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.

Morris School

Governance	DISTRICT	Report Type	Elementarymiddle
Address	2600 W. Thompson St. Philadelphia, Pa 19121	Enrollment	289
		Grade Range	'00-08'
Phone/Fax	215-684-5087 / 215-684-8881	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Morris	Turnaround Model	N/A

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	**43.73%**	**$17,443,349**	**$39,886,142**
Building	43.44 %	$17,174,264	$39,540,104
Grounds	77.76 %	$269,085	$346,038

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	89.35 %	$1,016,460	$1,137,600
Exterior Walls (Shows condition of the structural condition of the exterior facade)	26.24 %	$774,947	$2,952,800
Windows (Shows functionality of exterior windows)	126.97 %	$1,829,388	$1,440,800
Exterior Doors (Shows condition of exterior doors)	00.00 %	$0	$116,000
Interior Doors (Classroom doors)	18.83 %	$52,874	$280,800
Interior Walls (Paint and Finishes)	00.00 %	$0	$1,344,800
Plumbing Fixtures	28.34 %	$306,507	$1,081,600
Boilers	00.00 %	$0	$1,493,600
Chillers/Cooling Towers	65.60 %	$1,284,765	$1,958,400
Radiators/Unit Ventilators/HVAC	143.32 %	$4,929,100	$3,439,200
Heating/Cooling Controls	158.90 %	$1,716,170	$1,080,000
Electrical Service and Distribution	34.34 %	$266,481	$776,000
Lighting	39.16 %	$1,086,416	$2,774,400
Communications and Security (Cameras, Pa System and Fire Alarm)	40.32 %	$418,974	$1,039,200

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.

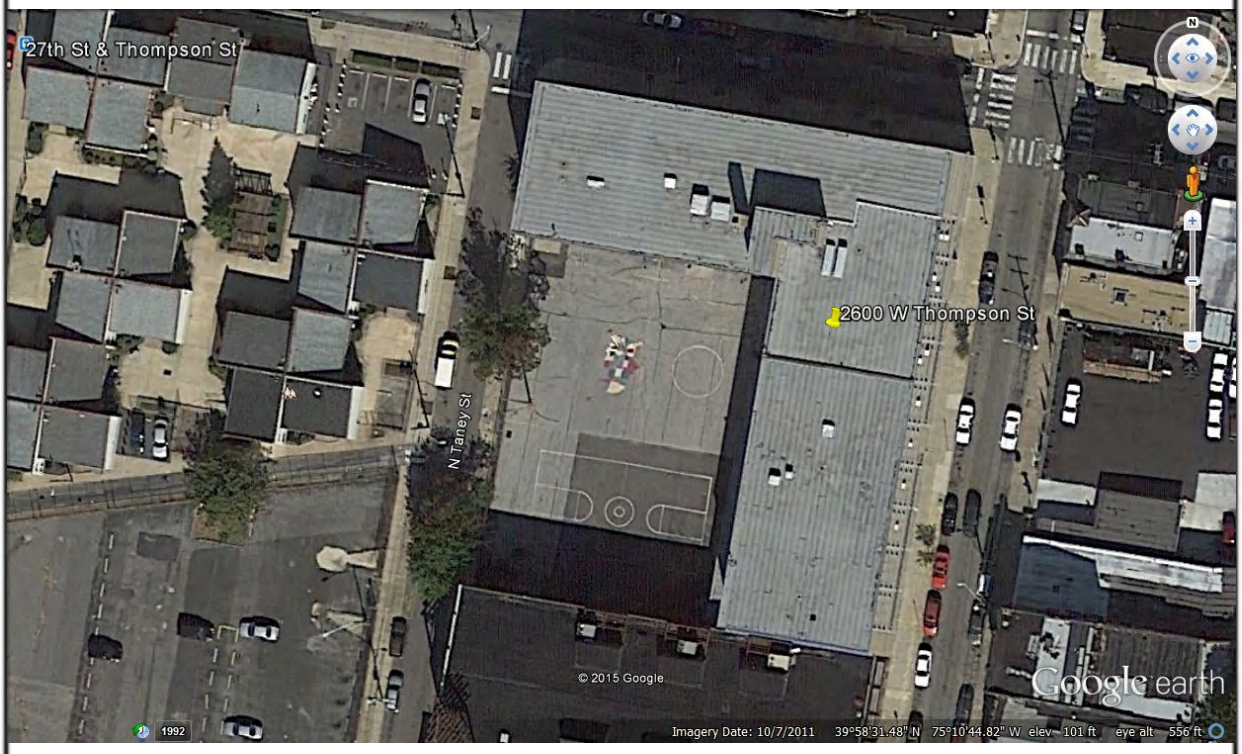
School District of Philadelphia

S239001;Morris

Final

Site Assessment Report

January 31, 2017



PARSONS

Table of Contents

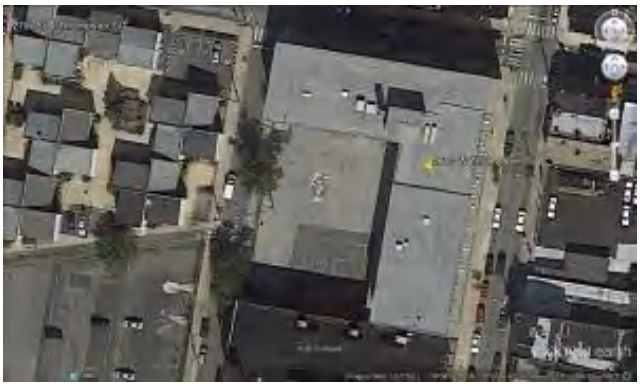
Site Executive Summary

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):	80,000
Year Built:	1966
Last Renovation:	2000
Replacement Value:	$39,886,142
Repair Cost:	$17,443,349.28
Total FCI:	43.73 %
Total RSLI:	81.33 %



Description:

Facility Assessment, July 2015

School District of Philadelphia

Morris Elementary School

2600 W Thompson St.

Philadelphia, PA 19121

80,000 SF / 795 Students / LN 03

The Morris Elementary school building is located at 2600 W. Thompson St. in Philadelphia, PA. The 4 story with partial basement, approximately 80,000 square foot building was originally constructed in 1966.

Mr. Derek Parker, Facility Area Coordinator provided input to the Parsons assessment team on current problems and planned renovation projects. Mr. Jason Adams, building engineer, accompanied us on our tour of the school and provided limited information

on the building systems and recent maintenance history.

STRUCTURAL/ EXTERIOR CLOSURE:

The original building typically rests on concrete foundations and concrete bearing walls that are not showing signs of settlement. There are no signs of moisture penetration through basement walls

The main structure consists typically of combination of cast-in-place concrete columns, beams and concrete slabs in the basement; and structural steel framing, columns and bar joists supporting concrete slabs over metal deck. The roof structure consists of bar joists supporting metal deck. The superstructure is in good condition.

The building envelope is typically face brick masonry with CMU backup. It was renovated in 2005. In general, masonry is in fair to good condition with some missing mortar. The columns and girders are clad with cementitious panels to accentuate the structural grid. These panels are sealed to adjacent brick with sealant where mortar was missing; joints at panels' perimeter show substantial deterioration. Water penetration through walls has been reported.

The original building windows were replaced in 2000 with extruded aluminum double hung windows double glazed insulated glass. All windows are generally in poor condition with some of the windows inoperable; first floor windows have security screens in fair condition. The leaks around the windows perimeters have been reported and are evident.

The exterior doors are typically hollow metal doors and frames, painted. The doors are generally in fair condition; no weather-stripping is installed; some doors have vision glazing with security screens.

Roofing system is a built-up system approximately 15 to 20 years old and in fair condition; all roofing and flashing is typically in fair condition with some deterioration of the built-up system; leaks have not been reported.

INTERIORS:

The building partition wall types include painted CMU; first floor corridors near main entrance are glazed brick. Partitions are generally in good condition.

Interior doors are generally solid core wood doors, some glazed, with hollow metal frames, some doors are missing closers. The doors leading to exit stairways are hollow metal doors and frames in good condition.

Fittings include toilet accessories and toilet partitions, generally in good condition, installed approximately in 2000, no accessible compartments; chalkboards in good condition. Handrails and ornamental metals are generally in good condition. Built-in cabinets are steel in good condition. Interior identifying signage is typically directly painted on wall or door surfaces generally in good condition.

The interior wall finishes in the original building are generally painted CMU. Generally, paint is in good condition throughout the building.

Most ceilings in the original building are 2x4 suspended acoustical panels and 1x1 concealed grid tiles. The suspension system and tile are old and approaching the end of their useful life.

Flooring in classrooms and auditorium is VAT (approximately 70% of floor area); the balance of the floor is VCT in Kindergarten and portion of the Auditorium installed in 2003; and painted concrete in toilets. Most flooring is in fair to good condition, however, the VAT tile flooring will need to be replaced at the end of its useful life; Library and principal's office has carpet in good condition.

Stair construction is generally concrete with cast iron non-slip treads in good condition.

Institutional and Commercial equipment includes: stage equipment, generally in good condition; A/V equipment in very good condition; gym equipment – basketball backstops, scoreboards, etc.; generally in fair condition. Other equipment includes kitchen equipment, generally in good condition.

Furnishings include fixed casework in classrooms, corridors and library, generally in fair to good condition; window shades/blinds, generally in good condition; fixed auditorium seating is original, generally in fair condition.

CONVEYING SYSTEMS:

The building has a 12,000 lb traction elevator serving all floors; generally in good condition. The elevator motor is rated 75 hp, 240V DC. Elevator is not on emergency generator.

PLUMBING:

Many of the original plumbing fixtures remain in service. Fixtures in the restrooms on each floor consist of wall mounted flush valve water closets, wall hung urinals, and lavatories with wheel handle faucets. With proper maintenance these fixtures should provide reliable service for the next 5-10 years. However, the older units should be replaced as part of any renovation of the spaces.

Drinking fountains in the corridors and at the restrooms are wall hung with integral refrigerated coolers. They are well beyond their service life and should be replaced.

A service sink is available in a janitor closet in the corridor on each floor for use by the janitorial staff.

The Cafeteria, classrooms converted into an eating space, has one sink: a three compartment stainless steel sink with lever operated faucets. There is no grease trap grease trap connected to the sink. No chemical dispensers present during the site visit.

A 4" city water service enters the building from N. Taney Street near the intersection with W. Thompson Street. The 4" meter and valves are located in the basement mechanical room on the west side of the building. Two Armstrong domestic water booster pumps, located in the mechanical room, ensure adequate water pressure for the building. The original domestic hot and cold water distribution piping was replaced with copper piping and sweat fittings. The maintenance staff reports no significant problems with scale build up in the domestic piping and the supply is adequate to the fixtures.

A 6" city gas service enters the building from N. Taney Street near the intersection with W. Thompson Street. The meter is 4" and located in the in the basement mechanical room. The gas main has a booster pump connected in the mechanical room.

One Bradford White gas fired, 75 gallon, vertical hot water heater with recirculating pump, installed in 2012, supplies hot water for domestic use. The unit is located in the boiler room on the basement level. The hot water heater is equipped with a T&P relief valve, and expansion tank. The domestic hot water heater is within its service life and should provide reliable service for the next 5-7 years. No water softener was seen in the boiler room.

The original storm and sanitary sewer piping is heavy weight cast iron with hub and spigot fittings. Downspouts from the roof run down the interior of the building and connect to the storm sewer system in the basement. A 12" sanitary line leaves the south side of the building through the boiler room.

A sewage ejector pit located in basement boiler room receives water from the basement area. It has two pumps that are beyond their service life. According to the Building Engineer one of the pumps was rebuilt in 2014. Both pumps and motors should be replaced. The pit is not sealed, but should be.

The maintenance staff reported mostly minor problems with the sanitary waste piping systems. However, the sewer piping has been in service for nearly 50 years and will require more frequent attention from the maintenance staff as time passes. The District should hire a qualified contractor to examine the sanitary waste piping using video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.

MECHANICAL:

Building heating hot water is generated by two Buderus Logano GE615 cast iron sectional boilers with, net IBR rating of 3,463 Mbtu/hr, installed in approximately 2000. The building engineer did not know exact year. One boiler can handle the load in normal winter weather conditions; two units are required to bring the building up to temperature on very cold days. Each boiler is equipped with an Internal Combustion burner designed to operate on natural gas. Combustion air makeup is supplied by louvers equipped with motorized dampers. No major issues with the boilers were reported by the Building Engineer. Cast iron sectional boilers have an anticipated service life of 35 years or more; these units have been in service approximately 15 years. The boilers appear to have been maintained well. The District should provide reliable service for the next 15 to 20 years. The burners should be replaced as they are nearing the end of their service life and newer, more efficient technologies are available.

The heating hot water system is equipped with an expansion tank and air separator located in the boiler room. The hot water piping is covered with insulation and appears to be in good condition.

Unit ventilators provide heating for the majority of classrooms, offices, and indirectly to the hallways. The unit ventilators are original

to the building and well beyond their service life. Outdoor air for the building is provided by wall openings in the unit ventilators, which may not be sufficient to meet current codes for outdoor air ventilation. The existing unit ventilators should be removed and new units installed with hot and chilled water coils and integral heat exchangers to introduce sufficient outdoor air to the building.

Several of the classrooms in the school building have window air conditioning units that have an anticipated service life of only 10 years. Installing a 200 ton air-cooled chiller on the roof, with pumps located in the mechanical room, and chilled water distribution piping would supply more reliable air conditioning for the building with a much longer service life.

The school has mechanical ventilation in each classroom via unit ventilators and roof mounted exhaust fans serving the bathrooms. The space currently used as the Cafeteria only has two unit ventilators serving it, which is insufficient to meet the code required ventilation rates. Sufficient ventilation could be provided for the space designated as the Cafeteria by installing a constant volume air handling unit with distribution ductwork and registers. For the gymnasium a house fan and heating coil from the 1960s provide heating only. This could be replaced with a fan coil air handling unit with outdoor air ducted to the unit from louvers in the window openings. Similar ceiling hung units could be installed for the administrative offices. Currently the Auditorium is provided heating only by a house fan and heating coil from the 1960s. Ventilation could be provided for the Auditorium by installing a constant volume air handling unit with distribution ductwork and registers. These units would be equipped with hot water heating coils and chilled water cooling coils.

Exhaust for the restrooms is provided by two roof mounted exhaust fans. The existing roof mounted exhaust fans are beyond their service life and should be replaced.

The original pneumatic systems still provide basic control functions. Pneumatic room thermostats are intended to control the steam radiator control valves. In reality the radiator control valves are wide open and heating control is achieved via the boilers. Pneumatic control air is supplied from two Quincy compressors located in the boiler room. The maintenance staff reports no problems with oil, moisture or dirt in the pneumatic copper tubing. The pneumatic systems are beyond their service life and require too much attention from the maintenance staff. The original control valves and pneumatic actuators are beyond their service life and should be rebuilt or replaced. These controls should be converted to DDC.

A new building automation system (BAS) with modern DDC modules and communications network should be installed to serve the HVAC systems in this building to improve reliability and energy efficiency. An interface should be provided with the preferred system in use throughout the District.

The school building is NOT covered by an automatic sprinkler system. Installing a sprinkler system with quick response type heads should reduce insurance costs by providing protection for the property investment. A fire pump may be required depending on the available city water pressure. The building does have standpipe in the stairwells.

ELECTRICAL:

Electrical Service- The electrical service is fed from a medium voltage overhead line on wooden poles along W Thompson St. The service enters the building underground to a 500 kVA, 2400V:208/120V substation.

With the addition of air conditioning to the school, the 500 kVA station transformer will not be large enough to carry the new load. A second substation will need to be installed to provide power for the air conditioning. It is recommended that a second feeder from the load side of the medium voltage service disconnect switch be installed to serve a new 2400V:480/277V substation.

Distribution System and Raceway System- The main distribution panel is rated 1600A, and is attached to the end of the substation. Electrical panels located on each floor are fed from this main distribution panel, and provides power to the receptacles and lighting on each floor. The second and third floor contains a panel to provide power to the unit ventilators located in the classrooms.

Receptacles- Classrooms are typically supplied with 4 receptacles. One additional receptacle should be added to each of these classrooms.

Lighting- Most of the building is outfitted with fluorescent fixtures with T-12 lamps, The auditorium contains incandescent lighting and compact fluorescent screw in type. The gymnasium has mercury vapor lamps. For the typical classroom, there is a mix of 2X4 lay in and 1X4 surface mounted, 3 lamp fluorescent lighting. Classroom lighting is typically controlled by inboard/outboard switching. Lighting levels in these areas do not meet IES (Illuminating Engineering Society) recommended levels. Classroom lighting levels were found to be in the range of 35 fc in classrooms (50 fc recommended), and 15 fc in the gym (50 fc recommended). There are some areas where lighting has been updated. Select classrooms and the media center lighting has T-8 lamps and lighting levels are above 50 fc. Lighting upgrade should be completed for the remaining parts of the school.

Fire Alarm System – The school has a 120V fire alarm system. The system consists of pull stations and bells located in the corridors only.

Telephone/LAN – The present telephone/LAN system is adequate.

Public Address/Intercom/Paging – An independent and separate PA system does not exist. School uses the telephone system for public announcement. Two way communication is not available through the public announcement system. Communication back to the office is through a wall mounted phone located in each classroom. This system is adequate and in working condition.

Clock and Program System – The present bell system is adequate, but classroom clocks do not function properly.

Television System – The facility is equipped with TV coax system, however there presently are no televisions in the classrooms.

Security System – There facility is equipped with door contacts. These contacts are installed on doors leading to the main corridors on the first floor. This includes doors from the stairwells, as well as first floor classrooms with windows.

Emergency Power System – A 18kW natural gas Katolight generator is housed in the basement of the school for emergency lighting. The generator is not currently adequate for the facility as it does not provide emergency power to the elevator.

Emergency Lighting System / Exit Lighting- The emergency lighting is provided by incandescent lamps connected to the generator. This lighting is not adequate and needs to be upgraded. The exit lighting is outdated incandescent and is not adequate.

Lightning Protection System- A lightning protection system exists on the roof but it does not provide adequate coverage.

Site Lighting - Site lighting is provided by building mounted flood lights installed around the entire perimeter of the school. The site lighting provides an adequate amount of lighting.

Video Surveillance – There are exterior cameras and cameras covering entrances, first floor lobby, and main office.

Site Paging – There are no exterior speakers for site paging.

Elevators – There is one passenger elevator in the facility. The elevator is a traction type with a 12,000 pound capacity. The elevator motor is rated 75 hp, 240V DC. Elevator is not on emergency generator.

GROUNDS (SITE):

There is no parking lot at the site. Playground pavement adjacent to the building is in poor condition, paving is cracked and deteriorated; there is no playground equipment. Perimeter fence separating the playground from the street is generally in poor condition and rusting. There is no landscaping.

ACCESSIBILITY:

Generally, the building has an accessible route per ADA requirements. However, toilets are not equipped with accessible fixtures, and accessories, such as grab bars, and accessible partitions. None of the doors in the building have ADA required door handles.

RECOMMENDATIONS:

- Repair cracks in masonry, replace missing mortar, tuck-point – all walls including panels covering columns and girders
- Install all new roofing system including insulation within next 5 to 10 years; tear-down existing roofing; install flashing, and counter flashing
- Replace all windows within next 4 to 5 years
- Replace interior doors hardware for ADA accessibility
- Replace all VAT flooring including cove base within 10 years
- Replace existing carpet
- Replace all suspended acoustical ceilings
- Resurface playground paving.
- Replace original chain link fence and security gate
- Replace the twist-type handle lavatories in the restrooms with new code compliant fixtures.

- Replace existing sewage ejector pump system and piping in the basement as it is beyond its useful service life.
- Replace the wall hung drinking fountains and integral refrigerated coolers in the corridors and at the restrooms. These units are well beyond their service life.
- Hire a qualified contractor to perform a detailed examination of the sanitary waste piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.
- Remove the existing unit ventilators and install units with hot and chilled water coils and integral heat exchangers to introduce outdoor air to the building.
- Remove the window air conditioning units and install a 200 ton air-cooled chiller on the roof with chilled water distribution piping and pumps located in the mechanical room to supply more reliable air conditioning for the building with a much longer service life.
- Replace existing exhaust fans on the roof serving the bathrooms and utilize the existing ductwork.
- Provide ventilation for the Cafeteria by installing a constant volume air handling unit with distribution ductwork and registers.
- Provide ventilation for the gymnasium by installing a fan coil air handling unit hung from the structure with outdoor air ducted to the unit from louvers in the window openings.
- Provide ventilation for the administrative offices by installing a fan coil air handling unit hung from the structure with outdoor air ducted to the unit rom louvers in window openings.
- Provide ventilation for the Auditorium by installing a fan coil air handling unit hung from the structure with outdoor air ducted to the unit from louvers in window openings.
- Replace the pneumatic controls for the HVAC systems with modern DDC modules, valves and actuators to improve reliability and energy efficiency. Provide a new building automation system (BAS) with communication interface to the preferred system in use throughout the District.
- Install a fire protection sprinkler system with quick response type heads to reduce insurance costs by providing protection for the property. A fire pump may be required depending on the available city water pressure.
- Install minimum two receptacles on each wall of class rooms and other purpose rooms.
- Complete lighting upgrade
- Install a new addressable fire alarm system and provide audible and/or visual devices in all areas.
- Provide new emergency lighting.
- Provide new exit lighting.
- Replace existing generator with larger generator sized to operate the elevator.
- Install a second substation to serve new air conditioning equipment.

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 1 / Tm 4
Status:	Accepted by SDP	Team:	Tm 4
Site ID:	S239001		

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.

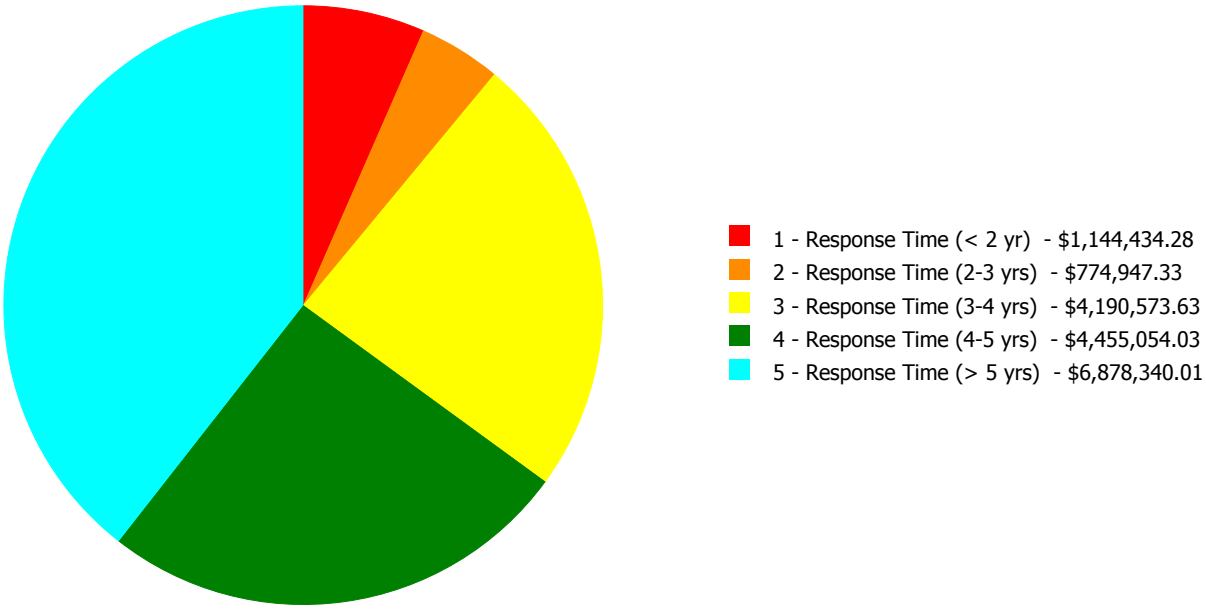
Current Investment Requirement and Condition by Uniformat Classification

UNIFORMAT Classification	RSLI%	FCI %	Current Repair
A10 - Foundations	51.00 %	0.00 %	$0.00
A20 - Basement Construction	51.00 %	0.00 %	$0.00
B10 - Superstructure	51.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	54.39 %	57.75 %	$2,604,335.64
B30 - Roofing	125.00 %	89.35 %	$1,016,460.33
C10 - Interior Construction	50.53 %	2.69 %	$52,874.10
C20 - Stairs	51.00 %	0.00 %	$0.00
C30 - Interior Finishes	127.93 %	50.89 %	$1,843,246.71
D10 - Conveying	28.57 %	0.00 %	$0.00
D20 - Plumbing	52.69 %	41.44 %	$676,921.74
D30 - HVAC	91.80 %	89.11 %	$7,930,035.01
D40 - Fire Protection	105.71 %	177.49 %	$1,144,434.28
D50 - Electrical	109.31 %	40.53 %	$1,905,956.54
E10 - Equipment	157.14 %	0.00 %	$0.00
E20 - Furnishings	137.50 %	0.00 %	$0.00
G20 - Site Improvements	90.77 %	104.88 %	$269,084.93
G40 - Site Electrical Utilities	50.00 %	0.00 %	$0.00
Totals:	**81.33 %**	**43.73 %**	**$17,443,349.28**

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)
B239001;Morris	80,000	43.44	$1,144,434.28	$774,947.33	$3,945,399.95	$4,455,054.03	$6,854,428.76
G239001;Grounds	15,400	77.76	$0.00	$0.00	$245,173.68	$0.00	$23,911.25
Total:		**43.73**	**$1,144,434.28**	**$774,947.33**	**$4,190,573.63**	**$4,455,054.03**	**$6,878,340.01**

Deficiencies By Priority



Budget Estimate Total: $17,443,349.28

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:	Elementary School
Gross Area (SF):	80,000
Year Built:	1966
Last Renovation:	2000
Replacement Value:	$39,540,104
Repair Cost:	$17,174,264.35
Total FCI:	43.44 %
Total RSLI:	81.34 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B239001
Sewage Ejector:	Yes	Status:	Accepted by SDP
Site ID:	S239001		

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	51.00 %	0.00 %	$0.00
A20 - Basement Construction	51.00 %	0.00 %	$0.00
B10 - Superstructure	51.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	54.39 %	57.75 %	$2,604,335.64
B30 - Roofing	125.00 %	89.35 %	$1,016,460.33
C10 - Interior Construction	50.53 %	2.69 %	$52,874.10
C20 - Stairs	51.00 %	0.00 %	$0.00
C30 - Interior Finishes	127.93 %	50.89 %	$1,843,246.71
D10 - Conveying	28.57 %	0.00 %	$0.00
D20 - Plumbing	52.69 %	41.44 %	$676,921.74
D30 - HVAC	91.80 %	89.11 %	$7,930,035.01
D40 - Fire Protection	105.71 %	177.49 %	$1,144,434.28
D50 - Electrical	109.31 %	40.53 %	$1,905,956.54
E10 - Equipment	157.14 %	0.00 %	$0.00
E20 - Furnishings	137.50 %	0.00 %	$0.00
Totals:	**81.34 %**	**43.44 %**	**$17,174,264.35**

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	$18.40	S.F.	80,000	100	1966	2066		51.00 %	0.00 %	51			$1,472,000
A1030	Slab on Grade	$7.73	S.F.	80,000	100	1966	2066		51.00 %	0.00 %	51			$618,400
A2010	Basement Excavation	$6.55	S.F.	80,000	100	1966	2066		51.00 %	0.00 %	51			$524,000
A2020	Basement Walls	$12.70	S.F.	80,000	100	1966	2066		51.00 %	0.00 %	51			$1,016,000
B1010	Floor Construction	$75.10	S.F.	80,000	100	1966	2066		51.00 %	0.00 %	51			$6,008,000
B1020	Roof Construction	$13.88	S.F.	80,000	100	1966	2066		51.00 %	0.00 %	51			$1,110,400
B2010	Exterior Walls	$36.91	S.F.	80,000	100	1966	2066		51.00 %	26.24 %	51		$774,947.33	$2,952,800
B2020	Exterior Windows	$18.01	S.F.	80,000	40	2000	2040		62.50 %	126.97 %	25		$1,829,388.31	$1,440,800
B2030	Exterior Doors	$1.45	S.F.	80,000	25	2000	2025		40.00 %	0.00 %	10			$116,000
B3010105	Built-Up	$37.76	S.F.	30,000	20	2000	2020	2040	125.00 %	89.73 %	25		$1,016,460.33	$1,132,800
B3010120	Single Ply Membrane	$38.73	S.F.		20	1966	1986		0.00 %	0.00 %	-29			$0
B3010130	Preformed Metal Roofing	$54.22	S.F.		30	1966	1996		0.00 %	0.00 %	-19			$0
B3010140	Shingle & Tile	$38.73	S.F.		25	1966	1991		0.00 %	0.00 %	-24			$0
B3020	Roof Openings	$0.06	S.F.	80,000	20	1966	1986	2040	125.00 %	0.00 %	25			$4,800
C1010	Partitions	$17.91	S.F.	80,000	100	1966	2066		51.00 %	0.00 %	51			$1,432,800
C1020	Interior Doors	$3.51	S.F.	80,000	40	1990	2030		37.50 %	18.83 %	15		$52,874.10	$280,800
C1030	Fittings	$3.12	S.F.	80,000	40	2000	2040		62.50 %	0.00 %	25			$249,600
C2010	Stair Construction	$1.41	S.F.	80,000	100	1966	2066		51.00 %	0.00 %	51			$112,800

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 $
C3010230	Paint & Covering	$13.21	S.F.	80,000	10	2012	2022	2032	170.00 %	0.00 %	17			$1,056,800
C3010231	Vinyl Wall Covering	$0.97	S.F.	80,000	15	1966	1981	2028	86.67 %	0.00 %	13			$77,600
C3010232	Wall Tile	$2.63	S.F.	80,000	30	1966	1996	2030	50.00 %	0.00 %	15			$210,400
C3020411	Carpet	$7.30	S.F.	2,800	10	2000	2010	2022	70.00 %	153.30 %	7		$31,334.14	$20,440
C3020412	Terrazzo & Tile	$75.52	S.F.		50				0.00 %	0.00 %				$0
C3020413	Vinyl Flooring	$9.68	S.F.	59,800	20	1966	1986	2037	110.00 %	156.68 %	22		$906,966.75	$578,864
C3020414	Wood Flooring	$22.27	S.F.		25				0.00 %	0.00 %				$0
C3020415	Concrete Floor Finishes	$0.97	S.F.		50				0.00 %	0.00 %				$0
C3030	Ceiling Finishes	$20.97	S.F.	80,000	25	1995	2020	2045	120.00 %	53.94 %	30		$904,945.82	$1,677,600
D1010	Elevators and Lifts	$1.53	S.F.	80,000	35	1990	2025		28.57 %	0.00 %	10			$122,400
D2010	Plumbing Fixtures	$13.52	S.F.	80,000	35	1980	2015	2028	37.14 %	28.34 %	13		$306,507.25	$1,081,600
D2020	Domestic Water Distribution	$1.68	S.F.	80,000	25	1980	2005	2025	40.00 %	0.00 %	10			$134,400
D2030	Sanitary Waste	$2.90	S.F.	80,000	25	1966	1991	2042	108.00 %	159.66 %	27		$370,414.49	$232,000
D2040	Rain Water Drainage	$2.32	S.F.	80,000	30	1966	1996	2040	83.33 %	0.00 %	25			$185,600
D3020	Heat Generating Systems	$18.67	S.F.	80,000	35	2000	2035		57.14 %	0.00 %	20			$1,493,600
D3030	Cooling Generating Systems	$24.48	S.F.	80,000	30			2047	106.67 %	65.60 %	32		$1,284,765.21	$1,958,400
D3040	Distribution Systems	$42.99	S.F.	80,000	25	1966	1991	2042	108.00 %	143.32 %	27		$4,929,100.01	$3,439,200
D3050	Terminal & Package Units	$11.60	S.F.	80,000	20	1966	1986	2022	35.00 %	0.00 %	7			$928,000
D3060	Controls & Instrumentation	$13.50	S.F.	80,000	20	1966	1986	2037	110.00 %	158.90 %	22		$1,716,169.79	$1,080,000
D4010	Sprinklers	$7.05	S.F.	80,000	35			2052	105.71 %	202.91 %	37		$1,144,434.28	$564,000
D4020	Standpipes	$1.01	S.F.	80,000	35			2052	105.71 %	0.00 %	37			$80,800
D5010	Electrical Service/Distribution	$9.70	S.F.	80,000	30	1966	1996	2047	106.67 %	34.34 %	32		$266,481.47	$776,000
D5020	Lighting and Branch Wiring	$34.68	S.F.	80,000	20	1966	1986	2037	110.00 %	39.16 %	22		$1,086,416.47	$2,774,400
D5030	Communications and Security	$12.99	S.F.	80,000	15	1966	1981	2032	113.33 %	40.32 %	17		$418,974.17	$1,039,200
D5090	Other Electrical Systems	$1.41	S.F.	80,000	30	1966	1996	2037	73.33 %	118.87 %	22		$134,084.43	$112,800
E1020	Institutional Equipment	$4.82	S.F.	80,000	35	2000	2035	2070	157.14 %	0.00 %	55			$385,600
E1090	Other Equipment	$11.10	S.F.	80,000	35	2000	2035	2070	157.14 %	0.00 %	55			$888,000
E2010	Fixed Furnishings	$2.13	S.F.	80,000	40	1990	2030	2070	137.50 %	0.00 %	55			$170,400
								Total	**81.34 %**	**43.44 %**			**$17,174,264.35**	**$39,540,104**

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: Painted CMU 100%

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

Note: VAT tile 70%
VCT tile 15%
Carpet 4%

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:	**$17,174,264**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,283,108**	**$0**	**$0**	**$551,113**	**$19,008,485**
*** 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	$774,947	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$774,947**
B2020 - Exterior Windows	$1,829,388	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,829,388**
B2030 - Exterior Doors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$171,484	**$171,484**
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**
B3010120 - Single Ply Membrane	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010130 - Preformed Metal Roofing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010140 - Shingle & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3020 - Roof Openings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C - Interiors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C10 - Interior Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C1010 - Partitions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

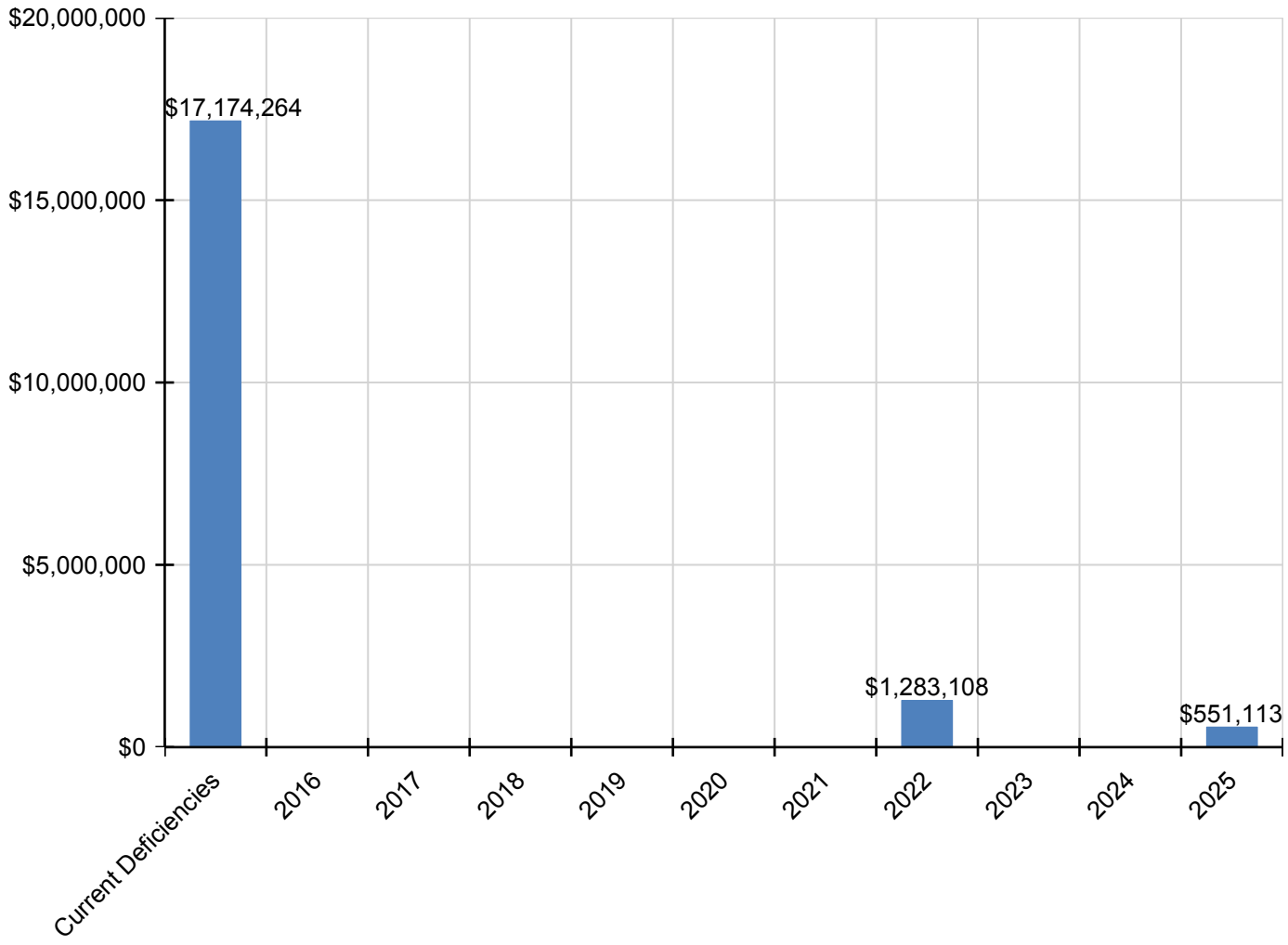
C1020 - Interior Doors	$52,874	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$52,874**
C1030 - Fittings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010 - Wall Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010230 - Paint & Covering	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010231 - Vinyl Wall Covering	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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**
C3020411 - Carpet	$31,334	$0	$0	$0	$0	$0	$0	$27,652	$0	$0	$0	**$58,987**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020413 - Vinyl Flooring	$906,967	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$906,967**
C3020414 - Wood Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020415 - Concrete Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3030 - Ceiling Finishes	$904,946	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$904,946**
D - Services	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D10 - Conveying	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D1010 - Elevators and Lifts	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$180,945	**$180,945**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$306,507	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$306,507**
D2020 - Domestic Water Distribution	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$198,685	**$198,685**
D2030 - Sanitary Waste	$370,414	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$370,414**
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	$1,284,765	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,284,765**
D3040 - Distribution Systems	$4,929,100	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$4,929,100**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$1,255,455	$0	$0	$0	**$1,255,455**
D3060 - Controls & Instrumentation	$1,716,170	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,716,170**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$1,144,434	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,144,434**
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	$266,481	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$266,481**
D5020 - Lighting and Branch Wiring	$1,086,416	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,086,416**
D5030 - Communications and Security	$418,974	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$418,974**
D5090 - Other Electrical Systems	$134,084	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$134,084**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

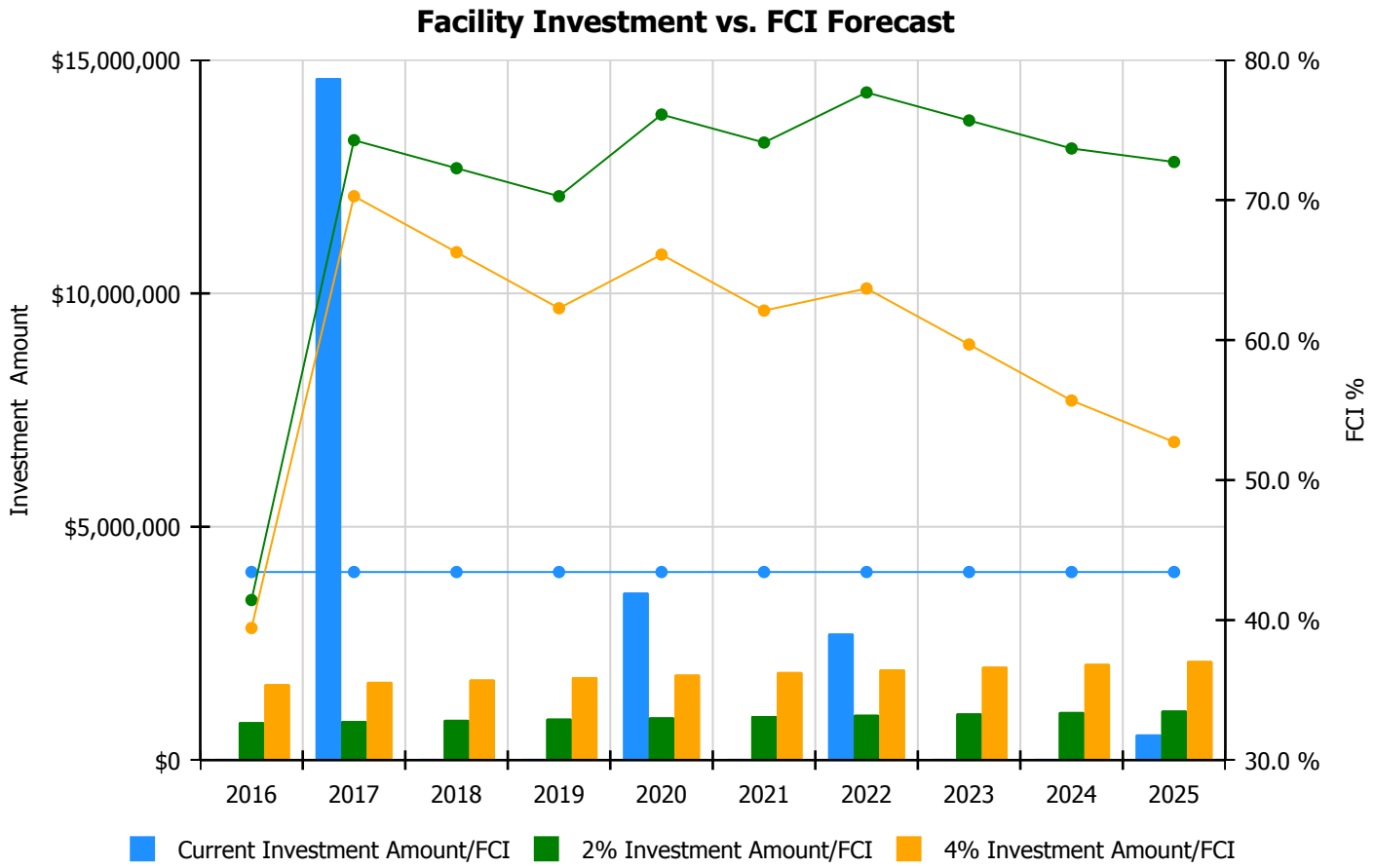
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

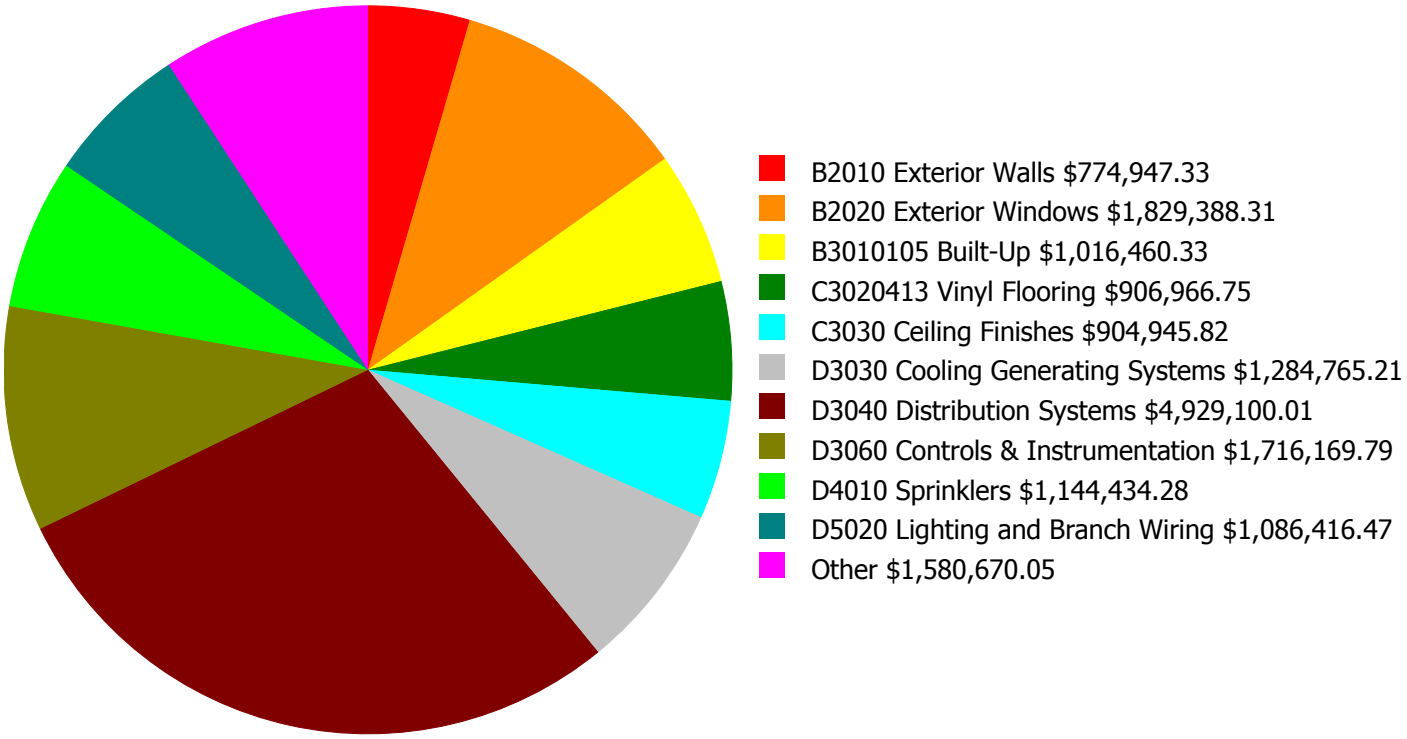
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 43.44%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$814,526.00	41.44 %	$1,629,052.00	39.44 %
2017	$14,614,057	$838,962.00	74.27 %	$1,677,924.00	70.27 %
2018	$0	$864,131.00	72.27 %	$1,728,262.00	66.27 %
2019	$0	$890,055.00	70.27 %	$1,780,109.00	62.27 %
2020	$3,589,947	$916,756.00	76.11 %	$1,833,513.00	66.11 %
2021	$0	$944,259.00	74.11 %	$1,888,518.00	62.11 %
2022	$2,712,811	$972,587.00	77.68 %	$1,945,174.00	63.68 %
2023	$0	$1,001,764.00	75.68 %	$2,003,529.00	59.68 %
2024	$0	$1,031,817.00	73.68 %	$2,063,635.00	55.68 %
2025	$551,113	$1,062,772.00	72.72 %	$2,125,544.00	52.72 %
Total:	**$21,467,929**	**$9,337,629.00**		**$18,675,260.00**	

Deficiency Summary by System

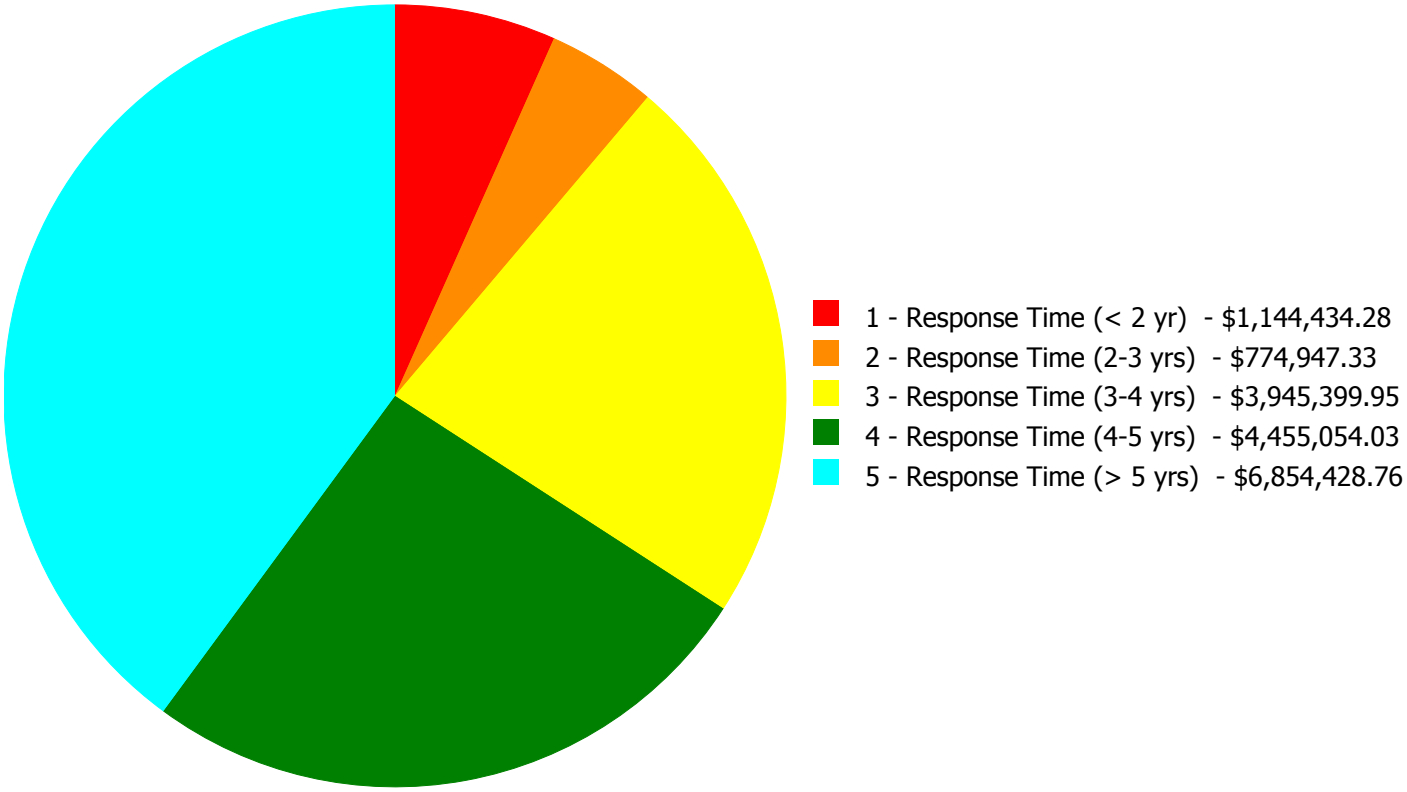
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $17,174,264.35

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: $17,174,264.35

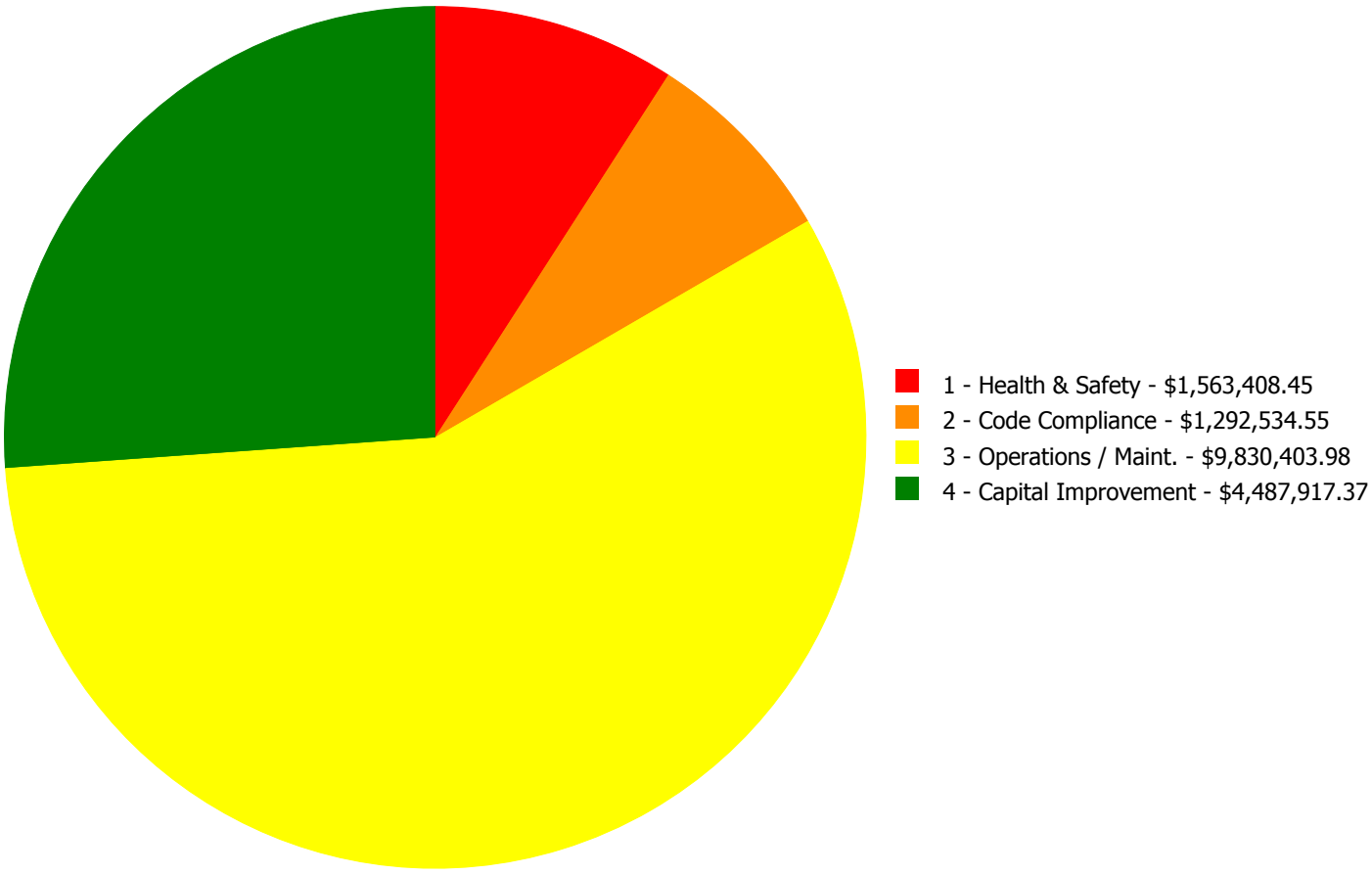
Deficiency By Priority Investment Table

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
B2010	Exterior Walls	$0.00	$774,947.33	$0.00	$0.00	$0.00	$774,947.33
B2020	Exterior Windows	$0.00	$0.00	$1,829,388.31	$0.00	$0.00	$1,829,388.31
B3010105	Built-Up	$0.00	$0.00	$0.00	$0.00	$1,016,460.33	$1,016,460.33
C1020	Interior Doors	$0.00	$0.00	$0.00	$52,874.10	$0.00	$52,874.10
C3020411	Carpet	$0.00	$0.00	$0.00	$0.00	$31,334.14	$31,334.14
C3020413	Vinyl Flooring	$0.00	$0.00	$0.00	$0.00	$906,966.75	$906,966.75
C3030	Ceiling Finishes	$0.00	$0.00	$0.00	$0.00	$904,945.82	$904,945.82
D2010	Plumbing Fixtures	$0.00	$0.00	$60,633.52	$245,873.73	$0.00	$306,507.25
D2030	Sanitary Waste	$0.00	$0.00	$339,728.54	$30,685.95	$0.00	$370,414.49
D3030	Cooling Generating Systems	$0.00	$0.00	$0.00	$0.00	$1,284,765.21	$1,284,765.21
D3040	Distribution Systems	$0.00	$0.00	$76,174.51	$3,859,138.78	$993,786.72	$4,929,100.01
D3060	Controls & Instrumentation	$0.00	$0.00	$0.00	$0.00	$1,716,169.79	$1,716,169.79
D4010	Sprinklers	$1,144,434.28	$0.00	$0.00	$0.00	$0.00	$1,144,434.28
D5010	Electrical Service/Distribution	$0.00	$0.00	$0.00	$266,481.47	$0.00	$266,481.47
D5020	Lighting and Branch Wiring	$0.00	$0.00	$1,086,416.47	$0.00	$0.00	$1,086,416.47
D5030	Communications and Security	$0.00	$0.00	$418,974.17	$0.00	$0.00	$418,974.17
D5090	Other Electrical Systems	$0.00	$0.00	$134,084.43	$0.00	$0.00	$134,084.43
	Total:	$1,144,434.28	$774,947.33	$3,945,399.95	$4,455,054.03	$6,854,428.76	$17,174,264.35

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: $17,174,264.35

Deficiency Details by Priority

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

Priority 1 - Response Time (< 2 yr):

System: D4010 - Sprinklers

Location: Throughout building

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

Priority: 1 - Response Time (< 2 yr)

Correction: Install a fire protection sprinkler system

Qty: 80,000.00

Unit of Measure: S.F.

Estimate: $1,144,434.28

Assessor Name: System

Date Created: 07/28/2015

Notes: Install a fire protection sprinkler system with quick response type heads to reduce insurance costs by providing protection for the property. A fire pump may be required depending on the available city water pressure.

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

System: B2010 - Exterior Walls

Location: Exterior

Distress: Building Envelope Integrity

Category: 3 - Operations / Maint.

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

Correction: Repair cracks in masonry - replace missing mortar and repoint - SF of wall area

Qty: 24,000.00

Unit of Measure: S.F.

Estimate: $774,947.33

Assessor Name: System

Date Created: 08/04/2015

Notes: Repair cracks in masonry, replace missing mortar, tuck-point – all walls including panels covering columns and girders

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

System: B2020 - Exterior Windows

Location: Exterior

Distress: Building Envelope Integrity

Category: 3 - Operations / Maint.

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

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

Qty: 600.00

Unit of Measure: Ea.

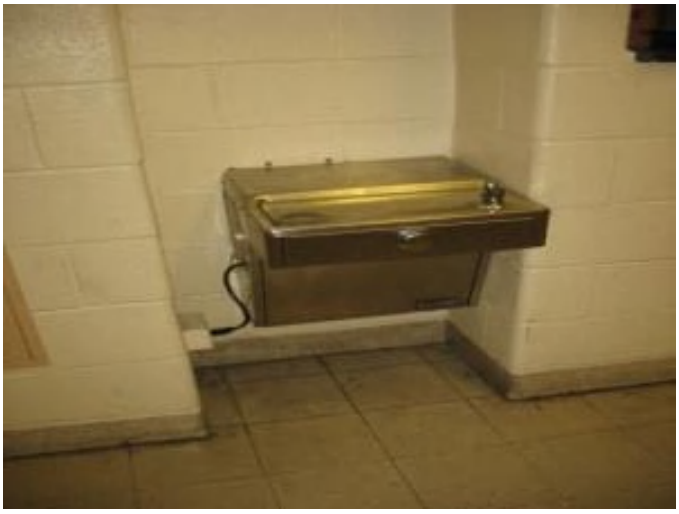
Estimate: $1,829,388.31

Assessor Name: System

Date Created: 08/04/2015

Notes: Replace all windows within next 4 to 5 years

System: D2010 - Plumbing Fixtures



Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 8.00

Unit of Measure: Ea.

Estimate: $60,633.52

Assessor Name: System

Date Created: 07/28/2015

Notes: Replace the wall hung drinking fountains and integral refrigerated coolers in the corridors and at the restrooms. These units are well beyond their service life.

System: D2030 - Sanitary Waste

Location: Throughout buliding

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Inspect sanitary waste piping and replace damaged sections. (+100KSF)

Qty: 80,000.00

Unit of Measure: S.F.

Estimate: $339,728.54

Assessor Name: System

Date Created: 07/28/2015

Notes: Hire a qualified contractor to perform a detailed examination of the sanitary waste piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.

System: D3040 - Distribution Systems

Location: Roof

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace utility set exhaust fan (5 HP)

Qty: 2.00

Unit of Measure: Ea.

Estimate: $76,174.51

Assessor Name: System

Date Created: 07/28/2015

Notes: Replace existing exhaust fans on the roof serving the bathrooms and utilize the existing ductwork.

System: D5020 - Lighting and Branch Wiring

Location: Throughout Building
Distress: Inadequate
Category: 4 - Capital Improvement
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace Lighting Fixtures (SF)
Qty: 80,000.00
Unit of Measure: S.F.
Estimate: $1,031,767.20
Assessor Name: System
Date Created: 07/29/2015

Notes: Complete lighting upgrade

System: D5020 - Lighting and Branch Wiring

Location: Throughout Building
Distress: Inadequate
Category: 4 - Capital Improvement
Priority: 3 - Response Time (3-4 yrs)
Correction: Add wiring device
Qty: 1.00
Unit of Measure: Ea.
Estimate: $54,649.27
Assessor Name: System
Date Created: 07/29/2015

Notes: Install minimum two receptacles on each wall of class rooms and other purpose rooms.

System: D5030 - Communications and Security

Location: Throughout Building
Distress: Life Safety / NFPA / PFD
Category: 1 - Health & Safety
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace fire alarm system
Qty: 1.00
Unit of Measure: S.F.
Estimate: $418,974.17
Assessor Name: System
Date Created: 07/29/2015

Notes: Install a new addressable fire alarm system and provide audible and/or visual devices in all areas.

System: D5090 - Other Electrical Systems

Location: Basement
Distress: Inadequate
Category: 4 - Capital Improvement
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace standby generator system
Qty: 1.00
Unit of Measure: Ea.
Estimate: $112,888.95
Assessor Name: System
Date Created: 07/30/2015

Notes: Replace existing generator with larger generator sized to operate the elevator.

System: D5090 - Other Electrical Systems

Location: Throughout Building

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Replace Emergency/Exit Lighting

Qty: 1.00

Unit of Measure: Ea.

Estimate: $21,195.48

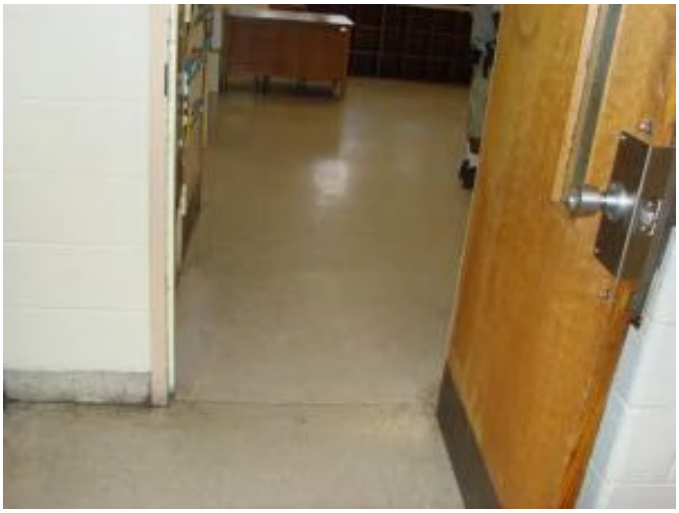
Assessor Name: System

Date Created: 07/29/2015

Notes: Provide new exit lighting

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

System: C1020 - Interior Doors



Location: Interior
Distress: Accessibility
Category: 2 - Code Compliance
Priority: 4 - Response Time (4-5 yrs)
Correction: Replace door knobs with compliant lever type
Qty: 95.00
Unit of Measure: Ea.
Estimate: $52,874.10
Assessor Name: System
Date Created: 08/04/2015

Notes: Replace interior doors hardware for ADA accessibility

System: D2010 - Plumbing Fixtures

Location: Restrooms
Distress: Accessibility
Category: 2 - Code Compliance
Priority: 4 - Response Time (4-5 yrs)
Correction: Replace lavatory - with finishes
Qty: 30.00
Unit of Measure: Ea.
Estimate: $245,873.73
Assessor Name: System
Date Created: 07/28/2015

Notes: Replace the wheel lavatories in the restrooms with new code compliant fixtures.

System: D2030 - Sanitary Waste

Location: Boiler Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace sanitary sewage ejector pit and pumps. (48" dia.)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $30,685.95

Assessor Name: System

Date Created: 07/28/2015

Notes: Replace existing sewage ejector pump system and piping in the basement as it is beyond its useful service life.

System: D3040 - Distribution Systems

Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace the existing unit ventilators with new units designed to provide adequate ventilation per ASHRAE Std 62 - insert the SF of bldg. in the qty.

Qty: 80,000.00

Unit of Measure: S.F.

Estimate: $3,859,138.78

Assessor Name: System

Date Created: 07/28/2015

Notes: Remove the existing unit ventilators and install units with hot and chilled water coils and integral heat exchangers to introduce outdoor air to the building.

System: D5010 - Electrical Service/Distribution

Location: Basement

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add Electrical Switchgear and Distribution System

Qty: 0.00

Unit of Measure: Ea.

Estimate: $266,481.47

Assessor Name: System

Date Created: 07/30/2015

Notes: Install a second substation to serve new air conditioning equipment.

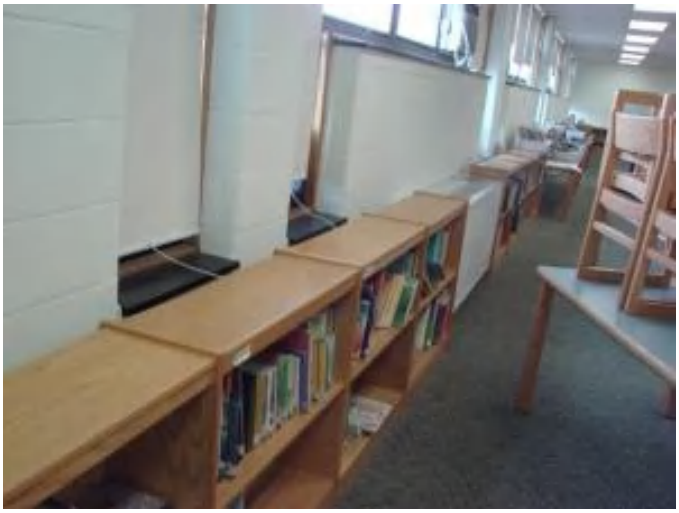
Priority 5 - Response Time (> 5 yrs):

System: B3010105 - Built-Up

Location: Exterior
Distress: Building Envelope Integrity
Category: 3 - Operations / Maint.
Priority: 5 - Response Time (> 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: 08/04/2015

Notes: Install all new roofing system including insulation within next 5 to 10 years; tear-down existing roofing; install flashing, and counter flashing

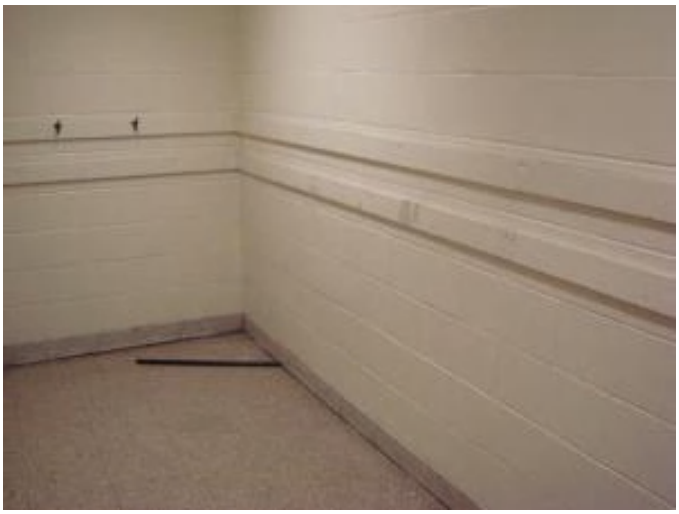
System: C3020411 - Carpet



Location: Interior
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 5 - Response Time (> 5 yrs)
Correction: Remove and replace carpet
Qty: 2,800.00
Unit of Measure: S.F.
Estimate: $31,334.14
Assessor Name: System
Date Created: 08/04/2015

Notes: Replace existing carpet

System: C3020413 - Vinyl Flooring



Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 59,800.00

Unit of Measure: S.F.

Estimate: $906,966.75

Assessor Name: System

Date Created: 08/04/2015

Notes: Replace all VAT flooring including cove base within 10 years

System: C3030 - Ceiling Finishes

Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Remove and replace suspended acoustic ceilings - lighting not included

Qty: 60,000.00

Unit of Measure: S.F.

Estimate: $904,945.82

Assessor Name: System

Date Created: 08/04/2015

Notes: Replace all suspended acoustical ceilings

System: D3030 - Cooling Generating Systems

Location: Roof

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

Correction: Install chilled water system with distribution piping and pumps. (+75KSF)

Qty: 80,000.00

Unit of Measure: S.F.

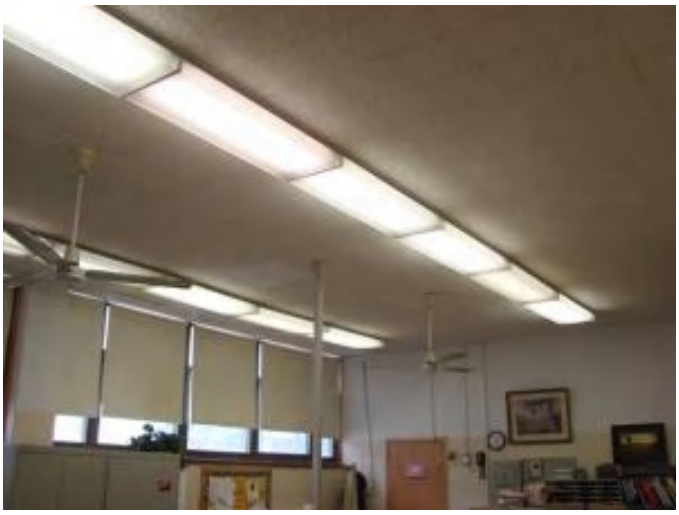
Estimate: $1,284,765.21

Assessor Name: System

Date Created: 07/28/2015

Notes: Remove the window air conditioning units and install a 200 ton air-cooled chiller on the roof with chilled water distribution piping and pumps located in the mechanical room to supply more reliable air conditioning for the building with a much longer service life.

System: D3040 - Distribution Systems



Location: Administration

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

Correction: Install HVAC unit for Administration (2000 students).

Qty: 795.00

Unit of Measure: Pr.

Estimate: $330,266.69

Assessor Name: System

Date Created: 07/28/2015

Notes: Provide ventilation for the administrative offices by installing a fan coil air handling unit hung from the structure with outdoor air ducted to the unit from louvers in window openings.

System: D3040 - Distribution Systems

Location: Gymnasium

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 6,000.00

Unit of Measure: Ea.

Estimate: $308,301.04

Assessor Name: System

Date Created: 07/28/2015

Notes: Provide ventilation for the gymnasium by installing a fan coil air handling unit hung from the structure with outdoor air ducted to the unit from louvers in the window openings.

System: D3040 - Distribution Systems

Location: Auditorium

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 200.00

Unit of Measure: Seat

Estimate: $285,085.41

Assessor Name: System

Date Created: 07/29/2015

Notes: Provide ventilation for the Auditorium by installing a fan coil air handling unit hung from the structure with outdoor air ducted to the unit from louvers in window openings.

System: D3040 - Distribution Systems

Location: Cafeteria

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 150.00

Unit of Measure: Pr.

Estimate: $70,133.58

Assessor Name: System

Date Created: 07/28/2015

Notes: Provide ventilation for the Cafeteria by installing a constant volume air handling unit with distribution ductwork and registers.

System: D3060 - Controls & Instrumentation

Location: Throughout building

Distress: Energy Efficiency

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace pneumatic controls with DDC (75KSF)

Qty: 80,000.00

Unit of Measure: S.F.

Estimate: $1,716,169.79

Assessor Name: System

Date Created: 07/28/2015

Notes: Replace the pneumatic controls for the HVAC systems with modern DDC modules, valves and actuators to improve reliability and energy efficiency. Provide a new building automation system (BAS) with communication interface to the preferred system in use throughout the District.

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
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 4650 MBH, includes burners, controls and insulated jacket, packaged	2.00	Ea.	Basement Boiler Room	Buderus	GE615/16			35	2000	2035	$112,258.50	$246,968.70
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 4650 MBH, includes burners, controls and insulated jacket, packaged	2.00	Ea.	Basement Boiler Room	Buderus	GE615/16	63130084-00 -3000-0031		35	2000	2035	$112,258.50	$246,968.70
D3020 Heat Generating Systems	Pump, base mounted with motor, end-suction, 3" size, 5 HP, to 225 GPM	2.00	Ea.	Basement Mechanical Room	Armstrong	4030			35			$23,031.60	$50,669.52
D3020 Heat Generating Systems	Pump, base mounted with motor, end-suction, 3" size, 5 HP, to 225 GPM	2.00	Ea.	Basement Mechanical Room	Armstrong	4030	540920		35			$23,031.60	$50,669.52
D5010 Electrical Service/Distribution	Load interrupter switch, 2 position, 400 kVA & above w/CLF fuses, 4.8 kV, 600 amp, NEMA 1	1.00	Ea.	Basement	Eaton				30			$38,502.00	$42,352.20
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 1600 A	1.00	Ea.	Basement	Eaton				20			$40,458.15	$44,503.97
D5010 Electrical Service/Distribution	Transformers, 4800 volts to 480/277 volts, 500 kVA	1.00	Ea.	Basement	Eaton				30			$65,205.00	$71,725.50
												Total:	**$753,858.11**

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):	15,400
Year Built:	1966
Last Renovation:	
Replacement Value:	$346,038
Repair Cost:	$269,084.93
Total FCI:	77.76 %
Total RSLI:	80.23 %

Description:

Attributes:

General Attributes:

Bldg ID:	S239001	Site ID:	S239001

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	90.77 %	104.88 %	$269,084.93
G40 - Site Electrical Utilities	50.00 %	0.00 %	$0.00
Totals:	**80.23 %**	**77.76 %**	**$269,084.93**

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 $
G2010	Roadways	$11.52	S.F.		30				0.00 %	0.00 %				$0
G2020	Parking Lots	$8.50	S.F.		30				0.00 %	0.00 %				$0
G2030	Pedestrian Paving	$12.30	S.F.	15,400	40	1980	2020	2050	87.50 %	129.43 %	35		$245,173.68	$189,420
G2040	Site Development	$4.36	S.F.	15,400	25	1995	2020	2040	100.00 %	35.61 %	25		$23,911.25	$67,144
G2050	Landscaping & Irrigation	$4.36	S.F.		15				0.00 %	0.00 %				$0
G4020	Site Lighting	$4.84	S.F.	15,400	30	2000	2030		50.00 %	0.00 %	15			$74,536
G4030	Site Communications & Security	$0.97	S.F.	15,400	30	2000	2030		50.00 %	0.00 %	15			$14,938
								Total	**80.23 %**	**77.76 %**			**$269,084.93**	**$346,038**

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.

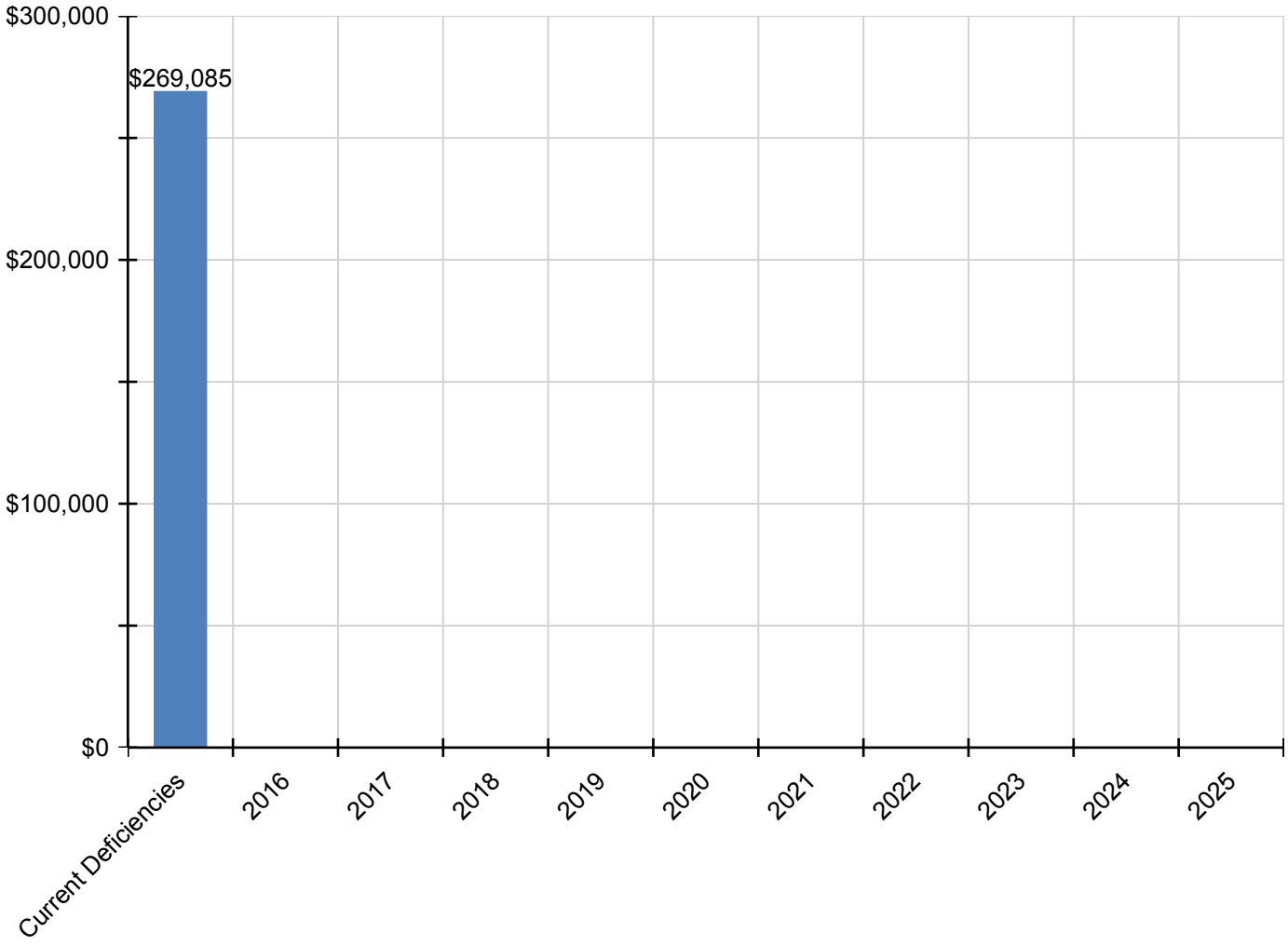
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$269,085**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$269,085**
G - Building Sitework	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G20 - Site Improvements	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2010 - Roadways	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2020 - Parking Lots	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2030 - Pedestrian Paving	$245,174	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$245,174**
G2040 - Site Development	$23,911	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$23,911**
G2050 - Landscaping & Irrigation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G40 - Site Electrical Utilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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

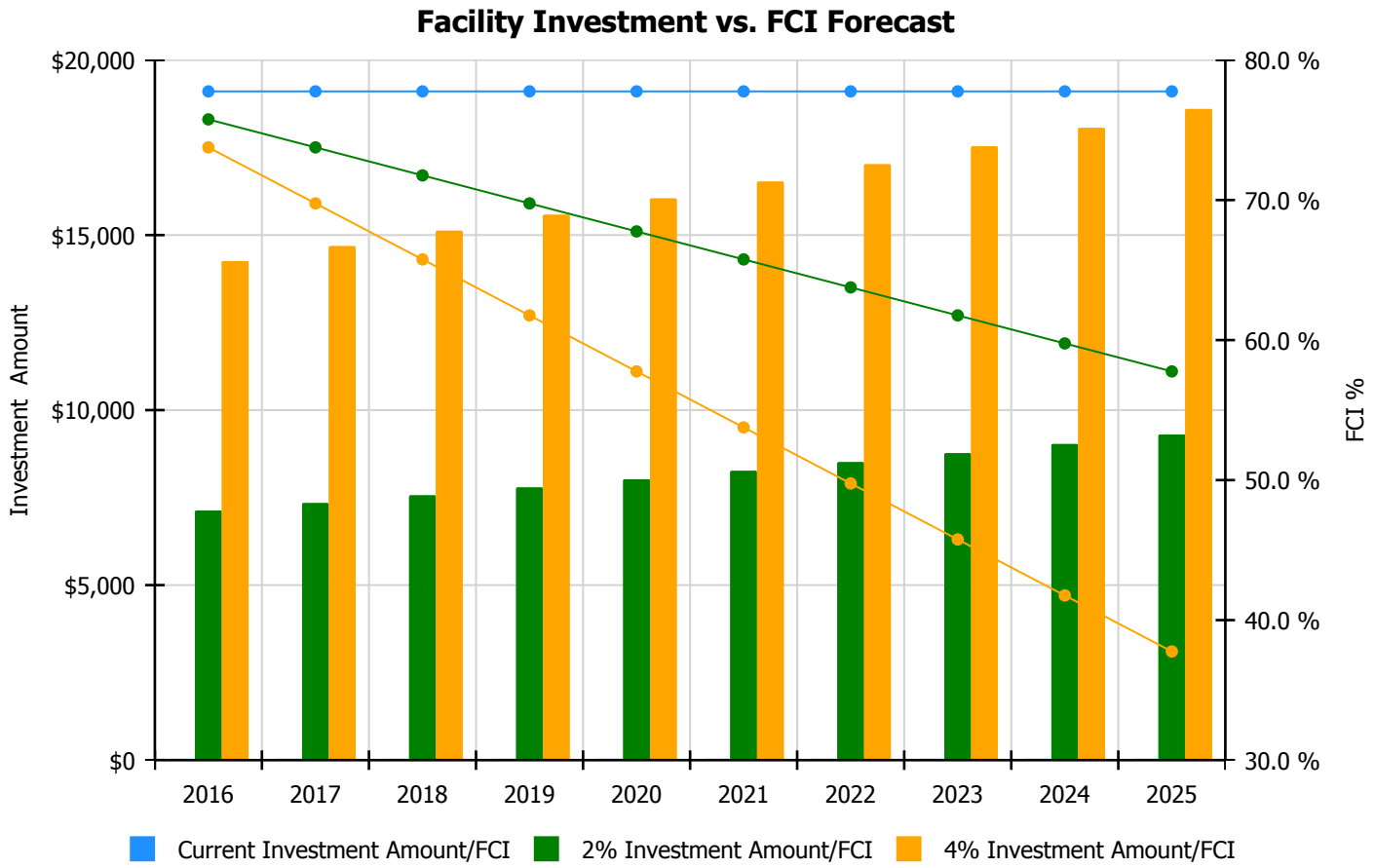
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

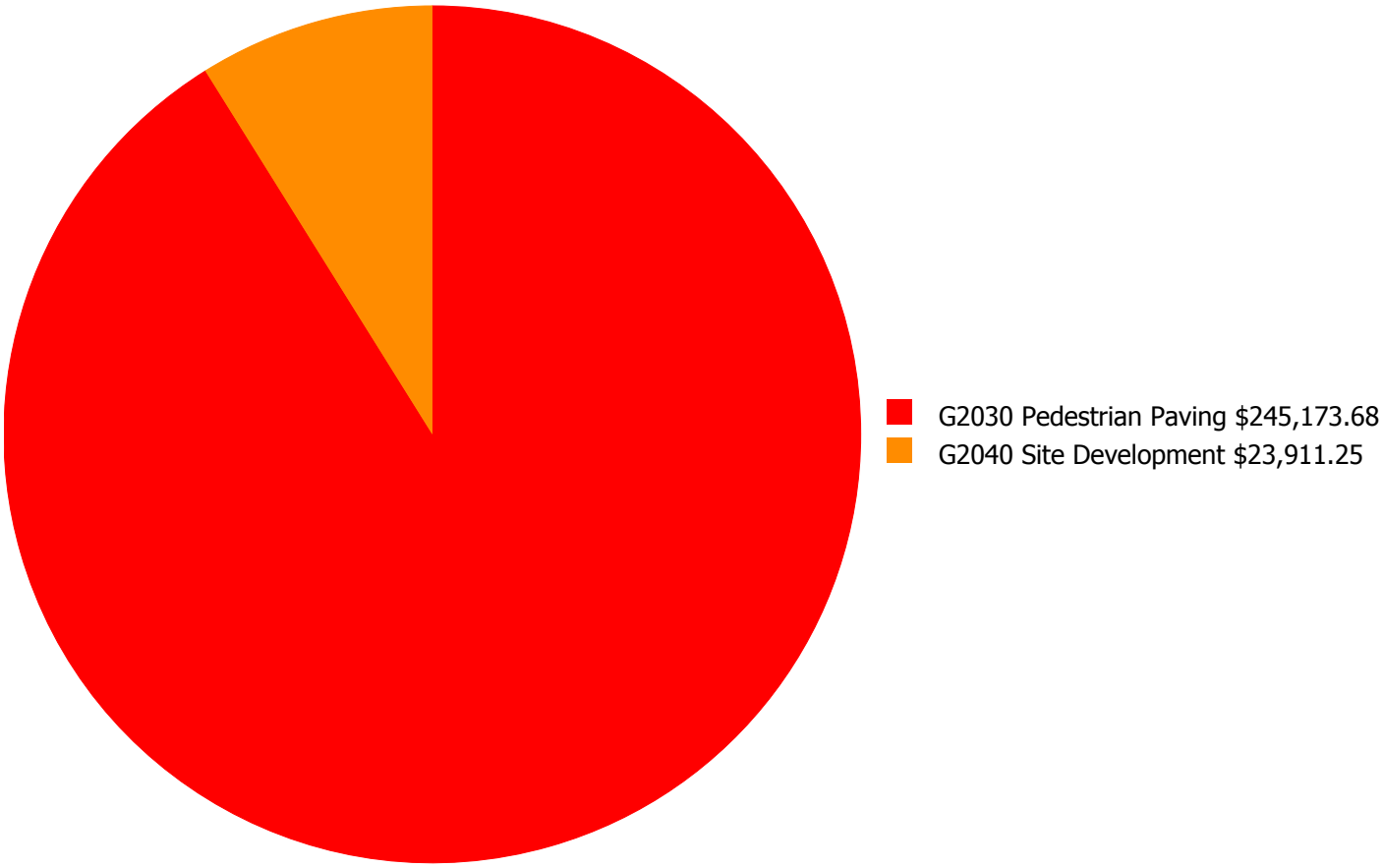
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 77.76%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$7,128.00	75.76 %	$14,257.00	73.76 %
2017	$0	$7,342.00	73.76 %	$14,684.00	69.76 %
2018	$0	$7,563.00	71.76 %	$15,125.00	65.76 %
2019	$0	$7,789.00	69.76 %	$15,579.00	61.76 %
2020	$0	$8,023.00	67.76 %	$16,046.00	57.76 %
2021	$0	$8,264.00	65.76 %	$16,527.00	53.76 %
2022	$0	$8,512.00	63.76 %	$17,023.00	49.76 %
2023	$0	$8,767.00	61.76 %	$17,534.00	45.76 %
2024	$0	$9,030.00	59.76 %	$18,060.00	41.76 %
2025	$0	$9,301.00	57.76 %	$18,602.00	37.76 %
Total:	**$0**	**$81,719.00**		**$163,437.00**	

Deficiency Summary by System

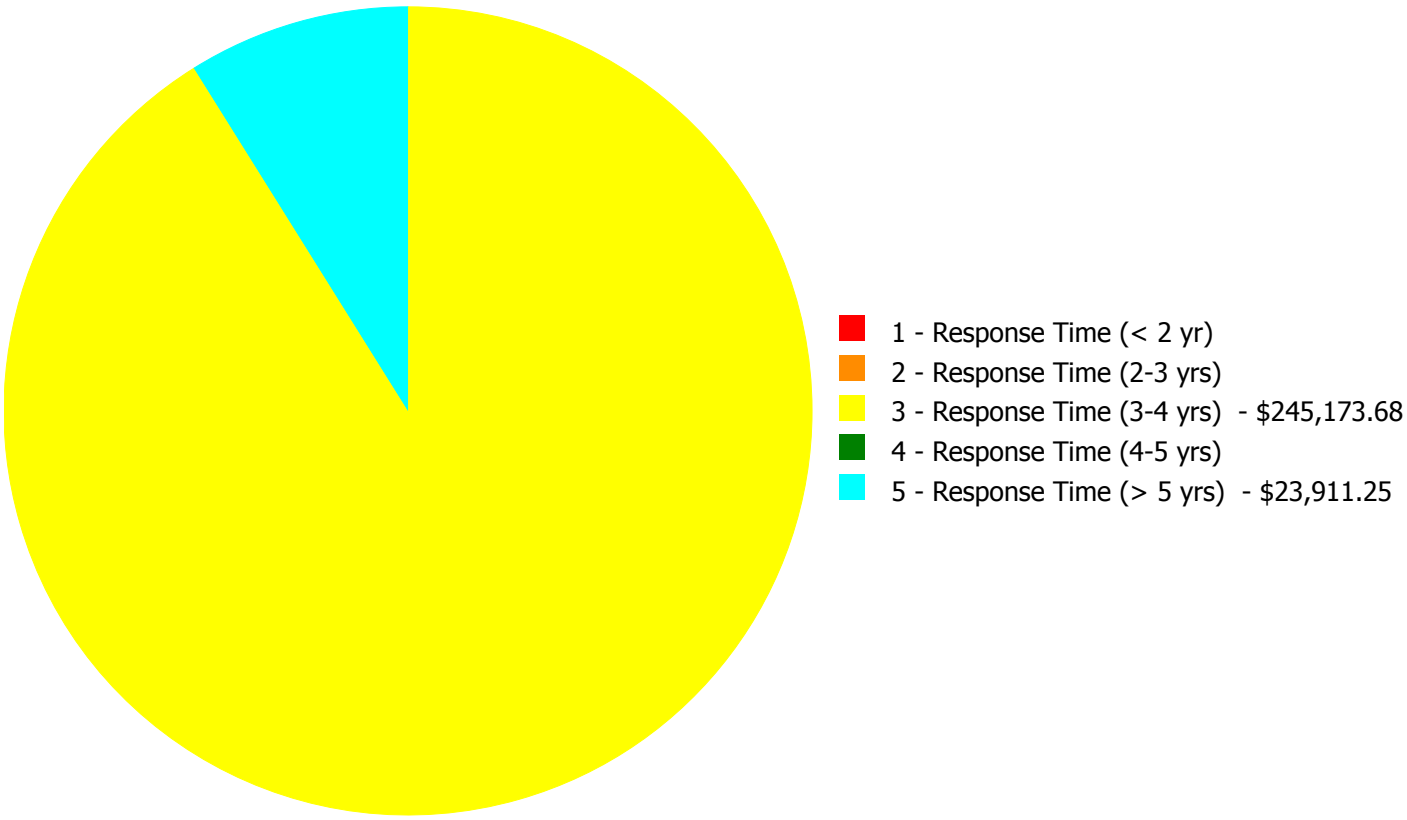
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $269,084.93

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: $269,084.93

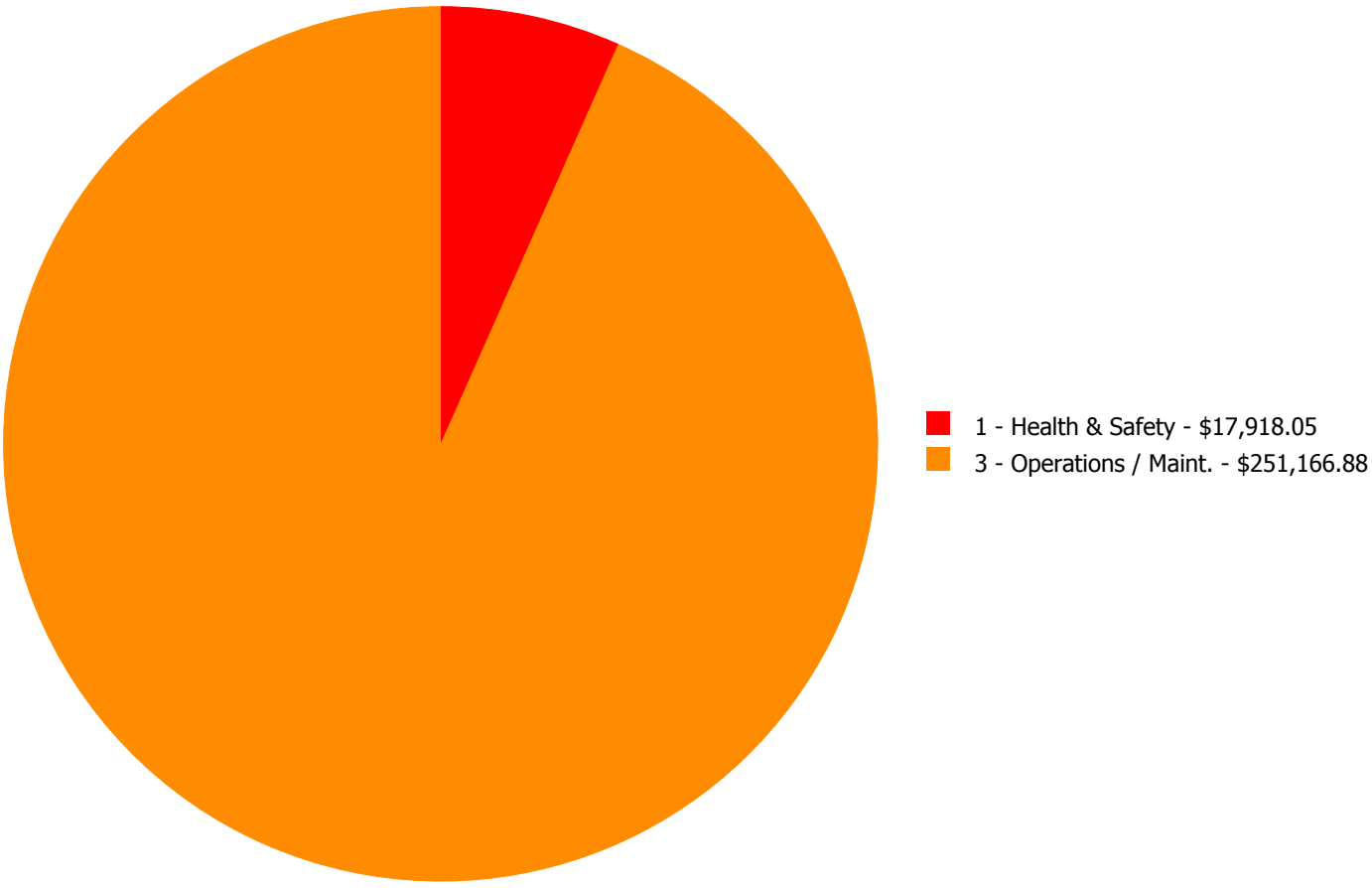
Deficiency By Priority Investment Table

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	$245,173.68	$0.00	$0.00	$245,173.68
G2040	Site Development	$0.00	$0.00	$0.00	$0.00	$23,911.25	$23,911.25
	Total:	$0.00	$0.00	$245,173.68	$0.00	$23,911.25	$269,084.93

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: $269,084.93

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: Grounds

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 15,000.00

Unit of Measure: S.F.

Estimate: $245,173.68

Assessor Name: Craig Anding

Date Created: 08/04/2015

Notes: Resurface playground paving

Priority 5 - Response Time (> 5 yrs):

System: G2040 - Site Development

Location: Grounds
Distress: Security Issue
Category: 1 - Health & Safety
Priority: 5 - Response Time (> 5 yrs)
Correction: Replace chain link fence - 8' high
Qty: 160.00
Unit of Measure: L.F.
Estimate: $17,918.05
Assessor Name: Craig Anding
Date Created: 08/04/2015

Notes: Replace original chain link fence and security gate

System: G2040 - Site Development

Location: Grounds
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 5 - Response Time (> 5 yrs)
Correction: Remove and replace chain link gate - 8' high
Qty: 1.00
Unit of Measure: Ea.
Estimate: $5,993.20
Assessor Name: Craig Anding
Date Created: 08/04/2015

Notes: Replace original chain link security gate

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