THE ENERGY HOUSE
608 RIDGE STREET
CHARLOTTESVILLE, VIRGINIA

ECS PROJECT NO. 46:6713

FOR

CITY OF CHARLOTTESVILLE - FACILITIES DEVELOPMENT

SEPTEMBER 23, 2021

September 23, 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 The Energy House, 608 Ridge 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 Manager
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703-471-8400

Michael G. Doyle, AIA
Principal Architect
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703-471-8400

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	X			None		
3.2.4 Paving, Curbing, and Parking	X			None		
3.2.5 Flatwork	X			None		
3.2.6 Landscaping and Appurtenances	X			None		
3.2.7 Recreational Facilities		NA		None		
3.2.8 Special Utility Systems	X	X		None		
3.3.1 Foundation	X			None		
3.3.2 Building Frame	X			None		
3.3.3 Building Exteriors	X	X		Paint Exteriors As Needed		$60,000
3.3.4 Exterior Doors	X			None		
3.3.5 Exterior Windows	X			None		
3.3.6 Roofing Systems	X	X		Re-coat metal roofing system		$7,200
3.4.1.1 Supply and Waste Piping	X			None		
3.4.1.2 Domestic Hot Water Production	X	X		None		$2,000
3.4.2.1 Equipment	X	X		Replace		$24,500
3.4.2.2 Distribution System	X			None		
3.4.2.3 Control Systems	X			None		
3.4.3.1 Service and Metering	X			None		
3.4.3.2 Distribution	X			None		
3.5 VERTICAL TRANSPORTATION SYSTEMS		NA		None		
3.6.1 Sprinklers and Suppression Systems			X	Provide fire extinguishers	$200	
3.6.2 Alarm Systems	X			Replace	$200	
3.6.3 Security and Other Systems	X			None		
3.7.1 Tenant Spaces	X			None		
3.8 Accessibility (ADA) Compliance	X	X		Refurbish	$2,000	
5.1 MOISTURE AND MOLD	X			None		
Totals					$2,400	$113,700

Summary	Today's Dollars	$/Square Feet
Immediate Repairs	$2,400	$1.33

	Today's Dollars	$/Square Feet	$/Square Feet/Year
Replacement Reserves, today's dollars	$113,700.00	$62.82	$3.14
Replacement Reserves, w/20, 2.5% escalation	$142,089.95	$78.50	$3.93

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1.0 EXECUTIVE SUMMARY

1.1 BACKGROUND

ECS Mid-Aatlantic, 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 The Energy House 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

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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 The Energy House, located at 608 Ridge Street, in Charlottesville, Virginia, consists of a Two-story building. The building totals approximately 1,810 square feet. Parking is provided with At-grade parking with asphalt pavement. The Office building was reportedly constructed in 1910 and renovated in 2011.

SURVEY INFORMATION	
Date of Assessment	May 25, 2021
Assessor	William R. Pratt, P.E.
Weather Conditions	Overcast | 76F
Property Contact	Josh Bontrager, Project Manager for City of Charlottesville - Facilities Development

SITE INFORMATION	
Land Area	0.24 acres
Major Cross Streets	Elliot Avenue
Pavement - Parking	At-grade parking with asphalt pavement
Number of Parking Spaces	One
Number of Accessible Spaces	None
Number of Van Accessible Spaces	None
Pedestrian Sidewalks	Concrete sidewalk

BUILDING INFORMATION	
Building Type	Office
Number of Buildings	One
Building Height	Two-story
Square Footage	1,810
Year Constructed	1910
Year Remodeled	2011

BUILDING CONSTRUCTION	
Foundation	Assumed shallow spread footings
Structural System	Wood framing with brick masony bearing exterior walls
Roof	Metal
Exterior Finishes	Painted stucco
Windows	Wood frame double pane - operable
Entrance	Wood door with glass

BUILDING SYSTEMS	
HVAC System	Split systems
Domestic Hot Water	Solar thermal water heater
Water Distribution	Copper
Sanitary Waste Line	Cast iron/PVC
Electrical Service	120/240-volt single-phase 3-wire 200 amps service
Branch Wiring	Copper
Elevators	N/A
Fire Suppression System	Smoke detectors

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
3.6.1 Sprinklers and Suppression Systems					
PROVIDE FIRE EXTINGUISHERS	2	EA	$100.00	100%	$200
3.6.2 Alarm Systems					
REPLACE SMOKE DETECTORS	1	Unit	$200.00	100%	$200
3.8 Accessibility (ADA) Compliance					
PROVIDE VAN ACCESSIBLE SPACE WITH SIGN	1	EA	$1,000.00	100%	$1,000
PROVIDE RAMPS FOR EXTERIOR ACCESSIBLE ROUTE	1	EA	$1,000.00	100%	$1,000
Total Repair Cost					$2,400.00

Capital Reserve Schedule

Item	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	Year 6 2026	Year 7 2027	Year 8 2028	Year 9 2029	Year 10 2030	Year 11 2031	Year 12 2032	Year 13 2033	Year 14 2034	Year 15 2035	Year 16 2036	Year 17 2037	Year 18 2038	Year 19 2039	Year 20 2040	Total Cost
3.3.3 Building Exteriors																												
REPAIR AND PAINT EXTERIORS, WOOD TRIM, AND SOFFIT AS NEEDED	7	6	1	4	EA	$10,000.00	$40,000	100%	$10,000						$10,000						$10,000							$10,000	$40,000
REPLACE SEALANTS	12	11	1	2	LS	$5,000.00	$10,000	100%	$5,000											$5,000									$10,000
REPLACE WOOD DECK	30	20	10	1	EA	$10,000.00	$10,000	100%										$10,000											$10,000
3.3.6 Roofing Systems																												
RE-COAT METAL ROOFING SYSTEM	20	19	1	1,200	SF	$6.00	$7,200	100%	$7,200																				$7,200
3.4.1.2 Domestic Hot Water Production																												
REPLACE WATER HEATER	12	11	1	2	EA	$1,000.00	$2,000	100%	$1,000											$1,000									$2,000
3.4.2.1 Equipment																												
REPLACE HEAT PUMP	15	14	1	2	EA	$5,500.00	$11,000	100%	$5,500															$5,500					$11,000
AIR HANDLER UNIT	15	14	1	2	EA	$5,500.00	$11,000	100%	$5,500														$5,500						$11,000
REPLACE SPLIT SYTEM	15	14	1	1	EA	$2,500.00	$2,500	100%	$2,500																				$2,500
3.4.4 Solar Power System																												
REPLACE SOLAR PANELS	25	10	15	1	EA	$20,000.00	$20,000	100%															$20,000						$20,000

City of Charlottesville - Facilities Development
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Item	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	Year 6 2026	Year 7 2027	Year 8 2028	Year 9 2029	Year 10 2030	Year 11 2031	Year 12 2032	Year 13 2033	Year 14 2034	Year 15 2035	Year 16 2036	Year 17 2037	Year 18 2038	Year 19 2039	Year 20 2040	Total Cost
Total (Uninflated)									$36,700.00	$0.00	$0.00	$0.00	$0.00	$0.00	$10,000.00	$0.00	$0.00	$10,000.00	$0.00	$6,000.00	$10,000.00	$0.00	$25,500.00	$5,500.00	$0.00	$0.00	$0.00	$10,000.00	$113,700.00
Inflation Factor (2.5%)									1.0	1.025	1.051	1.077	1.104	1.131	1.16	1.189	1.218	1.249	1.28	1.312	1.345	1.379	1.413	1.448	1.485	1.522	1.56	1.599	
Total (inflated)									$36,700.00	$0.00	$0.00	$0.00	$0.00	$0.00	$11,596.93	$0.00	$0.00	$12,488.63	$0.00	$7,872.52	$13,448.89	$0.00	$36,030.83	$7,965.64	$0.00	$0.00	$0.00	$15,986.50	$142,089.95

Evaluation Period:	20
# of Square Feet:	1,810
Reserve per Square Feet per year (Uninflated)	$3.14
Reserve per Square Feet per year (Inflated)	$3.93

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 The Energy House 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 Office building.

3.1.1 Property Location

The Property is located at 608 Ridge Street in Charlottesville, Virginia.

Surrounding Properties	
North	Elliot Avenue
East	Residential properties
South	Residential properties
West	Ridge Street

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 111 years ago in 1910.

3.1.3 Current Property Improvements

The Office building, located at 608 Ridge Street, in Charlottesville, Virginia, consists of a Two-story building. The building totals approximately 1,810 square feet. Parking is provided with At-grade parking with asphalt pavement.

3.2 SITE CONDITIONS

3.2.1 Topography

TOPOGRAPHY		
Item	**Description**	**Condition**
Slope of the property	The property generally slopes to the east	Good
Adjoining Properties	Generally level with or down slope from the property	Good

Comments

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

Photographs

The Energy House

3.2.2 Storm Water Drainage

STORM WATER DRAINAGE		
Item	**Description**	**Condition**
Storm Water Collection System	Municipal system	Good
Storm Water (Retention) Pond		N/A
Storm Water Filtration Structure		N/A
Pavement Drainage	Sheet flow	Good
Landscape Drainage	Gravity run-off	Good
Sump Pumps		N/A

Comments

The storm water collection system includes a municipal system.

3.2.3 Access and Egress

SITE ACCESS AND EGRESS		
Item	**Description**	**Condition**
Entrance Aprons	Concrete	Good
Fire Truck Access	North and west sides of the building	Good
Easements		N/A

Comments

Vehicular access to the site is located on the west side of the building. The entrance apron was constructed of concrete and was observed to be in generally good condition. Fire truck access is available on the north and west sides of the building.

3.2.4 Paving, Curbing, and Parking

PARKING		
Item	**Description**	**Condition**
Striping	None - see section 3.8	Poor
Quantity of Parking Spaces	One	Good
Quantity of Loading Spaces		N/A
Arrangement of Spaces	Driveway	Good
Site Circulation	Driveway	Good
Lighting	Street lighting	Good
Accessible Spaces	None - see section 3.8	Poor
Accessible Aisles	None - see section 3.8	Poor

SURFACE PAVEMENT		
Item	**Description**	**Condition**
Pavement Surface	At-grade parking with asphalt pavement	Good
Drainage	Sheet flow	Good
Repair History	Unknown	N/A

Comments

Asphalt-paved parking is located on the southwest side of the site. The asphalt pavement was observed to be in generally good condition. The expected useful life of asphalt pavement is 20 years. Please refer to Section 3.8 regarding accessible parking space requirements.

Photographs

Asphalt parking area

Asphalt parking area

3.2.5 Flatwork

SIDEWALKS		
Item	**Description**	**Condition**
Walkways	Concrete sidewalk	Good
Patios		N/A
Steps	South side of the building	Good
Landings		N/A
Handrails		N/A

Comments

At the west side of the building, a Concrete sidewalk of undetermined thickness is provided. Regularly spaced control joints were observed. The Concrete sidewalk was generally in good condition. The concrete steps were observed to be in generally good condition.

Photographs

Concreted sidewalk

Concrete steps

3.2.6 Landscaping and Appurtenances

LANDSCAPING		
Item	**Description**	**Condition**
Trees	Located throughout the property	Good
Planting Beds	Located throughout the property	Good
Lawn Areas	Located throughout the property	Good
Retaining Walls	Located at the south side of the property	Good
Fences and Gates	Located on retaining wall	Good
Trash Containers	Located at south side of the property	Good

Comments

The landscaping consists generally of mature trees, and small shrubs and grassed areas around the site. The landscaping was observed to be in generally good condition. Trash containers are located at the north side of the site. The area consists of brick pavers and was generally in good condition.

A metal fence is located on the retaining wall. The metal fence was generally in good condition.

Photographs

Typical landscaping

Typical landscaping

3.2.7 Recreational Facilities

Comments

The Property does not contain recreational facilities.

3.2.8 Special Utility Systems

Item	Description	Condition
Water Well		N/A
Lift Station		N/A
Septic Field		N/A
Solar Power	Solar power panels located on roof	Good/Fair
Wind Power		N/A

Comments

The Property contains a solar power system. Please refer to Section 3.4.4 for description, condition, and recommendations.

Photographs

Solar panels located on northeast roof area

Solar service disconnect

3.3 STRUCTURAL FRAME AND BUILDING EXTERIOR

3.3.1 Foundation

FOUNDATION		
Item	**Description**	**Condition**
Load Bearing Support	Assumed shallow spread footings	Good
Basement	Partial at west side of the building	Good
Crawl Space		N/A

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	Wood	Good
Roof Framing	Wood	Good
Load Bearing Walls and Columns	Brick masonry	Good

Comments

The structure of the building consists of Wood framing with brick masony bearing exterior walls. The structural frame of the building was generally in good condition.

Photographs

Structural framing

3.3.3 Building Exteriors

EXTERIOR FINISHES		
Item	**Description**	**Condition**
Painted Stucco	Located around the building	Fair
Wood Trim and Covered Wood Soffits	Painted	Fair
Paint	All exterior finishes	Fair
Sealants	Various	Fair
Fiber Cement Siding	Located at the east addition	Good
Wood Deck	Located at east side of building	Fair

Comments

The exterior of the building mainly consists of Painted stucco and painted fiber cement siding. The building exteriors were generally in good to fair condition. There were some sections of the stucco siding and chimney where the paint has completely peeled away.

The building stucco exterior, wood trim, and wood covered soffits are painted. The paint was generally in fair condition with some minor deterioration observed. Some sections of wood trim showed signs of deterioration. Painting of exterior components is typically recommended every 5 to 7 years. We recommend repairing the wood trim as needed and repainting the stucco and fiber cement siding during the report period.

Exterior sealants are located around the window and door frames, and horizontal joints. 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 during the report period.

Photographs

Building exterior at east side of the building

Building exterior at south side of the building

Wood Trim condition

Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPAIR AND PAINT EXTERIORS, WOOD TRIM, AND SOFFIT AS NEEDED	7	6	1	1 7 13 20	$10,000 $10,000 $10,000 $10,000
REPLACE SEALANTS	12	11	1	1 12	$5,000 $5,000
REPLACE WOOD DECK	30	20	10	10	$10,000
Total					$60,000

3.3.4 Exterior Doors

DOORS		
Item	**Description**	**Condition**
Main Entrance Door	Wood door with glass	Good

Comments

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

Photographs

Main entrance door

Typical exterior door

3.3.5 Exterior Windows

WINDOWS		
Item	**Description**	**Condition**
Window Frame	Wood	Good
Glass Pane	Double pane additional window units installed for energy conservation	Good
Operation	Operable	Good
Screen	Operable sashes	Good
Exterior Header	Wood	Good
Exterior Sill	Wood	Good
Gaskets or Glazing	Glazing	Good

Comments

The window system for the building primarily consists of Wood frame double pane - operable window units. The window units were recently installed in addition to older exterior windows for energy conservation purposes. The condition of the window units was generally good. The expected useful life of windows is typically 30 years.

Photographs

Typical exterior window units

Typical exterior window units

Exterior window

Additional window units installed for energy conservation

3.3.6 Roofing Systems

ROOFING		
Item	**Description**	**Condition**
Metal	Coated	Good/Fair
Insulation	Varies	Good
Substrate/Deck	Wood	Good
Slope/Pitch		Good

ROOFING		
Item	**Description**	**Condition**
Drainage	Gutters and downspouts	Fair
Plumbing Vents	Flashed	Good
Exhaust Vents		N/A
Flashing	Metal	Good

Comments

The main roofing system consists of a Metal roofing system over the building. The age of the existing metal roofing system is unknown. A coating appeared to be installed on the original installation of the metal roofing system. The expected useful life of a coating on a metal roofing systems is typically 20 years. The metal roofing system was observed to be in good to fair condition. We recommend a coating be applied on the metal roofing system near the end of the report period.

Roof drainage was provided by gutters and downspouts. The downspouts were in fair condition. Some downspouts were observed to be damaged or disconnected and discharging along the foundation walls. We recommend regular performing maintenance to the downspouts and discharge tubes to divert rainwater away from the foundation.

Photographs

Metal roofing system south side of the building

Metal roofing system south side of the building

Typical downspout

Building exterior at northeast side of the building

Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
RE-COAT METAL ROOFING SYSTEM	20	19	1	1	$7,200
Total					$7,200

3.4 PLUMBING, MECHANICAL, AND ELECTRICAL SYSTEMS

3.4.1 Plumbing Systems

3.4.1.1 Supply and Waste Piping

PLUMBING - WATER SUPPLY SYSTEM		
Item	**Description**	**Condition**
Piping Material	Copper	Good/Fair
Pipe Insulation	Cellular foam	Good
Water Shut-offs	Ball valve	Good
Water Flow and Pressure		Good

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

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		
Item	**Description**	**Condition**
Heating Equipment	Solar thermal water heater located in the basement	Good/Fair
Water Storage	In heater	Good

Comments

Domestic hot water to the building is provided by a Solar thermal water heater located in the basement. The Solar thermal water heater was manufactured by Vaughn in 2011. The expected useful life of Solar thermal water heater is approximately 12 to 15 years. We recommend the Solar thermal water heater be replaced during the report period.

Photographs

Solar thermal water heater

Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE WATER HEATER	12	11	1	1 12	$1,000 $1,000
Total					$2,000

3.4.2 HVAC Systems

3.4.2.1 Equipment

EQUIPMENT		
Item	**Description**	**Condition**
Heat Pump	Located exterior ground level north side of the building	Good/Fair
Air Handler	Located in basement	Good/Fair
Split System	Located exterior ground level north side of the building and wall hung unit in meeting room	Good/Fair

Comments

The building is served by multiple Split systems and includes a heat pump, an air handler, and a ductless split system.

Heat Pump

The heat pump is located at the ground level on the north side of the building. The heat pump was manufactured by Lennox in 2011. The expected useful life of a condensing unit is 15 years with proper maintenance. The heat pump was observed to be in good to fair condition. We recommend the heat pump be replaced during the report period.

Air Handler Unit

The air handler unit was manufactured by Lennox in 2011. The expected useful life of an air handler unit is 15 years with proper maintenance. The air handler unit was observed to be in good to fair condition. We recommend the air handler uni be replaced during the report period.

Ductless Split Systems

A ductless split system located in the building with a wall mounted unit in the meeting room and exterior heat pump. The ductless split system was manufactured by Mitsubishi in 2011. The expected useful life of a ductless split system is 15 years with proper maintenance. The ductless split system was observed to be in good to fair condition. We recommend that the ductless split system be replaced during the report period.

Photographs

Heat Pump

Typical split system

Air Handler Unit

Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE HEAT PUMP	15	14	1	1 16	$5,500 $5,500
AIR HANDLER UNIT	15	14	1	1 15	$5,500 $5,500
REPLACE SPLIT SYTEM	15	14	1	1	$2,500
Total					$24,500

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 a plenum return. The ductwork was observed to be in generally good condition.

3.4.2.3 Control Systems

HVAC CONTROL SYSTEMS		
Item	**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		
Item	**Description**	**Condition**
Service Entrance	Located on the south side of the building	Good
Master (House) Meter	Located on the south side of the building	Good
Emergency Power		N/A
Transfer Switch		N/A

Comments

Electricity is provided to the building by Dominion Virginia Power through a pole mounted transformer. The main electrical entrance is located on the north side of the building and provides 120/240-volt, single-phase, 3-wire, 200 amp service.

Photographs

Electrical utility meter

Main service disconnect

3.4.3.2 Distribution

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

Comments

Power is distributed by copper wire from circuit breaker panels located throughout the building. Older circuit breaker panels were reportedly recently replaced during renovations and the new circuit breaker panels are in generally in good condition.

Photographs

Typical circuit breaker panel

3.4.4 Solar Power System

The building contains a Solar Power System. The system consists of arrays of roof top solar panels. The installation of solar panels was reportedly completed in 2011. The solar panel manufacturer reportedly provides a 25-year warranty on the panels.

The solar power system consists of electronic controls located in the basement area. The Solar Power System was generally in good condition.

Photographs

Solar panels located on northeast roof area

Recommendation

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE SOLAR PANELS	25	10	15	15	$20,000
Total					$20,000

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		
Item	**Description**	**Condition**
Sprinkler System (wet)		N/A
Sprinkler Heads		N/A
Date of Last Inspection (sprinkler system)		N/A
Sprinkler Pipe Material		N/A
Fire Extinguishers	Not observed at the time of our visit	Poor
Date of Last Inspection (Fire Extinguishers)		N/A
Fire Standpipes		N/A
Fire Hydrants	Fire hydrant on Ridge Street approximately 200 feet to the south	Good

Comments

The fire suppression system consists of a Fire hydrant on Ridge Street approximately 200 feet to the south. Fire extinguishers were not observed in the building at the time of our visit. We recommend providing fire extinguishers as an immediate item.

Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
PROVIDE FIRE EXTINGUISHERS	1	1	0	Immediate	$200
Total					$200

3.6.2 Alarm Systems

ALARM SYSTEMS		
Item	**Description**	**Condition**
Annunciator Panel		N/A
Central Fire Alarm Control Panel		N/A
Bells		N/A
Strobes		N/A
Exit Signs		N/A
Exit Lights		N/A
Pull Stations		N/A
Smoke Detectors	Missing or disabled	Poor

Comments

The fire alarm system was observed but not tested. Smoke detectors were observed in some portions of the building but were missing or disable in most rooms. Missing and disabled smoke detectors creates a life safety hazard. We recommend the smoke detectors are replaced immediately.

Photographs

Smoke detector

Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE SMOKE DETECTORS	-	0	0	Immediate	$200
Total					$200

3.6.3 Security and Other Systems

Comments

The building has secure access with hardware locks and an electronic security system with motion detection. The security system was generally in good condition.

Photographs

Security system electronics

3.7 INTERIOR BUILDING COMPONENTS

3.7.1 Tenant Spaces

ENTRANCE AREAS		
Item	**Description**	**Condition**
Floor Finishes	Wood	Good
Wall Finishes	Painted plaster and/or painted gypsum board	Good
Ceiling Finishes	Painted plaster and/or painted gypsum board	Good
Lighting	Various fixtures	Good

OFFICES		
Item	**Description**	**Condition**
Floor Finishes	Wood	Good
Wall Finishes	Painted plaster and/or painted gypsum board	Good
Ceiling Finishes	Painted plaster and/or painted gypsum board	Good
Lighting	Various fixtures	Good
Doors	Wood	Good
Door Hardware	Operable	Good

MEETING ROOM		
Item	**Description**	**Condition**
Floor Finishes	Wood	Good
Wall Finishes	Painted plaster and/or painted gypsum board	Good
Ceiling Finishes	Painted plaster and/or painted gypsum board	Good
Lighting	Incandescent fixtures	Good
Doors	Wood	Good
Door Hardware	Operable	Good

RESTROOMS		
Item	**Description**	**Condition**
Floor Finishes	Vinyl tile or wood	Good
Wall Finishes	Painted gypsum board	Good
Ceiling Finishes	Painted gypsum board	Good
Fixtures	Toilets, bathtub, lavatories	Good
Accessories	Mirrors, towel bars	Good
Ventilation	Exhaust fan	Good
Lighting	Varies	Good
Doors	Wood	Good
Door Hardware	Operable	Good

KITCHEN		
Item	**Description**	**Condition**
Floor Finishes	Wood	Good
Wall Finishes	Painted gypsum board	Good
Ceiling Finishes	Painted gypsum board	Good
Counters	Butcher block or laminate	Good
Sink	Stainless	Good
Cabinets	Laminate	Good
Appliances	Residential	Good
Stove/Range	Electric	Good

KITCHEN		
Item	**Description**	**Condition**
Exhaust Vent/Hood	Microwave	Good
Refrigerator	Bottom freezer	Good
Dish Washer	Built-in	Good
Microwave Oven	OTR	Good

Comments

The interior common building areas include an entrance area, offices, meeting rooms restrooms, and kitchen.

The finishes in the entrance areas wood floors, and painted plaster and/or gypsum board walls and painted plaster and/or gypsum board ceilings. The finishes in the entrance areas were observed to be in generally good condition.

The finishes in the meeting areas wood floors, and painted plaster and/or gypsum board walls and painted plaster and/or gypsum board ceilings. The finishes in the meeting areas were observed to be in generally good condition.

The office finishes include wood floors, painted plaster and/or gypsum board walls and painted plaster and/or gypsum board ceilings. The finishes in the offices were observed to be in generally good.

The finishes in the restrooms include vinyl tile or wood floors, painted gypsum board walls, and painted gypsum board ceilings. The restrooms were observed to be in generally good condition.

The finishes in the kitchens include wood floors, painted plaster and/ or gypsum board walls and painted plaster and/or gypsum board ceilings. The finishes in the kitchens were observed to be in generally good condition.

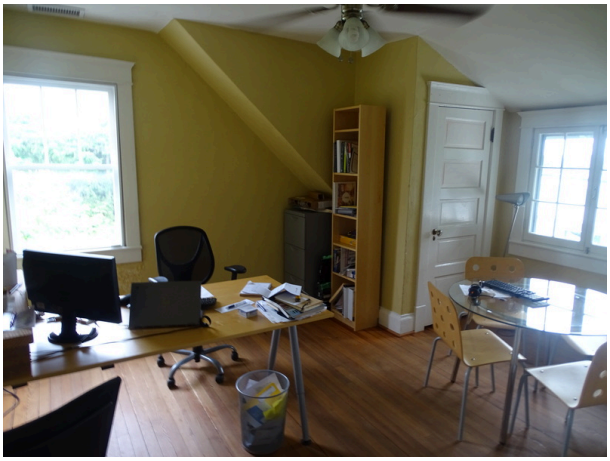
Photographs

Interior finishes meeting room area

Interior finishes kitchen area

Typical restroom

Interior finishes meeting room area



Interior finishes entrance area

Interior finishes kitchen area

Interior finishes restroom area

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 removal is readily achievable and able to be carried out without much difficulty or expense.

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

The parking area serving the property has a total of One parking spaces without a van accessible space. Accessibility requires that one accessible parking space be provided in parking areas with a total of 1 to 25 spaces. One in six of the accessible parking spaces are required to be van accessible. A minimum of a 60-inch wide access aisle is required to be provided for every two accessible parking spaces. The number of parking spaces does not meet accessibility requirements. Accessible aisles were not observed to be provided. We recommend providing a van accessible space with aisle and required signage as an immediate item.

The exterior accessible route from the sidewalk to the porch and main entrance threshold does not include accessible ramps. We recommend installing accessible ramps at the exterior accessible route as an immediate item.

Photographs

Accessible ramp not provided from sidewalk to porch to threshold of main entrance

Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
PROVIDE VAN ACCESSIBLE SPACE WITH SIGN	1	1	0	Immediate	$1,000
PROVIDE RAMPS FOR EXTERIOR ACCESSIBLE ROUTE	1	1	0	Immediate	$1,000

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
Total					$2,000

Uniform Abbreviated Screening Checklist for the 2010 Americans with Disabilities Act			
	Item	**Yes/No**	**Comments**
A.	**History**		
1.	Has an ADA Survey been completed for this property?	Yes	
2.	Have any ADA improvements been made to the property since original construction?	Unknown	
3.	Has building ownership/management reported any ADA complaints or litigation?	N/A	
B.	**Parking**		
1.	Does the required number of standard ADA-designated spaces appear to be provided?	No	None out of the One are accessible.
2.	Does the required number of van-accessible designated spaces appear to be provided?	No	
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?	No	
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?	N/A	
2.	Are curb cut ramps present at transitions through curbs on an accessible route?	N/A	

Uniform Abbreviated Screening Checklist for the 2010 Americans with Disabilities Act			
	Item	**Yes/No**	**Comments**
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?	No	ramps not provided from sidewalk to porch to the main entrance
5.	Do ramps on an accessible route appear to have a compliant length and width?	No	
6.	Do ramps on an accessible route appear to have a compliant end and intermediate landings?	No	
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?	No	
2.	If the main entrance is not accessible, is an alternate accessible entrance provided?	No	
3.	Is signage provided indicating the location of alternate accessible entrances?	No	
4.	Do doors at accessible entrances appear to have compliant clear floor area on each side?	No	
5.	Do doors at accessible entrances appear to have compliant hardware?	No	
6.	Do doors at accessible entrances appear to have complaint opening width?	Yes	
7.	Do pairs of accessible entrance doors in series appear to have the minimum clear space between them?	N/A	
8.	Do thresholds at accessible entrances appear to have compliant height?	Yes	
E.	**Interior Accessible Routes and Amenities**		
1.	Does an accessible route appear to connect with all public areas inside the building?	N/A	

Uniform Abbreviated Screening Checklist for the 2010 Americans with Disabilities Act			
	Item	**Yes/No**	**Comments**
2.	Do accessible routes appear free of obstructions and/or protruding objects?	Yes	
3.	Do ramps on accessible routes appear to have compliant slope?	N/A	
4.	Do ramps on accessible routes appear to have compliant length and width?	N/A	
5.	Do ramps on accessible routes appear to have compliant end and intermediate landings?	N/A	
6.	Do ramps on accessible routes appear to have compliant handrails?	N/A	
7.	Are adjoining public areas and areas of egress identified with accessible signage?	N/A	
8.	Do public transaction areas have an accessible, lowered counter section?	N/A	
9.	Do public telephones appear mounted with an accessible height and location?	N/A	
10.	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?	Yes	
3.	Do doors at interior accessible routes appear to have compliant opening force?	Yes	
4.	Do doors at interior accessible routes appear to have a compliant clear opening width?	Yes	
G.	**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	

Uniform Abbreviated Screening Checklist for the 2010 Americans with Disabilities Act			
	Item	**Yes/No**	**Comments**
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	
6.	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	
8.	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	
H.	**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?	N/A	
7.	Do toilet stalls appear to provide the minimum compliant clear floor area?	N/A	

Uniform Abbreviated Screening Checklist for the 2010 Americans with Disabilities Act			
	Item	**Yes/No**	**Comments**
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	
I.	**Hospitality Guestrooms**		
1.	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 and previous reports.

4.2 INTERVIEW SUMMARY

ECS was escorted through the property by a 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 CITY OF CHARLOTTESVILLE GIS PROPERTY INFORMATION

In lieu of ECS determining the Facility Condition Index (FCI) value for the The Energy House building, ECS was requested to provide GIS property information from available public records. Based on the available information, it is understood the total value of the property is $257,300. The GIS property information is included as an appendix to this report.

8.0 LIMITATIONS AND QUALIFICATIONS

ECS's FCA cannot wholly eliminate the uncertainty regarding the presence of physical deficiencies and the performance of a property's building systems. Preparation of a FCA in accordance with ASTM E 2018-15 “Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process” is intended to reduce, but not eliminate, the uncertainty regarding the potential for component or system failure and cannot reduce the potential that such component or system may not be initially observed.

This FCA was prepared recognizing the inherent subjective nature of ECS's opinions as to such issues as workmanship, quality of original installation, and estimating the remaining useful life of any given component or system. It should be understood that ECS's suggested remedy may be determined under time constraints, formed without the aid of engineering calculations, testing, exploratory probing, the removal of materials, or design. Furthermore, there may be other alternate or more appropriate schemes or methods to remedy the physical deficiency. ECS’s opinions are generally formed without detailed knowledge from individuals familiar with the component’s or system’s performance.

The opinions ECS expresses in this report were formed utilizing the degree of skill and care ordinarily exercised by a prudent professional in the same community under similar circumstances. ECS assumes no responsibility or liability for the accuracy of information contained in this report which has been obtained from the Client or the Client's representatives, from other interested parties, or from the public domain. The conclusions presented represent ECS' professional judgment based on information obtained during the course of this assignment. ECS's evaluations, analyses and opinions are not representations regarding the design integrity, structural soundness, or actual value of the property. Factual information regarding operations, conditions and test data provided by the Client or their representative has been assumed to be correct and complete. The conclusions presented are based on the data provided, observations made, and conditions that existed specifically on the date of the assessment.

Appendix I: SITE MAP AND AERIAL PHOTOGRAPH

Site Map

The Energy House - FCA 2021

Aerial Photograph

The Energy House - FCA 2021

Appendix II: City of Charlottesville GIS Property Information

September 22, 2021

City of Charlottesville, Virginia

608 RIDGE ST

Base Information

Parcel Number:	290264000	**Current Owner:**	CITY OF CHARLOTTESVILLE
State Code:	7.3 Exempt Local	**Attention:**	No Data
Tax Type:	Exempt	**Owner Address:**	PO BOX 911
Zone:	R-2H	**Owner City State:**	CHARLOTTESVILLE VA
Acreage:	0.2370	**Owner Zip Code:**	22902
Legal:	LOT		

Additional Data

Elementary School Zone:	290264000
Voting Precinct:	7.3 Exempt Local
Neighborhood:	Exempt

Stormwater Utility Information

Impervious Area:	5
Billing Units:	2,043 sq. ft.
Projected Stormwater Utility Annual Fee:	$72.00

Commercial Details

Commercial Details

Use Code:	Office
Year Built:	1910
Gross Area:	1982
Story Height:	8.00
No. of Stories:	2.00

Type	Description:	Area:	Year Built:
Addition	First Floor	1880	No Data
Addition	Open Porch	102	No Data
Addition	First Floor	247	No Data

Commercial Details

Use Code:	Office
Year Built:	1910
Gross Area:	1982
Story Height:	8.00
No. of Stories:	2.00

Commercial Details

Use Code:	Office
Year Built:	1910
Gross Area:	247
Story Height:	8.00
No. of Stories:	1.00

Commercial Details

Use Code:	Office
Year Built:	1910
Gross Area:	247
Story Height:	8.00
No. of Stories:	1.00

Ownership History

Date of Sale	Sale Price	Owner Name	Book
2/15/2008	$170,000.00	CITY OF CHARLOTTESVILLE	1176:745
4/29/1999	$0.00	ASAI, GEORGE N & NOBUKO M TRUSTEES	751:849
11/8/1991	$0.00	ASAI, NOBUKO	569:1
8/27/1985	$79,900.00	ASAI, NOBUKO	0:0

Assessment History

Year	Land Value	Improvement Value	Total Value
2021	$101,900.00	$155,400.00	$257,300.00
2020	$92,600.00	$155,400.00	$248,000.00
2019	$77,200.00	$155,400.00	$232,600.00
2018	$67,100.00	$141,300.00	$208,400.00
2017	$11,000.00	$134,600.00	$145,600.00
2016	$11,000.00	$134,600.00	$145,600.00
2015	$10,000.00	$122,400.00	$132,400.00
2014	$10,000.00	$122,400.00	$132,400.00
2013	$17,400.00	$140,800.00	$158,200.00
2012	$17,400.00	$140,800.00	$158,200.00
2011	$17,400.00	$140,800.00	$158,200.00
2010	$17,400.00	$140,800.00	$158,200.00
2009	$17,400.00	$140,800.00	$158,200.00
2008	$15,100.00	$122,400.00	$137,500.00
2007	$15,100.00	$122,400.00	$137,500.00
2006	$15,100.00	$122,400.00	$137,500.00
2005	$15,100.00	$122,400.00	$137,500.00
2004	$15,100.00	$122,400.00	$137,500.00
2003	$15,100.00	$122,400.00	$137,500.00
2002	$14,400.00	$111,300.00	$125,700.00
2001	$12,000.00	$106,000.00	$118,000.00
2000	$9,600.00	$99,700.00	$109,300.00
1999	$8,000.00	$96,800.00	$104,800.00
1998	$7,800.00	$94,000.00	$101,800.00
1997	$7,800.00	$94,000.00	$101,800.00

Charlottesville GIS Viewer

Legend

- Parcels
- Addresses
- City Limits

N
W E
S

Feet
0 20 40 60 80

Title: Parcels

Date: 9/22/2021

DISCLAIMER:The City makes no warranties, expressed or implied, concerning the accuracy, completeness or suitability of this data, and it should not be construed or used as a legal description. The information displayed is a compilation of records, information, and data obtained from various sources, and the City is not responsible for it's accuracy or how current it may be. Every reasonable effort is made to ensure the accuracy and completeness of the data. Pursuant to Section 54.1-402 of the Code of Virginia, any determination of topography or contours, or any depiction of physical improvements, property lines or boundaries is for general information only and shall not be used for the design, modification or construction of improvements to real property or for flood plain determination.

Appendix III: SITE PHOTOGRAPHS

1 - The Energy House

2 - Asphalt parking area

3 - Asphalt parking area

4 - Concreted sidewalk

5 - Concrete steps

6 - Typical landscaping

7 - Trash container at south side of the building

8 - Structural framing

9 - Porch area overview

10 - Exterior soffit at west side of the building

11 - Wood Trim condition

12 - Typical downspout

13 - Buildinng exteriors

14 - Building exterior at northeast side of the building

15 - Wood Deck

16 - Building exterior at east side of the building

17 - Exterior window condition at east side of the building

18 - Building exterior sealants - note deterioration

19 - Deterioration of exteriors at chimney

20 - Deterioration of exterior wall

21 - Building exterior at south side of the building

22 - Metal roofing system south side of the building

23 - Metal roofing system south side of the building

24 - Typical gutter and down spout

25 - Main entrance door

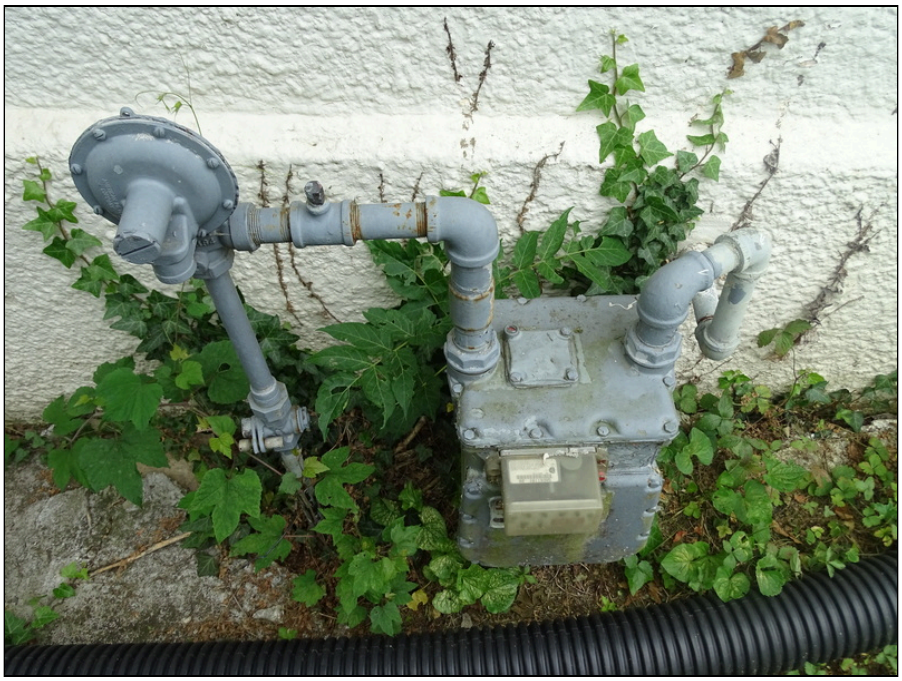
26 - Typical exterior door

27 - Typical exterior window units

28 - Typical exterior window

29 - Typical exterior window units

30 - Typical window



31 - Gas meter

32 - Solar thermal water heater

33 - Heat Pump

34 - Typical split system

35 - Typical digital thermostat

36 - Electrical utility meter

37 - Main service disconnect

38 - Solar panels located on northeast roof area

39 - Solar service disconnect

40 - Typical circuit breaker panel

41 - Interior finishes kitchen area

42 - Interior finishes kitchen area

43 - Interior wall condition

44 - Interior finishes meeting room area

45 - Interior stair overview

46 - Typical mechanical duct

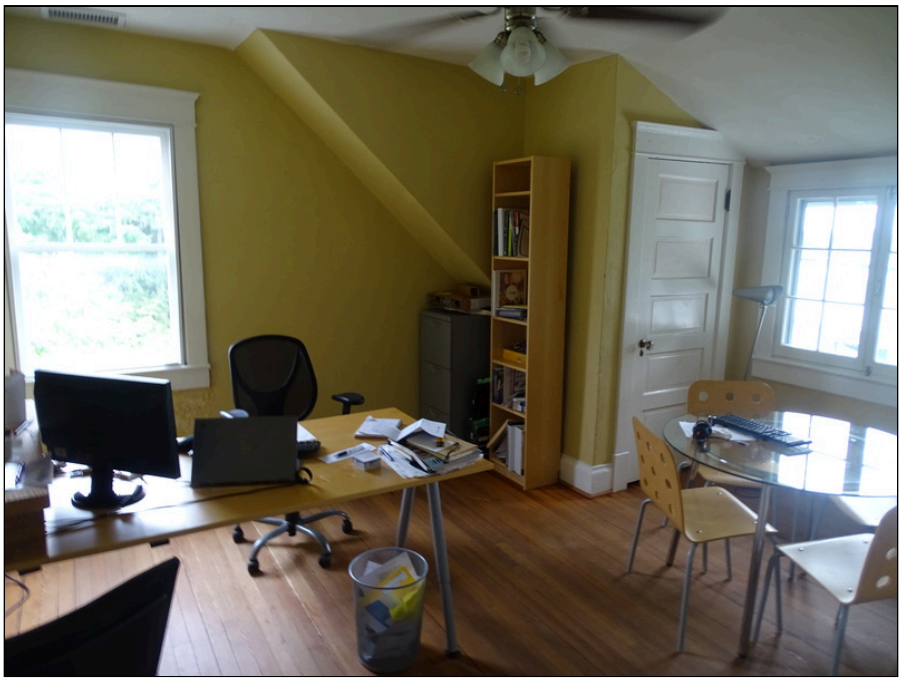
47 - Smoke detector

48 - Security system electronics

49 - Air Handler Unit

50 - Typical restroom

51 - Interior finishes meeting room area



52 - Interior finishes entrance area

53 - Laundry area interior

54 - Interior finishes kitchen area

55 - Interior finishes restroom area

56 - Accessible ramp not provided from sidewalk to porch to threshold of main entrance

Appendix IV: RESUMES

William R. Pratt, PE

Senior Project 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 the Professional-In-Charge of the code compliance group and provides supervision of code compliance inspection programs for the local jurisdictions. Additionally, he oversees execution of project management for construction materials testing, property condition assessments.

Property Condition Assessments - Bill has 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: Baseline 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
- 4th Street Reconstruction, Washington, DC
- Sibley Memorial Hospital Addition, Cancer Center, Washington, DC
- Washington Headquarters Services, Arlington, VA
- Walmart #5968-00, Washington, DC
- Progression Place, 7th Street, NW, Washington, DC
- National Gallery of Art, Washington, DC
- City Market @ O, Washington, DC

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

DONALD GOGLIO

CODE COMPLIANCE PROJECT MANAGER

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.

CERTIFICATIONS

WSSC Master Plumber

WSSC Master Gasfitter

WSSC Cross Connection Technician Certification

CPR/First Aid Training

OSHA 30 hr Training

ICC Certified Commercial Building Inspector

ICC Certified Commercial Plumbing Inspector

ICC Certified Commercial Mechanical Inspector

LEED Green Associate

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

DONALD GOGLIO

CODE COMPLIANCE PROJECT MANAGER

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
- 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 – Assistant Superintendent
- Hidden Creek, Gaithersburg, MD
- Paramount, Gaithersburg, MD
- Thayer & Spring, Silver Spring, MD

CERTIFICATIONS

WSSC Master Plumber

WSSC Master Gasfitter

WSSC Cross Connection Technician Certification

CPR/First Aid Training

OSHA 30 hr Training

ICC Certified Commercial Building Inspector

ICC Certified Commercial Plumbing Inspector

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EDUCATION

Trade Specific (Plumbing), 1991, Montgomery College, Silver Spring, MD

YEARS OF EXPERIENCE

ECS: <1 Other: 38