrance is not accessible, is an alternate accessible entrance provided?	N/A	



	ltem	Yes/ No	Comments
	Is signage provided indicating the location of alternate accessible entrances?	N/A	
	Do doors at accessible entrances appear to have compliant clear floor area on each side?	Yes	
	Do doors at accessible entrances appear to have compliant hardware?	Yes	
	Do doors at accessible entrances appear to have complaint opening width?	Yes	
•	Do pairs of accessible entrance doors in series appear to have the minimum clear space between them?	Yes	
	Do thresholds at accessible entrances appear to have compliant height?	Yes	
	Interior Accessible Routes and Amenities		
	Does an accessible route appear to connect with all public areas inside the building?	Yes	
	Do accessible routes appear free of obstructions and/or protruding objects?	Yes	
	Do ramps on accessible routes appear to have compliant slope?	N/A	
	Do ramps on accessible routes appear to have compliant length and width?	N/A	
	Do ramps on accessible routes appear to have compliant end and intermediate landings?	N/A	
	Do ramps on accessible routes appear to have compliant handrails?	N/A	
	Are adjoining public areas and areas of egress identified with accessible signage?	N/A	
	Do public transaction areas have an accessible, lowered counter section?	N/A	
	Do public telephones appear mounted with an accessible height and location?	N/A	



Un	iform Abbreviated Screening Checklist for the	2010 America	ns with Disabilitie
	ltem	Yes/ No	Comments
0.	Are publicly-accessible swimming pools equipped with an entrance lift?	N/A	
F.	Interior Doors		
1.	Do doors at interior accessible routes appear to have compliant clear floor area on each side?	Yes	
2.	Do doors at interior accessible routes appear to have compliant hardware?	N/A	
3.	Do doors at interior accessible routes appear to have compliant opening force?	N/A	
4.	Do doors at interior accessible routes appear to have a compliant clear opening width?	N/A	
3.	Elevators		
1.	Are hallway call buttons configured with the "UP" button above the "DOWN" button?	N/A	
2.	Is accessible floor identification signage present on the hoistway sidewalls?	N/A	
3.	Do the elevators have audible and visual arrival indicators at the entrances?	N/A	
4.	Do the elevator hoistway and car interior appear to have a minimum compliant floor area?	N/A	
5.	Do the elevator car doors have automatic re-opening devices to prevent closure on obstructions?	N/A	
5.	Do elevator car control buttons appear to be mounted at a compliant height?	N/A	
7.	Are tactile and Braille characters mounted to the left of each elevator car control button?	N/A	
3.	Are audible and visual floor position indicators provided in the elevator car?	N/A	
9.	Is the emergency call system at the base of the control panel and not require voice communication?	N/A	



	ltem	Yes/ No	Comments
Н.	Toilet Rooms		
1.	Do publicly-accessible toilet rooms appear to have a minimum compliant floor area?	Yes	
2.	Does the lavatory appear to be mounted at a compliant height and with compliant knee area?	Yes	
3.	Does the lavatory faucet have compliant handles?	Yes	
4.	Is the plumbing piping under lavatories configured to protect against contact?	Yes	
5.	Are grab bars provided at compliant locations around the toilet?	Yes	
6.	Do toilet stall doors appear to provide the minimum compliant clear width?	Yes	
7.	Do toilet stalls appear to provide the minimum compliant clear floor area?	Yes	
8.	Do urinals appear to be mounted at a compliant height and with compliant approach width?	Yes	
9.	Do accessories and mirrors appear to be mounted at a compliant height?	Yes	
l.	Hospitality Guestrooms		
١.	Does property management report the minimum required accessible guestrooms?	N/A	
2.	Does property management report the minimum required accessible guestrooms with roll-in showers?	N/A	



#### **4.0 DOCUMENT REVIEW**

#### **4.1 DOCUMENTATION REVIEW**

ECS requested relevant documentation from Josh Bontrager, to gain insight into the subject property's physical improvements, extent and type of use, and/or assist in identifying material discrepancies between reported information and observed conditions. ECS' review of documents submitted does not include commenting on the accuracy of such documents or their preparation, methodology, or protocol.

ECS was provided access to safety inspection records stored on site.

#### **4.2 INTERVIEW SUMMARY**

ECS was escorted through the property by Josh Bontrager and Chris Woods who provided information about the property.

#### 4.3 BUILDING, LIFE SAFETY, AND ZONING COMPLIANCE

ECS researched FOIA data using online property data and/or contacted the local building code compliance offices for the local jurisdiction. Initial research did not indicate outstanding building, life safety, or zoning violations. Upon receiving information regarding the status of the inquiries submitted, this report can be updated if necessary.



#### **5.0 ADDITIONAL CONSIDERATIONS**

#### **5.1 MOISTURE AND MOLD**

#### **Comments**

If present, evidence of mold and moisture issues are noted in the interior section of the report.



#### **6.0 RECOMMENDATIONS AND OPINIONS OF COST**

The opinion of cost are based upon approximate quantities, costs, and published information, and they include labor, material, design fees, and appropriate overhead, general conditions, and profit. A detailed analysis of quantities for cost estimating purposes is not included. The opinion of cost to repair, replace, or upgrade the improvements are considered typical for the marketplace. No contractors have provided pricing. The actual cost of repairs may vary from our opinions. ECS has not included contingency funds in our opinions. Amounts indicated represent today's dollars. ECS offers the following comments relative to Immediate and Capital Reserves criteria:

#### **Immediate Issues**

Physical deficiencies that require immediate action as a result of (i) existing or potentially unsafe conditions, (ii) significant negative conditions impacting tenancy, (iii) material building code violations, (iv) poor or deteriorated condition of critical element or system, or (v) a condition that is left "as is," with an extensive delay in addressing same, would result in or contribute to critical element or system failure within one year.

ECS has also included physical deficiencies inclusive of deferred maintenance that may not warrant immediate attention, but requiring repairs or replacements that should be undertaken on a priority basis, taking precedence over routine preventative maintenance work within a zero to one year time frame. Included are such physical deficiencies resulting from improper design, faulty installation, and/ or substandard quality of original systems or materials. Components or systems that have realized or exceeded their Expected Useful Life (EUL) that may require replacement to be implemented within a zero to one year time frame are also included.

#### **Capital Reserves**

Capital Reserves are for recurring probable expenditures, which are not classified as operational or maintenance expenses, which should be annually budgeted for in advance. Capital reserves are reasonably predictable both in terms of frequency and cost. However, they may also include components or systems that have an indeterminable life but nonetheless have a potential liability for failure within an estimated time period. A component method has also been included within this report as well.

Capital Reserves excludes systems or components that are estimated to expire after the reserve term and that are not considered material to the structural and mechanical integrity of the subject property. Furthermore, systems and components that were not deemed to have a material affect on the use were also excluded. Costs that are caused by acts of God, accidents or other occurrences that are typically covered by insurance, rather than reserved funds, are also excluded.

Replacement costs were solicited from ownership/property management, ECS' discussions with service companies, manufacturers' representatives, and previous experience in preparing such schedules for other similar facilities. Costs for work performed by ownership's or property management's maintenance staff were also considered.



ECS's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the evaluation period. Additional information concerning systems or components respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule could be prepared. The Capital Reserve Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined in the Immediate Needs Cost Estimates.



#### 7.0 FACILITY CONDITION INDEX (FCI)

In accordance with our proposal add alternate, ECS determined the Facility Condition Index (FCI) value for the Discovery Museum building. ECS determined the FCI value in accordance with industry standards and methodology sponsored by The National Association of College and University Business Officers (NACUBO). The FCI calculation methodology consists of dividing the total cost of Maintenance, Repair, and Replacement Deficiencies of the Facility by the Current Replacement Value of the Facility. FCI values and condition of the buildings based on the industry accepted interpretation of FCI values with ratings: good (under 0.05), fair (0.05 to 0.10), and poor (over 0.10).

Based on our Facility Condition Assessment, the total repair and replacement costs for the Discovery Museum building is \$195,500. The replacement construction cost value obtained from the RS MEANS square foot estimator application is \$1,563,674. Please see attached documentation from RS MEANS program output as an appendix to the report. The calculated FCI value is determined to be 0.13. In accordance with the industry standards and methodology sponsored by The National Association of College and University Business Officers (NACUBO), the condition of Discovery Museum is rated as poor.

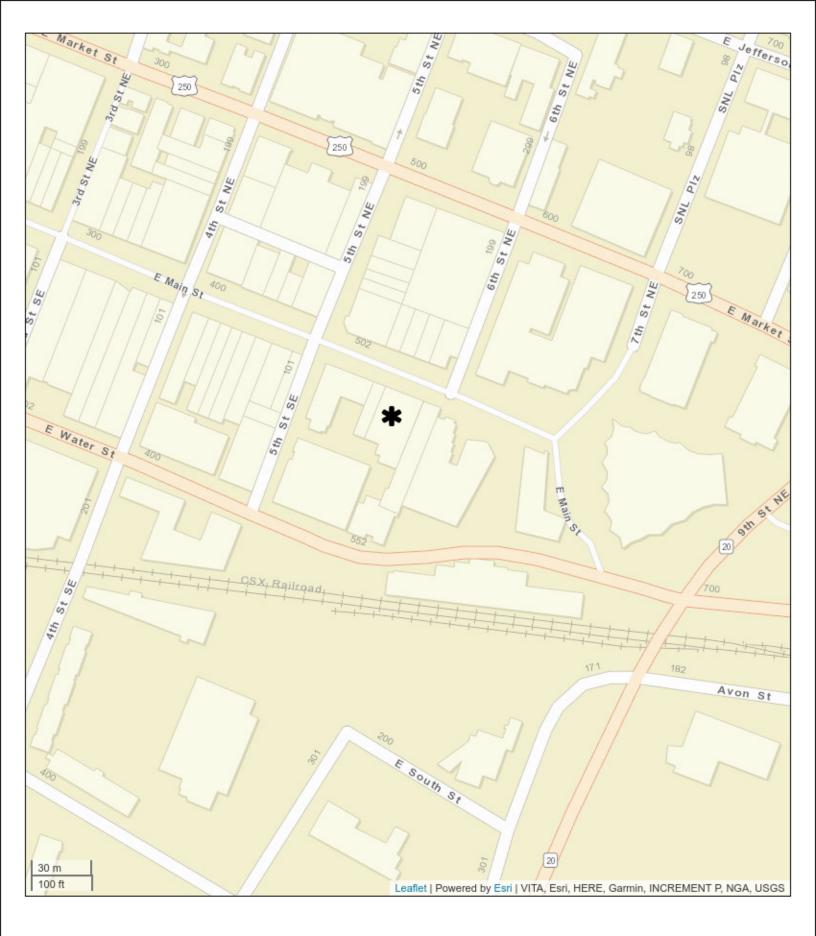


# Appendix I: SITE MAP AND AERIAL PHOTOGRAPH













# Appendix II: FIRE EXTINGUISHER INSPECTION

# Inspection Certificate

For

# City of Charlottesville - Virginia Discovery Museu 524 East Main Street Charlottesville, VA 22903

This Inspection was performed in accordance with applicable Standards. The subsequent pages of this report provide performance measurements, listed ranges of acceptable results, and complete documentation of the inspection. Whenever discrepancies exist between acceptable performance standards and actual test results, notes and/or recommended solutions have been proposed or provided for immediate review and approval.

Company: Fire Solutions

Contact: Tommy VO
Title: Technician

Inspection Date Jun 9, 2021

> Building: City of Charlottesville - Virginia Discovery Museu Contact: Jason Davis Title: Maintenance Tech

## **Executive Summary**

Generated by: BuildingReports.com

**Building Information** 

Building: City of Charlottesville - Virginia Discovery Contact: Jason Davis

Museu

Address: 524 East Main Street Phone: 434-964-6771

Address: Fax: City/State/Zip: Charlottesville, VA 22903 Mobile:

Country: United States of America Email: davisja@charlottesville.org

Inspection Performed By

Company: Fire SolutionsInspector: Tommy VOAddress: 205 Haley RoadPhone: 804-385-3301

Address: Fax:

City/State/Zip: Ashland, Virginia 23005 Mobile: 804-385-3301

Country: United States Email: tommyv@firesolutionsinc.com

**Inspection Summary** 

J									
Category:	Cotogory	Total Items		Serviced		Passed		Failed/Other	
	Qty	%	Qty	%	Qty	%	Qty	%	
	Fire	6	100.00%	6	100.00%	6	100.00%	0	0%
ſ	Totals	6	100%	6	100.00%	6	100.00%	0	0%

#### Verification



Company: Fire Solutions Building: City of Charlottesville - Virginia

Discovery Museu

Inspector: Tommy VO Contact: Jason Davis

#### Fire Solutions Certifications

Certification Type	Number
WBENC Certified	2005121836

## Inspection & Testing

Generated by: BuildingReports.com

#### Building: City of Charlottesville - Virginia Discovery Museu

The Inspection & Testing section lists all of the items inspected in your building. Items are grouped by Passed or Failed /Other. Items are listed by Category. Each item includes the services performed, and the time & date at which testing occurred.

Device Type	Location	ScanID : S/N	Service	Date Time				
Device Type	Location	Scallid . 3/N	Sel vice	Date Tille				
Passed								
Fire								
Fire Extinguisher, 10 Lbs, A.B.C.	Basement by door 113.05 #1025 code	49753135 BK42280	Inspected	06/09/21 9:32:04 AM				
Fire Extinguisher, 5 Lbs, A.B.C.	1st Front desk 113.01	49753140 G17169734	Inspected	06/09/21 9:28:28 AM				
Fire Extinguisher, 5 Lbs, A.B.C.	1st back playroom 113.04	49753137 G17167774	Inspected	06/09/21 9:31:12 AM				
Fire Extinguisher, 5 Lbs, A.B.C.	1st hallway by water fountain 113.02	49753139 G17167742	Inspected	06/09/21 9:30:30 AM				
Fire Extinguisher, 5 Lbs, A.B.C.	1st kitchen 113.03	49753138 G17171717	Inspected	06/09/21 9:30:26 AM				
Fire Extinguisher, 5 Lbs, A.B.C.	2nd stairwell 113.06	49753136 YJ293835	Inspected	06/09/21 9:28:57 AM				

# Service Summary

Generated by: BuildingReports.com

### Building: City of Charlottesville - Virginia Discovery Museu

The Service Summary section provides an overview of the services performed in this report.

Device Type	Service	Quantity
	Passed	
Fire Extinguisher, 10 Lbs, A.B.C.	Inspected	1
Fire Extinguisher, 5 Lbs, A.B.C.	Inspected	5
Total		6
Grand Total		6

## Inventory & Warranty Report

Generated by: BuildingReports.com

#### Building: City of Charlottesville - Virginia Discovery Museu

The Inventory & Warranty Report lists each of the devices and items that are included in your Inspection Report. A complete inventory count by device type and category is provided. Items installed within the last 90 days, within the last year, and devices installed for two years or more are grouped together for easy reference.

Device or Type		Category		% of Inventory	Quantity
Fire Extinguisher		Fire		100.00%	6
Туре	Qty	Model #	Descrip	tion	Manufacture Date
		New	(under	r 90 days)	
Buckeye					
Fire Extinguisher	4	5 HI SA40 ABC	A.B.C.		10/07/2021
		In Service	- 5 Ye	ars to 10 Years	
Ansul					
Fire Extinguisher	1	XAA10S	A.B.C.		05/03/2012
In Service - 15 Years to 25 Years					
Amerex					
Fire Extinguisher	1	AB402-06	A.B.C.		08/08/2006

# Appendix III: RS MEANS ESTIMATE FOR FACILITY CONDITION INDEX (FCI)

#### Square Foot Cost Estimate Report

Date: 10/22/2021

Estimate Name	Discovery Museum
	City of Charlottesville
	524 East Main Street
	Virginia
	Charlottesville
	22902
Building Type	Office, 2-4 Story with Brick Veneer / Reinforced Concrete
Location	CHARLOTTESVILLE, VA
	2.00
Stories Height	10.00
Floor Area (S.F.)	6,549.00
LaborType	OPN
Basement Included	No
Data Release	Year 2021
Cost Per Square Foot	\$238.77
Total Building Cost	\$1,563,674.16

Costs are derived from a building model with basic components. Scope differences and market conditions can cause costs to vary significantly.

#### **Assembly Customization Type:**

Added

Partially Swapped

Fully Swapped

dard Foundations		5.2%	\$9.35	\$61,224.25
			\$6.77	\$44,357.69
dation wall, CIP, 4' wall height, direct chute, .148 CY/LF, 7.2 12" thick	360.00		\$3.72	\$24,350.76
	360.00		\$2.30	\$15,059.16
	6.55		\$0.76	\$4,947.77
on Grade			\$2.46	\$16,137.72
on grade, 4" thick, non industrial, reinforced	3,274.50		\$2.46	\$16,137.72
	12" thick footing, concrete, reinforced, load 14.8 KLF, soil bearing city 6 KSF, 12" deep x 32" wide ad footings, 3000 PSI concrete, load 200K, soil bearing city 6 KSF, 6' - 0" square x 20" deep  on Grade on grade, 4" thick, non industrial, reinforced	footing, concrete, reinforced, load 14.8 KLF, soil bearing 360.00 city 6 KSF, 12" deep x 32" wide ad footings, 3000 PSI concrete, load 200K, soil bearing city 6 KSF, 6' - 0" square x 20" deep on Grade	footing, concrete, reinforced, load 14.8 KLF, soil bearing 360.00 city 6 KSF, 12" deep x 32" wide ad footings, 3000 PSI concrete, load 200K, soil bearing city 6 KSF, 6' - 0" square x 20" deep on Grade	12" thick footing, concrete, reinforced, load 14.8 KLF, soil bearing 360.00 \$2.30 city 6 KSF, 12" deep x 32" wide ad footings, 3000 PSI concrete, load 200K, soil bearing 6.55 \$0.76 city 6 KSF, 6' - 0" square x 20" deep on Grade \$2.46

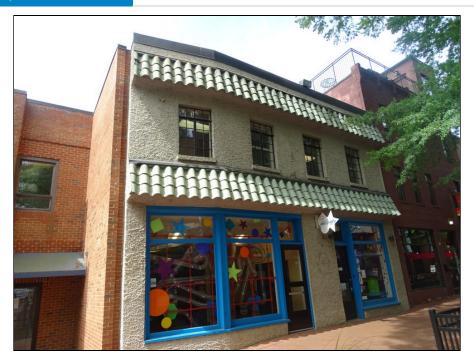
Cost	Cost Per SF	% of Total	Quantity		
\$728.8	\$0.11			Basement Excavation	A2010
\$728.8	\$0.11		3,274.50	Excavate and fill, 10,000 SF, 4' deep, sand, gravel, or common earth, on site storage	
\$575,755.7	\$87.92	49.3%			B Shell
\$314,694.6	\$48.05			Floor Construction	B1010
\$5,826.1	\$0.89		108.00	Cast-in-place concrete column, 12", square, tied, minimum reinforcing, 150K load, 10'-14' story height, 135 lbs/LF, 4000PSI	
\$6,242.0	\$0.95		82.80	Cast-in-place concrete column, 16", square, tied, minimum reinforcing, 300K load, 10'-14' story height, 240 lbs/LF, 4000PSI	
\$196,903.1	\$30.07		511.20	Concrete I beam, precast, 18" x 36", 790 PLF, 25' span, 6.44 KLF superimposed load	
\$51,932.1	\$7.93		3,274.50	Precast concrete double T beam, 2" topping, 24" deep x 8' wide, 50' span, 30 PSF superimposed load, 120 PSF total load	
\$53,791.1	\$8.21		3,274.50	Precast concrete double T beam, 2" topping, 24" deep $x$ 8' wide, 50' span, 75 PSF superimposed load, 165 PSF total load	
\$171,633.0	\$26.21			Exterior Walls	B2010
\$171,633.0	\$26.21		5,760.00	Brick wall, composite double wythe, standard face/CMU back-up, 8" thick, perlite core fill, 3" XPS	
\$43,808.4	\$6.69			Exterior Windows	B2020
\$43,808.4	\$6.69		62.61	Windows, aluminum, awning, insulated glass, 4'-5" x 5'-3"	
\$8,394.8	\$1.28			Exterior Doors	B2030
\$4,362.0	\$0.67		0.65	Door, aluminum & glass, with transom, narrow stile, double door, hardware, $6'-0" \times 10'-0"$ opening	
\$2,202.5	\$0.34		0.65	Door, aluminum & glass, with transom, bronze finish, hardware, $3'-0" \times 10'-0"$ opening	
\$1,830.3	\$0.28		0.65	Door, steel 18 gauge, hollow metal, 1 door with frame, no label, $3'-0" \times 7'-0"$ opening	
\$33,593.6	\$5.13			Roof Coverings	B3010
\$5,663.2	\$0.86		3,274.50	Roofing, single ply membrane, EPDM, 60 mils, loosely laid, stone ballast	
\$12,974.4	\$1.98		3,274.50	Insulation, rigid, roof deck, extruded polystyrene, 40 PSI compressive strength, 4" thick, R20	
\$9,057.5	\$1.38		360.00	Roof edges, aluminum, duranodic, .050" thick, 6" face	
\$1,488.0	\$0.23		360.00	Flashing, aluminum, no backing sides, .019"	
\$4,410.3	\$0.67		360.00	Gravel stop, aluminum, extruded, 4", duranodic, .050" thick	
\$3,631.2	\$0.55			Roof Openings	B3020
\$1,646.6	\$0.25		1.31	Roof hatch, with curb, 1" fiberglass insulation, $2'-6" \times 3'-0"$ , galvanized steel, 165 lbs	

		Quantity	% of Total	Cost Per SF	Cost
	Smoke hatch, unlabeled, galvanized, 2'-6" x 3', not incl hand winch operator	1.31		\$0.30	\$1,984.51
C Interiors			12.9%	\$23.06	\$150,996.68
C1010	Partitions			\$2.19	\$14,339.32
	Metal partition, 5/8"fire rated gypsum board face, no base,3 -5/8" @ 24" OC framing, same opposite face, no insulation	1,833.72		\$0.81	\$5,284.89
	Metal partition, 5/8"fire rated gypsum board face, no base,3 -5/8" @ 24" OC framing, same opposite face, sound attenuation insulation	785.88		\$0.46	\$2,993.30
	Gypsum board, 1 face only, exterior sheathing, fire resistant, 5/8"	5,760.00		\$0.62	\$4,032.23
	Add for the following: taping and finishing	5,760.00		\$0.31	\$2,028.90
C1020	Interior Doors			\$4.97	\$32,580.87
	Door, single leaf, wood frame, 3'-0" x 7'-0" x 1-3/8", birch, solid core	14.69		\$1.50	\$9,830.75
	Door, single leaf, kd steel frame, hollow metal, commercial quality, flush, 3'-0" x 7'-0" x 1-3/8"	20.99		\$3.47	\$22,750.11
C1030	Fittings			\$0.23	\$1,512.83
	Toilet partitions, cubicles, ceiling hung, plastic laminate	1.64		\$0.23	\$1,512.83
C2010	Stair Construction			\$3.80	\$24,857.22
	Stairs, steel, pan tread for conc in-fill, picket rail,12 risers w/ landing	2.29		\$3.80	\$24,857.22
C3010	Wall Finishes			\$0.93	\$6,122.81
	Painting, interior on plaster and drywall, walls & ceilings, roller work, primer & 2 coats	5,239.20		\$0.45	\$2,916.45
	Painting, interior on plaster and drywall, walls & ceilings, roller work, primer & 2 coats	5,760.00		\$0.49	\$3,206.36
C3020	Floor Finishes			\$3.36	\$22,032.58
	Carpet tile, nylon, fusion bonded, 18" x 18" or 24" x 24", 35 oz	3,929.40		\$1.77	\$11,592.08
	Vinyl, composition tile, maximum	1,964.70		\$0.73	\$4,793.85
	Tile, ceramic natural clay	654.90		\$0.86	\$5,646.65
C3030	Ceiling Finishes			\$7.57	\$49,551.04
	Acoustic ceilings, 3/4" fiberglass board, 24" x 48" tile, tee grid, suspended support	6,549.00		\$7.57	\$49,551.04
D Services			32.6%	\$58.20	\$381,125.46
D1010	Elevators and Lifts			\$11.31	\$74,063.56
	Hydraulic passenger elevator, 3000 lb, 3 floors,12' story height, 2 car group,125 FPM	0.65		\$11.31	\$74,063.56

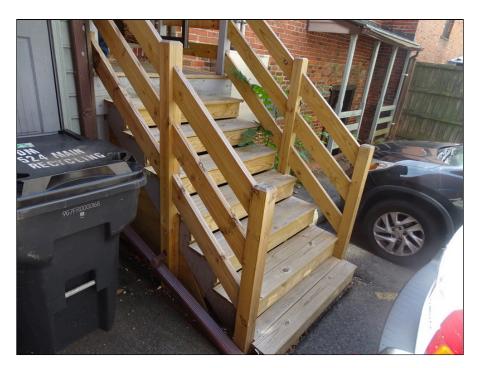
		Quantity	% of Total	Cost Per SF	Cost
D2010	Plumbing Fixtures			\$2.19	\$14,366.54
	Water closet, vitreous china, bowl only with flush valve, wall hung	1.64		\$0.83	\$5,419.71
	Urinal, vitreous china, wall hung	0.65		\$0.12	\$783.40
	Lavatory w/trim, vanity top, PE on CI, 20" x 18"	1.31		\$0.28	<b>\$1,853.43</b>
	Service sink w/trim, PE on CI,wall hung w/rim guard, 24" x 20"	0.98		\$0.65	\$4,270.20
	Water cooler, electric, wall hung, wheelchair type, 7.5 GPH	0.98		\$0.31	\$2,039.80
D2020	Domestic Water Distribution			\$0.65	\$4,246.73
	Gas fired water heater, commercial, 100 < F rise, 100 MBH input, 91 GPH	0.33		\$0.65	\$4,246.73
D2040	Rain Water Drainage			\$1.10	\$7,221.81
	Roof drain, CI, soil, single hub, 4" diam, 10' high	1.31		\$0.40	\$2,600.54
	Roof drain, CI, soil, single hub, 4" diam, for each additional foot add	108.00		\$0.71	\$4,621.27
D3050	Terminal & Package Units			\$14.92	\$97,701.91
	Rooftop, multizone, air conditioner, offices, 25,000 SF, 79.16 ton	6,549.00		\$14.92	\$97,701.91
D4010	Sprinklers			\$3.28	\$21,489.42
	Wet pipe sprinkler systems, steel, light hazard, 1 floor, 5000 SF	2,226.66		\$1.41	\$9,232.78
	Wet pipe sprinkler systems, steel, light hazard, each additional floor, 5000 SF	4,322.34		\$1.61	\$10,552.30
	Standard High Rise Accessory Package 3 story	0.33		\$0.26	\$1,704.34
D4020	Standpipes			\$1.06	\$6,927.89
	Wet standpipe risers, class III, steel, black, sch 40, 4" diam pipe, 1 floor	0.39		\$0.58	\$3,786.33
	Wet standpipe risers, class III, steel, black, sch 40, 4" diam pipe, additional floors	1.47		\$0.48	\$3,141.56
D5010	Electrical Service/Distribution			\$9.46	\$61,932.11
	Overhead service installation, includes breakers, metering, 20' conduit & wire, 3 phase, 4 wire, 120/208 V, 1000 A	1.25		\$2.37	\$15,545.31
	Feeder installation 600 V, including RGS conduit and XHHW wire, 1000 A $$	100.00		\$3.03	\$19,844.00
	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 3 phase, 1200 A	1.20		\$4.05	\$26,542.80
D5020	Lighting and Branch Wiring			\$9.60	\$62,865.36
	Receptacles incl plate, box, conduit, wire, 16.5 per 1000 SF, 2.0 W per SF, with transformer	6,549.00		\$3.49	\$22,869.76
	Miscellaneous power, 1.2 watts	6,549.00		\$0.25	\$1,629.39
	Central air conditioning power, 4 watts	6,549.00		\$0.51	\$3,364.22

		Quantity	% of Total	Cost Per SF	Cost
	Motor installation, three phase, 460 V, 15 HP motor size	2.00		\$0.57	\$3,714.50
	Fluorescent fixtures recess mounted in ceiling, 1.6 watt per SF, 40 FC, 10 fixtures @32watt per 1000 SF	7,531.35		\$4.78	\$31,287.49
D5030	Communications and Security			\$4.63	\$30,309.43
	Telephone wiring for offices & laboratories, 8 jacks/MSF	4,911.75		\$1.17	\$7,667.73
	Communication and alarm systems, fire detection, addressable, 50 detectors, includes outlets, boxes, conduit and wire	0.33		\$1.60	\$10,505.25
	Fire alarm command center, addressable with voice, excl. wire & conduit	0.33		\$0.59	\$3,847.86
	Internet wiring, 8 data/voice outlets per 1000 S.F.	4.91		\$1.27	\$8,288.58
D5090	Other Electrical Systems			\$0.00	\$0.71
	Uninterruptible power supply with standard battery pack, 15 kVA/12.75 kW	0.65		\$0.00	\$0.71
E Equipment & Furnishin			0.0%	\$0.00	\$0.00
E1090	Other Equipment			\$0.00	\$0.00
F Special Construction			0.0%	\$0.00	\$0.00
G Building Sitework			0.0%	\$0.00	\$0.00
Sub Total			100%	\$178.52	\$1,169,102.18
Contractor's Overhead & Pro	ofit		25.0 %	\$44.63	\$292,275.54
Architectural Fees			7.0 %	\$15.62	\$102,296,44
User Fees			0.0 %	\$0.00	\$0.00
Total Building Cost				\$238.77	\$1,563,674.16

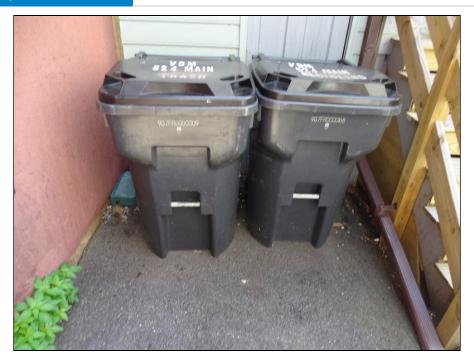
# Appendix IV: SITE PHOTOGRAPHS



1 - Discovery Museum



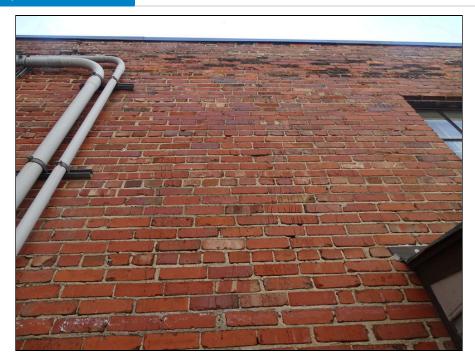
2 - Exterior wood stair



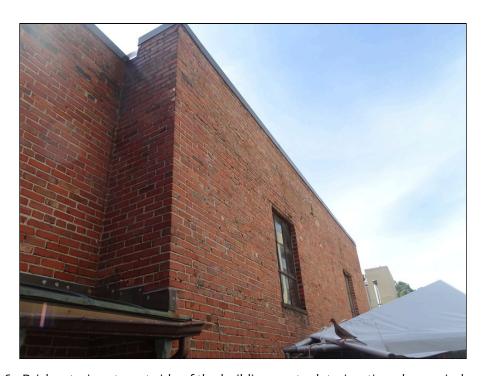
3 - Trash container pad



4 - Structural framing at first level



5 - Brick exterior at west side of the building - note deterioration above window



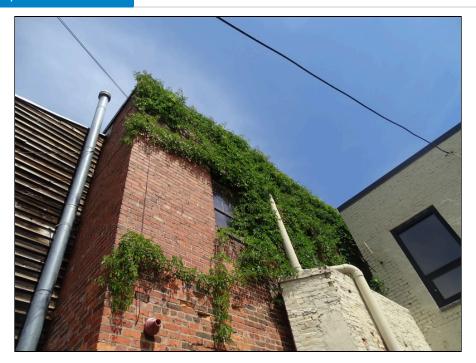
6 - Brick exterior at west side of the building - note deterioration above window



7 - Brick exterior at west side of the building - note deterioration above window



8 - Typical exterior wall



9 - Typical exterior wall



10 - Typical exterior wall - note deterioration



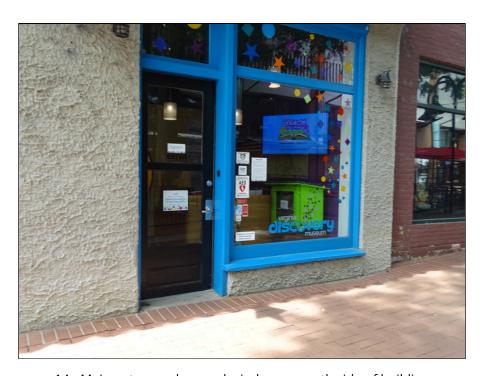
11 - Exterior stucco wall - note deterioration



12 - Exterior stucco wall - note deterioration



13 - Typical metal awning - note deterioration



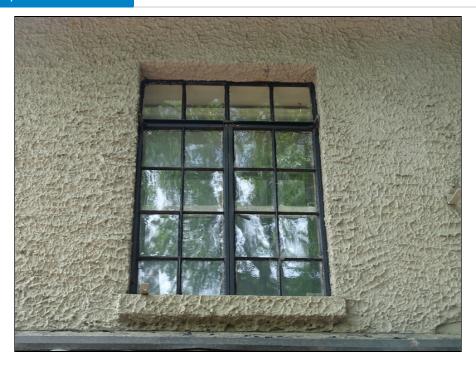
14 - Main entrance door and window on north side of building



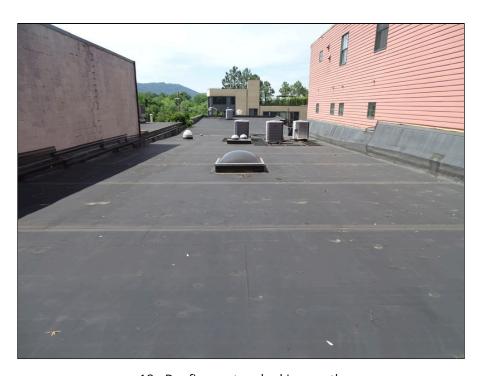
15 - Typical exterior window on north side of the building



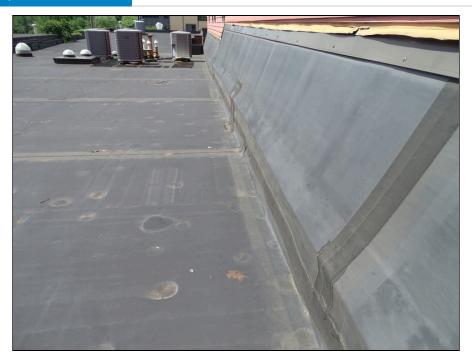
16 - Typical exterior window on north side of the building



17 - Typical exterior window on north side of the building



18 - Roofing system looking south



19 - Roofing system parapet walls



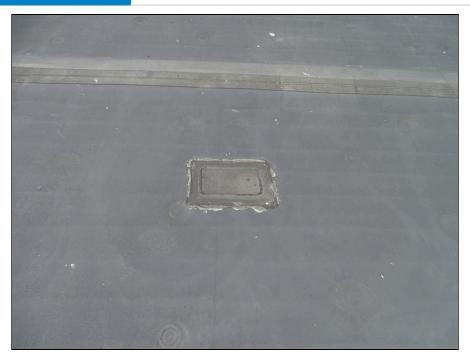
20 - Typical skylight



21 - Typical skylight



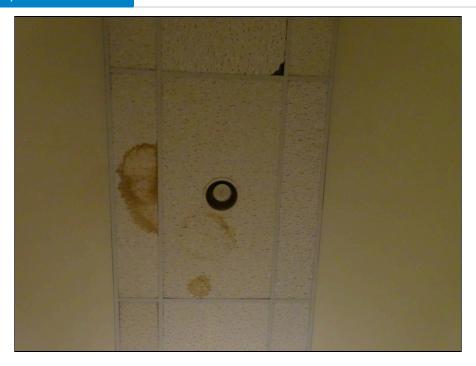
22 - Typical interior drain



23 - Roofing system - note patching



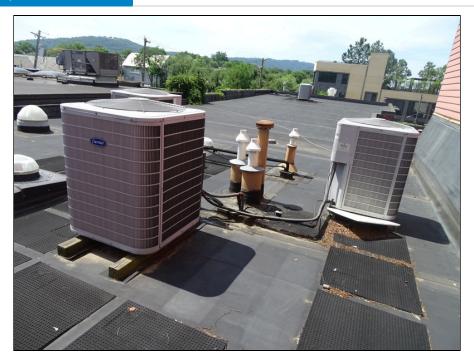
24 - Roofing system - note patching



25 - Typical ceiling - note water leakage



26 - Typical ceiling - note water leakage



27 - Typical condenser unit



28 - Typical gas furnace and air handler units



29 - Typical gas furnace and air handler units



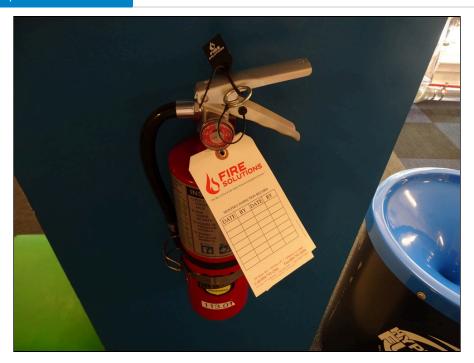
30 - Air handler



31 - Typical digital thermostat



32 - Electric main disconnect panel



33 - Typical fire extinguisher



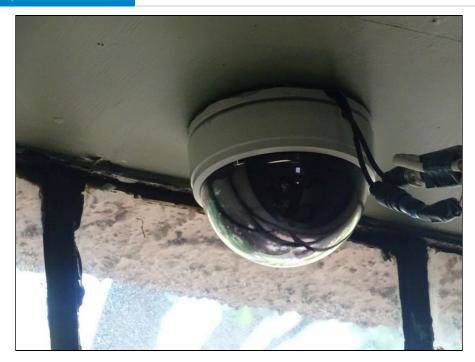
34 - Typical smoke detector



35 - Typical exit sign



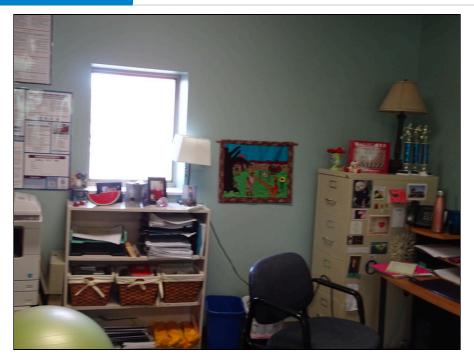
36 - Typical emergency lighting



37 - Typical security camera



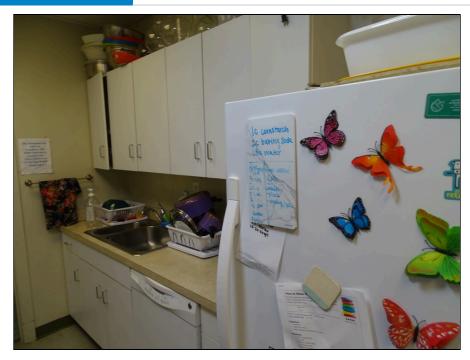
38 - Security alarm system keypad



39 - Typical interior of second floor office area



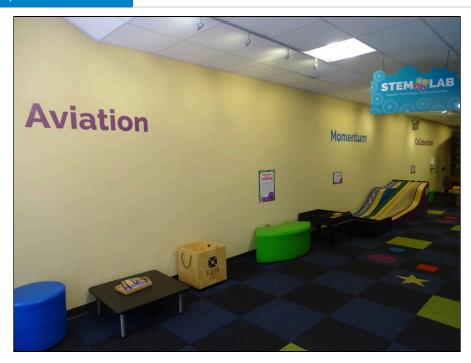
40 - Interior finishes of kitchen area



41 - Interior finishes of kitchen area



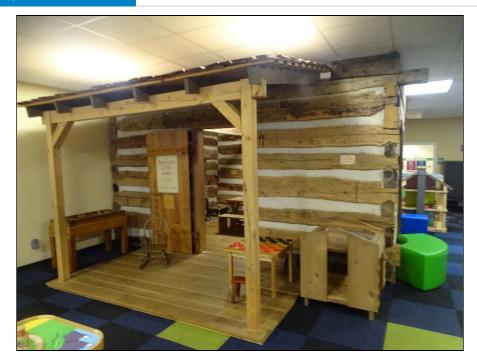
42 - Interior finishes of corridor area



43 - Interior finishes



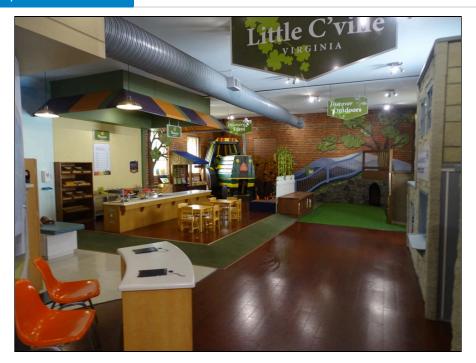
44 - Interior finishes



45 - Interior finishes



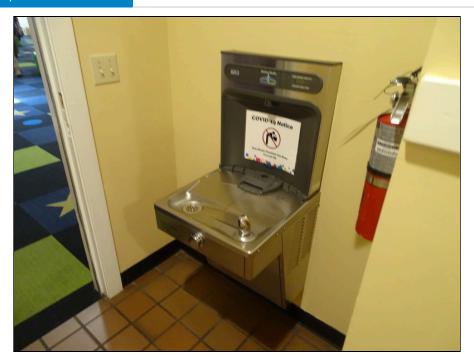
46 - Interior finishes



47 - Interior finishes



48 - Interior finishes of stair



49 - Typical water fountain



50 - Rear entrance



51 - Transom cover



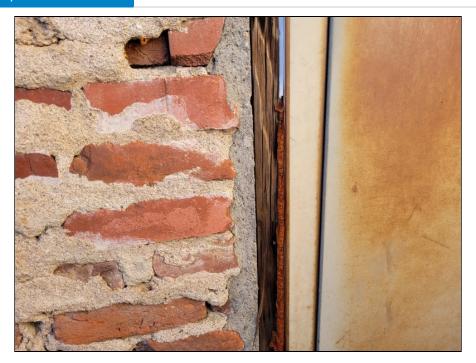
52 - Rear door sealant condition



53 - Rear door jamb condition



54 - Rear door sill condition



55 - Rear door jamb condition



56 - Rear door jamb condition



57 - Rear door head condition

# **Appendix V: RESUMES**

## Michael G. Doyle, AIA

### Principal Architect – Facilities Department

### **EDUCATION**

Bachelor of Architecture, 1987, Architecture, Virginia Polytechnic Institute and State University, Blacksburg, VA

### **REGISTRATIONS**

Registered Architect: AZ, DC, MD, VA, NC, IL The Leadership in Energy and Environmental Design (LEED) Accredited Professional: 2009

Mr. Doyle serves as a Principal Architect for the Facilities Engineering Group in ECS Chantilly. He has over 25 years of experience in the construction industry, and his expertise includes the Americans with Disabilities Act, Property Condition Surveys, Pre and Post Construction Survey Services, Pavement Assessments, and Third-Party Plan Review. He has worked with numerous government agencies and has significant experience with local government and educational facilities; commercial high-rise buildings; multi-unit, residential, and correctional facilities. Mr. Doyle also has had experience on several high-profile historic projects, including the Jefferson Memorial, the Tivoli Theater, the Tariff Building, The White House, the Court of Appeals in Washington, DC; the Valley Bank Building in Leesburg, Virginia; and the Shenandoah Courthouse at Woodstock, Virginia.

Property Condition Assessments - Mr. Doyle has extensive experience performing property condition assessments from small commercial properties, large high rise buildings, to government-owned properties. Mr. Doyle has performed assessment in general accordance with ASTM E 2018, Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process. Mr. Doyle also has experience in performing property condition assessments in accordance with lender and specific client requirements. Mr. Doyle has worked with teams of experts in providing detailed reports and simple reserve analysis for properties.

### RELEVANT PROJECT EXPERIENCE

Darien Lake, Darien Center, NY – Mr. Doyle was the Principal Architect for the property assessment of the Darien Lake amusement park. The property included over 200 buildings including buildings within the park, maintenance and administration buildings, hotel, campground buildings, and sewer treatment center.

Ballston Park Apartments, Arlington, VA (2014) - originally developed in 1938, this complex includes 50 two-story apartment buildings, one three-story apartment building, one single-family residence, and a single-story office/clubhouse. A PCA and a Phase I Environmental Site Assessment was conducted and documented.

Hyatt House Lodging, Sterling, VA (2014) - This six-story, 162-room, 98,793-square-foot hotel with surface parking was constructed in 2007 as a Sierra Suites and subsequently converted to a Hyatt House. Recreational facilities include a swimming pool, fitness center, a grill area, and a fire pit. Building systems observed per ASTM E 2018 included site conditions, the structural frame and building envelope; plumbing, mechanical and electrical systems, vertical transportation Systems, life safety and fire protection, and ADA Considerations. A Phase I Environmental Site Assessment was also conducted.

### WHMO Facilities Assessment, Washington, DC (2015) -

This is a privately owned, government-leased facility with a sensitive mission. The structure is believed to be a 1920s vintage building designed as a multi-story car dealership. The government has occupied this space continuously since 1963. Mr. Doyle conducted a survey of the complete facility, identified and documented areas of concerns. He also provide a recommendation for remediation for each area of concern, a Rough Order Magnitude (ROM) cost for remediation, and categorized each area of concern as critical, non-critical or aesthetic.

### **ADDITIONAL PROJECT EXPERIENCE**

- City of Charlottesville Portfolio, Charlottesville, VA
- Liberty Park, Herndon, VA
- Oakcrest School, McLean, VA
- Signature Flight Support, Arlington, VA
- The Gap, Washington, DC
- Lanham Crossing, Lanham, MD
- ZIM American Headquarters Building, Sulfolk, VA
- The Portrait Building, Washington, DC
- The Aventine of Alexandria, Alexandria, VA



### William R. Pratt, PE



## Principal Engineer, ECS Mid-Atlantic, LLC Professional-In-Charge

### **EDUCATION**

Bachelor of Science, 1989, Mechanical Engineering, University of Massachusetts

### **REGISTRATIONS**

Professional Engineer: DC, VA, MD

ICC Commercial Building, Plumbing, and Mechanical Inspector

Mr. Pratt serves as Senior Project Engineer for ECS Mid-Atlantic, LLC. Mr. Pratt is responsible as Professional-In-Charge of compliance group and provides supervision of code compliance inspection programs for the local jurisdictions. Additionally, he oversees execution of project management materials testing, construction property condition assessments.

PROPERTY CONDITION ASSESSMENTS extensive experience in performing property condition assessments for a variety of properties and structures. These assessments include evaluation of site improvements, building components, roofing, pavements, electrical systems, mechanical systems, and HVAC systems. He performs assessment in general accordance with ASTM E 2018 - 08, Standard Guide for Property Condition Assessments: Property Condition Assessment Process. Bill also has experience in performing property condition assessments that meet with lender and specific client requirements. He works with teams of experts in providing detailed reports and simple reserve analysis for properties.

#### SELECT PROJECT EXPERIENCE - PCA

- City of Charlottesville, VA 51 Property
- Portfolio including schools, libraries, museums, fire and police stations, and court buildings
- Home Properties 800+ Apartment Units,
   4-Property Portfolio to Freddie Mac
   Standard, Hampton and Virginia Beach, VA
- Boulders Office Park 300,000+ SF, 3-Property Portfolio , Richmond, VA
- Darien Lake Theme Park, Darien Center, NY
- Madison Place Office Building, Alexandria, VA
- King of Glory Lutheran Church, Williamsburg, VA
- Comfort Inn, Charlottesville, VA
- The Wisconsin Building, Washington, DC

## SELECT PROJECT EXPERIENCE — CODE COMPLIANCE AND SPECIAL INSPECTIONS

- City Center DC, Washington, DC
- DC Courts Judiciary Square, IDIQ Contract, Washington, DC
- Hilton Garden Inn, Washington, DC
- Waterfront Mall, Washington, DC
- 4<sup>th</sup> Street Reconstruction, Washington, DC
- Sibley Memorial Hospital Addition, Cancer Center, Washington, DC
- Washington Headquarters Services, Arlington, VA
- Walmart #5968-00, Washington, DC
- Progression Place, 7<sup>th</sup> Street, NW, Washington, DC
- National Gallery of Art, Washington, DC
- City Market @ O, Washington, DC



## **DONALD GOGLIO**

CODE COMPLIANCE PROJECT MANAGER



### **CERTIFICATIONS**

Master Plumber

Master Gasfitter
Cross Connection Technician
Commercial Building Inspector
Commercial Plumbing Inspector
Commercial Mechanical Inspector
Accessibility Inspector/Plan
Reviewer

Fire Inspector I and II
LEED Green Associate
CPR/First Aid Training
OSHA 30 hr Training
SKILLS

Code Compliance Construction Administration Special Inspection Services Condition Assessments Forensic Consultation

## PROFESSIONAL MEMBERHSHIPS

American Wood Council

**USGBC** 

### **EDUCATION**

Montgomery College, 1991 Silver Spring, MD

### YEARS OF EXPERIENCE

ECS: <1 Other: 38

### **PROFESSIONAL PROFILE**

Mr. Goglio has 38 years of construction, mechanical trade, and management experience. He manages code compliance projects, including reviewing plans, providing technical support, and conducting inspections.

### **PROJECT EXPERIENCE**

Fort Lee AIT Barracks, Ft. Lee, VA – Quality Control Manager – The Fort Lee AIT Barracks project is a soldiers' basic combat training facility for over 1,200 Army personnel. The complex is a cohesive development, providing both housing and affiliated functions for soldiers in the AIT program. In addition to housing, the facility includes an outdoor jogging track, physical training pits, and access drivers and parking areas that meet USACE requirements. The project's five-story brick buildings meet DoD Minimum Antiterrorism Standards for Buildings and obtained LEED® Gold certification from the US Green Building Council. The Fort Lee project is part of the Northeast Region Multiple Award Task Order Contract (MATOC).

Terrapin Row, College Park, MD – Assistant Superintendent – Terrapin Row is a transformative student housing complex located on the University of Maryland's historic South Campus. The mixed-use community features 1,493 beds across 418 apartments as well as a 489-space parking garage. Terrapin Row boasts ample amenities centered around a college lifestyle, including a swimming pool, volleyball court, outdoor kitchens and fire pits, exterior TVs, a fitness center, bike storage, a cyber cafe and game room, and numerous live-learn spaces. The multi-phase project consists of seven buildings and encompasses a pedestrian and bike-friendly Village Green surrounded by over 11,856 square feet of retail space. The Village Green flows into a grand stairway and amphitheater that opens to a pedestrian plaza to welcome pedestrians towards the main academic centers of campus.

### The Hartley at the Parks, Washington, DC – Assistant Superintendent

– The Hartley is a 323-unit mixed-use apartment community with a Whole Foods Market as its retail anchor in Northwest DC. This six-story community consists of five stories of wood framing over a one-story concrete podium with 317 apartments and six townhomes. It is a part of The Parks at Walter Reed, a mixed-use master-planned redevelopment of the 66-acre historic Walter Reed Army Medical Center with 2,200 residential units plus office and retail. The Hartley features two interior courtyards: the north courtyard includes pool and amenity space, and the south courtyard includes a Zen Garden. The second-floor amenity space includes a lounge, multi-purpose room, fitness center, and pet spa. The studio, one-, two-, and three-bedroom units feature high-end finishes, including quartz countertops and EnergyStar® appliances.

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Accessibility Inspector/Plan
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### **PROJECT EXPERIENCE**

- Fort Lee AIT Barracks, Ft. Lee, VA
- Terrapin Row, College Park, MD
- The Hartley at the Parks, Washington, DC
- River Point, Washington, DC
- Juniper, Columbia, MD
- The Smith, King of Prussia, PA
- Banner Hill, Baltimore, MD
- Jefferson Square, Baltimore, MD
- Metropolitan at Largo Station, Largo, MD
- The Village at Leesburg, Leesburg, VA
- The Elms at Clarksburg Village, Clarksburg, MD
- Hidden Creek, Gaithersburg, MD
- Paramount, Gaithersburg, MD
- Thayer & Spring, Silver Spring, MD

