## 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.*

## Hunter School

| | | | |
|---|---|---|---|
| Governance | DISTRICT | Report Type | Elementarymiddle |
| Address | 2400 N. Front St. | Enrollment | 530 |
| | Philadelphia, Pa 19133 | Grade Range | '00-08' |
| Phone/Fax | 215-291-4710 / 215-291-5177 | Admissions Category | Neighborhood |
| Website | Www.Philasd.Org/Schools/Hunter | 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** | **01.60%** | **$825,146** | **$51,535,234** |
| Building | 00.84 % | $421,517 | $49,904,524 |
| Grounds | 24.75 % | $403,629 | $1,630,710 |

## Major Building Systems

| Building System | System FCI | Repair Costs | Replacement Cost |
|---|---|---|---|
| **Roof** (Shows physical condition of roof) | 03.83 % | $67,764 | $1,768,144 |
| **Exterior Walls** (Shows condition of the structural condition of the exterior facade) | 00.00 % | $0 | $3,635,635 |
| **Windows** (Shows functionality of exterior windows) | 00.00 % | $0 | $1,773,985 |
| **Exterior Doors** (Shows condition of exterior doors) | 00.00 % | $0 | $142,825 |
| **Interior Doors** (Classroom doors) | 00.00 % | $0 | $345,735 |
| **Interior Walls** (Paint and Finishes) | 00.00 % | $0 | $1,655,785 |
| **Plumbing Fixtures** | 00.00 % | $0 | $1,331,720 |
| **Boilers** | 00.00 % | $0 | $1,838,995 |
| **Chillers/Cooling Towers** | 00.00 % | $0 | $2,411,280 |
| **Radiators/Unit Ventilators/HVAC** | 00.00 % | $0 | $4,234,515 |
| **Heating/Cooling Controls** | 00.00 % | $0 | $1,329,750 |
| **Electrical Service and Distribution** | 00.00 % | $0 | $955,450 |
| **Lighting** | 00.00 % | $0 | $3,415,980 |
| **Communications and Security** (Cameras, Pa System and Fire Alarm) | 02.44 % | $31,284 | $1,279,515 |

*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

# S533001;Hunter

Final

## Site Assessment Report

January 31, 2017

PARSONS

# Table of Contents

## Site Executive Summary

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

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

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

| | |
|---|---|
| Gross Area (SF): | 98,500 |
| Year Built: | 2004 |
| Last Renovation: | |
| Replacement Value: | $51,537,204 |
| Repair Cost: | $825,146.12 |
| Total FCI: | 1.60 % |
| Total RSLI: | 72.49 % |

**Description:**

Facility Assessment, August, 2015

**School District of Philadelphia**

**Hunter Elementary School**

**2400-54 N. Front Street**

**Philadelphia, PA 19133**

98,500 SF / 696 Students / LN 05

The Hunter Elementary School building is located at 2400-54 N. Front Street in Philadelphia, PA. The 2 story, 98,500 square foot building was constructed in 2004. The building has a small partial basement.

Mr. Scott Ovington, Facility Area Coordinator provided input to the Parsons assessment team on current problems and planned renovation projects. Mr. John Hall, substitute 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, Dr. Alberto Rivera provided additional information about building condition.

STRUCTURAL/ EXTERIOR CLOSURE:

The building typically rests on concrete spread and strip footings that are not showing signs of settlement or damage. Basement walls are cast-in-place concrete with no signs of moisture penetration.

The main structure is typically concrete columns and steel framing (beams and girders); floors are typically precast concrete planks. The superstructure is generally in very good condition.

The roof structure is a metal deck supported by bar joists and wide flange framing and is typically flat with slopes to roof drains. The central section of the building has steel framed clerestories.

Exterior walls are typically a combination of glazed CMU or face brick over insulated CMU backup (cavity wall), and metal panels over metal girts and studs with gypsum board inner face; in very good condition.

Exterior windows are typically anodized aluminum curtain wall, double insulated units with tilt-in operating sections covered with integral security screens; in good condition.

Exterior doors are typically hollow metal with vision glazing and security screens framed into the curtain wall system; service doors are typically hollow metal in hollow metal frames, in very good condition.

Roofing typically consists of 2 types: modified bitumen over rigid insulation on the flat roofs, and prefinished metal, standing seam roofing over sloped clerestories. All roofing is generally in good condition; however, a central portion of the main roof exhibits several large soft spots which will potentially deteriorate and cause leaks.

INTERIORS:

Partition wall types include painted CMU; glazed, hollow metal store front borrowed light; and drywall; in very good condition. Walls in auditorium theatre are typically CMU and glazed CMU. The interior wall finishes are generally painted drywall and CMU.

Most ceilings are 2x4 suspended acoustical panels; ceiling in gym and clerestories is exposed metal deck, painted. Ceiling in the auditorium theatre is a combination of drywall and acoustic tiles. All ceilings are in very good condition.

Flooring in most areas is generally vinyl composition tile, in very good condition. Flooring in library and principal's office is carpet in poor condition. Gym has resilient sheet flooring in very good condition. Flooring in toilets and kitchen area is typically ceramic tiles in good condition. The ground floor corridors and main lobby are covered with epoxy terrazzo in very good condition.

Interior doors are generally solid core wood doors in hollow metal frames, in good condition. Doors in store front partitions are typically aluminum frame, glazed.

Stairs are generally painted steel with concrete filled metal pan treads.

Interior identifying devices are of modular type directly affixed to wall surfaces.

Toilet partitions are typically phenolic resin panels, ADA compliant, in very good condition, Accessories are in very good condition.

Institutional equipment includes library equipment; stage equipment; A/V equipment; and laboratory equipment; gym equipment – basketball backstops, scoreboards, etc. Other equipment includes kitchen equipment. All equipment is in very good condition.

CONVEYING EQUIPMENT:

The building does have a 3000 lb hydraulic elevator, in good condition.

ACCESSIBILITY:

The building does have accessible entrance and accessible routes. Toilets are generally in compliance with ADA.

GROUNDS (SITE):

There are two parking lots at the site, in good condition. Public parking for 33 vehicles has 2 accessible spaces; staff parking for 44 vehicles has 2 spaces designated as accessible. Compliant accessible signage is in good condition. Stalls striping is faded.

The playground paving on the west side of the building is in good condition; however, protective rubber matting in the kindergarten play area is deteriorated. Original perimeter chain link and picket fences are generally in good condition. The portion of the site is landscaped with trees, shrubs and grass areas, generally in good condition. The trees and shrubs are not fully mature.

PLUMBING:

Plumbing Fixtures - The original plumbing fixtures remain in service. Fixtures in the restrooms on each floor consist of wall mounted flush valve water closets, wall hung urinals and lavatories with both wheel handle and lever faucets. The units appear to be in good condition and should provide reliable service for the next 20-25 years.

Drinking fountains in the corridors and at the restrooms consist of wall hung fixtures with integral refrigerated coolers. They are within their service life; most are accessible type.

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

The Kitchen has six sinks; one three compartment stainless steel sink with lever operated faucets and Salvajor disposal, one two compartment stainless steel sink with lever operated faucets and Salvajor disposal, and four single basin stainless steel sinks with lever operated faucets. There are no grease traps. Chemicals are injected manually into the sanitizing basins.

Domestic Water Distribution - A 4” city water service enters the basement mechanical from the south side of the room. The 3” meter and valves are located in the mechanical room and two reduced pressure backflow preventers are installed in parallel. Duplex 7HP Armstrong domestic pressure booster pumps on an Alyan Pump skid are installed on the domestic water line to ensure adequate pressure throughout the system. The pump system is damaged from rust and should be replaced with a new skid mounted pressure booster system. 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.

Two State Sandblaster 100 gallon vertical domestic hot water heaters with circulating pump and expansion tank provide domestic hot water for the building. Both units are original to the building, are gas fired, and are located in the basement mechanical room. The hot water heaters are equipped with T&P relief valves and an Amtrol expansion tank. The domestic hot water heaters are at the end of their service life and should be replaced in the next 1-3 years. A water softener was located in the basement mechanical room.

Sanitary Waste - The sanitary sewer piping is cast iron with no-hub fittings and is within its service life. The majority of sanitary piping is located under the building slab and within mechanical chases. An 8” sanitary line leaves the building in the basement mechanical room. The maintenance staff reported no problems with the sanitary waste piping systems.

A sewage ejector pit located in the basement mechanical room receives water from the basement area. It has dual 2HP submerged pumps that are original to the building. The system appeared to be in good condition and the pit is sealed.

Rain Water Drainage - Most rain water drains from the roof are routed through mechanical chases in the building and are original. Some drains lead to external rain leaders with aluminum downspouts that run down the side of the building. The system is original to the building and is well within its service life. No issues were reported with the roof drains or rain leaders.

MECHANICAL:

Energy Supply - Two 4” city gas services enter the building from the parking lot adjacent to W. Cumberland Street. The gas meters are 4” and located in the basement mechanical room.

The oil supply is stored in an underground storage tank (UST); the substitute Building Engineer did not know the size of the tank. Duplex pumps located in the basement circulate oil through the system. Oil is used as a backup fuel and the District receives credit from the gas utility as an interruptible service. USTs have an anticipated service life of 20 years. The actual condition of the fuel side is unknown.

Heat Generating Systems - Building heating hot water is generated by two 59HP HB Smith 28A cast iron sectional boilers with gross output of 1,709MBH. 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. Burner oil pumps are loose and not driven by the fan motor. The gas train serving the building does not appear to have code required venting of the regulators and dual solenoid valves with venting of the chamber between. No major issues with the boilers were reported by the Building Engineer. Cast iron boilers have an anticipated service life of 35years or more; these units have been in service 11 years. The District should provide reliable service for the next 20 to 25 years.

Cooling Generating Systems - Chilled water is generated by two York water-cooled rotary screw chillers located in the basement mechanical room. Heat from the chillers is rejected by two roof mounted Evapco LSTA forced draft, counterflow cooling towers. Each chiller operates with an associated cooling tower. One chiller is sufficient to hold the building on normal summer days; two chillers are required on very hot days. Rotary screw compressor chillers have an anticipated service life of 20 years; these units have been in service 11 years. The District should budget for replacing the chillers over the next 8-10 years. Galvanized metal cooling towers have an anticipated service life of 18 years; these units have been in service 11 years. The District should budget for replacing the chillers over the next 6-8 years. The substitute Building Engineer reported no issues with either the chillers or cooling towers.

Distribution Systems - A two pipe, dual temperature distribution system supplies building heating or cooling water to the unit ventilators in classrooms. Two (2) 7.5HP end-suction Bell & Gossett dual temperature supply pumps, P-7 and P-8, circulate building heating or cooling water to the unit ventilators.

A four pipe distribution system supplies building heating and cooling water to the air handling units on all three floors. Heating water is supplied to the heating and ventilation units by the hot water piping. Four (4) 7.5HP end-suction Bell & Gossett heating water supply pumps, P1, P2, P3, and P4, circulate building heating water. An expansion tank, air separator, and chemical treatment are installed on the heating water distribution system. Two (2) small heating water return pumps, P-5 and P-6, are on the return side of the heating water. Four (4) 15HP end-suction Bell & Gossett chilled water return pumps, P-9, P-10, P-11, and P-12, circulate building chilled water. An expansion tank and air separator is installed on the chilled water return side. There are two (2) 15HP chilled water supply pumps; P -13 and P-14.

A two pipe condenser water loop serves the chillers and cooling towers. There are four (4) 10HP end-suction Bell & Gossett condenser water supply pumps; P-15, P-16, P-17, and P-18. Two pumps serve each chiller/cooling tower combination with one pump in operation and the other pump acting as a backup.

All pumps are original to the building, appear to be in good condition, and are within the anticipated service life of 25 years. All main piping is black steel, covered with insulation, and appears to be in good condition. The condenser water piping is not covered with insulation and does not require it. Smaller branch piping is copper and covered in insulation. No problems with the distribution systems were reported.

Twelve (12) York air handling units (AHU) provide heating and cooling to specific spaces within the building. Two heating and ventilation units provide heat and fresh air for the Gymnasium. All AHUs are fed by a four pipe system for building hot and chilled water. AHU-1 serves the kindergarten classrooms and is located in the second floor, north side mechanical room. AHU-2 serves the Cafeteria and is located in the basement mechanical room. AHU-3 serves the administration offices and is located in the mechanical room on the first floor adjacent to the main office. AHU-4serves the first floor lobby and is located in the basement mechanical room. AHU-5 serves the first floor classrooms and corridor and is located in the first floor, south side mechanical room. AHU-6 serves the Auditorium and is located in the second floor south side Mechanical Room 215. AHU-7 serves the music room and is located in the first floor, south side mechanical room. HV-8 and HV-9 provide heating and ventilation for the Gymnasium and are located in the Gymnasium. AHU-10 serves the IMC and is located in the second floor, north side mechanical room. AHU-11 serves the second floor classrooms and corridor and is located in the second floor, south side mechanical room. AHU-12 serves classrooms 213 and 313 and is located in the third floor, south side mechanical room. AHU-13 serves second and third floor classrooms and corridor and is located in the third floor, north side mechanical room. AHU-14 serves third floor corridor and classrooms and is located in the third floor, south side mechanical room. All units were operational during the site visit, are original to the building, and are well within their service life.

One roof mounted Temtrol model WF-RB11 packaged air handling unit provides conditioned air for an unknown space in the building. The substitute Building Engineer did not know which area this unit served.

Unit ventilators provide heating and cooling for some of the classrooms and offices. The unit ventilators are original to the building and are within their service life. Outdoor air for the building is provided by wall openings in the unit ventilators and the air handling units. No major issues were reported with the unit ventilators. Fin tube radiators provide heating for hallways and stairwells. All radiators appeared to be in good condition.

Terminal & Package Units - The building is exhausted by a total of thirty-two (32) roof mounted exhaust fans. The Building Engineer did not report and problems with the exhaust. The exhaust fans remove air from the ceiling plenum above the drop ceiling in some areas, from restrooms, and from the kitchen.

Two Avtec kitchen hoods with integral fire suppression and outdoor air make-up systems are installed above the gas fired cooking equipment. An automatic gas shutoff valve is installed with the kitchen hood equipment. The equipment is well within service life

Controls & Instrumentation

A building management system (BMS) with DDC modules and communications network is installed in this building. The substitute Building Engineer did not know if the BMS, installed when the building was built, is operational as he did not have the necessary log in information to access the system. All major mechanical equipment (chillers, boilers, air handling units, pumps, fans, etc.) should be monitored and controlled by the system. This system is well within its service life and access should be provided to all building engineers.

Sprinklers

The building is equipped with a wet type sprinkler system. An 8" fire water line enters the building in the basement mechanical room along the same wall as the domestic water. A skid mounted 60-HP engine driven 750 gpm Aurora pump ensures adequate pressure throughout the system during a sprinkler discharge. A 50 gallon diesel tank is mounted adjacent to the engine. The fire suppression system is the originally installed equipment and should not need replacement within the next 10 years, but the fire pump is damaged from rust and should be inspected by a qualified contractor.

ELECTRICAL:

Site electrical service - An underground medium voltage (13.2 KV) cable drop from the utility power pole feeds a utility company Dry-type transformer (1000 KVA, 13.2KV – 480V/277V, 3-Phase). The PECO metering (PECO 908 MUC 01 017457201) is located inside the electrical room in the basement. The school's main service switchgear is also located in the main electrical room. The main service 1600 Amp switchgear consists of 1600A (Frame size) adjustable main Breaker, six 600 a frame 480V feeder circuit breakers. They feed the MCC for the HVAC loads, as well as the power & lighting loads. Also a standard automatic PFC capacitor bank is connected to the main distribution switch board. There is a large 100 KW emergency generator for the elevators and other emergency loads. Service entrance and the main building electrical distribution systems are new, in a very good condition (built in 2004), and have ample capacity. No deficiencies were noted.

Distribution system - The electrical distribution is accomplished with two distribution switchboards. Switchboard A feeds the 480/277V distribution panelboard as well as one Motor Control Center (MCC) to feed mechanical loads. Switchboard B feeds the emergency generator auto transfer switch, plus 8 secondary transformers to step down the voltage from 480V to 208/120V for sub-panels. These transformers and panels are located throughout the building. All distribution transformers, panels, etc. are in good condition. The lighting is mainly at 277 V. No major electrical deficiencies were observed during the assessment.

Lighting - The lighting is mainly at 277 V. Interior building is illuminated by various types of architecturally designed fixtures. They include fluorescent lighting (with T8 lamp) in majority of the areas, including; classrooms, corridor, offices and Kitchen. Surface or pendent mounted industrial fluorescent used in mechanical and electrical. Gymnasium is illuminated by metal halide enclosed glass fixture. A centralized lighting control system has been provided for controlling the lighting system. All interior lighting fixtures are in a good condition and building illumination is sufficient. However, the Building Engineer, Mr. John Hall, complained about the 277V used for lighting. He indicated that his crew cannot change the ballast in these lighting fixtures since the 277V requires qualified electricians to perform the work.

Fire alarm - The present Fire Alarm system is fully automatic, addressable, and in compliance with safety code. Smoke is monitored by duct smoke detectors, area smoke detectors in corridors. There are manual pulls stations throughout the building. There are sufficient number of horn/strobes installed in the classrooms, corridors, offices and other areas in the school. No major deficiencies were observed during the assessment.

Telephone/LAN - The school telephone and data systems are new and working adequately. A main distribution frame (MDF) along with a telephone PBX system servicing the communication system 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.

Intercom System and paging - The present Intercom System is functioning correctly. Each class room is provided by with intercom telephone service. The system is permit paging and intercom communication between main office phone to classroom phones, and classroom to main office, classroom to classroom, and to office.

Clock and Program system - Clock and program system are working adequately. Classrooms are provided with 12 inches, wall mounted, round clock. The clocks are controlled by central master control panel. The master control is also programmed for class change.

Television System - Television system is not provided in the school. All 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 numbers of cameras are installed at exit doors, corridors and other critical areas. They are controlled by a Closed Circuit Television system (CCTV). The system is working properly. The Building Engineer mentioned that a few extra cameras can be provided for the dead spaces coverage.

Emergency Power System - School is provided with a 100KW, 480/277V, 3 PH, 4W generator to feed elevators, emergency lighting and other emergency loads via a transfer switch. The generator is fairly new (2004) and in a very good condition.

UPS - Adequate Uninterruptible Power System (UPS) is provided on the IT racks.

Emergency lighting system, including exit lighting - sufficient emergency lighting fixtures is instated in corridors, library and other exit ways. All exit signs are equipped with adequate batteries.

Lightning Protection System - There is adequate lightning protection system installed in the school.

Grounding - The present grounding system is adequate.

Elevator - There is one 75HP hydraulic type elevators provided in the school. The elevator is working properly and no major deficiency observed during the assessment.

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

Site Paging – The present Site paging System is adequate. Sufficient numbers of speaker are located on building exterior walls.

Auditorium lighting and sound system – The auditorium general lighting is adequate. Stage lighting is provided with dimmable and switchable stage work lights. Also, sound system is adequate. No major deficiencies were observed during the assessment.

RECOMMENDATIONS:

- Replace deteriorating portion of BUR on main roof (approximately 2000 SF)
- Replace carpet in library and principal's office
- Restripe parking
- Replace rubber mat in kindergarten play area
- Replace two 100 gallon, gas fired, vertical hot water heaters which are beyond their service life.
- Replace the 7HP duplex domestic water pump system that is damaged from rust with a new skid mounted pressure booster system
- Hire a qualified contractor to inspect the fire pump and repair or replace it as necessary.
- Install 4 additional cameras to cover dead zones

**Attributes:**

**General Attributes:**

| | | | |
|---|---|---|---|
| Active: | Open | Bldg Lot Tm: | Lot 2 / Tm 4 |
| Status: | Accepted by SDP | Team: | Tm 4 |
| Site ID: | S533001 | | |

## 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.

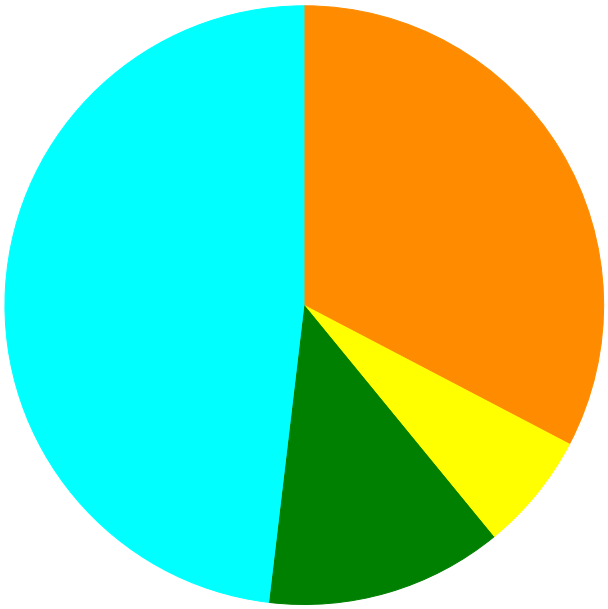
### Current Investment Requirement and Condition by Uniformat Classification

| UNIFORMAT Classification | RSLI% | FCI % | Current Repair |
|---|---|---|---|
| A10 - Foundations | 89.00 % | 0.00 % | $0.00 |
| A20 - Basement Construction | 89.00 % | 0.00 % | $0.00 |
| B10 - Superstructure | 89.00 % | 0.00 % | $0.00 |
| B20 - Exterior Enclosure | 82.88 % | 0.00 % | $0.00 |
| B30 - Roofing | 49.22 % | 3.83 % | $67,764.02 |
| C10 - Interior Construction | 84.54 % | 0.00 % | $0.00 |
| C20 - Stairs | 89.00 % | 0.00 % | $0.00 |
| C30 - Interior Finishes | 71.31 % | 0.74 % | $39,167.67 |
| D10 - Conveying | 68.57 % | 0.00 % | $0.00 |
| D20 - Plumbing | 65.16 % | 6.97 % | $140,161.00 |
| D30 - HVAC | 57.24 % | 0.00 % | $0.00 |
| D40 - Fire Protection | 59.96 % | 18.07 % | $143,140.21 |
| D50 - Electrical | 63.57 % | 0.54 % | $31,283.77 |
| E10 - Equipment | 68.57 % | 0.00 % | $0.00 |
| E20 - Furnishings | 72.50 % | 0.00 % | $0.00 |
| G20 - Site Improvements | 67.36 % | 31.97 % | $403,629.45 |
| G40 - Site Electrical Utilities | 63.33 % | 0.00 % | $0.00 |
| **Totals:** | **72.49 %** | **1.60 %** | **$825,146.12** |

### 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) |
|---|---|---|---|---|---|---|---|
| B533001;Hunter | 98,500 | 0.84 | $0.00 | $269,561.84 | $52,907.04 | $99,047.79 | $0.00 |
| G53301;Grounds | 84,600 | 24.75 | $0.00 | $0.00 | $0.00 | $6,577.24 | $397,052.21 |
| **Total:** | | **1.60** | **$0.00** | **$269,561.84** | **$52,907.04** | **$105,625.03** | **$397,052.21** |

### Deficiencies By Priority




**Budget Estimate Total: $825,146.12**

## 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): | 98,500 |
| Year Built: | 2004 |
| Last Renovation: | |
| Replacement Value: | $49,906,494 |
| Repair Cost: | $421,516.67 |
| Total FCI: | 0.84 % |
| Total RSLI: | 72.69 % |

**Description:**

**Attributes:**

**General Attributes:**

| | | | |
|---|---|---|---|
| Active: | Open | Bldg ID: | B533001 |
| Sewage Ejector: | Yes | Status: | Accepted by SDP |
| Site ID: | S533001 | | |

## 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 | 89.00 % | 0.00 % | $0.00 |
| A20 - Basement Construction | 89.00 % | 0.00 % | $0.00 |
| B10 - Superstructure | 89.00 % | 0.00 % | $0.00 |
| B20 - Exterior Enclosure | 82.88 % | 0.00 % | $0.00 |
| B30 - Roofing | 49.22 % | 3.83 % | $67,764.02 |
| C10 - Interior Construction | 84.54 % | 0.00 % | $0.00 |
| C20 - Stairs | 89.00 % | 0.00 % | $0.00 |
| C30 - Interior Finishes | 71.31 % | 0.74 % | $39,167.67 |
| D10 - Conveying | 68.57 % | 0.00 % | $0.00 |
| D20 - Plumbing | 65.16 % | 6.97 % | $140,161.00 |
| D30 - HVAC | 57.24 % | 0.00 % | $0.00 |
| D40 - Fire Protection | 59.98 % | 18.03 % | $143,140.21 |
| D50 - Electrical | 63.57 % | 0.54 % | $31,283.77 |
| E10 - Equipment | 68.57 % | 0.00 % | $0.00 |
| E20 - Furnishings | 72.50 % | 0.00 % | $0.00 |
| **Totals:** | **72.69 %** | **0.84 %** | **$421,516.67** |

## 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. | 98,500 | 100 | 2004 | 2104 | | 89.00 % | 0.00 % | 89 | | | $1,812,400 |
| A1030 | Slab on Grade | $7.73 | S.F. | 98,500 | 100 | 2004 | 2104 | | 89.00 % | 0.00 % | 89 | | | $761,405 |
| A2010 | Basement Excavation | $6.55 | S.F. | 98,500 | 100 | 2004 | 2104 | | 89.00 % | 0.00 % | 89 | | | $645,175 |
| A2020 | Basement Walls | $12.70 | S.F. | 98,500 | 100 | 2004 | 2104 | | 89.00 % | 0.00 % | 89 | | | $1,250,950 |
| B1010 | Floor Construction | $75.10 | S.F. | 98,500 | 100 | 2004 | 2104 | | 89.00 % | 0.00 % | 89 | | | $7,397,350 |
| B1020 | Roof Construction | $13.88 | S.F. | 98,500 | 100 | 2004 | 2104 | | 89.00 % | 0.00 % | 89 | | | $1,367,180 |
| B2010 | Exterior Walls | $36.91 | S.F. | 98,500 | 100 | 2004 | 2104 | | 89.00 % | 0.00 % | 89 | | | $3,635,635 |
| B2020 | Exterior Windows | $18.01 | S.F. | 98,500 | 40 | 2004 | 2044 | | 72.50 % | 0.00 % | 29 | | | $1,773,985 |
| B2030 | Exterior Doors | $1.45 | S.F. | 98,500 | 25 | 2004 | 2029 | | 56.00 % | 0.00 % | 14 | | | $142,825 |
| B3010105 | Built-Up | $37.76 | S.F. | 35,900 | 20 | 2004 | 2024 | | 45.00 % | 5.00 % | 9 | | $67,764.02 | $1,355,584 |
| B3010120 | Single Ply Membrane | $38.73 | S.F. | | 20 | | | | 0.00 % | 0.00 % | | | | $0 |
| B3010130 | Preformed Metal Roofing | $54.22 | S.F. | 7,500 | 30 | 2004 | 2034 | | 63.33 % | 0.00 % | 19 | | | $406,650 |
| B3010140 | Shingle & Tile | $38.73 | S.F. | | 25 | | | | 0.00 % | 0.00 % | | | | $0 |
| B3020 | Roof Openings | $0.06 | S.F. | 98,500 | 20 | 2004 | 2024 | | 45.00 % | 0.00 % | 9 | | | $5,910 |
| C1010 | Partitions | $17.91 | S.F. | 98,500 | 100 | 2004 | 2104 | | 89.00 % | 0.00 % | 89 | | | $1,764,135 |
| C1020 | Interior Doors | $3.51 | S.F. | 98,500 | 40 | 2004 | 2044 | | 72.50 % | 0.00 % | 29 | | | $345,735 |
| C1030 | Fittings | $3.12 | S.F. | 98,500 | 40 | 2004 | 2044 | | 72.50 % | 0.00 % | 29 | | | $307,320 |
| C2010 | Stair Construction | $1.41 | S.F. | 98,500 | 100 | 2004 | 2104 | | 89.00 % | 0.00 % | 89 | | | $138,885 |

# Site Assessment Report - B533001;Hunter

| 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. | 98,500 | 10 | 2004 | 2014 | 2027 | 120.00 % | 0.00 % | 12 | | | $1,301,185 |
| C3010231 | Vinyl Wall Covering | $0.97 | S.F. | 98,500 | 15 | | | | 0.00 % | 0.00 % | | | | $95,545 |
| C3010232 | Wall Tile | $2.63 | S.F. | 98,500 | 30 | | | | 0.00 % | 0.00 % | | | | $259,055 |
| C3020411 | Carpet | $7.30 | S.F. | 3,500 | 10 | 2004 | 2014 | 2027 | 120.00 % | 153.30 % | 12 | | $39,167.67 | $25,550 |
| C3020412 | Terrazzo & Tile | $75.52 | S.F. | 13,400 | 50 | 2004 | 2054 | | 78.00 % | 0.00 % | 39 | | | $1,011,968 |
| C3020413 | Vinyl Flooring | $9.68 | S.F. | 56,900 | 20 | 2004 | 2024 | | 45.00 % | 0.00 % | 9 | | | $550,792 |
| C3020414 | Wood Flooring | $22.27 | S.F. | | 25 | | | | 0.00 % | 0.00 % | | | | $0 |
| C3020415 | Concrete Floor Finishes | $0.97 | S.F. | 5,000 | 50 | 2004 | 2054 | | 78.00 % | 0.00 % | 39 | | | $4,850 |
| C3030 | Ceiling Finishes | $20.97 | S.F. | 98,500 | 25 | 2004 | 2029 | | 56.00 % | 0.00 % | 14 | | | $2,065,545 |
| D1010 | Elevators and Lifts | $1.53 | S.F. | 98,500 | 35 | 2004 | 2039 | | 68.57 % | 0.00 % | 24 | | | $150,705 |
| D2010 | Plumbing Fixtures | $13.52 | S.F. | 98,500 | 35 | 2004 | 2039 | | 68.57 % | 0.00 % | 24 | | | $1,331,720 |
| D2020 | Domestic Water Distribution | $1.68 | S.F. | 98,500 | 25 | 2004 | 2029 | | 56.00 % | 84.70 % | 14 | | $140,161.00 | $165,480 |
| D2030 | Sanitary Waste | $2.90 | S.F. | 98,500 | 25 | 2004 | 2029 | | 56.00 % | 0.00 % | 14 | | | $285,650 |
| D2040 | Rain Water Drainage | $2.32 | S.F. | 98,500 | 30 | 2004 | 2034 | | 63.33 % | 0.00 % | 19 | | | $228,520 |
| D3020 | Heat Generating Systems | $18.67 | S.F. | 98,500 | 35 | 2004 | 2039 | | 68.57 % | 0.00 % | 24 | | | $1,838,995 |
| D3030 | Cooling Generating Systems | $24.48 | S.F. | 98,500 | 30 | 2004 | 2034 | | 63.33 % | 0.00 % | 19 | | | $2,411,280 |
| D3040 | Distribution Systems | $42.99 | S.F. | 98,500 | 25 | 2004 | 2029 | | 56.00 % | 0.00 % | 14 | | | $4,234,515 |
| D3050 | Terminal & Package Units | $11.60 | S.F. | 98,500 | 20 | 2004 | 2024 | | 45.00 % | 0.00 % | 9 | | | $1,142,600 |
| D3060 | Controls & Instrumentation | $13.50 | S.F. | 98,500 | 20 | 2004 | 2024 | | 45.00 % | 0.00 % | 9 | | | $1,329,750 |
| D4010 | Sprinklers | $7.05 | S.F. | 98,500 | 35 | 2004 | 2039 | | 68.57 % | 20.67 % | 24 | | $143,140.21 | $694,425 |
| D4020 | Standpipes | $1.01 | S.F. | 98,500 | 35 | | | | 0.00 % | 0.00 % | | | | $99,485 |
| D5010 | Electrical Service/Distribution | $9.70 | S.F. | 98,500 | 30 | 2004 | 2034 | | 63.33 % | 0.00 % | 19 | | | $955,450 |
| D5020 | Lighting and Branch Wiring | $34.68 | S.F. | 98,500 | 20 | 2004 | 2024 | | 45.00 % | 0.00 % | 9 | | | $3,415,980 |
| D5030 | Communications and Security | $12.99 | S.F. | 98,500 | 15 | 2004 | 2019 | 2032 | 113.33 % | 2.44 % | 17 | | $31,283.77 | $1,279,515 |
| D5090 | Other Electrical Systems | $1.41 | S.F. | 98,500 | 30 | 2004 | 2034 | | 63.33 % | 0.00 % | 19 | | | $138,885 |
| E1020 | Institutional Equipment | $4.82 | S.F. | 98,500 | 35 | 2004 | 2039 | | 68.57 % | 0.00 % | 24 | | | $474,770 |
| E1090 | Other Equipment | $11.10 | S.F. | 98,500 | 35 | 2004 | 2039 | | 68.57 % | 0.00 % | 24 | | | $1,093,350 |
| E2010 | Fixed Furnishings | $2.13 | S.F. | 98,500 | 40 | 2004 | 2044 | | 72.50 % | 0.00 % | 29 | | | $209,805 |
| | | | | | | | | **Total** | **72.69 %** | **0.84 %** | | | **$421,516.67** | **$49,906,494** |

## 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 72%
Terrazzo 7%
Ceramic tile 10%
Carpet 5%
Concrete 6%

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

**Note:** ACT 60%
Exposed/ drywall 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:** | **$421,517** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$11,195,837** | **$0** | **$11,617,354** |
| *** A - Substructure** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **A10 - Foundations** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **A1010 - Standard Foundations** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **A1030 - Slab on Grade** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **A20 - Basement Construction** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **A2010 - Basement Excavation** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **A2020 - Basement Walls** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **B - Shell** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **B10 - Superstructure** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **B1010 - Floor Construction** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **B1020 - Roof Construction** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **B20 - Exterior Enclosure** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **B2010 - Exterior Walls** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **B2020 - Exterior Windows** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **B2030 - Exterior Doors** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **B30 - Roofing** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **B3010 - Roof Coverings** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **B3010105 - Built-Up** | $67,764 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $1,945,602 | $0 | **$2,013,366** |
| **B3010120 - Single Ply Membrane** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **B3010130 - Preformed Metal Roofing** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **B3010140 - Shingle & Tile** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **B3020 - Roof Openings** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $8,482 | $0 | **$8,482** |
| **C - Interiors** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **C10 - Interior Construction** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **C1010 - Partitions** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |

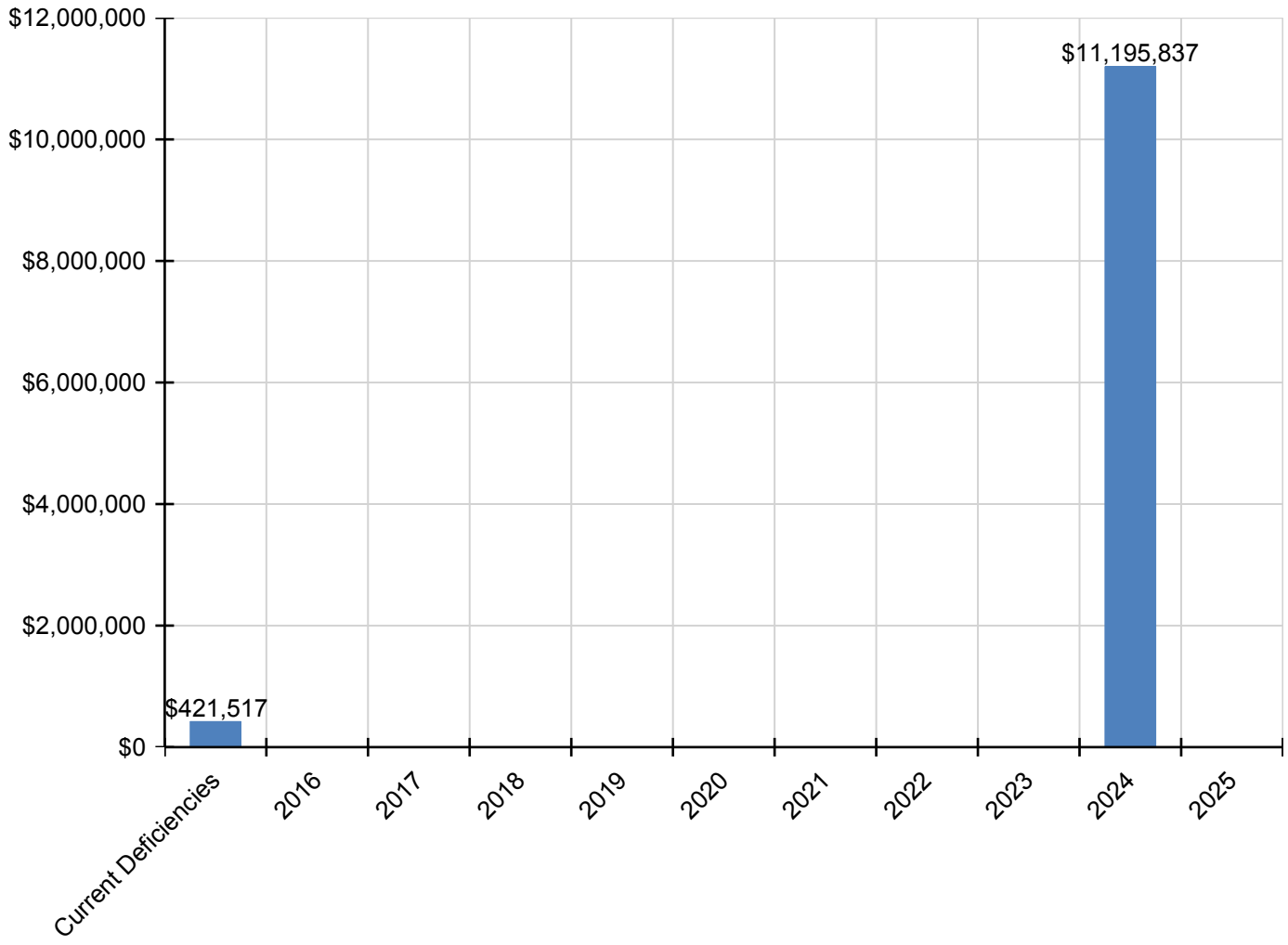
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C1020 - Interior Doors** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **C1030 - Fittings** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **C20 - Stairs** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **C2010 - Stair Construction** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **C30 - Interior Finishes** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **C3010 - Wall Finishes** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **C3010230 - Paint & Covering** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **C3010231 - Vinyl Wall Covering** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **C3010232 - Wall Tile** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **C3020 - Floor Finishes** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **C3020411 - Carpet** | $39,168 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$39,168** |
| **C3020412 - Terrazzo & Tile** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **C3020413 - Vinyl Flooring** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $790,524 | $0 | **$790,524** |
| **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** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **D - Services** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **D10 - Conveying** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **D1010 - Elevators and Lifts** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **D20 - Plumbing** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **D2010 - Plumbing Fixtures** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **D2020 - Domestic Water Distribution** | $140,161 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$140,161** |
| **D2030 - Sanitary Waste** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **D2040 - Rain Water Drainage** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **D30 - HVAC** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **D3020 - Heat Generating Systems** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **D3030 - Cooling Generating Systems** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **D3040 - Distribution Systems** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **D3050 - Terminal & Package Units** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $1,639,917 | $0 | **$1,639,917** |
| **D3060 - Controls & Instrumentation** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $1,908,524 | $0 | **$1,908,524** |
| **D40 - Fire Protection** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **D4010 - Sprinklers** | $143,140 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$143,140** |
| **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 | $4,902,787 | $0 | **$4,902,787** |
| **D5030 - Communications and Security** | $31,284 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$31,284** |
| **D5090 - Other Electrical Systems** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **E - Equipment & Furnishings** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **E10 - Equipment** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **E1020 - Institutional Equipment** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **E1090 - Other Equipment** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **E20 - Furnishings** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **E2010 - Fixed Furnishings** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |

** Indicates non-renewable system*

## Forecasted Sustainment Requirement

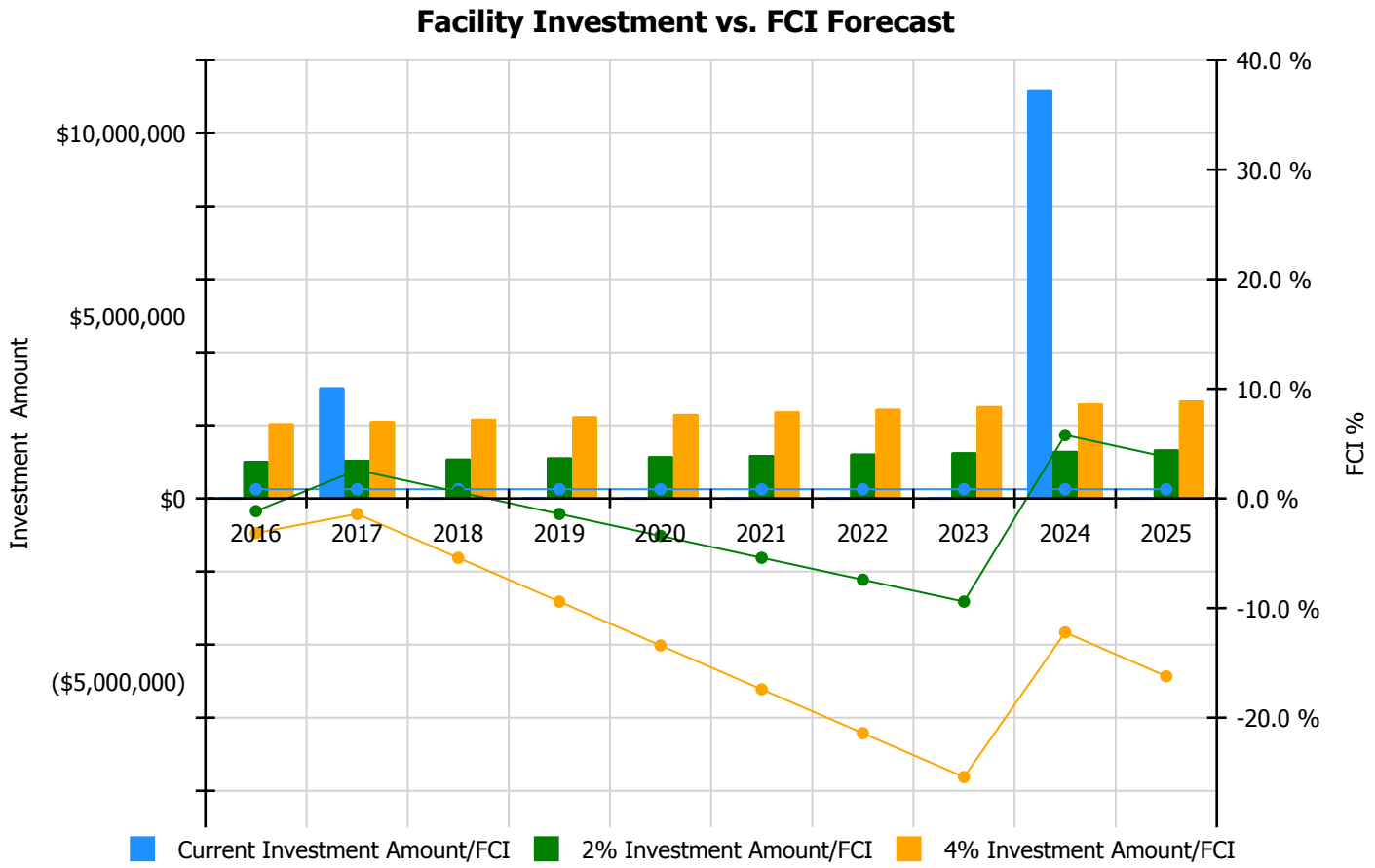
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



## 10 Year FCI Forecast by Investment Scenario

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

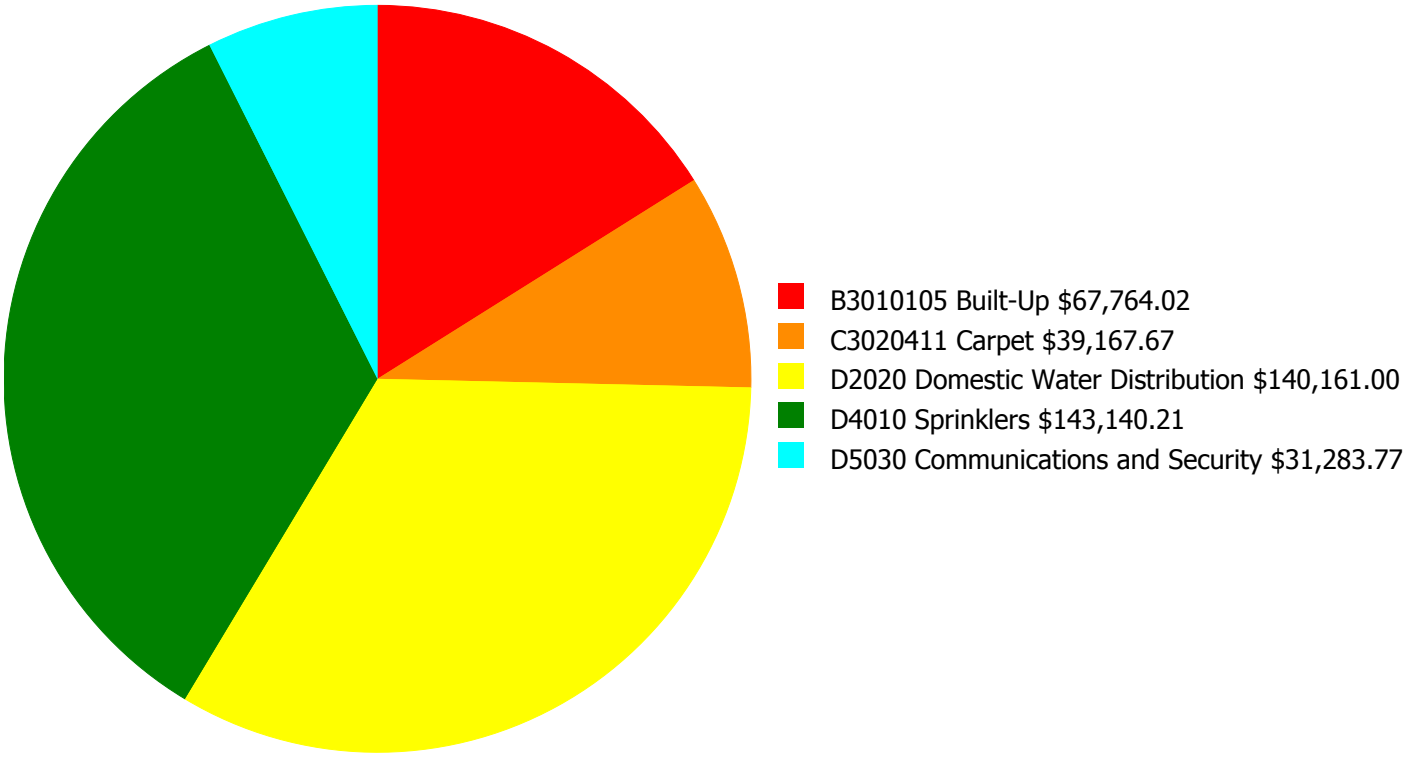
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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




| Year | Investment Amount Current FCI - 0.84% | 2% Investment | | 4% Investment | |
|---|---|---|---|---|---|
| | | Amount | FCI | Amount | FCI |
| 2016 | $0 | $1,028,074.00 | -1.16 % | $2,056,148.00 | -3.16 % |
| 2017 | $3,041,469 | $1,058,916.00 | 2.59 % | $2,117,832.00 | -1.41 % |
| 2018 | $0 | $1,090,683.00 | 0.59 % | $2,181,367.00 | -5.41 % |
| 2019 | $0 | $1,123,404.00 | -1.41 % | $2,246,808.00 | -9.41 % |
| 2020 | $0 | $1,157,106.00 | -3.41 % | $2,314,212.00 | -13.41 % |
| 2021 | $0 | $1,191,819.00 | -5.41 % | $2,383,639.00 | -17.41 % |
| 2022 | $0 | $1,227,574.00 | -7.41 % | $2,455,148.00 | -21.41 % |
| 2023 | $0 | $1,264,401.00 | -9.41 % | $2,528,802.00 | -25.41 % |
| 2024 | $11,195,837 | $1,302,333.00 | 5.78 % | $2,604,666.00 | -12.22 % |
| 2025 | $0 | $1,341,403.00 | 3.78 % | $2,682,806.00 | -16.22 % |
| **Total:** | **$14,237,306** | **$11,785,713.00** | | **$23,571,428.00** | |

## Deficiency Summary by System

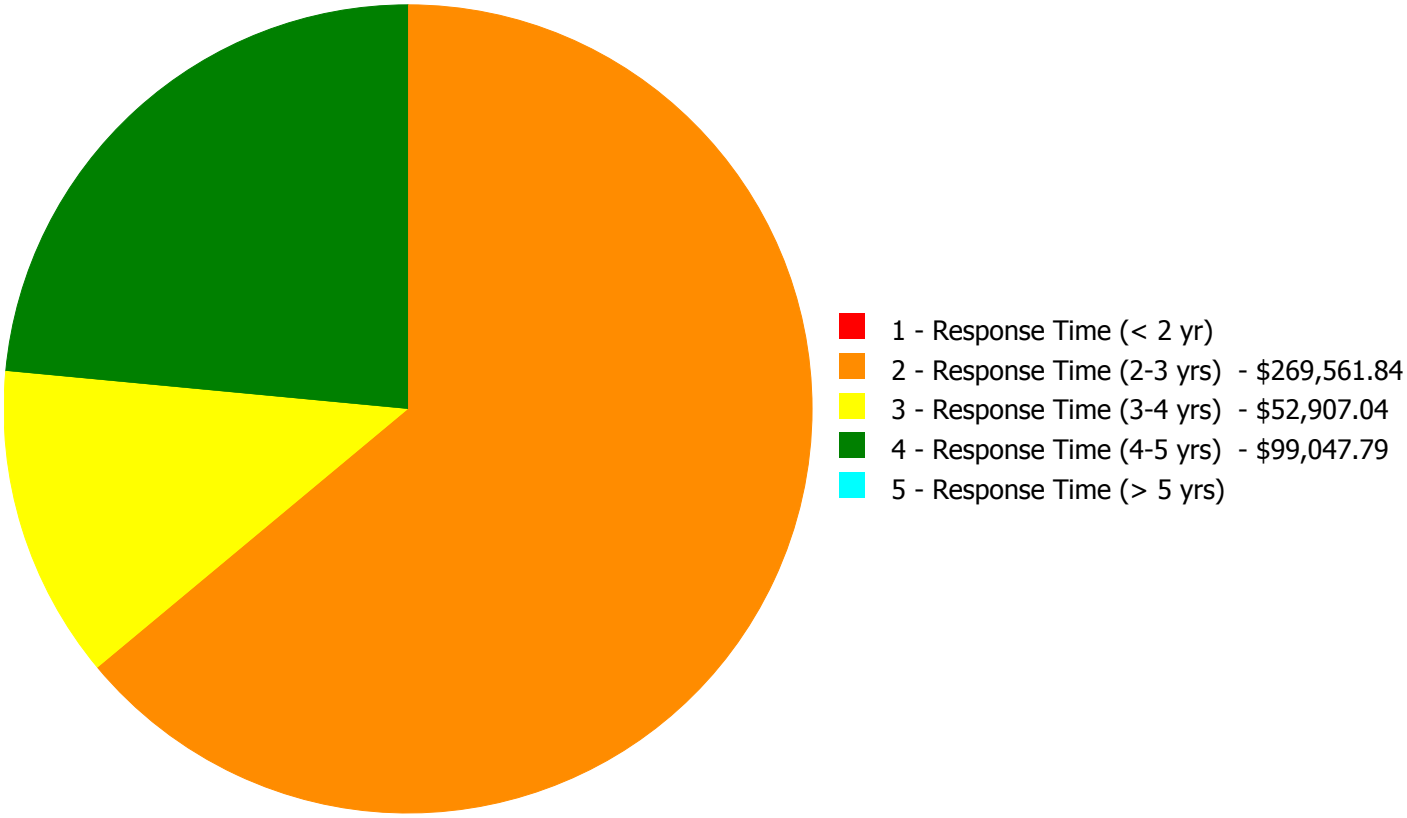
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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




**Budget Estimate Total: $421,516.67**

## 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: $421,516.67**

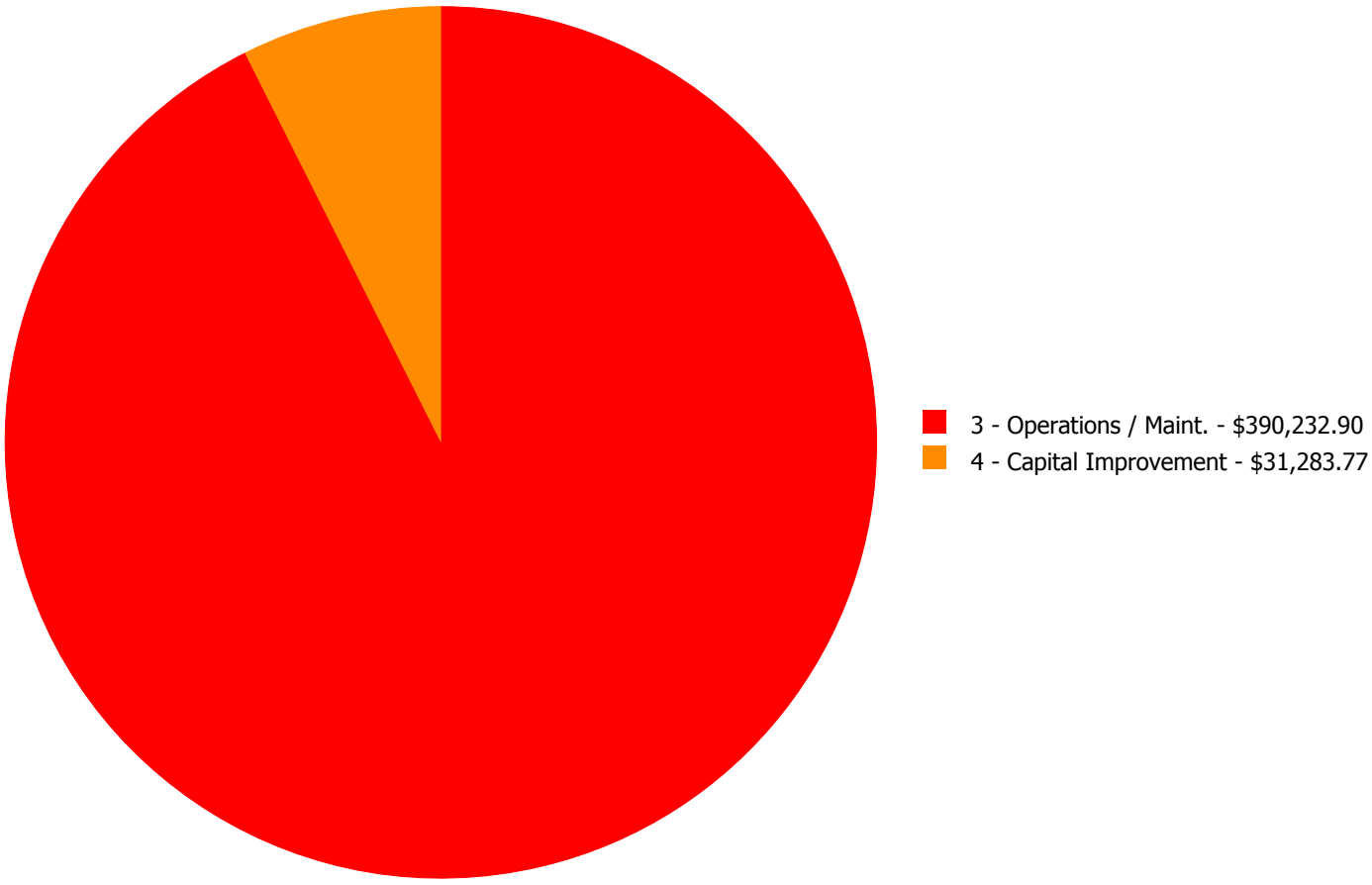
## Deficiency By Priority Investment Table

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 |
|---|---|---|---|---|---|---|---|
| B3010105 | Built-Up | $0.00 | $0.00 | $0.00 | $67,764.02 | $0.00 | $67,764.02 |
| C3020411 | Carpet | $0.00 | $39,167.67 | $0.00 | $0.00 | $0.00 | $39,167.67 |
| D2020 | Domestic Water Distribution | $0.00 | $87,253.96 | $52,907.04 | $0.00 | $0.00 | $140,161.00 |
| D4010 | Sprinklers | $0.00 | $143,140.21 | $0.00 | $0.00 | $0.00 | $143,140.21 |
| D5030 | Communications and Security | $0.00 | $0.00 | $0.00 | $31,283.77 | $0.00 | $31,283.77 |
| | **Total:** | $0.00 | $269,561.84 | $52,907.04 | $99,047.79 | $0.00 | $421,516.67 |

## 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:



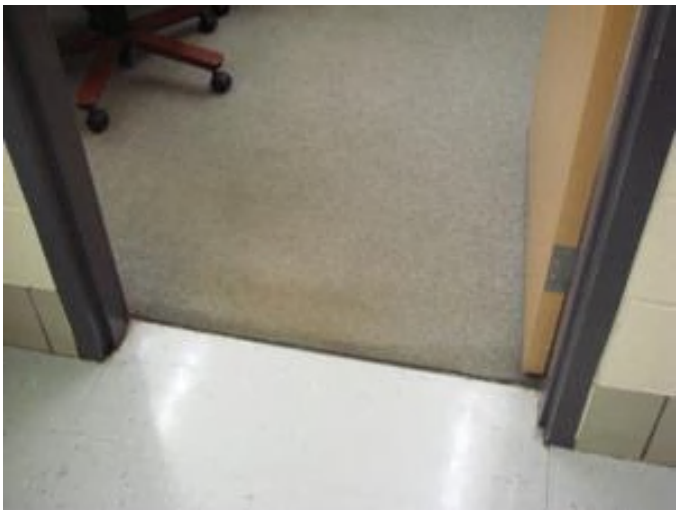

**Budget Estimate Total: $421,516.67**

## Deficiency Details by Priority

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

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

**System: C3020411 - Carpet**



**Location:** Interior
**Distress:** Beyond Service Life
**Category:** 3 - Operations / Maint.
**Priority:** 2 - Response Time (2-3 yrs)
**Correction:** Remove and replace carpet
**Qty:** 3,500.00
**Unit of Measure:** S.F.
**Estimate:** $39,167.67
**Assessor Name:** Ben Nixon
**Date Created:** 11/25/2015

**Notes:** Replace carpet in library and principal's office

**System: D2020 - Domestic Water Distribution**

**Location:** Basement mechanical room
**Distress:** Beyond Service Life
**Category:** 3 - Operations / Maint.
**Priority:** 2 - Response Time (2-3 yrs)
**Correction:** Replace instantaneous water heater
**Qty:** 2.00
**Unit of Measure:** Ea.
**Estimate:** $87,253.96
**Assessor Name:** Ben Nixon
**Date Created:** 09/16/2015

**Notes:** Replace two 100 gallon, gas fired, vertical hot water heaters which are beyond their service life.

**System: D4010 - Sprinklers**

**Location:** Basement mechanical room

**Distress:** Maintenance Required

**Category:** 3 - Operations / Maint.

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

**Correction:** Replace combustion engine fire pump - 5" pipe size - 750 GPM

**Qty:** 1.00

**Unit of Measure:** Ea.

**Estimate:** $143,140.21

**Assessor Name:** Ben Nixon

**Date Created:** 09/16/2015

**Notes:** Hire a qualified contractor to inspect the fire pump and repair or replace it as necessary. Correction cost to replace fire pump attached as a placeholder.

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

**System: D2020 - Domestic Water Distribution**

**Location:** Basement mechanical room

**Distress:** Damaged

**Category:** 3 - Operations / Maint.

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

**Correction:** Replace duplex domestic booster pump set (5 HP)

**Qty:** 1.00

**Unit of Measure:** Ea.

**Estimate:** $52,907.04

**Assessor Name:** Ben Nixon

**Date Created:** 09/16/2015

**Notes:** Replace the 7HP duplex domestic water pump system that is damaged from rust with a new skid mounted pressure booster system

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

**System: B3010105 - Built-Up**

**Location:** Exterior
**Distress:** Beyond Service Life
**Category:** 3 - Operations / Maint.
**Priority:** 4 - Response Time (4-5 yrs)
**Correction:** Remove and Replace Built Up Roof
**Qty:** 2,000.00
**Unit of Measure:** S.F.
**Estimate:** $67,764.02
**Assessor Name:** Ben Nixon
**Date Created:** 11/25/2015

**Notes:** Replace deteriorating portion of BUR on main roof (approximately 2000 SF)

**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 Video Surveillance System
**Qty:** 1.00
**Unit of Measure:** Ea.
**Estimate:** $31,283.77
**Assessor Name:** Ben Nixon
**Date Created:** 11/25/2015

**Notes:** Install 4 additional cameras to cover the dead zones.

## 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D1010 Elevators and Lifts | Hydraulic, passenger elevator, 2500 lb, 5 floors, 100 FPM | 1.00 | Ea. | building interior | | | | | 30 | 2004 | 2034 | $142,170.00 | $156,387.00 |
| D2020 Domestic Water Distribution | Pump, pressure booster system, 7-1/2 HP pump, includes diaphragm tank, control and pressure switch | 2.00 | Ea. | Basement Mechanical Room | Armstrong | 15X1X6 4280 | 472344 | | 25 | 2004 | 2029 | $12,198.00 | $26,835.60 |
| D2020 Domestic Water Distribution | Pump, pressure booster system, 7-1/2 HP pump, includes diaphragm tank, control and pressure switch | 2.00 | Ea. | Basement Mechanical Room | Armstrong | 15X1X6 4280 | 472343 | | 25 | 2004 | 2029 | $12,198.00 | $26,835.60 |
| D3020 Heat Generating Systems | Boiler, gas/oil combination, cast iron, steam, gross output, 2040 MBH, includes burners, controls and insulated jacket, packaged | 2.00 | Ea. | Basement Mechanical Room | HB Smith | 28A-S/W-08 | N2002-1427 | | 35 | 2004 | 2039 | $43,116.20 | $94,855.64 |
| D3020 Heat Generating Systems | Boiler, gas/oil combination, cast iron, steam, gross output, 2040 MBH, includes burners, controls and insulated jacket, packaged | 2.00 | Ea. | Basement Mechanical Room | HB Smith | 28A-S/W-08 | N2002-1429 | | 35 | 2004 | 2039 | $43,116.20 | $94,855.64 |
| D3030 Cooling Generating Systems | Cooling tower, packaged unit, galvanized steel, blow through, centrifugal type, 300 ton, includes standard controls, excludes pumps and piping | 2.00 | Ea. | Roof | Evapco | LSTA 8P-123 | T011485 | | 18 | 2004 | 2022 | $48,387.90 | $106,453.38 |
| D3030 Cooling Generating Systems | Cooling tower, packaged unit, galvanized steel, blow through, centrifugal type, 300 ton, includes standard controls, excludes pumps and piping | 2.00 | Ea. | Roof | Evapco | LSTA 8P-123 | T011486 | | 18 | 2004 | 2022 | $48,387.90 | $106,453.38 |
| D3030 Cooling Generating Systems | Water chiller, screw liquid chiller, packaged unit, water cooled, 250 ton, includes standard controls, excludes water tower | 2.00 | Ea. | Basement Mechanical Room | York | YS | | | 20 | 2004 | 2024 | $136,570.50 | $300,455.10 |
| D3030 Cooling Generating Systems | Water chiller, screw liquid chiller, packaged unit, water cooled, 250 ton, includes standard controls, excludes water tower | 2.00 | Ea. | Basement Mechanical Room | York | YS | | | 20 | 2004 | 2024 | $136,570.50 | $300,455.10 |
| D3040 Distribution Systems | Pump, circulating, cast iron, base mounted, coupling guard, bronze impeller, flanged joints, 10 H.P., to 600 GPM, 5" size | 4.00 | Ea. | Basement Mechanical Room | Bell & Gossett | 1510 5BC | CP1077-01 | | 25 | 2004 | 2029 | $19,608.00 | $86,275.20 |
| D3040 Distribution Systems | Pump, circulating, cast iron, base mounted, coupling guard, bronze impeller, flanged joints, 10 H.P., to 600 GPM, 5" size | 4.00 | Ea. | Basement Mechanical Room | Bell & Gossett | 1510 5BC | CP1077-03 | | 25 | 2004 | 2029 | $19,608.00 | $86,275.20 |
| D3040 Distribution Systems | Pump, circulating, cast iron, base mounted, coupling guard, bronze impeller, flanged joints, 10 H.P., to 600 GPM, 5" size | 4.00 | Ea. | Basement Mechanical Room | Bell & Gossett | 1510 5BC | CP1077-02 | | 25 | 2004 | 2029 | $19,608.00 | $86,275.20 |
| D3040 Distribution Systems | Pump, circulating, cast iron, base mounted, coupling guard, bronze impeller, flanged joints, 10 H.P., to 600 GPM, 5" size | 4.00 | Ea. | Basement Mechanical Room | Bell & Gossett | 1510 5BC | CP1077-04 | | 25 | 2004 | 2029 | $19,608.00 | $86,275.20 |
| D3040 Distribution Systems | Pump, circulating, cast iron, base mounted, coupling guard, bronze impeller, flanged joints, 15 H.P., to 1000 GPM, 5" size | 6.00 | Ea. | Basement Mechanical Room | Bell & Gossett | 1510 4BC | CP1075-01 | | 25 | 2004 | 2029 | $21,432.00 | $141,451.20 |
| D3040 Distribution Systems | Pump, circulating, cast iron, base mounted, coupling guard, bronze impeller, flanged joints, 15 H.P., to 1000 GPM, 5" size | 6.00 | Ea. | Basement Mechanical Room | Bell & Gossett | 1510 4BC | CP1076-01 | | 25 | 2004 | 2029 | $21,432.00 | $141,451.20 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D3040 Distribution Systems | Pump, circulating, cast iron, base mounted, coupling guard, bronze impeller, flanged joints, 15 H.P., to 1000 GPM, 5" size | 6.00 | Ea. | Basement Mechanical Room | Bell & Gossett | 1510 4BC | CP1076-02 | | 25 | 2004 | 2029 | $21,432.00 | $141,451.20 |
| D3040 Distribution Systems | Pump, circulating, cast iron, base mounted, coupling guard, bronze impeller, flanged joints, 15 H.P., to 1000 GPM, 5" size | 6.00 | Ea. | Basement Mechanical Room | Bell & Gossett | 1510 4BC | CP1075-04 | | 25 | 2004 | 2029 | $21,432.00 | $141,451.20 |
| D3040 Distribution Systems | Pump, circulating, cast iron, base mounted, coupling guard, bronze impeller, flanged joints, 15 H.P., to 1000 GPM, 5" size | 6.00 | Ea. | Basement Mechanical Room | Bell & Gossett | 1510 4BC | CP1075-03 | | 25 | 2004 | 2029 | $21,432.00 | $141,451.20 |
| D3040 Distribution Systems | Pump, circulating, cast iron, base mounted, coupling guard, bronze impeller, flanged joints, 15 H.P., to 1000 GPM, 5" size | 6.00 | Ea. | Basement Mechanical Room | Bell & Gossett | 1510 4BC | CP1075-02 | | 25 | 2004 | 2029 | $21,432.00 | $141,451.20 |
| D5010 Electrical Service/Distribution | Switchboards, distribution section, aluminum bus bars, 4 W, 120/208 or 277/480 V, 4000 amp, excl breakers | 1.00 | Ea. | electrical room | | | | | 30 | 2004 | 2034 | $14,655.60 | $16,121.16 |
| D5090 Other Electrical Systems | Generator set, diesel, 3 phase 4 wire, 277/480 V, 125 kW, incl battery, charger, muffler, & day tank, excl conduit, wiring, & concrete | 1.00 | Ea. | electrical room | | | | | 30 | 2004 | 2034 | $50,797.80 | $55,877.58 |
| | | | | | | | | | | | | **Total:** | **$2,479,393.18** |

## 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): | 84,600 |
| Year Built: | 2008 |
| Last Renovation: | |
| Replacement Value: | $1,630,710 |
| Repair Cost: | $403,629.45 |
| Total FCI: | 24.75 % |
| Total RSLI: | 66.45 % |

**Description:**

**Attributes:**

**General Attributes:**

| | | | |
|---|---|---|---|
| Bldg ID: | S533001 | Site ID: | S533001 |

## 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 | 67.36 % | 31.97 % | $403,629.45 |
| G40 - Site Electrical Utilities | 63.33 % | 0.00 % | $0.00 |
| **Totals:** | **66.45 %** | **24.75 %** | **$403,629.45** |

## 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 | $7.65 | S.F. | 38,200 | 30 | 2004 | 2034 | | 63.33 % | 2.25 % | 19 | | $6,577.24 | $292,230 |
| G2030 | Pedestrian Paving | $11.52 | S.F. | 47,400 | 40 | 2004 | 2044 | | 72.50 % | 0.00 % | 29 | | | $546,048 |
| G2040 | Site Development | $4.36 | S.F. | 84,600 | 25 | 2004 | 2029 | | 56.00 % | 107.64 % | 14 | | $397,052.21 | $368,856 |
| G2050 | Landscaping & Irrigation | $3.78 | S.F. | 14,700 | 15 | 2004 | 2019 | 2032 | 113.33 % | 0.00 % | 17 | | | $55,566 |
| G4020 | Site Lighting | $3.58 | S.F. | 84,600 | 30 | 2004 | 2034 | 2034 | 63.33 % | 0.00 % | 19 | | | $302,868 |
| G4030 | Site Communications & Security | $0.77 | S.F. | 84,600 | 30 | 2004 | 2034 | 2034 | 63.33 % | 0.00 % | 19 | | | $65,142 |
| | | | | | | | | **Total** | **66.45 %** | **24.75 %** | | | **$403,629.45** | **$1,630,710** |

## 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.

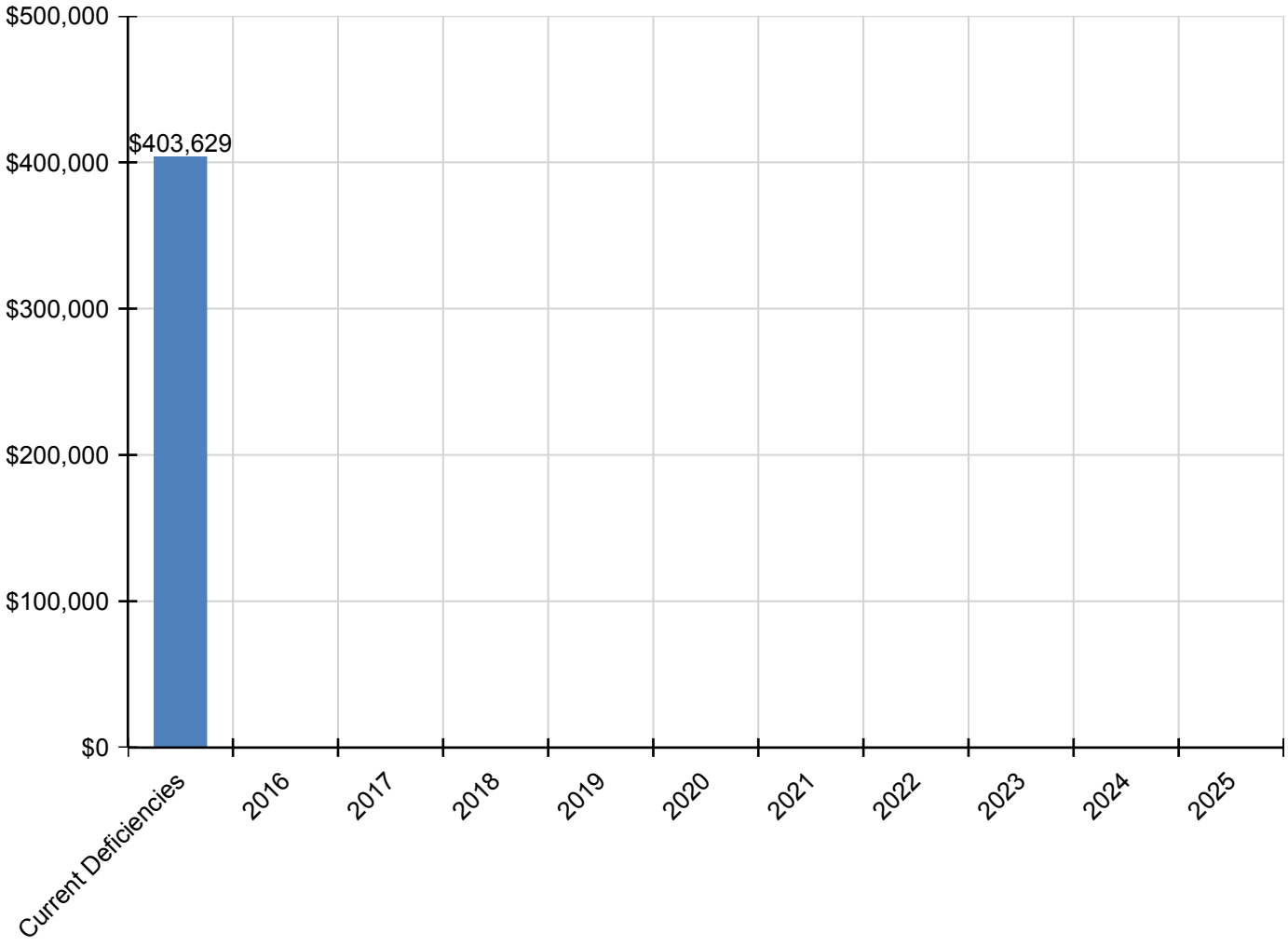
*Inflation Rate: 3%*

| System | Current Deficiencies | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total:** | **$403,629** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$403,629** |
| **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** | $6,577 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$6,577** |
| **G2030 - Pedestrian Paving** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **G2040 - Site Development** | $397,052 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$397,052** |
| **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

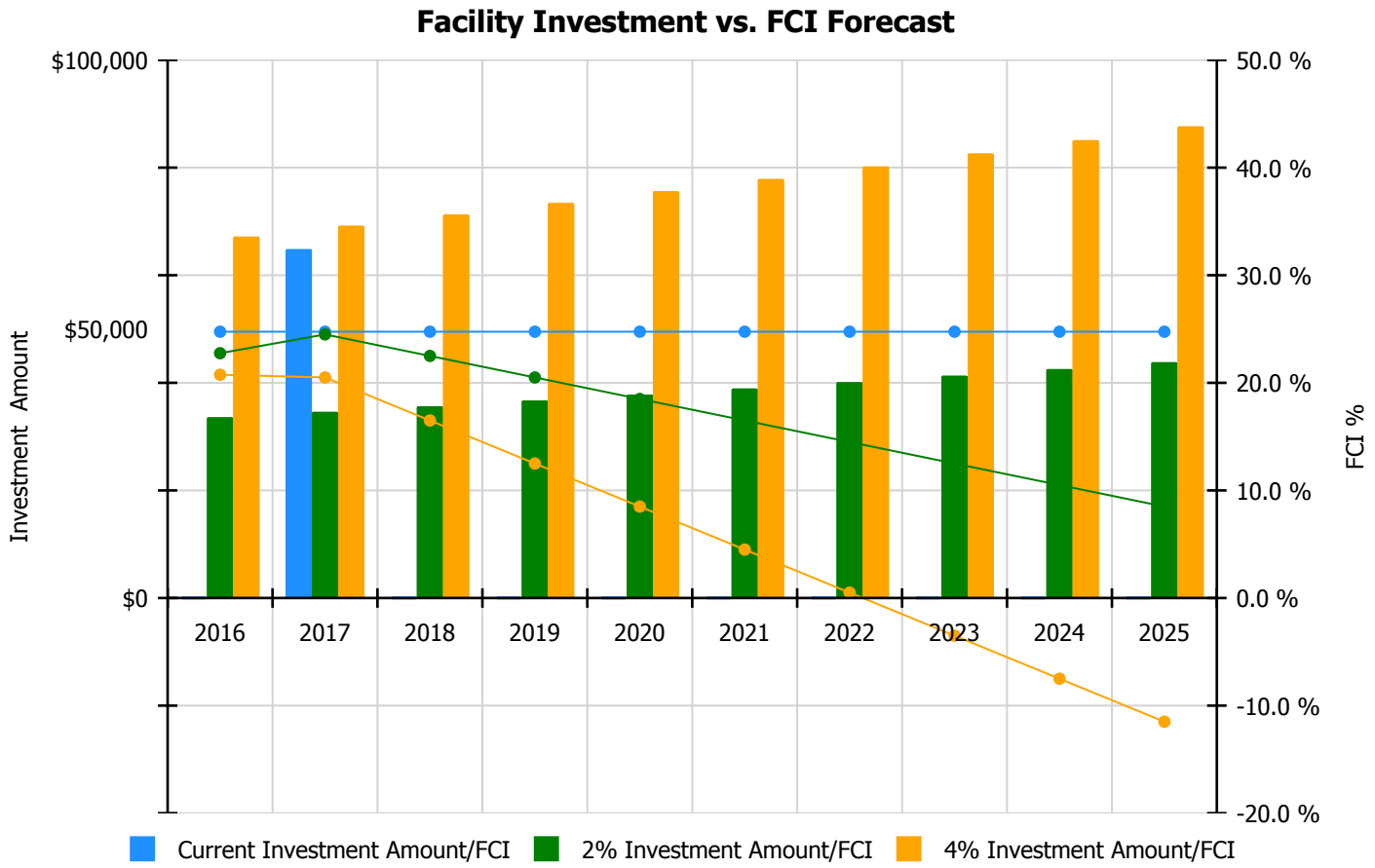
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



## 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:

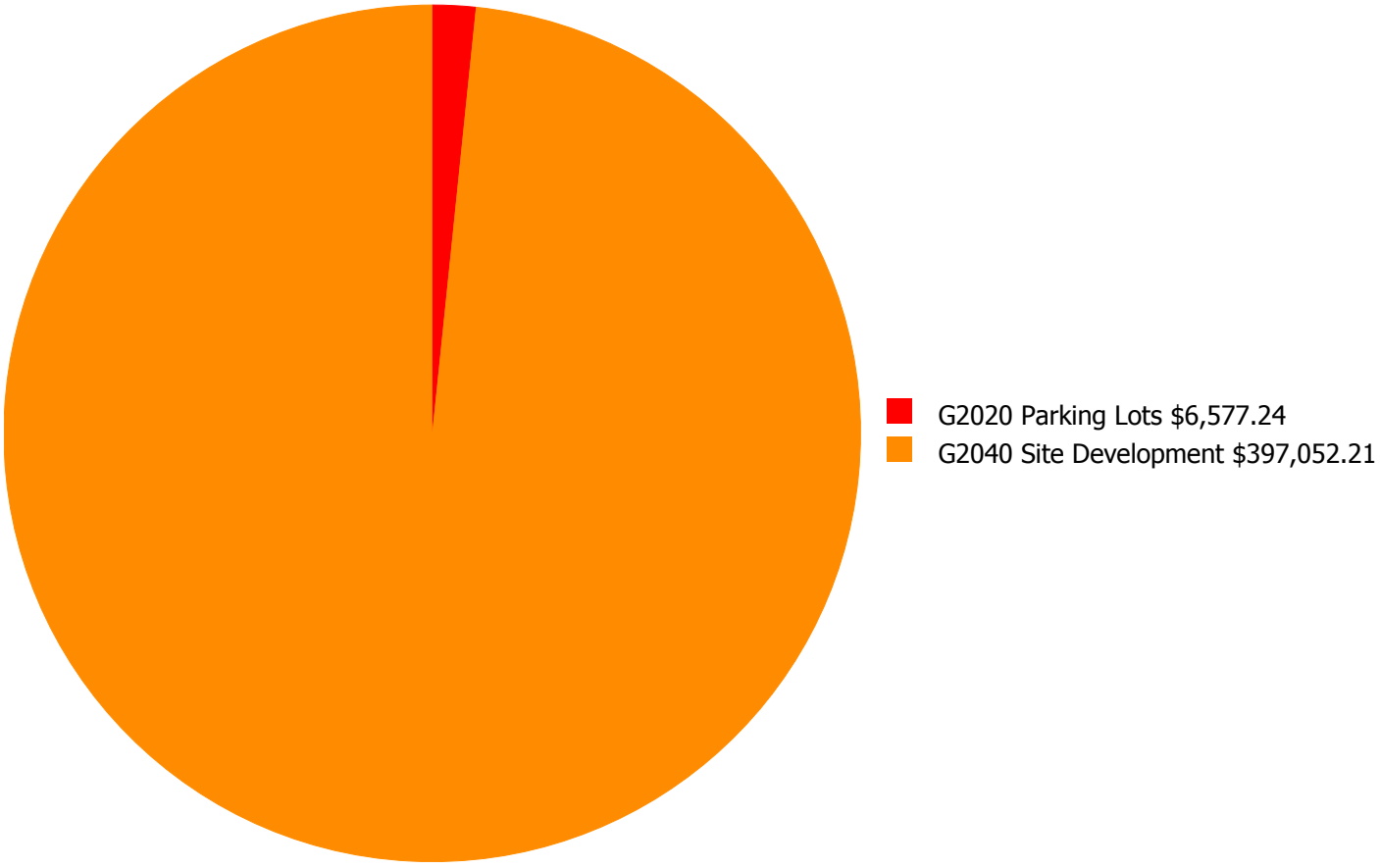
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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




| Year | Investment Amount Current FCI - 24.75% | 2% Investment | | 4% Investment | |
|---|---|---|---|---|---|
| | | Amount | FCI | Amount | FCI |
| 2016 | $0 | $33,593.00 | 22.75 % | $67,185.00 | 20.75 % |
| 2017 | $64,845 | $34,600.00 | 24.50 % | $69,201.00 | 20.50 % |
| 2018 | $0 | $35,638.00 | 22.50 % | $71,277.00 | 16.50 % |
| 2019 | $0 | $36,708.00 | 20.50 % | $73,415.00 | 12.50 % |
| 2020 | $0 | $37,809.00 | 18.50 % | $75,618.00 | 8.50 % |
| 2021 | $0 | $38,943.00 | 16.50 % | $77,886.00 | 4.50 % |
| 2022 | $0 | $40,111.00 | 14.50 % | $80,223.00 | 0.50 % |
| 2023 | $0 | $41,315.00 | 12.50 % | $82,629.00 | -3.50 % |
| 2024 | $0 | $42,554.00 | 10.50 % | $85,108.00 | -7.50 % |
| 2025 | $0 | $43,831.00 | 8.50 % | $87,662.00 | -11.50 % |
| **Total:** | **$64,845** | **$385,102.00** | | **$770,204.00** | |

## Deficiency Summary by System

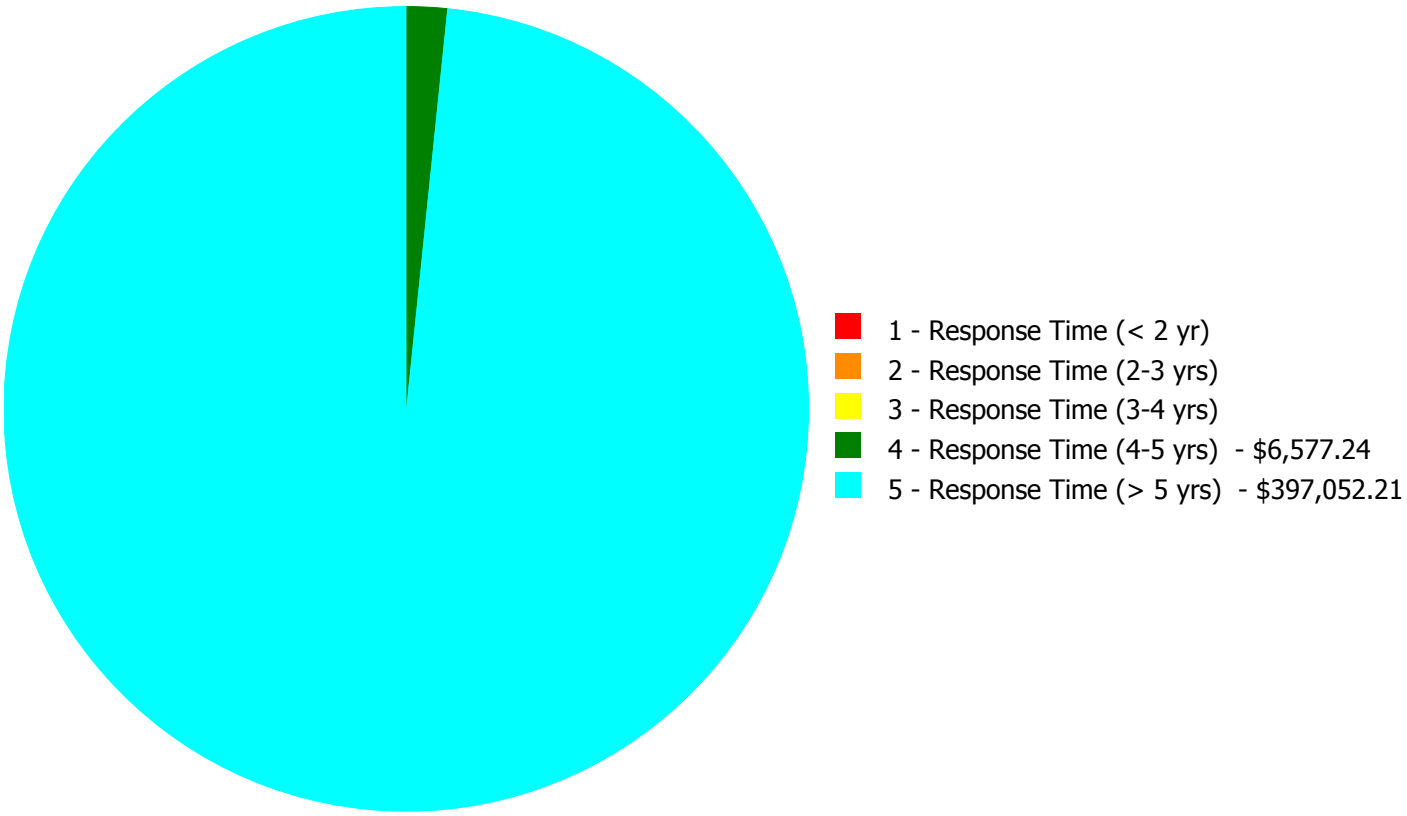
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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




**Budget Estimate Total: $403,629.45**

## 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: $403,629.45**

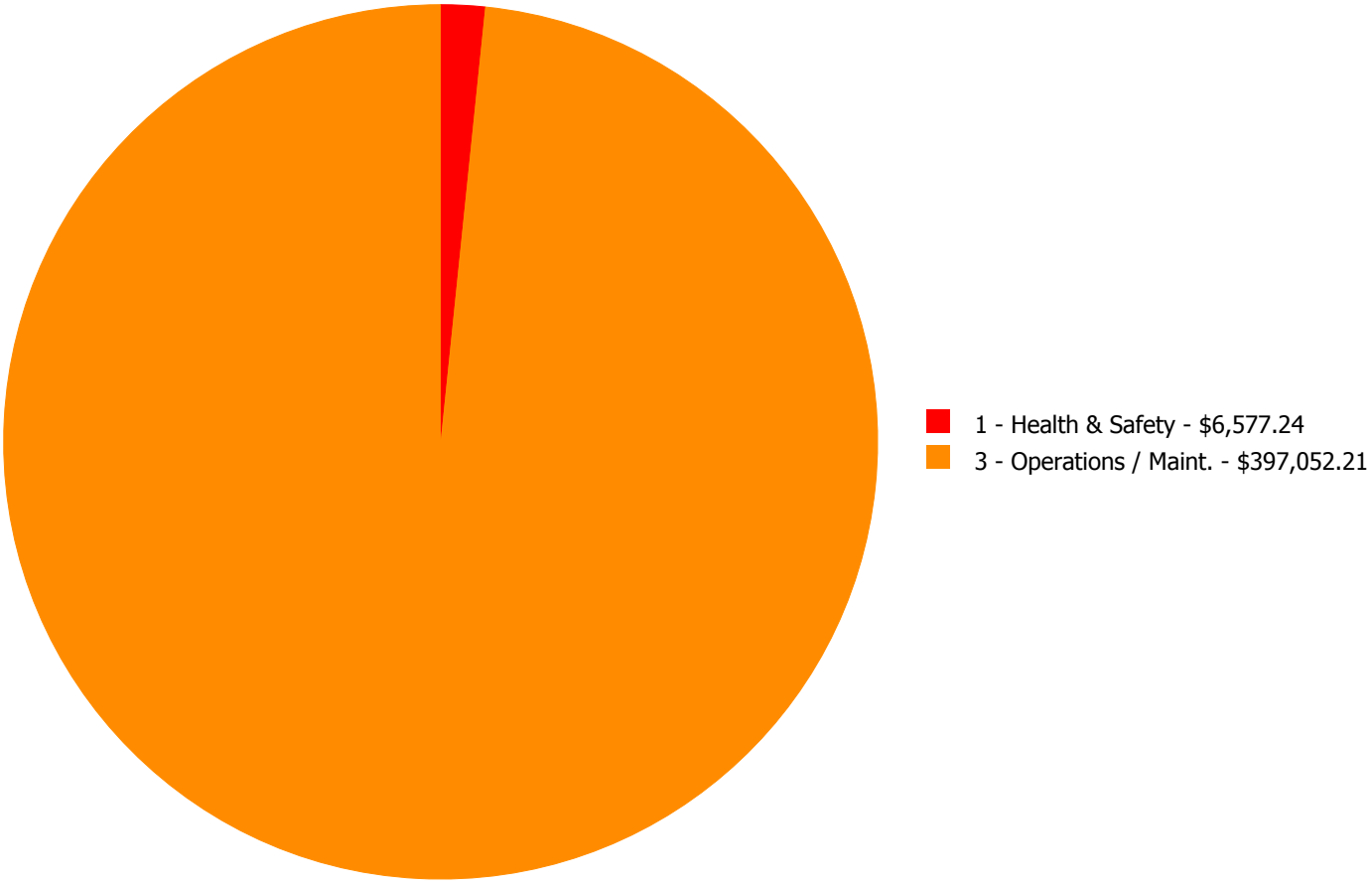
## Deficiency By Priority Investment Table

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 | $0.00 | $6,577.24 | $0.00 | $6,577.24 |
| G2040 | Site Development | $0.00 | $0.00 | $0.00 | $0.00 | $397,052.21 | $397,052.21 |
| | **Total:** | $0.00 | $0.00 | $0.00 | $6,577.24 | $397,052.21 | $403,629.45 |

## 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: $403,629.45**

## Deficiency Details by Priority

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

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

**System: G2020 - Parking Lots**

**Location:** Grounds/ site

**Distress:** Accessibility

**Category:** 1 - Health & Safety

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

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

**Qty:** 4.00

**Unit of Measure:** Ea.

**Estimate:** $6,577.24

**Assessor Name:** Craig Anding

**Date Created:** 11/25/2015

**Notes:** Restripe parking

## Priority 5 - Response Time (> 5 yrs):

**System: G2040 - Site Development**

**Location:** Grounds/ site

**Distress:** Beyond Service Life

**Category:** 3 - Operations / Maint.

**Priority:** 5 - Response Time (> 5 yrs)

**Correction:** Repair or replace elements of school play structures - pick the appropriate items quantities

**Qty:** 1.00

**Unit of Measure:** Ea.

**Estimate:** $397,052.21

**Assessor Name:** Ben Nixon

**Date Created:** 11/25/2015

**Notes:** Replace rubber mat in kindergarten play 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 |