

FACILITY CONDITION ASSESSMENT



**BUREAU
VERITAS**

prepared for

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



Grandview Heights Middle School
2342 Clifton Avenue
Memphis, Tennessee 38127

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BV PROJECT #:

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ON SITE DATE:

December 13, 2023

Bureau Veritas

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1. Executive Summary

Property Overview and Assessment Details

General Information	
Property Type	Middle School
Main Address	2342 Clifton Avenue, Memphis, Tennessee 38127
Site Developed	1985 Renovated 1998 and 2012
Site Area	9.2 acres (estimated)
Parking Spaces	88 total spaces all in open lots; 10 of which are accessible
Building Area	65,810 SF
Number of Stories	Two above grade with one partial below-grade basement level
Outside Occupants/Leased Spaces	None
Date(s) of Visit	December 13, 2023
Management Point of Contact	Ms. Mary Taylor 901-416-5376 Taylorm15@scsk12.org
On-site Point of Contact (POC)	David Johnson
Assessment and Report Prepared By	Patrick Fallon
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

Grandview Heights Middle School was first built in 1985 with an annex being added in 1998 and a gymnasium added in 2012.

Architectural

Exterior finishes are brick walls with both gable and mansard style asphalt shingle roofs combined with modified bituminous flat roof surfaces. It appears that the older modified roof surfaces have been coated with an elastomeric coating from aerial photos. The gymnasium has a combination of flat modified bituminous areas and a gable metal roof system. The shingle roofs are in poor to fair condition with many shingles missing, particularly on the annex building. The school roof areas were not accessible during the site visit. The brick walls need repointing in some areas which has been included in this report.

Interior finishes are primarily VCT floors with painted gypsum and CMU walls with and acoustic ceiling tile and grid system.

Mechanical, Electrical, Plumbing and Fire (MEPF)

HVAC for the school is provided by unit ventilators throughout the school fed by boilers and a chiller. Gymnasium HVAC is provided by multiple roof top units. There are also several split system heat pumps serving individual areas within the school. HVAC controls were mentioned as not being able to maintain uniform temperatures throughout the school.

Electrical service is provided by an exterior switchboard and then distributed to multiple main distribution panels and further branch distribution. Interior lighting is primarily from fluorescent lay in troffer fixtures.

Plumbing systems mostly serve the kitchen and several larger restrooms within the school and gymnasium with some smaller single restrooms distributed throughout the school.

The buildings have fire sprinklers and a fire alarm system along with intrusion detection and security camera systems.

Site

Asphalt pavement areas are weathered, and cracking and pavement markings are heavily faded. The drainage system for the covered walkway to the gymnasium was mentioned as causing flooding problems for that walkway during heavy rains.

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 | Grandview Heights Middle School(1985)

<i>Replacement Value</i>	<i>Total SF</i>	<i>Cost/SF</i>
\$ 26,324,000	65,810	\$ 400

	Est Reserve Cost	FCI
Current	\$ 33,300	0.1 %
3-Year	\$ 4,158,500	15.8 %
5-Year	\$ 4,610,300	17.5 %
10-Year	\$ 5,483,000	20.8 %

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.

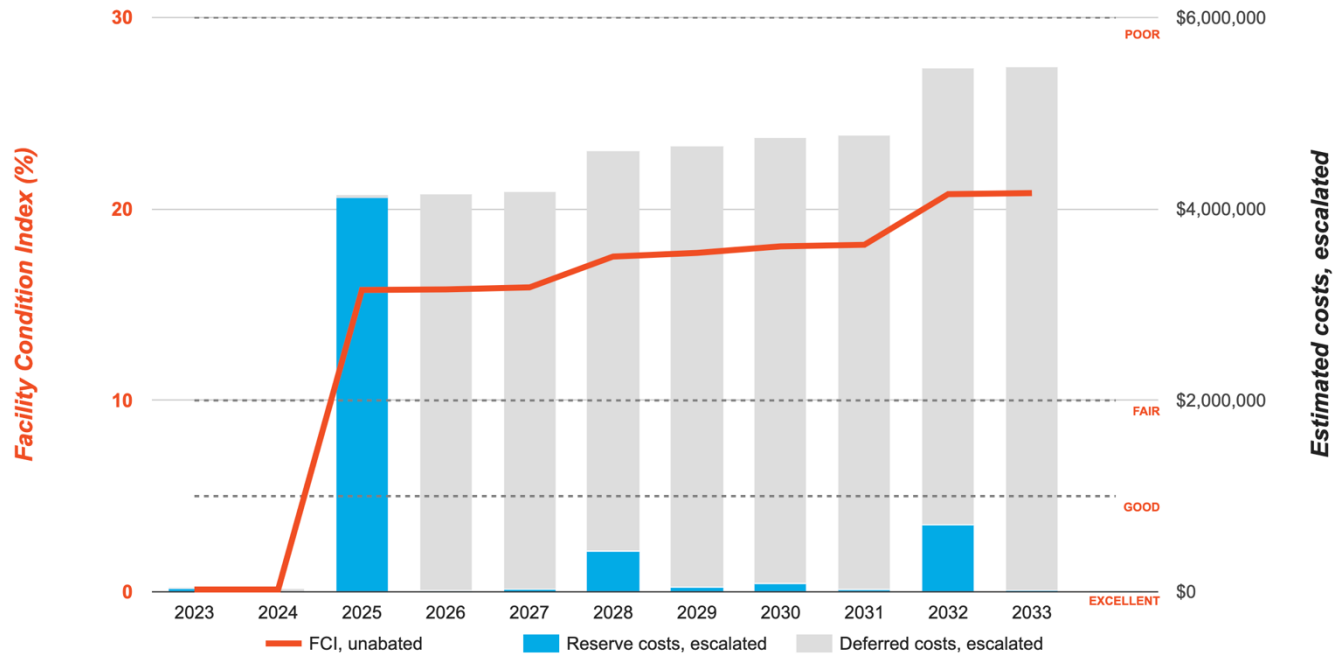
Needs by Year with Unaddressed FCI Over Time

FCI Analysis: Grandview Heights Middle School

Replacement Value: \$26,324,000

Inflation Rate: 3.0%

Average Needs per Year: \$498,500



Immediate Needs

Facility/Building	Total Items	Total Cost
Grandview Heights Middle School	3	\$33,300
Total	3	\$33,300

Grandview Heights Middle School

ID	Location	Location Description	UF Code	Description	Condition	Plan Type	Cost
7168543	Grandview Heights Middle School	Building Exterior	B2010	Exterior Walls, Brick, Repair/Repoint	Poor	Performance/Integrity	\$16,500
7168477	Grandview Heights Middle School	Site	D3030	Split System, Condensing Unit/Heat Pump, Replace	Failed	Performance/Integrity	\$7,100
7168501	Grandview Heights Middle School	Gymnasium	E1030	Laundry Equipment, Washer, Commercial, Replace	Failed	Performance/Integrity	\$9,700
Total (3 items)							\$33,300

Key Findings

**Exterior Walls in Poor condition.**

Brick
Grandview Heights Middle School Building
Exterior

Uniformat Code: B2010
Recommendation: **Repair/Repoint in 2023**

Priority Score: **89.9**

Plan Type:
Performance/Integrity

Cost Estimate: \$16,500

\$\$\$\$

Some areas of brick needs repointing - AssetCALC ID: 7168543

**Parking Lots in Poor condition.**

Pavement, Asphalt
Grandview Heights Middle School Site

Uniformat Code: G2020
Recommendation: **Mill and Overlay in 2025**

Priority Score: **84.8**

Plan Type:
Performance/Integrity

Cost Estimate: \$144,200

\$\$\$\$

Asphalt weathered and cracked, markings worn - AssetCALC ID: 7168574

**Laundry Equipment in Failed condition.**

Washer, Commercial
Grandview Heights Middle School Gymnasium

Uniformat Code: E1030
Recommendation: **Replace in 2023**

Priority Score: **82.9**

Plan Type:
Performance/Integrity

Cost Estimate: \$9,700

\$\$\$\$

Not operating - AssetCALC ID: 7168501

**Split System in Failed condition.**

Condensing Unit/Heat Pump
Grandview Heights Middle School Site

Uniformat Code: D3030
Recommendation: **Replace in 2023**

Priority Score: **81.9**

Plan Type:
Performance/Integrity

Cost Estimate: \$7,100

\$\$\$\$

Condensing Unit is missing - AssetCALC ID: 7168477

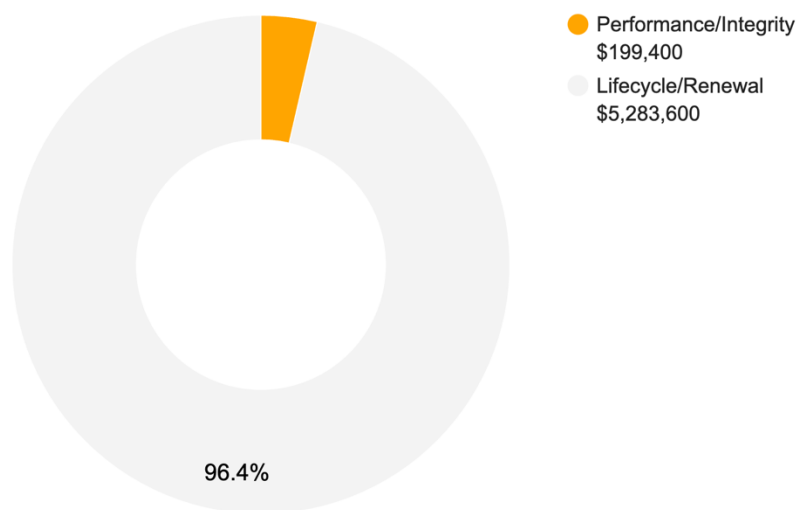
Plan Types

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: \$5,483,000

2. Building and Site Information



Systems Summary

System	Description	Condition
Structure	Masonry bearing walls with metal roof deck supported by steel rafters over concrete pad column footings	Fair
Façade	Wall Finish: Brick Windows: Aluminum with security screens	Fair
Roof	Primary: Hip construction with asphalt shingles Secondary: Flat construction with modified bituminous finish and elastomeric coating in some areas	Fair
Interiors	Walls: Painted gypsum board and CMU Floors: Carpet and VCT, wood strip in gymnasium Ceilings: ACT and Unfinished/exposed in gymnasium	Fair
Elevators	Passenger: One hydraulic car serving both floors	Fair
Plumbing	Distribution: Copper supply and cast iron waste and venting Hot Water: Gas and Electric water heaters with integral tanks Fixtures: Toilets and sinks in all restrooms	Fair
HVAC	Central System: Boilers and chillers feeding unit ventilators Non-Central System: Split-system heat pumps	Fair
Fire Suppression	Wet-pipe sprinkler system and fire extinguishers with kitchen hood system	Fair
Electrical	Source & Distribution: Main switchboard with copper wiring Interior Lighting: Linear fluorescent Emergency Power: None	Fair

Systems Summary

Fire Alarm	Alarm panel with smoke detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Fair
Equipment/Special	Commercial kitchen equipment	Fair
Site Pavement	Asphalt lots with limited areas of concrete aprons and pavement and adjacent concrete sidewalks, curbs and ramps.	Poor
Site Development	Building-mounted and Property entrance signage Gymnasium with bleachers	Fair
Landscaping and Topography	Limited landscaping features including lawns, trees, bushes, and planters Irrigation not present Low to moderate site slopes throughout	Fair
Utilities	Municipal water and sewer Local utility-provided electric and natural gas	Fair
Site Lighting	Pole-mounted: LED Building-mounted: LED	Fair
Ancillary Structures	Covered Walkways	Fair
Accessibility	Presently it does not appear an accessibility study is needed for this property. See Appendix D.	
Key Issues and Findings	Asphalt shingle roof weathered and missing shingles, leaking roof in some areas, modified flat roof nearing end of useful life on school areas, missing HVAC components and infrastructure, brick exterior walls need repointing in some areas, heavy asphalt wear and alligator cracking along with worn pavement markings	

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	\$16,500	\$35,000	\$165,800	-	\$2,105,800	\$2,323,100
Roofing	-	\$486,500	-	-	\$35,400	\$521,800
Interiors	-	\$755,000	-	-	\$939,800	\$1,694,800
Conveying	-	\$14,900	-	\$67,600	\$14,900	\$97,400
Plumbing	-	\$778,600	\$119,000	\$43,900	\$76,600	\$1,018,100
HVAC	\$7,100	\$378,200	\$5,400	\$233,400	\$1,292,900	\$1,916,900
Fire Protection	-	\$156,400	-	-	\$14,500	\$170,900
Electrical	-	\$314,200	\$128,700	\$22,100	\$435,100	\$900,100
Fire Alarm & Electronic Systems	-	\$871,200	-	\$35,200	\$867,800	\$1,774,200
Equipment & Furnishings	\$9,700	\$114,600	\$24,200	\$460,100	\$255,200	\$863,800
Site Pavement	-	\$153,000	-	-	-	\$153,000
Site Development	-	\$26,500	\$2,900	\$3,100	\$98,300	\$130,900
Site Utilities	-	\$33,900	\$13,200	\$7,000	-	\$54,200
TOTALS (3% inflation)	\$33,300	\$4,117,900	\$459,100	\$872,600	\$6,136,200	\$11,619,100

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

3. Property Space Use and Observed Areas

Areas Observed

A representative sample of 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 gymnasium roof.

Key Spaces Not Observed

Areas of note that were either inaccessible or not observed for other reasons are listed here:

- Multiple classrooms; classes in session
- School roofs; lack of ladder or other means of access

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 tables 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 1985. The facility was substantially renovated in 1998 and 2012 and some accessibility improvements appear to have been implemented at that time.

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. Soft costs are applied to each asset at a markup of 1.80 on the asset price. Soft cost markups include construction contingencies, construction management costs, design costs, regional cost factors, inflation to end of the current year, and general markup for unforeseen costs.

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 Grandview Heights Middle School, 2342 Clifton Avenue, Memphis, Tennessee 38127, 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 - REAR ELEVATION



4 - RIGHT ELEVATION



5 - GYMNASIUM FRONT



6 - GYMNASIUM RIGHT

Photographic Overview



7 - GYMNASIUM REAR



8 - GYMNASIUM LEFT



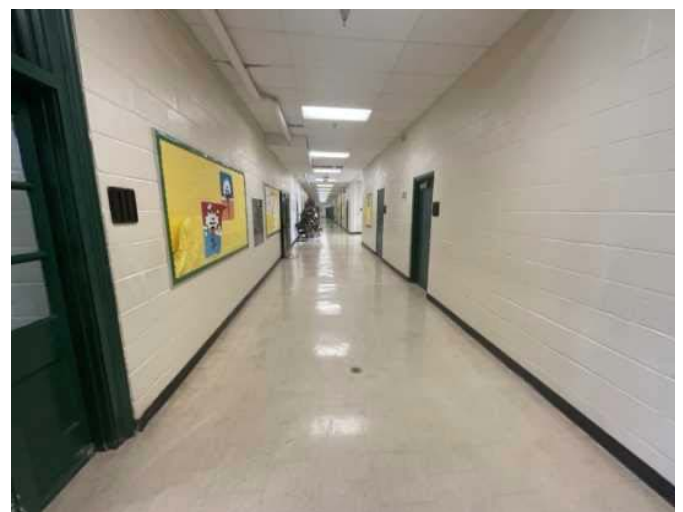
9 - MAIN ENTRANCE



10 - MAIN ENTRANCE



11 - INTERIOR PATH



12 - HALLWAY

Photographic Overview



13 - HALLWAY



14 - CAFETORIUM



15 - CAFETORIUM



16 - CAFETERIA



17 - KITCHEN



18 - BOILER ROOM

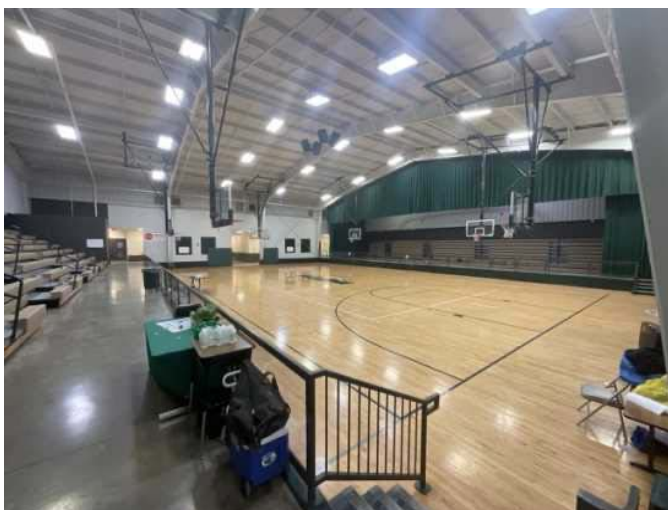
Photographic Overview



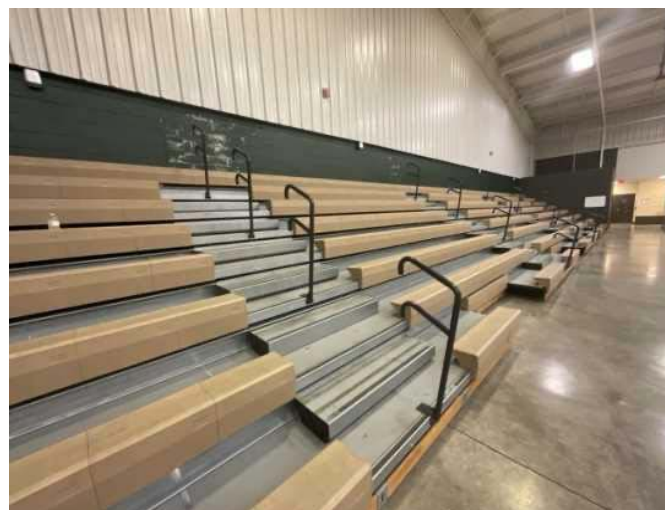
19 - LIBRARY



20 - GYMNASIUM



21 - GYMNASIUM



22 - BLEACHERS



23 - GYMNASIUM ROOF



24 - SITE

Appendix B:

Site Plan

Site Plan



**BUREAU
VERITAS**

Project Number

163745.23R000-048.354

Source

Google

Project Name

Grandview Heights Middle School

On-Site Date

December 13, 2023



Appendix C: Pre-Survey Questionnaire

BV FACILITY CONDITION ASSESSMENT: PRE-SURVEY QUESTIONNAIRE

Building / Facility Name:	Grandview Heights Middle School
Name of person completing form:	David Johnson
Title / Association w/ property:	Plant manager
Length of time associated w/ property:	5 months
Date Completed:	December 8, 2023
Phone Number:	
Method of Completion:	DURING - verbally completed during assessment

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 1985	Renovated 1998	Gymnasium 2012
2	Building size in SF	65,810 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).			
5	List any major capital expenditures planned/requested for the next few years. Have they been budgeted?			
6	Describe any on-going extremely problematic, historically chronic, or immediate facility needs.	Unit ventilators controls		

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?		✗			
8	Are there any wall, window, basement or roof leaks?	✗				Annex roof and kitchen areas
9	Has any part of the facility ever contained visible suspect mold growth, or have there been any indoor air quality complaints?	✗				Annex was remediated in September/ October
10	Are your elevators unreliable, with frequent service calls?		✗			
11	Are there any plumbing leaks, water pressure, or clogging/backup issues?		✗			
12	Have there been any leaks or pressure problems with natural gas, HVAC piping, or steam service?		✗			
13	Are any areas of the facility inadequately heated, cooled or ventilated? Poorly insulated areas?					Unit ventilator controls
14	Is the electrical service outdated, undersized, or problematic?		✗			
15	Are there any problems or inadequacies with exterior lighting?		✗			
16	Is site/parking drainage inadequate, with excessive ponding or other problems?	✗				Covered walkway to gymnasium
17	Are there any other unresolved construction defects or significant issues/hazards at the property that have not yet been identified above?		✗			
18	ADA: Has an accessibility study been previously performed? If so, when?			✗		
19	ADA: Have any ADA improvements been made to the property since original construction? Describe.	✗				Elevator with annex construction
20	ADA: Has building management reported any accessibility-based complaints or litigation?		✗			
21	Are any areas of the property leased to outside occupants?	✗				Gymnasium used for a polling place



Signature of Assessor



Signature of POC

Appendix D: Accessibility Review and Photos

Visual Survey - 2010 ADA Standards for Accessible Design**Property Name:** Grandview Heights Middle School**BV Project Number:** 163745.23R000-048.354**Facility History & Interview**

Question		Yes	No	Unk	Comments
1	Has an accessibility study been previously performed? If so, when?			✗	
2	Have any ADA improvements been made to the property since original construction? Describe.	✗			Elevator with annex construction
3	Has building management reported any accessibility-based complaints or litigation?		✗		

Grandview Heights Middle School: Accessibility Issues

Category	Major Issues (ADA study recommended)	Moderate Issues (ADA study recommended)	Minor Issues	None*
Parking			Worn pavement markings by	
Exterior Accessible Route				✗
Building Entrances				✗
Interior Accessible Route				✗
Elevators				✗
Public Restrooms				✗
Kitchens/Kitchenettes	NA			
Playgrounds & Swimming Pools	NA			
Other	NA			

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

Grandview Heights Middle School: Photographic Overview



OVERVIEW OF ACCESSIBLE PARKING AREA



2ND AREA OF ACCESSIBLE PARKING



ACCESSIBLE PATH



2ND PATHWAY



MAIN ENTRANCE



DOOR HARDWARE

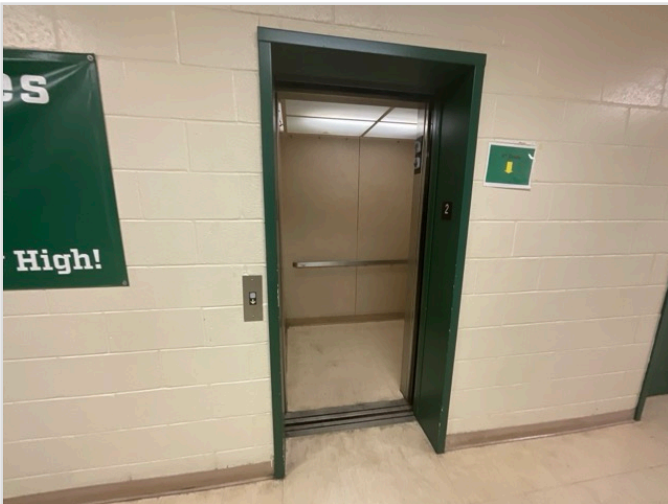
Grandview Heights Middle School: Photographic Overview



ACCESSIBLE INTERIOR PATH



SELF-SERVICE AREA



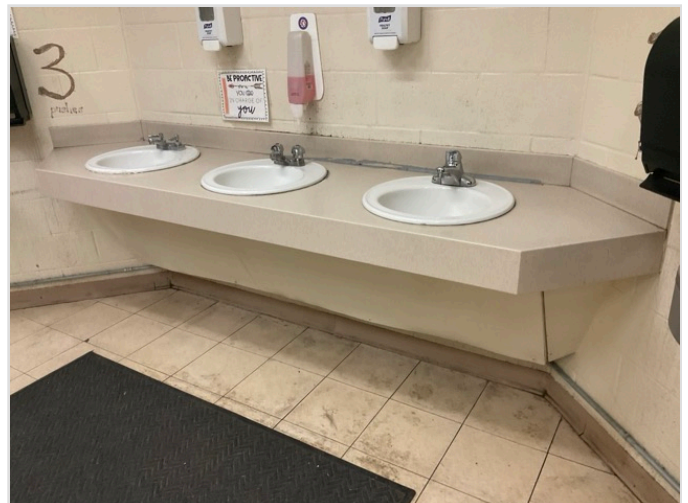
LOBBY LOOKING AT CABS



IN-CAB CONTROLS



TOILET STALL OVERVIEW



SINK, FAUCET HANDLES AND ACCESSORIES

Appendix E: **Component Condition Report**

Component Condition Report | Grandview Heights Middle School

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
Facade						
B2010	Building Exterior	Poor	Exterior Walls, Brick, Repair/Repoint	500 SF	0	7168543
B2010	Building Exterior	Fair	Exterior Walls, Brick	27,000 SF	12	7182385
B2020	Building Exterior	Fair	Window, Aluminum Double-Glazed, up to 15 SF	220	5	7168505
B2020	Building Exterior	Fair	Screens & Shutters, Aluminum Window Screen, up to 15 SF	220	2	7168524
B2050	Building Exterior	Fair	Exterior Door, Steel, Standard	10	15	7168452
B2050	Gymnasium	Fair	Exterior Door, Aluminum-Framed & Glazed, Standard Swing	4	19	7168448
Roofing						
B3010	Roof	Fair	Roofing, Asphalt Shingle, 20-Year Standard	35,000 SF	2	7168472
B3010	Roof	Fair	Roofing, Modified Bitumen	28,500 SF	2	7182232
B3010	Gymnasium	Good	Roofing, Metal	14,000 SF	29	7182234
B3010	Roof	Fair	Roofing, any type, Cool Reflective Coating, Apply	15,500 SF	2	7182239
B3020	Roof	Fair	Roof Appurtenances, Gutters & Downspouts, Aluminum w/ Fittings	1,750 LF	2	7168558
Interiors						
C1030	Throughout building	Fair	Interior Door, Wood, Solid-Core	125	15	7182387
C1070	Throughout building	Fair	Suspended Ceilings, Acoustical Tile (ACT)	54,800 SF	2	7182383
C2010	Throughout building	Fair	Wall Finishes, any surface, Prep & Paint	131,600 SF	2	7182384
C2030	Throughout building	Fair	Flooring, Vinyl Tile (VCT)	54,800 SF	2	7182380
C2030	Gymnasium	Fair	Flooring, Maple Sports Floor, Refinish	9,700 SF	2	7168445
Conveying						
D1010	Elevator	Fair	Elevator Controls, Automatic, 1 Car	1	2	7168504
D1010	Elevator	Fair	Elevator Cab Finishes, Standard	1	2	7179902
D1010	Elevator	Fair	Passenger Elevator, Hydraulic, 2 Floors, Renovate	1	7	7168503
Plumbing						

Component Condition Report | Grandview Heights Middle School

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UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
D2010	Restrooms	Fair	Urinal, Standard	12	5	7182381
D2010	Restrooms	Fair	Sink/Lavatory, Vanity Top, Solid Surface or Vitreous China	30	5	7182386
D2010	Gymnasium	Fair	Sink/Lavatory, Commercial Kitchen, 3-Bowl	1	5	7168538
D2010	Gymnasium	Good	Sink/Lavatory, Service Sink, Floor	1	24	7168466
D2010	Boiler room	Good	Water Heater, Gas, Residential	1	13	7168534
D2010	Hallway	Fair	Drinking Fountain, Wall-Mounted, Single-Level	6	2	7168569
D2010	Gymnasium	Fair	Drinking Fountain, Wall-Mounted, Single-Level	4	4	7168563
D2010	Gymnasium	Fair	Water Heater, Gas, Commercial (200 MBH)	1	8	7168573
D2010	Throughout building	Fair	Plumbing System, Supply & Sanitary, Medium Density (excludes fixtures)	65,810 SF	2	7182235
D2010	Gymnasium	Fair	Backflow Preventer, Domestic Water	1	19	7168548
D2010	Elevator	Good	Water Heater, Electric, Residential	1	10	7168469
D2010	Gymnasium	Fair	Water Heater, Gas, Commercial (200 MBH)	1	9	7168441
D2010	Kitchen	Fair	Sink/Lavatory, Commercial Kitchen, 1-Bowl	2	5	7168482
D2010	Restrooms	Fair	Toilet, Commercial Water Closet	30	5	7182382
D2010	Gymnasium	Fair	Shower, Ceramic Tile	8	19	7168443
D2010		Fair	Sink/Lavatory, Commercial Kitchen, 3-Bowl	2	5	7168486
D2010	Kitchen	Fair	Sink/Lavatory, Commercial Kitchen, 2-Bowl	1	5	7168566
D2010	Boiler room	Fair	Sink/Lavatory, Service Sink, Wall-Hung	2	2	7168554
D2060	Fire riser room	Good	Air Compressor, Tank-Style	1	20	7168502
HVAC						
D3020	Boiler room	Good	Boiler, Gas, HVAC	1	29	7168500
D3020	Boiler room	Good	Boiler Supplemental Components, Expansion Tank	1	39	7168541
D3020	Boiler room	Good	Boiler, Gas, HVAC [B-2]	1	29	7168522
D3020	Gymnasium	Fair	Unit Heater, Electric	1	2	7168451
D3020	Fire riser room	Good	Unit Heater, Hydronic [UH-3]	1	19	7168528

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UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
D3020	Boiler room	Fair	Unit Heater, Hydronic	1	2	7168535
D3030	Throughout building	Good	Unit Ventilator, approx/nominal 2 Ton	17	19	7168479
D3030	Site	Good	Split System, Condensing Unit/Heat Pump [ACCU-2]	1	15	7168496
D3030	Gymnasium	Fair	Split System Ductless, Single Zone [CU-1]	1	4	7168453
D3030	Elevator	Fair	Split System, Fan Coil Unit, DX	1	2	7168572
D3030	Site	Good	Split System, Condensing Unit/Heat Pump [ACCU-4]	1	15	7168509
D3030	Throughout building	Good	Unit Ventilator, approx/nominal 3 Ton	12	19	7168450
D3030	Site	Failed	Split System, Condensing Unit/Heat Pump [ACCU-5]	1	0	7168477
D3030	Communication	Fair	Split System, Fan Coil Unit, DX	1	2	7168551
D3030	Site	Good	Split System, Condensing Unit/Heat Pump [ACCU-3]	1	15	7168575
D3030	Site	Fair	Split System, Condensing Unit/Heat Pump [ACCU-1]	1	2	7168471
D3030	Site	Good	Chiller, Air-Cooled	1	24	7168499
D3050	Gymnasium	Fair	Packaged Unit, RTU, Pad or Roof-Mounted [RTU-6]	1	9	7168444
D3050	Throughout building	Fair	HVAC System, Hydronic Piping, 2-Pipe	65,810 SF	2	7182238
D3050	Gymnasium	Fair	HVAC System, Ductwork, Medium Density	18,000 SF	19	7182237
D3050	Boiler room	Good	Pump, Distribution, HVAC Heating Water [BP-2]	1	14	7168510
D3050	Gymnasium	Fair	Packaged Unit, RTU, Pad or Roof-Mounted [RTU-2]	1	9	7168464
D3050	Gymnasium	Fair	Packaged Unit, RTU, Pad or Roof-Mounted [RTU-3]	1	9	7168454
D3050	Gymnasium	Fair	Packaged Unit, RTU, Pad or Roof-Mounted [RTU-5]	1	9	7168527
D3050	Boiler room	Good	Pump, Distribution, HVAC Heating Water [BP-1]	1	14	7168465
D3050	Site	Good	Make-Up Air Unit, MUA or MAU [MUA-1]	1	19	7168511
D3050	Gymnasium	Fair	Packaged Unit, RTU, Pad or Roof-Mounted [RTU-4]	1	9	7168493
D3050	Boiler room	Good	Pump, Distribution, HVAC Chilled or Condenser Water [P-3]	1	24	7168442
D3050	Gymnasium	Fair	Packaged Unit, RTU, Pad or Roof-Mounted [RTU-7]	1	9	7168447
D3050	Throughout building	Fair	HVAC System, Hydronic Piping, 2-Pipe	65,810 SF	15	7179903

Component Condition Report | Grandview Heights Middle School

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UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
D3050	Boiler room	Good	Pump, Distribution, HVAC Chilled or Condenser Water [P-1]	1	24	7168532
D3050	Gymnasium	Fair	Packaged Unit, RTU, Pad or Roof-Mounted [RTU-8]	1	9	7168512
D3050	Gymnasium	Fair	Packaged Unit, RTU, Pad or Roof-Mounted [RTU-1]	1	9	7168490
D3050	Boiler room	Good	Pump, Distribution, HVAC Chilled or Condenser Water [P-2]	1	24	7168473
D3060	Gymnasium	Fair	Exhaust Fan, Centrifugal, 16" Damper [EF-1]	1	14	7168515
D3060	Gymnasium	Fair	Exhaust Fan, Roof or Wall-Mounted, 16" Damper [EF-2]	1	9	7168536
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 16" Damper	1	2	7168487
Fire Protection						
D4010	Throughout building	Fair	Fire Suppression System, Existing Sprinkler Heads, by SF	65,810 SF	2	7168475
D4010	Gymnasium	Fair	Fire Suppression System, Existing Sprinkler Heads, by SF	65,810 SF	2	7168513
D4010	Gymnasium	Good	Backflow Preventer, Fire Suppression	1	24	7168455
D4010	Kitchen	Fair	Fire Suppression System, Commercial Kitchen, per LF of Hood	10 LF	2	7168530
D4010	Fire riser room	Fair	Supplemental Components, Fire Riser, Dry	1	15	7168537
D4030	Kitchen	Fair	Fire Extinguisher, Wet Chemical/CO2	1	2	7168478
D4030	Throughout building	Fair	Fire Extinguisher, Type ABC, up to 20 LB	15	2	7168457
Electrical						
D5020	Electrical room	Fair	Secondary Transformer, Dry, Stepdown [Transformer T1G]	1	5	7168460
D5020	Plant manager office	Fair	Distribution Panel, 120/208 V [LCN]	1	7	7168467
D5020	Plant manager office	Fair	Secondary Transformer, Dry, Stepdown [Transformer T1C]	1	5	7168525
D5020	Site	Fair	Switchboard, 277/480 V [Switchboard MP]	1	15	7168549
D5020	Electrical room	Fair	Distribution Panel, 120/208 V [Panel RDP]	1	5	7168491
D5020	Electrical room	Fair	Secondary Transformer, Dry, Stepdown [TRANSFORMER TA]	1	5	7168571
D5020	Plant manager office	Fair	Distribution Panel, 120/208 V [RC]	2	7	7168559
D5020	Plant manager office	Fair	Secondary Transformer, Dry, Stepdown [Transformer TC]	1	5	7168456
D5020	Electrical room	Fair	Distribution Panel, 120/208 V [Panel RA]	1	5	7168521

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UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
D5020	Gymnasium	Fair	Secondary Transformer, Dry, Stepdown	1	5	7168564
D5020	Gymnasium	Fair	Distribution Panel, 120/208 V [LPM]	1	5	7168570
D5020	Gymnasium	Fair	Distribution Panel, 277/480 V [MDP]	2	5	7168461
D5030	Boiler room	Good	Variable Frequency Drive, VFD, by HP of Motor, Replace/Install [VFD-2]	1	19	7168484
D5030	Boiler room	Good	Variable Frequency Drive, VFD, by HP of Motor, Replace/Install [VFD-1]	1	19	7168523
D5030	Boiler room	Good	Variable Frequency Drive, VFD, by HP of Motor, Replace/Install [VFD-4]	1	19	7168498
D5030	Throughout building	Fair	Electrical System, Wiring & Switches, Average or Low Density/Complexity	65,810 SF	15	7182233
D5030	Boiler room	Good	Variable Frequency Drive, VFD, by HP of Motor, Replace/Install [VFD-3]	1	19	7168553
D5030	Boiler room	Good	Variable Frequency Drive, VFD, by HP of Motor, Replace/Install [VFD-5]	1	19	7168557
D5040	Throughout building	Fair	Interior Lighting System, Full Upgrade, Medium Density & Standard Fixtures	65,810 SF	2	7182236
Fire Alarm & Electronic Systems						
D6020	Throughout building	Fair	Low Voltage System, Phone & Data Lines	65,810 SF	2	7168459
D6030	Gymnasium	Fair	Sound System, Theater/Auditorium/Church	18,000 SF	9	7168565
D7010	Throughout building	Fair	Intrusion Detection System, Full Alarm System Renovation/Upgrade, Upgrade/Install	65,810 SF	2	7168514
D7030	Throughout building	Fair	Security/Surveillance System, Full System Upgrade, Average Density	65,810 SF	2	7168552
D7050	Office	Fair	Fire Alarm Panel, Fully Addressable	1	2	7168546
D7050	Throughout building	Fair	Fire Alarm System, Full System Upgrade, Standard Addressable, Upgrade/Install	65,810 SF	2	7168506
D8010	Throughout building	Fair	BAS/HVAC Controls, Basic System or Legacy Upgrades, Upgrade/Install	65,810 SF	2	7168547
Equipment & Furnishings						
E1030	Kitchen	Fair	Foodservice Equipment, Refrigerator, Undercounter 1-Door	1	2	7168518
E1030	Gymnasium	Failed	Laundry Equipment, Washer, Commercial	1	0	7168501
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels	1	4	7168474
E1030	Gymnasium	Fair	Foodservice Equipment, Ice maker, Freestanding	1	4	7168550
E1030	Kitchen	Fair	Foodservice Equipment, Walk-In, Freezer	1	2	7168539
E1030	Kitchen	Fair	Foodservice Equipment, Dairy Cooler/Wells	1	2	7168508

Component Condition Report | Grandview Heights Middle School

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UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels	1	4	7168485
E1030	Kitchen	Fair	Foodservice Equipment, Walk-In, Refrigerator	1	2	7168481
E1030	Kitchen	Fair	Foodservice Equipment, Freezer, Chest	1	2	7168468
E1030	Kitchen	Fair	Foodservice Equipment, Convection Oven, Double	1	2	7168555
E1030	Kitchen	Fair	Foodservice Equipment, Dairy Cooler/Wells	1	2	7168480
E1030	Kitchen	Fair	Foodservice Equipment, Ice maker, Freestanding	1	3	7168458
E1030	Kitchen	Fair	Foodservice Equipment, Steamer, Freestanding	1	6	7168556
E1030	Kitchen	Fair	Foodservice Equipment, Exhaust Hood, 8 to 10 LF	2	2	7168561
E1030	Kitchen	Fair	Foodservice Equipment, Range/Oven, 4-Burner	1	2	7168544
E1030	Kitchen	Fair	Foodservice Equipment, Convection Oven, Double	1	2	7168516
E1030	Gymnasium	Fair	Laundry Equipment, Dryer, Commercial	1	4	7168495
E1030	Kitchen	Fair	Foodservice Equipment, Refrigerator, Undercounter 1-Door	1	2	7168540
E1030	Kitchen	Good	Foodservice Equipment, Walk-In, Condenser for Refigerator/Freezer [Cooler]	1	14	7168519
E1030	Kitchen	Fair	Foodservice Equipment, Refrigerator, Undercounter 1-Door	1	2	7168446
E1030	Kitchen	Fair	Foodservice Equipment, Garbage Disposal, 1 to 3 HP	1	2	7168449
E1030	Kitchen	Fair	Foodservice Equipment, Dishwasher Commercial	1	6	7168463
E1030	Kitchen	Fair	Foodservice Equipment, Convection Oven, Double	1	2	7168542
E1030	Kitchen	Fair	Foodservice Equipment, Steamer, Freestanding	1	6	7168497
E1030	Kitchen	Fair	Foodservice Equipment, Mixer, Tabletop	1	2	7168476
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels	1	2	7168489
E1030	Kitchen	Good	Foodservice Equipment, Refrigerator, 3-Door Reach-In	1	12	7168568
E1030	Kitchen	Good	Foodservice Equipment, Walk-In, Condenser for Refigerator/Freezer [Freezer]	1	14	7168560
E1030	Kitchen	Fair	Foodservice Equipment, Freezer, Chest	1	2	7168462
E1030	Kitchen	Good	Foodservice Equipment, Refrigerator, 1-Door Reach-In	1	13	7168520
E1040	Gymnasium	Fair	Healthcare Equipment, Defibrillator (AED), Cabinet-Mounted	1	2	7168562

Component Condition Report | Grandview Heights Middle School

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UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
E1040	Hallway	Fair	Healthcare Equipment, Defibrillator (AED), Cabinet-Mounted	1	2	7168488
E2010	Gymnasium	Fair	Bleachers, Telescoping Power-Operated, up to 15 Tier (per Seat)	675	9	7168494
Pedestrian Plazas & Walkways						
G2020	Site	Poor	Parking Lots, Pavement, Asphalt, Mill & Overlay	41,200 SF	2	7168574
Athletic, Recreational & Playfield Areas						
G2050	Gymnasium	Fair	Sports Apparatus, Basketball, Backboard/Rim/Pole	6	14	7168529
G2050	Gymnasium	Fair	Sports Apparatus, Scoreboard, Electronic Standard	1	14	7168567
Sitework						
G2060	Gymnasium	Fair	Bike Rack, Fixed Single Loop	8	9	7168470
G2060	Site	Fair	Signage, Property, Pylon Robust/Electronic Programmable, Replace/Install	1	2	7168517
G2060	Site	Fair	Flagpole, Metal	1	5	7168526
G4050	Gymnasium	Fair	Exterior Fixture w/ Lamp, any type, w/ LED Replacement	9	9	7168545
G4050	Site	Fair	Pole Light Fixture w/ Lamps, any type 20' High, w/ LED Replacement, Replace/Install	8	2	7168492
Utilities						
G3010	Site	Fair	Hydrant, Fire, Replace/Install	2	5	7168483

Appendix F: **Replacement Reserves**



Replacement Reserves Report																																				
Grandview Heights Middle School																																				
1/15/2024																																				
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													
Grandview Heights Middle School		\$33,300	\$0	\$4,117,895	\$7,321	\$27,688	\$424,132	\$50,747	\$89,781	\$21,028	\$696,814	\$14,246	\$0	\$2,530,939	\$6,755	\$136,436	\$1,079,788	\$68,200	\$1,438,023	\$11,406	\$837,825	\$26,821	\$11,619,145													
Grand Total		\$33,300	\$0	\$4,117,895	\$7,321	\$27,688	\$424,132	\$50,747	\$89,781	\$21,028	\$696,814	\$14,246	\$0	\$2,530,939	\$6,755	\$136,436	\$1,079,788	\$68,200	\$1,438,023	\$11,406	\$837,825	\$26,821	\$11,619,145													
Unifor mat 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	7168543	Exterior Walls, Brick, Repair/Repoint	0	0	0	500	SF	\$33.00	\$16,500	\$16,500																					\$16,500				
B2010	Building Exterior	7182385	Exterior Walls, Brick, Replace	50	38	12	27000	SF	\$53.00	\$1,431,000													\$1,431,000									\$1,431,000				
B2020	Building Exterior	7168505	Window, Aluminum Double-Glazed, up to 15 SF, Replace	30	25	5	220	EA	\$650.00	\$143,000						\$143,000																	\$143,000			
B2020	Building Exterior	7168524	Screens & Shutters, Aluminum Window Screen, up to 15 SF, Replace	10	8	2	220	EA	\$150.00	\$33,000			\$33,000										\$33,000										\$66,000			
B2050	Building Exterior	7168452	Exterior Door, Steel, Standard, Replace	40	25	15	10	EA	\$600.00	\$6,000																			\$6,000					\$6,000		
B2050	Gymnasium	7168448	Exterior Door, Aluminum-Framed & Glazed, Standard Swing, Replace	30	11	19	4	EA	\$1,300.00	\$5,200																					\$5,200			\$5,200		
B3010	Roof	7168472	Roofing, Asphalt Shingle, 20-Year Standard, Replace	20	18	2	35000	SF	\$3.80	\$133,000			\$133,000																					\$133,000		
B3010	Roof	7182239	Roofing, any type, Cool Reflective Coating, Apply	10	8	2	15500	SF	\$1.60	\$24,800			\$24,800											\$24,800										\$49,600		
B3010	Roof	7182232	Roofing, Modified Bitumen, Replace	20	18	2	28500	SF	\$10.00	\$285,000			\$285,000																					\$285,000		
B3020	Roof	7168558	Roof Appurtenances, Gutters & Downspouts, Aluminum w/ Fittings, Replace	20	18	2	1750	LF	\$9.00	\$15,750			\$15,750																					\$15,750		
C1030	Throughout building	7182387	Interior Door, Wood, Solid-Core, Replace	40	25	15	125	EA	\$700.00	\$87,500																			\$87,500						\$87,500	
C1070	Throughout building	7182383	Suspended Ceilings, Acoustical Tile (ACT), Replace	25	23	2	54800	SF	\$3.50	\$191,800			\$191,800																						\$191,800	
C2010	Throughout building	7182384	Wall Finishes, any surface, Prep & Paint	10	8	2	131600	SF	\$1.50	\$197,400			\$197,400											\$197,400											\$394,800	
C2030	Throughout building	7182380	Flooring, Vinyl Tile (VCT), Replace	15	13	2	54800	SF	\$5.00	\$274,000			\$274,000																	\$274,000						\$548,000
C2030	Gymnasium	7168445	Flooring, Maple Sports Floor, Refinish	10	8	2	9700	SF	\$5.00	\$48,500			\$48,500											\$48,500											\$97,000	
D1010	Elevator	7179902	Elevator Cab Finishes, Standard, Replace	15	13	2	1	EA	\$9,000.00	\$9,000			\$9,000																	\$9,000					\$18,000	
D1010	Elevator	7168504	Elevator Controls, Automatic, 1 Car, Replace	20	18	2	1	EA	\$5,000.00	\$5,000			\$5,000																						\$5,000	
D1010	Elevator	7168503	Passenger Elevator, Hydraulic, 2 Floors, Renovate	30	23	7	1	EA	\$55,000.00	\$55,000								\$55,000																	\$55,000	
D2010	Gymnasium	7168573	Water Heater, Gas, Commercial (200 MBH), Replace	20	12	8	1	EA	\$16,600.00	\$16,600									\$16,600																\$16,600	
D2010	Gymnasium	7168441	Water Heater, Gas, Commercial (200 MBH), Replace	20	11	9	1	EA	\$16,600.00	\$16,600										\$16,600															\$16,600	
D2010	Elevator	7168469	Water Heater, Electric, Residential, Replace	15	5	10	1	EA	\$900.00	\$900															\$900										\$900	
D2010	Boiler room	7168534	Water Heater, Gas, Residential, Replace	15	2	13	1	EA	\$1,900.00	\$1,900																\$1,900									\$1,900	
D2010	Throughout building	7182235	Plumbing System, Supply & Sanitary, Medium Density (excludes fixtures), Replace	40	38	2	65810	SF	\$11.00	\$723,910			\$723,910																						\$723,910	
D2010	Gymnasium	7168548	Backflow Preventer, Domestic Water, Replace	30	11	19	1	EA	\$5,200.00	\$5,200																						\$5,200			\$5,200	
D2010	Boiler room	7168554	Sink/Lavatory, Service Sink, Wall-Hung, Replace	35	33	2	2	EA	\$1,400.00	\$2,800			\$2,800																						\$2,800	
D2010	Hallway	7168569	Drinking Fountain, Wall-Mounted, Single-Level, Replace	15	13	2	6	EA	\$1,200.00	\$7,200			\$7,200																	\$7,200					\$14,400	
D2010	Gymnasium	7168563	Drinking Fountain, Wall-Mounted, Single-Level, Replace	15	11	4	4	EA	\$1,200.00	\$4,800					\$4,800																	\$4,800			\$9,600	
D2010	Restrooms	7182381	Urinal, Standard, Replace	30	25	5	12	EA	\$1,100.00	\$13,200						\$13,200																			\$13,200	
D2010	Restrooms	7182382	Toilet, Commercial Water Closet, Replace	30	25	5	30	EA	\$1,300.00	\$39,000						\$39,000																			\$39,000	
D2010	Grandview Heights Middle School	7168486	Sink/Lavatory, Commercial Kitchen, 3-Bowl, Replace	30	25	5	2	EA	\$2,500.00	\$5,000						\$5,000																			\$5,000	
D2010	Kitchen	7168566	Sink/Lavatory, Commercial Kitchen, 2-Bowl, Replace	30	25	5	1	EA	\$2,100.00	\$2,100						\$2,100																			\$2,100	
D2010	Kitchen	7168482	Sink/Lavatory, Commercial Kitchen, 1-Bowl, Replace	30	25	5	2	EA	\$1,600.00	\$3,200						\$3,200																			\$3,200	
D2010	Gymnasium	7168538	Sink/Lavatory, Commercial Kitchen, 3-Bowl, Replace	30	25	5	1	EA	\$2,500.00	\$2,500						\$2,500																			\$2,500	
D2010	Restrooms	7182386	Sink/Lavatory, Vanity Top, Solid Surface or Vitreous China, Replace	30	25	5	30	EA	\$1,100.00	\$33,000						\$33,000																			\$33,000	
D2010	Gymnasium	7168443	Shower, Ceramic Tile, Replace	30	11	19																														



Replacement Reserves Report																																
Grandview Heights Middle School																																
1/15/2024																																
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
D3030	Throughout building	7168450	Unit Ventilator, approx/nominal 3 Ton, Replace	20	1	19	12	EA	\$9,000.00	\$108,000																				\$108,000		\$108,000
D3030	Throughout building	7168479	Unit Ventilator, approx/nominal 2 Ton, Replace	20	1	19	17	EA	\$7,400.00	\$125,800																				\$125,800		\$125,800
D3050	Throughout building	7182238	HVAC System, Hydronic Piping, 2-Pipe, Replace	40	38	2	65810	SF	\$5.00	\$329,050			\$329,050																			\$329,050
D3050	Boiler room	7168510	Pump, Distribution, HVAC Heating Water, Replace	15	1	14	1	EA	\$5,100.00	\$5,100															\$5,100							\$5,100
D3050	Boiler room	7168465	Pump, Distribution, HVAC Heating Water, Replace	15	1	14	1	EA	\$5,100.00	\$5,100															\$5,100							\$5,100
D3050	Throughout building	7179903	HVAC System, Hydronic Piping, 2-Pipe, Replace	40	25	15	65810	SF	\$5.00	\$329,050																\$329,050						\$329,050
D3050	Gymnasium	7168527	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	11	9	1	EA	\$25,000.00	\$25,000										\$25,000												\$25,000
D3050	Gymnasium	7168444	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	11	9	1	EA	\$9,000.00	\$9,000										\$9,000												\$9,000
D3050	Gymnasium	7168447	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	11	9	1	EA	\$30,000.00	\$30,000										\$30,000												\$30,000
D3050	Gymnasium	7168512	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	11	9	1	EA	\$25,000.00	\$25,000										\$25,000												\$25,000
D3050	Gymnasium	7168490	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	11	9	1	EA	\$7,500.00	\$7,500										\$7,500												\$7,500
D3050	Gymnasium	7168464	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	11	9	1	EA	\$25,000.00	\$25,000										\$25,000												\$25,000
D3050	Gymnasium	7168454	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	11	9	1	EA	\$30,000.00	\$30,000										\$30,000												\$30,000
D3050	Gymnasium	7168493	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	11	9	1	EA	\$25,000.00	\$25,000										\$25,000												\$25,000
D3050	Gymnasium	7182237	HVAC System, Ductwork, Medium Density, Replace	30	11	19	18000	SF	\$4.00	\$72,000																				\$72,000		\$72,000
D3050	Site	7168511	Make-Up Air Unit, MUA or MAU, Replace	20	1	19	1	EA	\$80,000.00	\$80,000																				\$80,000		\$80,000
D3060	Roof	7168487	Exhaust Fan, Roof or Wall-Mounted, 16" Damper, Replace	20	18	2	1	EA	\$2,400.00	\$2,400			\$2,400																			\$2,400
D3060	Gymnasium	7168536	Exhaust Fan, Roof or Wall-Mounted, 16" Damper, Replace	20	11	9	1	EA	\$2,400.00	\$2,400										\$2,400												\$2,400
D3060	Gymnasium	7168515	Exhaust Fan, Centrifugal, 16" Damper, Replace	25	11	14	1	EA	\$2,400.00	\$2,400															\$2,400							\$2,400
D4010	Throughout building	7168475	Fire Suppression System, Existing Sprinkler Heads, by SF, Replace	25	23	2	65810	SF	\$1.07	\$70,417			\$70,417																			\$70,417
D4010	Gymnasium	7168513	Fire Suppression System, Existing Sprinkler Heads, by SF, Replace	25	23	2	65810	SF	\$1.07	\$70,417			\$70,417																			\$70,417
D4010	Fire riser room	7168537	Supplemental Components, Fire Riser, Dry, Replace	40	25	15	1	EA	\$7,000.00	\$7,000																\$7,000						\$7,000
D4010	Kitchen	7168530	Fire Suppression System, Commercial Kitchen, per LF of Hood, Replace	20	18	2	10	LF	\$400.00	\$4,000			\$4,000																			\$4,000
D4030	Kitchen	7168478	Fire Extinguisher, Wet Chemical/CO2, Replace	10	8	2	1	EA	\$300.00	\$300			\$300											\$300								\$600
D4030	Throughout building	7168457	Fire Extinguisher, Type ABC, up to 20 LB, Replace	10	8	2	15	EA	\$150.00	\$2,250			\$2,250										\$2,250									\$4,500
D5020	Electrical room	7168460	Secondary Transformer, Dry, Stepdown, Replace	30	25	5	1	EA	\$10,000.00	\$10,000						\$10,000																\$10,000
D5020	Electrical room	7168571	Secondary Transformer, Dry, Stepdown, Replace	30	25	5	1	EA	\$25,000.00	\$25,000						\$25,000																\$25,000
D5020	Plant manager office	7168525	Secondary Transformer, Dry, Stepdown, Replace	30	25	5	1	EA	\$10,000.00	\$10,000						\$10,000																\$10,000
D5020	Plant manager office	7168456	Secondary Transformer, Dry, Stepdown, Replace	30	25	5	1	EA	\$16,000.00	\$16,000						\$16,000																\$16,000
D5020	Gymnasium	7168564	Secondary Transformer, Dry, Stepdown, Replace	30	25	5	1	EA	\$16,000.00	\$16,000						\$16,000																\$16,000
D5020	Site	7168549	Switchboard, 277/480 V, Replace	40	25	15	1	EA	\$75,000.00	\$75,000																\$75,000						\$75,000
D5020	Electrical room	7168521	Distribution Panel, 120/208 V, Replace	30	25	5	1	EA	\$6,000.00	\$6,000						\$6,000																\$6,000
D5020	Electrical room	7168491	Distribution Panel, 120/208 V, Replace	30	25	5	1	EA	\$8,000.00	\$8,000						\$8,000																



Replacement Reserves Report																																	
Grandview Heights Middle School																																	
1/15/2024																																	
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	
E1030	Gymnasium	7168495	Laundry Equipment, Dryer, Commercial, Replace	15	11	4	1	EA	\$4,900.00	\$4,900					\$4,900															\$4,900		\$9,800	
E1030	Kitchen	7168540	Foodservice Equipment, Refrigerator, Undercounter 1-Door, Replace	15	13	2	1	EA	\$1,100.00	\$1,100			\$1,100															\$1,100				\$2,200	
E1030	Kitchen	7168518	Foodservice Equipment, Refrigerator, Undercounter 1-Door, Replace	15	13	2	1	EA	\$1,100.00	\$1,100			\$1,100															\$1,100				\$2,200	
E1030	Kitchen	7168462	Foodservice Equipment, Freezer, Chest, Replace	15	13	2	1	EA	\$1,800.00	\$1,800			\$1,800															\$1,800				\$3,600	
E1030	Kitchen	7168480	Foodservice Equipment, Dairy Cooler/Wells, Replace	15	13	2	1	EA	\$3,600.00	\$3,600			\$3,600															\$3,600				\$7,200	
E1030	Kitchen	7168446	Foodservice Equipment, Refrigerator, Undercounter 1-Door, Replace	15	13	2	1	EA	\$1,100.00	\$1,100			\$1,100															\$1,100				\$2,200	
E1030	Kitchen	7168508	Foodservice Equipment, Dairy Cooler/Wells, Replace	15	13	2	1	EA	\$3,600.00	\$3,600			\$3,600															\$3,600				\$7,200	
E1030	Kitchen	7168468	Foodservice Equipment, Freezer, Chest, Replace	15	13	2	1	EA	\$1,800.00	\$1,800			\$1,800															\$1,800				\$3,600	
E1030	Kitchen	7168449	Foodservice Equipment, Garbage Disposal, 1 to 3 HP, Replace	15	13	2	1	EA	\$3,800.00	\$3,800			\$3,800															\$3,800				\$7,600	
E1030	Kitchen	7168539	Foodservice Equipment, Walk-In, Freezer, Replace	20	18	2	1	EA	\$25,000.00	\$25,000			\$25,000																			\$25,000	
E1030	Kitchen	7168481	Foodservice Equipment, Walk-In, Refrigerator, Replace	20	18	2	1	EA	\$15,000.00	\$15,000			\$15,000																			\$15,000	
E1030	Kitchen	7168542	Foodservice Equipment, Convection Oven, Double, Replace	10	8	2	1	EA	\$9,500.00	\$9,500			\$9,500										\$9,500									\$19,000	
E1030	Kitchen	7168544	Foodservice Equipment, Range/Oven, 4-Burner, Replace	15	13	2	1	EA	\$4,500.00	\$4,500			\$4,500															\$4,500				\$9,000	
E1030	Kitchen	7168489	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels, Replace	15	13	2	1	EA	\$1,700.00	\$1,700			\$1,700															\$1,700				\$3,400	
E1030	Kitchen	7168561	Foodservice Equipment, Exhaust Hood, 8 to 10 LF, Replace	15	13	2	2	EA	\$4,500.00	\$9,000			\$9,000															\$9,000				\$18,000	
E1030	Kitchen	7168476	Foodservice Equipment, Mixer, Tabletop, Replace	20	18	2	1	EA	\$3,400.00	\$3,400			\$3,400																				\$3,400
E1030	Kitchen	7168555	Foodservice Equipment, Convection Oven, Double, Replace	10	8	2	1	EA	\$9,500.00	\$9,500			\$9,500										\$9,500										\$19,000
E1030	Kitchen	7168516	Foodservice Equipment, Convection Oven, Double, Replace	10	8	2	1	EA	\$9,500.00	\$9,500			\$9,500										\$9,500										\$19,000
E1030	Kitchen	7168458	Foodservice Equipment, Icemaker, Freestanding, Replace	15	12	3	1	EA	\$6,700.00	\$6,700				\$6,700															\$6,700				\$13,400
E1030	Kitchen	7168474	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels, Replace	15	11	4	1	EA	\$1,700.00	\$1,700					\$1,700															\$1,700			\$3,400
E1030	Kitchen	7168485	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels, Replace	15	11	4	1	EA	\$1,700.00	\$1,700					\$1,700															\$1,700			\$3,400
E1030	Gymnasium	7168550	Foodservice Equipment, Icemaker, Freestanding, Replace	15	11	4	1	EA	\$6,700.00	\$6,700					\$6,700															\$6,700			\$13,400
E1030	Kitchen	7168463	Foodservice Equipment, Dishwasher Commercial, Replace	10	4	6	1	EA	\$21,500.00	\$21,500							\$21,500										\$21,500						\$43,000
E1030	Kitchen	7168497	Foodservice Equipment, Steamer, Freestanding, Replace	10	4	6	1	EA	\$10,500.00	\$10,500							\$10,500										\$10,500						\$21,000
E1030	Kitchen	7168556	Foodservice Equipment, Steamer, Freestanding, Replace	10	4	6	1	EA	\$10,500.00	\$10,500							\$10,500										\$10,500						\$21,000
E1030	Kitchen	7168568	Foodservice Equipment, Refrigerator, 3-Door Reach-In, Replace	15	3	12	1	EA	\$6,400.00	\$6,400													\$6,400										\$6,400
E1030	Kitchen	7168520	Foodservice Equipment, Refrigerator, 1-Door Reach-In, Replace	15	2	13	1	EA	\$2,700.00	\$2,700														\$2,700									\$2,700
E1030	Kitchen	7168519	Foodservice Equipment, Walk-In, Condenser for Refigerator/Freezer, Replace	15	1	14	1	EA	\$6,300.00	\$6,300															\$6,300								\$6,300
E1030	Kitchen	7168560	Foodservice Equipment, Walk-In, Condenser for Refigerator/Freezer, Replace	15	1	14	1	EA	\$6,300.00	\$6,300															\$6,300								\$6,300
E1040	Hallway	7168488	Healthcare Equipment, Defibrillator (AED), Cabinet-Mounted, Replace	10	8	2	1	EA	\$1,500.00	\$1,500			\$1,500										\$1,500										\$3,000
E1040	Gymnasium	7168562	Healthcare Equipment, Defibrillator (AED), Cabinet-Mounted, Replace	10	8	2	1	EA	\$1,500.00	\$1,500			\$1,500										\$1,500										\$3,000
E2010	Gymnasium	7168494	Bleachers, Telescoping Power-Operated, up to 15 Tier (per Seat), Replace	20	11	9	675	EA	\$450.00	\$303,750										\$303,750													\$303,750
G2020	Site	7168574	Parking Lots, Pavement, Asphalt, Mill & Overlay	25	23	2	41200	SF	\$3.50	\$144,200			\$144,200																				\$144,200
G2050	Gymnasium	7168567	Sports Apparatus, Scoreboard, Electronic Standard, Replace	25	11	14	1	EA	\$8,000.00	\$8,000															\$8,000								\$8,000
G2050	Gymnasium	7168529	Sports Apparatus, Basketball, Backboard/Rim/Pole, Replace	25	11	14	6	EA	\$9,500.00	\$57,000															\$57,000								\$57,000
G2060	Gymnasium	7168470	Bike Rack, Fixed Single Loop, Replace	20	11	9	8	EA	\$300.00	\$2,400											\$2,400												\$2,400
G2060	Site	7168517	Signage, Property, Pylon Robust/Electronic Programmable, Replace/Install	20	18	2	1	EA	\$25,000.00	\$25,000			\$25,000																				\$25,000
G2060	Site	7168526	Flagpole, Metal, Replace	30	25	5	1	EA	\$2,500.00	\$2,500						\$2,500																	\$2,500
G3010	Site	7168483	Hydrant, Fire, Replace/Install	30	25	5	2	EA	\$5,680.00	\$11,360						\$11,360																	\$11,360
G4050	Site	7168492	Pole Light Fixture w/ Lamps, any type 20' High, w/ LED Replacement, Replace/Install	20	18	2	8	EA	\$4,000.00	\$32,000			\$32,000																				\$32,000
G4050	Gymnasium	7168545	Exterior Fixture w/ Lamp, any type, w/ LED Replacement, Replace	20	11	9	9	EA	\$600.00	\$5,400											\$5,400												\$5,400
Totals, Unescalated											\$33,300	\$0	\$3,881,511	\$6,700	\$24,600	\$365,860	\$42,500	\$73,000	\$16,600	\$534,050	\$10,600	\$0	\$1,775,150	\$4,600	\$90,200	\$693,075	\$42,500	\$870,028	\$6,700	\$477,800	\$14,850	\$8,963,623	
Totals, Escalated (3.0% inflation, compounded annually)											\$33,300	\$0	\$4,117,895	\$7,321	\$27,688	\$424,132	\$50,747	\$89,781	\$21,028	\$696,814	\$14,246	\$0	\$2,530,939	\$6,755	\$136,436	\$1,079,788	\$68,200	\$1,438,023	\$11,406	\$837,825	\$26,821	\$11,619,145	

Appendix G: Equipment Inventory List

D10 Conveying													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7168504	D1010	Elevator Controls	Automatic, 1 Car	2100	Grandview Heights Middle School	Elevator	ThyssenKrupp	No dataplate	No dataplate	2000		
2	7168503	D1010	Passenger Elevator	Hydraulic, 2 Floors	2100 LB	Grandview Heights Middle School	Elevator	ThyssenKrupp	EP06015	EL5668	2000		
D20 Plumbing													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7168469	D2010	Water Heater	Electric, Residential	45 GAL	Grandview Heights Middle School	Elevator	A. O. Smith	DEN-52 110	1814109848212	2018		
2	7168573	D2010	Water Heater	Gas, Commercial (200 MBH)	100 GAL	Grandview Heights Middle School	Gymnasium	State Industries, Inc.	SUF100199NE 100	1127M000988	2011		
3	7168441	D2010	Water Heater	Gas, Commercial (200 MBH)	100 GAL	Grandview Heights Middle School	Gymnasium	State Industries, Inc.	SUF100199NE 100	1241 M001719	2012		
4	7168534	D2010	Water Heater	Gas, Residential	60 GAL	Grandview Heights Middle School	Boiler room	Bradford White	EF60T199E3N2	XF47951198	2021		
5	7168548	D2010	Backflow Preventer	Domestic Water	2.5 IN	Grandview Heights Middle School	Gymnasium	Watts Regulator	909	127002 A	2012		
6	7168502	D2060	Air Compressor	Tank-Style	.75 HP	Grandview Heights Middle School	Fire riser room	SpeedAire	56S34D2M	2302240316	2023		
D30 HVAC													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7168500	D3020	Boiler	Gas, HVAC	1000 MBH	Grandview Heights Middle School	Boiler room	Lochinvar	KBX1000N	2224 129857570	2022		
2	7168522	D3020	Boiler [B-2]	Gas, HVAC	3500 MBH	Grandview Heights Middle School	Boiler room	Lochinvar	PBN3500	2214 129032698	2022		
3	7168451	D3020	Unit Heater	Electric	1 KW	Grandview Heights Middle School	Gymnasium	No dataplate	No dataplate	No dataplate	1998		

4	7168535	D3020	Unit Heater	Hydronic	50 MBH	Grandview Heights Middle School	Boiler room	Daikin Industries	Inaccessible	Inaccessible	1998	
5	7168528	D3020	Unit Heater [UH-3]	Hydronic	35 MBH	Grandview Heights Middle School	Fire riser room	Daikin Industries	Inaccessible	Inaccessible	2022	
6	7168541	D3020	Boiler Supplemental Components	Expansion Tank	400 GAL	Grandview Heights Middle School	Boiler room	Bell & Gossett	B400	474449	2022	
7	7168499	D3030	Chiller	Air-Cooled	180 TON	Grandview Heights Middle School	Site	Daikin Industries	AGZ180ETHEMNN0A	STNU220300453	2022	
8	7168572	D3030	Split System	Fan Coil Unit, DX	8 TON	Grandview Heights Middle School	Elevator	York	N-AHB0806A	(S)ELHS709377	1986	
9	7168551	D3030	Split System	Fan Coil Unit, DX	5 TON	Grandview Heights Middle School	Communication	Trane	Inaccessible	Inaccessible	1998	
10	7168471	D3030	Split System [ACCU-1]	Condensing Unit/Heat Pump	5 TON	Grandview Heights Middle School	Site	Trane	TTA060C300A0	M313PL9CF	1997	
11	7168496	D3030	Split System [ACCU-2]	Condensing Unit/Heat Pump	4 TON	Grandview Heights Middle School	Site	Daikin Industries	DX13SA0483AF	2307206753	2023	
12	7168575	D3030	Split System [ACCU-3]	Condensing Unit/Heat Pump	5 TON	Grandview Heights Middle School	Site	Daikin Industries	DX13SA0603AE	2308167284	2023	
13	7168509	D3030	Split System [ACCU-4]	Condensing Unit/Heat Pump	3.5 TON	Grandview Heights Middle School	Site	Daikin Industries	GSXN402410AA	2309107306	2023	
14	7168477	D3030	Split System [ACCU-5]	Condensing Unit/Heat Pump	5 TON	Grandview Heights Middle School	Site	No dataplate	No dataplate	No dataplate	1985	
15	7168453	D3030	Split System Ductless [CU-1]	Single Zone	1.5 TON	Grandview Heights Middle School	Gymnasium	Daikin Industries	RZQ18PVJU9	A000848	2012	
16	7168479	D3030	Unit Ventilator	approx/nominal 2 Ton	500 CFM	Grandview Heights Middle School	Throughout building	No dataplate	No dataplate	No dataplate	2022	17
17	7168450	D3030	Unit Ventilator	approx/nominal 3 Ton	1250 CFM	Grandview Heights Middle School	Throughout building	Inaccessible	Inaccessible	Inaccessible	2022	12
18	7168465	D3050	Pump [BP-1]	Distribution, HVAC Heating Water	1.5 HP	Grandview Heights Middle School	Boiler room	Bell & Gossett	e-90	C333788-01 K22	2022	

19	7168510	D3050	Pump [BP-2]	Distribution, HVAC Heating Water	3 HP	Grandview Heights Middle School	Boiler room	Bell & Gossett	e-80 SSF	C333789-01 E22	2022
20	7168532	D3050	Pump [P-1]	Distribution, HVAC Chilled or Condenser Water	15 HP	Grandview Heights Middle School	Boiler room	Bell & Gossett	e-80 SSF	C333787-01 E22	2022
21	7168473	D3050	Pump [P-2]	Distribution, HVAC Chilled or Condenser Water	15 HP	Grandview Heights Middle School	Boiler room	Bell & Gossett	e-80 SSF	C333787-01 E22	2022
22	7168442	D3050	Pump [P-3]	Distribution, HVAC Chilled or Condenser Water	10 HP	Grandview Heights Middle School	Boiler room	Bell & Gossett	e-1510 SSP	C333790-01 F22	2022
23	7168511	D3050	Make-Up Air Unit [MUA-1]	MUA or MAU	22000 CFM	Grandview Heights Middle School	Site	Greenheck	IGX-P122-H22-MF-M	19927746	2022
24	7168490	D3050	Packaged Unit [RTU-1]	RTU, Pad or Roof-Mounted	3 TON	Grandview Heights Middle School	Gymnasium	Lennox	LGH036H4ES1G	5612J03666	2012
25	7168464	D3050	Packaged Unit [RTU-2]	RTU, Pad or Roof-Mounted	12 TON	Grandview Heights Middle School	Gymnasium	Lennox	LGH120H4BM2G	5612H14577	2012
26	7168454	D3050	Packaged Unit [RTU-3]	RTU, Pad or Roof-Mounted	15 TON	Grandview Heights Middle School	Gymnasium	Lennox	LGH150S4BH2G	5612H14578	2012
27	7168493	D3050	Packaged Unit [RTU-4]	RTU, Pad or Roof-Mounted	12 TON	Grandview Heights Middle School	Gymnasium	Lennox	LGH120H4BM2G	5612H14576	2012
28	7168527	D3050	Packaged Unit [RTU-5]	RTU, Pad or Roof-Mounted	12 TON	Grandview Heights Middle School	Gymnasium	Lennox	LGH120H4BM2G	5612H14575	2012
29	7168444	D3050	Packaged Unit [RTU-6]	RTU, Pad or Roof-Mounted	4 TON	Grandview Heights Middle School	Gymnasium	Lennox	LGH048H4ES1G	5612J03670	2012
30	7168447	D3050	Packaged Unit [RTU-7]	RTU, Pad or Roof-Mounted	15 TON	Grandview Heights Middle School	Gymnasium	Lennox	LGH150S4BH2G	5612H14579	2012
31	7168512	D3050	Packaged Unit [RTU-8]	RTU, Pad or Roof-Mounted	12 TON	Grandview Heights Middle School	Gymnasium	Lennox	LGH120H4BM2G	5612H14574	2012
32	7168487	D3060	Exhaust Fan	Roof or Wall-Mounted, 16" Damper	1500 CFM	Grandview Heights Middle School	Roof	Inaccessible	Inaccessible	Inaccessible	1998
33	7168515	D3060	Exhaust Fan [EF-1]	Centrifugal, 16" Damper	1250 CFM	Grandview Heights Middle School	Gymnasium	Loren Cook Company	120 ACE 120633	223CF30265-00/0000701	2012

34	7168536	D3060	Exhaust Fan [EF-2]	Roof or Wall-Mounted, 16" Damper	1650 CFM	Grandview Heights Middle School	Gymnasium	Loren Cook Company	135 AGE	223SF79365-00/002001	2012		
D40 Fire Protection													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7168455	D4010	Backflow Preventer	Fire Suppression	3 IN	Grandview Heights Middle School	Gymnasium	Ames	COLT 200	MG-1740	2017		
2	7168530	D4010	Fire Suppression System	Commercial Kitchen, per LF of Hood		Grandview Heights Middle School	Kitchen				1998		10
3	7168457	D4030	Fire Extinguisher	Type ABC, up to 20 LB		Grandview Heights Middle School	Throughout building				1998		15
4	7168478	D4030	Fire Extinguisher	Wet Chemical/CO2		Grandview Heights Middle School	Kitchen				1998		
D50 Electrical													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7168564	D5020	Secondary Transformer	Dry, Stepdown	112.5 KVA	Grandview Heights Middle School	Gymnasium	GE	9T8383875	No dataplate	1998		
2	7168571	D5020	Secondary Transformer [TRANSFORMER TA]	Dry, Stepdown	225 KVA	Grandview Heights Middle School	Electrical room	Siemens	3F3Y225	No dataplate	1998		
3	7168525	D5020	Secondary Transformer [Transformer T1C]	Dry, Stepdown	75 KVA	Grandview Heights Middle School	Plant manager office	Siemens	3F3Y075K13	No dataplate	1998		
4	7168460	D5020	Secondary Transformer [Transformer T1G]	Dry, Stepdown	75 KVA	Grandview Heights Middle School	Electrical room	Siemens	3F3Y075CK13	No dataplate	1998		
5	7168456	D5020	Secondary Transformer [Transformer TC]	Dry, Stepdown	112.5 KVA	Grandview Heights Middle School	Plant manager office	Siemens	3F3Y112	No dataplate	1998		
6	7168549	D5020	Switchboard [Switchboard MP]	277/480 V	1200 AMP	Grandview Heights Middle School	Site	Siemens	SB1	017-68662-41	1998		
7	7168467	D5020	Distribution Panel [LCN]	120/208 V	400 AMP	Grandview Heights Middle School	Plant manager office	Siemens	S3E42ML400FBS	79-10725-C00	2000		
8	7168570	D5020	Distribution Panel [LPM]	120/208 V	400 AMP	Grandview Heights Middle School	Gymnasium	GE	ADF3424JBX	102DU18973	1998		

9	7168461	D5020	Distribution Panel [MDP]	277/480 V	600 AMP	Grandview Heights Middle School	Gymnasium	GE	4051PBP7	178PP90708	1998	2	
10	7168521	D5020	Distribution Panel [Panel RA]	120/208 V	400 AMP	Grandview Heights Middle School	Electrical room	Siemens	S1C42ML400CTS	79-29989-B00	1998		
11	7168491	D5020	Distribution Panel [Panel RDP]	120/208 V	800 AMP	Grandview Heights Middle School	Electrical room	Siemens	S5C75LM800ETS	17-20980-C00	1998		
12	7168559	D5020	Distribution Panel [RC]	120/208 V	200 AMP	Grandview Heights Middle School	Plant manager office	Siemens	S3C30JX400FBS	79-10725-C00	2000	2	
13	7168523	D5030	Variable Frequency Drive [VFD-1]	VFD, by HP of Motor	15 HP	Grandview Heights Middle School	Boiler room	ABB	ACH580-VCR-023A-4+F267	2224605204	2022		
14	7168484	D5030	Variable Frequency Drive [VFD-2]	VFD, by HP of Motor	15 HP	Grandview Heights Middle School	Boiler room	ABB	ACH580-VCR-023A-4+F267	2224605203	2022		
15	7168553	D5030	Variable Frequency Drive [VFD-3]	VFD, by HP of Motor	7.5 HP	Grandview Heights Middle School	Boiler room	ABB	ACH580-VCR-012A-4+F267	2223305686	2022		
16	7168498	D5030	Variable Frequency Drive [VFD-4]	VFD, by HP of Motor	7.5 HP	Grandview Heights Middle School	Boiler room	ABB	ACH580-VCR-03A0-4+F267	2221802547	2022		
17	7168557	D5030	Variable Frequency Drive [VFD-5]	VFD, by HP of Motor	3 HP	Grandview Heights Middle School	Boiler room	ABB	ACH580-VCR-04A8-4+F267	2221602903	2022		
D70 Electronic Safety & Security													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7168546	D7050	Fire Alarm Panel	Fully Addressable		Grandview Heights Middle School	Office	EST	S3000	No dataplate	1998		
E10 Equipment													
Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7168495	E1030	Laundry Equipment	Dryer, Commercial	60 LB	Grandview Heights Middle School	Gymnasium	Unimac	Inaccessible	Inaccessible	2012		
2	7168501	E1030	Laundry Equipment	Washer, Commercial	60 LB	Grandview Heights Middle School	Gymnasium	Alliance Laundry Systems	UWN060K120U3001	1205018807	2012		
3	7168555	E1030	Foodservice Equipment	Convection Oven, Double		Grandview Heights Middle School	Kitchen	Blodgett	No dataplate	No dataplate	1998		

4	7168516	E1030	Foodservice Equipment	Convection Oven, Double	Grandview Heights Middle School	Kitchen	ACCUTEMP	No dataplate	No dataplate	1998	
5	7168542	E1030	Foodservice Equipment	Convection Oven, Double	Grandview Heights Middle School	Kitchen	Duke	No dataplate	No dataplate	1998	
6	7168508	E1030	Foodservice Equipment	Dairy Cooler/Wells	Grandview Heights Middle School	Kitchen	Seco	7220952	8/98	1998	
7	7168480	E1030	Foodservice Equipment	Dairy Cooler/Wells	Grandview Heights Middle School	Kitchen	Seco	7120952	8-98	1998	
8	7168463	E1030	Foodservice Equipment	Dishwasher Commercial	Grandview Heights Middle School	Kitchen	CMA	EST-44	221960	2019	
9	7168561	E1030	Foodservice Equipment	Exhaust Hood, 8 to 10 LF	Grandview Heights Middle School	Kitchen	Aerolator	ARW	No dataplate	1998	2
10	7168474	E1030	Foodservice Equipment	Food Warmer, Proofing Cabinet on Wheels	Grandview Heights Middle School	Kitchen	FWE	UHS-12	123465203	2012	
11	7168485	E1030	Foodservice Equipment	Food Warmer, Proofing Cabinet on Wheels	Grandview Heights Middle School	Kitchen	FWE	UHS-12	123465208	2012	
12	7168489	E1030	Foodservice Equipment	Food Warmer, Proofing Cabinet on Wheels	Grandview Heights Middle School	Kitchen	FWE	UHS-12	123465706	1998	
13	7168468	E1030	Foodservice Equipment	Freezer, Chest	Grandview Heights Middle School	Kitchen	Seco	7120957	9/98	1998	
14	7168462	E1030	Foodservice Equipment	Freezer, Chest	Grandview Heights Middle School	Kitchen	Seco	7120957	9/98	1998	
15	7168449	E1030	Foodservice Equipment	Garbage Disposal, 1 to 3 HP	Grandview Heights Middle School	Kitchen	Inaccessible	Inaccessible	Inaccessible	1998	
16	7168550	E1030	Foodservice Equipment	Icemaker, Freestanding	Grandview Heights Middle School	Gymnasium	Ice-O-Matic	Inaccessible	Inaccessible	2012	
17	7168458	E1030	Foodservice Equipment	Icemaker, Freestanding	Grandview Heights Middle School	Kitchen	Manitowoc	KY0420A-161	1120238934	2011	
18	7168476	E1030	Foodservice Equipment	Mixer, Tabletop	Grandview Heights Middle School	Kitchen	Titan	Inaccessible	Inaccessible	1998	

19	7168544	E1030	Foodservice Equipment	Range/Oven, 4-Burner	Grandview Heights Middle School	Kitchen	No dataplate	No dataplate	No dataplate	1998
20	7168520	E1030	Foodservice Equipment	Refrigerator, 1-Door Reach-In	Grandview Heights Middle School	Kitchen	Economy	ER1A-FS	L00166H	2021
21	7168568	E1030	Foodservice Equipment	Refrigerator, 3-Door Reach-In	Grandview Heights Middle School	Kitchen	Economy	MBF8006GR	MBF 8006GRAUS1T0320110400C40008	2020
22	7168518	E1030	Foodservice Equipment	Refrigerator, Undercounter 1-Door	Grandview Heights Middle School	Kitchen	MasterBuilt	No dataplate	No dataplate	2001
23	7168540	E1030	Foodservice Equipment	Refrigerator, Undercounter 1-Door	Grandview Heights Middle School	Kitchen	MasterBuilt	D0MC-164-A	2001311186	2001
24	7168446	E1030	Foodservice Equipment	Refrigerator, Undercounter 1-Door	Grandview Heights Middle School	Kitchen	MasterBuilt	No dataplate	No dataplate	1998
25	7168556	E1030	Foodservice Equipment	Steamer, Freestanding	Grandview Heights Middle School	Kitchen	Duke	DC-TEHF-74PG-8W M	11199963	2019
26	7168497	E1030	Foodservice Equipment	Steamer, Freestanding	Grandview Heights Middle School	Kitchen	Duke	DC-TEHF-74PG-SW M	11199962	2019
27	7168539	E1030	Foodservice Equipment	Walk-In, Freezer	Grandview Heights Middle School	Kitchen	Arctic	4F 10.6X12.0	45596	1998
28	7168481	E1030	Foodservice Equipment	Walk-In, Refrigerator	Grandview Heights Middle School	Kitchen	Arctic	495.67 9.6	43596	1998
29	7168519	E1030	Foodservice Equipment [Cooler]	Walk-In, Condenser for Refigerator/Freezer	Grandview Heights Middle School	Kitchen	Trenton	TEZA009H8-HT3D-B	229117034	2022
30	7168560	E1030	Foodservice Equipment [Freezer]	Walk-In, Condenser for Refigerator/Freezer	Grandview Heights Middle School	Kitchen	Trenton	TEZA025L8-HT3D-F	239111091	2022
31	7168562	E1040	Healthcare Equipment	Defibrillator (AED), Cabinet-Mounted	Grandview Heights Middle School	Gymnasium				2012
32	7168488	E1040	Healthcare Equipment	Defibrillator (AED), Cabinet-Mounted	Grandview Heights Middle School	Hallway				1998