
JACKSON VIA ELEMENTARY SCHOOL
508 HARRIS ROAD
CHARLOTTESVILLE, VIRGINIA

ECS PROJECT NO. 46:6713

FOR

CITY OF CHARLOTTESVILLE - FACILITIES DEVELOPMENT

OCTOBER 29, 2021

October 29, 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 Jackson Via Elementary School, 508 Harris Road, 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

Donald M. Goglio
Project Manager
DGoglio@ecslimited.com
703-471-8400

Michael G. Doyle, AIA
Principal Architect
mdoyle@ecslimited.com
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 | X | | Repair | | $25,000 |
| 3.2.5 Flatwork | | X | | Replace | | $20,000 |
| 3.2.6 Landscaping and Appurtenances | X | | | None | | |
| 3.2.7 Recreational Facilities | | X | | Replace | | $59,000 |
| 3.2.8 Special Utility Systems | | NA | | None | | |
| 3.3.1 Foundation | X | | | None | | |
| 3.3.2 Building Frame | | X | | Structural evaluation | $5,000 | |
| 3.3.3 Building Exteriors | | X | | Repair | | $70,000 |
| 3.3.4 Exterior Doors | X | | | None | | |
| 3.3.5 Exterior Windows | | X | | Replace | | $100,000 |
| 3.3.6 Roofing Systems | | X | X | Replace | | $780,000 |
| 3.4.1.1 Supply and Waste Piping | X | | | None | | |
| 3.4.1.2 Domestic Hot Water Production | | X | | Replace | | $4,400 |
| 3.4.2.1 Equipment | X | X | | Replace | | $515,500 |
| 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 | X | | | None | | |
| 3.6.1 Sprinklers and Suppression Systems | X | | | None | | |
| 3.6.2 Alarm Systems | X | | | None | | |
| 3.6.3 Security and Other Systems | X | | | None | | |
| 3.7.1 Interior Finishes | X | | | None | | |
| 3.8 Accessibility (ADA) Compliance | X | X | | INSTALL ADDITIONAL ACCESSIBLE PARKING SPACES | $1,500 | |
| 5.1 MOISTURE AND MOLD | X | | | None | | |
| Totals | | | | | $6,500 | $1,573,900 |

| Summary | Today's Dollars | $/Square Feet |
|---|---|---|
| Immediate Repairs | $6,500 | $0.15 |

| | Today's Dollars | $/Square Feet | $/Square Feet/Year |
|---|---|---|---|
| Replacement Reserves, today's dollars | $1,573,900.00 | $36.82 | $1.84 |
| Replacement Reserves, w/20, 2.5% escalation | $1,720,854.73 | $40.25 | $2.01 |

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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 Jackson Via Elementary School 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:

| | |
|---|---|
| William R. Pratt, P.E. | Principal Engineer |
| | Phone: 703-471-8400 |
| | E-mail: wpratt@ecslimited.com |
| Michael G. Doyle, AIA | Principal Architect |
| | Phone: 703-471-8400 |
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| Donald M. Goglio | Project Manager |
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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

Jackson Via Elementary School, located at 508 Harris Road, in Charlottesville, Virginia, consists of a Two-story building. The building totals approximately 42,751 square feet. Parking is provided with Asphalt pavement. The School building was reportedly constructed in 1968.

| SURVEY INFORMATION | |
|---|---|
| Date of Assessment | July 1, 2021 |
| Assessor | William R. Pratt, P.E. |
| Weather Conditions | Cloudy \| 91F |
| Property Contact | Josh Bontrager, Project Manager for the City of Charlottesville - Facilities Development |

| SITE INFORMATION | |
|---|---|
| Land Area | 20.36 acres |
| Major Cross Streets | 5th Street SW |
| Pavement - Parking | Asphalt pavement |
| Number of Parking Spaces | 123 |
| Number of Accessible Spaces | Two |
| Number of Van Accessible Spaces | Two |
| Pedestrian Sidewalks | Concrete sidewalks |

| BUILDING INFORMATION | |
|---|---|
| Building Type | School |
| Number of Buildings | One |
| Building Height | Two-story |
| Square Footage | 42,751 |
| Year Constructed | 1968 |
| Year Remodeled | Unknown |

| BUILDING CONSTRUCTION | |
|---|---|
| Foundation | Assumed shallow spread footings |
| Structural System | Structural steel with concrete elevated slabs |
| Roof | Single-ply sheet membrane |
| Exterior Finishes | Brick veneer |
| Windows | Metal frame single pane and/or double pane |

| BUILDING CONSTRUCTION | |
|---|---|
| Entrance | Storefront entrance |

| BUILDING SYSTEMS | |
|---|---|
| HVAC System | Central plant HVAC system with supplemental heating/cooling equipment |
| Domestic Hot Water | Gas domestic water heater |
| Water Distribution | Copper |
| Sanitary Waste Line | PVC and cast iron |
| Electrical Service | 3-phase, 4-wire, 1,000 amps |
| Branch Wiring | Copper |
| Elevators | One passenger elevator |
| Fire Suppression System | Wet sprinkler system and fire extinguishers with automated fire alarm system with alarm bell, strobe, and pull down stations |

| 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 |
|---|---|---|---|---|---|
| **3.3.2 Building Frame** | | | | | |
| PROVIDE AN ALLOWANCE TO FURTHER ASSESS THE STRUCTURAL SYSTEM | 1 | LS | $5,000.00 | 100% | $5,000 |
| **3.8 Accessibility (ADA) Compliance** | | | | | |
| PROVIDE THREE ACCESSIBLE PARKING SPACES AND AISLES | 3 | EA | $500.00 | 100% | $1,500 |
| Total Repair Cost | | | | | $6,500.00 |

## 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.2.4 Paving, Curbing, and Parking | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MILL, OVERLAY AND RESTRIPE EXISTING ASPHALT | 20 | 19 | 1 | 1 | LS | $25,000.00 | $25,000 | 100% | $12,500 | | | | | | | | | $12,500 | | | | | | | | | | | $25,000 |
| 3.2.5 Flatwork | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| REPLACE CONCRETE SIDEWALKS, STEPS, AND RAMP SECTIONS AS NEEDED | 25 | 24 | 1 | 4 | EA | $5,000.00 | $20,000 | 100% | $5,000 | | | | | $5,000 | | | | | $5,000 | | | | | $5,000 | | | | | $20,000 |
| 3.2.7 Recreational Facilities | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| REPLACE PLAYGROUND EQUIPMENT | 20 | 10 | 10 | 1 | EA | $45,000.00 | $45,000 | 100% | | | | | | | | | | $45,000 | | | | | | | | | | | $45,000 |
| RESURFACE BASKETBALL COURT | 20 | 19 | 1 | 1 | LS | $14,000.00 | $14,000 | 100% | $14,000 | | | | | | | | | | | | | | | | | | | | $14,000 |
| 3.3.3 Building Exteriors | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| REPOINT BRICKWORK | 20 | 8 | 12 | 1 | LS | $30,000.00 | $30,000 | 100% | | | | | | | | | | | | $30,000 | | | | | | | | | $30,000 |
| PAINT EXPOSED STEEL ELEMENTS | 10 | 1 | 9 | 1 | LS | $15,000.00 | $15,000 | 100% | | | | | | | | | $7,500 | | | | | | | | | | $7,500 | | $15,000 |
| REPLACE SEALANTS | 12 | 10 | 2 | 1 | LS | $25,000.00 | $25,000 | 100% | | $12,500 | | | | | | | | | | | | $12,500 | | | | | | | $25,000 |
| 3.3.5 Exterior Windows | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| REPLACE WINDOW UNITS | 20 | 19 | 1 | 100 | EA | $1,000.00 | $100,000 | 100% | $50,000 | $50,000 | | | | | | | | | | | | | | | | | | | $100,000 |
| 3.3.6 Roofing Systems | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| REPLACE SINGLE-PLY ROOFING SYSTEM | 15 | 15 | 0 | 55,000 | SF | $14.00 | $770,000 | 100% | $770,000 | | | | | | | | | | | | | | | | | | | | $770,000 |
| REPLACE SKYLIGHTS AS NEEDED | 20 | 19 | 1 | 1 | LS | $10,000.00 | $10,000 | 100% | $10,000 | | | | | | | | | | | | | | | | | | | | $10,000 |
| 3.4.1.2 Domestic Hot Water Production | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| REPLACE WATER HEATERS | 12 | 4 | 8 | 2 | EA | $2,200.00 | $4,400 | 100% | | | | | | | | $4,400 | | | | | | | | | | | | | $4,400 |
| 3.4.2.1 Equipment | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| REPLACE BOILERS | 20 | 18 | 2 | 2 | EA | $25,000.00 | $50,000 | 100% | | $50,000 | | | | | | | | | | | | | | | | | | | $50,000 |
| REPLACE HEAT PUMP | 15 | 14 | 1 | 2 | EA | $5,000.00 | $10,000 | 100% | $5,000 | | | | | | | | | | | | | | | $5,000 | | | | | $10,000 |
| REPLACE AIR HANDLERS | 15 | 14 | 1 | 6 | EA | $10,000.00 | $60,000 | 100% | $60,000 | | | | | | | | | | | | | | | | | | | | $60,000 |
| REPLACE WATER SOURCE HEAT PUMPS | 20 | 7 | 13 | 85 | EA | $2,500.00 | $212,500 | 100% | | | | | | | | | | | | | $42,500 | $42,500 | $42,500 | $42,500 | $42,500 | | | | $212,500 |
| REPLACE DEHUMIDIFIER UNITS | 15 | 11 | 4 | 10 | EA | $5,000.00 | $50,000 | 100% | | | | $50,000 | | | | | | | | | | | | | | | | | $50,000 |
| REPLACE COOLING TOWER | 18 | 17 | 1 | 1 | EA | $30,000.00 | $30,000 | 100% | $30,000 | | | | | | | | | | | | | | | | | | | | $30,000 |
| REPLACE SPACE HEATERS | 20 | 15 | 5 | 1 | EA | $1,000.00 | $1,000 | 100% | | | | | $1,000 | | | | | | | | | | | | | | | | $1,000 |
| REPLACE SPLIT SYSTEM | 15 | 9 | 6 | 1 | EA | $2,000.00 | $2,000 | 100% | | | | | | $2,000 | | | | | | | | | | | | | | | $2,000 |
| REPLACE FAN COIL UNITS | 20 | 15 | 5 | 50 | EA | $2,000.00 | $100,000 | 100% | | | | | $100,000 | | | | | | | | | | | | | | | | $100,000 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total (Uninflated) | | | | | | | | | $956,500.00 | $112,500.00 | $0.00 | $50,000.00 | $101,000.00 | $7,000.00 | $0.00 | $4,400.00 | $7,500.00 | $57,500.00 | $5,000.00 | $30,000.00 | $42,500.00 | $55,000.00 | $42,500.00 | $52,500.00 | $42,500.00 | $0.00 | $7,500.00 | $0.00 | $1,573,900.00 |
| 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) | | | | | | | | | $956,500.00 | $115,312.50 | $0.00 | $53,844.53 | $111,485.10 | $7,919.86 | $0.00 | $5,230.22 | $9,138.02 | $71,809.62 | $6,400.42 | $39,362.60 | $57,157.78 | $75,818.11 | $60,051.39 | $76,035.65 | $63,091.49 | $0.00 | $11,697.44 | $0.00 | $1,720,854.73 |

| | |
|---|---|
| Evaluation Period: | 20 |
| # of Square Feet: | 42,751 |
| Reserve per Square Feet per year (Uninflated) | $1.84 |
| Reserve per Square Feet per year (Inflated) | $2.01 |

## 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 Jackson Via Elementary School 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 School building.

#### 3.1.1 Property Location

The Property is located at 508 Harris Road in Charlottesville, Virginia.

| Surrounding Properties | |
|---|---|
| North | 5th Street SW |
| East | Commercial properties |
| South | Residential properties |
| West | Residential 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 53 years ago in 1968.

#### 3.1.3 Current Property Improvements

The School building, located at 508 Harris Road, in Charlottesville, Virginia, consists of a Two-story building. The building totals approximately 42,751 square feet. Parking is provided 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 south | Good |
| Adjoining Properties | Generally down slope | Good |

**Comments**

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

### 3.2.2 Storm Water Drainage

| STORM WATER DRAINAGE | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Storm Water Collection System | Municipal | Good |
| Storm Water (Retention) Pond | | N/A |
| Storm Water Filtration Structure | | N/A |
| | | |
| Pavement Drainage | Storm inlets | Good |
| Landscape Drainage | Drainage to south | Good |
| Sump Pumps | | N/A |

**Comments**

The storm water collection system is a municipal system.

**Photographs**

Typical storm drainage

### 3.2.3 Access and Egress

| SITE ACCESS AND EGRESS | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Entrance Aprons | Concrete | Good |
| Fire Truck Access | North side of the property | Good |
| Easements | | N/A |

**Comments**

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

**Photographs**

Asphalt drive lane entrance - note cracking

### 3.2.4 Paving, Curbing, and Parking

| PARKING | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Striping | Painted | Fair |
| Quantity of Parking Spaces | 123 | Good |

| PARKING | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Quantity of Loading Spaces | | N/A |
| Arrangement of Spaces | Perpendicular and parallel spaces | Good |
| Site Circulation | Two-way and one-way drive aisles | Good |
| Lighting | | N/A |
| Accessible Spaces | Two | Poor |
| Accessible Aisles | None exist | Poor |

| SURFACE PAVEMENT | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Pavement Surface | Asphalt pavement | Fair |
| Drainage | Storm inlets | Good |
| Repair History | Repairs and crack sealing noted | Fair |
| Concrete Curbs and Gutters | Chipping and cracking noted | Fair |
| Dumpster Pad | Asphalt | Fair |
| Asphalt Curbs | | N/A |
| Fire Lane Painting | | Good |

**Comments**

Asphalt-paved drive lanes and parking areas are located on the north and south side of the site which also provides access to the site. Additional parking is provided along the southern drive lane. The asphalt pavement was observed to be in generally fair condition with alligator cracks observed on the pavement. Striping was in fair condition. The expected useful life of asphalt pavement is 20 years. We have provided allowances to repair the cracked areas of asphalt pavement.

**Photographs**

Asphalt drive lane west side of the site

Asphalt drive lane east side of the site - note cracking and previous repair

Asphalt drive lane west side of the site - note cracking

Asphalt drive lane west side of the site - note alligator cracks

Asphalt drive lane - note cracking

Asphalt drive lane east side of the site - note cracking and previous repair

Asphalt drive lane east side of the site - note cracking and previous repair

Asphalt parking east side of site - note cracking

Asphalt parking east side of site

Asphalt parking east side of site - note cracking

Concrete curb and gutter- note deterioration

**Recommendations**

| Cost Recommendation | EUL | EFF AGE | RUL | Year | Cost |
|---|---|---|---|---|---|
| MILL, OVERLAY AND RESTRIPE EXISTING ASPHALT | 20 | 19 | 1 | 1<br>10 | $12,500<br>$12,500 |
| Total | | | | | $25,000 |

### 3.2.5 Flatwork

| SIDEWALKS | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Walkways | Concrete sidewalks | Fair |
| Patios | Concrete | Fair |
| Steps | Concrete, Concrete with applied treads, and Concrete with CIP nosings | Fair |
| Landings | Concrete | Fair |
| Handrails | Steel tube and square stock | Good |
| Ramps | Concrete | Fair |
| Curb Ramps | Concrete | Fair |
| Truncated Domes | Inset plastic, missing at some locations | Fair |

**Comments**

At the perimeter of the building, concrete sidewalks of undetermined thickness are provided. Regularly spaced control joints were observed. The concrete sidewalks were generally in fair condition, with some cracked sections observed. We recommend the cracked and settled sections be replaced as necessary.

The steps and ramps were observed to be in generally fair condition. Previously repaired concrete sidewalks appeared to be in good condition. The handrails adjacent to the steps and ramps were observed to be in generally good condition. There is a concrete patio on the northwest side of the building. The patio was generally in fair condition.

An asphalt sidewalk is located on the west side of the site. The asphalt sidewalk was in good condition.

**Photographs**

Concrete apron and asphalt drive lane west side of the site

Concrete sidewalk

Concrete ramp - note need to install truncated domes

Concrete sidewalk - note cracking

Concrete sidewalk - note cracking

Concrete sidewalk - note cracking

Concrete sidewalk - note cracking

Concrete sidewalk - note cracking

Concrete sidewalk - note cracking

Concrete sidewalk and ramp

Concrete sidewalk - note deterioration

Concrete stair handrail - note deterioration

Asphalt surface - note cracking and grass growing

Concrete ramp- note deterioration

Concrete stair - note stained

**Recommendations**

| Cost Recommendation | EUL | EFF AGE | RUL | Year | Cost |
|---|---|---|---|---|---|
| REPLACE CONCRETE SIDEWALKS, STEPS, AND RAMP SECTIONS AS NEEDED | 25 | 24 | 1 | 1<br>6<br>11<br>16 | $5,000<br>$5,000<br>$5,000<br>$5,000 |
| Total | | | | | $20,000 |

### 3.2.6 Landscaping and Appurtenances

| LANDSCAPING | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Trees | Located on north side of the building | Good |
| Planting Beds | Located at north side of the building | Good |
| Lawn Areas | Located on south side of the building | Fair |
| Irrigation System | | N/A |
| Monumental Sign | Located on north side of the building | Good |
| Landscape Lighting | | N/A |
| Retaining Walls | | N/A |
| Fences and Gates | At play area | Good |
| Dumpster Area | Located at northeast end of the site | Good |
| Fountains | | N/A |

**Comments**

The landscaping consists generally of mature trees, small shrubs, and grassed areas around the site. The landscaping was observed to be in generally good condition.

A sign is located at the north entrance. It is a painted wooden sign set in brick framing. The painted wooden sign was generally in good condition. We recommend painting the wood sign as a maintenance item as needed.

**Photographs**

Typical landscape and setting area

Typical landscape

Typical lawn area

Typical landscape and setting area - note table broken

### 3.2.7 Recreational Facilities

| BASKETBALL COURT | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Playing Surface | South of the building | Poor |
| Fencing | | N/A |
| Lighting | | N/A |

| PLAYGROUND | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Playing Surface | Mulch or hard rubber pavers | Good |
| Fencing | Vinyl coated chain link | Good |
| Equipment | Plastic/vinyl coated | Good |
| Lighting | | N/A |

**Comments**

Basketball Court

The basketball court was located on the south side of the property. The surface was in poor condition with multiple cracks and vegitation growth. The expected useful life of the surface is approximately 20 years. We recommend an allowance be provided to resurface the basketball court.

Playground

Various playground equipment is located on the south side of the property. The playgrounds consisted of various plastic play equipment and were located on mulched play surfaces or hard rubber pavers. The playground equipment was in good condition. Mulching of the playgrounds when required is considering a maintenance item. The expected useful life of playground equipment is 15 to 20 years with proper maintenance. An allowance for replacement of the equipment is included later in the study period.

**Photographs**

Typical fencing overview

Playground south end of the site

Playground southwest end of the site

Playground overview

Playground overview

Asphalt playing surface - note cracking and grass growing

Basketball court south of the building

**Recommendations**

| Cost Recommendation | EUL | EFF AGE | RUL | Year | Cost |
|---|---|---|---|---|---|
| REPLACE PLAYGROUND EQUIPMENT | 20 | 10 | 10 | 10 | $45,000 |
| RESURFACE BASKETBALL COURT | 20 | 19 | 1 | 1 | $14,000 |
| Total | | | | | $59,000 |

### 3.2.8 Special Utility Systems

| Item | Description | Condition |
|---|---|---|
| Water Well | | N/A |
| Lift Station | | N/A |
| Septic Field | | N/A |
| Solar Power | | N/A |
| Wind Power | | N/A |

**Comments**

The Property does not contain special utility systems.

## 3.3 STRUCTURAL FRAME AND BUILDING EXTERIOR

### 3.3.1 Foundation

| FOUNDATION | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Load Bearing Support | Assumed shallow spread footings | Good |
| Basement | Walk-out Lower level | 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 | Concrete | Good |
| Roof Framing | Structural steel | Good |
| Columns | Concrete and steel | Fair/poor |
| Load Bearing Walls | CMU | Good |
| Balconies | Concrete with steel railings | Fair |
| Decks | | N/A |

**Comments**

The structure of the building consists of Structural steel with concrete elevated slabs. The structural frame of the building was generally in fair condition. On the south side of the structure, major cracking and signs of previous patching were apparent on the concrete supports for steel columns above. We recommend a professional structural evaluation of the existing conditions be performed in the immediate future. This service can be provided by ECS.

**Photographs**

Building exterior - note column cracking

Building exterior - note stained and sealant repair

Building exterior - note staining in the parapet

Building exterior west side of the building

Building exterior

**Recommendations**

| Cost Recommendation | EUL | EFF AGE | RUL | Year | Cost |
|---|---|---|---|---|---|
| PROVIDE AN ALLOWANCE TO FURTHER ASSESS THE STRUCTURAL SYSTEM | 0 | 0 | 0 | Immediate | $5,000 |
| Total | | | | | $5,000 |

### 3.3.3 Building Exteriors

| EXTERIOR FINISHES | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Masonry | Brick veneer | Fair |
| Glass Store Front | Main entrance and windows | Fair |
| Glass Curtain Wall | | N/A |
| Metal | Coping and flashings | Good |
| Concrete | Foundation walls and columns | Fair |
| Wood Siding | | N/A |
| Accent/Trim | Metal trim and structure steel | Good |
| Covered Soffits | Concrete and steel | Fair |
| Awnings | Concrete and steel | Fair |

| EXTERIOR FINISHES | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Paint | Exposed steel | Good |
| Sealants | | Poor |

**Comments**

The primary exterior of the building consists of Brick veneer. Painted, exposed steel beams and columns and concrete were located throughout the building. The building exteriors were generally in fair condition with limited deterioration observed. The expected useful life of mortared joints is approximately 20 years before re-pointing is required. Limited deterioration of mortar joints was observed. We recommend re-pointing of the deteriorated mortar joints near the end of the report period. The paint was in good condition.

Exterior sealants are located around the window and door frames. The expected useful life of exterior sealants is approximately 10 to 12 years before replacement is needed. The exterior sealants were generally in poor condition. The sealants were observed to be hard and separated from the substrate. We recommend that the exterior sealants be replaced.

Various awning structures are located around the perimeter of the building. The awnings consist of a concrete deck with steel columns. The soffits in covered areas were painted. The paint was observed to be generally in good condition. The awnings should be painted as needed in conjunction with the exposed concrete beams and columns painting project.

A limited number of recessed lighting fixtures in the soffit were damaged, not working, or otherwise in need of replacement and are considered a maintenance item.

**Photographs**

Building exteriors

Building exterior southwest side of the building

Building exterior - note staining in the parapet

Building exterior

**Recommendations**

| Cost Recommendation | EUL | EFF AGE | RUL | Year | Cost |
|---|---|---|---|---|---|
| REPOINT BRICKWORK | 20 | 8 | 12 | 12 | $30,000 |
| PAINT EXPOSED STEEL ELEMENTS | 10 | 1 | 9 | 9<br>19 | $7,500<br>$7,500 |
| REPLACE SEALANTS | 12 | 10 | 2 | 2<br>14 | $12,500<br>$12,500 |
| Total | | | | | $70,000 |

### 3.3.4 Exterior Doors

| DOORS | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Main Entrance Doors | Storefront entrance | Good |
| Personnel Doors | Hollow metal | Good |
| Door Hardware | Operable | Good |
| Accessibility Controls | Intercom system | Good |
| Overhead/Roll-up Doors | | N/A |

**Comments**

The main entrance is located at the southwest portion of the building and consists of a Storefront entrance. The main entrance doors were generally in good condition.

Metal and glass personnel doors are located throughout the building. The personnel doors were generally in good condition. It also appeared that some of the doors had been replaced over time. Exterior doors typically have an expected useful life of 20 to 30 years.

**Photographs**

Main entrance doors

Typical personnel door

### 3.3.5 Exterior Windows

| WINDOWS | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Window Frame | Aluminum framed | Fair |
| Glass Pane | Single-pane and double-pane (typically replacement from damage) | Good |
| Operation | | N/A |
| Screen | | N/A |
| Exterior Header | Varies with exterior condition | Good |
| Exterior Sill | Varies with exterior condition | Good |
| Gaskets or Glazing | Neoprene | Fair |

**Comments**

The window system for the building primarily consists of metal frame single pane and/or double pane window units. It was reported that the windows were replaced when damaged as needed. Metal frame single-pane windows have a typical expected useful life of 25 years. Replacement of windows has been included in the study period.

**Photographs**

Older exterior window unit

Typical exterior window - note deterioration of gasket


Typical exterior window

Older exterior window unit

**Recommendations**

| Cost Recommendation | EUL | EFF AGE | RUL | Year | Cost |
|---|---|---|---|---|---|
| REPLACE WINDOW UNITS | 20 | 19 | 1 | 1<br>2 | $50,000<br>$50,000 |
| Total | | | | | $100,000 |

### 3.3.6 Roofing Systems

| ROOFING | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Single-Ply Sheet Membrane | Patching and ponding observed | Poor |
| Slate Shingle | | N/A |
| Parapet Walls | | N/A |
| Cap Flashing/Coping | Metal coping | Fair |
| Insulation | Rigid | Good |
| Substrate/Deck | Metal decking | Good |
| Slope/Pitch | Ponding noted | Fair |
| Drainage | Internal drains | Good |
| Plumbing Vents | Clamped boots | Good |
| Exhaust Vents | Counter flashed | Good |
| Equipment Curbs | Counter flashed | Good |
| Pitch Pockets | | N/A |
| Skylights | Located on north side of the building | Poor |
| Flashing | Metal | Good |
| Expansion Joints | Flush bellows | Good |
| Roof Age | Reportedly replaced in 1999 | Poor |
| Warranty | | N/A |

**Comments**

The main roofing system consists of a single-ply roofing system. The roofing system was reportedly replaced in 1999 and some leaks were reported. The expected useful life of a sheet membrane roofing system is typically 15 years. We recommend replacing the roofing system during the report period.

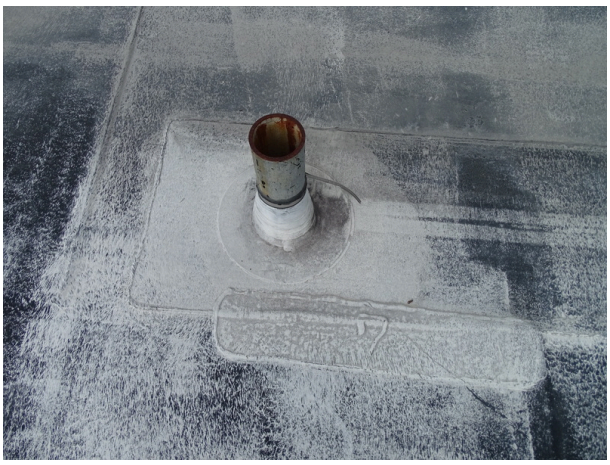
Drainage for the roofing system is provided by internal drains with overflow scuppers. Roofing penetrations included plumbing vents and exhaust vents throughout the roofing system.

There are five skylights on the north side of the building. The skylight frames were corroded and were generally in poor condition. Cracked glass was also noted. We recommend the skylights be replaced during roof replacement.

**Photographs**

Single-ply membrane roofing system

Typical interior drain



Typical plumbing penetration

Single-ply membrane roofing system looking west

Single-ply membrane roofing system looking west - note ponding

Single-ply membrane roofing system looking west

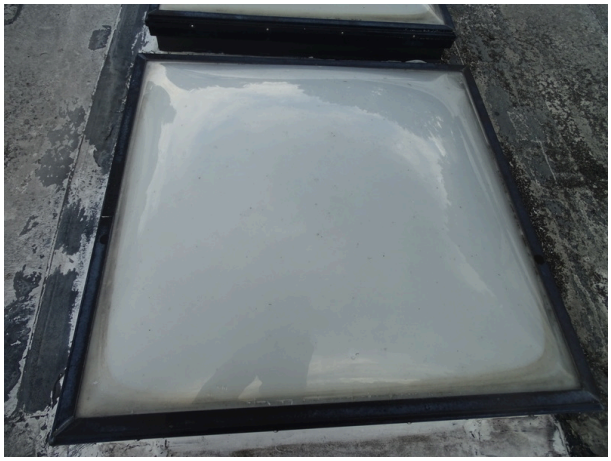
Single-ply membrane roofing system - note patching

Single-ply membrane roofing system looking west

Single-ply membrane roofing system looking west - note ponding

Single-ply membrane roofing system

Skylights located on north side of the building



Skylight located on north side of the building

Skylights located on north side of the building - note glass cracked

Skylight located on north side of the building

**Recommendations**

| Cost Recommendation | EUL | EFF AGE | RUL | Year | Cost |
|---|---|---|---|---|---|
| REPLACE SINGLE-PLY ROOFING SYSTEM | 15 | 15 | 0 | 1 | $770,000 |
| REPLACE SKYLIGHTS AS NEEDED | 20 | 19 | 1 | 1 | $10,000 |
| Total | | | | | $780,000 |

## 3.4 PLUMBING, MECHANICAL, AND ELECTRICAL SYSTEMS

### 3.4.1 Plumbing Systems

#### 3.4.1.1 Supply and Waste Piping

| PLUMBING - WATER SUPPLY SYSTEM | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Piping Material | Copper | Good |
| Pipe Insulation | Fiberglass | Good |
| Water Shut-offs | Ball valves | Good |
| Water Flow and Pressure | | Good |

| PLUMBING - WASTE SUPPLY SYSTEM | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Piping Material | PVC and cast iron | Good |
| Vertical Vent Stacks | PVC and cast iron | Good |
| Clean-outs | PVC and cast iron | 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 PVC and cast iron. The expected useful life of PVC and cast iron waste line is approximately 50 years. The waste lines were generally in good condition and it was observed that some pipes had been replaced over time.

#### 3.4.1.2 Domestic Hot Water Production

| HOT WATER PRODUCTION | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Heating Equipment | Gas domestic water heater | Fair |
| Water Storage | In water heater | Fair |
| Circulation Pumps | | Good |

**Comments**

Domestic hot water to the building is provided by two Gas domestic water heaters. Both Gas domestic water heaters are located in the mechanical room on the north side of the building. The water heaters were manufactured by RUUD and State Industries.

The expected useful life of a Gas domestic water heater is approximately 15 years with proper maintenance. We recommend the Gas domestic water heaters be replaced during the study period.

**Photographs**


Gas domestic water heater

**Recommendations**

| Cost Recommendation | EUL | EFF AGE | RUL | Year | Cost |
|---|---|---|---|---|---|
| REPLACE WATER HEATERS | 12 | 4 | 8 | 8 | $4,400 |
| Total | | | | | $4,400 |

### 3.4.2 HVAC Systems

#### 3.4.2.1 Equipment

| EQUIPMENT | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Boilers | Located in mechanical room | Fair |
| Chillers | Located in mechanical room | Good |

| EQUIPMENT | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Cooling Towers | Located outside at west side of the site | Fair |
| Fan Coil Units | Located at entrances, library, and other rooms | Fair |
| Heat Exchangers | | N/A |
| Radiators | Located in corridors surrounding courtyards | Good |
| Dehumidifier Units | Located throughout the building | Good |
| Condensing Units | Located on west side of the building | Fair |
| Air Handlers | Located in mechanical room and throughout the building | Fair |
| Package Units | | N/A |
| Ceiling Fans | | N/A |
| Exhaust Fans | Various | Good |
| Split System | Located in IT room | Fair |
| Water Source Heat Pumps (WSHP) | Various | Good |
| Space Heaters (wall or ceiling mounted) | Located in mechanical room | Fair |
| Air Conditioners (Window) | | N/A |

**Comments**

The building is served by a Central plant HVAC system with supplemental heating/cooling equipment and includes a cooling tower, boilers, chiller, air handlers, circulation pumps, VFD, condensers, radiators, fan coil units, and dehumidifier units.

Boilers

The Patterson Kelly Boilers have an expected useful life of 20 years with proper maintenance. The two boilers were located in the mechanical room at the west side of the building. The boilers were installed in 2003 and were generally in fair condition. We recommend replacing the boilers during the report period.

Cooling Tower

The cooling tower is located at the west side of the building near the mechanical room. The BAC cooling tower was installed in 2003 and was in fair condition. Cooling towers have a typical expected useful life of approximately 18 years. The cooling tower should be replaced during the study period.

Chiller

A newer chiller manufactured Daiken in 2018 was installed in the mechanical room. The chiller was generally in good condition. The expected useful life of a chiller is 25 years with proper maintenance

Fan Coil Units

Fan coil units are located throughout the building and were replaced in 2005. The approximately 50 fan coil units and radiators have a typical expected life of 20 years. Replacement or refurbishment of the units is recommended during the study period.

Dehumidifier Units

Dehumidifier units are located throughout the building and were installed in 2010. The 10 dehumidifier units manufactured by Honeywell have a typical expected life of 15 years. Replacement or refurbishment of the units is recommended during the study period.

Heat Pump

A heat pump is located at the west side of the building at the loading dock area. The condensing unit was manufactured by Trane in 2003. 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 during the report period.

Air Handlers

Three of the air handlers are located in the mechanical room on the north side of the building and others are located throughout the building . The units in the mechanical room were manufactured by Trane in 2005 and were in fair condition. The expected useful life of air handlers is 15 years with proper maintenance. We recommend that the air handlers be replaced during the report period.

Split System

A split system manufactured by Sanyo was located in the IT room. The system installation date was unknown and was in fair condition. Split systems have an expected useful life of 15 years and should be replaced during the study period.

Space Heaters

Two ceiling mounted space heaters were located in the mechanical room. The space heaters were in good condition. Replacement of the space heaters is included during the study period.

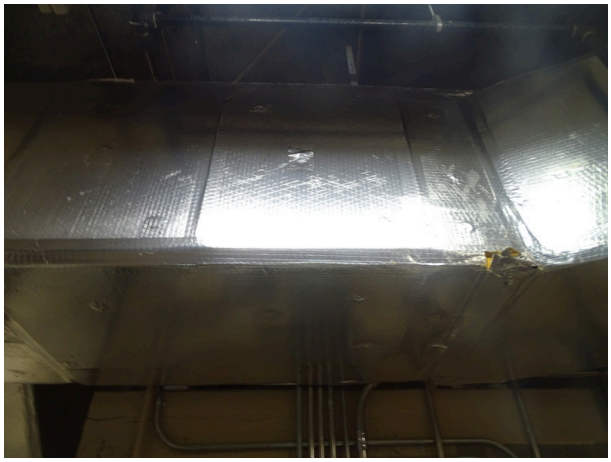
The City of Charlottesville self performs the mechanical service for the equipment.

**Photographs**

Cooling Tower located at west end of the site

Typical Air Handler Unit


Typical Air Handler Unit



Typical mechanical duct

Split system located in IT room


Chiller located in mechanical room

Typical fan coil unit

Boilers located in mechanical room

**Recommendations**

| Cost Recommendation | EUL | EFF AGE | RUL | Year | Cost |
|---|---|---|---|---|---|
| REPLACE BOILERS | 20 | 18 | 2 | 2 | $50,000 |
| REPLACE HEAT PUMP | 15 | 14 | 1 | 1<br>16 | $5,000<br>$5,000 |
| REPLACE AIR HANDLERS | 15 | 14 | 1 | 1 | $60,000 |

| Cost Recommendation | EUL | EFF AGE | RUL | Year | Cost |
|---|---|---|---|---|---|
| REPLACE WATER SOURCE HEAT PUMPS | 20 | 7 | 13 | 13<br>14<br>15<br>16<br>17 | $42,500<br>$42,500<br>$42,500<br>$42,500<br>$42,500 |
| REPLACE DEHUMIDIFIER UNITS | 15 | 11 | 4 | 4 | $50,000 |
| REPLACE COOLING TOWER | 18 | 17 | 1 | 1 | $30,000 |
| REPLACE SPACE HEATERS | 20 | 15 | 5 | 5 | $1,000 |
| REPLACE SPLIT SYSTEM | 15 | 9 | 6 | 6 | $2,000 |
| REPLACE FAN COIL UNITS | 20 | 15 | 5 | 5 | $100,000 |
| Total | | | | | $515,500 |

#### 3.4.2.2 Distribution System

| HVAC DISTRIBUTION | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Ducts | Insulated sheet metal | Good |
| Return Air | Sheet metal | Good |

**Comments**

The distribution system includes ducted supply and a plenum return. Exposed ductwork was observed in limited locations within the building and was in generally good condition.

#### 3.4.2.3 Control Systems

| HVAC CONTROL SYSTEMS | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Thermostats | Digital | Good |
| Variable Frequency Drives | Located in main mechanical room | Good |
| Energy Management System | BAS | Good |

**Comments**

The thermostats are located throughout the interior spaces. The thermostats were observed to be in generally good condition. The BAS system was in good condition.

### 3.4.3 Electrical Systems

#### 3.4.3.1 Service and Metering

| SERVICE AND METERING | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Service Entrance | West side of the building | Good |
| Master (House) Meter | Located in the main electrical room | Good |
| Emergency Power | | N/A |
| Transfer Switch | | N/A |

**Comments**

Electricity is provided to the building by Dominion Virginia Power. The main electrical entrance is located on the west side of the building and provides 1,000 amp, 3-phase, 4-wire service.

The main electrical switchgear was manufactured by Square D. The expected useful life of switchgear is generally 50 years. The switchgear was generally in good condition.

**Photographs**

Electrical meter

Electrical main switchgear

### 3.4.3.2 Distribution

| ELECTRICAL DISTRIBUTION SYSTEM | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Electrical Sub-panels | Reportedly replaced | Good |
| Branch Wiring | Copper | Good |
| GFCI Devices | | Good |
| Building Transformers | Floor/pad mounted | Good |
| Sub-Meters | | N/A |

**Comments**

Power is distributed by copper wire from circuit breaker panels located throughout the building. The expected useful life of sub-panels is 50 years with proper maintenance. The circuit breaker panels were reportedly recently replaced. The circuit breaker panels were observed to be in generally good condition.

**Photographs**

Typical building transformer

Typical electrical circuit breaker panel

### 3.5 VERTICAL TRANSPORTATION SYSTEMS

| ELEVATORS | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Quantity | One passenger elevator | Good |
| Capacity | 2,100 pounds | Good |

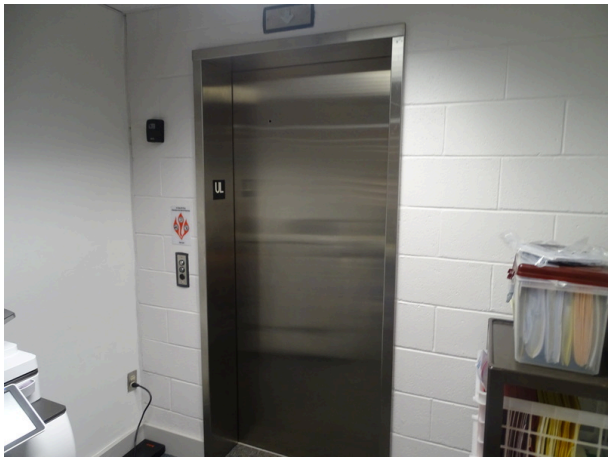
| ELEVATORS | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Manufacturer and Type | Thyssen Krupp - hydraulic | Good |
| Maintenance Contractor | E&F Elevator Inspections and Consulting, Inc | Good |
| Date of Last Maintenance Inspection | 2/22/2021 | Good |
| Cab Finishes | Stainless | Good |
| Elevator Certificates | Located in Facilities Maint. Office | Good |
| Door Sensors | Operable | Good |
| Speed | 100 feet per minute | Good |
| Floor Leveling | Operable | Good |
| Control System | Operable | Good |
| Fire Recall System | Operable | Good |
| Lighting | Operable | Good |
| Equipment Room | | Good |

**Comments**

One hydraulic elevator services the building. The elevator machine and controls were reportedly replaced sometime after 2005. The expected useful life of the elevator controls is 30 to 40 years with proper maintenance. Routine maintenance is considered adequate to keep the elevator system in good condition during the projection period of this report. The last annual inspection was in February 2021 and monthly maintenance is provided.

**Photographs**


Hydraulic elevator machine and controls



Hydraulic elevator

## 3.6 LIFE SAFETY AND FIRE PROTECTION

### 3.6.1 Sprinklers and Suppression Systems

| SPRINKLER AND SUPPRESSION SYSTEMS | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Sprinkler System (wet) | Installed in 2016 | Good |
| Sprinkler Heads | Installed in 2016 | Good |
| Date of Last Inspection (sprinkler system) | April 6, 2021 | Good |
| Sprinkler Pump | Installed in 2016 | Good |
| Fire Extinguishers | Throughout building | Good |
| Date of Last Inspection (Fire Extinguishers) | June 2021 | Good |
| Fire Standpipes | Installed in 2016 | Good |
| Fire Department Connections | Located on north side of property | Good |
| Hose Cabinets | | N/A |
| Fire Hydrants | At building exterior | Good |

**Comments**

The fire suppression system is a Wet sprinkler system and fire extinguishers. The fire suppression system was observed but not tested. The sprinklers are connected to the fire alarm. The sprinkler risers are located in the mechanical room.

The sprinkler heads were generally in good condition.

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

Fire hydrants are located at the building exterior. The fire hydrants were observed to be in good condition.

**Photographs**

Typical sprinkler head

Typical fire extinguisher

### 3.6.2 Alarm Systems

| ALARM SYSTEMS | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Fire Alarm Annunciator panel | Located at main entrance | Good |
| Central Fire Alarm Control Panel | Located in main utility room | Good |
| Automatic Notification | | Good |
| Bells | Located throughout the building | Good |

| ALARM SYSTEMS | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Strobes | Located throughout the building | Good |
| Exit Signs | Located throughout the building | Good |
| Exit Lights | Located throughout the building | Good |
| Pull Stations | Located throughout the building | Good |
| Smoke Detectors | Located throughout the building | Good |
| Carbon Monoxide Detectors | | N/A |

**Comments**

The fire alarm system was observed but not tested. A fire control panel is located in the main utility room and annunciator panel is located at the main entrance. The fire control panel was observed to be in good condition. Emergency exit signs and lighting, pull stations, fire extinguishers, smoke detectors, and alarm bells and strobes are located throughout the building.

**Photographs**

Fire alarm annunciator panel


Typical fire alarm pull station

### 3.6.3 Security and Other Systems

| SECURITY AND OTHER SYSTEMS | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Security Cameras | | N/A |

| SECURITY AND OTHER SYSTEMS | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Alarm System | Monitored | Good |
| Access Control | Intercom system at main entrance | Good |
| Security Fencing | | N/A |
| Lightning Protection | | N/A |
| Roof Anchors | | N/A |

**Comments**

The building is monitored by a motion detector security system with alarms. The security system was reported to be in good condition.

## 3.7 INTERIOR BUILDING COMPONENTS

### 3.7.1 Interior Finishes

| MAIN OFFICE | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Floor Finishes | Carpet | Good |
| Wall Finishes | Painted gypsum board | Good |
| Ceiling Finishes | Suspended acoustical tile | Good |
| Lighting | Fluorescent fixtures | Good |
| Accessories | | N/A |

| RESTROOMS | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Floor Finishes | Ceramic tile | Good |
| Wall Finishes | Ceramic tile | Good |
| Ceiling Finishes | Suspended acoustical tile | Good |
| Fixtures | Toilets, urinals, wall hung lavatories | Good |
| Accessories | Partitions, grab bars, mirrors, soap and towel dispensers | Good |
| Ventilation | Exhaust fans | Good |

| RESTROOMS | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Lighting | Fluorescent fixtures | Good |
| Doors | Wood | Good |
| Door Hardware | Operable | Good |

| CORRIDORS | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Floor Finishes | Ceramic tile | Good |
| Wall Finishes | Painted gypsum board, painted CMU | Good |
| Ceiling Finishes | Suspended acoustical tile | Good |
| Lighting | Fluorescent fixtures | Good |
| Doors | Wood | Good |
| Door Hardware | Operable | Good |

| STAIRS | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Location | East and west ends of the building | Good |
| Enclosure | | N/A |
| Framing Support | Steel | Good |
| Treads | Vinyl | Good |
| Risers | Steel | Good |
| Nosing | Vinyl | Good |
| Handrails | Steel | Good |
| Lighting | Fluorescent | Good |
| Pressurized Stairwells | | N/A |
| Doors | Wood | Good |
| Door Hardware | Operable | Good |

| KITCHEN | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Floor Finishes | Ceramic tile | Good |
| Wall Finishes | Painted gypsum board | Good |
| Ceiling Finishes | Suspended acoustical tile | Good |
| Counters | Laminate | Good |
| Sink | Stainless | Good |
| Cabinets | Laminate | Good |
| Appliances | Residential | Good |
| Stove/Range | | N/A |
| Exhaust Vent/Hood | | N/A |
| Refrigerator | | N/A |
| Dish Washer | Built-in | Good |
| Microwave Oven | Countertop | Good |

| UTILITY ROOMS/ MECHANICAL ROOMS | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Floor Finishes | Unfinished concrete | Good |
| Wall Finishes | Painted gypsum board/ CMU | Good |
| Ceiling Finishes | Unfinished | Good |
| Janitor Sink Area | | Good |
| Lighting | Fluorescent fixtures | Good |

| AUDITORIUM | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Floor Finishes | Carpet, wood | Good |
| Wall Finishes | Painted gypsum board, exposed brick | Good |
| Ceiling Finishes | Painted gypsum board | Good |
| Lighting | Fluorescent fixtures | Good |
| Accessories | Stage curtain | Good |
| Seating | Floor | Good |

| AUDITORIUM | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Stage | Wood | Good |

| CAFETERIA | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Floor Finishes | Ceramic tile | Good |
| Wall Finishes | Painted gypsum board | Good |
| Ceiling Finishes | Suspended acoustical tile | Good |
| Lighting | Fluorescent fixtures | Good |
| Accessories | Tables | Good |

| CLASSROOMS | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Floor Finishes | Vinyl tile and/or carpet | Good |
| Wall Finishes | Painted gypsum board/ painted CMU | Good |
| Ceiling Finishes | Suspended acoustical tile | Good |
| Lighting | Fluorescent fixtures | Good |
| Doors | Wood | Good |
| Door Hardware | Operable | Good |

| LIBRARY | | |
|---|---|---|
| **Item** | **Description** | **Condition** |
| Floor Finishes | Carpet, vinyl and ceramic tiles | Good |
| Wall Finishes | Painted gypsum board/ painted CMU | Good |
| Ceiling Finishes | Unfinished & acoustical ceiling tile | Good |
| Lighting | Fluorescent fixtures | Good |
| Doors | Wood | Good |
| Door Hardware | Operable | Good |

**Comments**

The interior building areas include a main office, restrooms, corridors, classrooms, kitchens, an auditorium, a cafeteria, a library, and mechanical/utility spaces. We understand that the interiors are largely original to construction.

The finishes in the main office include carpet floors, painted gypsum board walls, and suspended acoustical ceiling tile ceilings. The finishes in the main office were observed to be in generally good condition.

Restrooms are located throughout the building as accessed from corridors and are also located in classrooms. The finishes in the restrooms include ceramic tile floors, ceramic tile walls, and suspended acoustical tile ceilings. The restrooms were observed to be in generally good condition.

The finishes in the corridors include ceramic tile floors, painted gypsum board walls, and suspended acoustical tile ceilings. The finishes in the corridors were observed to be in generally good condition.

The finishes in the kitchens include ceramic tile floors, painted gypsum board walls, and suspended acoustical tile ceilings. The finishes in the kitchens were observed to be in generally good condition.

The utility and mechanical rooms were generally unfinished, with concrete floors and CMU walls. Some utility rooms had painted gypsum board walls.

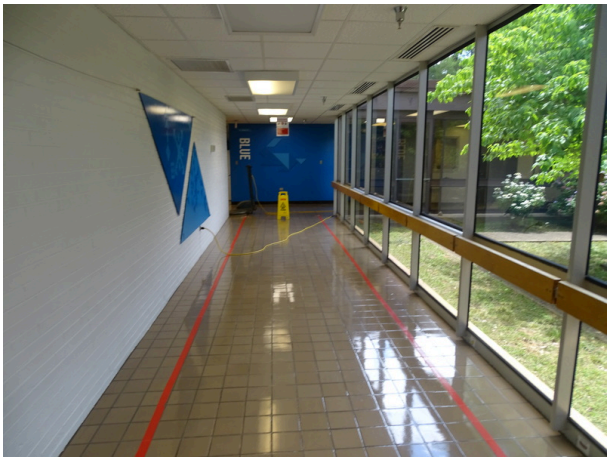
The finishes in the auditorium consist of carpet flooring in the seating area and wood at the stage. The walls consist of painted gypsum board and exposed brick. The finishes were generally in good condition.

The finishes in the cafeteria area consisted of ceramic tile flooring, painted gypsum board walls, and suspend acoustical tile ceiling. The finishes were generally in good condition.

The classrooms consist of vinyl tile flooring and/or carpet, painted gypsum board and painted CMU walls, and suspended acoustical tile ceilings. The finishes were generally in good condition.

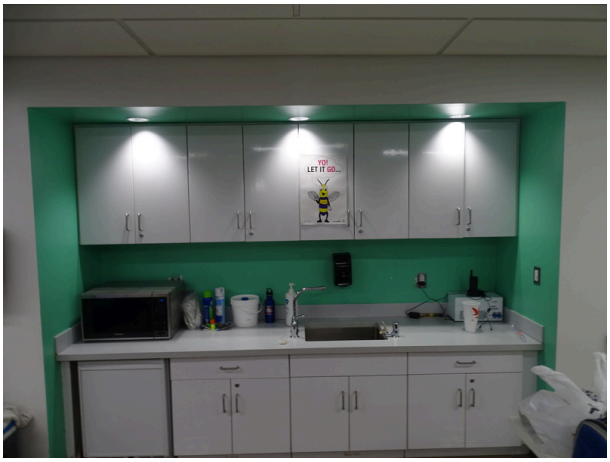
The finishes in the library consist of carpet, vinyl, and ceramic tile flooring, painted CMU and painted gypsum board walls, and both unfinished and acoustical ceiling tile ceilings. The finishes in the library were generally in good condition.

**Photographs**

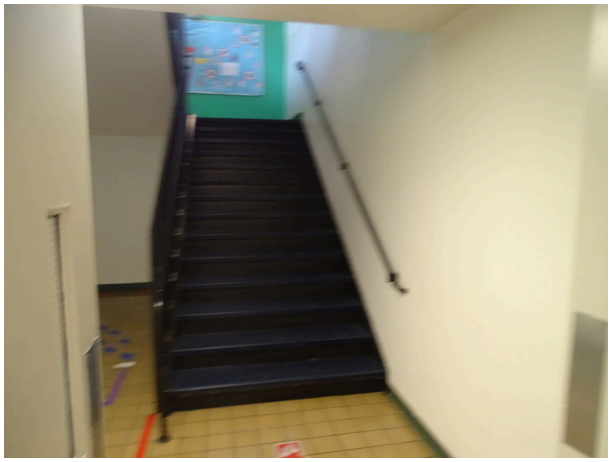



Building interior finishes of corridor area

Interior finishes of library area



Interior finishes of typical classroom area - note recent renovation



Interior finishes stair 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 Jackson Via Elementary School 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 has a total of approximately 123 parking spaces. Of the parking spaces, Two are accessible with Two being van accessible. Accessibility requires that five accessible parking spaces be provided in parking areas with a total of 101 to 150 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. Accessible aisles were observed to not be provided. The number of parking spaces provided does not meet accessibility requirements. We recommend installing three additional accessible spaces with accessible aisles.

**Photographs**

Accessible parking spaces - note only two of five needed spaces provided

Accessible toilet

Concrete ramp - note need to install truncated domes

Concrete sidewalk and ramp

**Recommendations**

| Cost Recommendation | EUL | EFF AGE | RUL | Year | Cost |
|---|---|---|---|---|---|
| PROVIDE THREE ACCESSIBLE PARKING SPACES AND AISLES | - | - | - | Immediate | $1,500 |
| Total | | | | | $1,500 |

| 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 | EMG report dated November 3, 2005 |
| 2. | Have any ADA improvements been made to the property since original construction? | Yes | installation of curb ramps with truncated domes at exterior |
| 3. | Has building ownership/management reported any ADA complaints or litigation? | No | not reported |
| **B.** | **Parking** | | |

| Uniform Abbreviated Screening Checklist for the 2010 Americans with Disabilities Act | | | |
|---|---|---|---|
| | **Item** | **Yes/ No** | **Comments** |
| 1. | Does the required number of standard ADA-designated spaces appear to be provided? | No | Two out of the 123 are accessible. |
| 2. | Does the required number of van-accessible designated spaces appear to be provided? | Yes | Twoout of the Two accessible spaces are van accessible |
| 3. | Are accessible spaces part of the shortest accessible route to an accessible building entrance? | Yes | |
| 4. | Is a sign with the International Symbol of Accessibility at the head of each space? | Yes | On sides of parallel parking spaces |
| 5. | Does each accessible space have an adjacent access aisle? | No | need access aisle for spaces |
| 6. | Do parking spaces and access aisles appear to be relatively level and without obstruction? | Yes | |
| **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? | Yes | |
| 3. | Do curb cut ramps appear to have the proper slope for all components? | Yes | |
| 4. | Do ramps on an accessible route appear to have a compliant slope? | Yes | |
| 5. | Do ramps on an accessible route appear to have a compliant length and width? | Yes | |
| 6. | Do ramps on an accessible route appear to have a compliant end and intermediate landings? | Yes | |
| 7. | Do ramps on an accessible route appear to have compliant handrails? | Yes | |
| **D.** | **Building Entrances** | | |

| Uniform Abbreviated Screening Checklist for the 2010 Americans with Disabilities Act | | | |
|---|---|---|---|
| | **Item** | **Yes/ No** | **Comments** |
| 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 | |
| 3. | Is signage provided indicating the location of alternate accessible entrances? | N/A | |
| 4. | Do doors at accessible entrances appear to have compliant clear floor area on each side? | Yes | |
| 5. | Do doors at accessible entrances appear to have compliant hardware? | Yes | |
| 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? | Yes | |
| 2. | Do accessible routes appear free of obstructions and/or protruding objects? | No | |
| 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 | |
| 7. | Are adjoining public areas and areas of egress identified with accessible signage? | Yes | |
| 8. | Do public transaction areas have an accessible, lowered counter section? | Yes | |
| 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 | |

| Uniform Abbreviated Screening Checklist for the 2010 Americans with Disabilities Act | | | |
|---|---|---|---|
| | **Item** | **Yes/ No** | **Comments** |
| **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? | Yes | |
| 2. | Is accessible floor identification signage present on the hoistway sidewalls? | Yes | |
| **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? | 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 | |

| Uniform Abbreviated Screening Checklist for the 2010 Americans with Disabilities Act | | | |
|---|---|---|---|
| | **Item** | **Yes/ No** | **Comments** |
| 9. | Do accessories and mirrors appear to be mounted at a compliant height? | Yes | |

## 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.

### 4.2 INTERVIEW SUMMARY

ECS was escorted through the property by Josh Bontrager and Shawn Davis who provided information about the property.

## 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 Jackson Via Elementary School 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 Jackson Via Elementary School is $1,573,900.00. The replacement construction cost value obtained from the RS MEANS square foot estimator application is $7,999,774.21. Please see attached documentation from RS MEANS program output as an appendix to the report. The calculated FCI value is determined to be 0.19. In accordance with the industry standards and methodology sponsored by The National Association of College and University Business Officers (NACUBO), the condition of Jackson Via Elementary School is rated as poor.

The letter rating for the school buildings is based on the FCI values with the ratings system provided by you referenced from the City of Alexandria as follows : A (under 0.10), B (0.11 to 0.20), C (0.21 to 0.40), D (0.41 to 0.60), and F (0.61 to 1.00+).

The letter rating for the Jackson Via Elementary School was determined to be B.

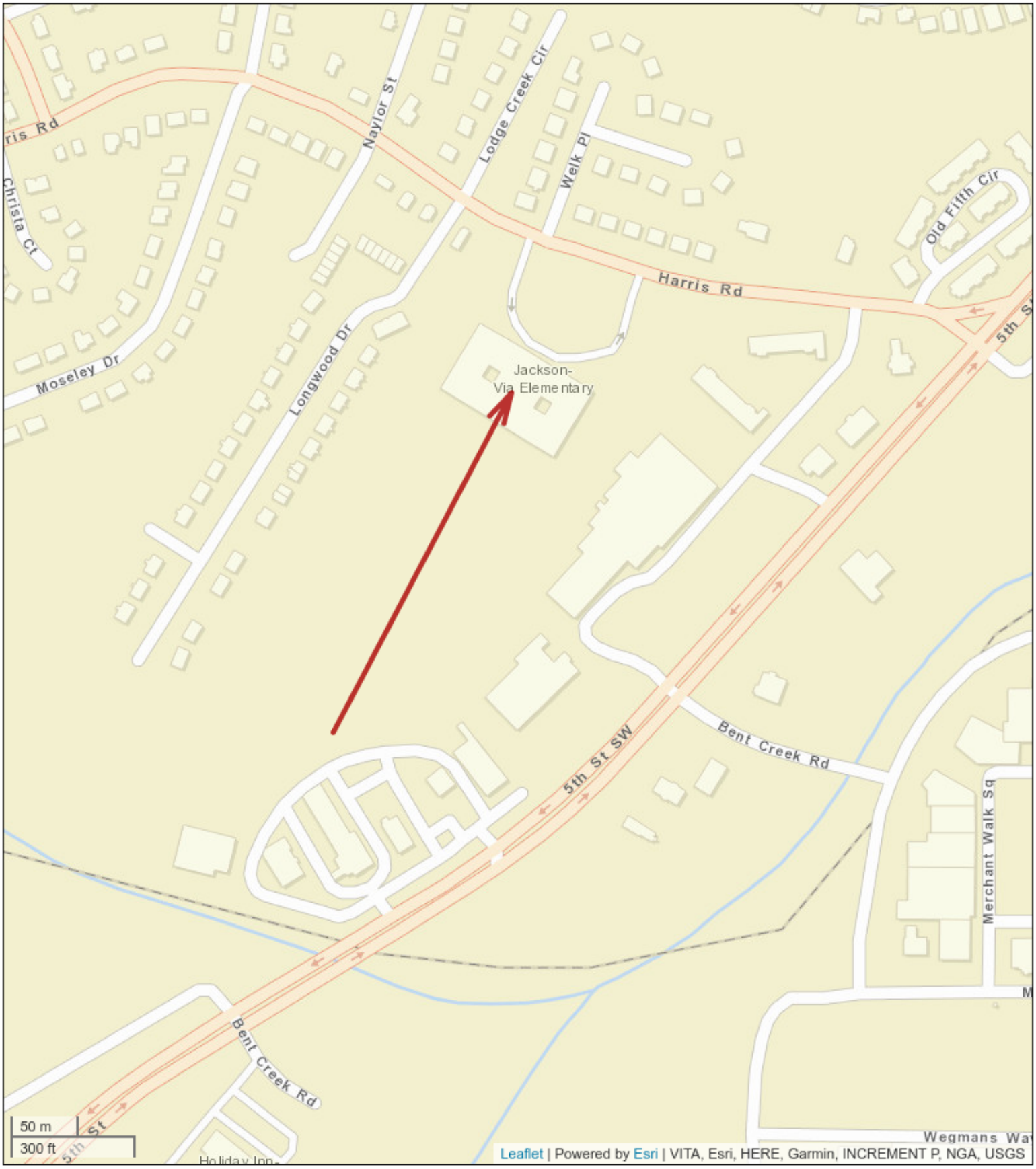
## 8.0 LIMITATIONS AND QUALIFICATIONS

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**

Jackson Via Elementary School - FCA 2021


**Aerial Photograph**

Jackson Via Elementary School - FCA 2021

# Appendix II: FIRE SPRINKLER INSPECTION

# INSPECTION AND TESTING FORM OF WATER BASED FIRE PROTECTION SYSTEMS

## 1. PROPERTY INFORMATION

Name of property: Jackson-Via Elementary (4433-22903-00039)
Address: Jackson-Via Elementary School
Description of property:
Name of property representative: City of Charlottesville (30548899), Jason Davis (434-964-6771) davisja@charlottesville.org
Address: 315 4th St NW, Charlottesville, VA 22903
Phone: 434-962-3643 Fax: 434-970-3026 E-mail: staplesk@charlottesville.org

## 2. TESTING INFORMATION

Testing Organization: SIEMENS Organization License No.:
Address: 5106 Glen Alden Drive, Richmond, VA 23231
Phone: 804-222-6680 Fax: None E-mail: None
Start Date/Time: Completion Date/Time: 4.6.21
Contract Info: City of CVille Sprinkler (2600105673) Notification Number: 5102050599
Inspection Type: Quarterly

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**NOTES:** 1) All questions are to be answered Yes, No, or Not Applicable (NA). Explain all No answers in Parts 6, 7, or 8 of this form.
2) Inspection, Testing, and Maintenance are to be performed with water supplies (including fire pumps) in service, unless the impairment procedures of NFPA 25 are followed.

## 3. GENERAL INFORMATION (TO BE COMPLETED BY OWNER)

| | |
|---|---|
| Is the building fully sprinklered? | |
| Has the occupancy classification and hazard of contents remained the same since last inspection? | |
| Are all fire protection systems in service? | |
| Has the system remained in service without modification since last inspection? | |
| Have any fire systems, devices or alarms activated since the last inspection? | |
| If a fire has occurred since the last inspection, have all damaged sprinkler system components been replaced? | |

## 4. INSPECTOR'S SECTION

### 4.1 Inspections

| | |
|---|---|
| Control valves in the correct (open or closed) position and free from external leaks? | Yes |
| Control valves locked, sealed or supervised? | Yes |
| Hydraulic nameplate (calculated systems) securely attached and legible? | Yes |
| Alarm and/or dry pipe valves free from physical damage, trim valves in appropriate position and no leakage? | Yes |
| Water flow alarm devices free from physical damage? | Yes |
| Fire department connections visible, signage, accessible, free from damage, couplings free, and caps in place? | Yes |
| Gauges in good condition showing normal pressure? | Yes |
| Adequate heat in areas with wet piping? | Yes |
| Post indicator valves are provided with a correct wrench and in the normal position? | (NA) |
| Backflow preventers relief port on RPZ device not discharging? | (NA) |
| For freezer systems, is the gauge near the compressor reading the same as the gauge near the dry-valve? | (NA) |
| Pressure Reducing valves are in the open position, not leaking, maintain downstream pressure accordance with the design criteria, good condition, and handwheels not broken? | (NA) |
| Valve encloser for pre-action, deluge and dry systems are above 40f? | (NA) |

### 4.2 Testing

| | |
|---|---|
| Post indicating valves opened until spring or torsion is felt in the rod, then backed off one-quarter turn? | (NA) |
| Valve supervisory switches indicate movement? | (NA) |
| Mechanical water flow alarm device passed tests by opening the inspector's test or bypass connection with alarms actuating and flow observed? | (NA) |

| | |
|---|---|
| Electrical Waterflow (Vane type, Paddle-type, and Pressure Switch-type) alarm devices passed tests by opening the inspector's test connection or bypass connection with alarm actuating, and flow is observed? | (NA) |
| Priming level of dry pipe valves correct? | (NA) |
| Quick opening devices of dry pipe systems passed? | (NA) |
| Air compressor or nitrogen system in good condition per manufacture maintenance procedure? | (NA) |
| Low air pressure signal of dry pipe system passed? | (NA) |
| Main Drain Test water pressure is within 10% reduction in full flow pressure compared to previous test? | (NA) |

## 5. MAIN DRAIN / TRIP TESTS RESULTS

### 5.1 Report Totals

| Total Qty | Functionally Tested Qty | Functionally Tested % | Visually Tested Qty | Visually Tested % | Failed Qty | Failed % |
|---|---|---|---|---|---|---|
| 2 | 0 | 0% | 1 | 100% | 0 | 0% |

### 5.2 Report Totals by Type

| Total Qty | Functionally Tested Qty | Functionally Tested % | Visually Tested Qty | Visually Tested % | Failed Qty | Failed % | Device or System Type |
|---|---|---|---|---|---|---|---|
| 1 | 0 | 0% | 1 | 100% | 0 | 0% | Wet Sprinkler Systems |
| 1 | 0 | 0% | 0 | 100% | 0 | 0% | Sprinkler FDC - 2 Inlets |

### 5.3 Report Details by Type

**Wet Sprinkler Systems**

| Row | Date | Address | Location | Model | Water Source | Source PSI | Test Pipe Size | Static PSI | Restore Time (sec) | 5 Year Performed | Visual/ Functional | Pass/ Fail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 04/06/21 | 01:Wet | Loading Dock Boiler Room | 3 inch Firelock 717HR | City | 85 | 2 | 90 | 1 | No | Visual | Pass |

## 6. COMMENTS

| Address | Location | NFPA Classification | Comment: |
|---|---|---|---|
| 01:Wet | Loading Dock Boiler Room | Wet Sprinkler | 5 Year services are past due. |

## 7. DEFICIENCIES (ONLY RELATED TO NFPA 25)

A condition that will or has the potential to adversely impact the performance of a system or portion thereof but does not rise to the level of an impairment.

| Address | Location | NFPA Classification | Deficiencies: |
|---|---|---|---|
| 01:Wet | Loading Dock Boiler Room | Wet Sprinkler | 5 Year services are past due. |

## 8. IMPAIRMENTS

A condition where a fire protection system or unit or portion thereof is out of order, and the condition can result in the fire protection system or unit not functioning in a fire event.

| Address | Location | NFPA Classification | Impairments: |
|---|---|---|---|
| 01:Wet | Loading Dock Boiler Room | Wet Sprinkler | None to report. |

## 9. CERTIFICATION

This Testing Was Performed in Accordance with Applicable NFPA Standards.

I state that the information on this form is correct at the time and place of my inspection and that all equipment tested at this time was left in operational condition upon completion of this inspection except as noted in Parts 6, 7, and 8 above.

Name of Inspector:_ Inspector License #:

Signature: CRAIG BROWN Date: 4.6.21

## 10. ACCEPTANCE BY OWNER OR OWNER'S REPRESENTATIVE

Name of Owner or Representative:

Signature: _____ Date: _____

**The owner and/or designated representative acknowledges the responsibility of the operating condition of the component parts at the time of this inspection. Pursuant to the National Fire Protection Association Form 25, Chapter 4, the owner is responsible for proper maintenance and care of the sprinkler system. It is agreed that the inspection service provided by the contractor as prescribed herein is limited to performing a visual inspection and/or routine testing, and any investigation or unscheduled testing, modification, maintenance, repair, etc., of the component parts is not included as part of the inspection work performed. It is understood that this inspection pertains to the condition of the sprinkler system on the day of inspection only. This inspection meets or exceeds NFPA 25 requirements and or local AHJ requirements. AHJ requirements supersede all other code requirements. The inspector shall not be liable for future defaults or defects in the sprinkler system which are beyond the inspector's control, including, but not limited to, failure from malicious tampering, accidents, lack of proper inspection, material failure or inadequate heating. The inspector can give no assurance, nor will be held liable, with regard to work that may have been previously performed or work performed at a future date by other companies. It is further understood that all information contained herein is provided to the best of the knowledge of the party providing such information.**

# Appendix III: FIRE EXTINGUISHER INSPECTION

# Inspection Certificate

*For*

Charlottesville-Jackson Via Elementary
508 Harris Rd
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.*

*Inspection Date*
*Jun 11, 2021*

Building: Charlottesville-Jackson Via Elementary
Contact: Jason Davis
Title: Security Maint.

Company: Fire Solutions
Contact: Tommy VO
Title: Technician

# *Executive Summary*

*Generated by: BuildingReports.com*

## Building Information

**Building:** Charlottesville-Jackson Via Elementary
**Address:** 508 Harris Rd
**Address:**
**City/State/Zip:** Charlottesville, VA 22903
**Country:** United States of America

**Contact:** Jason Davis
**Phone:** 434-964-6771
**Fax:**
**Mobile:**
**Email:** davisja@charlottesville.org

## Inspection Performed By

**Company:** Fire Solutions
**Address:** 205 Haley Road
**Address:**
**City/State/Zip:** Ashland, Virginia 23005
**Country:** United States

**Inspector:** Tommy VO
**Phone:** 804-385-3301
**Fax:**
**Mobile:** 804-385-3301
**Email:** tommyv@firesolutionsinc.com

## Inspection Summary

| Category: | Total Items | | Serviced | | Passed | | Failed/Other | |
|---|---|---|---|---|---|---|---|---|
| | Qty | % | Qty | % | Qty | % | Qty | % |
| Fire | 17 | 100.00% | 17 | 100.00% | 17 | 100.00% | 0 | 0% |
| **Totals** | **17** | **100%** | **17** | **100.00%** | **17** | **100.00%** | **0** | **0%** |

## Verification

**Company:** Fire Solutions

**Inspector:** Tommy VO

**Building:** Charlottesville-Jackson Via Elementary

**Contact:** Jason Davis

## Fire Solutions Certifications

| Certification Type | Number |
|---|---|
| WBENC Certified | 2005121836 |

# *Inspection & Testing*

***Generated by: BuildingReports.com***

## Building: Charlottesville-Jackson Via Elementary

*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 |
|---|---|---|---|---|
| ***Passed*** | | | | |
| **Fire** | | | | |
| Fire Extinguisher, 5 Lbs, A.B.C. | 1st Lower level-new elevator room 416.19 | 39853252 YY183060 | Inspected | 06/11/21 6:51:32 AM |
| Fire Extinguisher, 10 Lbs, A.B.C. | 1st Mechanical Room 416.17 | 39853251 RR-465046 | Inspected | 06/11/21 6:43:50 AM |
| Fire Extinguisher, 5 Lbs, A.B.C. | 1st auditorium 416.06 | 52892056 G17167767 | Inspected | 06/11/21 6:48:43 AM |
| Fire Extinguisher, 10 Lbs, A.B.C. | 1st floor boiler room 125 416.01 | 39853247 F99670028 | Inspected | 06/11/21 6:45:37 AM |
| Fire Extinguisher, 5 Lbs, A.B.C. | 1st hallway by gym 416.03 | 39853250 G17167764 | Inspected | 06/11/21 6:44:11 AM |
| Fire Extinguisher, 5 Lbs, A.B.C. | 1st hallway by loading dock 416.02 | 39853249 G17167768 | Inspected | 06/11/21 6:44:55 AM |
| Fire Extinguisher, 5 Lbs, A.B.C. | 1st hallway by stage 416.05 | 39853254 G17167773 | Inspected | 06/11/21 6:42:46 AM |
| Fire Extinguisher, 5 Lbs, A.B.C. | 1st in Room 21 416.04 | 39853253 G17171146 | Inspected | 06/11/21 6:47:47 AM |
| Fire Extinguisher, 5 Lbs, A.B.C | 2nd by room 7 416.14 | 39853265 ZF-726559 | Inspected | 06/11/21 6:41:20 AM |
| Fire Extinguisher, 5 Lbs, A.B.C. | 2nd hallway by L6 416.12 | 39853263 G17171201 | Inspected | 06/11/21 6:40:24 AM |
| Fire Extinguisher, 5 Lbs, A.B.C. | 2nd hallway by NE entrance 416.11 | 39853262 G17167743 | Inspected | 06/11/21 6:32:31 AM |
| Fire Extinguisher, 5 Lbs, A.B.C. | 2nd hallway by office 416.10 | 39853260 G17171097 | Inspected | 06/11/21 6:35:42 AM |
| Fire Extinguisher, 5 Lbs, A.B.C. | 2nd hallway by room 14 416.08 | 39853257 G17171726 | Inspected | 06/11/21 6:37:30 AM |
| Fire Extinguisher, 5 Lbs, A.B.C. | 2nd hallway by room 18 416.07 | 39853256 G17167747 | Inspected | 06/11/21 6:36:38 AM |
| Fire Extinguisher, 5 Lbs, A.B.C. | 2nd hallway by room L4 416.09 | 39853259 G17167748 | Inspected | 06/11/21 6:38:11 AM |
| Fire Extinguisher, 5 Lbs, A.B.C | 2nd outside room 3. 416.15 | 39853266 YA679618 | Inspected | 06/11/21 6:33:55 AM |
| Fire Extinguisher, 5 Lbs, A.B.C. | 2nd teachers lounge kitchen 416.16 | 61768884 A-96027675 | Inspected | 06/11/21 6:34:29 AM |

# *Service Summary*

***Generated by: BuildingReports.com***

## Building: Charlottesville-Jackson Via Elementary

*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 | 2 |
| Fire Extinguisher, 5 Lbs, A.B.C. | Inspected | 13 |
| Fire Extinguisher, 5 Lbs, A.B.C | Inspected | 2 |
| **Total** | | **17** |
| **Grand Total** | | **17** |

# *Fire Extinguisher Maintenance Report*

***Generated by: BuildingReports.com***

## Building: Charlottesville-Jackson Via Elementary

*This report provides details on the Hydrostatic Test and Maintenance/Breakdown dates for fire extinguishers. Items that will need either of these services at any time in the next two years are displayed. Items are grouped together by year for budgeting purposes.*

| ScanID | Location | Serial # | Hydro | Breakdown | Mfr Date |
|---|---|---|---|---|---|
| ***Due in 2023*** | | | | | |
| **Breakdown/Maintenance** | | | | | |
| **Fire Extinguisher, A.B.C., 10 Lbs** | | | | | |
| 39853251 | 1st Mechanical Room 416.17 | RR-465046 | 04/06/17 | 04/06/17 | 04/06/00 |
| | | | | Total Fire Extinguisher, A.B.C., 10 Lbs: | **1** |
| **Fire Extinguisher, A.B.C., 5 Lbs** | | | | | |
| 61768884 | 2nd teachers lounge kitchen 416.16 | A-96027675 | 04/06/15 | 04/06/17 | 04/06/15 |
| | | | | Total Fire Extinguisher, A.B.C., 5 Lbs: | **1** |

# *Inventory & Warranty Report*

***Generated by: BuildingReports.com***

## Building: Charlottesville-Jackson Via Elementary

*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% | 17 |

| Type | Qty | Model # | Description | Manufacture Date |
|---|---|---|---|---|
| ***New (under 90 days)*** | | | | |
| **Buckeye** | | | | |
| Fire Extinguisher | 11 | 5 HI SA40 ABC | A.B.C. | 10/06/2021 |
| ***In Service - 90 Days - 1 Year*** | | | | |
| **Buckeye** | | | | |
| Fire Extinguisher | 1 | B456 | A.B.C. | 10/06/2020 |
| ***In Service - 5 Years to 10 Years*** | | | | |
| **Ansul** | | | | |
| Fire Extinguisher | 1 | X-AA05-1 | A.B.C. | 04/06/2015 |
| ***In Service - 10 Years to 15 Years*** | | | | |
| **Badger** | | | | |
| Fire Extinguisher | 1 | B5M-07 | A.B.C | 04/06/2008 |
| **Amerex** | | | | |
| Fire Extinguisher | 1 | AB402-07 | A.B.C. | 08/07/2007 |
| ***In Service - 15 Years to 25 Years*** | | | | |
| **Amerex** | | | | |
| Fire Extinguisher | 1 | AB500-06 | A.B.C | 04/06/2006 |
| **Badger** | | | | |
| Fire Extinguisher | 1 | 10MB8H00 | A.B.C. | 04/06/2000 |

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

# Square Foot Cost Estimate Report

Date: **2/9/2022**

| | |
|---|---|
| **Estimate Name** | **Jackson Via** |
| | **City of Charlottesville**<br>508 Harris Road<br>Charlottesville<br>Virginia<br>22902 |
| Building Type | School, Elementary with Brick Veneer / Reinforced Concrete |
| Location | CHARLOTTESVILLE, VA |
| | 2.00 |
| Stories Height | 15.00 |
| Floor Area (S.F.) | 42,751.00 |
| LaborType | OPN |
| Basement Included | No |
| Data Release | Year 2021 |
| Cost Per Square Foot | $187.12 |
| **Total Building Cost** | **$7,999,774.21** |

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

** **Stories entered is outside the range recommended by RSMeans.**

**Assembly Customization Type :**

⊕ Added

◐ Partially Swapped

● Fully Swapped

| | | Quantity | % of Total | Cost Per SF | Cost |
|---|---|---|---|---|---|
| **A Substructure** | | | **6.2%** | **$8.69** | **$371,306.22** |
| **A1010** | **Standard Foundations** | | | **$6.11** | **$261,395.43** |
| | Foundation wall, CIP, 4' wall height, direct chute, .148 CY/LF, 7.2 PLF, 12" thick | 2,250.00 | | $3.56 | **$152,192.25** |
| | Strip footing, concrete, reinforced, load 11.1 KLF, soil bearing capacity 6 KSF, 12" deep x 24" wide | 2,250.00 | | $1.91 | **$81,456.75** |
| | Spread footings, 3000 PSI concrete, load 100K, soil bearing capacity 6 KSF, 4' - 6" square x 15" deep | 76.00 | | $0.65 | **$27,746.43** |
| **A1030** | **Slab on Grade** | | | **$2.46** | **$105,344.88** |
| | Slab on grade, 4" thick, non industrial, reinforced | 21,375.50 | | $2.46 | **$105,344.88** |

| | | Quantity | % of Total | Cost Per SF | Cost |
|---|---|---|---|---|---|
| **A2010** | **Basement Excavation** | | | **$0.11** | **$4,565.91** |
| | Excavate and fill, 30,000 SF, 4' deep, sand, gravel, or common earth, on site storage | 37,407.13 | | $0.11 | **$4,565.91** |
| **B Shell** | | | **47.4%** | **$66.36** | **$2,837,054.38** |
| **B1010** | **Floor Construction** | | | **$1.70** | **$72,826.56** |
| | Cast-in-place concrete column, 12", square, tied, minimum reinforcing, 150K load, 10'-14' story height, 135 lbs/LF, 4000PSI | 1,350.00 | | $1.70 | **$72,826.56** |
| **B1020** | **Roof Construction** | | | **$7.33** | **$313,451.40** |
| | Roof, concrete, beam and slab, 25'x25' bay, 40 PSF superimposed load, 20" deep beam, 9" slab, 152 PSF total load | 21,375.50 | | $7.33 | **$313,451.40** |
| **B2010** | **Exterior Walls** | | | **$32.93** | **$1,407,927.15** |
| | Brick wall, composite double wythe, standard face/CMU back-up, 8" thick, perlite core fill, 3" XPS | 47,250.00 | | $32.93 | **$1,407,927.15** |
| **B2020** | **Exterior Windows** | | | **$17.62** | **$753,278.02** |
| | Windows, aluminum, awning, insulated glass, 4'-5" x 5'-3" | 586.96 | | $9.61 | **$410,704.04** |
| | Aluminum flush tube frame, for 1/4"glass, 1-3/4"x4", 5'x20' opening, three intermediate horizontals | 6,750.00 | | $3.51 | **$149,988.71** |
| | Glazing panel, insulating, 1" thick units, 2 lites, 1/4" float glass, clear | 6,750.00 | | $4.50 | **$192,585.26** |
| **B2030** | **Exterior Doors** | | | **$0.84** | **$35,931.57** |
| | Door, aluminum & glass, with transom, narrow stile, double door, hardware, 6'-0" x 10'-0" opening | 3.80 | | $0.59 | **$25,310.87** |
| | Door, steel 18 gauge, hollow metal, 1 door with frame, no label, 3'-0" x 7'-0" opening | 3.80 | | $0.25 | **$10,620.70** |
| **B3010** | **Roof Coverings** | | | **$5.69** | **$243,104.59** |
| | Roofing, single ply membrane, EPDM, 60 mils, loosely laid, stone ballast | 21,375.50 | | $0.86 | **$36,968.93** |
| | Insulation, rigid, roof deck, extruded polystyrene, 40 PSI compressive strength, 4" thick, R20 | 21,375.50 | | $1.98 | **$84,695.72** |
| | Base flashing, rubber, neoprene, 1/16" thick, 24 ga galv reglet, 24 ga galv counter flashing | 2,250.00 | | $1.26 | **$53,796.83** |
| | Roof edges, aluminum, duranodic, .050" thick, 8" face | 2,250.00 | | $1.36 | **$58,342.95** |
| | Flashing, aluminum, no backing sides, .019" | 2,250.00 | | $0.22 | **$9,300.17** |
| **B3020** | **Roof Openings** | | | **$0.25** | **$10,535.09** |
| | Roof hatch, with curb, 1" fiberglass insulation, 2'-6" x 3'-0", galvanized steel, 165 lbs | 3.80 | | $0.11 | **$4,777.47** |
| | Smoke hatch, unlabeled, galvanized, 2'-6" x 3', not incl hand winch operator | 3.80 | | $0.13 | **$5,757.62** |
| **C Interiors** | | | **15.6%** | **$21.82** | **$932,668.10** |

| | | Quantity | % of Total | Cost Per SF | Cost |
|---|---|---|---|---|---|
| **C1010** | **Partitions** | | | **$3.45** | **$147,545.46** |
| | Concrete block (CMU) partition, light weight, hollow, 6" thick, no finish | 21,375.50 | | $3.45 | **$147,545.46** |
| **C1020** | **Interior Doors** | | | **$1.55** | **$66,192.90** |
| | Door, single leaf, kd steel frame, hollow metal, commercial quality, flush, 3'-0" x 7'-0" x 1-3/8" | 61.07 | | $1.55 | **$66,192.90** |
| **C1030** | **Fittings** | | | **$1.05** | **$44,961.50** |
| | Toilet partitions, cubicles, ceiling hung, painted metal | 42.75 | | $0.71 | **$30,460.39** |
| | Chalkboards, liquid chalk type, aluminum frame & chalktrough | 855.02 | | $0.34 | **$14,501.11** |
| **C3010** | **Wall Finishes** | | | **$4.78** | **$204,326.70** |
| | 2 coats paint on masonry with block filler | 42,751.00 | | $2.00 | **$85,342.97** |
| | 2 coats paint on masonry with block filler | 47,250.00 | | $2.21 | **$94,324.23** |
| | Ceramic tile, thin set, 4-1/4" x 4-1/4" | 4,275.10 | | $0.58 | **$24,659.50** |
| **C3020** | **Floor Finishes** | | | **$5.76** | **$246,040.56** |
| | Carpet, tufted, nylon, roll goods, 12' wide, 36 oz | 4,275.10 | | $0.49 | **$20,854.96** |
| | Carpet, padding, add to above, 2.7 density | 4,275.10 | | $0.09 | **$3,836.99** |
| | Terrazzo, maximum | 4,275.10 | | $1.88 | **$80,430.88** |
| | Vinyl, composition tile, maximum | 25,650.60 | | $1.46 | **$62,587.21** |
| | Oak strip, sanded and finished, minimum | 8,550.20 | | $1.44 | **$61,766.82** |
| | Underlayment, plywood, 3/8" thick | 8,550.20 | | $0.39 | **$16,563.70** |
| **C3030** | **Ceiling Finishes** | | | **$5.23** | **$223,600.98** |
| | Acoustic ceilings, 3/4"mineral fiber, 12" x 12" tile, concealed 2" bar & channel grid, suspended support | 42,751.00 | | $5.23 | **$223,600.98** |
| **D Services** | | | **30.6%** | **$42.76** | **$1,827,933.84** |
| **D2010** | **Plumbing Fixtures** | | | **$6.93** | **$296,231.51** |
| | Water closet, vitreous china, bowl only with flush valve, wall hung | 42.75 | | $3.31 | **$141,516.50** |
| | Urinal, vitreous china, wall hung | 14.25 | | $0.40 | **$17,046.46** |
| | Lavatory w/trim, wall hung, PE on CI, 20" x 18" | 42.75 | | $1.66 | **$70,820.24** |
| | Kitchen sink w/trim, countertop, stainless steel, 43" x 22" double bowl | 5.70 | | $0.31 | **$13,217.47** |
| | Service sink w/trim, PE on CI,wall hung w/rim guard, 24" x 20" | 1.90 | | $0.19 | **$8,259.35** |
| | Water cooler, electric, wall hung, wheelchair type, 7.5 GPH | 21.85 | | $1.06 | **$45,371.49** |
| **D2020** | **Domestic Water Distribution** | | | **$0.73** | **$31,044.58** |
| | Gas fired water heater, commercial, 100< F rise, 300 MBH input, 278 GPH | 1.62 | | $0.73 | **$31,044.58** |
| **D2040** | **Rain Water Drainage** | | | **$0.89** | **$38,061.86** |

| | | Quantity | % of Total | Cost Per SF | Cost |
|---|---|---|---|---|---|
| | Roof drain, CI, soil,single hub, 5" diam, 10' high | 14.25 | | $0.81 | **$34,578.08** |
| | Roof drain, CI, soil,single hub, 5" diam, for each additional foot add | 71.25 | | $0.08 | **$3,483.78** |
| **D3010** | **Energy Supply** | | | **$9.19** | **$392,835.52** |
| | Commercial building heating system, fin tube radiation, forced hot water, 10,000 SF, 100,000 CF, total 2 floors | 42,751.00 | | $9.19 | **$392,835.52** |
| **D3050** | **Terminal & Package Units** | | | **$9.72** | **$415,740.65** |
| | Splt sys, air cooled condensing unit, schools and colleges, 20,000 SF, 76.66 ton | 42,751.00 | | $9.72 | **$415,740.65** |
| **D4010** | **Sprinklers** | | | **$2.47** | **$105,487.66** |
| | Wet pipe sprinkler systems, steel, light hazard, 1 floor, 50,000 SF | 42,751.00 | | $2.47 | **$105,487.66** |
| **D4020** | **Standpipes** | | | **$0.45** | **$19,281.56** |
| | Wet standpipe risers, class III, steel, black, sch 40, 4" diam pipe, 1 floor | 0.95 | | $0.21 | **$9,154.32** |
| | Wet standpipe risers, class III, steel, black, sch 40, 4" diam pipe, additional floors | 4.75 | | $0.24 | **$10,127.24** |
| **D5010** | **Electrical Service/Distribution** | | | **$1.00** | **$42,899.14** |
| | Overhead service installation, includes breakers, metering, 20' conduit & wire, 3 phase, 4 wire, 120/208 V, 800 A | 1.25 | | $0.30 | **$12,698.44** |
| | Feeder installation 600 V, including RGS conduit and XHHW wire, 800 A | 60.00 | | $0.22 | **$9,386.70** |
| | Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 3 phase, 800 A | 1.20 | | $0.49 | **$20,814.00** |
| **D5020** | **Lighting and Branch Wiring** | | | **$8.30** | **$354,860.87** |
| | Receptacles incl plate, box, conduit, wire, 8 per 1000 SF, .9 W per SF, with transformer | 42,751.00 | | $2.43 | **$104,000.36** |
| | Wall switches, 2.0 per 1000 SF | 42,751.00 | | $0.33 | **$14,022.33** |
| | Miscellaneous power, 1.2 watts | 42,751.00 | | $0.25 | **$10,636.45** |
| | Central air conditioning power, 4 watts | 42,751.00 | | $0.51 | **$21,961.19** |
| | Fluorescent fixtures recess mounted in ceiling, 1.6 watt per SF, 40 FC, 10 fixtures @32watt per 1000 SF | 49,163.65 | | $4.78 | **$204,240.55** |
| **D5030** | **Communications and Security** | | | **$3.01** | **$128,537.49** |
| | Communication and alarm systems, includes outlets, boxes, conduit and wire, sound systems, 12 outlets | 0.59 | | $0.24 | **$10,280.79** |
| | Communication and alarm systems, fire detection, addressable, 100 detectors, includes outlets, boxes, conduit and wire | 1.19 | | $1.68 | **$71,877.49** |
| | Fire alarm command center, addressable with voice, excl. wire & conduit | 0.95 | | $0.26 | **$11,163.71** |

| | | Quantity | % of Total | Cost Per SF | Cost |
|---|---|---|---|---|---|
| | Communication and alarm systems, includes outlets, boxes, conduit and wire, master clock systems, 10 rooms | 0.64 | | $0.28 | **$11,786.51** |
| | Communication and alarm systems, includes outlets, boxes, conduit and wire, master TV antenna systems, 12 outlets | 0.99 | | $0.28 | **$11,784.89** |
| | Internet wiring, 2 data/voice outlets per 1000 S.F. | 25.65 | | $0.27 | **$11,644.09** |
| **D5090** | **Other Electrical Systems** | | | **$0.07** | **$2,953.00** |
| | Generator sets, w/battery, charger, muffler and transfer switch, gas/gasoline operated, 3 phase, 4 wire, 277/480 V, 15 kW | 4.51 | | $0.07 | **$2,953.00** |
| **E Equipment & Furnishin** | | | **0.2%** | **$0.28** | **$12,177.07** |
| **E1020** | **Institutional Equipment** | | | **$0.28** | **$12,177.07** |
| | Architectural equipment, laboratory equipment, counter tops, stainless steel | 47.50 | | $0.28 | **$12,177.07** |
| **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%** | **$139.91** | **$5,981,139.60** |
| **Contractor's Overhead & Profit** | | | **25.0 %** | **$34.98** | **$1,495,284.90** |
| **Architectural Fees** | | | **7.0 %** | **$12.24** | **$523,349.71** |
| **User Fees** | | | **0.0 %** | **$0.00** | **$0.00** |
| **Total Building Cost** | | | | **$187.12** | **$7,999,774.21** |

# Appendix V: SITE PHOTOGRAPHS


1 - Monument sign at north end of the site

2 - Jackson Via Elementary School

3 - Asphalt drive lane west side of the site

4 - Asphalt drive lane east side of the site - note cracking and previous repair

5 - Concrete apron and asphalt drive lane west side of the site

6 - Asphalt drive lane west side of the site - note cracking

7 - Asphalt drive lane west side of the site - note alligator cracks

8 - Asphalt drive lane - note cracking

9 - Asphalt drive lane east side of the site - note cracking and previous repair

10 - Asphalt drive lane east side of the site - note cracking and previous repair

11 - Asphalt parking east side of site - note cracking

12 - Asphalt parking east side of site

13 - Asphalt parking east side of site - note cracking

14 - Asphalt playing surface - note cracking and grass growing

15 - Concrete sidewalk

16 - Concrete ramp - note deterioration

17 - Concrete sidewalk - note deterioration

18 - Concrete sidewalk - note cracking

19 - Concrete ramp - note need to install truncated domes

20 - Concrete sidewalk - note cracking

21 - Concrete sidewalk - note cracking

22 - Concrete sidewalk - note ponding

23 - Concrete sidewalk - note cracking

24 - Asphalt parking - note cracking

25 - Concrete sidewalk - note cracking

26 - Concrete sidewalk - note cracking

27 - Concrete sidewalk - note cracking

28 - Concrete sidewalk - note cracking

29 - Concrete sidewalk and ramp

30 - Concrete sidewalk - note deterioration

31 - Concrete stair

32 - Concrete stair - note stained

33 - Concrete stair - note stained and wall cracking

34 - Concrete stair handrail - note deterioration

35 - Asphalt surface - note cracking and grass growing

36 - Concrete ramp- note deterioration

37 - Concrete ramp- note deterioration

38 - Typical storm drainage


39 - Playground overview

40 - Basketball court south of the building

41 - Typical fencing overview

42 - Playground south end of the site

43 - Playground southwest end of the site


44 - Playground overview

45 - Playground overview

46 - Typical landscape and setting area

47 - Typical landscape

48 - Typical lawn area

49 - Typical landscape and setting area - note table broken

50 - Building exteriors

51 - Building exterior southwest side of the building

52 - Typical perimeter soffit

53 - Building exterior southwest side of the building

54 - Building exterior soffit

55 - Building exterior - note column cracking

56 - Building exterior - note stained and sealant repair

57 - Building exterior - note staining in the parapet

58 - Building exterior west side of the building


59 - Building exterior


60 - Main entrance doors


61 - Typical personnel door


62 - Older exterior window unit

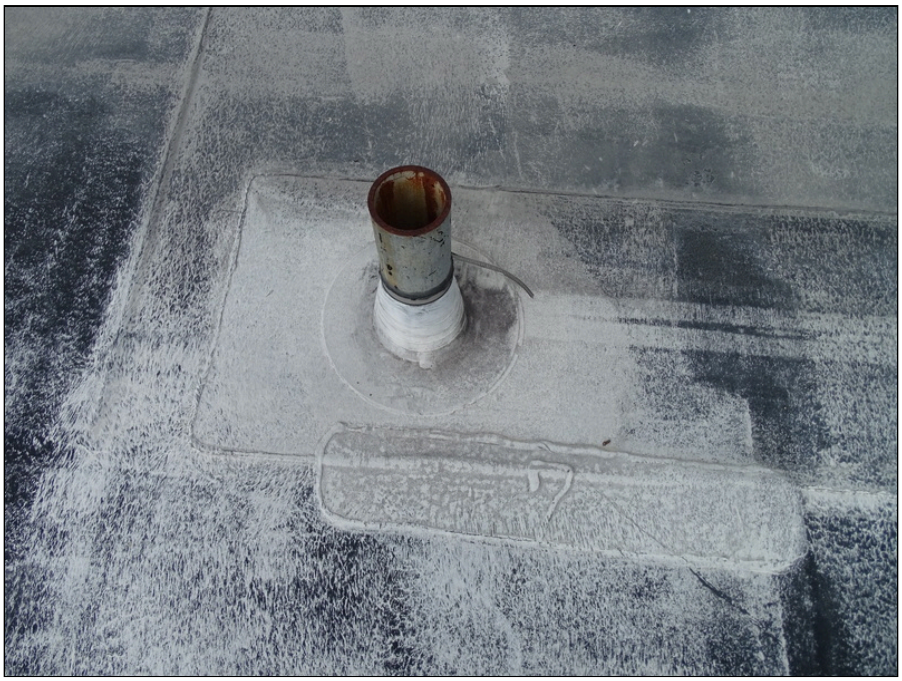
63 - Typical exterior window - note deterioration of gasket


64 - Typical exterior window

65 - Older exterior window unit

66 - Single-ply membrane roofing system

67 - Typical interior drain



68 - Typical plumbing penetration

69 - Single-ply membrane roofing system looking west

70 - Single-ply membrane roofing system looking west - note ponding

71 - Single-ply membrane roofing system looking west

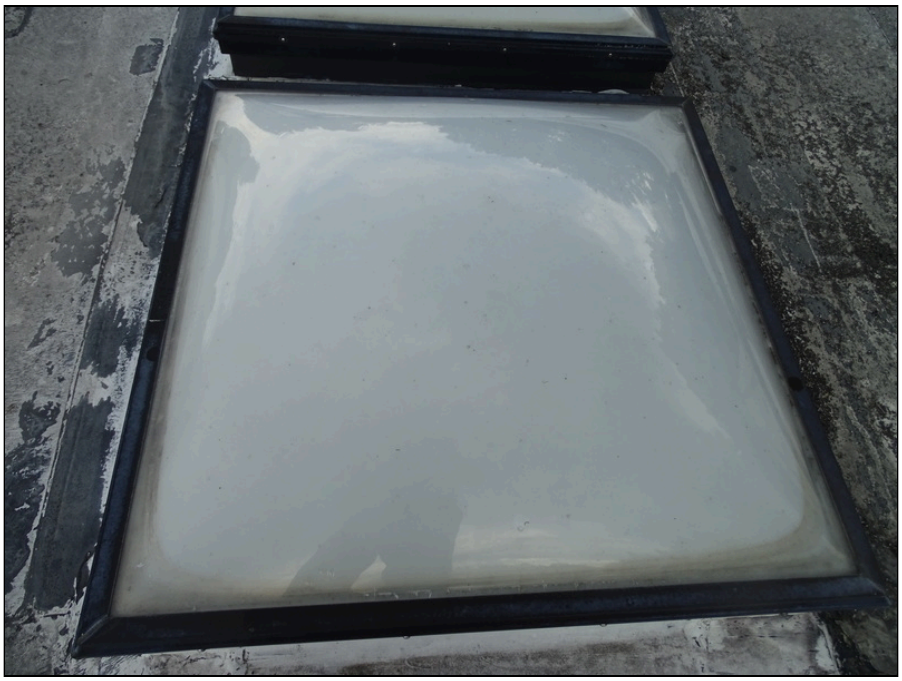
72 - Single-ply membrane roofing system - note patching

73 - Single-ply membrane roofing system looking west

74 - Single-ply membrane roofing system looking west - note ponding

75 - Single-ply membrane roofing system

76 - Skylights located on north side of the building



77 - Skylight located on north side of the building

78 - Skylights located on north side of the building - note glass cracked

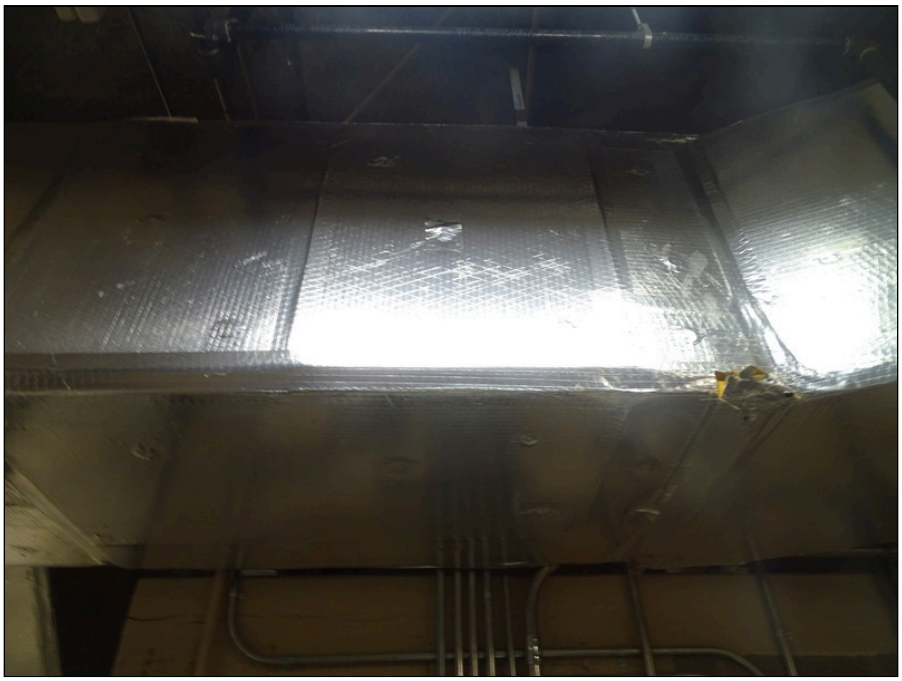
79 - Skylight located on north side of the building


80 - Gas domestic water heater

81 - Cooling Tower located at west end of the site

82 - Typical Air Handler Unit


83 - Typical Air Handler Unit



84 - Typical mechanical duct

85 - Boilers located in mechanical room

86 - Condenser located at west side of the building

87 - Split system located in IT room

88 - Janitors mop sink

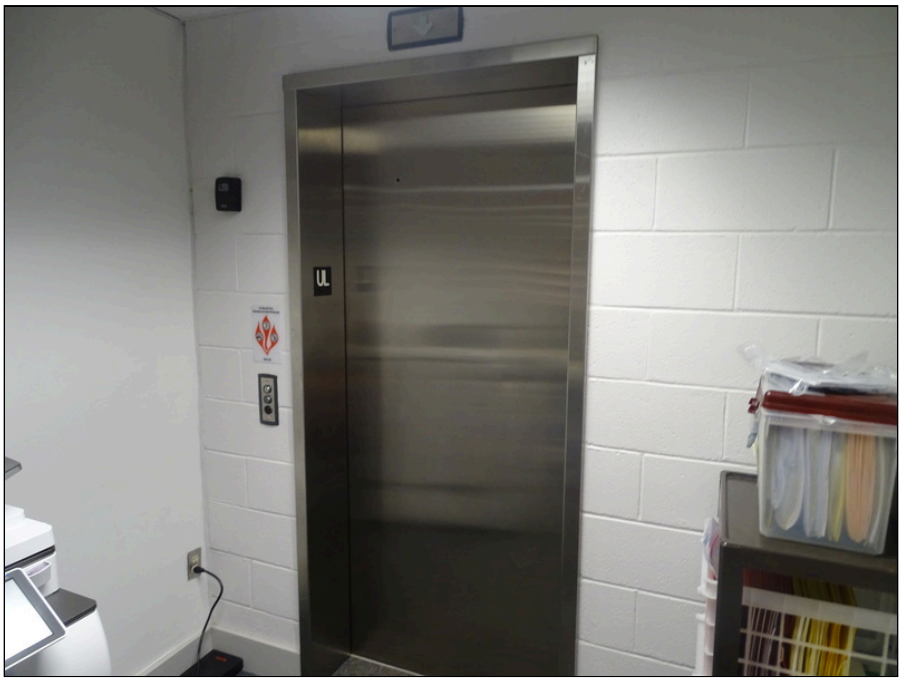

89 - Variable frequency drive mechanical controls


90 - Chiller located in mechanical room

91 - Central plant system pumps

92 - Typical building transformer


93 - Hydraulic elevator machine and controls

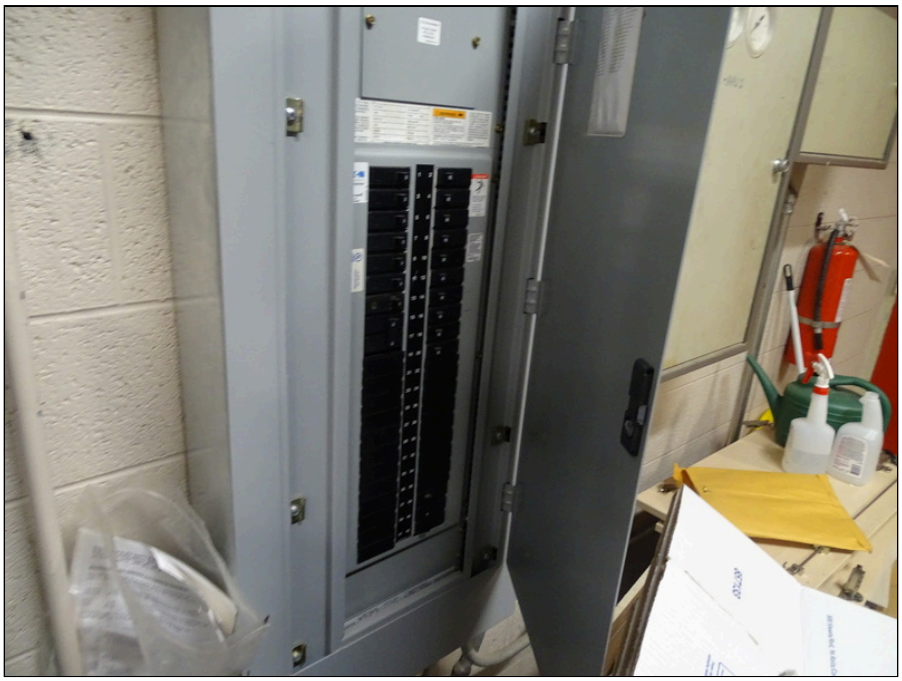


94 - Hydraulic elevator


95 - Fire alarm control panel


96 - Fire alarm annunciator panel


97 - Fire alarm annunciator panel



98 - Typical electrical circuit breaker panel

99 - Electrical meter

100 - Electrical main switchgear

101 - Electrical main switchgear

102 - Typical electrical circuit breaker panel


103 - Typical thermostat control

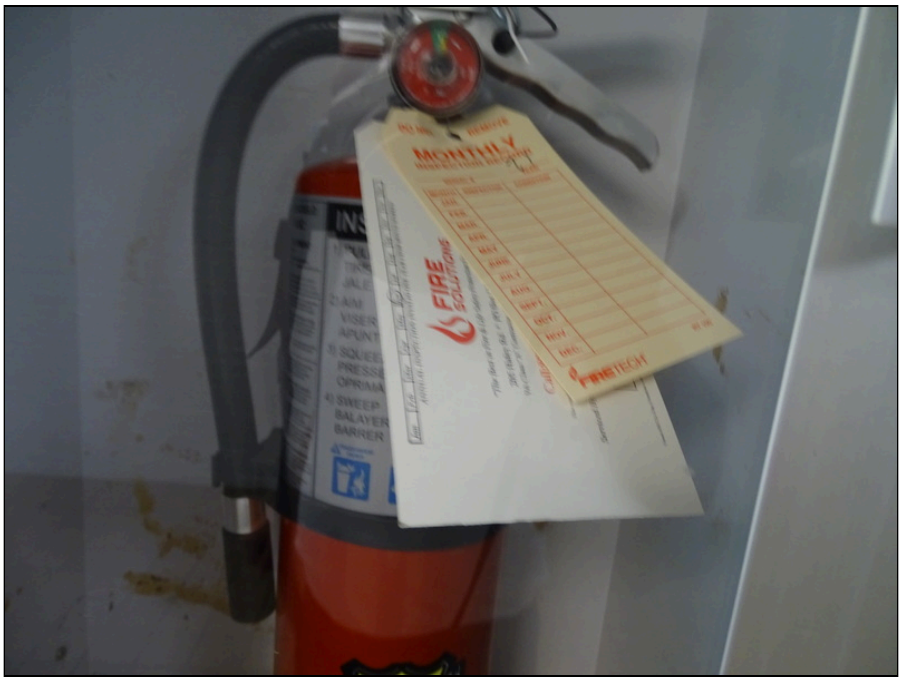
104 - Typical sprinkler head

105 - Typical sprinkler head

106 - Typical sprinkler head


107 - Typical fire alarm pull station

108 - Typical fire alarm bell and strobe




109 - Typical fire extinguisher


110 - Typical exit sign

111 - Typical smoke detector


112 - Typical emergency lighting


113 - Dumpster area at northeast end of the site

114 - Electric utility transformer at west side of the building

115 - Building exteriors concrete - note recent repairs

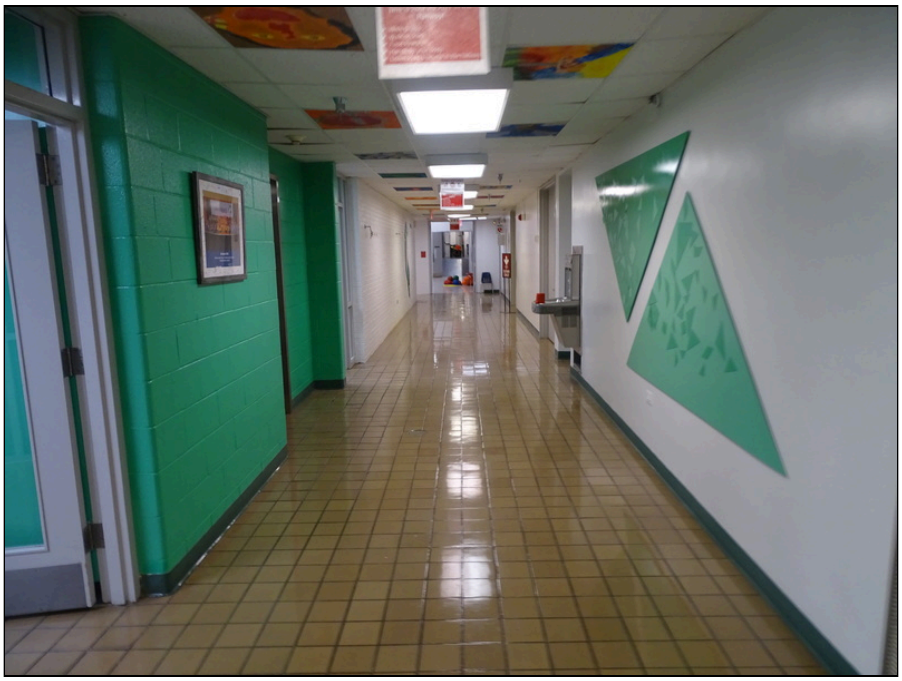
116 - Building exterior lighting - not illuminated

117 - Building exterior lighting


118 - Building interior finishes of corridor area


119 - Interior finishes of library area

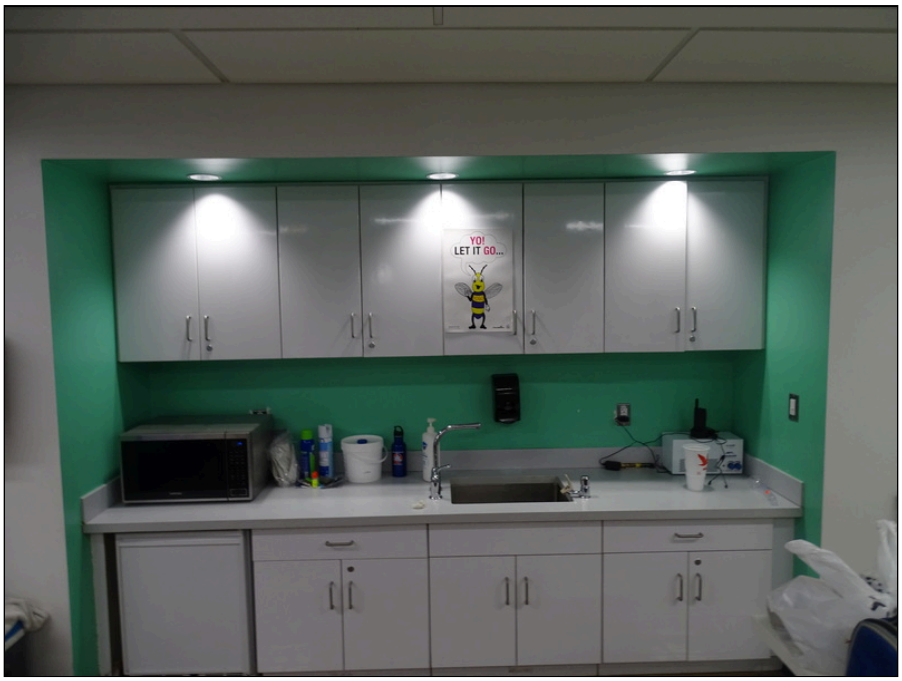
120 - Interior finishes of office area



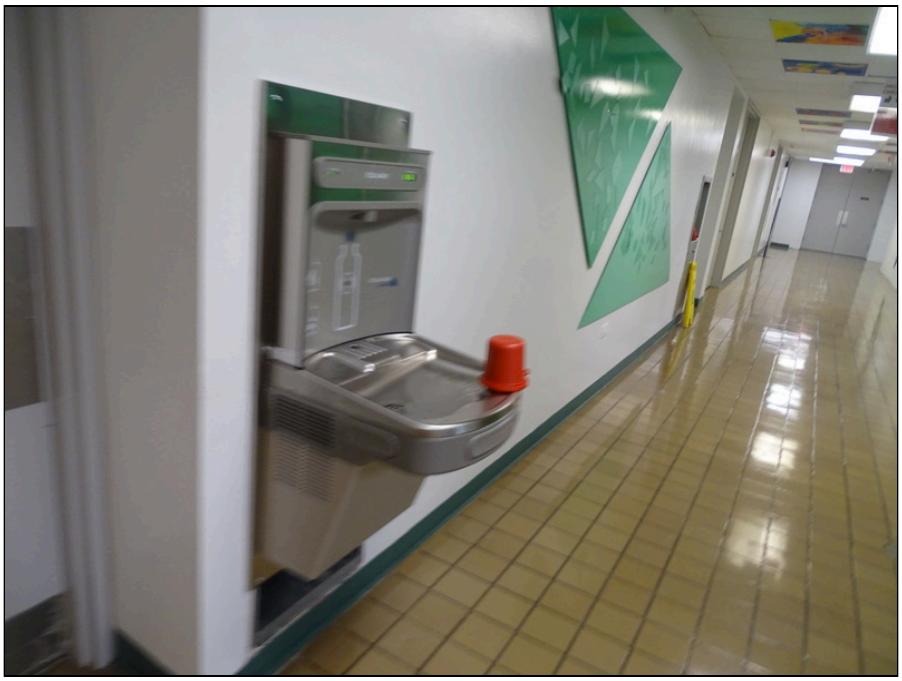
121 - Interior finishes corridor area

122 - Interior finishes kitchen area

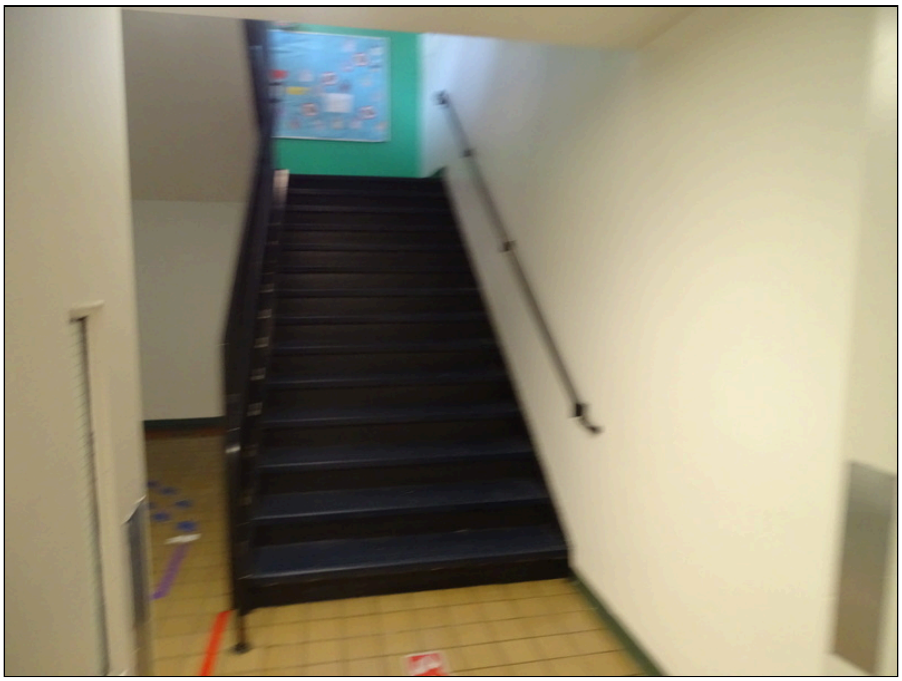
123 - Interior finishes kitchen area




124 - Interior finishes of typical classroom area - note recent renovation

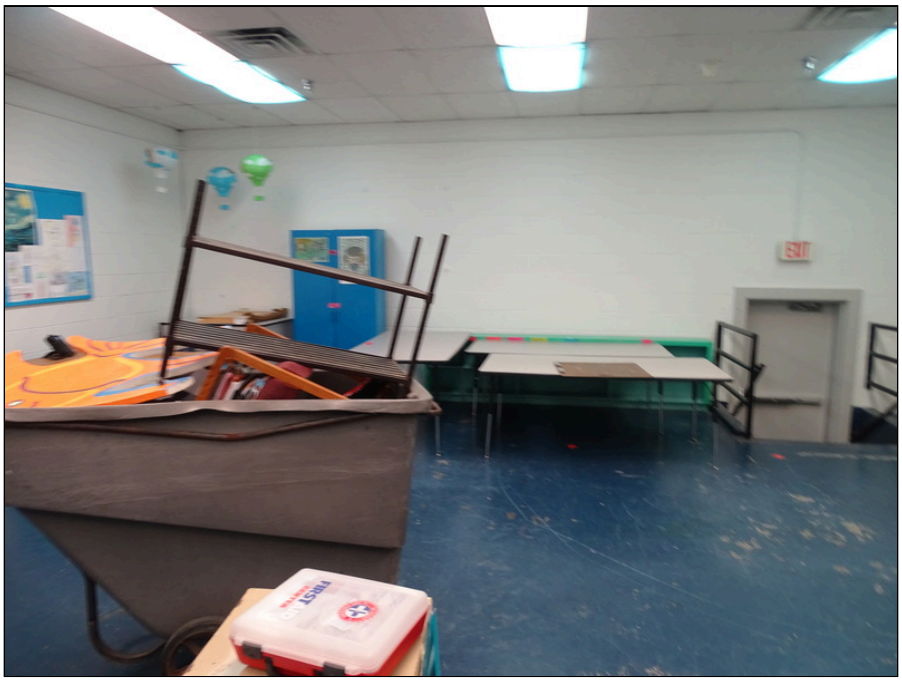


125 - Typical water fountain



126 - Interior finishes stair area

127 - Interior finishes of gymnasium area

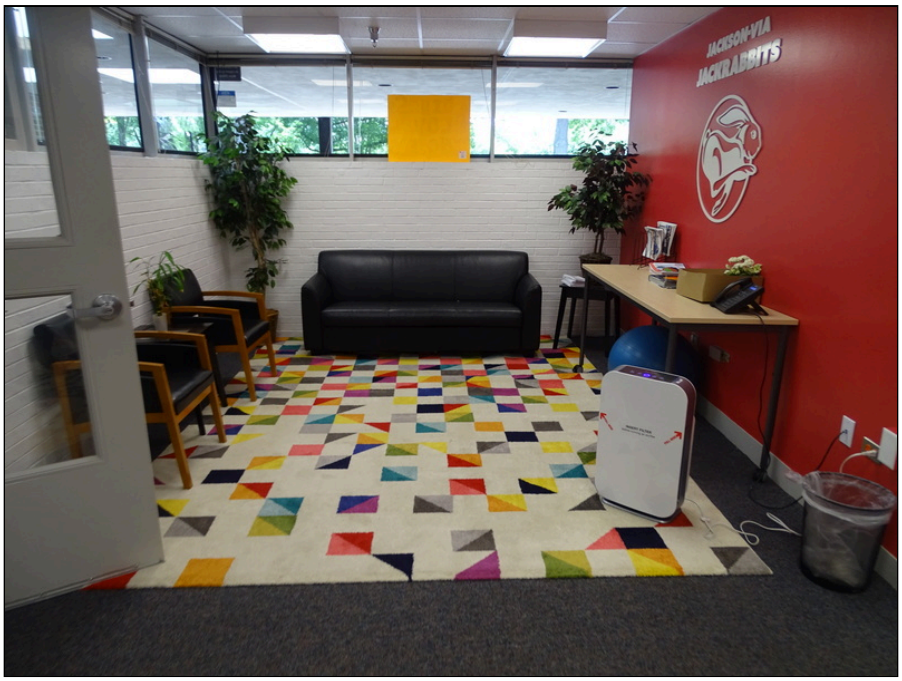


128 - Interior finishes of classroom area

129 - Ceiling interior - water leakage

130 - Interior finishes corridor area

131 - Interior finishes of restroom area




132 - Interior finishes classroom area

133 - Interior finishes office area


134 - Interior finishes classroom area

135 - Accessible parking spaces - note only two of five needed spaces provided

136 - Accessible toilet


137 - Accessible drinking fountain

138 - Accessible urinal

139 - Typical fan coil unit

# Appendix VI: 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

# 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.

# 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
- 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

# 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 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