FACILITY CONDITION ASSESSMENT

prepared for

Richmond Public Schools
301 North Ninth Street
Richmond, VA 23219

Dogwood Middle School
1701 Floyd Avenue
Richmond, VA 23220

PREPARED BY:
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BV PROJECT #:
166385.23R000-029.468

DATE OF REPORT:
September 9, 2024

ON SITE DATE:
March 11, 2024

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1. Executive Summary

Campus Overview and Assessment Details

General Information	
Property Type	Middle school campus
Number of Buildings	1
Main Address	1701 Floyd Avenue, Richmond, VA 23220
Site Developed	1914
Outside Occupants / Leased Spaces	None
Date(s) of Visit	March 11, 2024
Management Point of Contact	Daniel Alu Project Engineer 800 Yard Street, Suite 115 Columbus, OH 43212 C: 614.949.1355 daniel.alu@gofmx.com
On-site Point of Contact (POC)	Ronald (Bobby) Hathaway Jr., Director of Facilities Department of Facility Services 1461 A Commerce Road Richmond, VA 23224 Office: (804) 780-6251 Mobile: (804) 325-0740 Email: Rhathawa@rvaschools.net
Assessment & Report Prepared By	Jake Stauffer

General Information

Reviewed By	Daniel White Technical Report Reviewer for Bill Champion Program Manager 800.733.0660 x7296234 Bill.Champion@bureauveritas.com
AssetCalc Link	Full dataset for this assessment can be found at: https://www.assetcalc.net/

Significant/Systemic Findings and Deficiencies

Historical Summary

Dogwood Middle School was originally constructed in 1914. The school has undergone several partial renovations throughout the years.

Architectural

The building is constructed with load bearing brick framing supporting concrete and steel framed roof structure. The building has a low-sloped roof with a built-up system and gravel finish. Windows are aluminum framed with steel entrance doors. Interior finishes consist of commercial carpet, terrazzo, VCT, and ceramic tile, with painted and ceramic tile walls and suspended Acoustic Ceiling Tile (ACT) and hard tile. The interior finishes have been periodically replaced as needed over the years.

Mechanical, Electrical, Plumbing and Fire (MEPF)

Heating is provided by boilers and air handlers. Cooling is provided by mini-split systems and window units. A building automation system (BAS) is in place. Hot water is provided by gas-fired water heaters located in the boiler room. The main electrical distribution is from a dedicated electrical switchboard. Fire protection is provided via a fire alarm system with a central panel, and fire extinguishers spread throughout the school. The kitchen within the cafeteria contains the following appliances: stainless steel sink, refrigerator, food warmer, convection ovens, and an exhaust hood that are all in usable condition.

Site

Site systems consist of an asphalt paved parking lot and concrete sidewalks adjacent to the building. Landscaping is provided with the site including a grass field and some garden areas. Asphalt surfaces are generally free of cracks and heaving; however, seal and stripe are recommended in the short term. Concrete walkways are free of any heavy damage.

Recommended Additional Studies

No additional studies recommended at this time.

Facility Condition Index (FCI)

One of the major goals of the FCA is to calculate the Facility Condition Index (FCI), which provides a theoretical objective indication of a facility's overall condition. The FCI is defined as the ratio of the cost of current needs divided by the current replacement value (CRV) of the facility. In this report, each building is considered as a separate facility. The chart below presents the industry standard ranges and cut-off points.

FCI Ranges and Description	
0 – 5%	In new or well-maintained condition, with little or no visual evidence of wear or
5 – 10%	Subjected to wear but is still in a serviceable and functioning condition.
10 – 30%	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.
30% and above	Has reached the end of its useful or serviceable life. Renewal is now necessary.

The deficiencies and lifecycle needs identified in this assessment provide the basis for a portfolio-wide capital improvement funding strategy. In addition to the current FCI, extended FCI's have been developed to provide owners the intelligence needed to plan and budget for the "keep-up costs" for their facilities. As such the 3-year, 5-year, and 10-year FCI's are calculated by dividing the anticipated needs of those respective time periods by current replacement value. As a final point, the FCI's ultimately provide more value when used to compare facilities across a portfolio instead of being over-analyzed and scrutinized as stand-alone mathematical values. The table below presents the current, 3-year, 5-year, and 10-year FCI's for each facility:

FCI Analysis | Binford Middle School / Main Building(1914)

Replacement Value	*Total SF*	*Cost/SF*
$ 39,205,200	*98,013*	*$ 400*

	Est Reserve Cost	FCI
Current	$ 0	**0.0 %**
3-Year	$ 4,176,800	10.7 %
5-Year	$ 6,323,900	16.1 %
10-Year	$ 7,560,300	19.3 %

Immediate Needs

There are no immediate needs to report.

Key Findings

Exterior Walls in Poor condition.

Brick
Dogwood Middle School Main Building Exterior

Uniformat Code: B2010
Recommendation: **Repair in 2025**

Priority Score: **89.8**

Plan Type: Performance/Integrity

Cost Estimate: $33,000

**$$$**$

Deterioration of the exterior brick facade was observed in several areas. - AssetCALC ID: 7718318

Window in Poor condition.

Vinyl-Clad Double-Glazed, 16-25 SF
Dogwood Middle School Main Building Exterior

Uniformat Code: B2020
Recommendation: **Replace in 2025**

Priority Score: **87.8**

Plan Type: Performance/Integrity

Cost Estimate: $10,800

**$$$**$

Basement windows were noted to be deteriorated. - AssetCALC ID: 7719287

Piping and Valves in Poor condition.

Fiberglass Insulation, Domestic Water
Dogwood Middle School Main Building
Throughout Building

Uniformat Code: D2010
Recommendation: **Replace in 2025**

Priority Score: **82.8**

Plan Type: Performance/Integrity

Cost Estimate: $7,200

**$$**$$

Water piping insulation was noted to be deteriorated. Replacement is recommended in the short term. - AssetCALC ID: 7648991

BAS/HVAC Controls in Poor condition.

Basic System or Legacy Upgrades
Dogwood Middle School Main Building
Mechanical Room

Uniformat Code: D8010
Recommendation: **Replace in 2025**

Priority Score: **81.8**

Plan Type: Performance/Integrity

Cost Estimate: $245,000

$$$$

Remove legacy pneumatic controls and upgrade to Building Automation System. - AssetCALC ID: 7719130

HVAC Steam Components in Poor condition.

Condensate Return Station, 15 GAL
Main Building Dogwood Middle School Main Building Mechanical Room

Uniformat Code: D3050
Recommendation: **Replace in 2025**

Priority Score: **81.8**

Plan Type: Performance/Integrity

Cost Estimate: $8,600

**$$**$$

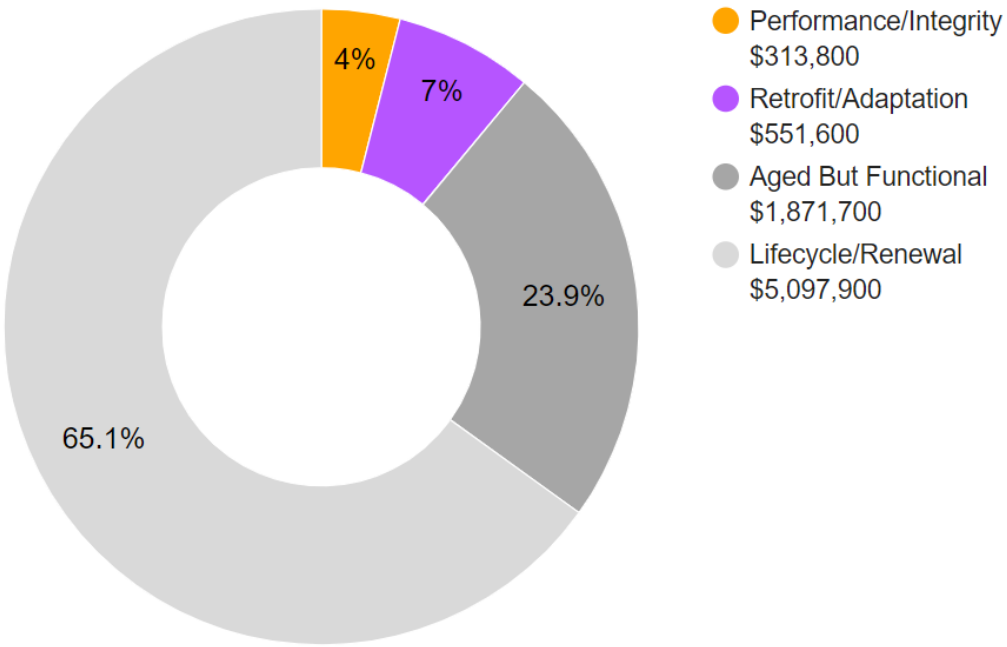
Condensate return tank was noted to have several leaks. - AssetCALC ID: 7719257

Plan Types

Each line item in the cost database is assigned a Plan Type, which is the primary reason or rationale for the recommended replacement, repair, or other corrective action. This is the "why" part of the equation. A cost or line item may commonly have more than one applicable Plan Type; however, only one Plan Type will be assigned based on the "best" fit, typically the one with the greatest significance and highest on the list below.

Plan Type Descriptions	
Safety	An observed or reported unsafe condition that if left unaddressed could result in injury; a system or component that presents potential liability risk.
Performance/Integrity	Component or system has failed, is almost failing, performs unreliably, does not perform as intended, and/or poses risk to overall system stability.
Accessibility	Does not meet ADA, UFAS, and/or other accessibility requirements.
Environmental	Improvements to air or water quality, including removal of hazardous materials from the building or site.
Retrofit/Adaptation	Components, systems, or spaces recommended for upgrades in in order to meet current standards, facility usage, or client/occupant needs.
Lifecycle/Renewal	Any component or system that is neither deficient nor aged past EUL but for which future replacement or repair is anticipated and budgeted.

Plan Type Distribution (by Cost)



10-YEAR TOTAL: $7,835,000

2. Building Information

Building Systems Summary

Address	1701 Floyd Avenue, Richmond, VA 23220	
Constructed/Renovated	1914	
Building Area	98013 SF	
Number of Stories	3 with 1 basement level	
System	*Description*	*Condition*
Structure	Masonry bearing walls with concrete and metal roof deck supported by open-web steel joists *and concrete strip/wall footing foundation system.*	Fair
Façade	Primary Wall Finish: Brick Windows: Aluminum	Fair
Roof	Primary: Flat construction with single-ply membrane with stone ballast.	Fair
Interiors	Walls: Painted gypsum board ceramic tile. Floors: Carpet, VCT, ceramic tile, wood strip, terrazzo. Ceilings: Painted gypsum board and ACT.	Fair
Elevators	Passenger: One hydraulic car serving all four floors .	Fair
Plumbing	Distribution: Copper supply and cast-iron waste and venting Hot Water: Gas water heaters with integral tanks and tankless water heaters. Fixtures: Toilets, urinals, and sinks in all restrooms	Fair

Building Systems Summary

HVAC	Central System: Boilers feeding air handlers Non-Central System: Ductless split-systems and through window AC units Pneumatic controls	Fair
Fire Suppression	Fire extinguishers only.	Fair
Electrical	Source & Distribution: Main switchboard panel with copper wiring. Interior Lighting: linear fluorescent, CFL. Exterior Building-Mounted Lighting: LED. Emergency Power: None	Fair
Fire Alarm	Alarm panel with smoke detectors, heat detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Fair
Equipment/Special	Commercial kitchen equipment	Fair
Accessibility	Presently it does not appear an accessibility study is needed for this building. See the appendix for associated photos and additional information.	
Additional Studies	No additional studies are currently recommended for the building.	
Areas Observed	The interior spaces were observed to gain a clear understanding of the facility's overall condition. Other areas accessed and assessed included the exterior equipment and assets directly serving the building, the exterior walls of the facility, and the roof.	
Key Spaces Not Observed	All key areas of the facility were accessible and observed.	

The table below shows the anticipated costs by trade or building system over the next 20 years.

System Expenditure Forecast

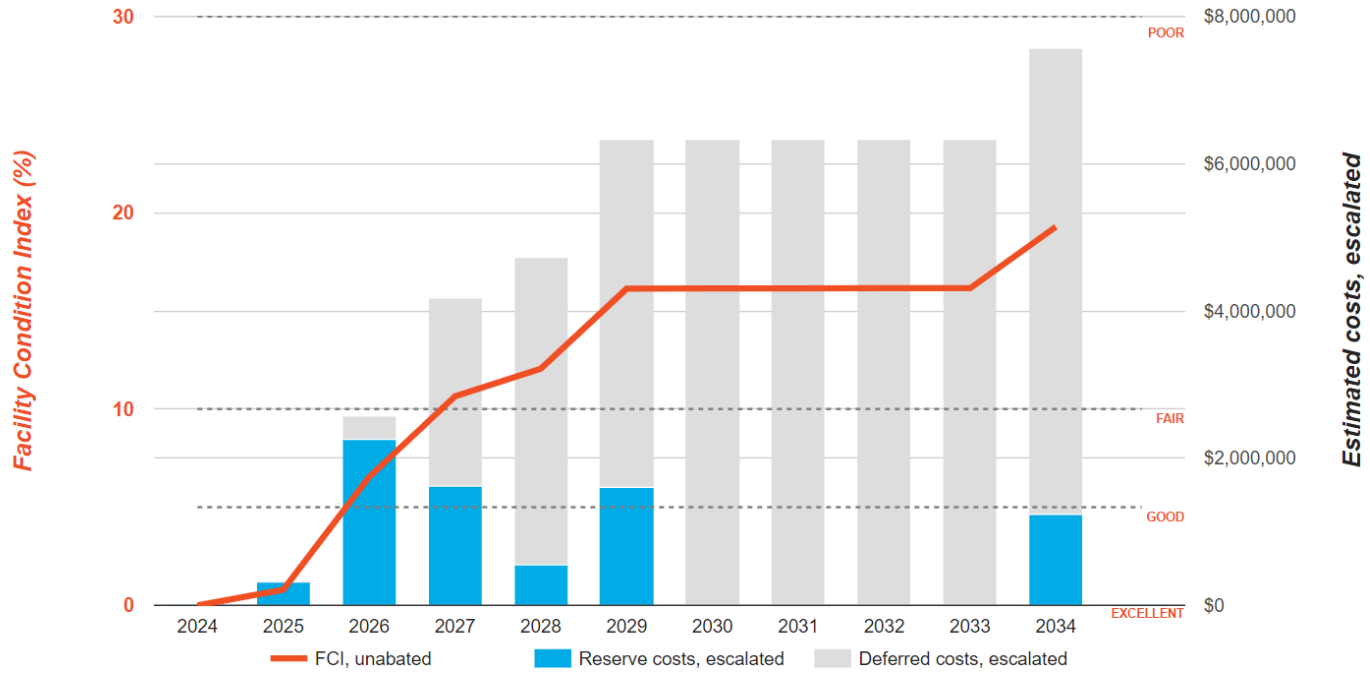
System	Immediate	Short Term (1-2 yr)	Near Term (3-5 yr)	Med Term (6-10 yr)	Long Term (11-20 yr)	TOTAL
Structure	-	-	-	-	$5,917,600	$5,917,600
Facade	-	$45,100	$9,700	$315,300	$2,150,500	$2,520,700
Roofing	-	-	$761,500	$234,500	-	$996,000
Interiors	-	$337,900	$979,400	-	$2,587,600	$3,905,000
Conveying	-	-	$9,800	$121,000	$15,300	$146,100
Plumbing	-	$15,900	$89,400	$19,400	$1,973,400	$2,098,100
HVAC	-	$34,700	$428,600	$211,000	$1,686,400	$2,360,700
Fire Protection	-	-	$551,600	-	-	$551,600
Electrical	-	$1,878,000	$511,300	$6,600	$10,900	$2,406,800
Fire Alarm & Electronic Systems	-	$252,400	$340,900	$283,600	$393,200	$1,270,100
Equipment & Furnishings	-	-	$59,800	$45,200	$68,400	$173,300
Site Development	-	-	$9,300	-	-	$9,300
Site Utilities	-	-	$8,300	-	-	$8,300
TOTALS (3% inflation)	**-**	**$2,564,100**	**$3,759,800**	**$1,236,400**	**$14,803,300**	**$22,363,600**

NEEDS OVER TIME: The vertical blue bars in the graphic below represent the year-by-year needs identified for the facility. The orange line forecasts what would happen to the FCI (left Y axis) over time, assuming zero capital expenditures over the next ten years. The dollar amounts allocated for each year are associated with the values along the right Y axis.

Needs by Year with Unaddressed FCI Over Time

FCI Analysis: Binford Middle School Main Building

Replacement Value: $39,205,200 Inflation Rate: 3.0% Average Needs per Year: $687,300



Building Photographic Overview

1 - FRONT ELEVATION

2 - LEFT ELEVATION

3 - RIGHT ELEVATION

4 – REAR ELEVATION

5 – ROOFING SYSTEM

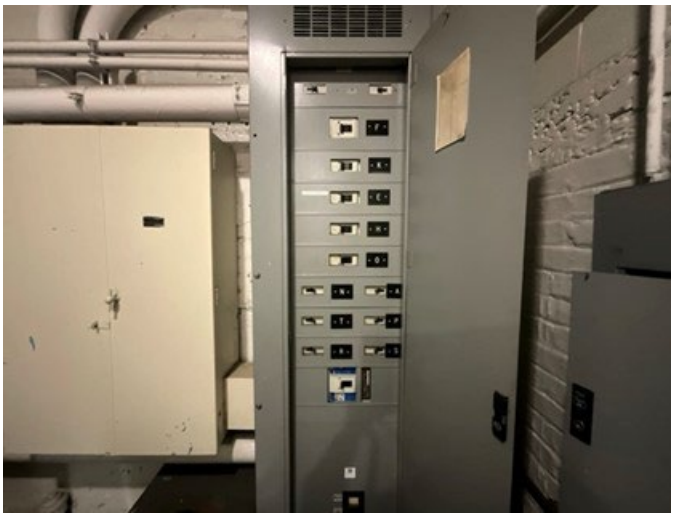
6 – CORRIDOR

7 - CAFETERIA

8 – HYDRAULIC ELEVATOR

9 – DOMESTIC HOT WATER

10 - BOILERS



11 – ELECTRICAL DISTRIBUTION

12 - FIRE ALARM CONTROL PANEL

3. Site

Site Information		
Site Area	2.25 acres (estimated)	
Parking Spaces	95 total spaces all in open lots; two of which are accessible.	
System	*Description*	*Condition*
Pavement/Flatwork	Asphalt lots with limited areas of concrete aprons and pavement and adjacent concrete sidewalks, curbs, ramps, and stairs.	Fair
Site Development	Property entrance signage; chain link fencing;	Fair
Landscaping and Topography	Limited landscaping features including lawns, trees, bushes. Irrigation not present	Fair
Utilities	Municipal water and sewer Local utility-provided electric and natural gas.	Fair
Site Lighting	None	--
Ancillary Structures	None	--
Site Accessibility	Presently it does not appear an accessibility study is needed for the exterior site areas. See the appendix for associated photos and additional information.	
Site Additional Studies	No additional studies are currently recommended for the exterior site areas	

Site Information	
Site Areas Observed	The exterior areas within the property boundaries were observed to gain a clear understanding of the site's overall condition.
Site Key Spaces Not Observed	All key areas of the exterior site were accessible and observed.

The table below shows the anticipated costs by trade or site system over the next 20 years.

System Expenditure Forecast

System	Immediate	Short Term (1-2 yr)	Near Term (3-5 yr)	Med Term (6-10 yr)	Long Term (11-20 yr)	TOTAL
Site Pavement	-	$25,400	$203,800	$29,500	$73,800	$332,600
Site Development	-	-	$15,800	-	-	$15,800
TOTALS (3% inflation)	**-**	**$25,400**	**$219,700**	**$29,500**	**$73,800**	**$348,400**

Site: Photographic Overview

1 – VEHICLE DRIVEWAY

2 – ADA PARKING

3 – MAIN PARKING

4 - GROUNDS AND LANDSCAPING

5 – PAINT AND STRIPING

6 - SITE FENCING

4. ADA Accessibility

Generally, Title II of the Americans with Disabilities Act (ADA) prohibits discrimination by entities to access and use of “areas of public accommodations” and “public facilities” on the basis of disability. Regardless of their age, these areas and facilities must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

A public entity (i.e. city governments) shall operate each service, program, or activity so that the service, program, or activity, when viewed in its entirety, is readily accessible to and usable by individuals with disabilities.

However, this does not:

1. Necessarily require a public entity to make each of its existing facilities accessible to and usable by individuals with disabilities;
2. Require a public entity to take any action that would threaten or destroy the historic significance of an historic property; or
3. Require a public entity to take any action that it can demonstrate would result in a fundamental alteration in the nature of a service, program, or activity or in undue financial and administrative burdens. In those circumstances where personnel of the public entity believe that the proposed action would fundamentally alter the service, program, or activity or would result in undue financial and administrative burdens, a public entity has the burden of proving that compliance with 35.150(a) of this part would result in such alteration or burdens. The decision that compliance would result in such alteration or burdens must be made by the head of a public entity or his or her designee after considering all resources available for use in the funding and operation of the service, program, or activity, and must be accompanied by a written statement of the reasons for reaching that conclusion. If an action would result in such an alteration or such burdens, a public entity shall take any other action that would not result in such an alteration or such burdens but would nevertheless ensure that individuals with disabilities receive the benefits or services provided by the public entity.

Removal of barriers to accessibility should be addressed from a liability standpoint in order to comply with federal law, but the barriers may or may not be building code violations. The Americans with Disabilities Act Accessibility Guidelines are part of the ADA federal civil rights law pertaining to the disabled and are not a construction code. State and local jurisdictions have adopted the ADA Guidelines or have adopted other standards for accessibility as part of their construction codes.

During the FCA, Bureau Veritas performed a limited high-level accessibility review of the facility non-specific to any local regulations or codes. The scope of the visual observation was limited to the same areas observed while performing the FCA and the categories set forth in the material included in the appendix. It is understood by the Client that the limited observations described herein do not comprise a full ADA Compliance Survey, and that such a survey is beyond the scope of this assessment. A full measured ADA survey would be required to identify more specific potential accessibility issues. Additional clarifications of this limited survey:

- This survey was visual in nature and actual measurements were not taken to verify compliance
- Only a representative sample of areas was observed
- Two overview photos were taken for each subsection regardless of perceived compliance or non-compliance
- Itemized costs for individual non-compliant items are included in the dataset
- For any “none” boxes checked or reference to “no issues” identified, that alone does not guarantee full compliance

The following table summarizes the accessibility conditions of the general site and each significant building included in this report:

Accessibility Summary

Facility	*Year Built/ Renovated*	*Prior Study Provided?*	*Major/Moderate Issues Observed?*
Building	1914	No	No
General Site	1914	No	No

No detailed follow-up accessibility study is currently recommended since no major or moderate issues were identified at the subject site. Reference the appendix for specific data, photos, and tables or checklists associated with this limited accessibility survey.

5. Purpose and Scope

Purpose

Bureau Veritas was retained by the client to render an opinion as to the Property's current general physical condition on the day of the site visit.

Based on the observations, interviews and document review outlined below, this report identifies significant deferred maintenance issues, existing deficiencies, and material code violations of record, which affect the Property's use. Opinions are rendered as to its structural integrity, building system condition and the Property's overall condition. The report also notes building systems or components that have realized or exceeded their typical expected useful lives.

The physical condition of building systems and related components are typically defined as being in one of five condition ratings. For the purposes of this report, the following definitions are used:

Condition Ratings	
Excellent	New or very close to new; component or system typically has been installed within the past year, sound and performing its function. Eventual repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Good	Satisfactory as-is. Component or system is sound and performing its function, typically within the first third of its lifecycle. However, it may show minor signs of normal wear and tear. Repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Fair	Showing signs of wear and use but still satisfactory as-is, typically near the median of its estimated useful life. Component or system is performing adequately at this time but may exhibit some signs of wear, deferred maintenance, or evidence of previous repairs. Repair or replacement will be required due to the component or system's condition and/or its estimated remaining useful life.
Poor	Component or system is significantly aged, flawed, functioning intermittently or unreliably; displays obvious signs of deferred maintenance; shows evidence of previous repair or workmanship not in compliance with commonly accepted standards; has become obsolete; or exhibits an inherent deficiency. The present condition could contribute to or cause the deterioration of contiguous elements or systems. Either full component replacement is needed or repairs are required to restore to good condition, prevent premature failure, and/or prolong useful life.
Failed	Component or system has ceased functioning or performing as intended. Replacement, repair, or other significant corrective action is recommended or required.
Not Applicable	Assigning a condition does not apply or make logical sense, most commonly due to the item in question not being present.

Scope

The standard scope of the Facility Condition Assessment includes the following:

- Visit the Property to evaluate the general condition of the building and site improvements, review available construction documents in order to familiarize ourselves with, and be able to comment on, the in-place construction systems, life safety, mechanical, electrical, and plumbing systems, and the general built environment.
- Identify those components that are exhibiting deferred maintenance issues and provide cost estimates for Immediate Costs and Replacement Reserves based on observed conditions, maintenance history and industry standard useful life estimates. This will include a review of documented capital improvements completed within the last five-year period and work currently contracted for, if applicable.
- Provide a full description of the Property with descriptions of in-place systems and commentary on observed conditions.
- Provide a high-level categorical general statement regarding the subject Property's compliance to Title III of the Americans with Disabilities Act. This will not constitute a full ADA survey, but will help identify exposure to issues and the need for further review.
- Obtain background and historical information about the facility from a building engineer, property manager, maintenance staff, or other knowledgeable source. The preferred methodology is to have the client representative or building occupant complete a Pre-Survey Questionnaire (PSQ) in advance of the site visit. Common alternatives include a verbal interview just prior to or during the walk-through portion of the assessment.
- Review maintenance records and procedures with the in-place maintenance personnel.
- Observe a representative sample of the interior spaces/units, including vacant spaces/units, to gain a clear understanding of the property's overall condition. Other areas to be observed include the exterior of the property, the roofs, interior common areas, and the significant mechanical, electrical and elevator equipment rooms.
- Provide recommendations for additional studies, if required, with related budgetary information.
- Provide an Executive Summary at the beginning of this report, which highlights key findings and includes a Facility Condition Index as a basis for comparing the relative conditions of the buildings within the portfolio.

6. Opinions of Probable Costs

Cost estimates are attached throughout this report, with the Replacement Reserves in the appendix.

These estimates are based on Invoice or Bid Document/s provided either by the Owner/facility and construction costs developed by construction resources such as *R.S. Means, CBRE Whitestone,* and *Marshall & Swift,* Bureau Veritas's experience with past costs for similar properties, city cost indexes, and assumptions regarding future economic conditions.

Opinions of probable costs should only be construed as preliminary, order of magnitude budgets. Actual costs most probably will vary from the consultant's opinions of probable costs depending on such matters as type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole, phasing or bundling of the work (if applicable), quality of contractor, quality of project management exercised, market conditions, use of subcontractors, and whether competitive pricing is solicited, etc. Certain opinions of probable costs cannot be developed within the scope of this guide without further study. Opinions of probable cost for further study should be included in the FCA.

Methodology

Based upon site observations, research, and judgment, along with referencing Expected Useful Life (EUL) tables from various industry sources, Bureau Veritas opines as to when a system or component will most probably necessitate replacement. Accurate historical replacement records, if provided, are typically the best source of information. Exposure to the elements, initial quality and installation, extent of use, the quality and amount of preventive maintenance exercised, etc., are all factors that impact the effective age of a system or component. As a result, a system or component may have an effective age that is greater or less than its actual chronological age. The Remaining Useful Life (RUL) of a component or system equals the EUL less its *effective age*, whether explicitly or implicitly stated. Projections of Remaining Useful Life (RUL) are based primarily on age and condition with the presumption of continued use and maintenance of the Property similar to the observed and reported past use and maintenance practices, in conjunction with the professional judgment of Bureau Veritas's assessors. Significant changes in occupants and/or usage may affect the service life of some systems or components.

Where quantities could not be or were not derived from an actual construction document take-off or facility walk-through, and/or where systemic costs are more applicable or provide more intrinsic value, budgetary square foot and gross square foot costs are used. Estimated costs are based on professional judgment and the probable or actual extent of the observed defect, inclusive of the cost to design, procure, construct and manage the corrections.

Definitions

Immediate Needs

Immediate Needs are line items that require immediate action as a result of: (1) material existing or potential unsafe conditions, (2) failed or imminent failure of mission critical building systems or components, or (3) conditions that, if not addressed, have the potential to result in, or contribute to, critical element or system failure within one year or will most probably result in a significant escalation of its remedial cost.

For database and reporting purposes the line items with RUL=0, and commonly associated with *Safety* or *Performance/Integrity* Plan Types, are considered Immediate Needs.

Replacement Reserves

Cost line items traditionally called Replacement Reserves (equivalently referred to as Lifecycle/Renewals) are for recurring probable renewals or expenditures, which are not classified as operation or maintenance expenses. The replacement reserves should be budgeted for in advance on an annual basis. Replacement Reserves are reasonably predictable both in terms of frequency and cost. However, Replacement Reserves may also include components or systems that have an indeterminable life but, nonetheless, have a potential for failure within an estimated time period.

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

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

Bureau Veritas's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the assessment period. The assessment period is defined as the effective age plus the reserve term. Additional information concerning system or component 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 Replacement Reserves Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined as Immediate Needs.

For the purposes of 'bucketizing' the System Expenditure Forecasts in this report, the Replacement Reserves have been subdivided and grouped as follows: Short Term (years 1-3), Near Term (years 4-5), Medium Term (years 6-10), and Long Term (years 11-20).

Key Findings

In an effort to highlight the most significant cost items and not be overwhelmed by the Replacement Reserves report in its totality, a subsection of Key Findings is included within the Executive Summary section of this report. Key Findings typically include repairs or replacements of deficient items within the first five-year window, as well as the most significant high-dollar line items that fall anywhere within the ten-year term. Note that while there is some subjectivity associated with identifying the Key Findings, the Immediate Needs are always included as a subset.

7. Certification

Richmond Public Schools (the Client) retained Bureau Veritas to perform this Facility Condition Assessment in connection with its continued operation of Dogwood Middle School, 1701 Floyd Avenue, Richmond, VA 23220, the “Property”. It is our understanding that the primary interest of the Client is to locate and evaluate materials and building system defects that might significantly affect the value of the property and to determine if the present Property has conditions that will have a significant impact on its continued operations.

The conclusions and recommendations presented in this report are based on the brief review of the plans and records made available to our Project Manager during the site visit, interviews of available property management personnel and maintenance contractors familiar with the Property, appropriate inquiry of municipal authorities, our Project Manager’s walk-through observations during the site visit, and our experience with similar properties.

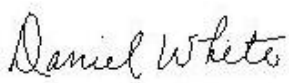
No testing, exploratory probing, dismantling or operating of equipment or in-depth studies were performed unless specifically required under the *Purpose and Scope* section of this report. This assessment did not include engineering calculations to determine the adequacy of the Property’s original design or existing systems. Although walk-through observations were performed, not all areas may have been observed (see Section 1 for specific details). There may be defects in the Property, which were in areas not observed or readily accessible, may not have been visible, or were not disclosed by management personnel when questioned. The report describes property conditions at the time that the observations and research were conducted.

This report has been prepared for and is exclusively for the use and benefit of the Client identified on the cover page of this report. The purpose for which this report shall be used shall be limited to the use as stated in the contract between the client and Bureau Veritas.

This report, or any of the information contained therein, is not for the use or benefit of, nor may it be relied upon by any other person or entity, for any purpose without the advance written consent of Bureau Veritas. Any reuse or distribution without such consent shall be at the client's or recipient's sole risk, without liability to Bureau Veritas.

Prepared by: Jake Stauffer
Project Manager

Reviewed by:



Daniel White,
Technical Report Reviewer for
Bill Champion,
Program Manager
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8. Appendices

Appendix A: Site Plan(s)
Appendix B: Pre-Survey Questionnaire(s)
Appendix C: Accessibility Review and Photos
Appendix D: Component Condition Report
Appendix E: Replacement Reserves
Appendix F: Equipment Inventory List

Appendix A:
Site Plan(s)

Site Plan

Project Number	Project Name
166385.24R000-029.468	Dogwood Middle School
Source	**On-Site Date**
Google	March 11, 2024

BUREAU VERITAS 1828 BUREAU VERITAS

N

Appendix B:
Pre-Survey Questionnaire(s)

Bureau Veritas Facility Condition Assessment: Pre-Survey Questionnaire

Building / Facility Name: Dogwood Middle School
Name of person completing form: Ronald Hathaway
Title / Association with property: Director of Facilities
Length of time associated w/ property: 30
Date Completed: February 27, 2024
Phone Number: 804-325-0740
Method of Completion: Electronic

Directions: Please answer all questions to the best of your knowledge and in good faith. Please provide additional details in the Comments column, or backup documentation for any ***Yes*** responses.

Data Overview		Response		
1	Year/s constructed / renovated	1959		
2	Building size in SF	33908		
3	Major Renovation/Rehabilitation		Year	Additional Detail
		Façade		
		Roof		
		Interiors		CMU, plaster, sheetrock,
		HVAC		Steam boilers, window units
		Electrical		Original
		Site Pavement		Asphalt
		Accessibility	2007	Satisfied the 2007 lawsuit requirement

Question		Response
4	List other significant capital improvements (focus on recent years; provide approximate date).	Windows replaced in 2018 (west side of the building remained original per the Architectural review board) , mini splits added to auditorium in 2018
5	List any major capital expenditures planned/requested for the next few years. Have they been budgeted?	Eliminate pneumatic controls, upgrade BAS
6	Describe any on-going extremely problematic, historically chronic, or immediate facility needs.	No HVAC in the hallways

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any **Yes** responses. (**NA** indicates "*Not Applicable*", **Unk** indicates *"Unknown"*)

	Question	Response				Comments
		Yes	No	Unk	NA	
7	Are there any problems with foundations or structures, like excessive settlement?		X			
8	Are there any wall, window, basement or roof leaks?	X				Some windows in the basement area
9	Has any part of the facility ever contained visible suspect mold growth, or have there been any indoor air quality or mold related complaints from occupants?		X			
10	Are your elevators unreliable, with frequent service calls?		X			
11	Are there any plumbing leaks, water pressure, or clogging/back-up problems?		X			
12	Have there been any leaks or pressure problems with natural gas, HVAC supply/return lines, or steam service?	X				Condensate return tank at the end of life expectancy
13	Are any areas of the facility inadequately heated, cooled or ventilated? Any poorly insulated areas?		X			Hallways
14	Is the electrical service outdated, undersized, or otherwise problematic?				X	
15	Are there any problems or inadequacies with exterior lighting?		X			
16	Is site/parking drainage inadequate, with excessive ponding or other problems?		X			
17	Are there any other unresolved construction defects or significant issues/hazards at the property that have not yet been identified above?		X			
18	ADA: Has an accessibility study been performed at the site? If so, indicate when.	X				
19	ADA: If a study has occurred, have the associated recommendations been addressed? In full or in part?	X				Satisfied the 2007 lawsuit requirement
20	ADA: Have there been regular complaints about accessibility issues, or associated previous or pending litigation?		X			

Appendix C:
Accessibility Review and Photos

Visual Checklist - 2010 ADA Standards for Accessible Design

Property Name: Dogwood Middle School

BV Project Number: 166385.24R000-029.468

Abbreviated Accessibility Checklist					
Facility History and Interview					
	Question	Yes	No	Unk	Comments
1	Has an accessibility study been previously performed? If so, when?			X	
2	Have any ADA improvements been made to the property since original construction? Describe.			X	
3	Has building management reported any accessibility-based complaints or litigation?			X	

Abbreviated Accessibility Checklist

Parking

OVERVIEW OF ACCESSIBLE PARKING AREA

CLOSE-UP OF STALL

	Question	Yes	No	NA	Comments
1	Does the required number of standard ADA designated spaces appear to be provided ?	X			
2	Does the required number of van-accessible designated spaces appear to be provided ?	X			
3	Are accessible spaces on the shortest accessible route to an accessible building entrance ?	X			
4	Does parking signage include the International Symbol of Accessibility ?	X			
5	Does each accessible space have an adjacent access aisle ?	X			
6	Do parking spaces and access aisles appear to be relatively level and without obstruction ?	X			

Abbreviated Accessibility Checklist

Exterior Accessible Route

ACCESSIBLE PATH

SECOND PATHWAY

	Question	Yes	No	NA	Comments
1	Is an accessible route present from public transportation stops and municipal sidewalks on or immediately adjacent to the property ?	X			
2	Does a minimum of one accessible route appear to connect all public areas on the exterior, such as parking and other outdoor amenities, to accessible building entrances ?	X			
3	Are curb ramps present at transitions through raised curbs on all accessible routes?			X	
4	Do curb ramps appear to have compliant slopes for all components ?			X	
5	Do ramp runs on an accessible route appear to have compliant slopes ?			X	
6	Do ramp runs on an accessible route appear to have a compliant rise and width ?			X	

7	Do ramps on an accessible route appear to have compliant end and intermediate landings ?			✕	
8	Do ramps and stairs on an accessible route appear to have compliant handrails?			✕	
9	For stairways that are open underneath, are permanent barriers present that prevent or discourage access?			✕	

Abbreviated Accessibility Checklist

Building Entrances

ACCESSIBLE ENTRANCE

ADDITIONAL ENTRANCE

	Question	Yes	No	NA	Comments
1	Do a sufficient number of accessible entrances appear to be provided ?	X			
2	If the main entrance is not accessible, is an alternate accessible entrance provided?	X			
3	Is signage provided indicating the location of alternate accessible entrances ?	X			
4	Do doors at accessible entrances appear to have compliant maneuvering clearance area on each side ?	X			
5	Do doors at accessible entrances appear to have compliant hardware ?	X			
6	Do doors at accessible entrances appear to have a compliant clear opening width ?	X			

7	Do pairs of accessible entrance doors in series appear to have the minimum clear space between them ?			X	
8	Do thresholds at accessible entrances appear to have a compliant height ?	X			

Abbreviated Accessibility Checklist

Interior Accessible Route

ACCESSIBLE INTERIOR PATH

DOOR HARDWARE

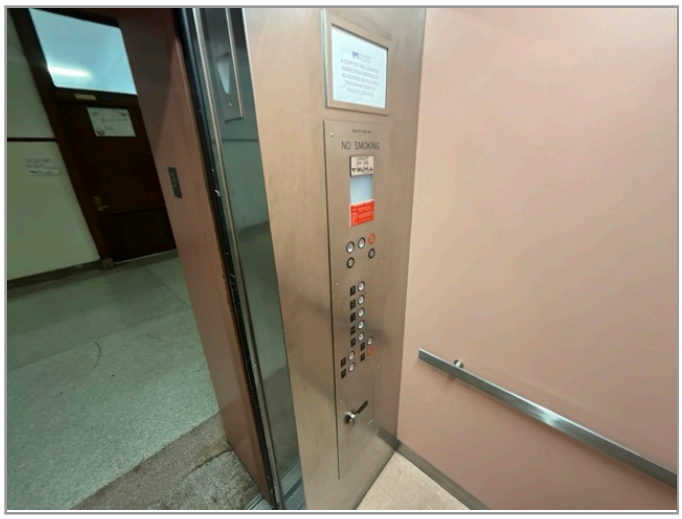
	Question	Yes	No	NA	Comments
1	Does an accessible route appear to connect all public areas inside the building ?	X			
2	Do accessible routes appear free of obstructions and/or protruding objects ?	X			
3	Do ramps on accessible routes appear to have compliant slopes ?			X	
4	Do ramp runs on an accessible route appear to have a compliant rise and width ?			X	
5	Do ramps on accessible routes appear to have compliant end and intermediate landings ?			X	
6	Do ramps on accessible routes appear to have compliant handrails ?			X	

7	Are accessible areas of refuge and the accessible means of egress to those areas identified with accessible signage ?	X			
8	Do public transaction areas have an accessible, lowered service counter section ?	X			
9	Do public telephones appear mounted with an accessible height and location ?	X			
10	Do doors at interior accessible routes appear to have compliant maneuvering clearance area on each side ?	X			
11	Do doors at interior accessible routes appear to have compliant hardware ?	X			
12	Do non-fire hinged, sliding, or folding doors on interior accessible routes appear to have compliant opening force ?	X			
13	Do doors on interior accessible routes appear to have a compliant clear opening width ?	X			

Abbreviated Accessibility Checklist

Elevators

LOBBY LOOKING AT CABS



IN-CAB CONTROLS

	Question	Yes	No	NA	Comments
1	Are hallway call buttons configured with the “UP” button above the “DOWN” button?	X			
2	Is accessible floor identification signage present on the hoistway sidewalls on each level ?	X			
3	Do the elevators have audible and visual arrival indicators at the lobby and hallway entrances?	X			
4	Do the elevator hoistway and car interior appear to have a minimum compliant clear floor area ?	X			
5	Do the elevator car doors have automatic re-opening devices to prevent closure on obstructions?	X			
6	Do elevator car control buttons appear to be mounted at a compliant height ?	X			

7	Are tactile and Braille characters mounted to the left of each elevator car control button ?	✕			
8	Are audible and visual floor position indicators provided in the elevator car?	✕			
9	Is the emergency call system on or adjacent to the control panel and does it not require voice communication ?	✕			

Abbreviated Accessibility Checklist

Public Restrooms

TOILET STALL OVERVIEW

SINK, FAUCET HANDLES AND ACCESSORIES

	Question	Yes	No	NA	Comments
1	Do publicly accessible toilet rooms appear to have a minimum compliant floor area ?	X			
2	Does the lavatory appear to be mounted at a compliant height and with compliant knee area ?	X			
3	Does the lavatory faucet have compliant handles ?	X			
4	Is the plumbing piping under lavatories configured to protect against contact ?	X			
5	Are grab bars provided at compliant locations around the toilet ?	X			
6	Do toilet stall doors appear to provide the minimum compliant clear width ?	X			

7	Do toilet stalls appear to provide the minimum compliant clear floor area ?	✕			
8	Where more than one urinal is present in a multi-user restroom, does minimum one urinal appear to be mounted at a compliant height and with compliant approach width ?	✕			
9	Do accessories and mirrors appear to be mounted at a compliant height ?	✕			

Appendix D:
Component Condition Report

Component Condition Report | Dogwood Middle School / Main Building

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity		RUL	ID
Structure							
A1010	Building exterior	Fair	Foundation System, Concrete or CMU Walls w/ Continuous Footings	1,000	LF	20	7648997
B1010	Building exterior	Fair	Structural Framing, Masonry (CMU) Bearing Walls	98,013	SF	20	7648998
Facade							
B2010	Building Exterior	Fair	Exterior Walls, Brick Veneer	44,100	SF	20	7443616
B2010	Building exterior	Poor	Exterior Walls, Brick, Repair	1,000	SF	0	7718318
B2020	Building Exterior	Fair	Glazing, any type, by SF	4,200	SF	10	7443618
B2020	Building exterior	Poor	Window, Vinyl-Clad Double-Glazed, 16-25 SF	12		1	7719287
B2050	Building Exterior	Fair	Exterior Door, Wood, Solid-Core	12		5	7443621
B2050	Building Exterior	Fair	Exterior Door, Steel, Standard	6		10	7443664
Roofing							
B3010	Roof	Fair	Roofing, Built-Up	24,890	SF	3	7443656
B3010	Roof	Fair	Roofing, Built-Up	6,000	SF	10	7443627
B3020	Roof	Fair	Roof Appurtenances, Gutters & Downspouts, Aluminum w/ Fittings	720	LF	10	7443614
Interiors							
C1030	Building interior	Fair	Interior Door, Wood, Solid-Core	360		3	7492443
C1090	Building interior	Fair	Lockers, Steel-Baked Enamel, 12" W x 15" D x 72" H	750	LF	5	7492724
C2010	Building interior	Fair	Wall Finishes, any surface, Prep & Paint	147,000	SF	3	7492719
C2030	Building interior	Fair	Flooring, Vinyl Tile (VCT)	24,500	SF	2	7492725
C2030	Auditorium	Fair	Flooring, Wood, Strip	4,900	SF	20	7492726
C2030	Building interior	Fair	Flooring, Terrazzo	63,710	SF	20	7492341
C2030	Gymnasium	Fair	Flooring, Wood, Sports, Refinish	4,900	SF	5	7492727
C2050	Building interior	Fair	Ceiling Finishes, any flat surface, Prep & Paint	98,013	SF	2	7718303
Conveying							

Component Condition Report | Dogwood Middle School / Main Building

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity		RUL	ID
D1010	Basement	Fair	Elevator Controls, Automatic, 1 Car	1		10	7443615
D1010	Building interior	Fair	Elevator Cab Finishes, Standard	1		3	7443642
D1010	Basement	Fair	Passenger Elevator, Hydraulic, 4 Floors, Renovate	1		10	7443662
Plumbing							
D2010	Throughout building	Fair	Drinking Fountain, Wall-Mounted, Single-Level	12		10	7443640
D2010	Restrooms	Fair	Shower, Valve & Showerhead	10		2	7443650
D2010	Throughout	Fair	Plumbing System, Supply & Sanitary, Medium Density (excludes fixtures)	98,013	SF	20	7718993
D2010	Boiler room	Fair	Water Heater, Gas, Commercial (125 MBH) [DWH2]	1		3	7443632
D2010	Boiler room	Fair	Water Heater, Gas, Tankless	1		12	7443661
D2010	Restroom	Fair	Toilet, Commercial Water Closet	24		5	7443646
D2010	Restroom	Fair	Sink/Lavatory, Wall-Hung, Vitreous China	18		5	7443633
D2010	Restroom	Fair	Urinal, Standard	12		20	7443629
D2010	Throughout Building	Poor	Piping & Valves, Fiberglass Insulation, Domestic Water	1,200	LF	1	7648991
D2060	Boiler room	Fair	Air Compressor, Tank-Style	1		5	7443651
HVAC							
D3020	Boiler room	Fair	Boiler, Gas, HVAC [B1]	1		14	7443638
D3020	Boiler room	Fair	Boiler, Gas, HVAC [B2]	1		14	7443652
D3030	Building exterior	Fair	Split System Ductless, Single Zone, 2.5 to 3 TON	1		2	7443630
D3030	Building exterior	Fair	Refrigeration, Condenser	1		3	7443626
D3030	Building exterior	Fair	Split System Ductless, Single Zone, 2.5 to 3 TON	1		2	7443623
D3030	Building exterior	Fair	Split System Ductless, Single Zone, 2.5 to 3 TON	1		2	7443659
D3030	Building exterior	Fair	Refrigeration, Condenser	1		3	7443648
D3030	Building exterior	Fair	Split System Ductless, Single Zone, 2.5 to 3 TON	1		2	7443657
D3030	Building exterior	Fair	Air Conditioner, Window/Thru-Wall	82		3	7443660
D3050	Boiler room	Fair	Air Handler, Interior AHU, Easy/Moderate Access	1		5	7443617

Component Condition Report | Dogwood Middle School / Main Building

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
D3050	Mechanical room	Poor	HVAC Steam Components, Condensate Return Station, 15 GAL	1	1	7719257
D3050	Building interior	Fair	Fan Coil Unit, Hydronic Terminal, 750 CFM Estimated	52	10	7722340
D3050	Building interior	Fair	HVAC System, Ductwork, Medium Density	98,013 SF	20	7719125
D3050	Building interior	Fair	Fan Coil Unit, Hydronic Terminal, 750 CFM Estimated	42	10	7718301
D3050	Gymnasium	Fair	Air Handler, Interior AHU, Easy/Moderate Access, 15001 to 20000 CFM	1	20	7492728
D3050	Boiler room	Fair	Pump, Distribution, HVAC Heating Water, 16 to 25 HP	1	16	7443637
D3050	Boiler room	Fair	HVAC System, Hydronic Piping, 2-Pipe	98,013 SF	24	7443628
D3060	Roof	Fair	Exhaust Fan, Centrifugal, 16" Damper	2	5	7443654
Fire Protection						
D4010	Throughout Building	NA	Fire Suppression System, Full System Install/Retrofit, Medium Density/Complexity, Install	98,013 SF	4	7648995
Electrical						
D5020	Electrical room	Fair	Distribution Panel, 120/208 V, 600 AMP [MDP]	1	15	7443620
D5020	Boiler room	Fair	Distribution Panel, 120/240 V [400 MLO]	1	6	7443624
D5020	Electrical room	Fair	Distribution Panel, 120/208 V	1	2	7443635
D5020	Throughout	Fair	Electrical System, Full System Renovation/Upgrade, Medium Density/Complexity	98,013 SF	2	7719124
D5040	Throughout building	Fair	Interior Lighting System, Full Upgrade, Medium Density & Standard Fixtures	98,013 SF	5	7443649
D5040	Building exterior	Fair	Exterior Fixture w/ Lamp, any type, w/ LED Replacement	12	5	7443639
Fire Alarm & Electronic Systems						
D7030	Throughout building	Fair	Security/Surveillance System, Full System Upgrade, Average Density	98,013 SF	10	7443636
D7050	Office	Fair	Fire Alarm Panel, Fully Addressable	1	10	7443631
D7050	Building interior	Fair	Fire Alarm System, Full System Upgrade, Standard Addressable, Install	98,013 SF	5	7719242
D8010	Mechanical room	Poor	BAS/HVAC Controls, Basic System or Legacy Upgrades	98,013 SF	1	7719130
Equipment & Furnishings						
E1030	Kitchen	Fair	Foodservice Equipment, Dairy Cooler/Wells	1	10	7443643
E1030	Kitchen	Fair	Foodservice Equipment, Walk-In, Freezer [2]	1	3	7443641

Component Condition Report | Dogwood Middle School / Main Building

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
E1030	Kitchen	Fair	Foodservice Equipment, Refrigerator, 2-Door Reach-In	1	10	7443655
E1030	Kitchen	Fair	Foodservice Equipment, Convection Oven, Double	1	5	7443619
E1030	Kitchen	Fair	Foodservice Equipment, Steam Kettle	1	15	7443647
E1030	Kitchen	Fair	Foodservice Equipment, Dairy Cooler/Wells	1	10	7443644
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels	1	10	7443625
E1030	Kitchen	Fair	Foodservice Equipment, Dairy Cooler/Wells	1	10	7443653
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels	1	8	7443613
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels	1	10	7443663
E1030	Kitchen	Fair	Foodservice Equipment, Freezer, 3-Door Reach-In	1	10	7443622
E1030	Kitchen	Fair	Foodservice Equipment, Walk-In, Refrigerator [1]	1	3	7443658
E1030	Kitchen	Fair	Foodservice Equipment, Refrigerator, 3-Door Reach-In	1	10	7443634
E1030	Kitchen	Fair	Foodservice Equipment, Convection Oven, Single	1	5	7443645
Athletic, Recreational & Playfield Areas						
G2050	Gymnasium	Fair	Sports Apparatus, Scoreboard, Electronic Standard	1	5	7492729

Component Condition Report | Dogwood Middle School / Site

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
Pedestrian Plazas & Walkways						
G2020	Parking area	Fair	Parking Lots, Pavement, Asphalt, Seal & Stripe	53,300 SF	2	7491710
G2020	Parking area	Fair	Parking Lots, Pavement, Asphalt, Mill & Overlay	53,300 SF	3	7491807
Sitework						
G2060	Site	Fair	Fences & Gates, Fence, Chain Link 6'	650 LF	5	7718306

Appendix E:
Replacement Reserves

Replacement Reserves Report

9/9/2024

Location	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	Total Escalated Estimate
Dogwood Middle School	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Dogwood Middle School / Main Building	$0	$313,771	$2,250,339	$1,612,668	$551,572	$1,595,564	$6,567	$0	$2,154	$0	$1,227,649	$0	$281,767	$673,029	$408,399	$117,440	$415,029	$242,803	$27,579	$0	$12,637,272	**$22,363,604**
Dogwood Middle School / Site	$0	$0	$25,446	$203,848	$0	$15,824	$0	$29,499	$0	$0	$0	$0	$34,197	$0	$0	$0	$0	$39,644	$0	$0	$0	**$348,457**
Grand Total	**$0**	**$313,771**	**$2,275,784**	**$1,816,517**	**$551,572**	**$1,611,388**	**$6,567**	**$29,499**	**$2,154**	**$0**	**$1,227,649**	**$0**	**$315,964**	**$673,029**	**$408,399**	**$117,440**	**$415,029**	**$282,447**	**$27,579**	**$0**	**$12,637,272**	**$22,712,060**

Dogwood Middle School

Dogwood Middle School / Main Building

Uniformat Code	Location Description	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost *	Subtotal	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	Deficiency Repair Estimate
A1010	Building exterior	7648997	Foundation System, Concrete or CMU Walls w/ Continuous Footings	75	55	20	1000	LF	$140.00	$140,000																					$140,000	**$140,000**
B1010	Building exterior	7648998	Structural Framing, Masonry (CMU) Bearing Walls	75	55	20	98013	SF	$32.00	$3,136,416																					$3,136,416	**$3,136,416**
B2010	Building exterior	7718318	Exterior Walls, Brick, Repair	0	0	* 0	1000	SF	$33.00	$33,000		$33,000																				**$33,000**
B2010	Building Exterior	7443616	Exterior Walls, Brick Veneer, Replace	50	30	20	44100	SF	$27.00	$1,190,700																					$1,190,700	**$1,190,700**
B2020	Building exterior	7719287	Window, Vinyl-Clad Double-Glazed, 16-25 SF, Replace	30	29	1	12	EA	$900.00	$10,800		$10,800																				**$10,800**
B2020	Building Exterior	7443618	Glazing, any type, by SF, Replace	30	20	10	4200	SF	$55.00	$231,000											$231,000											**$231,000**
B2050	Building Exterior	7443621	Exterior Door, Wood, Solid-Core, Replace	25	20	5	12	EA	$700.00	$8,400						$8,400																**$8,400**
B2050	Building Exterior	7443664	Exterior Door, Steel, Standard, Replace	40	30	10	6	EA	$600.00	$3,600											$3,600											**$3,600**
B3010	Roof	7443656	Roofing, Built-Up, Replace	25	22	3	24890	SF	$28.00	$696,920				$696,920																		**$696,920**
B3010	Roof	7443627	Roofing, Built-Up, Replace	25	15	10	6000	SF	$28.00	$168,000											$168,000											**$168,000**
B3020	Roof	7443614	Roof Appurtenances, Gutters & Downspouts, Aluminum w/ Fittings, Replace	20	10	10	720	LF	$9.00	$6,480											$6,480											**$6,480**
C1030	Building interior	7492443	Interior Door, Wood, Solid-Core, Replace	40	37	3	360	EA	$700.00	$252,000				$252,000																		**$252,000**
C1090	Building interior	7492724	Lockers, Steel-Baked Enamel, 12" W x 15" D x 72" H, Replace	20	15	5	750	LF	$500.00	$375,000						$375,000																**$375,000**
C2010	Building interior	7492719	Wall Finishes, any surface, Prep & Paint	10	7	3	147000	SF	$1.50	$220,500				$220,500										$220,500								**$441,000**
C2030	Auditorium	7492726	Flooring, Wood, Strip, Replace	30	10	20	4900	SF	$15.00	$73,500																					$73,500	**$73,500**
C2030	Building interior	7492725	Flooring, Vinyl Tile (VCT), Replace	15	13	2	24500	SF	$5.00	$122,500			$122,500																$122,500			**$245,000**
C2030	Building interior	7492341	Flooring, Terrazzo, Replace	50	30	20	63710	SF	$14.00	$891,940																					$891,940	**$891,940**
C2030	Gymnasium	7492727	Flooring, Wood, Sports, Refinish	10	5	5	4900	SF	$5.00	$24,500						$24,500										$24,500						**$49,000**
C2050	Building interior	7718303	Ceiling Finishes, any flat surface, Prep & Paint	10	8	2	98013	SF	$2.00	$196,026			$196,026										$196,026									**$392,052**
D1010	Building interior	7443642	Elevator Cab Finishes, Standard, Replace	15	12	3	1	EA	$9,000.00	$9,000				$9,000															$9,000			**$18,000**
D1010	Basement	7443662	Passenger Elevator, Hydraulic, 4 Floors, Renovate	30	20	10	1	EA	$85,000.00	$85,000											$85,000											**$85,000**
D1010	Basement	7443615	Elevator Controls, Automatic, 1 Car, Replace	20	10	10	1	EA	$5,000.00	$5,000											$5,000											**$5,000**
D2010	Boiler room	7443632	Water Heater, Gas, Commercial (125 MBH), Replace	20	17	3	1	EA	$12,400.00	$12,400				$12,400																		**$12,400**
D2010	Boiler room	7443661	Water Heater, Gas, Tankless, Replace	15	3	12	1	EA	$1,600.00	$1,600													$1,600									**$1,600**
D2010	Throughout	7718993	Plumbing System, Supply & Sanitary, Medium Density (excludes fixtures), Replace	40	20	20	98013	SF	$11.00	$1,078,143																					$1,078,143	**$1,078,143**
D2010	Restrooms	7443650	Shower, Valve & Showerhead, Replace	30	28	2	10	EA	$800.00	$8,000			$8,000																			**$8,000**
D2010	Restroom	7443646	Toilet, Commercial Water Closet, Replace	30	25	5	24	EA	$1,300.00	$31,200						$31,200																**$31,200**
D2010	Restroom	7443633	Sink/Lavatory, Wall-Hung, Vitreous China, Replace	30	25	5	18	EA	$1,500.00	$27,000						$27,000																**$27,000**
D2010	Throughout building	7443640	Drinking Fountain, Wall-Mounted, Single-Level, Replace	15	5	10	12	EA	$1,200.00	$14,400											$14,400											**$14,400**
D2010	Restroom	7443629	Urinal, Standard, Replace	30	10	20	12	EA	$1,100.00	$13,200																					$13,200	**$13,200**
D2010	Throughout Building	7648991	Piping & Valves, Fiberglass Insulation, Domestic Water, Replace	40	39	1	1200	LF	$6.00	$7,200		$7,200																				**$7,200**
D2060	Boiler room	7443651	Air Compressor, Tank-Style, Replace	20	15	5	1	EA	$7,270.00	$7,270						$7,270																**$7,270**
D3020	Boiler room	7443652	Boiler, Gas, HVAC, Replace	30	16	14	1	EA	$135,000.00	$135,000															$135,000							**$135,000**
D3020	Boiler room	7443638	Boiler, Gas, HVAC, Replace	30	16	14	1	EA	$135,000.00	$135,000															$135,000							**$135,000**
D3030	Building exterior	7443623	Split System Ductless, Single Zone, 2.5 to 3 TON, Replace	15	13	2	1	EA	$6,100.00	$6,100			$6,100															$6,100				**$12,200**
D3030	Building exterior	7443659	Split System Ductless, Single Zone, 2.5 to 3 TON, Replace	15	13	2	1	EA	$6,100.00	$6,100			$6,100															$6,100				**$12,200**
D3030	Building exterior	7443657	Split System Ductless, Single Zone, 2.5 to 3 TON, Replace	15	13	2	1	EA	$6,100.00	$6,100			$6,100															$6,100				**$12,200**
D3030	Building exterior	7443630	Split System Ductless, Single Zone, 2.5 to 3 TON, Replace	15	13	2	1	EA	$6,100.00	$6,100			$6,100															$6,100				**$12,200**
D3030	Building exterior	7443660	Air Conditioner, Window/Thru-Wall, Replace	10	7	3	82	EA	$2,900.00	$237,800				$237,800										$237,800								**$475,600**
D3030	Building exterior	7443648	Refrigeration, Condenser, Replace	15	12	3	1	EA	$3,800.00	$3,800				$3,800															$3,800			**$7,600**
D3030	Building exterior	7443626	Refrigeration, Condenser, Replace	15	12	3	1	EA	$3,400.00	$3,400				$3,400															$3,400			**$6,800**
D3050	Boiler room	7443637	Pump, Distribution, HVAC Heating Water, 16 to 25 HP, Replace	25	9	16	1	EA	$13,600.00	$13,600																	$13,600					**$13,600**
D3050	Mechanical room	7719257	HVAC Steam Components, Condensate Return Station, 15 GAL, Replace	25	24	1	1	EA	$8,600.00	$8,600		$8,600																				**$8,600**
D3050	Boiler room	7443617	Air Handler, Interior AHU, Easy/Moderate Access, Replace	30	25	5	1	EA	$134,000.00	$134,000						$134,000																**$134,000**
D3050	Building interior	7722340	Fan Coil Unit, Hydronic Terminal, 750 CFM Estimated, Replace	20	10	10	52	EA	$1,670.00	$86,840											$86,840											**$86,840**
D3050	Building interior	7718301	Fan Coil Unit, Hydronic Terminal, 750 CFM Estimated, Replace	20	10	10	42	EA	$1,670.00	$70,140											$70,140											**$70,140**
D3050	Gymnasium	7492728	Air Handler, Interior AHU, Easy/Moderate Access, 15001 to 20000 CFM, Replace	30	10	20	1	EA	$81,000.00	$81,000																					$81,000	**$81,000**

Replacement Reserves Report

9/9/2024

Uniformat Code	Location Description	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost *	Subtotal	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	Deficiency Repair Estimate
D3050	Building interior	7719125	HVAC System, Ductwork, Medium Density, Replace	30	10	20	98013	SF	$4.00	$392,052																					$392,052	**$392,052**
D3060	Roof	7443654	Exhaust Fan, Centrifugal, 16" Damper, Replace	25	20	5	2	EA	$2,400.00	$4,800						$4,800																**$4,800**
D4010	Throughout Building	7648995	Fire Suppression System, Full System Install/Retrofit, Medium Density/Complexity, Install	40	36	4	98013	SF	$5.00	$490,065					$490,065																**$490,065**
D5020	Electrical room	7443635	Distribution Panel, 120/208 V, Replace	30	28	2	1	EA	$6,000.00	$6,000			$6,000																		**$6,000**
D5020	Throughout	7719124	Electrical System, Full System Renovation/Upgrade, Medium Density/Complexity, Replace	40	38	2	98013	SF	$18.00	$1,764,234			$1,764,234																		**$1,764,234**
D5020	Boiler room	7443624	Distribution Panel, 120/240 V, Replace	30	24	6	1	EA	$5,500.00	$5,500							$5,500														**$5,500**
D5020	Electrical room	7443620	Distribution Panel, 120/208 V, 600 AMP, Replace	30	15	15	1	EA	$7,000.00	$7,000																$7,000					**$7,000**
D5040	Throughout building	7443649	Interior Lighting System, Full Upgrade, Medium Density & Standard Fixtures, Replace	20	15	5	98013	SF	$4.50	$441,059						$441,059															**$441,059**
D5040	Building exterior	7443639	Exterior Fixture w/ Lamp, any type, w/ LED Replacement, Replace	20	15	5	12	EA	$600.00	$7,200						$7,200															**$7,200**
D7030	Throughout building	7443636	Security/Surveillance System, Full System Upgrade, Average Density, Replace	15	5	10	98013	SF	$2.00	$196,026											$196,026										**$196,026**
D7050	Building interior	7719242	Fire Alarm System, Full System Upgrade, Standard Addressable, Install	20	15	5	98013	SF	$3.00	$294,039						$294,039															**$294,039**
D7050	Office	7443631	Fire Alarm Panel, Fully Addressable, Replace	15	5	10	1	EA	$15,000.00	$15,000											$15,000										**$15,000**
D8010	Mechanical room	7719130	BAS/HVAC Controls, Basic System or Legacy Upgrades, Replace	15	14	1	98013	SF	$2.50	$245,033		$245,033															$245,033				**$490,065**
E1030	Kitchen	7443641	Foodservice Equipment, Walk-In, Freezer, Replace	20	17	3	1	EA	$25,000.00	$25,000				$25,000																	**$25,000**
E1030	Kitchen	7443658	Foodservice Equipment, Walk-In, Refrigerator, Replace	20	17	3	1	EA	$15,000.00	$15,000				$15,000																	**$15,000**
E1030	Kitchen	7443619	Foodservice Equipment, Convection Oven, Double, Replace	10	5	5	1	EA	$8,280.00	$8,280						$8,280										$8,280					**$16,560**
E1030	Kitchen	7443645	Foodservice Equipment, Convection Oven, Single, Replace	10	5	5	1	EA	$5,600.00	$5,600						$5,600										$5,600					**$11,200**
E1030	Kitchen	7443613	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels, Replace	15	7	8	1	EA	$1,700.00	$1,700									$1,700												**$1,700**
E1030	Kitchen	7443625	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels, Replace	15	5	10	1	EA	$1,700.00	$1,700											$1,700										**$1,700**
E1030	Kitchen	7443644	Foodservice Equipment, Dairy Cooler/Wells, Replace	15	5	10	1	EA	$3,600.00	$3,600											$3,600										**$3,600**
E1030	Kitchen	7443655	Foodservice Equipment, Refrigerator, 2-Door Reach-In, Replace	15	5	10	1	EA	$4,600.00	$4,600											$4,600										**$4,600**
E1030	Kitchen	7443634	Foodservice Equipment, Refrigerator, 3-Door Reach-In, Replace	15	5	10	1	EA	$6,400.00	$6,400											$6,400										**$6,400**
E1030	Kitchen	7443622	Foodservice Equipment, Freezer, 3-Door Reach-In, Replace	15	5	10	1	EA	$6,800.00	$6,800											$6,800										**$6,800**
E1030	Kitchen	7443643	Foodservice Equipment, Dairy Cooler/Wells, Replace	15	5	10	1	EA	$3,600.00	$3,600											$3,600										**$3,600**
E1030	Kitchen	7443663	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels, Replace	15	5	10	1	EA	$1,700.00	$1,700											$1,700										**$1,700**
E1030	Kitchen	7443653	Foodservice Equipment, Dairy Cooler/Wells, Replace	15	5	10	1	EA	$3,600.00	$3,600											$3,600										**$3,600**
E1030	Kitchen	7443647	Foodservice Equipment, Steam Kettle, Replace	20	5	15	1	EA	$30,000.00	$30,000																$30,000					**$30,000**
G2050	Gymnasium	7492729	Sports Apparatus, Scoreboard, Electronic Standard, Replace	25	20	5	1	EA	$8,000.00	$8,000						$8,000															**$8,000**
Totals, Unescalated											**$0**	**$304,633**	**$2,121,160**	**$1,475,820**	**$490,065**	**$1,376,348**	**$5,500**	**$0**	**$1,700**	**$0**	**$913,486**	**$0**	**$197,626**	**$458,300**	**$270,000**	**$75,380**	**$258,633**	**$146,900**	**$16,200**	**$0**	**$6,996,951**	**$15,108,701**
Totals, Escalated (3.0% inflation, compounded annually)											**$0**	**$313,771**	**$2,250,339**	**$1,612,668**	**$551,572**	**$1,595,564**	**$6,567**	**$0**	**$2,154**	**$0**	**$1,227,649**	**$0**	**$281,767**	**$673,029**	**$408,399**	**$117,440**	**$415,029**	**$242,803**	**$27,579**	**$0**	**$12,637,272**	**$22,363,604**

Dogwood Middle School / Site

Uniformat Code	Location Description	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost *	Subtotal	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	Deficiency Repair Estimate
G2020	Parking area	7491710	Parking Lots, Pavement, Asphalt, Seal & Stripe	5	3	2	53300	SF	$0.45	$23,985			$23,985					$23,985					$23,985					$23,985					**$95,940**
G2020	Parking area	7491807	Parking Lots, Pavement, Asphalt, Mill & Overlay	25	22	3	53300	SF	$3.50	$186,550				$186,550																		**$186,550**
G2060	Site	7718306	Fences & Gates, Fence, Chain Link 6', Replace	40	35	5	650	LF	$21.00	$13,650						$13,650																**$13,650**
Totals, Unescalated											**$0**	**$0**	**$23,985**	**$186,550**	**$0**	**$13,650**	**$0**	**$23,985**	**$0**	**$0**	**$0**	**$0**	**$23,985**	**$0**	**$0**	**$0**	**$0**	**$23,985**	**$0**	**$0**	**$0**	**$296,140**
Totals, Escalated (3.0% inflation, compounded annually)											**$0**	**$0**	**$25,446**	**$203,848**	**$0**	**$15,824**	**$0**	**$29,499**	**$0**	**$0**	**$0**	**$0**	**$34,197**	**$0**	**$0**	**$0**	**$0**	**$39,644**	**$0**	**$0**	**$0**	**$348,457**

Appendix F:
Equipment Inventory List

D10 Conveying

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7443615	D1010	**Elevator Controls**	Automatic, 1 Car		Dogwood Middle School / Main Building	Basement	Virginia Controls				1576797	
2	7443662	D1010	**Passenger Elevator**	Hydraulic, 4 Floors		Dogwood Middle School / Main Building	Basement	MagneTek	Illegible	Illegible		1576794	

D20 Plumbing

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7443661	D2010	**Water Heater**	Gas, Tankless		Dogwood Middle School / Main Building	Boiler room	Navien	NPE-240A2	No dataplate	2021	1576757	
2	7443632	D2010	**Water Heater** [DWH2]	Gas, Commercial (125 MBH)		Dogwood Middle School / Main Building	Boiler room	A. O. Smith	BT 65 200	L07A081667	2007	1576760	
3	7443651	D2060	**Air Compressor**	Tank-Style		Dogwood Middle School / Main Building	Boiler room	Quincy	QTS3QCB	QU0810080035	2008	1576753	

D30 HVAC

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7443638	D3020	**Boiler** [B1]	Gas, HVAC		Dogwood Middle School / Main Building	Boiler room	Weil-McLain	88	No dataplate	2008	1576751	
2	7443652	D3020	**Boiler** [B2]	Gas, HVAC		Dogwood Middle School / Main Building	Boiler room	Weil-McLain	88	No dataplate	2008	1576750	
3	7443660	D3030	**Air Conditioner**	Window/Thru-Wall	1.5 TON	Dogwood Middle School / Main Building	Building exterior						82
4	7443626	D3030	**Refrigeration**	Condenser		Dogwood Middle School / Main Building	Building exterior	Russell	Inaccessible	Inaccessible		1576810	
5	7443648	D3030	**Refrigeration**	Condenser		Dogwood Middle School / Main Building	Building exterior	Russell	EL RLS300L44-E	H04259546-0401		1576809	
6	7443630	D3030	**Split System Ductless**	Single Zone, 2.5 to 3 TON		Dogwood Middle School / Main Building	Building exterior	Daikin Industries	RKS36LVJU	E011923	2011	1576808	

7	7443623	D3030	**Split System Ductless**	Single Zone, 2.5 to 3 TON		Dogwood Middle School / Main Building	Building exterior	Daikin Industries	RKS36LVJU	E011821	2011	1576805
8	7443659	D3030	**Split System Ductless**	Single Zone, 2.5 to 3 TON		Dogwood Middle School / Main Building	Building exterior	Daikin Industries	RKS36LVJU	E011939	2011	1576806
9	7443657	D3030	**Split System Ductless**	Single Zone, 2.5 to 3 TON		Dogwood Middle School / Main Building	Building exterior	Daikin Industries	RKS36LVJU	E011938	2011	1576807
10	7443637	D3050	**Pump**	Distribution, HVAC Heating Water, 16 to 25 HP		Dogwood Middle School / Main Building	Boiler room	Shipco	CSS	48515	2015	1576756
11	7719257	D3050	**HVAC Steam Components**	Condensate Return Station, 15 GAL		Dogwood Middle School / Main Building	Mechanical room	No dataplate	No dataplate	No dataplate		
12	7443617	D3050	**Air Handler**	Interior AHU, Easy/Moderate Access		Dogwood Middle School / Main Building	Boiler room	Inaccessible	Inaccessible	Inaccessible		1576731
13	7492728	D3050	**Air Handler**	Interior AHU, Easy/Moderate Access, 15001 to 20000 CFM	Inaccessible	Dogwood Middle School / Main Building	Gymnasium	Inaccessible	Inaccessible	Inaccessible		
14	7722340	D3050	**Fan Coil Unit**	Hydronic Terminal, 750 CFM Estimated	Inaccessible	Dogwood Middle School / Main Building	Building interior					52
15	7718301	D3050	**Fan Coil Unit**	Hydronic Terminal, 750 CFM Estimated	Inaccessible	Dogwood Middle School / Main Building	Building interior					42
16	7443654	D3060	**Exhaust Fan**	Centrifugal, 16" Damper	1200 Estimated CFM	Dogwood Middle School / Main Building	Roof	No dataplate	No dataplate	No dataplate		2

D50 Electrical

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7443635	D5020	**Distribution Panel**	120/208 V		Dogwood Middle School / Main Building	Electrical room	Westinghouse	PRL1	5158C04G01	1991	1576793	
2	7443624	D5020	**Distribution Panel** [400 MLO]	120/240 V		Dogwood Middle School / Main Building	Boiler room	Cutler-Hammer	Illegible	Illegible	2000	1576761	
3	7443620	D5020	**Distribution Panel** [MDP]	120/208 V, 600 AMP		Dogwood Middle School / Main Building	Electrical room	Cutler-Hammer	No dataplate	No dataplate		1576795	

D70 Electronic Safety & Security

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7443631	D7050	**Fire Alarm Panel**	Fully Addressable		Dogwood Middle School / Main Building	Office	General Electric	No dataplate	No dataplate		1576811	

E10 Equipment

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7443619	E1030	**Foodservice Equipment**	Convection Oven, Double		Dogwood Middle School / Main Building	Kitchen	Garland	No dataplate	No dataplate		1576812	
2	7443645	E1030	**Foodservice Equipment**	Convection Oven, Single		Dogwood Middle School / Main Building	Kitchen	Angelopo	No dataplate	No dataplate		1576816	
3	7443643	E1030	**Foodservice Equipment**	Dairy Cooler/Wells		Dogwood Middle School / Main Building	Kitchen	Beverage-Air Corporation	DEL: SMF49Y-1-W	11307428		1576821	
4	7443644	E1030	**Foodservice Equipment**	Dairy Cooler/Wells		Dogwood Middle School / Main Building	Kitchen	Delfield	0. SCS-30	0.1805150000702		1576786	
5	7443653	E1030	**Foodservice Equipment**	Dairy Cooler/Wells		Dogwood Middle School / Main Building	Kitchen	Delfield	SCS-30	1805150000707		1576824	
6	7443625	E1030	**Foodservice Equipment**	Food Warmer, Proofing Cabinet on Wheels		Dogwood Middle School / Main Building	Kitchen	Hatco	L: GR3SDS-33D	'S/N: 3464141813 ITEM:		1576785	
7	7443613	E1030	**Foodservice Equipment**	Food Warmer, Proofing Cabinet on Wheels		Dogwood Middle School / Main Building	Kitchen	Metro	C5	C5HME029579	2017	1576815	
8	7443663	E1030	**Foodservice Equipment**	Food Warmer, Proofing Cabinet on Wheels		Dogwood Middle School / Main Building	Kitchen	Hatco	L: GR3SDS-33D	S/N: 3464131813		1576823	
9	7443622	E1030	**Foodservice Equipment**	Freezer, 3-Door Reach-In		Dogwood Middle School / Main Building	Kitchen	McCall	7-7070F	S-804628		1576820	
10	7443655	E1030	**Foodservice Equipment**	Refrigerator, 2-Door Reach-In		Dogwood Middle School / Main Building	Kitchen	Hobart	Q2	321007378 TP		1576818	
11	7443634	E1030	**Foodservice Equipment**	Refrigerator, 3-Door Reach-In		Dogwood Middle School / Main Building	Kitchen	Hobart	Q3	321007313		1576819	
12	7443647	E1030	**Foodservice Equipment**	Steam Kettle		Dogwood Middle School / Main Building	Kitchen	Groen	EL AH/1E-40	63235		1576813	

13	7443658	E1030	**Foodservice Equipment** [1]	Walk-In, Refrigerator	Dogwood Middle School / Main Building	Kitchen	Harford	DL3676W4H7-I	0WZ643-B1	2004	1576788
14	7443641	E1030	**Foodservice Equipment** [2]	Walk-In, Freezer	Dogwood Middle School / Main Building	Kitchen	Harford	DL3676W5H7-I	0WZ643-B2	2004	1576787