

FACILITY CONDITION ASSESSMENT

prepared for

Shelby County Board of Education
160 South Hollywood Street
Memphis Tennessee 38112-4892
Michelle Stuart



Cherokee Elementary School
3061 Kimball Avenue
Memphis, Tennessee 38114

PREPARED BY:

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BV PROJECT #:

163745.23R000-053.354

DATE OF REPORT:

April 19, 2024

ON SITE DATE:

December 21, 2023

Bureau Veritas

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1. Executive Summary

Property Overview and Assessment Details

General Information

Property Type	School
Main Address	3061 Kimball Avenue, Memphis, Tennessee 38114
Site Developed	1956
Site Area	7.1 acres (estimated)
Parking Spaces	Approximately 39 marked spaces all in open lots; 2 of which are accessible
Building Area	61,286 SF
Number of Stories	One above grade
Outside Occupants / Leased Spaces	None
Date(s) of Visit	December 21, 2023
Management Point of Contact	Shelby County Board of Education, Mary Taylor 901.416.5376 Tstylorm15@scsk12.org
On-site Point of Contact (POC)	Mr. Lamont Davis
Assessment and Report Prepared By	Kai Hollman
Reviewed By	Al Diefert Technical Report Reviewer For Andy Hupp Program Manager Andy.Hupp@bureauveritas.com 800.733.0660 x7296632
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 1956 on a previously undeveloped lot. The Elementary facility has undergone minor renovations since originally constructed.

Architectural

The asphalt shingle roof was observed to be in poor conditions. The aluminum trim siding appears to have been recently repainted. The steel-framed windows and mostly painted steel exterior doors showed significant deficiencies. The building interior consists of durable institutional finishes including ceramic tile, carpet, 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 oil-fired boilers were observed to be older units and will need replacement in the next 10 years. In addition, the two pad-mounted RTU's appeared to be newer models; the split systems and condensing units will need replacement within the 2-7 years, and heating water distribution pumps feed the terminal units which include baseboard heaters, unit ventilators, and suspended unit heaters. The terminal units have not been upgraded but are forecast to require replacements in the next 7 years. The domestic water is supplied by two commercial size gas water heaters located in electrical rooms at either end of the building that are 15 and 18 years old respectively. The plumbing fixtures including the toilets and sinks located in the restrooms and hallways sinks are becoming aged but show little deficiencies. The building's electrical system is reportedly sufficient for the school's needs. There is no emergency power available at the school. The interior lighting system should be upgraded to LED fixtures; however, the exterior lighting has been upgraded to LED fixtures. The fire alarm and intrusion detection systems were good condition for the age. The building did not contain a sprinkler system. The foodservice equipment located in the commercial kitchen remains in serviceable condition.

Site

The school is situated along Kimball Avenue in a residential neighborhood. Cherokee Elementary campus features playground equipment, and open land. The small parking area in the rear 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

No additional studies recommended at this time.

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 | Cherokee Elementary School(1956)

Replacement Value \$ 24,514,400	Total SF 61,286	Cost/SF \$ 400	Est Reserve Cost	FCI
Current		\$ 0		0.0 %
3-Year		\$ 337,900		1.4 %
5-Year		\$ 699,800		2.9 %
10-Year		\$ 4,487,400		18.3 %

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.

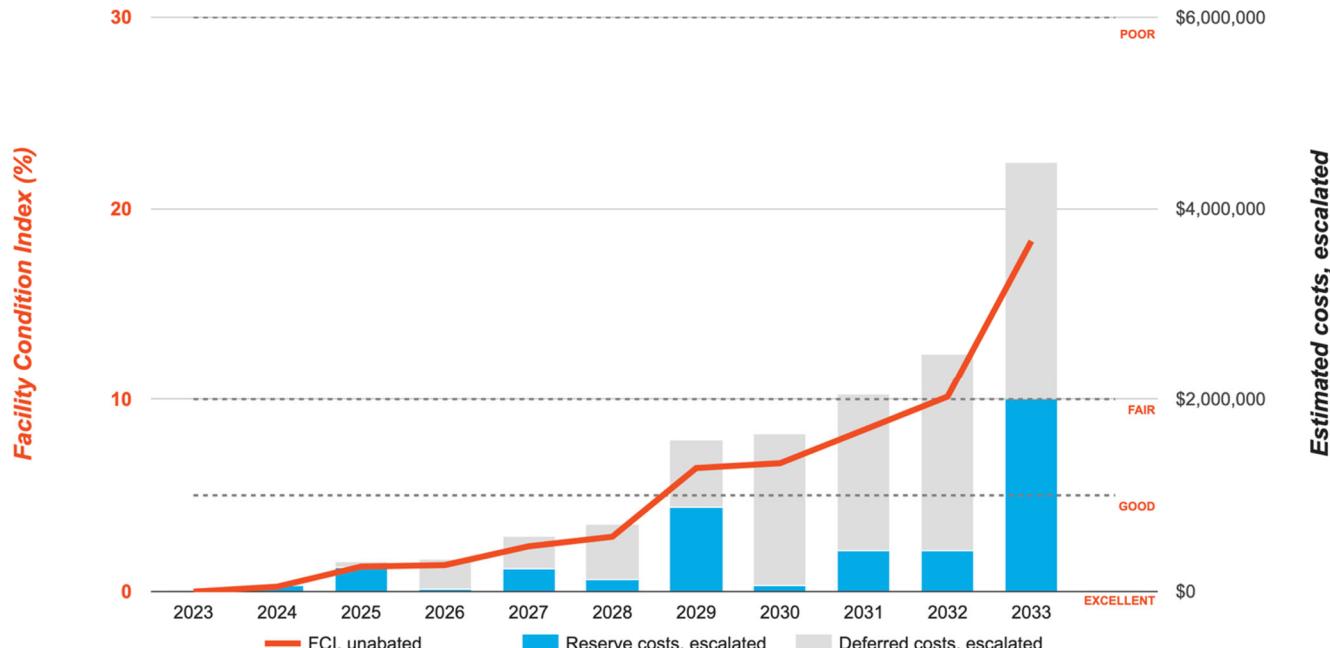
Needs by Year with Unaddressed FCI Over Time

FCI Analysis: Cherokee Elementary School

Replacement Value: \$24,514,400

Inflation Rate: 3.0%

Average Needs per Year: \$408,000



Immediate Needs

Facility/Building	Total Items	Total Cost
Total	0	\$0

Key Findings



Roofing in Poor condition.

Asphalt Shingle, 20-Year Standard
Cherokee Elementary School Roof

Uniformat Code: B3010
Recommendation: **Replace in 2025**

Priority Score: **89.8**

Plan Type:
Performance/Integrity

Cost Estimate: \$232,900

\$\$\$\$

Roof was observed to be in poor condition. - AssetCALC ID: 7181142



Sidewalk in Poor condition.

Concrete, Large Areas
Cherokee Elementary School Building exterior

Uniformat Code: G2030
Recommendation: **Replace in 2024**

Priority Score: **85.9**

Plan Type:
Performance/Integrity

Cost Estimate: \$9,000

\$\$\$\$

Significant cracking was observed throughout the walk areas. - AssetCALC ID: 7181114



Parking Lots in Poor condition.

Pavement, Asphalt
Cherokee Elementary School Parking lot

Uniformat Code: G2020
Recommendation: **Seal and Stripe in 2024**

Priority Score: **84.9**

Plan Type:
Performance/Integrity

Cost Estimate: \$30,600

\$\$\$\$

Significant alligator cracking observed. - AssetCALC ID: 7181185



Foodservice Equipment in Poor condition.

Dishwasher Commercial
Cherokee Elementary School Kitchen

Uniformat Code: E1030
Recommendation: **Replace in 2024**

Priority Score: **81.9**

Plan Type:
Performance/Integrity

Cost Estimate: \$21,500

\$\$\$\$

Down system - AssetCALC ID: 7181171

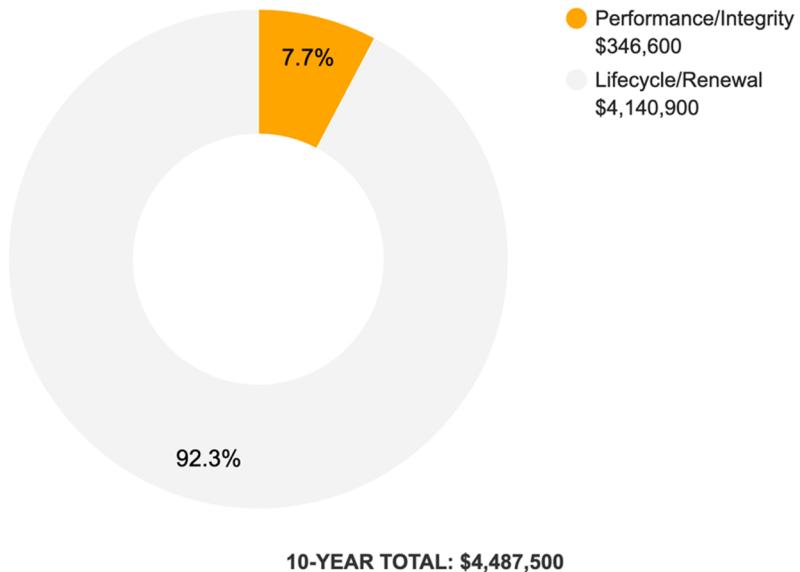
Plan Types

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 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)



2. Building and Site Information



Systems Summary

System	Description	Condition
Structure	Masonry bearing walls with metal roof deck supported by open-web steel joists and concrete strip/wall footing foundation system	Fair
Façade	Wall Finish: Brick Windows: Aluminum	Fair
Roof	Primary: Gable construction with asphalt shingles Secondary: Hip construction with asphalt shingles	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	None	--
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: Boilers, split systems, and RTU's, feeding hydronic baseboard radiators and cabinet terminal units, and suspended unit heaters.	Fair
Fire Suppression	Fire extinguishers	Fair

Systems Summary

Electrical	Source & Distribution: Main 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	Aged roof, out of service dishwasher, cracked sidewalk, alligator cracking in asphalt	

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
Facade	-	-	\$69,700	\$1,884,800	\$104,500	\$2,059,100
Roofing	-	\$247,100	-	\$300	-	\$247,400
Interiors	-	-	\$34,900	\$613,600	\$166,800	\$815,300
Plumbing	-	-	\$13,500	\$24,400	\$221,500	\$259,500
HVAC	-	-	\$186,700	\$172,200	\$103,800	\$462,700
Fire Protection	-	-	\$1,400	-	\$1,800	\$3,200
Electrical	-	\$8,500	\$6,300	\$466,800	\$46,900	\$528,500
Fire Alarm & Electronic Systems	-	-	-	\$383,800	-	\$383,800
Equipment & Furnishings	-	\$22,100	\$46,200	\$124,000	\$95,000	\$287,400
Special Construction & Demo	-	-	\$22,500	-	\$30,300	\$52,800
Site Development	-	-	-	\$62,700	\$129,100	\$191,800
Site Utilities	-	-	-	\$18,400	-	\$18,400
Site Pavement	-	\$40,800	-	\$36,500	\$93,200	\$170,500
TOTALS (3% inflation)	-	\$318,500	\$381,200	\$3,787,600	\$992,900	\$5,480,200

*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 1956. 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 Cherokee Elementary School 3061 Kimball 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.

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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



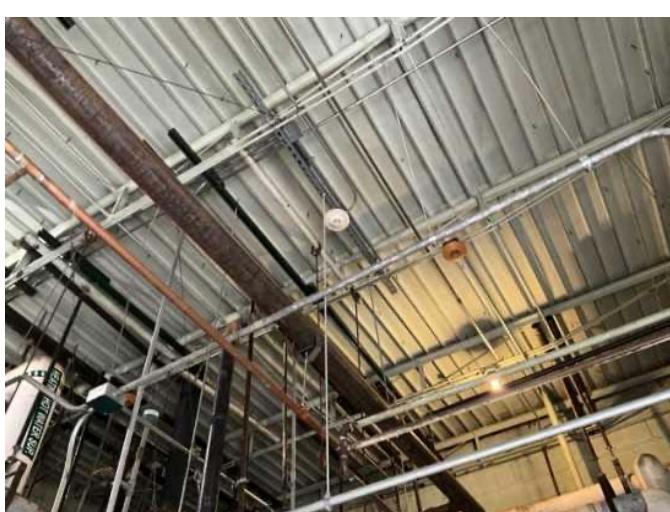
2 - LEFT ELEVATION



3 - RIGHT ELEVATION



4 - REAR ELEVATION



5 - STRUCTURE



6 - ROOFING

Photographic Overview



7 - PLAY STRUCTURE



8 - INTERIOR FINISHES



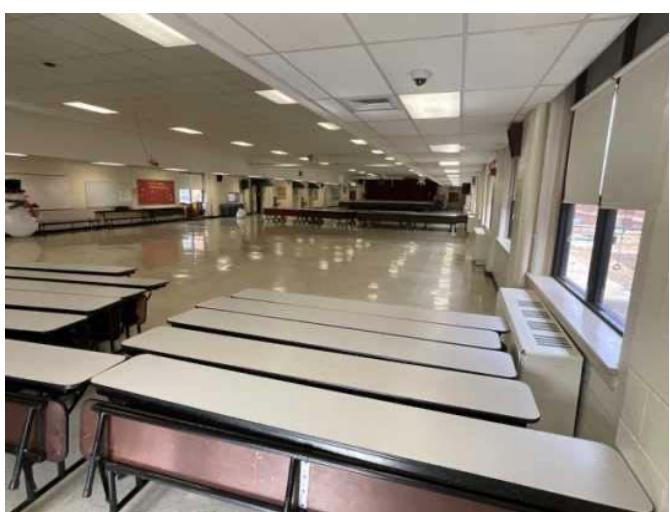
9 - LIBRARY



10 - OFFICES



11 - KITCHEN



12 - CAFETERIA

Photographic Overview



13 - CLASSROOM



14 - DRINKING FOUNTAIN



15 - RESTROOM



16 - MUSIC ROOM



17 - AIR HANDLER



18 - CABINET HEATER

Photographic Overview



19 - SPLIT SYSTEM



20 - SWITCHBOARD



21 - BOILER



22 - BOILER ROOM



23 - WATER HEATER



24 - PARKING LOT

Appendix B:

Site Plan

Site Plan



 BUREAU VERITAS	Project Number	Project Name	
	163745.23R000-053.354	Cherokee Elementary School	
Source	On-Site Date		
Google	December 21, 2023		

Appendix C: Pre-Survey Questionnaire

BV FACILITY CONDITION ASSESSMENT: PRE-SURVEY QUESTIONNAIRE

Building / Facility Name:	Cherokee Elementary School
Name of person completing form:	Mr. Lamont Davis
Title / Association w/ property:	Plant Manager
Length of time associated w/ property:	7 months
Date Completed:	12/18/2023
Phone Number:	901-503-0052
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 1956	Renovated	
2	Building size in SF	61,286	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?	HVAC systems are expected to be replaced this next Summer		
6	Describe any on-going extremely problematic, historically chronic, or immediate facility needs.	Water intrusion from the exterior of building entering from underneath the doors.		

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

Question		Response				Comments
		Yes	No	Unk	NA	
7	Are there any problems with foundations or structures, like excessive settlement?		X			
8	Are there any wall, window, basement or roof leaks?	X				Roof leaks
9	Has any part of the facility ever contained visible suspect mold growth, or have there been any indoor air quality complaints?	X				In some classrooms
10	Are your elevators unreliable, with frequent service calls?		X			
11	Are there any plumbing leaks, water pressure, or clogging/backup issues?		X			
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			
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				Water entering the school from the doors.
17	Are there any other unresolved construction defects or significant issues/hazards at the property that have not yet been identified above?	X				Service wires on the exterior of building are hanging low.
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				
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: Cherokee Elementary School

BV Project Number: 163745.23R000-053.354

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			
3	Has building management reported any accessibility-based complaints or litigation?		X		

Cherokee 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	NA			
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

Cherokee Elementary School: Photographic Overview



OVERVIEW OF ACCESSIBLE PARKING AREA



CLOSE-UP OF STALL



ACCESSIBLE PATH



ACCESSIBLE RAMP



MAIN ENTRANCE



ACCESSIBLE ENTRANCE

Cherokee Elementary School: Photographic Overview



ACCESSIBLE INTERIOR PATH



DOOR HARDWARE



TOILET STALL OVERVIEW



SINK, FAUCET HANDLES AND ACCESSORIES



SINK CLEARANCE



OVEN WITH CONTROLS

Cherokee Elementary School: Photographic Overview



ACCESSIBLE ROUTE TO PLAYGROUND



OVERVIEW OF PLAYGROUND

Appendix E: **Component Condition Report**

Component Condition Report | Cherokee Elementary School

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
Facade						
B2010	Building exterior	Fair	Exterior Walls, any painted surface, Prep & Paint	20,650 SF	4	7181170
B2020	Building exterior	Fair	Glazing, any type by SF	25,500 SF	10	7181129
B2050	Building exterior	Fair	Exterior Door, Aluminum-Framed & Glazed, Standard Swing	6	11	7181174
Roofing						
B3010	Roof	Poor	Roofing, Asphalt Shingle, 20-Year Standard	61,286 SF	2	7181142
B3020	Building exterior	Fair	Roof Appurtenances, Gutters & Downspouts, Aluminum w/ Fittings	30 LF	8	7181144
Interiors						
C1030	Restrooms	Fair	Interior Door, Wood, Solid-Core	8	15	7181150
C1030	Throughout building	Fair	Interior Door, Aluminum-Framed & Glazed, Standard Swing	6	15	7181182
C1030	Throughout building	Fair	Interior Door, Steel, Standard	61	15	7181160
C1070	Throughout building	Fair	Suspended Ceilings, Acoustical Tile (ACT)	61,286 SF	9	7181183
C2010	Throughout building	Fair	Wall Finishes, any surface, Prep & Paint	20,650 SF	4	7181190
C2030	Throughout building	Fair	Flooring, Vinyl Tile (VCT)	55,000 SF	6	7181108
C2030	Gymnasium	Fair	Flooring, Rubber Tile	500 SF	6	7181156
C2030	Restrooms	Fair	Flooring, Ceramic Tile	1,500 SF	15	7181178
Plumbing						
D2010	Kitchen	Fair	Sink/Lavatory, Commercial Kitchen, 3-Bowl	1	11	7181128
D2010	Throughout building	Fair	Sink/Lavatory, Service Sink, Wall-Hung	26	13	7181175
D2010	Kitchen	Fair	Water Heater, Gas, Commercial (125 MBH)	1	3	7181177
D2010	Throughout building	Fair	Sink/Lavatory, Service Sink, Floor	8	13	7181117
D2010	Throughout building	Fair	Drinking Fountain, Exterior/Site, Economy Pedestal	6	7	7181105
D2010	Boiler room	Fair	Sink/Lavatory, Service Sink, Floor	3	13	7181134
D2010	Boiler room	Fair	Pump, Circulation, Domestic Water	1	6	7181169

Component Condition Report | Cherokee Elementary School

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
D2010	Boiler room	Fair	Pump, Circulation, Domestic Water	1	6	7181191
D2010	Restrooms	Fair	Urinal, Standard	24	11	7181163
D2010	Boiler room	Fair	Storage Tank, Domestic Water, 151 to 250 GAL	1	9	7181194
D2010	Kitchen	Fair	Sink/Lavatory, Commercial Kitchen, 2-Bowl	2	11	7181161
D2010	Restrooms	Fair	Toilet, Child-Sized	62	11	7181195
D2010	Boiler room	Fair	Boiler, Gas, Domestic, 260 to 500 MBH	1	12	7181157
D2010	Boiler room	Fair	Pump, Circulation/Booster, Domestic Water	1	9	7181119
HVAC						
D3020	Boiler room	Fair	Boiler Supplemental Components, Expansion Tank	3	15	7181189
D3020	Boiler room	Fair	Boiler, Gas, HVAC	1	10	7181133
D3020	Boiler room	Fair	Boiler, Gas, HVAC	1	12	7181116
D3020	Kitchen	Fair	Unit Heater, Hydronic, 13 to 36 MBH	2	8	7181138
D3020	Boiler room	Fair	Boiler Supplemental Components, Expansion Tank, 101 to 175 GAL	1	16	7181146
D3020	Throughout building	Fair	Radiator, Hydronic, Baseboard (per LF)	250	LF	7
D3020	Restrooms	Fair	Radiator, Hydronic, Baseboard (per LF)	12	LF	7
D3030	Building exterior	Fair	Split System, Condensing Unit/Heat Pump	1	6	7181155
D3030	Principal office	Fair	Packaged Terminal Air Conditioner, PTAC	1	6	7181124
D3050	Building exterior	Fair	Packaged Unit, RTU, Pad or Roof-Mounted, 16 to 20 TON	1	5	7181187
D3050	Building exterior	Fair	Packaged Unit, RTU, Pad or Roof-Mounted, 16 to 20 TON	1	5	7181137
D3050	Classrooms	Fair	Fan Coil Unit, Hydronic Terminal, 200 to 400 CFM	49	4	7181151
D3050	Conference room	Fair	Fan Coil Unit, Hydronic Terminal, 200 to 400 CFM	1	4	7181173
D3050	Building exterior	Fair	Packaged Unit, RTU, Pad or Roof-Mounted	1	10	7181112
D3050	Boiler room	Fair	Pump, Distribution, HVAC Chilled or Condenser Water	1	9	7181143
D3050	Boiler room	Good	Pump, Distribution, HVAC Heating Water	1	22	7181141
D3050	Boiler room	Fair	Pump, Distribution, HVAC Chilled or Condenser Water	1	9	7181107

Component Condition Report | Cherokee Elementary School

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID	
Fire Protection							
D4030	Throughout building	Fair	Fire Extinguisher, Type ABC, up to 20 LB	8	4	7181149	
Electrical							
D5020	Electrical room	Fair	Distribution Panel, 120/208 V	1	2	7181115	
D5020	Building exterior	Fair	Secondary Transformer, Dry, Stepdown	1	11	7181132	
D5020	Electrical room	Fair	Distribution Panel, 277/480 V	1	3	7181103	
D5020	Electrical room	Fair	Switchboard, 277/480 V	1	9	7181145	
D5020	Electrical room	Fair	Secondary Transformer, Dry, Stepdown	1	11	7181162	
D5020	Electrical room	Fair	Secondary Transformer, Dry, Stepdown	1	11	7181152	
D5040	Throughout building	Fair	Emergency & Exit Lighting, Emergency Light Pack, 2 Light w/ Battery	1	4	7181125	
D5040	Throughout building	Fair	Emergency & Exit Lighting, Emergency Light Pack, 2 Light w/ Battery	1	4	7181166	
D5040	Throughout building	Fair	Interior Lighting System, Full Upgrade, Medium Density & Standard Fixtures	61,286	SF	8	7181148
Fire Alarm & Electronic Systems							
D7030	Throughout building	Fair	Security/Surveillance System, Full System Upgrade, Average Density	61,286	SF	6	7181147
D7050	Office	Fair	Fire Alarm Panel, Fully Addressable	1	6	7181111	
D7050		Fair	Fire Alarm System, Full System Upgrade, Standard Addressable, Upgrade	61,286	SF	6	7203643
Equipment & Furnishings							
E1030	Kitchen	Fair	Foodservice Equipment, Blast Chiller/Freezer	1	5	7181193	
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels	1	6	7181130	
E1030	Kitchen	Fair	Foodservice Equipment, Refrigerator, 1-Door Reach-In	1	6	7181100	
E1030	Kitchen	Fair	Foodservice Equipment, Icemaker, Freestanding	1	6	7181126	
E1030	Kitchen	Fair	Foodservice Equipment, Prep Table Refrigerated, Salad/Sandwich	1	6	7181127	
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Tabletop Drawers (Set of 4)	1	6	7181136	
E1030	Kitchen	Fair	Foodservice Equipment, Dairy Cooler/Wells	1	6	7181099	
E1030	Kitchen	Fair	Foodservice Equipment, Mixer, Freestanding	1	10	7181109	

Component Condition Report | Cherokee Elementary School

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID	
E1030	Kitchen	Fair	Foodservice Equipment, Range/Oven, 4-Burner	1	6	7181131	
E1030	Kitchen	Poor	Foodservice Equipment, Dishwasher Commercial	1	1	7181171	
E1030	Building exterior	Fair	Foodservice Equipment, Walk-In, Condenser for Refrigerator/Freezer	1	5	7181164	
E1030	Kitchen	Fair	Foodservice Equipment, Refrigerator, 1-Door Reach-In	1	6	7181167	
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels	1	6	7181168	
E1030	Kitchen	Fair	Foodservice Equipment, Microwave Commercial	1	4	7181135	
E1030	Kitchen	Fair	Foodservice Equipment, Exhaust Hood, 8 to 10 LF	1	6	7181179	
E1030	Kitchen	Fair	Foodservice Equipment, Prep Table Refrigerated, Salad/Sandwich	1	6	7181186	
E1030	Kitchen	Fair	Foodservice Equipment, Refrigerator, 3-Door Reach-In	1	6	7181158	
E1030	Kitchen	Fair	Foodservice Equipment, Dairy Cooler/Wells	1	6	7181176	
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Tabletop Drawers (Set of 4)	4	6	7181154	
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Tabletop Drawers (Set of 4)	1	6	7181104	
E1030	Kitchen	Fair	Foodservice Equipment, Refrigerator, 3-Door Reach-In	1	6	7181180	
E1030	Building exterior	Fair	Foodservice Equipment, Walk-In, Condenser for Refrigerator/Freezer	1	5	7181188	
E1030	Kitchen	Fair	Foodservice Equipment, Blast Chiller/Freezer	1	4	7181123	
Special Construction & Demo							
F1020	Restrooms	Fair	Restroom/Comfort Station, Portable & Accessible , w/o Plumbing (per Stall)	8	4	7181181	
Pedestrian Plazas & Walkways							
G2010	Building exterior	Fair	Roadways, Guard Rails, Steel	25	LF	11	7181140
G2020	Parking lot	Poor	Parking Lots, Pavement, Asphalt, Seal & Stripe	68,000	SF	1	7181185
G2030	Building exterior	Poor	Sidewalk, Concrete, Large Areas	1,000	SF	1	7181114
Athletic, Recreational & Playfield Areas							
G2050	Site	Fair	Play Structure, Multipurpose, Medium	2	8	7181192	
G2050	Site	Fair	Playfield Surfaces, Chips Rubber, 3" Depth	200	SF	6	7181110
G2050	Site	Fair	Play Structure, Multipurpose, Medium	1	12	7181139	

Component Condition Report | Cherokee Elementary School

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
G2050	Site	Fair	Playfield Surfaces, Artificial Play Turf	300	SF	7 7181102
Sitework						
G2060	Building exterior	Fair	Signage, Property, Monument, Replace/Install	1	8	7181120
G2060	Site	Fair	Park Bench, Precast Concrete	1	11	7181101
G2060	Building exterior	Fair	Fences & Gates, Fence, Chain Link 8'	25	LF	17 7181113
G2060	Site	Fair	Fences & Gates, Fence, Chain Link 6'	3,000	LF	15 7181153
G4050	Building exterior	Fair	Exterior Site Lighting, Wall Pack, any type w/ LED, 13 to 26 W	6	10	7181172
G4050	Site	Fair	Pole Light Fixture w/ Lamps, any type 20' High, w/ LED Replacement, Replace/Install	3	8	7181121

Appendix F: **Replacement Reserves**

1/18/2024

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																
Cherokee Elementary School	\$0	\$62,933	\$255,557	\$19,341	\$239,131	\$122,767	\$874,918	\$60,879	\$423,680	\$426,140	\$2,002,032	\$255,322	\$133,023	\$66,378	\$195,071	\$263,141	\$56,165	\$1,033	\$0	\$0	\$22,757	\$5,480,268																
Grand Total	\$0	\$62,933	\$255,557	\$19,341	\$239,131	\$122,767	\$874,918	\$60,879	\$423,680	\$426,140	\$2,002,032	\$255,322	\$133,023	\$66,378	\$195,071	\$263,141	\$56,165	\$1,033	\$0	\$0	\$22,757	\$5,480,268																
Uniformat Code	Location Description	ID	Cost Description			Lifespan (EUL)	EAge	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				
B2010	Building exterior	7181170	Exterior Walls, any painted surface, Prep & Paint			10	6	4	20650	SF	\$3.00	\$61,950																						\$123,900				
B2020	Building exterior	7181129	Glazing, any type by SF, Replace			30	20	10	25500	SF	\$55.00	\$1,402,500																						\$1,402,500				
B2050	Building exterior	7181174	Exterior Door, Aluminum-Framed & Glazed, Standard Swing, Replace			30	19	11	6	EA	\$1,300.00	\$7,800																							\$7,800			
B3010	Roof	7181142	Roofing, Asphalt Shingle, 20-Year Standard, Replace			20	18	2	61286	SF	\$3.80	\$232,887																								\$232,887		
B3020	Building exterior	7181144	Roof Appurtenances, Gutters & Downspouts, Aluminum w/ Fittings, Replace			20	12	8	30	LF	\$9.00	\$270																								\$270		
C1030	Throughout building	7181182	Interior Door, Aluminum-Framed & Glazed, Standard Swing, Replace			40	25	15	6	EA	\$1,300.00	\$7,800																								\$7,800		
C1030	Restrooms	7181150	Interior Door, Wood, Solid-Core, Replace			40	25	15	8	EA	\$700.00	\$5,600																								\$5,600		
C1030	Throughout building	7181160	Interior Door, Steel, Standard, Replace			40	25	15	61	EA	\$600.00	\$36,600																								\$36,600		
C1070	Throughout building	7181183	Suspended Ceilings, Acoustical Tile (ACT), Replace			25	16	9	61286	SF	\$3.50	\$214,501																								\$214,501		
C2010	Throughout building	7181190	Wall Finishes, any surface, Prep & Paint			10	6	4	20650	SF	\$1.50	\$30,975																								\$61,950		
C2030	Restrooms	7181178	Flooring, Ceramic Tile, Replace			40	25	15	1500	SF	\$18.00	\$27,000																								\$27,000		
C2030	Gymnasium	7181156	Flooring, Rubber Tile, Replace			15	9	6	500	SF	\$9.00	\$4,500																									\$4,500	
C2030	Throughout building	7181108	Flooring, Vinyl Tile (VCT), Replace			15	9	6	55000	SF	\$5.00	\$275,000																									\$275,000	
D2010	Boiler room	7181194	Storage Tank, Domestic Water, 151 to 250 GAL, Replace			30	21	9	1	EA	\$3,000.00	\$3,000																								\$3,000		
D2010	Kitchen	7181177	Water Heater, Gas, Commercial (125 MBH), Replace			20	17	3	1	EA	\$12,400.00	\$12,400																								\$12,400		
D2010	Boiler room	7181191	Pump, Circulation, Domestic Water, Replace			15	9	6	1	EA	\$3,100.00	\$3,100																								\$3,100		
D2010	Boiler room	7181169	Pump, Circulation, Domestic Water, Replace			15	9	6	1	EA	\$3,100.00	\$3,100																								\$3,100		
D2010	Boiler room	7181119	Pump, Circulation/Booster, Domestic Water, Replace			25	16	9	1	EA	\$6,100.00	\$6,100																								\$6,100		
D2010	Boiler room	7181157	Boiler, Gas, Domestic, 260 to 500 MBH, Replace			25	13	12	1	EA	\$22,500.00	\$22,500																								\$22,500		
D2010	Throughout building	7181105	Drinking Fountain, Exterior/Site, Economy Pedestal, Replace			15	8	7	6	EA	\$700.00	\$4,200																									\$4,200	
D2010	Kitchen	7181128	Sink/Lavatory, Commercial Kitchen, 3-Bowl, Replace			30	19	11	1	EA	\$2,500.00	\$2,500																									\$2,500	
D2010	Kitchen	7181161	Sink/Lavatory, Commercial Kitchen, 2-Bowl, Replace			30	19	11	2	EA	\$2,100.00	\$4,200																									\$4,200	
D2010	Restrooms	7181163	Urinal, Standard, Replace			30	19	11	24	EA	\$1,100.00	\$26,400																									\$26,400	
D2010	Restrooms	7181195	Toilet, Child-Sized, Replace			30	19	11	62	EA	\$900.00	\$55,800																										\$55,800
D2010	Boiler room	7181134	Sink/Lavatory, Service Sink, Floor, Replace			35	22	13	3	EA	\$800.00	\$2,400																										\$2,400
D2010	Throughout building	7181117	Sink/Lavatory, Service Sink, Floor, Replace			35	22	13	8	EA	\$800.00	\$6,400																										\$6,400
D2010	Throughout building	7181175	Sink/Lavatory, Service Sink, Wall-Hung, Replace			35	22	13	26	EA	\$1,400.00	\$36,400																										\$36,400
D3020	Boiler room	7181133	Boiler, Gas, HVAC, Replace			30	20</td																															

1/18/2024

Uniform Code	Location Description	ID	Cost Description	Lifespan (EUL)	EAge	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	
D5020	Electrical room	7181103	Distribution Panel, 277/480 V, Replace	30	27	3	1	EA	\$5,300.00	\$5,300						\$5,300																\$5,300	
D5040	Throughout building	7181125	Emergency & Exit Lighting, Emergency Light Pack, 2 Light w/ Battery, Replace	10	6	4	1	EA	\$220.00	\$220						\$220																\$440	
D5040	Throughout building	7181166	Emergency & Exit Lighting, Emergency Light Pack, 2 Light w/ Battery, Replace	10	6	4	1	EA	\$220.00	\$220						\$220																\$440	
D5040	Throughout building	7181148	Interior Lighting System, Full Upgrade, Medium Density & Standard Fixtures, Replace	20	12	8	61286	SF	\$4.50	\$275,787																						\$275,787	
D7030	Throughout building	7181147	Security/Surveillance System, Full System Upgrade, Average Density, Replace	15	9	6	61286	SF	\$2.00	\$122,572																						\$122,572	
D7050	Office	7181111	Fire Alarm Panel, Fully Addressable, Replace	15	9	6	1	EA	\$15,000.00	\$15,000																					\$15,000		
D7050	Cherokee Elementary School	7203643	Fire Alarm System, Full System Upgrade, Standard Addressable, Upgrade	20	14	6	61286	SF	\$3.00	\$183,858																						\$183,858	
E1030	Kitchen	7181171	Foodservice Equipment, Dishwasher Commercial, Replace	10	9	1	1	EA	\$21,500.00	\$21,500																						\$43,000	
E1030	Kitchen	7181135	Foodservice Equipment, Microwave Commercial, Replace	10	6	4	1	EA	\$1,100.00	\$1,100						\$1,100																\$2,200	
E1030	Kitchen	7181123	Foodservice Equipment, Blast Chiller/Freezer, Replace	10	6	4	1	EA	\$13,300.00	\$13,300						\$13,300																\$26,600	
E1030	Kitchen	7181193	Foodservice Equipment, Blast Chiller/Freezer, Replace	10	5	5	1	EA	\$13,300.00	\$13,300						\$13,300																\$26,600	
E1030	Building exterior	7181188	Foodservice Equipment, Walk-In, Condenser for Refrigerator/Freezer, Replace	15	10	5	1	EA	\$6,300.00	\$6,300						\$6,300																\$6,300	
E1030	Building exterior	7181164	Foodservice Equipment, Walk-In, Condenser for Refrigerator/Freezer, Replace	15	10	5	1	EA	\$6,300.00	\$6,300						\$6,300																\$12,600	
E1030	Kitchen	7181130	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels, Replace	15	9	6	1	EA	\$1,700.00	\$1,700						\$1,700																\$1,700	
E1030	Kitchen	7181100	Foodservice Equipment, Refrigerator, 1-Door Reach-In, Replace	15	9	6	1	EA	\$2,700.00	\$2,700						\$2,700																\$2,700	
E1030	Kitchen	7181126	Foodservice Equipment, Icemaker, Freestanding, Replace	15	9	6	1	EA	\$6,700.00	\$6,700						\$6,700																\$6,700	
E1030	Kitchen	7181136	Foodservice Equipment, Food Warmer, Tabletop Drawers (Set of 4), Replace	15	9	6	1	EA	\$5,700.00	\$5,700						\$5,700																\$5,700	
E1030	Kitchen	7181099	Foodservice Equipment, Dairy Cooler/Wells, Replace	15	9	6	1	EA	\$3,600.00	\$3,600						\$3,600																\$3,600	
E1030	Kitchen	7181131	Foodservice Equipment, Range/Oven, 4-Burner, Replace	15	9	6	1	EA	\$4,500.00	\$4,500						\$4,500																\$4,500	
E1030	Kitchen	7181167	Foodservice Equipment, Refrigerator, 1-Door Reach-In, Replace	15	9	6	1	EA	\$2,700.00	\$2,700						\$2,700																\$2,700	
E1030	Kitchen	7181168	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels, Replace	15	9	6	1	EA	\$1,700.00	\$1,700						\$1,700																\$1,700	
E1030	Kitchen	7181158	Foodservice Equipment, Refrigerator, 3-Door Reach-In, Replace	15	9	6	1	EA	\$6,400.00	\$6,400						\$6,400																\$6,400	
E1030	Kitchen	7181154	Foodservice Equipment, Food Warmer, Tabletop Drawers (Set of 4), Replace	15	9	6	4	EA	\$5,700.00	\$22,800						\$22,800																\$22,800	
E1030	Kitchen	7181104	Foodservice Equipment, Food Warmer, Tabletop Drawers (Set of 4), Replace	15	9	6	1	EA	\$5,700.00	\$5,700						\$5,700																\$5,700	
E1030	Kitchen	7181180	Foodservice Equipment, Refrigerator, 3-Door Reach-In, Replace	15	9	6	1	EA	\$6,400.00	\$6,400						\$6,400																\$6,400	
E1030	Kitchen	7181186	Foodservice Equipment, Prep Table Refrigerated, Salad/Sandwich, Replace	15	9	6	1	EA	\$4,700.00	\$4,700						\$4,700																\$4,700	
E1030	Kitchen	7181176	Foodservice Equipment, Dairy Cooler/Wells, Replace	15	9	6	1	EA	\$3,600.00	\$3,600						\$3,600																\$3,600	
E1030	Kitchen	7181179	Foodservice Equipment, Exhaust Hood, 8 to 10 LF, Replace	15	9	6	1	EA	\$4,500.00	\$4,500						\$4,500																\$4,500	
E1030	Kitchen	7181127	Foodservice Equipment, Prep Table Refrigerated, Salad/Sandwich, Replace	15	9	6	1	EA	\$4,700.00	\$4,700						\$4,700																\$4,700	
E1030	Kitchen	7181109	Foodservice Equipment, Mixer, Freestanding, Replace	25	15	10	1	EA	\$14,000.00	\$14,000																						\$14,000	
F1020	Restrooms	7181181	Restroom/Comfort Station, Portable & Accessible, w/o Plumbing (per Stall), Replace	10	6	4	8	EA	\$2,500.00	\$20,000						\$20,000																\$40,000	
G2010	Building exterior	7181140	Roadways, Guard Rails, Steel, Replace	30	19	11	25	LF	\$50.00	\$1,250																					\$1,250		
G2020	Parking lot	7181185	Parking Lots, Pavement, Asphalt, Seal & Stripe	5	4	1	68000	SF	\$0.45	\$30,600	\$30,600						\$30,600																\$122,400
G2030	Building exterior	7181114	Sidewalk, Concrete, Large																														

Appendix G: **Equipment Inventory List**

D20 Plumbing

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7181194	D2010	Storage Tank	Domestic Water, 151 to 250 GAL 200 GAL		Cherokee Elementary School	Boiler room	A. O. Smith	TJV200A00	LH02-1879613-000	2002		
2	7181157	D2010	Boiler	Gas, Domestic, 260 to 500 MBH 399 MBH		Cherokee Elementary School	Boiler room	A. O. Smith	HW399300	1316M000830	2010		
3	7181169	D2010	Pump	Circulation, Domestic Water	.75 HP	Cherokee Elementary School	Boiler room	Inaccessible	Inaccessible	Inaccessible			
4	7181191	D2010	Pump	Circulation, Domestic Water	.75 HP	Cherokee Elementary School	Boiler room	Inaccessible	Illegible	Illegible			
5	7181119	D2010	Pump	Circulation/Booster, Domestic Water	10 HP	Cherokee Elementary School	Boiler room	Emerson	Inaccessible	Inaccessible			
6	7181177	D2010	Water Heater	Gas, Commercial (125 MBH)	91 GAL	Cherokee Elementary School	Kitchen	Ruud	G91-200	URNG0300G02653	1998		

D30 HVAC

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7181133	D3020	Boiler	Gas, HVAC	1750 MBH	Cherokee Elementary School	Boiler room	Cleaver-Brooks	CFC	16010180010000	2005		
2	7181116	D3020	Boiler	Gas, HVAC	1750 MBH	Cherokee Elementary School	Boiler room	Cleaver-Brooks	CFC	16010180010005	2005		
3	7181122	D3020	Radiator	Hydronic, Baseboard (per LF)	.75	Cherokee Elementary School	Throughout building	Inaccessible	Inaccessible	Inaccessible			250
4	7181159	D3020	Radiator	Hydronic, Baseboard (per LF)		Cherokee Elementary School	Restrooms						12
5	7181138	D3020	Unit Heater	Hydronic, 13 to 36 MBH	36 MBH	Cherokee Elementary School	Kitchen	Inaccessible	Inaccessible	Inaccessible			2
6	7181189	D3020	Boiler Supplemental Components	Expansion Tank	175 GAL	Cherokee Elementary School	Boiler room	No dataplate	No dataplate	No dataplate			3
7	7181146	D3020	Boiler Supplemental Components	Expansion Tank, 101 to 175 GAL	100 GAL	Cherokee Elementary School	Boiler room	Inaccessible	Inaccessible	Inaccessible			
8	7181124	D3030	Packaged Terminal Air Conditioner	PTAC	1 TON	Cherokee Elementary School	Principal office	Amana	Inaccessible	Inaccessible			
9	7181155	D3030	Split System	Condensing Unit/Heat Pump	2 TON	Cherokee Elementary School	Building exterior	Daikin Industries	No dataplate	No dataplate			
10	7181143	D3050	Pump	Distribution, HVAC Chilled or Condenser Water	7.5 HP	Cherokee Elementary School	Boiler room	Emerson	Illegible	No dataplate			
11	7181107	D3050	Pump	Distribution, HVAC Chilled or Condenser Water	7.5 HP	Cherokee Elementary School	Boiler room	Emerson	AD79	No dataplate			
12	7181141	D3050	Pump	Distribution, HVAC Heating Water	7.5 HP	Cherokee Elementary School	Boiler room	NEMA Premium	R341	No dataplate	2020		
13	7181151	D3050	Fan Coil Unit	Hydronic Terminal, 200 to 400 CFM	400 CFM	Cherokee Elementary School	Classrooms	Inaccessible	Inaccessible	Inaccessible			49
14	7181173	D3050	Fan Coil Unit	Hydronic Terminal, 200 to 400 CFM	400 CFM	Cherokee Elementary School	Conference room	McQuay	Inaccessible	Inaccessible			
15	7181112	D3050	Packaged Unit	RTU, Pad or Roof-Mounted	10 TON	Cherokee Elementary School	Building exterior	McQuay	MPS005BGDM10E	2G7507ADAA4191006230			
16	7181187	D3050	Packaged Unit	RTU, Pad or Roof-Mounted, 16 to 20 TON	20 TON	Cherokee Elementary School	Building exterior	Carrier	48TCDD20A2A6A	3415P23519			
17	7181137	D3050	Packaged Unit	RTU, Pad or Roof-Mounted, 16 to 20 TON	20 TON	Cherokee Elementary School	Building exterior	Carrier	48TCDD20A2A6A	3415P23518			

D40 Fire Protection

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7181149	D4030	Fire Extinguisher	Type ABC, up to 20 LB		Cherokee Elementary School	Throughout building						8

D50 Electrical

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7181132	D5020	Secondary Transformer	Dry, Stepdown	167 KVA	Cherokee Elementary School	Building exterior	GSW Series 5	S5H167	No dataplate			
2	7181162	D5020	Secondary Transformer	Dry, Stepdown	30 KVA	Cherokee Elementary School	Electrical room	Square D	30T3H	No dataplate			
3	7181152	D5020	Secondary Transformer	Dry, Stepdown	30 KVA	Cherokee Elementary School	Electrical room	ACME	G	No dataplate			

4	7181145	D5020	Switchboard	277/480 V	2000 AMP	Cherokee Elementary School	Electrical room	Siemens	No dataplate	No dataplate	1992
5	7181115	D5020	Distribution Panel	120/208 V	800 AMP	Cherokee Elementary School	Electrical room	Siemens	S4	No dataplate	1992
6	7181103	D5020	Distribution Panel	277/480 V	400 AMP	Cherokee Elementary School	Electrical room	Siemens	S3	No dataplate	1992
7	7181125	D5040	Emergency & Exit Lighting	Emergency Light Pack, 2 Light w/ Battery		Cherokee Elementary School	Throughout building				
8	7181166	D5040	Emergency & Exit Lighting	Emergency Light Pack, 2 Light w/ Battery		Cherokee Elementary School	Throughout building				

D70 Electronic Safety & Security

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7181111	D7050	Fire Alarm Panel	Fully Addressable		Cherokee Elementary School	Office	Notifier	NFW-100X	Inaccessible			

E10 Equipment

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7181193	E1030	Foodservice Equipment	Blast Chiller/Freezer		Cherokee Elementary School	Kitchen	MasterBuilt	DRC36086EE	2002916292			
2	7181123	E1030	Foodservice Equipment	Blast Chiller/Freezer		Cherokee Elementary School	Kitchen	MasterBuilt	DRC36082EE	337338			
3	7181099	E1030	Foodservice Equipment	Dairy Cooler/Wells		Cherokee Elementary School	Kitchen	Beverage-Air Corporation	SMF58	NA			
4	7181176	E1030	Foodservice Equipment	Dairy Cooler/Wells		Cherokee Elementary School	Kitchen	Beverage-Air Corporation	SNF58	No dataplate			
5	7181171	E1030	Foodservice Equipment	Dishwasher Commercial		Cherokee Elementary School	Kitchen	No dataplate	No dataplate	No dataplate			
6	7181179	E1030	Foodservice Equipment	Exhaust Hood, 8 to 10 LF		Cherokee Elementary School	Kitchen						
7	7181130	E1030	Foodservice Equipment	Food Warmer, Proofing Cabinet on Wheels		Cherokee Elementary School	Kitchen	Delfield	Illegible	Illegible			
8	7181168	E1030	Foodservice Equipment	Food Warmer, Proofing Cabinet on Wheels		Cherokee Elementary School	Kitchen	Eagle Group	HTS508NGS	110799080			
9	7181136	E1030	Foodservice Equipment	Food Warmer, Tabletop Drawers (Set of 4)		Cherokee Elementary School	Kitchen	Food Warming Equipment	UHS12	123465205			
10	7181154	E1030	Foodservice Equipment	Food Warmer, Tabletop Drawers (Set of 4)		Cherokee Elementary School	Kitchen	Duke Manufacturing	No dataplate	No dataplate			4
11	7181104	E1030	Foodservice Equipment	Food Warmer, Tabletop Drawers (Set of 4)		Cherokee Elementary School	Kitchen	Food Warming Equipment	UHS12	196130604			
12	7181126	E1030	Foodservice Equipment	Icemaker, Freestanding		Cherokee Elementary School	Kitchen	Ice-O-Matic					
13	7181135	E1030	Foodservice Equipment	Microwave Commercial		Cherokee Elementary School	Kitchen	Groen	HY6SG24	102575			
14	7181109	E1030	Foodservice Equipment	Mixer, Freestanding		Cherokee Elementary School	Kitchen	Groen	No dataplate	No dataplate			
15	7181127	E1030	Foodservice Equipment	Prep Table Refrigerated, Salad/Sandwich		Cherokee Elementary School	Kitchen						
16	7181186	E1030	Foodservice Equipment	Prep Table Refrigerated, Salad/Sandwich		Cherokee Elementary School	Kitchen						
17	7181131	E1030	Foodservice Equipment	Range/Oven, 4-Burner		Cherokee Elementary School	Kitchen	SUN MITE	No dataplate	No dataplate			
18	7181100	E1030	Foodservice Equipment	Refrigerator, 1-Door Reach-In		Cherokee Elementary School	Kitchen	Arctic Air	AR23E	4033598			
19	7181167	E1030	Foodservice Equipment	Refrigerator, 1-Door Reach-In		Cherokee Elementary School	Kitchen	Arctic Air	AR23E	H8047383			
20	7181158	E1030	Foodservice Equipment	Refrigerator, 3-Door Reach-In		Cherokee Elementary School	Kitchen	MasterBuilt	R72S	R72S11120029			
21	7181180	E1030	Foodservice Equipment	Refrigerator, 3-Door Reach-In		Cherokee Elementary School	Kitchen	MasterBuilt	R72S	R72S1208001			
22	7181164	E1030	Foodservice Equipment	Walk-In, Condenser for Refrigerator/Freezer		Cherokee Elementary School	Building exterior	STANDEX	MSLD	200531546			
23	7181188	E1030	Foodservice Equipment	Walk-In, Condenser for Refrigerator/Freezer	2 TON	Cherokee Elementary School	Building exterior	STANDEX	No dataplate	No dataplate			