## 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.*

## McCall School

| | | | |
|---|---|---|---|
| Governance | DISTRICT | Report Type | Elementarymiddle |
| Address | 325 S. 7Th St. | Enrollment | 716 |
| | Philadelphia, Pa 19106 | Grade Range | '00-08' |
| Phone/Fax | 215-351-7350 / 215-351-7349 | Admissions Category | Neighborhood |
| Website | Www.Philasd.Org/Schools/Mccall | Turnaround Model | N/A |

## Building/System FCI Tiers

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

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

## Building and Grounds

| | FCI | Repair Costs | Replacement Cost |
|---|---|---|---|
| **Overall** | **56.37%** | **$20,000,724** | **$35,482,836** |
| Building | 56.03 % | $19,273,275 | $34,396,556 |
| Grounds | 66.97 % | $727,449 | $1,086,280 |

## Major Building Systems

| Building System | System FCI | Repair Costs | Replacement Cost |
|---|---|---|---|
| **Roof** (Shows physical condition of roof) | 89.19 % | $609,876 | $683,765 |
| **Exterior Walls** (Shows condition of the structural condition of the exterior facade) | 42.04 % | $1,056,310 | $2,512,685 |
| **Windows** (Shows functionality of exterior windows) | 133.99 % | $1,642,735 | $1,226,049 |
| **Exterior Doors** (Shows condition of exterior doors) | 00.00 % | $0 | $98,710 |
| **Interior Doors** (Classroom doors) | 18.63 % | $44,526 | $238,947 |
| **Interior Walls** (Paint and Finishes) | 44.92 % | $514,025 | $1,144,358 |
| **Plumbing Fixtures** | 21.16 % | $194,718 | $920,388 |
| **Boilers** | 00.00 % | $0 | $1,270,979 |
| **Chillers/Cooling Towers** | 58.94 % | $982,294 | $1,666,500 |
| **Radiators/Unit Ventilators/HVAC** | 118.22 % | $3,459,752 | $2,926,587 |
| **Heating/Cooling Controls** | 158.90 % | $1,460,373 | $919,026 |
| **Electrical Service and Distribution** | 189.78 % | $1,253,170 | $660,337 |
| **Lighting** | 54.78 % | $1,293,179 | $2,360,876 |
| **Communications and Security** (Cameras, Pa System and Fire Alarm) | 52.94 % | $468,125 | $884,307 |

*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

# S234001;McCall

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): | 68,076 |
| Year Built: | 1909 |
| Last Renovation: | 2010 |
| Replacement Value: | $35,482,836 |
| Repair Cost: | $20,000,723.75 |
| Total FCI: | 56.37 % |
| Total RSLI: | 96.90 % |

**Description:**

Facility assessment, July 2015

**School District of Philadelphia**

**McCall Elementary School**

**325 S 7th Street**

**Philadelphia, PA 19106**

68,076 SF / 596 Students / LN 03

The McCall Elementary School building is located at 325 S 7th Street in Philadelphia, PA. The 3 story, 68,076 square foot building was originally constructed in 1909. Approximately in 1965 a 1 story addition was constructed in North East corner of the site containing auditorium, gymnasium and support spaces. The original building has a basement partially above ground and a penthouse on the roof. In 2010 the boiler room was renovated including replacement of most of the mechanical equipment.

Mr. Derek Parker, Facility Area Coordinator provided input to the Parsons assessment team on current problems and planned renovation projects. Mr. Chris Ragni, Building Engineer, accompanied us on our tour of the school and provided us with detailed information on the building systems and recent maintenance history.

STRUCTURAL/ EXTERIOR CLOSURE:

The building typically rests on concrete foundations and bearing walls that are not showing signs of settlement. Foundation walls do not show signs of deterioration with the exception of small cracks in electrical rooms in South West corner of the basement. The basement slab does not show signs of heaving or cracking. No signs of water penetration through walls have been observed or reported, however, some mildew was observed in basement electrical rooms.

The main structure consists typically of load bearing masonry walls, beams and concrete, ribbed slabs in the original building. Long roof spans in the Auditorium and Gymnasium are supported with steel truss joists resting on masonry bearing walls. Above ground floor slabs are generally in good condition, however, the masonry bearing wall on the North side and North West corner of the original building is cracked along the lintel level of the basement windows. The North West corner, previously stabilized with steel rods and anchor plates, shows masonry cracks and face brick buckling up to the third floor level. It is strongly recommended that a structural analysis is conducted to determine the exact cause of overstress cracking and develop remedial action.

The load bearing masonry structure of the fire escape located in the middle of the South wall is unusable due to severe structural deterioration of walls and stair structure. It has been condemned by the City of Philadelphia in 2006.

The building envelope is typically face brick masonry with decorative stone water table and window sills. In general, masonry is in fair condition with deteriorated and missing mortar from joints (approximately 30%).

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

Exterior doors and frames are typically hollow metal in fair to good condition.

Roofing is typically built-up. All roofing and flashing is typically in poor condition with deterioration of the built-up system including water ponding and soft spots; several leaks have been reported.

INTERIORS:

Partition wall types include plastered ceramic hollow blocks and painted CMU. Partitions between some classrooms are original, movable partitions in poor condition and inoperable. The interior wall finishes are generally painted plaster or drywall. Corridors in basement are typically painted brick with glazed brick wainscot. Generally, paint is in fair condition with some deterioration in stairways and toilets. Most ceilings are 2x4 suspended acoustical panels and exposed, painted. The suspension system and tile are old and approaching the end of their useful life. Auditorium and Gym has suspended acoustical baffles in good condition. Paint on exposed ceilings is deteriorated. Flooring in classrooms, gym and auditorium is generally hardwood; and patterned concrete in most corridors and toilets. Some toilet walls and floors are finished with ceramic tile. Most flooring is original and in poor condition, often uneven creating possible tripping hazard; cove base is typically in fair condition. Some areas in basement have VCT tile, generally in fair condition. However, tiles in Auditorium and Gymnasium are VAT tiles (containing asbestos), in poor condition. Some tiles are missing creating a possibility of ACM exposure.

Interior doors are generally solid core wood, some glazed in original wood frames installed in late 1990's. Door finishes are typically in good condition. Most doors are fitted with door knobs and are not ADA compliant. The doors leading to exit stairways are hollow metal doors and frames in good condition.

Fittings include original chalk boards, generally in poor condition; toilet accessories in fair condition; toilet partitions, generally in fair condition; handrails and ornamental metals, generally in good condition. Interior identifying signage is typically directly painted on wall or door surfaces generally in fair condition. Some doors have no signage.

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

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

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

CONVEYING SYSTEMS:

The building has no original elevators.

PLUMBING:

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

Drinking fountains in the corridors and at the restrooms are a mixture of wall hung with integral refrigerated coolers and wall hung porcelain fountains. The porcelain fountains are well beyond their service life and should be replaced; most are NOT accessible type.

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

The Gymnasium/Cafeteria has no sink, only premade meals are served.

Domestic Water Distribution - A 4" city water service enters the building from Panama Street. The 4" meter and valves are located in the basement mechanical room on the west side of the building. Two Armstrong domestic water booster pumps, installed in 2001, ensure adequate water pressure for the building. The original domestic hot and cold water distribution piping was replaced with copper piping and sweat fittings. The maintenance staff reports no significant problems with scale build up in the domestic piping and the supply is adequate to the fixtures.

Two Bradford White gas fired vertical hot water heaters, installed in approximately 2010, supply hot water for domestic use. Both units have an 80 gallon capacity and are located in the boiler room on the basement level. The hot water heaters are equipped with a T&P relief valve, and one expansion tank. The domestic hot water heater is within its service life and should provide reliable service for the next 5-7 years. No water softener was seen in the boiler room.

Sanitary Waste - The original storm and sanitary sewer piping is heavy weight cast iron with hub and spigot fittings. Downspouts from the roof run down the interior of the building and connect to the storm sewer system in the basement.

There is no sewage ejector or sump pump in the building.

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

MECHANICAL:

Energy Supply - A 4" city gas service enters the building from Panama Street. The meter is 4" and located in the in the basement mechanical room. The gas main has a booster pump connected in the mechanical room.

The oil supply is stored in a 12,000 gallon underground storage tank (UST) located in the parking lot adjacent to Panama Street. Duplex pumps located in the basement boiler room circulate oil through the system. Oil is used as the primary fuel for the boilers. It is estimated that the storage tank is beyond its useful life and should be inspected on a regular basis.

Heat Generating Systems - Building heating hot water is generated by two Buderus Logano GE615 boilers with, net IBR rating of 3,463 MBH and installed in approximately 2010. One boiler can handle the load in normal winter weather conditions; two units are required to bring the building up to temperature on very cold days. Each boiler is equipped with a Webster burner designed to operate on natural gas or fuel oil. Burner oil pumps are loose and not driven by the fan motor. The gas train serving the boilers does have code required venting of the regulators and dual solenoid valves with venting of the chamber between. Combustion air makeup is supplied by louvers equipped with motorized dampers. No major issues with the boilers were reported by the Building Engineer. Cast iron sectional boilers have an anticipated service life of 35 years or more; these units have been in service

approximately 5 years. The boilers appear to have been maintained well. The District should provide reliable service for the next 25 to 30 years.

The heating hot water system is equipped with two base mounted, end suction 10HP Taco hot water circulating pumps with suction diffusers in the boiler room. An expansion tank and air separator are located in the boiler room. The hot water piping is covered with insulation and appears to be in good condition.

Distribution Systems - Unit ventilators provide heating for the majority of classrooms, offices, and indirectly to the hallways. The unit ventilators are original to the building and well beyond their service life. Outdoor air for the building is provided by wall openings in the unit ventilators, which may not be sufficient to meet current codes for outdoor air ventilation. The existing unit ventilators should be removed and new units installed with hot and chilled water coils and integral heat exchangers to introduce sufficient outdoor air to the building.

The school has mechanical ventilation in each classroom via unit ventilators, roof mounted exhaust fans serving the bathrooms, and air handling units serving the Auditorium and Gymnasium/Cafeteria. For the Gymnasium/Cafeteria a house fan and heating coil from 1969 provides heating and ventilation only. This air handling unit is beyond its service life and should be replaced with a fan coil (heating and cooling) air handling unit with outdoor air ventilation. Currently the Auditorium is provided heating and ventilation only by a house fan and heating coil from 1969. This air handling unit is beyond its service life and should be replaced with a constant volume air handling unit with distribution ductwork and registers. Both AHUs serving the Gymnasium/Cafeteria and Auditorium are located in a mechanical room behind the Auditorium stage. These units would be equipped with hot water heating coils and chilled water cooling coils.

Exhaust for the restrooms is provided by two roof mounted exhaust fans. One exhaust fan serves the girls restrooms, the other serves the boys. An exhaust fan mounted on the roof of the boiler room serves the boiler room. The existing roof mounted exhaust fans serving the restrooms are beyond their service life and should be replaced.

A hot water make up air unit in the basement provides ventilation air for the classrooms on that level, which do not have ventilation air provided by the unit ventilators.

Terminal & Package Units - Several of the classrooms in the school building have window air conditioning units that have an anticipated service life of only 10 years. Installing a 170 ton air-cooled chiller on the roof, with pumps located in the mechanical room, and chilled water distribution piping would supply more reliable air conditioning for the building with a much longer service life.

A Mitsubishi split system air conditioning system provides cooling to the LAN room located on the first floor off of the Main Office. The installation date of this unit is unknown; the anticipated service life of a split system air conditioner is 15 years. The district should budget to replace this unit within the next 7-10 years.

The IMC is served by its own air conditioning system which consists of an indoor unit and remote condensing unit located on the roof above the boiler room. A thermostat in the IMC controls the temperature of the room. The installation date and manufacturer of the unit was not available.

A Modine unit heater provides heating to the boiler room.

Controls & Instrumentation - The original pneumatic systems still provide basic control functions. Pneumatic room thermostats are intended to control the steam radiator control valves. In reality the radiator control valves are wide open and heating control is achieved via the boilers. Pneumatic control air is supplied from a duplex Quincy compressor and air drying system located in the boiler room. The original control valves and pneumatic actuators are beyond their service life and should be rebuilt or replaced. These controls should be converted to DDC.

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

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

ELECTRICAL:

Electrical Service- The electrical service is fed from an underground distribution system along S Seventh St. The service enters the building underground to a 500 kVA, 2400V:208/120V substation. The substation is equipped with a 600A load interrupter switch. After the medium voltage transformer, the substation contains a 208/120V 1600A distribution section. The substation is original to the building, and was manufactured by Westinghouse. The substation is not adequately sized for a building air conditioning system and elevator.

Distribution System and Raceway System- The main distribution panel is rated 1600A, and is attached to the end of the substation. Electrical panels located on each floor are fed from this main distribution panel, and provides power to the receptacles and lighting on each floor.

Receptacles- Classrooms are typically supplied with 2 to 4 duplex receptacles. Two additional receptacle should be added to each wall in these classrooms.

Lighting- Most of the building is outfitted with fluorescent fixtures with T-12 lamps, The auditorium and lobby area contain incandescent par type lamps. The gymnasium has 15 mercury vapor lamps. Classroom are comprised of 1X4 - 2 lamp pendant fixtures. Classroom lighting is typically controlled by inboard/outboard switching. Corridors are illuminated by 1X4-2 lamp pendant mounted fixtures in the older portion of the school, and 2X4 - 4 lamp lay in grid type fixtures in the new section. The administrative areas use 2X4 - 4 lamp lay in grid type fixtures with T8 lamps. Lighting levels in the classroom areas were found to be in the 15-20 fc range which is below the recommended 50 fc. The gym lighting level was found acceptable at 50 fc. Media center and administrative area lighting levels were found to be in the 50 fc range with 4 lamp 2X4 T8 fixtures. Corridor lighting was found to range from 5 to 15 fc. It is recommended to upgrade the remaining lighting throughout the facility.

Fire Alarm System – The school has an older 120V fire alarm system that has pull stations at exits and audible bell arms in the corridors only. A newer Silent Knight system by Honeywell was installed in 2010 for the installation of duct smoke detectors in the heating system.

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

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

Clock and Program System – The present bell system is adequate. There is no clock system for classrooms.

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

Security System – There facility is equipped with door contacts on exterior doors. There are also motion sensors in the first floor corridors.

Emergency Power System – The facility does not have an emergency standby generator.

Emergency Lighting System / Exit Lighting- The emergency lighting is provided by battery packs located in the corridors. Most of these battery packs were in inoperable condition. The exit lighting is are incandescent and are in poor condition.

Lightning Protection System- A lightning protection system is installed on the chimney and is in adequate condition.

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

Video Surveillance – There is an exterior camera mounted on the northwest corner of the original building to cover the paved play area, and a camera on the south wall to cover that side of the building. There are no cameras along the east side to cover the main entrance or courtyard. There are interior cameras installed in the stairwells.

Site Paging – There are exterior speakers located in the paved play area for site paging. There are no speakers for front entrance and courtyard.

GROUNDS (SITE):

There is a parking lot at the North West corner of the site. It is partially fenced with 14 spaces inside and 19 spaces outside, directly accessible from Cypress St. The pavement is in good condition; however, the aisle striping is faded and missing in 80% of area.

Playground pavement adjacent to the building is in poor condition, paving is cracked and uneven. Playground equipment is in good condition, however, resilient rubber tile surrounding it is in poor condition.

Perimeter picket fence separating the playground from the street and parking is generally in good condition; however, a picket fence separating school grounds from the Panama St. is original and in poor condition.

The landscaping is limited to South East corner of the site and is generally well maintained in good condition.

ACCESSIBILITY:

Generally, the building has an accessible route per ADA requirements to the Gym and Auditorium (1965 addition); the original building is not accessible due to level separation between addition and the original building and lack of elevator to basement, second and the third floors. Toilets are not equipped with accessible fixtures, and accessories, such as grab bars, and accessible partitions. Most of the doors in the building have ADA required door handles.

Parking does not have defined accessible stalls and signage.

RECOMMENDATIONS:

- Repair and stabilize cracked exterior bearing walls
- Rebuild fire exit tower
- Install new stairs in fire exit tower
- Conduct mildew remediation in basement
- Install all new roofing system including insulation; tear-down existing roofing; install flashing, counter flashing and reglets
- Replace all windows
- Replace inoperable movable partitions
- Replace all suspended acoustical ceilings
- Repair and repaint exposed ceilings
- Repair and repaint interior walls (40% area)
- Repair & refinish hardwood flooring
- Replace all VAT floor tiles
- Replace carpet in library
- Install new signage throughout the building
- Provide ADA compliant elevator serving basement and all floors (exterior)
- Provide ADA compliant ramp at main entrance
- Provide ADA compliant hardware on interior doors
- Replace original chalk boards
- Reconfigure toilets on each floor for accessibility, provide new toilet partitions
- Provide new toilet accessories including grab bars
- Provide parking striping with (2) accessible spaces and aisles
- Repave playground area. Replace resilient rubber tiles around playground equipment
- Replace picket fence
- Replace the lavatories in the restrooms with new code compliant fixtures.
- Replace the wall hung drinking fountains and integral refrigerated coolers in the corridors and at the restrooms. These units are well beyond their service life.
- Hire a qualified contractor to perform a detailed examination of the sanitary waste piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.
- Hire a qualified contractor to perform a detailed examination of the rain water drainage piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.
- Remove the existing unit ventilators and install units with hot and chilled water coils and integral heat exchangers to introduce outdoor air to the building.
- Remove the window air conditioning units and install a 170 ton air-cooled chiller on the roof with chilled water distribution piping and pumps located in the mechanical room to supply more reliable air conditioning for the building with a much longer service life.
- Replace existing exhaust fans on the roof serving the bathrooms and utilize the existing ductwork.
- Provide ventilation for the Gymnasium/Cafeteria by installing a fan coil air handling unit installed in the mechanical room behind the Auditorium stage and utilize the existing outdoor air intake.

- Provide ventilation for the Auditorium by installing a fan coil air handling unit in the mechanical room behind the Auditorium stage and utilize the existing outdoor air intake.
- Replace the pneumatic controls for the HVAC systems with modern DDC modules, valves and actuators to improve reliability and energy efficiency. Provide a new building automation system (BAS) with communication interface to the preferred system in use throughout the District.
- Install a fire protection sprinkler system with quick response type heads to reduce insurance costs by providing protection for the property. A fire pump may be required depending on the available city water pressure.
- Install minimum 2 receptacles on each wall of classrooms and other purpose rooms.
- Replace existing T12 fixtures with T8 fixtures and incandescent fixtures with compact fluorescent.
- Install a new addressable fire alarm system and provide audible and/or visual devices in all areas.
- Install a generator sized to operate the elevator and emergency lighting.
- Replace existing substation with new 480/277V sized to provide power for an elevator and air conditioning equipment.
- Replace existing EXIT fixtures with new LED type.
- Provide new emergency lighting throughout the building.
- Add video surveillance to main entrance/courtyard.
- Add site paging to main entrance/courtyard.

**Attributes:**

**General Attributes:**

| | | | |
|---|---|---|---|
| Active: | Open | Bldg Lot Tm: | Lot 1 / Tm 4 |
| Status: | Accepted by SDP | Team: | Tm 4 |
| Site ID: | S234001 | | |

## 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 | 95.00 % | 0.00 % | $0.00 |
| A20 - Basement Construction | 95.00 % | 3.17 % | $41,509.25 |
| B10 - Superstructure | 95.00 % | 0.00 % | $0.00 |
| B20 - Exterior Enclosure | 98.53 % | 70.33 % | $2,699,045.07 |
| B30 - Roofing | 110.00 % | 89.19 % | $609,876.20 |
| C10 - Interior Construction | 97.70 % | 31.14 % | $520,186.50 |
| C20 - Stairs | 95.00 % | 260.62 % | $1,859,361.08 |
| C30 - Interior Finishes | 79.92 % | 44.63 % | $1,437,853.91 |
| D10 - Conveying | 100.00 % | 265.62 % | $1,012,601.25 |
| D20 - Plumbing | 49.66 % | 59.75 % | $830,560.11 |
| D30 - HVAC | 99.53 % | 77.94 % | $5,902,419.88 |
| D40 - Fire Protection | 105.71 % | 177.49 % | $973,857.58 |
| D50 - Electrical | 110.11 % | 84.62 % | $3,386,004.16 |
| E10 - Equipment | 105.71 % | 0.00 % | $0.00 |
| E20 - Furnishings | 105.00 % | 0.00 % | $0.00 |
| G20 - Site Improvements | 117.17 % | 113.21 % | $727,448.76 |
| G40 - Site Electrical Utilities | 142.18 % | 0.00 % | $0.00 |
| **Totals:** | **96.90 %** | **56.37 %** | **$20,000,723.75** |

### 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) |
|---|---|---|---|---|---|---|---|
| B234001;McCall | 68,076 | 56.03 | $3,167,182.42 | $1,611,844.11 | $7,351,582.14 | $3,579,516.71 | $3,563,149.61 |
| G234001;Grounds | 102,000 | 66.97 | $0.00 | $0.00 | $599,801.23 | $6,912.22 | $120,735.31 |
| **Total:** | | **56.37** | **$3,167,182.42** | **$1,611,844.11** | **$7,951,383.37** | **$3,586,428.93** | **$3,683,884.92** |

### Deficiencies By Priority

1 - Response Time (< 2 yr) - $3,167,182.42
2 - Response Time (2-3 yrs) - $1,611,844.11
3 - Response Time (3-4 yrs) - $7,951,383.37
4 - Response Time (4-5 yrs) - $3,586,428.93
5 - Response Time (> 5 yrs) - $3,683,884.92

**Budget Estimate Total: $20,000,723.75**

## 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.

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| | |
|---|---|
| Function: | Elementary School |
| Gross Area (SF): | 68,076 |
| Year Built: | 1909 |
| Last Renovation: | |
| Replacement Value: | $34,396,556 |
| Repair Cost: | $19,273,274.99 |
| Total FCI: | 56.03 % |
| Total RSLI: | 95.94 % |

**Description:**

**Attributes:**

**General Attributes:**

| | | | |
|---|---|---|---|
| Active: | Open | Bldg ID: | B234001 |
| Sewage Ejector: | No | Status: | Accepted by SDP |
| Site ID: | S234001 | | |

## 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 | 95.00 % | 0.00 % | $0.00 |
| A20 - Basement Construction | 95.00 % | 3.17 % | $41,509.25 |
| B10 - Superstructure | 95.00 % | 0.00 % | $0.00 |
| B20 - Exterior Enclosure | 98.53 % | 70.33 % | $2,699,045.07 |
| B30 - Roofing | 110.00 % | 89.19 % | $609,876.20 |
| C10 - Interior Construction | 97.70 % | 31.14 % | $520,186.50 |
| C20 - Stairs | 95.00 % | 260.62 % | $1,859,361.08 |
| C30 - Interior Finishes | 79.92 % | 44.63 % | $1,437,853.91 |
| D10 - Conveying | 100.00 % | 265.62 % | $1,012,601.25 |
| D20 - Plumbing | 49.66 % | 59.75 % | $830,560.11 |
| D30 - HVAC | 99.53 % | 77.94 % | $5,902,419.88 |
| D40 - Fire Protection | 105.71 % | 177.49 % | $973,857.58 |
| D50 - Electrical | 110.11 % | 84.62 % | $3,386,004.16 |
| E10 - Equipment | 105.71 % | 0.00 % | $0.00 |
| E20 - Furnishings | 105.00 % | 0.00 % | $0.00 |
| **Totals:** | **95.94 %** | **56.03 %** | **$19,273,274.99** |

## 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. | 68,076 | 100 | 1909 | 2009 | 2110 | 95.00 % | 0.00 % | 95 | | | $1,252,598 |
| A1030 | Slab on Grade | $7.73 | S.F. | 68,076 | 100 | 1909 | 2009 | 2110 | 95.00 % | 0.00 % | 95 | | | $526,227 |
| A2010 | Basement Excavation | $6.55 | S.F. | 68,076 | 100 | 1909 | 2009 | 2110 | 95.00 % | 0.00 % | 95 | | | $445,898 |
| A2020 | Basement Walls | $12.70 | S.F. | 68,076 | 100 | 1909 | 2009 | 2110 | 95.00 % | 4.80 % | 95 | | $41,509.25 | $864,565 |
| B1010 | Floor Construction | $75.10 | S.F. | 68,076 | 100 | 1909 | 2009 | 2110 | 95.00 % | 0.00 % | 95 | | | $5,112,508 |
| B1020 | Roof Construction | $13.88 | S.F. | 68,076 | 100 | 1909 | 2009 | 2110 | 95.00 % | 0.00 % | 95 | | | $944,895 |
| B2010 | Exterior Walls | $36.91 | S.F. | 68,076 | 100 | 1909 | 2009 | 2110 | 95.00 % | 42.04 % | 95 | | $1,056,310.30 | $2,512,685 |
| B2020 | Exterior Windows | $18.01 | S.F. | 68,076 | 40 | 1980 | 2020 | 2057 | 105.00 % | 133.99 % | 42 | | $1,642,734.77 | $1,226,049 |
| B2030 | Exterior Doors | $1.45 | S.F. | 68,076 | 25 | 1990 | 2015 | 2042 | 108.00 % | 0.00 % | 27 | | | $98,710 |
| B3010105 | Built-Up | $37.76 | S.F. | 18,000 | 20 | 1990 | 2010 | 2037 | 110.00 % | 89.73 % | 22 | | $609,876.20 | $679,680 |
| B3010120 | Single Ply Membrane | $38.73 | S.F. | | 20 | | | | 0.00 % | 0.00 % | | | | $0 |
| B3010130 | Preformed Metal Roofing | $54.22 | S.F. | | 30 | | | | 0.00 % | 0.00 % | | | | $0 |
| B3010140 | Shingle & Tile | $38.73 | S.F. | | 25 | | | | 0.00 % | 0.00 % | | | | $0 |
| B3020 | Roof Openings | $0.06 | S.F. | 68,076 | 20 | | | 2037 | 110.00 % | 0.00 % | 22 | | | $4,085 |
| C1010 | Partitions | $17.91 | S.F. | 68,076 | 100 | 1909 | 2009 | 2110 | 95.00 % | 33.69 % | 95 | | $410,702.60 | $1,219,241 |
| C1020 | Interior Doors | $3.51 | S.F. | 68,076 | 40 | 1998 | 2038 | 2057 | 105.00 % | 18.63 % | 42 | | $44,525.56 | $238,947 |
| C1030 | Fittings | $3.12 | S.F. | 68,076 | 40 | 2000 | 2040 | 2057 | 105.00 % | 30.58 % | 42 | | $64,958.34 | $212,397 |
| C2010 | Stair Construction | $10.48 | S.F. | 68,076 | 100 | 1909 | 2009 | 2110 | 95.00 % | 260.62 % | 95 | | $1,859,361.08 | $713,436 |

# Site Assessment Report - B234001;McCall

| 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. | 68,076 | 10 | 2005 | 2015 | | 0.00 % | 57.16 % | 0 | | $514,024.56 | $899,284 |
| C3010231 | Vinyl Wall Covering | $0.97 | S.F. | 68,076 | 15 | | | | 0.00 % | 0.00 % | | | | $66,034 |
| C3010232 | Wall Tile | $2.63 | S.F. | 68,076 | 30 | | | | 0.00 % | 0.00 % | | | | $179,040 |
| C3020411 | Carpet | $7.30 | S.F. | 1,650 | 10 | 2005 | 2015 | | 0.00 % | 157.94 % | 0 | | $19,024.31 | $12,045 |
| C3020412 | Terrazzo & Tile | $75.52 | S.F. | | 50 | | | | 0.00 % | 0.00 % | | | | $0 |
| C3020413 | Vinyl Flooring | $9.68 | S.F. | 17,150 | 20 | 1998 | 2018 | 2037 | 110.00 % | 40.20 % | 22 | | $66,733.34 | $166,012 |
| C3020414 | Wood Flooring | $22.27 | S.F. | 20,200 | 25 | 1909 | 1934 | 2042 | 108.00 % | 41.78 % | 27 | | $187,927.26 | $449,854 |
| C3020415 | Concrete Floor Finishes | $0.97 | S.F. | 22,400 | 50 | 1909 | 1959 | 2065 | 100.00 % | 0.00 % | 50 | | | $21,728 |
| C3030 | Ceiling Finishes | $20.97 | S.F. | 68,076 | 25 | 1998 | 2023 | 2048 | 132.00 % | 45.54 % | 33 | | $650,144.44 | $1,427,554 |
| D1010 | Elevators and Lifts | $5.60 | S.F. | 68,076 | 35 | 2015 | 2050 | | 100.00 % | 265.62 % | 35 | | $1,012,601.25 | $381,226 |
| D2010 | Plumbing Fixtures | $13.52 | S.F. | 68,076 | 35 | 1909 | 1944 | 2025 | 28.57 % | 21.16 % | 10 | | $194,718.10 | $920,388 |
| D2020 | Domestic Water Distribution | $1.68 | S.F. | 68,076 | 25 | 1909 | 1934 | 2025 | 40.00 % | 0.00 % | 10 | | | $114,368 |
| D2030 | Sanitary Waste | $2.90 | S.F. | 68,076 | 25 | 1909 | 1934 | 2042 | 108.00 % | 169.16 % | 27 | | $333,963.76 | $197,420 |
| D2040 | Rain Water Drainage | $2.32 | S.F. | 68,076 | 30 | 1909 | 1939 | 2047 | 106.67 % | 191.14 % | 32 | | $301,878.25 | $157,936 |
| D3020 | Heat Generating Systems | $18.67 | S.F. | 68,076 | 24 | 2010 | 2034 | | 79.17 % | 0.00 % | 19 | | | $1,270,979 |
| D3030 | Cooling Generating Systems | $24.48 | S.F. | 68,076 | 20 | | | 2037 | 110.00 % | 58.94 % | 22 | | $982,294.47 | $1,666,500 |
| D3040 | Distribution Systems | $42.99 | S.F. | 68,076 | 25 | 1909 | 1934 | 2042 | 108.00 % | 118.22 % | 27 | | $3,459,752.22 | $2,926,587 |
| D3050 | Terminal & Package Units | $11.60 | S.F. | 68,076 | 15 | 2010 | 2025 | | 66.67 % | 0.00 % | 10 | | | $789,682 |
| D3060 | Controls & Instrumentation | $13.50 | S.F. | 68,076 | 20 | 1909 | 1929 | 2037 | 110.00 % | 158.90 % | 22 | | $1,460,373.19 | $919,026 |
| D4010 | Sprinklers | $7.05 | S.F. | 68,076 | 35 | | | 2052 | 105.71 % | 202.91 % | 37 | | $973,857.58 | $479,936 |
| D4020 | Standpipes | $1.01 | S.F. | 68,076 | 35 | | | 2052 | 105.71 % | 0.00 % | 37 | | | $68,757 |
| D5010 | Electrical Service/Distribution | $9.70 | S.F. | 68,076 | 30 | 1909 | 1939 | 2047 | 106.67 % | 189.78 % | 32 | | $1,253,169.53 | $660,337 |
| D5020 | Lighting and Branch Wiring | $34.68 | S.F. | 68,076 | 20 | 1909 | 1929 | 2037 | 110.00 % | 54.78 % | 22 | | $1,293,179.21 | $2,360,876 |
| D5030 | Communications and Security | $12.99 | S.F. | 68,076 | 15 | 1909 | 1924 | 2032 | 113.33 % | 52.94 % | 17 | | $468,125.41 | $884,307 |
| D5090 | Other Electrical Systems | $1.41 | S.F. | 68,076 | 30 | 1909 | 1939 | 2047 | 106.67 % | 387.06 % | 32 | | $371,530.01 | $95,987 |
| E1020 | Institutional Equipment | $4.82 | S.F. | 68,076 | 35 | 1990 | 2025 | 2052 | 105.71 % | 0.00 % | 37 | | | $328,126 |
| E1090 | Other Equipment | $11.10 | S.F. | 68,076 | 35 | 1990 | 2025 | 2052 | 105.71 % | 0.00 % | 37 | | | $755,644 |
| E2010 | Fixed Furnishings | $2.13 | S.F. | 68,076 | 40 | 1965 | 2005 | 2057 | 105.00 % | 0.00 % | 42 | | | $145,002 |
| | | | | | | | | **Total** | **95.94 %** | **56.03 %** | | | **$19,273,274.99** | **$34,396,556** |

## 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:** | **$19,273,275** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$4,044,304** | **$23,317,579** |
| *** 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** | $41,509 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$41,509** |
| **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** | $1,056,310 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$1,056,310** |
| **B2020 - Exterior Windows** | $1,642,735 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$1,642,735** |
| **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** | $609,876 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$609,876** |
| **B3010120 - Single Ply Membrane** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **B3010130 - Preformed Metal Roofing** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **B3010140 - Shingle & Tile** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **B3020 - Roof Openings** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **C - Interiors** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **C10 - Interior Construction** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **C1010 - Partitions** | $410,703 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$410,703** |

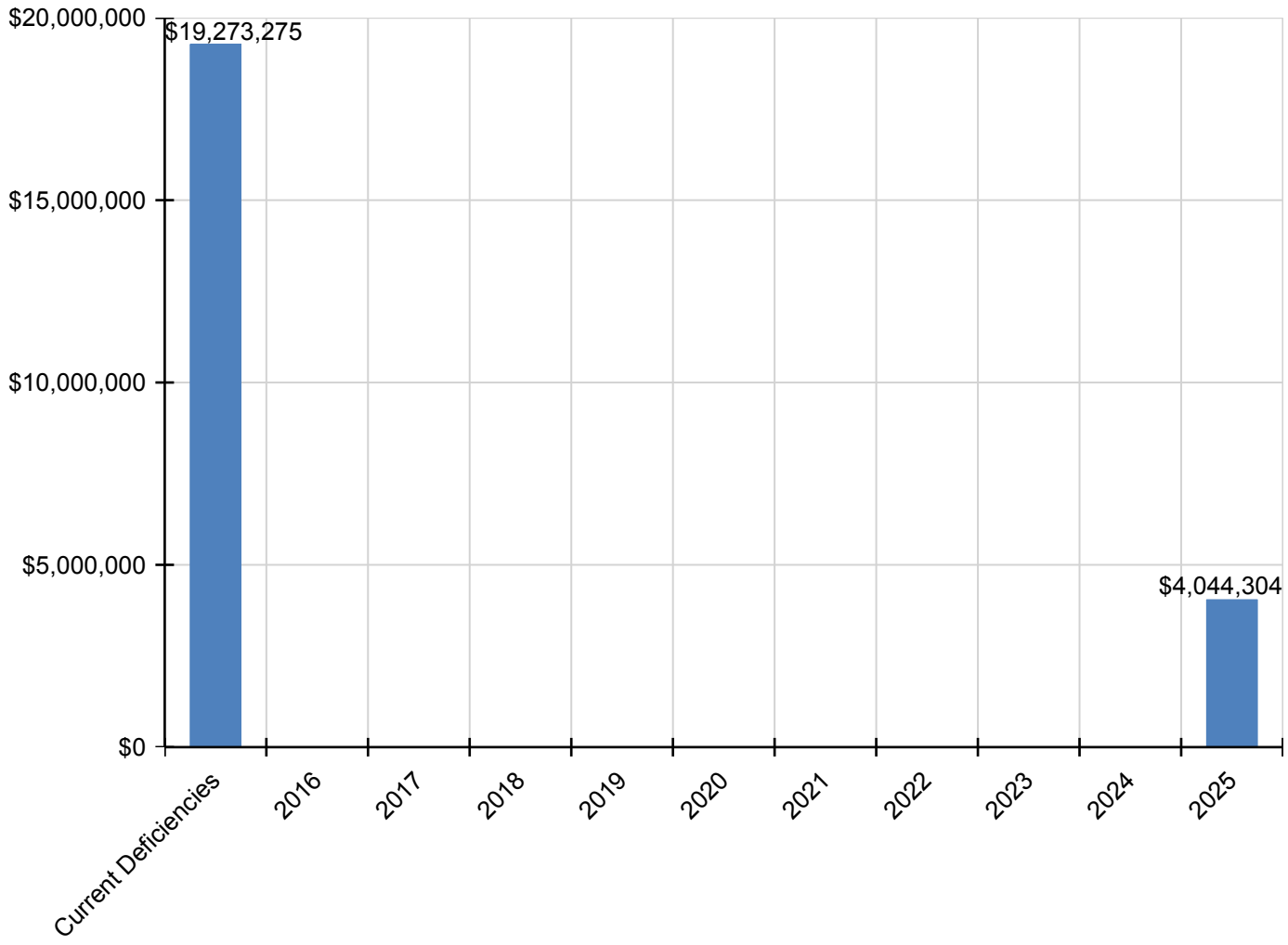
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C1020 - Interior Doors** | $44,526 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$44,526** |
| **C1030 - Fittings** | $64,958 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$64,958** |
| **C20 - Stairs** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **C2010 - Stair Construction** | $1,859,361 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$1,859,361** |
| **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** | $514,025 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $1,329,418 | **$1,843,443** |
| **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** | $19,024 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $17,807 | **$36,831** |
| **C3020412 - Terrazzo & Tile** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **C3020413 - Vinyl Flooring** | $66,733 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$66,733** |
| **C3020414 - Wood Flooring** | $187,927 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$187,927** |
| **C3020415 - Concrete Floor Finishes** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **C3030 - Ceiling Finishes** | $650,144 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$650,144** |
| **D - Services** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **D10 - Conveying** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **D1010 - Elevators and Lifts** | $1,012,601 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$1,012,601** |
| **D20 - Plumbing** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **D2010 - Plumbing Fixtures** | $194,718 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $1,360,616 | **$1,555,334** |
| **D2020 - Domestic Water Distribution** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $169,070 | **$169,070** |
| **D2030 - Sanitary Waste** | $333,964 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$333,964** |
| **D2040 - Rain Water Drainage** | $301,878 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$301,878** |
| **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** | $982,294 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$982,294** |
| **D3040 - Distribution Systems** | $3,459,752 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$3,459,752** |
| **D3050 - Terminal & Package Units** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $1,167,393 | **$1,167,393** |
| **D3060 - Controls & Instrumentation** | $1,460,373 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$1,460,373** |
| **D40 - Fire Protection** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **D4010 - Sprinklers** | $973,858 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$973,858** |
| **D4020 - Standpipes** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **D50 - Electrical** | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** |
| **D5010 - Electrical Service/Distribution** | $1,253,170 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$1,253,170** |
| **D5020 - Lighting and Branch Wiring** | $1,293,179 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$1,293,179** |
| **D5030 - Communications and Security** | $468,125 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$468,125** |
| **D5090 - Other Electrical Systems** | $371,530 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$371,530** |
| **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

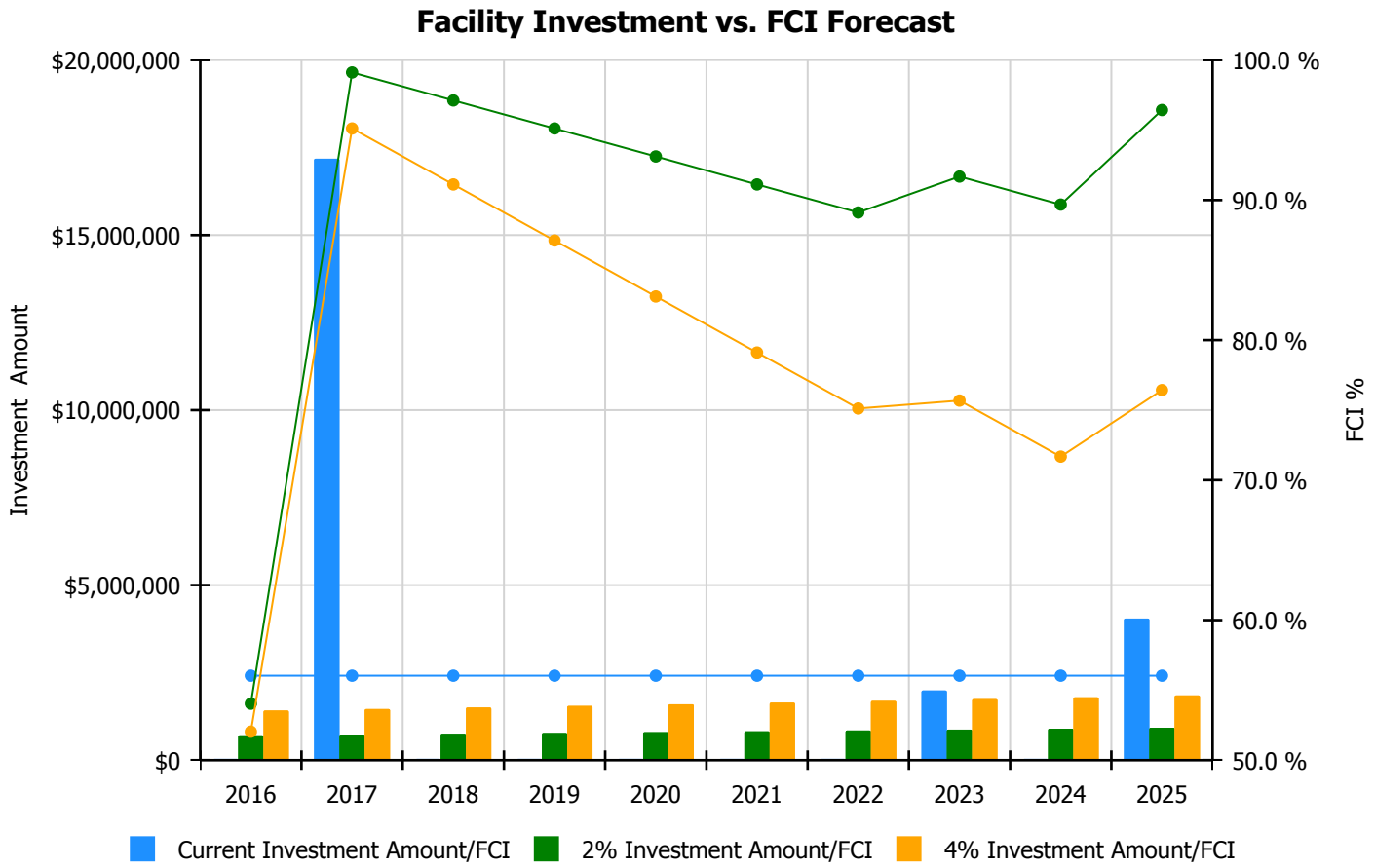
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



## 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:

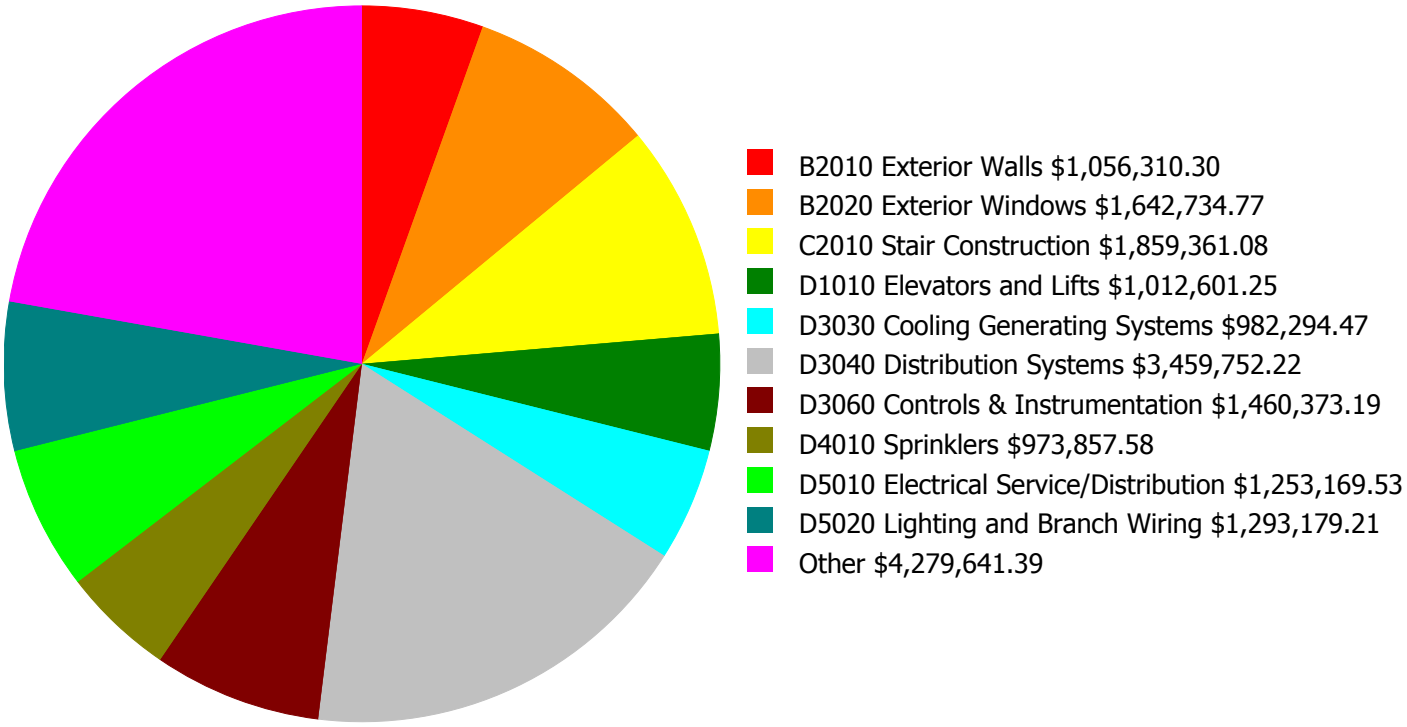
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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




| Year | Investment Amount Current FCI - 56.03% | 2% Investment | | 4% Investment | |
|---|---|---|---|---|---|
| | | Amount | FCI | Amount | FCI |
| 2016 | $0 | $708,569.00 | 54.03 % | $1,417,138.00 | 52.03 % |
| 2017 | $17,180,630 | $729,826.00 | 99.11 % | $1,459,652.00 | 95.11 % |
| 2018 | $0 | $751,721.00 | 97.11 % | $1,503,442.00 | 91.11 % |
| 2019 | $0 | $774,273.00 | 95.11 % | $1,548,545.00 | 87.11 % |
| 2020 | $0 | $797,501.00 | 93.11 % | $1,595,001.00 | 83.11 % |
| 2021 | $0 | $821,426.00 | 91.11 % | $1,642,851.00 | 79.11 % |
| 2022 | $0 | $846,069.00 | 89.11 % | $1,692,137.00 | 75.11 % |
| 2023 | $1,989,220 | $871,451.00 | 91.68 % | $1,742,901.00 | 75.68 % |
| 2024 | $0 | $897,594.00 | 89.68 % | $1,795,188.00 | 71.68 % |
| 2025 | $4,044,304 | $924,522.00 | 96.43 % | $1,849,044.00 | 76.43 % |
| **Total:** | **$23,214,155** | **$8,122,952.00** | | **$16,245,899.00** | |

## Deficiency Summary by System

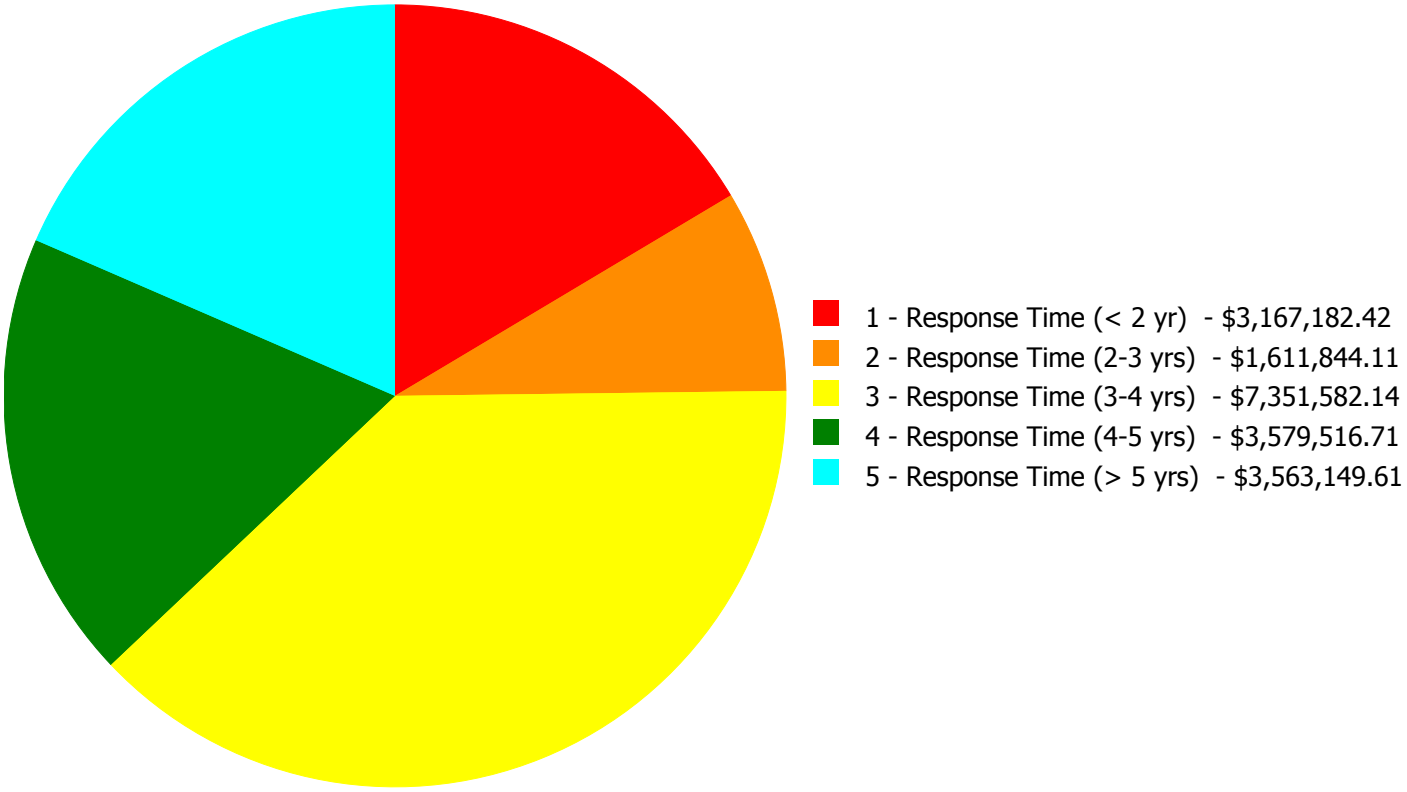
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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




**Budget Estimate Total: $19,273,274.99**

## 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: $19,273,274.99**

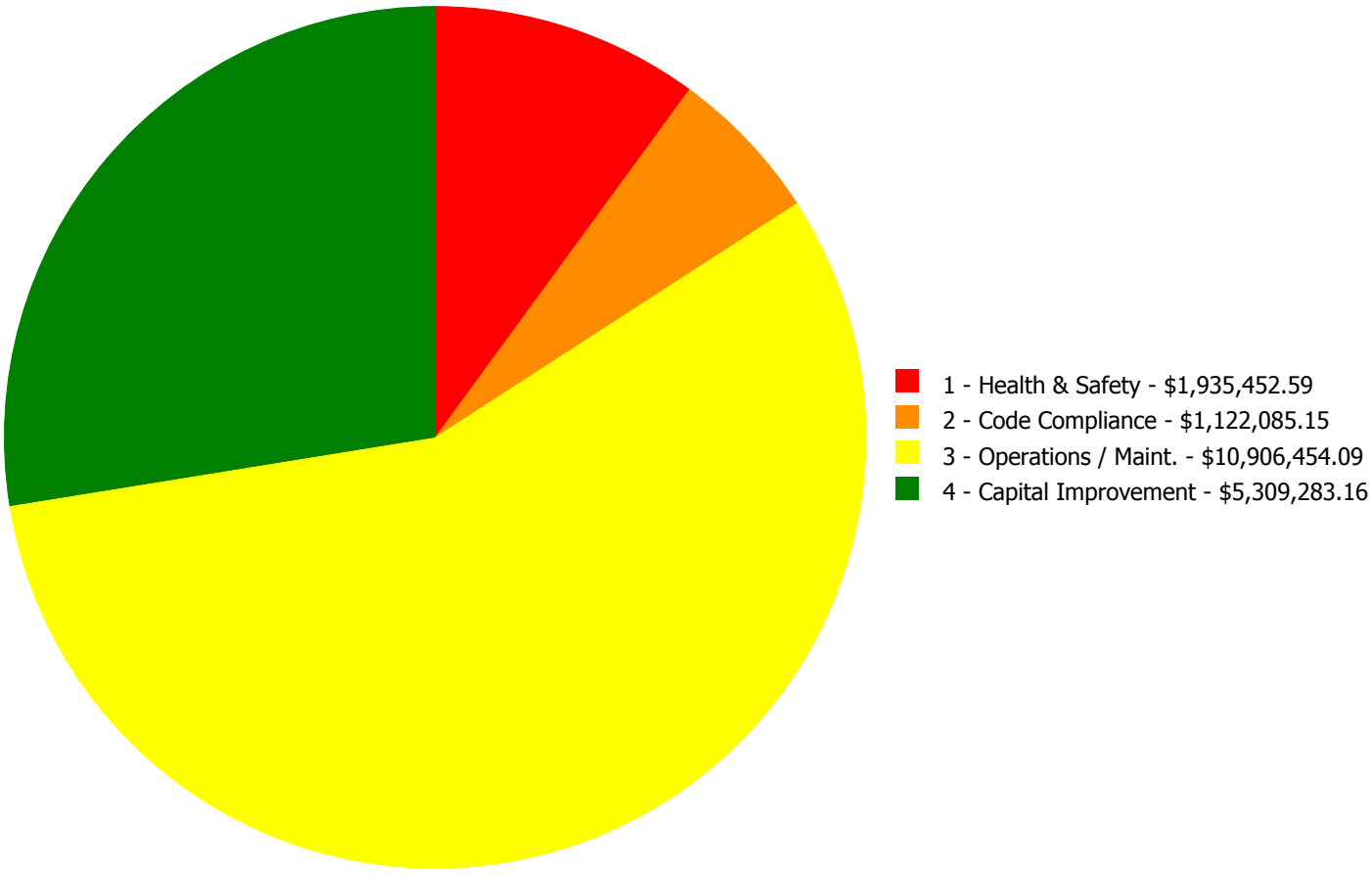
## Deficiency By Priority Investment Table

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 |
|---|---|---|---|---|---|---|---|
| A2020 | Basement Walls | $0.00 | $41,509.25 | $0.00 | $0.00 | $0.00 | $41,509.25 |
| B2010 | Exterior Walls | $0.00 | $1,056,310.30 | $0.00 | $0.00 | $0.00 | $1,056,310.30 |
| B2020 | Exterior Windows | $0.00 | $0.00 | $0.00 | $1,642,734.77 | $0.00 | $1,642,734.77 |
| B3010105 | Built-Up | $0.00 | $0.00 | $0.00 | $609,876.20 | $0.00 | $609,876.20 |
| C1010 | Partitions | $0.00 | $0.00 | $0.00 | $0.00 | $410,702.60 | $410,702.60 |
| C1020 | Interior Doors | $0.00 | $0.00 | $0.00 | $44,525.56 | $0.00 | $44,525.56 |
| C1030 | Fittings | $0.00 | $0.00 | $0.00 | $64,958.34 | $0.00 | $64,958.34 |
| C2010 | Stair Construction | $1,859,361.08 | $0.00 | $0.00 | $0.00 | $0.00 | $1,859,361.08 |
| C3010230 | Paint & Covering | $0.00 | $514,024.56 | $0.00 | $0.00 | $0.00 | $514,024.56 |
| C3020411 | Carpet | $0.00 | $0.00 | $0.00 | $19,024.31 | $0.00 | $19,024.31 |
| C3020413 | Vinyl Flooring | $0.00 | $0.00 | $66,733.34 | $0.00 | $0.00 | $66,733.34 |
| C3020414 | Wood Flooring | $0.00 | $0.00 | $0.00 | $0.00 | $187,927.26 | $187,927.26 |
| C3030 | Ceiling Finishes | $0.00 | $0.00 | $0.00 | $128,292.35 | $521,852.09 | $650,144.44 |
| D1010 | Elevators and Lifts | $0.00 | $0.00 | $1,012,601.25 | $0.00 | $0.00 | $1,012,601.25 |
| D2010 | Plumbing Fixtures | $0.00 | $0.00 | $194,718.10 | $0.00 | $0.00 | $194,718.10 |
| D2030 | Sanitary Waste | $333,963.76 | $0.00 | $0.00 | $0.00 | $0.00 | $333,963.76 |
| D2040 | Rain Water Drainage | $0.00 | $0.00 | $301,878.25 | $0.00 | $0.00 | $301,878.25 |
| D3030 | Cooling Generating Systems | $0.00 | $0.00 | $0.00 | $0.00 | $982,294.47 | $982,294.47 |
| D3040 | Distribution Systems | $0.00 | $0.00 | $3,459,752.22 | $0.00 | $0.00 | $3,459,752.22 |
| D3060 | Controls & Instrumentation | $0.00 | $0.00 | $0.00 | $0.00 | $1,460,373.19 | $1,460,373.19 |
| D4010 | Sprinklers | $973,857.58 | $0.00 | $0.00 | $0.00 | $0.00 | $973,857.58 |
| D5010 | Electrical Service/Distribution | $0.00 | $0.00 | $358,966.10 | $894,203.43 | $0.00 | $1,253,169.53 |
| D5020 | Lighting and Branch Wiring | $0.00 | $0.00 | $1,293,179.21 | $0.00 | $0.00 | $1,293,179.21 |
| D5030 | Communications and Security | $0.00 | $0.00 | $292,223.66 | $175,901.75 | $0.00 | $468,125.41 |
| D5090 | Other Electrical Systems | $0.00 | $0.00 | $371,530.01 | $0.00 | $0.00 | $371,530.01 |
| | **Total:** | $3,167,182.42 | $1,611,844.11 | $7,351,582.14 | $3,579,516.71 | $3,563,149.61 | $19,273,274.99 |

## 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: $19,273,274.99**

## Deficiency Details by Priority

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

### Priority 1 - Response Time (< 2 yr):

**System: C2010 - Stair Construction**

**Location:** Exterior/ fire tower stair

**Distress:** Failing

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

**Priority:** 1 - Response Time (< 2 yr)

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

**Qty:** 8.00

**Unit of Measure:** Flight

**Estimate:** $1,429,158.46

**Assessor Name:** System

**Date Created:** 09/17/2015

**Notes:** Rebuild fire exit tower

**System: C2010 - Stair Construction**

**Location:** Exterior/ fire tower stair

**Distress:** Failing

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

**Priority:** 1 - Response Time (< 2 yr)

**Correction:** Replace exterior enclosed stair tower egress stairs - per flight of stairs - stairs only

**Qty:** 8.00

**Unit of Measure:** Flight

**Estimate:** $430,202.62

**Assessor Name:** System

**Date Created:** 09/17/2015

**Notes:** Install new stairs in fire exit tower

**System: D2030 - Sanitary Waste**

**Location:** Throughout building

**Distress:** Health Hazard / Risk

**Category:** 1 - Health & Safety

**Priority:** 1 - Response Time (< 2 yr)

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

**Qty:** 68,076.00

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

**Estimate:** $333,963.76

**Assessor Name:** System

**Date Created:** 08/06/2015

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

**System: D4010 - Sprinklers**

**Location:** Throughout building

**Distress:** Life Safety / NFPA / PFD

**Category:** 1 - Health & Safety

**Priority:** 1 - Response Time (< 2 yr)

**Correction:** Install a fire protection sprinkler system

**Qty:** 68,076.00

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

**Estimate:** $973,857.58

**Assessor Name:** System

**Date Created:** 08/06/2015

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

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

**System: A2020 - Basement Walls**

**Location:** Interior/ basement

**Distress:** Health Hazard / Risk

**Category:** 1 - Health & Safety

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

**Correction:** Mold abatement on basement walls - insert proper quantities

**Qty:** 1,000.00

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

**Estimate:** $41,509.25

**Assessor Name:** System

**Date Created:** 09/17/2015

**Notes:** Conduct mildew remediation in basement

**System: B2010 - Exterior Walls**

**Location:** Exterior

**Distress:** Damaged

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

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

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

**Qty:** 30,000.00

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

**Estimate:** $1,056,310.30

**Assessor Name:** System

**Date Created:** 09/17/2015

**Notes:** Repair and stabilize cracked exterior bearing walls

**System: C3010230 - Paint & Covering**

**Location:** Interior

**Distress:** Beyond Service Life

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

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

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

**Qty:** 60,000.00

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

**Estimate:** $514,024.56

**Assessor Name:** System

**Date Created:** 09/18/2015

**Notes:** Repair and repaint interior walls (40% area)

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

**System: C3020413 - Vinyl Flooring**

**Location:** interior

**Distress:** Health Hazard / Risk

**Category:** 1 - Health & Safety

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

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

**Qty:** 4,400.00

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

**Estimate:** $66,733.34

**Assessor Name:** System

**Date Created:** 09/18/2015

**Notes:** Replace all VAT floor tiles

---

**System: D1010 - Elevators and Lifts**

This deficiency has no image.

**Location:** Interior

**Distress:** Accessibility

**Category:** 2 - Code Compliance

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

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

**Qty:** 1.00

**Unit of Measure:** Ea.

**Estimate:** $1,012,601.25

**Assessor Name:** System

**Date Created:** 09/18/2015

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

---

**System: D2010 - Plumbing Fixtures**

**Location:** Restrooms

**Distress:** Beyond Service Life

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

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

**Correction:** Remove and replace or replace water closet - quantify additional units

**Qty:** 20.00

**Unit of Measure:** Ea.

**Estimate:** $149,242.96

**Assessor Name:** System

**Date Created:** 08/06/2015

**Notes:** Replace the water closets in the restrooms with new code compliant fixtures.

---

**System: D2010 - Plumbing Fixtures**

**Location:** Corridors

**Distress:** Beyond Service Life

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

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

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

**Qty:** 6.00

**Unit of Measure:** Ea.

**Estimate:** $45,475.14

**Assessor Name:** System

**Date Created:** 08/06/2015

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

---

**System: D2040 - Rain Water Drainage**

**Location:** Throughout building

**Distress:** Beyond Service Life

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

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

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

**Qty:** 68,076.00

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

**Estimate:** $301,878.25

**Assessor Name:** System

**Date Created:** 11/18/2015

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

**System: D3040 - Distribution Systems**

**Location:** Throughout building

**Distress:** Beyond Service Life

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

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

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

**Qty:** 68,076.00

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

**Estimate:** $2,888,337.79

**Assessor Name:** System

**Date Created:** 08/06/2015

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

**System: D3040 - Distribution Systems**

**Location:** Auditorium Mechanical room

**Distress:** Beyond Service Life

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

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

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

**Qty:** 6,000.00

**Unit of Measure:** Ea.

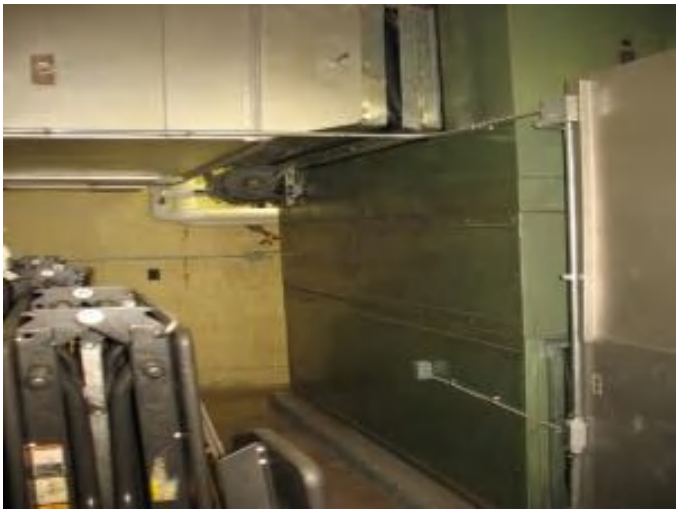
**Estimate:** $308,301.04

**Assessor Name:** System

**Date Created:** 08/06/2015

**Notes:** Provide ventilation for the Gymnasium/Cafeteria by installing a fan coil air handling unit installed in the mechanical room behind the Auditorium stage and utilize the existing outdoor air intake.

**System: D3040 - Distribution Systems**



**Location:** Auditorium Mechanical room

**Distress:** Beyond Service Life

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

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

**Correction:** Install / replace HVAC unit for Auditorium (800 seat).

**Qty:** 350.00

**Unit of Measure:** Seat

**Estimate:** $195,744.07

**Assessor Name:** System

**Date Created:** 08/06/2015

**Notes:** Provide ventilation for the Auditorium by installing a fan coil air handling unit in the mechanical room behind the Auditorium stage and utilize the existing outdoor air intake.

**System: D3040 - Distribution Systems**

**Location:** Roof

**Distress:** Beyond Service Life

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

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

**Correction:** Replace utility set exhaust fan (5 HP)

**Qty:** 2.00

**Unit of Measure:** Ea.

**Estimate:** $67,369.32

**Assessor Name:** System

**Date Created:** 08/06/2015

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

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

**Location:** Basement

**Distress:** Inadequate

**Category:** 4 - Capital Improvement

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

**Correction:** Replace Substation

**Qty:** 0.00

**Unit of Measure:** Ea.

**Estimate:** $358,966.10

**Assessor Name:** System

**Date Created:** 08/11/2015

**Notes:** Replace existing substation with new 480/277V sized to provide power for an elevator and air conditioning equipment.

**System: D5020 - Lighting and Branch Wiring**


**Location:** Throughout Building
**Distress:** Inadequate
**Category:** 4 - Capital Improvement
**Priority:** 3 - Response Time (3-4 yrs)
**Correction:** Replace Lighting Fixtures (SF)
**Qty:** 0.00
**Unit of Measure:** S.F.
**Estimate:** $1,163,061.90
**Assessor Name:** System
**Date Created:** 08/11/2015

**Notes:** Replace existing T12 fixtures with T8 fixtures and incandescent fixtures with compact fluorescent.

**System: D5020 - Lighting and Branch Wiring**

**Location:** Throughout Building
**Distress:** Inadequate
**Category:** 4 - Capital Improvement
**Priority:** 3 - Response Time (3-4 yrs)
**Correction:** Add wiring device
**Qty:** 1.00
**Unit of Measure:** Ea.
**Estimate:** $130,117.31
**Assessor Name:** System
**Date Created:** 08/11/2015

**Notes:** Install minimum 2 receptacles on each wall of classrooms and other purpose rooms.

**System: D5030 - Communications and Security**

**Location:** Throughout Building
**Distress:** Life Safety / NFPA / PFD
**Category:** 1 - Health & Safety
**Priority:** 3 - Response Time (3-4 yrs)
**Correction:** Replace fire alarm system
**Qty:** 1.00
**Unit of Measure:** S.F.
**Estimate:** $292,223.66
**Assessor Name:** System
**Date Created:** 08/11/2015

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

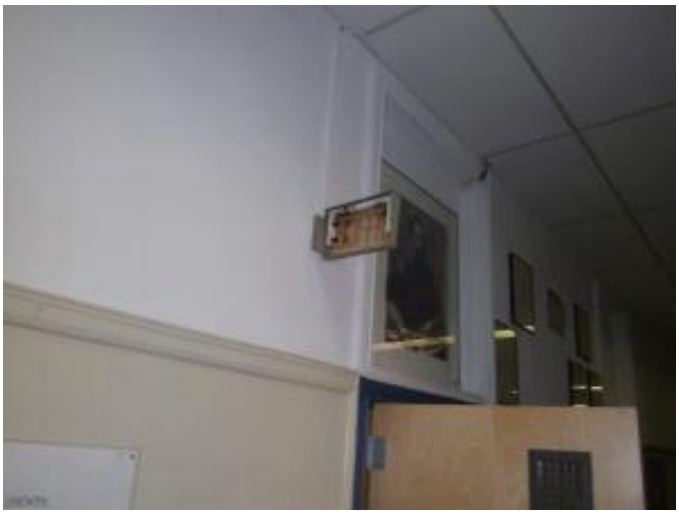
**System: D5090 - Other Electrical Systems**

This deficiency has no image.

**Location:** Basement
**Distress:** Inadequate
**Category:** 4 - Capital Improvement
**Priority:** 3 - Response Time (3-4 yrs)
**Correction:** Add Standby Generator System
**Qty:** 1.00
**Unit of Measure:** Ea.
**Estimate:** $144,365.01
**Assessor Name:** System
**Date Created:** 08/11/2015

**Notes:** Install a generator sized to operate the elevator and emergency lighting.

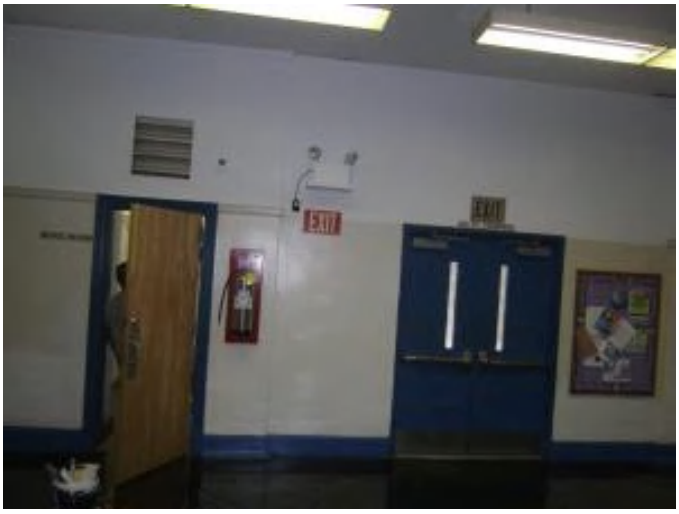
**System: D5090 - Other Electrical Systems**



**Location:** Throughout Building
**Distress:** Health Hazard / Risk
**Category:** 1 - Health & Safety
**Priority:** 3 - Response Time (3-4 yrs)
**Correction:** Replace Emergency/Exit Lighting
**Qty:** 1.00
**Unit of Measure:** Ea.
**Estimate:** $126,209.45
**Assessor Name:** System
**Date Created:** 08/11/2015

**Notes:** Replace existing EXIT fixtures with new LED type.

**System: D5090 - Other Electrical Systems**




**Location:** Throughout Building
**Distress:** Life Safety / NFPA / PFD
**Category:** 1 - Health & Safety
**Priority:** 3 - Response Time (3-4 yrs)
**Correction:** Replace Emergency/Exit Lighting
**Qty:** 1.00
**Unit of Measure:** Ea.
**Estimate:** $100,955.55
**Assessor Name:** System
**Date Created:** 08/11/2015

**Notes:** Provide new emergency lighting throughout the building

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

**System: B2020 - Exterior Windows**

**Location:** Exterior

**Distress:** Beyond Service Life

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

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

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

**Qty:** 272.00

**Unit of Measure:** Ea.

**Estimate:** $1,642,734.77

**Assessor Name:** System

**Date Created:** 09/17/2015

**Notes:** Replace all windows

**System: B3010105 - Built-Up**

**Location:** Exterior/ roof

**Distress:** Building Envelope Integrity

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

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

**Correction:** Remove and Replace Built Up Roof

**Qty:** 18,000.00

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

**Estimate:** $609,876.20

**Assessor Name:** System

**Date Created:** 09/17/2015

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

**System: C1020 - Interior Doors**


**Location:** Interior

**Distress:** Accessibility

**Category:** 2 - Code Compliance

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

**Correction:** Replace door knobs with compliant lever type

**Qty:** 80.00

**Unit of Measure:** Ea.

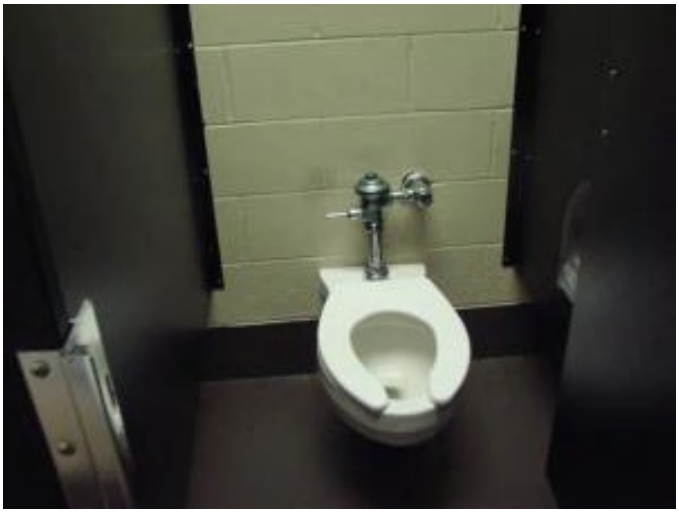
**Estimate:** $44,525.56

**Assessor Name:** System

**Date Created:** 09/18/2015

**Notes:** Provide ADA compliant hardware on interior doors

**System: C1030 - Fittings**



**Location:** Interior

**Distress:** Accessibility

**Category:** 2 - Code Compliance

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

**Correction:** Remove and replace damaged toilet paritions - handicap units

**Qty:** 20.00

**Unit of Measure:** Ea.

**Estimate:** $64,958.34

**Assessor Name:** System

**Date Created:** 09/18/2015

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

**System: C3020411 - Carpet**

**Location:** Interior

**Distress:** Beyond Service Life

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

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

**Correction:** Remove and replace carpet

**Qty:** 1,700.00

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

**Estimate:** $19,024.31

**Assessor Name:** System

**Date Created:** 09/18/2015

**Notes:** Replace carpet in library

**System: C3030 - Ceiling Finishes**

**Location:** Interior

**Distress:** Beyond Service Life

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

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

**Correction:** Re-paint ceilings - SF of ceilings

**Qty:** 26,800.00

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

**Estimate:** $128,292.35

**Assessor Name:** System

**Date Created:** 09/17/2015

**Notes:** Repair and repaint exposed ceilings

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

**Location:** Electrical Room

**Distress:** Inadequate

**Category:** 4 - Capital Improvement

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

**Correction:** Replace Electrical DIstribution System (U1)

**Qty:** 1.00

**Unit of Measure:** Ea.

**Estimate:** $519,183.07

**Assessor Name:** System

**Date Created:** 10/21/2015

**Notes:** Replace existing substation with new 480/277V sized to provide power for an elevator and air conditioning equipment.

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

**Location:** Electrical Room

**Distress:** Inadequate

**Category:** 4 - Capital Improvement

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

**Correction:** Replace Service Transformer

**Qty:** 0.00

**Unit of Measure:** Ea.

**Estimate:** $375,020.36

**Assessor Name:** System

**Date Created:** 10/21/2015

**Notes:** Replace existing transformer with new 1000 KVA transformer (13.2KV - 480V/277V) sized to provide power for existing loads plus the new air conditioning equipment.

**System: D5030 - Communications and Security**

**Location:** interior/exteriotr and Main Entrance
**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:** $100,799.59
**Assessor Name:** System
**Date Created:** 08/11/2015

**Notes:** Add video surveillance to interior, main entrance/courtyard.

**System: D5030 - Communications and Security**

**Location:** Main Entrance/court yard
**Distress:** Inadequate
**Category:** 4 - Capital Improvement
**Priority:** 4 - Response Time (4-5 yrs)
**Correction:** Add/Replace Paging System
**Qty:** 1.00
**Unit of Measure:** Ea.
**Estimate:** $75,102.16
**Assessor Name:** System
**Date Created:** 08/11/2015

**Notes:** Add site paging to main entrance and courtyard.

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

**System: C1010 - Partitions**

**Location:** Interior

**Distress:** Damaged

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

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

**Correction:** Folding partition inoperable - remove and replace - select quality

**Qty:** 1,500.00

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

**Estimate:** $410,702.60

**Assessor Name:** System

**Date Created:** 09/18/2015

**Notes:** Replace inoperable movable partitions

**System: C3020414 - Wood Flooring**

**Location:** Interior

**Distress:** Beyond Service Life

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

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

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

**Qty:** 20,200.00

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

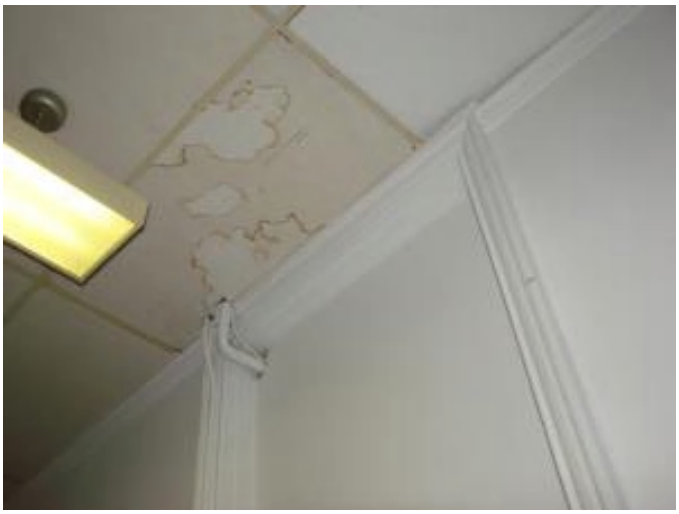
**Estimate:** $187,927.26

**Assessor Name:** System

**Date Created:** 09/18/2015

**Notes:** Repair refinish hardwood flooring

**System: C3030 - Ceiling Finishes**



**Location:** Interior

**Distress:** Beyond Service Life

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

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

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

**Qty:** 34,600.00

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

**Estimate:** $521,852.09

**Assessor Name:** System

**Date Created:** 09/17/2015

**Notes:** Replace all suspended acoustical ceilings

**System: D3030 - Cooling Generating Systems**

**Location:** Throughout building

**Distress:** Inadequate

**Category:** 4 - Capital Improvement

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

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

**Qty:** 68,076.00

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

**Estimate:** $982,294.47

**Assessor Name:** System

**Date Created:** 08/06/2015

**Notes:** Remove the window air conditioning units and install a 170 ton air-cooled chiller on the roof with chilled water distribution piping and pumps located in the mechanical room to supply more reliable air conditioning for the building with a much longer service life.

**System: D3060 - Controls & Instrumentation**

**Location:** Throughout building

**Distress:** Inadequate

**Category:** 4 - Capital Improvement

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

**Correction:** Replace pneumatic controls with DDC (75KSF)

**Qty:** 68,076.00

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

**Estimate:** $1,460,373.19

**Assessor Name:** System

**Date Created:** 08/06/2015

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

## Equipment Inventory

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

| Subsystem | Inventory | Qty | UoM | Location | Manufacturer | Model Number | Serial Number | Barcode | Life | Install Date | Next Renewal | Raw Cost | Inventory Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D3020 Heat Generating Systems | Boiler, gas/oil combination, cast iron, hot water, gross output, 3796 MBH, includes burners, controls and insulated jacket, packaged | 1.00 | Ea. | Boiler Room | Buderus | Logano GE615 | | | 35 | 2010 | 2045 | $84,333.50 | $92,766.85 |
| D3020 Heat Generating Systems | Boiler, gas/oil combination, cast iron, hot water, gross output, 3796 MBH, includes burners, controls and insulated jacket, packaged | 1.00 | Ea. | Boiler Room | Buderus | Logano GE615 | | | 35 | 2010 | 2045 | $84,333.50 | $92,766.85 |
| D3020 Heat Generating Systems | Pump, base mounted with motor, end-suction, 4" size, 7-1/2 HP, to 350 GPM | 2.00 | Ea. | Boiler room | Taco | FI | | | 35 | 2010 | 2045 | $27,265.35 | $59,983.77 |
| D3020 Heat Generating Systems | Pump, base mounted with motor, end-suction, 4" size, 7-1/2 HP, to 350 GPM | 2.00 | Ea. | Boiler room | Taco | FI | | | 35 | 2010 | 2045 | $27,265.35 | $59,983.77 |
| D5010 Electrical Service/Distribution | Load interrupter switch, 2 position, 400 kVA & above w/CLF fuses, 4.8 kV, 600 amp, NEMA 1 | 1.00 | Ea. | Electrical Room | Westinghouse | | | | 30 | | | $38,502.00 | $42,352.20 |
| D5010 Electrical Service/Distribution | Switchboards, fused switch, 4 wire, 120/208 V, 1200 amp, incl CT compartment, excl CT's or PT's | 1.00 | Ea. | Electrical Room | Westinghouse | | PHYB-72410 | | 30 | | | $22,604.40 | $24,864.84 |
| D5010 Electrical Service/Distribution | Transformers, 4800 volts to 480/277 volts, 500 kVA | 1.00 | Ea. | Electrical Room | Hevi-Duty Electric Co | | | | 30 | | | $65,205.00 | $71,725.50 |
| | | | | | | | | | | | | **Total:** | **$444,443.78** |

## 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): | 102,000 |
| Year Built: | 1909 |
| Last Renovation: | |
| Replacement Value: | $1,086,280 |
| Repair Cost: | $727,448.76 |
| Total FCI: | 66.97 % |
| Total RSLI: | 127.39 % |

**Description:**

**Attributes:**

**General Attributes:**

| | | | |
|---|---|---|---|
| Bldg ID: | S234001 | Site ID: | S234001 |

## 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 | 117.17 % | 113.21 % | $727,448.76 |
| G40 - Site Electrical Utilities | 142.18 % | 0.00 % | $0.00 |
| **Totals:** | **127.39 %** | **66.97 %** | **$727,448.76** |

## 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. | 10,800 | 30 | 1995 | 2025 | 2055 | 133.33 % | 8.37 % | 40 | | $6,912.22 | $82,620 |
| G2030 | Pedestrian Paving | $11.52 | S.F. | 31,000 | 40 | 1980 | 2020 | 2060 | 112.50 % | 167.96 % | 45 | | $599,801.23 | $357,120 |
| G2040 | Site Development | $4.36 | S.F. | 38,200 | 25 | 1995 | 2020 | 2045 | 120.00 % | 72.49 % | 30 | | $120,735.31 | $166,552 |
| G2050 | Landscaping & Irrigation | $3.78 | S.F. | 9,600 | 15 | 1995 | 2010 | 2032 | 113.33 % | 0.00 % | 17 | | | $36,288 |
| G4020 | Site Lighting | $3.58 | S.F. | 102,000 | 30 | 1995 | 2025 | 2055 | 133.33 % | 0.00 % | 40 | | | $365,160 |
| G4030 | Site Communications & Security | $0.77 | S.F. | 102,000 | 30 | 2010 | 2040 | 2070 | 183.33 % | 0.00 % | 55 | | | $78,540 |
| | | | | | | | | **Total** | **127.39 %** | **66.97 %** | | | **$727,448.76** | **$1,086,280** |

## 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.

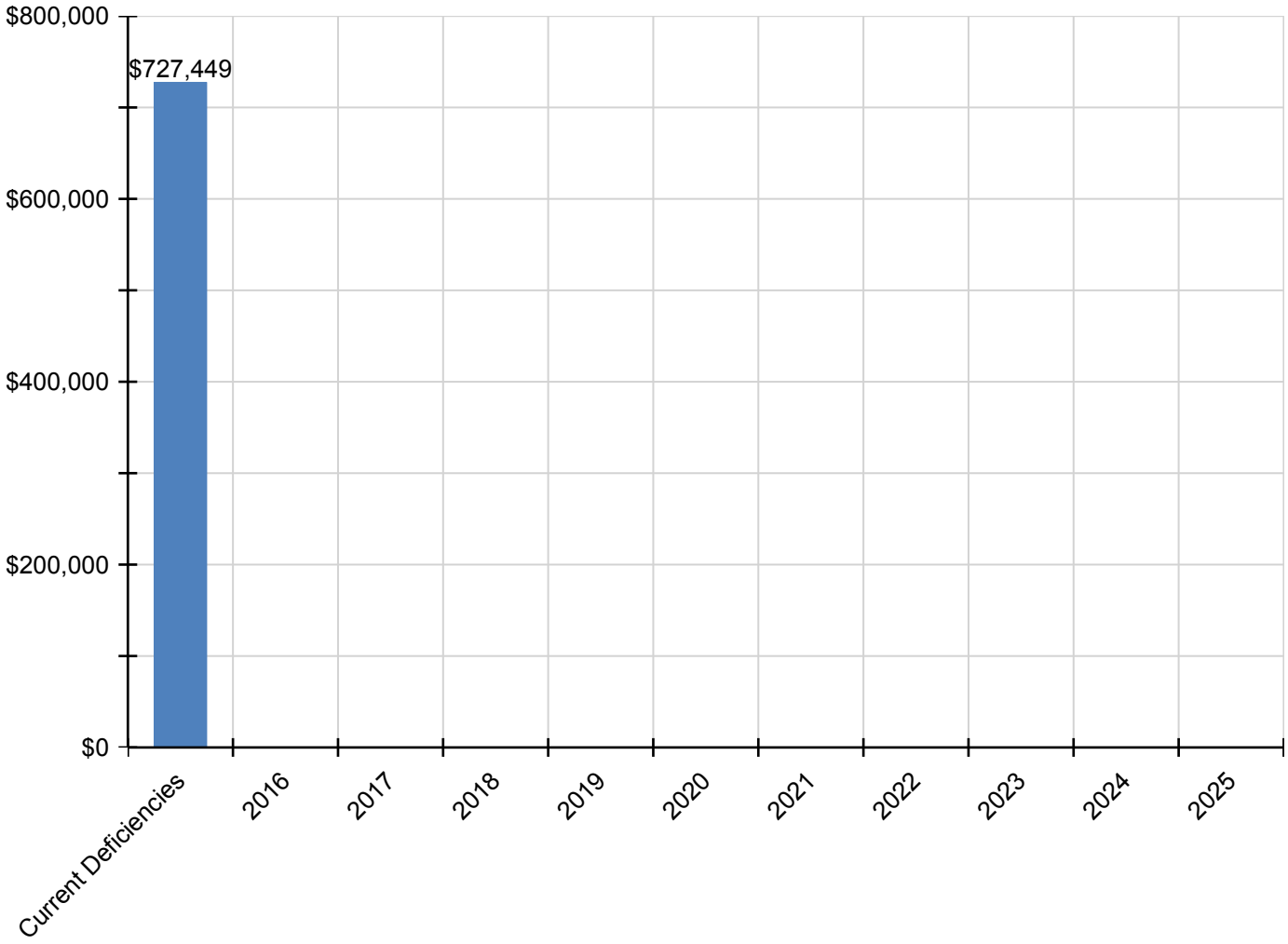
*Inflation Rate: 3%*

| System | Current Deficiencies | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total:** | **$727,449** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$0** | **$727,449** |
| **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** | $6,912 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$6,912** |
| **G2030 - Pedestrian Paving** | $599,801 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$599,801** |
| **G2040 - Site Development** | $120,735 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$120,735** |
| **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

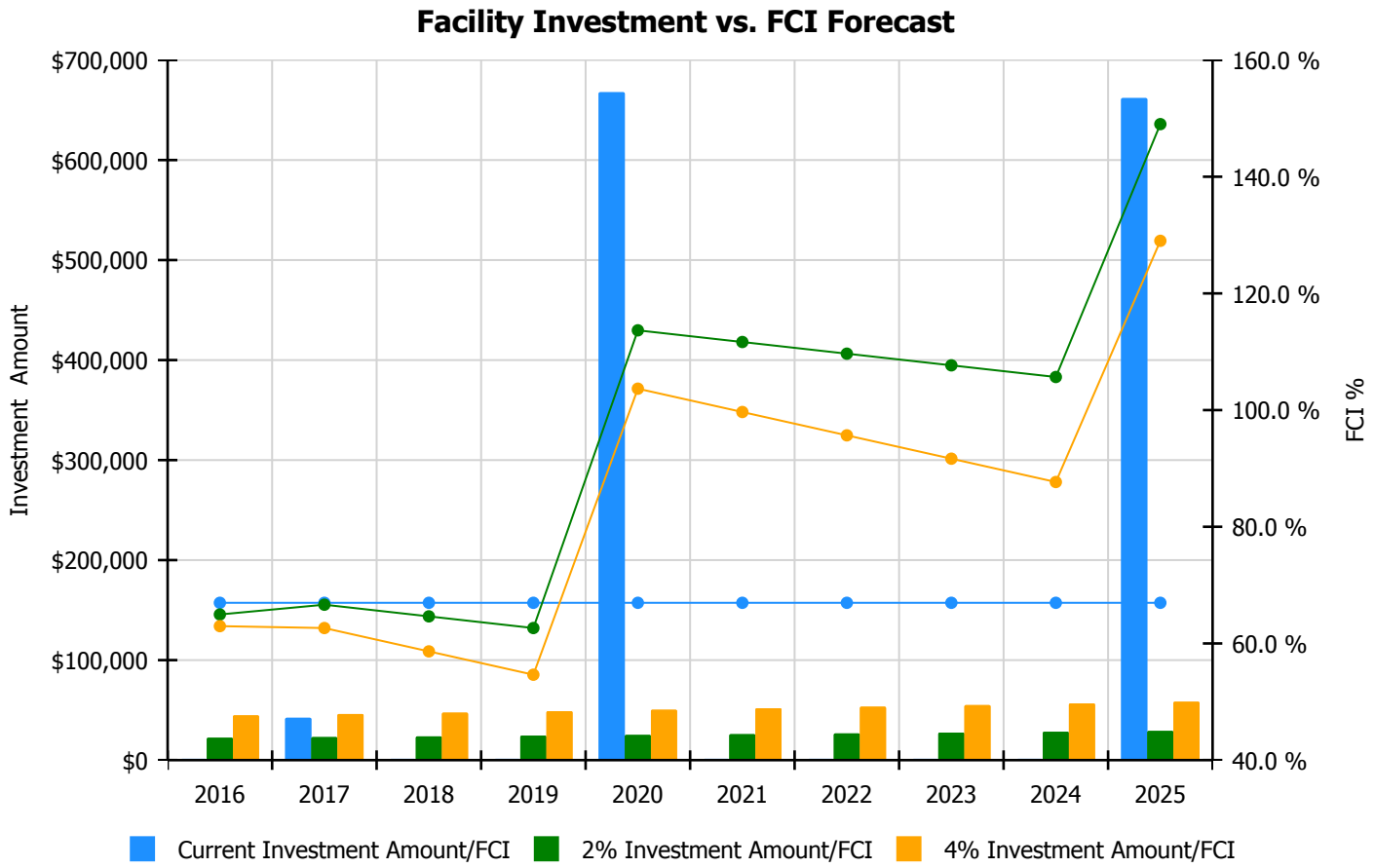
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



## 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:

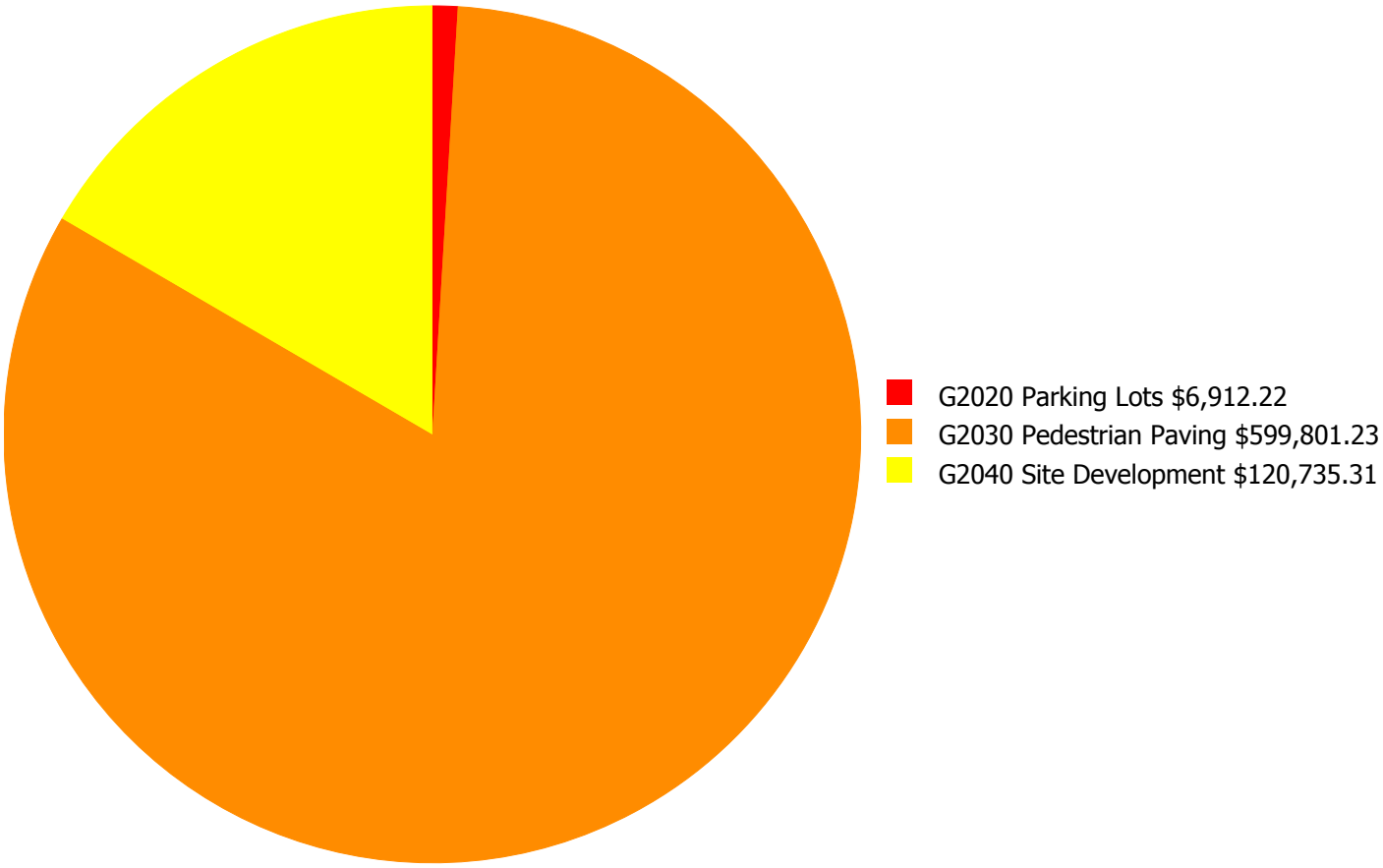
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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




| Year | Investment Amount Current FCI - 66.97% | 2% Investment | | 4% Investment | |
|---|---|---|---|---|---|
| | | Amount | FCI | Amount | FCI |
| 2016 | $0 | $22,377.00 | 64.97 % | $44,755.00 | 62.97 % |
| 2017 | $42,348 | $23,049.00 | 66.64 % | $46,097.00 | 62.64 % |
| 2018 | $0 | $23,740.00 | 64.64 % | $47,480.00 | 58.64 % |
| 2019 | $0 | $24,452.00 | 62.64 % | $48,905.00 | 54.64 % |
| 2020 | $667,787 | $25,186.00 | 113.67 % | $50,372.00 | 103.67 % |
| 2021 | $0 | $25,942.00 | 111.67 % | $51,883.00 | 99.67 % |
| 2022 | $0 | $26,720.00 | 109.67 % | $53,439.00 | 95.67 % |
| 2023 | $0 | $27,521.00 | 107.67 % | $55,043.00 | 91.67 % |
| 2024 | $0 | $28,347.00 | 105.67 % | $56,694.00 | 87.67 % |
| 2025 | $661,957 | $29,197.00 | 149.01 % | $58,395.00 | 129.01 % |
| **Total:** | **$1,372,092** | **$256,531.00** | | **$513,063.00** | |

## Deficiency Summary by System

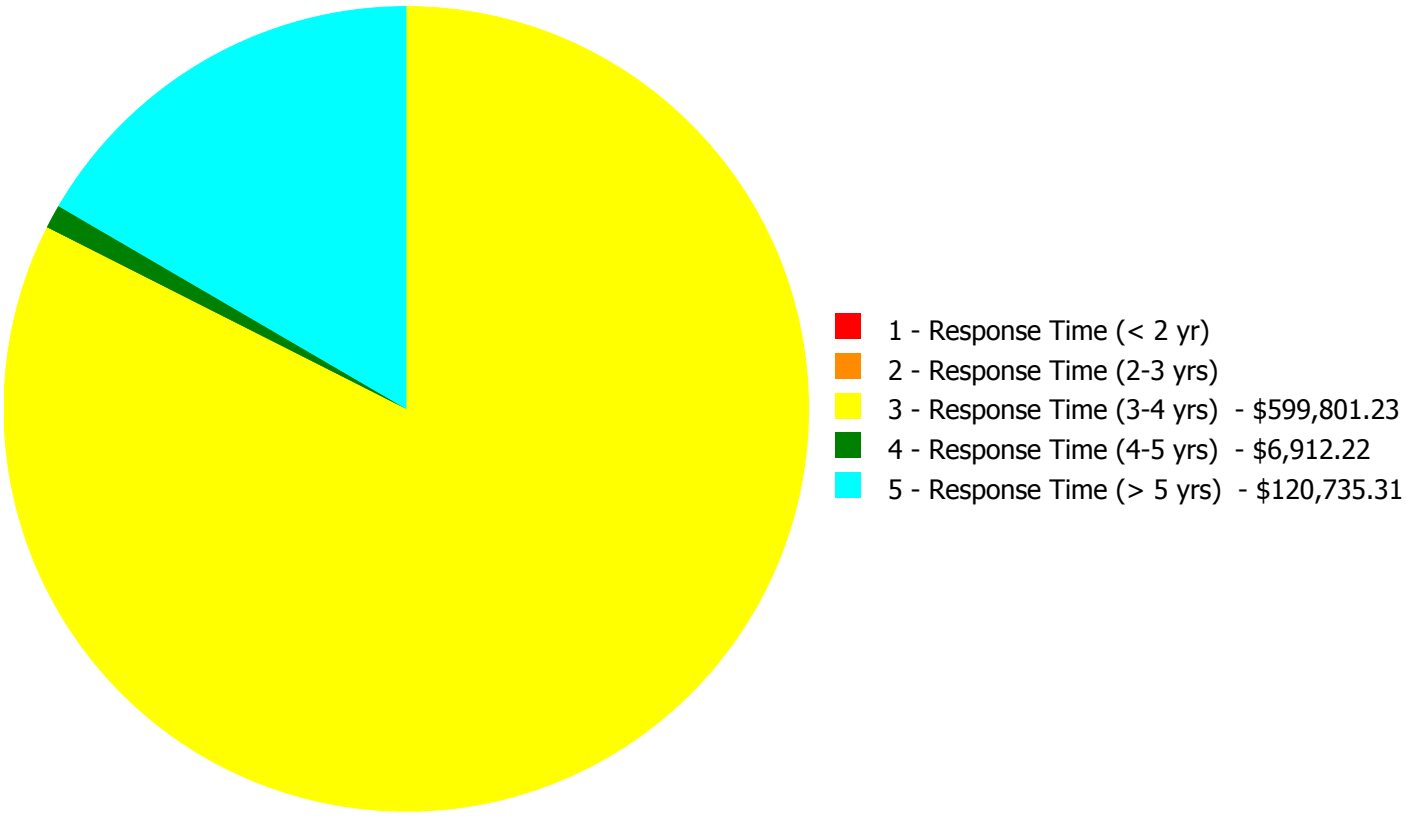
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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




**Budget Estimate Total: $727,448.76**

## 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: $727,448.76**

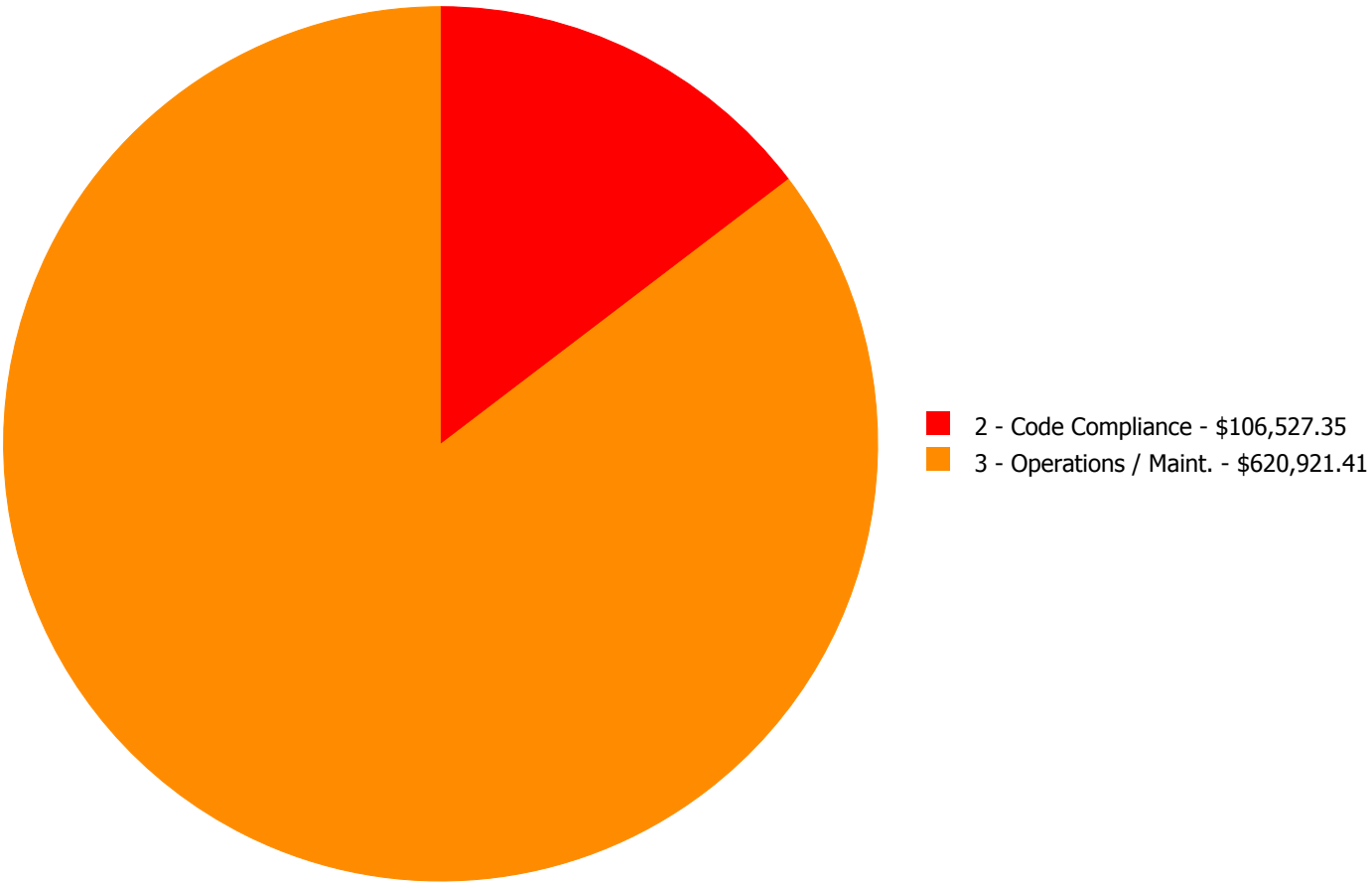
## Deficiency By Priority Investment Table

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 | $6,912.22 | $0.00 | $6,912.22 |
| G2030 | Pedestrian Paving | $0.00 | $0.00 | $599,801.23 | $0.00 | $0.00 | $599,801.23 |
| G2040 | Site Development | $0.00 | $0.00 | $0.00 | $0.00 | $120,735.31 | $120,735.31 |
| | **Total:** | $0.00 | $0.00 | $599,801.23 | $6,912.22 | $120,735.31 | $727,448.76 |

## 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: $727,448.76**

## Deficiency Details by Priority

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

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

**System: G2030 - Pedestrian Paving**

**Location:** Grounds/ site

**Distress:** Beyond Service Life

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

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

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

**Qty:** 31,000.00

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

**Estimate:** $493,273.88

**Assessor Name:** Ben Nixon

**Date Created:** 09/18/2015

**Notes:** Repave playground area. Replace resilient rubber tiles around playground equipment

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**System: G2030 - Pedestrian Paving**

This deficiency has no image.

**Location:** G234001;Grounds

**Distress:** Accessibility

**Category:** 2 - Code Compliance

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

**Correction:** Install an exterior ADA ramp - based on 5' wide by the linear foot - up to 84" rise - per LF of ramp - figure 1 LF of ramp per inch of rise

**Qty:** 45.00

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

**Estimate:** $106,527.35

**Assessor Name:** Ben Nixon

**Date Created:** 09/18/2015

**Notes:** Provide ADA compliant ramp at main entrance

---

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

**System: G2020 - Parking Lots**

**Location:** Grounds/ site

**Distress:** Beyond Service Life

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

**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:** 33.00

**Unit of Measure:** Ea.

**Estimate:** $6,912.22

**Assessor Name:** Ben Nixon

**Date Created:** 09/18/2015

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

## 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:** Remove and replace metal picket fence - input number of gates

**Qty:** 650.00

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

**Estimate:** $120,735.31

**Assessor Name:** Tom Moe

**Date Created:** 09/18/2015

**Notes:** Replace picket fence

## 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| G4020 Site Lighting | Metal halide fixture, exterior, wall pack, 250 Watt, incl lamps | 8.00 | Ea. | Paved Play Area | | | | | 30 | 1995 | 2025 | $589.95 | $5,191.56 |
| G4020 Site Lighting | Metal halide fixture, exterior, wall pack, 250 Watt, incl lamps | 1.00 | Ea. | Courtyard | | | | | 30 | 1995 | 2025 | $589.95 | $648.95 |
| | | | | | | | | | | | | **Total:** | **$5,840.51** |

## 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 |

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|---|---|
| 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 |

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|---|---|
| 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. |

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| 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 |

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|---|---|
| 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 |

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|---|---|
| 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. |

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| 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 |

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|---|---|
| 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 |

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|---|---|
| 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 |

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|---|---|
| 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 |