Facility Condition Assessment Summary Report

This report provides a summary of the Facility Condition Index (FCI) value of a school facility and select major building systems. The FCI calculation represents the cost of needed repairs divided by the replacement value. The FCI is a numerical value of condition and helps to identify the need for renewal or replacement of specific parts of the facility. The FCI is particularly useful when comparing similar facilities within the same portfolio.

Vare, EH Middle School

Governance	CHARTER	Report Type	Middle
Address	2100 S. 24Th St. Philadelphia, Pa 19145	Enrollment	37
		Grade Range	'05-08'
Phone/Fax	215-952-8611 / N/A	Admissions Category	Neighborhood
Website	Www.Universalcompanies.Org/Education/Vare-Charter-School/	Turnaround Model	Renaissance Charter

Building/System FCI Tiers

Facility Condition Index (FCI) = Cost of Assessed Deficiencies / Replacement Value

< 15%	15 to 25%	25 to 45%	45 to 60%	> 60%
Buildings				
Minimal Current Capital Funding Required	Refurbish Systems in building	Replace Systems in building.	Building should be considered for major renovation.	Building should be considered for closing/replacement.
Systems				
Perform routine maintenance on system	System requires minor repairs	System should be studied to determine repair vs. replacement.	System is nearing end of its life expectancy and should be considered for replacement	System should be replaced as part of the Capital Program

Building and Grounds

	FCI	Repair Costs	Replacement Cost
Overall	**46.77%**	**$29,178,733**	**$62,386,700**
Building	47.64 %	$29,133,991	$61,154,900
Grounds	03.63 %	$44,742	$1,231,800

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	89.59 %	$1,016,460	$1,134,600
Exterior Walls (Shows condition of the structural condition of the exterior facade)	00.00 %	$0	$5,253,600
Windows (Shows functionality of exterior windows)	75.41 %	$1,936,607	$2,568,000
Exterior Doors (Shows condition of exterior doors)	104.68 %	$182,146	$174,000
Interior Doors (Classroom doors)	276.25 %	$1,163,585	$421,200
Interior Walls (Paint and Finishes)	04.93 %	$67,739	$1,373,600
Plumbing Fixtures	01.87 %	$30,317	$1,622,400
Boilers	00.00 %	$0	$2,240,400
Chillers/Cooling Towers	84.92 %	$2,494,726	$2,937,600
Radiators/Unit Ventilators/HVAC	134.62 %	$6,944,746	$5,158,800
Heating/Cooling Controls	132.68 %	$2,149,368	$1,620,000
Electrical Service and Distribution	156.63 %	$1,823,125	$1,164,000
Lighting	37.75 %	$1,570,887	$4,161,600
Communications and Security (Cameras, Pa System and Fire Alarm)	44.11 %	$687,596	$1,558,800

Please note that some FCIs may be over 100% because there are times when replacing a building system requires that other building systems be upgraded to complete the installation. A FCI of 0.0% represents that there are no current deficiencies with the associated system.

School District of Philadelphia

S212001;Vare, E H

Final

Site Assessment Report

February 1, 2017

PARSONS

Table of Contents

Site Executive Summary

The organization of this report, as displayed in the Table of Contents, follows the structure of the associated eCOMET database. The overall node for each school campus begins with the letter "S", which indicates the "Site" label. Each Site is comprised of separate "Building" and "Grounds" nodes; their asset names begin with the letters "B" and "G" respectively. Information rolls up to the Site node from the Building and Grounds nodes. This Site report combines facility information with subsections for the Buildings And Grounds nodes.

The basis for the evaluation of condition is the functional systems and elements of a building and grounds organized according to the UNIFORMAT II Elemental Classification. The grouping of these systems and elements and applying a current replacement value to them develops a representative building cost model. Cost Models are typically developed for similar building types and functions. Evaluation of systems and their elements takes into account 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 Replacement Value is the amount needed to replace the property of the same present value. The Current Repair Amount, 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. Facility Condition Index (FCI) is an industry-standard measurement calculated as the ratio of the repair costs to correct a facility's deficiencies to the facility's Current Replacement Value. Condition Index (CI) for a system is calculated as the sum of a the deficiencies divided by the sum of a system's Replacement Value (both values include soft-cost) expressed as a percentage ranging from 0% 100%.

Gross Area (SF):	120,000
Year Built:	1924
Last Renovation:	
Replacement Value:	$62,386,700
Repair Cost:	$29,178,733.03
Total FCI:	46.77 %
Total RSLI:	69.92 %

Description:

Facility Assessment

July 2015

School District of Philadelphia

Universal Vare Charter School

2100 S 24th St

Philadelphia, PA 19145

120,000 SF / 1,029 Students / LN 01

GENERAL

The Universal Vare Charter School is identified as B212001 and was originally constructed as the Edwin H Vare Middle Public School.

This facility is located at 2100 S 24th Street in Philadelphia, PA. The design of the modified rectangle-shaped, concrete and steel-framed building includes brick facades with a concrete foundation and detailing.

The main entrance faces the eastern exterior on South Twenty-Fourth Street. This School serves students in grades 6 to 8. This school was reported to have been constructed in 1922 and consist of a Basement level and three additional stories with a total gross square footage of 120,000 GSF.

This school has several classrooms, a lab, library, kitchen, cafeteria and student commons, Gyms and Auditorium and cafeteria, with supporting administrative spaces. Special note the existing paintings on the side of the school near the entrances depicting the children of age attending the school.

As stated in the Historical Register "Edwin H. Vare Junior High School is a historic junior high school building located in the Wilson Park neighborhood of Philadelphia, Pennsylvania. It was designed by Irwin T. Catharine and built in 1922-1924. It is a three-story, 17 bay, brick building on a raised basement in the Colonial Revival-style. It is in the shape of a shallow "W." It features an entrance pavilions with arched openings, pilasters, and a brick parapet. It was added to the National Register of Historic Places in 1988."

The information for this report was collected during a site visit on July 24, 2015.

Mr. Tariq Ali, Building Engineer, accompanied the assessment team on a tour of the school and provided detailed information on the building systems and maintenance history. Mr. Craig Metcalfe, Principal, also shared information about the school.

ARCHITECTURAL /STRUCTURAL SYSTEMS

Foundations are concrete and appear to be in good condition. Basement walls are concrete and masonry constructed and are also in good condition. The superstructure is a steel framed construction. Floor construction is concrete.

This school's exterior finish consists of an E.F.I.S. finish on the inner most exterior walls throughout the wells. This E.F.I.S. finish was reported to have been completed in the late 1990's and is in good condition. There are no recommendations required at this time for the E.F.I.S. finish.

The exterior brick finish is in good condition considering the age of the application. Although no records were found to indicate the date of the latest point and tuck work the finishes exterior paint was reported to have been applied at the same time as the E.F.I.S. With this in mind the brick finish does not warrant any recommendations at this time.

The single pane aluminum framed windows have been upgraded from the original applications. The current system is estimated to have been installed in the 1990's. Several windows no longer work and will require attention prior to an overall effort. The original steel-framed, multi-light windows in the Boy's and Girl's Gym are original have exceeded their useful service life. Windows are in fair condition based on the year of installation or last renovation. The exterior window system is recommended to be replaced with units that retain their dimensions and profiles, but that incorporate updated energy-efficient features.

The exterior doors are metal applications with metal frames. The exterior door system for this school is a very high traffic system. The doors are in fair condition but are aging at a faster rate than expected based on traffic and condition. The exterior door system, store front and service doors are recommended for upgrade.

There are a number of roof sections and different roof elevations ranging from the main roof to the mechanical roof. Parapet heights, coping materials, and the height of the flashing also varies in different sections. The main roof is a built up application that was installed in the early 1990's. The other built up roofs have not conclusive installation dates and have been seal coated several times to extend the life cycle of the application. Considering the age and condition of the roofing systems, universal upgrades are recommended. Remove and replace all roof sections.

Special consideration for those that may be physically challenged was a main factor in the last re-construction effort that was reported to have taken place in 2011. Currently there is a single dedicated entrance serves as the exterior ADA entrance. The path of travel is clear from this access points as the interior path of travel is supported by compliant signage, restrooms amities, a mix of compliant and non-compliant door hardware, hand rails and guard rails that will require modifications to meet the needs of the physically challenged. The building has received limited upgrades and does not fully support a path of travel for those that may be physically challenged. Included in this report is the recommendation for the addition of an elevator to serve all floors.

There is no elevator that services this school. Goods, services, and amenities offered in public buildings are generally required to be available to all persons. To assist those that may be physically challenged and to meet current accessibility legislation to provide

wheelchair access to the upper floors of this facility, the installation of a new hydraulic elevator has been recommended on the southern elevation of the building or at another suitable location. The new installation should blend as much as possible with the overall appearance of this historic structure and include all required ADA features, such as audible jewels and gongs, an accessible control panel, etc.

The interior wall finish is a mix of polished brick, brick, plaster, drywall, ceramic tile, marble and painted CMU. There are several minor areas of wall damage that ranges from serious to minor. Although the school is on a cyclical program of renewal and each painted surface is renewed at years end this system is at the point in which repairs are necessary. Remove damaged wall finishes and repair areas then apply primer and paint finish. This project is expected to be completed only after the roof replacement has been completed.

A large portion of the interior corridor, exit stair doors are not code compliant. Several doors are typically metal in metal frames with transom lites or sidelights, glass glazing. The older doors are generally in good condition considering the age of the application. To restore the door finishes, universal upgrades are required for the older door applications. Remove and replace original door systems with new code compliant fire rated door system.

Fitting include: There are several tack boards in the hallways for student displays. The systems are beyond the expected service life for this application. Remove and replace tack boards is recommended.

The classroom chalk boards are original to the buildings construction. This system is beyond its expected life and universal upgrades are warranted. Remove and upgrade chalkboards to new marker board systems.

The Vare schools interior directional signage and classroom signage is current with the ADA legislation and is in very good condition. There were no issues that surfaced during the time of the inspection therefore no projects or recommendations are required at this time.

This school's science labs have been upgraded from the original construction. The installation consists of an instruction demonstration desk with sink. Wall mounted storage cabinets and cabinets with sinks for student use. The system is showing signs of age and lack of maintenance such as broken sink fixtures missing cabinet doors and damaged shelves. This deficiency provides a budgetary consideration for the universal upgrade of the science teaching labs to include new counter tops, sink, cabinets, shelves and fixtures required to support a conducive level of education.

This school has a variety of metal lockers that appear to be serviceable and do not warrant a project at this time.

The shower application in the boy's and girl's locker rooms are marble and in fair condition. However there are a few broken barriers that will require upgrades. This system appears to be from original construction and did not include any consideration for those that may be physically challenged. The fixtures are in fair condition considering the age of the application. New shower systems are recommended for each room and should include all aspects of the current ADA standards for the physically challenged. This recommendation is expected to be completed as part of an overall renovation effort to both locker rooms and access points to remove access barriers.

Stair construction is concrete with concrete stair treads and metal nosing. The stair system is in good condition and there are no recommendations required at this time.

Current requirements for stairs indicate that they have graspable handrails on both sides, that the rails have a specific end geometry, and that the handrails continue horizontally at the landings. In addition, guardrails must prevent the passage of a 4 inch diameter sphere (6 inches in the triangle formed by the lower rail and tread/riser angle). Although the stairs are compliant with the code enforced at the time of construction until a major renovation occurs, they are deficient in handrail and guardrail design relative to current standards. Future efforts should include comprehensive stair railing removal and replacement upgrades.

Interior doors are typically wood in wood frames with transom lites, sidelights, wired glass glazing. Other interior doors include wooden glass pane doors with original wooden pane frames, hollow metal in hollow metal frames at stairwells and exit ways. Doors are generally in good condition considering the age of the application. Universal upgrades are required for the interior door systems it is recommended that the interior doors system be removed and replaced with a new modern metal framed hollow metal door system with consideration for ADA compliance. Special Note: The double door systems leading to the auditorium are on both the first and second floors and lead to the lobby. These doors will require special consideration for fire rating upgrades to support modern code.

The interior wall finish is a mix of polished brick, brick, plaster, drywall, ceramic tile, marble and painted CMU. There are several minor

areas of wall damage that ranges from serious to minor. Although the school is on a cyclical program of renewal and each painted surface is renewed at years end this system is at the point in which repairs are necessary. Remove damaged wall finishes and repair areas then apply primer and paint finish. This project is expected to be completed only after the roof replacement has been completed.

The interior floor finishes consist of polished concrete in the stairwells and hallways, wooden floors, VCT and VAT in the classrooms, ceramic tile in the restrooms and terrazzo in the lobby. The following recommendations are expected to be completed as part of an overall effort to enhance the interior finishes of this school

The vinyl floor finish in most of this school is in very good condition and appears to have part of an isolated upgrade. Some of the original flooring that was not a part of that effort consist of a 9x9 finish. This finish is suspect to contain asbestos and is recommended for upgrade. Remove and replace with a 12x12 vinyl tile application.

The classrooms in this school have a wooden floor finish that appears to be from original construction. The system is showing signs of age such as the effects of sanding and refinishing with yearly cleaning and waxing with some repairs. The floor finish is in fair condition however, the finish is beyond its expected life cycle. It is recommended that the wooden floor finish be removed and replaced with an in kind finish.

The Boy's and Girl's GYM floor finish is beyond its expected life cycle for this application. Recent repairs have eliminated the trip hazards; however, there are areas that remain that warrant replacement. The floor is recommended for universal upgrade.

This schools ceiling finish is a mix of painted plaster, 12x12 ceiling tiles, 2 x 2 acoustical tile ceiling with grids and 2 x 4 acoustical tile ceilings with grids. The ceiling finish has been repaired in several areas and is in good condition considering the age of the application. There are several areas of minor stains and some sections of damage. As indicated in the photos the 12x12 ceiling finish is beyond the expected life cycle and universal upgrades are warranted. Overall the ceiling finish is expected to require upgrades within the next five to ten years. This deficiency provides a budgetary consideration for removal and replacement of the current ceiling finish to a new acoustical tile finish. Considering the recommended mechanical and electrical upgrades this effort should be completed as part of an overall renewal program for the school.

This schools institutional equipment includes basketball backstops in two gyms, lab equipment in the science rooms, library shelving and equipment with a kitchen and limited loading dock area. This institutional equipment is expected to be upgraded as part of an overall effort to upgrade this school. Included in this report there are several projects supporting the efforts to maintain the institutional equipment.

Furnishings include areas of fixed casework that appear to be in good condition and there are no recommendations required at this time.

The fixed seating for this school is from the original construction. There are no replacement systems so damaged seats were taken from the balcony and placed on the main floor. The systems are in fair condition considering the age and usage. This project provides a budgetary consideration for universal upgrades for the fixed seating and furnishing of this school.

MECHANICAL SYSTEMS

PLUMBING- Plumbing fixtures are standard china commercial quality with wall mounted lavatories, urinals and water closets. Lavatories have dual wheel handle faucets and urinals and water closets have concealed manual flush valves with push button operators. Custodial closets have service sinks or mop basins. There are stainless steel water coolers with integral refrigeration and china drinking fountains with no refrigeration. The kitchen waste is piped through an above floor grease trap. There is a seventy five gallon Bradford White gas water heater in the basement mechanical room with a small inline circulating pump installed in 2010. A duplex domestic water booster pump system with pressurization tank and control panel in the mechanical room maintains system pressure. A water softener is in the mechanical room, with two new fiberglass vertical tanks nearby with shipping wrapping, ready for installation. A duplex sump pump in the mechanical room removes ground water entering the space. There is a large horizontal hot water storage tank that is abandoned.

Water piping has been replaced since the original installation with copper. Sanitary, waste, vent and rainwater piping is original installation hub and spigot cast iron. Water service is a four inch line and meter from Jackson St. into the mechanical room with two parallel backflow preventers. Rainwater and sanitary main lines connect at Snyder Ave. and Jackson St. Gas service was not connected to the utility and an eight inch line is capped just inside the mechanical room and extends to and is connected to the boilers and water heater. The gas piping includes a booster system.

Plumbing fixtures on first, second and third levels have been replaced but age is unknown. Appearance and function indicate remaining service life of fifteen to twenty years. The water heater should be serviceable for ten or more years. The cast iron piping has exceeded the anticipated service life. Rainwater and vent piping should continue functioning, but the sanitary and waste piping should be inspected to determine condition and replace damaged portions. The domestic water piping may have lead solder based on age, and should be replaced based on appearance and condition.

HVAC-Heating is generated by four HB Smith one hundred fifty two hp sectional cast iron low pressure steam oil fired boilers in the basement mechanical room. The boilers are Model 450 with Powerflame gas/oil burners and separate oil pumps, installed about 2000. The units are operated on oil because the gas service was not connected to the utility line. Reportedly only two of the four are operational and one will maintain building heating after warm up. There is a Shipco condensate return and boiler feed pump unit with five small pumps. The tank insulation is badly damaged and should be replaced. Chemical feed system is a manual shot feed unit. There is a large combustion air louver with four motorized damper sections and a wall propeller fan to ventilate the mechanical room. The fan is missing the fan belt. Boiler and water heater vents are connected to a factory fabricated boiler stack to a roof cap. There is a ten thousand gallon underground oil storage tank, age and condition unknown. A duplex fuel oil pump system in the mechanical room provides circulation.

Spaces are heated by exposed steam radiators with control valves and F&T traps. Some valves are connected to pneumatic piping, but most valves and traps are inoperable. Some radiators have sheet metal covers. There is a house fan system in the basement that provided heat and ventilation through a central duct system that is inoperable.

There is no central air conditioning. There are approximately fifteen window units and a Mitsubishi split system for the IT room. A single wall hood in the kitchen with fire suppression system is not used. There is no cooking in the facility. There is no mechanical toilet exhaust system.

The boilers should remain serviceable fifteen to twenty more years. Maintenance and repairs should be performed on the two inoperable boilers to place in operation. The steam piping and radiators are from original construction and should be replaced based on age and condition. The condensate return system should have remaining service of about ten to fifteen years.

FIRE PROTECTION-There are no sprinklers nor standpipes in this building.

ELECTRICAL SYSTEMS

Electrical Service--The building is served by PECO Energy Company from an overhead utility line along S. 24 Street. Two 120/240V, 1 phase, 3 wire services are routed underground from a utility pole located at the northwest corner of the site to the Main Switchboard located in the Main Electrical Room in the Basement. The Main Switchboard is manufactured by Frank Adam Electric Company, but is not identified with nameplate information. Based on the incoming service conductor size, the Main Switchboard appears to be rated 800A, 120/240V, 2 phase, 5 wire. It is an obsolete, exposed bus, knife blade switchboard with cartridge fuses. There are approximately 16 safety switches that are fed from the Main Switchboard that serve mechanical equipment, workshops and other equipment.

The Main Switchboard has exceeded its useful life and is a safety concern because of its exposed bus. The switchboard should be replaced with a 2000A, 480/277V, 3 phase 4 wire switchboard to accommodate central air conditioning, an elevator addition, and fire pump (if required). A 500 kVA 480-208/120V, 3phase, 4 wire, 1600A load center substation would backfeed existing building loads. All of the existing safety switches would be replaced with feeder circuit breakers in the new 208/120V switchboard.

There are three (3) 240V-208/120V, 2 to 3 phase converter transformers in the Main Electric Room and Boiler Room that feed panelboards serving pumps, boilers, air compressors, exhaust fans and other mechanical equipment. The 30 kVA, 37.5 kVA and 150 kVA phase converter transformers would also be removed when the switchboard is replaced. Boiler Room Panel 1 also needs to be replaced.

There are four (4) flush mounted panelboards located at the stairwells on each floor that have served their useful life and need to be replaced. The panelboard in the kitchen is a knife blade panel with cartridge fuses and exposed bus and also needs to be replaced.

Receptacles—Classrooms are generally provided with 3 to 4 duplex receptacles. In some classrooms, additional duplex receptacles were provided using surface raceway. An allowance is included in this report to add five (5) duplex receptacles in each of 40 classrooms and to replace approximately five (5) duplex receptacles in the kitchen with ground-fault circuit interrupting type, as required by code.

Lighting-- Fixtures in classrooms are typically surface mounted 2x4 modular fluorescent fixtures with acrylic prismatic lenses and T12

lamps and need to be replaced in 49 classrooms. Lighting is controlled by two light switches. Lighting fixtures in the corridors on Floors 1, 2 and 3 and in a few classrooms have been upgraded with 2x4, 3 lamp, modular fluorescent fixtures with T8 lamps. The main entrance stairs have 2x2 modular fluorescent fixtures with T8 lamps.

Lighting in the Library on Floor 2 are 2x4, 4 lamp recessed lensed fluorescent troffers with T12 lamps. The illumination level is inadequate, ranging from 22 to 28 footcandles. The Main Office has 2x2 recessed grid fixtures with acrylic lenses.

Lighting in the gymnasiums are stem mounted industrial HID fixtures. The Kitchen has stem mounted modular and wraparound fluorescent fixtures with T12 lamps. Surface mounted fluorescent fixtures with T12 lamps are provided in the Cafeteria.

The auditorium is illuminated with (9) pendant mounted globe type fixtures with 250W Mogul base incandescent lamps above the house floor and (4) surface mounted globe fixtures under the balcony. There are also wall mounted scones on each side of the auditorium to supplement the house lighting fixtures. Lighting levels are inadequate and four (4) of the globe fixture surrounds are damaged. A new lighting system is warranted for the auditorium. The stage is provided with two rows of electric for stage lighting. There is also a lighting position in front of the stage with 12 stage lighting fixtures. There is a Lighting Methods, Inc. dimming control panel with 300A main circuit breaker for the auditorium and stage lighting.

Restrooms have 4 foot, 1 lamp vapor-tight fluorescent fixtures. The Boiler Room has industrial fluorescent fixtures with (3) T8 lamps. The Main Electrical Room has shallow dome incandescent fixtures with an inadequate illumination level Stairwells have 2x4, 4 lamp modular fluorescent fixtures with T12 lamps.

The main entrance is provided with wall mounted sconces on the exterior of the building.

Approximately 39,507 SF of classrooms and library, and 21,080 SF for offices, restrooms, kitchen, dining, Main Electrical Room and miscellaneous rooms require a lighting system upgrade.

Fire Alarm System-- The fire alarm system is an obsolete 120V wired system that includes only manual pull stations and bell notification appliances. Pull station mounting heights exceed ADA requirements and are not located within five (5) feet of exit doors. There are no visual notification appliances. The fire alarm control panel (FACP) is by S.H. Couch Company located in the Main Electrical Room in the Basement. The system has exceeded its useful life and needs to be replaced to meet current NFPA codes and ADA.

Telephone/LAN--The telephone service demarcation point is located in Room 206, which is the main IT room. A telephone is provided in each classroom. Data outlets are not provided in all classrooms. Wireless access points are provided in the classrooms, corridors, gymnasium and auditorium for Wi-Fi coverage throughout the school. Satellite closets are provided on other floors. Smart boards are provided in many classrooms.

Intercom/Paging/Sound Systems-- The paging system is accessed through the telephone system. There are ceiling recessed speakers in classrooms, and ceiling recessed or wall mounted speakers in corridors. The auditorium has a portable sound system.

Clock and Program System--The clock/program system is by Standard Electric Time installed in 1964. There is a speaker in each classroom for the program system. Most rooms have individual clocks. Both the clocks and program system were reported to be non-functional and need to be replaced. The obsolete speakers in classrooms and corridors have been abandoned in place.

Television System—The Building Engineer reports that the television system needs to be upgraded. An allowance is included in this report to upgrade five (5) televisions.

Video Surveillance and Security Systems-- There are interior and exterior video surveillance cameras. The Building Engineer reported that only the surveillance cameras on Floor 1 are functioning. All exterior and all other interior cameras need to be replaced. Surveillance cameras are monitored in Room 206. Magnetic door contacts are provided on exterior doors. The security system is by Tyco and is monitored off-premises.

Emergency Power System--There is no standby generator that serves this building.

If an elevator is installed, a standby generator system should be provided to supply the elevator and emergency egress and exit lighting.

Emergency Lighting System / Exit Lighting-- Emergency egress is supplied from wall mounted, battery powered emergency lighting units. Emergency lighting is inadequate throughout the entire building; most rooms, including classrooms, are not provided with

emergency lighting. No emergency lighting is provided at the exit discharges. Several battery powered emergency lighting units would be required to meet code. The recommendation is to provide a standby generator to supply emergency egress lighting fixtures. Exit signs are battery powered, most with incandescent lamps.

Lightning Protection System-- There is no lightning protection system for this facility.

Conveying Systems-- The building does not have an elevator. The addition of an elevator is recommended to meet ADA requirements.

GROUNDS

There are no paved driveways or parking lots. The sidewalk system is original to the buildings construction. There are a several areas of cracking concrete but no tripping hazards. The sidewalk system is expected to expire in the near future. Removal of the entire system is recommended. Universal upgrades are required.

The trash dumpster is located near the southern property line open to the students and to the public. The exterior services are not protected. Upgrades to protect the exterior services and trash area are recommended.

As indicated in the photos several of the exterior stairs have damaged concrete sections. The exterior access points are recommended to be redesigned and replaced. The new design should incorporate a concrete pad equal to the access point thus preventing pinch points with the doors not aligned with the first step. This deficiency provides a budgetary consideration to modify each entrance concrete pad with the exclusion of the existing ADA access ramp on the Northeastern exterior elevation.

The fenced in play area and common area has a small section of landscaping that consist of a few mature trees and a science growing area. There were no issues that surfaced during the time of the inspection therefor no projects or recommendations are required at this time.

Site Lighting--Site lighting is provided by wall mounted HID floodlighting fixtures around the perimeter of the building. Other than the wall mounted sconces at the main entrance to the school there are no other wall or pole mounted site lighting fixtures.

Site video Surveillance system-- There are video surveillance cameras at each corner of the building. Exterior cameras were reported to be non-functional.

RECOMMENDATIONS

- Replace auditorium seating
- Add external 4 stop elevator
- Ceiling upgrade
- Replace Gym Floors
- Replace Classroom wooden floors
- Remove VAT and replace with VCT
- Repair and repaint all interior walls
- Replace inadequate or install proper stair railing
- Remove and replace damage shower partitions
- Replace blackboards with marker boards
- Remove and replace tack boards
- Remove and replace interior doors
- Remodel Science Labs
- Install fire rated walls and door where required
- Remove and replace built-up roof
- Remove and replace exterior doors
- Remove and replace aluminum windows
- Remove and replace concrete sidewalk or paving
- Build secure trash dumpster enclosure
- Re-design entrance concrete stair/pads
- Provide a four pipe fan coil system with roof mounted outside air system ducted to each fan coil unit. Provide a fan coil unit for each classroom and separate area. Include new heat exchanger and pump for hot water, piping, control valves and controls, to replace steam heating system.
- Provide a three hundred ton air cooled package chiller on the roof with pumps, piping and controls. Connect to new fan coil units and air handling units.

- Install NFPA wet pipe automatic sprinkler system in entire building, including fire service, piping, sprinkler heads, standpipes and fire pump if required.
- Inspect old cast iron sanitary piping including camera observation and replace damaged sections.
- Replace domestic hot and cold water pipe, fittings, valves, hangers and insulation.
- Replace older china drinking fountains with water coolers with integral refrigeration. Include fittings and trim.
- Provide a new central station air handling unit for the auditorium with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems.
- Install new direct digital control system and building automation system with remote computer control capability and graphics package.
- Provide a new central station air handling unit for each of the two cafeterias with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems.
- Provide a new central station air handling unit for each of the two gymnasiums with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems.
- Provide mechanical toilet exhaust system including inline or exterior wall centrifugal ventilator at each level, ductwork and exhaust registers.
- Replace existing Main Switchboard and service distribution equipment panelboards, safety switches and phase converter transformers with a 2000A, 480/2770V, 3 phase, 4 wire service switchboard with associated feeder circuit breakers and feeders to serve added central air conditioning equipment, an elevator addition, and a fire pump (if required). Provide a 500 kVA 480-208/120V, 3phase, 4 wire, 1600A load center substation to backfeed existing building loads. Provide pad mounted service transformer and service entrance to Main Switchboard.
- Replace 400A Panel 1 in Boiler Room.
- Replace 120/240V, 1 phase panelboards in corridors on Floors 1-3 and in the kitchen. Total of (13) panelboards.
- Provide an allowance to add surface metal raceway system and five (5) duplex receptacles in each of 40 classrooms.
- Provide allowance to replace five (5) duplex receptacles in the kitchen with ground-fault circuit-interrupting type.
- Replace lighting fixtures in the auditorium with LED fixtures (Approximately 4,488 SF).
- Replace fluorescent lighting fixtures in classrooms and library (Approximately 39,507 SF).
- Replace fluorescent lighting fixtures in offices, restrooms, kitchen, dining, Main Electrical Room and other miscellaneous rooms (Approximately 21,080 SF).
- Replace fire alarm system with an addressable type system, including pull stations, smoke and heat detectors, and audible and visual notification appliances.
- Replace clock and program system.
- Provide allowance for upgrade of five (5) televisions.
- Replace/add video surveillance system cameras. Provide an allowance to replace four (4) exterior cameras and replace/add 14 interior cameras.
- Provide standby generator system to be sized for all emergency egress and exit lighting and for an elevator addition. Provide branch circuiting for emergency egress and exit lighting.
- Provide elevator, feeders and safety switches for elevator machine and cab power.

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 1 / Tm 1
Status:	Accepted by SDP	Team:	Tm 1
Site ID:	S212001		

Site Condition Summary

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

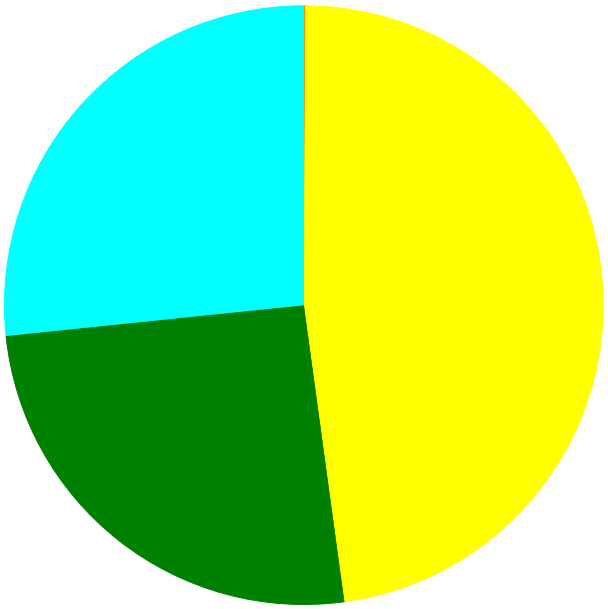
Current Investment Requirement and Condition by Uniformat Classification

UNIFORMAT Classification	RSLI%	FCI %	Current Repair
A10 - Foundations	59.00 %	0.00 %	$0.00
A20 - Basement Construction	59.00 %	0.00 %	$0.00
B10 - Superstructure	59.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	53.16 %	26.50 %	$2,118,752.93
B30 - Roofing	59.97 %	89.59 %	$1,016,460.33
C10 - Interior Construction	61.89 %	109.83 %	$3,234,188.83
C20 - Stairs	59.00 %	7.73 %	$13,078.35
C30 - Interior Finishes	66.80 %	35.04 %	$2,390,880.36
D10 - Conveying	105.71 %	237.03 %	$1,012,601.25
D20 - Plumbing	65.65 %	43.61 %	$1,048,761.83
D30 - HVAC	88.15 %	86.82 %	$11,588,839.56
D40 - Fire Protection	92.47 %	177.49 %	$1,716,653.57
D50 - Electrical	95.36 %	63.13 %	$4,452,631.06
E10 - Equipment	34.29 %	0.00 %	$0.00
E20 - Furnishings	105.00 %	211.71 %	$541,143.31
G20 - Site Improvements	38.02 %	5.00 %	$44,741.65
G40 - Site Electrical Utilities	75.00 %	0.00 %	$0.00
Totals:	**69.92 %**	**46.77 %**	**$29,178,733.03**

Condition Deficiency Priority

Facility Name	Gross Area (S.F.)	FCI %	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)
B212001;Vare, E H	120,000	47.64	$0.00	$24,881.10	$13,929,646.07	$7,426,172.71	$7,753,291.50
G212001;Grounds	58,000	3.63	$0.00	$0.00	$4,314.85	$21,574.28	$18,852.52
Total:		**46.77**	**$0.00**	**$24,881.10**	**$13,933,960.92**	**$7,447,746.99**	**$7,772,144.02**

Deficiencies By Priority



1 - Response Time (< 2 yr)
2 - Response Time (2-3 yrs) - $24,881.10
3 - Response Time (3-4 yrs) - $13,933,960.92
4 - Response Time (4-5 yrs) - $7,447,746.99
5 - Response Time (> 5 yrs) - $7,772,144.02

Budget Estimate Total: $29,178,733.03

Executive Summary

Building condition is evaluated based on the functional systems and elements of a building and organized according to the UNIFORMAT II Elemental Classification. 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 Replacement Value is the amount needed to replace the property of the same present value. The Current Repair Amount, 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. Facility Condition Index (FCI) FCI is an industry-standard measurement of facility condition calculated as the ratio of the costs to correct a facility's deficiencies to the facility's Current Replacement Value. It ranges from 0% (new) to 100% (very poor). Condition Index (CI) 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 soft-cost to simplify calculation updates) expressed as a percentage ranging from 100% (new) to 0% (expired).

Function:	Middle School
Gross Area (SF):	120,000
Year Built:	1924
Last Renovation:	
Replacement Value:	$61,154,900
Repair Cost:	$29,133,991.38
Total FCI:	47.64 %
Total RSLI:	70.36 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B212001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S212001		

Condition Summary

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

UNIFORMAT Classification	RSLI %	FCI %	Current Repair Cost
A10 - Foundations	59.00 %	0.00 %	$0.00
A20 - Basement Construction	59.00 %	0.00 %	$0.00
B10 - Superstructure	59.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	53.16 %	26.50 %	$2,118,752.93
B30 - Roofing	59.97 %	89.59 %	$1,016,460.33
C10 - Interior Construction	61.89 %	109.83 %	$3,234,188.83
C20 - Stairs	59.00 %	7.73 %	$13,078.35
C30 - Interior Finishes	66.80 %	35.04 %	$2,390,880.36
D10 - Conveying	105.71 %	237.03 %	$1,012,601.25
D20 - Plumbing	65.65 %	43.61 %	$1,048,761.83
D30 - HVAC	88.15 %	86.82 %	$11,588,839.56
D40 - Fire Protection	92.47 %	177.49 %	$1,716,653.57
D50 - Electrical	95.36 %	63.13 %	$4,452,631.06
E10 - Equipment	34.29 %	0.00 %	$0.00
E20 - Furnishings	105.00 %	211.71 %	$541,143.31
Totals:	**70.36 %**	**47.64 %**	**$29,133,991.38**

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 classification. The columns in the System Listing table below 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 for of the system.
5. Qty: The quantity for the system
6. Life: anticipated service life for thesystem based on Building Owners and Managers Association (BOMA) recommendations.
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. CI: The Condition Index of the system.
11. FCI: The Facility Condition Index of the system.
12. RSL: Remaining Service Life.
13. eCR: eCOMET Condition Rating (not used).
14. Deficiency $: The financial investment to repair/replace system.

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.

Additionally, a condition rating (eCR) based on the following guidelines is provided as observed at the time of the assessment.

- Excellent (E) - No noticeable distress or damage. The entire system is free from observable defect.
- Very Good (VG) - Overall no serviceability reduction for the entire system. No degradation of critical components and minor distress and defect noticeable for some but not non critical components within the system.
- Good (G) - Slight or no serviceability reduction for the entire system. There may be noticeable defects for some non critical components and slight noticeable degradation of the critical components.
- Fair (F) - Overall serviceability is degraded but adequate. There may be moderate deterioration for very few of the critical components and few of the non critical components may have severe degradation.
- Marginal (MA) - Overall serviceability and reliability loss. Most if not all of the non critical components suffer from severe degradation and a few of the critical component may have severe degradation.
- Moderate (MO) - Overall a significant serviceability loss. Most if not all the components have severe degradation with the reminder of the component showing visible distress.
- Very Poor (VP) - Overall the system is barely functional. All of the components are severely degraded.
- Non-Functional (NF) - Overall the system does not function with all the components having no serviceability and suffer from severe degradation.

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	$23.16	S.F.	120,000	100	1924	2024	2074	59.00 %	0.00 %	59			$2,779,200
A1030	Slab on Grade	$5.17	S.F.	120,000	100	1924	2024	2074	59.00 %	0.00 %	59			$620,400
A2010	Basement Excavation	$4.36	S.F.	120,000	100	1924	2024	2074	59.00 %	0.00 %	59			$523,200
A2020	Basement Walls	$10.05	S.F.	120,000	100	1924	2024	2074	59.00 %	0.00 %	59			$1,206,000
B1010	Floor Construction	$85.94	S.F.	120,000	100	1924	2024	2074	59.00 %	0.00 %	59			$10,312,800
B1020	Roof Construction	$9.26	S.F.	30,000	100	1924	2024	2074	59.00 %	0.00 %	59			$277,800
B2010	Exterior Walls	$43.78	S.F.	120,000	100	1924	2024	2074	59.00 %	0.00 %	59			$5,253,600
B2020	Exterior Windows	$21.40	S.F.	120,000	40	1990	2030		37.50 %	75.41 %	15		$1,936,606.51	$2,568,000
B2030	Exterior Doors	$1.45	S.F.	120,000	25	1990	2015	2042	108.00 %	104.68 %	27		$182,146.42	$174,000
B3010105	Built-Up	$37.76	S.F.	30,000	20	1990	2010	2027	60.00 %	89.73 %	12		$1,016,460.33	$1,132,800
B3020	Roof Openings	$0.06	S.F.	30,000	30	1990	2020	2027	40.00 %	0.00 %	12			$1,800
C1010	Partitions	$17.91	S.F.	120,000	100	1924	2024	2074	59.00 %	89.17 %	59		$1,916,524.43	$2,149,200
C1020	Interior Doors	$3.51	S.F.	120,000	40	1924	1964	2057	105.00 %	276.25 %	42		$1,163,584.76	$421,200
C1030	Fittings	$3.12	S.F.	120,000	40	1924	1964	2027	30.00 %	41.15 %	12		$154,079.64	$374,400
C2010	Stair Construction	$1.41	S.F.	120,000	100	1924	2024	2074	59.00 %	7.73 %	59		$13,078.35	$169,200
C3010230	Paint & Covering	$13.21	S.F.	100,000	10	2012	2022	2027	120.00 %	5.13 %	12		$67,738.77	$1,321,000
C3010232	Wall Tile	$2.63	S.F.	20,000	30	1924	1954	2027	40.00 %	0.00 %	12			$52,600
C3020412	Terrazzo & Tile	$75.52	S.F.	20,000	50	1924	1974	2027	24.00 %	0.00 %	12			$1,510,400

Site Assessment Report - B212001;Vare, E H

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 $
C3020413	Vinyl Flooring	$9.68	S.F.	30,000	20	1924	1944	2027	60.00 %	52.23 %	12		$151,666.68	$290,400
C3020414	Wood Flooring	$22.27	S.F.	50,000	25	1924	1949	2042	108.00 %	130.90 %	27		$1,457,603.55	$1,113,500
C3020415	Concrete Floor Finishes	$0.97	S.F.	20,000	50	1924	1974	2027	24.00 %	0.00 %	12			$19,400
C3030	Ceiling Finishes	$20.97	S.F.	120,000	25	1990	2015	2027	48.00 %	28.37 %	12		$713,871.36	$2,516,400
D1010	Elevators and Lifts	$3.56	S.F.	120,000	35	1924	1959	2052	105.71 %	237.03 %	37		$1,012,601.25	$427,200
D2010	Plumbing Fixtures	$13.52	S.F.	120,000	35	2000	2035		57.14 %	1.87 %	20		$30,316.76	$1,622,400
D2020	Domestic Water Distribution	$1.68	S.F.	120,000	25			2042	108.00 %	246.85 %	27		$497,648.28	$201,600
D2030	Sanitary Waste	$2.52	S.F.	120,000	30			2047	106.67 %	172.22 %	32		$520,796.79	$302,400
D2040	Rain Water Drainage	$2.32	S.F.	120,000	30	1924	1954	2027	40.00 %	0.00 %	12			$278,400
D3020	Heat Generating Systems	$18.67	S.F.	120,000	35	2000	2035		57.14 %	0.00 %	20			$2,240,400
D3030	Cooling Generating Systems	$24.48	S.F.	120,000	30			2047	106.67 %	84.92 %	32		$2,494,725.70	$2,937,600
D3040	Distribution Systems	$42.99	S.F.	120,000	25			2042	108.00 %	134.62 %	27		$6,944,745.61	$5,158,800
D3050	Terminal & Package Units	$11.60	S.F.	120,000	20				0.00 %	0.00 %				$1,392,000
D3060	Controls & Instrumentation	$13.50	S.F.	120,000	20			2037	110.00 %	132.68 %	22		$2,149,368.25	$1,620,000
D4010	Sprinklers	$7.05	S.F.	120,000	35			2052	105.71 %	202.91 %	37		$1,716,653.57	$846,000
D4020	Standpipes	$1.01	S.F.	120,000	35				0.00 %	0.00 %				$121,200
D5010	Electrical Service/Distribution	$9.70	S.F.	120,000	30	1924	1954	2047	106.67 %	156.63 %	32		$1,823,125.05	$1,164,000
D5020	Lighting and Branch Wiring	$34.68	S.F.	120,000	20	1924	1944	2032	85.00 %	37.75 %	17		$1,570,887.18	$4,161,600
D5030	Communications and Security	$12.99	S.F.	120,000	15	1924	1939	2032	113.33 %	44.11 %	17		$687,595.89	$1,558,800
D5090	Other Electrical Systems	$1.41	S.F.	120,000	30	1924	1954	2047	106.67 %	219.28 %	32		$371,022.94	$169,200
E1020	Institutional Equipment	$4.82	S.F.	120,000	35	1924	1959	2027	34.29 %	0.00 %	12			$578,400
E1090	Other Equipment	$11.10	S.F.	120,000	35	1924	1959	2027	34.29 %	0.00 %	12			$1,332,000
E2010	Fixed Furnishings	$2.13	S.F.	120,000	40	1924	1964	2057	105.00 %	211.71 %	42		$541,143.31	$255,600
								Total	**70.36 %**	**47.64 %**			**$29,133,991.38**	**$61,154,900**

System Notes

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

System: C3010 - Wall Finishes — This system contains no images

Note:
Marble 20%
Painted Finish 60%
Tile 10%
Brick 10%

System: C3020 - Floor Finishes — This system contains no images

Note:
Wood 50%
Concrete 30%
Tile 5%
Terrazzo 5%
Concrete 10%

System: D5010 - Electrical Service/Distribution — This system contains no images

Note: There are three (3) secondary transformers, all of which are 2 to 3 phase converter transformers, (1) 30 kVA, (1) 37.5 kVA and (1) 150 kVA.

Renewal Schedule

eCOMET forecasts future Capital Renewal funding needed to address expiring systems based on the Next Renewal year found in the Cost Models. A 3% annual inflation factor is applied to the costs for systems expiring in future years. The table below reflects recommended Capital Renewal funding needs over the next 10 years. Note: Cells with a zero value indicate systems for which renewal is not scheduled in that year.

Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$29,133,991**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$29,133,991**
*** 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	$1,936,607	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,936,607**
B2030 - Exterior Doors	$182,146	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$182,146**
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	$1,016,460	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,016,460**
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	$1,916,524	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,916,524**
C1020 - Interior Doors	$1,163,585	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,163,585**
C1030 - Fittings	$154,080	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$154,080**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

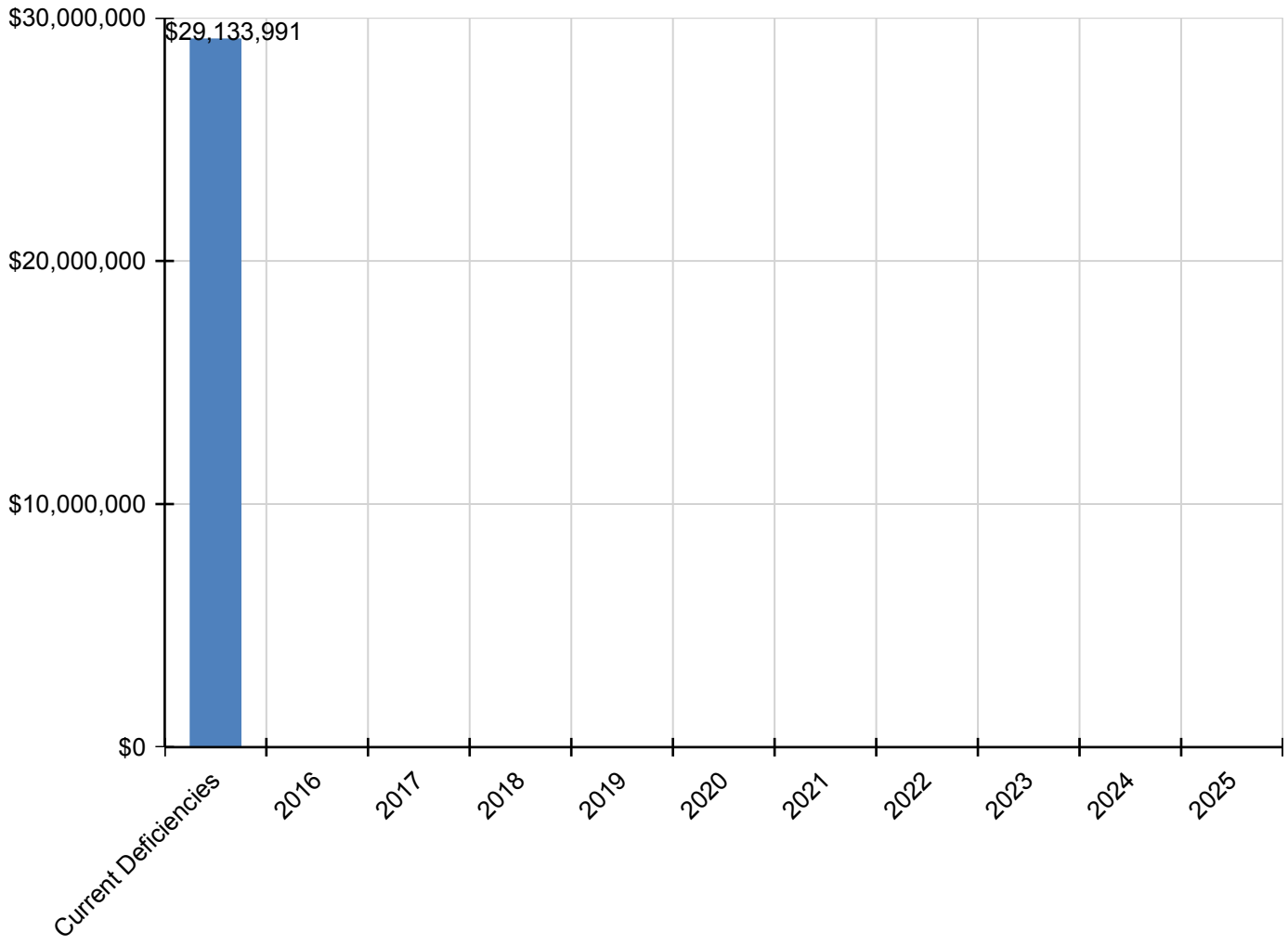
C2010 - Stair Construction	$13,078	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$13,078**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010 - Wall Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010230 - Paint & Covering	$67,739	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$67,739**
C3010232 - Wall Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020413 - Vinyl Flooring	$151,667	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$151,667**
C3020414 - Wood Flooring	$1,457,604	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,457,604**
C3020415 - Concrete Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3030 - Ceiling Finishes	$713,871	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$713,871**
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	$1,012,601	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,012,601**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$30,317	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$30,317**
D2020 - Domestic Water Distribution	$497,648	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$497,648**
D2030 - Sanitary Waste	$520,797	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$520,797**
D2040 - Rain Water Drainage	$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**
D3020 - Heat Generating Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3030 - Cooling Generating Systems	$2,494,726	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,494,726**
D3040 - Distribution Systems	$6,944,746	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$6,944,746**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$2,149,368	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,149,368**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$1,716,654	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,716,654**
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	$1,823,125	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,823,125**
D5020 - Lighting and Branch Wiring	$1,570,887	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,570,887**
D5030 - Communications and Security	$687,596	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$687,596**
D5090 - Other Electrical Systems	$371,023	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$371,023**

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**
E1090 - Other 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	$541,143	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$541,143**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

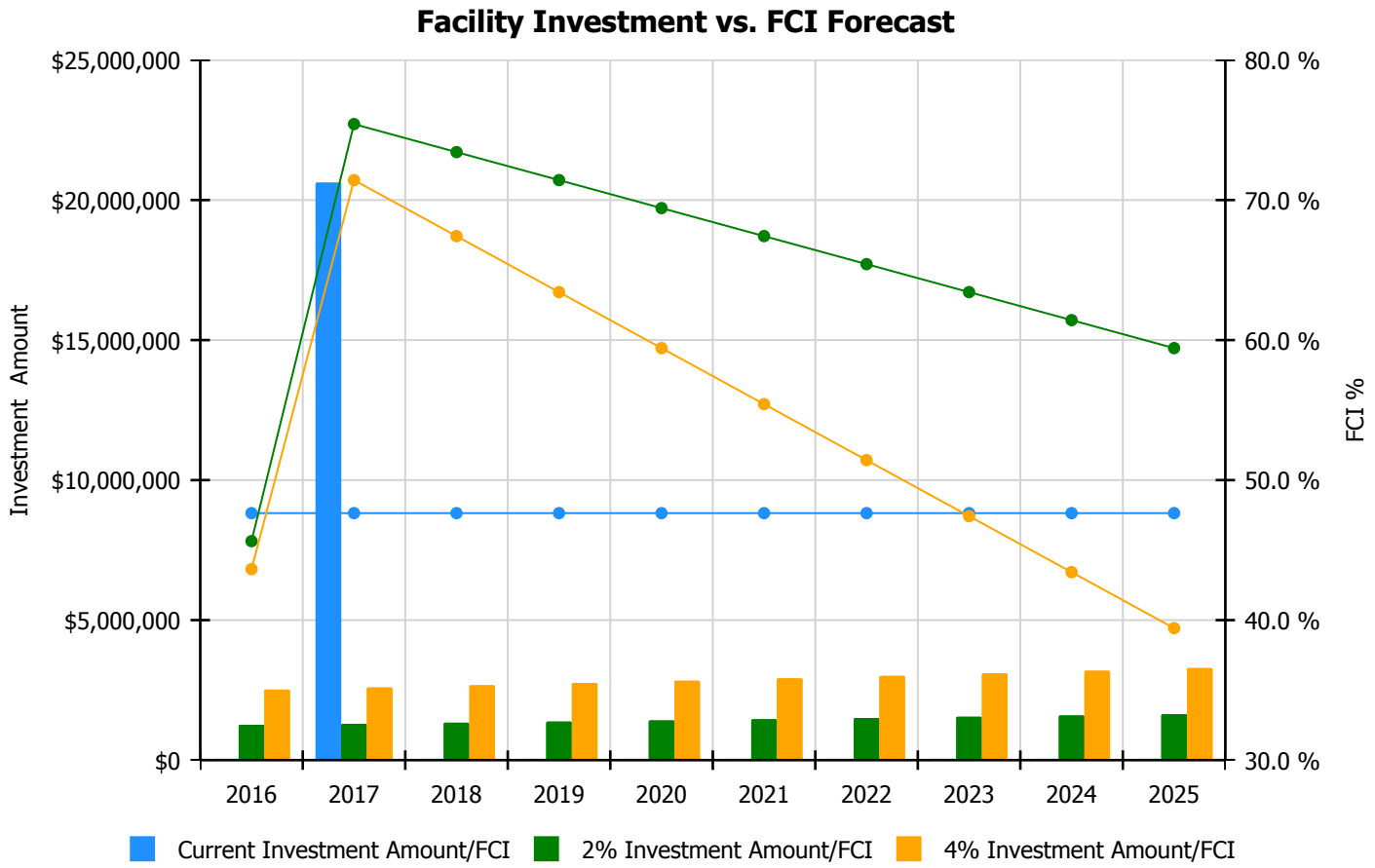
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



10 Year FCI 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:

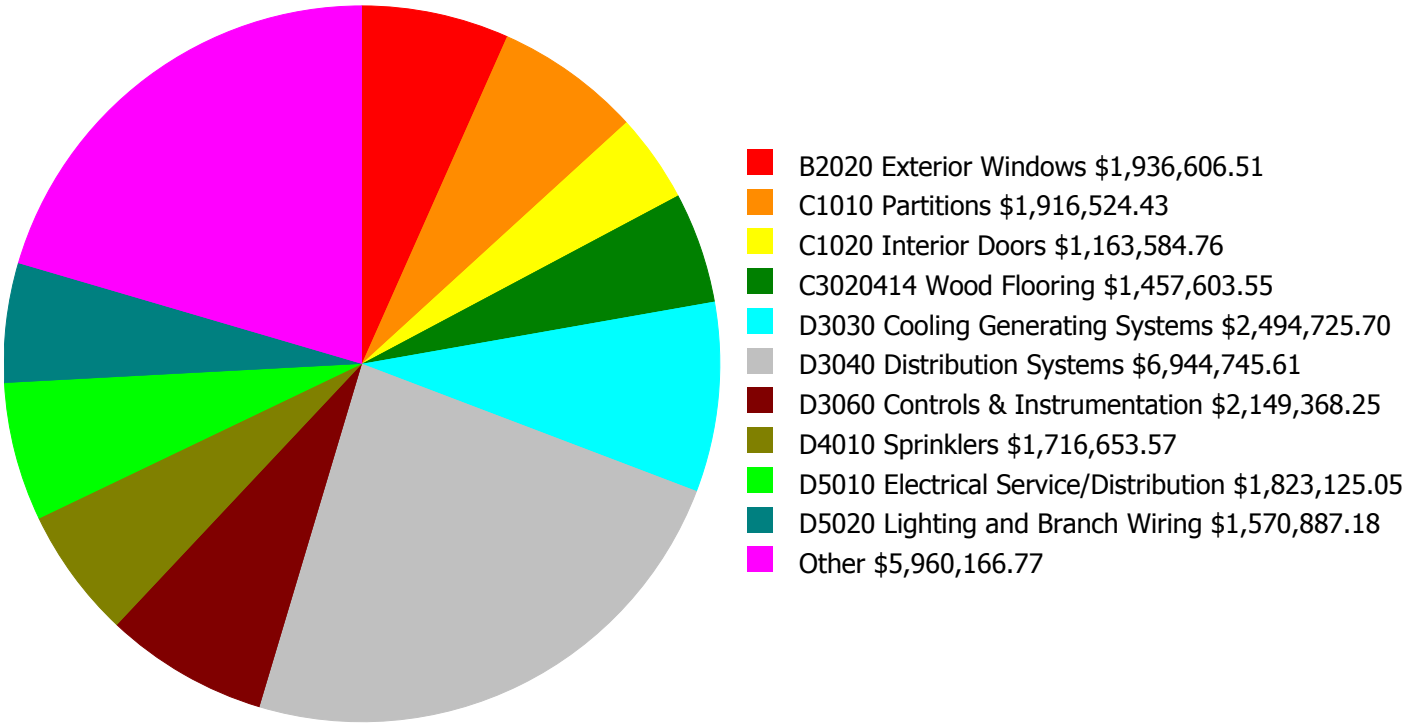
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 47.64%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$1,259,791.00	45.64 %	$2,519,582.00	43.64 %
2017	$20,621,764	$1,297,585.00	75.42 %	$2,595,169.00	71.42 %
2018	$0	$1,336,512.00	73.42 %	$2,673,024.00	67.42 %
2019	$0	$1,376,608.00	71.42 %	$2,753,215.00	63.42 %
2020	$0	$1,417,906.00	69.42 %	$2,835,812.00	59.42 %
2021	$0	$1,460,443.00	67.42 %	$2,920,886.00	55.42 %
2022	$0	$1,504,256.00	65.42 %	$3,008,513.00	51.42 %
2023	$0	$1,549,384.00	63.42 %	$3,098,768.00	47.42 %
2024	$0	$1,595,865.00	61.42 %	$3,191,731.00	43.42 %
2025	$0	$1,643,741.00	59.42 %	$3,287,483.00	39.42 %
Total:	**$20,621,764**	**$14,442,091.00**		**$28,884,183.00**	

Deficiency Summary by System

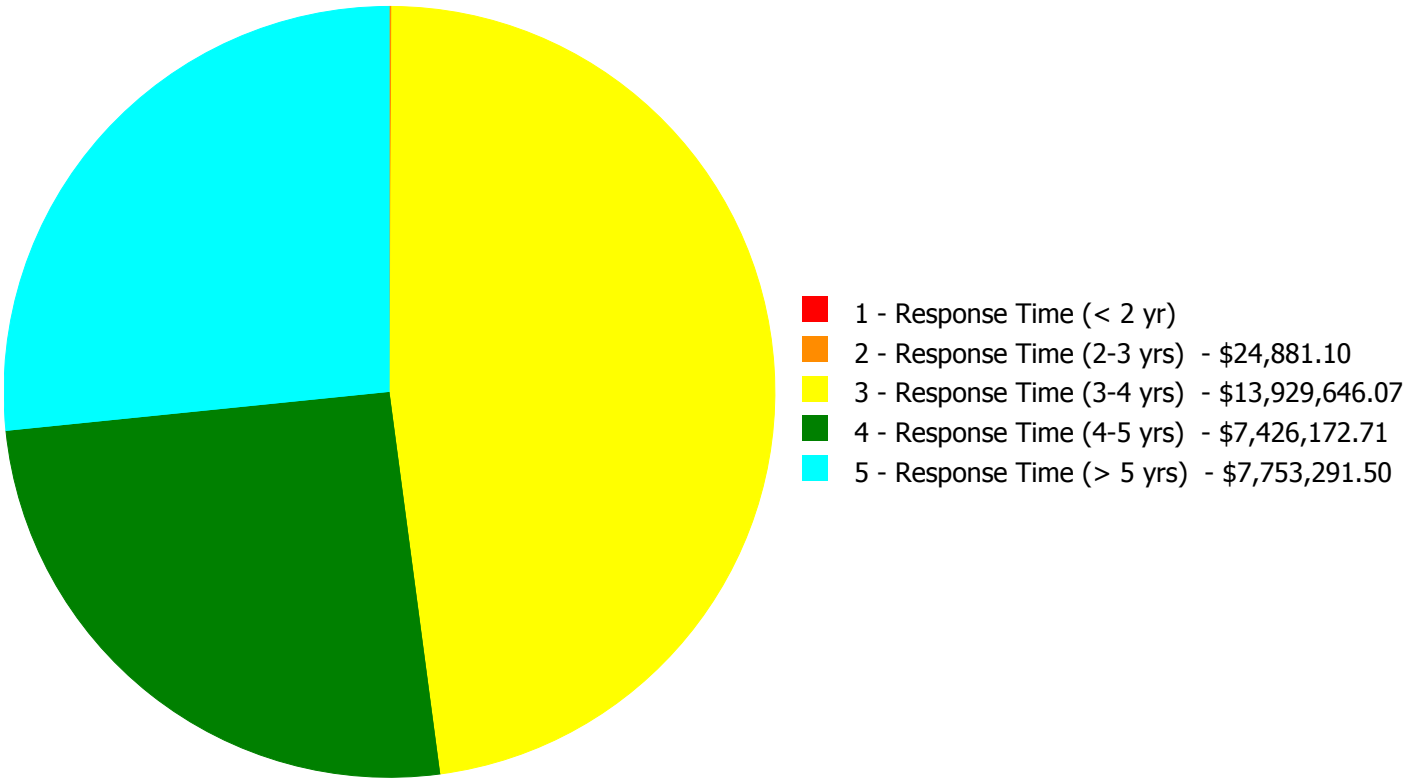
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $29,133,991.38

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: $29,133,991.38

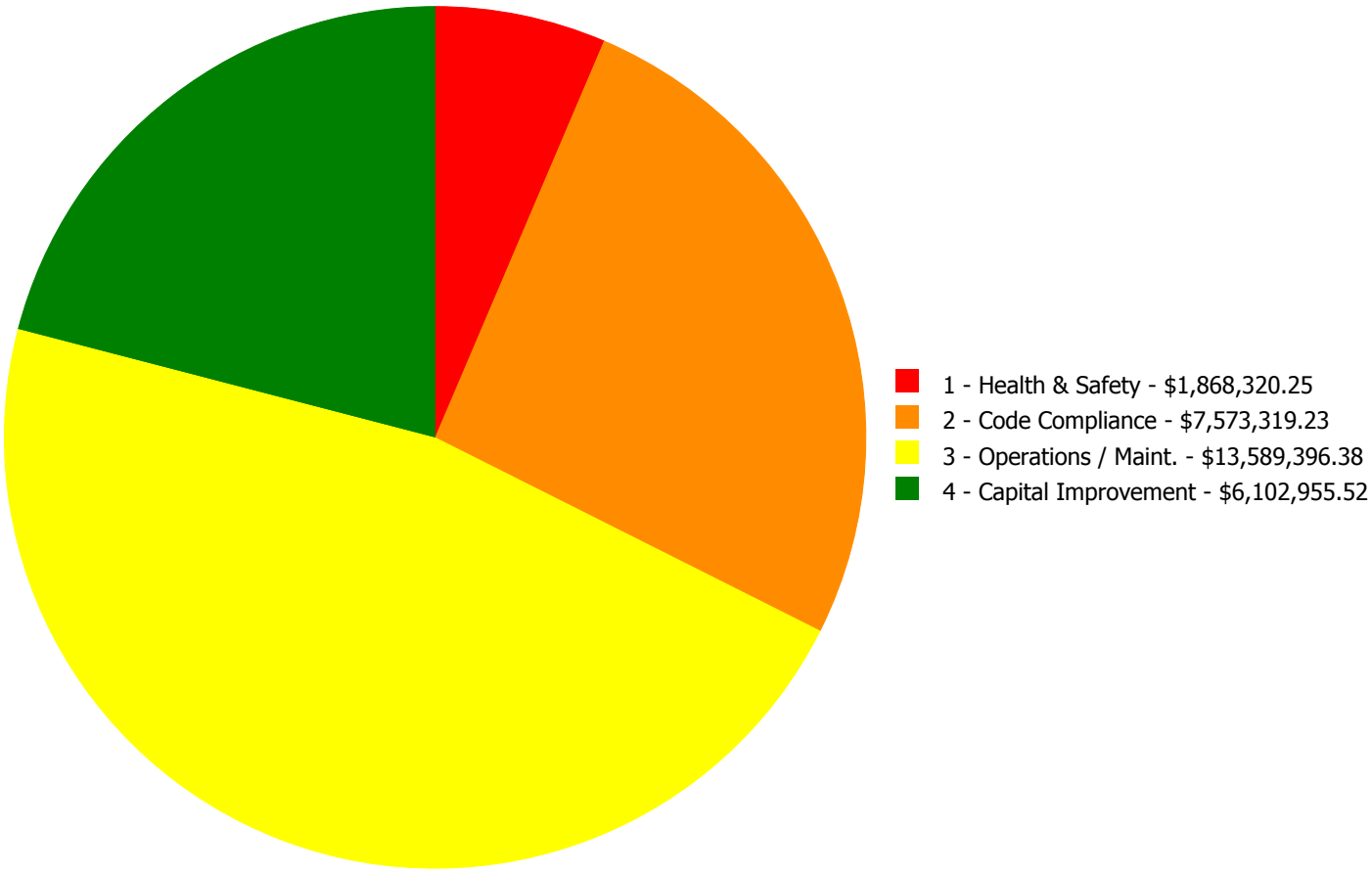
Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
B2020	Exterior Windows	$0.00	$0.00	$0.00	$0.00	$1,936,606.51	$1,936,606.51
B2030	Exterior Doors	$0.00	$0.00	$0.00	$0.00	$182,146.42	$182,146.42
B3010105	Built-Up	$0.00	$0.00	$0.00	$1,016,460.33	$0.00	$1,016,460.33
C1010	Partitions	$0.00	$0.00	$152,779.01	$0.00	$1,763,745.42	$1,916,524.43
C1020	Interior Doors	$0.00	$0.00	$1,163,584.76	$0.00	$0.00	$1,163,584.76
C1030	Fittings	$0.00	$0.00	$0.00	$8,505.96	$145,573.68	$154,079.64
C2010	Stair Construction	$0.00	$0.00	$13,078.35	$0.00	$0.00	$13,078.35
C3010230	Paint & Covering	$0.00	$0.00	$0.00	$67,738.77	$0.00	$67,738.77
C3020413	Vinyl Flooring	$0.00	$0.00	$0.00	$151,666.68	$0.00	$151,666.68
C3020414	Wood Flooring	$0.00	$0.00	$0.00	$0.00	$1,457,603.55	$1,457,603.55
C3030	Ceiling Finishes	$0.00	$0.00	$0.00	$0.00	$713,871.36	$713,871.36
D1010	Elevators and Lifts	$0.00	$0.00	$0.00	$0.00	$1,012,601.25	$1,012,601.25
D2010	Plumbing Fixtures	$0.00	$0.00	$0.00	$30,316.76	$0.00	$30,316.76
D2020	Domestic Water Distribution	$0.00	$0.00	$497,648.28	$0.00	$0.00	$497,648.28
D2030	Sanitary Waste	$0.00	$0.00	$520,796.79	$0.00	$0.00	$520,796.79
D3030	Cooling Generating Systems	$0.00	$0.00	$0.00	$2,494,725.70	$0.00	$2,494,725.70
D3040	Distribution Systems	$0.00	$0.00	$5,862,131.26	$1,082,614.35	$0.00	$6,944,745.61
D3060	Controls & Instrumentation	$0.00	$0.00	$0.00	$2,149,368.25	$0.00	$2,149,368.25
D4010	Sprinklers	$0.00	$0.00	$1,716,653.57	$0.00	$0.00	$1,716,653.57
D5010	Electrical Service/Distribution	$0.00	$24,881.10	$1,798,243.95	$0.00	$0.00	$1,823,125.05
D5020	Lighting and Branch Wiring	$0.00	$0.00	$1,372,700.83	$198,186.35	$0.00	$1,570,887.18
D5030	Communications and Security	$0.00	$0.00	$461,006.33	$226,589.56	$0.00	$687,595.89
D5090	Other Electrical Systems	$0.00	$0.00	$371,022.94	$0.00	$0.00	$371,022.94
E2010	Fixed Furnishings	$0.00	$0.00	$0.00	$0.00	$541,143.31	$541,143.31
	Total:	$0.00	$24,881.10	$13,929,646.07	$7,426,172.71	$7,753,291.50	$29,133,991.38

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: $29,133,991.38

Deficiency Details by Priority

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

Priority 2 - Response Time (2-3 yrs):

System: D5010 - Electrical Service/Distribution

Location: Boiler Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 2 - Response Time (2-3 yrs)

Correction: Remove and Replace Panelboard - 400 amp

Qty: 1.00

Unit of Measure: Ea.

Estimate: $24,881.10

Assessor Name: System

Date Created: 10/12/2015

Notes: B-K Electrical Products Panelboard NWL, 400A, 208/120V, 3 phase, 4 wire.

Priority 3 - Response Time (3-4 yrs):

System: C1010 - Partitions

Location: Building Wide

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 3 - Response Time (3-4 yrs)

Correction: Install fire rated walls and door where required - insert number of doors

Qty: 32.00

Unit of Measure: S.F.

Estimate: $152,779.01

Assessor Name: System

Date Created: 09/07/2015

Notes: A large portion of the interior corridor, exit stair doors are not code compliant. Several doors are typically metal in metal frames with transom lites or sidelights, glass glazing. The older doors are generally in good condition considering the age of the application. To restore the door finishes, universal upgrades are required for the older door applications. Remove and replace original door systems with new code compliant fire rated door system.

System: C1020 - Interior Doors

Location: Building Wide

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 3 - Response Time (3-4 yrs)

Correction: Remove and replace interior doors - wood doors with wood frame - per leaf

Qty: 250.00

Unit of Measure: Ea.

Estimate: $1,163,584.76

Assessor Name: System

Date Created: 09/07/2015

Notes: Interior doors are typically wood in wood frames with transom lites, sidelights, wired glass glazing. Other interior doors include wooden glass pane doors with original wooden pane frames, hollow metal in hollow metal frames at stairwells and exit ways. Doors are generally in good condition considering the age of the application. Universal upgrades are required for the interior door systems it is recommended that the interior doors system be removed and replaced with a new modern metal framed hollow metal door system with consideration for ADA compliance. Special Note: The double door systems leading to the auditorium are on both the first and second floors and lead to the lobby. These doors will require special consideration for fire rating upgrades to support modern code.

System: C2010 - Stair Construction

Location: Stairs

Distress: Life Safety / NFPA / PFD

Category: 2 - Code Compliance

Priority: 3 - Response Time (3-4 yrs)

Correction: Replace inadequate or install proper stair railing - select appropriate material

Qty: 840.00

Unit of Measure: L.F.

Estimate: $13,078.35

Assessor Name: System

Date Created: 09/07/2015

Notes: Current requirements for stairs indicate that they have graspable handrails on both sides, that the rails have a specific end geometry, and that the handrails continue horizontally at the landings. In addition, guardrails must prevent the passage of a 4 inch diameter sphere (6 inches in the triangle formed by the lower rail and tread/riser angle). Although the stairs are compliant with the code enforced at the time of construction until a major renovation occurs, they are deficient in handrail and guardrail design relative to current standards. Future efforts should include comprehensive stair railing removal and replacement upgrades.

System: D2020 - Domestic Water Distribution

Location: entire building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 3 - Response Time (3-4 yrs)

Correction: Replace domestic water piping (150 KSF)

Qty: 120,000.00

Unit of Measure: S.F.

Estimate: $497,648.28

Assessor Name: System

Date Created: 09/07/2015

Notes: Replace domestic hot and cold water pipe, fittings, valves, hangers and insulation.

System: D2030 - Sanitary Waste

Location: entire building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 3 - Response Time (3-4 yrs)

Correction: Inspect sanitary waste piping and replace damaged sections. (+200KSF)

Qty: 120,000.00

Unit of Measure: S.F.

Estimate: $520,796.79

Assessor Name: System

Date Created: 09/07/2015

Notes: Inspect old cast iron sanitary piping including camera observation and replace damaged sections.

System: D3040 - Distribution Systems

Location: classrooms

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 3 - Response Time (3-4 yrs)

Correction: Provide classroom FC units and dedicated OA ventilation system. (20 clsrms)

Qty: 60.00

Unit of Measure: C

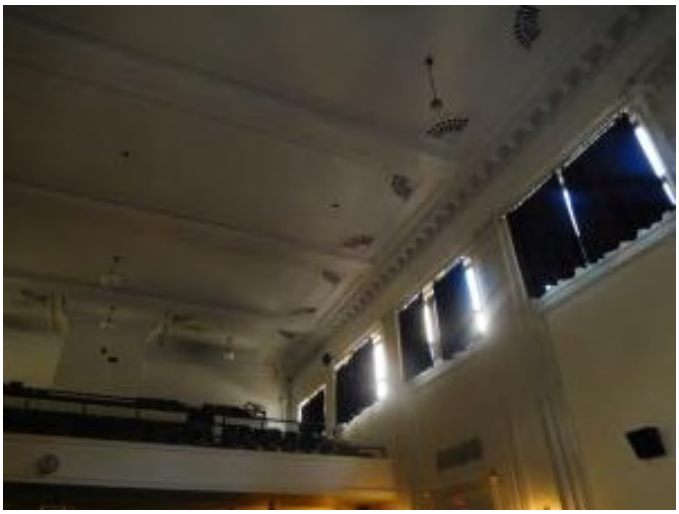
Estimate: $4,983,659.30

Assessor Name: System

Date Created: 09/07/2015

Notes: Provide a four pipe fan coil system with roof mounted outside air system ducted to each fan coil unit. Provide a fan coil unit for each classroom and separate area. Include new heat exchanger and pump for hot water, piping, control valves and controls, to replace steam heating system

System: D3040 - Distribution Systems



Location: auditorium

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 3 - Response Time (3-4 yrs)

Correction: Install HVAC unit for Auditorium (200 seat).

Qty: 400.00

Unit of Measure: Seat

Estimate: $570,170.82

Assessor Name: System

Date Created: 09/07/2015

Notes: Provide a new central station air handling unit for the auditorium with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems.

System: D3040 - Distribution Systems

Location: gymnasium 1

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 3 - Response Time (3-4 yrs)

Correction: Install HVAC unit for Gymnasium (single station).

Qty: 3,000.00

Unit of Measure: Ea.

Estimate: $154,150.57

Assessor Name: System

Date Created: 09/07/2015

Notes: Provide a new central station air handling unit for each of the two gymnasiums with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems.

System: D3040 - Distribution Systems

Location: gymnasium 2

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 3 - Response Time (3-4 yrs)

Correction: Install HVAC unit for Gymnasium (single station).

Qty: 3,000.00

Unit of Measure: Ea.

Estimate: $154,150.57

Assessor Name: System

Date Created: 09/07/2015

Notes: Provide a new central station air handling unit for each of the two gymnasiums with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems.

System: D4010 - Sprinklers

Location: entire building

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

Priority: 3 - Response Time (3-4 yrs)

Correction: Install a fire protection sprinkler system

Qty: 120,000.00

Unit of Measure: S.F.

Estimate: $1,716,653.57

Assessor Name: System

Date Created: 09/07/2015

Notes: Install NFPA wet pipe automatic sprinkler system in entire building, including fire service, piping, sprinkler heads, standpipes and fire pump if required.

System: D5010 - Electrical Service/Distribution

Location: Main Electrical Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 3 - Response Time (3-4 yrs)

Correction: Replace Electrical DIstribution System (U1)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $1,231,551.59

Assessor Name: System

Date Created: 10/03/2015

Notes: Replace existing Main Switchboard and service distribution equipment panelboards, safety switches and phase converter transformers with a 2000A, 480/2770V, 3 phase, 4 wire service switchboard with associated feeder circuit breakers and feeders to serve
added central air conditioning equipment, an elevator addition, and a fire pump (if required). Provide a 500 kVA 480-208/120V, 3phase, 4 wire, 1600A load center substation to backfeed existing building loads. Provide pad mounted service transformer and service
entrance to Main Switchboard. added central air conditioning equipment, an elevator addition, and a fire pump (if required).

System: D5010 - Electrical Service/Distribution

Location: Floors 1-3, Kitchen

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 3 - Response Time (3-4 yrs)

Correction: Replace Panelboard

Qty: 13.00

Unit of Measure: Ea.

Estimate: $566,692.36

Assessor Name: System

Date Created: 10/03/2015

Notes: Replace 120/240V, 1 phase panelboards in corridors on Floors 1-3 and in the kitchen. Total of (13) panelboards.

System: D5020 - Lighting and Branch Wiring

Location: Classrooms and Library
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace Lighting Fixtures (SF)
Qty: 39,507.00
Unit of Measure: S.F.
Estimate: $948,745.09
Assessor Name: System
Date Created: 10/03/2015

Notes: Replace fluorescent lighting fixtures in classrooms and library (Approximately 39,507 SF).

System: D5020 - Lighting and Branch Wiring

Location: Miscellaneous Rooms
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace Lighting Fixtures (SF)
Qty: 21,080.00
Unit of Measure: S.F.
Estimate: $423,955.74
Assessor Name: System
Date Created: 10/03/2015

Notes: Replace fluorescent lighting fixtures in offices, restrooms, kitchen, dining, Main Electrical Room and other miscellaneous rooms (Approximately 21,080 SF).

System: D5030 - Communications and Security

Location: Building wide

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 3 - Response Time (3-4 yrs)

Correction: Replace fire alarm system

Qty: 120,000.00

Unit of Measure: S.F.

Estimate: $461,006.33

Assessor Name: System

Date Created: 10/03/2015

Notes: Replace fire alarm system with an addressable type system, including pull stations, smoke and heat detectors, and audible and visual notification appliances.

System: D5090 - Other Electrical Systems

This deficiency has no image.

Location: Main Electrical Room

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 3 - Response Time (3-4 yrs)

Correction: Add Standby Generator System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $371,022.94

Assessor Name: System

Date Created: 10/03/2015

Notes: Provide standby generator system to be sized for all emergency egress and exit lighting and for an elevator addition. Provide branch circuiting for emergency egress and exit lighting.

Priority 4 - Response Time (4-5 yrs):

System: B3010105 - Built-Up

Location: Roof

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 4 - Response Time (4-5 yrs)

Correction: Remove and Replace Built Up Roof

Qty: 30,000.00

Unit of Measure: S.F.

Estimate: $1,016,460.33

Assessor Name: System

Date Created: 09/07/2015

Notes: There are a number of roof sections and different roof elevations ranging from the main roof to the mechanical roof. Parapet heights, coping materials, and the height of the flashing also varies in different sections. The main roof is a built up application that was installed in the early 1990'S. The other built up roofs have not conclusive installation dates and have been seal coated several times to extend the life cycle of the application. Considering the age and condition of the roofing systems, universal upgrades are recommended. Remove and replace all roof sections.

System: C1030 - Fittings

Location: Locker Rooms

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 4 - Response Time (4-5 yrs)

Correction: Remove and replace damaged toilet paritions - handicap units

Qty: 4.00

Unit of Measure: Ea.

Estimate: $8,505.96

Assessor Name: System

Date Created: 09/07/2015

Notes: The shower application in the boy's and girl's locker rooms are marble and in fair condition. However there are a few broken barriers that will require upgrades. This system appears to be from original construction and did not include any consideration for those that may be physically challenged. The fixtures are in fair condition considering the age of the application. New shower systems are recommended for each room and should include all aspects of the current ADA standards for the physically challenged. This recommendation is expected to be completed as part of an overall renovation effort to both locker rooms and access points to remove access barriers.

System: C3010230 - Paint & Covering

Location: Building Wide

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 4 - Response Time (4-5 yrs)

Correction: Repair and repaint all interior walls - SF of wall surface

Qty: 10,000.00

Unit of Measure: S.F.

Estimate: $67,738.77

Assessor Name: System

Date Created: 09/07/2015

Notes: The interior wall finish is a mix of polished brick, brick, plaster, drywall, ceramic tile, marble and painted CMU. There are several minor areas of wall damage that ranges from serious to minor. Although the school is on a cyclical program of renewal and each painted surface is renewed at years end this system is at the point in which repairs are necessary. Remove damaged wall finishes and repair areas then apply primer and paint finish. This project is expected to be completed only after the roof replacement has been completed.

System: C3020413 - Vinyl Flooring

Location: Building Wide

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

Priority: 4 - Response Time (4-5 yrs)

Correction: Remove VAT and replace with VCT - SF of area

Qty: 10,000.00

Unit of Measure: S.F.

Estimate: $151,666.68

Assessor Name: System

Date Created: 09/07/2015

Notes: The vinyl floor finish in most of this school is in very good condition and appears to have part of an isolated upgrade. Some of the original flooring that was not a part of that effort consist of a 9x9 finish. This finish is suspect to contain asbestos and is recommended for upgrade. Remove and replace with a 12x12 vinyl tile application.

System: D2010 - Plumbing Fixtures

Location: basement corridors

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 4 - Response Time (4-5 yrs)

Correction: Remove and Replace Water Fountains - without ADA new recessed alcove

Qty: 4.00

Unit of Measure: Ea.

Estimate: $30,316.76

Assessor Name: System

Date Created: 09/07/2015

Notes: Replace older drinking fountains with water coolers with integral refrigeration. Include fittings and trim.

System: D3030 - Cooling Generating Systems

Location: roof, mechanical room

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 4 - Response Time (4-5 yrs)

Correction: Install chilled water system with distribution piping and pumps. (+150KSF)

Qty: 150,000.00

Unit of Measure: S.F.

Estimate: $2,494,725.70

Assessor Name: System

Date Created: 09/07/2015

Notes: Provide a three hundred ton air cooled package chiller on the roof with pumps, piping and controls. Connect to new fan coil units and air handling units.

System: D3040 - Distribution Systems

Location: cafeteria 1

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 4 - Response Time (4-5 yrs)

Correction: Install HVAC unit for Cafeteria (850 students).

Qty: 1,029.00

Unit of Measure: Pr.

Estimate: $481,082.53

Assessor Name: System

Date Created: 09/07/2015

Notes: Provide a new central station air handling unit for each of the two cafeterias with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems.

System: D3040 - Distribution Systems

Location: cafeteria 2

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 4 - Response Time (4-5 yrs)

Correction: Install HVAC unit for Cafeteria (850 students).

Qty: 1,029.00

Unit of Measure: Pr.

Estimate: $481,082.53

Assessor Name: System

Date Created: 09/07/2015

Notes: Provide a new central station air handling unit for each of the two cafeterias with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems.

System: D3040 - Distribution Systems

Location: toilet rooms

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 4 - Response Time (4-5 yrs)

Correction: Provide inline centrifugal fan and wall outlet louver for restroom exhaust (4 plbg fixtures)

Qty: 7.00

Unit of Measure: Ea.

Estimate: $120,449.29

Assessor Name: System

Date Created: 09/07/2015

Notes: Provide mechanical toilet exhaust system including inline or exterior wall centrifugal ventilator at each level, ductwork and exhaust registers.

System: D3060 - Controls & Instrumentation

Location: entire building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 4 - Response Time (4-5 yrs)

Correction: Replace pneumatic controls with DDC (150KSF)

Qty: 120,000.00

Unit of Measure: S.F.

Estimate: $2,149,368.25

Assessor Name: System

Date Created: 09/07/2015

Notes: Install new direct digital control system and building automation system with remote computer control capability and graphics package.

System: D5020 - Lighting and Branch Wiring

Location: Auditorium

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 4 - Response Time (4-5 yrs)

Correction: Replace Lighting Fixtures (SF)

Qty: 4,488.00

Unit of Measure: S.F.

Estimate: $121,239.04

Assessor Name: System

Date Created: 10/03/2015

Notes: Replace lighting fixtures in the auditorium with LED fixtures (Approximately 4,488 SF).

System: D5020 - Lighting and Branch Wiring

Location: Classrooms

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 4 - Response Time (4-5 yrs)

Correction: Provide surface raceway system and wiring devices

Qty: 800.00

Unit of Measure: L.F.

Estimate: $75,237.38

Assessor Name: System

Date Created: 10/03/2015

Notes: Provide an allowance to add surface metal raceway system and five (5) duplex receptacles in each of 40 classrooms.

System: D5020 - Lighting and Branch Wiring

Location: Kitchen

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 4 - Response Time (4-5 yrs)

Correction: Replace Wiring Device

Qty: 5.00

Unit of Measure: Ea.

Estimate: $1,709.93

Assessor Name: System

Date Created: 10/03/2015

Notes: Provide allowance to replace five (5) duplex receptacles in the kitchen with ground-fault circuit-interrupting type.

System: D5030 - Communications and Security

Location: Building wide
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 4 - Response Time (4-5 yrs)
Correction: Add/Replace Video Surveillance System
Qty: 19.00
Unit of Measure: Ea.
Estimate: $151,875.32
Assessor Name: System
Date Created: 10/03/2015

Notes: Replace/add video surveillance system cameras. Provide an allowance to replace four (4) exterior cameras and replace/add 14 interior cameras.

System: D5030 - Communications and Security

Location: Building wide
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 4 - Response Time (4-5 yrs)
Correction: Replace clock/program system
Qty: 80.00
Unit of Measure: Ea.
Estimate: $66,368.41
Assessor Name: System
Date Created: 10/03/2015

Notes: Replace clock and program system.

System: D5030 - Communications and Security

Location: Classrooms

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 4 - Response Time (4-5 yrs)

Correction: AddReplaceTelevision Distribution System

Qty: 5.00

Unit of Measure: Ea.

Estimate: $8,345.83

Assessor Name: System

Date Created: 10/03/2015

Notes: Provide allowance for upgrade of five (5) televisions.

Priority 5 - Response Time (> 5 yrs):

System: B2020 - Exterior Windows

Location: Exterior Elevation

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Remove and replace aluminum windows - pick the appropriate size and style and insert the number of units

Qty: 300.00

Unit of Measure: Ea.

Estimate: $1,936,606.51

Assessor Name: System

Date Created: 09/07/2015

Notes: The single pane aluminum framed windows have been upgraded from the original applications. The current system is estimated to have been installed in the 1990's. Several windows no longer work and will require attention prior to an overall effort. . The original steel-framed, multi-light windows in the Boy's and Girl's Gym are original have exceeded their useful service life. Windows are in fair condition based on the year of installation or last renovation. The exterior window system is recommended to be replaced with units that retain their dimensions and profiles, but that incorporate updated energy-efficient features.

System: B2030 - Exterior Doors

Location: Exterior Elevation

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Remove and replace exterior doors - per leaf

Qty: 20.00

Unit of Measure: Ea.

Estimate: $182,146.42

Assessor Name: System

Date Created: 09/07/2015

Notes: The exterior doors are metal applications with metal frames. The exterior door system for this school is a very high traffic system. The doors are in fair condition but are aging at a faster rate than expected based on traffic and condition. The exterior door system, store front and service doors are recommended for upgrade.

System: C1010 - Partitions

Location: Science Labs

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Remodel existing classroom for lab use - approx 900 GSF - with chemical storage room, 15 tables + instructors table

Qty: 5.00

Unit of Measure: Ea.

Estimate: $1,763,745.42

Assessor Name: System

Date Created: 09/07/2015

Notes: This schools science labs have been upgraded from the original construction. The installation consist of an instruction demonstration desk with sink. Wall mounted storage cabinets and cabinets with sinks for student use. The system is showing signs of age and lack of maintenance such as broken sink fixtures missing cabinet doors and damaged shelves. This deficiency provides a budgetary consideration for the universal upgrade of the science teaching labs to include new counter tops, sink, cabinets, shelves and fixtures required to support a conducive level of education.

System: C1030 - Fittings

Location: Building Wide

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace blackboards with marker boards - pick the appropriate size and insert the quantities

Qty: 200.00

Unit of Measure: Ea.

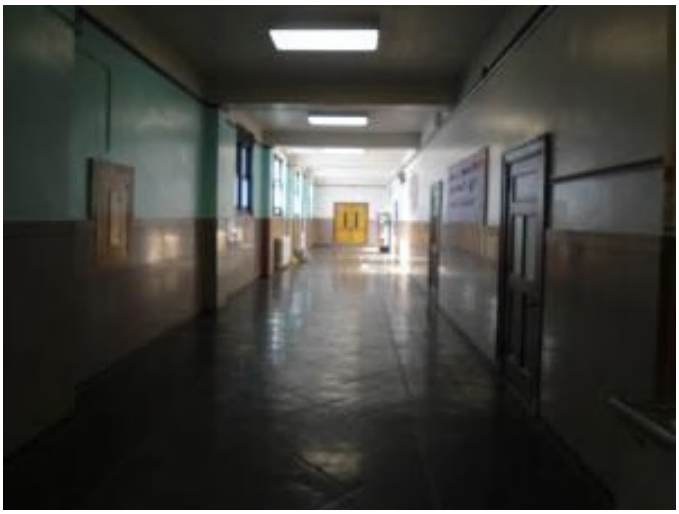
Estimate: $137,646.42

Assessor Name: System

Date Created: 09/07/2015

Notes: The classroom chalk boards are original to the buildings construction. This system is beyond its expected life and universal upgrades are warranted. Remove and upgrade chalkboards to new marker board systems.

System: C1030 - Fittings



Location: Building Wide

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Remove and replace tackboards - select size

Qty: 10.00

Unit of Measure: Ea.

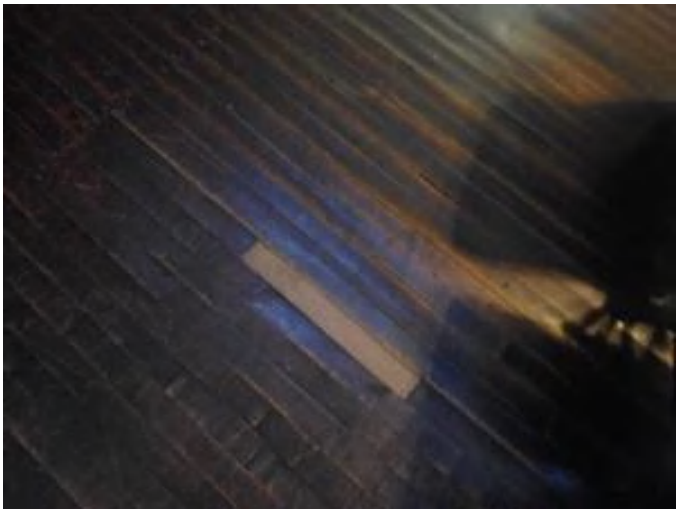
Estimate: $7,927.26

Assessor Name: System

Date Created: 09/07/2015

Notes: There are several tack boards in the hallways for student displays. The systems are beyond the expected service life for this application. Remove and replace tack boards is recommended.

System: C3020414 - Wood Flooring



Location: Building Wide

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Remove and replace wood flooring

Qty: 40,000.00

Unit of Measure: S.F.

Estimate: $1,166,082.84

Assessor Name: System

Date Created: 09/07/2015

Notes: The classrooms in this school have a wooden floor finish that appears to be from original construction. The system is showing signs of age such as the effects of sanding and refinishing with yearly cleaning and waxing with some repairs. The floor finish is in fair condition however, the finish is beyond its expected life cycle. It is recommended that the wooden floor finish be removed and replaced with an in kind finish.

System: C3020414 - Wood Flooring

Location: Gym

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Remove and replace wood flooring

Qty: 10,000.00

Unit of Measure: S.F.

Estimate: $291,520.71

Assessor Name: System

Date Created: 09/07/2015

Notes: The Boy's and Girl's GYM floor finish is beyond its expected life cycle for this application. Recent repairs have eliminated the trip hazards however, there are areas that remain that warrant replacement. The floor is recommended for universal upgrade.

System: C3030 - Ceiling Finishes

Location: Building WIde

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Remove and replace ceiling tiles only in suspended ceiling - pick the proper material

Qty: 60,000.00

Unit of Measure: S.F.

Estimate: $713,871.36

Assessor Name: System

Date Created: 09/07/2015

Notes: This schools ceiling finish is a mix of painted plaster, 12x12 ceiling tiles, 2 x 2 acoustical tile ceiling with grids and 2 x 4 acoustical tile ceilings with grids. The ceiling finish has been repaired in several areas and is in good condition considering the age of the application. There are several areas of minor stains and some sections of damage. As indicated in the photos the 12x12 ceiling finish is beyond the expected life cycle and universal upgrades are warranted. Overall the ceiling finish is expected to require upgrades within the next five to ten years. This deficiency provides a budgetary consideration for removal and replacement of the current ceiling finish to a new acoustical tile finish. Considering the recommended mechanical and electrical upgrades this effort should be completed as part of an overall renewal program for the school.

System: D1010 - Elevators and Lifts

Location: Building Wide

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

Correction: Add external 4 stop elevator - adjust the electrical run lengths to hook up the elevator

Qty: 1.00

Unit of Measure: Ea.

Estimate: $1,012,601.25

Assessor Name: System

Date Created: 09/07/2015

Notes: There is no elevator that services this school. Goods, services, and amenities offered in public buildings are generally required to be available to all persons. To assist those that may be physically challenged and to meet current accessibility legislation to provide wheelchair access to the upper floors of this facility, the installation of a new hydraulic elevator has been recommended on the southern elevation of the building or at another suitable location. The new installation should blend as much as possible with the overall appearance of this historic structure and include all required ADA features, such as audible jewels and gongs, an accessible control panel, etc.

System: E2010 - Fixed Furnishings

Location: Auditorium

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace auditorium seating - add tablet arms if required. Veneer seating is an option.

Qty: 600.00

Unit of Measure: Ea.

Estimate: $541,143.31

Assessor Name: System

Date Created: 09/07/2015

Notes: The fixed seating for this school is from the original construction. There are no replacement systems so damaged seats were taken from the balcony and placed on the main floor. The systems are in fair condition considering the age and usage. This project provides a budgetary consideration for universal upgrades for the fixed seating and furnishing of this school.

Equipment Inventory

The following table represents the inventory details of the inventory found in the building, which fall under the following subsystems:

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D2020 Domestic Water Distribution	Pump, pressure booster system, 1 HP pump, includes diaphragm tank, control and pressure switch	1.00	Ea.	mechanical room					25	2000	2025	$9,262.50	$10,188.75
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 5230 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	mechanical room	HB Smith	450			35	2000	2035	$122,870.00	$135,157.00
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 5230 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	mechanical room	HB Smith	450			35	2000	2035	$122,870.00	$135,157.00
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 5230 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	mechanical room	HB Smith	450			35	2000	2035	$122,870.00	$135,157.00
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 5230 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	mechanical room	HB Smith	450	HB 2000-36		35	2000	2035	$122,870.00	$135,157.00
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NQOD, 120/208 V, 400 A, 0 stories, 0' horizontal	1.00	Ea.	Boiler Room	B-K Electrical Products	Type NQB			30			$7,824.60	$8,607.06
D5010 Electrical Service/Distribution	Switchboards, main circuit breaker, 3 pole, 3 wire, to 600 volt, 800 amp	2.00	Ea.	Main Electrical Room	Frank Adam Electric	NA	NA		30			$10,681.20	$23,498.64
												Total:	**$582,922.45**

Executive Summary

Building condition is evaluated based on the functional systems and elements of a building and organized according to the UNIFORMAT II Elemental Classification. 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 Replacement Value is the amount needed to replace the property of the same present value. The Current Repair Amount, 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. Facility Condition Index (FCI) FCI is an industry-standard measurement of facility condition calculated as the ratio of the costs to correct a facility's deficiencies to the facility's Current Replacement Value. It ranges from 0% (new) to 100% (very poor). Condition Index (CI) 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 soft-cost to simplify calculation updates) expressed as a percentage ranging from 100% (new) to 0% (expired).

Function:	
Gross Area (SF):	58,000
Year Built:	1924
Last Renovation:	
Replacement Value:	$1,231,800
Repair Cost:	$44,741.65
Total FCI:	3.63 %
Total RSLI:	48.14 %

Description:

Attributes:

General Attributes:

Bldg ID:	S212001	Site ID:	S212001

Condition Summary

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

UNIFORMAT Classification	RSLI %	FCI %	Current Repair Cost
G20 - Site Improvements	38.02 %	5.00 %	$44,741.65
G40 - Site Electrical Utilities	75.00 %	0.00 %	$0.00
Totals:	**48.14 %**	**3.63 %**	**$44,741.65**

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 classification. The columns in the System Listing table below 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 for of the system.
5. Qty: The quantity for the system
6. Life: anticipated service life for thesystem based on Building Owners and Managers Association (BOMA) recommendations.
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. CI: The Condition Index of the system.
11. FCI: The Facility Condition Index of the system.
12. RSL: Remaining Service Life.
13. eCR: eCOMET Condition Rating (not used).
14. Deficiency $: The financial investment to repair/replace system.

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.

Additionally, a condition rating (eCR) based on the following guidelines is provided as observed at the time of the assessment.

- Excellent (E) - No noticeable distress or damage. The entire system is free from observable defect.
- Very Good (VG) - Overall no serviceability reduction for the entire system. No degradation of critical components and minor distress and defect noticeable for some but not non critical components within the system.
- Good (G) - Slight or no serviceability reduction for the entire system. There may be noticeable defects for some non critical components and slight noticeable degradation of the critical components.
- Fair (F) - Overall serviceability is degraded but adequate. There may be moderate deterioration for very few of the critical components and few of the non critical components may have severe degradation.
- Marginal (MA) - Overall serviceability and reliability loss. Most if not all of the non critical components suffer from severe degradation and a few of the critical component may have severe degradation.
- Moderate (MO) - Overall a significant serviceability loss. Most if not all the components have severe degradation with the reminder of the component showing visible distress.
- Very Poor (VP) - Overall the system is barely functional. All of the components are severely degraded.
- Non-Functional (NF) - Overall the system does not function with all the components having no serviceability and suffer from severe degradation.

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 $
G2030	Pedestrian Paving	$12.30	S.F.	49,000	40	1990	2030		37.50 %	4.30 %	15		$25,889.13	$602,700
G2040	Site Development	$4.36	S.F.	58,000	25	1990	2015	2025	40.00 %	7.46 %	10		$18,852.52	$252,880
G2050	Landscaping & Irrigation	$4.36	S.F.	9,000	15	1990	2005	2020	33.33 %	0.00 %	5			$39,240
G4020	Site Lighting	$4.84	S.F.	58,000	20	2005	2025	2030	75.00 %	0.00 %	15			$280,720
G4030	Site Communications & Security	$0.97	S.F.	58,000	20	2005	2025	2030	75.00 %	0.00 %	15			$56,260
								Total	**48.14 %**	**3.63 %**			**$44,741.65**	**$1,231,800**

System Notes

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

No data found for this asset

Renewal Schedule

eCOMET forecasts future Capital Renewal funding needed to address expiring systems based on the Next Renewal year found in the Cost Models. A 3% annual inflation factor is applied to the costs for systems expiring in future years. The table below reflects recommended Capital Renewal funding needs over the next 10 years. Note: Cells with a zero value indicate systems for which renewal is not scheduled in that year.

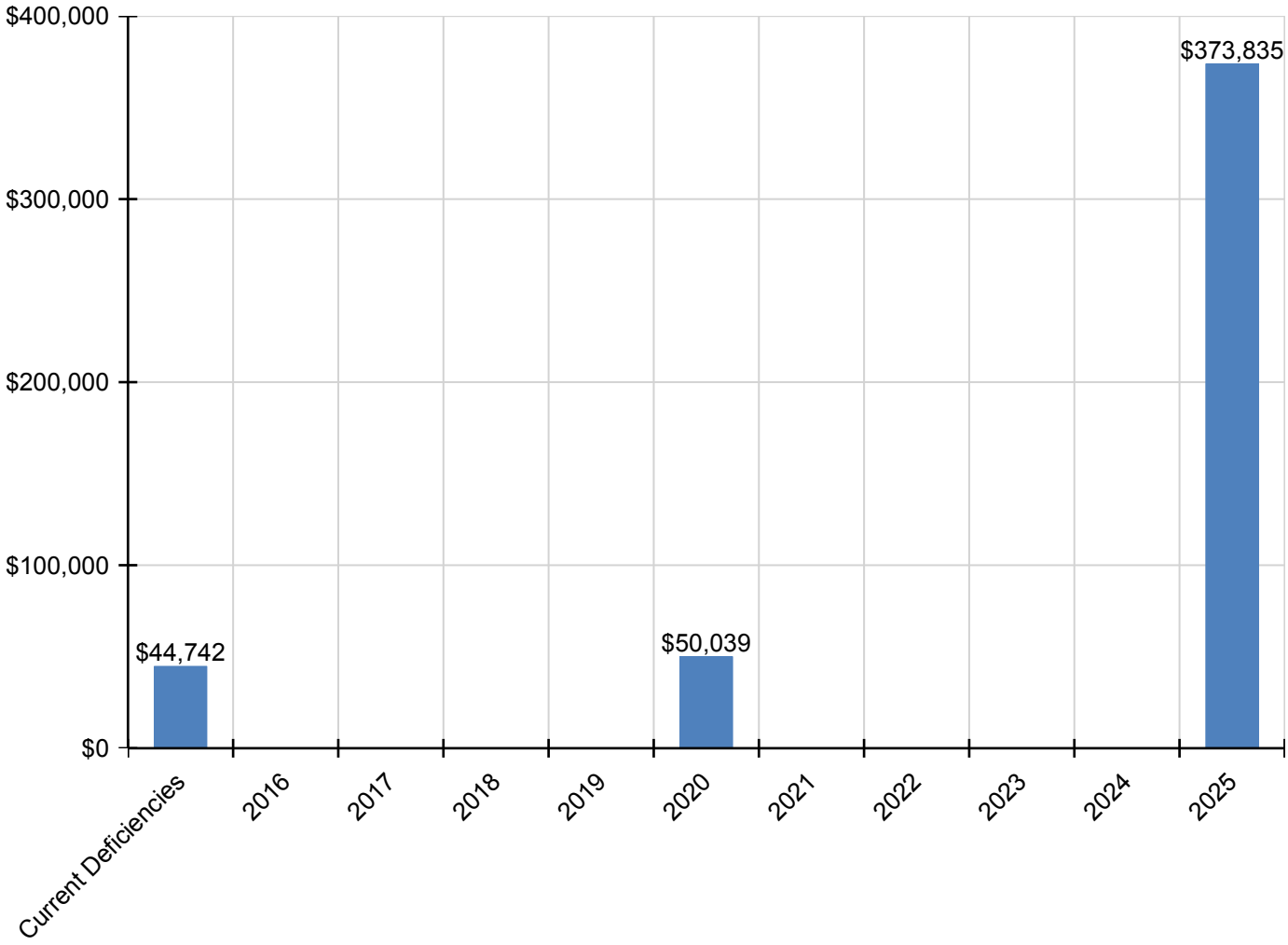
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$44,742**	**$0**	**$0**	**$0**	**$0**	**$50,039**	**$0**	**$0**	**$0**	**$0**	**$373,835**	**$468,615**
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**
G2030 - Pedestrian Paving	$25,889	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$25,889**
G2040 - Site Development	$18,853	$0	$0	$0	$0	$0	$0	$0	$0	$0	$373,835	**$392,687**
G2050 - Landscaping & Irrigation	$0	$0	$0	$0	$0	$50,039	$0	$0	$0	$0	$0	**$50,039**
G40 - Site Electrical Utilities	$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 Communications & Security	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

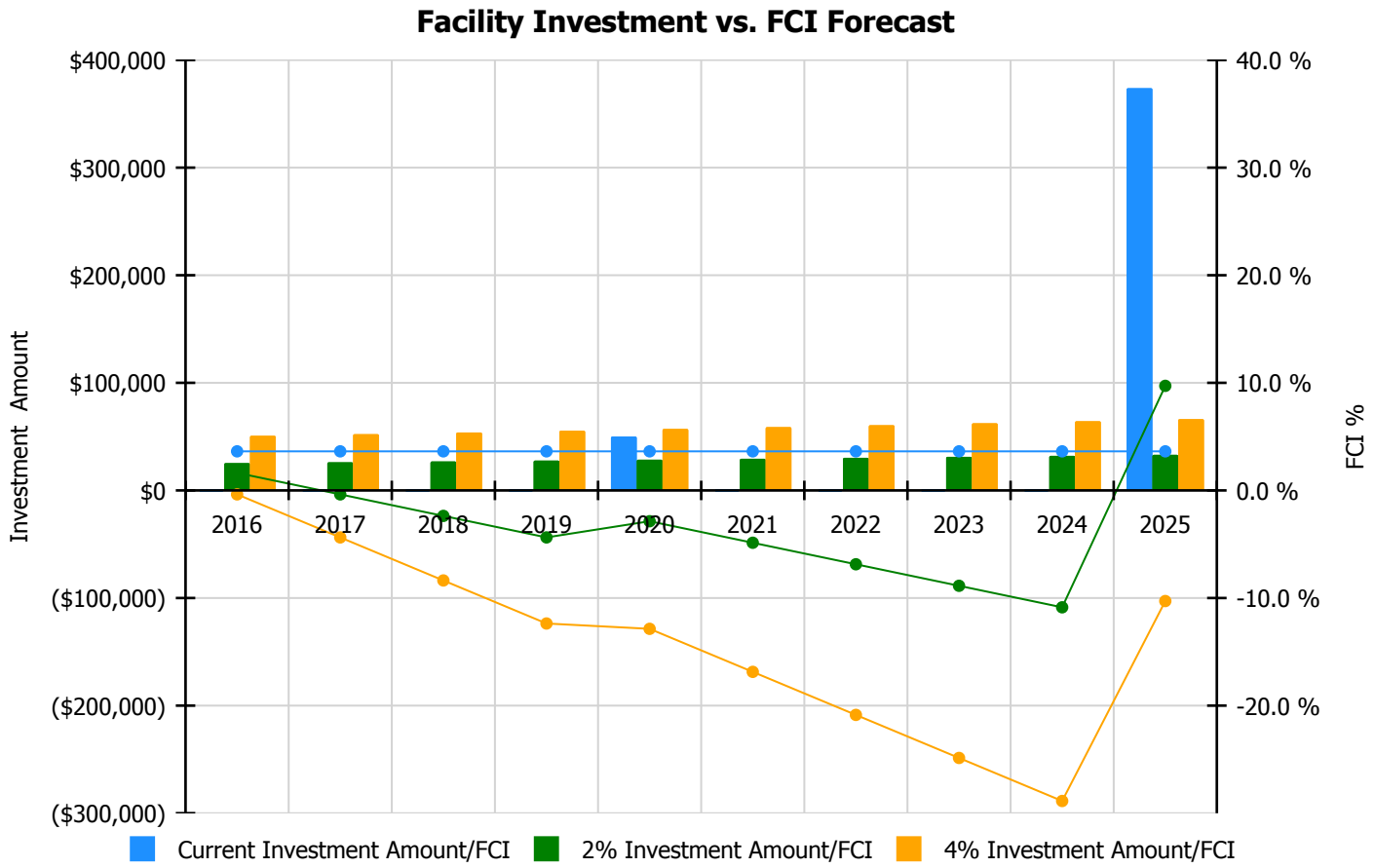
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



10 Year FCI 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:

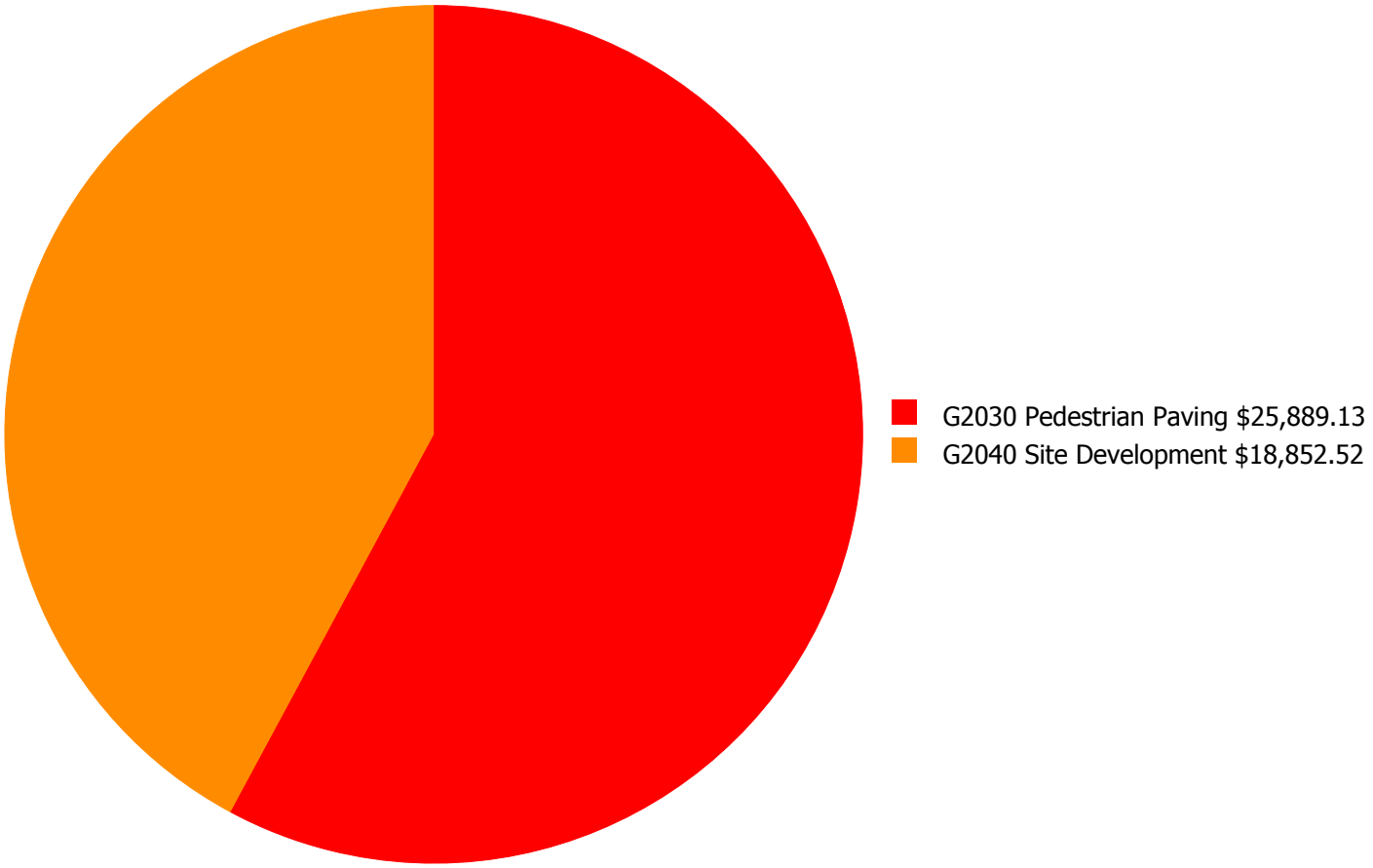
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 3.63%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$25,375.00	1.63 %	$50,750.00	-0.37 %
2017	$0	$26,136.00	-0.37 %	$52,273.00	-4.37 %
2018	$0	$26,920.00	-2.37 %	$53,841.00	-8.37 %
2019	$0	$27,728.00	-4.37 %	$55,456.00	-12.37 %
2020	$50,039	$28,560.00	-2.86 %	$57,120.00	-12.86 %
2021	$0	$29,417.00	-4.86 %	$58,833.00	-16.86 %
2022	$0	$30,299.00	-6.86 %	$60,598.00	-20.86 %
2023	$0	$31,208.00	-8.86 %	$62,416.00	-24.86 %
2024	$0	$32,144.00	-10.86 %	$64,289.00	-28.86 %
2025	$373,835	$33,109.00	9.72 %	$66,217.00	-10.28 %
Total:	**$423,873**	**$290,896.00**		**$581,793.00**	

Deficiency Summary by System

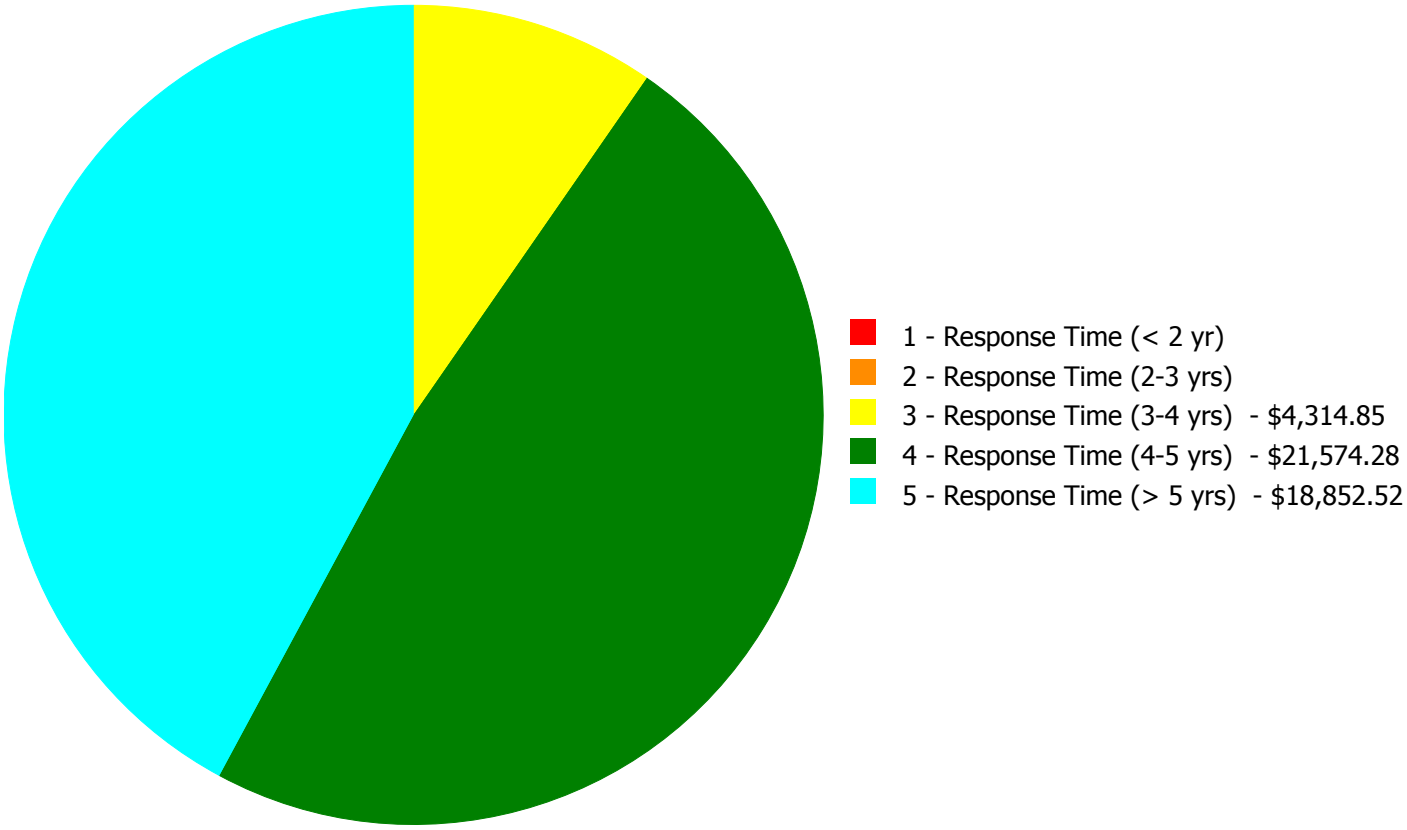
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $44,741.65

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: $44,741.65

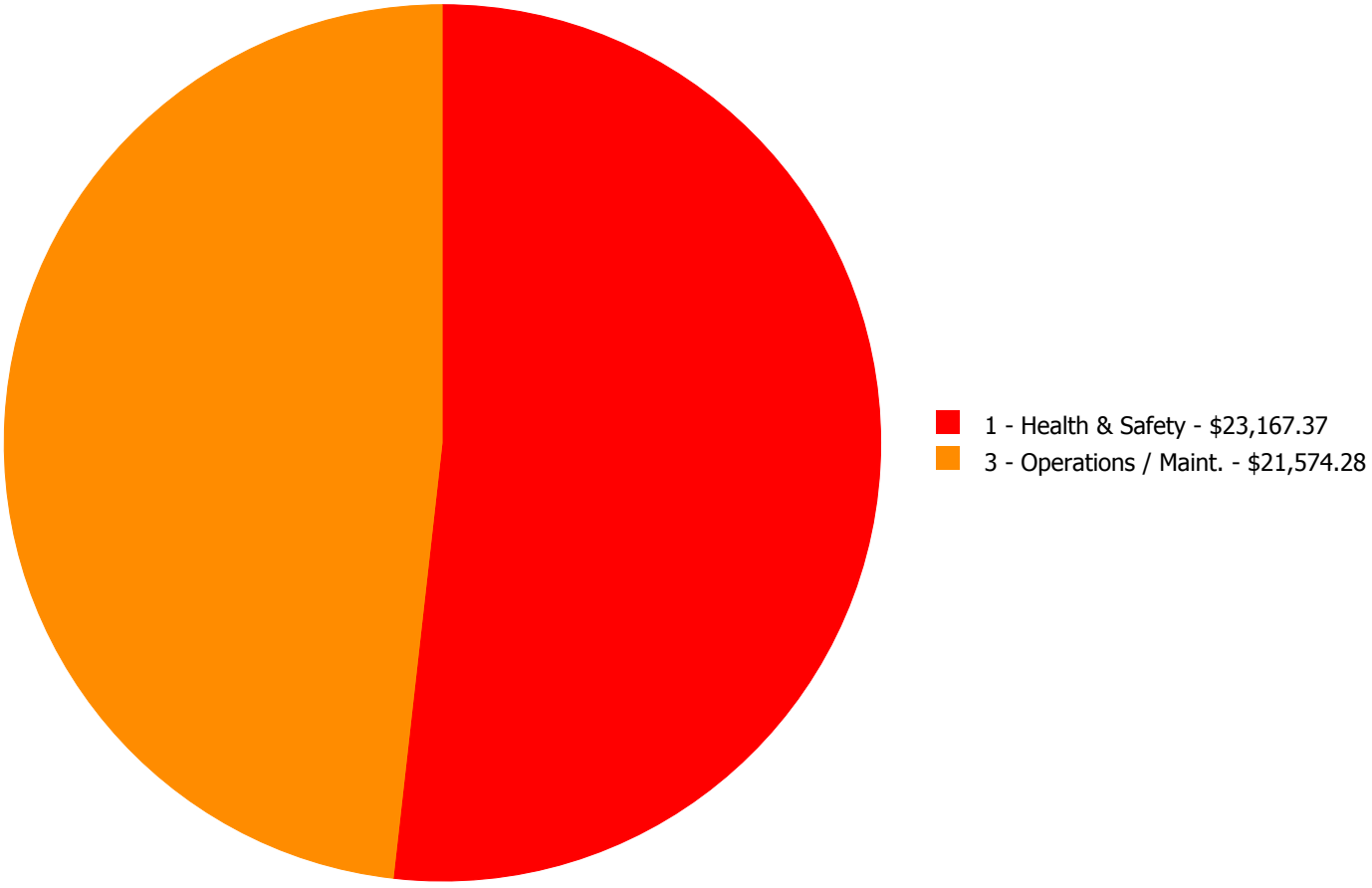
Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
G2030	Pedestrian Paving	$0.00	$0.00	$4,314.85	$21,574.28	$0.00	$25,889.13
G2040	Site Development	$0.00	$0.00	$0.00	$0.00	$18,852.52	$18,852.52
	Total:	$0.00	$0.00	$4,314.85	$21,574.28	$18,852.52	$44,741.65

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: $44,741.65

Deficiency Details by Priority

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

Priority 3 - Response Time (3-4 yrs):

System: G2030 - Pedestrian Paving

Location: Exterior Elevation

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

Priority: 3 - Response Time (3-4 yrs)

Correction: Remove and replace concrete sidewalk or concrete paving - 4" concrete thickness

Qty: 300.00

Unit of Measure: S.F.

Estimate: $4,314.85

Assessor Name: Ben Nixon

Date Created: 09/07/2015

Notes: As indicated in the photos several of the exterior stairs have damaged concrete sections. The exterior access points are recommended to be redesigned and replaced. The new design should incorporate a concrete pad equal to the access point thus preventing pinch points with the doors not aligned with the first step. This deficiency provides a budgetary consideration to modify each entrance concrete pad with the exclusion of the existing ADA access ramp on the Northeastern exterior elevation.

Priority 4 - Response Time (4-5 yrs):

System: G2030 - Pedestrian Paving

Location: Site

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 4 - Response Time (4-5 yrs)

Correction: Remove and replace concrete sidewalk or concrete paving - 4" concrete thickness

Qty: 1,500.00

Unit of Measure: S.F.

Estimate: $21,574.28

Assessor Name: Ben Nixon

Date Created: 09/07/2015

Notes: The sidewalk system is original to the buildings construction. There are a several areas of cracking concrete but no tripping hazards. The sidewalk system is expected to expire in the near future. Removal of the entire system is recommended. Universal upgrades are required.

Priority 5 - Response Time (> 5 yrs):

System: G2040 - Site Development

Location: Site

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

Priority: 5 - Response Time (> 5 yrs)

Correction: Build secure trash dumpster enclosure

Qty: 1.00

Unit of Measure: Ea.

Estimate: $18,852.52

Assessor Name: Ben Nixon

Date Created: 09/07/2015

Notes: The trash dumpster is located near the southern property line open to the students and to the public. The exterior services are not protected. Upgrades to protect the exterior services and trash area are recommended.

Equipment Inventory

The following table represents the inventory details of the inventory found in the building, which fall under the following subsystems:

No data found for this asset

Glossary

ABMA	American Boiler Manufacturers Association http://www.abma.com/
ACEEE	American Council for an Energy-Efficient Economy
ACGIH	American Council of Governmental and Industrial Hygienists
AEE	Association of Energy Engineers
AFD	Adjustable Frequency Drive
AFTC	After Tax Cash Flow
AGA	American Gas Association
AHU	Air Handling Unit
Amp	Ampere
ANSI	American National Standards Institute
ARI	Air Conditioning and Refrigeration Institute
ASD	Adjustable Speed Drive
ASHRAE	American Society of Heating Refrigerating and Air-Conditioning Engineers Inc.
ASME	American Society of Mechanical Engineers
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.
ATS	After Tax Savings
AW	Annual worth
BACNET	Building Automation Control Network
BAS	Building Automation System
BCR	Benefit Cost Ratio
BEP	Business Energy Professional (AEE)
BF	Ballast Factor
BHP	Boiler Horsepower (boilers)
BHP	Brake Horsepower (motors)
BLCC	Building Life Cycle Cost analysis program (FEMP)
BOCA	Building Officials and Code Administrators
BTCF	Before Tax Cash Flow

BTS	Before Tax Savings
Btu	British thermal unit
Building Addition	An area space or component of a building added to a building after the original building's year built date.
CAA	Clean Air Act
CAAA-90	Clean Air Act Amendments of 1990
CABO	Council of American Building Officials
CAC	Conventional Air Conditioning
CADDET	Center for the Analysis and Dissemination of Demonstrated Energy Technologies
Calculated Next Renewal	The year a system or 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 is condition work (excluding suitability and energy audit work) that includes the replacement of building systems or elements (as they become obsolete or beyond their useful life) not normally included in an annual operating budget. Calculated next renewal The year a system or element would be expected to expire based solely on the date it was installed and the expected useful lifetime for that kind of system. Next renewal The assessor adjusted expected useful life of a system or element based on on-site inspection.
CDD	Cooling Degree Days
CDGP	Certified Distributed Generation Professional
CEC	California Energy Commission
CEM	Certified Energy Manager
CEP	Certified Energy Procurement Professional
CFC	Chlorofluorocarbon
CFD	Cash Flow Diagram
CFL	Compact Fluorescent Light
CFM cfm	Cubic Feet per Minute
CHP	Combined Heat and Power (a.k.a. cogeneration)
CHW	Chilled Water
Condition	Condition refers to the state of physical fitness or readiness of a facility system or system element for its intended use.
COP	Coefficient of Performance
Cp	Heat Capacity of Material
CPUC	California Public Utility Commission
CRI	Color Rendering Index
CRT	Cathode Ray Tube VDT HMI

CTC	Competitive Transition Charge
Cu	Coefficient of Utilization
Current Replacement Value (CRV)	CRV represents the hypothetical total cost of rebuilding or replacing an existing facility in current dollars to its optimal condition (excluding auxiliary facilities) under current codes and construction standards.
Cv	Value Coefficient
CWS	Chilled Water System
D d	Distance (usually feet)
DB	Dry Bulb
DCV	Demand Control Ventilation
DD	Degree Day
DDB	Double Declining Balance
DDC	Direct Digital Controls
Deferred maintenance	Deferred maintenance is condition work (excluding suitability and energy audit needs) 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.
Delta	Difference
Delta P	Pressure Difference
Delta T	Temperature Difference
DG	Distributed Generation
DOE	Department of Energy
DP	Dew Point
DR	Demand Response
DX	Direct Expansion Air Conditioner
EA	Energy Audit
EBITDA	Earnings before Interest Taxes Depreciation and Amortization
ECI	Energy Cost Index
ECM	Energy Conservation Measure
ECO	Energy Conservation Opportunity
ECPA	Energy Conservation and Production Act
ECR	Energy Conservation Recommendation
ECS	Energy Control System

EER	Energy Efficiency Ratio
EERE	Energy Efficiency and Renewable Energy division of US DOE
EIA	Energy Information Agency
EIS	Energy Information System
EMCS	Energy Management Computer System
EMO	Energy Management Opportunity
EMP	Energy Management Project
EMR	Energy Management Recommendation
EMS	Energy Management System
Energy Utilization Index (EUI)	EUI is the measure of total energy consumed in the cooling or heating of a building in a period expressed as British thermal unit (BTU) per (cooled or heated) gross square foot.
EO	Executive Order
EPA	Environmental Protection Agency
EPACT	Energy Policy Act of 1992
EPCA	Energy Production and Conservation Act of 1975
EPRI	Electric Power Research Institute
EREN	Efficiency and Renewable Energy (Division of USDOE)
ERV	Energy Recovery Ventilator
ESCO	Energy Service Company
ESPC	Energy Savings Performance Contract
EUI	Energy Use Index
EWG	Exempt Wholesale Generators
Extended Facility Condition Index (EFCI)	EFCI is calculated as the condition needs for the current year plus facility system renewal needs going out to a set time in the future divided by Current Replacement Value.
f	Frequency
F	Fahrenheit
Facility	A facility refers to site(s) building(s) or building addition(s) or combinations thereof that provide a particular service.
Facility Condition Assessment (FCA)	FCA is a process for evaluating the condition of buildings and facilities for programming and budgetary purposes through an on site inspection and evaluation process.
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.

FC	Footcandle
FCA	Fuel Cost Adjustment
FEMIA	Federal Energy Management Improvement Act of 1988
FEMP	Federal Energy Management Program
FERC	Federal Energy Regulatory Commission
FESR	Fuel Energy Savings Ratio
FLA	Full Load Amps
FLF	Facility Load Factor (usually monthly)
FLRPM	Full Load Revolutions per Minute
FMS	Facility Management System
FPM fpm	Feet per Minute (velocity)
FSEC	Florida Solar Energy Center
Ft	Foot
GPM gpm	Gallons per Minute
GRI	Gas Research Institute
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.
GUI	Graphical User Interface
H h	Enthalpy Btu/lb
HCFC	Hydrochlorofluorocarbons
HDD	Heating Degree days
HFC	Hydrofluorocarbons
HHV	Higher Heating Value
HID	High Intensity Discharge (lamp)
HMI	Human Machine Interface
HMMI	Human Man Machine Interface
HO	High Output (lamp)
HP Hp hp	Horsepower
HPS	High Pressure Sodium (lamp)
HR	Humidity Ratio
Hr hr	Hour

HRU	Heat Recovery Unit
HVAC	Heating Ventilation and Air-Conditioning
Hz	Hertz
I	Intensity (lumen output of lamp)
I i	Interest rate or Discount rate
IAQ	Indoor Air Quality
ICA	International Cogeneration Alliance
ICBO	International Conference of Buildings Officials
ICC	International Code Council
ICP	Institutional Conservation Program
IECC	International Energy Conservation Code
IEEE	Institute of Electrical and Electronic Engineers
IESNA	Illuminating Engineering Society of North America
Install year	The year a building or system was built or the most recent major renovation date (where a minimum of 70 of the system?s Current Replacement Value (CRV) was replaced).
IRP	Integrated Resource Planning
IRR	Internal Rate of Return
ISO	Independent System Operator
ITA	Independent Tariff Administrator
k	Kilo multiple of thousands in SI system
K	Kelvins (color temperature of lamp)
K k	Thermal Conductivity of Material
KVA	Kilovolt Ampere
KVAR	Kilovolt Ampere Reactive
kW	kiloWatt
kWh	kiloWatt hour
L	Length (usually feet)
LCC	Life Cycle Costing
LDC	Local Distribution Company
LEED	Leadership in Energy and Environmental Design
LEED EB	LEED for Existing Buildings

LEED NC	LEED for new construction
LF	Load Factor
LHV	Lower Heating Value
Life cycle	The period of time that a building or site system or element can be expected to adequately serve its intended function.
LPS	Low Pressure Sodium (lamp)
Lu	Lumen Output of a Lamp or Fixture
M	Mega multiple of millions in SI system
M&V	Measurement and Verification
MACRS	Modified Accelerated Cost Recovery System
MARR	Minimum Attractive Rate of Return
Mbtu	Thousand Btu
MCF	Thousand Cubic Feet (usually of gas)
MEC	Model Energy Code
Mm	Multiple of Thousands in I/P System
MMBtu	Million Btu
MMCS	Maintenance Management Computer System
MMI	Man Machine Interface
MMS	Maintenance Management System
MSE 2000	Management System for Energy 2000 (ANSI Georgia Tech Univ)
MW	MegaWatt
MWH MWh	MegaWatt hour
NAAQS	National Ambient Air Quality Standards
NAESCO	National Association of Energy Service Companies
NAIMA	North American Insulation Manufacturers Association
NEA	National Energy Act of 1978
NECPA	National Energy Conservation Policy Act
NEMA	National Electrical Manufacturer's Association
NERC	North American Electric Reliability Council
Next Renewal	The Next Renewal date is an override of the 'Calculated Next Renewal' date and is based upon the assessor?s visual inspection.

NFPA	National Fire Protection Association
NGPA	National Gas Policy Act of 1978
NLRPM	No Load Revolutions per Minute (speed)
Nn	Equipment or Project lifetime in economic analysis
NOPR	Notice of Proposed Rule Making from FERC
NOx	Nitrogen Oxide Compounds
NPV	Net present value in economic analysis
NREL	National Renewable Energy Laboratory
NUG	Non-Utility Generator
O&M	Operation and Maintenance
OA	Outside Air
ODP	Ozone Depletion Potential
OPAC	Off-Peak Air Conditioning
P	Present value in economic analysis
PBR	Performance Based Rates
PEA	Preliminary Energy Audit
PF	Power Factor
PID	Proportional plus integral plus derivative (control system)
PM	Portfolio Manager in Energy Star rating system
PM	Preventive Maintenance
PoolCo	Power Pool Company or Organization
POU	Point of Use
PQ	Power Quality
PSC	Public Service Commission
PSIA psia	Pounds per square inch absolute (pressure)
PSIG psig	Pounds per square inch gauge (pressure)
PUC	Public Utility Commission
PUHCA	Public Utilities Holding Company Act of 1935
PURPA	Public Utilities Regulatory Policies of 1978
PV	Photovotaic system

PV	Present Value
PW	Present Worth
PX	Power Exchange
q	Rate of heat flow in Btu per hour
Q	Heat load due to conduction using degree days
QF	Qualifying Facility
R	Electrical resistance
R	Thermal Resistance
RC	Remote controller
RCR	Room Cavity Ratio
RCRA	Resource Conservation and Recovery Act
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)	RSLI is defined as a percentage ratio of the remaining service life of a system. It usually ranges from 0 to 100
REMR	Repair Evaluation Maintenance Rehabilitation (REMR) is a scale used to objectively rank systems based on their condition
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.
RH	Relative Humidity
RLA	Running Load Amps
RMS	Root Mean Square
RO	Reverse Osmosis
ROI	Return on Investment
RPM	Revolutions Per Minute
RTG	Regional Transmission Group
RTO	Regional Transmission Organization
RTP	Real Time Pricing
SBCCI	Southern Building Code Congress International
SC	Scheduling Coordinator
SC	Shading Coefficient
SCADA	Supervisory Control and Data Acquisition Systems

SEER	Seasonal Energy Efficiency Ratio
SHR	Sensible Heat Ratio
Site	The grounds and utilities roadways landscaping fencing and other typical land improvements needed to support the facility.
Soft Cost	An expense item that is not considered direct construction cost. Soft cost includes architectural engineering financing legal fees and other pre-and-post construction expenses.
SOx	Sulfur Oxide Compounds
SP	Static Pressure
SP SPB	Simple Payback
SPP	Simple Payback Period
SPP	Small Power Producers
STR	Stack Temperature Rise
SV	Specific Volume
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.
T	Temperature
T	Tubular (lamps)
TAA	Technical Assistance Audit
TCP/IP	Transmission Control Protocol/Internet Protocol
TES	Thermal Energy Storage
THD	Total Harmonic Distortion
TOD	Time of Day
TOU	Time of Use
TQM	Total Quality Management
TransCo	Transmission Company
U	Thermal Conductance
UDC	Utility Distribution Company
UL	Underwriters Laboratories
UNIFORMAT II	The ASTM UNIFORMAT II Classification for Building Elements (E1557-97) a format for classifying major facility components common to most buildings.
USGBC	US Green Building Council
v	Specific Volume

V	Volts Voltage
V	Volume
VAV	Variable Air Volume
VDT	Video Display Terminal
VFD	Variable Frequency Drive
VHO	Very High Output
VSD	Variable Speed Drive
W	Watts
W	Width
WB	Wet bulb
WH Wh	Watt Hours
Year built	The year that a building or addition was originally built based on substantial completion or occupancy.
Z	Electrical Impedance