

FACILITY CONDITION ASSESSMENT



**BUREAU
VERITAS**

prepared for

Shelby County Board of Education
160 South Hollywood Street
Memphis, Tennessee 38112
Michelle Stuart



Bethel Grove Elementary School
2459 Arlington Avenue
Memphis, Tennessee 38114

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BV PROJECT #:

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DATE OF REPORT:

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ON SITE DATE:

December 6, 2023

Bureau Veritas

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1. Executive Summary

Property Overview and Assessment Details

General Information	
Property Type	School
Main Address	2459 Arlington Avenue, Memphis Tennessee 38114
Site Developed	1935
Site Area	4.7 acres (estimated)
Parking Spaces	Approximately 39 marked spaces all in open lots; 2 of which are accessible
Building Area	54,324 SF
Number of Stories	Two above grade with one below-grade basement level
Outside Occupants/Leased Spaces	None
Date(s) of Visit	December 6, 2023
Management Point of Contact	Ms. Mary Taylor, Shelby County Board of Education (901) 416-5376 taylorm15@scsk12.org
On-site Point of Contact (POC)	Mr. Marlon Lane, Shelby County Board of Education 901.691.1340 taylorm15@scsk12.org
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AssetCalc Link	Full dataset for this assessment can be found at: https://www.assetcalc.net/



Significant/Systemic Findings and Deficiencies

Historical Summary

The school was constructed in 1935 on a previously undeveloped lot. The Elementary facility has undergone minor renovations since originally constructed. However, due to outdate equipment and aged building, the school needs major renovations.

Architectural

The building is a little over 75 years old and many elements having issues, such as, foundation settlement and poor roofing systems. Moisture intrusion remains a concern that needs to be monitored, but no current architectural damage is present from this issue. The TPO roof was observed to be in poor condition, deficiencies include significant ponding, seam failure, puncture, and tears. The brick siding appeared to be in fair condition. The aluminum-framed windows appeared to have been recently replaced; but the painted steel exterior doors have shown wear and tear. The building interior consists of durable institutional finishes including VCT, ceramic tile, and acoustical ceiling tiles. Periodic painting, finish maintenance and replacement, and other measures to increase the longevity of the interior elements is evident. In general, typical lifecycle-based interior and exterior finish replacements are budgeted and anticipated.

Mechanical, Electrical, Plumbing and Fire (MEPF)

The gas-fired boilers, split system units along together with one chiller and heating water distribution pumps feed the terminal units which include baseboard heaters, and suspended unit heaters. The terminal units have not been upgraded but are forecast to require replacements in the next 3 years. The plumbing fixtures including the toilets and sinks located in the restrooms and hallways sinks are becoming aged but show no deficiencies. The building's electrical system is reportedly sufficient for the school's needs and was recently bolstered by the installation of a large switchboard. There is no emergency power available at the school. The exterior lighting has been upgraded to LED fixtures and the interior lighting will need to be upgraded as well. The fire alarm and intrusion detection systems have been recently upgraded. The building only contains a sprinkler system for fire suppression in the mechanical room. The foodservice equipment located in the commercial kitchen remains in serviceable condition.

Site

The school is situated along Arlington Avenue in a residential neighborhood. Bethel Grove campus features playground equipment, and open land. The small parking area in the front of the school consists of asphalt pavement. There are limited concrete walkways mostly adjacent to the main entrance to the school. Site lighting is furnished by LED building mounted lights and satisfies the rural site requirements.

Recommended Additional Studies

Excessive ponding was observed on the second level roof. Additional drainage is required. A roof evaluation by a qualified consultant is recommended. Cost for the repair is included in the tables.

Facility Condition Index (FCI)

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

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

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

FCI Analysis Bethel Grove Elementary School(1935)			
<i>Replacement Value</i>	<i>Total SF</i>	<i>Cost/SF</i>	
\$ 21,729,600	54,324	\$ 400	
	Est Reserve Cost		FCI
Current	\$ 90,200		0.4 %
3-Year	\$ 1,505,300		6.9 %
5-Year	\$ 1,973,800		9.1 %
10-Year	\$ 4,371,300		20.1 %



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

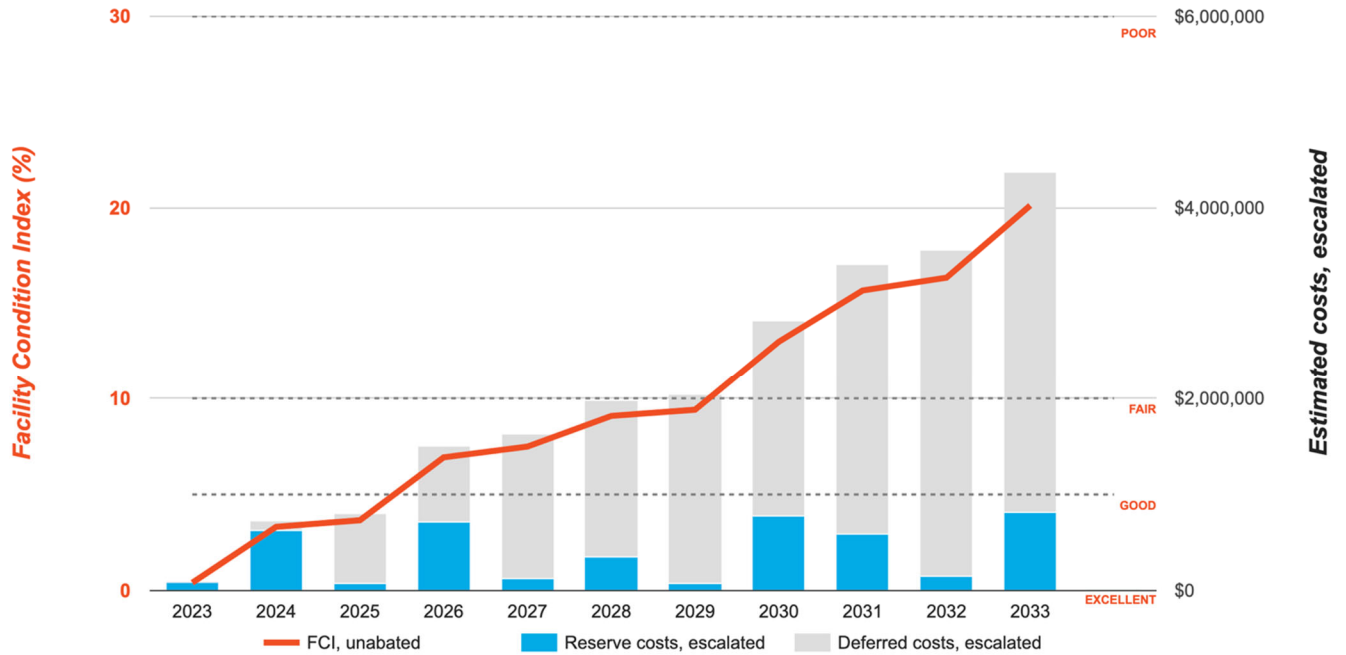
Needs by Year with Unaddressed FCI Over Time

FCI Analysis: Bethel Grove Elementary School

Replacement Value: \$21,729,600

Inflation Rate: 3.0%

Average Needs per Year: \$397,400



Immediate Needs

Facility/Building	Total Items	Total Cost
Bethel Grove Elementary School	5	\$90,200
Total	5	\$90,200

Bethel Grove Elementary School

ID	Location	Location Description	UF Code	Description	Condition	Plan Type	Cost
7156060	Bethel Grove Elementary School	Building exterior	B1010	Structural Elements, any type, Repairs per Man-Day, Repair	Poor	Performance/Integrity	\$1,100
7161512	Bethel Grove Elementary School	Roof	B3020	Roof drains and interior leaders, Install	NA	Retrofit/Adaptation	\$74,000
7156056	Bethel Grove Elementary School	Boiler room	D2010	Sink/Lavatory, Service Sink, Wall-Hung, Replace	Failed	Performance/Integrity	\$1,400
7156073	Bethel Grove Elementary School	Kitchen	E1030	Foodservice Equipment, Icemaker, Freestanding, Replace	Failed	Performance/Integrity	\$6,700
7161513	Bethel Grove Elementary School	Roof	P2030	Architectural Study, Building Envelope, Roof, Evaluate/Report	NA	Performance/Integrity	\$7,000
Total (5 Items)							\$90,200



Key Findings



Structural Elements in Poor condition.

any type, Repairs per Man-Day
Bethel Grove Elementary School Building exterior
Uniformat Code: B1010
Recommendation: **Repair in 2023**

Priority Score: **88.9**
Plan Type:
Performance/Integrity
Cost Estimate: \$1,100
\$\$\$\$

The structure was observed to be in poor condition. Deficiencies were: significant paint peeling; rusting and deterioration. - AssetCALC ID: 7156060



Roofing in Poor condition.

Single-Ply Membrane, TPO/PVC
Bethel Grove Elementary School Roof
Uniformat Code: B3010
Recommendation: **Replace in 2024**

Priority Score: **88.9**
Plan Type:
Performance/Integrity
Cost Estimate: \$612,000
\$\$\$\$

The roofing system was observed to be in poor conditions. Deficiencies included: significant ponding; previous patch repairs, and separation. - AssetCALC ID: 7156074



Sidewalk in Poor condition.

Concrete, Small Areas/Sections
Bethel Grove Elementary School Building exterior
Uniformat Code: G2030
Recommendation: **Replace in 2024**

Priority Score: **85.9**
Plan Type:
Performance/Integrity
Cost Estimate: \$400
\$\$\$\$

The walkways in some areas were observed to have linear cracking and separation to 10% of the area. - AssetCALC ID: 7156048



Pump in Poor condition.

Distribution, HVAC Heating Water, 8 to 10 HP
Bethel Grove Elementary School Boiler room
Uniformat Code: D3050
Recommendation: **Replace in 2025**

Priority Score: **85.8**
Plan Type:
Performance/Integrity
Cost Estimate: \$6,800
\$\$\$\$

Pump was observed to be more than 20 years old. Significant corrosion, and rusting was observed. No data plate was present. - AssetCALC ID: 7156052





Sink/Lavatory in Failed condition.
 Service Sink, Wall-Hung
 Bethel Grove Elementary School Boiler room
 Uniformat Code: D2010
 Recommendation: **Replace in 2023**

Priority Score: **83.9**
 Plan Type:
 Performance/Integrity
 Cost Estimate: \$1,400
 \$\$\$\$

The service in the boiler was observed to be in poor condition. Deficiencies included: broken handles, leaking pipes and rust finishes. - AssetCALC ID: 7156056



**Recommended Follow-up Study:
 Building Envelope, Roof**
 Building Envelope, Roof
 Bethel Grove Elementary School Roof
 Uniformat Code: P2030
 Recommendation: **Evaluate/Report in 2023**

Priority Score: **81.9**
 Plan Type:
 Performance/Integrity
 Cost Estimate: \$7,000
 \$\$\$\$

Excessive ponding was observed on the second level roof. Additional drainage is required. A roof evaluation by a qualified consultant is recommended. - AssetCALC ID: 7161513



Foodservice Equipment in Failed condition.
 Icemaker, Freestanding
 Bethel Grove Elementary School Kitchen
 Uniformat Code: E1030
 Recommendation: **Replace in 2023**

Priority Score: **81.9**
 Plan Type:
 Performance/Integrity
 Cost Estimate: \$6,700
 \$\$\$\$

Machine is not working. - AssetCALC ID: 7156073



Roof drains and interior leaders
 Bethel Grove Elementary School Roof
 Uniformat Code: B3020
 Recommendation: **Install in 2023**

Priority Score: **54.9**
 Plan Type:
 Retrofit/Adaptation
 Cost Estimate: \$74,000
 \$\$\$\$

Excessive ponding was observed on the second level roof. Additional drainage is required. - AssetCALC ID: 7161512



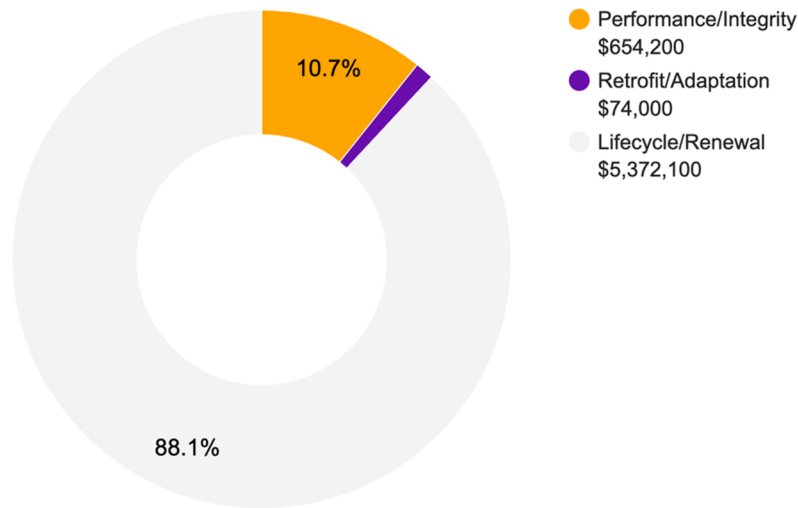
Plan Types

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

Plan Type Descriptions

Safety	■ An observed or reported unsafe condition that if left unaddressed could result in injury; a system or component that presents potential liability risk.
Performance/Integrity	■ Component or system has failed, is almost failing, performs unreliably, does not perform as intended, and/or poses risk to overall system stability.
Accessibility	■ Does not meet ADA, UFAS, and/or other accessibility requirements.
Environmental	■ Improvements to air or water quality, including removal of hazardous materials from the building or site.
Retrofit/Adaptation	■ Components, systems, or spaces recommended for upgrades in in order to meet current standards, facility usage, or client/occupant needs.
Lifecycle/Renewal	■ Any component or system that is not currently deficient or problematic but for which future replacement or repair is anticipated and budgeted.

Plan Type Distribution (by Cost)



10-YEAR TOTAL: \$6,100,300



2. Building and Site Information



Systems Summary

<i>System</i>	<i>Description</i>	<i>Condition</i>
Structure	Steel frame with concrete-topped metal decks over concrete pad column footings	Fair
Façade	Wall Finish: Brick siding Windows: Aluminum	Fair
Roof	Flat construction with single-ply TPO/PVC membrane	Poor
Interiors	Walls: Painted gypsum board, wood paneling, ceramic tile Floors: Carpet, VCT, faux wood plank, ceramic tile Ceilings: Suspended ACT, painted gypsum board, hard tile	Fair
Elevators	Passenger: One hydraulic car serving two floors	Failed
Plumbing	Distribution: Copper supply and cast iron waste and venting Hot Water: Gas domestic boilers with storage tanks Fixtures: Toilets and sinks in all restrooms	Fair
HVAC	Central System: Boiler, split systems, and air handler, feeding hydronic baseboard radiators and cabinet terminal units, and suspended unit heaters.	Fair
Fire Suppression	Wet-pipe sprinkler system in limited mechanical spaces and fire extinguishers	Fair

Systems Summary		
Electrical	Source and Distribution: Main distribution panel, switchboard with copper wiring Interior Lighting: LED Emergency Power: None	Fair
Fire Alarm	Alarm panel with smoke detectors, heat detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Fair
Equipment/Special	Commercial kitchen equipment	Fair
Site Pavement	Asphalt and improved lots with limited areas of concrete sidewalks	Poor
Site Development	Pole-mounted signage Playgrounds	Fair
Landscaping and Topography	Significant landscaping features include lawns, trees, and bushes. Irrigation not present Low to moderate site slopes throughout	Good
Utilities	Municipal water and sewer Local utility-provided electric and natural gas	Fair
Site Lighting	Pole-mounted: metal halide Building-mounted: LED	Fair
Ancillary Structures	None	--
Accessibility	Presently it does not appear an accessibility study is needed for this property	
Key Issues and Findings	Leaking roof, sagging roof, elevator out of service, paint peeling; rusting and deterioration of exterior walls	

Systems Expenditure Forecast						
System	Immediate	Short Term (1-2 yr)	Near Term (3-5 yr)	Med Term (6-10 yr)	Long Term (11-20 yr)	TOTAL
Structure	\$1,100	\$100	-	-	\$100	\$1,300
Facade	-	-	\$89,800	-	\$2,255,600	\$2,345,500
Roofing	\$74,000	\$630,400	-	-	\$133,700	\$838,000
Interiors	-	-	\$377,800	\$242,400	\$583,300	\$1,203,500
Conveying	-	\$58,300	-	-	-	\$58,300
Plumbing	\$1,400	-	\$8,300	\$110,700	\$41,700	\$162,100
HVAC	-	\$8,500	\$678,900	\$485,800	\$10,800	\$1,184,000
Fire Protection	-	-	\$2,000	\$885,800	\$2,700	\$890,500
Electrical	-	-	\$2,600	\$300,700	\$63,100	\$366,300
Fire Alarm & Electronic Systems	-	-	-	\$356,500	-	\$356,500
Equipment & Furnishings	\$6,700	-	\$18,800	\$6,600	\$37,400	\$69,600
Site Development	-	-	-	\$200	\$49,100	\$49,300
Site Pavement	-	\$8,100	-	\$8,900	\$22,200	\$39,100
Site Utilities	-	-	-	-	\$6,900	\$6,900
Follow-up Studies	\$7,000	-	-	-	-	\$7,000
TOTALS (3% inflation)	\$90,200	\$705,300	\$1,178,300	\$2,397,500	\$3,206,600	\$7,577,900

*Totals have been rounded to the nearest \$100.



3. Property Space Use and Observed Areas

Areas Observed

The interior spaces were observed in order to gain a clear understanding of the property's overall condition. Other areas accessed included the site within the property boundaries, the exterior of the property, and the roof.

Key Spaces Not Observed

All key areas of the property were accessible and observed.

4. ADA Accessibility

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

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

However, this does not:

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

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

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

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

The facility was originally constructed in 1935. The facility has not since been substantially renovated.

No information about complaints or pending litigation associated with potential accessibility issues was provided during the interview process.

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

5. Purpose and Scope

Purpose

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

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

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

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

Scope

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

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

6. Opinions of Probable Costs

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

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

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

Methodology

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

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

Definitions

Immediate Needs

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

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

Replacement Reserves

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

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

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

Bureau Veritas's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the assessment period. The assessment period is defined as the effective age plus the reserve term. Additional information concerning system's or component's respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule could be prepared. The Replacement Reserves Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined as Immediate Needs.

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

Key Findings

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

Exceedingly Aged

A fairly common scenario encountered during the assessment process, and a frequent source of debate, occurs when classifying and describing "very old" systems or components that are still functioning adequately and do not appear nor were reported to be in any way deficient. To help provide some additional intelligence on these items, such components will be tagged in the database as Exceedingly Aged. This designation will be reserved for mechanical or electrical systems or components that have aged well beyond their industry standard lifecycles, typically at least 15 years beyond and/or twice their Estimated Useful Life (EUL). In tandem with this designation, these items will be assigned a Remaining Useful Life (RUL) not less than two years but not greater than 1/3 of their standard EUL. As such the recommended replacement time for these components will reside outside the typical Short Term window but will not be pushed 'irresponsibly' (too far) into the future.

7. Certification

Shelby County Board of Education (the Client) retained Bureau Veritas to perform this Facility Condition Assessment in connection with its continued operation of Bethel Grove Elementary School 2459 Arlington Avenue Memphis, Tennessee 38114, the "Property". It is our understanding that the primary interest of the Client is to locate and evaluate materials and building system defects that might significantly affect the value of the property and to determine if the present Property has conditions that will have a significant impact on its continued operations.

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

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

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

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

Prepared by: Kai Hollman,
Project Manager

Reviewed by:



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Program Manager
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8. Appendices

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



Appendix A:

Photographic Record

Photographic Overview



1 - FRONT ELEVATION



2 - LEFT ELEVATION



3 - RIGHT ELEVATION



4 - REAR ELEVATION



5 - ROOF STRUCTURE



6 - ROOF DRAINS AND INTERIOR LEADERS

Photographic Overview



7 - PLAY STRUCTURE



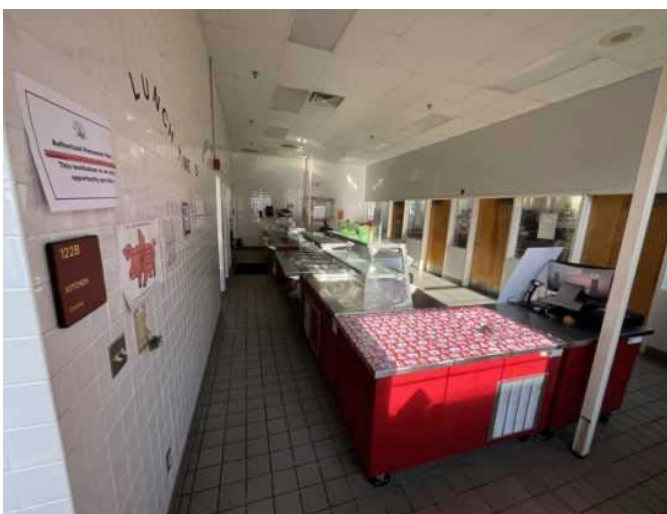
8 - INTERIOR



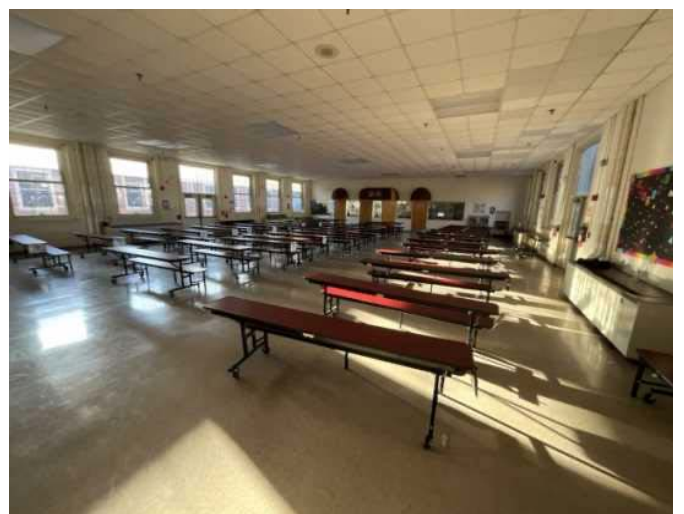
9 - LIBRARY



10 - MAIN OFFICE



11 - KITCHEN



12 - CAFETERIA



Photographic Overview



13 - CLASSROOM



14 - HYDRAULIC ELEVATOR



15 - DRINKING FOUNTAIN



16 - RESTROOM



17 - CHILLER



18 - RADIATOR

Photographic Overview



19 - BOILER



20 - SPLIT SYSTEM



21 - EXHAUST FAN



22 - SWITCHBOARD



23 - BOILER ROOM

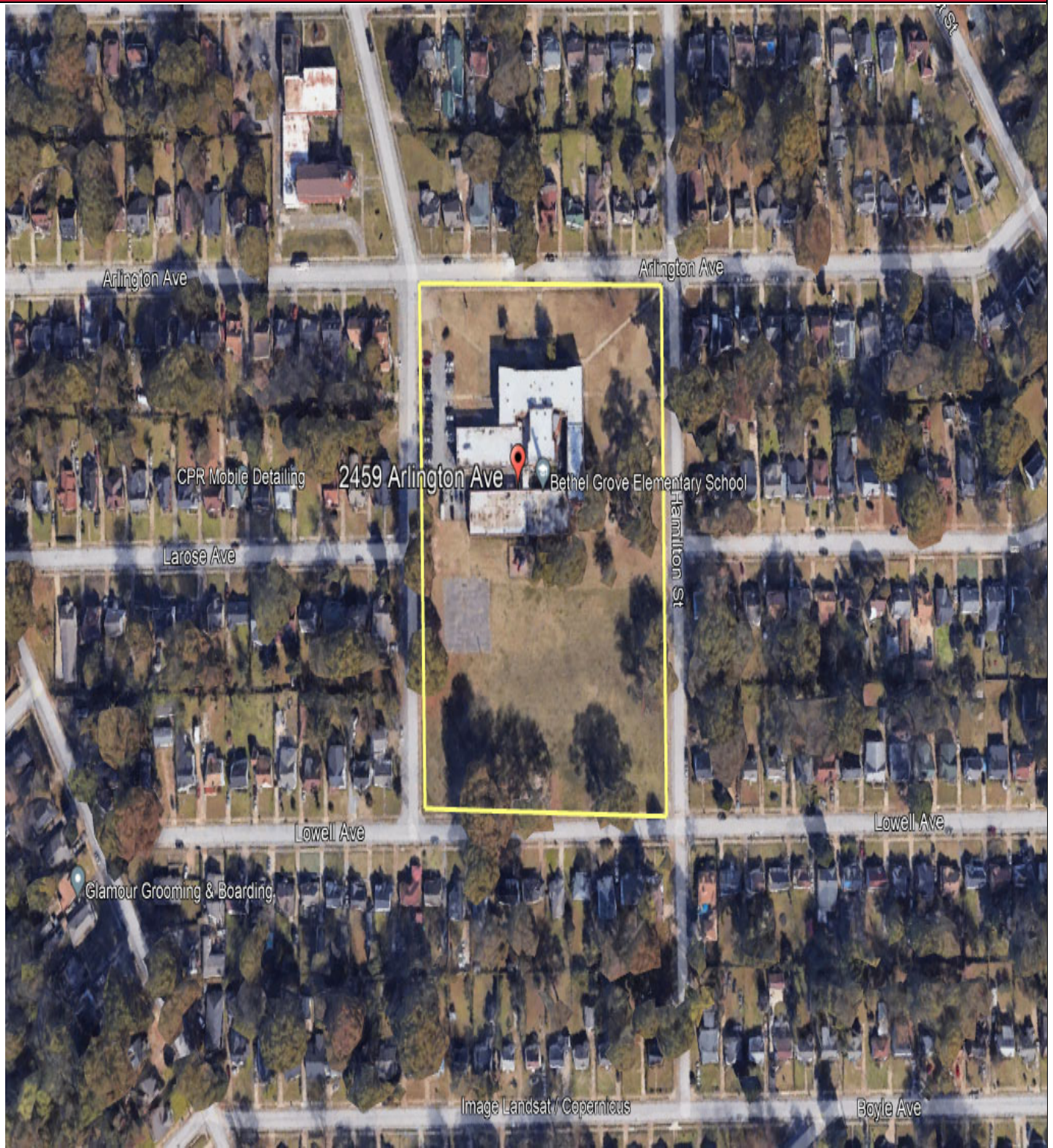




24 - PARKING LOT

Appendix B:

Site Plan

Site Plan



 BUREAU VERITAS	Project Number	Project Name	 N
	163745.23R000-038.354	Bethel Grove Elementary School	
	Source	On-Site Date	
	Google	December 7, 2023	

Appendix C:

Pre-Survey Questionnaire

BV FACILITY CONDITION ASSESSMENT: PRE-SURVEY QUESTIONNAIRE

Building / Facility Name: Bethel Grove Elementary School

Name of person completing form: Marlon Lane

Title / Association w/ property: Plant Manager

Length of time associated w/ property: 9 months

Date Completed: 12/4/2023

Phone Number: 901-691-1340

Method of Completion: INTERVIEW - verbally completed during interview

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

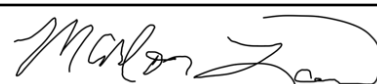
Data Overview		Response		
1	Year(s) constructed	Constructed 1935	Renovated	
2	Building size in SF	SF		
3	Major Renovation/Rehabilitation		Year	Additional Detail
		Facade		
		Roof		
		Interiors		
		HVAC		
		Electrical		
		Site Pavement		
		Accessibility		
4	List other significant capital improvements (focus on recent years; provide approximate date).	None		
5	List any major capital expenditures planned/requested for the next few years. Have they been budgeted?	None		
6	Describe any on-going extremely problematic, historically chronic, or immediate facility needs.	The building has significant water leaks throughout the building. In addition, the building has structural cracks throughout the building.		

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

Question		Response				Comments
		Yes	No	Unk	NA	
7	Are there any problems with foundations or structures, like excessive settlement?	X				Building was observed to have major settlement.
8	Are there any wall, window, basement or roof leaks?	X				Major leaks throughout the building.
9	Has any part of the facility ever contained visible suspect mold growth, or have there been any indoor air quality complaints?	X				
10	Are your elevators unreliable, with frequent service calls?	X				The Elevator was down during the inspection.
11	Are there any plumbing leaks, water pressure, or clogging/backup issues?	X				Clogging/ backup issues is a regular occurrence.
12	Have there been any leaks or pressure problems with natural gas, HVAC piping, or steam service?				X	
13	Are any areas of the facility inadequately heated, cooled or ventilated? Poorly insulated areas?	X				The building is poorly insulated.
14	Is the electrical service outdated, undersized, or problematic?		X			
15	Are there any problems or inadequacies with exterior lighting?		X			
16	Is site/parking drainage inadequate, with excessive ponding or other problems?		X			
17	Are there any other unresolved construction defects or significant issues/hazards at the property that have not yet been identified above?		X			
18	ADA: Has an accessibility study been previously performed? If so, when?			X		
19	ADA: Have any ADA improvements been made to the property since original construction? Describe.	X				ADA Parking and interior ramps.
20	ADA: Has building management reported any accessibility-based complaints or litigation?			X		
21	Are any areas of the property leased to outside occupants?		X			



Signature of Assessor



Signature of POC

Appendix D: Accessibility Review and Photos

Visual Survey - 2010 ADA Standards for Accessible Design

Property Name: Bethel Grove Elementary School

BV Project Number: 163745.23R000-038.354

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

Bethel Grove Elementary School: Accessibility Issues				
Category	Major Issues (ADA study recommended)	Moderate Issues (ADA study recommended)	Minor Issues	None*
Parking				X
Exterior Accessible Route				X
Building Entrances				X
Interior Accessible Route				X
Elevators				X
Public Restrooms				X
Kitchens/Kitchenettes				X
Playgrounds & Swimming Pools				X
Other	NA			

**be cognizant that if the "None" box is checked that does not guarantee full compliance; this study is limited in nature*

Bethel Grove Elementary School: Photographic Overview



OVERVIEW OF ACCESSIBLE PARKING AREA



CLOSE-UP OF STALL



ACCESSIBLE RAMP



CURB CUT



MAIN ENTRANCE



ADDITIONAL ENTRANCE

Bethel Grove Elementary School: Photographic Overview



ACCESSIBLE INTERIOR RAMP



DOOR HARDWARE



ELEVATOR



OUTSIDE CAB CONTROLS



TOILET STALL OVERVIEW



SINK, FAUCET HANDLES AND ACCESSORIES

Bethel Grove Elementary School: Photographic Overview



SINK CLEARANCE



OVEN WITH CONTROLS



ACCESSIBLE ROUTE TO PLAYGROUND



OVERVIEW OF PLAYGROUND

Appendix E: Component Condition Report

Component Condition Report | Bethel Grove Elementary School

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
Structure						
B1010	Building exterior	Poor	Structural Elements, any type, Repairs per Man-Day, Repair	1	0	7156060
B1020	Throughout building	Fair	Roof Structure, Flat, Metal Deck Over Steel Beams	54,324 SF	25	7156065
B1080	Building exterior	Fair	Stairs, Metal, Exterior, Refinish	50 SF	2	7156096
Facade						
B2010	Throughout building	Fair	Exterior Walls, any painted surface, Prep & Paint	25,000 SF	4	7156104
B2020	Throughout building	Fair	Glazing, any type by SF	25,000 SF	15	7156112
B2050	Throughout building	Fair	Exterior Door, Steel, Standard	8	4	7156064
Roofing						
B3010	Roof	Poor	Roofing, Single-Ply Membrane, TPO/PVC	36,000 SF	1	7156074
B3020	Roof	NA	Roof drains and interior leaders, Install	7,400 LF	0	7161512
Interiors						
C1030	Throughout building	Fair	Interior Door, Steel, Standard	12	6	7156088
C1030	Throughout building	Fair	Interior Door, Wood, Solid-Core	32	4	7156043
C1070	Throughout building	Fair	Suspended Ceilings, Acoustical Tile (ACT)	54,324 SF	7	7156094
C2010	Throughout building	Fair	Wall Finishes, any surface, Prep & Paint	23,000 SF	3	7156095
C2030	Kitchen	Fair	Flooring, Ceramic Tile	1,500 SF	15	7158118
C2030	Throughout building	Fair	Flooring, Vinyl Tile (VCT)	54,324 SF	5	7156087
Conveying						
D1010	Elevator room	Fair	Passenger Elevator, Hydraulic, 2 Floors, 1500 to 2500 LB, Renovate	1	2	7156079
Plumbing						
D2010	Throughout building	Good	Drinking Fountain, Wall-Mounted, Bi-Level	2	15	7156076
D2010	Restrooms	Fair	Urinal, Standard	8	7	7156075
D2010	Boiler room	Failed	Sink/Lavatory, Service Sink, Wall-Hung	1	0	7156056
D2010	Restrooms	Fair	Sink/Lavatory, Wall-Hung, Enameled Steel	27	6	7156078
D2010	Restrooms	Fair	Toilet, Residential Water Closet	32	17	7156072
D2010	Throughout building	Fair	Sink/Lavatory, Wall-Hung, Enameled Steel	3	7	7156108
D2010	Boiler room	Fair	Pump Station, Duplex Mounted	1	9	7156098
D2010	Kitchen	Fair	Sink/Lavatory, Commercial Kitchen, 3-Bowl	4	10	7156059
D2030	Throughout building	Fair	Supplemental Components, Drains, Roof	9	5	7156081
HVAC						
D3020	Hallways	Fair	Radiator, Hydronic, Baseboard (per LF)	2,500 LF	3	7158117
D3020	Boiler room	Fair	Boiler, Gas, HVAC	1	3	7156086
D3020	Classrooms	Fair	Cabinet Heater, Electric, 3 to 4 LF	30	3	7156111
D3020	Boiler room	Fair	Unit Heater, Electric	1	2	7156054
D3030	Building exterior	Fair	Chiller, Air-Cooled, 225 TON	1	8	7156049
D3030	Building exterior	Fair	Split System, Condensing Unit/Heat Pump	1	4	7156063
D3030	Building exterior	Fair	Evaporative Cooler, up to 0.33 HP	1	6	7156083

Component Condition Report | Bethel Grove Elementary School

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
D3030	Kitchen	Fair	Evaporative Cooler, 0.33 to 0.50 HP	1	5	7156089
D3030	Building exterior	Fair	Split System, Condensing Unit/Heat Pump	1	9	7156084
D3030	Building exterior	Fair	Split System, Condensing Unit/Heat Pump	1	9	7156077
D3030	Building exterior	Fair	Split System, Condensing Unit/Heat Pump, 2.5 TON	1	9	7156068
D3050	Boiler room	Poor	Pump, Distribution, HVAC Heating Water, 8 to 10 HP	1	2	7156052
D3050	Boiler room	Fair	Pump, Distribution, HVAC Heating Water, 8 to 10 HP	1	9	7156055
D3060	Roof	Fair	Exhaust Fan, Centrifugal, 42" Damper	1	9	7156067
Fire Protection						
D4010	Throughout building	Fair	Fire Suppression System, Existing Sprinkler Heads, by SF	54,324 SF	9	7156070
D4010	Kitchen	Fair	Fire Suppression System, Commercial Kitchen, per LF of Hood	1,500 LF	10	7156045
D4010	Throughout building	Fair	Piping & Valves, Check Valve, Fire Suppression	1	6	7156058
D4030	Elevator room	Fair	Fire Extinguisher, Type ABC, up to 20 LB	12	4	7156071
Electrical						
D5020	Boiler room	Fair	Secondary Transformer, Dry, Stepdown	1	11	7156102
D5020	Kitchen	Fair	Distribution Panel, 277/480 V	1	18	7156105
D5020	Electrical room	Fair	Switchboard, 277/480 V	1	23	7156057
D5020	Electrical room	Good	Distribution Panel, 120/208 V	1	20	7156061
D5020	Boiler room	Good	Secondary Transformer, Dry, Stepdown	1	20	7156109
D5040	Throughout building	Fair	Emergency & Exit Lighting, Exit Sign, LED	6	5	7156080
D5040	Throughout building	Fair	Emergency & Exit Lighting, Emergency Light Pack, 2 Light w/ Battery	4	5	7156092
D5040	Throughout building	Fair	Interior Lighting System, Full Upgrade, Medium Density & Standard Fixtures	54,324 SF	7	7156053
Fire Alarm & Electronic Systems						
D7030	Throughout building	Fair	Security/Surveillance System, Full System Upgrade, Average Density	54,324 SF	8	7156106
D7050	Throughout	Fair	Fire Alarm System, Full System Upgrade, Standard Addressable, Upgrade	54,324 SF	7	7199671
D7050	Main Office	Fair	Fire Alarm Panel, Fully Addressable	1	7	7156066
Equipment & Furnishings						
E1030	Kitchen	Fair	Foodservice Equipment, Convection Oven, Double	1	5	7156050
E1030	Kitchen	Failed	Foodservice Equipment, Icemaker, Freestanding	1	0	7156073
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels	1	9	7156091
E1030	Kitchen	Fair	Foodservice Equipment, Freezer, 2-Door Reach-In	1	5	7156047
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels	1	8	7156062
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels	1	9	7156099
E1030	Kitchen	Fair	Foodservice Equipment, Range, 2-Burner	1	4	7156097
Pedestrian Plazas & Walkways						
G2020	Throughout building	Fair	Parking Lots, Pavement, Asphalt, Seal & Stripe	16,000 SF	2	7156051
G2030	Building exterior	Poor	Sidewalk, Concrete, Small Areas/Sections	20 SF	1	7156048
Athletic, Recreational & Playfield Areas						
G2050	Building exterior	Good	Playfield Surfaces, Chips Rubber, 3" Depth	200 SF	12	7156044
G2050	Building exterior	Good	Play Structure, Multipurpose, Small	1	16	7156090

Component Condition Report | Bethel Grove Elementary School

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
G2050	Building exterior	Good	Play Structure, Multipurpose, Medium	1	16	7156101
Sitework						
G2060	Building exterior	Fair	Signage, Property, Building-Mounted Individual Letters, Replace/Install	1	8	7156082
G2060	Electrical room	Good	Fences & Gates, Fence, Chain Link 8'	400 LF	26	7156103
G4050	Building exterior	Good	Exterior Fixture w/ Lamp, any type, w/ LED Replacement	7	14	7156107
G4050	Parking lot	Fair	Exterior Site Lighting, Wall Pack, any type w/ LED, 13 to 26 W	1	11	7156046
Follow-up Studies						
P2030	Roof	NA	Architectural Study, Building Envelope, Roof, Evaluate/Report	1	0	7161513

Appendix F: Replacement Reserves

Replacement Reserves Report

Bethel Grove Elementary School



1/11/2024

Location	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	Total Escalated Estimate
Bethel Grove Elementary School	\$90,200	\$630,772	\$74,555	\$709,726	\$121,555	\$346,986	\$69,494	\$779,327	\$583,345	\$145,517	\$819,789	\$28,238	\$11,370	\$50,664	\$122,520	\$2,217,611	\$48,141	\$48,924	\$9,023	\$7,014	\$663,096	\$7,577,867
Grand Total	\$90,200	\$630,772	\$74,555	\$709,726	\$121,555	\$346,986	\$69,494	\$779,327	\$583,345	\$145,517	\$819,789	\$28,238	\$11,370	\$50,664	\$122,520	\$2,217,611	\$48,141	\$48,924	\$9,023	\$7,014	\$663,096	\$7,577,867

Uniformat Code	Location Description	ID	Cost Description	Lifespan (EUL)	Age	RUL	Quantity	Unit	Unit Cost *	Subtotal	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2043	Deficiency Repair Estimate
B1010	Building exterior	7156060	Structural Elements, any type, Repairs per Man-Day, Repair	0	0	0	1	EA	\$1,100.00	\$1,100	\$1,100																					\$1,100	
B1080	Building exterior	7156096	Stairs, Metal, Exterior, Refinish	10	8	2	50	SF	\$1.50	\$75			\$75												\$75								\$150
B2010	Throughout building	7156104	Exterior Walls, any painted surface, Prep & Paint	10	6	4	25000	SF	\$3.00	\$75,000					\$75,000											\$75,000							\$150,000
B2020	Throughout building	7156112	Glazing, any type by SF, Replace	30	15	15	25000	SF	\$55.00	\$1,375,000																	\$1,375,000					\$1,375,000	
B2050	Throughout building	7156064	Exterior Door, Steel, Standard, Replace	40	36	4	8	EA	\$600.00	\$4,800					\$4,800																		\$4,800
B3010	Roof	7156074	Roofing, Single-Ply Membrane, TPO/PVC, Replace	20	19	1	36000	SF	\$17.00	\$612,000					\$612,000																		\$612,000
B3020	Roof	7161512	Roof drains and interior leaders, , Install	20	20	0	7400	LF	\$10.00	\$74,000	\$74,000																			\$74,000		\$148,000	
C1030	Throughout building	7156043	Interior Door, Wood, Solid-Core, Replace	40	36	4	32	EA	\$700.00	\$22,400					\$22,400																		\$22,400
C1030	Throughout building	7156088	Interior Door, Steel, Standard, Replace	40	34	6	12	EA	\$600.00	\$7,200										\$7,200													\$7,200
C1070	Throughout building	7156094	Suspended Ceilings, Acoustical Tile (ACT), Replace	25	18	7	54324	SF	\$3.50	\$190,134																							\$190,134
C2010	Throughout building	7156095	Wall Finishes, any surface, Prep & Paint	10	7	3	23000	SF	\$1.50	\$34,500				\$34,500												\$34,500							\$69,000
C2030	Kitchen	7158118	Flooring, Ceramic Tile, Replace	40	25	15	1500	SF	\$18.00	\$27,000																		\$27,000					\$27,000
C2030	Throughout building	7156087	Flooring, Vinyl Tile (VCT), Replace	15	10	5	54324	SF	\$5.00	\$271,620					\$271,620															\$271,620			\$543,240
D1010	Elevator room	7156079	Passenger Elevator, Hydraulic, 2 Floors, 1500 to 2500 LB, Renovate	30	28	2	1	EA	\$55,000.00	\$55,000			\$55,000																				\$55,000
D2010	Boiler room	7156098	Pump Station, Duplex Mounted, Replace	25	16	9	1	EA	\$19,400.00	\$19,400																							\$19,400
D2010	Boiler room	7156056	Sink/Lavatory, Service Sink, Wall-Hung, Replace	35	35	0	1	EA	\$1,400.00	\$1,400	\$1,400																						\$1,400
D2010	Restrooms	7156078	Sink/Lavatory, Wall-Hung, Enameled Steel, Replace	30	24	6	27	EA	\$1,700.00	\$45,900						\$45,900																	\$45,900
D2010	Throughout building	7156108	Sink/Lavatory, Wall-Hung, Enameled Steel, Replace	30	23	7	3	EA	\$1,700.00	\$5,100																							\$5,100
D2010	Restrooms	7156075	Urinal, Standard, Replace	30	23	7	8	EA	\$1,100.00	\$8,800																							\$8,800
D2010	Kitchen	7156059	Sink/Lavatory, Commercial Kitchen, 3-Bowl, Replace	30	20	10	4	EA	\$2,500.00	\$10,000																\$10,000							\$10,000
D2010	Throughout building	7156076	Drinking Fountain, Wall-Mounted, Bi-Level, Replace	15	0	15	2	EA	\$1,500.00	\$3,000																							\$3,000
D2010	Restrooms	7156072	Toilet, Residential Water Closet, Replace	30	13	17	32	EA	\$700.00	\$22,400																					\$22,400		\$22,400
D2030	Throughout building	7156081	Supplemental Components, Drains, Roof, Replace	40	35	5	9	EA	\$797.00	\$7,173					\$7,173																		\$7,173
D3020	Boiler room	7156086	Boiler, Gas, HVAC, Replace	30	27	3	1	EA	\$135,000.00	\$135,000				\$135,000																			\$135,000
D3020	Boiler room	7156054	Unit Heater, Electric, Replace	20	18	2	1	EA	\$1,200.00	\$1,200			\$1,200																				\$1,200
D3020	Classrooms	7156111	Cabinet Heater, Electric, 3 to 4 LF, Replace	25	22	3	30	EA	\$3,500.00	\$105,000					\$105,000																		\$105,000
D3020	Hallways	7158117	Radiator, Hydronic, Baseboard (per LF), Replace	30	27	3	2500	LF	\$150.00	\$375,000					\$375,000																		\$375,000
D3030	Building exterior	7156049	Chiller, Air-Cooled, 225 TON, Replace	25	17	8	1	EA	\$350,000.00	\$350,000																							\$350,000
D3030	Kitchen	7156089	Evaporative Cooler, 0.33 to 0.50 HP, Replace	15	10	5	1	EA	\$3,720.00	\$3,720					\$3,720																\$3,720		\$7,440
D3030	Building exterior	7156083	Evaporative Cooler, up to 0.33 HP, Replace	15	9	6	1	EA	\$2,100.00	\$2,100																							\$2,100
D3030	Building exterior	7156063	Split System, Condensing Unit/Heat Pump, Replace	15	11	4	1	EA	\$2,300.00	\$2,300					\$2,300																\$2,300		\$4,600
D3030	Building exterior	7156084	Split System, Condensing Unit/Heat Pump, Replace	15	6	9	1	EA	\$5,200.00	\$5,200																							\$5,200
D3030	Building exterior	7156077	Split System, Condensing Unit/Heat Pump, Replace	15	6	9	1	EA	\$3,800.00	\$3,800																							\$3,800
D3030	Building exterior	7156068	Split System, Condensing Unit/Heat Pump, 2.5 TON, Replace	15	6	9	1	EA	\$3,800.00	\$3,800																							\$3,800
D3050	Boiler room	7156052	Pump, Distribution, HVAC Heating Water, 8 to 10 HP, Replace	25	23	2	1	EA	\$6,800.00	\$6,800			\$6,800																				\$6,800
D3050	Boiler room	7156055	Pump, Distribution, HVAC Heating Water, 8 to 10 HP, Replace	25	16	9	1	EA	\$6,800.00	\$6,800																							\$6,800
D3060	Roof	7156067	Exhaust Fan, Centrifugal, 42" Damper, Replace	25	16	9	1	EA	\$11,000.00	\$11,000																							\$11,000
D4010	Throughout building	7156058	Piping & Valves, Check Valve, Fire Suppression, Replace	30	24	6	1	EA	\$3,000.00	\$3,000																							\$3,000
D4010	Throughout building	7156070	Fire Suppression System, Existing Sprinkler Heads, by SF, Replace	25	16	9	54324	SF	\$1.07	\$58,127																							\$58,127
D4010	Kitchen	7156045	Fire Suppression System, Commercial Kitchen, per LF of Hood, Replace	20	10	10	1500	LF	\$400.00	\$600,000																							\$600,000
D4030	Elevator room	7156071	Fire Extinguisher, Type ABC, up to 20 LB, Replace	10	6	4	12	EA	\$150.00	\$1,800					\$1,800																		\$1,800
D5020	Boiler room	7156102	Secondary Transformer, Dry, Stepdown, Replace	30	19	11	1	EA	\$20,000.00	\$20,000																	\$20,000						\$20,000
D5020	Boiler room	7156109	Secondary Transformer, Dry, Stepdown, Replace	30	10	20	1	EA	\$6,700.00	\$6,700																							\$6,700
D5020	Kitchen	7156105	Distribution Panel, 277/480 V, Replace	30	12	18	1	EA	\$5,300.00	\$5,300																							\$5,300
D5020	Electrical room	7156061	Distribution Panel, 120/208 V, Replace	30	10																												

Replacement Reserves Report

Bethel Grove Elementary School



1/11/2024

Uniformat Code	Location	Description	ID	Cost Description	Lifespan (EUL)	Age	RUL	Quantity	Unit	Unit Cost *	Subtotal	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	Deficiency Repair Estimate	
E1030	Kitchen	Foodservice Equipment, Freezer, 2-Door Reach-In, Replace	7156047		15	10	5	1	EA	\$5,100.00	\$5,100						\$5,100															\$5,100	\$10,200	
E1030	Kitchen	Foodservice Equipment, Convection Oven, Double, Replace	7156050		10	5	5	1	EA	\$9,500.00	\$9,500						\$9,500									\$9,500								\$19,000
E1030	Kitchen	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels, Replace	7156062		15	7	8	1	EA	\$1,700.00	\$1,700								\$1,700															\$1,700
E1030	Kitchen	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels, Replace	7156091		15	6	9	1	EA	\$1,700.00	\$1,700									\$1,700														\$1,700
E1030	Kitchen	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels, Replace	7156099		15	6	9	1	EA	\$1,700.00	\$1,700									\$1,700														\$1,700
G2020	Throughout building	Parking Lots, Pavement, Asphalt, Seal & Stripe	7156051		5	3	2	16000	SF	\$0.45	\$7,200			\$7,200				\$7,200							\$7,200									\$28,800
G2030	Building exterior	Sidewalk, Concrete, Small Areas/Sections, Replace	7156048		50	49	1	20	SF	\$20.00	\$400		\$400																					\$400
G2050	Building exterior	Playfield Surfaces, Chips Rubber, 3" Depth, Replace	7156044		15	3	12	200	SF	\$3.50	\$700													\$700										\$700
G2050	Building exterior	Play Structure, Multipurpose, Small, Replace	7156090		20	4	16	1	EA	\$10,000.00	\$10,000																\$10,000							\$10,000
G2050	Building exterior	Play Structure, Multipurpose, Medium, Replace	7156101		20	4	16	1	EA	\$20,000.00	\$20,000																\$20,000							\$20,000
G2060	Building exterior	Signage, Property, Building-Mounted Individual Letters, Replace/Install	7156082		20	12	8	1	EA	\$150.00	\$150									\$150														\$150
G4050	Parking lot	Exterior Site Lighting, Wall Pack, any type w/ LED, 13 to 26 W, Replace	7156046		20	9	11	1	EA	\$400.00	\$400												\$400											\$400
G4050	Building exterior	Exterior Fixture w/ Lamp, any type, w/ LED Replacement, Replace	7156107		20	6	14	7	EA	\$600.00	\$4,200														\$4,200									\$4,200
P2030	Roof	Architectural Study, Building Envelope, Roof, Evaluate/Report	7161513		0	10	0	1	EA	\$7,000.00	\$7,000	\$7,000																						\$7,000
Totals, Unescalated												\$90,200	\$612,400	\$70,275	\$649,500	\$108,000	\$299,313	\$58,200	\$633,664	\$460,498	\$111,527	\$610,000	\$20,400	\$7,975	\$34,500	\$81,000	\$1,423,400	\$30,000	\$29,600	\$5,300	\$4,000	\$367,140		\$5,706,892
Totals, Escalated (3.0% inflation, compounded annually)												\$90,200	\$630,772	\$74,555	\$709,726	\$121,555	\$346,986	\$69,494	\$779,327	\$583,345	\$145,517	\$819,789	\$28,238	\$11,370	\$50,664	\$122,520	\$2,217,611	\$48,141	\$48,924	\$9,023	\$7,014	\$663,096		\$7,577,867

Appendix G: Equipment Inventory List

D10 Conveying

Index	ID	UFCCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7156079	D1010	Passenger Elevator	Hydraulic, 2 Floors, 1500 to 2500 LB	2500 LB	Bethel Grove Elementary School	Elevator room	Dover Elevators	P6020	G9146	1989		

D20 Plumbing

Index	ID	UFCCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7156098	D2010	Pump Station	Duplex Mounted	.5 HP	Bethel Grove Elementary School	Boiler room	U.S. Electric	Illegible	Illegible			

D30 HVAC

Index	ID	UFCCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7156086	D3020	Boiler	Gas, HVAC	3770 MBH	Bethel Grove Elementary School	Boiler room	Burnham	4FW-450A-40-G-PF	24531			
2	7156111	D3020	Cabinet Heater	Electric, 3 to 4 LF	1.5 KW	Bethel Grove Elementary School	Classrooms	Filtrine Manufacturing Company	006-C-11-F-FLE-Y-YY-Y-Y	77G0372500			30
3	7158117	D3020	Radiator	Hydronic, Baseboard (per LF)		Bethel Grove Elementary School	Hallways	Filtrine Manufacturing Company	Illegible	Illegible			2500
4	7156054	D3020	Unit Heater	Electric	2 KW	Bethel Grove Elementary School	Boiler room	Q-Mark	Inaccessible	Inaccessible			
5	7156049	D3030	Chiller	Air-Cooled, 225 TON	225 TON	Bethel Grove Elementary School	Building exterior	Carrier	30RBA2256-OG787	2806081893	2006		
6	7156089	D3030	Evaporative Cooler	0.33 to 0.50 HP	5000 CFM	Bethel Grove Elementary School	Kitchen	Trenton Refrigeration	TPLP209MAS1DR	219359715			
7	7156083	D3030	Evaporative Cooler	up to 0.33 HP	3000 CFM	Bethel Grove Elementary School	Building exterior	Eaton	No dataplate	No dataplate			
8	7156063	D3030	Split System	Condensing Unit/Heat Pump	1 TON	Bethel Grove Elementary School	Building exterior	Trenton	TEXA009HS2D-B	229481077			
9	7156084	D3030	Split System	Condensing Unit/Heat Pump	4 TON	Bethel Grove Elementary School	Building exterior	Goodman	GSC130241FC	1410145297			
10	7156077	D3030	Split System	Condensing Unit/Heat Pump	2.5 TON	Bethel Grove Elementary School	Building exterior	Goodman	GSC130603CD	1507306795			
11	7156068	D3030	Split System	Condensing Unit/Heat Pump, 2.5 TON	2.5 TON	Bethel Grove Elementary School	Building exterior	Goodman	GSC130241FC	1410145268			
12	7156052	D3050	Pump	Distribution, HVAC Heating Water, 8 to 10 HP	10 HP	Bethel Grove Elementary School	Boiler room	Illegible	Illegible	Illegible			
13	7156055	D3050	Pump	Distribution, HVAC Heating Water, 8 to 10 HP	10 HP	Bethel Grove Elementary School	Boiler room	Bald or Reliance	NA	NA			
14	7156067	D3060	Exhaust Fan	Centrifugal, 42" Damper	15000 CFM	Bethel Grove Elementary School	Roof	No dataplate	No dataplate	No dataplate			

D40 Fire Protection

Index	ID	UFCCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7156045	D4010	Fire Suppression System	Commercial Kitchen, per LF of Hood		Bethel Grove Elementary School	Kitchen	Star Sprinkler	No dataplate	No dataplate			1500
2	7156071	D4030	Fire Extinguisher	Type ABC, up to 20 LB		Bethel Grove Elementary School	Elevator room	Johnson Controls	No dataplate	No dataplate			12

D50 Electrical

Index	ID	UFCCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7156102	D5020	Secondary Transformer	Dry, Stepdown	150 KVA	Bethel Grove Elementary School	Boiler room	Square D	150T3H	No dataplate			
2	7156109	D5020	Secondary Transformer	Dry, Stepdown	30 KVA	Bethel Grove Elementary School	Boiler room	Square D	30T3HFISNLP	No dataplate			
3	7156057	D5020	Switchboard	277/480 V	1600 AMP	Bethel Grove Elementary School	Electrical room	Square D	QED	No dataplate			
4	7156061	D5020	Distribution Panel	120/208 V	400 AMP	Bethel Grove Elementary School	Electrical room	Square D	E1	No dataplate			
5	7156105	D5020	Distribution Panel	277/480 V	400 AMP	Bethel Grove Elementary School	Kitchen	Square D	E1	No dataplate			
6	7156092	D5040	Emergency & Exit Lighting	Emergency Light Pack, 2 Light w/ Battery		Bethel Grove Elementary School	Throughout building						4
7	7156080	D5040	Emergency & Exit Lighting	Exit Sign, LED		Bethel Grove Elementary School	Throughout building						6

D70 Electronic Safety & Security

Index	ID	UFCCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
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1	7156066	D7050	Fire Alarm Panel	Fully Addressable		Bethel Grove Elementary School	Main Office	Honeywell	EST2		Inaccessible		
E10 Equipment													
Index	ID	UFCODE	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7156050	E1030	Foodservice Equipment	Convection Oven, Double		Bethel Grove Elementary School	Kitchen	Blodgett	NA	NA			
2	7156091	E1030	Foodservice Equipment	Food Warmer, Proofing Cabinet on Wheels		Bethel Grove Elementary School	Kitchen	McKinley	NA	NA			
3	7156062	E1030	Foodservice Equipment	Food Warmer, Proofing Cabinet on Wheels		Bethel Grove Elementary School	Kitchen	Transtector	NA	NA			
4	7156099	E1030	Foodservice Equipment	Food Warmer, Proofing Cabinet on Wheels		Bethel Grove Elementary School	Kitchen	AccACCUTEMPording to	NA	NA			
5	7156047	E1030	Foodservice Equipment	Freezer, 2-Door Reach-In		Bethel Grove Elementary School	Kitchen	Arctic	4C10.4x11.9	42136			
6	7156073	E1030	Foodservice Equipment	Icemaker, Freestanding		Bethel Grove Elementary School	Kitchen	Pentair	CD40022	22061320018935			
7	7156097	E1030	Foodservice Equipment	Range, 2-Burner		Bethel Grove Elementary School	Kitchen	Garland	NA	NA			