**Atlanta Public Schools/ Douglass Cluster** 

# **Douglass High School**

Revised

**School Assessment Report** 

**November 10, 2020** 





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### **School Executive Summary**

The condition of a Campus is the accumulation of the condition evaluations of the component buildings and the site. Building condition is evaluated based on the functional systems and elements of a building and organized according to the **UNIFORMAT II Elemental Classification**. eCOMET uses parametric estimating methodology whereby historical costs for systems, components and equipment are collected by entities such as RSMeans and converted to unit costs, typically \$/SF, and used to approximate future construction costs or replacement values. The grouping of these systems and elements and applying a current replacement value to them develops a representative building cost model. Cost Models are developed for similar building types and functions. Systems and their elements are evaluated based on their current replacement values, life cycles, installation dates and next renewal dates. Systems and their elements that are within their useful lives are further evaluated to identify current deficient conditions that may have a significant impact on a system's or element's remaining service life, and to determine if they are beyond their predicted expected life. The system's or element's current replacement value is based on RS Means Commercial Cost Data.

Following are the cost model's system details for this facility. The Current Replacement Value (CRV) is the amount needed to replace the property of the same present scope. The Repair Cost (the sum of the cost to repair/replace the Deficiencies) represents the budgeted contractor-installed costs plus owner's soft costs for the repair, replacement or renewal for a component or system level deficiency. It excludes contributing costs for other components or systems that might also be associated with the corrective actions due to packaging of the work. Facility Condition Index (FCI) is an industry-standard measurement of facility condition calculated as the ratio of the costs to correct a facility's deficiencies (Condition Needs) to the facility's Current Replacement Value. It ranges from 0% (new) to 100% (very poor - beyond service life). The **Remaining Service Life Index (RSLI)** is calculated as the sum of a renewable system's Remaining Service Life (RSL) divided by the sum of a system's Replacement Value (both values exclude softcost to simplify calculation updates) expressed as a percentage ranging from 100% (new) to 0% (expired). The relationship between the key metrics FCI and RSLI is an important indicator, at either the facility, building, system, or component levels, of the condition trend and the imminent need for capital renewal. These indices exist in an inverse relationship wherein the FCI increases when systems reach their expected life-cycle age, whereas the RSLI decreases annually indicating the relative time remaining before reaching the life-cycle expiration age. For example, a facility or a system with a high RSLI and a low FCI indicates it is in the early portion of its useful life. However, a low RSLI indicates that expiration dates are approaching at which point the FCI would increase. The term **FCA Score** is the inverse of Total FCI and calculated as 100-Total FCI (without the %) where 100 is best and 0 is worst condition.

Gross Area (SF): 336,101

Year Built: 1968

Last Renovation:

Replacement Value: \$75,701,115

Repair Cost: \$9,303,834.47

Total FCI: 12.29 %

Total RSLI: 46.36 %

FCA Score: 87.71



#### **Description:**

Douglass High School campus consists of (3) main school buildings located at 225 Hamilton E. Holmes Drive, Atlanta. The original campus was constructed in 1968 and additions to the main school building were constructed in 2004. A major renovation to the existing campus was also completed in 2004.

In addition to the buildings, the campus contains covered walkways and a sports complex consisting of a baseball field (currently under construction), newly installed AstroTurff football field and track with a set tennis courts.

Currently the only ongoing construction is the new field house located near the baseball field. This project is expected to be completed in 2020.

This report contains condition and adequacy data collected during the 2019 Facility Condition Assessment (FCA) Update. Detailed condition and deficiency statements are contained in this report for the site and building elements.

#### A. SUBSTRUCTURE

The building rests on slab-on grade and is assumed to have standard cast-in-place concrete foundations. The buildings are

constructed with on different elevations and has a partial basement of cast in-place construction for the main building (505.1) and the auditorium (503.2).

#### **B. SUPERSTRUCTURE**

Floor construction is metal pan deck with lightweight fill. Roof construction is steel. The exterior envelope is composed of walls of brick veneer over CMU highlighted with pre-cast concrete with sections of metal siding. Exterior windows are double pane aluminum frame with fixed panes. Exterior doors are hollow metal steel mostly with glazing. The roofing systems are a combination of built-up and single ply applications. Roof openings include skylights and roof hatches with fixed ladder access. Most building entrances appear to comply with ADA requirements.

#### C. INTERIORS

Interior partitions are typically CMU. Interior doors are generally solid core wood with wood frames and mostly with glazing. Interior fittings include the following items: white boards, graphics and identifying devices, lockers, toilet accessories, storage shelving, handrails, fabricated toilet partitions. Stair construction includes steel risers and concrete treads with a mix of steel pre-formed and concrete finishes. The interior wall finishes are typically painted CMU. Floor finishes are a combination of carpet, vinyl composition tile, ceramic tile, epoxy, terrazzo and wood. Ceiling finishes in common areas are typically suspended acoustical tile. Ceiling finishes in assignable areas are typically suspended acoustical tile. Exposed ceilings typically located in the Gym and mechanical electrical spaces.

#### D. SERVICES

CONVEYING: The building does include conveying equipment. Conveying equipment includes one elevator, and one wheelchair lifts. PLUMBING: Plumbing fixtures are typically low-flow water fixtures with manual control valves. Domestic water distribution is copper with gas and electric hot water heating. Sanitary waste system is cast iron. Rainwater drainage system is internal with roof drains and external with gutter systems and scuppers.

HVAC: Heating is provided by gas fired boilers. Cooling is supported by roof top package units. The heating/cooling distribution system is a ductwork system utilizing air handling units. Ceiling mounted exhaust fans are installed in bathrooms and other required areas. Controls and instrumentation are digital and are centrally controlled by an energy management system. This building has a remote Building Automation System.

FIRE PROTECTION: The building does have a fire sprinkler system. The building does have additional fire suppression systems, which include dry chemical under floor protection. Standpipes are included within fire stairs. Fire extinguishers and cabinets are distributed near fire exits and corridors.

ELECTRICAL: The main electrical service is fed from a pad mounted transformer to the main switchboard/distribution panel located in the building. Lighting is combination of LED and lay-in type, fluorescent light fixtures. Branch circuit wiring is typically copper serving electrical switches and receptacles. Emergency and life safety egress lighting systems are installed and exit signs are present at exit doors and near stairways and are typically illuminated.

COMMUNICATIONS AND SECURITY: The fire alarm system consists of audible/visual strobe annunciators in common spaces, balconies and interior corridors. The system is activated by manual pull stations and smoke detectors and the system is centrally monitored. The telephone and data systems are segregated and include dedicated equipment closets. This building does have a local area network (LAN). The building includes an internal security system that is actuated by the following items: contacts, infrared, optical or a combination of all devices. The building has controlled entry doors access provided by card readers; entry doors are secured with magnetic door locks. The security system has CCTV cameras and is centrally monitored; this building has a public address and paging system combined with the telephone system.

OTHER ELECTRICAL SYSTEMS: This building does have a separately derived emergency power system. There is 2 natural gas emergency generators.

#### E. EOUIPMENT & FURNISHINGS

This building includes the following items and equipment: fixed food service, library equipment, athletic equipment, theater and stage, audio-visual, basic laboratory equipment, fixed casework, window treatment, floor grilles and mats, and multiple seating furnishings.

#### G SITE

Campus site features include paved driveways and parking lots, pedestrian pavement, flagpole, landscaping, sports complex, and fencing. Site mechanical and electrical features include water, sewer, natural gas and site lighting.

### **CODE REVIEW**

ACCESSIBILITY: The building is generally in compliance with applicable ADA requirements with respect to path of travel, interior and exterior doors, interior signage, and toilet room dimensions, fixtures, and fittings. Most building entrances appear to comply with ADA requirements.

LIFE-SAFETY SYSTEMS: The building is covered with a sprinkler system. The kitchen includes an Ansul fire suppression system. Fire extinguishers are located throughout the building. Power outlets in wet areas are GFIC protected. The fire alarm system includes detection devices, audio/visual alarms, and pull stations. Emergency/egress lighting is a combination of battery and special circuit systems. Illuminated exit signage is present in corridors and at exit doors.

#### **Attributes:**

Assessor:

General Attributes:			
Arch Condition	Hayden Collins	MEP Condition Assessor:	Hayden Collins

School Grades: 09, 10, 11, 12 DOE Drawing Total GSF: 336101

DOE Facility Number: 4058 Total # of 0

Modular/Portables:

DOE Interior Site SF: 336101 Total GSF of 0

Modular/Portables:

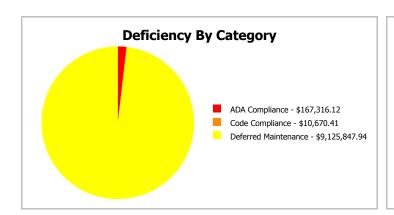
Approx. Acres: 32 Status: Active

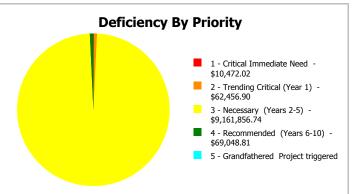
# **School Dashboard Summary**

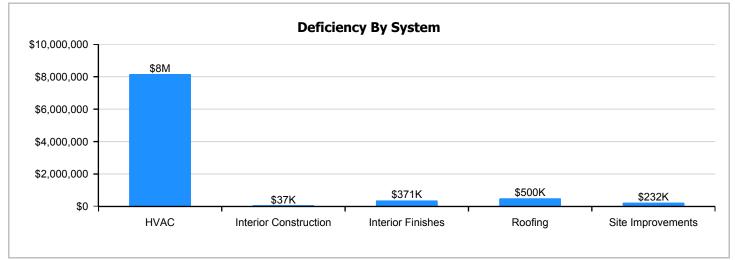
Gross Area: 336,101

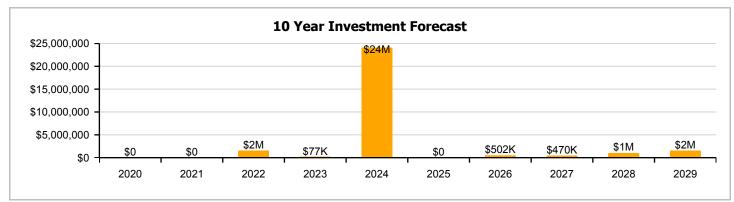
Year Built: 1968 Last Renovation:

Repair Cost: \$9,303,834 Replacement Value: \$75,701,115 FCI: RSLI%: 46.36 %









### **School Condition Summary**

The Table below shows the RSLI and FCI for each major system shown at the UNIFORMAT II classification Level 2. Note that Systems with lower FCIs require less investment than systems with higher FCIs.

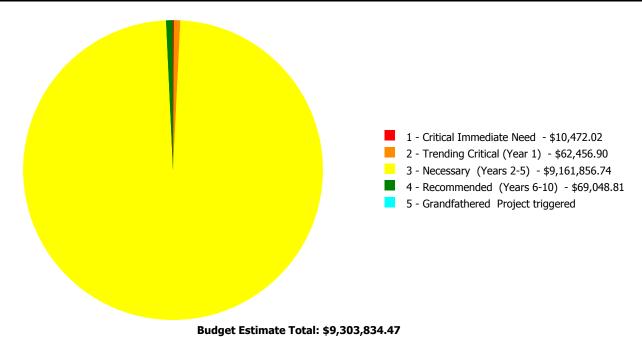
### **Current Investment Requirement and Condition by Uniformat Classification**

UNIFORMAT Classification	RSLI%	FCI %	<b>Current Repair</b>
A10 - Foundations	60.56 %	0.00 %	\$0.00
A20 - Basement Construction	49.00 %	0.00 %	\$0.00
B10 - Superstructure	57.18 %	0.00 %	\$0.00
B20 - Exterior Enclosure	56.26 %	0.00 %	\$0.00
B30 - Roofing	30.34 %	39.93 %	\$499,847.00
C10 - Interior Construction	53.13 %	0.86 %	\$37,183.29
C20 - Stairs	55.81 %	0.00 %	\$0.00
C30 - Interior Finishes	35.00 %	5.69 %	\$371,250.00
D10 - Conveying	25.00 %	0.00 %	\$0.00
D20 - Plumbing	31.68 %	0.00 %	\$0.00
D30 - HVAC	9.20 %	71.19 %	\$8,163,234.00
D40 - Fire Protection	47.73 %	0.00 %	\$0.00
D50 - Electrical	31.36 %	0.00 %	\$0.00
E10 - Equipment	25.84 %	0.00 %	\$0.00
E20 - Furnishings	25.00 %	0.00 %	\$0.00
G20 - Site Improvements	76.13 %	2.67 %	\$232,320.18
G30 - Site Mechanical Utilities	70.00 %	0.00 %	\$0.00
G40 - Site Electrical Utilities	100.00 %	0.00 %	\$0.00
Totals:	46.36 %	12.29 %	\$9,303,834.47

### **Condition Deficiency Priority**

Facility Name	Gross Area (S.F.)	FCI %	1 - Critical Immediate Need	2 - Trending Critical (Year 1)	3 - Necessary (Years 2-5)	4 - Recommended (Years 6-10)	5 - Grandfathered Project triggered
1968 Bldg 501.1	202,611	13.42	\$0.00	\$0.00	\$5,265,763.29	\$0.00	\$0.00
1968 Bldg 502.1	27,097	12.25	\$0.00	\$0.00	\$643,164.00	\$0.00	\$0.00
2004 Bldg 503.1	53,495	18.74	\$0.00	\$0.00	\$1,692,625.00	\$0.00	\$0.00
2004 Bldg 503.2	52,898	15.24	\$0.00	\$0.00	\$1,469,962.00	\$0.00	\$0.00
Site	336,101	1.85	\$10,472.02	\$62,456.90	\$90,342.45	\$69,048.81	\$0.00
Total:		12.29	\$10,472.02	\$62,456.90	\$9,161,856.74	\$69,048.81	\$0.00

# **Deficiencies By Priority**



### **Executive Summary**

The condition of a Campus is the accumulation of the condition evaluations of the component buildings and the site. Building condition is evaluated based on the functional systems and elements of a building and organized according to the **UNIFORMAT II Elemental Classification**. eCOMET uses parametric estimating methodology whereby historical costs for systems, components and equipment are collected by entities such as RSMeans and converted to unit costs, typically \$/SF, and used to approximate future construction costs or replacement values. The grouping of these systems and elements and applying a current replacement value to them develops a representative building cost model. Cost Models are developed for similar building types and functions. Systems and their elements are evaluated based on their current replacement values, life cycles, installation dates and next renewal dates. Systems and their elements that are within their useful lives are further evaluated to identify current deficient conditions that may have a significant impact on a system's or element's remaining service life, and to determine if they are beyond their predicted expected life. The system's or element's current replacement value is based on RS Means Commercial Cost Data.

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Function: High Gross Area (SF): 202,611 Year Built: 1968 Last Renovation: 2004 Replacement Value: \$39,242,658 \$5,265,763.29 Repair Cost: Total FCI: 13.42 % Total RSLI: 36.62 % FCA Score: 86.58



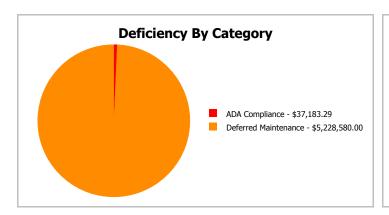
#### **Description:**

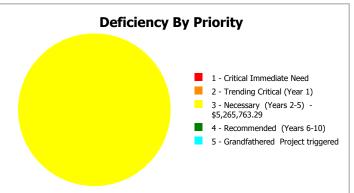
The narrative for this building is included in the Executive Summary Description at the front of this report.

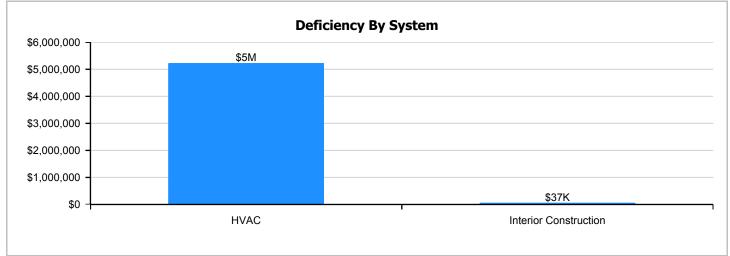
**Attributes:** This asset has no attributes.

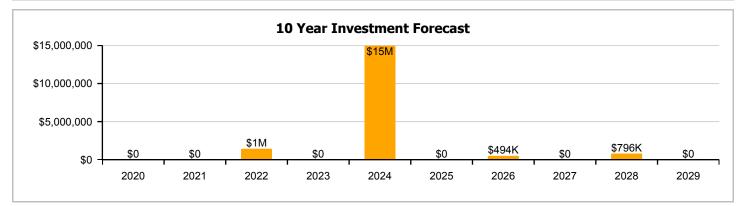
# **Dashboard Summary**

High Gross Area: 202,611 Function: 1968 Last Renovation: 2004 Year Built: Repair Cost: \$5,265,763 Replacement Value: \$39,242,658 13.42 % RSLI%: 36.62 % FCI:









# **Condition Summary**

The Table below shows the RSLI and FCI for each major building system shown at the UNIFORMAT II classification Level 2. Note that Systems with lower FCIs require less investment than systems with higher FCIs.

UNIFORMAT Classification	RSLI %	FCI %	Current Repair Cost
A10 - Foundations	49.00 %	0.00 %	\$0.00
A20 - Basement Construction	49.00 %	0.00 %	\$0.00
B10 - Superstructure	49.00 %	0.00 %	\$0.00
B20 - Exterior Enclosure	49.41 %	0.00 %	\$0.00
B30 - Roofing	39.51 %	0.00 %	\$0.00
C10 - Interior Construction	47.73 %	1.43 %	\$37,183.29
C20 - Stairs	49.00 %	0.00 %	\$0.00
C30 - Interior Finishes	35.14 %	0.00 %	\$0.00
D10 - Conveying	25.00 %	0.00 %	\$0.00
D20 - Plumbing	31.65 %	0.00 %	\$0.00
D30 - HVAC	8.92 %	72.65 %	\$5,228,580.00
D40 - Fire Protection	46.43 %	0.00 %	\$0.00
D50 - Electrical	33.53 %	0.00 %	\$0.00
E10 - Equipment	25.00 %	0.00 %	\$0.00
E20 - Furnishings	25.00 %	0.00 %	\$0.00
Totals:	36.62 %	13.42 %	\$5,265,763.29

# **Photo Album**

The photo album consists of the various cardinal compass directions of the building..

1). Western Exterior Elevation - Oct 28, 2019



4). Eastern Exterior Elevation - Nov 25, 2019

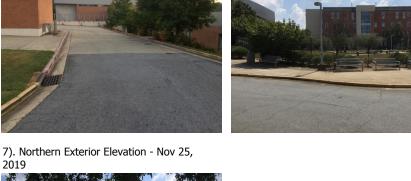


5). Northern Exterior Elevation - Nov 25,



6). Western Exterior Elevation - Nov 25, 2019









### **Condition Detail**

This section of the report contains results of the Facility Condition Assessment. The building is separated into system components based on UNIFORMAT II. The columns in the System Listing table represent the following:

- 1. System Code: A code that identifies the system.
- 2. System Description: A brief description of a system present in the building.
- 3. Unit Price \$: The unit price of the system.
- 4. UoM: The unit of measure of the system.
- 5. Qty: The quantity for the system
- 6. Life: Building Owners and Managers Association (BOMA) recommended system design life.
- 7. Year Installed: The date of system installation.
- 8. Calc Next Renewal Year: The date of system expiration based on the life, NR stands for non renewable.
- 9. Next Renewal Year: The suggested system expiration date by the assessor based on visual inspection.
- 10. RSLI: The Remaining Service Life Index of the system.
- 11. FCI: The Facility Condition Index of the system.
- 12. RSL: Remaining Service Life in years.
- 13. eCR: eCOMET Condition Rating (not used in this assessment)
- 14. Deficiency \$: The financial investment to repair/replace system to address deficiency.
- 15. Replacement Value \$: The replacement cost of the system as new construction.

# **System Listing**

The System Listing table below lists each of the systems organized by their UNIFORMAT II classification. The assessment team was tasked with recording the most recent replacement year of each system, determining the remaining service life based on the theoretical life, and evaluating the condition to confirm the forecast next replacement year. The system listing is the basis for all data contained in the Building Assessment Report.

System						Year	Calc Next Renewal	Next Renewal						Replacement
Code	System Description	Unit Price \$	UoM	Qty	Life	Installed		Year	RSLI%	FCI%	RSL	eCR	Deficiency \$	Value \$
A1010	Standard Foundations	\$6.65	S.F.	202,611	100	1968	2068		49.00 %	0.00 %	49			\$1,347,363
A1030	Slab on Grade	\$6.70	S.F.	202,611	100	1968	2068		49.00 %	0.00 %	49			\$1,357,494
A2010	Basement Excavation	\$0.17	S.F.	202,611	100	1968	2068		49.00 %	0.00 %	49			\$34,444
A2020	Basement Walls	\$2.55	S.F.	202,611	100	1968	2068		49.00 %	0.00 %	49			\$516,658
B1010	Floor Construction	\$26.13	S.F.	202,611	100	1968	2068		49.00 %	0.00 %	49			\$5,294,225
B1020	Roof Construction	\$8.66	S.F.	202,611	100	1968	2068		49.00 %	0.00 %	49			\$1,754,611
B2010	Exterior Walls	\$14.81	S.F.	202,611	100	1968	2068		49.00 %	0.00 %	49			\$3,000,669
B2020	Exterior Windows	\$9.25	S.F.	202,611	30	2004	2034		50.00 %	0.00 %	15			\$1,874,152
B2030	Exterior Doors	\$0.88	S.F.	202,611	30	2004	2034		50.00 %	0.00 %	15			\$178,298
B3010105	Built-Up	\$7.15	S.F.	54,373	25	2003	2028		36.00 %	0.00 %	9			\$388,767
B3020	Roof Openings	\$3.51	S.F.	54,373	30	2003	2033		46.67 %	0.00 %	14			\$190,849
C1010	Partitions	\$6.00	S.F.	202,611	100	1968	2068		49.00 %	0.00 %	49			\$1,215,666
C1020	Interior Doors	\$3.93	S.F.	202,611	40	2004	2044		62.50 %	0.00 %	25			\$796,261
C1030	Fittings	\$2.89	S.F.	202,611	20	2004	2024		25.00 %	6.35 %	5		\$37,183.29	\$585,546
C2010	Stair Construction	\$3.08	S.F.	202,611	100	1968	2068		49.00 %	0.00 %	49			\$624,042
C3010220	Tile	\$9.25	S.F.	5,000	30	2004	2034		50.00 %	0.00 %	15			\$46,250
C3010230	Paint & Covering	\$1.47	S.F.	197,611	10	2016	2026		70.00 %	0.00 %	7			\$290,488
C3020405	Ероху	\$17.30	S.F.	10,000	15	2004	2019	2022	20.00 %	0.00 %	3			\$173,000
C3020410	Tile	\$16.74	S.F.	2,000	50	2004	2054		70.00 %	0.00 %	35			\$33,480
C3020430	Terrazzo	\$21.62	S.F.	20,000	50	2004	2054		70.00 %	0.00 %	35			\$432,400
C3020901	Carpet	\$7.50	S.F.	10,000	8	2018	2026		87.50 %	0.00 %	7			\$75,000
C3020903	VCT	\$3.48	S.F.	160,611	15	2004	2019	2022	20.00 %	0.00 %	3			\$558,926
C3030	Ceiling Finishes	\$9.68	S.F.	202,611	20	2004	2024		25.00 %	0.00 %	5			\$1,961,274
D1010	Elevators and Lifts	\$1.37	S.F.	202,611	20	2004	2024		25.00 %	0.00 %	5			\$277,577
D2010	Plumbing Fixtures	\$6.82	S.F.	202,611	20	2004	2024		25.00 %	0.00 %	5			\$1,381,807
D2020	Domestic Water Distribution	\$0.79	S.F.	202,611	30	2004	2034		50.00 %	0.00 %	15			\$160,063
D2030	Sanitary Waste	\$1.85	S.F.	202,611	30	2004	2034		50.00 %	0.00 %	15			\$374,830
D2040	Rain Water Drainage	\$0.47	S.F.	202,611	20	2004	2024		25.00 %	0.00 %	5			\$95,227
D3010	Energy Supply	\$0.61	S.F.	202,611	30	2004	2034		50.00 %	0.00 %	15			\$123,593
D3020	Heat Generating Systems	\$3.88	S.F.	202,611	20	2004	2024	2019	0.00 %	110.00 %	0		\$864,744.00	\$786,131
D3030	Cooling Generating Systems	\$5.49	S.F.	202,611	20	2004	2024	2019	0.00 %	110.00 %	0		\$1,223,568.00	\$1,112,334
D3040	Distribution Systems	\$11.45	S.F.	202,611	20	2004	2024		25.00 %	0.00 %	5			\$2,319,896

# School Assessment Report - 1968 Bldg 501.1

System Code	System Description	Unit Price \$	UoM	Qty	Life	Year Installed		Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency \$	Replacement Value \$
D3050	Terminal & Package Units	\$11.72	S.F.	202,611	15	2004	2019		0.00 %	110.00 %	0		\$2,612,061.00	\$2,374,601
D3060	Controls & Instrumentation	\$2.37	S.F.	202,611	15	2004	2019		0.00 %	110.00 %	0		\$528,207.00	\$480,188
D4010	Sprinklers	\$4.41	S.F.	202,611	30	2004	2034		50.00 %	0.00 %	15			\$893,515
D4020	Standpipes	\$0.48	S.F.	202,611	30	2004	2034		50.00 %	0.00 %	15			\$97,253
D4090	Other Fire Protection Systems	\$0.66	S.F.	202,611	15	2004	2019	2022	20.00 %	0.00 %	3			\$133,723
D5010	Electrical Service/Distribution	\$5.38	S.F.	202,611	20	2004	2024		25.00 %	0.00 %	5			\$1,090,047
D5020	Branch Wiring	\$5.21	S.F.	202,611	20	2004	2024		25.00 %	0.00 %	5			\$1,055,603
D5020	Lighting	\$7.28	S.F.	202,611	20	2004	2024		25.00 %	0.00 %	5			\$1,475,008
D5030810	Security & Detection Systems	\$1.51	S.F.	202,611	20	2004	2024		25.00 %	0.00 %	5			\$305,943
D5030910	Fire Alarm Systems	\$2.74	S.F.	202,611	20	2004	2024		25.00 %	0.00 %	5			\$555,154
D5030920	Data Communication	\$3.56	S.F.	202,611	25	2016	2041		88.00 %	0.00 %	22			\$721,295
D5090	Other Electrical Systems	\$0.38	S.F.	202,611	15	2004	2019	2022	20.00 %	0.00 %	3			\$76,992
E1020	Institutional Equipment	\$0.13	S.F.	202,611	20	2004	2024		25.00 %	0.00 %	5			\$26,339
E1090	Other Equipment	\$0.84	S.F.	202,611	20	2004	2024		25.00 %	0.00 %	5			\$170,193
E2010	Fixed Furnishings	\$2.10	S.F.	202,611	20	2004	2024		25.00 %	0.00 %	5			\$425,483
							•	Total	36.62 %	13.42 %			\$5,265,763.29	\$39,242,658

# **System Notes**

The facility description in the executive summary contains an overview of each system. The system notes listed below provide additional information on select systems found within the facility.

System: B2010 - Exterior Walls







Note:

System: B2020 - Exterior Windows







Note:

**System:** B2030 - Exterior Doors







System: B3010105 - Built-Up







Note:

**System:** B3020 - Roof Openings







Note:

System: C1010 - Partitions







Note:

**System:** C1020 - Interior Doors







Note:

**System:** C1030 - Fittings







Note:

**System:** C2010 - Stair Construction







Note:

System: C3010220 - Tile







Note:

System: C3010230 - Paint & Covering







Note:

**System:** C3020405 - Epoxy







Note:

System: C3020410 - Tile



Note:

**System:** C3020430 - Terrazzo







Note:

**System:** C3020901 - Carpet







Note:

**System:** C3020903 - VCT







**System:** C3030 - Ceiling Finishes







**System:** D1010 - Elevators and Lifts



Note:

**System:** D2010 - Plumbing Fixtures







Note:

**System:** D2020 - Domestic Water Distribution







Note:

**System:** D2030 - Sanitary Waste







Note:

D2040 - Rain Water Drainage System:







Note:

D3010 - Energy Supply System:







System: D3020 - Heat Generating Systems This system contains no images

Note:

There are two hot water boilers serving the tempered water loop. One boiler was installed in 2004 and the other was

installed in 2012.

D3030 - Cooling Generating Systems System:







**System:** D3040 - Distribution Systems







Note:

**System:** D3050 - Terminal & Package Units







Note:

**System:** D3060 - Controls & Instrumentation







Note:

System: D4010 - Sprinklers







Note:

**System:** D4020 - Standpipes







Note:

**System:** D4090 - Other Fire Protection Systems







Note:

**System:** D5010 - Electrical Service/Distribution







**System:** D5020 - Branch Wiring







Note:

System: D5020 - Lighting







Note:

**System:** D5030810 - Security & Detection Systems







Note:

**System:** D5030910 - Fire Alarm Systems







Note:

**System:** D5030920 - Data Communication







Note:

**System:** D5090 - Other Electrical Systems







Note:

**System:** E1020 - Institutional Equipment







Note:

**System:** E1090 - Other Equipment







Note:

System: E2010 - Fixed Furnishings







# **Renewal Schedule**

eCOMET forecasts future Capital Renewal projects for expiring systems based on the Calculated Next Renewal year found in the System Listing table. There is a 3% yearly inflation factor applied to the system costs expiring in the future. The table below reflects Capital Renewal projects over the next 10 years. Note: Blank cells (or \$0) indicate no systems are scheduled for renewal in that year.

Inflation Rate: 3%

System	Current Deficiencies	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Total:	\$5,265,763	\$0	\$0	\$1,423,018	\$0	\$14,951,865	\$0	\$494,455	\$0	\$796,387	\$0	\$22,931,488
* A - Substructure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* A10 - Foundations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* A1010 - Standard Foundations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* A1030 - Slab on Grade	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* A20 - Basement Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* A2010 - Basement Excavation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* A2020 - Basement Walls	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B - Shell	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B10 - Superstructure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* B1010 - Floor Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* B1020 - Roof Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B20 - Exterior Enclosure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* B2010 - Exterior Walls	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B2020 - Exterior Windows	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B2030 - Exterior Doors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B30 - Roofing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B3010 - Roof Coverings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B3010105 - Built-Up	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$796,387	\$0	\$796,387
B3020 - Roof Openings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C - Interiors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C10 - Interior Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C1010 - Partitions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C1020 - Interior Doors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C1030 - Fittings	\$37,183	\$0	\$0	\$0	\$0	\$746,688	\$0	\$0	\$0	\$0	\$0	\$783,872
C20 - Stairs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

System	Current Deficiencies	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
* C2010 - Stair Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C30 - Interior Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3010 - Wall Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3010220 - Tile	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3010230 - Paint & Covering	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$392,990	\$0	\$0	\$0	\$392,990
C3020 - Floor Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
С3020405 - Ероху	\$0	\$0	\$0	\$223,069	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$223,069
C3020410 - Tile	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020430 - Terrazzo	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020901 - Carpet	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$101,465	\$0	\$0	\$0	\$101,465
C3020903 - VCT	\$0	\$0	\$0	\$946,669	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$946,669
C3030 - Ceiling Finishes	\$0	\$0	\$0	\$0	\$0	\$2,501,020	\$0	\$0	\$0	\$0	\$0	\$2,501,020
D - Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D10 - Conveying	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D1010 - Elevators and Lifts	\$0	\$0	\$0	\$0	\$0	\$353,967	\$0	\$0	\$0	\$0	\$0	\$353,967
D20 - Plumbing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2010 - Plumbing Fixtures	\$0	\$0	\$0	\$0	\$0	\$1,762,083	\$0	\$0	\$0	\$0	\$0	\$1,762,083
D2020 - Domestic Water Distribution	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2030 - Sanitary Waste	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2040 - Rain Water Drainage	\$0	\$0	\$0	\$0	\$0	\$121,434	\$0	\$0	\$0	\$0	\$0	\$121,434
D30 - HVAC	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3010 - Energy Supply	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3020 - Heat Generating Systems	\$864,744	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$864,744
D3030 - Cooling Generating Systems	\$1,223,568	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,223,568
D3040 - Distribution Systems	\$0	\$0	\$0	\$0	\$0	\$2,958,335	\$0	\$0	\$0	\$0	\$0	\$2,958,335
D3050 - Terminal & Package Units	\$2,612,061	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,612,061
D3060 - Controls & Instrumentation	\$528,207	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$528,207
D40 - Fire Protection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D4010 - Sprinklers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D4020 - Standpipes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D4090 - Other Fire Protection Systems	\$0	\$0	\$0	\$160,736	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$160,736
D50 - Electrical	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

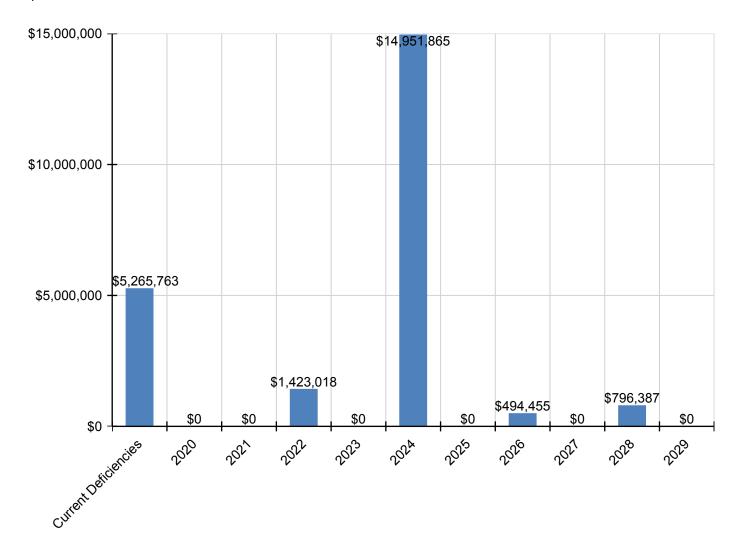
# School Assessment Report - 1968 Bldg 501.1

System	Current Deficiencies	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
D5010 - Electrical Service/Distribution	\$0	\$0	\$0	\$0	\$0	\$1,390,030	\$0	\$0	\$0	\$0	\$0	\$1,390,030
D5020 - Branch Wiring	\$0	\$0	\$0	\$0	\$0	\$1,346,107	\$0	\$0	\$0	\$0	\$0	\$1,346,107
D5020 - Lighting	\$0	\$0	\$0	\$0	\$0	\$1,880,933	\$0	\$0	\$0	\$0	\$0	\$1,880,933
D5030 - Communications and Security	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D5030810 - Security & Detection Systems	\$0	\$0	\$0	\$0	\$0	\$390,139	\$0	\$0	\$0	\$0	\$0	\$390,139
D5030910 - Fire Alarm Systems	\$0	\$0	\$0	\$0	\$0	\$707,934	\$0	\$0	\$0	\$0	\$0	\$707,934
D5030920 - Data Communication	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D5090 - Other Electrical Systems	\$0	\$0	\$0	\$92,544	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$92,544
E - Equipment & Furnishings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E10 - Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E1020 - Institutional Equipment	\$0	\$0	\$0	\$0	\$0	\$33,588	\$0	\$0	\$0	\$0	\$0	\$33,588
E1090 - Other Equipment	\$0	\$0	\$0	\$0	\$0	\$217,031	\$0	\$0	\$0	\$0	\$0	\$217,031
E20 - Furnishings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E2010 - Fixed Furnishings	\$0	\$0	\$0	\$0	\$0	\$542,576	\$0	\$0	\$0	\$0	\$0	\$542,576

<sup>\*</sup> Indicates non-renewable system

# **Forecasted Capital Renewal Requirement**

The following chart shows the current building deficiencies and forecasted capital renewal (sustainment) requirements over the next ten years.



# **Condition Index Forecast by Investment Scenario**

The chart below illustrates the effect of various investment levels on the building FCI for the next 10 years. The levels of investment shown below include:

- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value of the building, escalated for inflation

# **Facility Investment vs. FCI Forecast** \$15,000,000 40.0 % 30.0 % \$10,000,000 Investment Amount 20.0 % \$5,000,000 10.0 % \$0 0.0 % 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029

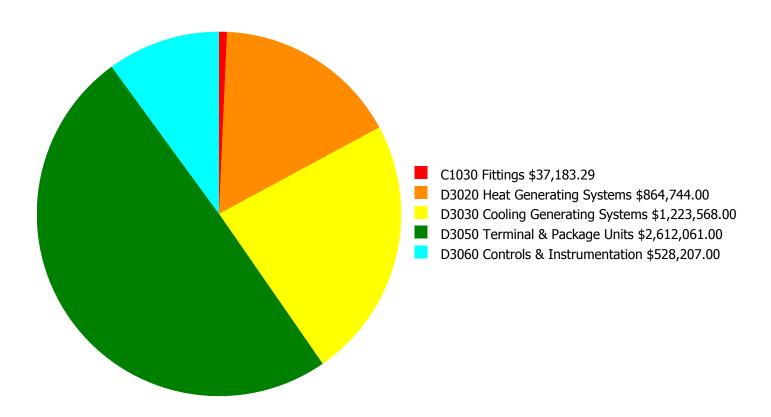
Year	Investment Amount Current FCI - 13.42%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2020	\$0	\$808,399.00	11.42 %	\$1,616,798.00	9.42 %
2021	\$0	\$832,651.00	9.42 %	\$1,665,301.00	5.42 %
2022	\$1,423,018	\$857,630.00	10.74 %	\$1,715,260.00	4.74 %
2023	\$0	\$883,359.00	8.74 %	\$1,766,718.00	0.74 %
2024	\$14,951,865	\$909,860.00	39.60 %	\$1,819,720.00	29.60 %
2025	\$0	\$937,156.00	37.60 %	\$1,874,311.00	25.60 %
2026	\$494,455	\$965,270.00	36.63 %	\$1,930,541.00	22.63 %
2027	\$0	\$994,229.00	34.63 %	\$1,988,457.00	18.63 %
2028	\$796,387	\$1,024,055.00	34.18 %	\$2,048,111.00	16.18 %
2029	\$0	\$1,054,777.00	32.18 %	\$2,109,554.00	12.18 %
Total:	\$17,665,724	\$9,267,386.00		\$18,534,771.00	

4% Investment Amount/FCI

Current Investment Amount/FCI 2% Investment Amount/FCI

## **Deficiency Summary by System**

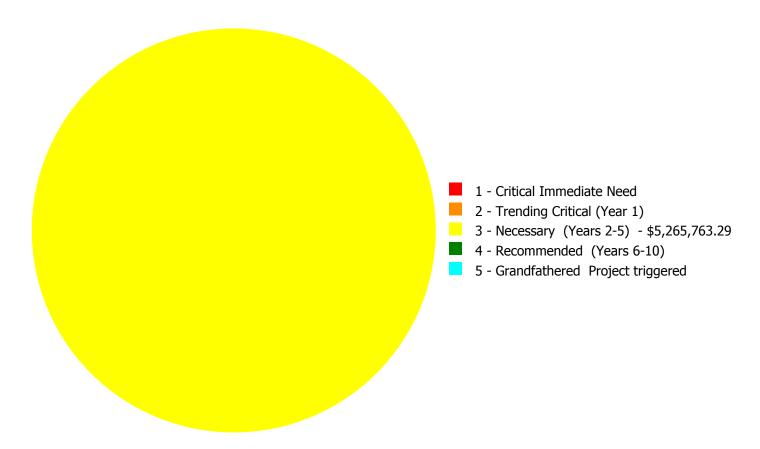
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart lists all current deficiencies associated with this facility.



**Budget Estimate Total: \$5,265,763.29** 

# **Deficiency Summary by Priority**

The following chart shows the total repair costs broken down by priority. Assessors assigned deficiencies within eCOMET to one of the following priority categories:



**Budget Estimate Total: \$5,265,763.29** 

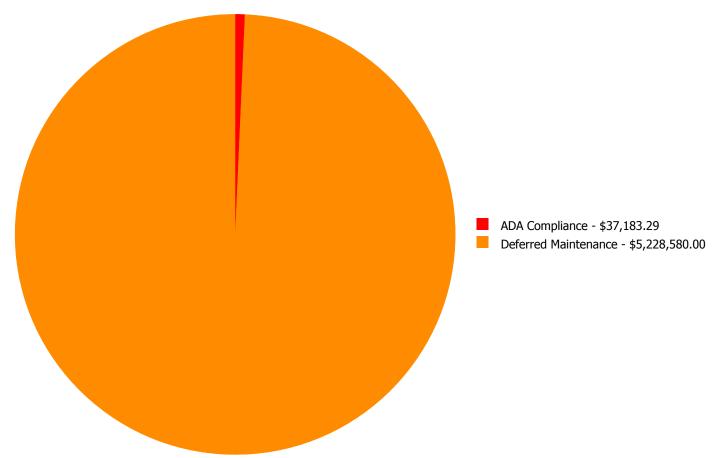
# **Deficiency By Priority Investment Table**

The table below shows the current investment cost grouped by deficiency priority and building system.

System Code	System Description	1 - Critical Immediate Need	2 - Trending Critical (Year 1)	3 - Necessary (Years 2-5)	4 - Recommended (Years 6-10)	5 - Grandfathered Project triggered	Total
C1030	Fittings	\$0.00	\$0.00	\$37,183.29	\$0.00	\$0.00	\$37,183.29
D3020	Heat Generating Systems	\$0.00	\$0.00	\$864,744.00	\$0.00	\$0.00	\$864,744.00
D3030	Cooling Generating Systems	\$0.00	\$0.00	\$1,223,568.00	\$0.00	\$0.00	\$1,223,568.00
D3050	Terminal & Package Units	\$0.00	\$0.00	\$2,612,061.00	\$0.00	\$0.00	\$2,612,061.00
D3060	Controls & Instrumentation	\$0.00	\$0.00	\$528,207.00	\$0.00	\$0.00	\$528,207.00
	Total:	\$0.00	\$0.00	\$5,265,763.29	\$0.00	\$0.00	\$5,265,763.29

# **Deficiency Summary by Category**

The following chart shows the total repair costs broken down by deficiency categories. Assessors assigned deficiencies to one of the following categories:



**Budget Estimate Total: \$5,265,763.29** 

## **Deficiency Details by Priority**

The deficiency detail notes listed below provide additional information on identified deficiencies found within the facility.

### **Priority 3 - Necessary (Years 2-5):**

System: C1030 - Fittings



**Location:** Throughout building

**Distress:** Inadequate **Category:** ADA Compliance

**Priority:** 3 - Necessary (Years 2-5)

**Correction:** Replace missing or damaged signage - insert

the number of rooms

**Qty:** 200.00

**Unit of Measure:** Ea.

**Estimate:** \$37,183.29

**Assessor Name:** Eduardo Lopez

**Date Created:** 10/30/2019

**Notes:** Path of travel signage for this building is a mix of custom designed and ADA compliant signs. The signage should be upgraded for ADA compliance.

#### System: D3020 - Heat Generating Systems

This deficiency has no image.

Location: Throughout BuildingDistress: Beyond Expected LifeCategory: Deferred MaintenancePriority: 3 - Necessary (Years 2-5)

**Correction:** Renew System

**Qty:** 202,611.00

**Unit of Measure:** S.F.

**Estimate:** \$864,744.00

**Assessor Name:** Eduardo Lopez **Date Created:** 10/06/2020

**Notes:** There are two hot water boilers serving the tempered water loop. One boiler was installed in 2012 and the other was installed in 2004 and should be replaced.

#### System: D3030 - Cooling Generating Systems



Location: Site

**Distress:** Beyond Expected Life **Category:** Deferred Maintenance **Priority:** 3 - Necessary (Years 2-5)

**Correction:** Renew System

**Qty:** 202,611.00

**Unit of Measure:** S.F.

**Estimate:** \$1,223,568.00

**Assessor Name:** Eduardo Lopez

**Date Created:** 10/06/2020

Notes: The cooling generating system is beyond its expected service life and should be scheduled for replacement.

## System: D3050 - Terminal & Package Units



Location: Roof

**Distress:** Beyond Expected Life **Category:** Deferred Maintenance **Priority:** 3 - Necessary (Years 2-5)

**Correction:** Renew System

**Qty:** 202,611.00

**Unit of Measure:** S.F.

Assessor Name: \$2,612,061.00

Assessor Name: Eduardo Lopez

Date Created: 10/01/2019

**Notes:** The terminal and package units are at the end of their useful life. The system is functional however upgrades are warranted.

#### System: D3060 - Controls & Instrumentation



Location: Throughout buildingDistress: Beyond Expected LifeCategory: Deferred MaintenancePriority: 3 - Necessary (Years 2-5)

Correction: Renew System

**Qty:** 202,611.00

**Unit of Measure:** S.F.

**Estimate:** \$528,207.00

**Assessor Name:** Eduardo Lopez

**Date Created:** 10/01/2019

**Notes:** The controls as well as the building automation systems were partially upgraded in 2004. Several issues have surfaced over recent years and isolated upgrades have taken place to support the systems However, this system is exceeded its expected life cycle and upgrades are warranted. This deficiency provides a budgetary consideration for a universal upgrade.

## **Executive Summary**

The condition of a Campus is the accumulation of the condition evaluations of the component buildings and the site. Building condition is evaluated based on the functional systems and elements of a building and organized according to the **UNIFORMAT II Elemental Classification**. eCOMET uses parametric estimating methodology whereby historical costs for systems, components and equipment are collected by entities such as RSMeans and converted to unit costs, typically \$/SF, and used to approximate future construction costs or replacement values. The grouping of these systems and elements and applying a current replacement value to them develops a representative building cost model. Cost Models are developed for similar building types and functions. Systems and their elements are evaluated based on their current replacement values, life cycles, installation dates and next renewal dates. Systems and their elements that are within their useful lives are further evaluated to identify current deficient conditions that may have a significant impact on a system's or element's remaining service life, and to determine if they are beyond their predicted expected life. The system's or element's current replacement value is based on RS Means Commercial Cost Data.

Following are the cost model's system details for this facility. The Current Replacement Value (CRV) is the amount needed to replace the property of the same present scope. The Repair Cost (the sum of the cost to repair/replace the Deficiencies) represents the budgeted contractor-installed costs plus owner's soft costs for the repair, replacement or renewal for a component or system level deficiency. It excludes contributing costs for other components or systems that might also be associated with the corrective actions due to packaging of the work. Facility Condition Index (FCI) is an industry-standard measurement of facility condition calculated as the ratio of the costs to correct a facility's deficiencies (Condition Needs) to the facility's Current Replacement Value. It ranges from 0% (new) to 100% (very poor - beyond service life). The **Remaining Service Life Index (RSLI)** is calculated as the sum of a renewable system's Remaining Service Life (RSL) divided by the sum of a system's Replacement Value (both values exclude softcost to simplify calculation updates) expressed as a percentage ranging from 100% (new) to 0% (expired). The relationship between the key metrics FCI and RSLI is an important indicator, at either the facility, building, system, or component levels, of the condition trend and the imminent need for capital renewal. These indices exist in an inverse relationship wherein the FCI increases when systems reach their expected life-cycle age, whereas the RSLI decreases annually indicating the relative time remaining before reaching the life-cycle expiration age. For example, a facility or a system with a high RSLI and a low FCI indicates it is in the early portion of its useful life. However, a low RSLI indicates that expiration dates are approaching at which point the FCI would increase. The term **FCA Score** is the inverse of Total FCI and calculated as 100-Total FCI (without the %) where 100 is best and 0 is worst condition.

Function:	High
Gross Area (SF):	27,097
Year Built:	1968
Last Renovation:	2004
Replacement Value:	\$5,248,980
Repair Cost:	\$643,164.00
Total FCI:	12.25 %
Total RSLI:	36.50 %
FCA Score:	87.75



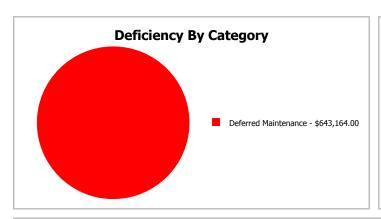
#### **Description:**

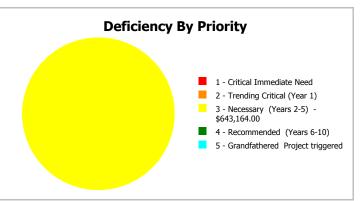
The narrative for this building is included in the Executive Summary Description at the front of this report.

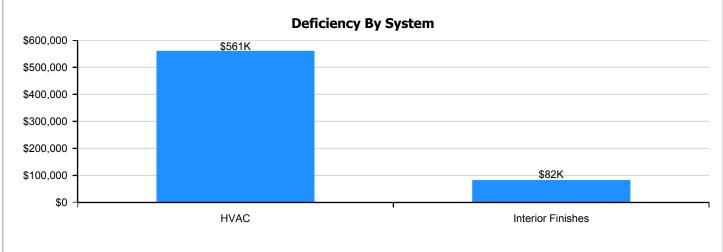
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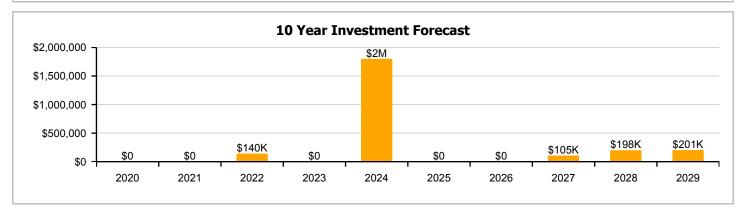
# **Dashboard Summary**

High Gross Area: 27,097 Function: 1968 Last Renovation: 2004 Year Built: Repair Cost: \$643,164 Replacement Value: \$5,248,980 12.25 % RSLI%: 36.50 % FCI:









# **Condition Summary**

The Table below shows the RSLI and FCI for each major building system shown at the UNIFORMAT II classification Level 2. Note that Systems with lower FCIs require less investment than systems with higher FCIs.

UNIFORMAT Classification	RSLI %	FCI %	Current Repair Cost
A10 - Foundations	49.00 %	0.00 %	\$0.00
A20 - Basement Construction	49.00 %	0.00 %	\$0.00
B10 - Superstructure	49.00 %	0.00 %	\$0.00
B20 - Exterior Enclosure	49.41 %	0.00 %	\$0.00
B30 - Roofing	36.79 %	0.00 %	\$0.00
C10 - Interior Construction	47.69 %	0.00 %	\$0.00
C20 - Stairs	49.00 %	0.00 %	\$0.00
C30 - Interior Finishes	26.05 %	14.91 %	\$82,500.00
D20 - Plumbing	31.60 %	0.00 %	\$0.00
D30 - HVAC	10.30 %	66.85 %	\$560,664.00
D40 - Fire Protection	50.00 %	0.00 %	\$0.00
D50 - Electrical	27.30 %	0.00 %	\$0.00
E10 - Equipment	85.00 %	0.00 %	\$0.00
E20 - Furnishings	25.00 %	0.00 %	\$0.00
Totals:	36.50 %	12.25 %	\$643,164.00

# **Photo Album**

The photo album consists of the various cardinal compass directions of the building..

1). Eastern Exterior Elevation - Nov 25, 2019







3). Southern Exterior Elevation - Nov 25, 2019



4). Northern Exterior Elevation - Oct 29, 2019



### **Condition Detail**

This section of the report contains results of the Facility Condition Assessment. The building is separated into system components based on UNIFORMAT II. The columns in the System Listing table represent the following:

- 1. System Code: A code that identifies the system.
- 2. System Description: A brief description of a system present in the building.
- 3. Unit Price \$: The unit price of the system.
- 4. UoM: The unit of measure of the system.
- 5. Qty: The quantity for the system
- 6. Life: Building Owners and Managers Association (BOMA) recommended system design life.
- 7. Year Installed: The date of system installation.
- 8. Calc Next Renewal Year: The date of system expiration based on the life, NR stands for non renewable.
- 9. Next Renewal Year: The suggested system expiration date by the assessor based on visual inspection.
- 10. RSLI: The Remaining Service Life Index of the system.
- 11. FCI: The Facility Condition Index of the system.
- 12. RSL: Remaining Service Life in years.
- 13. eCR: eCOMET Condition Rating (not used in this assessment)
- 14. Deficiency \$: The financial investment to repair/replace system to address deficiency.
- 15. Replacement Value \$: The replacement cost of the system as new construction.

# **System Listing**

The System Listing table below lists each of the systems organized by their UNIFORMAT II classification. The assessment team was tasked with recording the most recent replacement year of each system, determining the remaining service life based on the theoretical life, and evaluating the condition to confirm the forecast next replacement year. The system listing is the basis for all data contained in the Building Assessment Report.

							Calc Next	Next						
System Code	System Description	Unit Price \$	UoM	Qty	Life	Year Installed	Renewal Year	Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency \$	Replacement Value \$
A1010	Standard Foundations	\$6.69	S.F.	27,097	100	1968	2068		49.00 %	0.00 %	49			\$181,279
A1030	Slab on Grade	\$6.73	S.F.	27,097	100	1968	2068		49.00 %	0.00 %	49			\$182,363
A2010	Basement Excavation	\$3.38	S.F.	27,097	100	1968	2068		49.00 %	0.00 %	49			\$91,588
A2020	Basement Walls	\$6.25	S.F.	27,097	100	1968	2068		49.00 %	0.00 %	49			\$169,356
B1010	Floor Construction	\$26.24	S.F.	27,097	100	1968	2068		49.00 %	0.00 %	49			\$711,025
B1020	Roof Construction	\$8.71	S.F.	27,097	100	1968	2068		49.00 %	0.00 %	49			\$236,015
B2010	Exterior Walls	\$14.88	S.F.	27,097	100	1968	2068		49.00 %	0.00 %	49			\$403,203
B2020	Exterior Windows	\$9.26	S.F.	27,097	30	2004	2034		50.00 %	0.00 %	15			\$250,918
B2030	Exterior Doors	\$0.88	S.F.	27,097	30	2004	2034		50.00 %	0.00 %	15			\$23,845
B3010105	Built-Up	\$7.15	S.F.	13,548	25	2003	2028		36.00 %	0.00 %	9			\$96,868
B3020	Roof Openings	\$0.57	S.F.	13,548	30	2003	2033		46.67 %	0.00 %	14			\$7,722
C1010	Partitions	\$6.02	S.F.	27,097	100	1968	2068		49.00 %	0.00 %	49			\$163,124
C1020	Interior Doors	\$3.93	S.F.	27,097	40	2004	2044		62.50 %	0.00 %	25			\$106,491
C1030	Fittings	\$2.91	S.F.	27,097	20	2004	2024		25.00 %	0.00 %	5			\$78,852
C2010	Stair Construction	\$3.09	S.F.	27,097	100	1968	2068		49.00 %	0.00 %	49			\$83,730
C3010230	Paint & Covering	\$1.47	S.F.	27,097	10	2004	2014		0.00 %	0.00 %	-5			\$39,833
C3020405	Ероху	\$17.30	S.F.	3,097	15	2004	2019	2022	20.00 %	0.00 %	3			\$53,578
C3020430	Terrazzo	\$21.62	S.F.	4,000	50	2004	2054		70.00 %	0.00 %	35			\$86,480
C3020901	Carpet	\$7.50	S.F.	10,000	8	2004	2012		0.00 %	110.00 %	-7		\$82,500.00	\$75,000
C3020903	VCT	\$3.48	S.F.	10,000	15	2004	2019	2022	20.00 %	0.00 %	3			\$34,800
C3030	Ceiling Finishes	\$9.73	S.F.	27,097	20	2004	2024		25.00 %	0.00 %	5			\$263,654
D2010	Plumbing Fixtures	\$6.86	S.F.	27,097	20	2004	2024		25.00 %	0.00 %	5			\$185,885
D2020	Domestic Water Distribution	\$0.79	S.F.	27,097	30	2004	2034		50.00 %	0.00 %	15			\$21,407
D2030	Sanitary Waste	\$1.85	S.F.	27,097	30	2004	2034		50.00 %	0.00 %	15			\$50,129
D2040	Rain Water Drainage	\$0.50	S.F.	27,097	20	2004	2024		25.00 %	0.00 %	5			\$13,549
D3010	Energy Supply	\$0.61	S.F.	27,097	30	2004	2034		50.00 %	0.00 %	15			\$16,529
D3040	Distribution Systems	\$11.53	S.F.	27,097	20	2004	2024		25.00 %	0.00 %	5			\$312,428
D3050	Terminal & Package Units	\$16.43	S.F.	27,097	15	2004	2019		0.00 %	110.00 %	0		\$489,724.00	\$445,204
D3060	Controls & Instrumentation	\$2.38	S.F.	27,097	15	2004	2019		0.00 %	110.00 %	0		\$70,940.00	\$64,491
D4010	Sprinklers	\$4.41	S.F.	27,097	30	2004	2034		50.00 %	0.00 %	15			\$119,498
D4020	Standpipes	\$0.48	S.F.	27,097	30	2004	2034		50.00 %	0.00 %	15			\$13,007
D5010	Electrical Service/Distribution	\$2.50	S.F.	27,097	20	2004	2024		25.00 %	0.00 %	5			\$67,743
D5020	Branch Wiring	\$4.92	S.F.	27,097	20	2004	2024		25.00 %	0.00 %	5			\$133,317
D5020	Lighting	\$6.78	S.F.	27,097	20	2004	2024		25.00 %	0.00 %	5			\$183,718
D5030810	Security & Detection Systems	\$1.51	Ea.	27,097	20	2004	2024		25.00 %	0.00 %	5			\$40,916
D5030910	Fire Alarm Systems	\$2.74	S.F.	27,097	20	2004	2024		25.00 %	0.00 %	5			\$74,246
D5030920	Data Communication	\$3.56	S.F.	27,097	25	2004	2029		40.00 %	0.00 %	10			\$96,465
D5090	Other Electrical Systems	\$0.38	S.F.	27,097	15	2004	2019	2022	20.00 %	0.00 %	3			\$10,297
E1020	Institutional Equipment	\$0.13	S.F.	27,097	20	2016	2036		85.00 %	0.00 %	17			\$3,523
E2010	Fixed Furnishings	\$2.10	S.F.	27,097	20	2004	2024		25.00 %	0.00 %	5			\$56,904
								Total	36.50 %	12.25 %			\$643,164.00	\$5,248,980

# **System Notes**

The facility description in the executive summary contains an overview of each system. The system notes listed below provide additional information on select systems found within the facility.

System: B2010 - Exterior Walls







Note:

System: B2020 - Exterior Windows







Note:

**System:** B2030 - Exterior Doors







Note:

System: B3010105 - Built-Up







Note:

**System:** B3020 - Roof Openings







Note:

System: C1010 - Partitions







Note:

**System:** C1020 - Interior Doors







Note:

**System:** C1030 - Fittings





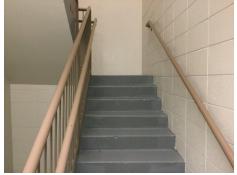


Note:

**System:** C2010 - Stair Construction



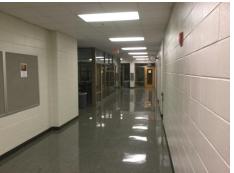




Note:

**System:** C3010230 - Paint & Covering







Note:

**System:** C3020405 - Epoxy





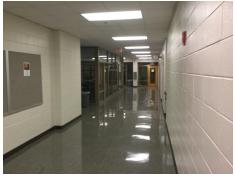


Note:

System: C3020430 - Terrazzo







Note:

System: C3020901 - Carpet







Note:

**System:** C3020903 - VCT



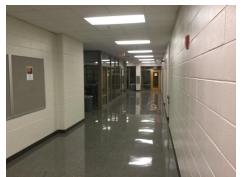




Note:

**System:** C3030 - Ceiling Finishes







Note:

**System:** D2010 - Plumbing Fixtures







Note:

**System:** D2020 - Domestic Water Distribution





Note:

**System:** D2030 - Sanitary Waste







Note:

**System:** D2040 - Rain Water Drainage







Note:

**System:** D3010 - Energy Supply







Note:

**System:** D3040 - Distribution Systems







Note:

## School Assessment Report - 1968 Bldg 502.1

**System:** D3050 - Terminal & Package Units





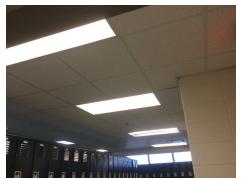


Note:

**System:** D4010 - Sprinklers







Note:

Note:

**System:** D4020 - Standpipes

Service provided from Building 1968 Budg 501.1

This system contains no images

**System:** D5010 - Electrical Service/Distribution

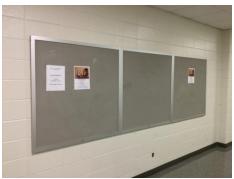
**Note:** Service provided from Building 1968 Budg 501.1

This system contains no images

**System:** D5020 - Branch Wiring







#### Note:

**System:** D5020 - Lighting







Note:

**System:** D5030810 - Security & Detection Systems





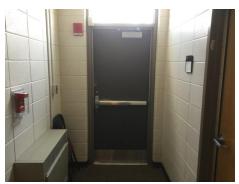


Note:

**System:** D5030910 - Fire Alarm Systems







Note:

# School Assessment Report - 1968 Bldg 502.1

**System:** D5030920 - Data Communication







Note:

Note:

**System:** D5090 - Other Electrical Systems

Generator service provided from Building 1968 Budg 501.1

This system contains no images

**System:** E1020 - Institutional Equipment







Note:

**System:** E2010 - Fixed Furnishings







Note:

# **Renewal Schedule**

eCOMET forecasts future Capital Renewal projects for expiring systems based on the Calculated Next Renewal year found in the System Listing table. There is a 3% yearly inflation factor applied to the system costs expiring in the future. The table below reflects Capital Renewal projects over the next 10 years. Note: Blank cells (or \$0) indicate no systems are scheduled for renewal in that year.

Inflation Rate: 3%

System	Current Deficiencies	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Total:	\$643,164	\$0	\$0	\$140,403	\$0	\$1,799,577	\$0	\$0	\$104,509	\$198,434	\$201,491	\$3,087,578
* A - Substructure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* A10 - Foundations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* A1010 - Standard Foundations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* A1030 - Slab on Grade	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* A20 - Basement Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
A2010 - Basement Excavation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
A2020 - Basement Walls	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B - Shell	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B10 - Superstructure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* B1010 - Floor Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* B1020 - Roof Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B20 - Exterior Enclosure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* B2010 - Exterior Walls	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B2020 - Exterior Windows	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B2030 - Exterior Doors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B30 - Roofing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B3010 - Roof Coverings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B3010105 - Built-Up	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$198,434	\$0	\$198,434
B3020 - Roof Openings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C - Interiors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C10 - Interior Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C1010 - Partitions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C1020 - Interior Doors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C1030 - Fittings	\$0	\$0	\$0	\$0	\$0	\$100,552	\$0	\$0	\$0	\$0	\$0	\$100,552
C20 - Stairs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

System	Current Deficiencies	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
* C2010 - Stair Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C30 - Interior Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3010 - Wall Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3010230 - Paint & Covering	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$58,885	\$58,885
C3020 - Floor Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020405 - Epoxy	\$0	\$0	\$0	\$69,084	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$69,084
C3020430 - Terrazzo	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020901 - Carpet	\$82,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$104,509	\$0	\$0	\$187,009
C3020903 - VCT	\$0	\$0	\$0	\$58,942	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$58,942
C3030 - Ceiling Finishes	\$0	\$0	\$0	\$0	\$0	\$336,212	\$0	\$0	\$0	\$0	\$0	\$336,212
D - Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D20 - Plumbing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2010 - Plumbing Fixtures	\$0	\$0	\$0	\$0	\$0	\$237,041	\$0	\$0	\$0	\$0	\$0	\$237,041
D2020 - Domestic Water Distribution	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2030 - Sanitary Waste	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2040 - Rain Water Drainage	\$0	\$0	\$0	\$0	\$0	\$17,277	\$0	\$0	\$0	\$0	\$0	\$17,277
D30 - HVAC	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3010 - Energy Supply	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3040 - Distribution Systems	\$0	\$0	\$0	\$0	\$0	\$398,409	\$0	\$0	\$0	\$0	\$0	\$398,409
D3050 - Terminal & Package Units	\$489,724	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$489,724
D3060 - Controls & Instrumentation	\$70,940	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$70,940
D40 - Fire Protection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D4010 - Sprinklers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D4020 - Standpipes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D50 - Electrical	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D5010 - Electrical Service/Distribution	\$0	\$0	\$0	\$0	\$0	\$86,386	\$0	\$0	\$0	\$0	\$0	\$86,386
D5020 - Branch Wiring	\$0	\$0	\$0	\$0	\$0	\$170,006	\$0	\$0	\$0	\$0	\$0	\$170,006
D5020 - Lighting	\$0	\$0	\$0	\$0	\$0	\$234,277	\$0	\$0	\$0	\$0	\$0	\$234,277
D5030 - Communications and Security	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D5030810 - Security & Detection Systems	\$0	\$0	\$0	\$0	\$0	\$52,177	\$0	\$0	\$0	\$0	\$0	\$52,177
D5030910 - Fire Alarm Systems	\$0	\$0	\$0	\$0	\$0	\$94,678	\$0	\$0	\$0	\$0	\$0	\$94,678
D5030920 - Data Communication	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$142,606	\$142,606

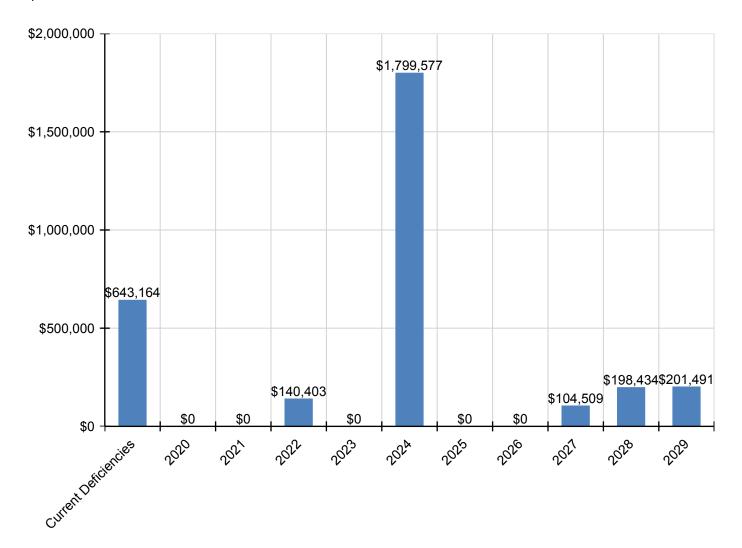
# School Assessment Report - 1968 Bldg 502.1

System	Current Deficiencies	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
D5090 - Other Electrical Systems	\$0	\$0	\$0	\$12,377	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,377
E - Equipment & Furnishings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E10 - Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E1020 - Institutional Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E20 - Furnishings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E2010 - Fixed Furnishings	\$0	\$0	\$0	\$0	\$0	\$72,564	\$0	\$0	\$0	\$0	\$0	\$72,564

<sup>\*</sup> Indicates non-renewable system

# **Forecasted Capital Renewal Requirement**

The following chart shows the current building deficiencies and forecasted capital renewal (sustainment) requirements over the next ten years.



# **Condition Index Forecast by Investment Scenario**

The chart below illustrates the effect of various investment levels on the building FCI for the next 10 years. The levels of investment shown below include:

- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value of the building, escalated for inflation

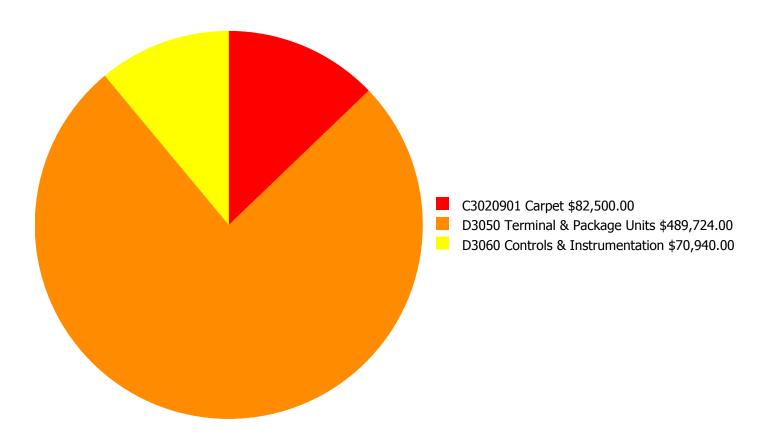
## **Facility Investment vs. FCI Forecast** \$2,000,000 50.0 % 40.0 % \$1,500,000 30.0 % Investment Amount \$1,000,000 20.0 % \$500,000 10.0 % \$0 0.0 % 2023 2020 2021 2027 2022 2024 2025 2026 2028 2029 -10.0 %

	Investment Amount	2% Investm	ent	4% Investm	ent
Year	Current FCI - 12.25%	Amount	FCI	Amount	FCI
2020	\$0	\$108,129.00	10.25 %	\$216,258.00	8.25 %
2021	\$0	\$111,373.00	8.25 %	\$222,746.00	4.25 %
2022	\$140,403	\$114,714.00	8.70 %	\$229,428.00	2.70 %
2023	\$0	\$118,155.00	6.70 %	\$236,311.00	-1.30 %
2024	\$1,799,577	\$121,700.00	34.27 %	\$243,400.00	24.27 %
2025	\$0	\$125,351.00	32.27 %	\$250,702.00	20.27 %
2026	\$0	\$129,112.00	30.27 %	\$258,223.00	16.27 %
2027	\$104,509	\$132,985.00	29.85 %	\$265,970.00	13.85 %
2028	\$198,434	\$136,975.00	30.74 %	\$273,949.00	12.74 %
2029	\$201,491	\$141,084.00	31.60 %	\$282,168.00	11.60 %
Total:	\$2,444,414	\$1,239,578.00		\$2,479,155.00	

Current Investment Amount/FCI 2% Investment Amount/FCI 4% Investment Amount/FCI

## **Deficiency Summary by System**

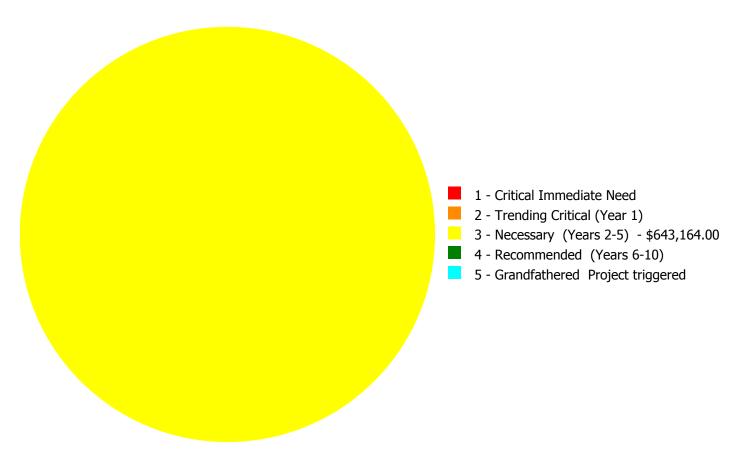
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart lists all current deficiencies associated with this facility.



**Budget Estimate Total: \$643,164.00** 

# **Deficiency Summary by Priority**

The following chart shows the total repair costs broken down by priority. Assessors assigned deficiencies within eCOMET to one of the following priority categories:



**Budget Estimate Total: \$643,164.00** 

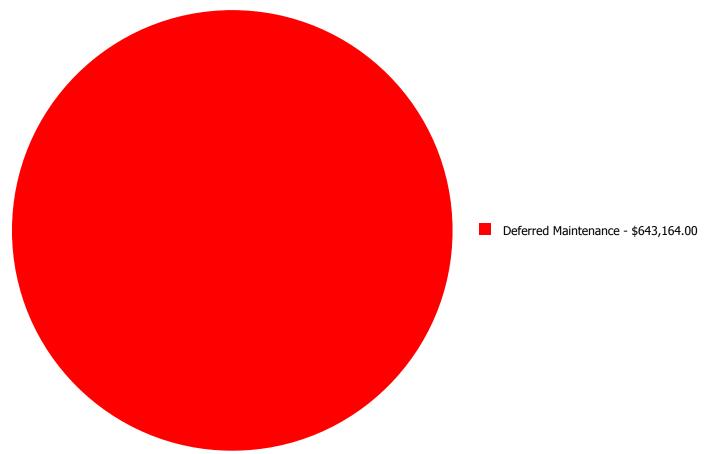
# **Deficiency By Priority Investment Table**

The table below shows the current investment cost grouped by deficiency priority and building system.

System Code	System Description	1 - Critical Immediate Need	2 - Trending Critical (Year 1)	3 - Necessary (Years 2-5)	4 - Recommended (Years 6-10)	5 - Grandfathered Project triggered	Total
C3020901	Carpet	\$0.00	\$0.00	\$82,500.00	\$0.00	\$0.00	\$82,500.00
D3050	Terminal & Package Units	\$0.00	\$0.00	\$489,724.00	\$0.00	\$0.00	\$489,724.00
D3060	Controls & Instrumentation	\$0.00	\$0.00	\$70,940.00	\$0.00	\$0.00	\$70,940.00
	Total:	\$0.00	\$0.00	\$643,164.00	\$0.00	\$0.00	\$643,164.00

# **Deficiency Summary by Category**

The following chart shows the total repair costs broken down by deficiency categories. Assessors assigned deficiencies to one of the following categories:



**Budget Estimate Total: \$643,164.00** 

## **Deficiency Details by Priority**

The deficiency detail notes listed below provide additional information on identified deficiencies found within the facility.

#### **Priority 3 - Necessary (Years 2-5):**

System: C3020901 - Carpet



Location:Throughout buildingDistress:Beyond Expected LifeCategory:Deferred MaintenancePriority:3 - Necessary (Years 2-5)

Correction: Renew System

**Qty:** 10,000.00

**Unit of Measure:** S.F.

**Estimate:** \$82,500.00

**Assessor Name:** Jejuan Hall **Date Created:** 10/29/2019

Notes: The carpet is aged, worn and stained, and should be replaced.

#### System: D3050 - Terminal & Package Units



Location: Roof

**Distress:** Beyond Expected Life **Category:** Deferred Maintenance **Priority:** 3 - Necessary (Years 2-5)

Correction: Renew System

**Qty:** 27,097.00

**Unit of Measure:** S.F.

**Estimate:** \$489,724.00 **Assessor Name:** Jejuan Hall **Date Created:** 10/01/2019

**Notes:** The terminal and package units are at the end of their useful life. The system is functional however upgrades are warranted.

#### System: D3060 - Controls & Instrumentation



Location: Throughout building
 Distress: Beyond Expected Life
 Category: Deferred Maintenance
 Priority: 3 - Necessary (Years 2-5)

**Correction:** Renew System

**Qty:** 27,097.00

**Unit of Measure:** S.F.

**Estimate:** \$70,940.00

**Assessor Name:** Jejuan Hall

**Date Created:** 10/01/2019

**Notes:** The controls as well as the building automation systems were partially upgraded in 2004. Several issues have surfaced over recent years and isolated upgrades have taken place to support the systems However, this system is exceeded its expected life cycle and upgrades are warranted. This deficiency provides a budgetary consideration for a universal upgrade.

### **Executive Summary**

The condition of a Campus is the accumulation of the condition evaluations of the component buildings and the site. Building condition is evaluated based on the functional systems and elements of a building and organized according to the **UNIFORMAT II Elemental Classification**. eCOMET uses parametric estimating methodology whereby historical costs for systems, components and equipment are collected by entities such as RSMeans and converted to unit costs, typically \$/SF, and used to approximate future construction costs or replacement values. The grouping of these systems and elements and applying a current replacement value to them develops a representative building cost model. Cost Models are developed for similar building types and functions. Systems and their elements are evaluated based on their current replacement values, life cycles, installation dates and next renewal dates. Systems and their elements that are within their useful lives are further evaluated to identify current deficient conditions that may have a significant impact on a system's or element's remaining service life, and to determine if they are beyond their predicted expected life. The system's or element's current replacement value is based on RS Means Commercial Cost Data.

Following are the cost model's system details for this facility. The Current Replacement Value (CRV) is the amount needed to replace the property of the same present scope. The Repair Cost (the sum of the cost to repair/replace the Deficiencies) represents the budgeted contractor-installed costs plus owner's soft costs for the repair, replacement or renewal for a component or system level deficiency. It excludes contributing costs for other components or systems that might also be associated with the corrective actions due to packaging of the work. Facility Condition Index (FCI) is an industry-standard measurement of facility condition calculated as the ratio of the costs to correct a facility's deficiencies (Condition Needs) to the facility's Current Replacement Value. It ranges from 0% (new) to 100% (very poor - beyond service life). The **Remaining Service Life Index (RSLI)** is calculated as the sum of a renewable system's Remaining Service Life (RSL) divided by the sum of a system's Replacement Value (both values exclude softcost to simplify calculation updates) expressed as a percentage ranging from 100% (new) to 0% (expired). The relationship between the key metrics FCI and RSLI is an important indicator, at either the facility, building, system, or component levels, of the condition trend and the imminent need for capital renewal. These indices exist in an inverse relationship wherein the FCI increases when systems reach their expected life-cycle age, whereas the RSLI decreases annually indicating the relative time remaining before reaching the life-cycle expiration age. For example, a facility or a system with a high RSLI and a low FCI indicates it is in the early portion of its useful life. However, a low RSLI indicates that expiration dates are approaching at which point the FCI would increase. The term **FCA Score** is the inverse of Total FCI and calculated as 100-Total FCI (without the %) where 100 is best and 0 is worst condition.

High/Support

runction.	r light/Support
Gross Area (SF):	53,495
Year Built:	2004
Last Renovation:	
Replacement Value:	\$9,034,205
Repair Cost:	\$1,692,625.00
Total FCI:	18.74 %
Total RSLI:	45.95 %
FCA Score:	81.26



#### **Description:**

Function:

The narrative for this building is included in the Executive Summary Description at the front of this report.

**Attributes:** This asset has no attributes.

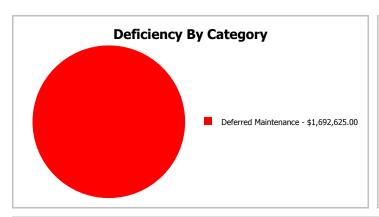
## **Dashboard Summary**

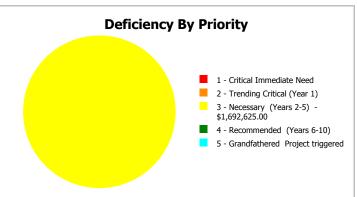
Function: High/Support Gross Area: 53,495

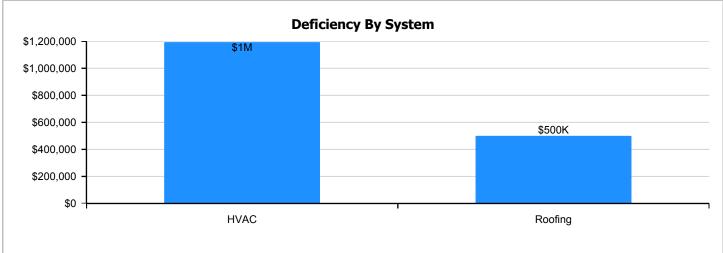
Year Built: 2004 Last Renovation:

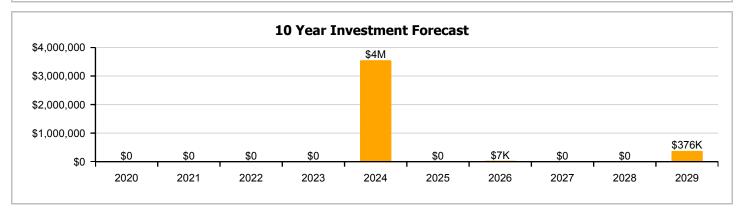
 Repair Cost:
 \$1,692,625
 Replacement Value:
 \$9,034,205

 FCI:
 18.74 %
 RSLI%:
 45.95 %









### **Condition Summary**

The Table below shows the RSLI and FCI for each major building system shown at the UNIFORMAT II classification Level 2. Note that Systems with lower FCIs require less investment than systems with higher FCIs.

UNIFORMAT Classification	RSLI %	FCI %	Current Repair Cost
A10 - Foundations	85.00 %	0.00 %	\$0.00
B10 - Superstructure	85.00 %	0.00 %	\$0.00
B20 - Exterior Enclosure	70.80 %	0.00 %	\$0.00
B30 - Roofing	11.72 %	130.32 %	\$499,847.00
C10 - Interior Construction	64.68 %	0.00 %	\$0.00
C30 - Interior Finishes	48.10 %	0.00 %	\$0.00
D20 - Plumbing	31.95 %	0.00 %	\$0.00
D30 - HVAC	9.13 %	69.81 %	\$1,192,778.00
D40 - Fire Protection	49.93 %	0.00 %	\$0.00
D50 - Electrical	27.57 %	0.00 %	\$0.00
E10 - Equipment	25.00 %	0.00 %	\$0.00
E20 - Furnishings	25.00 %	0.00 %	\$0.00
Totals:	45.95 %	18.74 %	\$1,692,625.00

### **Photo Album**

The photo album consists of the various cardinal compass directions of the building..

1). Northern Exterior Elevation - Oct 29, 2019



4). Eastern Exterior Elevation - Nov 25, 2019





5). Southern Exterior Elevation - Nov 25,



3). Eastern Exterior Elevation - Nov 25, 2019



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#### **Condition Detail**

This section of the report contains results of the Facility Condition Assessment. The building is separated into system components based on UNIFORMAT II. The columns in the System Listing table represent the following:

- 1. System Code: A code that identifies the system.
- 2. System Description: A brief description of a system present in the building.
- 3. Unit Price \$: The unit price of the system.
- 4. UoM: The unit of measure of the system.
- 5. Qty: The quantity for the system
- 6. Life: Building Owners and Managers Association (BOMA) recommended system design life.
- 7. Year Installed: The date of system installation.
- 8. Calc Next Renewal Year: The date of system expiration based on the life, NR stands for non renewable.
- 9. Next Renewal Year: The suggested system expiration date by the assessor based on visual inspection.
- 10. RSLI: The Remaining Service Life Index of the system.
- 11. FCI: The Facility Condition Index of the system.
- 12. RSL: Remaining Service Life in years.
- 13. eCR: eCOMET Condition Rating (not used in this assessment)
- 14. Deficiency \$: The financial investment to repair/replace system to address deficiency.
- 15. Replacement Value \$: The replacement cost of the system as new construction.

# **System Listing**

The System Listing table below lists each of the systems organized by their UNIFORMAT II classification. The assessment team was tasked with recording the most recent replacement year of each system, determining the remaining service life based on the theoretical life, and evaluating the condition to confirm the forecast next replacement year. The system listing is the basis for all data contained in the Building Assessment Report.

System Code	System Description	Unit Price \$	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency \$	Replacement Value \$
A1010	Standard Foundations	\$6.81	S.F.	53,495	100	2004	2104		85.00 %	0.00 %	85			\$364,301
A1030	Slab on Grade	\$6.83	S.F.	53,495	100	2004	2104		85.00 %	0.00 %	85			\$365,371
B1020	Roof Construction	\$13.27	S.F.	53,495	100	2004	2104		85.00 %	0.00 %	85			\$709,879
B2010	Exterior Walls	\$15.09	S.F.	53,495	100	2004	2104		85.00 %	0.00 %	85			\$807,240
B2020	Exterior Windows	\$9.41	S.F.	53,495	30	2004	2034		50.00 %	0.00 %	15			\$503,388
B2030	Exterior Doors	\$0.89	S.F.	53,495	30	2004	2034		50.00 %	0.00 %	15			\$47,611
B3010120	Single Ply Membrane	\$5.37	S.F.	53,495	15	2003	2018		0.00 %	174.00 %	-1		\$499,847.00	\$287,268
B3020	Roof Openings	\$1.80	S.F.	53,495	30	2003	2033		46.67 %	0.00 %	14			\$96,291
C1010	Partitions	\$6.11	S.F.	53,495	100	2004	2104		85.00 %	0.00 %	85			\$326,854
C1020	Interior Doors	\$3.97	S.F.	53,495	40	2004	2044		62.50 %	0.00 %	25			\$212,375
C1030	Fittings	\$2.91	S.F.	53,495	20	2004	2024		25.00 %	0.00 %	5			\$155,670
C3010220	Tile	\$9.25	S.F.	10,000	30	2004	2034		50.00 %	0.00 %	15			\$92,500
C3010230	Paint & Covering	\$1.47	S.F.	43,395	10	2004	2014		0.00 %	0.00 %	-5			\$63,791
C3020420	Ceramic Tile	\$16.74	S.F.	10,000	50	2004	2054		70.00 %	0.00 %	35			\$167,400
C3020903	VCT	\$3.48	S.F.	5,000	15	2004	2019	2024	33.33 %	0.00 %	5			\$17,400
C3020999	Other - Wood	\$13.79	S.F.	38,495	50	2004	2054		70.00 %	0.00 %	35			\$530,846
C3030	Ceiling Finishes	\$9.83	S.F.	53,495	20	2004	2024		25.00 %	0.00 %	5			\$525,856
D2010	Plumbing Fixtures	\$6.96	S.F.	53,495	20	2004	2024		25.00 %	0.00 %	5			\$372,325
D2020	Domestic Water Distribution	\$0.80	S.F.	53,495	30	2004	2034		50.00 %	0.00 %	15			\$42,796
D2030	Sanitary Waste	\$1.88	S.F.	53,495	30	2004	2034		50.00 %	0.00 %	15			\$100,571
D3040	Distribution Systems	\$11.67	S.F.	53,495	20	2004	2024		25.00 %	0.00 %	5			\$624,287
D3050	Terminal & Package Units	\$17.88	S.F.	53,495	15	2004	2019		0.00 %	110.00 %	0		\$1,052,140.00	\$956,491
D3060	Controls & Instrumentation	\$2.39	S.F.	53,495	15	2004	2019		0.00 %	110.00 %	0		\$140,638.00	\$127,853
D4010	Sprinklers	\$4.48	S.F.	53,495	30	2004	2034		50.00 %	0.00 %	15			\$239,658
D4020	Standpipes	\$0.35	S.F.	53,495	30	2004	2034		50.00 %	0.00 %	15			\$18,723
D4030	Fire Protection Specialties	\$0.10	S.F.	53,495	15	2011	2026		46.67 %	0.00 %	7			\$5,350
D5020	Branch Wiring	\$5.47	S.F.	53,495	20	2004	2024		25.00 %	0.00 %	5			\$292,618
D5020	Lighting	\$7.53	S.F.	53,495	20	2004	2024		25.00 %	0.00 %	5			\$402,817
D5030810	Security & Detection Systems	\$1.51	S.F.	53,495	20	2004	2024		25.00 %	0.00 %	5			\$80,777
D5030910	Fire Alarm Systems	\$2.74	S.F.	53,495	20	2004	2024		25.00 %	0.00 %	5			\$146,576
D5030920	Data Communication	\$3.56	S.F.	53,495	25	2004	2029		40.00 %	0.00 %	10			\$190,442
E1090	Other Equipment	\$0.85	S.F.	53,495	20	2004	2024		25.00 %	0.00 %	5			\$45,471
E2010	Fixed Furnishings	\$2.12	S.F.	53,495	20	2004	2024		25.00 %	0.00 %	5			\$113,409
								Total	45.95 %	18.74 %			\$1,692,625.00	\$9,034,205

## **System Notes**

The facility description in the executive summary contains an overview of each system. The system notes listed below provide additional information on select systems found within the facility.

System: B2010 - Exterior Walls







Note:

System: B2020 - Exterior Windows







Note:

**System:** B2030 - Exterior Doors







Note:

**System:** B3010120 - Single Ply Membrane



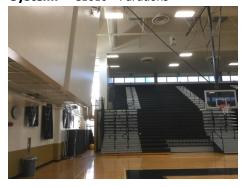
Note:

**System:** B3020 - Roof Openings



Note:

**System:** C1010 - Partitions

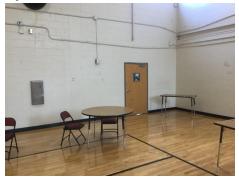






Note:

**System:** C1020 - Interior Doors



Note:

**System:** C1030 - Fittings







Note:

**System:** C3010220 - Tile

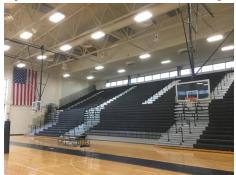






Note:

**System:** C3010230 - Paint & Covering







Note:

**System:** C3020420 - Ceramic Tile







Note:

**System:** C3020903 - VCT

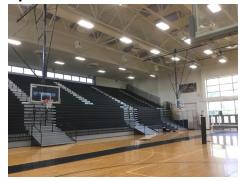


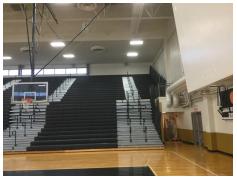




Note:

System: C3020999 - Other - Wood







#### Note:

**System:** C3030 - Ceiling Finishes







Note:

**System:** D2010 - Plumbing Fixtures







#### Note:

**System:** D2020 - Domestic Water Distribution

**Note:** Domestic Water feed from building 1968 502.1

This system contains no images

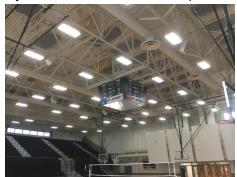
**System:** D2030 - Sanitary Waste

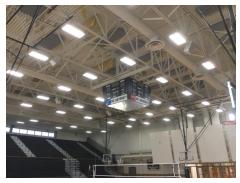


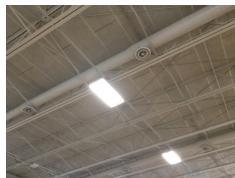


Note:

**System:** D3040 - Distribution Systems







Note:

**System:** D3050 - Terminal & Package Units







Note:

**System:** D4010 - Sprinklers



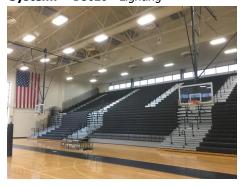
Note:

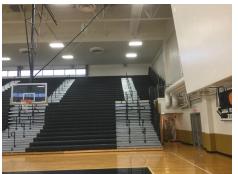
**System:** D4020 - Standpipes



#### Note:

**System:** D5020 - Lighting







#### Note:

**System:** D5030910 - Fire Alarm Systems

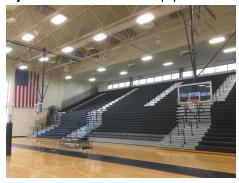


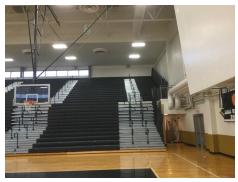


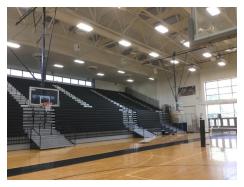


Note:

**System:** E1090 - Other Equipment

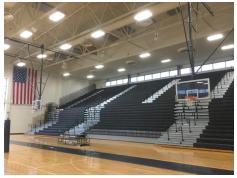


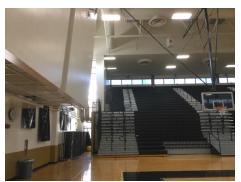


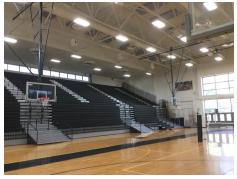


Note:

**System:** E2010 - Fixed Furnishings







Note:

### **Renewal Schedule**

eCOMET forecasts future Capital Renewal projects for expiring systems based on the Calculated Next Renewal year found in the System Listing table. There is a 3% yearly inflation factor applied to the system costs expiring in the future. The table below reflects Capital Renewal projects over the next 10 years. Note: Blank cells (or \$0) indicate no systems are scheduled for renewal in that year.

Inflation Rate: 3%

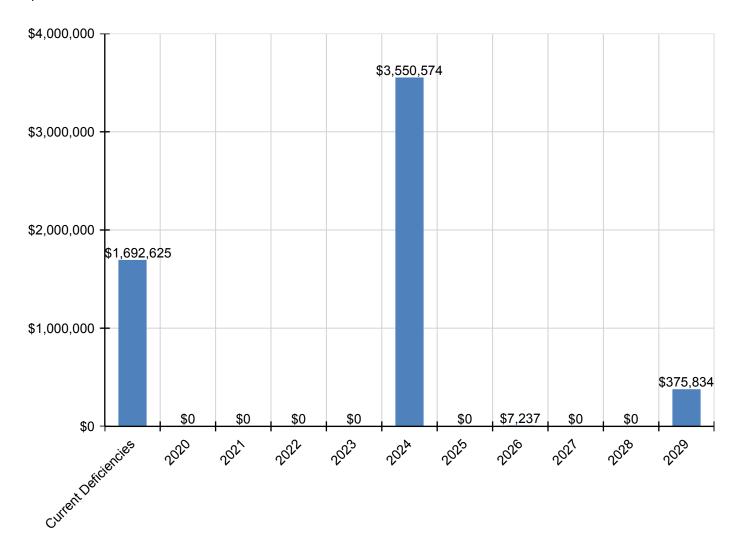
System	Current Deficiencies	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Total:	\$1,692,625	\$0	\$0	\$0	\$0	\$3,550,574	\$0	\$7,237	\$0	\$0	\$375,834	\$5,626,269
* A - Substructure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* A10 - Foundations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* A1010 - Standard Foundations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* A1030 - Slab on Grade	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B - Shell	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B10 - Superstructure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* B1020 - Roof Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B20 - Exterior Enclosure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* B2010 - Exterior Walls	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B2020 - Exterior Windows	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B2030 - Exterior Doors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B30 - Roofing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B3010 - Roof Coverings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B3010120 - Single Ply Membrane	\$499,847	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$499,847
B3020 - Roof Openings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C - Interiors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C10 - Interior Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C1010 - Partitions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C1020 - Interior Doors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C1030 - Fittings	\$0	\$0	\$0	\$0	\$0	\$198,511	\$0	\$0	\$0	\$0	\$0	\$198,511
C30 - Interior Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3010 - Wall Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3010220 - Tile	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3010230 - Paint & Covering	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$94,303	\$94,303
C3020 - Floor Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

System	Current Deficiencies	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
C3020420 - Ceramic Tile	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020903 - VCT	\$0	\$0	\$0	\$0	\$0	\$31,266	\$0	\$0	\$0	\$0	\$0	\$31,266
C3020999 - Other - Wood	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3030 - Ceiling Finishes	\$0	\$0	\$0	\$0	\$0	\$670,572	\$0	\$0	\$0	\$0	\$0	\$670,572
D - Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D20 - Plumbing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2010 - Plumbing Fixtures	\$0	\$0	\$0	\$0	\$0	\$474,790	\$0	\$0	\$0	\$0	\$0	\$474,790
D2020 - Domestic Water Distribution	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2030 - Sanitary Waste	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D30 - HVAC	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3040 - Distribution Systems	\$0	\$0	\$0	\$0	\$0	\$796,091	\$0	\$0	\$0	\$0	\$0	\$796,091
D3050 - Terminal & Package Units	\$1,052,140	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,052,140
D3060 - Controls & Instrumentation	\$140,638	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$140,638
D40 - Fire Protection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D4010 - Sprinklers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D4020 - Standpipes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D4030 - Fire Protection Specialties	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,237	\$0	\$0	\$0	\$7,237
D50 - Electrical	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D5020 - Branch Wiring	\$0	\$0	\$0	\$0	\$0	\$373,146	\$0	\$0	\$0	\$0	\$0	\$373,146
D5020 - Lighting	\$0	\$0	\$0	\$0	\$0	\$513,673	\$0	\$0	\$0	\$0	\$0	\$513,673
D5030 - Communications and Security	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D5030810 - Security & Detection Systems	\$0	\$0	\$0	\$0	\$0	\$103,007	\$0	\$0	\$0	\$0	\$0	\$103,007
D5030910 - Fire Alarm Systems	\$0	\$0	\$0	\$0	\$0	\$186,914	\$0	\$0	\$0	\$0	\$0	\$186,914
D5030920 - Data Communication	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$281,532	\$281,532
E - Equipment & Furnishings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E10 - Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E1090 - Other Equipment	\$0	\$0	\$0	\$0	\$0	\$57,985	\$0	\$0	\$0	\$0	\$0	\$57,985
E20 - Furnishings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E2010 - Fixed Furnishings	\$0	\$0	\$0	\$0	\$0	\$144,619	\$0	\$0	\$0	\$0	\$0	\$144,619

<sup>\*</sup> Indicates non-renewable system

### **Forecasted Capital Renewal Requirement**

The following chart shows the current building deficiencies and forecasted capital renewal (sustainment) requirements over the next ten years.



## **Condition Index Forecast by Investment Scenario**

The chart below illustrates the effect of various investment levels on the building FCI for the next 10 years. The levels of investment shown below include:

- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value of the building, escalated for inflation

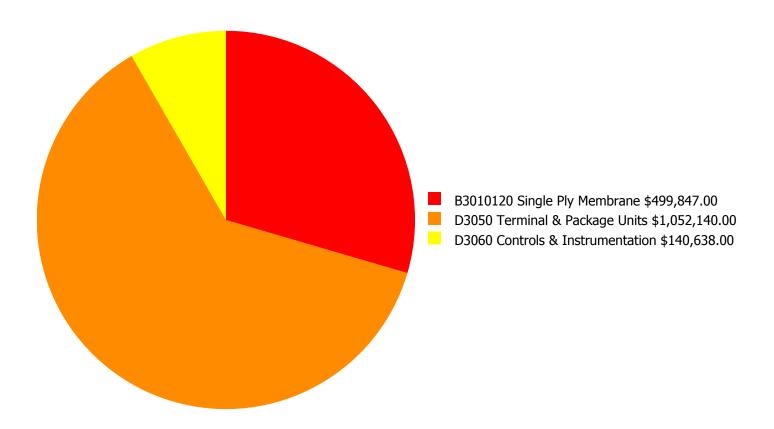
### **Facility Investment vs. FCI Forecast** \$4,000,000 50.0 % - 40.0 % \$3,000,000 Investment Amount 30.0 % % \$2,000,000 Ξ 20.0 % \$1,000,000 - 10.0 % \$0 0.0 % 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029

	Investment Amount	2% Investm	ent	4% Investment				
Year	Current FCI - 18.74%			Amount	FCI			
2020	\$0	\$186,105.00	16.74 %	\$372,209.00	14.74 %			
2021	\$0	\$191,688.00	14.74 %	\$383,376.00	10.74 %			
2022	\$0	\$197,438.00	12.74 %	\$394,877.00	6.74 %			
2023	\$0	\$203,362.00	10.74 %	\$406,723.00	2.74 %			
2024	\$3,550,574	\$209,462.00	42.64 %	\$418,925.00	32.64 %			
2025	\$0	\$215,746.00	40.64 %	\$431,493.00	28.64 %			
2026	\$7,237	\$222,219.00	38.70 %	\$444,437.00	24.70 %			
2027	\$0	\$228,885.00	36.70 %	\$457,770.00	20.70 %			
2028	\$0	\$235,752.00	34.70 %	\$471,504.00	16.70 %			
2029	\$375,834	\$242,824.00	35.80 %	\$485,649.00	15.80 %			
Total:	\$3,933,644	\$2,133,481.00		\$4,266,963.00				

Current Investment Amount/FCI 2% Investment Amount/FCI 4% Investment Amount/FCI

### **Deficiency Summary by System**

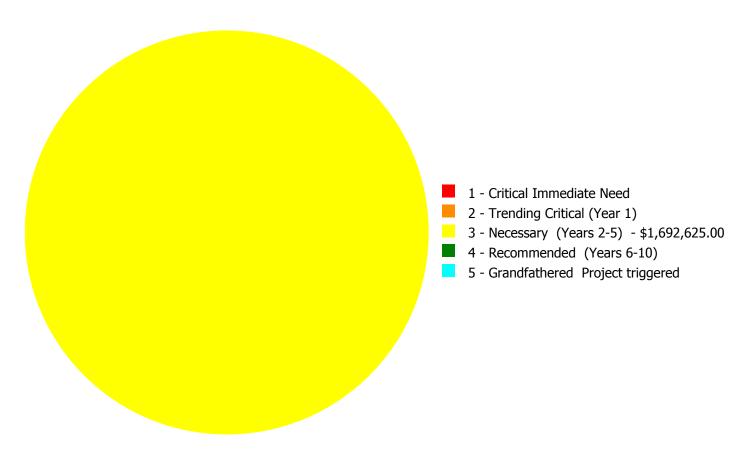
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart lists all current deficiencies associated with this facility.



**Budget Estimate Total: \$1,692,625.00** 

### **Deficiency Summary by Priority**

The following chart shows the total repair costs broken down by priority. Assessors assigned deficiencies within eCOMET to one of the following priority categories:



**Budget Estimate Total: \$1,692,625.00** 

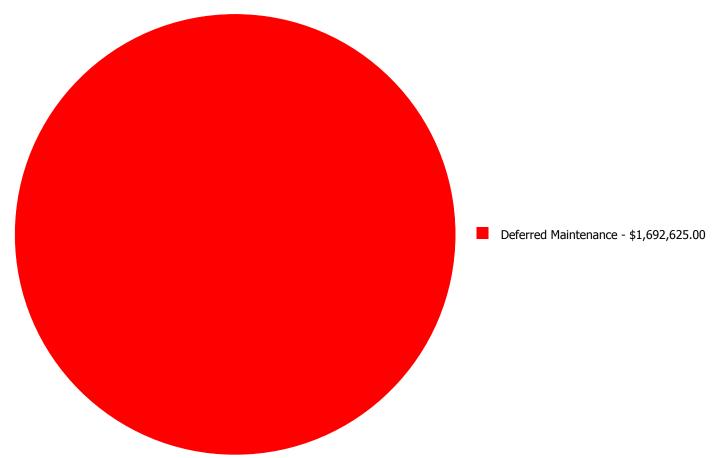
### **Deficiency By Priority Investment Table**

The table below shows the current investment cost grouped by deficiency priority and building system.

System Code	System Description	1 - Critical Immediate Need	2 - Trending Critical (Year 1)	3 - Necessary (Years 2-5)	4 - Recommended (Years 6-10)	5 - Grandfathered Project triggered	Total
B3010120	Single Ply Membrane	\$0.00	\$0.00	\$499,847.00	\$0.00	\$0.00	\$499,847.00
D3050	Terminal & Package Units	\$0.00	\$0.00	\$1,052,140.00	\$0.00	\$0.00	\$1,052,140.00
D3060	Controls & Instrumentation	\$0.00	\$0.00	\$140,638.00	\$0.00	\$0.00	\$140,638.00
	Total:	\$0.00	\$0.00	\$1,692,625.00	\$0.00	\$0.00	\$1,692,625.00

# **Deficiency Summary by Category**

The following chart shows the total repair costs broken down by deficiency categories. Assessors assigned deficiencies to one of the following categories:



**Budget Estimate Total: \$1,692,625.00** 

### **Deficiency Details by Priority**

The deficiency detail notes listed below provide additional information on identified deficiencies found within the facility.

#### **Priority 3 - Necessary (Years 2-5):**

System: B3010120 - Single Ply Membrane



Location: Roof

**Distress:** Beyond Expected Life **Category:** Deferred Maintenance **Priority:** 3 - Necessary (Years 2-5)

Correction: Renew System

**Qty:** 53,495.00

Unit of Measure: S.F.

**Estimate:** \$499,847.00

**Assessor Name:** Jejuan Hall **Date Created:** 10/29/2019

**Notes:** The single ply membrane is nearing the end of its useful life and is recommended for upgrade.

#### System: D3050 - Terminal & Package Units



Location: Roof

**Distress:** Beyond Expected Life **Category:** Deferred Maintenance **Priority:** 3 - Necessary (Years 2-5)

**Correction:** Renew System

**Qty:** 53,495.00

**Unit of Measure:** S.F.

Estimate: \$1,052,140.00

Assessor Name: Jejuan Hall

Date Created: 10/01/2019

**Notes:** The terminal and package units are nearing the end of their useful life. The system is functional however upgrades are warranted.

#### System: D3060 - Controls & Instrumentation



Location: Throughout building
 Distress: Beyond Expected Life
 Category: Deferred Maintenance
 Priority: 3 - Necessary (Years 2-5)

**Correction:** Renew System

**Qty:** 53,495.00

**Unit of Measure:** S.F.

**Estimate:** \$140,638.00

**Assessor Name:** Jejuan Hall **Date Created:** 10/01/2019

**Notes:** The controls as well as the building automation systems are original. Several issues have surfaced over recent years and isolated upgrades have taken place to support the systems However, this system is nearing the end of its expected life cycle and upgrades are warranted. This deficiency provides a budgetary consideration for a universal upgrade.

### **Executive Summary**

The condition of a Campus is the accumulation of the condition evaluations of the component buildings and the site. Building condition is evaluated based on the functional systems and elements of a building and organized according to the **UNIFORMAT II Elemental Classification**. eCOMET uses parametric estimating methodology whereby historical costs for systems, components and equipment are collected by entities such as RSMeans and converted to unit costs, typically \$/SF, and used to approximate future construction costs or replacement values. The grouping of these systems and elements and applying a current replacement value to them develops a representative building cost model. Cost Models are developed for similar building types and functions. Systems and their elements are evaluated based on their current replacement values, life cycles, installation dates and next renewal dates. Systems and their elements that are within their useful lives are further evaluated to identify current deficient conditions that may have a significant impact on a system's or element's remaining service life, and to determine if they are beyond their predicted expected life. The system's or element's current replacement value is based on RS Means Commercial Cost Data.

Following are the cost model's system details for this facility. The Current Replacement Value (CRV) is the amount needed to replace the property of the same present scope. The Repair Cost (the sum of the cost to repair/replace the Deficiencies) represents the budgeted contractor-installed costs plus owner's soft costs for the repair, replacement or renewal for a component or system level deficiency. It excludes contributing costs for other components or systems that might also be associated with the corrective actions due to packaging of the work. Facility Condition Index (FCI) is an industry-standard measurement of facility condition calculated as the ratio of the costs to correct a facility's deficiencies (Condition Needs) to the facility's Current Replacement Value. It ranges from 0% (new) to 100% (very poor - beyond service life). The **Remaining Service Life Index (RSLI)** is calculated as the sum of a renewable system's Remaining Service Life (RSL) divided by the sum of a system's Replacement Value (both values exclude softcost to simplify calculation updates) expressed as a percentage ranging from 100% (new) to 0% (expired). The relationship between the key metrics FCI and RSLI is an important indicator, at either the facility, building, system, or component levels, of the condition trend and the imminent need for capital renewal. These indices exist in an inverse relationship wherein the FCI increases when systems reach their expected life-cycle age, whereas the RSLI decreases annually indicating the relative time remaining before reaching the life-cycle expiration age. For example, a facility or a system with a high RSLI and a low FCI indicates it is in the early portion of its useful life. However, a low RSLI indicates that expiration dates are approaching at which point the FCI would increase. The term **FCA Score** is the inverse of Total FCI and calculated as 100-Total FCI (without the %) where 100 is best and 0 is worst condition.

High/Support

	3.7-4-6-6-3
Gross Area (SF):	52,898
Year Built:	2004
Last Renovation:	
Replacement Value:	\$9,645,428
Repair Cost:	\$1,469,962.00
Total FCI:	15.24 %
Total RSLI:	48.36 %
FCA Score:	84.76



#### **Description:**

Function:

The narrative for this building is included in the Executive Summary Description at the front of this report.

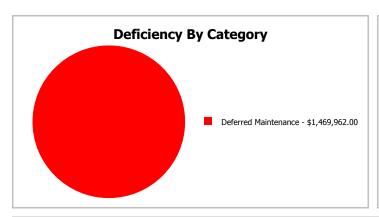
**Attributes:** This asset has no attributes.

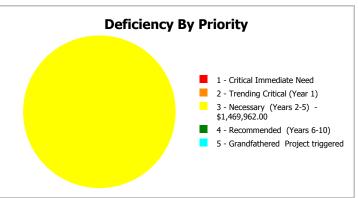
### **Dashboard Summary**

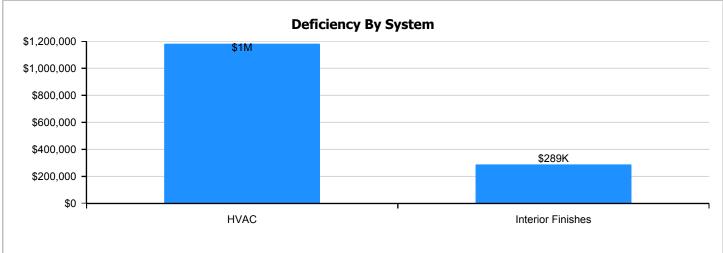
Function: High/Support Gross Area: 52,898

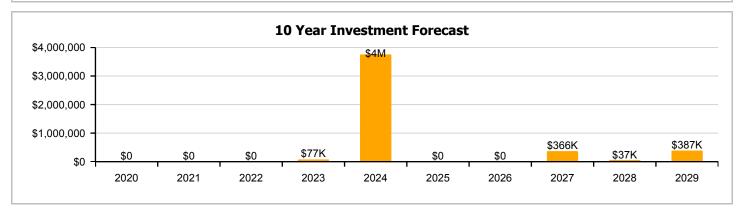
Year Built: 2004 Last Renovation:

Repair Cost: \$1,469,962 Replacement Value: \$9,645,428 FCI: RSLI%: 48.36 %









### **Condition Summary**

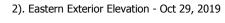
The Table below shows the RSLI and FCI for each major building system shown at the UNIFORMAT II classification Level 2. Note that Systems with lower FCIs require less investment than systems with higher FCIs.

UNIFORMAT Classification	RSLI %	FCI %	Current Repair Cost
A10 - Foundations	85.00 %	0.00 %	\$0.00
B10 - Superstructure	85.00 %	0.00 %	\$0.00
B20 - Exterior Enclosure	70.80 %	0.00 %	\$0.00
B30 - Roofing	36.59 %	0.00 %	\$0.00
C10 - Interior Construction	64.65 %	0.00 %	\$0.00
C20 - Stairs	85.00 %	0.00 %	\$0.00
C30 - Interior Finishes	21.19 %	28.71 %	\$288,750.00
D10 - Conveying	25.00 %	0.00 %	\$0.00
D20 - Plumbing	31.56 %	0.00 %	\$0.00
D30 - HVAC	9.89 %	68.54 %	\$1,181,212.00
D40 - Fire Protection	50.00 %	0.00 %	\$0.00
D50 - Electrical	27.37 %	0.00 %	\$0.00
E10 - Equipment	25.00 %	0.00 %	\$0.00
E20 - Furnishings	25.00 %	0.00 %	\$0.00
Totals:	48.36 %	15.24 %	\$1,469,962.00

## **Photo Album**

The photo album consists of the various cardinal compass directions of the building..

1). Northern Exterior Elevation - Nov 25, 2019







#### **Condition Detail**

This section of the report contains results of the Facility Condition Assessment. The building is separated into system components based on UNIFORMAT II. The columns in the System Listing table represent the following:

- 1. System Code: A code that identifies the system.
- 2. System Description: A brief description of a system present in the building.
- 3. Unit Price \$: The unit price of the system.
- 4. UoM: The unit of measure of the system.
- 5. Qty: The quantity for the system
- 6. Life: Building Owners and Managers Association (BOMA) recommended system design life.
- 7. Year Installed: The date of system installation.
- 8. Calc Next Renewal Year: The date of system expiration based on the life, NR stands for non renewable.
- 9. Next Renewal Year: The suggested system expiration date by the assessor based on visual inspection.
- 10. RSLI: The Remaining Service Life Index of the system.
- 11. FCI: The Facility Condition Index of the system.
- 12. RSL: Remaining Service Life in years.
- 13. eCR: eCOMET Condition Rating (not used in this assessment)
- 14. Deficiency \$: The financial investment to repair/replace system to address deficiency.
- 15. Replacement Value \$: The replacement cost of the system as new construction.

# **System Listing**

The System Listing table below lists each of the systems organized by their UNIFORMAT II classification. The assessment team was tasked with recording the most recent replacement year of each system, determining the remaining service life based on the theoretical life, and evaluating the condition to confirm the forecast next replacement year. The system listing is the basis for all data contained in the Building Assessment Report.

System Code  A1010 Standard Foundations  A1030 Slab on Grade  B1010 Floor Construction  B1020 Exterior Walls  B2020 Exterior Windows  B2030 Exterior Doors  B3010120 Single Ply Membrane  B3020 Roof Openings  C1010 Partitions  C1020 Interior Doors  C1030 Fittings  C2010 Stair Construction  C3010220 Tile  C3010230 Paint & Covering  C3020420 Ceramic Tile  C3020901 Carpet  C3020990 Other - Wood  C3030 Ceiling Finishes  D1010 Elevators and Lifts  D2010 Plumbing Fixtures  D2020 Domestic Water Distribution  D2030 Sanitary Waste  D2040 Distribution Systems  D3050 Terminal & Package Units  D3050 Branch Wiring  D5030810 Security & Detection Systems  D5030910 Fire Alarm Systems  D5030920 Data Communication  Elevator Systems  D5030910 Fire Alarm Systems  D5030920 Data Communication  Elevator Systems  D5030920 Data Communication  Elozu Institutional Equipment							Calc Next	Next						
A1030 Slab on Grade B1010 Floor Construction B1020 Roof Construction B2010 Exterior Walls B2020 Exterior Windows B2030 Exterior Doors B3010105 Built-Up B3010120 Single Ply Membrane B3020 Roof Openings C1010 Partitions C1020 Interior Doors C1030 Fittings C2010 Stair Construction C3010220 Tile C3010230 Paint & Covering C3020420 Ceramic Tile C3020901 Carpet C3020903 VCT C3020909 Other - Wood C3030 Ceiling Finishes D1010 Elevators and Lifts D2010 Plumbing Fixtures D2020 Domestic Water Distribution D2030 Sanitary Waste D2040 Rain Water Drainage D3010 Energy Supply D3040 Distribution Systems D3050 Terminal & Package Units D3060 Controls & Instrumentation D4010 Sprinklers D4020 Branch Wiring D5030810 Security & Detection Systems D5030910 Fire Alarm Systems D5030920 Data Communication E1020 Institutional Equipment	Unit Price \$	\$ U	loM	Qty	Life	Year Installed	Renewal Year	Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency \$	Replacement Value \$
B1010 Floor Construction B1020 Roof Construction B2010 Exterior Walls B2020 Exterior Windows B2030 Exterior Doors B3010105 Built-Up B3010120 Single Ply Membrane B3020 Roof Openings C1010 Partitions C1020 Interior Doors C1030 Fittings C2010 Stair Construction C3010220 Tile C3010230 Paint & Covering C3020420 Ceramic Tile C3020901 Carpet C3020903 VCT C3020999 Other - Wood C3030 Ceiling Finishes D1010 Elevators and Lifts D2010 Plumbing Fixtures D2020 Domestic Water Distribution D2030 Sanitary Waste D2040 Rain Water Drainage D3010 Energy Supply D3040 Distribution Systems D3050 Terminal & Package Units D3060 Controls & Instrumentation D4010 Sprinklers D4020 Branch Wiring D5030810 Security & Detection Systems D5030910 Fire Alarm Systems D5030920 Data Communication E1020 Institutional Equipment	\$6.81	1 S.F.		52,898	100	2004	2104		85.00 %	0.00 %	85			\$360,235
B1020 Roof Construction B2010 Exterior Walls B2020 Exterior Windows B2030 Exterior Doors B3010105 Built-Up B3010120 Single Ply Membrane B3020 Roof Openings C1010 Partitions C1020 Interior Doors C1030 Fittings C2010 Stair Construction C3010220 Tile C3010230 Paint & Covering C3020420 Ceramic Tile C3020901 Carpet C3020903 VCT C3020999 Other - Wood C3030 Ceiling Finishes D1010 Elevators and Lifts D2010 Plumbing Fixtures D2020 Domestic Water Distribution D2030 Sanitary Waste D2040 Rain Water Drainage D3010 Energy Supply D3040 Distribution Systems D3050 Terminal & Package Units D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D5020 Branch Wiring D5030810 Security & Detection Systems D5030920 Data Communication E1020 Institutional Equipment	\$6.83	3 S.F.		52,898	100	2004	2104		85.00 %	0.00 %	85			\$361,293
B2010 Exterior Walls B2020 Exterior Windows B2030 Exterior Doors B3010105 Built-Up B3010120 Single Ply Membrane B3020 Roof Openings C1010 Partitions C1020 Interior Doors C1030 Fittings C2010 Stair Construction C3010220 Tile C3010230 Paint & Covering C3020420 Ceramic Tile C3020901 Carpet C3020999 Other - Wood C3030 Ceiling Finishes D1010 Elevators and Lifts D2010 Plumbing Fixtures D2020 Domestic Water Distribution D2030 Sanitary Waste D2040 Rain Water Drainage D3010 Energy Supply D3040 Distribution Systems D3050 Terminal & Package Units D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D5020 Branch Wiring D5030910 Fire Alarm Systems D5030920 Data Communication E1020 Institutional Equipment	\$17.76	6 S.F.		52,898	100	2004	2104		85.00 %	0.00 %	85			\$939,468
B2020 Exterior Windows B2030 Exterior Doors B3010105 Built-Up B3010120 Single Ply Membrane B3020 Roof Openings C1010 Partitions C1020 Interior Doors C1030 Fittings C2010 Stair Construction C3010220 Tile C3010230 Paint & Covering C3020420 Ceramic Tile C3020901 Carpet C3020903 VCT C3020999 Other - Wood C3030 Ceiling Finishes D1010 Elevators and Lifts D2010 Plumbing Fixtures D2020 Domestic Water Distribution D2030 Sanitary Waste D2040 Rain Water Drainage D3010 Energy Supply D3040 Distribution Systems D3050 Terminal & Package Units D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D5020 Branch Wiring D5030810 Security & Detection Systems D5030920 Data Communication E1020 Institutional Equipment	\$13.26	6 S.F.		52,898	100	2004	2104		85.00 %	0.00 %	85			\$701,427
B3010105 Built-Up B3010120 Single Ply Membrane B3020 Roof Openings C1010 Partitions C1020 Interior Doors C1030 Fittings C2010 Stair Construction C3010220 Tile C3010230 Paint & Covering C3020420 Ceramic Tile C3020901 Carpet C3020999 Other - Wood C3030 Ceiling Finishes D1010 Elevators and Lifts D2010 Plumbing Fixtures D2020 Domestic Water Distribution D2030 Sanitary Waste D2040 Rain Water Drainage D3040 Distribution Systems D3050 Terminal & Package Units D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D4010 Sprinklers D4020 Branch Wiring D5020 Lighting D5030810 Security & Detection Systems D5030920 Data Communication E1020 Institutional Equipment	\$15.09	9 S.F.		52,898	100	2004	2104		85.00 %	0.00 %	85			\$798,231
B3010105 Built-Up B3010120 Single Ply Membrane B3020 Roof Openings C1010 Partitions C1020 Interior Doors C1030 Fittings C2010 Stair Construction C3010220 Tile C3010230 Paint & Covering C3020420 Ceramic Tile C3020901 Carpet C3020999 Other - Wood C3030 Ceiling Finishes D1010 Elevators and Lifts D2010 Plumbing Fixtures D2020 Domestic Water Distribution D2030 Sanitary Waste D2040 Rain Water Drainage D3010 Energy Supply D3040 Distribution Systems D3050 Terminal & Package Units D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D5020 Branch Wiring D5020 Lighting D5030810 Security & Detection Systems D5030920 Data Communication E1020 Institutional Equipment	\$9.41	1 S.F.		52,898	30	2004	2034		50.00 %	0.00 %	15			\$497,770
B3010120 Single Ply Membrane B3020 Roof Openings C1010 Partitions C1020 Interior Doors C1030 Fittings C2010 Stair Construction C3010220 Tile C3010230 Paint & Covering C3020420 Ceramic Tile C3020901 Carpet C3020909 Other - Wood C3030 Ceiling Finishes D1010 Elevators and Lifts D2010 Plumbing Fixtures D2020 Domestic Water Distribution D2030 Sanitary Waste D2040 Rain Water Drainage D3010 Energy Supply D3040 Distribution Systems D3050 Terminal & Package Units D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D5020 Branch Wiring D5020 Lighting D5030810 Security & Detection Systems D5030920 Data Communication E1020 Institutional Equipment	\$0.89	9 S.F.		52,898	30	2004	2034		50.00 %	0.00 %	15			\$47,079
B3020 Roof Openings  C1010 Partitions  C1020 Interior Doors  C1030 Fittings  C2010 Stair Construction  C3010220 Tile  C3010230 Paint & Covering  C3020420 Ceramic Tile  C3020901 Carpet  C3020999 Other - Wood  C3030 Ceiling Finishes  D1010 Elevators and Lifts  D2010 Plumbing Fixtures  D2020 Domestic Water Distribution  D2030 Sanitary Waste  D2040 Rain Water Drainage  D3010 Energy Supply  D3040 Distribution Systems  D3050 Terminal & Package Units  D4010 Sprinklers  D4020 Standpipes  D5010 Electrical Service/Distribution  D5020 Branch Wiring  D5030810 Security & Detection Systems  D5030920 Data Communication  E1020 Institutional Equipment	\$7.15	5 S.F.		2,500	25	2003	2028		36.00 %	0.00 %	9			\$17,875
C1010 Partitions C1020 Interior Doors C1030 Fittings C2010 Stair Construction C3010220 Tile C3010230 Paint & Covering C3020420 Ceramic Tile C3020901 Carpet C3020999 Other - Wood C3030 Ceiling Finishes D1010 Elevators and Lifts D2010 Plumbing Fixtures D2020 Domestic Water Distribution D2030 Sanitary Waste D2040 Rain Water Drainage D3010 Energy Supply D3040 Distribution Systems D3050 Terminal & Package Units D3050 Terminal & Package Units D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D5020 Branch Wiring D5020 Lighting D5030810 Security & Detection Systems D5030920 Data Communication E1020 Institutional Equipment	\$5.37	7 S.F.		11,610	20	2003	2023		20.00 %	0.00 %	4			\$62,346
C1020 Interior Doors C1030 Fittings C2010 Stair Construction C3010220 Tile C3010230 Paint & Covering C3020420 Ceramic Tile C3020901 Carpet C3020909 Other - Wood C3030 Ceiling Finishes D1010 Elevators and Lifts D2010 Plumbing Fixtures D2020 Domestic Water Distribution D2030 Sanitary Waste D2040 Rain Water Drainage D3010 Energy Supply D3040 Distribution Systems D3050 Terminal & Package Units D3060 Controls & Instrumentation D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D5020 Branch Wiring D5030810 Security & Detection Systems D5030920 Data Communication E1020 Institutional Equipment	\$4.59	9 S.F.		22,597	30	2003	2033		46.67 %	0.00 %	14			\$103,720
C1030 Fittings C2010 Stair Construction C3010220 Tile C3010230 Paint & Covering C3020420 Ceramic Tile C3020901 Carpet C3020999 Other - Wood C3030 Ceiling Finishes D1010 Elevators and Lifts D2010 Plumbing Fixtures D2020 Domestic Water Distribution D2030 Sanitary Waste D2040 Rain Water Drainage D3010 Energy Supply D3040 Distribution Systems D3050 Terminal & Package Units D3050 Terminal & Package Units D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D5020 Branch Wiring D5030810 Security & Detection Systems D5030920 Data Communication E1020 Institutional Equipment	\$6.09	9 S.F.		52,898	100	2004	2104		85.00 %	0.00 %	85			\$322,149
C2010         Stair Construction           C3010220         Tile           C3010230         Paint & Covering           C3020420         Ceramic Tile           C3020901         Carpet           C3020999         VCT           C3020999         Other - Wood           C3030         Ceiling Finishes           D1010         Elevators and Lifts           D2010         Plumbing Fixtures           D2020         Domestic Water Distribution           D2030         Sanitary Waste           D2040         Rain Water Drainage           D3010         Energy Supply           D3040         Distribution Systems           D3050         Terminal & Package Units           D3060         Controls & Instrumentation           D4010         Sprinklers           D4020         Standpipes           D5010         Electrical Service/Distribution           D5020         Branch Wiring           D5030810         Security & Detection Systems           D5030920         Data Communication           E1020         Institutional Equipment	\$3.97	7 S.F.		52,898	40	2004	2044		62.50 %	0.00 %	25			\$210,005
C3010220         Tile           C3010230         Paint & Covering           C3020420         Ceramic Tile           C3020901         Carpet           C3020903         VCT           C3020999         Other - Wood           C3030         Ceiling Finishes           D1010         Elevators and Lifts           D2010         Plumbing Fixtures           D2020         Domestic Water Distribution           D2030         Sanitary Waste           D2040         Rain Water Drainage           D3010         Energy Supply           D3040         Distribution Systems           D3050         Terminal & Package Units           D3060         Controls & Instrumentation           D4010         Sprinklers           D4020         Standpipes           D5010         Electrical Service/Distribution           D5020         Branch Wiring           D5030810         Security & Detection Systems           D5030920         Data Communication           E1020         Institutional Equipment	\$2.91	1 S.F.		52,898	20	2004	2024		25.00 %	0.00 %	5			\$153,933
C3010230         Paint & Covering           C3020420         Ceramic Tile           C3020901         Carpet           C3020909         VCT           C3020999         Other - Wood           C3030         Ceiling Finishes           D1010         Elevators and Lifts           D2010         Plumbing Fixtures           D2020         Domestic Water Distribution           D2030         Sanitary Waste           D2040         Rain Water Drainage           D3010         Energy Supply           D3040         Distribution Systems           D3050         Terminal & Package Units           D3060         Controls & Instrumentation           D4010         Sprinklers           D4020         Standpipes           D5010         Electrical Service/Distribution           D5020         Branch Wiring           D5020         Lighting           D5030810         Security & Detection Systems           D5030920         Data Communication           E1020         Institutional Equipment	\$3.12	2 S.F.		52,898	100	2004	2104		85.00 %	0.00 %	85			\$165,042
C3020420         Ceramic Tile           C3020901         Carpet           C3020903         VCT           C3020999         Other - Wood           C3030         Ceiling Finishes           D1010         Elevators and Lifts           D2010         Plumbing Fixtures           D2020         Domestic Water Distribution           D2030         Sanitary Waste           D2040         Rain Water Drainage           D3010         Energy Supply           D3040         Distribution Systems           D3050         Terminal & Package Units           D3060         Controls & Instrumentation           D4010         Sprinklers           D4020         Standpipes           D5010         Electrical Service/Distribution           D5020         Branch Wiring           D5030810         Security & Detection Systems           D5030920         Data Communication           E1020         Institutional Equipment	\$9.25	5 S.F.		3,000	30	2004	2034		50.00 %	0.00 %	15			\$27,750
C3020901 Carpet C3020903 VCT C3020999 Other - Wood C3030 Ceiling Finishes D1010 Elevators and Lifts D2010 Plumbing Fixtures D2020 Domestic Water Distribution D2030 Sanitary Waste D2040 Rain Water Drainage D3010 Energy Supply D3040 Distribution Systems D3050 Terminal & Package Units D3060 Controls & Instrumentation D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D5020 Branch Wiring D5030810 Security & Detection Systems D5030920 Data Communication E1020 Institutional Equipment	\$1.47	7 S.F.		49,898	10	2004	2014		0.00 %	0.00 %	-5			\$73,350
C3020903 VCT C3020999 Other - Wood C3030 Ceiling Finishes D1010 Elevators and Lifts D2010 Plumbing Fixtures D2020 Domestic Water Distribution D2030 Sanitary Waste D2040 Rain Water Drainage D3010 Energy Supply D3040 Distribution Systems D3050 Terminal & Package Units D3060 Controls & Instrumentation D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D5020 Branch Wiring D5030810 Security & Detection Systems D5030920 Data Communication E1020 Institutional Equipment	\$16.74	4 S.F.		3,000	50	2004	2054		70.00 %	0.00 %	35			\$50,220
C3020999 Other - Wood  C3030 Ceiling Finishes  D1010 Elevators and Lifts  D2010 Plumbing Fixtures  D2020 Domestic Water Distribution  D2030 Sanitary Waste  D2040 Rain Water Drainage  D3010 Energy Supply  D3040 Distribution Systems  D3050 Terminal & Package Units  D3060 Controls & Instrumentation  D4010 Sprinklers  D4020 Standpipes  D5010 Electrical Service/Distribution  D5020 Branch Wiring  D5030810 Security & Detection Systems  D5030910 Fire Alarm Systems  D5030920 Data Communication  E1020 Institutional Equipment	\$7.50	0 S.F.		35,000	8	2004	2012		0.00 %	110.00 %	-7		\$288,750.00	\$262,500
C3030 Ceiling Finishes  D1010 Elevators and Lifts  D2010 Plumbing Fixtures  D2020 Domestic Water Distribution  D2030 Sanitary Waste  D2040 Rain Water Drainage  D3010 Energy Supply  D3040 Distribution Systems  D3050 Terminal & Package Units  D3060 Controls & Instrumentation  D4010 Sprinklers  D4020 Standpipes  D5010 Electrical Service/Distribution  D5020 Branch Wiring  D5030810 Security & Detection Systems  D5030910 Fire Alarm Systems  D5030920 Data Communication  E1020 Institutional Equipment	\$3.48	8 S.F.		12,898	15	2004	2019	2024	33.33 %	0.00 %	5			\$44,885
D1010 Elevators and Lifts D2010 Plumbing Fixtures D2020 Domestic Water Distribution D2030 Sanitary Waste D2040 Rain Water Drainage D3010 Energy Supply D3040 Distribution Systems D3050 Terminal & Package Units D3060 Controls & Instrumentation D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D5020 Branch Wiring D5020 Lighting D5030810 Security & Detection Systems D5030920 Data Communication E1020 Institutional Equipment	\$13.79	9 S.F.		2,000	50	2004	2054		70.00 %	0.00 %	35			\$27,580
D2010 Plumbing Fixtures D2020 Domestic Water Distribution D2030 Sanitary Waste D2040 Rain Water Drainage D3010 Energy Supply D3040 Distribution Systems D3050 Terminal & Package Units D3060 Controls & Instrumentation D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D5020 Branch Wiring D5020 Lighting D5030810 Security & Detection Systems D5030920 Data Communication E1020 Institutional Equipment	\$9.82	2 S.F.		52,898	20	2004	2024		25.00 %	0.00 %	5			\$519,458
D2020 Domestic Water Distribution D2030 Sanitary Waste D2040 Rain Water Drainage D3010 Energy Supply D3040 Distribution Systems D3050 Terminal & Package Units D3060 Controls & Instrumentation D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D5020 Branch Wiring D5030810 Security & Detection Systems D5030910 Fire Alarm Systems D5030920 Data Communication E1020 Institutional Equipment	\$1.40	0 S.F.		52,898	20	2004	2024		25.00 %	0.00 %	5			\$74,057
D2030 Sanitary Waste D2040 Rain Water Drainage D3010 Energy Supply D3040 Distribution Systems D3050 Terminal & Package Units D3060 Controls & Instrumentation D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D5020 Branch Wiring D5030810 Security & Detection Systems D5030910 Fire Alarm Systems D5030920 Data Communication E1020 Institutional Equipment	\$6.95	5 S.F.		52,898	20	2004	2024		25.00 %	0.00 %	5			\$367,641
D2040 Rain Water Drainage D3010 Energy Supply D3040 Distribution Systems D3050 Terminal & Package Units D3060 Controls & Instrumentation D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D5020 Branch Wiring D5020 Lighting D5030810 Security & Detection Systems D5030920 Data Communication E1020 Institutional Equipment	\$0.80	0 S.F.		52,898	30	2004	2034		50.00 %	0.00 %	15			\$42,318
D3010 Energy Supply D3040 Distribution Systems D3050 Terminal & Package Units D3060 Controls & Instrumentation D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D5020 Branch Wiring D5020 Lighting D5030810 Security & Detection Systems D5030920 Data Communication E1020 Institutional Equipment	\$1.86	6 S.F.		52,898	30	2004	2034		50.00 %	0.00 %	15			\$98,390
D3040 Distribution Systems D3050 Terminal & Package Units D3060 Controls & Instrumentation D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D5020 Branch Wiring D5020 Lighting D5030810 Security & Detection Systems D5030910 Fire Alarm Systems D5030920 Data Communication E1020 Institutional Equipment	\$0.52	2 S.F.		52,898	20	2004	2024		25.00 %	0.00 %	5			\$27,507
D3040 Distribution Systems  D3050 Terminal & Package Units  D3060 Controls & Instrumentation  D4010 Sprinklers  D4020 Standpipes  D5010 Electrical Service/Distribution  D5020 Branch Wiring  D5020 Lighting  D5030810 Security & Detection Systems  D5030920 Data Communication  E1020 Institutional Equipment	\$0.61	1 S.F.		52,898	30	2004	2034		50.00 %	0.00 %	15			\$32,268
D3050 Terminal & Package Units D3060 Controls & Instrumentation D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D5020 Branch Wiring D5020 Lighting D5030810 Security & Detection Systems D5030910 Fire Alarm Systems D5030920 Data Communication E1020 Institutional Equipment	\$11.67	7 S.F.		52,898	20	2004	2024		25.00 %	0.00 %	5			\$617,320
D3060 Controls & Instrumentation D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D5020 Branch Wiring D5020 Lighting D5030810 Security & Detection Systems D5030910 Fire Alarm Systems D5030920 Data Communication E1020 Institutional Equipment	\$17.88	8 S.F.		52,898	15	2004	2019		0.00 %	110.00 %	0		\$1,040,398.00	\$945,816
D4010 Sprinklers D4020 Standpipes D5010 Electrical Service/Distribution D5020 Branch Wiring D5020 Lighting D5030810 Security & Detection Systems D5030910 Fire Alarm Systems D5030920 Data Communication E1020 Institutional Equipment	\$2,42	2 S.F.		52,898	15	2004	2019		0.00 %	110.00 %	0		\$140,814.00	\$128,013
D4020 Standpipes  D5010 Electrical Service/Distribution  D5020 Branch Wiring  D5020 Lighting  D5030810 Security & Detection Systems  D5030910 Fire Alarm Systems  D5030920 Data Communication  E1020 Institutional Equipment	\$4,48	8 S.F.		52,898	30	2004	2034		50.00 %	0.00 %	15		1 1/1	\$236,983
D5010 Electrical Service/Distribution D5020 Branch Wiring D5020 Lighting D5030810 Security & Detection Systems D5030910 Fire Alarm Systems D5030920 Data Communication E1020 Institutional Equipment		5 S.F.		52,898	30	2004	2034		50.00 %	0.00 %	15			\$18,514
D5020 Branch Wiring D5020 Lighting D5030810 Security & Detection Systems D5030910 Fire Alarm Systems D5030920 Data Communication E1020 Institutional Equipment	· · · · · · · · · · · · · · · · · · ·	5 S.F.		52,898	20	2004	2024		25.00 %	0.00 %	5			\$134,890
D5020 Lighting D5030810 Security & Detection Systems D5030910 Fire Alarm Systems D5030920 Data Communication E1020 Institutional Equipment	\$4.64	_		52,898	20	2004	2024		25.00 %	0.00 %	5			\$245,447
D5030810 Security & Detection Systems D5030910 Fire Alarm Systems D5030920 Data Communication E1020 Institutional Equipment		2 S.F.		52,898	20	2004	2024		25.00 %	0.00 %	5			\$397,793
D5030910 Fire Alarm Systems D5030920 Data Communication E1020 Institutional Equipment	\$1.51			52,898	20	2004	2024		25.00 %	0.00 %	5			\$79,876
D5030920 Data Communication E1020 Institutional Equipment		4 S.F.		52,898	20	2004	2024		25.00 %	0.00 %	5			\$144,941
E1020 Institutional Equipment		6 S.F.		52,898	25	2004	2029		40.00 %	0.00 %	10			\$188,317
		3 S.F.		52,898	20	2004	2024		25.00 %	0.00 %	5			\$6,877
E2010 Fixed Furnishings	· · · · · · · · · · · · · · · · · · ·	2 S.F.		52,898	20	2004	2024		25.00 %	0.00 %	5			\$112,144
	1 42.12			32,030				Total	48.36 %	15.24 %			\$1,469,962,00	\$9,645,428

## **System Notes**

The facility description in the executive summary contains an overview of each system. The system notes listed below provide additional information on select systems found within the facility.

System: B2010 - Exterior Walls

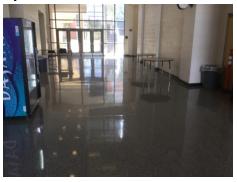






Note:

**System:** B2020 - Exterior Windows







Note:

System: B3010105 - Built-Up







Note:

**System:** B3010120 - Single Ply Membrane







Note:

**System:** B3020 - Roof Openings





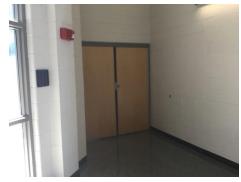


Note:

**System:** C1010 - Partitions





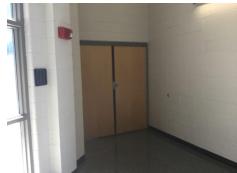


Note:

**System:** C1020 - Interior Doors







Note:

System: C1030 - Fittings







Note:

**System:** C3010220 - Tile







#### Note:

**System:** C3010230 - Paint & Covering







Note:

**System:** C3020420 - Ceramic Tile





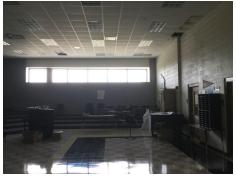


Note:

System: C3020901 - Carpet







Note:

**System:** C3020903 - VCT







Note:

System: C3020999 - Other - Wood







Note:

**System:** C3030 - Ceiling Finishes







Note:

**System:** D1010 - Elevators and Lifts







**System:** D2010 - Plumbing Fixtures







## Note:

**System:** D2020 - Domestic Water Distribution







**System:** D2030 - Sanitary Waste







Note:

**System:** D2040 - Rain Water Drainage







Note:

**System:** D3040 - Distribution Systems







Note:

System: D3050 - Terminal & Package Units





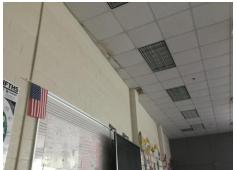
**System:** D3060 - Controls & Instrumentation



## Note:

System: D4010 - Sprinklers







**System:** D4020 - Standpipes





Note:

**System:** D5010 - Electrical Service/Distribution







Note:

**System:** D5020 - Branch Wiring







**System:** D5020 - Lighting







Note:

**System:** D5030 - Communications and Security







Note:

**System:** E1020 - Institutional Equipment

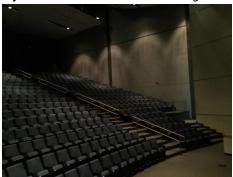






Note:

**System:** E2010 - Fixed Furnishings







# **Renewal Schedule**

eCOMET forecasts future Capital Renewal projects for expiring systems based on the Calculated Next Renewal year found in the System Listing table. There is a 3% yearly inflation factor applied to the system costs expiring in the future. The table below reflects Capital Renewal projects over the next 10 years. Note: Blank cells (or \$0) indicate no systems are scheduled for renewal in that year.

Inflation Rate: 3%

System	Current Deficiencies	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Total:	\$1,469,962	\$0	\$0	\$0	\$77,187	\$3,755,634	\$0	\$0	\$365,780	\$36,617	\$386,825	\$6,092,005
* A - Substructure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* A10 - Foundations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* A1010 - Standard Foundations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* A1030 - Slab on Grade	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B - Shell	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B10 - Superstructure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* B1010 - Floor Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* B1020 - Roof Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B20 - Exterior Enclosure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* B2010 - Exterior Walls	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B2020 - Exterior Windows	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B2030 - Exterior Doors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B30 - Roofing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B3010 - Roof Coverings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B3010105 - Built-Up	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$36,617	\$0	\$36,617
B3010120 - Single Ply Membrane	\$0	\$0	\$0	\$0	\$77,187	\$0	\$0	\$0	\$0	\$0	\$0	\$77,187
B3020 - Roof Openings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C - Interiors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C10 - Interior Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C1010 - Partitions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C1020 - Interior Doors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C1030 - Fittings	\$0	\$0	\$0	\$0	\$0	\$196,295	\$0	\$0	\$0	\$0	\$0	\$196,295
C20 - Stairs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
* C2010 - Stair Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C30 - Interior Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

System	Current Deficiencies	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
C3010 - Wall Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3010220 - Tile	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3010230 - Paint & Covering	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$108,434	\$108,434
C3020 - Floor Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020420 - Ceramic Tile	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020901 - Carpet	\$288,750	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$365,780	\$0	\$0	\$654,530
C3020903 - VCT	\$0	\$0	\$0	\$0	\$0	\$80,653	\$0	\$0	\$0	\$0	\$0	\$80,653
C3020999 - Other - Wood	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3030 - Ceiling Finishes	\$0	\$0	\$0	\$0	\$0	\$662,414	\$0	\$0	\$0	\$0	\$0	\$662,414
D - Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D10 - Conveying	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D1010 - Elevators and Lifts	\$0	\$0	\$0	\$0	\$0	\$94,438	\$0	\$0	\$0	\$0	\$0	\$94,438
D20 - Plumbing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2010 - Plumbing Fixtures	\$0	\$0	\$0	\$0	\$0	\$468,816	\$0	\$0	\$0	\$0	\$0	\$468,816
D2020 - Domestic Water Distribution	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2030 - Sanitary Waste	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2040 - Rain Water Drainage	\$0	\$0	\$0	\$0	\$0	\$35,077	\$0	\$0	\$0	\$0	\$0	\$35,077
D30 - HVAC	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3010 - Energy Supply	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3040 - Distribution Systems	\$0	\$0	\$0	\$0	\$0	\$787,207	\$0	\$0	\$0	\$0	\$0	\$787,207
D3050 - Terminal & Package Units	\$1,040,398	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,040,398
D3060 - Controls & Instrumentation	\$140,814	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$140,814
D40 - Fire Protection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D4010 - Sprinklers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D4020 - Standpipes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D50 - Electrical	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D5010 - Electrical Service/Distribution	\$0	\$0	\$0	\$0	\$0	\$172,012	\$0	\$0	\$0	\$0	\$0	\$172,012
D5020 - Branch Wiring	\$0	\$0	\$0	\$0	\$0	\$312,994	\$0	\$0	\$0	\$0	\$0	\$312,994
D5020 - Lighting	\$0	\$0	\$0	\$0	\$0	\$507,266	\$0	\$0	\$0	\$0	\$0	\$507,266
D5030 - Communications and Security	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D5030810 - Security & Detection Systems	\$0	\$0	\$0	\$0	\$0	\$101,858	\$0	\$0	\$0	\$0	\$0	\$101,858
D5030910 - Fire Alarm Systems	\$0	\$0	\$0	\$0	\$0	\$184,829	\$0	\$0	\$0	\$0	\$0	\$184,829

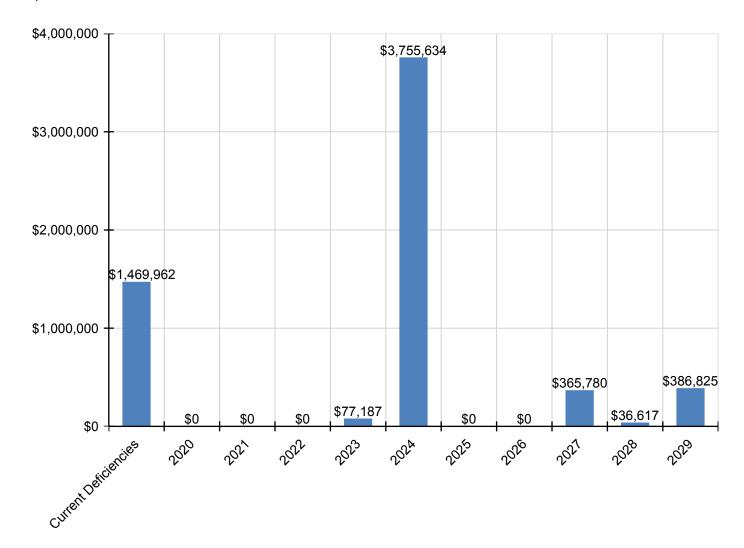
# School Assessment Report - 2004 Bldg 503.2

System	Current Deficiencies	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
D5030920 - Data Communication	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$278,391	\$278,391
E - Equipment & Furnishings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E10 - Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E1020 - Institutional Equipment	\$0	\$0	\$0	\$0	\$0	\$8,769	\$0	\$0	\$0	\$0	\$0	\$8,769
E20 - Furnishings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E2010 - Fixed Furnishings	\$0	\$0	\$0	\$0	\$0	\$143,006	\$0	\$0	\$0	\$0	\$0	\$143,006

<sup>\*</sup> Indicates non-renewable system

# **Forecasted Capital Renewal Requirement**

The following chart shows the current building deficiencies and forecasted capital renewal (sustainment) requirements over the next ten years.



# **Condition Index Forecast by Investment Scenario**

The chart below illustrates the effect of various investment levels on the building FCI for the next 10 years. The levels of investment shown below include:

- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value of the building, escalated for inflation

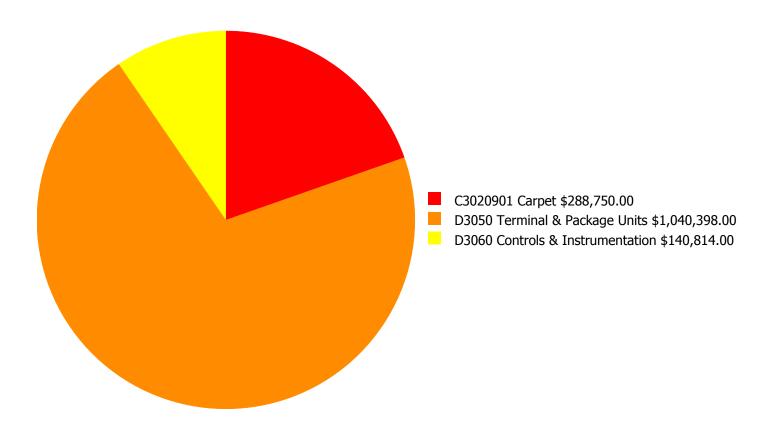
# **Facility Investment vs. FCI Forecast** \$4,000,000 50.0 % 40.0 % \$3,000,000 30.0 % Investment Amount \$2,000,000 20.0 % \$1,000,000 10.0 % \$0 0.0 % 2020 2021 2023 2025 2027 2022 2024 2026 2028 2029 -10.0 %

	Investment Amount	2% Investmen	nt	4% Investment			
Year	Current FCI - 15.24%	Amount	FCI	Amount	FCI		
2020	\$0	\$198,696.00	13.24 %	\$397,392.00	11.24 %		
2021	\$0	\$204,657.00	11.24 %	\$409,313.00	7.24 %		
2022	\$0	\$210,796.00	9.24 %	\$421,593.00	3.24 %		
2023	\$77,187	\$217,120.00	7.95 %	\$434,241.00	-0.05 %		
2024	\$3,755,634	\$223,634.00	39.54 %	\$447,268.00	29.54 %		
2025	\$0	\$230,343.00	37.54 %	\$460,686.00	25.54 %		
2026	\$0	\$237,253.00	35.54 %	\$474,506.00	21.54 %		
2027	\$365,780	\$244,371.00	36.53 %	\$488,742.00	20.53 %		
2028	\$36,617	\$251,702.00	34.82 %	\$503,404.00	16.82 %		
2029	\$386,825	\$259,253.00	35.81 %	\$518,506.00	15.81 %		
Total:	\$4,622,043	\$2,277,825.00		\$4,555,651.00			

Current Investment Amount/FCI 2% Investment Amount/FCI 4% Investment Amount/FCI

# **Deficiency Summary by System**

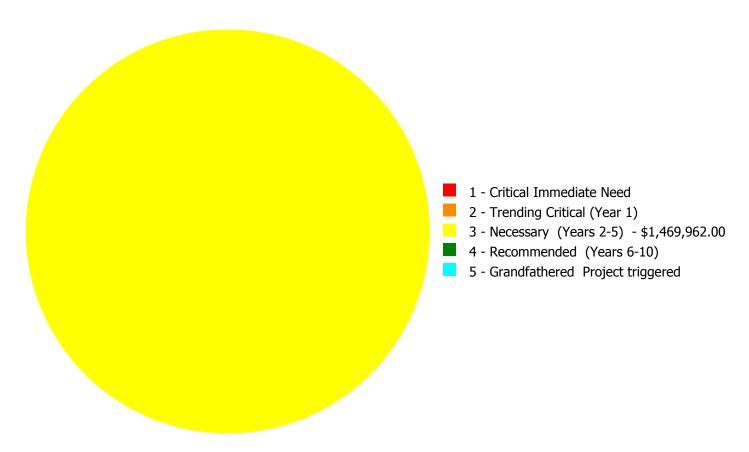
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart lists all current deficiencies associated with this facility.



**Budget Estimate Total: \$1,469,962.00** 

# **Deficiency Summary by Priority**

The following chart shows the total repair costs broken down by priority. Assessors assigned deficiencies within eCOMET to one of the following priority categories:



**Budget Estimate Total: \$1,469,962.00** 

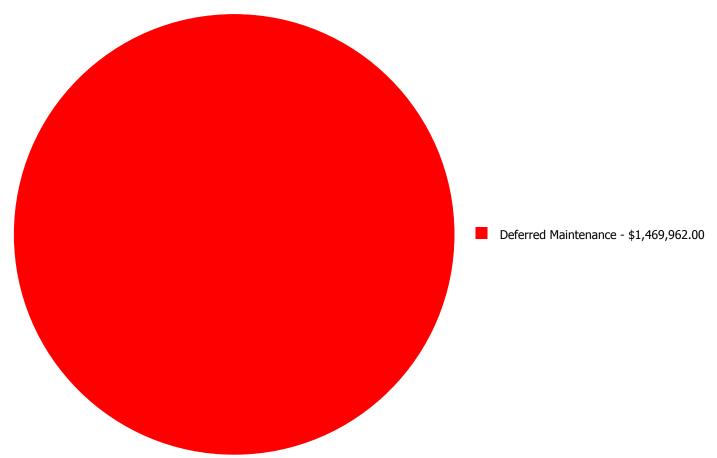
# **Deficiency By Priority Investment Table**

The table below shows the current investment cost grouped by deficiency priority and building system.

System Code	System Description	1 - Critical Immediate Need	2 - Trending Critical (Year 1)	3 - Necessary (Years 2-5)	4 - Recommended (Years 6-10)	5 - Grandfathered Project triggered	Total
C3020901	Carpet	\$0.00	\$0.00	\$288,750.00	\$0.00	\$0.00	\$288,750.00
D3050	Terminal & Package Units	\$0.00	\$0.00	\$1,040,398.00	\$0.00	\$0.00	\$1,040,398.00
D3060	Controls & Instrumentation	\$0.00	\$0.00	\$140,814.00	\$0.00	\$0.00	\$140,814.00
	Total:	\$0.00	\$0.00	\$1,469,962.00	\$0.00	\$0.00	\$1,469,962.00

# **Deficiency Summary by Category**

The following chart shows the total repair costs broken down by deficiency categories. Assessors assigned deficiencies to one of the following categories:



**Budget Estimate Total: \$1,469,962.00** 

## **Deficiency Details by Priority**

The deficiency detail notes listed below provide additional information on identified deficiencies found within the facility.

#### **Priority 3 - Necessary (Years 2-5):**

System: C3020901 - Carpet



**Location:** Auditorium

**Distress:** Beyond Expected Life **Category:** Deferred Maintenance **Priority:** 3 - Necessary (Years 2-5)

**Correction:** Renew System

**Qty:** 35,000.00

Unit of Measure: S.F.

**Estimate:** \$288,750.00

**Assessor Name:** Jejuan Hall **Date Created:** 10/30/2019

**Notes:** The carpet finish in the auditorium is a high traffic application and is warn in several areas. The carpet is recommended for upgrade to a suitable yet durable high traffic application.

### System: D3050 - Terminal & Package Units



Location: Roof

**Distress:** Beyond Expected Life **Category:** Deferred Maintenance **Priority:** 3 - Necessary (Years 2-5)

**Correction:** Renew System

**Qty:** 52,898.00

**Unit of Measure:** S.F.

Assessor Name: Jejuan Hall
Date Created: 10/01/2019

**Notes:** The terminal and package units are nearing the end of their useful life. The system is functional however upgrades are warranted.

#### System: D3060 - Controls & Instrumentation



Location: Throughout building
 Distress: Beyond Expected Life
 Category: Deferred Maintenance
 Priority: 3 - Necessary (Years 2-5)

**Correction:** Renew System

**Qty:** 52,898.00

**Unit of Measure:** S.F.

**Estimate:** \$140,814.00

**Assessor Name:** Jejuan Hall **Date Created:** 10/01/2019

**Notes:** The controls as well as the building automation systems are original. Several issues have surfaced over recent years and isolated upgrades have taken place to support the systems However, this system is nearing the end of its expected life cycle and upgrades are warranted. This deficiency provides a budgetary consideration for a universal upgrade.

## **Executive Summary**

The condition of a Campus is the accumulation of the condition evaluations of the component buildings and the site. Building condition is evaluated based on the functional systems and elements of a building and organized according to the **UNIFORMAT II Elemental Classification**. eCOMET uses parametric estimating methodology whereby historical costs for systems, components and equipment are collected by entities such as RSMeans and converted to unit costs, typically \$/SF, and used to approximate future construction costs or replacement values. The grouping of these systems and elements and applying a current replacement value to them develops a representative building cost model. Cost Models are developed for similar building types and functions. Systems and their elements are evaluated based on their current replacement values, life cycles, installation dates and next renewal dates. Systems and their elements that are within their useful lives are further evaluated to identify current deficient conditions that may have a significant impact on a system's or element's remaining service life, and to determine if they are beyond their predicted expected life. The system's or element's current replacement value is based on RS Means Commercial Cost Data.

Following are the cost model's system details for this facility. The Current Replacement Value (CRV) is the amount needed to replace the property of the same present scope. The Repair Cost (the sum of the cost to repair/replace the Deficiencies) represents the budgeted contractor-installed costs plus owner's soft costs for the repair, replacement or renewal for a component or system level deficiency. It excludes contributing costs for other components or systems that might also be associated with the corrective actions due to packaging of the work. Facility Condition Index (FCI) is an industry-standard measurement of facility condition calculated as the ratio of the costs to correct a facility's deficiencies (Condition Needs) to the facility's Current Replacement Value. It ranges from 0% (new) to 100% (very poor - beyond service life). The **Remaining Service Life Index (RSLI)** is calculated as the sum of a renewable system's Remaining Service Life (RSL) divided by the sum of a system's Replacement Value (both values exclude softcost to simplify calculation updates) expressed as a percentage ranging from 100% (new) to 0% (expired). The relationship between the key metrics FCI and RSLI is an important indicator, at either the facility, building, system, or component levels, of the condition trend and the imminent need for capital renewal. These indices exist in an inverse relationship wherein the FCI increases when systems reach their expected life-cycle age, whereas the RSLI decreases annually indicating the relative time remaining before reaching the life-cycle expiration age. For example, a facility or a system with a high RSLI and a low FCI indicates it is in the early portion of its useful life. However, a low RSLI indicates that expiration dates are approaching at which point the FCI would increase. The term **FCA Score** is the inverse of Total FCI and calculated as 100-Total FCI (without the %) where 100 is best and 0 is worst condition.

Function:

 Gross Area (SF):
 336,101

 Year Built:
 1968

 Last Renovation:
 \$12,529,844

 Replacement Value:
 \$12,529,844

 Repair Cost:
 \$232,320.18

 Total FCI:
 1.85 %

 Total RSLI:
 79.75 %

 FCA Score:
 98.15



#### **Description:**

The narrative for this site is included in the Executive Summary Description at the front of this report.

**Attributes:** This asset has no attributes.

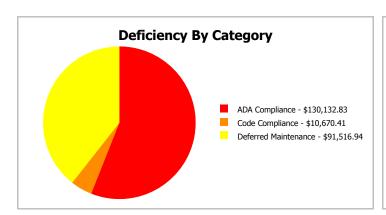
# **Dashboard Summary**

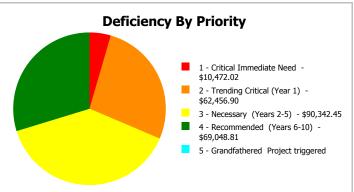
Function: Gross Area: 336,101

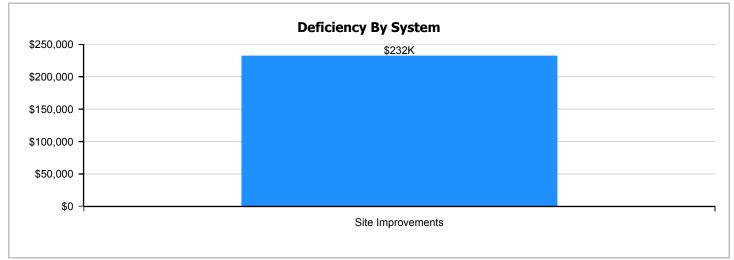
Year Built: 1968 Last Renovation:

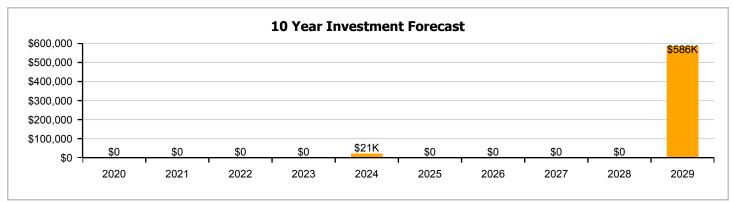
 Repair Cost:
 \$232,320
 Replacement Value:
 \$12,529,844

 FCI:
 1.85 %
 RSLI%:
 79.75 %









# **Condition Summary**

The Table below shows the RSLI and FCI for each major building system shown at the UNIFORMAT II classification Level 2. Note that Systems with lower FCIs require less investment than systems with higher FCIs.

UNIFORMAT Classification	RSLI %	FCI %	Current Repair Cost
G20 - Site Improvements	76.13 %	2.67 %	\$232,320.18
G30 - Site Mechanical Utilities	70.00 %	0.00 %	\$0.00
G40 - Site Electrical Utilities	100.00 %	0.00 %	\$0.00
Totals:	79.75 %	1.85 %	\$232,320.18

# **Photo Album**

The photo album consists of the various cardinal compass directions of the building..

1). Site - Oct 29, 2019



## **Condition Detail**

This section of the report contains results of the Facility Condition Assessment. The building is separated into system components based on UNIFORMAT II. The columns in the System Listing table represent the following:

- 1. System Code: A code that identifies the system.
- 2. System Description: A brief description of a system present in the building.
- 3. Unit Price \$: The unit price of the system.
- 4. UoM: The unit of measure of the system.
- 5. Qty: The quantity for the system
- 6. Life: Building Owners and Managers Association (BOMA) recommended system design life.
- 7. Year Installed: The date of system installation.
- 8. Calc Next Renewal Year: The date of system expiration based on the life, NR stands for non renewable.
- 9. Next Renewal Year: The suggested system expiration date by the assessor based on visual inspection.
- 10. RSLI: The Remaining Service Life Index of the system.
- 11. FCI: The Facility Condition Index of the system.
- 12. RSL: Remaining Service Life in years.
- 13. eCR: eCOMET Condition Rating (not used in this assessment)
- 14. Deficiency \$: The financial investment to repair/replace system to address deficiency.
- 15. Replacement Value \$: The replacement cost of the system as new construction.

# **System Listing**

The System Listing table below lists each of the systems organized by their UNIFORMAT II classification. The assessment team was tasked with recording the most recent replacement year of each system, determining the remaining service life based on the theoretical life, and evaluating the condition to confirm the forecast next replacement year. The system listing is the basis for all data contained in the Building Assessment Report.

System Code	System Description	Unit Price \$	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency \$	Replacement Value \$
G2010	Roadways	\$2.37	S.F.	336,101	35	2004	2039		57.14 %	1.31 %	20		\$10,472.02	\$796,559
G2020	Parking Lots	\$8.00	S.F.	336,101	35	2004	2039		57.14 %	2.57 %	20		\$69,048.81	\$2,688,808
G2030	Pedestrian Paving	\$2.33	S.F.	336,101	35	2004	2039		57.14 %	16.62 %	20		\$130,132.83	\$783,115
G2040950	Other Site Development	\$0.05	S.F.	336,101	20	2004	2024		25.00 %	134.88 %	5		\$22,666.52	\$16,805
G2040950	Other Site Development, Baseball Field	\$5.45	S.F.	336,101	20	2019	2039		100.00 %	0.00 %	20			\$1,831,750
G2040950	Other Site Development, Football	\$3.18	S.F.	336,101	20	2019	2039		100.00 %	0.00 %	20			\$1,068,801
G2040950	Other Site Development, Tennis Courts	\$1.69	S.F.	336,101	20	2019	2039		100.00 %	0.00 %	20			\$568,011
G2040950	Other Site Development, Track	\$1.68	S.F.	336,101	20	2019	2039		100.00 %	0.00 %	20			\$564,650
G2050	Landscaping	\$1.18	S.F.	336,101	25	2004	2029		40.00 %	0.00 %	10			\$396,599
G3010	Water Supply	\$1.09	S.F.	336,101	50	2004	2054		70.00 %	0.00 %	35			\$366,350
G3020	Sanitary Sewer	\$2.20	S.F.	336,101	50	2004	2054		70.00 %	0.00 %	35			\$739,422
G3030	Storm Sewer	\$1.25	S.F.	336,101	50	2004	2054		70.00 %	0.00 %	35			\$420,126
G4010	Electrical Distribution	\$2.55	S.F.	336,101	30	2019	2049		100.00 %	0.00 %	30			\$857,058
G4020	Site Lighting	\$2.98	S.F.	336,101	30	2019	2049		100.00 %	0.00 %	30			\$1,001,581
G4030	Site Communication and Security	\$1.28	S.F.	336,101	30	2019	2049		100.00 %	0.00 %	30			\$430,209
					•	•		Total	79.75 %	1.85 %		_	\$232,320.18	\$12,529,844

# **System Notes**

The facility description in the executive summary contains an overview of each system. The system notes listed below provide additional information on select systems found within the facility.

System: G2010 - Roadways







Note:

**System:** G2020 - Parking Lots

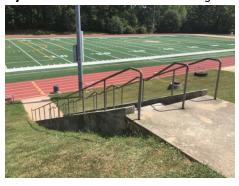






Note:

System: G2030 - Pedestrian Paving







Note:

# School Assessment Report - Site

**System:** G2040950 - Other Site Development







## Note:

System: G2040950 - Other Site Development, Baseball Field



## Note:

**System:** G2040950 - Other Site Development, Football







**System:** G2040950 - Other Site Development, Tennis Courts

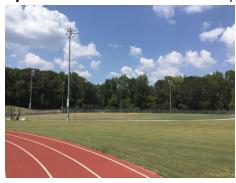






Note:

**System:** G2040950 - Other Site Development, Track







Note:

**System:** G2050 - Landscaping







Note:

**System:** G3010 - Water Supply







Note:

**System:** G3020 - Sanitary Sewer







Note:

**System:** G3030 - Storm Sewer







Note:

# School Assessment Report - Site

**System:** G4010 - Electrical Distribution







Note:

**System:** G4020 - Site Lighting







Note:

**System:** G4030 - Site Communication and Security







Note:

# **Renewal Schedule**

eCOMET forecasts future Capital Renewal projects for expiring systems based on the Calculated Next Renewal year found in the System Listing table. There is a 3% yearly inflation factor applied to the system costs expiring in the future. The table below reflects Capital Renewal projects over the next 10 years. Note: Blank cells (or \$0) indicate no systems are scheduled for renewal in that year.

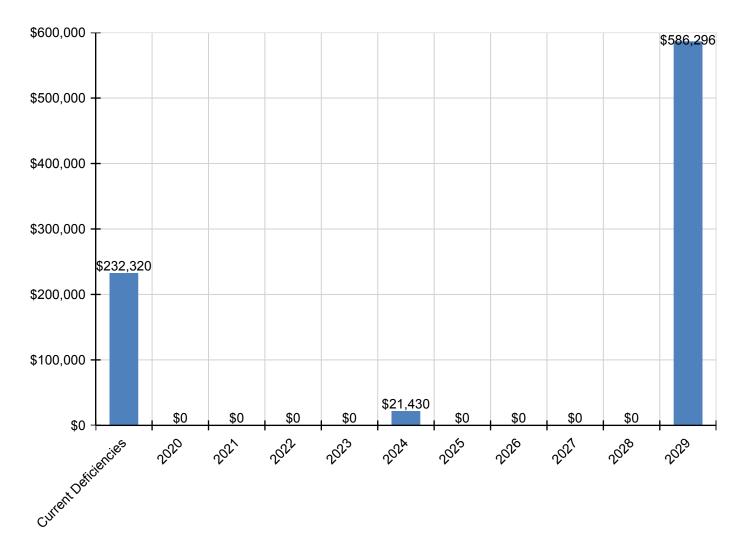
Inflation Rate: 3%

System	Current Deficiencies	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Total:	\$232,320	\$0	\$0	\$0	\$0	\$21,430	\$0	\$0	\$0	\$0	\$586,296	\$840,046
G - Building Sitework	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G20 - Site Improvements	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G2010 - Roadways	\$10,472	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,472
G2020 - Parking Lots	\$69,049	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$69,049
G2030 - Pedestrian Paving	\$130,133	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$130,133
G2040 - Site Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G2040950 - Other Site Development	\$22,667	\$0	\$0	\$0	\$0	\$21,430	\$0	\$0	\$0	\$0	\$0	\$44,097
G2040950 - Other Site Development, Baseball Field	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G2040950 - Other Site Development, Football	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G2040950 - Other Site Development, Tennis Courts	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G2040950 - Other Site Development, Track	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G2050 - Landscaping	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$586,296	\$586,296
G30 - Site Mechanical Utilities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G3010 - Water Supply	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G3020 - Sanitary Sewer	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G3030 - Storm Sewer	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G40 - Site Electrical Utilities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G4010 - Electrical Distribution	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G4020 - Site Lighting	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G4030 - Site Communication and Security	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

<sup>\*</sup> Indicates non-renewable system

# **Forecasted Capital Renewal Requirement**

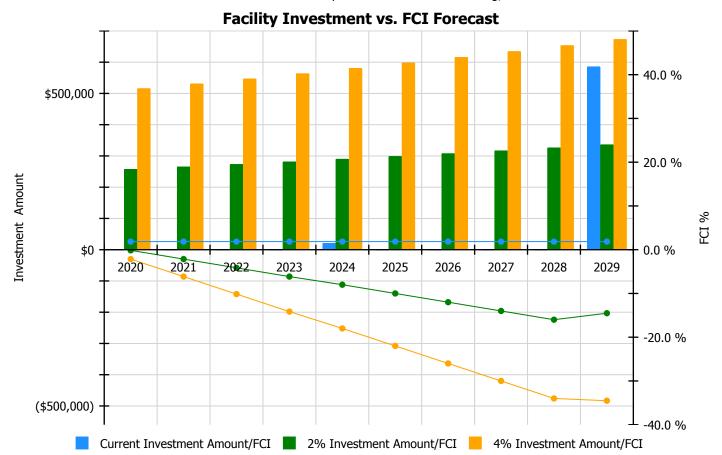
The following chart shows the current building deficiencies and forecasted capital renewal (sustainment) requirements over the next ten years.



# **Condition Index Forecast by Investment Scenario**

The chart below illustrates the effect of various investment levels on the building FCI for the next 10 years. The levels of investment shown below include:

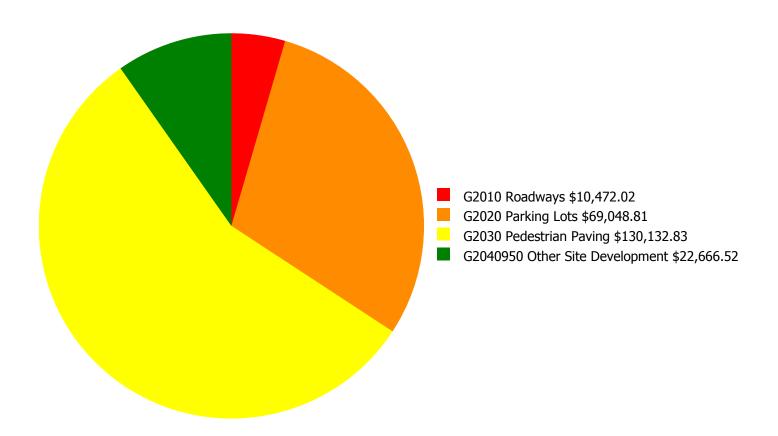
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value of the building, escalated for inflation



	Investment Amount	2% Investm	ent	4% Investment			
Year	Current FCI - 1.85%	Amount	FCI	Amount	FCI		
2020	\$0	\$258,115.00	-0.15 %	\$516,230.00	-2.15 %		
2021	\$0	\$265,858.00	-2.15 %	\$531,716.00	-6.15 %		
2022	\$0	\$273,834.00	-4.15 %	\$547,668.00	-10.15 %		
2023	\$0	\$282,049.00	-6.15 %	\$564,098.00	-14.15 %		
2024	\$21,430	\$290,510.00	-8.00 %	\$581,021.00	-18.00 %		
2025	\$0	\$299,226.00	-10.00 %	\$598,452.00	-22.00 %		
2026	\$0	\$308,203.00	-12.00 %	\$616,405.00	-26.00 %		
2027	\$0	\$317,449.00	-14.00 %	\$634,897.00	-30.00 %		
2028	\$0	\$326,972.00	-16.00 %	\$653,944.00	-34.00 %		
2029	\$586,296	\$336,781.00	-14.52 %	\$673,563.00	-34.52 %		
Total:	\$607,726	\$2,958,997.00		\$5,917,994.00			

# **Deficiency Summary by System**

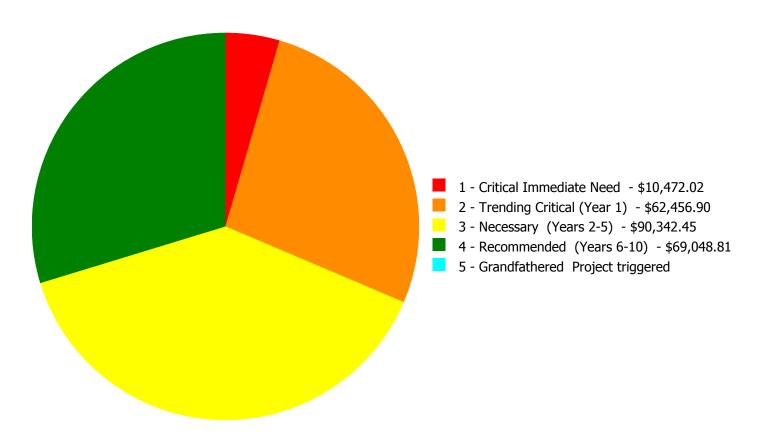
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart lists all current deficiencies associated with this facility.



**Budget Estimate Total: \$232,320.18** 

# **Deficiency Summary by Priority**

The following chart shows the total repair costs broken down by priority. Assessors assigned deficiencies within eCOMET to one of the following priority categories:



**Budget Estimate Total: \$232,320.18** 

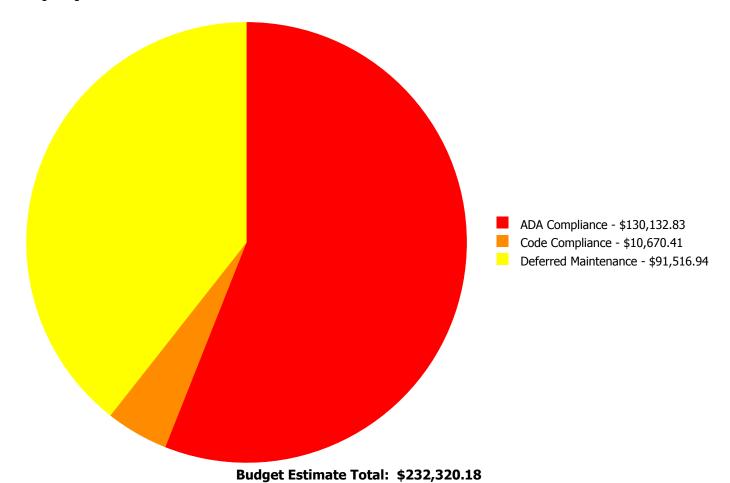
# **Deficiency By Priority Investment Table**

The table below shows the current investment cost grouped by deficiency priority and building system.

System Code	System Description	1 - Critical Immediate Need	2 - Trending Critical (Year 1)	3 - Necessary (Years 2-5)	4 - Recommended (Years 6-10)	5 - Grandfathered Project triggered	Total
G2010	Roadways	\$10,472.02	\$0.00	\$0.00	\$0.00	\$0.00	\$10,472.02
G2020	Parking Lots	\$0.00	\$0.00	\$0.00	\$69,048.81	\$0.00	\$69,048.81
G2030	Pedestrian Paving	\$0.00	\$50,460.79	\$79,672.04	\$0.00	\$0.00	\$130,132.83
G2040950	Other Site Development	\$0.00	\$11,996.11	\$10,670.41	\$0.00	\$0.00	\$22,666.52
	Total:	\$10,472.02	\$62,456.90	\$90,342.45	\$69,048.81	\$0.00	\$232,320.18

# **Deficiency Summary by Category**

The following chart shows the total repair costs broken down by deficiency categories. Assessors assigned deficiencies to one of the following categories:



# **Deficiency Details by Priority**

The deficiency detail notes listed below provide additional information on identified deficiencies found within the facility.

#### **Priority 1 - Critical Immediate Need:**

System: G2010 - Roadways



**Location:** Parking Lot **Distress:** Damaged

**Category:** Deferred Maintenance **Priority:** 1 - Critical Immediate Need

**Correction:** Remove and replace concrete curb or berm

**Qty:** 200.00

**Unit of Measure:** L.F.

**Estimate:** \$10,472.02

**Assessor Name:** Hayden Collins **Date Created:** 10/29/2019

**Notes:** The schools turnabout and roadway area has approved curb cuts for access to the sidewalks that lead to the main entrance. However, the curbs are damaged, the high traffic conditions associated with school bus and general traffic has taken its toll on the surface. This project provides a budgetary consideration for a roadway curb renewal program.

# Priority 2 - Trending Critical (Year 1):

#### System: G2030 - Pedestrian Paving



**Location:** Sports Access Sidewalks and Stairs

**Distress:** Inadequate **Category:** ADA Compliance

**Priority:** 2 - Trending Critical (Year 1)**Correction:** Add handicap ramp with railings

**Qty:** 100.00

**Unit of Measure:** L.F.

**Estimate:** \$50,460.79

Assessor Name: Hayden Collins

**Date Created:** 10/29/2019

**Notes:** Current legislation related to accessibility requires that access be equitable. The school sports complex is limited by several sets of concrete stairs and moderate elevation changes between the access point and general seating. To comply with the intent of this legislation, it is recommended that a new handrails and guard rails be installed on the existing stair systems.

#### System: G2040950 - Other Site Development



**Location:** Loading dock **Distress:** Damaged

Category: Deferred Maintenance Priority: 2 - Trending Critical (Year 1)

**Correction:** Repair damaged concrete surfaces

**Qty:** 30.00

**Unit of Measure:** S.Y.

**Estimate:** \$11,996.11 **Assessor Name:** Hayden Collins **Date Created:** 10/29/2019

**Notes:** The concrete drive and parking lot adjacent to the buildings loading dock is beyond its service life and damaged. The concrete drive is recommended for universal upgrade including removal and replacement of the existing damaged areas.

#### Priority 3 - Necessary (Years 2-5):

#### System: G2030 - Pedestrian Paving



**Location:** Sports Complex Public Seating Area

**Distress:** Inadequate **Category:** ADA Compliance

**Priority:** 3 - Necessary (Years 2-5)

Correction: Install an exterior ADA ramp - based on 5' wide

by linear foot - up to 84" rise - per LF of ramp -

figure 1LF of ramp per inch of rise

**Qty:** 60.00

**Unit of Measure:** L.F.

**Estimate:** \$79,672.04

**Assessor Name:** Hayden Collins **Date Created:** 10/29/2019

**Notes:** The sports complex is not accessible. Construct an ADA compliance ramp to provide access to wheelchairs and walkers. Construction of this ramp should be built following ADA guidelines providing a safe and reliable and equitable access. This deficiency provides a budgetary consideration for an ADA approved ramp and all the components associated to meet the minimum requirements for general access to the public area of the sports complex.

#### System: G2040950 - Other Site Development



**Location:** Loading dock **Distress:** Missing

**Category:** Code Compliance

**Priority:** 3 - Necessary (Years 2-5)

**Correction:** Build secure trash dumpster enclosure

**Qty:** 1.00

Unit of Measure: Ea.

**Estimate:** \$10,670.41 **Assessor Name:** Hayden Collins

**Date Created:** 10/30/2019

**Notes:** The trash dumpster is in the parking lot open to the public. The exterior services are not protected. Upgrades to landscaping and hardscape to protect the exterior services and trash area are recommended.

#### **Priority 4 - Recommended (Years 6-10):**

#### System: G2020 - Parking Lots



**Location:** Parking lot **Distress:** Failing

Category: Deferred Maintenance

**Priority:** 4 - Recommended (Years 6-10) **Correction:** Parking lot repair and resurface

**Qty:** 1.00

**Unit of Measure:** S.Y.

**Estimate:** \$69,048.81

**Assessor Name:** Hayden Collins

**Date Created:** 10/29/2019

**Notes:** The asphalt parking area has a handicap parking space and curb cuts for access that lead to the main entrance. The parking area is damaged and should be repaired and resealed to extend its service life. Repairs should include all aspects of the current ADA legislation.

#### **Glossary**

Abandoned A facility owned by the city that is not occupied and not maintained. See Vacant.

Additional Cost Total project cost is composed of hard and soft costs. Additional costs or soft expenses are costs

that are necessary to accomplish the corrective work but are not directly attributable to the deficient systems direct construction cost, which are often referred to as hard cost. The components included in the soft costs vary by owner but usually include architect and contractor fees, contingencies and other owner-incurred costs necessary to fully develop and build a facility. These soft cost factors can be adjusted anytime within the eCOMET database at the owner's

discretion.

Assessment Visual survey of a facility to determine its condition. It involves looking at the age of systems,

reviewing information from local sources and visual evidence of potential problems to assign a condition rating. It does not include destructive testing of materials or testing of systems or

equipment for functionality.

ASTM ASTM International (ASTM): Originally known as the American Society for Testing and Materials,

ASTM is an international standards organization that develops and publishes voluntary consensus

technical standards for a wide range of materials, products, systems, and services.

BOMA Building Owners Managers of America (BOMA): National organization of public and private facility

owners focused on building management tools and maintenance techniques. eCOMET®

reference: Building and component system effective economic life expectancies.

Building A fully enclosed and roofed structure that can be traversed internally without exiting to the

exterior.

Building Addition An area, space or component of a building added to a building after the original building's year

built date. NOTE: As a convention in the database, "Main" was used to designate the original building. Additions built prior to 1987 (30 years) were included in the main building area calculations to reflect their predicted system depreciation characteristics and remaining service

life.

Building Systems eCOMET® uses UNIFORMAT II to organize building data. UNIFORMAT II was originally developed

by the federal General Services Administration to delineate building costs by systems rather than by material. UNIFORMAT II was formalized by an NIST standard, NISTIR 6389 in 1999. It has been further quantified and updated by ASTM standard 2005, E1557-05. The Construction Specifications Institute, CSI, has taken over the standard as part of their MasterFormat /

MasterSpec system.

Calculated Next Renewal The year a system or building element would be expected to expire based solely on the date it

was installed and the expected useful lifetime for that kind of system.

Capital Renewal Capital renewal refers to the cyclical replacement of building systems or elements as they become

obsolete or beyond their useful life. It is not normally included in an annual operating/maintenance budget. See calculated next renewal and next renewal.

City Cost Index (CCI) RS Means provides building system, equipment, and construction costs at a national level. The

City Cost Index (also provided by RS Means) localizes those costs to a geographic region of the United States. In eCOMET®, each building or site is assigned a City Cost Index, which adjusts all

of the associated costs for systems, deficiencies and inventory to the local value.

Condition Condition refers to the state of physical fitness or readiness of a facility system or system element

for its intended use.

Condition Budget The Condition Budget, also known as Condition Needs, represents the budgeted contractor

installed costs plus owner's soft costs for the repair, replacement or renewal for a component or system level deficiency. It excludes contributing costs for other components or systems that might

also be associated with the corrective actions due to packaging the work.

Condition Index (CI) %

The Condition Index (CI) also known as the Remaining Service Life Index (RSLI) is calculated as the sum of a renewable system's Remaining Service Life (RSL) Value divided by the sum of a system's Replacement Value (both values exclude soft cost to simplify calculation updates) expressed as a percentage ranging from 100.00% (new) to 0.00% (expired - no remaining life).

Correction

Correction refers to an assessor's recommended deficiency repair or replacement action. For any system or element deficiency, there can be multiple and alternative solutions for its repair or replacement. A Correction is user defined and tied to a UNIFORMAT II element, or system it is intended to address. It excludes other peripheral costs that may also be included in the packaging of repair, replacement or renewal improvements that may also be triggered by the deficiency correction.

Cost Model

A cost model is a list of facility systems which could represent the installed systems a given facility. Included in the cost model are standard unit cost estimates, gross areas, life cycles and installed dates. Also represented is the repair cost for deficient systems, replacement values. See eCOMET® cost models.

Criteria

Criteria refer to the set of requirements, guidelines or standards that are assessed and rated to develop a score.

Current Period

The Current Period is the current year plus a user defined number of forward years.

Current Replacement

Value (CRV)

The Current Replacement Value (CRV) of a facility, building or system represents the hypothetical cost of rebuilding or replacing an existing facility under today's codes and construction standards, using its current configuration. It is calculated by multiplying the gross area of the facility by a square foot cost developed in that facility's cost model. Replacement cost includes construction costs and owner's additional or soft costs for fees, permits and other expenses to reflect a total project cost.

**Deferred Maintenance** 

Deferred maintenance is condition work deferred on a planned or unplanned basis to a future budget cycle or postponed until funds are available.

Deficiency

A deficiency is a repair item that is damaged, missing, inadequate or insufficient for an intended purpose.

**Deficiency Category** 

Category refers to the type or class of a user defined deficiency grouping with shared or similar characteristics. Category descriptions include, but are not limited to: Accessibility Code Compliance, Appearance, Building Code Compliance, Deferred Maintenance, Energy, Environmental, Life Safety Code Compliance, and Safety.

**Deficiency Priority** 

Priority refers to a deficiency's urgency for repair as determined by the assessment team. Five typical industry priority settings were used for the assessment: Priority 1 – Currently Critical; Priority 2 – Potentially Critical; Priority 3 – Necessary/Not Yet Critical; Priority 4 – Recommended.

Distress

Distress refers to a user-defined root cause of a deficiency. Distress descriptions are: Beyond Service Life, Damaged, Inadequate, Needs Remediation, and Missing.

eCOMET®

Energy and Condition Management Estimation Technology (eCOMET®) is Parsons proprietary facility asset management software developed to provide facility managers with a state of the art, web-based tool to develop and maintain a comprehensive database of FCA data and information used for facility asset management, maintenance and repair, and capital renewal planning. eCOMET® is used by Parsons and its clients as the primary tool for collecting FCA data, preparing cost estimates, generating individual facility reports and cost estimates, and developing the overall capital renewal program.

eCOMET® Cost Models

eCOMET cost models are derived from RS Means Square Foot Cost Data cost models and these models are used to develop the current replacement value (CRV) and assign life cycle costs to the various systems within a building. Cost models are assigned current costs-per-square-foot to establish replacement values. The Cost models are designed to represent a client specific facility that meets local standards cost trends.

Element Elements are the major components that comprise building systems as defined by UNIFORMAT II.

Expected Life Also referred to as Useful Life, See Useful Life definition.

Facility A facility refers to site(s) building(s) or building addition(s) or combinations thereof that provide a

particular service.

Facility Attributes Customizable eCOMET fields to identify attributes specific to a facility. These fields are part of the

eCOMET database set-up with the owner.

Facility Condition A facility condition assessment (FCA) is a visual inspection of buildings and grounds at a facility to identify and estimate current and future needed repairs or replacements of major systems for

planning and budgeting purposes. It is typically performed for organizations that are tasked with the day to day maintenance, operation, and capital renewal (replacement) of building systems and components of a large inventory of facilities. The primary goal of an FCA is to objectively and quantifiably identify, inspect, and prioritize the repair and replacement needs of the building and ground systems (e.g., roofs, windows, doors, floor finishes, plumbing fixtures, parking lot, and sidewalks) within facilities that have either failed or have surpassed their service life, and to identify and forecast future capital replacement needs for systems that have not yet failed, but planned replacement of those systems is needed to ensure that the facilities will continue to meet

the mission of the organization.

Facility Condition Index

(FCI%)

FCI is an industry-standard measurement of a facility's condition that is the ratio of the cost to correct a facility's deficiencies to the Current Replacement Value of the facilities. The higher the FCI the poorer the condition of a facility. After an FCI is established for all buildings within a portfolio a building's condition can be ranked relative to other buildings. The FCI may also represent the condition of a portfolio based on the cumulative FCIs of the portfolio's facilities.

Forecast Period The Forecast Period refers to a user defined number of years forward of the Current Period.

Gen (Generate) The Cost Model has a Gen box for each system line item. By checking the box, eCOMET will

The Cost Model has a Gen box for each system line item. By checking the box, eCOMET will generate life cycle deficiencies based on the Year Installed and the Life for that system. Systems that typically do not re-generate (foundations, floor construction, roof construction, basement walls, etc.) would not have the Gen box checked as those systems would not re-generate at the end of a life cycle. In those instances, it would be more practical and cost effective to demolish

the entire facility than re-new those systems.

Gross Square Feet (GSF) The size of the enclosed floor space of a building in square feet measured to the outside face of

the enclosing wall.

Life Cycle Life cycle refers to the period of time that a building or site system or element can be expected to

adequately serve its intended function. Parsons assigns expected life cycles to all building systems

based on Building Operators and Managers of America (BOMA) recommended life cycles,

manufacturers suggested life, and RS Means cost data, and client-provided historical data. BOMA standards are a nationally recognized source of life cycle data for various components and/or systems associated with facilities. RS Means is a national company specializing in construction

estimating and costs.

Next Renewal Next Renewal refers to a manually-adjusted expected useful life of a system or element based on

on-site inspection either by reducing or extending the Calculated Next Renewal to more accurately

reflect current conditions.

Order of Magnitude Order of Magnitude refers to a rough approximation made with a degree of knowledge and

confidence that the budgeted, projected or estimated cost falls within a reasonable range of cost

values.

Remaining Service Life

(RSL)

RSL is the number of years service remaining for a system or equipment item. It is automatically calculated based on the difference between the current year and the 'Calculated Next Renewal'

date or the 'Next Renewal' date whichever one is the later date.

Remaining Service Life Index (RSLI)

The Remaining Service Life Index (RSLI), also known as the Condition Index (CI), is calculated as the sum of a renewable system's or component's Remaining Service Life (RSL) Value divided by the sum of a system's or component's Replacement Value (both values exclude softcost to simplify calculation updates) expressed as a percentage ranging from 100.00% (new) to 0.00% (expired - no remaining service life).

Remaining Service Life

Value

Remaining Service Life Value, also known as the RSL Weight, is a calculated value used to determine the RSLI and is equal to the system Value (Unit Cost \* Qty) \* RSL (not displayed).

Renewal Factors

Renewal factors represent the difference in cost of renovating or replacing an existing system, rather than new construction of a building system. For example, installing a new built-up roof on an existing building would include removing and disposing of the old roof, a cost not associated with new construction. Using a renewal premium to account for demolition and other difficulty costs, Parsons typically assigns a renewal factor of 110%.

Renewal Schedule

A timeline that provides the items that need repair the year in which the repair is needed and the estimated price of the renewal.

Repair Cost

Repair cost is the sum of all the deficiencies associated with a building or multiple buildings/facilities. It will include any applied soft costs or City Cost Indexes.

Replacement Value

See Current Replacement Value.

Site

A facility's grounds and its utilities, roadways, landscaping, fencing and other typical land improvements needed to support a facility.

Soft Costs

Soft Costs are a construction industry term that refers to expense items that are not considered direct construction costs. Soft costs are user-defined and include architectural, engineering, management, testing, and mitigation fees, and other owner pre- and post-construction expenses.

Sustainability

Sustainability refers to the collection of policies and strategies that meet society's present needs without compromising the ability of future generations to meet their own needs.

System

System refers to building and related site work elements as described by ASTM Uniformat II Classification for Building Elements (E1557-97) a format for classifying major facility elements common to most buildings. Elements usually perform a given function regardless of the design specification construction method or materials used. See also Uniformat II.

System Generated Deficiency

eCOMET automatically generates system deficiencies based on system life cycles using the systems installation dates as the base year. By adjusting the Next Renewal date ahead or behind the predicted or stated life cycle date, a system cost will come due earlier or later than the originally installed life cycle date. This utility accounts for good maintenance conditions and a longer life, or early expiration of a system life due to any number of adverse factors such as poor installation, acts of god, material defects, poor design applications and other factors that may shorten the life of a material or system. It is important to mention that the condition of the systems is not necessarily a reflection of maintenance practices, but a combination of system usage and age.

UNIFORMAT

ASTM UNIFORMAT II, Classification for Building Elements (E1557-97), a publication of the Construction Specification Institute (CSI), is a format used to classify major facility components common to most buildings. The format is based on functional elements or parts of a facility characterized by their functions without regard to the materials and methods used to accomplish them. These elements are often referred to as systems or assemblies.

**Unit Price** 

The Unit Price (Raw) x the Additional Cost Template percentage.

Unit Price (Raw)

The actual \$/sq. ft. cost being used for the building and systems. It will include adjustments for the City Cost Index applied to the facility.

### School Assessment Report - Douglass High School

Useful Life Also known as Expected Life, Useful Life refers to the intrinsic period of time a system or element

is expected to perform as intended. Useful life is generally provided by manufacturers of materials,

systems and elements through their literature, testing and experience. Useful Lives in the database are derived from the Building Owners and Managers (BOMA) organization's guidelines,

RSMeans cost data, and from client- defined historical experience.

Vacant refers to a facility that is not occupied but is a maintained facility. See Abandoned.

Year Built The year that a building or addition was originally built based on substantial completion or

occupancy.

minimum of 70% of the system's Current Replacement Value (CRV) was replaced.

# **BASYS**

# **Building Assessment System**

# **Suitability Report - Full**

Project #: 12382 County: Atlanta Public Schools Site #: 4058

Project: APS Assessments 2019 Region: 761 Site: Douglass HS

Grade Config: 9-12 Site Type: High Site Size: 32.00

uitability	Rating	Score	Possible Score	Percent Score
uitability - HS				
Learning Environment				
Learning Style Variety	Good	4.00	5.00	80.0
Interior Environment	Good	1.60	2.00	80.0
Exterior Environment	Excel	1.50	1.50	100.0
General Classrooms	_7,00.			
Environment	Good	3.12	3.90	80.0
Size	Excel	9.75	9.75	100.
Location	Excel	2.93	2.93	100.
Storage/Fixed Equip	Excel	2.93	2.93	100.
Self-Contained Special Ed				
Environment	Fair	0.35	0.53	65.
Size	Good	1.07	1.33	80.
Location	Good	0.32	0.40	80.
Storage/Fixed Equip	Poor	0.20	0.40	50.
Instructional Resource Rooms				
Environment	Excel	0.80	0.80	100.
Size	Excel	2.00	2.00	100.
Location	Excel	0.60	0.60	100.
Storage/Fixed Equip	Excel	0.60	0.60	100.
Science				
Environment	Excel	0.83	0.83	100.
Size	Excel	2.07	2.07	100.
Location	Excel	0.62	0.62	100.
Storage/Fixed Equip	Excel	0.62	0.62	100.
Music				
Environment	Excel	0.59	0.59	100.
Size	Excel	1.48	1.48	100.
Location	Excel	0.45	0.45	100.
Storage/Fixed Equip	Excel	0.45	0.45	100.
Art				
Environment	Good	0.53	0.67	80.
Size	Excel	1.66	1.66	100.
Location	Excel	0.50	0.50	100.
Storage/Fixed Equip	Excel	0.50	0.50	100.
Career Tech Ed				
Environment	Excel	1.71	1.71	100.0

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Project #: 12382 County: Atlanta Public Schools Site #: 4058

Project: APS Assessments 2019 Region: 761 Site: Douglass HS

Grade Config: 9-12 Site Type: High Site Size: 32.00

itability	Rating	Score	Possible Score	Percent Score
Size	Excel	4.27	4.27	100.00
Location	Excel	1.28	1.28	100.00
Storage/Fixed Equip	Excel	1.28	1.28	100.00
Computer Labs				
Environment	Excel	0.30	0.30	100.00
Size	Excel	0.75	0.75	100.00
Location	Excel	0.23	0.23	100.00
Storage/Fixed Equip	Excel	0.23	0.23	100.00
P.E.				
Environment	Excel	2.40	2.40	100.00
Size	Excel	6.00	6.00	100.00
Location	Excel	1.80	1.80	100.00
Storage/Fixed Equip	Excel	1.80	1.80	100.00
Performing Arts				
Environment	Excel	0.32	0.32	100.0
Size	Excel	0.80	0.80	100.0
Location	Excel	0.24	0.24	100.0
Storage/Fixed Equip	Excel	0.24	0.24	100.0
Media Center	ZXXX		•	
Environment	Excel	0.84	0.84	100.0
Size	Excel	2.11	2.11	100.0
Location	Excel	0.63	0.63	100.0
Storage/Fixed Equip	Excel	0.63	0.63	100.0
Restrooms (Student)	Excel	0.91	0.91	100.0
Administration	Excel	2.61	2.61	100.0
Counseling	Excel	0.76	0.76	100.0
Clinic	Excel	0.24	0.24	100.0
Staff WkRm/Toilets	Excel	0.71	0.71	100.0
Cafeteria	Excel	4.00	4.00	100.0
Food Service and Prep	Excel	5.11	5.11	100.0
Custodial and Maintenance	Excel	0.50	0.50	100.0
Outside	ZXXX			
Vehicular Traffic	Excel	1.00	1.00	100.0
Pedestrian Traffic	Excel	0.98	0.98	100.0
Parking	Excel	2.11	2.11	100.0
Athletic Courts and Fields	Good	2.21	2.77	80.0
Safety and Security	3000	2.2 .		00.0
Fencing	Good	0.68	0.85	80.0
Signage & Way Finding	Poor	0.50	1.00	50.0
Ease of Supervision	Good	2.40	3.00	80.0
Controlled Entrances	Poor	0.25	0.50	50.00
	FUUI			
al For Site:		94.88	100.00	94.88

Comments

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Project #: 12382 County: Atlanta Public Schools Site #: 4058

Project: APS Assessments 2019 Region: 761 Site: Douglass HS

Grade Config: 9-12 Site Type: High Site Size: 32.00

Suitability Rating Score Possible Percent Score Score Score

#### Suitability - HS

Fredrick Douglass High School is a comprehensive high school named for the famed American abolitionist and author. Built in 1968, the school serves the communities of Collier Heights, Peyton Forest, Cascade Heights and Center Hill. The school was established through the merger of Harper, Turner, West Fulton, and Archer High Schools. The school was renovated in 2004, with updates to the main building and the addition of a gymnasium and auditorium.

Suitability - HS->Self-Contained Special Ed-->Environment

The HVAC system was not functioning properly and a portable system was set up to help control the temperature.

Suitability - HS->Self-Contained Special Ed-->Storage/Fixed Equip

The room did not have the required equipment for this space.

Suitability - HS->Safety and Security-->Signage & Way Finding

The school does not have all four elements required for visitor signage, and has limited way-finding signage on the exterior.

Suitability - HS->Safety and Security-->Controlled Entrances

The school has no security vestibule.

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