

**COMPREHENSIVE MAINTENANCE PLAN**

**FOR FY 2024**

**AND**

**EXPENDITURES FOR FY 2023**

**CALVERT COUNTY PUBLIC SCHOOLS**

**1305 Dares Beach Road**

**Prince Frederick, MD 20678**

**Dr. Andraé Townsel, Superintendent of Schools**

**Submitted to the Calvert County Board of Education,**

**August 10, 2023**

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## **Vision of the Comprehensive Maintenance Plan**

Calvert County Public Schools has a vision for the maintenance and operations of all school facilities. This vision for the maintenance of buildings, grounds, and equipment is designed to provide for the optimum safety and comfort of the occupants. Equally important, this plan is also designed to guarantee the maximum efficiency and life expectancy of each building and its equipment. It should minimize the need for major repairs or replacements and reduce the likelihood of any negative impact on instruction.

The characteristics of this maintenance plan are predicated primarily on prevention, which promotes optimal plant efficacy. It also provides for a more deliberate approach when devising and funding the maintenance and operations sections of the budget. All maintenance efforts and costs are tracked using a Comprehensive Maintenance Management System (CMMS).

## **Objectives of Maintenance**

The primary objective of the maintenance program is to provide support of the Educational Facilities Master Plan and Capital Improvements Plan with continuous use of facilities without disruptions to the educational programs and to have optimal plant operation capability with a vigilant eye on the conservation of energy, management of resources, and proper utilization of workforce. Corrective and preventive maintenance performed during the 40 year or more life expectancy of the building can prevent future costs and/or minimize shutdowns and provide the best possible environment for education. Repairs or replacements are necessary to maintain the buildings and grounds, keeping them in operable condition. This can be further broken down as follows:

1. To provide buildings that function at optimal efficiency.
2. To maintain the buildings and grounds and fixed equipment in such a manner as to eliminate or reduce to acceptable levels the likelihood of fires, accidents, and safety hazards.
3. To protect public property by planned, scheduled, preventative and repair maintenance.
4. To conserve energy and resources by ensuring that maximum results are obtained with a minimal expenditure of energy. An incentive program is in place to reward schools that conserve electricity.
5. To provide a program which will produce the maximum amount of maintenance for the monies spent.

## **Long Term Strategic Focus**

School Facilities' long-term focus will be decreasing the cost of major repairs by increasing the efficiency of preventive maintenance measures to ensure maximum life expectancy of equipment and facilities.

## **Short Term Strategic Focus**

School Facilities' short-term focus will be increasing the time and resources used for preventive maintenance with the intent of decreasing resources used for major unscheduled repairs.

## **Facility Usability**

The goal of School Facilities is to provide total use of each building for all scheduled student days. In FY23 Calvert County Public Schools lost no student days due to mechanical failures or weather-related events.

## **Certification**

Boiler and pressure vessel certifications are performed bi-annually through the Maryland Association of Boards of Education (MABE). They also perform unscheduled, on-site inspections to ensure that the Calvert County Public Schools is maintaining a safe environment for all building occupants; one in compliance with the requirements set forth by state and local regulatory agencies and the recommendations of our insurer.

Environmental matters that relate to indoor air quality, water quality, and other environmental safeguards are managed by the Director of School Facilities, specific maintenance workers, and when needed, independent testing laboratories and outside contractors. When questions regarding environmental issues are presented, the appropriate maintenance workers and/or appropriate testing laboratories and contractors are contacted to perform assessments and, if the need is determined, to monitor issues affecting individual schools or the school system. Reports and findings are shared with the schools and corrective measures are taken should they be warranted.

We have one tech that has taken the Environmental Protection Agency's (EPA) Indoor Air Quality (IAQ) Master Class Professional Training and has received certification from the EPA. We have a Water Superintendent and Water Treatment Specialist who are licensed/certified by Maryland Department of the Environment. Many additional trade certifications and licenses are held by the staff of the Department of School Facilities Maintenance and Operations staff.

Our Energy and Environmental Specialist and Building Automation Systems Specialist continue their efforts to achieve the goals set by the Maryland Energy Administration under Empower Maryland and to maintain system wide Green School Certification. They will also be tasked to maintain future LEED certifications and high-performance building standards. Out of 27 facilities, CCPS (Calvert County Public School) currently has 20 buildings that are either entirely or partially on an energy management system and has recently added Northern High School, which is LEED Silver.

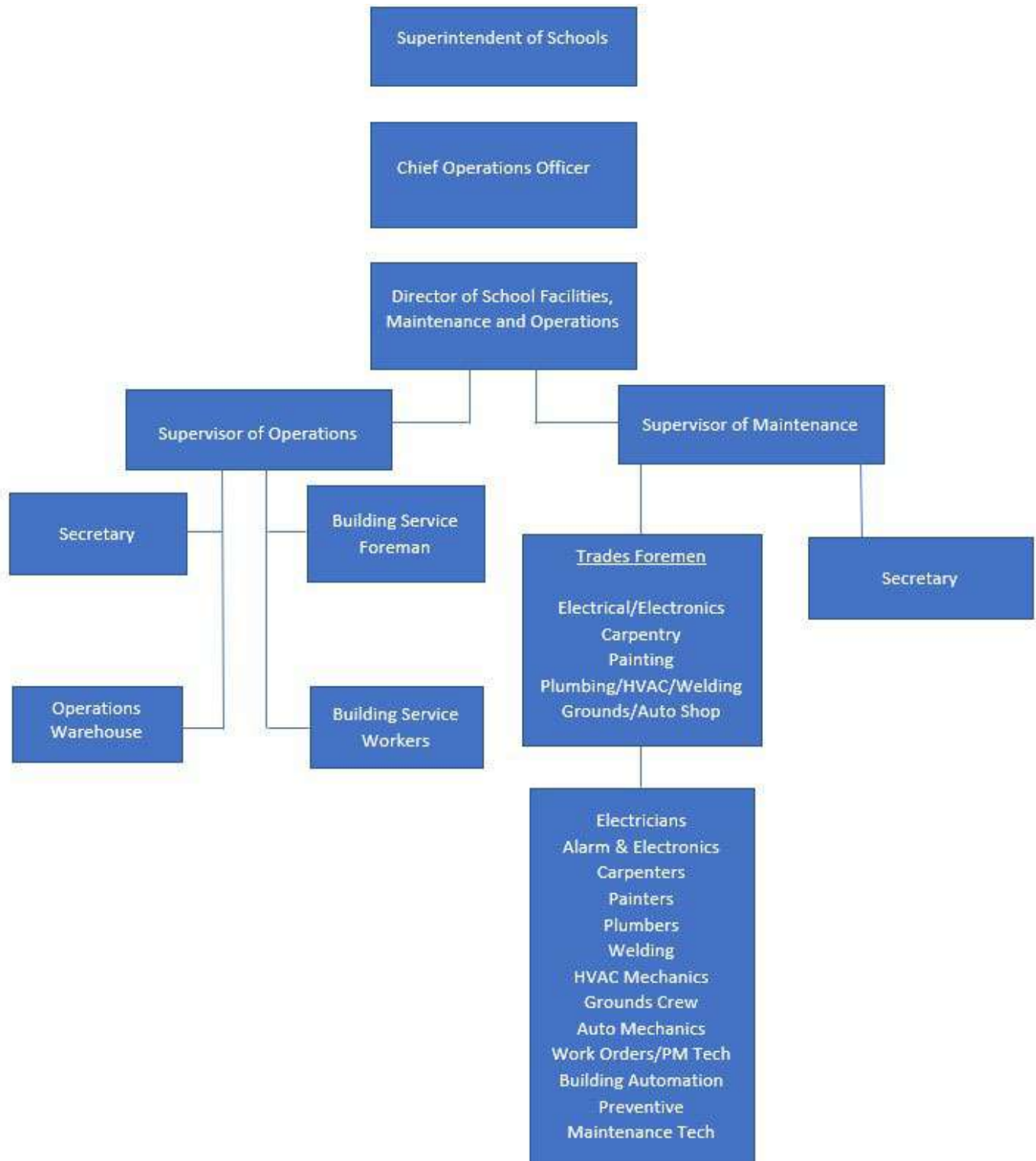
### **Computerized Maintenance Management System (CMMS)**

Calvert County Public Schools utilizes Brightly Software (formerly known as School Dude) as our vendor for CMMS applications. Asset Essentials is the module that is being utilized to track our maintenance hours, assets, and use of funding. The work of contractors collected in the CMMS is only used to track funding. Preventive Maintenance work orders are automatically generated based on the schedules listed in the charts listed below. Major building assets are inventoried into the system as work orders are completed.

### **Facilities Assessment Process**

Calvert County Public Schools utilizes the IAC School Assessments as its means of assessing the condition of its school facilities. IAC School Inspections along with MABE Safety Inspections provide additional information for the assessment of school facilities. Contracted inspections information is also utilized for facilities assessment.

## Management Flow Chart



## **Personnel Organization**

### **Supervisory**

Supervisor of Maintenance (1)

Supervisor of Operations (1)

### **Carpentry**

This shop has seven (7) employees. They are responsible for repairs to and construction or installation of the following:

1. Flooring – tile, carpet, cement, and wood
2. Ceiling – drywall, plaster, and acoustical
3. Hardware – locks, panic bars, door closures, keys
4. Furniture – repair if possible
5. Roof repairs – built-up, shingles, semi-annual inspections.
6. Pest control
7. The installation of new cabinets, corkboards, and bookshelves
8. Annual inspection and maintenance of fire extinguishers
9. Lockers and restroom hardware
10. Building structure, sidewalk repairs
11. Bleachers – Annual inspections and repairs

### **Painting**

This shop has five (5) employees. They are responsible for:

1. Interior painting
2. Exterior painting
3. Glass replacement
4. Shade and blind repairs
5. Sign preparation
6. Parking lot markings
7. Furniture refinishing
8. Drywall taping and finishing.
9. Gym floor painting and finishing.

Interior painting of schools is usually scheduled for every five to six years with interim “touch up” painting and wall repair as needed.

Exterior painting is typically scheduled every five to six years, depending on the condition of the building.

### **Electrical**

This shop has three (3) employees. They are responsible for all repairs and upgrades to and/or installation of the following:

1. Lighting systems – interior, exterior, and emergency
2. Electrical distribution equipment, circuit breakers, switchgear, disconnects.
3. Instruction – Shop equipment, kilns
4. Parking lot lighting repair and lamp replacement.

5. Instructional – Theater lighting systems, fixture & wiring repairs
6. Electrical wiring for computer labs
7. Athletic lighting repair and replacement

## **Plumbing / Water**

This shop has four (4) employees. They are responsible for repairs to and/or installation of the following:

1. Summer maintenance – toilets, fountains, water pumps, etc.
2. Dosing pumps on water systems
3. Reading and recording of time elapse and flow meters for monthly water usage
4. Grease traps, sewage lines, sump pumps, storm drains
5. Kitchens – dishwashers, garbage disposals, steam kettles
6. Maintaining sewage plant equipment – air pumps, valves, blowers, etc.
7. Fire sprinkler systems, fire hydrants, science lab equipment
8. General plumbing
9. Water Testing and monitoring of all wells
10. Installation, replacement, and monitoring of backflow preventers

## **Heating / Welding**

This shop has three (3) employees. They are responsible for repairs to, cleaning of, and maintenance of the following:

1. Boilers, burners, pumps
2. Filters, valves, fire boxes
3. Summer cleaning and servicing
4. Major repairs scheduled for summer – re-tubing boilers, rebuilding fire boxes, etc.
5. General HVAC service
6. Welding

## **Air Conditioning / Mechanical**

This shop has nine (9) employees. They are responsible for repairing, cleaning, and maintaining the following:

1. Air Conditioning units and exhaust fans
2. Chillers, cooling towers, pumps
3. Air handling equipment – pneumatic and electronic controls
4. Energy Management Systems
5. Air compressors, heat pumps
6. Filters, bearings, belts, motors
7. Instructional – refrigerators, freezers, ice machines, etc.
8. Refrigeration – ice cream boxes, milk coolers, salad bars, walk- in boxes.
9. Kitchen equipment including instructional kitchen equipment
10. Preventive maintenance of bottle fillers and air scrubbers

## **Grounds / Automotive**

This shop has eight (8) employees. They are responsible for repairs to, and/or installation of the following:

1. Minor repairs to driveways and parking lots
2. Cutting grass at all schools and buildings



3. Seeding and fertilizing of athletic fields
4. Repair of all vehicles, lawn mowers, tractors, generators, and snow removal equipment
5. Snow removal and pretreatment of all facilities
6. Playground equipment – installation & repair
7. Athletic field irrigation systems
8. Delivery of fuel to schools for lawn equipment
9. Maintain and repair storm water management ponds.

## **Electronics / Safety & Security**

This shop has three (3) employees. They are responsible for repairs to, cleaning of, and maintenance of the following:

1. Keeping all audio-visual equipment in an operable condition
2. Public address systems and scoreboards
3. Master clocks and bells
4. TV and cabling repair
5. Fire alarm & security systems
6. Auditorium lighting and sound systems
7. Emergency weather radios
8. Telephone repairs and cabling within the facilities
9. Repair and installation of Access systems

## **Operations / Warehouse & Delivery**

This section typically has one (1) employee who is given an additional workforce when needed. They are responsible for the following:

1. Warehousing and distribution of operational supplies
2. Coordinating the movement of equipment between buildings
3. Moving and hauling – furniture, tables, and chairs for various functions
4. Chair & desk repair
5. Office moves & relocations.
6. Collection of lamps and books for recycling
7. Delivery of man lifts

## **Energy and Environmental**

One (1) employee: The Building Automation Specialist is responsible for varying aspects of energy conservation.

1. Monitor school HVAC systems for proper operation.
2. Schedule HVAC equipment for after hour events
3. Maintain and update building automation system interfacing.
4. Modify existing program logic to achieve optimal equipment operation.
5. Monitor building heating systems during the heating season.

## **Secretarial & Work Order**

This section of the office has three (3) employees, and they are responsible for the following:

1. Taking calls from schools and channeling them to the proper area of maintenance or operations.

2. All correspondence that enters and leaves the office, including various reports submitted to the County and State.
3. Record keeping for all areas of the School Facilities Department including [typing reports, running payroll, leave documentation, etc.]
4. Coordinating placement of building service worker subs at all schools
5. Receiving all work orders that are generated and directing work crews to the areas in need
6. Aiding school staff, supervisors, administrators, and support staff
7. Requesting and tracking of all purchase orders, oversight of petty cash and deposits, and all other matters of finance
8. Operation of all aspects of the work order system

## **Maintenance Categories**

Definitions and Information required:

Maintenance of Plant shall be defined as those activities which are concerned with keeping the grounds, buildings, and fixed equipment, excluding moveable equipment, at or near their original condition and efficiency, either through repairs or by replacement during the life expectancy of the building (at least 40 years). Maintenance of Plant shall further be subdivided into the following categories and subcategories:

- I. Scheduled Maintenance – Scheduled maintenance includes maintenance and repair activities which can be forecast and for which expenditure of parts and labor are based on a predictable timetable of use schedule. The subcategories of scheduled maintenance are as follows:
  - A. Preventative Maintenance – Our preventive maintenance program is an action taken by our maintenance personnel to prevent expensive repairs and breakdowns before they occur. It is a planned program which includes lubricating, cleaning, adjusting, painting, replacement of expendable parts, and other activities designed to maintain the buildings, grounds, and fixed equipment in a condition as near to original as possible. This usually occurs during, but is not limited to, the summer. All motor driven equipment is cleaned, oiled, adjusted, repaired, and belts replaced; HVAC coils and air handling equipment are cleaned and serviced. Electrical systems, including the switch gear, circuit breakers and disconnects, are inspected and exercised; boilers are opened and cleaned and then inspected by our insurance carrier; fire alarm systems, public address systems, and emergency lighting systems are checked; major painting of building interiors and refinishing of gym floors are also scheduled during the summer months. Preventive Maintenance Table Chart is attached.  
  
Actual expenditure for the previous fiscal year: \$ 611,905.36
  - B. Scheduled Repairs – Scheduled repairs are actions which involve a more sizeable effort than preventive maintenance to maintain a facility in good condition. Scheduled repairs usually occur at or near the end of the specified life of an item or system. It includes such items as roof replacements or renovations, carpet/tile replacements, and boiler overhauls.

Our scheduled repair program is through our Capital Budget and required repairs and/or replacement is through contracted services.

Repair/Replacement Schedules attached for:

- 1.Boiler Overhaul/Replacement
- 2.Boiler Inspection
- 3.Painting
- 4.Roof Replacement

5. Septic Tank and Grease Trap Cleaning
6. Bleacher Repair/Replacement
7. Tile Floor Replacement
8. Carpet Replacement
9. Resurfacing Blacktop
10. Maintenance Vehicle Replacement
11. Oil Tank Servicing
12. Chiller Overhaul/Replacement
13. Storm Water Systems Maintenance.

Actual expenditure for the previous year: \$320,703.34

- C. Modernization and Alterations – Modernizations and alterations are actions where labor and material are expended to improve the building's original condition or to make alterations in the building configuration or functions. Included in this area are classroom trailers for population growth. This includes code corrections, renovations, and repair work, but does not include construction of new building additions or adapting buildings to major changes in use. Most modernization and alterations are handled through our carpentry, mechanical and electrical departments. Items included under this category are converting open space, moving partitions, code corrections, rewiring, and, when required, obtaining the Fire Marshall's approval prior to commencing any work.

Actual expenditure for previous fiscal year: \$ 702,711.88

- II. Unscheduled Maintenance – Unscheduled maintenance includes repair activities which cannot be programmed or forecasted. It includes corrections of day-to-day routine breakdowns or failures and emergency repairs. It is usually based on reports or work requests received from principals, building services managers, or other authorized building-based personnel. The subcategories of unscheduled maintenance are as follows:

- A. Unscheduled Repairs – Unscheduled repairs are actions to correct unforeseen breakdowns or failures of building systems or equipment. They include routine repairs such as failure of light fixtures and emergency repairs such as correction of pipe breakage. Unscheduled maintenance is handled on a day-to-day basis through work orders sent into the Maintenance Department from the Principals or produced by the individual traders. Emergency situations are phoned in as they occur.

Examples of unscheduled repairs are as follows:

1. Compressor and condenser replacements
2. Pump replacement (circulating, well, etc.)
3. Small equipment repair
4. Electric switch gear
5. Vehicle repairs
6. Furniture repairs
7. Breakage resulting from prolonged use or misuse of equipment and furnishings.
8. Weather related damages.

Actual expenditures for previous fiscal year: \$405,453.29

- B. Vandalism and Security Related Repairs – A vandalism and security related repair item are one which requires the expenditure of labor and material to restore it to its original condition after it has been damaged or provide temporary protection in some manner. It does not generally include modifications of the facilities for the purpose of improving building security such as installation or enlargement of intrusion systems. Depending on the nature and extent of vandalism, all repairs are handled within a 24-hour period; fire extinguishers are replaced, graffiti removed, windows replaced, etc.

Here are some examples of vandalism that occurs on CCPS property arranged in order of prevalence:

1. Graffiti
2. Broken windows
3. Grounds damage (includes tire ruts and cut fences)
4. Random destruction of property (lockers, doors, walls, etc.)
5. Expended fire extinguishers.

Actual expenditures for the previous fiscal year: \$ 5,277.90

- III. Deferred Maintenance – Deferred maintenance includes maintenance and repair activities which have been delayed or postponed due to lack of funds or personnel or which have been delayed pending some future decision regarding the building such as major renovation, disposal, or change of use. It may include any of the above-described categories of maintenance.

Anticipated expenditure: \$ 273,219.

## Charts

### Preventative Maintenance Chart for Maintenance, Operations and Contracted Services

ITEMS	PROCEDURE	RESPONSIBILITY			FREQUENCY					
		MAINT.	OPER.	OTHER	DAILY	WKLY	MONTH	QRTR	SEMI A	ANNUAL
Fire Extinguishers	Check, Change & Inspect	X	X	X			X			X
Sprinkler Systems	Check and inspect	X	X	X				X		X
Sprinkler Systems	Check Flow, Test Switches & Bells	X		x					X	
Kitchen Hood Ansul System	Inspection			X					X	
State Fire Inspection	Fire Marshall Inspection		X	X						X
Emergency Generators	Test Run One-Half Hour	X	X	X		X		X		
Health Inspection – Kitchen	Health Department Inspections			X					X	
Risk Inspections	Building/Equip. Safety Inspections	X	X	X						X
Oil Burner Cleaning & Inspection	Clean, Set Clearances, Check Pump Pressure, Check Start-Up	X								X
Boiler Tube Cleaning	Brush Clean Boiler Tubes & Sheets	X								X
Pest Control (IPM)	Monitor & Appropriate Action		X	X			X			
Roof Cleaning	Remove Debris, Clean Drains	X	X			X			X	
Venetian Blind Shade	Check Operation, Repair	X	X			X			X	
Boiler Inspection	Inspection	X	X	X	X		X			X
Maintenance Vehicles	Change Oil, Filters and Grease	X			3,000-5,000 MILES					

	Tune-up	X			30,000 MILES OR AS RECOMMENDED BY MANUFACTURER					
Roof Inspection	Inspect and assess	X							X	X
Storm Water Management	Inspect and maintain	X								X
Oil Burners	Check Operation	X	X		X	X	X			
Air Compressors	Check Operation, Oil, Drain Tank, Air Filter, Belts	X	X		X		X			
Air Conditioner Units	Check Operation and Clean Coils	X	X		X	X	X			X
Air Handling Equipment	Grease, Oil, Clean Filters, Belts, Check Operation	X	X		X		X		X	
Condensers and Coils for Refrigerators and Freezers	Clean and Oil Motors, Vacuum and Clean Condenser Coils	X							X	
Elevators	Inspect and service	x		x				x		X
Motors	Check belts, Oil or Grease	X							X	
Pumps	Lubricate Bearings, Clean Strainers, Check Leaks, Couplings, Flow	X	X		X	X				X
Water Coolers	Vacuum & Clean Condenser Coils	X							X	
Chillers	Dismantle, Inspect and Clean	X								X
Cooling Towers	Clean, Check Belts, Grease, Water Treatment	X			X	X				X
Chlorinators	Check Pump, Solution Level & Test Concentration		X		X		X			

Oil Tanks	Check Oil Levels and Perform Inspections		X	X	X		X			X
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Frequency of service on equipment is determined by the manufacturer and/or based on need. Revised 08/03/2023.

## Maintenance Vehicle Replacement Schedule

YEAR	MAKE	STYLE	USE	2024	2025	2026	2027	2028	2029
2016	Ford	Transit 150 Van	Electric			X			
2016	Ford	Transit 150 Van	Electric				X		
2016	Ford	Transit 150 Van	Electronics			X			
2016	Ford	F350 4x4	Grounds						
2016	Ford	Transit 150 Van	HVAC			X			
2016	Ford	Transit 150 Van	HVAC				X		
2016	Ford	Transit 150 Van	HVAC				X		
2016	Ford	F350 4x4	Painters			X			
2016	Ford	Transit Connect Van	Painters			X			
2016	Ford	Transit Connect Van	Painters						
2016	Ford	Transit Connect Van	Painters						
2017	Ford	Transit 150 Van	Carpentry						
2017	Ford	Transit 150 Van	Carpentry				X		
2017	Ford	Escape	Fleet						
2017	Ford	Escape	Fleet						

2017	Ford	F350 Plumbers Truck	HVAC			X			
2017	Ford	F350 Plumbers Truck	HVAC				X		
2017	Ford	Transit 150 Van	HVAC				X		
2017	Ford	Transit 150 Van	HVAC				X		
2017	Ford	Transit 150 Van	HVAC						
2017	Ford	Transit 150 Van	HVAC						
2017	Ford	Transit Connect Van	HVAC						
2017	Ford	Escape	New Construction						
2017	Ford	Escape	New Construction						
2018	Ford	Transit 150 Van	Electronics						
2018	Ford	Transit 150 Van	Electronics						
2018	Ford	Transit 150 Van	HVAC						
2018	Ford	Transit 150 Van	Painters						
2018	Ford	Transit 150 Van	Carpentry Locksmith						
2019	Ford	Transit 350 Van	Warehouse						
2019	Ford	F350 Welding Truck	HVAC						
2020	Ford	F350 4x4	Grounds				X		
2020	Ford	F350 4x4	Grounds				X		
2020	Ford	Ranger	Water						



2020	Ford	Ranger	Water						
1990	GMC	Flatbed	Brine Spreader						
1999	Ford	F250	CHS/Untagged/Off road						
2001	Ford	F750 Dump	Grounds	X					
2003	Chevy	S-10 Pick-up	NHS/Untagged/Off Road						
2004	Chevy	Cavalier	Fleet						
2004	Chevy	Impala	Fleet						
2004	Chevy	G3500 Van	Grounds	X					
2004	Chevy	G2500 Van	Spare		X				
2004	Chevy	G3500 Van	NHS/Untagged/Off Road						
2005	Chevy	K2500 HD	Grounds						
2005	GMC	Canyon	Water						
2005	GMC	Canyon	Water						
2006	GMC	W3500 Tilt Box Van	Custodial						
2006	GMC	G2500 Van	HHS/Untagged/Off Road						
2007	Chevy	G2500 Van	Grounds	X					
2007	Ford	E250 Van	PHS/Untagged/Off Road						
2007	GMC	G3500 Savanna	HVAC						
2008	GMC	K2500 HD	Grounds						
2008	Ford	E350 Van	Spare	X					
2010	GMC	K2500 HD	Grounds		X				
2010	Ford	E350 Van	HVAC	X					
2011	Dodge	Dump	Grounds	X					
2011	Dodge	Dump	Grounds		X				
2012	GMC	Canyon	Custodial		X				
2013	International	4300 Dump Truck	Grounds		X				
2013	Isuzu	NPR HD	Warehouse			X			
2013	International	4300 Dump Truck	Grounds			X			

2014	Ford	E250 Van	Electric			X			
2014	Ford	F250 4x4	Grounds			X			
2015	Ford	F350 4x4	Auto Service Truck			X			
2016	Ford	Transit 150 Van	Carpentry			X			
2016	Ford	Transit 150 Van	Carpentry				X		

X = Purchased Replacement (proposed) X\* = In House Replacement D = Pending Disposal Revised 08/03/2021

## Roof Replacement Schedule

School	Built	Renovated/Add.	Re-Roofed	2024	2025	2026	2027	2028	2029
Appeal Elementary	1949	1956,1958,1971,1989, 2005	2013*						
Barstow Elementary	2008								
Beach Elementary	1953	1971,1981,2006	1998/2008						
Brooks Administrative Building	1950	1973	1998						
Career & Technology Academy	1970	2005,2023							
Calvert Country	1958	1983	2010						
Calvert Elementary	1964	1974,1981,2007,2023	1999						
Calvert Middle	2010								
Calvert High	2012	2014							
Planetarium	1977		1998						
Field House	1963								
Dowell Elementary	1999	2007							
Huntingtown Elementary	1971	1980,2006	2006						

Huntingtown High	2004								
Mill Creek Middle	1999								
Mt. Harmony Elementary	1961	1970,1975,2007	1999						
Mutual Elementary	1975	1989,2007,2014	2005						
Northern Middle	1976		1993						
Northern High	1972	1985,1992	1999	X*					
Patuxent Elementary	1992	2006							
Patuxent High	1996		2013*					X*	
Plum Point Elementary	1991	2006	2013*						
Plum Point Middle	1992		2011*						
Southern Middle	1979	1996	2006						
St. Leonard Elementary	1996	2006							
Sunderland Elementary	1988	2005	2013*						
Windy Hill Elementary	1996	2006							
Windy Hill Middle	1998								
Maintenance Warehouse	1978								
Storage Shed	TIN								
Carpentry Shop	TIN								
Auto Shop	TIN								

\* Partial Replacement X = Flat Roof Y = Metal Roof Z = Asphalt Shingle Roof

Revised 08/03/2021

## Painting – Interior

School	Built	Renovated/Add.	2024	2025	2026	2027	2028	2029
Appeal Elementary	1949	1956,1958,1971,1989,2005, 2021				X		
Barstow Elementary	2008	2020			X			
Beach Elementary	1953	1971,1981,2006,2022						
Brooks Administrative Building	1950	1973	X					X
Career & Technology Academy	1970	2005, 2021				X		
Calvert Country	1958	1983,2022						
Calvert Elementary	1964	1974,1981,2007			X			
Calvert Middle	2010	2022						
Calvert High	2012	2014, 2021				X		
<b>Planetarium</b>	<b>1977</b>	<b>2023</b>						
Field House	1963	2023						
Dowell Elementary	1999	2007,2021,2023						
Huntingtown Elementary	1971	1980,2006, 2021				X		
Huntingtown High	2004			X				
Mill Creek Middle	1999		X					X
Mt. Harmony Elementary	1961	1970,1975,2007, 2021				X		
Mutual Elementary	1975	1989,2007,2014,2023						

Northern Middle	1976	2023						
Northern High	1972	1985,1992		X				
Patuxent Elementary	1992	2006,2023						
Patuxent High	1996				X			
Plum Point Elementary	1991	2006, 2022						
Plum Point Middle	1992	2022						
Southern Middle	1979	1996			X			
St. Leonard Elementary	1996	2006	X					X
Sunderland Elementary	1988	2005		X				
Windy Hill Elementary	1996	2006		X				
Windy Hill Middle	1998		X					X
Maintenance Warehouse	1978			X				
Carpentry/Paint Shop	Unknown			X				

Interior painting includes lobby, hallways, cafeteria, gym, restrooms, media center, & auditorium. Classrooms are painted as needed; approx. every 5-6 years.

## Painting – Exterior

School	Built	Renovated/Add.	2024	2025	2026	2027	2028	2029
Appeal Elementary	1949	1956,1958,1971,1989,2005 2023						
Barstow Elementary	2008	2021				X		

Beach Elementary	1953	1971,1981,2006,2022						
Brooks Administrative Building	1950	1973	X					X
Career & Technology Academy	1970	2005			X			
Calvert Country	1958	1983		X				
Calvert Elementary	1964	1974,1981,2007			X			
Calvert Middle	2010	2023						
Calvert High	2012	2014,2022						
Planetarium	1977	2022						
Field House	1963	2022						
Dowell Elementary	1999	2007,2020	X					X
Huntingtown Elementary	1971	1980,2006, 2021				X		
Huntingtown High	2004		X					X
Mill Creek Middle	1999	2023						
Mt. Harmony Elementary	1961	1970,1975,2007		X				
Mutual Elementary	1975	1989,2007,2014, 2021				X		
Northern Middle	1976				X			
Northern High	1972	1985,1992		X				
Patuxent Elementary	1992	2006,2023						
Patuxent High	1996				X			
Plum Point Elementary	1991	2006	X					X
Plum Point Middle	1992	2022						

Southern Middle	1979	1996	X					X
St. Leonard Elementary	1996	2006		X				
Sunderland Elementary	1988	2005,2023						
Windy Hill Elementary	1996	2006, 2021				X		
Windy Hill Middle	1998	2021				X		
Maintenance Warehouse	1978				X			
Carpentry/Paint Shop	Unknown			X				

Exterior painting is done on an "as needed" basis; approx. every 5-6 years

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## Carpet Replacement

School	Built	Renovated/Add.	2024	2025	2026	2027	2028	2029
Appeal Elementary	1949	1956,1958,1971,1989,2005,2023						
Barstow Elementary	2008	2022	X*					
Beach Elementary	1953	1971,1981,2006						
Brooks Administrative Building	1952	1973,2021						
Career & Technology Academy	1970	2005		X*				
Calvert Country	1958	1983		X*				
Calvert Elementary	1964	1974,1981,2007	X*					
Calvert Middle	2010				X			
Calvert High	2012	2014						

Planetarium	1977							
Field House	1963							
Dowell Elementary	1999	2007						
Huntingtown Elementary	1971	1980,2006						
Huntingtown High	2004		X*					
Mill Creek Middle	1999							
Mt. Harmony Elementary	1961	1970,1975,2007	X*					
Mutual Elementary	1975	1989,2007,2014					X*	
Northern Middle	1976							
Northern High	1972	1985,1992						
Patuxent Elementary	1992	2006						
Patuxent High	1996							
Plum Point Elementary	1991	2006,2023						
Plum Point Middle	1992							
Southern Middle	1979	1996	X*					
St. Leonard Elementary	1996	2006						
Sunderland Elementary	1988	2005		X*				
Windy Hill Elementary	1996	2006	X*					
Windy Hill Middle	1999	2021						

\*Due to size and funding, some replacements require multiple years and are only partial in scope.

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## Floor Tile Replacement

School	Built	Renovated/Add.	2024	2025	2026	2027	2028	2029
Appeal Elementary	1949	1956,1958,1971,1989,2005	X*					
Barstow Elementary	2008	2022		X*				
Beach Elementary	1953	1971,1981,2006						
Brooks Administrative Building	1950	1973						
Career & Technology Academy	1970	2005,2021	X*					
Calvert Country	1958	1983		X*				
Calvert Elementary	1964	1974,1981,2007	X*					
Calvert Middle	2010							
Calvert High	2012	2014						
Planetarium	1977							
Field House	1963							
Dowell Elementary	1999	2007						
Huntingtown Elementary	1971	1980,2006,2021						
Huntingtown High	2004		X*					
Mill Creek Middle	1999							
Mt. Harmony Elementary	1961	1970,1975,2007						
Mutual Elementary	1975	1989,2007,2014			X*			
Northern Middle	1976	2022						

Northern High	1972	1985,1992						
Patuxent Elementary	1992	2006						
Patuxent High	1996							
Plum Point Elementary	1991	2006	X*					
Plum Point Middle	1992		X*					
Southern Middle	1979	1996		X*				
St. Leonard Elementary	1996	2006						
Sunderland Elementary	1988	2005		X*				
Windy Hill Elementary	1996	2006		X*				
Windy Hill Middle	1998			X*				
Maintenance Warehouse	1978							

\* Most floor tile replacements are only partial and are done on an "as needed" basis      Revised 08/03/2021

## Bleacher Inspection – Repair/Replacement

School	Built	Renovated/Add.	2024	2025	2026	2027	2028	2029
Appeal Elementary	1949	1956,1958,1971,1989,2005						
Barstow Elementary	2008							
Beach Elementary	1953	1971,1981,2006						
Brooks Administrative Building	1950	1973						
Career & Technology Academy	1970	2005						

Calvert Country	1958	1983						
Calvert Elementary	1964	1974,1981,2007						
Calvert Middle	2010	2023	X	X	X	X	X	X
Calvert High	2012	2014,2023	X	X	X	X	X	X
Planetarium	1977							
Field House	1963							
Dowell Elementary	1999	2007						
Huntingtown Elementary	1971	1980,2006						
Huntingtown High	2004	2023	X	X	X	X	X	X
Mill Creek Middle	1999	2023	X	X	X	X	X	X
Mt. Harmony Elementary	1961	1970,1975,2007						
Mutual Elementary	1975	1989,2007,2014						
Northern Middle	1976	2023	X	X	X	X	X	X
Northern High	1972	1985,1992,2023	X	X	X	X	X	X
Patuxent Elementary	1992	2006						
Patuxent High	1996	2023	X	X	X	X	X	X
Plum Point Elementary	1991	2006						
Plum Point Middle	1992	2023	X	X	X	X	X	X
Southern Middle	1979	1996	Y	X	X	X	X	X
St. Leonard Elementary	1996	2006						
Sunderland Elementary	1988	2005						

Windy Hill Elementary	1996	2006						
Windy Hill Middle	1998	2023	X	X	X	X	X	X

All bleachers are inspected annually and repaired as needed

Y = Replacement

X = Inspect/Repair

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## Blacktop Resurfacing (Seal Coating)/Repaving

School	Built	Renovated/Add.	2024	2025	2026	2027	2028	2029
Appeal Elementary	1949	1956,1958,1971,1989, 2005	X					
Barstow Elementary	2008							
Beach Elementary	1953	1971,1981,2006						
Brooks Administrative Building	1950	1973						
Career & Technology Academy	1970	2005						
Calvert Country	1958	1983		X				
Calvert Elementary	1964	1974,1981,2007	X					
Calvert Middle	2010							
Calvert High	2012	2014	X					
Planetarium	1977							
Field House	1963							
Dowell Elementary	1999	2007	X					
Huntingtown Elementary	1971	1980,2006,2023						
Huntingtown High	2004							
Mill Creek Middle	1999							

Mt. Harmony Elementary	1961	1970,1975,2007	Y					
Mutual Elementary	1975	1989,2007,2014	X					
Northern Middle	1976							
Northern High	1972	1985,1992						
Patuxent Elementary	1992	2006		X				
Patuxent High	1996							
Plum Point Elementary	1991	2006	Y					
Plum Point Middle	1992							
Southern Middle	1979	1996		Y				
St. Leonard Elementary	1996	2006	X	Z				
Sunderland Elementary	1988	2005						
Windy Hill Elementary	1996	2006						
Windy Hill Middle	1998		Z					
Maintenance Warehouse	1978							

X = Crack fill, seal coating, & restriping; may include some minor repairs Y = Partial Paving Z = Repave entire parking lot Revised 08/03/2021

## Boilers and Pressure Vessels Inspections

School	Built	Renovated/Add.	2024	2025	2026	2027	2028	2029
Appeal Elementary	1949	1956,1958,1971,1989,2005,2023	X	X *	X	X *	X	X
Barstow Elementary	2008	2023	Y *	Y	Y *	Y	Y *	Y *
Beach Elementary	1953	1971,1981,2006,2023	X	X *	X	X *	X	X

Brooks Administrative Building	1950	1973,2023	X *	X	X *	X	X *	X *
Career & Technology Academy	1970	2005,2023	X	X *	X	X *	X	X
Calvert Country	1958	1983,2023	X *	X	X *	X	X *	X *
Calvert Elementary	1964	1974,1981,2007,2023	X *	X	X *	X	X *	X *
Calvert Middle	2010	2023	Y *	Y	Y *	Y	Y *	Y *
Calvert High	2012	2014,2023	X *	X	X *	X	X *	X *
Planetarium	1977	2023						
Field House	1963	2023						
Dowell Elementary	1999	2007,2023	X	X *	X	X *	X	X
Huntingtown Elementary	1971	1980,2006,2023	X	X *	X	X *	X	X
Huntingtown High	2004	2023	X *	X	X *	X	X *	X *
Mill Creek Middle	1999	2023	Y *	Y	Y *	Y	Y *	Y *
Mt. Harmony Elementary	1961	1970,1975,2007,2023	X *	X	X *	X	X *	X *
Mutual Elementary	1975	1989,2007,2014,2023	X	X *	X	X *	X	X
Northern Middle	1976	2023	X	X *	X	X *	X	X
Northern High	1972	1985,1992,2023	X *	X	X *	X	X *	X *
Patuxent Elementary	1992	2006,2023	X *	X	X *	X	X *	X *
Patuxent High	1996	2023	X	X *	X	X *	X	X
Plum Point Elementary	1991	2006,2023	X *	X	X *	X	X *	X *
Plum Point Middle	1992	2023	X *	X	X *	X	X *	X *

Southern Middle	1979	1996,2023	X *	X	X *	X	X *	X *
St. Leonard Elementary	1996	2006,2023	X	X *	X	X *	X	X
Sunderland Elementary	1988	2005,2023	X *	X	X *	X	X *	X *
Windy Hill Elementary	1996	2006,2023	X	X *	X	X *	X	X
Windy Hill Middle	1998	2023	X	X *	X	X *	X	X
Maintenance Warehouse	1978							
Paint Shop	Unknown		X *	X	X *	X	X *	X *
Y = Pressure Vessels only	X = Boilers and Pressure Vessels							

Inspections are completed yearly by Maintenance boiler mechanics and bi-annually by MABE \* using outside contractors Revised 08/03/2021

## Septic Tank, Pump Station and Grease Trap Cleaning/Replacement

School	Built	Renovated/Add.	2024	2025	2026	2027	2028	2029
Appeal Elementary	1949	1956,1958,1971,1989,2005,2023	X	X	X	X	X	X
Barstow Elementary	2008	2023	X	X	X	X	X	X
Beach Elementary	1953	1971,1981,2006,2023	X	X	X	X	X	X
Brooks Administrative Building	1950	1973,2023	X	X	X	X	X	X
Career & Technology Academy	1970	2005,2023	X	X	X	X	X	X
Calvert Country	1958	1983,2023	X	X	X	X	X	X
Calvert Elementary	1964	1974,1981,2007,2023	X	X	X	X	X	X

Calvert Middle	2010	2023	X	X	X	X	X	X
Calvert High	2012	2014,2023	X	X	X	X	X	X
Dowell Elementary	1999	2007,2023	X	X	X	X	X	X
Huntingtown Elementary	1971	1980,2006,2023	X	X	X	X	X	X
Huntingtown High	2004	2023	X	X	X	X	X	X
Mill Creek Middle	1999	2023	X	X	X	X	X	X
Mt. Harmony Elementary	1961	1970,1975,2007,2023	X	X	X	X	X	X
Mutual Elementary	1975	1989,2007,2014,2023	X	X	X	X	X	X
Northern Middle	1976	2023	X	X	X	X	X	X
Northern High	1972	1985,1992,2023	X	X	X	X	X	X
Patuxent Elementary	1992	2006,2023	X	X	X	X	X	X
Patuxent High	1996	2023	X	X	X	X *	X	X
Plum Point Elementary	1991	2006,2023	X	X	X	X	X	X
Plum Point Middle	1992	2023	X	X	X	X	X	X
Southern Middle	1979	1996,2023	X	X	X	X	X	X
St. Leonard Elementary	1996	2006,2023	X	X	X	X	X	X
Sunderland Elementary	1988	2005,2023	X	X	X	X	X	X
Windy Hill Elementary	1996	2006,2023	X	X	X	X	X	X
Windy Hill Middle	1998	2023	X	X	X	X	X	X

Grease traps and pump stations are pumped out/cleaned annually during the Summer. Septic tanks are pumped and cleaned on an "as needed" basis.\* Replacements will occur only when needed. Revised 08/03/2021.



## Boiler Overhaul/Replacement

School	Built	Renovated/Add.	2024	2025	2026	2027	2028	2029
Appeal Elementary	1949	1956,1958,1971,1989,2005		X				
Barstow Elementary	2008							
Beach Elementary	1953	1971,1981,2006						
Brooks Administrative Building	1950	1973						
Career & Technology Academy	1970	2005						
Calvert Country	1958	1983						
Calvert Elementary	1964	1974,1981,2007						
Calvert Middle	2010							
Calvert High	2012	2014						
Planetarium	1977							
Field House	1963							
Dowell Elementary	1999	2007						
Huntingtown Elementary	1971	1980,2006						
Huntingtown High	2004							
Mill Creek Middle	1999							
Mt. Harmony Elementary	1961	1970,1975,2007,2021						
Mutual Elementary	1975	1989,2007,2014						
Northern Middle	1976							

Northern High	1972	1985,1992						
Patuxent Elementary	1992	2006						
Patuxent High	1996							
Plum Point Elementary	1991	2006						
Plum Point Middle	1992							
Southern Middle	1979	1996						
St. Leonard Elementary	1996	2006						
Sunderland Elementary	1988	2005						
Windy Hill Elementary	1996	2006						
Windy Hill Middle	1998							
Maintenance Warehouse	1978							
Paint Shop	Unknown							

All boilers are cleaned and inspected annually Revised 08/03/2021

## In-Ground Oil Tank Inspections/Testing

School	Built	Renovated/Add.	2024	2025	2026	2027	2028	2029
Appeal Elementary	1949	1956,1958,1971,1989,2005, 2023						
Barstow Elementary	2008							
Beach Elementary	1953	1971,1981,2006, Removed						
Brooks Administrative Building	1950	1973,2021 Removed						

Career & Technology Academy	1970	2005						
Calvert Country	1958	1983						
Calvert Elementary	1964	1974,1981,2007						
Calvert Middle	2010			X				
Calvert High	2012	2014	X					
Planetarium	1977							
Field House	1963							
Dowell Elementary	1999	2007						
Huntingtown Elementary	1971	1980,2006,2021						
Huntingtown High	2004		X					
Mill Creek Middle	1999							
Mt. Harmony Elementary	1961	1970,1975,2007, 2023						
Mutual Elementary	1975	1989,2007,2014,2021						
Northern Middle	1976	2021						
Northern High	1972	1985,1992,2021						
Patuxent Elementary	1992	2006, 2023						
Patuxent High	1996			X				
Plum Point Elementary	1991	2006, 2023						
Plum Point Middle	1992			X				
Southern Middle	1979	1996						
St. Leonard Elementary	1996	2006,2021						

Sunderland Elementary	1988	2005		X				
Windy Hill Elementary	1996	2006, 2023						
Windy Hill Middle	1998	2023						
Maintenance Warehouse	1978							
Paint Shop	Unknown							

All tanks are fiberglass. A certified contractor performs yearly containment sump inspections and a complete tank inspection 15 years after initial installation and then every 5 years thereafter (X). Revised 08/03/2021.

## Storm Water Management Ponds – Preventative Maintenance

School	Built	Renovated/Add.	2024	2025	2026	2027	2028	2029
Appeal Elementary	1949	1956,1958,1971,1989,2005	X	X	X	X	X	X
Barstow Elementary	2008		X	X	X	X	X	X
Beach Elementary	1953	1971,1981,2006,2023	X	X	X	X	X	X
Brooks Administrative Building	1950	1973,2023						
Career & Technology Academy	1970	2005,2023	X	X	X	X	X	X
Calvert Country	1958	1983,2023	X	X	X	X	X	X
Calvert Elementary	1964	1974,1981,2007,2023						
Calvert Middle	2010	2023	X	X	X	X	X	X
Calvert High	2012	2014,2023	X	X	X	X	X	X
Planetarium	1977	2023						
Field House	1963	2023						
Dowell Elementary	1999	2007,2023	X	X	X	X	X	X

Huntingtown Elementary	1971	1980,2006,2023						
Huntingtown High	2004	2023	X	X	X	X	X	X
Mill Creek Middle	1999	2023	X	X	X	X	X	X
Mt. Harmony Elementary	1961	1970,1975,2007,2023	X	X	X	X	X	X
Mutual Elementary	1975	1989,2007,2014,2023						
Northern Middle	1976	2023	X	X	X	X	X	X
Northern High	1972	1985,1992,2023	X	X	X	X	X	X
Patuxent Elementary	1992	2006,2023	X	X	X	X	X	X
Patuxent High	1996	2023	X	X	X	X	X	X
Plum Point Elementary	1991	2006,2021,2023	X	X	X	X	X	X
Plum Point Middle	1992	2023	X	X	X	X	X	X
Southern Middle	1979	1996,2023	X	X	X	X	X	X
St. Leonard Elementary	1996	2006,2023	X	X	X	X	X	X
Sunderland Elementary	1988	2005,2021,2023	X	X	X	X	X	X
Windy Hill Elementary	1996	2006,2023	X	X	X	X	X	X
Windy Hill Middle	1998	2023	X	X	X	X	X	X
Maintenance Warehouse	1978							
Paint Shop	Unknown							

X = Inspected and maintained annually Revised 08/03/2021

## Chiller/Cooling Tower Replacement and Minor Overhauls

School	Built	Renovated/Add.	2024	2025	2026	2027	2028	2029
Appeal Elementary	1949	1956,1958,1971,1989,2005		X				
Barstow Elementary	2008							
Beach Elementary	1953	1971,1981,2006						
Brooks Administrative Building	1950	1973						
Career & Technology Academy	1970	2005						
Calvert Country	1958	1983						
Calvert Elementary	1964	1974,1981,2007						
Calvert Middle	2010							
Calvert High	2012	2014						
Dowell Elementary	1999	2007						
Huntingtown Elementary	1971	1980,2006						
Huntingtown High	2004							
Mill Creek Middle	1999							
Mt. Harmony Elementary	1961	1970,1975,2007,2021						
Mutual Elementary	1975	1989,2007,2014						
Northern Middle	1976							
Northern High	1972	1985,1992						

Patuxent Elementary	1992	2006						
Patuxent High	1996							
Plum Point Elementary	1991	2006						
Plum Point Middle	1992							
Southern Middle	1979	1996						
St. Leonard Elementary	1996	2006						
Sunderland Elementary	1988	2005,2023						
Windy Hill Elementary	1996	2006						
Windy Hill Middle	1998							

X = Chiller

Y = Cooling Tower

\* Minor Overhauls

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<b>Metric</b>	<b>Industry Standard</b>	<b>Previous FY Budgeted</b>	<b>Previous FY Actual</b>	<b>Current FY Budgeted</b>
a) Maintenance Staffing (FTEs for Total GSF)	APPA Level 2 (Comprehensive Stewardship): _____ FTEs for _____ Total GSF*	FTE 40	FTE 40	FTE40
b) Maintenance Load (GSF per FTE)	APPA Level 2 (Comprehensive Stewardship): 67,456 GSF per FTE	GSF 58,910	GSF 58,910	GSF 61,419
c) Percent of Maint. Staff delivering bldg services**	N/A	100	100	100
d) Custodial Staffing (FTEs for Total GSF)	APPA Level 2 (Ordinary Tidiness): _____ FTEs for _____ Total GSF*	FTE 159.25	FTE 159.25	FTE 159.25
e) Custodial Load (GSF per FTE)	APPA Level 2 (Ordinary Tidiness): 16,700 GSF per FTE	GSF 14,796	GSF 14,796	GSF 15,427

	<b><i>Industry Standard</i></b>	<b><i>Previous FY Goal/Budget</i></b>	<b><i>Previous FY Goal/Budget per GSF</i></b>	<b><i>Previous FY Actual</i></b>	<b><i>Previous FY Actual per GSF</i></b>	<b><i>Current FY Goal/Budget</i></b>	<b><i>Current FY Goal/Budget per GSF</i></b>
<b><i>Spending</i></b>							
All Maintenance	(CRV x .03)	N/A	N/A	34,285,649	GFS 14.55	33,756,363	GSF 13.74
All Maintenance, per GSF	N/A	Budget 3,721,403	GSF 1.57	Budget	GSF N/A	Budget 4,019,600	GSF 1.63
Operations	(CRV x .01)	N/A	N/A	11,428,549	4.84	11,252,121	GSF 4.58
Operations, per GSF	N/A	Budget 18,588,895	GSF 7.88	Budget	GSF N/A	Budget 19,568,300	GSF 7.96
M&O Combined	(CRV x .04)			45,714,198	GFS 19.39	45,008,484	GSF 18.32
M&O Combined, per GSF	N/A	Budget 22,310,298	GSF 9.46	Budget	GSF 7.48	Budget 23,587,900	GSF 9.60