



FACILITY CONDITION ASSESSMENT

MONTOURSVILE AREA SCHOOL DISTRICT



LOYALSOCK VALLEY ELEMENTARY SCHOOL



LYTER ELEMENTARY SCHOOL

Planning for Tomorrow & Building Today

FACILITY CONDITION ASSESSMENT

Montoursville Area School District:
Loyalsock Valley Elementary School
Lyter Elementary School

JUNE 2024

SitelogIQ
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Executive Summary



EXECUTIVE SUMMARY

SitelogIQ is pleased to submit this summary of the Facility Condition Assessment that specifically addresses the current conditions of the elementary schools and serves as a compliment to the 2020 Districtwide Facility Study.

This study is meant to be utilized as a planning resource for MASD School Board and Administrators. The information contain herein is a comprehensive analysis of current facility needs at the elementary schools. In February 2024, Montoursville Area School District [MASD] engaged SitelogIQ [SIQ] to prepare a facility conditions assessment to aid in the evaluation of district facility maintenance projects.

Through this study, the SIQ was tasked with:

- preparing a detailed assessment of district facilities;
- providing costs to upgrade to meet current standards;
- prioritization of facility needs; and
- Recommendation of consolidation of elementary programs

Throughout the months of March, April, and May 2024, SIQ was onsite surveying and collecting data regarding district educational facilities as listed here:

- Loyalsock Valley Elementary School
- Lyter Elementary School

The information garnered from the assessments was collected and detailed by staff who are considered experts in their field. SitelogIQ conducted the physical condition assessments of the facilities; provided rough orders of magnitude estimates, and prepared the overall findings contained within this report. SitelogIQ applied the local knowledge and expertise of MASD staff to confirm asset conditions. Additionally, SitelogIQ considered the Crabtree Rohrbaugh & Associates District Wide Facility Study (2020) and subsequent updates, MASD facility information and building reports, to draw conclusions and make recommendations.

An operational energy cost assessment is also provided, which details and summarizes utility usage from the years 2021-2023. Energy cost savings measures are provided as recommendations for each facility.

Upon completion of the physical analysis, energy use, and consideration of the magnitude of critical maintenance needs, SitelogIQ has determined the regular maintenance of major building systems has extended the life of those systems allowing for deferred replacement. The

replacement of those facility systems will need to occur in the near term. Appropriate strategies for repair or replacements based upon the assessment conditions has been provided as well as cost estimates to make those repairs.

SitelogIQ is proud to support the Montoursville Area School District through the facility assessment process, and is committed to supporting district goals and objectives.

Facility Condition Assessment



FACILITY CONDITION ASSESSMENT

Throughout the months of March, April, and May 2024, SitelogiQ [SIQ] was onsite surveying and collecting data regarding the educational facilities listed below:

- **LOYALSOCK VALLEY ELEMENTARY SCHOOL**
3790 State Rte. 87
Montoursville, PA 17754
- **LYTER ELEMENTARY SCHOOL**
900 Spruce Street
Montoursville, PA 17754

The Montoursville Area High School and C.E. McCall Middle School and the District Administrative offices were excluded from the detailed facility evaluations.

DATA GATHERING & EVALUATION METHODOLOGIES

Data Collection Process

Owner Provided Information

The district provided existing building drawings files, AHEREA Asbestos reports, master planning initiatives, capital projects plan, building profile information, and master planning and condition assessments prepared by others to SIQ. These documents, if provided in hard-copy form, were digitized and returned to the district at no additional cost.

Facility Assessment

Building Walk Throughs

This assessment involves surveying and documenting current physical conditions and deficiencies evident in district buildings. These surveys were coordinated with Mr. Daniel Taormina, Joseph Gnoffo, Jason Grove, and other Montoursville Area School District [MASD] staff to ensure access in facilities across the district.

The information documented in the assessments was gathered through a combination of field observations, 360° photo documentation, manufacturer data and operating procedures, interviews with staff and district personnel familiar with equipment and current operating conditions. This process also includes a review of available existing floor plans. The data is used to determine the feasibility and cost of infrastructure replacement / enhancement facility renovation/remodeling, reallocation, and or expansion. You will see this populated in a detailed manner on our Asset Conditions Assessment (ACA) sheet.

SIQ performed a physical condition assessment of the systems that comprise each facility's infrastructure—the Mechanical, Electrical, and Plumbing systems. These assessments were conducted by technical analysts who have significant experience in assessing facility systems. The methodology employed when conducting

these analyses will identify specific areas of the equipment that was reviewed. In each area, the analyst identified the functional working condition, and those metrics are refined to an overall assessment of the equipment.

SIQ performed all evaluations of the interior architectural systems—evaluating the conditions of the interior spaces and the material finishes, ADA and code-required accessibility clearance and space allowances. These assessments were conducted by facility analysts who have significant experience in assessing architectural and interior systems. The methodology employed when conducting these analyses will identify specific finishes of the spaces that were reviewed. In each area, the analyst identified the current condition, and based upon the age, use, wear and tear, and code-compliance provided an overall assessment.

Exterior building evaluations were also performed by both SIQ . These exterior evaluations considered the building envelope— roof systems, exterior walls, windows, doors, and storefront. The methodology employed when conducting these analysis identify specific conditions that exist, as well as more general overall system notes. For instance, the roofing evaluation is based upon the size of the roof, system, current conditions, and warranty information.

Site assessment at all the facilities is also included. These assessments evaluated existing site conditions of the parking lots and driveways, fencing, playgrounds and equipment, and landscape. Recommendations for site improvements are noted and included within the evaluation.

The data we have collected is used to furnish MASD stakeholders with study findings, conclusions, and recommendations that will assist the district's leadership in selecting a comprehensive building program to improve learning environments, and enhance the effectiveness, efficiency, and cost effectiveness of the district's operations.

Scope Categories and Definitions:

SIQ explored conditions and deficiencies and has made recommendations in several important categories and scope definitions, which are outlined below:

ARCHITECTURAL FINISHES:

Design/Aesthetic elements related to fit, form, and function within existing facility footprints.

BUILDING / CLASSROOM ADDITIONS:

Expansion or Extensions to buildings or structures.

BUILDING ENVELOPE:

The physical barriers that separate the interior and exterior environment of a building including the resistance to air, water, heat, light, and noise transfer.

ELECTRICAL:

Related Infrastructure, plant and machinery, heating and ventilation, de-humidification, automated temperature controls, etc.

MECHANICAL AND AUTOMATED CONTROLS:

Related Infrastructure, plant and machinery, heating and ventilation, de-humidification, automated temperature controls, etc.

PLUMBING:

Existing systems and components that convey fluids for a wide range of applications. Pipes, valves, fixtures, tanks, and other apparatuses to convey water.

SECURITY:

Any Security Mechanisms meant to provide infrastructure protection, including site, accessibility, communications, etc.

SITE WORK:

Any construction that is not part of facility physical structure. Grading, excavation, construction of tanks, driveways, or other utilities.

SPECIALTIES:

To include Information Technology, Furniture, Clock and Public-Address Systems, etc.

ADA / CODE COMPLIANCE:

Includes accessibility standards, and local, state, and federal building code compliance.

Our findings have been documented, with detailed information tabulated within the Asset Condition Assessments which document specific building systems throughout each facility. This assessment provides a detailed list of Facility Improvement Measures, and can be trusted for planning and budgeting for the next five to ten years. It is focused on maintaining the building environment for long-term facility maintenance, comfort, energy, and safety.

Facility Improvement Measures have been identified based upon condition and appropriate priority timelines. Our conditions are described below:

ASSET CONDITION ASSESSMENT	ASSET DESCRIPTION	ASSET STRATEGIC PLAN
Acceptable	Equipment in acceptable condition and within useful life	Design and implement appropriate maintenance strategy
Caution	Equipment operating in a degraded condition, and/or is approaching life expectancy	Repair or replace in 6 to 8 years (or as needed)
Alert	Equipment in need of more than regular maintenance and repairs or excessively past life	Repair or replace in 3 to 5 years (or as needed)
Alarm	Equipment failure is inevitable, has exceeded life expectancy, is in degraded condition	Repair or replace 0-2 years (or as soon as possible)
Danger	Equipment has failed and/or is causing a safety hazard	Repair or replace immediately

Physical Needs Assessment



LOYALSOCK VALLEY ELEMENTARY SCHOOL

3790 State Rte. 87

Montoursville, PA 17754

Construction: Original: 1961, Additions: 1983

Building Size: 40,920 sq. ft.

Site Size: 13.67 acres

An elementary education facility serving grades Kindergarten through grade 4 with student enrollment of approximately 223 students.

Interior Summary:

Interior architectural assessments noted the facility is constructed of load-bearing masonry walls and steel framed roofs with concrete slab-on-grade floors. An area of the facility is elevated to accommodate a crawl space. It was noted this area has no means for mechanical ventilation, and humidity issues persist. Interior walls are painted masonry, glazed masonry units, and painted plaster walls. Painting of wall finishes is recommended.

Flooring is comprised of a combination of vinyl asbestos tile, vinyl composite tile, ceramic tile, terrazzo, and carpet. Where the VAT is present, it is in poor condition, and is recommended for immediate abatement and removal. The older VCT is in fair to poor condition and should be replaced as well. Carpet, where present is also showing visible signs of wear and is recommended for replacement. The terrazzo in corridors, and newer VCT is in good condition. In some areas throughout the facility acoustical ceiling tile has been replaced, and is in good condition. The remaining ceiling tiles should also be replaced, as sagging, age and wear have contributed to their deterioration and compromise their acoustical integrity.

Throughout the facility storage is an issue, and current casework in classrooms are in poor condition. The plastic laminate is delaminating from many of the doors, and metal casework is aging and at the end of its useful life expectancy. Replacement of casework and storage systems is recommended.

Toilet rooms, both single use and group use, do not accommodate current accessibility (ADA) standards, though some sinks have had hardware updated to accommodate this requirement. Toilet room finishes are overall in poor condition and are original to building construction. Toilet fixtures range in age and condition. Those installed in 1983 renovation are in fair condition, while those from the original building are in poor condition. There are no hot water/ cold water mixing valves at lavatories. Without the regulation of a mixing valve, this water might flow from sink and cause injury. These toilet rooms are recommended for renovations to accommodate ADA accessibility and facility improvements.

Interior door systems are solid wood with aluminum frames and are not fire rated. These doors are also in poor condition. They open into the hallway, restricting travel lanes and feature non-ADA knob hardware, and not lever-handle hardware.

Building Systems Summary:

HVAC: This facility utilizes a hot water heating system for space heating, and does not have central air conditioning. The heating system is comprised of unit ventilators in classrooms, terminal heating units in offices and storage areas, and a central air handling unit for the multipurpose room. Two 1,680 MBTU fire tube hot water boilers are currently undersized for the facility. In extreme temperatures they struggle to keep and maintain consistent temperatures. These boilers are at the end of their service life, and recommended for immediate replacement. The hot water distribution is primarily copper piping, and there are frequent leaks. The heating hot water pumps are nearing the end of their life expectancy, and they are recommended for replacement. Building controls are pneumatic, and original to the building. This system also struggles to maintain consistent temperatures throughout the facility. In areas throughout the facility that utilize cabinet unit heaters, no ventilation could be identified, and only reheating of space was observed. Exhaust fans in toilet rooms have exceeded their life expectancy, and are also recommended for replacement. Air conditioning in classrooms is provided through portable AC window units, which do not bring in outside air. Additionally, the split systems that service the library and STEM room utilize a DX Cassette Unit. Mitsubishi PU42EK2 model which requires R-22 refrigerant. R-22 has been banned from production by the EPA, and efforts to maintain these units can be cost prohibitive. Recommend replacement of these units.

Plumbing: The domestic water systems consists of two wells that supply water to the 2000 gallon water storage tank, 3 pressure tanks, and a chlorinator. The domestic water piping distribution is copper and PVC. Overall, the copper piping is original to the building and is in fair condition, with signs of corrosion. No leaks were observed, a pressure test is recommended. Sanitary system is cast-iron and also original to the facility. There were clear observations of degradation, and replacement is recommended. Roof drains are also in poor condition, as they are original to the building and have exceeded typical life expectancy. The roof drains are cast iron, with broken seals. It was noted that a sump pump is required to remove groundwater during heavy rains. A fire suppression system is not present in this facility, as it is not sprinklered.

Electrical: The main distribution panel is 208/120V 600amps panelboard. Branch circuits and general wiring is in poor condition with limited space available. The MDP has exceeded a typical life expectancy, and is recommended for replacement. Typical lighting fixtures throughout the facility are T8 florescent fixtures in fair condition. The District has initiated a phasing plan to replace these fixtures with LED lighting. Exterior site lighting is metal halide in fair to poor condition, the district is also converting these fixtures to LED. Life safety systems are Simplex, alarms and bells. This system is operational, but currently does not meet current code requirements. The current Cat-5 data structured cabling is outdated, and near end of service life. Current minimum recommendation for upgrades are Cat-5E or Cat-6 cabling. The central clock system is operational, and in fair condition. Access controls were recently installed in building and also in good condition.

Exterior And Site Summary

Building exterior is brick and stucco building materials in good to fair condition. The exterior finishes should be cleaned and mortar repairs should be addressed as needed. The roof is built-up asphalt with ballast, and good to fair condition. The exterior windows are aluminum clad vinyl, and are in fair condition. They appear

to be at or nearing their life expectancy. Hollow metal exterior doors are showing signs of age, and should be considered for replacement. The aluminum framed storefront systems are in good to fair condition, though enhanced secure vestibule features are recommended.

Landscaped areas around the building are in good condition. Asphalt parking and driveways are in fair condition. Many cracks are evident and have been sealed. Mill and overlay is recommended.

LYTER ELEMENTARY SCHOOL

900 Spruce Street

Montoursville, PA 17754

Construction: Original: 1958 Additions: 1962,1998

Building Size: 69,000 sq. ft.

Site Size: 7.56 acres

An elementary education facility serving grades Kindergarten through grade 4 with student enrollment of approximately 401 students.

Interior Summary:

Interior architectural assessments noted the facility is constructed of load-bearing masonry walls and steel framed roofs with concrete slab-on-grade floors. An area of the facility is wood framed. Interior walls are painted masonry, glazed masonry units, and painted plaster walls. Painting of wall finishes is recommended.

Flooring is comprised of a combination of vinyl composite tile, ceramic tile, terrazzo, and carpet. VCT is in fair condition, and showing signs of wear and age. Carpet, where present, is also showing visible signs of wear and is recommended for replacement. The terrazzo in corridors, and newer VCT is in good condition. The acoustical ceiling tile is in good to fair conditions, but nearing end of service life. Some areas the tiles should also be replaced, as sagging, age and wear have contributed to their deterioration and compromise their acoustical integrity.

Throughout the facility casework and storage in classrooms remains in good condition.

Toilet rooms, both single use and group use, are in good conditions and meet current accessibility (ADA) standards. Some single use occupancy toilet rooms require minor adjustments to meet ADA code. Overall, toilet room finishes and fixtures are in good condition. There are no hot water/ cold water mixing valves at lavatories. Without the regulation of a mixing valve, this water might flow from sink and cause injury.

Interior door systems are steel framed wood veneer doors in good condition. In the original 1958 portion of the building, they open into the hallway, restricting travel lanes. All interior doors do have ADA compliant lever-handle hardware.

Building Systems Summary:

HVAC: This facility utilizes a natural gas heating system for space heating, and does not have central air conditioning. The heating system is comprised of unit ventilators in classrooms, terminal heating units in offices and storage areas, and air handling units for the multipurpose room. Two (2) Smith cast iron boilers, 3836 MBH. Natural gas with Power flame burners are currently heating the facility, and one boiler is leaking. The boilers were installed in 1958, and were retubed in the 1998 renovation. These boilers are at the end of their service life, and recommended for immediate replacement. The hot water distribution is primarily copper piping, and shows signs of age and degradation. Recommend pressure testing. The heating hot

water pumps are nearing the end of their life expectancy, and they are recommended for replacement. Building controls are pneumatic, and original to the building. This system also struggles to maintain consistent temperatures throughout the facility. Equipment is operational, but maintenance can be difficult due to age, leaking was present during assessment, as audible hissing noted at thermostats. No unoccupied schedule is in place. The multipurpose area is served by a heating and ventilation air handling unit, with no air conditioning of that space. Exhaust fans throughout the facility have exceeded their life expectancy, and are also recommended for replacement. Many fans in the toilet areas were not operating.

Air conditioning in classrooms is provided through portable AC window units, which do not bring in outside air. Additionally, the split systems that service the Administrative spaces utilize a Comfortmaker, Mitsubishi, EMI, R-22, (various model sizes) which requires R-22 refrigerant. R-22 has been banned from production by the EPA, and efforts to maintain these units can be cost prohibitive. Recommend replacement of these units.

Plumbing: The domestic water service is a 4" line with piping distribution in good condition. No leaks were observed, a pressure test is recommended. Sanitary system is cast-iron and PVC. also in good condition. The PVI gas fired domestic hot water heater was replaced with two (2) Lochinvar boiler style with separate storage tank and recirculating pumps in good condition. A fire suppression system is not present in this facility, as it is not sprinklered.

Electrical: The main distribution panel is 480/2703 3 phase, 4 wire 1200 amp main distribution panelboard in good condition. Branch circuits are fused switches, and spare switches are available. It was installed in 1998 and is approaching life expectancy. Typical lighting fixtures throughout the facility are T8 florescent fixtures in fair condition. The District has initiated a phasing plan to replace these fixtures with LED lighting. Exterior site lighting is metal halide in fair to poor condition, the district is also converting these fixtures to LED. The facility is served with an emergency generator that provides emergency lighting and fire alarm. It was installed in 1998, and is recommended for testing and serviceability. Life safety systems are Simplex 4020, alarms and bells. This system is operational, but currently does not meet current code requirements. The current Cat-5 data structured cabling is outdated, and near end of service life. Current minimum recommendation for upgrades are Cat-5E or Cat-6 cabling. The central clock system is operational, and in fair condition. Access controls were recently installed in building and also in good condition.

Exterior And Site Summary

Building exterior is brick building materials in good to fair condition. The soffit at the entrance canopy is open to wood decking and original to the building. Improvements are recommended to address the paint that is failing around the perimeter. Additional cleaning of mortar and repairs should be addressed as needed. The roof is built-up asphalt with ballast, and in good condition. The metal roof at the Gymnasium and Kindergarten rooms is also in good condition, however, the gutters in these areas are leaking and snow guards at the same location are ineffective. The exterior windows are aluminum clad vinyl, double pane with integral blinds and are in fair condition, but not energy efficient. They appear to be at or nearing their life expectancy. Hollow metal exterior doors are showing signs of age, and should be considered for replacement in the future. The aluminum framed storefront systems are in good to fair condition, there is a solid window with a pass thru to the office. The cabinet heater underneath does not allow the teller window

to be ADA accessible.

Landscaped areas around the building are in good condition. 19,300 s.f. of asphalt at the hard surface play areas is in good condition. The parking and driveways are in good condition along Tule Street. Walnut Street parking is in fair condition, with noticeable pot-holes and cracking. The bus and parent drop off lane along Spruce St. has many cracks, and sealcoating. Recommend mill and overlay in these areas.

Operational Energy Cost Assessment



Montoursville Elementary Buildings Utility Analysis

The following tables and figures illustrate the total baseline energy use and cost of all Elementary Schools in the District. We assessed the annual energy use of each building by examining and analyzing 2021-2023 consumption data from utility bills.

Energy Use and Cost Summary

The following tables and figures illustrate the total baseline energy use and cost of both Montoursville Area Elementary school buildings assessed in this study.

TABLE: Annual Utility Summary by Building

SITE	Sqft	Electricity			Heating Fuels/ Nat Gas		Total
		kWH	Peak kW	\$	kBTU	\$	
Loyalsock Valley Elementary	40,920	168,320	78	\$ 14,589	2,021,845	\$ 48,824	\$ 63,413
Lyter Elementary	69,000	420,825	1,568	\$ 36,286	2,795,420	\$ 28,269	\$ 64,555
Montoursville ASD	109,920	589,145	1,646	\$ 50,875	4,817,265	\$ 77,093	\$ 127,968

SITE	Population	Water		Total
		kGal	Water \$	
Loyalsock Valley Elementary	242	380	\$ 3,575	\$ 3,575
Lyter Elementary	428	359	\$ 3,103	\$ 3,103
Montoursville ASD Elementary	670	739	\$ 6,678	\$ 6,678

Overall, the district annual spent is \$134,646 or \$1.22 per square foot in average from 2021-2023 on major utilities, including water. Sewer bills were not included in the analysis.

The following figures show the monthly use and cost profile of the same data aggregated for all buildings.

FIGURE: Monthly Energy Use Profile in MMBTU

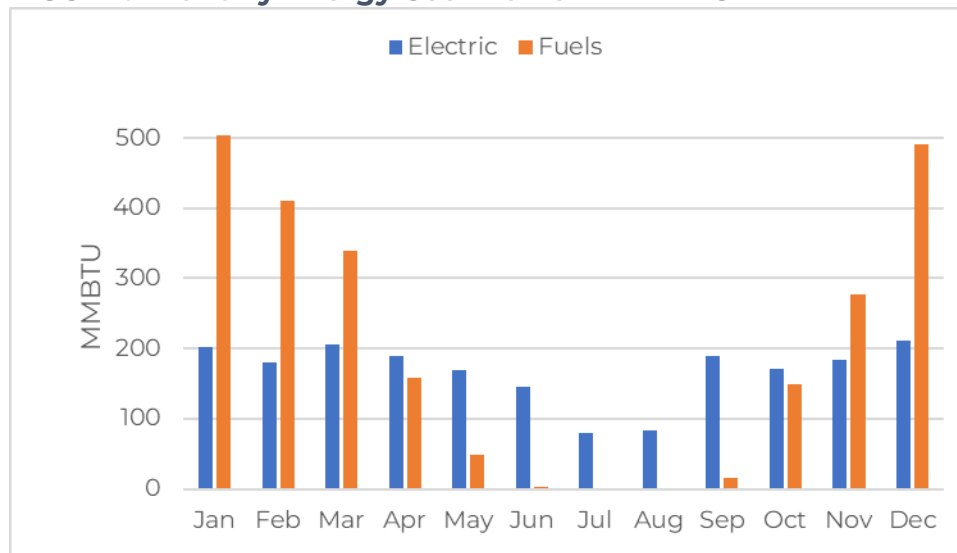
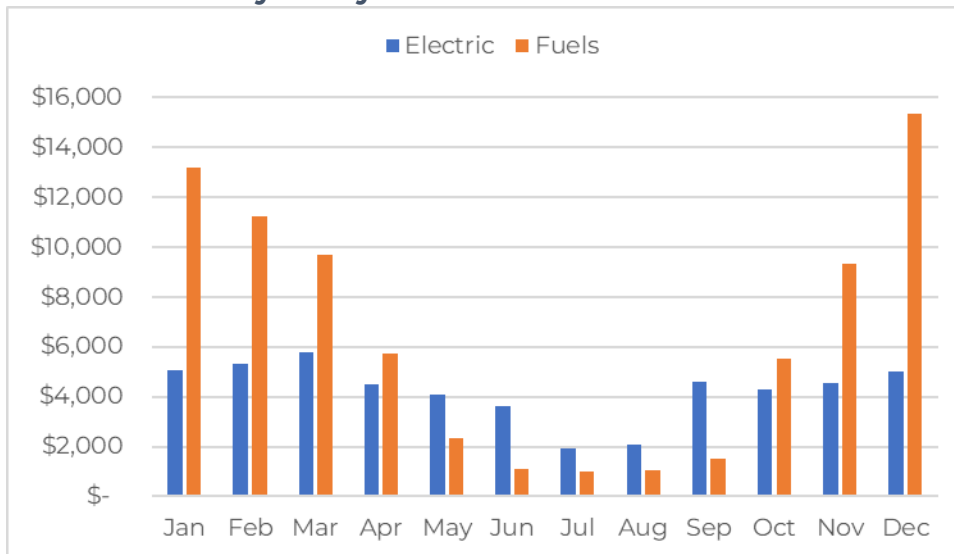
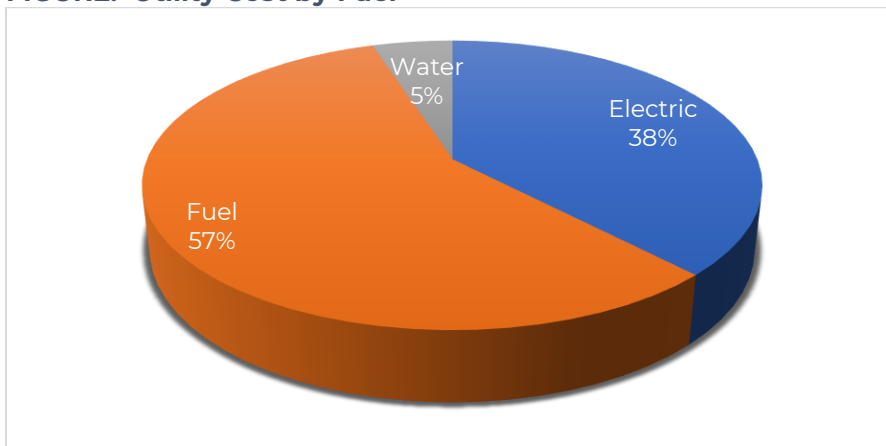


FIGURE: Monthly Utility Cost Profile



Fuels is the largest component of the District's utility expenditures for the Elementary Buildings, accounting for 57% of the energy costs included in this assessment.

FIGURE: Utility Cost by Fuel



Benchmarking Analysis

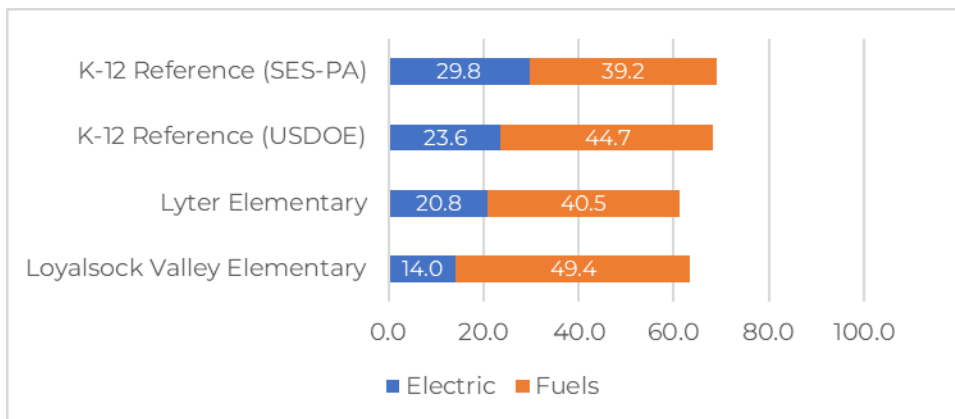
The energy use intensity (EUI) normalizes building energy use in units of kBtUs (equal to 1,000 BTU) per square foot for electric and fuels. This allows us to compare the buildings to the expected average use of peer buildings as well as to one another. Peer buildings are education buildings included in SiteLogIQ's database of hundreds of Pennsylvania school buildings. The following table summarizes the energy and cost indices for Montoursville Area Elementary Buildings.

TABLE: Resource and Cost Indices by Building

Building Name	RESOURCES			COSTS		
	Electric kBTU/sf-yr	Fuels kBTU/sf-yr	Total Energy kBTU/sf-yr	Water Gal/sf-yr	Energy \$/sf-yr	W-S \$/sf-yr
Loyalsock Valley Elementary	14.0	49.4	63.4	9.3	\$ 1.55	\$ 0.09
Lyter Elementary	20.8	40.5	61.3	5.2	\$ 0.94	\$ 0.04
K-12 Reference (USDOE)	23.6	44.7	68.3	na	na	na
K-12 Reference (SES-PA)	29.8	39.2	69.0	na	na	na
ALL BUILDINGS	17.43	44.96	62.39	7.24	\$ 1.16	\$ 0.06

*Sewer Bills not included in this assessment.

The following figure shows the energy intensity of the buildings energy as compared to the reference indices (U.S. Department of Energy 2012 CBECS data and SitelogIQ's Pennsylvania K-12 database).

FIGURE: Energy Indices by Building


Notice buildings for the reference benchmarked have 100% cooling capacity, which represent an increased electrical use. As expected, Lyter and Loyalsock Valley Elementary Schools EUI for electric is lower than the K-12 reference.

Loyalsock Valley Elementary has an overall EUI above the reference benchmark due to the higher EUI for Heating Fuel of 56.2 kBTU/sf-yr. The heating system for this building should be further evaluated – the cost of fuel oil makes up 73% of the overall operation cost of the building (excluding sewer costs).

Loyalsock Valley has nearly double the cost per population for water compared to Lyter Elementary.

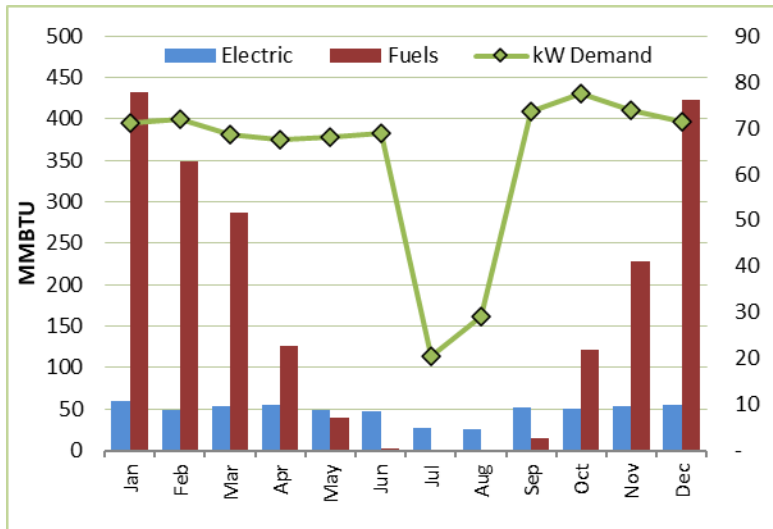
We will continue to check the following for opportunities to reduce energy use:

- Fuel oil is more costly than natural gas; if natural gas is available at Loyalsock Valley ES, a fuel conversion is recommended.
- The heating system at Loyalsock Valley ES has the highest potential to generate energy savings when investing in high efficiency equipment.
- Water conservation is also recommended at Loyalsock Valley Elementary given that it uses as much water as Lyter with almost 43% less population.

- Efficiency of heating and cooling plant equipment
- Constant speed equipment; equipment scheduling
- Operation of building systems during unoccupied periods
- Summer shutdown procedures
- Level of ancillary plug loads (e.g., personal heaters, refrigerators, mug warmers, etc.)
- Utilizing active occupancy-based or demand-based energy strategies
- Utilizing temperature set point setup or setback strategies during unoccupied periods.
- Level of ventilation air and/or air infiltration

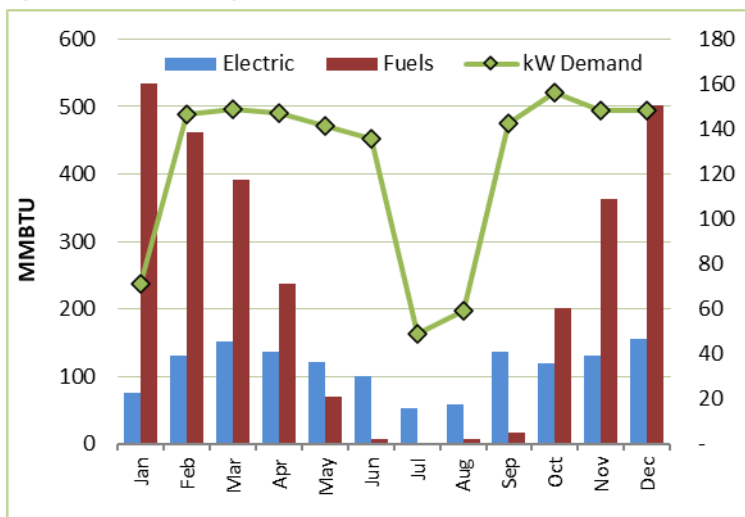
Individual Building Energy Use Profiles

Loyalsock Valley Elementary



*Fuel Oil for Loyalsock is billed per delivery date, the data was normalized based on weather data to calculate monthly consumption over the two-year period.

Lyter Elementary



Financial Analysis



FINANCIAL ANALYSIS

Planning and Budgeting

Understanding current facility conditions is the first step in addressing and prioritizing deferred maintenance and implementing a plan. Utilizing the information gathered in the assessments, a detailed list of facility improvement measures has been compiled for each building. SitelogiQ has developed cost estimates for each facility improvement measure. This itemized list of facility improvement measures will can be prioritized and discussed by the MASD facility team. Below, you can find summarized cost information brought forth by the assessments and to demonstrate the magnitude of assessed deferred maintenance and in Loyalsock Valley and Lyter Elementary Schools.

School buildings and grounds require continuous maintenance to be operationally efficient. The assessments and estimates provided through this study will enable the Montoursville Area School District to plan for healthy, safe, and efficient buildings for students and staff.

DISTRICT FACILITY	RECOMMENDED TIME FOR REPLACEMENT			ROUGH ORDER OF MAGNITUDE
	0-2 Years	3-5 Years	6-10 Years	
	ALARM	ALERT	CAUTION	
LOYALSOCK VALLEY ELEMENTARY SCHOOL 40,920 SQ. FT.	\$ 3,430,046	\$ 10,056,529	\$ 6,015,080	\$ 19,501,654
LYTER ELEMENTARY SCHOOL 70,270 SQ.FT.	\$ 916,580	\$ 5,477,203	\$ 10,750,564	\$ 17,144,346
	\$ 4,346,626	\$ 15,533,731	\$ 16,765,644	\$ 36,646,000

Conclusions

Our study supports the recommendation by the Crabtree Rohrbaugh & Associates (May 2020) facility study to consolidate to Lyter Elementary School. The magnitude of repairs and renovations at Loyalsock Valley Elementary School that are recommended for replacement within the 0-10 year timeline is \$19,501,654. **These changes do not address the additional programmatic and educational needs that were identified and prioritized by the district.** A consolidation project to Lyter Elementary School would address a majority of the most urgent physical facility needs, and support the district by providing adequate capacity, safety and flexibility for future facility needs.

Asset Condition Assessment											
LOYALSOCK VALLEY ELEMENTARY SCHOOL											
3790 STATE RT. 87 MONTOURSVILLE, PA 17754											
					Equipment Age and Life Expectancy				Asset Condition	Current Concerns/Problems	
Facility	System	System Description	System Category	Area(s) Served	Average Life Expectancy	Equipment Installation Date	Actual Age of Equipment	Percent of Life Expectancy Used	Remaining Life	Age-Adjusted Asset Condition	Other Concern / Problem
Loyalsock Valley ES	Htg - Boilers - Hot Water	(2) Fuel oil, York-Shipley Fire Tube hot water boilers. 1,680 MBTU/Hr in, 1340 MBH Out.	Heating Plant Systems	Heating System	25	1990	34	136%	(9)	Alarm	Boilers are undersized for facility, struggle to keep up temperature in extreme weather , Equipment at or near end of service life
Loyalsock Valley ES	Htg - Hot Water Distribution	Copper and steel piping, w/ frequent leaks.	Heating Distribution Systems	Whole Building	50	1990	34	68%	16	Alert	Hot water piping has frequent leaks; the heating pipine needs replacement.
Loyalsock Valley ES	Htg - Hot Water Pumps	2 Bell and Gossett Boiler Pumps	Heating Distribution Systems	Primary, boilers	30	1990	34	113%	(4)	Alert	Pumps are over 20 years old (also noted in CRA Study)
Loyalsock Valley ES	Htg - Hot Water Pumps	2 HW Pumps: Bell and Gossett 1510 3E-10-7/8. 5HP, 218 GPM, 48 ft hd.	Heating Distribution Systems	Whole Building	30	1990	34	113%	(4)	Alert	Pumps are over 20 years old (also noted in CRA Study)
Loyalsock Valley ES	Htg - Boiler Burners	Oil tank, underground, parking lot	Heating Plant Systems	Whole Building	30	1990	34	113%	(4)	Alert	Replacement cost dependent on size, oil tank has exceeded useful life expectancy and SIQ recommends testing
Loyalsock Valley ES	AHU - Air Handling Units	1 Herman Nelson AHU. Heating Only. 3,500 CFM, 1HP fan, 208V/60/3, suspended from platform.	Air Handling Systems	Multipurpose Rm (located in crawl space)	30	1960	64	213%	(34)	Alarm	Pneumatic controls, this unit has exceeded life expectancy and replacement is recommended
Loyalsock Valley ES	AHU - Unit Ventilators	DX Cassette Unit. Mitsubishi PUG42AKB; R-22	Air Handling Systems	Library	20	1990	34	170%	(14)	Alert	Units operate with R-22 refrigerant which has been banned from production. SIQ recommends replacing with environmentally friendly refrigerant.
Loyalsock Valley ES	AHU - Unit Ventilators	DX Cassette Unit. Mitsubishi PU42EK2. R-22	Air Handling Systems	STEM Room	20	1962	62	310%	(42)	Alarm	Units operate with R-22 refrigerant which has been banned from production by EPA. SIQ recommends replacing with environmentally friendly refrigerant.
Loyalsock Valley ES	AHU - Unit Ventilators	Heating only, 1000/300CFM or 1250/300CFM. 120V	Air Handling Systems	Classrooms	20	1990	34	170%	(14)	Alert	Heating only unit ventilators, they have exceeded life expectancy
Loyalsock Valley ES	AHU - HVAC Terminal Equip	Window Units	Air Handling Systems	Classrooms	20	1990	34	170%	(14)	Alert	Equipment at or near end of service life in some rooms, no consistency with model units or energy savings controls
Loyalsock Valley ES	AHU - HVAC Terminal Equip	Portable AC units, GE, R-32, 115V.	Air Handling Systems	Classrooms	20	2018	6	30%	14	Caution	These units do not bring outside air. During their operation, UV need to be on, with no heating.
Loyalsock Valley ES	AHU - HVAC Terminal Equip	Finned tube/Convectors	Air Handling Systems	Offices, corridors, storage etc.	20	1990	34	170%	(14)	Alert	No outdoor air ventilation, only reheating of space.
Loyalsock Valley ES	AHU - HVAC Terminal Equip	Cabinet unit heaters & unit heaters (no ventilation).	Air Handling Systems	Offices, corridors, storage etc.	20	1990	34	170%	(14)	Alert	No outdoor air ventilation, only reheating of space.
Loyalsock Valley ES	AHU - HVAC Terminal Equip	Exhaust Fans	Air Handling Systems	Bathrooms	20	1990	34	170%	(14)	Alarm	Equipment at or near end of service life
Loyalsock Valley ES	Controls - Pneumatic	Air Compressor	Control Systems	Whole Building	20	1990	34	170%	(14)	Alert	Serving pneumatic control system, has exceeded life expectancy, recommend replacement
Loyalsock Valley ES	Controls - Pneumatic	Pneumatic System	Control Systems	Whole Building	20	1960	64	320%	(44)	Alarm	Equipment at or near end of service life
Loyalsock Valley ES	Plumb - DHW Heater	Oil-fired tank heater of 80 Gallons w/ new burner.	Plumbing Systems	Whole Building	10	1990	34	340%	(24)	Alarm	Has been maintained, but age of heater has exceeded life expectancy, a newer electric heater would provide savings to district through maintenance and energy savings
Loyalsock Valley ES	Plumb - DHW Heater	Dishwasher has electric booster heat	Plumbing Systems	Kitchen, Dishwashing, storage	10	1990	34	340%	(24)	Alarm	Equipment at or near end of service life, operating in a degraded condition, recommend replacement
Loyalsock Valley ES	Plumb - Dom Piping Distribution	Copper pipe distribution throughout the building	Plumbing Systems	Whole Building	50	1961	63	126%	(13)	Alert	Signs of corrosion, recommend pressure testing to address any potential leaks
Loyalsock Valley ES	Plumb - Dom Piping Distribution	Sanitary - cast iron	Plumbing Systems	whole building	50	1961	63	126%	(13)	Alert	Age and condition of piping show signs of degradation, recommend scoping for any leaks. No sewer service, but sanitary tanks.
Loyalsock Valley ES	Plumb - Dom Piping Distribution	Roof drains	Plumbing Systems	whole building	50	1961	63	126%	(13)	Alert	Age of roof drains is original to facility, They are in poor condition are seals are broken
Loyalsock Valley ES	Plumb - Dom Plumbing Fixtures	Toilets are both wall and floor mounted. Floor urinals (not code compliant). Ceramic china.	Plumbing Systems	Whole Building.	30	1961	63	210%	(33)	Alert	Fixtures are not ADA code compliant, and are original to facility. Age and condition suggest replacment to newer efficient and ADA compliant fixtures (Toilet, urinal)
Loyalsock Valley ES	Plumb - Dom Plumbing Fixtures	Wall hung lavatories	Plumbing Systems	Whole Building.	30	1990	34	113%	(4)	Caution	Sinks in group toilets are wall hung, with ADA compliant hardware, recommend replacement and ADA compliant hardware for sinks that are
Loyalsock Valley ES	Plumb - Dom Plumbing Fixtures	Stainless stell drop-in sink with bubblers. In casework	Plumbing Systems	Some classrooms, art and music classrooms, teacher's lounge and library.	30	1990	34	113%	(4)	Alert	Not ADA compliant, recommend replacment
Loyalsock Valley ES	Plumb - Dom Plumbing Fixtures	Stand alone china lavatories	Plumbing Systems	Classrooms	30	1990	34	113%	(4)	Caution	Not ADA compliant, recommend replacment
Loyalsock Valley ES	Plumb - Dom Plumbing Fixtures	Janitors sink	Plumbing Systems	Janitors closets	30	1990	34	113%	(4)	Caution	Not ADA compliant, recommend replacment
Loyalsock Valley ES	Plumb - Dom Plumbing Fixtures	ADD - Mixing valves at lavatories for code copliance.	Plumbing Systems							Caution	There are no hot water/ cold water mixing valves at lavatories. Without the regulation of a mixing valve, this water might flow from sink and cause injury.
Loyalsock Valley ES	Elec - Electrical Switchgear	MDP (Main distribution panelboard) is 208/120V 600 Amps. With spare space available.	Electrical Systems	Whole building	35	1965	59	169%	(24)	Alert	Main panel enclosure showing signs of degradation and advanced age, equipment is operational but more than regular maintenance is required due to age and condition
Loyalsock Valley ES	Elec - Electrical Distribution	Branch circuits, poor condition w/ limited space circuits available.	Electrical Systems	Whole building	30	1990	34	113%	(4)	Alert	General wiring is in poor condition
Loyalsock Valley ES	Elec - Lighting Fixtures	Interior: T12 34W fluorescent, currently upgrading to LED.	Lighting Systems	Whole building	20	2020	4	20%	16	Caution	Currently phasing lighting systems to LED (also noted in CRA study)

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					Equipment Age and Life Expectancy				Asset Condition	Current Concerns/Problems	
Facility	System	System Description	System Category	Area(s) Served	Average Life Expectancy	Equipment Installation Date	Actual Age of Equipment	Percent of Life Expectancy Used	Remaining Life	Age-Adjusted Asset Condition	Other Concern / Problem
Loyalsock Valley ES	Elec - Lighting Fixtures	Exterior: metal-halide, currently upgrading to LED	Lighting Systems	Building wide	20	1989	35	175%	(15)	Caution	Currently phasing lighting systems to LED (also Noted in CRA Study)
Loyalsock Valley ES	Elec - Electrical Distribution	Emergency Generator - There is no emergency generator onsite	Electrical Systems	Building wide						Alarm	No emergency generator was present during walk through, recommend installing generator
Loyalsock Valley ES	LS - Fire Alarm System	Simplex, alarms are mostly bells.	Life Safety/Security Systems	Building wide	15	1983	41	273%	(26)	Alarm	Poor condition, not code compliant. Existing remained during the 1990 renovation, has exceeded life expectancy
Loyalsock Valley ES	LS - Access Control System	Acces control throughout the building is in good to fair condition.	Life Safety/Security Systems	Building wide	10	2020	4	40%	6	Caution	Equipment is operational, but maintenance can be difficult due to age and nearing life expectancy
Loyalsock Valley ES	Tech - Clock System	Central Clock system	Technology Systems	Building wide	15	1990	34	227%	(19)	Alarm	Existing to remained during the renovation, maintenance can be difficult due to age and nearing life expectancy
Loyalsock Valley ES	Tech - IT Hardware/Software	Data Cat-5 data structured cabling throughout the building.	Technology Systems	Building wide	7	2020	4	57%	3	Alert	Equipment at or near end of service life, minimum recommend is Cat 5E, or Cat 6
Loyalsock Valley ES	Tech - PA System	Video surveillance.	Technology Systems	Building wide	15	2020	4	27%	11	Alert	Existing remained during the renovation, Equipment at or near end of service life
Loyalsock Valley ES	LS - Fire Suppression System	Sprinkler system	Life Safety/Security Systems	Building wide						Alert	Fire Supression System does not exist,
Loyalsock Valley ES	Int- Floor VAT	Floor, VAT	Interior Systems	Some classrooms, Multipurpose, Office, stage and kitchen	40	1961	63	158%	(23)	Alarm	VAT is in fair to poor condition. Rooms 159,155,152,151,148,128,127,126,129,125,124, office area, chair storage, food storage, kitchen area, Multipurpose room and stage.
Loyalsock Valley ES	Int - Floor - VCT	Floor,VCT	Interior Systems	All Classrooms and other rooms	30	1989	35	117%	(5)	Alert	Newer VCT is in good condition. Older VCT is in fair to poor condition
Loyalsock Valley ES	Int - Floor - Ceramic Tile	Floor, Ceramic Tile	Interior Systems	1960 Bathrooms, includes walls	45	1961	63	140%	(18)	Alert	Ceramic tile and glazed tile are in fair condition.
Loyalsock Valley ES	Int - Floor - Ceramic Tile	Floor, Ceramic Tile	Interior Systems	1990 Bathrooms, includes walls	45	1990	34	76%	11	Caution	Ceramic tile is in good condition.
Loyalsock Valley ES	Int - Floor - Terazzo	Floor, Terrazzo	Interior Systems	Corridors	100	1961	63	63%	37	Acceptable	Terrazzo remains in good condition
Loyalsock Valley ES	Int - Ceilings ACT	Acoustical & spline ceilings	Interior Systems	Acoustical & spline ceilings	25	1989	35	140%	(10)	Alert	Where ceilings have been replaced, they are in good condition. Older ceilings are curled and in fair to poor condition.
Loyalsock Valley ES	Int - Classroom Partition Wall	CMU exterior and interior walls.	Interior Systems	Building wide	25	1989	35	140%	(10)	Caution	CMU walls are in goood condition. Paint will occur during a renovation.
Loyalsock Valley ES	Int - Classroom Partition Wall	Window infill framing	Interior Systems	Building wide	30	1989	35	117%	(5)	Caution	Window infill walls are in goood condition. Paint will occur during a renovation.
Loyalsock Valley ES	Int - Multipurpose	Cafeteria, Gym, Stage	Interior Systems	Cafeteria, Gym, Stage	30	1960	64	213%	(34)	Alarm	The space is too small for a gym class. Ceiling is too low. No gym equipment or wall padding. Stage is small, not equipped and is not ADA accessible, recommend updates to support programmatic use
Loyalsock Valley ES	Int - Media Center	Library	Interior Systems	Library	40	1965	59	148%	(19)	Alert	Library is an oversized classroom and not large enough for a media center, recommend updates to support programmatic use
Loyalsock Valley ES	Int - Secure Vestibule	Main Entry	Interior Systems	Main Entry	20	2005	19	95%	1	Caution	The secure vestibule has been created using the existing floor plan. The aluminum entrances and teller window are in fair condition. However, it is not an ideal security entrance, recommend further security measures
Loyalsock Valley ES	Int - Office	Office and Nurse	Interior Systems	Office and Nurse	30	1960	64	213%	(34)	Alarm	Office and nurse space is very small and the layout is congested, and does not facilitate multiple students. Recommend updates to space for health, safety accommodations
Loyalsock Valley ES	Int - Kitchen	Kitchen, Dishwashing, storage	Interior Systems	Kitchen, Dishwashing, storage	30	1989	35	117%	(5)	Alert	Kitchen is small, and undersized with a single serving line. Cooler and freezer space is limited. Dry storage is also limited. Kitchen equipment is outdated, in poor condition and not functional per current standards
Loyalsock Valley ES	Int - Individual Toilet Rooms	Individual toilet rooms	Interior Systems	Individual toilet rooms	25	1965	59	236%	(34)	Alarm	1989 addition toilet rooms are in fair to good condition. Original toilet rooms need work.
Loyalsock Valley ES	Int - Gang Toilet Rooms	Gang Toilet rooms	Interior Systems	Gang Toilet rooms	25	1990	34	136%	(9)	Alert	1960 Gang toilet rooms received an ADA upgrade in 1990. Most finishes remained.
Loyalsock Valley ES	Int - Signage	Interior Signage	Interior Systems	Building wide	25	1990	34	136%	(9)	Alert	Signage is not ADA compliant. Building is not well marked.
Loyalsock Valley ES	Int - Window Treatment	Window blinds	Interior Systems	Window blinds	20	1990	34	170%	(14)	Alert	Currently roller blinds. Recommend sun shades for better energy and light control
Loyalsock Valley ES	Int - Visual Display Boards	Tackboards, Chalkboards, tack strip	Interior Systems	Tackboards, Chalkboards, tack strip	30	1990	34	113%	(4)	Alert	Chalk and tack boards appear to be in fair condition. Recommend markerboards and new tack boards
Loyalsock Valley ES	Int - Casework	Plastic laminate	Interior Systems	1960 and 1965 areas	30	1965	59	197%	(29)	Alert	Casework is in fair to poor condition in classrooms, delamination is evident (CR 151,152,155,156,146)
Loyalsock Valley ES	Int - Casework	Metal	Interior Systems	1990 Area	30	1990	34	113%	(4)	Alert	Casework is in fair to poor condition, inadequate storage is evident throughout facility
Loyalsock Valley ES	Int - Doors Interior - recess opening	Interior doors	Interior Systems	1960 and 1965 doors	40	1965	59	148%	(19)	Alert	Doors open into the hallway and are not fire rated.
Loyalsock Valley ES	Int - Doors Interior	Interior doors	Interior Systems	1960,1965 doors	40	1965	59	148%	(19)	Alert	Doors are old and hardware is not code compliant
Loyalsock Valley ES	Int - Doors Interior	Interior doors	Interior Systems	1990 doors	40	1990	34	85%	6	Caution	Doors are in good condition but are aging. Hardware is not code compliant.

<div> <div>Asset Condition Assessment</div> <div> LOYALSOCK VALLEY ELEMENTARY SCHOOL 3790 STATE RT. 87 MONTOURSVILLE, PA 17754 </div> </div>											
Facility	System	System Description	System Category	Area(s) Served	Equipment Age and Life Expectancy					Asset Condition	Current Concerns/Problems
					Average Life Expectancy	Equipment Installation Date	Actual Age of Equipment	Percent of Life Expectancy Used	Remaining Life		
										Age-Adjusted Asset Condition	Other Concern / Problem
Loyalsock Valley ES	Ext - Doors Exterior	Aluminum framed storefront	Building Envelope Systems	Exterior doors	30	2005	19	63%	11	Caution	Main entrance is in good condition but could be improved for security.
Loyalsock Valley ES	Ext - Doors Exterior	Hollow metal doors	Building Envelope Systems	Exterior Doors	25	1990	34	136%	(9)	Alarm	Older doors are aging and should be replaced.
Loyalsock Valley ES	Ext - Windows	Aluminum clad vinyl	Building Envelope Systems	Exterior windows & sills	35	1990	34	97%	1	Caution	Windows are in fair condition anearing the end of their life cycle
Loyalsock Valley ES	Ext - Roofs - Built Up	Built up roof with ballast	Building Envelope Systems	Multipurpose Roof	25	1994	30	120%	(5)	Caution	Roof is aging and showing some signs of age
Loyalsock Valley ES	Ext - Roofs - Built Up	Built up roof with ballast	Building Envelope Systems	Main roof except the Library wing	25	1994	30	120%	(5)	Caution	Roof report is unknown. Roof appears to be aging, showing signs of ponding
Loyalsock Valley ES	Ext - Roofs - Built Up	Built up roof with ballast	Building Envelope Systems	Library Wing	25	1994	30	120%	(5)	Caution	Roof report is unknown. Roof appears to be aging, showing signs of ponding
Loyalsock Valley ES	Ext - Exterior Brick & Mortar	Exterior Brick	Building Envelope Systems	Exterior walls	75	1961	63	84%	12	Caution	Brick and mortar are aging and in need of cleaning and mortar repairs. Assume 20% repair
Loyalsock Valley ES	Ext - Soffit	Perimeter roof soffit	Building Envelope Systems	Building perimeter	40	1990	34	85%	6	Caution	Soffit appears to be in good condition.
Loyalsock Valley ES	Ext - EFIS	Window infills	Building Envelope Systems	Building perimeter	30	1990	34	113%	(4)	Caution	EIFS appears in good condition .
Loyalsock Valley ES	Site - Exterior Concrete	Sidewalk	Grounds & Site	Main entry canopy	50	1960	64	128%	(14)	Caution	Entry pad has deteriorated from salt.
Loyalsock Valley ES	Site - Lansdscaping	Plants, Mulch and trees	Grounds & Site	Plants, Mulch and trees	2	2024	0	0%	2	Acceptable	Landscaping is limited to the front of the building, recommend expanding to rear
Loyalsock Valley ES	Site - Lansdscaping	Courtyard	Grounds & Site	Plants, Mulch and trees	2	2024	0	0%	2	Acceptable	In good condition
Loyalsock Valley ES	Site - Playground Equipment	Playgrounds	Grounds & Site	Playgrounds	2	2024	0	0%	2	Acceptable	Equipment is good. Many areas do not have mulch boarders. It is not ADA accessible.
Loyalsock Valley ES	Site - Fencing	Playgrounds	Grounds & Site	Playground						Caution	No fencing to enclose play area or to keep children and loose equipment in a contained area. Recommend installation of fencing
Loyalsock Valley ES	Ext - Signage	Building letters & Sign	Building Envelope Systems	Front entry & building	50	1990	34	68%	16	Acceptable	Signage currently is not clearly visible, or bold. Recommend replacement, and exterior lighting.
Loyalsock Valley ES	Site - Parking Lots & Driveways	Bituminous	Grounds & Site	Playground	30	1990	34	113%	(4)	Alert	Fair, many cracks that have been sealed. Mill and overlay is suggested.
Loyalsock Valley ES	Site - Parking Lots & Driveways	Bituminous	Grounds & Site	Parking area	30	1990	34	113%	(4)	Alert	Fair, many cracks that have been sealed. Mill and overlay is suggested.
Loyalsock Valley ES	Site - Parking Lots & Driveways	Bus and parent drop off	Grounds & Site	Bus and parent drop off lanes	30	1990	34	113%	(4)	Caution	Fair, many cracks that have been sealed. Mill and overlay is suggested.

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LYTER ELEMENTARY SCHOOL

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					Equipment Age and Life Expectancy						Asset Condition Assessment	Current Concerns/Problems
Facility	System	System Description	System Category	Area(s) Served	Average Life Expectancy	Equipment Installation Date	Actual Age of Equipment	Percent of Life Expectancy Used	Remaining Life	Age-Adjusted Asset Condition	Other Concern / Problem	
Lyter ES	Htg - Boilers - Hot Water	(2) Smith cast iron boilers, 3836 MBH. Nat gas with Power flame burners	Heating Plant Systems	Whole building	25	1998	26	104%	(1)	Alarm	Original to building, at end of service life, one boiler is leaking, retubing in 1998	
Lyter ES	Htg - Hot Water Distribution	Combination of copper piping throughout building	Heating Distribution Systems	Whole building	50	1998	26	52%	24	Caution	Piping is showing signs of age, degradation in some areas. No leaking, SIQ recommends pressure testing	
Lyter ES	Htg - Hot Water Pumps	(2) Bell & Gossett 1510-4AC, 250gpm, 1HP, 10 FT HD, 1200 RPM	Heating Distribution Systems	Primary, boilers	30	1998	26	87%	4	Caution	Equipment at or near end of service life, operating in a degraded condition	
Lyter ES	Htg - Hot Water Pumps	(2) Bell & Gossett 1510-4AC, 20HP, 650gpm, 85 FT HD, 1800 RPM	Heating Distribution Systems	Secondary HW Distribution	30	1999	25	83%	5	Caution	Equipment at or near end of service life	
Lyter ES	AHU - Air Handling Units	AHU-1 - 3: Heating and ventilation only	Air Handling Systems	Multipurpose Room and Stage	30	1998	26	87%	4	Caution	Equipment at or near end of service life	
Lyter ES	AHU - Air Handling Units	AHU-4: Split system + HW, AHU CAH010 McQuay; CU: R-22, Inter. Comfort Products, ACC150LA	Air Handling Systems	Library C120, Computer Rm C119,	30	1998	26	87%	4	Alert	Equipment at or near end of service life , condensing unit is not mounted on roof rails,	
Lyter ES	AHU - HVAC Terminal Equip	Split Cassetts, Mitsubishi Electric R-410A.	Air Handling Systems	Computer Rm 119	20	1998	26	130%	(6)	Alert	Equipment at or near end of service life, condensing units should be replaced to help with air flow	
Lyter ES	AHU - Air Handling Units	Greenheck Makeup air unit with gas furnace and kitchen exhaust fan.	Air Handling Systems	Kitchen	30	1998	26	87%	4	Caution	Equipment at or near end of service life	
Lyter ES	AHU - HVAC Terminal Equip	(27) General Electric Window AC Units	Air Handling Systems	Classrooms	20	2000	24	120%	(4)	Caution	Equipment at or near end of service life in some rooms, no consistency with model units or energy savings controls	
Lyter ES	AHU - HVAC Terminal Equip	Split Systems DX cooling,R-22 cassette and wall mounted	Air Handling Systems	Nurse/Therapy/Conference/Principal	20	1998	26	130%	(6)	Alarm	Refrigerant R-22 already phased out by EPA .	
Lyter ES	Clg - Condensing Units	Comfortmaker, Mitsubishi, EMI, R-22, various sizes.	Cooling Distribution Systems	Nurse/Therapy/Conference/Principal	20	1998	26	130%	(6)	Alert	Equipment is operational, but maintenance can be difficult due to age and excessively past life expectancy	
Lyter ES	AHU - Unit Ventilators	HW, Heating only, AAF.	Air Handling Systems	Classrooms	20	1998	26	130%	(6)	Alert	No cooling with unit, at or near end of service life, manufacturer parts are difficult to source	
Lyter ES	AHU - Unit Ventilators	HW/ DX AAF	Air Handling Systems	Music Room, Spec ED Classroom, Seminar, Faculty, Admin, IST, IPC, Work Rooms	20	1999	25	125%	(5)	Alert	Manufacturer parts difficult to source, equipment is operational bu it is at or near end of service life	
Lyter ES	Clg - Condensing Units	Comfortmaker, R-22, various sizes.	Cooling Distribution Systems	Music Room, Spec ED Classroom, Seminar, Faculty, Admin, IST, IPC, Work Rooms	20	1998	26	130%	(6)	Alert	Refrigerant R-22 already phased out by EPA .	
Lyter ES	AHU - HVAC Terminal Equip	HW Cabinet unit heaters/Horizontal Unit Heaters	Air Handling Systems	Various Spaces	20	1997	27	135%	(7)	Alert	Equipment is operational, but maintenance can be difficult due to age and excessively past life expectancy	
Lyter ES	AHU - HVAC Terminal Equip	HW Convectors	Air Handling Systems	Various Spaces	20	1998	26	130%	(6)	Alert	Equipment is operational, but maintenance can be difficult due to age and excessively past life expectancy	
Lyter ES	AHU - HVAC Terminal Equip	Exhaust fans	Air Handling Systems	Various Spaces	20	1998	26	130%	(6)	Alert	Some units are out of service, some do not have enough capacity.	
Lyter ES	Controls - Pneumatic	Air Compressor	Control Systems	Boiler Room	20	1999	25	125%	(5)	Alert	Equipment is operational, but maintenance can be difficult due to age, leaking was present during assessment, hissing at thermostat	
Lyter ES	Controls - Pneumatic	Pnuematic Piping and controls	Control Systems	Whole Building	20	1999	25	125%	(5)	Alert	Control issues, spaces are either too cold or too hot. Not unoccupied schedule ,leaking observed in piping, audible hissing at thermostats	
Lyter ES	Plumb - DHW Heater	Nat gas. System being relace with 2 Lochinvar boiler style and separate storage tank and recirc. Pump. 199,999BTU/Hr	Plumbing Systems	Whole Building	10	2019	5	50%	5	Acceptable	Equipment in acceptable condition and within useful life	
Lyter ES	Plumb - Dom Piping Distribution	Domestic service	Plumbing Systems		50	1998	26	52%	24	Acceptable	Equipment in acceptable condition and within useful life	
Lyter ES	Plumb - Dom Piping Distribution	Sanitary, combination of cast iron and PVC	Plumbing Systems		50	1998	26	52%	24	Acceptable	Equipment in acceptable condition and within useful life	
Lyter ES	Plumb - Dom Plumbing Fixtures	Janitor Slop Sinks	Plumbing Systems	Janitors Closets	30	1997	27	90%	3	Caution	Equipment is operational, but maintenance can be difficult due to age and nearing life expectancy	
Lyter ES	Plumb - Dom Plumbing Fixtures	Ceramic china, mix of floor and wall mounted W.C, wall mounted urinals and lavatories	Plumbing Systems	All Bathrooms	30	1998	26	87%	4	Caution	Recommend automated fixture replacement	
Lyter ES	Plumb - Dom Plumbing Fixtures	Counters with integral lavatory bowls and single handle faucets.	Plumbing Systems	All Bathrooms	30	1998	26	87%	4	Caution	Recommend automated fixture replacement	
Lyter ES	Plumb - Dom Plumbing Fixtures	Stainless stell drop-in sink with drinking fountains	Plumbing Systems	Classrooms, nurses suite, library.	30	1998	26	87%	4	Caution	Recommend automated fixture replacement	
Lyter ES	Plumb - Dom Plumbing Fixtures	ADD - Mixing valves at lavatories for code copliance.	Plumbing Systems	Lavatories						Caution	There are no hot water/ cold water mixing valves at lavatories. Without the regulation of a mixing valve, this water might flow from.	
Lyter ES	Elec - Electrical Switchgear	480/277 volt. 3 phase, 4 wire, 1200 Amp main distribution switchboard (MDS)	Electrical Systems		35	1998	26	74%	9	Acceptable	Equipment in acceptable condition and within useful life	
Lyter ES	Elec - Electrical Distribution	Fused switches. Spare switches available.	Electrical Systems	Whole Building	30	1998	26	87%	4	Caution	Recommend replacement due to age, use, and overall function	

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					Equipment Age and Life Expectancy				Asset Condition Assessment	Current Concerns/Problems	
Facility	System	System Description	System Category	Area(s) Served	Average Life Expectancy	Equipment Installation Date	Actual Age of Equipment	Percent of Life Expectancy Used	Remaining Life	Age-Adjusted Asset Condition	Other Concern / Problem
Lyter ES	Elec - Electrical Distribution	Emergency generator: Caterpillar 125 kW, connected to life-safety equipment (emergency lighting and fire alarm).	Electrical Systems	Whole Building	30	1998	26	87%	4	Caution	Equipment is operational, but maintenance can be difficult due to age and nearing life expectancy
Lyter ES	Elec - Lighting Fixtures	Interior: T8 fluorescent, currently upgrading to LED.	Lighting Systems	Whole Building	20	1998	26	130%	(6)	Caution	Equipment is operational, but maintenance can be difficult due to age and nearing life expectancy, part of phased renovation to LED
Lyter ES	Elec - Lighting Fixtures	Exterior: metal-halide, currently upgrading to LED	Lighting Systems	Whole Building	20	1998	26	130%	(6)	Alert	Equipment is operational, but maintenance can be difficult due to age and nearing life expectancy, part of phased renovation to LED
Lyter ES	LS - Fire Alarm System	Simplex 4020	Life Safety/Security Systems	Whole building	15	1998	26	173%	(11)	Caution	System is operational, recommend upgrade to voice notification system to meet current code requirements.
Lyter ES	LS - Access Control System	Intercommunication system,	Life Safety/Security Systems	Whole building	10	2020	4	40%	6	Acceptable	Good condition
Lyter ES	LS - Access Control System	Video surveillance	Life Safety/Security Systems	Whole building	10	2020	4	40%	6	Acceptable	Good condition
Lyter ES	Tech - Clock System	American Time Clock System	Technology Systems	Whole building	15	1998	26	173%	(11)	Alert	Equipment is operational, but maintenance can be difficult due to age and nearing life expectancy
Lyter ES	Tech - PA System	Telcor XL	Technology Systems	Whole building	15	1998	26	173%	(11)	Alert	Equipment is operational, but maintenance can be difficult due to age and nearing life expectancy
Lyter ES	Tech - IT Hardware/Software	Cat-5 data	Technology Systems	Whole building	7	1998	26	371%	(19)	Alarm	Good condition, recommend Cat5E, or Cat 6
Lyter ES	LS - Fire Suppression System	Sprinkler system	Life Safety/Security Systems	Whole building	0	0	0	0%	0	Alert	Fire Supression system does not exist
Lyter ES	Int - Floor - Rolled Carpet	Carpet	Interior Systems	Music Room, Library, Admin Offices, B101	15	1998	26	173%	(11)	Alert	Carpets should be replaced, wear is evident and excessive in some areas
Lyter ES	Int - Floor - Ceramic Tile	Ceramic and Quarry tile	Interior Systems	Bathrooms, kitchen	40	1998	26	65%	14	Acceptable	Ceramic and quarry tile is in good condition throughout.
Lyter ES	Int - Floor - Terazzo	Terazzo	Interior Systems	Corridors, vestibules, a few toilet rooms	80	1998	26	33%	54	Acceptable	Terrazzo is in good conditions. Toilet rooms should be cleaned and repolished. Some cracks to repair
Lyter ES	Int - Floor - VCT	VCT, Sheet vinyl and base	Interior Systems	Classrooms, nurses suite	30	1998	26	87%	4	Caution	VCT is in fair condition but nearing the end of its life cycle.
Lyter ES	Int - Floor - Wood Gym	Poured Rubber floor	Interior Systems	Multipurpose Room	30	1998	26	87%	4	Acceptable	Flooring is in good condition. Recommend refinishing to ensure longevity of system.
	Int - Floor - Wood Gym	Wood Platform	Interior Systems	Platform	30	1998	26	87%	4	Acceptable	Flooring is in fair condition. Recommend refinishing to ensure longevity of system.
Lyter ES	Int - Ceilings Drywall	Hard Ceiling	Interior Systems	Vestibules, and corridors	30	1998	26	87%	4	Acceptable	Ceiling is in good condition. Recommend repainting
Lyter ES	Int - Ceilings ACT	Acoustic Tile	Interior Systems	Classrooms, Admin areas	30	1998	26	87%	4	Caution	Ceiling is showing signs of age and wear, possibly comprising acousttic features. Recommend replacement
Lyter ES	Int - Ceilings Exposed, Paint	Exposed to deck/Paint	Interior Systems	Building section A and other locations	30	1998	26	87%	4	Acceptable	Ceiling is in good condition. Could be repainted.
Lyter ES	Int - Casework	Casework	Interior Systems	Building wide	30	1998	26	87%	4	Acceptable	Casework remains in good condtion
Lyter ES	Int - Classroom Partition Wall	CMU exterior and interior walls.	Interior Systems	Building wide	30	1998	26	87%	4	Acceptable	Walls are in good condition. Repaint with the next renovation
Lyter ES	Int - Multipurpose	Cafeteria, Gym, Stage	Interior Systems	Cafeteria, Gym, Stage	30	1998	26	87%	4	Acceptable	Wallpadding, bleachers, folding partition, basketball goals, stage curtains and rigging appear to be in good condition at this time. Recommend replacements as needed due to age and wear
Lyter ES	Int - Media Center	Library	Interior Systems	Library	40	1998	26	65%	14	Acceptable	Library finishes and fixtures are in good condition
Lyter ES	Int - Secure Vestibule	Main Entry	Interior Systems	Main Entry, Secure vestibule	20	2005	19	95%	1	Caution	A secure vestibule exists. There is a solid window with a pass thru to the office. The cabinet heater underneath does not allow the teller window to be ADA accessible.
Lyter ES	Int - Office	Office and Nurse	Interior Systems	Office and Nurse	20	1998	26	130%	(6)	Alert	Office and nurse are in a good location. It appears the layout could be improved.
Lyter ES	Int - Kitchen	Kitchen, Dishwashing, storage	Interior Systems	Kitchen, Dishwashing, storage	30	1998	26	87%	4	Caution	2 Serving lines, one hood. Assume all equipment is original to the 1998 addition.
Lyter ES	Int - Individual Toilet Rooms	Individual toilet rooms	Interior Systems	Individual toilet rooms	30	1998	26	87%	4	Caution	Toilet rooms are in good condition. Some are require minor adjustment to meet ADA compliant codes
Lyter ES	Int - Gang Toilet Rooms	Gang Toilet rooms	Interior Systems	Gang Toilet rooms	30	1998	26	87%	4	Caution	Toilet rooms are in good condition. Some are require minor adjustment to meet ADA compliant codes
Lyter ES	Int - Signage	Interior Signage	Interior Systems	Building wide	30	1998	26	87%	4	Acceptable	Signage is in place, but not ADA compliant.
Lyter ES	Int - Window Treatment	Window blinds	Interior Systems	Window blinds	30	1998	26	87%	4	Acceptable	Blinds are within the windows. When windows are replaced, install window shades.
Lyter ES	Int - Visual Display Boards	Tackboards, Chalkboards, tack strip	Interior Systems	Tackboards, Chalkboards, tack strip	30	1998	26	87%	4	Acceptable	Tack rail in corridors are in good condition. Tackwall appears to be in good condition. Chalk and tackboards exist in A & C areas. Markerboards and tackboards exist in B & D areas and are not included in the allowance

Asset Condition Assessment

LYTER ELEMENTARY SCHOOL

900 SRUCE ST. MONTTOURSVILLE, PA 17754

					Equipment Age and Life Expectancy						Asset Condition Assessment	Current Concerns/Problems
Facility	System	System Description	System Category	Area(s) Served	Average Life Expectancy	Equipment Installation Date	Actual Age of Equipment	Percent of Life Expectancy Used	Remaining Life	Age-Adjusted Asset Condition	Other Concern / Problem	
Lyter ES	Int - Corridor Stairs	Exterior Stairs	Interior Systems	Boiler Room	30	1998	26	87%	4	Caution	Handrail is metal and rusting. Either clean and paint or replace with aluminum.	
Lyter ES	Int - Corridor Stairs	Chair lift	Interior Systems	Stage	30	1998	26	87%	4	Caution	Replace when necessary, is nearing life expectancy	
Lyter ES	Int - Doors Interior - Door & HW only	Doors	Interior Systems	Building Wide	30	1998	26	87%	4	Caution	Many doors were replaced in 1998. Some were not. Hardware is code compliant, but aging.	
Lyter ES	Int - Doors Interior - recess opening	Doors	Interior Systems	Original classrooms	30	1998	26	87%	4	Caution	Original classroom doors open into the corridor without an alcove where a student could walk into a door.	
Lyter ES	Ext - Doors Exterior	Exterior doors	Building Envelope Systems	Building Wide	30	1998	26	87%	4	Caution	Doors appear to be in good condition but nearing the end of their life cycle.	
Lyter ES	Ext - Doors Exterior	Vestibule Doors	Building Envelope Systems	Building Wide	30	1998	26	87%	4	Caution	Doors appear to be in good condition but nearing the end of their life cycle.	
Lyter ES	Ext - Windows	Aluminum clad vinyl, double pane w/ integral blinds	Building Envelope Systems	Building Wide	30	1998	26	87%	4	Caution	Windows are not airtight, 1-inch insulated glass, Not energy efficient. Existing slate sills to remain.	
Lyter ES	Ext - Roofs - Built Up	Ballested roof system	Building Envelope Systems	Original building	30	1998	26	87%	4	Acceptable	Roof report is unknown. Roof appears to be aging appropriately with no leaking.	
	Ext - Roofs - Built Up	Ballested roof system	Building Envelope Systems	1998 Addition	30	1998	26	87%	4	Acceptable	Roof report is unknown. Roof appears to be aging appropriately with no leaking.	
Lyter ES	Ext - Roofs - Metal	Gutters and downspout leaking. Snow guards not appropriate.	Building Envelope Systems	Gymnasium & Kindergarten roof	50	1998	26	52%	24	Caution	Reported leaking from gutter and downspouts around gymnasium roof. Snow guards from same roof do not retain snow and ice adequately.	
Lyter ES	Ext - Exterior Brick & Mortar	Misc Masonry repairs	Building Envelope Systems	Original building	75	1958	66	88%	9	Caution	Mortar repairs are needed aound exterior façade in various locations.	
Lyter ES	Ext - Exterior Brick Cleaning	Building Cleaning	Building Envelope Systems	Building wide	30	1998	26	87%	4	Acceptable	Powerwash and clean, Includes perimeter soffiting	
Lyter ES	Ext - Exterior Brick & Mortar	Site Retaining wall	Building Envelope Systems	Around small parking lot	75	1998	26	35%	49	Acceptable	Retaining wall is in good condition. The metal cap protects the wall from water infiltration. Clean and minor repair	
Lyter ES	Ext - Soffit	Perimeter roof soffit	Building Envelope Systems	Building perimeter	40	1998	26	65%	14	Acceptable	Soffit is in good condition	
Lyter ES	Ext - Soffit & column cover	Entry Building Canopy	Building Envelope Systems	Main Entry	50	1958	66	132%	(16)	Alert	The soffit is open to wood deck and original. Improvements are recommended.	
Lyter ES	Site - Exterior Concrete	Sidewalk	Grounds & Site	Propety wide	40	1998	26	65%	14	Acceptable	Sidewalk is generally in good condition. There is some cracking, some settlement (tripping hazard) and some pitting from salt. An allowance is provided	
Lyter ES	Site - Exterior Concrete	Curb	Grounds & Site	Propety wide	60	1998	26	43%	34	Acceptable	Approx 1300LF of Curb is generally in fair to good condition.	
Lyter ES	Site - Lansdscaping	Plants, Mulch and trees	Grounds & Site	Plants, Mulch and trees	60	1998	26	43%	34	Acceptable	Landscaping is generally in good condition.	
Lyter ES	Site - Playground Equipment	Playgrounds	Grounds & Site	Playgrounds	10	2010	14	140%	(4)	Acceptable	Playground equipment appears to be newer. Suggest replacing the Bball backstops.	
Lyter ES	Site - Fencing	Playgrounds	Grounds & Site	Playground	15	2010	14	93%	1	Acceptable	Suggest extending the baseball field fence to enclose the playground area	
Lyter ES	Site - Playground Equipment	Baseball fields	Grounds & Site	Small Baseball field	15	2012	12	80%	3	Acceptable	Field and fence are in good condition. The backstop is basic. Bleachers and team benches are wood and old. A dugout does not exist.	
Lyter ES	Site - Playground Equipment	Baseball fields	Grounds & Site	Large Baseball field	15	2012	12	80%	3	Acceptable	Baseball field, fence, dougouts, lighting and clubhouse are in very good condition	
Lyter ES	Ext - Signage	Building letters & Sign	Building Envelope Systems	Front entry & building	20	1998	26	130%	(6)	Caution	A lack of site signage and wayfinding signage is evident. Recommend replacing and introducing additional signage on site.	
Lyter ES	Site - Parking Lots & Driveways	Bituminous	Grounds & Site	Playground	40	1998	26	65%	14	Acceptable	19,300SF of playground paving is in good condition. It wes recently crack sealed and sealcoated.	
Lyter ES	Site - Parking Lots & Driveways	Bituminous	Grounds & Site	Parking area along Tull Street	25	2020	4	16%	21	Acceptable	Parking lot appears to be new and is in excellent condition	
Lyter ES	Site - Parking Lots & Driveways	Bituminous	Grounds & Site	Parking area along Walnut Street	25	1998	26	104%	(1)	Alert	This area has extensive cracking and some deterioration. Recommend Mill and Overlay	
Lyter ES	Site - Parking Lots & Driveways	Bus and parent drop off	Grounds & Site	Bus and parent drop off lanes	30	1998	26	87%	4	Caution	Paving has many cracks, but their was a recent crack sealing and sealcoating project. Eventually, the lot will need mill and overlay	