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.

Taylor School

Governance	DISTRICT	Report Type	Elementary
Address	3698 N. Randolph St.	Enrollment	567
	Philadelphia, Pa 19140	Grade Range	'00-05'
Phone/Fax	215-227-4435 / 215-227-4900	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Taylor	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	**56.25%**	**$17,123,209**	**$30,443,526**
Building	55.84 %	$16,317,703	$29,220,709
Grounds	65.87 %	$805,506	$1,222,817

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	89.23 %	$836,840	$937,804
Exterior Walls (Shows condition of the structural condition of the exterior facade)	00.00 %	$0	$2,089,106
Windows (Shows functionality of exterior windows)	118.75 %	$1,210,481	$1,019,366
Exterior Doors (Shows condition of exterior doors)	199.75 %	$163,932	$82,070
Interior Doors (Classroom doors)	229.59 %	$456,125	$198,666
Interior Walls (Paint and Finishes)	86.54 %	$775,859	$896,544
Plumbing Fixtures	06.13 %	$46,912	$765,232
Boilers	00.00 %	$0	$1,056,722
Chillers/Cooling Towers	64.48 %	$893,475	$1,385,568
Radiators/Unit Ventilators/HVAC	112.37 %	$2,734,345	$2,433,234
Heating/Cooling Controls	158.90 %	$1,214,191	$764,100
Electrical Service and Distribution	155.12 %	$851,660	$549,020
Lighting	47.48 %	$932,018	$1,962,888
Communications and Security (Cameras, Pa System and Fire Alarm)	84.56 %	$621,741	$735,234

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.

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.

Taylor Annex (Our Lady of Pompei) School

Governance	DISTRICT	Report Type	Elementary
Address	608 W Erie Ave Philadelphia, Pa 19140	Enrollment Grade Range	'00-05'
Phone/Fax	215-227-4435 / 215-227-4900	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Taylor	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	**67.21%**	**$5,951,769**	**$8,855,245**
Building	67.47 %	$5,807,847	$8,608,615
Grounds	58.36 %	$143,921	$246,630

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	86.84 %	$194,692	$224,207
Exterior Walls (Shows condition of the structural condition of the exterior facade)	28.85 %	$132,722	$460,089
Windows (Shows functionality of exterior windows)	266.85 %	$536,001	$200,865
Exterior Doors (Shows condition of exterior doors)	370.05 %	$91,073	$24,611
Interior Doors (Classroom doors)	285.59 %	$158,248	$55,411
Interior Walls (Paint and Finishes)	106.47 %	$207,281	$194,676
Plumbing Fixtures	03.26 %	$15,158	$465,394
Boilers	67.71 %	$186,306	$275,140
Chillers/Cooling Towers	65.60 %	$236,671	$360,762
Radiators/Unit Ventilators/HVAC	135.04 %	$855,527	$633,544
Heating/Cooling Controls	158.90 %	$316,140	$198,950
Electrical Service and Distribution	00.00 %	$0	$142,949
Lighting	00.00 %	$0	$511,079
Communications and Security (Cameras, Pa System and Fire Alarm)	135.57 %	$259,532	$191,434

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

S744001;Taylor

Final

Site Assessment Report

January 30, 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):	56,600
Year Built:	1907
Last Renovation:	
Replacement Value:	$30,443,526
Repair Cost:	$17,123,209.04
Total FCI:	56.25 %
Total RSLI:	77.22 %

Description:

Facility Assessment
October 2015

School District of Philadelphia

Taylor Elementary School

3698 N. Randolph Street

Philadelphia, PA 19140

56,600 SF / 616 Students / LN 05

The Taylor Elementary School building is located at 3698 N. Randolph Street in Philadelphia, PA. The 3 story, 68,076 square foot building was originally constructed in 1907. Approximately in 1970 a 1 story addition was constructed on the south end of the original building containing auditorium/gymnasium, preparatory kitchen and support spaces. The original building has a basement partially

above ground and 3 penthouses on the roof.

Mr. Derek Parker, Facility Area Coordinator provided input to the Parsons assessment team on current problems and planned renovation projects. Mr. Terrance Blocker, building engineer, accompanied us on our tour of the school and provided us with detailed information on the building systems and recent maintenance history. The school principal, Mr. David Laver, provided additional information about the school condition.

STRUCTURAL/ EXTERIOR CLOSURE:

The building typically rests on concrete foundations and bearing walls that are not showing signs of settlement. Foundation walls do not show signs of deterioration. The basement slab does not show signs of heaving or cracking. No signs of water penetration through walls have been observed or reported.

The main structure consists typically of masonry load bearing walls supporting a combination of one-way concrete slabs with ceramic block fillers and heavy timber framing in the original building. Long roof spans in the Auditorium and Gymnasium are supported with steel truss joists resting on masonry bearing walls. Joists above stage are exposed, fireproofed. Above ground floor slabs are generally in good condition.

The load bearing masonry structure of the fire escape located in the middle of the original building is unusable due to severe structural deterioration of walls and stair structure. It has been condemned by the City of Philadelphia.

The building envelope is typically face brick masonry with decorative stone water table and window sills. In general, masonry is in good condition. Extensive masonry restoration was performed in 2014.

The original windows were replaced in 1980's with extruded aluminum double hung windows, single acrylic glazed. Basement and first floor windows are fitted with security screens attached to adjacent masonry. All windows and screens are generally in poor condition, leaking, and beyond their useful life.

Exterior doors and frames are typically hollow metal in fair to poor condition. They were installed in early 1980's, have no weather stripping and are difficult to operate.

Roofing is typically built-up. All roofing and flashing is typically in poor condition with deterioration of the built-up system including water ponding and soft spots; several leaks have been reported. Water accumulation under the roofing system was observed in some areas. The roof over stage area is metal, standing seam with deteriorated finish and rusting.

INTERIORS:

Partition wall types include plastered ceramic hollow blocks painted CMU and hollow metal framed glazed store front partitions. Partitions between some classrooms are original, movable partitions in poor condition and inoperable. The interior wall finishes are generally painted plaster, CMU or drywall. Walls in a hallway adjacent to auditorium/gym are face brick.

Generally, paint is old, in poor condition with some deterioration in stairways, around window's perimeters and toilets.

Most ceilings are 2x4 suspended acoustical panels and exposed, painted. The suspension system and tile are old and approaching the end of their useful life. Paint on exposed ceilings is deteriorated.

Flooring in classrooms is generally hardwood and VCT; and patterned concrete in corridors. Toilet floors are finished with ceramic tile. Most flooring is original and in poor condition, often uneven creating possible tripping hazard; cove base is typically in fair condition. Some areas have VCT, generally in good condition, installed in 2012. However, tiles in Auditorium/Gymnasium and faculty lounges are VAT (containing asbestos), in fair condition.

Interior doors are wood rail and stile wood glazed doors with transoms, generally in various stages of deterioration. Most doors are fitted with door knobs and are not ADA compliant. Doors leading to exit stairways are retrofitted with hollow metal doors and frames in good condition. Doors in 1970 addition are mostly solid core in hollow metal frames, generally in poor condition.

Fittings include original chalk boards, generally in poor condition; toilet accessories in poor condition or missing; toilet partitions, generally in poor condition and not ADA compliant; handrails and ornamental metals, generally in good condition. Interior identifying signage is typically directly painted on wall or door surfaces generally in poor condition. Some doors have no signage.

Stair construction is generally concrete with cast iron non-slip treads in good condition. Stairs in fire towers are severely deteriorated and unsafe.

Institutional and Commercial equipment includes: stage equipment, generally in fair condition; A/V equipment in fair 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 (built-in cabinets), in poor condition; there is no fixed seating in auditorium/gym.

CONVEYING SYSTEMS:

The building has no elevators.

PLUMBING:

Plumbing Fixtures - Many of the plumbing fixtures have been replaced over the years. Fixtures in the restrooms on each floor consist of wall mounted flush valve water closets, wall hung urinals, and lavatories with wheel handle faucets. The water closets appear to be in good condition and should provide reliable service for the next 5-10 years. The urinals are in poor condition, are well past their service life, and should be replaced.

Drinking fountains in the corridors consist of wall hung fixtures with integral refrigerated coolers. The fixtures are a mixture of new and old units; the old units are well beyond their service life and should be replaced. The older units are NOT accessible type.

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

The Kitchen has one (1) sink; a three-compartment stainless steel sink with lever operated faucets and an integral grease trap. Chemicals are injected manually into the sanitizing basins.

Domestic Water Distribution - A 4" city water service enters the North side of the building from W. Erie Avenue. The 4" meter and valves are located in a ground level storage room. A reduced pressure backflow preventer is installed. The domestic hot and cold water distribution piping is 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, but the piping has been in use for an unknown amount of time and should be inspected and repaired as necessary by a qualified contractor.

Three (3) Paloma instant hot water heaters with associated circulating pumps, installation dates unknown, supply hot water for domestic use. The units are located in the boiler room. The units were operable during the site visit and the Building Engineer reported no serious issues; however they are most likely beyond their service life and should be replaced in the next 1-3 years.

Sanitary Waste - The storm and sanitary sewer piping is galvanized with threaded fittings. Downspouts from the roof run down the interior of the building and connect to the storm sewer system below the building slab.

The building does not have a sewage ejector pit or sump pump.

The maintenance staff reported mostly minor problems with the sanitary waste piping systems. However, the sewer piping has been in service for an unknown amount of time 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.

Rain Water Drainage - Rain water from the roof is routed down through pipe chases in the interior of the building by galvanized piping with threaded fittings and cast iron piping with hub and spigot fittings. The drain piping should be inspected by a qualified contractor and repaired as necessary. The Building Engineer reported no major issues with the rain water drainage piping in the addition.

MECHANICAL:

Energy Supply - City gas enters the building via a 1" pipe in the mechanical room adjacent to the boiler room. The meter is 1" and located in the in the mechanical room. A gas booster pump and new gas piping connecting to the boilers is installed but not connected to a gas source. The district should consider connecting this gas line to the city service to provide the boilers with a backup fuel source.

The oil supply is stored in a 12,000 gallon underground storage tank (UST) on the West side of the building. Oil is the only fuel source for the boilers at this time. Duplex fuel oil pumps, located in the boiler room and mounted on an Aylan skid, circulate oil through the system. The current oil supply should be tested for quality on a regular schedule. USTs have an anticipated service life of 20 years.

Heat Generating Systems - Building heating hot water is generated by three (3) 100HP Smith Mills 350 cast iron sectional boilers installed in 2001; they are located in the boiler room on the ground floor. Each boiler is equipped with a Power Flame burner designed to operate on natural gas or fuel oil. Combustion air makeup is supplied by louvers equipped with motorized dampers. Induced draft fans with positive draft control are installed on the rear of each boiler. Burner controls provide full modulation with electronic ignition, digital flame sensing and pressure atomization on oil. Burner oil pumps are not driven by the fan motor. The gas train serving the boilers appears to have code required venting of the regulators and dual solenoid valves with venting of the chamber between. The boilers are equipped with dual fuel burners but currently fuel oil is the only fuel source available. Cast iron sectional boilers have an anticipated service life of 35 years or more; these units have been in service approximately 14 years. The District should provide reliable service for the next 20-25 years.

Distribution Systems - Building heating hot water piping is black steel with threaded fittings. An air separator and expansion tank are installed on the hot water supply piping. The heating hot water distribution piping has been in use for an unknown amount of time and will require more frequent attention from the maintenance staff to address pipe/valve failures as time passes. The District should hire a qualified contractor to examine the heating hot water distribution piping and perform additional testing to locate and replace any damaged piping and to further quantify the extent of potential failures.

A two pipe distribution system supplies building heating water to the unit ventilators, fin tube radiators, and heating and ventilation units (HV). Two (2) 7.5HP Bell and Gossett end suction heating water supply pumps circulate building heating hot water. The pumps were installed with the boilers in 2001. All piping was covered with insulation. The pumps have an anticipated service life of 25 years; the District should provide reliable service for the next 8-10 years.

Unit ventilators and fin tube radiators provide heating for the majority of classrooms, offices, and the hallways. The unit ventilators are beyond their service life and in poor condition; they should be removed and new unit ventilators installed. Outdoor air for the building is provided by wall openings in the unit ventilators. Supplemental heating is provided in the corridors and along the perimeter of classrooms by fin tube radiators.

Two (2) HV units, installation date unknown, provide heating to the Gymnasium/Auditorium. The units are located above the stage in the Auditorium area and were not accessible during the site visit. The Building Engineer reported that the units do not function well; the units are most likely beyond their service life and should be replaced.

The school has mechanical ventilation via unit ventilators and exhaust fans which exhaust air from the plenum above the drop ceiling, the restrooms, and the boiler room. Ten (10) exhaust fans are located on the four (4) separate roofs of the building. All fans but one are operational according to the Building Engineer. No major issues were reported with the exhaust fans and they appear to have been replaced within the last 5 years. Twelve (12) gravity ventilators, located on the roof, provide relief air to the building. All are in working order and good condition.

Terminal & Package Units - 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 150 ton air-cooled chiller with pumps located in a mechanical room and chilled water distribution piping would supply more reliable air conditioning for the building with a much longer service life.

A Sanyo split system air conditioning system provides cooling to Kindergarten Room 25 on the ground level, West side of the building. The installation date of this unit is unknown; the anticipated service life of a split system air conditioner is 15 years. The district should budget to replace this unit within the next 7-10 years.

One (1) split system unit provides cooling to the IMC on the first floor, the condensing unit is located on the roof of Element 2. The system was not accessible at the time of the site visit as it was above the drop ceiling in the IMC and the condensing unit located on an inaccessible roof. The installation date of this unit is unknown; the anticipated service life of a split system air conditioner is 15 years.

Two (2) kitchen hoods with an integral Ansul fire suppression system are installed above the gas fired cooking equipment. An automatic gas shutoff system is installed with the kitchen equipment; the equipment is within its service life. A gas fired make-up air unit is not installed, but should be.

Controls & Instrumentation - The original pneumatic systems were replaced with DDC controls for the unit ventilators and boilers. The Building Engineer reports that he does not have a computer to access the controls system and is required to use a hand held controller

at each unit vent to adjust the room temperature; the controller does not work. The controls system was installed with the new boilers in 2001 and will be obsolete within the next few years. These controls should be updated with a new DDC system and computer interface.

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.

Sprinklers - 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. Fire standpipe is installed in the stairwell on the West side of the school. The 4" standpipe enters the ground level mechanical room from the paved play area on the West side of the building.

ELECTRICAL:

Site electrical service - The primary power is at 13.2KV from the street power pole feeds a vault-mounted transformer (500 KVA, 13.2KV – 120V/240V, 2 Phase), and feeds a main building switchboard. The main 800A switchboard, and the PECO meter (PECO 122 PUC-38429) are also located inside the electrical room. They provide power for lighting and receptacles of the building. The site electrical service is old and has reached the end of its useful service life.

Distribution System - The building distribution is via 120V panels that are located throughout the building (two in each floor) and provide power for lighting and receptacles. These panels are old and they have reached the end of their useful service life.

Receptacles - There is not enough receptacles in classrooms, computer rooms, libraries, and other areas. There should be minimum of two receptacles on each wall of the classrooms, and other areas.

Lighting - Interior building is illuminated by various types of fixtures. They include fluorescent lighting (with T-12 & T-8 lamp) in majority of the areas, including; classrooms, corridor, offices, and the Kitchen. Surface or pendant mounted industrial fluorescent fixtures are used in mechanical and electrical rooms. The Gymnasium also has old HID fixtures. The first floor lighting was upgraded in 2011. The majority of interior lighting fixtures (50%) is in a poor condition and has reached the end of their useful service.

Fire alarm - The present Fire Alarm system is old and is not automatic/addressable, and is not in compliance with safety codes. There are manual pulls stations throughout the building. However, there are insufficient number of horns/strobes installed in the classrooms, corridors, offices and other areas in the school.

Telephone/LAN - The school telephone and data systems are new and working adequately. The main distribution frame (MDF) along with a telephone PBX system are providing the necessary communication function of the building. School is also equipped with Wi-Fi system.

Public Address - Separate PA system does not exist. School uses the telephone systems for public announcement. This system is working adequately. The present Intercom System is functioning fine. Each class room is provided with intercom telephone service. The system permits paging and intercom communication between main office to classrooms, and vice versa (classrooms to main office), and communication between classrooms to classrooms.

Clock and Program system – Clocks and program systems are old and not working properly. Classrooms are provided with 12-inch wall mounted round clocks that are not controlled properly by central master control panel.

Television System - Television system is not provided in the school. Most classes are equipped with smart boards having the ability to connect to computers and internet.

Security Systems, access control, and video surveillance - The school does have a fairly new video surveillance system with 16 cameras. There are cameras at exit doors, corridors, exterior, and other critical areas. The cameras are controlled by a Closed Circuit Television system (CCTV).

Emergency Power System – Presently, this school does not have an emergency generator that feeds the emergency loads.

Emergency lighting system, including exit lighting - there are insufficient emergency lighting fixtures in corridors and other exit ways. Exit signs and emergency fixtures are old and have reached the end of their useful service.

Lightning Protection System - There is adequate lightning protection system provided for this school. The roof has lightning rods that are connected to the ground properly via stranded aluminum cables.

Grounding - The present grounding system is adequate. All equipment are correctly bonded to the ground.

Site Lighting - The school grounds and building perimeters are not adequately lighted for safety of the people and security of property.

Site Paging - The present Site paging System is not adequate. There is insufficient number of speaker on building's exterior walls.

GROUNDS (SITE):

There is a parking lot at the south end of the site. It has 44 parking spaces but on accessible spaces, aisles or signage. The pavement is in good condition; however, west end of paving is cracked and sinking; the space's striping is faded or missing.

Playground pavement adjacent to the building is in poor condition, paving is cracked and uneven. Basket ball court pavement section near the entry gate is sinking.

Playground equipment and outdoor furniture is in good condition, recently installed in 2012.

Perimeter picket fence separating the playground from the street and parking is generally in good condition.

The landscaping is limited to a small patch of grass north of the playground, completely fenced and unused. Grass is in poor condition.

ACCESSIBILITY:

Generally, the building has no accessible route per ADA requirements to the Gym and Auditorium (1965 addition); the original building is not accessible due to level separation between addition and the original building and lack of elevator to basement, second and the third floors. Toilets are not equipped with accessible fixtures, and accessories, such as grab bars, and accessible partitions. Most of the doors in the building have ADA required door handles.

Parking does not have defined accessible stalls and signage.

RECOMMENDATIONS:

- Rebuild fire exit tower
- Install new stairs in fire exit tower
- Install all new roofing system including insulation; tear-down existing roofing; install flashing, counter flashing and reglets
- Replace standing seam roof
- Replace all windows (with integral security screens)
- Replace all exterior doors
- Replace inoperable movable partitions
- Replace all suspended acoustical ceilings
- Repair and repaint exposed ceilings
- Repair and repaint interior walls
- Repair & refinish hardwood flooring
- Replace all VAT floor tiles
- Replace all original interior doors
- Install new signage throughout the building
- Provide ADA compliant elevator serving basement and all floors (exterior)
- Provide ADA compliant ramp at main entrance
- Provide ADA compliant hardware on interior doors
- Replace original chalk boards
- Reconfigure toilets on each floor for accessibility, provide new toilet partitions
- Provide new toilet accessories including grab bars
- Replace built-in cabinets in classrooms
- Replace portion of parking paving (20% area)
- Provide parking striping with (2) accessible spaces and aisles
- Repave playground area
- Replace grass in playground area

- Replace five (5) wall hung urinals in the restrooms, which are beyond their service life, with new fixtures.
- Replace four (4) wall hung drinking fountains and integral refrigerated coolers in the corridors. These units are well beyond their service life and most are NOT accessible type.
- Hire a qualified contractor to perform a detailed inspection of the domestic water piping, in service for an unknown amount of time, and replace any damaged piping.
- Replace the three (3) existing Paloma instant hot water heaters, which are most likely 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.
- Hire a qualified contractor to perform a detailed examination of the rain water drainage piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.
- Hire a qualified contractor to examine the building heating water distribution piping, in service for an unknown amount of time, and perform additional testing to locate and replace any damaged piping and to further quantify the extent of potential failures.
- Replace the existing unit ventilators, which are beyond their service life and in poor condition, with two pipe units that have integral heat exchangers to introduce outdoor air to the building.
- Replace the two (2) heating and ventilation units serving the Gymnasium/Auditorium, which are beyond their service life, by installing a constant volume air handling unit with distribution ductwork and registers.
- Remove the window air conditioning units and install a 150 ton air-cooled chiller with chilled water distribution piping and pumps located in a mechanical room to supply more reliable air conditioning for the building with a much longer service life.
- Replace one (1) roof mounted exhaust fan above the boiler room which has been damaged.
- Install a gas fired make-up air unit in the Kitchen for when the exhaust hood is in operation.
- Replace the existing, non-functioning, DDC controls system with modern DDC modules, valves and actuators to allow the Building Engineer access to the system and improve 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 new Site electrical service 750KVA, 480V, 3 Phase to feed the HVAC, lighting and receptacle loads
- Install a new 480V, 3 phase switchgear
- Install a new 120V/208V, 3 phase switchgear
- Install new 120V panelboards throughout the building for lighting, and receptacles loads
- Install new receptacles in all classrooms and other areas (minimum two receptacles on each wall)
- Install new lighting system for 50% of the entire building
- Install new emergency exit signs & emergency lights
- Install a new automated FA System
- Install a new 100KW Emergency Generator.
- Install a new Clock System
- Install new site lighting for safety of the people and security of property
- Install new site paging on building exterior walls

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 3 / Tm 4
Status:	Accepted by SDP	Team:	Tm 4
Site ID:	S744001		

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.

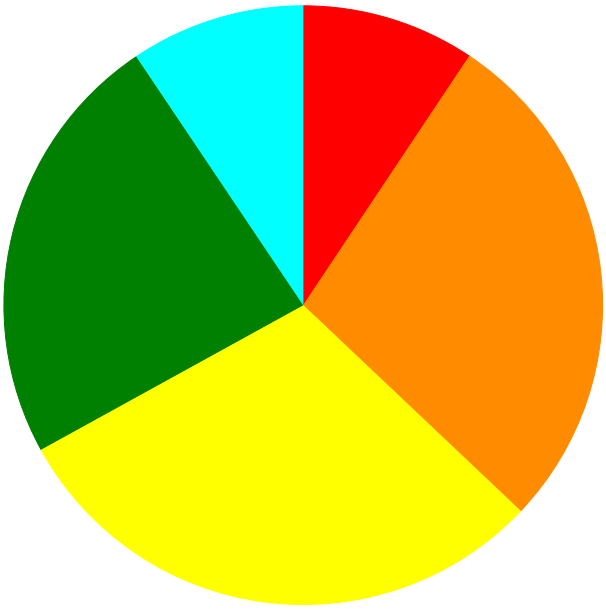
Current Investment Requirement and Condition by Uniformat Classification

UNIFORMAT Classification	RSLI%	FCI %	Current Repair
A10 - Foundations	52.00 %	0.00 %	$0.00
A20 - Basement Construction	52.00 %	0.00 %	$0.00
B10 - Superstructure	52.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	70.37 %	43.08 %	$1,374,412.69
B30 - Roofing	109.81 %	89.23 %	$836,839.63
C10 - Interior Construction	66.32 %	43.26 %	$600,828.67
C20 - Stairs	52.00 %	261.59 %	$1,147,445.79
C30 - Interior Finishes	100.72 %	55.21 %	$1,640,572.77
D10 - Conveying	105.71 %	289.86 %	$1,251,764.48
D20 - Plumbing	55.26 %	80.97 %	$935,799.89
D30 - HVAC	92.84 %	76.90 %	$4,842,011.50
D40 - Fire Protection	96.05 %	177.49 %	$809,686.84
D50 - Electrical	110.11 %	83.47 %	$2,776,898.67
E10 - Equipment	28.57 %	0.00 %	$0.00
E20 - Furnishings	105.00 %	84.14 %	$101,441.62
G20 - Site Improvements	38.84 %	69.49 %	$607,860.63
G40 - Site Electrical Utilities	106.67 %	56.79 %	$197,645.86
Totals:	**77.22 %**	**56.25 %**	**$17,123,209.04**

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)
B744001;Taylor	56,600	55.84	$1,602,525.90	$4,743,333.23	$4,576,870.35	$3,878,353.15	$1,516,619.92
G744001;Grounds	59,900	65.87	$0.00	$0.00	$547,648.57	$162,819.94	$95,037.98
Total:		**56.25**	**$1,602,525.90**	**$4,743,333.23**	**$5,124,518.92**	**$4,041,173.09**	**$1,611,657.90**

Deficiencies By Priority



- 1 - Response Time (< 2 yr) - $1,602,525.90
- 2 - Response Time (2-3 yrs) - $4,743,333.23
- 3 - Response Time (3-4 yrs) - $5,124,518.92
- 4 - Response Time (4-5 yrs) - $4,041,173.09
- 5 - Response Time (> 5 yrs) - $1,611,657.90

Budget Estimate Total: $17,123,209.04

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):	56,600
Year Built:	1907
Last Renovation:	
Replacement Value:	$29,220,709
Repair Cost:	$16,317,702.55
Total FCI:	55.84 %
Total RSLI:	78.02 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B744001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S744001		

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	52.00 %	0.00 %	$0.00
A20 - Basement Construction	52.00 %	0.00 %	$0.00
B10 - Superstructure	52.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	70.37 %	43.08 %	$1,374,412.69
B30 - Roofing	109.81 %	89.23 %	$836,839.63
C10 - Interior Construction	66.32 %	43.26 %	$600,828.67
C20 - Stairs	52.00 %	261.59 %	$1,147,445.79
C30 - Interior Finishes	100.72 %	55.21 %	$1,640,572.77
D10 - Conveying	105.71 %	289.86 %	$1,251,764.48
D20 - Plumbing	55.26 %	80.97 %	$935,799.89
D30 - HVAC	92.84 %	76.90 %	$4,842,011.50
D40 - Fire Protection	96.05 %	177.49 %	$809,686.84
D50 - Electrical	110.11 %	83.47 %	$2,776,898.67
E10 - Equipment	28.57 %	0.00 %	$0.00
E20 - Furnishings	105.00 %	84.14 %	$101,441.62
Totals:	**78.02 %**	**55.84 %**	**$16,317,702.55**

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.	56,600	100	1907	2007	2067	52.00 %	0.00 %	52			$1,041,440
A1030	Slab on Grade	$7.73	S.F.	56,600	100	1907	2007	2067	52.00 %	0.00 %	52			$437,518
A2010	Basement Excavation	$6.55	S.F.	56,600	100	1907	2007	2067	52.00 %	0.00 %	52			$370,730
A2020	Basement Walls	$12.70	S.F.	56,600	100	1907	2007	2067	52.00 %	0.00 %	52			$718,820
B1010	Floor Construction	$75.10	S.F.	56,600	100	1907	2007	2067	52.00 %	0.00 %	52			$4,250,660
B1020	Roof Construction	$13.88	S.F.	56,600	100	1907	2007	2067	52.00 %	0.00 %	52			$785,608
B2010	Exterior Walls	$36.91	S.F.	56,600	100	1907	2007	2067	52.00 %	0.00 %	52			$2,089,106
B2020	Exterior Windows	$18.01	S.F.	56,600	40	1980	2020	2057	105.00 %	118.75 %	42		$1,210,480.92	$1,019,366
B2030	Exterior Doors	$1.45	S.F.	56,600	25	1980	2005	2042	108.00 %	199.75 %	27		$163,931.77	$82,070
B3010105	Built-Up	$37.76	S.F.	23,400	20	1980	2000	2037	110.00 %	89.73 %	22		$792,839.06	$883,584
B3010120	Single Ply Membrane	$38.73	S.F.		20				0.00 %	0.00 %				$0
B3010130	Preformed Metal Roofing	$54.22	S.F.	1,000	30	1970	2000	2047	106.67 %	81.15 %	32		$44,000.57	$54,220
B3010140	Shingle & Tile	$38.73	S.F.		25				0.00 %	0.00 %				$0
B3020	Roof Openings	$0.06	S.F.		20				0.00 %	0.00 %				$0
C1010	Partitions	$17.91	S.F.	56,600	100	1907	2007	2067	52.00 %	2.64 %	52		$26,735.40	$1,013,706
C1020	Interior Doors	$3.51	S.F.	56,600	40	1907	1947	2057	105.00 %	229.59 %	42		$456,125.22	$198,666
C1030	Fittings	$3.12	S.F.	56,600	40	1970	2010	2057	105.00 %	66.80 %	42		$117,968.05	$176,592
C2010	Stair Construction	$7.75	S.F.	56,600	100	1907	2007	2067	52.00 %	261.59 %	52		$1,147,445.79	$438,650

Site Assessment Report - B744001;Taylor

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.	56,600	10	1990	2000	2027	120.00 %	103.77 %	12		$775,858.73	$747,686
C3010231	Vinyl Wall Covering	$0.97	S.F.		15				0.00 %	0.00 %				$0
C3010232	Wall Tile	$2.63	S.F.	56,600	30	1970	2000	2047	106.67 %	0.00 %	32			$148,858
C3020411	Carpet	$7.30	S.F.		10				0.00 %	0.00 %				$0
C3020412	Terrazzo & Tile	$75.52	S.F.	4,150	50	1970	2020		10.00 %	0.00 %	5			$313,408
C3020413	Vinyl Flooring	$9.68	S.F.	19,360	20	1907	1927	2037	110.00 %	47.34 %	22		$88,725.01	$187,405
C3020414	Wood Flooring	$22.27	S.F.	16,780	25	1907	1932	2042	108.00 %	41.98 %	27		$156,860.84	$373,691
C3020415	Concrete Floor Finishes	$0.97	S.F.	13,850	50	1907	1957	2067	104.00 %	0.00 %	52			$13,435
C3030	Ceiling Finishes	$20.97	S.F.	56,600	25	1980	2005	2042	108.00 %	52.16 %	27		$619,128.19	$1,186,902
D1010	Elevators and Lifts	$7.63	S.F.	56,600	35			2052	105.71 %	289.86 %	37		$1,251,764.48	$431,858
D2010	Plumbing Fixtures	$13.52	S.F.	56,600	35	1907	1942	2025	28.57 %	6.13 %	10		$46,912.18	$765,232
D2020	Domestic Water Distribution	$1.68	S.F.	56,600	25	1907	1932	2042	108.00 %	378.84 %	27		$360,233.47	$95,088
D2030	Sanitary Waste	$2.90	S.F.	56,600	25	1907	1932	2042	108.00 %	169.16 %	27		$277,665.50	$164,140
D2040	Rain Water Drainage	$2.32	S.F.	56,600	30	1907	1937	2047	106.67 %	191.14 %	32		$250,988.74	$131,312
D3020	Heat Generating Systems	$18.67	S.F.	56,600	35	2001	2036		60.00 %	0.00 %	21			$1,056,722
D3030	Cooling Generating Systems	$24.48	S.F.	56,600	20			2037	110.00 %	64.48 %	22		$893,475.13	$1,385,568
D3040	Distribution Systems	$42.99	S.F.	56,600	25	1907	1932	2042	108.00 %	112.37 %	27		$2,734,345.49	$2,433,234
D3050	Terminal & Package Units	$11.60	S.F.	56,600	15	2005	2020		33.33 %	0.00 %	5			$656,560
D3060	Controls & Instrumentation	$13.50	S.F.	56,600	20	2001	2021	2037	110.00 %	158.90 %	22		$1,214,190.88	$764,100
D4010	Sprinklers	$7.05	S.F.	56,600	35			2052	105.71 %	202.91 %	37		$809,686.84	$399,030
D4020	Standpipes	$1.01	S.F.	56,600	35	1990	2025		28.57 %	0.00 %	10			$57,166
D5010	Electrical Service/Distribution	$9.70	S.F.	56,600	30	1907	1937	2047	106.67 %	155.12 %	32		$851,660.43	$549,020
D5020	Lighting and Branch Wiring	$34.68	S.F.	56,600	20	1907	1927	2037	110.00 %	47.48 %	22		$932,018.09	$1,962,888
D5030	Communications and Security	$12.99	S.F.	56,600	15	1907	1922	2032	113.33 %	84.56 %	17		$621,741.01	$735,234
D5090	Other Electrical Systems	$1.41	S.F.	56,600	30	1907	1937	2047	106.67 %	465.48 %	32		$371,479.14	$79,806
E1020	Institutional Equipment	$4.82	S.F.	56,600	35	1990	2025		28.57 %	0.00 %	10			$272,812
E1090	Other Equipment	$11.10	S.F.	56,600	35	1990	2025		28.57 %	0.00 %	10			$628,260
E2010	Fixed Furnishings	$2.13	S.F.	56,600	40	1907	1947	2057	105.00 %	84.14 %	42		$101,441.62	$120,558
								Total	**78.02 %**	**55.84 %**			**$16,317,702.55**	**$29,220,709**

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: Paint 85%
Structural glazed facing tile 15%

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

Note: Hardwood 31%
VCT 25%
VAT 11%
Ceramic tile 8%
Concrete 25%

System: C3030 - Ceiling Finishes — This system contains no images

Note: ACT 60%
Exposed/plaster painted 40%

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:	**$16,317,703**	**$0**	**$0**	**$0**	**$0**	**$1,236,905**	**$0**	**$0**	**$0**	**$0**	**$2,547,820**	**$20,102,427**
*** A - Substructure**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A10 - Foundations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1010 - Standard Foundations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1030 - Slab on Grade	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A20 - Basement Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2010 - Basement Excavation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2020 - Basement Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B - Shell	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B10 - Superstructure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1010 - Floor Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1020 - Roof Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B20 - Exterior Enclosure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2010 - Exterior Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2020 - Exterior Windows	$1,210,481	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,210,481**
B2030 - Exterior Doors	$163,932	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$163,932**
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	$792,839	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$792,839**
B3010120 - Single Ply Membrane	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010130 - Preformed Metal Roofing	$44,001	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$44,001**
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	$26,735	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$26,735**

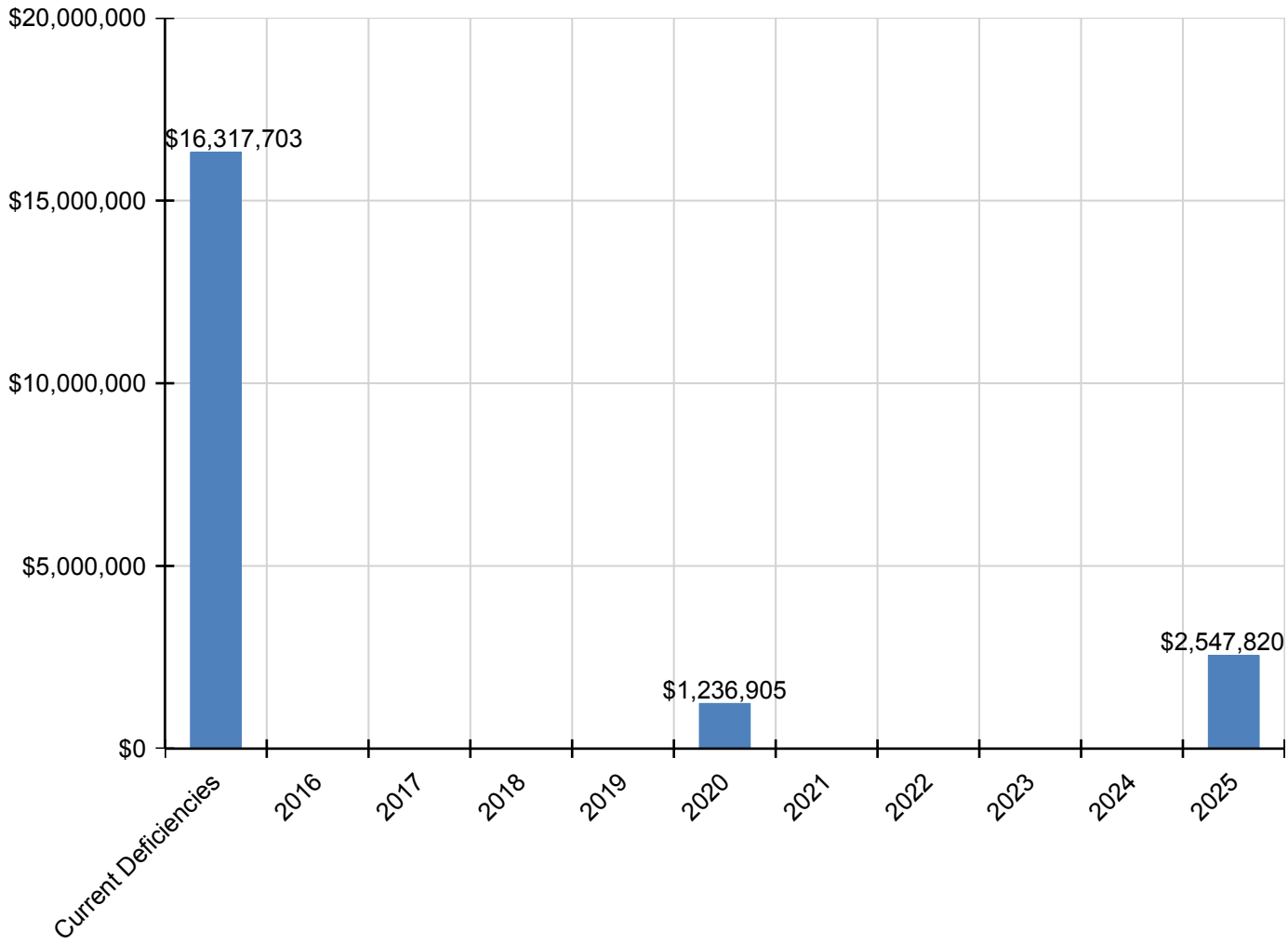
C1020 - Interior Doors	$456,125	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$456,125**
C1030 - Fittings	$117,968	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$117,968**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$1,147,446	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,147,446**
C30 - Interior Finishes	$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	$775,859	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$775,859**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$399,659	$0	$0	$0	$0	$0	**$399,659**
C3020413 - Vinyl Flooring	$88,725	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$88,725**
C3020414 - Wood Flooring	$156,861	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$156,861**
C3020415 - Concrete Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3030 - Ceiling Finishes	$619,128	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$619,128**
D - Services	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D10 - Conveying	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D1010 - Elevators and Lifts	$1,251,764	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,251,764**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$46,912	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,131,248	**$1,178,161**
D2020 - Domestic Water Distribution	$360,233	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$360,233**
D2030 - Sanitary Waste	$277,666	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$277,666**
D2040 - Rain Water Drainage	$250,989	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$250,989**
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	$893,475	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$893,475**
D3040 - Distribution Systems	$2,734,345	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,734,345**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$837,246	$0	$0	$0	$0	$0	**$837,246**
D3060 - Controls & Instrumentation	$1,214,191	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,214,191**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$809,687	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$809,687**
D4020 - Standpipes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$84,509	**$84,509**

D50 - Electrical	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5010 - Electrical Service/Distribution	$851,660	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$851,660**
D5020 - Lighting and Branch Wiring	$932,018	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$932,018**
D5030 - Communications and Security	$621,741	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$621,741**
D5090 - Other Electrical Systems	$371,479	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$371,479**
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	$403,300	**$403,300**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$928,762	**$928,762**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$101,442	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$101,442**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

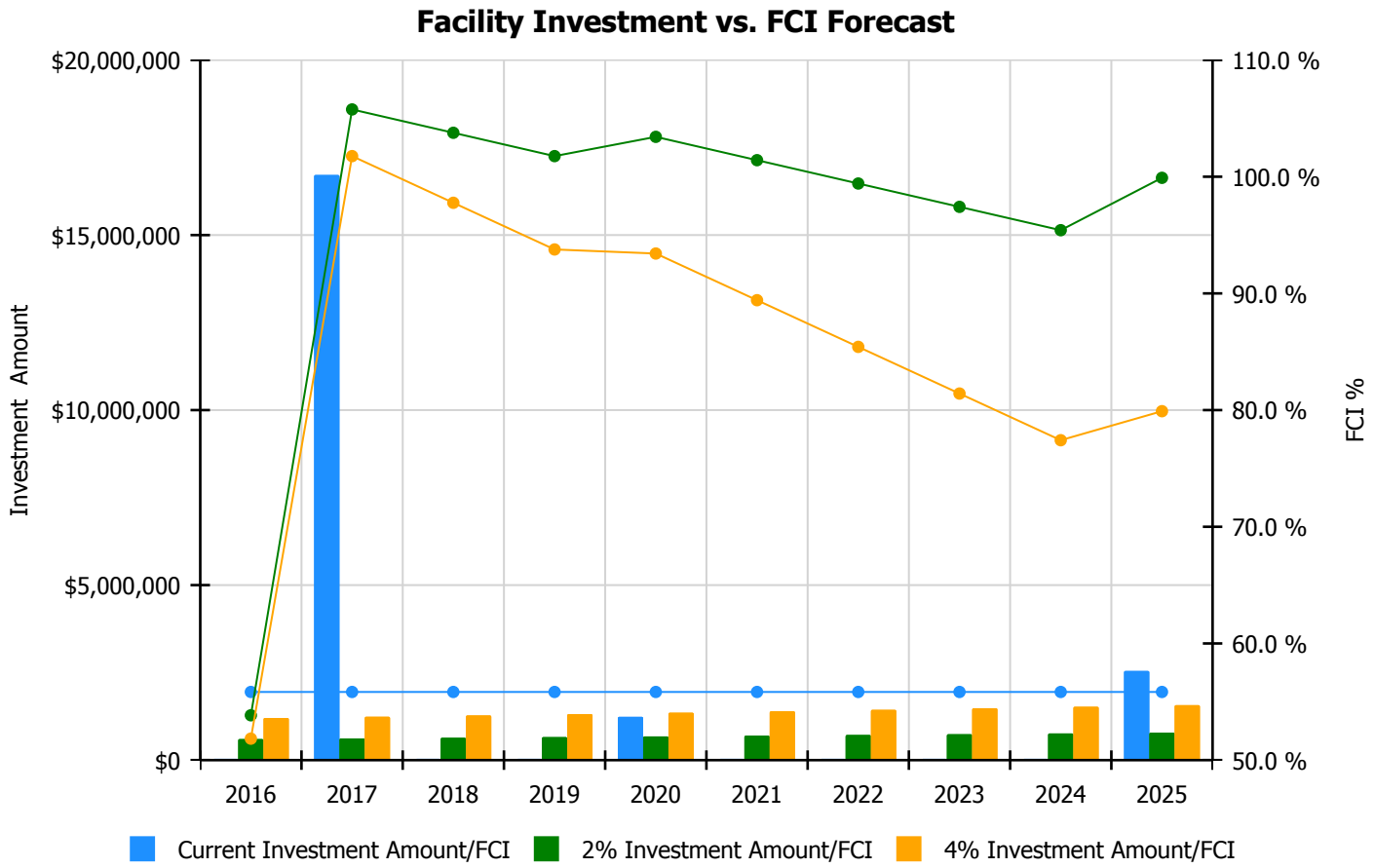
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

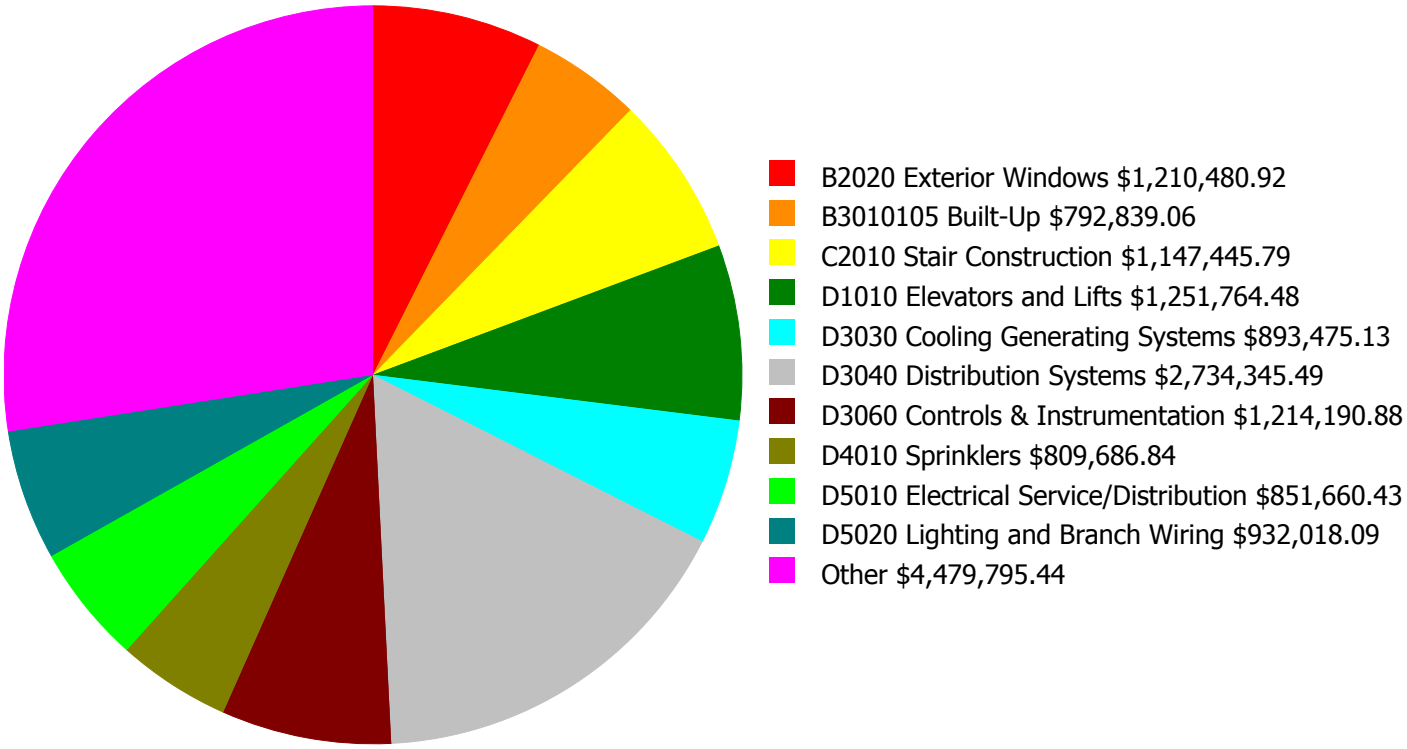
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 55.84%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$601,947.00	53.84 %	$1,203,893.00	51.84 %
2017	$16,716,328	$620,005.00	105.77 %	$1,240,010.00	101.77 %
2018	$0	$638,605.00	103.77 %	$1,277,210.00	97.77 %
2019	$0	$657,763.00	101.77 %	$1,315,527.00	93.77 %
2020	$1,236,905	$677,496.00	103.42 %	$1,354,992.00	93.42 %
2021	$0	$697,821.00	101.42 %	$1,395,642.00	89.42 %
2022	$0	$718,756.00	99.42 %	$1,437,511.00	85.42 %
2023	$0	$740,318.00	97.42 %	$1,480,637.00	81.42 %
2024	$0	$762,528.00	95.42 %	$1,525,056.00	77.42 %
2025	$2,547,820	$785,404.00	99.91 %	$1,570,808.00	79.91 %
Total:	**$20,501,052**	**$6,900,643.00**		**$13,801,286.00**	

Deficiency Summary by System

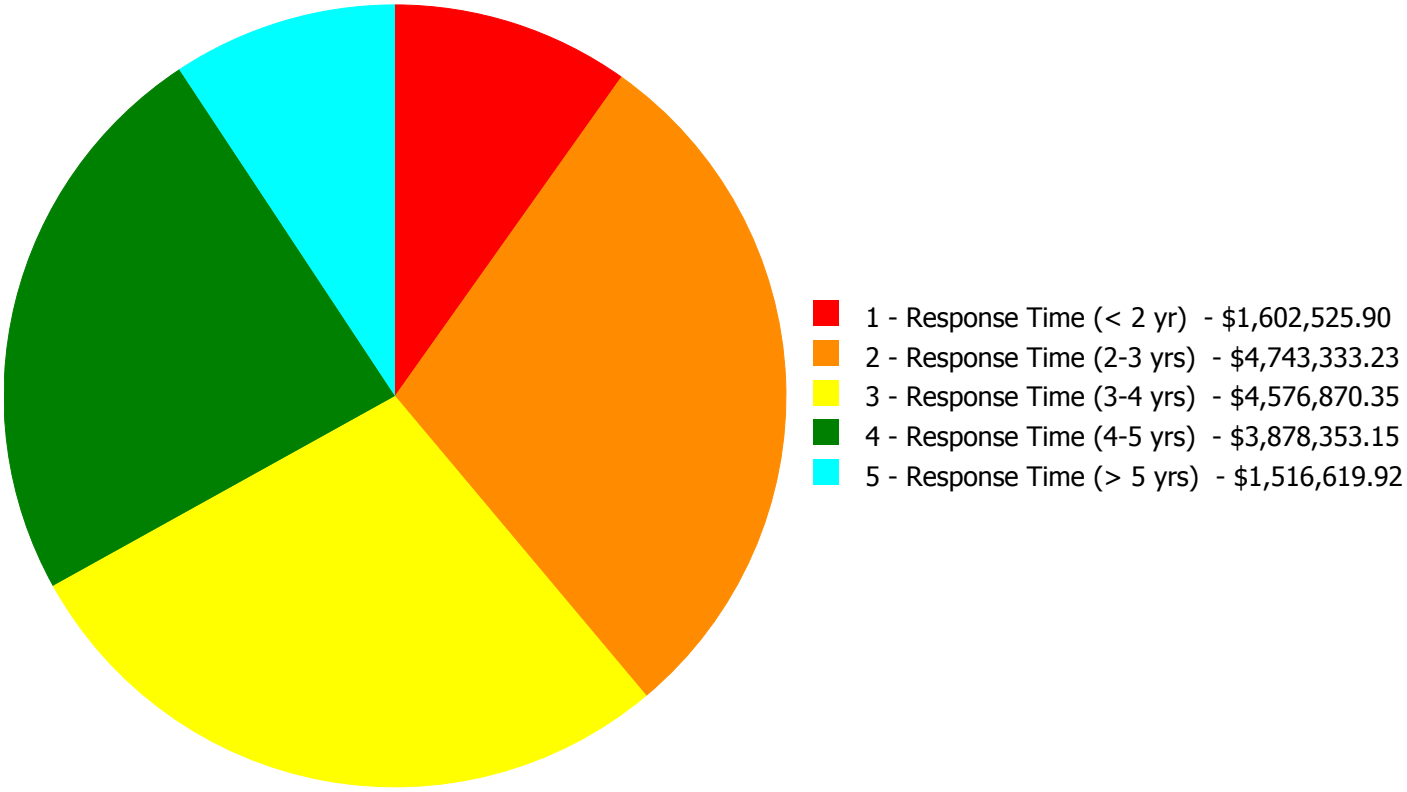
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $16,317,702.55

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: $16,317,702.55

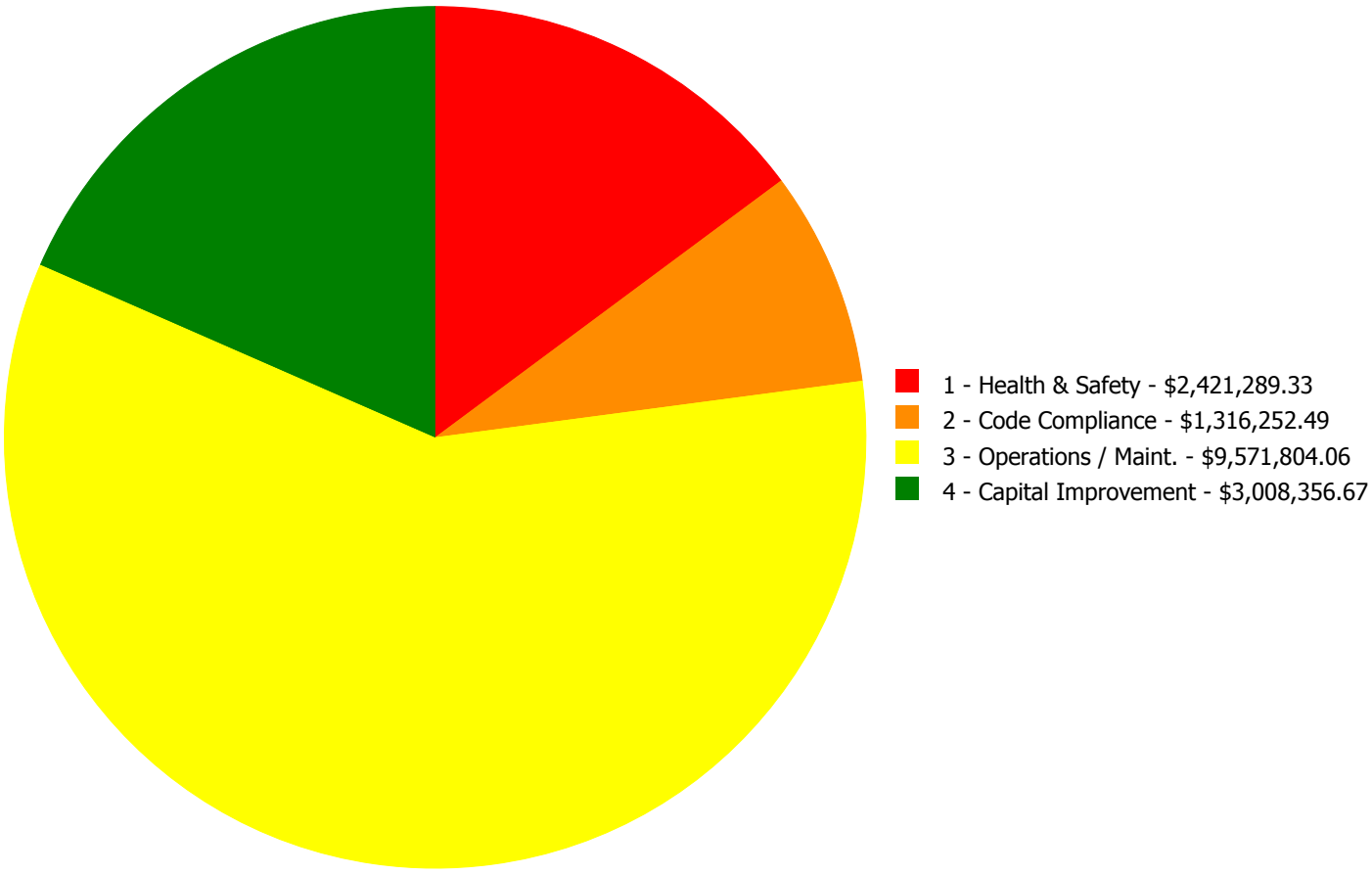
Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
B2020	Exterior Windows	$0.00	$0.00	$1,210,480.92	$0.00	$0.00	$1,210,480.92
B2030	Exterior Doors	$0.00	$0.00	$163,931.77	$0.00	$0.00	$163,931.77
B3010105	Built-Up	$792,839.06	$0.00	$0.00	$0.00	$0.00	$792,839.06
B3010130	Preformed Metal Roofing	$0.00	$0.00	$44,000.57	$0.00	$0.00	$44,000.57
C1010	Partitions	$0.00	$0.00	$0.00	$26,735.40	$0.00	$26,735.40
C1020	Interior Doors	$0.00	$0.00	$0.00	$456,125.22	$0.00	$456,125.22
C1030	Fittings	$0.00	$0.00	$64,488.01	$26,549.42	$26,930.62	$117,968.05
C2010	Stair Construction	$0.00	$1,147,445.79	$0.00	$0.00	$0.00	$1,147,445.79
C3010230	Paint & Covering	$0.00	$0.00	$775,858.73	$0.00	$0.00	$775,858.73
C3020413	Vinyl Flooring	$0.00	$0.00	$0.00	$88,725.01	$0.00	$88,725.01
C3020414	Wood Flooring	$0.00	$0.00	$0.00	$156,860.84	$0.00	$156,860.84
C3030	Ceiling Finishes	$0.00	$0.00	$128,949.21	$490,178.98	$0.00	$619,128.19
D1010	Elevators and Lifts	$0.00	$1,251,764.48	$0.00	$0.00	$0.00	$1,251,764.48
D2010	Plumbing Fixtures	$0.00	$46,912.18	$0.00	$0.00	$0.00	$46,912.18
D2020	Domestic Water Distribution	$0.00	$73,420.64	$0.00	$0.00	$286,812.83	$360,233.47
D2030	Sanitary Waste	$0.00	$0.00	$277,665.50	$0.00	$0.00	$277,665.50
D2040	Rain Water Drainage	$0.00	$250,988.74	$0.00	$0.00	$0.00	$250,988.74
D3030	Cooling Generating Systems	$0.00	$0.00	$0.00	$0.00	$893,475.13	$893,475.13
D3040	Distribution Systems	$0.00	$1,546,238.86	$570,404.25	$308,301.04	$309,401.34	$2,734,345.49
D3060	Controls & Instrumentation	$0.00	$0.00	$0.00	$1,214,190.88	$0.00	$1,214,190.88
D4010	Sprinklers	$809,686.84	$0.00	$0.00	$0.00	$0.00	$809,686.84
D5010	Electrical Service/Distribution	$0.00	$0.00	$0.00	$851,660.43	$0.00	$851,660.43
D5020	Lighting and Branch Wiring	$0.00	$426,562.54	$505,455.55	$0.00	$0.00	$932,018.09
D5030	Communications and Security	$0.00	$0.00	$464,156.70	$157,584.31	$0.00	$621,741.01
D5090	Other Electrical Systems	$0.00	$0.00	$371,479.14	$0.00	$0.00	$371,479.14
E2010	Fixed Furnishings	$0.00	$0.00	$0.00	$101,441.62	$0.00	$101,441.62
	Total:	$1,602,525.90	$4,743,333.23	$4,576,870.35	$3,878,353.15	$1,516,619.92	$16,317,702.55

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: $16,317,702.55

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: B3010105 - Built-Up

Location: Exterior
Distress: Building Envelope Integrity
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Remove and Replace Built Up Roof
Qty: 23,400.00
Unit of Measure: S.F.
Estimate: $792,839.06
Assessor Name: System
Date Created: 01/21/2016

Notes: Install all new roofing system including insulation; tear-down existing roofing; install flashing, counter flashing and reglets

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: 56,600.00
Unit of Measure: S.F.
Estimate: $809,686.84
Assessor Name: System
Date Created: 11/20/2015

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: C2010 - Stair Construction

Location: Interior/Exterior

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

Correction: Replace enclosed egress masonry stair tower including new stairs - per flight approximately 600 SF footprint and 15' floor to floor

Qty: 6.00

Unit of Measure: Flight

Estimate: $1,147,445.79

Assessor Name: System

Date Created: 01/21/2016

Notes: Rebuild fire exit tower. Install new stairs in fire exit tower

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System: D1010 - Elevators and Lifts

This deficiency has no image.

Location: Interior/Exterior

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Add external 5 stop elevator - adjust the electrical run lengths to hook up the elevator

Qty: 1.00

Unit of Measure: Ea.

Estimate: $1,251,764.48

Assessor Name: System

Date Created: 01/21/2016

Notes: Provide ADA compliant elevator serving basement and all floors (exterior)

System: D2010 - Plumbing Fixtures

Location: Corridors

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 4.00

Unit of Measure: Ea.

Estimate: $30,316.76

Assessor Name: System

Date Created: 11/20/2015

Notes: Replace four (4) wall hung drinking fountains and integral refrigerated coolers in the corridors. These units are well beyond their service life and most are NOT accessible type.

System: D2010 - Plumbing Fixtures

Location: Restrooms

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or replace wall hung urinals

Qty: 5.00

Unit of Measure: Ea.

Estimate: $16,595.42

Assessor Name: System

Date Created: 11/20/2015

Notes: Replace five (5) wall hung urinals in the restrooms, which are beyond their service life, with new fixtures.

System: D2020 - Domestic Water Distribution

Location: Boiler room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace instantaneous water heater

Qty: 3.00

Unit of Measure: Ea.

Estimate: $73,420.64

Assessor Name: System

Date Created: 11/20/2015

Notes: Replace the three (3) existing Paloma instant hot water heaters, which are most likely beyond their service life.

System: D2040 - Rain Water Drainage

Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Inspect internal rain water drainage piping and replace pipe - based on SF of multi-story building - insert SF of building

Qty: 56,600.00

Unit of Measure: S.F.

Estimate: $250,988.74

Assessor Name: System

Date Created: 11/20/2015

Notes: Hire a qualified contractor to perform a detailed examination of the rain water drainage 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: Classrooms

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace classroom unit ventilator (htg/clg coils, 5 tons, 2,000 CFM)

Qty: 31.00

Unit of Measure: Ea.

Estimate: $1,546,238.86

Assessor Name: System

Date Created: 11/20/2015

Notes: Replace the existing unit ventilators, which are beyond their service life and in poor condition, with two pipe units that have integral heat exchangers to introduce outdoor air to the building.

System: D5020 - Lighting and Branch Wiring

Location: throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace Wiring Devices (SF) of floor area - with finish removal and replacement

Qty: 1.00

Unit of Measure: S.F.

Estimate: $426,562.54

Assessor Name: System

Date Created: 01/12/2016

Notes: Install new receptacles in all classrooms and other areas (minimum two receptacles on each wall).

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

System: B2020 - Exterior Windows

Location: Exterior

Distress: Beyond Service Life

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: 181.00

Unit of Measure: Ea.

Estimate: $1,210,480.92

Assessor Name: System

Date Created: 01/21/2016

Notes: Replace all windows (with integral security screens)

System: B2030 - Exterior Doors

Location: Exterior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace exterior doors - per leaf

Qty: 18.00

Unit of Measure: Ea.

Estimate: $163,931.77

Assessor Name: System

Date Created: 01/21/2016

Notes: Replace all exterior doors

System: B3010130 - Preformed Metal Roofing

Location: Exterior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace standing seam metal roofing

Qty: 1,000.00

Unit of Measure: S.F.

Estimate: $44,000.57

Assessor Name: System

Date Created: 01/21/2016

Notes: Replace standing seam roof

System: C1030 - Fittings

Location: Interior

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Replace toilet accessories - select accessories and quantity

Qty: 18.00

Unit of Measure: Ea.

Estimate: $40,041.63

Assessor Name: System

Date Created: 01/21/2016

Notes: Provide new toilet accessories including grab bars

System: C1030 - Fittings

Location: Interior

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Remove and replace damaged toilet paritions - handicap units

Qty: 25.00

Unit of Measure: Ea.

Estimate: $24,446.38

Assessor Name: System

Date Created: 01/21/2016

Notes: Reconfigure toilets on each floor for accessibility, provide new toilet partitions

System: C3010230 - Paint & Covering

Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 115,000.00

Unit of Measure: S.F.

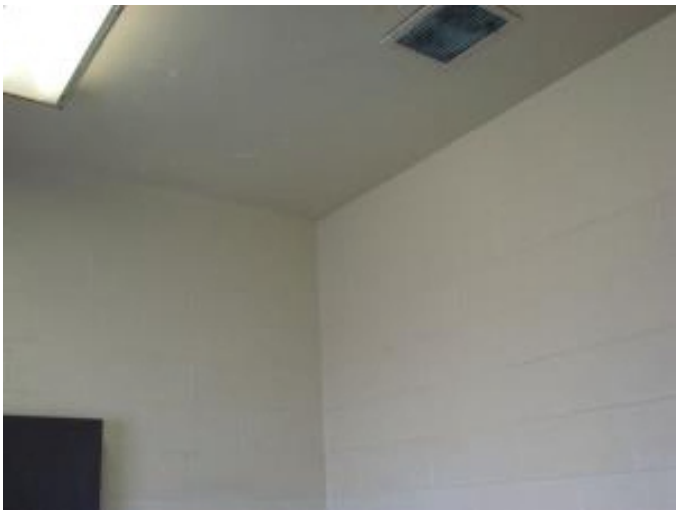
Estimate: $775,858.73

Assessor Name: System

Date Created: 01/21/2016

Notes: Repair and repaint interior walls

System: C3030 - Ceiling Finishes



Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Repair and resurface plaster ceilings - 2 coats plaster

Qty: 21,600.00

Unit of Measure: S.F.

Estimate: $128,949.21

Assessor Name: System

Date Created: 01/21/2016

Notes: Repair and repaint exposed ceilings

System: D2030 - Sanitary Waste

Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Inspect sanitary waste piping and replace damaged sections. (+50KSF)

Qty: 56,600.00

Unit of Measure: S.F.

Estimate: $277,665.50

Assessor Name: System

Date Created: 11/20/2015

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: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Perform testing to identify and replace damaged steam and condensate piping.

Qty: 56,600.00

Unit of Measure: S.F.

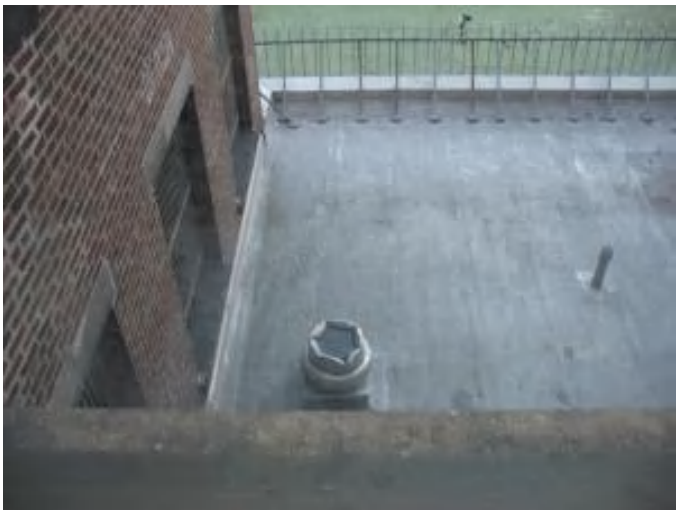
Estimate: $535,456.99

Assessor Name: System

Date Created: 11/20/2015

Notes: Hire a qualified contractor to examine the building heating water distribution piping, in service for an unknown amount of time, and perform additional testing to locate and replace any damaged piping and to further quantify the extent of potential failures.

System: D3040 - Distribution Systems



Location: Roof

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Replace utility set exhaust fan (5 HP)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $34,947.26

Assessor Name: System

Date Created: 11/20/2015

Notes: Replace one (1) roof mounted exhaust fan above the boiler room which has been damaged.

System: D5020 - Lighting and Branch Wiring

Location: throughout the building
Distress: Inadequate
Category: 4 - Capital Improvement
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace Lighting Fixtures (SF)
Qty: 0.00
Unit of Measure: S.F.
Estimate: $505,455.55
Assessor Name: System
Date Created: 01/12/2016

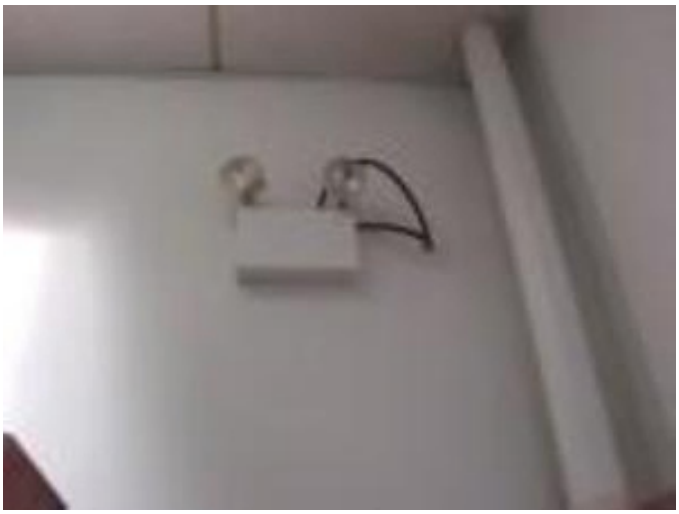
Notes: Install new lighting system for 50% of the entire building.
56,600 SF x 50% = 28,300 SF

System: D5030 - Communications and Security

Location: throughout the building
Distress: Health Hazard / Risk
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: $464,156.70
Assessor Name: System
Date Created: 01/12/2016

Notes: Install a new automated FA System

System: D5090 - Other Electrical Systems



Location: throughout the building
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 3 - Response Time (3-4 yrs)
Correction: Add Emergency/Exit Lighting
Qty: 1.00
Unit of Measure: Ea.
Estimate: $285,645.37
Assessor Name: System
Date Created: 01/12/2016

Notes: Install new emergency exit signs emergency lights.

System: D5090 - Other Electrical Systems

This deficiency has no image.

Location: electrical room
Distress: Inadequate
Category: 4 - Capital Improvement
Priority: 3 - Response Time (3-4 yrs)
Correction: Add Standby Generator System
Qty: 1.00
Unit of Measure: Ea.
Estimate: $85,833.77
Assessor Name: System
Date Created: 01/12/2016

Notes: Install a new 100KW Emergency Generator.
Note: There is no attachment since the school presently has no emergency generator.

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

System: C1010 - Partitions

Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove folding wood partitions; replace with metal studs and gypsum board painted

Qty: 1,200.00

Unit of Measure: S.F.

Estimate: $26,735.40

Assessor Name: System

Date Created: 01/21/2016

Notes: Replace inoperable movable partitions

System: C1020 - Interior Doors

Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 98.00

Unit of Measure: Ea.

Estimate: $456,125.22

Assessor Name: System

Date Created: 01/21/2016

Notes: Replace all original interior doors

System: C1030 - Fittings

Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace missing or damaged signage - insert the number of rooms

Qty: 98.00

Unit of Measure: Ea.

Estimate: $26,549.42

Assessor Name: System

Date Created: 01/21/2016

Notes: Install new signage throughout the building

System: C3020413 - Vinyl Flooring

Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 5,850.00

Unit of Measure: S.F.

Estimate: $88,725.01

Assessor Name: System

Date Created: 01/21/2016

Notes: Replace all VAT floor tiles

System: C3020414 - Wood Flooring

Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace partial area of wood flooring and refinish entire floor - set replacement area

Qty: 16,760.00

Unit of Measure: S.F.

Estimate: $156,860.84

Assessor Name: System

Date Created: 01/21/2016

Notes: Repair refinish hardwood flooring

System: C3030 - Ceiling Finishes

Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 32,500.00

Unit of Measure: S.F.

Estimate: $490,178.98

Assessor Name: System

Date Created: 01/21/2016

Notes: Replace all suspended acoustical ceilings

System: D3040 - Distribution Systems

Location: Gymnasium/Auditorium

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 4 - Response Time (4-5 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: 11/20/2015

Notes: Replace the two (2) heating and ventilation units serving the Gymnasium/Auditorium, which are beyond their service life, by installing a constant volume air handling unit with distribution ductwork and registers.

System: D3060 - Controls & Instrumentation

Location: Throughout building

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Replace pneumatic controls with DDC (75KSF)

Qty: 56,600.00

Unit of Measure: S.F.

Estimate: $1,214,190.88

Assessor Name: System

Date Created: 11/20/2015

Notes: Replace the existing, non-functioning, DDC controls system with modern DDC modules, valves and actuators to allow the Building Engineer access to the system and improve energy efficiency. Provide a new building automation system (BAS) with communication interface to the preferred system in use throughout the District.

System: D5010 - Electrical Service/Distribution

Location: throughout the building
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 4 - Response Time (4-5 yrs)
Correction: Replace Panelboard - 225A
Qty: 0.00
Unit of Measure: Ea.
Estimate: $483,899.44
Assessor Name: System
Date Created: 01/12/2016

Notes: Install new 120V panel-boards throughout the building for lighting, and receptacles loads.

System: D5010 - Electrical Service/Distribution

Location: elrctrical room
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 4 - Response Time (4-5 yrs)
Correction: Replace Service Transformer, Add Switchboard
Qty: 0.00
Unit of Measure: Ea.
Estimate: $367,760.99
Assessor Name: System
Date Created: 01/12/2016

Notes: Install new Site electrical service 750KVA, 480V, 3 Phase to feed the HVAC, lighting and receptacle loads.
Install a new 480V, 3 phase switchgear.
Install a new 120V/208V, 3 phase switchgear.

System: D5030 - Communications and Security

Location: throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Add/Replace Clock System or Components

Qty: 0.00

Unit of Measure: Ea.

Estimate: $157,584.31

Assessor Name: System

Date Created: 01/12/2016

Notes: Install a new Clock System.
Note: A multiplier of 1.4 (instead of 1.0) is used to cover the cost of other related construction.

System: E2010 - Fixed Furnishings

Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace casework - per LF - insert quantities for cabinets in the estimate

Qty: 80.00

Unit of Measure: L.F.

Estimate: $101,441.62

Assessor Name: System

Date Created: 01/21/2016

Notes: Replace built-in cabinets in classrooms

Priority 5 - Response Time (> 5 yrs):

System: C1030 - Fittings

Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 17.00

Unit of Measure: Ea.

Estimate: $26,930.62

Assessor Name: System

Date Created: 01/21/2016

Notes: Replace original chalk boards

System: D2020 - Domestic Water Distribution

Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace domestic water piping (75 KSF)

Qty: 56,600.00

Unit of Measure: S.F.

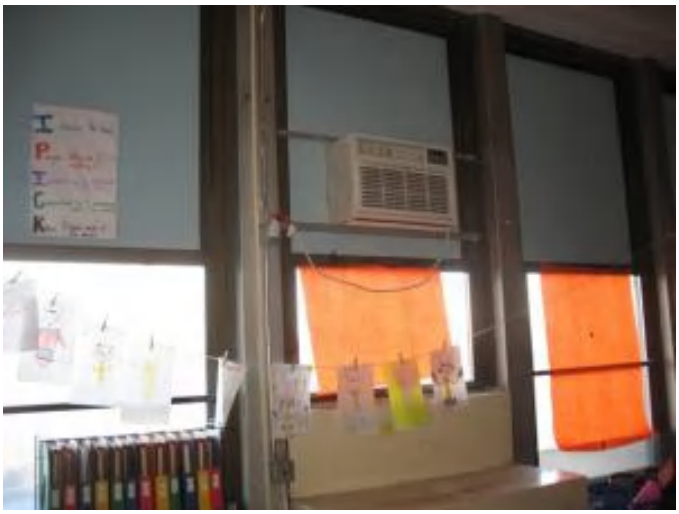
Estimate: $286,812.83

Assessor Name: System

Date Created: 11/20/2015

Notes: Hire a qualified contractor to perform a detailed inspection of the domestic water piping, in service for an unknown amount of time, and replace any damaged piping.

System: D3030 - Cooling Generating Systems



Location: Throughout building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 56,600.00

Unit of Measure: S.F.

Estimate: $893,475.13

Assessor Name: System

Date Created: 11/20/2015

Notes: Remove the window air conditioning units and install a 150 ton air-cooled chiller with chilled water distribution piping and pumps located in a mechanical room to supply more reliable air conditioning for the building with a much longer service life.

System: D3040 - Distribution Systems

Location: Kitchen

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

Correction: Install GF makeup air unit for kitchen exhaust hood (single 10 ft hood).

Qty: 1.00

Unit of Measure: Ea.

Estimate: $309,401.34

Assessor Name: System

Date Created: 11/20/2015

Notes: Install a gas fired make-up air unit in the Kitchen for when the exhaust hood is in operation.

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, hot water, gross output, 3796 MBH, includes burners, controls and insulated jacket, packaged	3.00	Ea.	Boiler Room	Smith	3500A-13	MA2001-19		35	2001	2036	$84,333.50	$278,300.55
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, hot water, gross output, 3796 MBH, includes burners, controls and insulated jacket, packaged	3.00	Ea.	Boiler Room	Smith	3500A-13	MA2001-18		35	2001	2036	$84,333.50	$278,300.55
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, hot water, gross output, 3796 MBH, includes burners, controls and insulated jacket, packaged	3.00	Ea.	Boiler Room	Smith	3500A-13	MA2001-17		35	2001	2036	$84,333.50	$278,300.55
												Total:	**$834,901.65**

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):	59,900
Year Built:	1907
Last Renovation:	
Replacement Value:	$1,222,817
Repair Cost:	$805,506.49
Total FCI:	65.87 %
Total RSLI:	58.15 %

Description:

Attributes:

General Attributes:

Bldg ID:	S744001	Site ID:	S744001

Condition Summary

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

UNIFORMAT Classification	RSLI %	FCI %	Current Repair Cost
G20 - Site Improvements	38.84 %	69.49 %	$607,860.63
G40 - Site Electrical Utilities	106.67 %	56.79 %	$197,645.86
Totals:	**58.15 %**	**65.87 %**	**$805,506.49**

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.	14,500	30	1990	2020		16.67 %	56.66 %	5		$69,830.87	$123,250
G2030	Pedestrian Paving	$12.30	S.F.	37,600	40	1980	2020		12.50 %	95.79 %	5		$442,991.78	$462,480
G2040	Site Development	$4.36	S.F.	59,900	25	2012	2037		88.00 %	0.00 %	22			$261,164
G2050	Landscaping & Irrigation	$4.36	S.F.	6,400	15	1907	1922	2032	113.33 %	340.59 %	17		$95,037.98	$27,904
G4020	Site Lighting	$4.84	S.F.	59,900	30	1907	1937	2047	106.67 %	33.06 %	32		$95,860.24	$289,916
G4030	Site Communications & Security	$0.97	S.F.	59,900	30	1907	1937	2047	106.67 %	175.18 %	32		$101,785.62	$58,103
								Total	**58.15 %**	**65.87 %**			**$805,506.49**	**$1,222,817**

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.

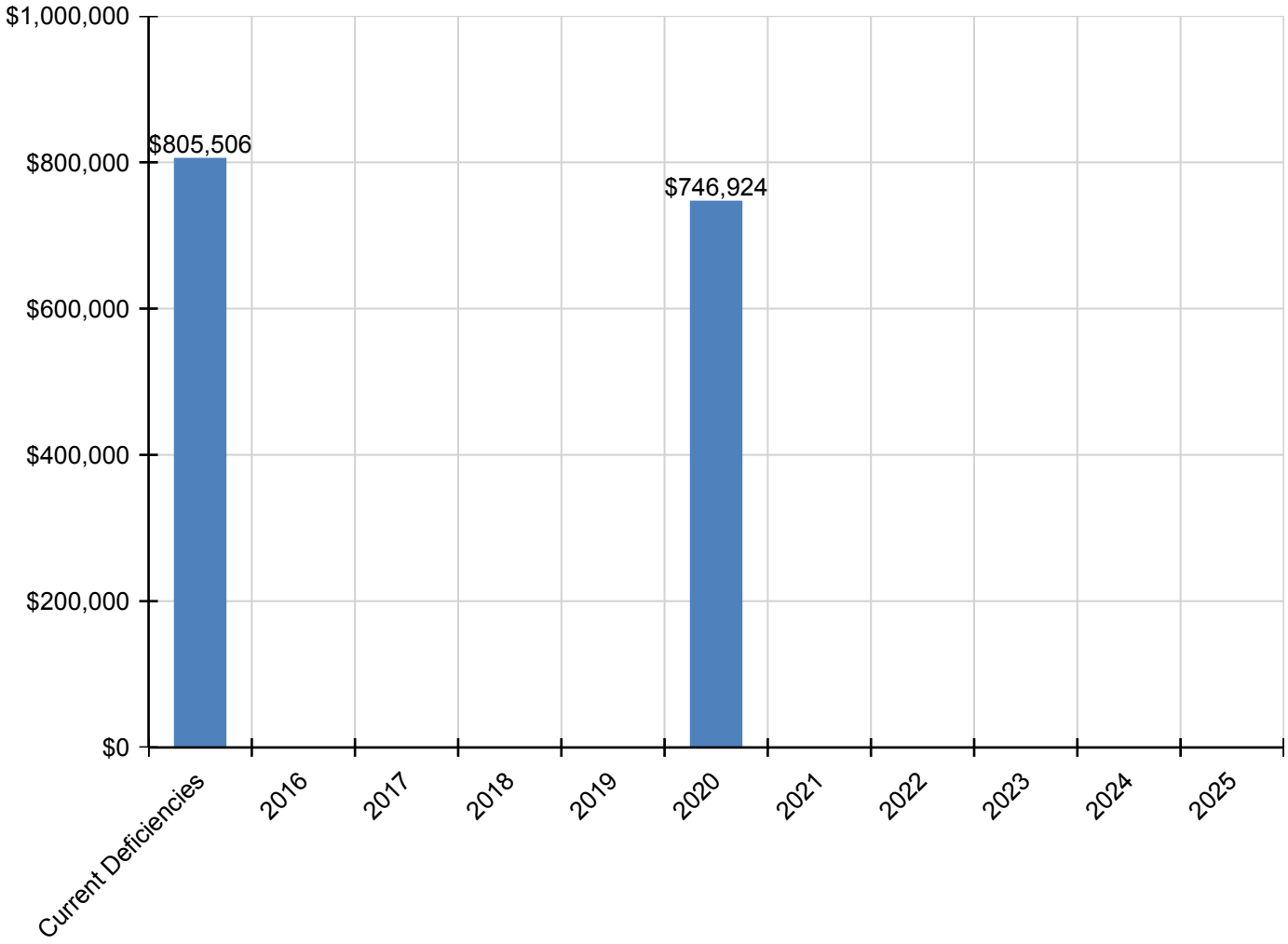
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$805,506**	**$0**	**$0**	**$0**	**$0**	**$746,924**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,552,430**
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	$69,831	$0	$0	$0	$0	$157,169	$0	$0	$0	$0	$0	**$226,999**
G2030 - Pedestrian Paving	$442,992	$0	$0	$0	$0	$589,755	$0	$0	$0	$0	$0	**$1,032,747**
G2040 - Site Development	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2050 - Landscaping & Irrigation	$95,038	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$95,038**
G40 - Site Electrical Utilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4020 - Site Lighting	$95,860	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$95,860**
G4030 - Site Communications & Security	$101,786	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$101,786**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

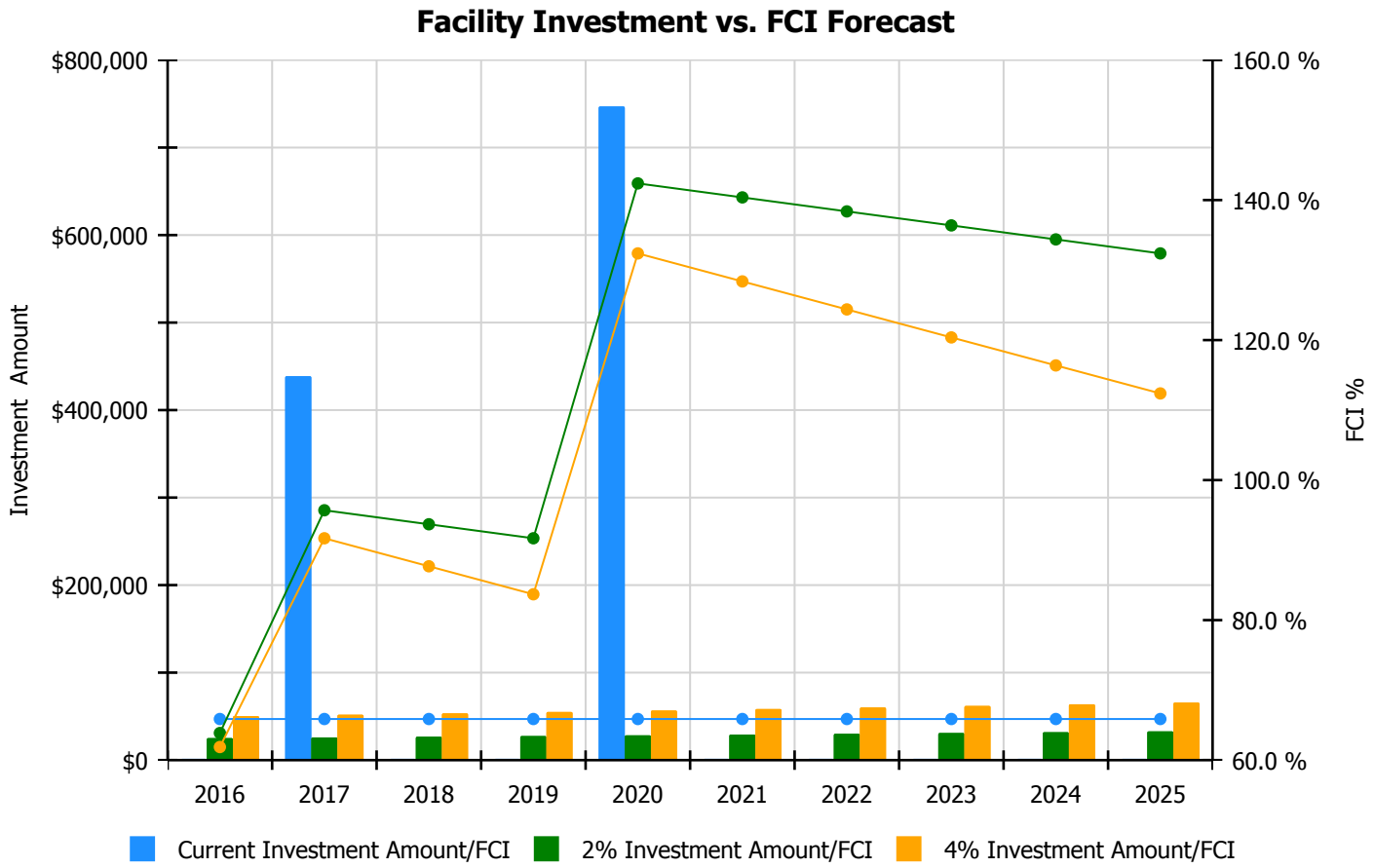
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

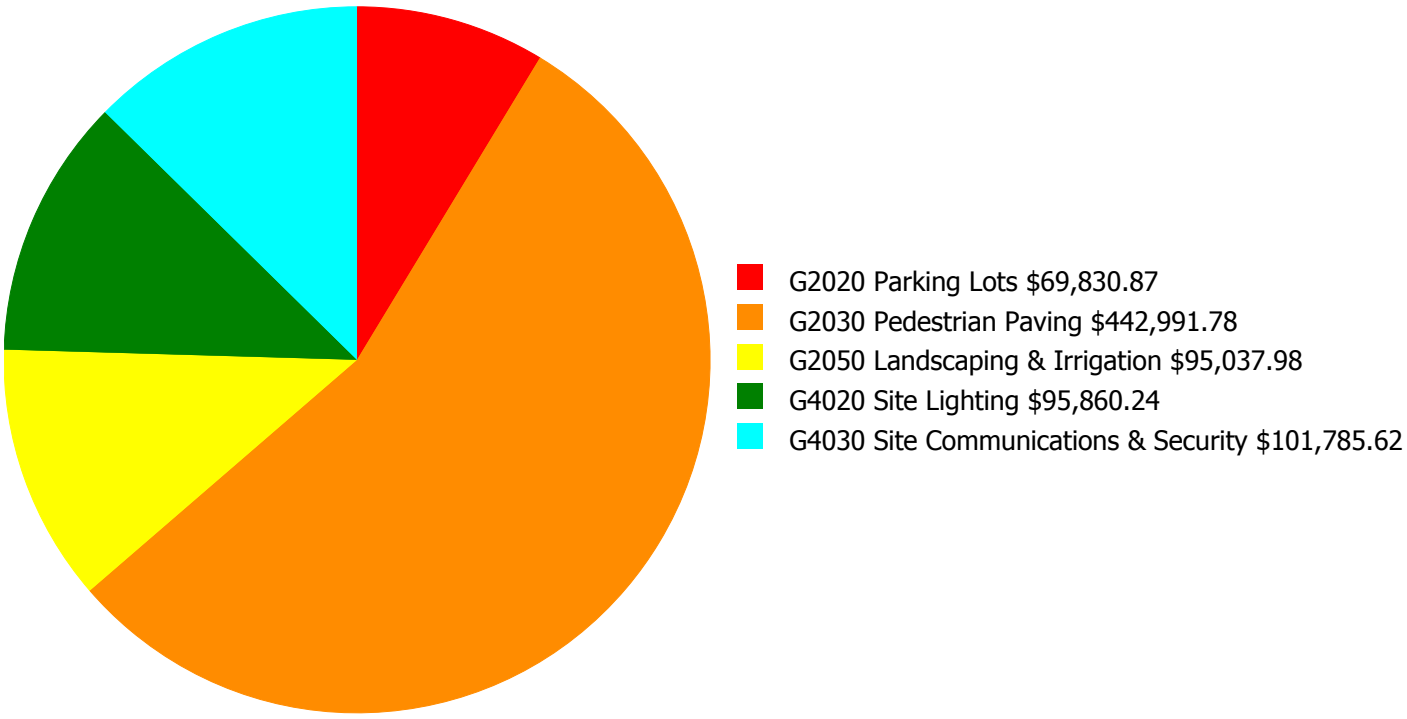
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 65.87%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$25,190.00	63.87 %	$50,380.00	61.87 %
2017	$438,698	$25,946.00	95.69 %	$51,891.00	91.69 %
2018	$0	$26,724.00	93.69 %	$53,448.00	87.69 %
2019	$0	$27,526.00	91.69 %	$55,052.00	83.69 %
2020	$746,924	$28,352.00	142.38 %	$56,703.00	132.38 %
2021	$0	$29,202.00	140.38 %	$58,404.00	128.38 %
2022	$0	$30,078.00	138.38 %	$60,156.00	124.38 %
2023	$0	$30,981.00	136.38 %	$61,961.00	120.38 %
2024	$0	$31,910.00	134.38 %	$63,820.00	116.38 %
2025	$0	$32,867.00	132.38 %	$65,735.00	112.38 %
Total:	**$1,185,622**	**$288,776.00**		**$577,550.00**	

Deficiency Summary by System

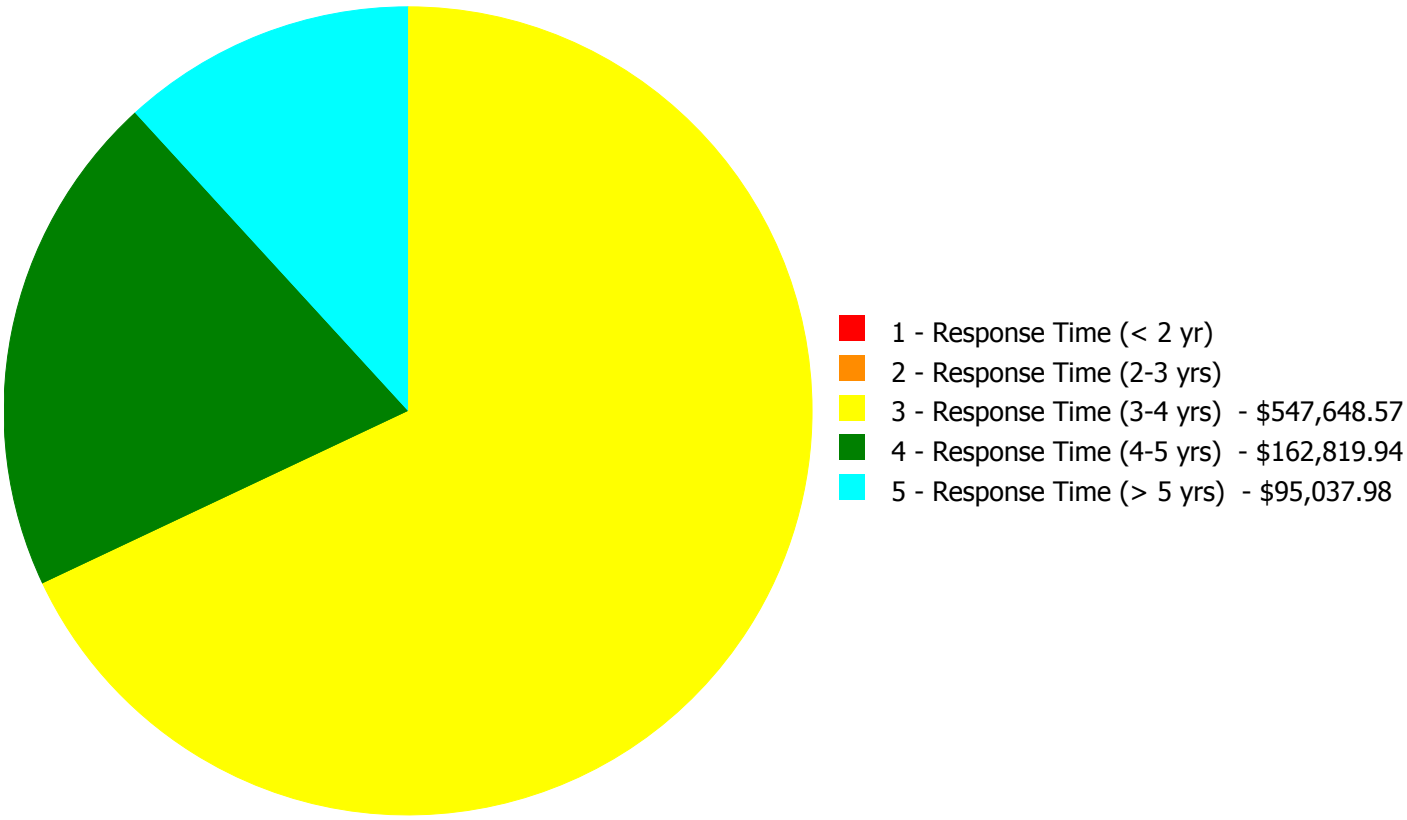
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $805,506.49

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: $805,506.49

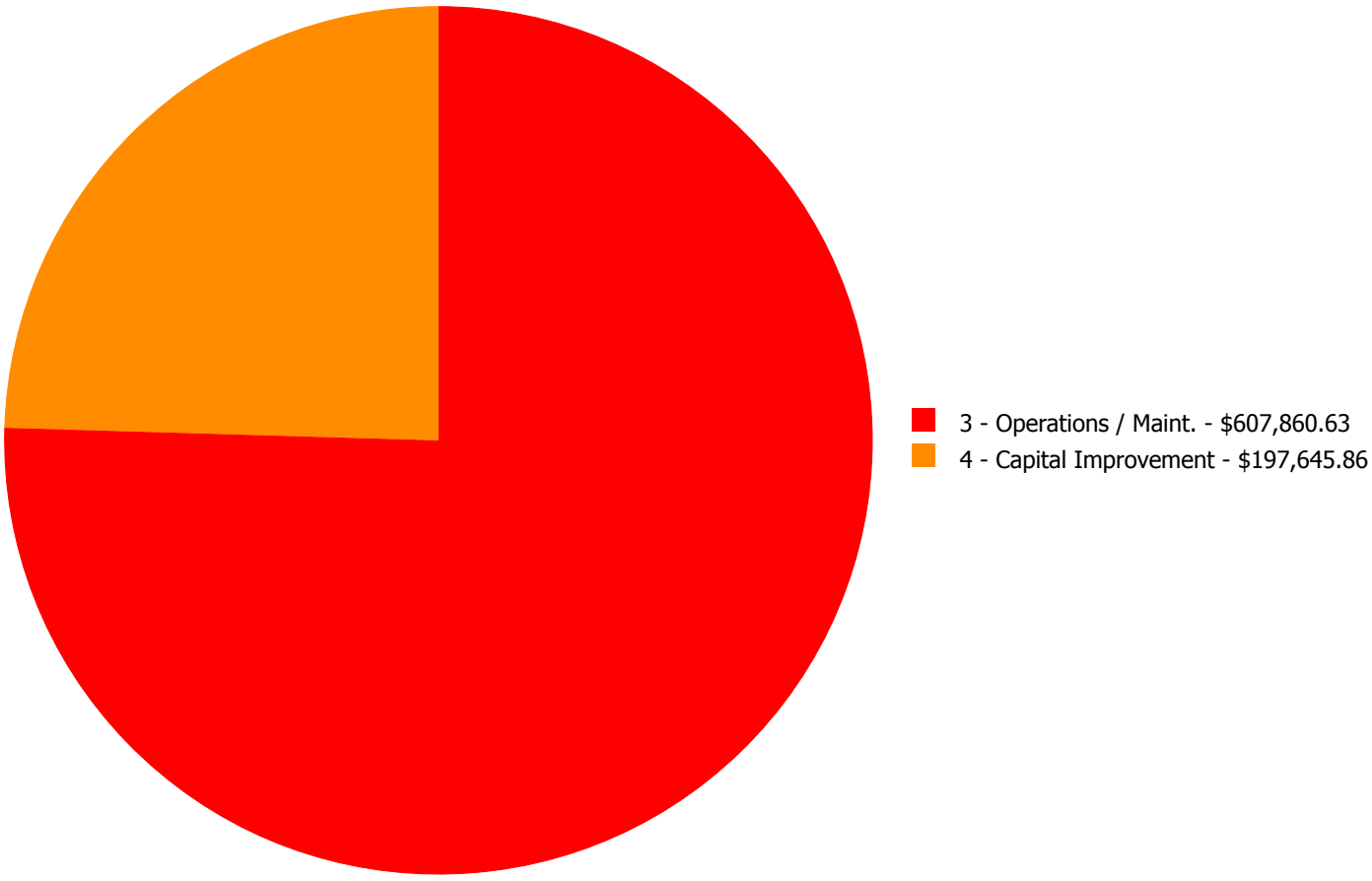
Deficiency By Priority Investment Table

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
G2020	Parking Lots	$0.00	$0.00	$8,796.55	$61,034.32	$0.00	$69,830.87
G2030	Pedestrian Paving	$0.00	$0.00	$442,991.78	$0.00	$0.00	$442,991.78
G2050	Landscaping & Irrigation	$0.00	$0.00	$0.00	$0.00	$95,037.98	$95,037.98
G4020	Site Lighting	$0.00	$0.00	$95,860.24	$0.00	$0.00	$95,860.24
G4030	Site Communications & Security	$0.00	$0.00	$0.00	$101,785.62	$0.00	$101,785.62
	Total:	$0.00	$0.00	$547,648.57	$162,819.94	$95,037.98	$805,506.49

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:



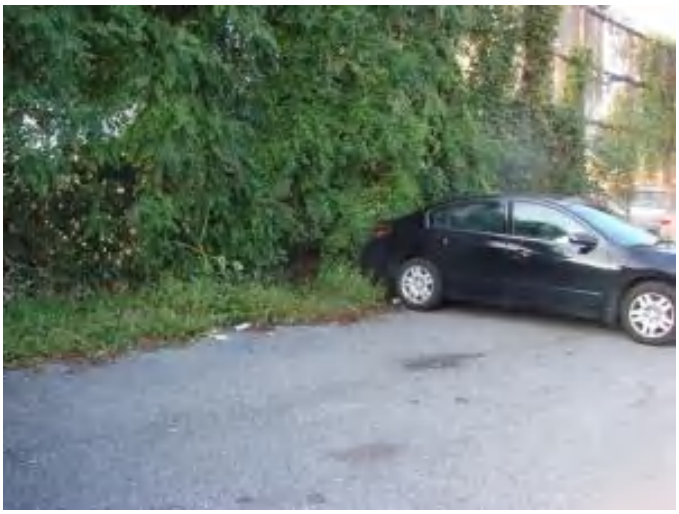
Budget Estimate Total: $805,506.49

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: G2020 - Parking Lots



Location: Grounds

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Stripe parking stalls, install parking bumpers, provide handicap symbol and handicap post mounted sign - insert proper quantities in estimate

Qty: 44.00

Unit of Measure: Ea.

Estimate: $8,796.55

Assessor Name: Wlodek Pieczonka

Date Created: 01/21/2016

Notes: Provide parking striping with (2) accessible spaces and aisles

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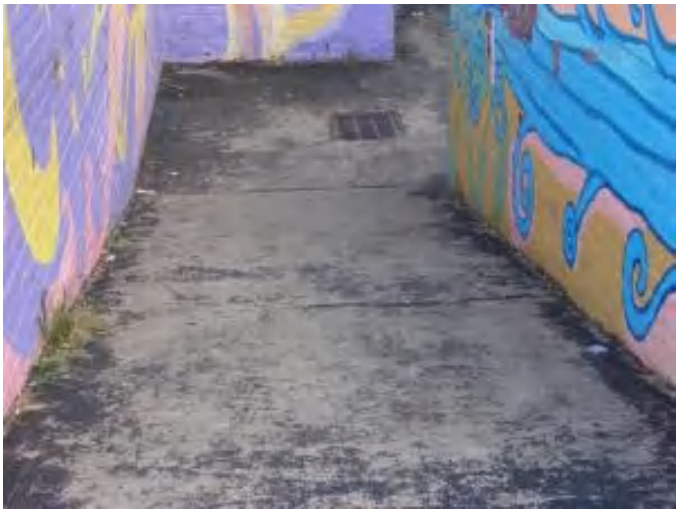
System: G2030 - Pedestrian Paving



Location: Grounds

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 30,800.00

Unit of Measure: S.F.

Estimate: $442,991.78

Assessor Name: Wlodek Pieczonka

Date Created: 01/21/2016

Notes: Repave playground area

System: G4020 - Site Lighting

Location: Grounds

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add Site Lighting - pole mounted - select the proper light and pole

Qty: 1.00

Unit of Measure: Ea.

Estimate: $95,860.24

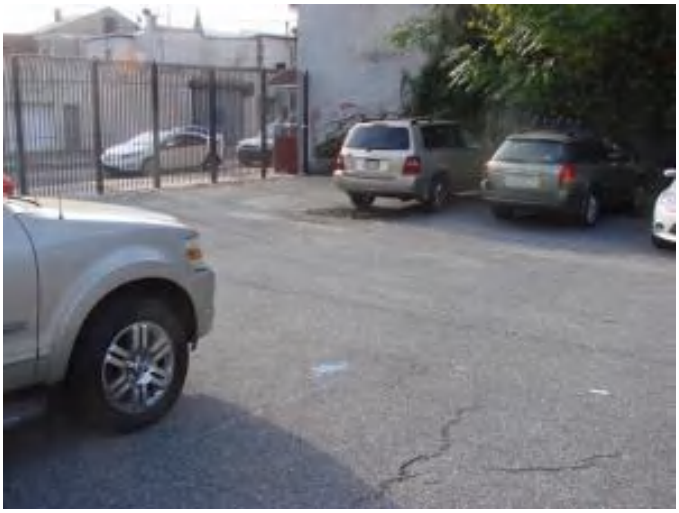
Assessor Name: Wlodek Pieczonka

Date Created: 01/12/2016

Notes: Install new site lighting for safety of the people and security of property.

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

System: G2020 - Parking Lots



Location: Grounds
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 4 - Response Time (4-5 yrs)
Correction: Remove and replace concrete paving
Qty: 2,900.00
Unit of Measure: S.F.
Estimate: $61,034.32
Assessor Name: Wlodek Pieczonka
Date Created: 01/21/2016

Notes: Replace portion of parking paving (20% area)

System: G4030 - Site Communications & Security

Location: Grounds
Distress: Inadequate
Category: 4 - Capital Improvement
Priority: 4 - Response Time (4-5 yrs)
Correction: Add Site Paging System
Qty: 0.00
Unit of Measure: Ea.
Estimate: $101,785.62
Assessor Name: Wlodek Pieczonka
Date Created: 01/12/2016

Notes: Install new site paging on building exterior walls.

Priority 5 - Response Time (> 5 yrs):

System: G2050 - Landscaping & Irrigation

Location: Grounds

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Remove and replace or replace sod

Qty: 6,400.00

Unit of Measure: S.F.

Estimate: $95,037.98

Assessor Name: Wlodek Pieczonka

Date Created: 01/21/2016

Notes: Replace grass in playground area

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

School District of Philadelphia

S744101;Our Lady of Pompei

Final

Site Assessment Report

February 1, 2017

PARSONS

Table of Contents

Site Executive Summary

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

The basis for the evaluation of condition is the functional systems and elements of a building and grounds organized according to the UNIFORMAT II Elemental Classification. The grouping of these systems and elements and applying a current replacement value to them develops a representative building cost model. Cost Models are typically developed for similar building types and functions. Evaluation of systems and their elements takes into account their current replacement values, life cycles, installation dates and next renewal dates. Systems and their elements that are within their useful lives are further evaluated to identify current deficient conditions that may have a significant impact on a system's or element's remaining service life, and to determine if they are beyond their predicted expected life. The system's or element's current replacement value is based on RS Means Commercial Cost Data.

Following are the cost model's system details for this facility. The Replacement Value is the amount needed to replace the property of the same present value. The Current Repair Amount, also known as Condition Needs, represents the budgeted contractor installed costs plus owner's soft costs for the repair, replacement or renewal for a component or system level deficiency. It excludes contributing costs for other components or systems that might also be associated with the corrective actions due to packaging the work. Facility Condition Index (FCI) is an industry-standard measurement calculated as the ratio of the repair costs to correct a facility's deficiencies to the facility's Current Replacement Value. Condition Index (CI) for a system is calculated as the sum of a the deficiencies divided by the sum of a system's Replacement Value (both values include soft-cost) expressed as a percentage ranging from 0% 100%.

Gross Area (SF):	14,737
Year Built:	1963
Last Renovation:	
Replacement Value:	$8,855,245
Repair Cost:	$5,951,768.67
Total FCI:	67.21 %
Total RSLI:	78.40 %

Description:

Facility Assessment
October 2015

School District of Philadelphia
Taylor Annex School
608 W. Erie Avenue
Philadelphia, PA 19140

14,737 SF / 179 Students / LN 05

The Taylor Annex (Our Lady of Pompeii) school building is located at 608 W. Erie Avenue in Philadelphia, PA. The 3 story with basement, approximately 14,737 square foot building was originally constructed in 1926. Some interior renovations were done in 1963.

Mr. Derek Parker, Facility Area Coordinator provided input to the Parsons assessment team on current problems and

planned renovation projects. Mr. Terrence Blockard, building engineer, accompanied us on our tour of the school and provided us with as much information as he could on the building systems and recent maintenance history. The school principal, Mr. David Laver provided additional information about building condition.

STRUCTURAL/ EXTERIOR CLOSURE:

The building typically rests on stone masonry foundations and bearing walls that are not showing signs of settlement, although water damage of exterior wall plaster is evident.

The main structure consists typically of masonry load bearing walls and timber columns supporting heavy timber beams and joists and wood plank sub-floor, generally in good condition. Roof structure is typically similar to floor construction.

The building envelope is typically face brick with solid brick backup. Front elevation facing Erie Avenue is clad with stone. Tuck-pointing and other restorations were performed in 2012. There are two external landings (on second and third floor) which are enclosed with brick and metal panel walls with corrugated translucent panel roof and aluminum framed windows. The entire structure is severely deteriorated and unheated.

The original windows were replaced in early 1980's with extruded aluminum frame with tilt-in lower sections, double glazed, and glass block filler panels above. First floor windows are fitted with expanded mesh security screens. All windows and screens are generally in poor condition and leaking.

The exterior doors are generally in poor condition, difficult to operate; no weather-stripping is installed; some doors have vision glazing with security screens.

Roofing is typically built-up roofing over 20 years old. Leaks have been reported. The roof was not inspected due to the lack of access.

INTERIORS:

Partition wall types include plastered ceramic blocks (hollow brick), CMU and drywall. The interior wall finishes are generally painted plaster or drywall. Generally, paint is in poor condition. Plaster cracking and peeling paint was observed.

Interior doors are generally original rail and stile wood doors, in various stages of deterioration; some original doors were replaced with plywood panels with no hardware, except sliding bolts and hinges. Most doors do not have accessible handles; doors leading to exit stairways are retrofitted with hollow metal doors and frames in good condition.

Stair finishes are generally painted wood with non-slip treads, they are narrow and do not satisfy minimum width requirement. Stair to basement is also wood and very narrow.

Toilet partitions are mostly phenolic resin panels, not ADA compliant, in fair good condition; some cubicle doors are damaged. Accessories are in fair condition, however some are missing.

Chalkboards are old and beyond service life.

Interior identifying signage is typically directly painted on wall or door surfaces in poor condition; most of the signage is missing.

Most ceilings are exposed, painted plaster and 2x4 or 1x1 suspended acoustical panels; the suspension system and tile

are old and approaching the end of their service life. There is substantial plaster damage and peeling paint in boiler room in particular.

Flooring is generally VCT with cove base in poor condition. Some toilets have cement floor finished with epoxy coating, in fair condition; staff toilet has VCT. 2x2 ceramic tile flooring is installed in cafeteria and kitchen. All flooring is typically beyond service life.

Furnishings include fixed cabinets in the staff lounge, old and beyond their service life.

GROUNDS (SITE):

There is no parking at the site.

The playground paving is severely deteriorated. No playground equipment is installed. Perimeter picket fence is in good condition, approximately 10 years old.

The landscaping consists of 4 young trees placed along the fence line.

ACCESSIBILITY:

The building does not have accessible entrance, and accessible routes. There is no elevator to reach floors above. Toilets are equipped with accessible fixtures, partitions and accessories, such as grab bars. Most doors in the building do not have ADA required door handles.

CONVEYING EQUIPMENT:

The building does not have an elevator.

PLUMBING:

Plumbing Fixtures - Many of the plumbing fixtures have recently been replaced. Fixtures in the restrooms on each floor consist of floor mounted flush valve water closets and lavatories with wheel handle faucets. The building is not equipped with handicap accessible stalls. The fixtures are in good condition and should provide reliable service for the next 10-15 years.

Drinking fountains are a mixture of old and new wall hung units with integral refrigerated coolers. Several units are well beyond their service life and should be replaced; some are accessible type.

A mop basin is available in the corridor on the first floor for use by the janitorial staff.

There is no kitchen at Taylor Annex as all meals served are precooked.

Domestic Water Distribution - A 2” city water service enters the building from W. Erie Avenue. The 2” meter and valves are located in the north side of the basement. A reduced pressure backflow preventer is NOT installed. The domestic hot and cold water distribution piping is threaded galvanized and 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, but the piping has been in service for decades and should be inspected and replaced by a qualified contractor.

One AO Smith gas fired, 40 gallon, vertical hot water heater supplies hot water for domestic use. The unit was installed in 2010 and is located in the boiler room on the basement level. The domestic hot water heater is within its service life and should provide reliable service for the next 4-6 years.

Sanitary Waste - The storm and sanitary sewer piping is a mixture of threaded galvanized piping and cast iron with hub and spigot fittings.

The maintenance staff reported no problems with the sanitary waste piping systems. The sewer piping has been in service for over 85 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.

Rain Water Drainage - Rain water drains from the roof and is routed to downspouts on the exterior of the building. Aluminum downspouts have replaced much of the original cast iron piping above ground level, with the aluminum to cast iron transition taking place about six feet above ground. The original cast iron piping remains for the underground drainage piping. The drain piping should be inspected by a qualified contractor and repaired as necessary

MECHANICAL:

Energy Supply - A 2" city gas service enters the building from W. Erie Avenue. The gas meter is 2" and is located on the north side of the basement.

Heat Generating Systems - Building heating hot water is generated by one 20HP Weil-McLain cast iron sectional boiler, installed in 1964. The one boiler handles the load in all winter weather conditions. The boiler is equipped with an internal burner designed to operate on gas. The Building Engineer reports no major issues with the boiler or burner. Cast iron sectional boilers have an anticipated service life of 35 years or more; as this unit has been in service over 50 years it needs to be replaced. The boiler is operational but should be replaced within the next 1-3 years.

Distribution Systems - The hot water piping is black steel with threaded fittings in a two pipe system. Hot water piping mains from the basement level run up through the building to the radiators on all four floors. The distribution piping has been in use beyond its service life and will require more frequent attention from the maintenance staff to address pipe/valve failures as time passes. The District should hire a qualified contractor to examine the hot water distribution piping and perform additional testing to locate and replace any damaged piping and to further quantify the extent of potential failures. The District should budget for replacing this piping over the next 10 years.

Two pipe fin tube radiators provide heating for all spaces within the building. The radiators are original to the building and well beyond their service life. Ventilation for the building is provided by opening windows, which does not meet current codes for outdoor air ventilation; there is no mechanical ventilation. A new heating system should be installed to meet ventilation requirements and achieve more efficient operation. The new units should be designed for quiet operation and equipped with hot water coils, chilled water coils, and integral heat exchangers, where applicable, to introduce outdoor air to the building.

Only precooked meals are served in the Taylor Annex and there is no kitchen in the building.

One through wall exhaust fan serving the Cafetorium is not operational according to the Building Engineer. This fan should be replaced to meet current code mandated ventilation requirements.

Terminal & Package Units - 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 30 ton air-cooled chiller with pumps located in a mechanical room and chilled water distribution piping would supply more reliable air conditioning for the building with a much longer service life.

Two Modine hot water unit heaters provide supplemental heating to the Cafetorium in addition to the fin tube

radiators.

Controls & Instrumentation - The temperature in the building is controlled by the boiler; the thermostats in the classrooms do not function. The temperature of the building is controlled by turning the boiler on or off; this is a very inefficient way to heat the building. A new DDC control system with operable thermostats should be installed.

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.

Sprinklers - The school building is NOT covered by an automatic sprinkler system. A fire stand pipe is installed in the main corridor of the building and is accessible on all floors. Installing a sprinkler system with quick response type heads throughout the building should reduce insurance costs by providing protection for the property investment. A fire pump may be required depending on the available city water pressure.

ELECTRICAL:

Site electrical service - The primary power is at 13.2KV from the street power poles. The power goes underground and feeds a 1000KVA indoor transformer (13.2KV – 480V/277V). The school's electrical service is from 1996 (about 20 years old) and still functioning and has at least another 10 more years useful life. The main switchgear is rated at 400 Amp, 120V/240V, and is located in main electrical room. The PECO meter (PECO 21 UMC 12952) is located inside the electrical room as well. The electrical service entrance and the main building electrical distribution systems are fair condition. The electrical service has no capacity for future growth.

Distribution system - The electrical distribution is accomplished with 120V distribution switchboards. Switchboard feeds the 120V panels throughout the building (two in each floor). These panels are in fair condition and do not need to be replaced for another 10 years.

Receptacles - There are adequate receptacles in classrooms, computer rooms, libraries, and other areas.

Lighting- Interior building is illuminated by various types of fixtures. They include fluorescent lighting (T-5 & T-8 lamps) in majority of the areas, including; classrooms, corridor, and offices. Surface or pendent mounted industrial fluorescent used in mechanical and electrical rooms. The entire interior lighting fixtures are in fair condition and have a few more years (10 years) of useful life.

Fire alarm - The present Fire Alarm system is not automatic/addressable, and is not in compliance with safety codes. There are manual pulls stations throughout the building. There are insufficient number of horn/strobes installed in the classrooms, corridors, offices and other areas in the school.

Telephone/LAN - The school telephone and data systems are new and working adequately. A main distribution frame (MDF) along with a telephone PBX system provides the communication system needs of the building. School also equipped with Wi-Fi system.

Public address- Separate PA system does not exist. School uses the telephone systems for public announcement. This system is working adequately. The present Intercom System is functioning fine. Each class room is provided by with intercom telephone service. The system is for paging and intercom communication between main office to classroom, and vice versa between classrooms to main office, also, between classrooms to classrooms.

Clock and Program system - The present clock system is working adequately for most part, however, school prefers more clocks to be controlled by central master control panel.

Television System - Television system is not provided in the school. Most classes are provided with smart board having ability of connection to computer and internet.

Security Systems-access control, video surveillance - The school is provided with adequate video surveillance system. Sufficient number of cameras are installed at exit doors, corridors, exterior, and other critical areas. These cameras are controlled by a Closed Circuit Television system (CCTV).

Emergency Power System - School is not provided with an emergency generator.

Emergency lighting system, including exit lighting- there is sufficient emergency lighting fixtures in corridors, and other exit ways. Exit signs and emergency fixtures are in fairly good condition with a few more years (10 years) useful life ahead.

Lightning Protection System- There is adequate lightning protection system installed in the school. There are lightning rods of the roof that are properly connected to the ground in the 1st floor using stranded aluminum cable.

Grounding- The present grounding system is adequate. All equipment is properly bonded to the ground.

Site Lighting - Campus and building Perimeters are adequately lighted for safety of the people and security of property.

Site Paging– The present Site paging System is adequate. There is sufficient number of speakers located inside the building and on the building exterior walls

RECOMMENDATIONS:

- Replace exterior walls on 2nd and 3rd floor external landings with insulated metal panel walls
- Replace roof structure above 3rd floor external landing with new insulated structure
- Install all new roofing system including insulation; tear-down existing roofing; install flashing, counter flashing and reglets
- Replace roof hatch
- Install new standing seam roofing system over 3rd floor external landing
- Replace all windows (with integral security screens)
- Replace all exterior doors
- Reconfigure toilets on each floor for accessibility, provide new toilet partitions
- Provide new toilet accessories including grab bars
- Replace built-in cabinets in staff lounge
- Provide new signage throughout the building
- Replace chalkboards with marker boards
- Replace all VCT flooring
- Replace ceramic tile in staff lounge
- Replace all suspended acoustical ceilings
- Repair plaster ceilings (25% area), repaint all ceilings
- Repair and repaint interior walls
- Replace all interior doors
- Provide accessible ramp at the new stairway
- Provide 3000 LB external elevator serving all floors and grade.
- Provide additional external stairway to satisfy access/egress requirements
- Repave playground area
- Replace two (2) wall hung drinking fountains and integral refrigerated coolers in the corridors. These units are

beyond their service life and are NOT accessible type.

- Hire a qualified contractor to perform a detailed inspection of the domestic water piping, in use for decades, and replace any damaged piping.
- 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.
- Hire a qualified contractor to perform a detailed examination of the rain water drainage piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.
- Replace the one existing 891MBH cast iron boiler, which is beyond its service life, burners, and exhaust ductwork.
- Hire a qualified contractor to examine the hot water distribution piping, in service for over 85 years, and perform additional testing to locate and replace any damaged piping and to further quantify the extent of potential failures.
- Remove the existing fin tube radiators and install fan coil units with hot and chilled water coils and a dedicated outdoor air system.
- Install a through wall exhaust fan and ductwork for the restrooms on each floor of the building to meet building ventilation requirements.
- Remove the window air conditioning units and install a 30 ton air-cooled chiller with chilled water distribution piping and pumps to supply more reliable air conditioning for the building with a much longer service life.
- Replace the electric 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 throughout the building to reduce insurance costs by providing protection for the property. A fire pump may be required depending on the available city water pressure.
- Install an upgraded Clock System with enough capacity to provide clocks for the entire building
- Install a new Fire Alarm System that is automatic/addressable, and is in compliance with safety codes. There are manual pulls stations throughout the building. There are insufficient number of horn/strobes installed in the classrooms, corridors, offices and other areas in the school.
- Install a new emergency generator.

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 3 / Tm 4
Status:	Accepted by SDP	Team:	Tm 4
Site ID:	S744101		

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.

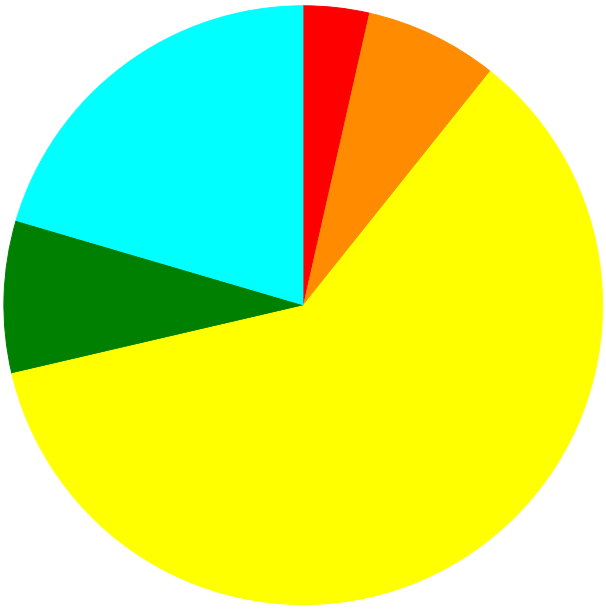
Current Investment Requirement and Condition by Uniformat Classification

UNIFORMAT Classification	RSLI%	FCI %	Current Repair
A10 - Foundations	48.00 %	0.00 %	$0.00
A20 - Basement Construction	48.00 %	0.00 %	$0.00
B10 - Superstructure	48.00 %	1.40 %	$24,023.13
B20 - Exterior Enclosure	66.85 %	110.83 %	$759,796.35
B30 - Roofing	106.81 %	86.84 %	$194,692.22
C10 - Interior Construction	67.69 %	74.26 %	$249,627.93
C20 - Stairs	48.00 %	417.90 %	$510,542.85
C30 - Interior Finishes	111.64 %	70.51 %	$449,137.96
D10 - Conveying	105.71 %	469.02 %	$1,251,764.48
D20 - Plumbing	79.49 %	35.24 %	$211,230.13
D30 - HVAC	103.29 %	97.27 %	$1,594,643.76
D40 - Fire Protection	105.71 %	158.77 %	$210,818.68
D50 - Electrical	110.11 %	38.82 %	$336,291.47
E10 - Equipment	34.29 %	0.00 %	$0.00
E20 - Furnishings	105.00 %	48.67 %	$15,278.52
G20 - Site Improvements	87.33 %	79.78 %	$143,921.19
G40 - Site Electrical Utilities	106.67 %	0.00 %	$0.00
Totals:	**78.40 %**	**67.21 %**	**$5,951,768.67**

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)
B744101;Our Lady of Pompei	14,737	67.47	$210,818.68	$427,339.36	$3,464,925.76	$487,464.84	$1,217,298.84
G744101;Grounds	11,400	58.36	$0.00	$0.00	$143,921.19	$0.00	$0.00
Total:		**67.21**	**$210,818.68**	**$427,339.36**	**$3,608,846.95**	**$487,464.84**	**$1,217,298.84**

Deficiencies By Priority



1 - Response Time (< 2 yr) - $210,818.68
2 - Response Time (2-3 yrs) - $427,339.36
3 - Response Time (3-4 yrs) - $3,608,846.95
4 - Response Time (4-5 yrs) - $487,464.84
5 - Response Time (> 5 yrs) - $1,217,298.84

Budget Estimate Total: $5,951,768.67

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:	Annex
Gross Area (SF):	14,737
Year Built:	1963
Last Renovation:	
Replacement Value:	$8,608,615
Repair Cost:	$5,807,847.48
Total FCI:	67.47 %
Total RSLI:	78.00 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B744101
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S744101		

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	48.00 %	0.00 %	$0.00
A20 - Basement Construction	48.00 %	0.00 %	$0.00
B10 - Superstructure	48.00 %	1.40 %	$24,023.13
B20 - Exterior Enclosure	66.85 %	110.83 %	$759,796.35
B30 - Roofing	106.81 %	86.84 %	$194,692.22
C10 - Interior Construction	67.69 %	74.26 %	$249,627.93
C20 - Stairs	48.00 %	417.90 %	$510,542.85
C30 - Interior Finishes	111.64 %	70.51 %	$449,137.96
D10 - Conveying	105.71 %	469.02 %	$1,251,764.48
D20 - Plumbing	79.49 %	35.24 %	$211,230.13
D30 - HVAC	103.29 %	97.27 %	$1,594,643.76
D40 - Fire Protection	105.71 %	158.77 %	$210,818.68
D50 - Electrical	110.11 %	38.82 %	$336,291.47
E10 - Equipment	34.29 %	0.00 %	$0.00
E20 - Furnishings	105.00 %	48.67 %	$15,278.52
Totals:	**78.00 %**	**67.47 %**	**$5,807,847.48**

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	$24.32	S.F.	14,737	100	1963	2063		48.00 %	0.00 %	48			$358,404
A1030	Slab on Grade	$15.51	S.F.	14,737	100	1963	2063		48.00 %	0.00 %	48			$228,571
A2010	Basement Excavation	$13.07	S.F.	14,737	100	1963	2063		48.00 %	0.00 %	48			$192,613
A2020	Basement Walls	$23.02	S.F.	14,737	100	1963	2063		48.00 %	0.00 %	48			$339,246
B1010	Floor Construction	$92.20	S.F.	14,737	100	1963	2063		48.00 %	0.00 %	48			$1,358,751
B1020	Roof Construction	$24.11	S.F.	14,737	100	1963	2063		48.00 %	6.76 %	48		$24,023.13	$355,309
B2010	Exterior Walls	$31.22	S.F.	14,737	100	1963	2063		48.00 %	28.85 %	48		$132,721.71	$460,089
B2020	Exterior Windows	$13.63	S.F.	14,737	40	1963	2003	2057	105.00 %	266.85 %	42		$536,001.43	$200,865
B2030	Exterior Doors	$1.67	S.F.	14,737	25	1963	1988	2042	108.00 %	370.05 %	27		$91,073.21	$24,611
B3010105	Built-Up	$37.76	S.F.	5,500	20	1963	1983	2037	110.00 %	89.73 %	22		$186,351.08	$207,680
B3010120	Single Ply Membrane	$38.73	S.F.		20				0.00 %	0.00 %				$0
B3010130	Preformed Metal Roofing	$54.22	S.F.	120	30				0.00 %	81.16 %			$5,280.08	$6,506
B3010140	Shingle & Tile	$38.73	S.F.		20				0.00 %	0.00 %				$0
B3020	Roof Openings	$0.68	S.F.	14,737	20	1963	1983	2037	110.00 %	30.55 %	22		$3,061.06	$10,021
C1010	Partitions	$14.93	S.F.	14,737	100	1963	2063		48.00 %	0.00 %	48			$220,023
C1020	Interior Doors	$3.76	S.F.	14,737	40	1963	2003	2057	105.00 %	285.59 %	42		$158,247.53	$55,411
C1030	Fittings	$4.12	S.F.	14,737	40	1963	2003	2057	105.00 %	150.50 %	42		$91,380.40	$60,716
C2010	Stair Construction	$8.29	S.F.	14,737	100	1963	2063		48.00 %	417.90 %	48		$510,542.85	$122,170

Site Assessment Report - B744101;Our Lady of Pompei

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.	14,737	10	1963	1973	2027	120.00 %	106.47 %	12		$207,280.64	$194,676
C3010231	Vinyl Wall Covering	$0.97	S.F.		15				0.00 %	0.00 %				$0
C3010232	Wall Tile	$2.63	S.F.		30				0.00 %	0.00 %				$0
C3020411	Carpet	$7.30	S.F.		10				0.00 %	0.00 %				$0
C3020412	Terrazzo & Tile	$75.52	S.F.	600	50	1963	2013	2067	104.00 %	45.49 %	52		$20,611.53	$45,312
C3020413	Vinyl Flooring	$9.68	S.F.	8,850	20	1963	1983	2037	110.00 %	124.15 %	22		$106,355.16	$85,668
C3020414	Wood Flooring	$22.27	S.F.		25				0.00 %	0.00 %				$0
C3020415	Concrete Floor Finishes	$0.97	S.F.	2,400	50	1963	2013	2067	104.00 %	0.00 %	52			$2,328
C3030	Ceiling Finishes	$20.97	S.F.	14,737	25	1963	1988	2042	108.00 %	37.18 %	27		$114,890.63	$309,035
D1010	Elevators and Lifts	$18.11	S.F.	14,737	35	1963	1998	2052	105.71 %	469.02 %	37		$1,251,764.48	$266,887
D2010	Plumbing Fixtures	$31.58	S.F.	14,737	35	2005	2040	2040	71.43 %	3.26 %	25		$15,158.38	$465,394
D2020	Domestic Water Distribution	$2.90	S.F.	14,737	25	1963	1988	2042	108.00 %	174.74 %	27		$74,677.83	$42,737
D2030	Sanitary Waste	$2.90	S.F.	14,737	25	1963	1988	2042	108.00 %	169.16 %	27		$72,295.94	$42,737
D2040	Rain Water Drainage	$3.29	S.F.	14,737	30	1963	1993	2047	106.67 %	101.26 %	32		$49,097.98	$48,485
D3020	Heat Generating Systems	$18.67	S.F.	14,737	35	1963	1998	2052	105.71 %	67.71 %	37		$186,306.09	$275,140
D3030	Cooling Generating Systems	$24.48	S.F.	14,737	20			2037	110.00 %	65.60 %	22		$236,670.90	$360,762
D3040	Distribution Systems	$42.99	S.F.	14,737	25	1963	1988	2042	108.00 %	135.04 %	27		$855,526.75	$633,544
D3050	Terminal & Package Units	$11.60	S.F.	14,737	20	1963	1983	2027	60.00 %	0.00 %	12			$170,949
D3060	Controls & Instrumentation	$13.50	S.F.	14,737	20	1963	1983	2037	110.00 %	158.90 %	22		$316,140.02	$198,950
D4010	Sprinklers	$8.02	S.F.	14,737	35			2052	105.71 %	178.37 %	37		$210,818.68	$118,191
D4020	Standpipes	$0.99	S.F.	14,737	35			2052	105.71 %	0.00 %	37			$14,590
D5010	Electrical Service/Distribution	$9.70	S.F.	14,737	30	1963	1993	2047	106.67 %	0.00 %	32			$142,949
D5020	Lighting and Branch Wiring	$34.68	S.F.	14,737	20	1963	1983	2037	110.00 %	0.00 %	22			$511,079
D5030	Communications and Security	$12.99	S.F.	14,737	15	1963	1978	2032	113.33 %	135.57 %	17		$259,532.33	$191,434
D5090	Other Electrical Systems	$1.41	S.F.	14,737	30	1963	1993	2047	106.67 %	369.41 %	32		$76,759.14	$20,779
E1020	Institutional Equipment	$4.82	S.F.	14,737	35	1963	1998	2027	34.29 %	0.00 %	12			$71,032
E1090	Other Equipment	$11.10	S.F.	14,737	35	1963	1998	2027	34.29 %	0.00 %	12			$163,581
E2010	Fixed Furnishings	$2.13	S.F.	14,737	40	1963	2003	2057	105.00 %	48.67 %	42		$15,278.52	$31,390
								Total	**78.00 %**	**67.47 %**			**$5,807,847.48**	**$8,608,615**

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: Paint 100%

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

Note: VCT 75%
Ceramic tile 5%
Concrete 20%

System: C3030 - Ceiling Finishes — This system contains no images

Note: ATC 40%
Exposed/plaster 60%

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:	**$5,807,847**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$5,807,847**
*** 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	$24,023	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$24,023**
B20 - Exterior Enclosure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2010 - Exterior Walls	$132,722	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$132,722**
B2020 - Exterior Windows	$536,001	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$536,001**
B2030 - Exterior Doors	$91,073	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$91,073**
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	$186,351	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$186,351**
B3010120 - Single Ply Membrane	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010130 - Preformed Metal Roofing	$5,280	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$5,280**
B3010140 - Shingle & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3020 - Roof Openings	$3,061	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$3,061**
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**

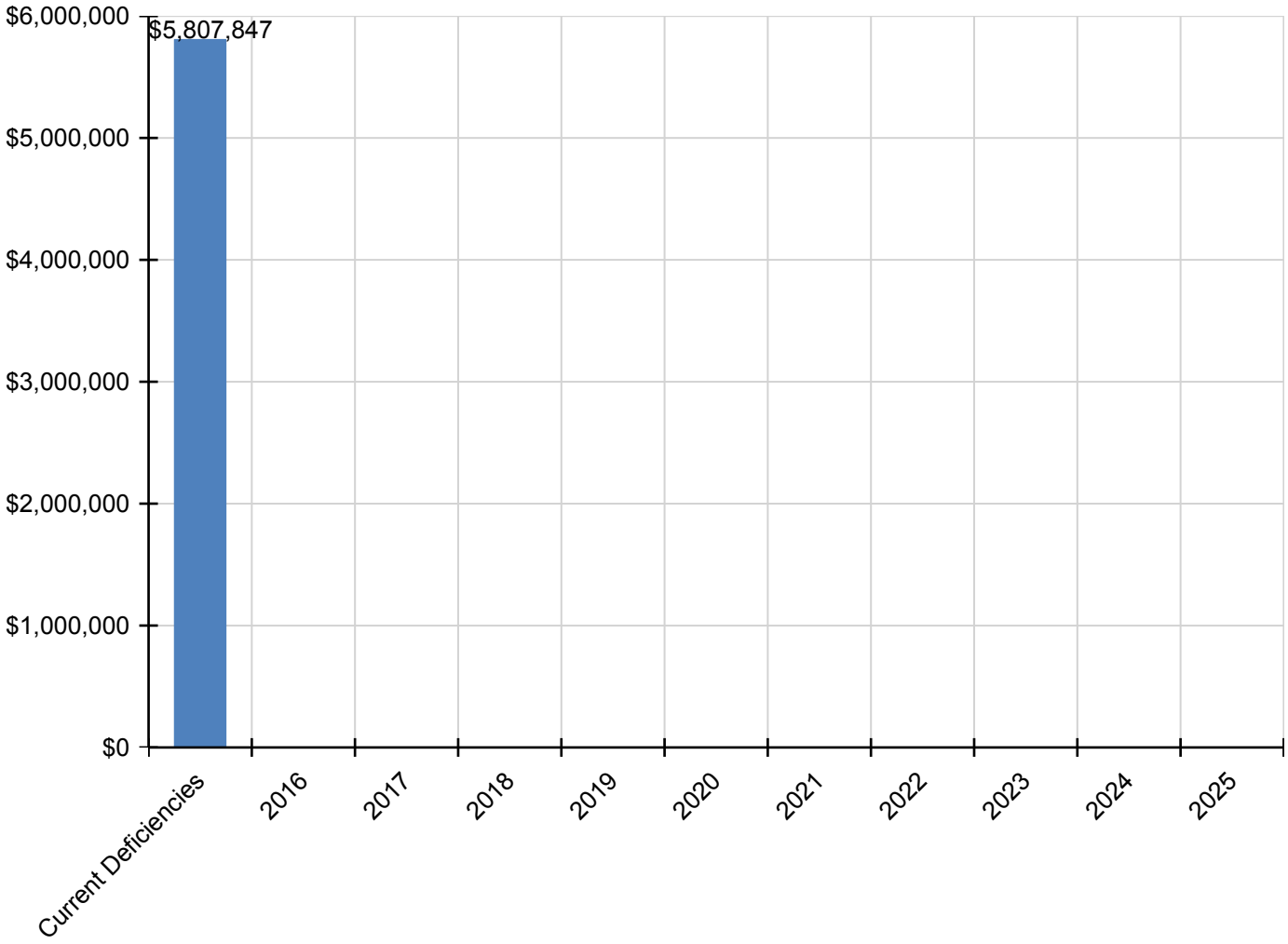
C1020 - Interior Doors	$158,248	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$158,248**
C1030 - Fittings	$91,380	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$91,380**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$510,543	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$510,543**
C30 - Interior Finishes	$0	$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	$207,281	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$207,281**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020412 - Terrazzo & Tile	$20,612	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$20,612**
C3020413 - Vinyl Flooring	$106,355	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$106,355**
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	$114,891	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$114,891**
D - Services	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D10 - Conveying	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D1010 - Elevators and Lifts	$1,251,764	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,251,764**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$15,158	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$15,158**
D2020 - Domestic Water Distribution	$74,678	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$74,678**
D2030 - Sanitary Waste	$72,296	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$72,296**
D2040 - Rain Water Drainage	$49,098	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$49,098**
D30 - HVAC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3020 - Heat Generating Systems	$186,306	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$186,306**
D3030 - Cooling Generating Systems	$236,671	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$236,671**
D3040 - Distribution Systems	$855,527	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$855,527**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$316,140	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$316,140**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$210,819	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$210,819**
D4020 - Standpipes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

D50 - Electrical	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5010 - Electrical Service/Distribution	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5020 - Lighting and Branch Wiring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5030 - Communications and Security	$259,532	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$259,532**
D5090 - Other Electrical Systems	$76,759	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$76,759**
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	$15,279	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$15,279**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

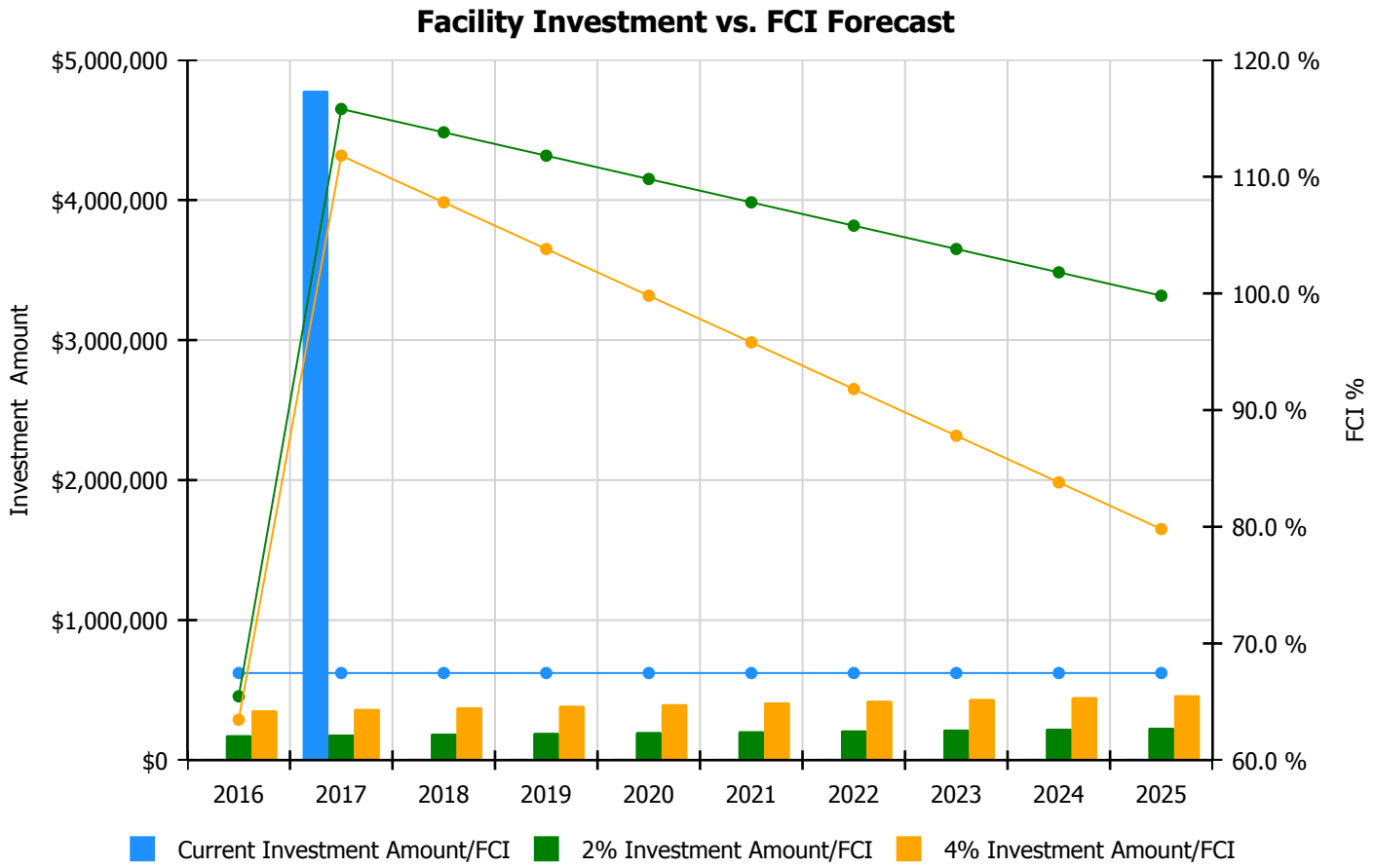
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

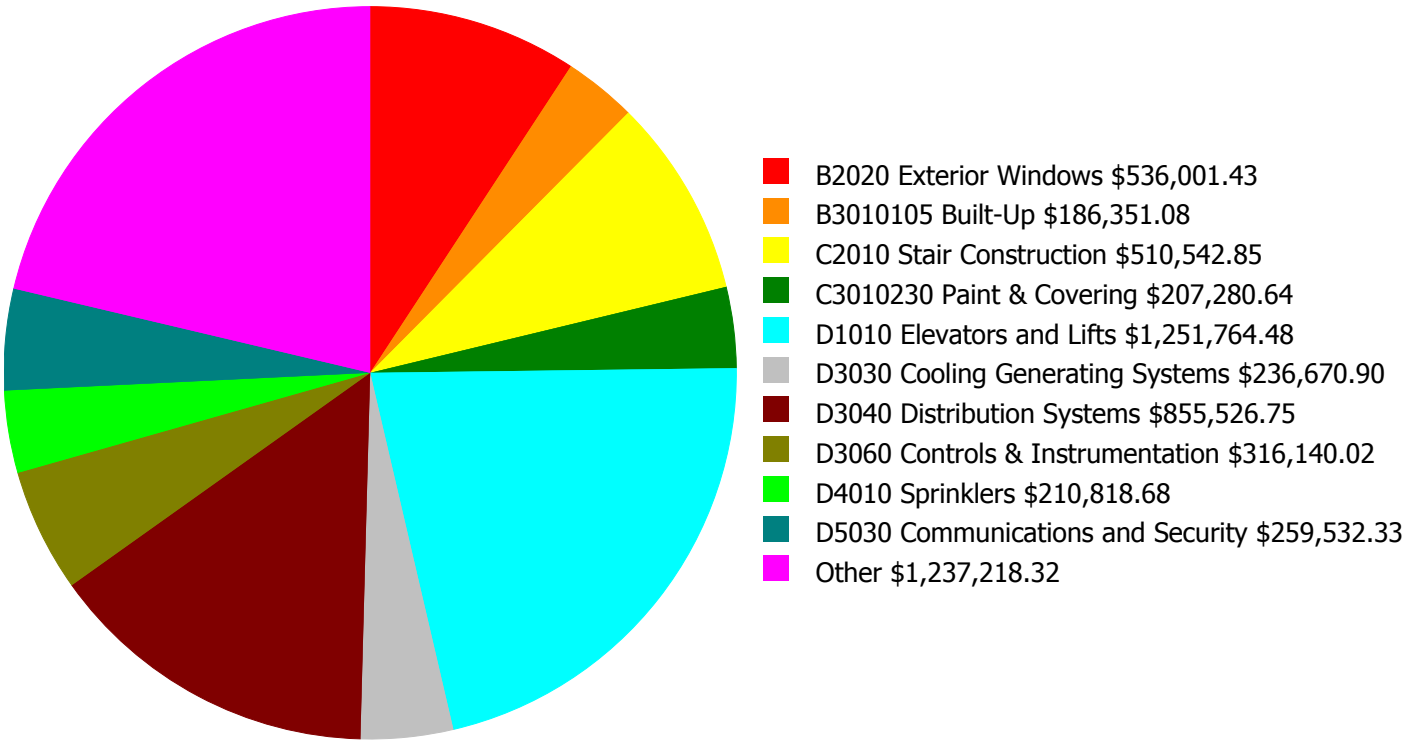
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 67.47%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$177,337.00	65.47 %	$354,675.00	63.47 %
2017	$4,779,962	$182,658.00	115.80 %	$365,315.00	111.80 %
2018	$0	$188,137.00	113.80 %	$376,275.00	107.80 %
2019	$0	$193,781.00	111.80 %	$387,563.00	103.80 %
2020	$0	$199,595.00	109.80 %	$399,190.00	99.80 %
2021	$0	$205,583.00	107.80 %	$411,165.00	95.80 %
2022	$0	$211,750.00	105.80 %	$423,500.00	91.80 %
2023	$0	$218,103.00	103.80 %	$436,205.00	87.80 %
2024	$0	$224,646.00	101.80 %	$449,292.00	83.80 %
2025	$0	$231,385.00	99.80 %	$462,770.00	79.80 %
Total:	**$4,779,962**	**$2,032,975.00**		**$4,065,950.00**	

Deficiency Summary by System

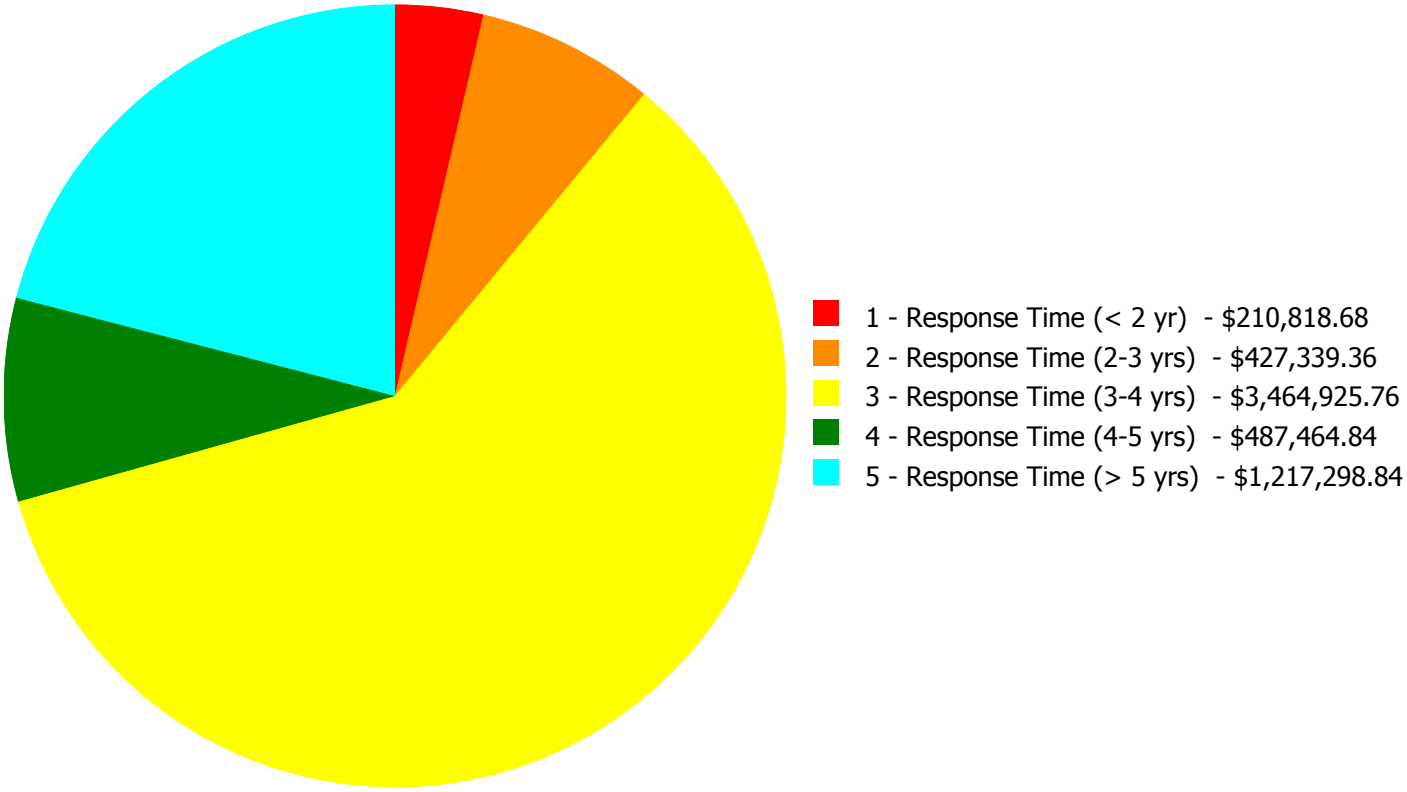
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $5,807,847.48

Deficiency Summary by Priority

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



Budget Estimate Total: $5,807,847.48

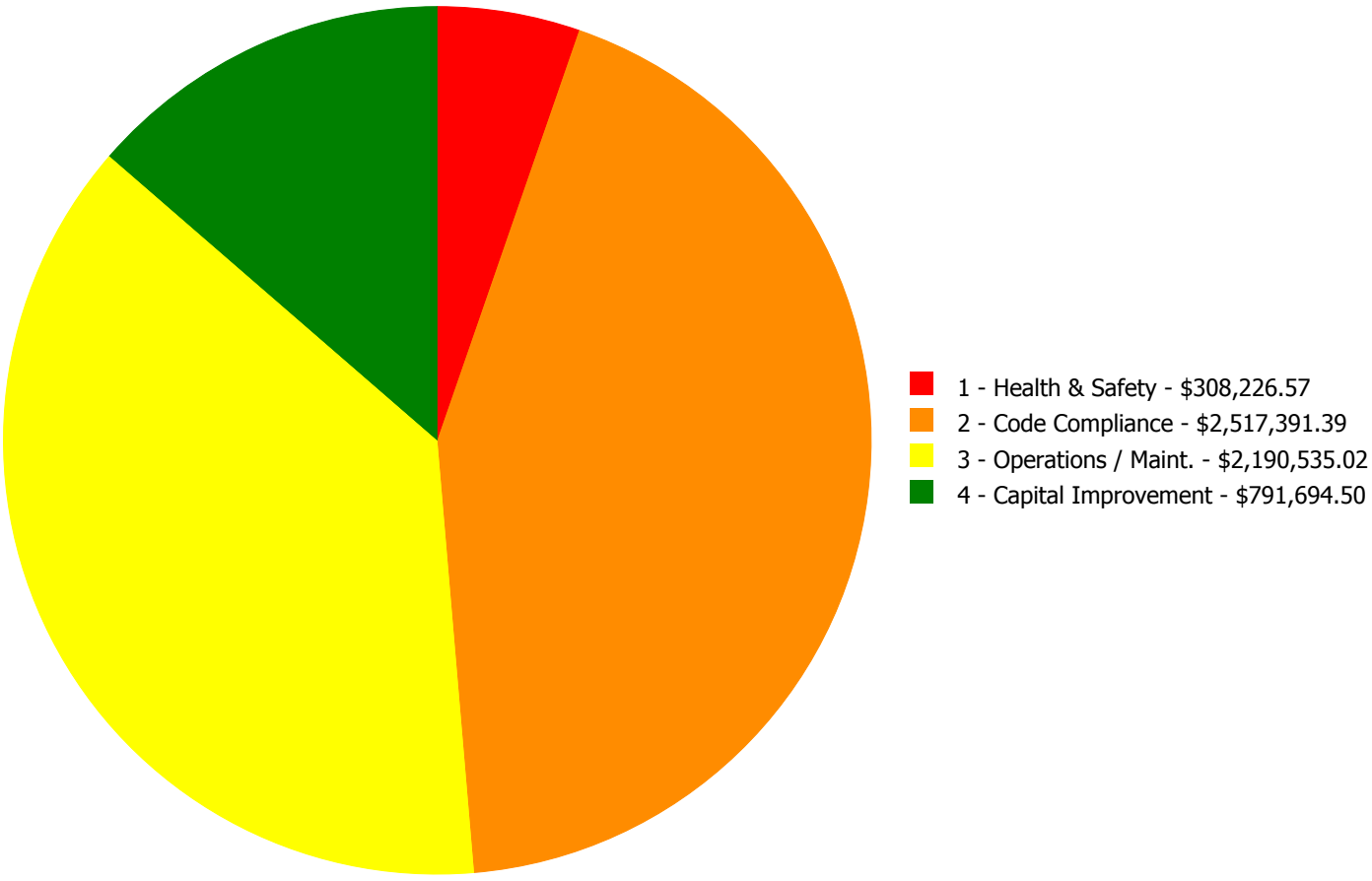
Deficiency By Priority Investment Table

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
B1020	Roof Construction	$0.00	$0.00	$24,023.13	$0.00	$0.00	$24,023.13
B2010	Exterior Walls	$0.00	$0.00	$132,721.71	$0.00	$0.00	$132,721.71
B2020	Exterior Windows	$0.00	$0.00	$536,001.43	$0.00	$0.00	$536,001.43
B2030	Exterior Doors	$0.00	$0.00	$91,073.21	$0.00	$0.00	$91,073.21
B3010105	Built-Up	$0.00	$186,351.08	$0.00	$0.00	$0.00	$186,351.08
B3010130	Preformed Metal Roofing	$0.00	$0.00	$5,280.08	$0.00	$0.00	$5,280.08
B3020	Roof Openings	$0.00	$3,061.06	$0.00	$0.00	$0.00	$3,061.06
C1020	Interior Doors	$0.00	$0.00	$158,247.53	$0.00	$0.00	$158,247.53
C1030	Fittings	$0.00	$0.00	$66,327.84	$25,052.56	$0.00	$91,380.40
C2010	Stair Construction	$0.00	$0.00	$510,542.85	$0.00	$0.00	$510,542.85
C3010230	Paint & Covering	$0.00	$0.00	$0.00	$207,280.64	$0.00	$207,280.64
C3020412	Terrazzo & Tile	$0.00	$0.00	$0.00	$20,611.53	$0.00	$20,611.53
C3020413	Vinyl Flooring	$0.00	$0.00	$106,355.16	$0.00	$0.00	$106,355.16
C3030	Ceiling Finishes	$0.00	$0.00	$42,494.96	$72,395.67	$0.00	$114,890.63
D1010	Elevators and Lifts	$0.00	$0.00	$1,251,764.48	$0.00	$0.00	$1,251,764.48
D2010	Plumbing Fixtures	$0.00	$0.00	$15,158.38	$0.00	$0.00	$15,158.38
D2020	Domestic Water Distribution	$0.00	$0.00	$74,677.83	$0.00	$0.00	$74,677.83
D2030	Sanitary Waste	$0.00	$0.00	$72,295.94	$0.00	$0.00	$72,295.94
D2040	Rain Water Drainage	$0.00	$0.00	$49,097.98	$0.00	$0.00	$49,097.98
D3020	Heat Generating Systems	$0.00	$186,306.09	$0.00	$0.00	$0.00	$186,306.09
D3030	Cooling Generating Systems	$0.00	$0.00	$0.00	$0.00	$236,670.90	$236,670.90
D3040	Distribution Systems	$0.00	$51,621.13	$139,417.70	$0.00	$664,487.92	$855,526.75
D3060	Controls & Instrumentation	$0.00	$0.00	$0.00	$0.00	$316,140.02	$316,140.02
D4010	Sprinklers	$210,818.68	$0.00	$0.00	$0.00	$0.00	$210,818.68
D5030	Communications and Security	$0.00	$0.00	$97,407.89	$162,124.44	$0.00	$259,532.33
D5090	Other Electrical Systems	$0.00	$0.00	$76,759.14	$0.00	$0.00	$76,759.14
E2010	Fixed Furnishings	$0.00	$0.00	$15,278.52	$0.00	$0.00	$15,278.52
	Total:	$210,818.68	$427,339.36	$3,464,925.76	$487,464.84	$1,217,298.84	$5,807,847.48

Deficiency Summary by Category

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



Budget Estimate Total: $5,807,847.48

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: 14,737.00

Unit of Measure: S.F.

Estimate: $210,818.68

Assessor Name: System

Date Created: 10/21/2015

Notes: Install a fire protection sprinkler system with quick response type heads throughout the building 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: B3010105 - Built-Up

Location: Exterior
Distress: Building Envelope Integrity
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and Replace Built Up Roof
Qty: 5,500.00
Unit of Measure: S.F.
Estimate: $186,351.08
Assessor Name: System
Date Created: 01/29/2016

Notes: Install all new roofing system including insulation; tear-down existing roofing; install flashing, counter flashing and reglets

System: B3020 - Roof Openings

Location: Exterior
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Replace roof hatch - pick the closest size
Qty: 1.00
Unit of Measure: Ea.
Estimate: $3,061.06
Assessor Name: System
Date Created: 01/29/2016

Notes: Replace roof hatch

System: D3020 - Heat Generating Systems

Location: Boiler room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace boiler, cast iron sectional (50 HP)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $186,306.09

Assessor Name: System

Date Created: 10/21/2015

Notes: Replace the one existing 891MBH cast iron boiler, which is beyond its service life, burners, and exhaust ductwork.

System: D3040 - Distribution Systems

This deficiency has no image.

Location: Restrooms

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

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

Qty: 3.00

Unit of Measure: Ea.

Estimate: $51,621.13

Assessor Name: System

Date Created: 10/21/2015

Notes: Install a through wall exhaust fan and ductwork for the restrooms on each floor of the building to meet building ventilation requirements.

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

System: B1020 - Roof Construction

Location: Exterior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Rehabilitate chain link fabric roof structure - paint the frame and replace the chain link - insert the SF of roof area in the qty.

Qty: 120.00

Unit of Measure: S.F.

Estimate: $24,023.13

Assessor Name: System

Date Created: 01/29/2016

Notes: Replace roof structure above 3rd floor external landing with new insulated structure

System: B2010 - Exterior Walls

Location: Exterior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove transite wall panels and replace with steel siding panels

Qty: 640.00

Unit of Measure: S.F.

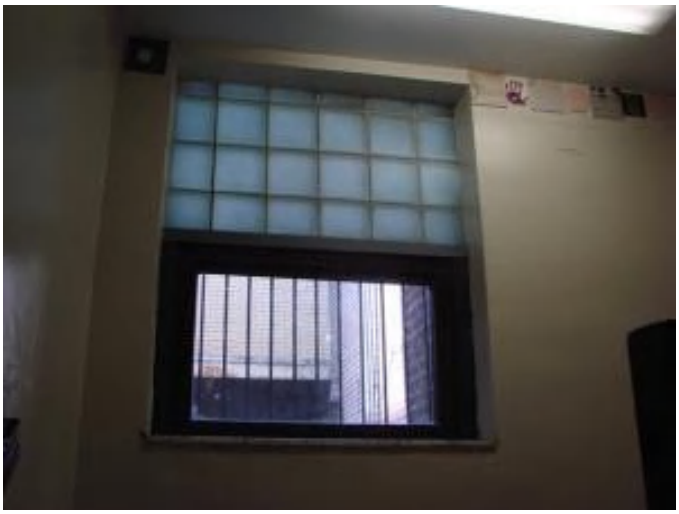
Estimate: $132,721.71

Assessor Name: System

Date Created: 01/29/2016

Notes: Replace exterior walls on 2nd and 3rd floor external landings with insulated metal panel walls

System: B2020 - Exterior Windows



Location: Exterior

Distress: Beyond Service Life

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: 81.00

Unit of Measure: Ea.

Estimate: $536,001.43

Assessor Name: System

Date Created: 01/29/2016

Notes: Replace all windows (with integral security screens)

System: B2030 - Exterior Doors

Location: Exterior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace exterior doors - per leaf

Qty: 10.00

Unit of Measure: Ea.

Estimate: $91,073.21

Assessor Name: System

Date Created: 01/29/2016

Notes: Replace all exterior doors

System: B3010130 - Preformed Metal Roofing

Location: Exterior

Distress: Building Envelope Integrity

Category: 3 - Operations / Maint.

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

Correction: Remove and replace standing seam metal roofing

Qty: 120.00

Unit of Measure: S.F.

Estimate: $5,280.08

Assessor Name: System

Date Created: 01/29/2016

Notes: Install new standing seam roofing system over 3rd floor external landing

System: C1020 - Interior Doors

Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 34.00

Unit of Measure: Ea.

Estimate: $158,247.53

Assessor Name: System

Date Created: 01/29/2016

Notes: Replace all interior doors

System: C1030 - Fittings

Location: Interior

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Remove and replace damaged toilet paritions - handicap units

Qty: 12.00

Unit of Measure: Ea.

Estimate: $38,975.01

Assessor Name: System

Date Created: 01/29/2016

Notes: Reconfigure toilets on each floor for accessibility, provide new toilet partitions

System: C1030 - Fittings

Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace toilet accessories - select accessories and quantity

Qty: 16.00

Unit of Measure: Ea.

Estimate: $27,352.83

Assessor Name: System

Date Created: 01/29/2016

Notes: Provide new toilet accessories including grab bars

System: C2010 - Stair Construction

Location: Interior/Exterior

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Replace enclosed egress masonry stair tower including new stairs - per flight approximately 600 SF footprint and 15' floor to floor

Qty: 3.00

Unit of Measure: Flight

Estimate: $510,542.85

Assessor Name: System

Date Created: 01/29/2016

Notes: Provide additional external stairway to satisfy access/egress requirements

System: C3020413 - Vinyl Flooring

Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace VCT

Qty: 8,850.00

Unit of Measure: S.F.

Estimate: $106,355.16

Assessor Name: System

Date Created: 01/29/2016

Notes: Replace all VCT flooring

System: C3030 - Ceiling Finishes

Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Repair and resurface plaster ceilings - 2 coats plaster

Qty: 7,100.00

Unit of Measure: S.F.

Estimate: $42,494.96

Assessor Name: System

Date Created: 01/29/2016

Notes: Repair plaster ceilings (25% area), repaint all ceilings

System: D1010 - Elevators and Lifts

This deficiency has no image.

Location: Interior/Exterior

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Add external 5 stop elevator - adjust the electrical run lengths to hook up the elevator

Qty: 1.00

Unit of Measure: Ea.

Estimate: $1,251,764.48

Assessor Name: System

Date Created: 01/29/2016

Notes: Provide 3000 LB external elevator serving all floors and grade.

System: D2010 - Plumbing Fixtures

Location: Corridors

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: 2.00

Unit of Measure: Ea.

Estimate: $15,158.38

Assessor Name: System

Date Created: 10/21/2015

Notes: Replace two (2) wall hung drinking fountains and integral refrigerated coolers in the corridors. These units are beyond their service life and are NOT accessible type.

System: D2020 - Domestic Water Distribution

Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace domestic water piping (75 KSF)

Qty: 14,737.00

Unit of Measure: S.F.

Estimate: $74,677.83

Assessor Name: System

Date Created: 10/21/2015

Notes: Hire a qualified contractor to perform a detailed inspection of the domestic water piping, in use for decades, and replace any damaged piping.

System: D2030 - Sanitary Waste

Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Inspect sanitary waste piping and replace damaged sections. (+50KSF)

Qty: 14,737.00

Unit of Measure: S.F.

Estimate: $72,295.94

Assessor Name: System

Date Created: 10/21/2015

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: D2040 - Rain Water Drainage

Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Inspect internal rain water drainage piping and replace pipe - based on SF of multi-story building - insert SF of building

Qty: 14,737.00

Unit of Measure: S.F.

Estimate: $49,097.98

Assessor Name: System

Date Created: 10/21/2015

Notes: Hire a qualified contractor to perform a detailed examination of the rain water drainage 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: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Perform testing to identify and replace damaged steam and condensate piping.

Qty: 14,737.00

Unit of Measure: S.F.

Estimate: $139,417.70

Assessor Name: System

Date Created: 10/21/2015

Notes: Hire a qualified contractor to examine the hot water distribution piping, in service for over 85 years, and perform additional testing to locate and replace any damaged piping and to further quantify the extent of potential failures.

System: D5030 - Communications and Security

Location: throughout the building

Distress: Health Hazard / Risk

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: $97,407.89

Assessor Name: System

Date Created: 01/12/2016

Notes: Install a new Fire Alarm System that is automatic/addressable, and is in compliance with safety codes. There are insufficient number of horn/strobes installed in the classrooms, corridors, offices and other areas in the school.

System: D5090 - Other Electrical Systems

This deficiency has no image.

Location: electrical room

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add Standby Generator System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $76,759.14

Assessor Name: System

Date Created: 01/12/2016

Notes: Install a new Emergency generator.
Note: there is no picture is attached since presently school has no emergency generator.

System: E2010 - Fixed Furnishings

Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace casework - per LF - insert quantities for cabinets in the estimate

Qty: 12.00

Unit of Measure: L.F.

Estimate: $15,278.52

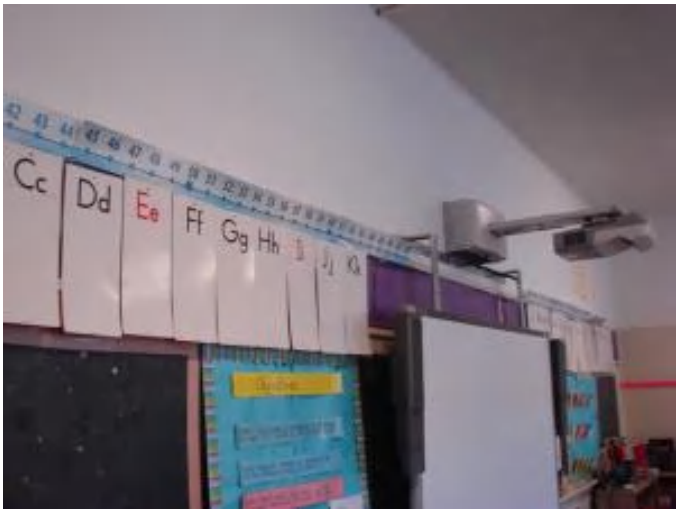
Assessor Name: System

Date Created: 01/29/2016

Notes: Replace built-in cabinets in staff lounge

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

System: C1030 - Fittings



Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 10.00

Unit of Measure: Ea.

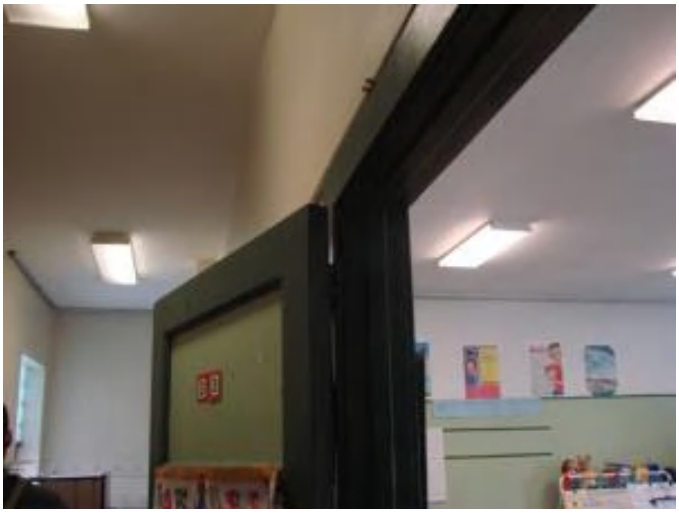
Estimate: $15,841.54

Assessor Name: System

Date Created: 01/29/2016

Notes: Replace chalkboards with marker boards

System: C1030 - Fittings



Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace missing or damaged signage - insert the number of rooms

Qty: 34.00

Unit of Measure: Ea.

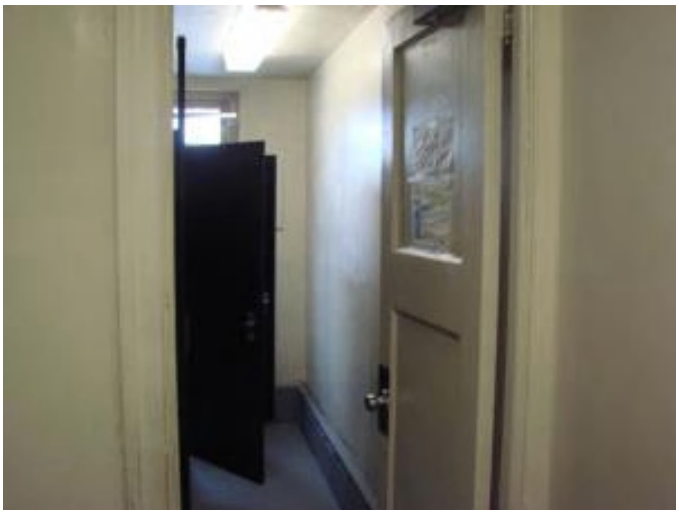
Estimate: $9,211.02

Assessor Name: System

Date Created: 01/29/2016

Notes: Provide new signage throughout the building

System: C3010230 - Paint & Covering



Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 30,600.00

Unit of Measure: S.F.

Estimate: $207,280.64

Assessor Name: System

Date Created: 01/29/2016

Notes: Repair and repaint interior walls

System: C3020412 - Terrazzo & Tile

Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace terazzo or tile flooring - pick the appropriate material

Qty: 600.00

Unit of Measure: S.F.

Estimate: $20,611.53

Assessor Name: System

Date Created: 01/29/2016

Notes: Replace ceramic tile in staff lounge

System: C3030 - Ceiling Finishes

Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 4,800.00

Unit of Measure: S.F.

Estimate: $72,395.67

Assessor Name: System

Date Created: 01/29/2016

Notes: Replace all suspended acoustical ceilings

System: D5030 - Communications and Security

Location: throughout the building

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add/Replace Clock System or Components

Qty: 0.00

Unit of Measure: Ea.

Estimate: $162,124.44

Assessor Name: System

Date Created: 01/12/2016

Notes: Install an upgraded Clock System with enough capacity to provide clocks for the entire building.
Note: A multiplier of 1.4 (instead of 1.0) is used to cover the additional cost of related construction.

Priority 5 - Response Time (> 5 yrs):

System: D3030 - Cooling Generating Systems

Location: Throughout building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 14,737.00

Unit of Measure: S.F.

Estimate: $236,670.90

Assessor Name: System

Date Created: 10/21/2015

Notes: Remove the window air conditioning units and install a 30 ton air-cooled chiller with chilled water distribution piping and pumps to supply more reliable air conditioning for the building with a much longer service life.

System: D3040 - Distribution Systems

Location: Classrooms

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 8.00

Unit of Measure: C

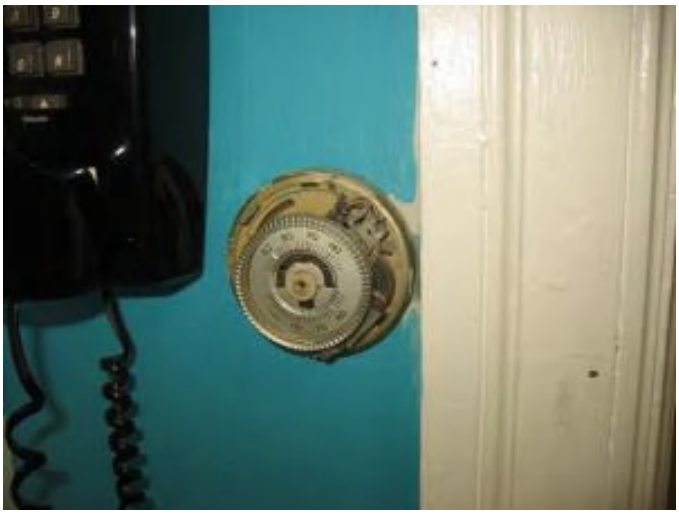
Estimate: $664,487.92

Assessor Name: System

Date Created: 10/21/2015

Notes: Remove the existing fin tube radiators and install fan coil units with hot and chilled water coils and a dedicated outdoor air system.

System: D3060 - Controls & Instrumentation



Location: Throughout building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace pneumatic controls with DDC (75KSF)

Qty: 14,737.00

Unit of Measure: S.F.

Estimate: $316,140.02

Assessor Name: System

Date Created: 10/21/2015

Notes: Replace the electric 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:

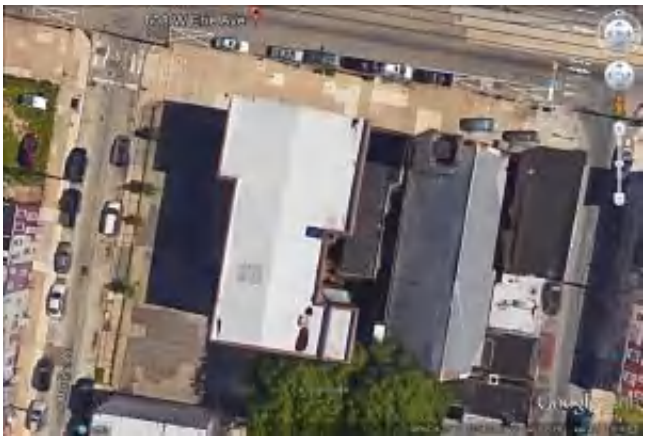
Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, hot water, gross output, 876 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	Boiler Room	Weil-McLain	J-10-B			35	1964	1999	$31,387.70	$34,526.47
D5010 Electrical Service/Distribution	Panelboards, 3 pole 3 wire, main circuit breaker, 240 V, 225 amp	1.00	Ea.	electrical room					30	1963	2047	$3,105.00	$3,415.50
												Total:	**$37,941.97**

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):	11,400
Year Built:	1963
Last Renovation:	
Replacement Value:	$246,630
Repair Cost:	$143,921.19
Total FCI:	58.36 %
Total RSLI:	92.52 %



Description:

Attributes:

General Attributes:

Bldg ID:	S744101	Site ID:	S744101

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	87.33 %	79.78 %	$143,921.19
G40 - Site Electrical Utilities	106.67 %	0.00 %	$0.00
Totals:	**92.52 %**	**58.36 %**	**$143,921.19**

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.	10,200	40	1963	2003	2057	105.00 %	114.71 %	42		$143,921.19	$125,460
G2040	Site Development	$4.36	S.F.	11,400	25	2000	2025		40.00 %	0.00 %	10			$49,704
G2050	Landscaping & Irrigation	$4.36	S.F.	1,200	15	2000	2015	2032	113.33 %	0.00 %	17			$5,232
G4020	Site Lighting	$4.84	S.F.	11,400	30	1963	1993	2047	106.67 %	0.00 %	32			$55,176
G4030	Site Communications & Security	$0.97	S.F.	11,400	30	1963	1993	2047	106.67 %	0.00 %	32			$11,058
								Total	**92.52 %**	**58.36 %**			**$143,921.19**	**$246,630**

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.

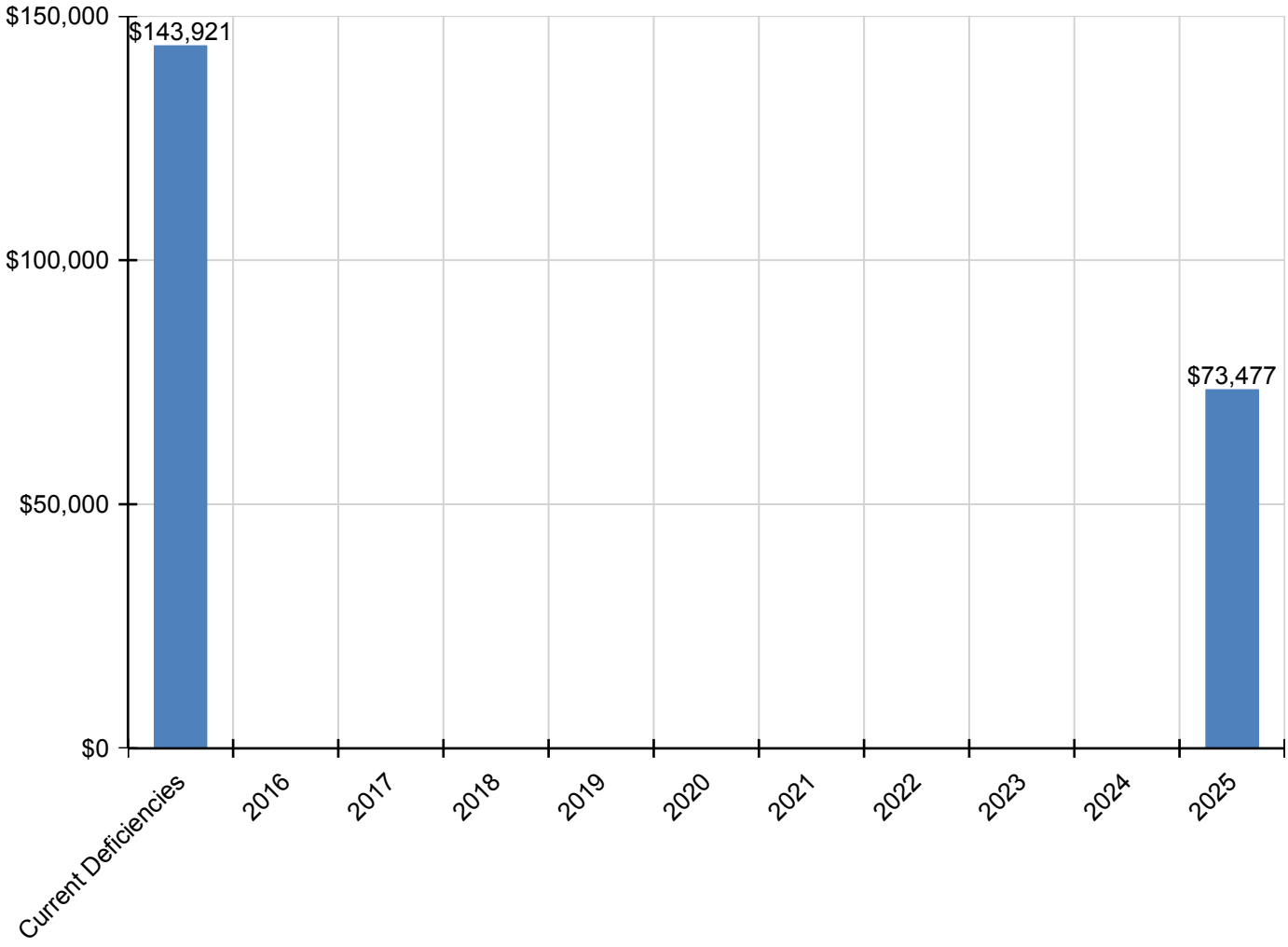
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$143,921**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$73,477**	**$217,398**
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	$143,921	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$143,921**
G2040 - Site Development	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$73,477	**$73,477**
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

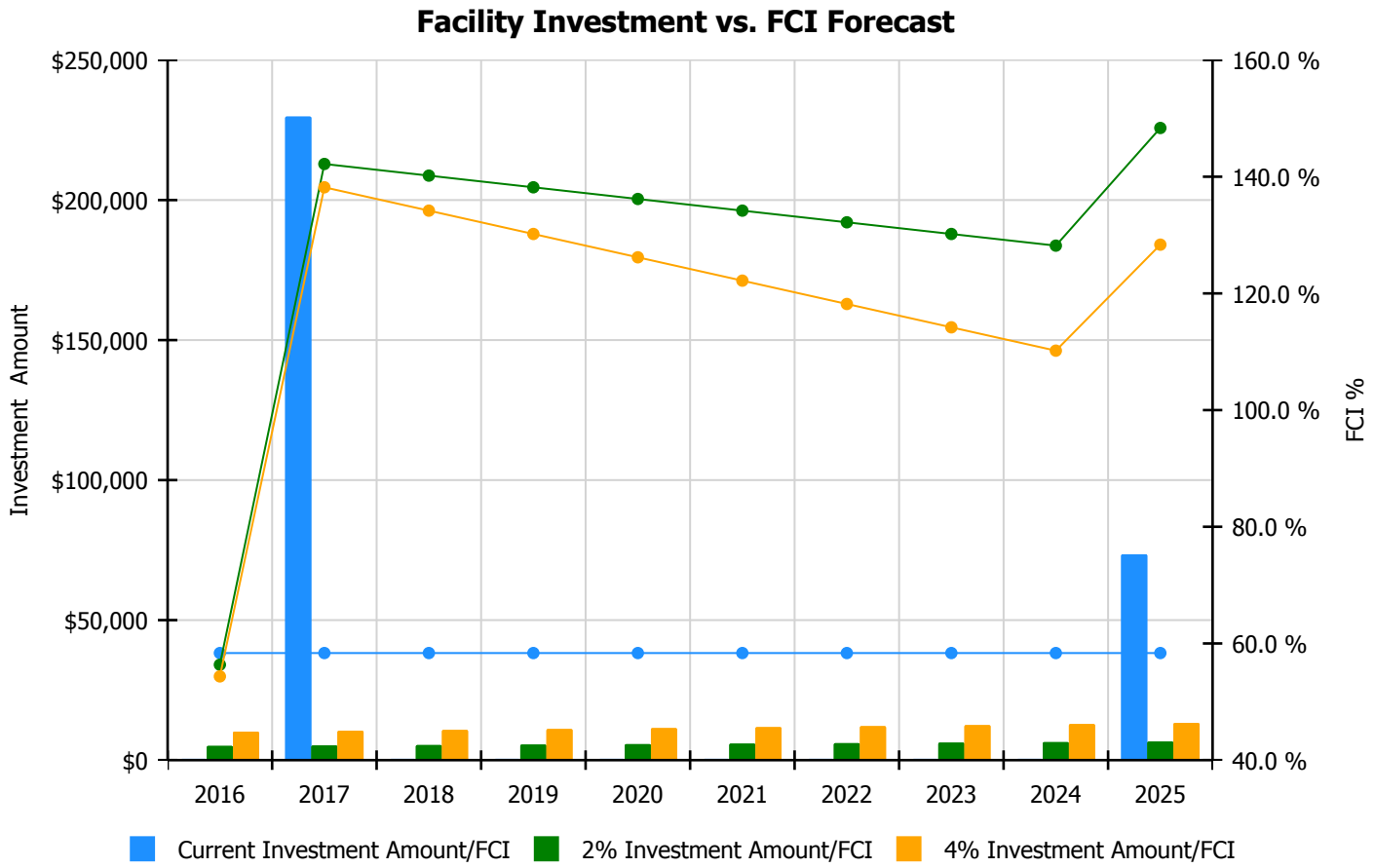
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

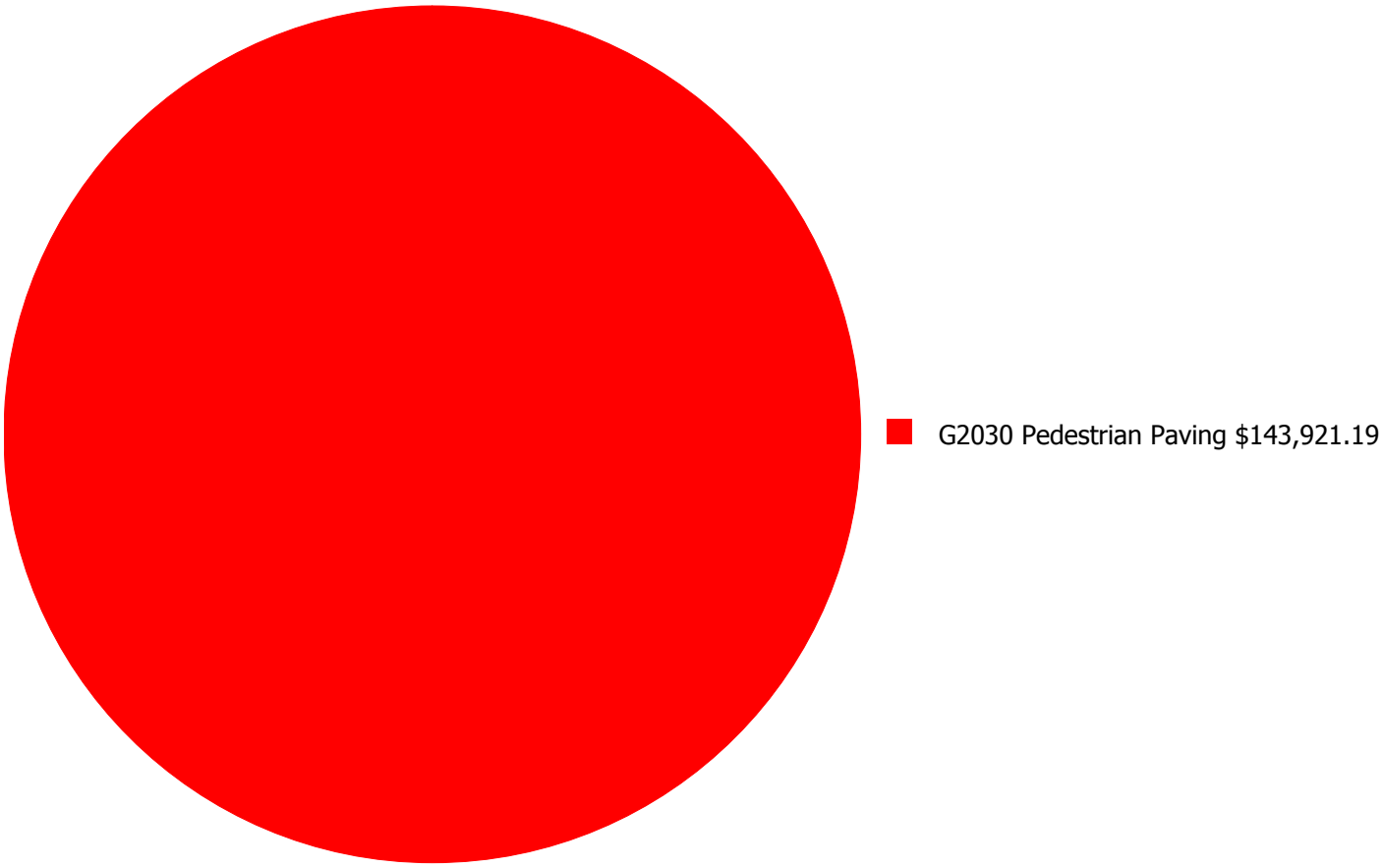
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 58.36%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$5,081.00	56.36 %	$10,161.00	54.36 %
2017	$229,811	$5,233.00	142.19 %	$10,466.00	138.19 %
2018	$0	$5,390.00	140.19 %	$10,780.00	134.19 %
2019	$0	$5,552.00	138.19 %	$11,103.00	130.19 %
2020	$0	$5,718.00	136.19 %	$11,436.00	126.19 %
2021	$0	$5,890.00	134.19 %	$11,780.00	122.19 %
2022	$0	$6,066.00	132.19 %	$12,133.00	118.19 %
2023	$0	$6,248.00	130.19 %	$12,497.00	114.19 %
2024	$0	$6,436.00	128.19 %	$12,872.00	110.19 %
2025	$73,477	$6,629.00	148.36 %	$13,258.00	128.36 %
Total:	**$303,288**	**$58,243.00**		**$116,486.00**	

Deficiency Summary by System

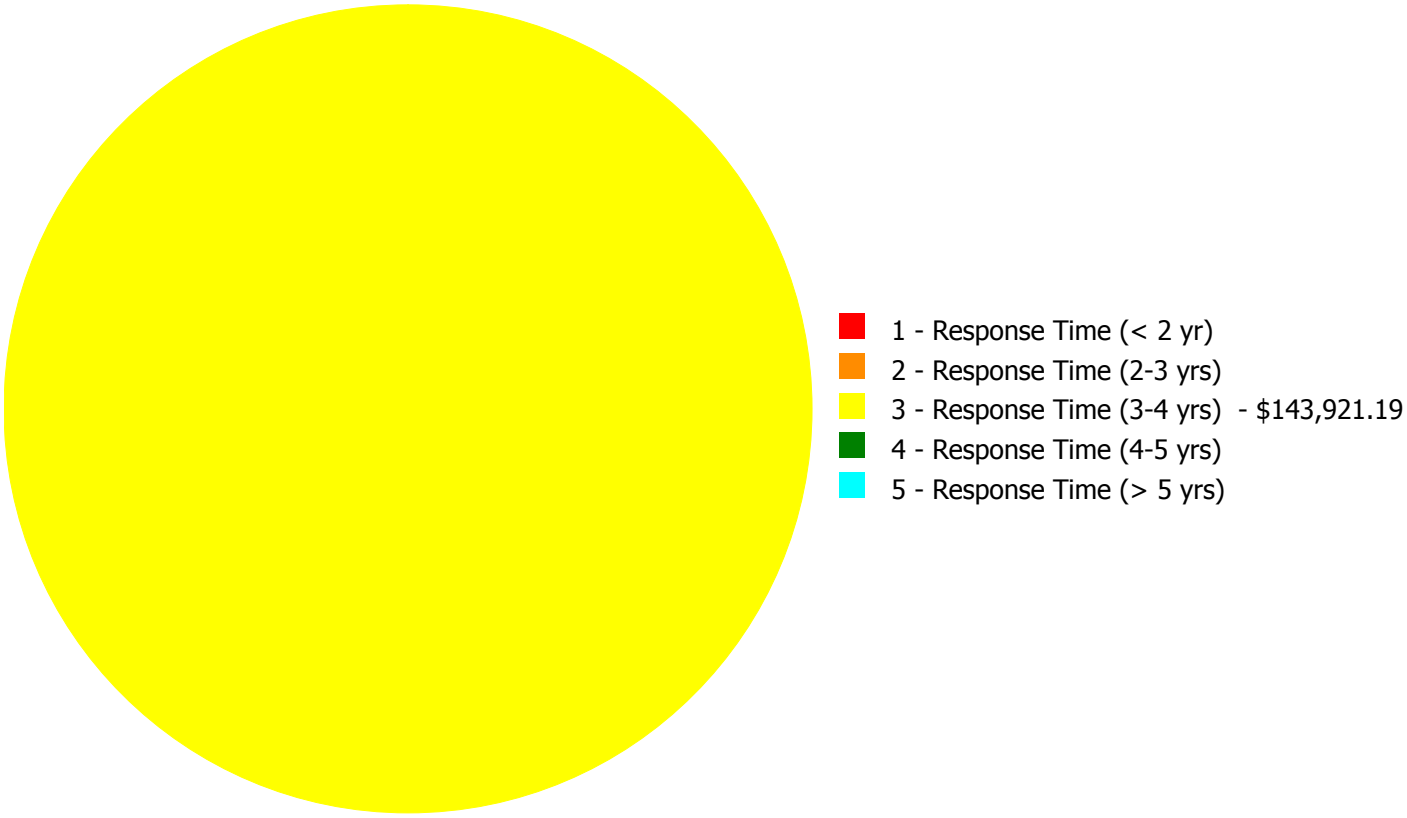
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $143,921.19

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: $143,921.19

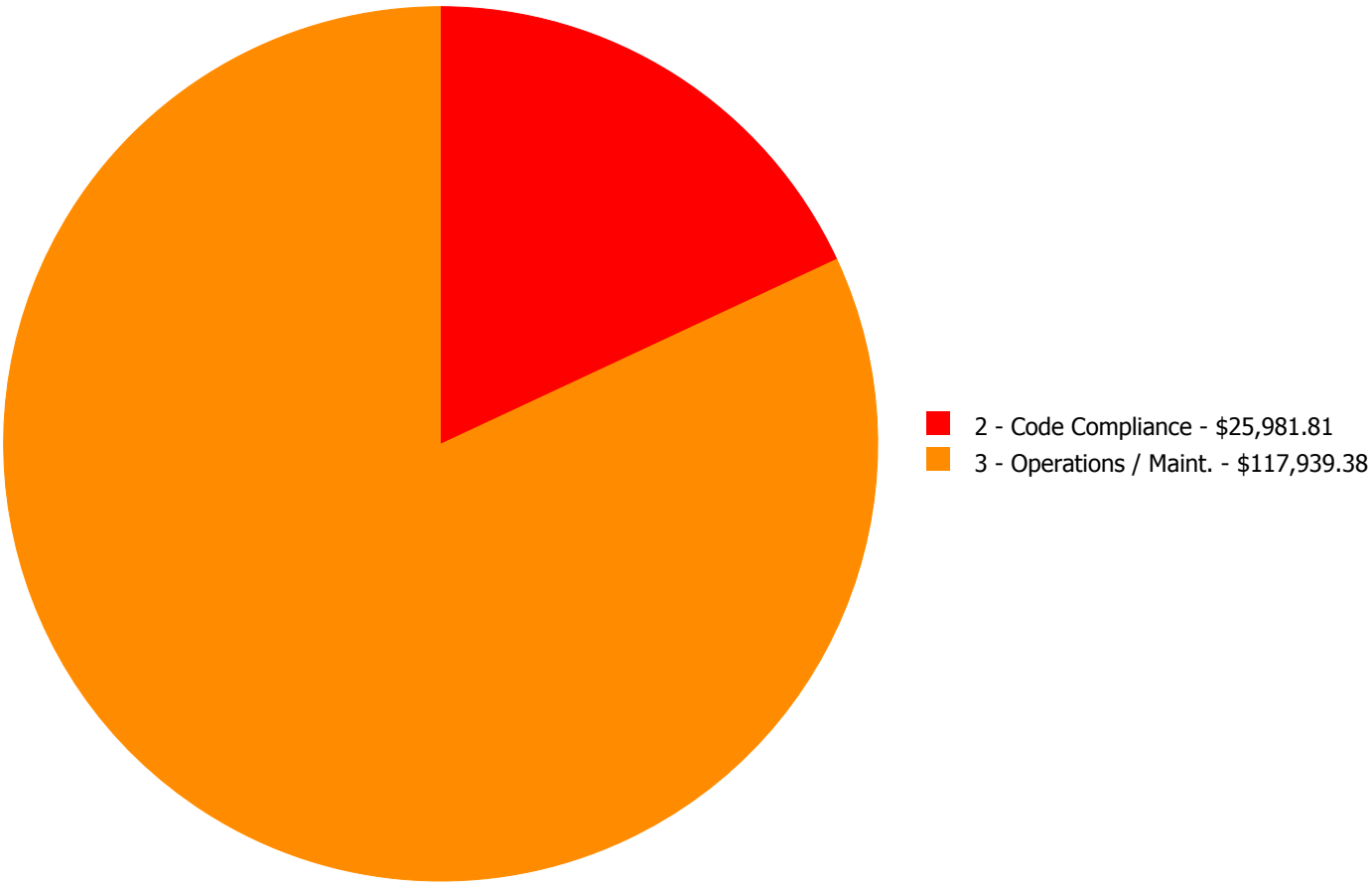
Deficiency By Priority Investment Table

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	$143,921.19	$0.00	$0.00	$143,921.19
	Total:	$0.00	$0.00	$143,921.19	$0.00	$0.00	$143,921.19

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: $143,921.19

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: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 8,200.00

Unit of Measure: S.F.

Estimate: $117,939.38

Assessor Name: Wlodek Pieczonka

Date Created: 01/29/2016

Notes: Repave playground area

System: G2030 - Pedestrian Paving

This deficiency has no image.

Location: Grounds

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Install an exterior ADA ramp - based on 5' wide by the linear foot - up to a 48" rise - per LF of ramp - figure 1 LF per inch of rise

Qty: 20.00

Unit of Measure: L.F.

Estimate: $25,981.81

Assessor Name: Wlodek Pieczonka

Date Created: 01/29/2016

Notes: Provide accessible ramp at the new stairway

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