FACILITY CONDITION ASSESSMENT

prepared for

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

Invictus Academy
2601 Ketchum Road
Memphis, Tennessee 38114

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BV PROJECT #:
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DATE OF REPORT:
September 30, 2024

ON SITE DATE:
August 28, 2024

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1. Executive Summary

Property Overview and Assessment Details

General Information	
Property Type	Education
Main Address	2601 Ketchum Road, Memphis, Tennessee 38114
Site Developed	1968
Site Area	18.96 acres (estimated)
Parking Spaces	174 total spaces all in open lots; 2 of which are accessible
Building Area	127,891 SF
Number of Stories	Two above grade
Outside Occupants/Leased Spaces	None
Date(s) of Visit	August 28, 2024
Management Point of Contact	Ms. Mary Taylor, Shelby County Board of Education (901) 416-5376 taylorm15@scsk12.org
On-site Point of Contact (POC)	Ms. Quartos Rhodes
Assessment and Report Prepared By	John Pierman
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

Invictus Academy is a public school constructed in 1968. No major renovations have been carried out since the original construction.

Architectural

The building consists of a masonry framed structure with open-web steel joists and beams supporting a metal roof decking with a Thermoplastic Polyolefin (TPO) roof system. The foundation system is steel reinforced concrete slab and shallow foundation system. In general, the structure appeared to have been adequately maintained with no significant areas of settlement or structural-related deficiencies observed. The exterior façade consists of concrete and brick masonry walls, fixed and storefront system windows and doors. The TPO roof system appears to be in fair condition with signs of age and membrane deterioration. Typical lifecycle based interior and exterior finish replacements are budgeted and anticipated.

Mechanical, Electrical, Plumbing and Fire (MEPF)

The HVAC systems generally consist of a water-cooled chiller, cooling tower, and ceiling recessed air handlers. The chiller and cooling tower were not functioning at the time of our visit. The chiller and cooling tower appeared to have surpassed its useful life. The ceiling recessed air handlers/fan coil units in the classroom appeared to have been adequately maintained and in fair condition. Typical lifecycle replacements of the chiller, cooling tower, and air handlers/fan coil units are anticipated. The chilled and condensing water transfer pumps are in fair operating condition; however, these HVAC components are also anticipated for lifecycle replacements.

The electrical service equipment appeared to be in fair condition. The majority of the electrical components are anticipated for lifecycle replacement. Interior lighting consists mainly of fluorescent fixtures.

Plumbing systems consist of copper supply piping and PVC waste pipe. There are three natural gas boilers with supplemental tanks and water heaters. One of the boilers appeared to be in poor condition with an unknown operating status. The other two boilers are in fair condition. The boilers and ancillary components are anticipated for lifecycle replacement.

The building is not equipped with a wet-type or dry-type fire suppression system. There is a fire alarm panel and life safety components that was being upgrade at the time of our site visit. Typical lifecycle replacements with annual inspections are anticipated.

Site

The parking lots including drives are in poor condition and has developed numerous potholes and heavy surface wear and should be milled and overlaid. The outdoor basketball court pavement and coating is in fair to poor condition. Typical lifecycle replacements with annual inspections are anticipated.

Recommended Additional Studies

Some areas of the facility were identified as having major or moderate accessibility issues. Bureau Veritas recommends a study be performed to take measurements, provide additional itemized details, research local requirements, and, if necessary, estimate the scope and cost of any required improvements. The cost of this study is included in the cost tables. Due to the lack of measurements and itemized findings at this point in time, the costs for any possible subsequent repairs or improvements are not currently included.

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 | Invictus Academy(1968)

Replacement Value	*Total SF*	*Cost/SF*
$ 51,156,400	*127,891*	*$ 400*

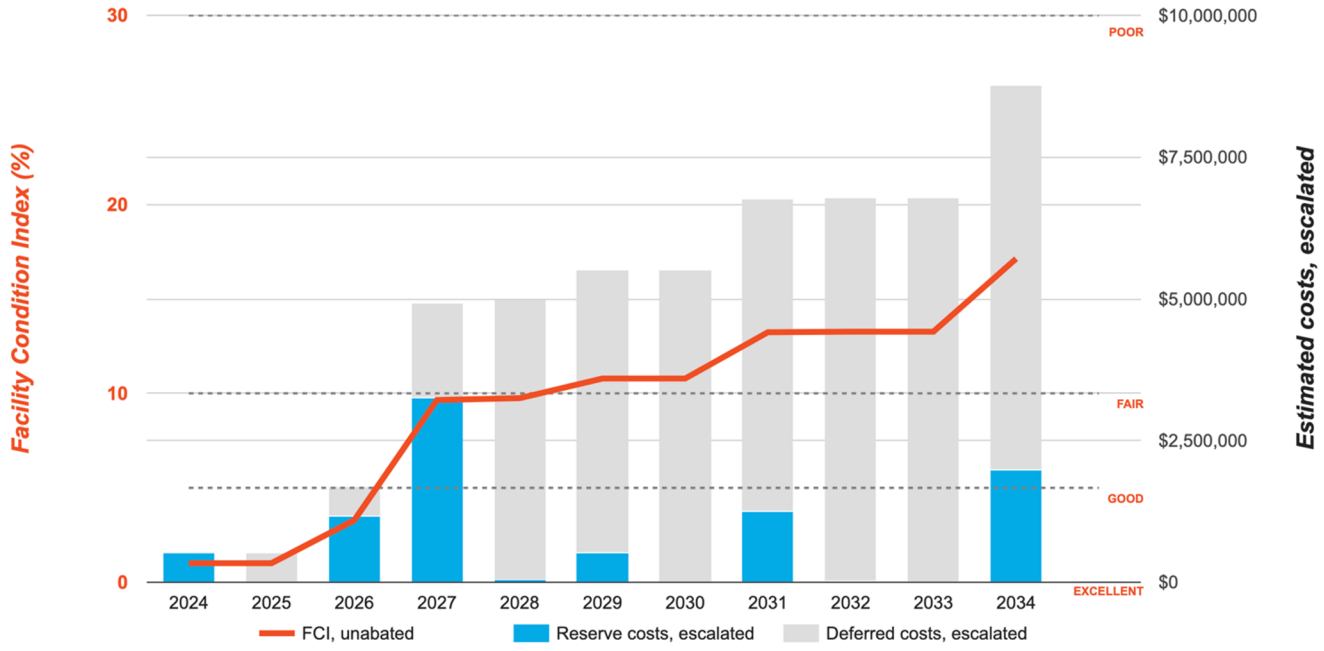
	Est Reserve Cost	FCI
Current	$ 519,800	**1.0 %**
3-Year	$ 4,936,700	**9.7 %**
5-Year	$ 5,517,100	**10.8 %**
10-Year	$ 8,759,700	**17.1 %**

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

Needs by Year with Unaddressed FCI Over Time

FCI Analysis: Invictus Academy

Replacement Value: $51,156,400 Inflation Rate: 3.0% Average Needs per Year: $796,400



Immediate Needs

Facility/Building	Total Items	Total Cost
Invictus Academy	10	$519,800
Total	**10**	**$519,800**

Invictus Academy

ID	Location	Location Description	UF Code	Description	Condition	Plan Type	Cost
8099517	Invictus Academy	Roof	B3020	Roof Appurtenances, Chimney/Cupola, Moderate Rehabilitation, Repair	Poor	Performance/Integrity	$3,000
8099576	Invictus Academy	Throughout Building	C1070	Suspended Ceilings, Acoustical Tile (ACT), Replace	Poor	Performance/Integrity	$4,200
8099528	Invictus Academy		D3020	Boiler, Gas, HVAC, Replace	Poor	Performance/Integrity	$12,700
8099496	Invictus Academy	Roof	D3030	Split System, Condensing Unit/Heat Pump, Replace	Poor	Performance/Integrity	$2,300
8099589	Invictus Academy	Mechanical Room	D3030	Chiller, Water-Cooled, Replace	Poor	Performance/Integrity	$150,000
8099512	Invictus Academy	Roof	D3030	Cooling Tower, (Typical) Open Circuit, Replace	Poor	Performance/Integrity	$46,700
8099615	Invictus Academy	Site	G2020	Parking Lots, Pavement, Asphalt, Mill & Overlay	Poor	Performance/Integrity	$250,600
8099523	Invictus Academy	Site	G2030	Sidewalk, Concrete, Large Areas, Replace	Poor	Performance/Integrity	$27,000
8099566	Invictus Academy	Outdoor basketball court	G2050	Athletic Surfaces & Courts, Basketball/General, Asphalt Pavement, Mill & Overlay	Poor	Performance/Integrity	$15,800
8167210	Invictus Academy		Y1090	ADA Miscellaneous, Level III Study, Includes Measurements, Evaluate/Report	NA	Accessibility	$7,500
Total (10 items)							**$519,800**

Key Findings

Roof Appurtenances in Poor condition.

Chimney/Cupola, Moderate Rehabilitation
Invictus Academy Roof

Uniformat Code: B3020
Recommendation: **Repair in 2024**

Priority Score: **87.9**

Plan Type:
Performance/Integrity

Cost Estimate: $3,000

**$$**$$

repoint - AssetCALC ID: 8099517

Boiler in Poor condition.

Gas, HVAC
Invictus Academy

Uniformat Code: D3020
Recommendation: **Replace in 2024**

Priority Score: **86.9**

Plan Type:
Performance/Integrity

Cost Estimate: $12,700

**$$$**$

Non operating unit - AssetCALC ID: 8099528

Chiller in Poor condition.

Water-Cooled
Invictus Academy Mechanical Room

Uniformat Code: D3030
Recommendation: **Replace in 2024**

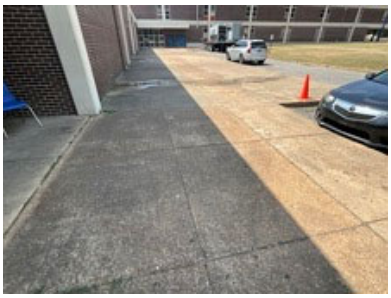
Priority Score: **85.9**

Plan Type:
Performance/Integrity

Cost Estimate: $150,000

$$$$

Unit down, unit is beyond its useful life. - AssetCALC ID: 8099589



Sidewalk in Poor condition.

Concrete, Large Areas
Invictus Academy Site

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

Priority Score: **85.9**

Plan Type:
Performance/Integrity

Cost Estimate: $27,000

**$$$**$

Concrete pavement damage with potential trip hazards near primary parking lot and south pedestrian sidewalk. - AssetCALC ID: 8099523

Cooling Tower in Poor condition.

(Typical) Open Circuit
Invictus Academy Roof

Uniformat Code: D3030
Recommendation: **Replace in 2024**

Priority Score: **85.9**

Plan Type:
Performance/Integrity

Cost Estimate: $46,700

$$$$

Non operating unit, rental unit in place while attempting to repair - AssetCALC ID: 8099512

Parking Lots in Poor condition.

Pavement, Asphalt
Invictus Academy Site

Uniformat Code: G2020
Recommendation: **Mill and Overlay in 2024**

Priority Score: **84.9**

Plan Type:
Performance/Integrity

Cost Estimate: $250,600

$$$$

Asphalt deterioration, rutting, alligator and longitudinal cracking, potholes - AssetCALC ID: 8099615

Athletic Surfaces and Courts in Poor condition.

Basketball/General, Asphalt Pavement
Invictus Academy Outdoor basketball court

Uniformat Code: G2050
Recommendation: **Mill and Overlay in 2024**

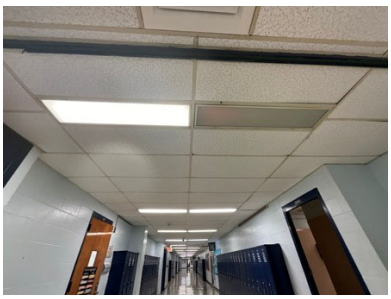
Priority Score: **82.9**

Plan Type:
Performance/Integrity

Cost Estimate: $15,800

$$$$

Peeling and worn surface coating - AssetCALC ID: 8099566



Suspended Ceilings in Poor condition.

Acoustical Tile (ACT)
Invictus Academy Throughout Building

Uniformat Code: C1070
Recommendation: **Replace in 2024**

Priority Score: **81.9**

Plan Type:
Performance/Integrity

Cost Estimate: $4,200

$$$$

Localized areas of water damaged ceiling tiles, suspect fungal growth. - AssetCALC ID: 8099576

Split System in Poor condition.

Condensing Unit/Heat Pump
Invictus Academy Roof

Uniformat Code: D3030
Recommendation: **Replace in 2024**

Priority Score: **81.9**

Plan Type:
Performance/Integrity

Cost Estimate: $2,300

**$$**$$

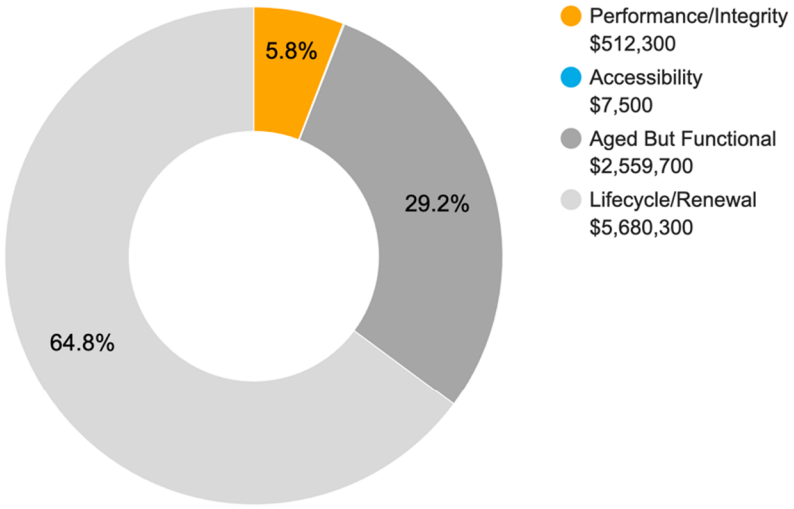
Non operating unit - AssetCALC ID: 8099496

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: $8,759,800

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	Good
Façade	Primary Wall Finish: Brick masonry Secondary Wall Finish: Concrete integral to superstructure Windows: Aluminum	Fair
Roof	Flat construction with single-ply TPO/PVC membrane	Fair
Interiors	Walls: Painted CMU, ceramic tile Floors: VCT, quarry tile, unfinished concrete Ceilings: ACT, Unfinished/exposed	Poor
Elevators	None	--
Plumbing	Distribution: Copper supply and PVC waste and venting Hot Water: Gas water heaters with integral tanks Fixtures: Toilets, urinals, and sinks in all restrooms	Fair
HVAC	Central System: Chiller, Cooling tower, Boilers, above ceiling mounted air handler/fan coil units	Poor
Fire Suppression	Fire extinguishers and kitchen hood system	Fair
Electrical	Source and Distribution: Main switchboard with copper wiring Interior Lighting: Linear fluorescent Emergency Power: None	Fair
Fire Alarm	Alarm panel with smoke detectors, heat detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Excellent
Equipment/Special	Commercial kitchen equipment	Fair

Systems Summary

Site Pavement	Asphalt lots with limited areas of concrete aprons and pavement and adjacent concrete sidewalks, curbs, ramps, and stairs	Poor
Site Development	Property entrance signage Sports field area with limited chain link fence enclosure Lightly furnished with seat benches, trash receptacles	Fair
Landscaping and Topography	Significant landscaping features including lawns, trees, and bushes 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: HPS Building-mounted: HPS, fluorescent	Fair
Ancillary Structures	None	--
Key Issues and Findings	Concrete overhang spall damage with exposed rebar at rear auxiliary entrance doors, heavy asphalt wear, severe alligator cracking and potholes, moderate sidewalk settlement with potential trip hazards, majority of the boiler transfer pumps appeared to be in poor condition and building lacks fire suppression.	

The table below shows the anticipated costs by trade or building system over the next 20 years.

System Expenditure Forecast

System	Immediate	Short Term (1-2 yr)	Near Term (3-5 yr)	Med Term (6-10 yr)	Long Term (11-20 yr)	TOTAL
Structure	-	-	-	-	-	-
Facade	-	-	$106,500	$19,400	-	$125,900
Roofing	$3,000	$1,153,300	-	-	-	$1,156,300
Interiors	$4,200	-	$1,006,500	$961,300	$692,500	$2,664,500
Plumbing	-	-	$158,000	$114,400	-	$272,400
HVAC	$211,700	-	$1,461,900	$1,044,800	$587,700	$3,306,100
Electrical	-	-	$936,800	-	-	$936,800
Fire Alarm & Electronic Systems	-	-	$6,500	$515,600	$727,500	$1,249,600
Equipment & Furnishings	-	$8,800	$80,900	$104,700	$142,100	$336,400
Site Development	$15,800	-	$22,000	$482,500	$545,400	$1,065,700
Site Pavement	$277,600	-	$49,200	-	-	$326,800
Site Utilities	-	-	$7,000	-	-	$7,000
Accessibility	$7,500	-	-	-	-	$7,500
TOTALS (3% inflation)	**$519,800**	**$1,162,100**	**$3,835,300**	**$3,242,600**	**$2,695,200**	**$11,455,000**

3. Property Space Use and Observed Areas

Areas Observed

Most 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 roofs.

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 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 1968. 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.

A detailed follow-up accessibility study is included as a recommendation because potential moderate to major issues were observed 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 Invictus Academy, 2601 Ketchum Road, 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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Reviewed by:

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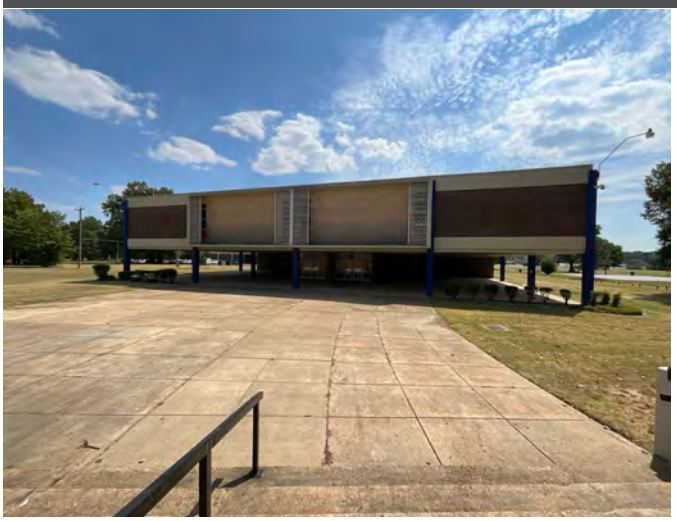
8. Appendices

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 - STRUCTURAL ELEMENTS

6 - STRUCTURAL ELEMENTS

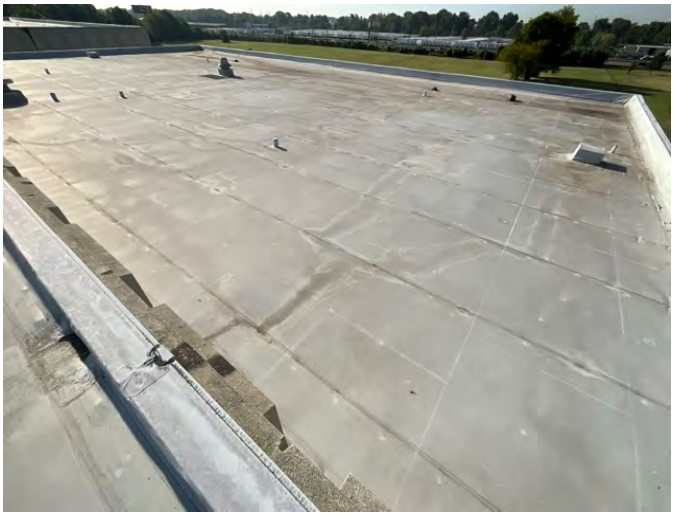
Photographic Overview

7 - MAIN ENTRANCE

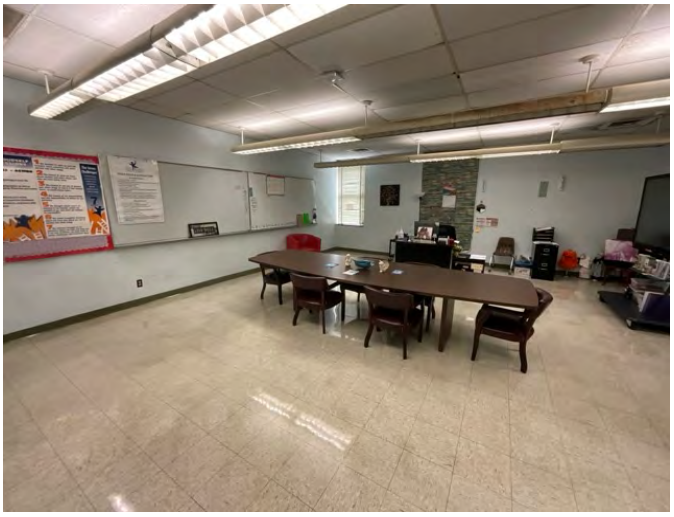
8 - BUILDING FACADE

9 - BUILDING FACADE

10 - PRIMARY ROOF OVERVIEW

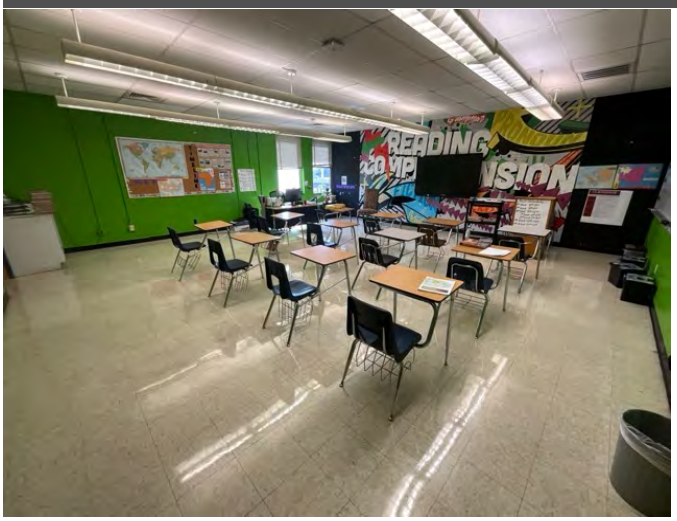


11 - SECONDARY ROOF OVERVIEW

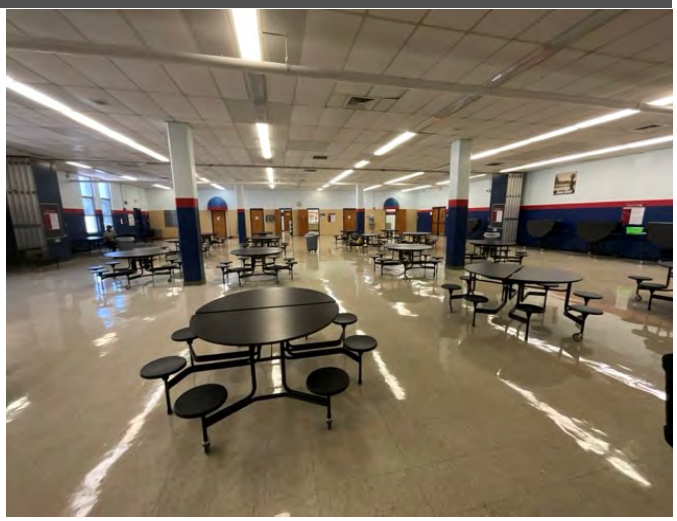


12 - CLASSROOM

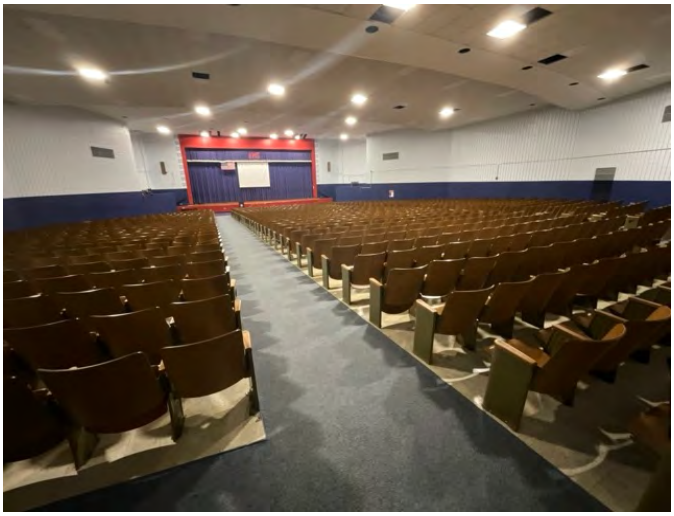
Photographic Overview



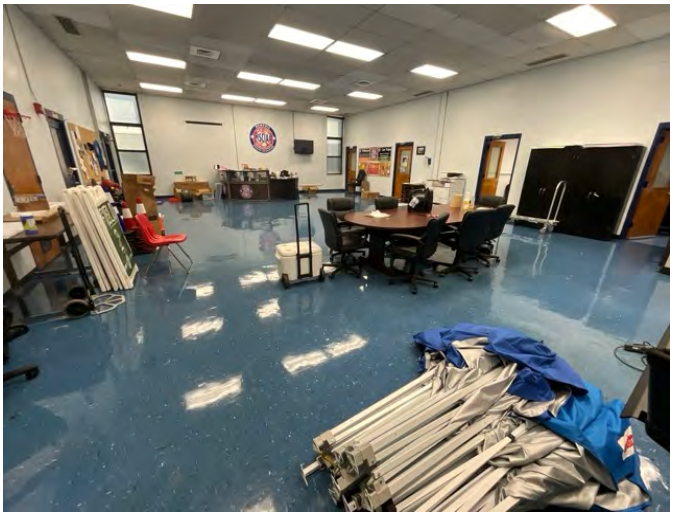
13 - CLASSROOM



14 - CAFETERIA



15 - AUDITORIUM



16 - ATHLETIC ASSOCIATION OFFICE

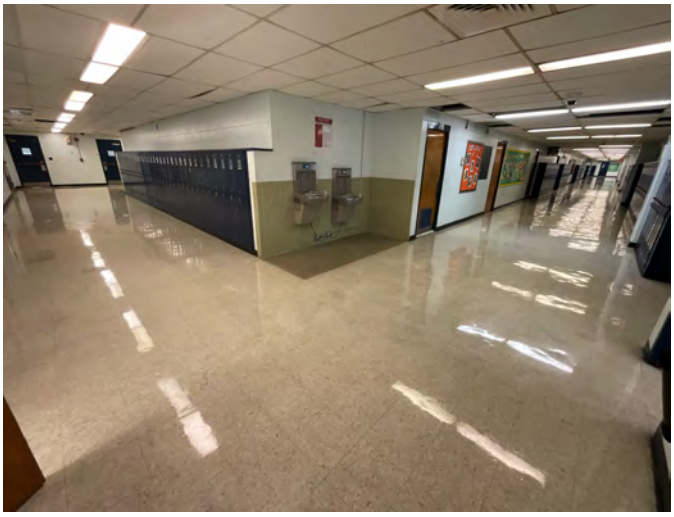
17 - FIRE ALARM PANEL

18 - COMMERCIAL KITCHEN

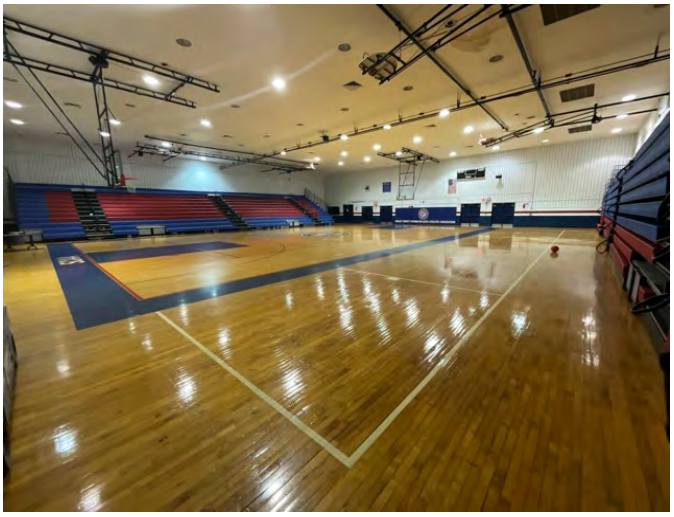
Photographic Overview

19 - CLASSROOM

20 - LIBRARY

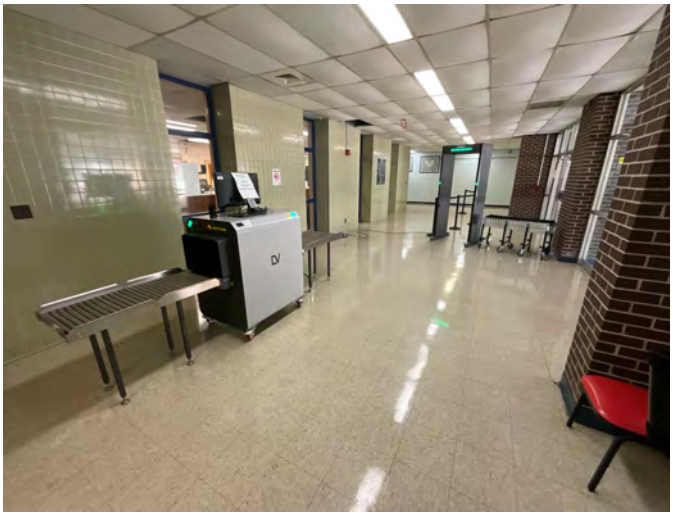


21 - HALLWAY



22 - GYMNASIUM

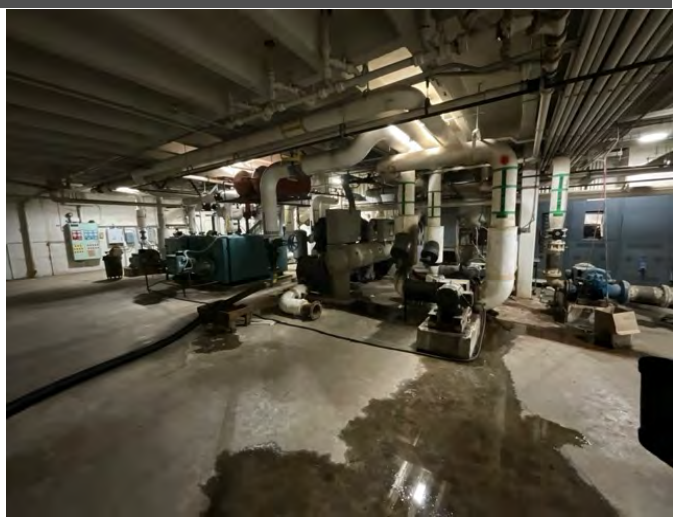
23 - OUTDOOR BASKETBALL COURT



24 - LOBBY

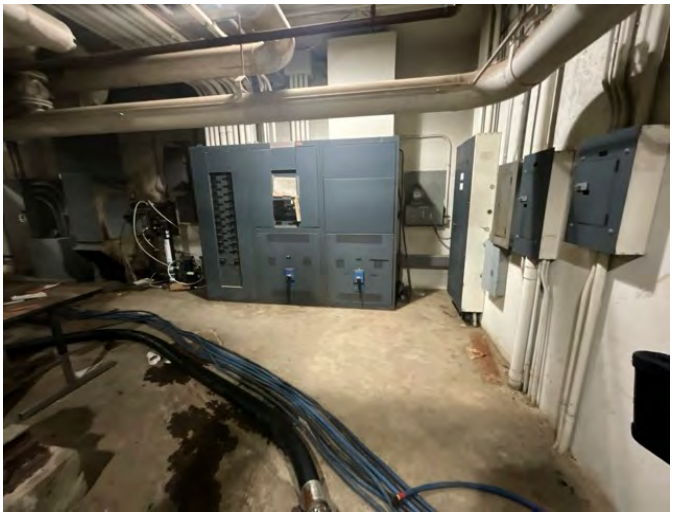
Photographic Overview

25 - RESTROOM FIXTURES



26 - MAIN MECHANICAL ROOM

27 - ROOFTOP MECHANICAL EQUIPMENT



28 - MAIN ELECTRICAL ROOM

29 - PARKING AREA

30 - PROPERTY SIGNAGE

Appendix B:
Site Plan

Site Plan

Project Number	Project Name
163745.23R000-144.354	Invictus Academy
Source	**On-Site Date**
Google	August 28, 2024

BUREAU VERITAS

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Appendix C:
Pre-Survey Questionnaire

BV FACILITY CONDITION ASSESSMENT: PRE-SURVEY QUESTIONNAIRE

Building / Facility Name:	Invictus Academy
Name of person completing form:	Mr. Quartos Rhodes
Title / Association w/ property:	Building Engineer
Length of time associated w/ property:	3 years
Date Completed:	8/28/2024
Phone Number:	901-491-0968
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: 1968	Renovated:	
2	Building size in SF	127,891 **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 reported		
5	List any major capital expenditures planned/requested for the next few years. Have they been budgeted?	Fire alarm system upgrade		
6	Describe any on-going extremely problematic, historically chronic, or immediate facility needs.	None reported		

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			
9	Has any part of the facility ever contained visible suspect mold growth, or have there been any indoor air quality complaints?		X			
10	Are your elevators unreliable, with frequent service calls?					
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				Chiller is not operating, temp rental unit until repaired or replaced
14	Is the electrical service outdated, undersized, or problematic?		X			
15	Are there any problems or inadequacies with exterior lighting?		X			
16	Is site/parking drainage inadequate, with excessive ponding or other problems?		X			
17	Are there any other unresolved construction defects or significant issues/hazards at the property that have not yet been identified above?		X			
18	ADA: Has an accessibility study been previously performed? If so, when?		X			Unknow
19	ADA: Have any ADA improvements been made to the property since original construction? Describe.		X			Unknown
20	ADA: Has building management reported any accessibility-based complaints or litigation?		X			None reported
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 Checklist - 2010 ADA Standards for Accessible Design

Property Name: Invictus Academy

BV Project Number: 163745.23R000-144.354

Abbreviated Accessibility Checklist					
Facility History & Interview					
Question		Yes	No	Unk	Comments
1	Has an accessibility study been previously performed? If so, when?		X		Unknow
2	Have any ADA improvements been made to the property since original construction? Describe.		X		Unknown
3	Has building management reported any accessibility-based complaints or litigation?		X		None reported

Abbreviated Accessibility Checklist

Parking

OVERVIEW OF ACCESSIBLE PARKING AREA

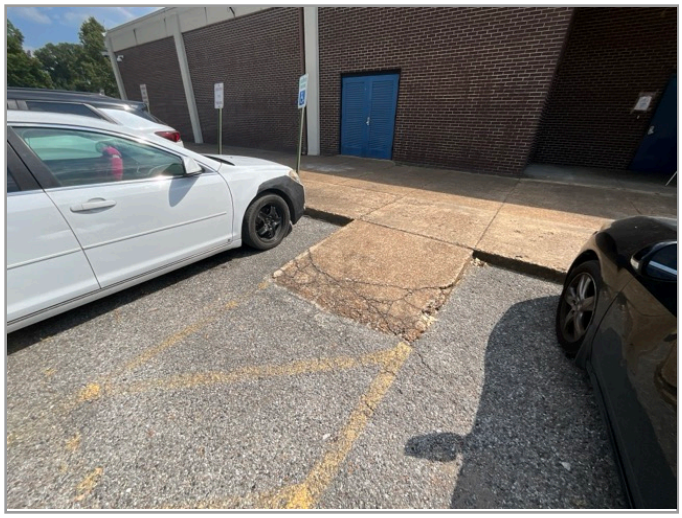
CLOSE-UP OF STALL

	Question	Yes	No	NA	Comments
1	Does the required number of standard ADA designated spaces appear to be provided ?		X		
2	Does the required number of van-accessible designated spaces appear to be provided ?		X		
3	Are accessible spaces on the shortest accessible route to an accessible building entrance ?		X		
4	Does parking signage include the International Symbol of Accessibility ?	X			
5	Does each accessible space have an adjacent access aisle ?		X		
6	Do parking spaces and access aisles appear to be relatively level and without obstruction ?		X		

Abbreviated Accessibility Checklist

Exterior Accessible Route

ACCESSIBLE RAMP



CURB CUT

	Question	Yes	No	NA	Comments
1	Is an accessible route present from public transportation stops and municipal sidewalks on or immediately adjacent to the property ?	X			
2	Does a minimum of one accessible route appear to connect all public areas on the exterior, such as parking and other outdoor amenities, to accessible building entrances ?	X			
3	Are curb ramps present at transitions through raised curbs on all accessible routes?	X			
4	Do curb ramps appear to have compliant slopes for all components ?	X			
5	Do ramp runs on an accessible route appear to have compliant slopes ?	X			
6	Do ramp runs on an accessible route appear to have a compliant rise and width ?	X			

7	Do ramps on an accessible route appear to have compliant end and intermediate landings ?	X			
8	Do ramps and stairs on an accessible route appear to have compliant handrails?		X		
9	For stairways that are open underneath, are permanent barriers present that prevent or discourage access?		X		

Abbreviated Accessibility Checklist

Building Entrances

ACCESSIBLE ENTRANCE

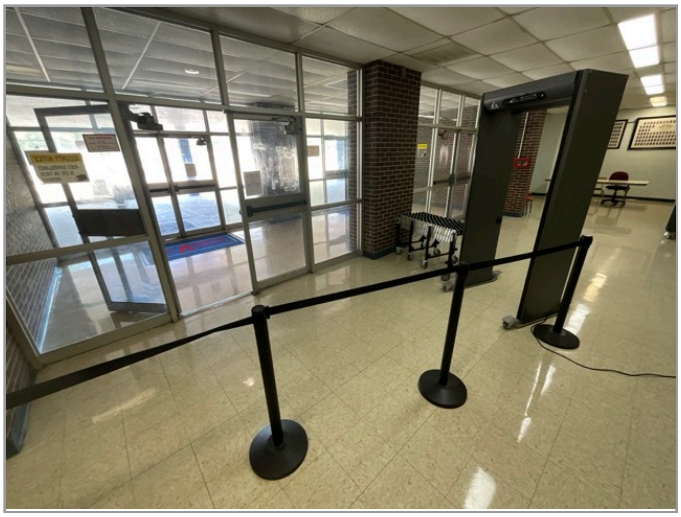
DOOR HARDWARE

	Question	Yes	No	NA	Comments
1	Do a sufficient number of accessible entrances appear to be provided ?	X			
2	If the main entrance is not accessible, is an alternate accessible entrance provided?		X		
3	Is signage provided indicating the location of alternate accessible entrances ?			X	
4	Do doors at accessible entrances appear to have compliant maneuvering clearance area on each side ?	X			
5	Do doors at accessible entrances appear to have compliant hardware ?		X		
6	Do doors at accessible entrances appear to have a compliant clear opening width ?	X			

7	Do pairs of accessible entrance doors in series appear to have the minimum clear space between them ?	✕			
8	Do thresholds at accessible entrances appear to have a compliant height ?	✕			

Abbreviated Accessibility Checklist

Interior Accessible Route



ACCESSIBLE INTERIOR PATH

DOOR HARDWARE

	Question	Yes	No	NA	Comments
1	Does an accessible route appear to connect all public areas inside the building ?	X			
2	Do accessible routes appear free of obstructions and/or protruding objects ?	X			
3	Do ramps on accessible routes appear to have compliant slopes ?			X	
4	Do ramp runs on an accessible route appear to have a compliant rise and width ?			X	
5	Do ramps on accessible routes appear to have compliant end and intermediate landings ?			X	
6	Do ramps on accessible routes appear to have compliant handrails ?			X	

7	Are accessible areas of refuge and the accessible means of egress to those areas identified with accessible signage ?		X		
8	Do public transaction areas have an accessible, lowered service counter section ?	X			
9	Do public telephones appear mounted with an accessible height and location ?			X	
10	Do doors at interior accessible routes appear to have compliant maneuvering clearance area on each side ?	X			
11	Do doors at interior accessible routes appear to have compliant hardware ?		X		
12	Do non-fire hinged, sliding, or folding doors on interior accessible routes appear to have compliant opening force ?	X			
13	Do doors on interior accessible routes appear to have a compliant clear opening width ?				

Abbreviated Accessibility Checklist

Public Restrooms

TOILET STALL OVERVIEW

SINK, FAUCET HANDLES AND ACCESSORIES

	Question	Yes	No	NA	Comments
1	Do publicly accessible toilet rooms appear to have a minimum compliant floor area ?	X			
2	Does the lavatory appear to be mounted at a compliant height and with compliant knee area ?	X			
3	Does the lavatory faucet have compliant handles ?		X		
4	Is the plumbing piping under lavatories configured to protect against contact ?		X		
5	Are grab bars provided at compliant locations around the toilet ?		X		
6	Do toilet stall doors appear to provide the minimum compliant clear width ?		X		

7	Do toilet stalls appear to provide the minimum compliant clear floor area ?		✕		
8	Where more than one urinal is present in a multi-user restroom, does minimum one urinal appear to be mounted at a compliant height and with compliant approach width ?		✕		
9	Do accessories and mirrors appear to be mounted at a compliant height ?		✕		

Appendix E:
Component Condition Report

Component Condition Report | Invictus Academy

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
Structure						
B1080	Throughout Building	Fair	Stairs, Concrete, Interior	127,891 SF	25	8099499
Facade						
B2020	Building Exterior	Fair	Window, Aluminum Double-Glazed, 28-40 SF	78	3	8099570
B2050	Building Exterior	Fair	Exterior Door, Steel, Standard	24	10	8099616
Roofing						
B3010	Roof	Fair	Roofing, Single-Ply Membrane, TPO/PVC	63,946 SF	2	8099546
B3020	Roof	Poor	Roof Appurtenances, Chimney/Cupola, Moderate Rehabilitation, Repair	1	0	8099517
Interiors						
C1020	Faculty Office	Fair	Interior Window, Fixed, 24 SF	4	3	8099573
C1030	Throughout Building	Fair	Interior Door, Steel, Standard	15	10	8099604
C1030	Main Entrance	Fair	Interior Door, Aluminum-Framed & Glazed, Standard Swing	5	5	8099609
C1030	Throughout Building	Fair	Interior Door, Wood, Solid-Core	173	10	8099545
C1070	Throughout Building	Poor	Suspended Ceilings, Acoustical Tile (ACT)	1,200 SF	0	8099576
C1090	Restrooms	Fair	Toilet Partitions, Plastic/Laminate & wood	47	3	8099568
C1090	Gym locker room basement area	Fair	Lockers, Steel-Baked Enamel, 12" W x 15" D x 72" H	60 LF	15	8099498
C1090	Throughout Building	Fair	Lockers, Steel-Baked Enamel, 12" W x 15" D x 72" H	937 LF	3	8099559
C2010	Throughout Building	Fair	Wall Finishes, any surface, Prep & Paint	255,800 SF	5	8099526
C2030	Throughout Building	Fair	Flooring, Vinyl Tile (VCT)	122,091 SF	7	8099575
C2030	Gymnasium basketball court	Fair	Flooring, Maple Sports Floor, Refinish	5,800 SF	7	8099505
Plumbing						
D2010	Mechanical Room	Fair	Water Heater, Gas, Commercial (200 MBH)	1	4	8099524
D2010	Restrooms	Fair	Sink/Lavatory, Wall-Hung, Vitreous China	54	3	8099529
D2010	Mechanical Room	Fair	Water Heater, Gas, Commercial (200 MBH)	1	4	8099614
D2010	Throughout Building	Fair	Drinking Fountain, Wall-Mounted, Bi-Level	16	10	8099601
D2010	Mechanical Room	Fair	Backflow Preventer, Domestic Water	1	3	8099603
D2010	Restrooms	Fair	Urinal, Standard	24	5	8099556
D2010	Restrooms	Fair	Toilet, Commercial Water Closet	47	10	8099595
HVAC						
D3020	Mechanical Room	Fair	Boiler, Gas, HVAC, 2001 to 2500 MBH	1	13	8099569
D3020	Mechanical Room	Fair	Boiler, Gas, HVAC, 2001 to 2500 MBH	1	13	8099583

Component Condition Report | Invictus Academy

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
D3020	Mechanical Room	Fair	Boiler Supplemental Components, Expansion Tank	2	10	8099516
D3020	Mechanical Room	Fair	Boiler Supplemental Components, Expansion Tank	1	7	8099606
D3020		Poor	Boiler, Gas, HVAC	1	0	8099528
D3030	Youth advocacy program office	Fair	Split System, Fan Coil Unit, DX	1	3	8099582
D3030	Roof	Poor	Split System, Condensing Unit/Heat Pump	1	0	8099496
D3030	Classroom 217	Fair	Split System, Fan Coil Unit, DX	1	3	8099521
D3030	Boys locker room first floor	Fair	Split System, Fan Coil Unit, DX	1	3	8099522
D3030	Classroom 202	Fair	Split System, Fan Coil Unit, DX	1	3	8099494
D3030	Roof	Fair	Split System, Condensing Unit/Heat Pump	1	9	8099563
D3030	Classroom 207	Fair	Split System, Fan Coil Unit, DX	1	3	8099549
D3030	Youth advocacy program office	Fair	Split System, Fan Coil Unit, DX	1	3	8099497
D3030	Roof	Good	Split System, Condensing Unit/Heat Pump	1	11	8099600
D3030	Classroom 109	Fair	Split System, Fan Coil Unit, DX	1	3	8099612
D3030	Roof	Poor	Cooling Tower, (Typical) Open Circuit	1	0	8099512
D3030	Classroom 205	Fair	Split System, Fan Coil Unit, DX	1	3	8099537
D3030	Classroom 214	Fair	Split System, Fan Coil Unit, DX	1	3	8099543
D3030	Storage room second floor, second unit	Fair	Split System, Fan Coil Unit, DX	1	3	8099586
D3030	Classroom 106	Fair	Split System, Fan Coil Unit, DX	1	3	8099501
D3030	Throughout Building	Fair	Split System, Fan Coil Unit, DX	63	3	8099518
D3030	Classroom 219	Fair	Split System, Fan Coil Unit, DX	1	3	8099623
D3030	Youth advocacy program office	Fair	Split System, Fan Coil Unit, DX	1	5	8099531
D3030	Classroom 208	Fair	Split System, Fan Coil Unit, DX	1	3	8099602
D3030	Mechanical Room	Poor	Chiller, Water-Cooled	1	0	8099589
D3030	Classroom 201B	Fair	Split System, Fan Coil Unit, DX	1	3	8099542
D3030	Teachers lounge	Fair	Split System, Fan Coil Unit, DX	1	3	8099574
D3030	Youth advocacy program office	Good	Split System, Fan Coil Unit, DX	1	11	8099502
D3050	Throughout Building	Fair	HVAC System, Ductwork, High Density	127,891 SF	10	8099585
D3050		Fair	Pump, Distribution, HVAC Chilled or Condenser Water	1	3	8099555
D3050	Mechanical Room	Fair	Pump, Distribution, HVAC Chilled or Condenser Water	1	3	8099591
D3050	Throughout Building	Fair	HVAC System, Hydronic Piping, 4-Pipe	127,891 SF	3	8099544
D3050	Mechanical Room	Fair	Pump, Distribution, HVAC Chilled or Condenser Water	1	3	8099552
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 10" Damper	1	3	8099619

Component Condition Report | Invictus Academy

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 10" Damper	1	3	8099596
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 12" Damper	1	3	8099564
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 12" Damper	1	3	8099553
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 16" Damper	1	3	8099534
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 10" Damper	1	3	8099495
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 12" Damper	1	3	8099532
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 12" Damper	1	3	8099519
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 12" Damper	1	3	8099587
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 10" Damper	1	3	8099525
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 10" Damper	1	3	8099597
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 10" Damper	1	3	8099527
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 12" Damper	1	3	8099565
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 10" Damper	1	3	8099514
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 16" Damper	1	3	8099611
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 12" Damper	1	3	8099618
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 12" Damper	1	3	8099621
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 10" Damper	1	3	8099515
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 10" Damper	1	3	8099588
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 10" Damper	1	3	8099533
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 24" Damper	1	3	8099599
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 16" Damper	1	3	8099561
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 10" Damper	1	3	8099557
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 12" Damper	1	3	8099508
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 12" Damper	1	3	8099610
D3060	Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 10" Damper	1	3	8099550
Electrical						
D5020	Mechanical Room	Fair	Distribution Panel, 120/208 V	1	3	8099558
D5020	Mechanical Room	Fair	Distribution Panel, 120/208 V	1	3	8099590
D5020	Throughout Building	Fair	Distribution Panel, 120/208 V	1	3	8099541
D5020	Mechanical Room	Fair	Switchboard, 120/208 V	1	3	8099511
D5020	Throughout Building	Fair	Distribution Panel, 120/208 V	1	3	8099580
D5020		Fair	Distribution Panel, 120/208 V	1	3	8099547

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UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
D5020	Mechanical Room	Fair	Switchboard, 277/480 V	1	3	8099535
D5020	Throughout Building	Fair	Distribution Panel, 120/208 V	1	3	8099581
D5020	Throughout Building	Fair	Distribution Panel, 120/208 V	1	3	8099572
D5030	Mechanical Room	Fair	Variable Frequency Drive, VFD, by HP of Motor, Replace/Install	1	3	8099617
D5030	Mechanical Room	Fair	Variable Frequency Drive, VFD, by HP of Motor, Replace/Install	1	5	8099594
D5040	Throughout Building	Fair	Interior Lighting System, Full Upgrade, High Density & Standard Fixtures	127,891 SF	3	8099613
Fire Alarm & Electronic Systems						
D7010	Main Entrance	Fair	Entry Security, Metal Detector, Full Body Walkthrough	1	3	8099607
D7030	Throughout Building	Fair	Security/Surveillance System, Full System Installation, Average Density, Install	127,891 SF	10	8099548
D7050	Main Entrance	Excellent	Fire Alarm Panel, Annunciator	1	15	8099567
D7050	Throughout Building	Excellent	Fire Alarm System, Full System Upgrade, Standard Addressable, Upgrade/Install	127,891 SF	20	8099605
D7050	Faculty Office	Excellent	Fire Alarm Panel, Fully Addressable	1	15	8099560
Equipment & Furnishings						
E1030	Kitchen	Fair	Foodservice Equipment, Convection Oven, Single	1	3	8099571
E1030	Kitchen	Fair	Foodservice Equipment, Convection Oven, Single	1	4	8099592
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels	1	3	8099513
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Tabletop Drawers (Set of 4)	1	3	8099510
E1030	Kitchen	Fair	Foodservice Equipment, Convection Oven, Single	1	4	8099500
E1030	Kitchen	Fair	Foodservice Equipment, Walk-In, Evaporator for Refigerator/Freezer	1	7	8099578
E1030	Kitchen	Fair	Foodservice Equipment, Dishwasher Commercial	1	7	8099608
E1030	Kitchen	Fair	Foodservice Equipment, Walk-In, Freezer	1	3	8099579
E1030	Gym locker room basement area	Fair	Laundry Equipment, Dryer, Commercial	1	5	8099503
E1030	Kitchen	Fair	Foodservice Equipment, Convection Oven, Double	1	2	8099598
E1030	Gym locker room basement area	Fair	Laundry Equipment, Washer, Commercial	1	8	8099506
E1030	Kitchen	Fair	Foodservice Equipment, Dairy Cooler/Wells	1	7	8099577
E1030	Kitchen	Fair	Foodservice Equipment, Walk-In, Freezer	1	10	8099540
E1030	Kitchen	Fair	Foodservice Equipment, Dairy Cooler/Wells	1	3	8099562
E1030	Kitchen	Fair	Foodservice Equipment, Range/Oven, 4-Burner	1	3	8099554
E1030	Kitchen	Fair	Foodservice Equipment, Icemaker, Freestanding	1	7	8099530
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Tabletop Drawers (Set of 4)	1	7	8099520
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels	1	3	8099538
E1030	Kitchen	Fair	Foodservice Equipment, Convection Oven, Single	1	3	8099593

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UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Tabletop Drawers (Set of 4)	1	7	8099507
E1030	Kitchen	Fair	Foodservice Equipment, Walk-In, Evaporator for Refigerator/Freezer	1	5	8099584
Pedestrian Plazas & Walkways						
G2020	Site	Poor	Parking Lots, Pavement, Asphalt, Mill & Overlay	71,600 SF	0	8099615
G2030	Main entrance area	Fair	Sidewalk, Concrete, Large Areas	5,000 SF	3	8099539
G2030	Site	Poor	Sidewalk, Concrete, Large Areas	3,000 SF	0	8099523
Athletic, Recreational & Playfield Areas						
G2050	Gymnasium	Fair	Sports Apparatus, Basketball, Backboard/Rim/Pole	6	10	8099536
G2050	Outdoor basketball court	Poor	Athletic Surfaces & Courts, Basketball/General, Asphalt Pavement, Mill & Overlay	4,500 SF	0	8099566
G2050	Outdoor basketball court	Fair	Sports Apparatus, Basketball, Backboard/Rim/Pole	2	5	8099504
G2050	Site General	Fair	Athletic Surfaces & Courts, Baseball/Football, Artificial Turf	22,000 SF	7	8099551
Sitework						
G2060	Site	Good	Fences & Gates, Fence, Chain Link 8'	250 LF	31	8099620
G4050	Site	Fair	Exterior Site Lighting, Wall Pack, 13 to 26 W	15	5	8099622
Accessibility						
Y1090		NA	ADA Miscellaneous, Level III Study, Includes Measurements, Evaluate/Report	1	0	8167210

Appendix F:
Replacement Reserves

Replacement Reserves Report

Invictus Academy

9/30/2024

Location	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
Invictus Academy	$519,750	$0	$1,162,070	$3,254,887	$49,973	$530,484	$0	$1,254,416	$12,288	$3,001	$1,972,895	$6,091	$11,805	$202,584	$16,941	$673,946	$0	$628,909	$442,633	$0	$712,282
Grand Total	**$519,750**	**$0**	**$1,162,070**	**$3,254,887**	**$49,973**	**$530,484**	**$0**	**$1,254,416**	**$12,288**	**$3,001**	**$1,972,895**	**$6,091**	**$11,805**	**$202,584**	**$16,941**	**$673,946**	**$0**	**$628,909**	**$442,633**	**$0**	**$712,282**

Uniformat Code	Location Description	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost *	Subtotal	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
B2020	Building Exterior	8099570	Window, Aluminum Double-Glazed, 28-40 SF, Replace	30	27	3	78	EA	$1,250.00	$97,500				$97,500														
B2050	Building Exterior	8099616	Exterior Door, Steel, Standard, Replace	30	20	10	24	EA	$600.00	$14,400											$14,400							
B3010	Roof	8099546	Roofing, Single-Ply Membrane, TPO/PVC, Replace	20	18	2	63946	SF	$17.00	$1,087,082			$1,087,082															
B3020	Roof	8099517	Roof Appurtenances, Chimney/Cupola, Moderate Rehabilitation, Repair	0	3	0	1	EA	$3,000.00	$3,000	$3,000																	
C1020	Faculty Office	8099573	Interior Window, Fixed, 24 SF, Replace	40	37	3	4	EA	$850.00	$3,400				$3,400														
C1030	Main Entrance	8099609	Interior Door, Aluminum-Framed & Glazed, Standard Swing, Replace	40	35	5	5	EA	$1,300.00	$6,500						$6,500												
C1030	Throughout Building	8099604	Interior Door, Steel, Standard, Replace	40	30	10	15	EA	$600.00	$9,000											$9,000							
C1030	Throughout Building	8099545	Interior Door, Wood, Solid-Core, Replace	40	30	10	173	EA	$700.00	$121,100											$121,100							
C1070	Throughout Building	8099576	Suspended Ceilings, Acoustical Tile (ACT), Replace	25	25	0	1200	SF	$3.50	$4,200	$4,200																	
C1090	Restrooms	8099568	Toilet Partitions, Plastic/Laminate & wood, Replace	20	17	3	47	EA	$750.00	$35,250				$35,250														
C1090	Throughout Building	8099559	Lockers, Steel-Baked Enamel, 12" W x 15" D x 72" H, Replace	20	17	3	937	LF	$500.00	$468,500				$468,500														
C1090	Gym locker room basement area	8099498	Lockers, Steel-Baked Enamel, 12" W x 15" D x 72" H, Replace	20	5	15	60	LF	$500.00	$30,000															$30,000		
C2010	Throughout Building	8099526	Wall Finishes, any surface, Prep & Paint	10	5	5	255800	SF	$1.50	$383,700						$383,700									$383,700			
C2030	Throughout Building	8099575	Flooring, Vinyl Tile (VCT), Replace	15	8	7	122091	SF	$5.00	$610,455								$610,455										
C2030	Gymnasium basketball court	8099505	Flooring, Maple Sports Floor, Refinish	10	3	7	5800	SF	$5.00	$29,000								$29,000									$29,000	
D2010	Mechanical Room	8099524	Water Heater, Gas, Commercial (200 MBH), Replace	20	16	4	1	EA	$16,600.00	$16,600					$16,600													
D2010	Mechanical Room	8099614	Water Heater, Gas, Commercial (200 MBH), Replace	20	16	4	1	EA	$16,600.00	$16,600					$16,600													
D2010	Mechanical Room	8099603	Backflow Preventer, Domestic Water, Replace	30	27	3	1	EA	$1,400.00	$1,400				$1,400														
D2010	Restrooms	8099529	Sink/Lavatory, Wall-Hung, Vitreous China, Replace	30	27	3	54	EA	$1,500.00	$81,000				$81,000														
D2010	Restrooms	8099556	Urinal, Standard, Replace	30	25	5	24	EA	$1,100.00	$26,400						$26,400												
D2010	Throughout Building	8099601	Drinking Fountain, Wall-Mounted, Bi-Level, Replace	15	5	10	16	EA	$1,500.00	$24,000											$24,000							
D2010	Restrooms	8099595	Toilet, Commercial Water Closet, Replace	30	20	10	47	EA	$1,300.00	$61,100											$61,100							
D3020	Invictus Academy	8099528	Boiler, Gas, HVAC, Replace	30	30	0	1	EA	$12,700.00	$12,700	$12,700																	
D3020	Mechanical Room	8099569	Boiler, Gas, HVAC, 2001 to 2500 MBH, Replace	30	17	13	1	EA	$60,400.00	$60,400														$60,400				
D3020	Mechanical Room	8099583	Boiler, Gas, HVAC, 2001 to 2500 MBH, Replace	30	17	13	1	EA	$60,400.00	$60,400														$60,400				
D3020	Mechanical Room	8099606	Boiler Supplemental Components, Expansion Tank, Replace	40	33	7	1	EA	$2,700.00	$2,700								$2,700										
D3020	Mechanical Room	8099516	Boiler Supplemental Components, Expansion Tank, Replace	40	30	10	2	EA	$2,700.00	$5,400											$5,400							
D3030	Mechanical Room	8099589	Chiller, Water-Cooled, Replace	25	25	0	1	EA	$150,000.00	$150,000	$150,000																	
D3030	Roof	8099512	Cooling Tower, (Typical) Open Circuit, Replace	25	25	0	1	EA	$46,700.00	$46,700	$46,700																	
D3030	Roof	8099496	Split System, Condensing Unit/Heat Pump, Replace	15	15	0	1	EA	$2,300.00	$2,300	$2,300															$2,300		
D3030	Classroom 208	8099602	Split System, Fan Coil Unit, DX, Replace	15	12	3	1	EA	$3,000.00	$3,000				$3,000														$
D3030	Classroom 219	8099623	Split System, Fan Coil Unit, DX, Replace	15	12	3	1	EA	$3,000.00	$3,000				$3,000														$
D3030	Throughout Building	8099518	Split System, Fan Coil Unit, DX, Replace	15	12	3	63	EA	$3,000.00	$189,000				$189,000														$1
D3030	Teachers lounge	8099574	Split System, Fan Coil Unit, DX, Replace	15	12	3	1	EA	$3,000.00	$3,000				$3,000														$
D3030	Classroom 201B	8099542	Split System, Fan Coil Unit, DX, Replace	15	12	3	1	EA	$3,000.00	$3,000				$3,000														$
D3030	Boys locker room first floor	8099522	Split System, Fan Coil Unit, DX, Replace	15	12	3	1	EA	$3,000.00	$3,000				$3,000														$
D3030	Classroom 109	8099612	Split System, Fan Coil Unit, DX, Replace	15	12	3	1	EA	$3,000.00	$3,000				$3,000														$
D3030	Classroom 207	8099549	Split System, Fan Coil Unit, DX, Replace	15	12	3	1	EA	$3,000.00	$3,000				$3,000														$
D3030	Youth advocacy program office	8099497	Split System, Fan Coil Unit, DX, Replace	15	12	3	1	EA	$2,100.00	$2,100				$2,100														$
D3030	Classroom 205	8099537	Split System, Fan Coil Unit, DX, Replace	15	12	3	1	EA	$3,000.00	$3,000				$3,000														$

Replacement Reserves Report

Invictus Academy

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Uniformat Code	Location Description	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost *	Subtotal	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
D3030	Classroom 214	8099543	Split System, Fan Coil Unit, DX, Replace	15	12	3	1	EA	$3,000.00	$3,000				$3,000														
D3030	Storage room second floor, second unit	8099586	Split System, Fan Coil Unit, DX, Replace	15	12	3	1	EA	$3,000.00	$3,000				$3,000														
D3030	Classroom 106	8099501	Split System, Fan Coil Unit, DX, Replace	15	12	3	1	EA	$3,000.00	$3,000				$3,000														
D3030	Classroom 202	8099494	Split System, Fan Coil Unit, DX, Replace	15	12	3	1	EA	$3,000.00	$3,000				$3,000														
D3030	Youth advocacy program office	8099582	Split System, Fan Coil Unit, DX, Replace	15	12	3	1	EA	$3,000.00	$3,000				$3,000														
D3030	Classroom 217	8099521	Split System, Fan Coil Unit, DX, Replace	15	12	3	1	EA	$3,000.00	$3,000				$3,000														
D3030	Youth advocacy program office	8099531	Split System, Fan Coil Unit, DX, Replace	15	10	5	1	EA	$2,100.00	$2,100						$2,100												
D3030	Roof	8099563	Split System, Condensing Unit/Heat Pump, Replace	15	6	9	1	EA	$2,300.00	$2,300										$2,300								
D3030	Roof	8099600	Split System, Condensing Unit/Heat Pump, Replace	15	4	11	1	EA	$2,300.00	$2,300												$2,300						
D3030	Youth advocacy program office	8099502	Split System, Fan Coil Unit, DX, Replace	15	4	11	1	EA	$2,100.00	$2,100												$2,100						
D3050	Invictus Academy	8099555	Pump, Distribution, HVAC Chilled or Condenser Water, Replace	25	22	3	1	EA	$13,600.00	$13,600				$13,600														
D3050	Mechanical Room	8099591	Pump, Distribution, HVAC Chilled or Condenser Water, Replace	25	22	3	1	EA	$13,600.00	$13,600				$13,600														
D3050	Mechanical Room	8099552	Pump, Distribution, HVAC Chilled or Condenser Water, Replace	25	22	3	1	EA	$13,600.00	$13,600				$13,600														
D3050	Throughout Building	8099544	HVAC System, Hydronic Piping, 4-Pipe, Replace	40	37	3	127891	SF	$8.00	$1,023,128				$1,023,128														
D3050	Throughout Building	8099585	HVAC System, Ductwork, High Density, Replace	30	20	10	127891	SF	$6.00	$767,346											$767,346							
D3060	Roof	8099611	Exhaust Fan, Roof or Wall-Mounted, 16" Damper, Replace	20	17	3	1	EA	$2,400.00	$2,400				$2,400														
D3060	Roof	8099508	Exhaust Fan, Roof or Wall-Mounted, 12" Damper, Replace	20	17	3	1	EA	$1,400.00	$1,400				$1,400														
D3060	Roof	8099557	Exhaust Fan, Roof or Wall-Mounted, 10" Damper, Replace	20	17	3	1	EA	$1,200.00	$1,200				$1,200														
D3060	Roof	8099621	Exhaust Fan, Roof or Wall-Mounted, 12" Damper, Replace	20	17	3	1	EA	$1,400.00	$1,400				$1,400														
D3060	Roof	8099618	Exhaust Fan, Roof or Wall-Mounted, 12" Damper, Replace	20	17	3	1	EA	$1,400.00	$1,400				$1,400														
D3060	Roof	8099553	Exhaust Fan, Roof or Wall-Mounted, 12" Damper, Replace	20	17	3	1	EA	$1,400.00	$1,400				$1,400														
D3060	Roof	8099564	Exhaust Fan, Roof or Wall-Mounted, 12" Damper, Replace	20	17	3	1	EA	$1,400.00	$1,400				$1,400														
D3060	Roof	8099561	Exhaust Fan, Roof or Wall-Mounted, 16" Damper, Replace	20	17	3	1	EA	$2,400.00	$2,400				$2,400														
D3060	Roof	8099550	Exhaust Fan, Roof or Wall-Mounted, 10" Damper, Replace	20	17	3	1	EA	$1,200.00	$1,200				$1,200														
D3060	Roof	8099610	Exhaust Fan, Roof or Wall-Mounted, 12" Damper, Replace	20	17	3	1	EA	$1,400.00	$1,400				$1,400														
D3060	Roof	8099587	Exhaust Fan, Roof or Wall-Mounted, 12" Damper, Replace	20	17	3	1	EA	$1,400.00	$1,400				$1,400														
D3060	Roof	8099519	Exhaust Fan, Roof or Wall-Mounted, 12" Damper, Replace	20	17	3	1	EA	$1,400.00	$1,400				$1,400														
D3060	Roof	8099532	Exhaust Fan, Roof or Wall-Mounted, 12" Damper, Replace	20	17	3	1	EA	$1,400.00	$1,400				$1,400														
D3060	Roof	8099565	Exhaust Fan, Roof or Wall-Mounted, 12" Damper, Replace	20	17	3	1	EA	$1,400.00	$1,400				$1,400														
D3060	Roof	8099514	Exhaust Fan, Roof or Wall-Mounted, 10" Damper, Replace	20	17	3	1	EA	$1,200.00	$1,200				$1,200														
D3060	Roof	8099515	Exhaust Fan, Roof or Wall-Mounted, 10" Damper, Replace	20	17	3	1	EA	$1,200.00	$1,200				$1,200														
D3060	Roof	8099588	Exhaust Fan, Roof or Wall-Mounted, 10" Damper, Replace	20	17	3	1	EA	$1,200.00	$1,200				$1,200														
D3060	Roof	8099533	Exhaust Fan, Roof or Wall-Mounted, 10" Damper, Replace	20	17	3	1	EA	$1,200.00	$1,200				$1,200														
D3060	Roof	8099599	Exhaust Fan, Roof or Wall-Mounted, 24" Damper, Replace	20	17	3	1	EA	$3,000.00	$3,000				$3,000														
D3060	Roof	8099525	Exhaust Fan, Roof or Wall-Mounted, 10" Damper, Replace	20	17	3	1	EA	$1,200.00	$1,200				$1,200														
D3060	Roof	8099597	Exhaust Fan, Roof or Wall-Mounted, 10" Damper, Replace	20	17	3	1	EA	$1,200.00	$1,200				$1,200														
D3060	Roof	8099527	Exhaust Fan, Roof or Wall-Mounted, 10" Damper, Replace	20	17	3	1	EA	$1,200.00	$1,200				$1,200														
D3060	Roof	8099619	Exhaust Fan, Roof or Wall-Mounted, 10" Damper, Replace	20	17	3	1	EA	$1,200.00	$1,200				$1,200														
D3060	Roof	8099534	Exhaust Fan, Roof or Wall-Mounted, 16" Damper, Replace	20	17	3	1	EA	$2,400.00	$2,400				$2,400														
D3060	Roof	8099495	Exhaust Fan, Roof or Wall-Mounted, 10" Damper, Replace	20	17	3	1	EA	$1,200.00	$1,200				$1,200														
D3060	Roof	8099596	Exhaust Fan, Roof or Wall-Mounted, 10" Damper, Replace	20	17	3	1	EA	$1,200.00	$1,200				$1,200														
D5020	Mechanical Room	8099535	Switchboard, 277/480 V, Replace	40	37	3	1	EA	$120,000.00	$120,000				$120,000														
D5020	Mechanical Room	8099511	Switchboard, 120/208 V, Replace	40	37	3	1	EA	$66,000.00	$66,000				$66,000														
D5020	Mechanical Room	8099558	Distribution Panel, 120/208 V, Replace	30	27	3	1	EA	$8,000.00	$8,000				$8,000														
D5020	Throughout Building	8099541	Distribution Panel, 120/208 V, Replace	30	27	3	1	EA	$2,000.00	$2,000				$2,000														

Replacement Reserves Report

Invictus Academy

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Uniformat Code	Location Description	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost *	Subtotal	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
D5020	Throughout Building	8099580	Distribution Panel, 120/208 V, Replace	30	27	3	1	EA	$2,000.00	$2,000				$2,000														
D5020	Invictus Academy	8099547	Distribution Panel, 120/208 V, Replace	30	27	3	1	EA	$2,000.00	$2,000				$2,000														
D5020	Throughout Building	8099581	Distribution Panel, 120/208 V, Replace	30	27	3	1	EA	$2,000.00	$2,000				$2,000														
D5020	Throughout Building	8099572	Distribution Panel, 120/208 V, Replace	30	27	3	1	EA	$2,000.00	$2,000				$2,000														
D5020	Mechanical Room	8099590	Distribution Panel, 120/208 V, Replace	30	27	3	1	EA	$2,000.00	$2,000				$2,000														
D5030	Mechanical Room	8099617	Variable Frequency Drive, VFD, by HP of Motor, Replace/Install	20	17	3	1	EA	$6,200.00	$6,200				$6,200														
D5030	Mechanical Room	8099594	Variable Frequency Drive, VFD, by HP of Motor, Replace/Install	20	15	5	1	EA	$5,300.00	$5,300						$5,300												
D5040	Throughout Building	8099613	Interior Lighting System, Full Upgrade, High Density & Standard Fixtures, Replace	20	17	3	127891	SF	$5.00	$639,455				$639,455														
D7010	Main Entrance	8099607	Entry Security, Metal Detector, Full Body Walkthrough, Replace	10	7	3	1	EA	$5,950.00	$5,950				$5,950										$5,950				
D7030	Throughout Building	8099548	Security/Surveillance System, Full System Installation, Average Density, Install	15	5	10	127891	SF	$3.00	$383,673											$383,673							
D7050	Main Entrance	8099567	Fire Alarm Panel, Annunciator, Replace	15	0	15	1	EA	$1,580.00	$1,580																$1,580		
D7050	Faculty Office	8099560	Fire Alarm Panel, Fully Addressable, Replace	15	0	15	1	EA	$15,000.00	$15,000																$15,000		
D7050	Throughout Building	8099605	Fire Alarm System, Full System Upgrade, Standard Addressable, Upgrade/Install	20	0	20	127891	SF	$3.00	$383,673																		
E1030	Gym locker room basement area	8099503	Laundry Equipment, Dryer, Commercial, Replace	15	10	5	1	EA	$4,000.00	$4,000						$4,000												
E1030	Gym locker room basement area	8099506	Laundry Equipment, Washer, Commercial, Replace	10	2	8	1	EA	$9,700.00	$9,700									$9,700									$
E1030	Kitchen	8099598	Foodservice Equipment, Convection Oven, Double, Replace	10	8	2	1	EA	$8,280.00	$8,280			$8,280										$8,280					
E1030	Kitchen	8099571	Foodservice Equipment, Convection Oven, Single, Replace	10	7	3	1	EA	$5,600.00	$5,600				$5,600										$5,600				
E1030	Kitchen	8099513	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels, Replace	15	12	3	1	EA	$1,700.00	$1,700				$1,700														$
E1030	Kitchen	8099510	Foodservice Equipment, Food Warmer, Tabletop Drawers (Set of 4), Replace	15	12	3	1	EA	$5,700.00	$5,700				$5,700														$
E1030	Kitchen	8099579	Foodservice Equipment, Walk-In, Freezer, Replace	20	17	3	1	EA	$25,000.00	$25,000				$25,000														
E1030	Kitchen	8099562	Foodservice Equipment, Dairy Cooler/Wells, Replace	15	12	3	1	EA	$3,600.00	$3,600				$3,600														$
E1030	Kitchen	8099554	Foodservice Equipment, Range/Oven, 4-Burner, Replace	15	12	3	1	EA	$4,500.00	$4,500				$4,500														$
E1030	Kitchen	8099593	Foodservice Equipment, Convection Oven, Single, Replace	10	7	3	1	EA	$5,600.00	$5,600				$5,600										$5,600				
E1030	Kitchen	8099538	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels, Replace	15	12	3	1	EA	$1,700.00	$1,700				$1,700														$
E1030	Kitchen	8099592	Foodservice Equipment, Convection Oven, Single, Replace	10	6	4	1	EA	$5,600.00	$5,600					$5,600										$5,600			
E1030	Kitchen	8099500	Foodservice Equipment, Convection Oven, Single, Replace	10	6	4	1	EA	$5,600.00	$5,600					$5,600										$5,600			
E1030	Kitchen	8099584	Foodservice Equipment, Walk-In, Evaporator for Refigerator/Freezer, Replace	15	10	5	1	EA	$4,600.00	$4,600						$4,600												
E1030	Kitchen	8099530	Foodservice Equipment, Icemaker, Freestanding, Replace	15	8	7	1	EA	$6,700.00	$6,700								$6,700										
E1030	Kitchen	8099577	Foodservice Equipment, Dairy Cooler/Wells, Replace	15	8	7	1	EA	$3,600.00	$3,600								$3,600										
E1030	Kitchen	8099520	Foodservice Equipment, Food Warmer, Tabletop Drawers (Set of 4), Replace	15	8	7	1	EA	$5,700.00	$5,700								$5,700										
E1030	Kitchen	8099507	Foodservice Equipment, Food Warmer, Tabletop Drawers (Set of 4), Replace	15	8	7	1	EA	$5,700.00	$5,700								$5,700										
E1030	Kitchen	8099608	Foodservice Equipment, Dishwasher Commercial, Replace	10	3	7	1	EA	$21,500.00	$21,500								$21,500									$21,500	
E1030	Kitchen	8099578	Foodservice Equipment, Walk-In, Evaporator for Refigerator/Freezer, Replace	15	8	7	1	EA	$4,600.00	$4,600								$4,600										
E1030	Kitchen	8099540	Foodservice Equipment, Walk-In, Freezer, Replace	20	10	10	1	EA	$25,000.00	$25,000											$25,000							
G2020	Site	8099615	Parking Lots, Pavement, Asphalt, Mill & Overlay	25	25	0	71600	SF	$3.50	$250,600	$250,600																	
G2030	Site	8099523	Sidewalk, Concrete, Large Areas, Replace	50	50	0	3000	SF	$9.00	$27,000	$27,000																	
G2030	Main entrance area	8099539	Sidewalk, Concrete, Large Areas, Replace	50	47	3	5000	SF	$9.00	$45,000				$45,000														
G2050	Outdoor basketball court	8099566	Athletic Surfaces & Courts, Basketball/General, Asphalt Pavement, Mill & Overlay	25	25	0	4500	SF	$3.50	$15,750	$15,750																	
G2050	Outdoor basketball court	8099504	Sports Apparatus, Basketball, Backboard/Rim/Pole, Replace	25	20	5	2	EA	$9,500.00	$19,000						$19,000												
G2050	Site General	8099551	Athletic Surfaces & Courts, Baseball/Football, Artificial Turf, Replace	10	3	7	22000	SF	$15.00	$330,000								$330,000									$330,000	
G2050	Gymnasium	8099536	Sports Apparatus, Basketball, Backboard/Rim/Pole, Replace	25	15	10	6	EA	$9,500.00	$57,000											$57,000							
G4050	Site	8099622	Exterior Site Lighting, Wall Pack, 13 to 26 W, Replace	20	15	5	15	EA	$400.00	$6,000						$6,000												
Y1090	Invictus Academy	8167210	ADA Miscellaneous, Level III Study, Includes Measurements, Evaluate/Report	0	0	0	1	EA	$7,500.00	$7,500	$7,500																	
Totals, Unescalated											**$519,750**	**$0**	**$1,095,362**	**$2,978,683**	**$44,400**	**$457,600**	**$0**	**$1,019,955**	**$9,700**	**$2,300**	**$1,468,019**	**$4,400**	**$8,280**	**$137,950**	**$11,200**	**$432,580**	**$0**	**$380,500**	**$2**
Totals, Escalated (3.0% inflation, compounded annually)											**$519,750**	**$0**	**$1,162,070**	**$3,254,887**	**$49,973**	**$530,484**	**$0**	**$1,254,416**	**$12,288**	**$3,001**	**$1,972,895**	**$6,091**	**$11,805**	**$202,584**	**$16,941**	**$673,946**	**$0**	**$628,909**	**$4**

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	8099524	D2010	**Water Heater**	Gas, Commercial (200 MBH)	175 GAL	Invictus Academy	Mechanical Room	State Industries, Inc.	PVG020000VSA125	0834M001787	2008		
2	8099614	D2010	**Water Heater**	Gas, Commercial (200 MBH)	175 GAL	Invictus Academy	Mechanical Room	State Industries, Inc.	PVG020000VSA125	0835M001272	2008		
3	8099603	D2010	**Backflow Preventer**	Domestic Water	1.5 IN	Invictus Academy	Mechanical Room	Watts Regulator	QT M1	242400			

D30 HVAC

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	8099528	D3020	**Boiler**	Gas, HVAC	125 MBH	Invictus Academy		Raypak	No dataplate	No dataplate	1985		
2	8099569	D3020	**Boiler**	Gas, HVAC, 2001 to 2500 MBH	2500 MBH	Invictus Academy	Mechanical Room	Cleaver-Brooks	Pro Fire	No dataplate	2007		
3	8099583	D3020	**Boiler**	Gas, HVAC, 2001 to 2500 MBH	2500 MBH	Invictus Academy	Mechanical Room	Cleaver-Brooks	Pro Fire	No dataplate	2007		
4	8099516	D3020	**Boiler Supplemental Components**	Expansion Tank	31 - 60 GAL	Invictus Academy	Mechanical Room	No dataplate	No dataplate	No dataplate			2
5	8099606	D3020	**Boiler Supplemental Components**	Expansion Tank	60 GAL	Invictus Academy	Mechanical Room	Bell & Gossett	No dataplate	No dataplate			
6	8099589	D3030	**Chiller**	Water-Cooled	150 TON	Invictus Academy	Mechanical Room	Trane	RTB255	196A02340	1996		
7	8099512	D3030	**Cooling Tower**	(Typical) Open Circuit	200 TON	Invictus Academy	Roof	Evapco	Illegible	Illegible			
8	8099496	D3030	**Split System**	Condensing Unit/Heat Pump	1 TON	Invictus Academy	Roof	Illegible	Illegible	Illegible			
9	8099563	D3030	**Split System**	Condensing Unit/Heat Pump	1 TON	Invictus Academy	Roof	Carrier	38MAQB24R	1418V13811	2018		
10	8099600	D3030	**Split System**	Condensing Unit/Heat Pump	1 TON	Invictus Academy	Roof	Gree	LIVV30HP230V1A0	1420GS16944	2020		
11	8099582	D3030	**Split System**	Fan Coil Unit, DX	2 TON	Invictus Academy	Youth advocacy program office	Inaccessible	Inaccessible	Inaccessible			
12	8099521	D3030	**Split System**	Fan Coil Unit, DX	2 TON	Invictus Academy	Classroom 217	Inaccessible	Inaccessible	Inaccessible			
13	8099522	D3030	**Split System**	Fan Coil Unit, DX	2 TON	Invictus Academy	Boys locker room first floor	Inaccessible	Inaccessible	Inaccessible			
14	8099494	D3030	**Split System**	Fan Coil Unit, DX	2 TON	Invictus Academy	Classroom 202	Inaccessible	Inaccessible	Inaccessible			
15	8099549	D3030	**Split System**	Fan Coil Unit, DX	2 TON	Invictus Academy	Classroom 207	Inaccessible	Inaccessible	Inaccessible			
16	8099497	D3030	**Split System**	Fan Coil Unit, DX	2 TON	Invictus Academy	Youth advocacy program office	Carrier	Inaccessible	Inaccessible			
17	8099612	D3030	**Split System**	Fan Coil Unit, DX	2 TON	Invictus Academy	Classroom 109	Inaccessible	Inaccessible	Inaccessible			
18	8099537	D3030	**Split System**	Fan Coil Unit, DX	2 TON	Invictus Academy	Classroom 205	Inaccessible	Inaccessible	Inaccessible			
19	8099543	D3030	**Split System**	Fan Coil Unit, DX	2 TON	Invictus Academy	Classroom 214	Inaccessible	Inaccessible	Inaccessible			
20	8099586	D3030	**Split System**	Fan Coil Unit, DX	2 TON	Invictus Academy	Storage room second floor, second unit	Inaccessible	Inaccessible	Inaccessible			
21	8099501	D3030	**Split System**	Fan Coil Unit, DX	2 TON	Invictus Academy	Classroom 106	Inaccessible	Inaccessible	Inaccessible			
22	8099518	D3030	**Split System**	Fan Coil Unit, DX	2 TON	Invictus Academy	Throughout Building	Inaccessible	Inaccessible	Inaccessible			63
23	8099623	D3030	**Split System**	Fan Coil Unit, DX	2 TON	Invictus Academy	Classroom 219	Inaccessible	Inaccessible	Inaccessible			
24	8099531	D3030	**Split System**	Fan Coil Unit, DX	1.5 TON	Invictus Academy	Youth advocacy program office	Carrier	40MAQB248-3	1418V17176	2014		
25	8099602	D3030	**Split System**	Fan Coil Unit, DX	2 TON	Invictus Academy	Classroom 208	Inaccessible	Inaccessible	Inaccessible			
26	8099542	D3030	**Split System**	Fan Coil Unit, DX	2 TON	Invictus Academy	Classroom 201B	Inaccessible	Inaccessible	Inaccessible			
27	8099574	D3030	**Split System**	Fan Coil Unit, DX	2 TON	Invictus Academy	Teachers lounge	Inaccessible	Inaccessible	Inaccessible			
28	8099502	D3030	**Split System**	Fan Coil Unit, DX	1.5 TON	Invictus Academy	Youth advocacy program office	Gree	Inaccessible	Inaccessible	2020		
29	8099555	D3050	**Pump**	Distribution, HVAC Chilled or Condenser Water	25 HP	Invictus Academy		Uniclosed	Illegible	Illegible			
30	8099591	D3050	**Pump**	Distribution, HVAC Chilled or Condenser Water	25 HP	Invictus Academy	Mechanical Room	Dayton Electric	3KW52A	Illegible			

31	8099552	D3050	**Pump**	Distribution, HVAC Chilled or Condenser Water	20 HP	Invictus Academy	Mechanical Room	Nidec Motor Corporation	FB90	Illegible
32	8099619	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 10" Damper	1000 CFM	Invictus Academy	Roof	No dataplate	No dataplate	No dataplate
33	8099596	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 10" Damper	1000 CFM	Invictus Academy	Roof	Illegible	Illegible	Illegible
34	8099495	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 10" Damper	1000 CFM	Invictus Academy	Roof	Illegible	Illegible	Illegible
35	8099525	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 10" Damper	1000 CFM	Invictus Academy	Roof	No dataplate	No dataplate	No dataplate
36	8099597	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 10" Damper	1000 CFM	Invictus Academy	Roof	No dataplate	No dataplate	No dataplate
37	8099527	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 10" Damper	1000 CFM	Invictus Academy	Roof	No dataplate	No dataplate	No dataplate
38	8099514	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 10" Damper	1000 CFM	Invictus Academy	Roof	No dataplate	No dataplate	No dataplate
39	8099515	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 10" Damper	1000 CFM	Invictus Academy	Roof	No dataplate	No dataplate	No dataplate
40	8099588	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 10" Damper	1000 CFM	Invictus Academy	Roof	No dataplate	No dataplate	No dataplate
41	8099533	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 10" Damper	1000 CFM	Invictus Academy	Roof	Illegible	Illegible	Illegible
42	8099557	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 10" Damper	1000 CFM	Invictus Academy	Roof	No dataplate	No dataplate	No dataplate
43	8099550	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 10" Damper	1000 CFM	Invictus Academy	Roof	No dataplate	No dataplate	No dataplate
44	8099564	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 12" Damper	1000 CFM	Invictus Academy	Roof	Roof master	LA21	Illegible
45	8099553	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 12" Damper	1000 CFM	Invictus Academy	Roof	Illegible	Illegible	Illegible
46	8099532	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 12" Damper	1000 CFM	Invictus Academy	Roof	Illegible	Illegible	Illegible
47	8099519	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 12" Damper	1000 CFM	Invictus Academy	Roof	Roof master	LA21	DR82489
48	8099587	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 12" Damper	1000 CFM	Invictus Academy	Roof	Roof master	LA21	DR82491
49	8099565	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 12" Damper	1000 CFM	Invictus Academy	Roof	Roof master	LA21	DR82190
50	8099618	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 12" Damper	1000 CFM	Invictus Academy	Roof	Illegible	Illegible	Illegible
51	8099621	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 12" Damper	1000 CFM	Invictus Academy	Roof	Roof master	LA21	DR82487
52	8099508	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 12" Damper	1000 CFM	Invictus Academy	Roof	No dataplate	No dataplate	No dataplate
53	8099610	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 12" Damper	1000 CFM	Invictus Academy	Roof	No dataplate	No dataplate	No dataplate
54	8099534	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 16" Damper	1000 CFM	Invictus Academy	Roof	Illegible	Illegible	Illegible
55	8099611	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 16" Damper	1000 CFM	Invictus Academy	Roof	Illegible	Illegible	Illegible
56	8099561	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 16" Damper	1000 CFM	Invictus Academy	Roof	No dataplate	No dataplate	No dataplate
57	8099599	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 24" Damper	1000 CFM	Invictus Academy	Roof	Illegible	Illegible	Illegible

D50 Electrical

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	8099511	D5020	**Switchboard**	120/208 V	1200 AMP	Invictus Academy	Mechanical Room	General Electric	Illegible	Illegible			
2	8099535	D5020	**Switchboard**	277/480 V	4000 AMP	Invictus Academy	Mechanical Room	General Electric	Illegible	Illegible			
3	8099558	D5020	**Distribution Panel**	120/208 V	800 AMP	Invictus Academy	Mechanical Room	Cutler-Hammer	Inaccessible	Inaccessible			
4	8099590	D5020	**Distribution Panel**	120/208 V	225 AMP	Invictus Academy	Mechanical Room	General Electric	NLAB	No dataplate			
5	8099541	D5020	**Distribution Panel**	120/208 V	225 AMP	Invictus Academy	Throughout Building	General Electric	Illegible	Illegible			
6	8099580	D5020	**Distribution Panel**	120/208 V	225 AMP	Invictus Academy	Throughout Building	General Electric	Illegible	Illegible			
7	8099547	D5020	**Distribution Panel**	120/208 V	225 AMP	Invictus Academy		General Electric	Inaccessible	Inaccessible			
8	8099581	D5020	**Distribution Panel**	120/208 V	225 AMP	Invictus Academy	Throughout Building	General Electric	Illegible	Illegible			
9	8099572	D5020	**Distribution Panel**	120/208 V	225 AMP	Invictus Academy	Throughout Building	General Electric	Illegible	Illegible			
10	8099617	D5030	**Variable Frequency Drive**	VFD, by HP of Motor	7.5 HP	Invictus Academy	Mechanical Room	Siemens	6SE9522	XAM254DE009B			
11	8099594	D5030	**Variable Frequency Drive**	VFD, by HP of Motor	5 HP	Invictus Academy	Mechanical Room	Siemens	6SE9526	XAN255DE0540			

D70 Electronic Safety & Security

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	8099560	D7050	**Fire Alarm Panel**	Fully Addressable		Invictus Academy	Faculty Office	Mircom	FX-2001 - 6KU	No dataplate	2024		

E10 Equipment

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	8099503	E1030	**Laundry Equipment**	Dryer, Commercial	50 LB	Invictus Academy	Gym locker room basement area	Unimac	UT075NMB1G1W03	0506021875			
2	8099506	E1030	**Laundry Equipment**	Washer, Commercial	60 LB	Invictus Academy	Gym locker room basement area	Unimac	UC60BN20U60001	0508995077			
3	8099598	E1030	**Foodservice Equipment**	Convection Oven, Double		Invictus Academy	Kitchen	Blodgett	No dataplate	No dataplate			
4	8099571	E1030	**Foodservice Equipment**	Convection Oven, Single		Invictus Academy	Kitchen	Blodgett	BDO-100-G-ES	071318C1051B			
5	8099592	E1030	**Foodservice Equipment**	Convection Oven, Single		Invictus Academy	Kitchen	ACCUTEMP	N6120106000200	55550	2018		
6	8099500	E1030	**Foodservice Equipment**	Convection Oven, Single		Invictus Academy	Kitchen	ACCUTEMP	N6120106000200	55547	2018		
7	8099593	E1030	**Foodservice Equipment**	Convection Oven, Single		Invictus Academy	Kitchen	Blodgett	BDO-100-G-ES	071318C1044T			
8	8099577	E1030	**Foodservice Equipment**	Dairy Cooler/Wells		Invictus Academy	Kitchen	Beverage-Air Corporation	SMF58	29308			
9	8099562	E1030	**Foodservice Equipment**	Dairy Cooler/Wells		Invictus Academy	Kitchen	Beverage-Air Corporation	ST58N-W	11213439			
10	8099608	E1030	**Foodservice Equipment**	Dishwasher Commercial		Invictus Academy	Kitchen	Hatco	SC-54	KL665-2813			
11	8099513	E1030	**Foodservice Equipment**	Food Warmer, Proofing Cabinet on Wheels		Invictus Academy	Kitchen	FWE	UHS-12	123465207	2012		
12	8099538	E1030	**Foodservice Equipment**	Food Warmer, Proofing Cabinet on Wheels		Invictus Academy	Kitchen	FWE	UHS-12	123465204			
13	8099510	E1030	**Foodservice Equipment**	Food Warmer, Tabletop Drawers (Set of 4)		Invictus Academy	Kitchen	Duke	F-5SR	Illegible			
14	8099520	E1030	**Foodservice Equipment**	Food Warmer, Tabletop Drawers (Set of 4)		Invictus Academy	Kitchen	Duke	F-5SR	Illegible			
15	8099507	E1030	**Foodservice Equipment**	Food Warmer, Tabletop Drawers (Set of 4)		Invictus Academy	Kitchen	Duke	F-5SR	Illegible			
16	8099530	E1030	**Foodservice Equipment**	Icemaker, Freestanding		Invictus Academy	Kitchen	Ice-O-Matic	ICE0320HA5	16021280011173	2016		
17	8099554	E1030	**Foodservice Equipment**	Range/Oven, 4-Burner		Invictus Academy	Kitchen	No dataplate	No dataplate	No dataplate			

18	8099578	E1030	**Foodservice Equipment**	Walk-In, Evaporator for Refigerator/Freezer	Invictus Academy	Kitchen	BOHN	20T0900R	DEJD878
19	8099584	E1030	**Foodservice Equipment**	Walk-In, Evaporator for Refigerator/Freezer	Invictus Academy	Kitchen	Inaccessible	Inaccessible	Inaccessible
20	8099579	E1030	**Foodservice Equipment**	Walk-In, Freezer	Invictus Academy	Kitchen	Hobart	No dataplate	No dataplate
21	8099540	E1030	**Foodservice Equipment**	Walk-In, Freezer	Invictus Academy	Kitchen	Hobart	Illegible	Illegible