

## 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.

### Gratz School

Governance	CHARTER	Report Type	Middlehigh
Address	1798 W. Hunting Park Ave. Philadelphia, Pa 19140	Enrollment	1474
Phone/Fax	215-227-4408 / N/A	Grade Range	'07-12'
Website	Www.Masterycharter.Org/Schools/Simon-Gratz-Campus/	Admissions Category	Neighborhood
		Turnaround Model	Renaissance Charter

### Building/System FCI Tiers

Facility Condition Index (FCI) = $\frac{\text{Cost of Assessed Deficiencies}}{\text{Replacement Value}}$				
< 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
<b>Overall</b>	<b>28.88%</b>	<b>\$52,823,126</b>	<b>\$182,897,588</b>
Building	28.49 %	\$51,458,805	\$180,640,950
Grounds	60.46 %	\$1,364,321	\$2,256,638

### Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
<b>Roof</b> (Shows physical condition of roof)	89.59 %	\$1,948,216	\$2,174,650
<b>Exterior Walls</b> (Shows condition of the structural condition of the exterior facade)	04.64 %	\$691,162	\$14,904,000
<b>Windows</b> (Shows functionality of exterior windows)	28.22 %	\$2,679,679	\$9,494,400
<b>Exterior Doors</b> (Shows condition of exterior doors)	68.27 %	\$273,220	\$400,200
<b>Interior Doors</b> (Classroom doors)	143.52 %	\$1,861,736	\$1,297,200
<b>Interior Walls</b> (Paint and Finishes)	30.41 %	\$1,376,774	\$4,527,250
<b>Plumbing Fixtures</b>	00.00 %	\$0	\$4,664,400
<b>Boilers</b>	00.52 %	\$33,651	\$6,441,150
<b>Chillers/Cooling Towers</b>	69.19 %	\$5,843,209	\$8,445,600
<b>Radiators/Unit Ventilators/HVAC</b>	67.71 %	\$10,043,164	\$14,831,550
<b>Heating/Cooling Controls</b>	24.97 %	\$1,163,101	\$4,657,500
<b>Electrical Service and Distribution</b>	16.89 %	\$565,095	\$3,346,500
<b>Lighting</b>	33.37 %	\$3,992,755	\$11,964,600
<b>Communications and Security</b> (Cameras, Pa System and Fire Alarm)	11.75 %	\$526,677	\$4,481,550

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

**S401001;Gratz**

Final

**Site Assessment Report**

February 1, 2017



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### 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 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):	345,000
Year Built:	1927
Last Renovation:	
Replacement Value:	\$182,897,588
Repair Cost:	\$52,823,125.60
Total FCI:	28.88 %
Total RSLI:	48.53 %



#### Description:

Facility Assessment

August 2015

School District of Philadelphia

Mastery Simon Gratz High School

1798 West Hunting Park Avenue

Philadelphia, PA 19140

345,000 SF / 2,398 Students / LN 04

GENERAL

The Simon Gratz High School is one of the older schools in service to the Philadelphia communities and has a dedication plaque to the



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name sake Simon Gratz in the main lobby. The school is currently being run by the Mastery Charter system and is identified as B401001 and was originally designated as the Simon Gratz Public High School. Mastery assumed the facility in the fall of 2011. This facility is located at 1798 West Hunting Park Avenue, Philadelphia, PA. The late Gothic Revival design of the rectangular-shaped, concrete and steel-framed building includes brick facades with a concrete foundation. Constructed in 1927 the school has had two major additions including the classroom addition added to the northern exterior and then a Gym addition was donated from Rasheed Wallace within the past ten years. The Gym has a complete locker room with lockers, showers, weight room and offices to support school sports.

The main entrance faces the Northern exterior facing the plaza, drop off drive area on West Hunting Park Avenue where a historical marker for Roy Campanella resides. General parking is west of the school just on the other side of North Eighteenth Street. This School serves students in grades 9 to 12 and has a basement with five stories consisting of a total gross square footage of 345,000 GSF.

This school has several classrooms, a library, kitchen and student commons, three Gyms, Auditorium and cafeteria, with supporting administrative spaces, Science, Music, Mechanical Arts, Art Department, R.O.T.C. Ballet, Wood Shop, Print Shop, Sign Shop, Therapy Area for special needs students, Simon Gratz Cuisine, Ninth Grade Success Academy, John D Glenn Memorial Gym and Home of the Simon Gratz High School Business Institute.

Special note the existing oil painting in the main lobby dedicated in the late 1940's to those who provided a future through sacrifice. Other wall paintings are depicted to the local community and dedications to people who support the school.

The information for this report was collected during a site visit on August 17-18, 2015.

Mr. Alfred Howard, Director of Facilities with Mastery Charter Schools, Mr. Mel Schnipper, Building Engineer, and Tariq Ralls, Engineer, accompanied the assessment team on a tour of the school and provided detailed information on the building systems and maintenance history. Ms. Ninette Cooper, Assistant Principal of Operations, and Mr. Dave Kibelstis, Assistant Principal of Operations, also shared information about the school.

### Architectural / Structural Systems

The exterior brick surfaces are generally in fair to good condition for their age. In some locations, bricks have cracked or spalled and should be replaced. The repointing of deteriorated mortar joints is also recommended, using mortar of a similar color and consistency as the original. Following the detailed examination of the brick and repair of mortar construction joints, the entire building should be pressure washed to remove stains and embedded pollutants. If moisture is found to be penetrating the masonry facade, the application of a spray sealant to the suspected exterior masonry surface is recommended.

Most of the exterior windows have been upgraded from the original applications. As indicated in the photos several of the windows appear to be original. A majority of the window system is estimated to have been installed in the 1990's. Several of the windows no longer work and will require attention prior to an overall effort. Overall, the windows are in fair condition based on the year of installation or last renovation. The entire exterior window system is recommended to be replaced with units that retain their dimensions and profiles, but that incorporate updated energy-efficient features.

The exterior concrete finish is spalling as indicated in the photos. Thus far the damage is limited to the interior sections of the roof on the addition. This deficiency provides a budgetary consideration for repairs to the concrete sections that are damaged. This work should be coordinated with the recommended exterior point and tuck work.

The exterior doors are metal applications with metal frames. The exterior door system for this school is a very high traffic system. Most of the doors are in fair condition but are aging at a faster rate than expected based on traffic and condition. The service doors on the roof have expired and failed compromising access to elevator rooms and tower rooms. The exterior door system, store front and service doors are recommended for upgrade.

The addition has several exit doors that are only used in an emergency. The doors open onto the sidewalks for proper egress. The egress path was not constructed with the physically challenged in mind as it requires one to traverse stairs or pads for egress. Care should be taken to ensure that the doors and concrete pads are reviewed for proper egress for those that may be physically challenged and also to remove any pinch points that exist from the pads being too short.

There are a number of roof sections and different roof elevations ranging from the main roof to the addition roof. Parapet heights, coping materials, and the height of the flashing also varies in different sections. The main roof is a built up application that was installed in the early 1990's. The other built up roofs have not conclusive installation dates and have been seal coated several times

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to extend the life cycle of the application. During the time of the inspection it was reported that several leaks are active and a consistent repair program is consuming efforts to maintain the roof. Considering the age and condition of the roofing systems, universal upgrades are recommended. Remove and replace all roof sections. This deficiency is expected to be completed as part of an exterior effort coordinated with other recommendations included in this report.

Special consideration for those that may be physically challenged was a main factor in the construction of the additions of this school but not the main building. This schools additions design is a good example for the district as the needs of the physically challenged appear to have been paramount. Currently there are two compliant entrances at grade. The path of travel is clear from this access points as the interior path of travel is supported by interior ramps, elevator, some compliant signage, restrooms amities, compliant door hardware, hand rails and guard rails to meet the needs of the physically challenged. The main building will require several upgrades to meet the needs of the physically challenged.

There is a wall mounted oil painting located in the main lobby. This oil painting is in very good condition however has not been cleaned for some time. Special care should be taken to clean this oil painting as to not damage the surface during the cleaning.

The original lobby has a special design that has been modified to support access to the main lobby and addition. The finish is marble walls, stirs, and custom designed ceilings with open stairs on either side leading to the second floor while the main level leads to the auditorium. Care should be taken to ensure that this historic lobby remains as clean and well maintained in the feature as it was the day of the inspection.

The present floor plan arrangement has the elevator lobbies opening up into the existing hall corridors. IBC 2000 states that elevators opening into a fire resistant corridor shall be provided with an elevator lobby at each floor containing such a corridor. The lobby should completely separate the elevators from the corridor with rated partitions. Elevator lobbies need to have at least one means of egress and contain smoke detectors. This deficiency recommends the construction of fire resistant barrier with automatically closing fire doors to be installed between the elevator lobbies and the corridors to provide the required separation and protection.

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

There are several transom lites and sidelights constructed into hallway wall systems. It is recommended that the lites and sidelights be removed and replaced with a fire rated wall construction. The deficiency provides a budgetary consideration to correct the hallway, transoms, lites and sidelights.

The basement level storage area of the R.O.T.C. section is damaged. As indicted in the photos the wall failure has exposed electrical wires and metal studs. This deficiency provides a budgetary consideration to build a fire rated wall to replace this section. This deficiency is expected to be coordinated with other interior efforts.

Lab casework and countertops are located in the science classrooms on the fifth floor of this school. They vary in design, age, and degree of deterioration. Selective replacement of both base cabinets and countertops should be anticipated within ten years. The new cabinetry should be designed in accordance with current requirements and include utility upgrades.

Interior doors are typically wood in wood frames with transom lites, sidelights, wired glass glazing. Other interior doors include wooden glass pane doors with original wooden pane frames, hollow metal in hollow metal frames at stairwells and exit ways. Doors are generally in good condition considering the age of the application. Universal upgrades are required for the interior door systems it is recommended that the interior doors system be removed and replaced with a new modern metal framed hollow metal door system with consideration for ADA compliance.

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

The classroom chalk boards are covered with temporary white boards in several rooms. There are several classrooms with the original chalk boards. This system is beyond its expected life and universal upgrades are warranted. Remove and upgrade chalkboards to new marker board systems.

There are painted walls, trim, and some painted ceilings in this building. Sections of the building, some textured concrete surfaces have been painted as well. The interior finishes are in fair to poor condition depending on the location of the finish. For example due to recent roof leaks over the auditorium several areas will require repair and repainting. Also, sections of the fifth floor are damaged

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due to neglect. This school will require an almost continuous program of renewal of the applied finishes to maintain an acceptable appearance. Cyclical painting should be considered for a standard approach to maintaining the quality of the interior finishes. It is recommended that all previously painted surfaces be repainted according to established cycles for this occupancy and use type. Minor repairs should be completed before work begins. The abandoned section of the fifth floor is expected to require major repairs and additional efforts to restore the finishes. This effort is expected to be coordinated with other mechanical electrical efforts in order to prevent overlapping efforts.

The tile wall finishes appear to have been replaced in the early 1990's and are in fair condition. The finish is expected to require upgrade within the next ten years based on the high traffic use in this school. This deficiency provides a budgetary consideration for universal upgrades to the wall tile finish.

The hallways, stair landings and mechanical spaces have a sealed concrete finish. The hallway concrete finish is diamond cut and placed as 24x24 inch sections. As indication in the photos most of the finish is in good condition. However what is not apparent in the photos is that several of the sections are loose and require re-grouting and in some places replacement. This deficiency provides a budgetary consideration for section by section repairs to the concrete floors and consideration for refinishing work once repairs are complete.

The interior carpet finish was installed approximately in 2000 and is in fair condition considering the age and high traffic conditions. This finish will exceed its expected life within the next five years and is recommended for removal and replacement.

The 6x6 tile floor finish in the kitchen is in fair condition. However, there are several areas of broken tile and edge issues near the doors and breaks between finishes. This deficiency provides a budgetary consideration to repair and reground the tile floor finish.

This school has sections of 12x12 floor tile that represents upgrades and abatement of the 9x9 tile. In some cases the 12x12 was used to cover the wooden floor finish. However, suspected asbestos containing materials (ACM) are believed to be limited to the original vinyl floor tile and mastic. While currently sound and manageable in place, future renovation efforts should include provision to test and abate any and all ACM.

The classrooms and auditorium in this school have a wooden floor finish that appears to be from original construction. As indicated in the photos the floors in the basement level were under water during the time of the inspection as a result of a water line leak discovered during the inspection. Also, on the third floor the wooden floor under the 12x12 tile floor was saturated with water as a result of a backed up condensation line. Other sections of wooden flooring are showing signs of age such as the effects of sanding and refinishing with yearly cleaning and waxing with some repairs. Most of the floor finish is in fair condition however, the finish is beyond its expected life cycle. It is recommended that the wooden floor finish be removed and replaced with an in kind finish.

The hallway that connects the GYM's behind the stage construction limits egress path as the entire passage is less than four foot clearance that opens into the main hallway. Care should be taken to redirect the egress path away from this pinch point and also modify the area to limit access during an emergency.

The ceiling finish is a mix of 12 x 12 ceiling grid, painted and 2 x 4 Acoustical tile finish. Ceilings have been repaired in several areas and are in good condition considering the age of the application and the current condition of the school. The ceiling finish is expected to require upgrades to support the recommended mechanical electrical efforts in this report. This deficiency provides a budgetary consideration for removal and replacement of the current ceiling finish to a new acoustical tile finish. Considering the recommended mechanical and electrical upgrades this effort should be completed as part of an overall renewal program for the school. No work should be considered until after the recommended exterior efforts are complete.

The boys and girls Gyms are no longer the main areas as this school had a new Gym addition constructed within the past ten years. This new Gym is in like new condition with modern backstops and sports safety barriers. However the old Gyms are still used as either a student common area or practice court. The interior backboards and support equipment is beyond its service life. Damaged boards are recommended for removal and replacement.

The practice Gyms or Boy's and Girl's Gyms each have a single scoreboard that appears to be from the early 1950's. This deficiency provides a budgetary consideration for the removal and replacement of each scoreboard.

The loading dock is located just off the parking area between the dumpsters and the access point for support vehicles entering the school. The school was not constructed with a modern loading dock. Materials are hand trucked down the exterior walkway to the basement level and enter the school from that point. In order to modernize this process barriers and bumpers are recommended to be installed at the entrance point with enough room for a delivery truck to turn around and back into the spot. This deficiency provides a budgetary consideration to modify this loading dock.



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The school stage has a stage curtain assembly that appears to be from the original construction. Modern applications are typically fire-proof applications with adjustable tracks and electric support for operation. The curtains are torn in a few sections and the track is not functioning properly, overall the system is in poor condition. It is recommended that the curtain and track system be upgraded to a new system. Special care should be considered in regards to modern fire proofing for the new installation.

The fixed seating for this school is from the original construction. The systems are in fair condition considering the age and usage. This project provides a budgetary consideration for universal upgrades for the fixed seating and furnishing of this school. Ensure that ADA requirements are followed with the new seating layout.

Several of the exterior windows are covered with an exterior protective metal gate. Several of the gates have become homes for the local wild life and debris now lines the windows and if the window is opened the waste debris will become a part of the classroom atmosphere. Care should be taken to clean these sections out to prevent any health issues from surfacing.

There are ceiling mounted roll type fire gate systems in this school separating major areas such as the original lobby and the addition lobby. These systems appear to be in good condition and there are recommendations required at this time.

### MECHANICAL SYSTEMS

**PLUMBING-** Plumbing fixtures are standard china commercial quality with wall mounted lavatories, urinals and both floor and wall mounted water closets. Most lavatories have dual wheel handle faucets and urinals and water closets have concealed flush valves with push button operators. Custodial closets have cast iron service sinks or mop basins. There are some stainless steel counter top sinks and integral lab equipment sinks in science classrooms. One locker room has a circular gang lavatory. There are single and dual level stainless steel water coolers with integral refrigeration. The science classrooms contain one emergency eye wash/ shower unit in each.

Locker areas have gang and stall showers. Water heating is provided by several water heaters in three locations. Three gas Paloma instantaneous water heaters are in the basement mechanical room, each with a small inline circulating pump and a common inline recirculating pump for the distribution system. All three units were disassembled during this survey for maintenance. A seventy five gallon 2011 Rheem gas heater located in a mechanical room near the kitchen serves that equipment. Two Bradford White 2004 eighty gallon electric water heaters are in a mechanical room in the addition to serve that portion of the building. There is a domestic water booster pump system in the mechanical room and a duplex ground water sump pump and water softener system. The addition mechanical room also contains a ground water duplex sump pump.

Water piping has been replaced since the original installation with copper, but may contain lead solder based on age. Sanitary, waste, vent and rainwater piping is original installation hub and spigot cast iron, with some hubless cast iron where additions or damage has occurred. There are two water services, in the original building mechanical room and the addition mechanical room. Both are four inch lines and meters and have dual parallel backflow preventers. The original building service is connected at N. 17<sup>th</sup> St. and the addition service is connected at W. Hunting Park Ave. Gas service is a six inch line into the original building mechanical room connected at N. 17<sup>th</sup> St. Gas piping is welded black steel. Main sewer lines are connected at N. 17<sup>th</sup> St. and W. Hunting Park Ave.

The water heaters should be serviceable up to fifteen more years. Domestic water piping should be replaced based on age and normal service life. Plumbing fixtures should be serviceable twenty five more years. Cast iron sanitary and waste piping should be inspected for damage and repaired as required. Both sump pumps should be scheduled for replacement within the next five years.

**HVAC-**The building is heated by steam and hot water generated by four HB Smith cast iron sectional steam boilers. The boilers are model 650 Mills gas and oil fired one hundred seventy five hp each installed in 2006. Each unit has a Powerflame burner and control panel, separate oil pump and is connected to a common factory fabricated vent system routed through an existing chimney to a roof cap. One of the boilers has a damaged steam supply header which was blown apart due to an operational issue with the feed water system and should be repaired. There are two ten thousand gallon steel oil tanks in an adjacent room, constructed of concrete block and sealed from the surrounding area. A duplex fuel oil pump system outside the tank room provides circulation. The 1972 building addition is heated by a hot water system provided by a steam to water shell and tube heat exchanger installed overhead in the mechanical room and two Armstrong forty hp end suction base mounted pumps. A condensate return and boiler feed unit serves the boilers. The unit has five small pumps with one being a spare. There are also two small cast iron condensate receiver systems, one in the boiler room and one in a mechanical room near the kitchen. An automatic chemical feed system is located in the mechanical room.

The old building has exposed steam radiators with control valves and traps. The valves and traps have been replaced as required. The 1972 addition has unit ventilators in classrooms and some other areas, and heating and ventilating units with hot water coils in the gymnasium and cafeteria. The gymnasium has four heating and ventilating units suspended below the roof structure with ducted air distribution. Unit ventilators are Daikin units replaced in 2006 with hot water coils, outside air damper, filter, blower and motor, control valve and controls. Steam and hot water radiation units are located at entrances, toilet rooms, and other areas requiring heat. Reportedly the hot water system has control problems with the steam valve at the heat exchanger. Four original house fan systems

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are inoperable. Two are in basement mechanical rooms and serve halves of the building classroom areas. Two other units serve the auditorium and other building areas.

There is no central air conditioning. The building has window air conditioners for all classrooms and a ductless split system for the IT room with the condensing unit mounted on the exterior wall. A small DX split system serves the computer lab. Two abandoned air cooled condensing units on the addition roof were connected to two horizontal units serving the cafeteria and meeting room areas. A vertical air cooled package air conditioner in a closet serves another computer room. The fifth floor is unoccupied but has finished music practice rooms, served by a DX split system with air ducted to each space. The kitchen is not currently used for cooking but has a total of four hoods. One is a double wall makeup air hood, two are heat removal only and one is for steam removal above the dishwasher. Two hoods have Ansul fire suppression systems interlocked with gas solenoid valves. The boiler room has combustion air louvers with motorized dampers for combustion air, partially ducted to the floor level, and a wall propeller fan. Approximately six centrifugal roof ventilators provide toilet and locker room exhaust. The main electrical room has an inline exhaust fan for ventilation.

Large heating water piping, steam and condensate return is insulated welded black steel, with smaller steel piping having threaded fittings. Smaller hot water piping is rigid copper. Fuel oil piping is black steel with screwed fittings.

There are old pneumatic control components for heating and ventilating units and some radiators. Unit ventilators have digital controls. There is a duplex controls air compressor in the mechanical room. In 2006 a building automation system was installed including main panel in the mechanical room. Reportedly the software and computer terminal were not complete when the school was acquired by Mastery four years ago, so there is no central control of HVAC systems. Boilers are individually controlled by the burner control panels.

The boilers installed in 2006 should be serviceable twenty five more years. The unit ventilators and hot water system were installed in 2006 and have an anticipated service life of fifteen more years. New central station air handling units should be installed for the cafeteria, auditorium and gymnasium. The steam radiators and piping are original and should be replaced with a new system.

**FIRE PROTECTION-** There are dry standpipes with fire hose connections in some stairwells. There is no automatic sprinkler system.

### ELECTRICAL SYSTEMS

**Electrical Service--**The building is served by a 13.2 kV underground service from PECO Energy Company on the south side of the building to an Eaton Cutler-Hammer medium voltage switchgear lineup in the Main Electrical Room consisting of an incoming utility section, line load break switch and metering section and three (3) load break switches for MSB1 Transformer, MSB2 Transformer and the Annex (1972 Addition) medium voltage switchgear.

Transformers MSB1 and MSB2, both with a manufacturer date of 2007, are dry type and each rated at 750 kVA, 13.2 kV-208/120V, 3 phase, 4 wire that were installed in 2007, and have a remaining useful service life of 22 years. Switchboards MSB1 and MSB2, both with a manufacturer date of 2001, are each rated 2500A with 2500A main circuit breaker, surge protective device and one distribution section, and have a remaining useful service life of 16 years. The transformers and switchboards are manufactured by Cutler-Hammer. These two switchboards feed all of the panelboards throughout the original 1927 building.

The Main Electrical Room also houses an 800A Distribution Panelboard DP-1 and a 300 kVA isolation transformer which feeds 1200A, 208/120V Distribution Panelboard ITDP, which is incorrectly labeled as a 480/277V, 3 phase, 4 wire panelboard. All panelboards within the original 1927 building have been replaced and have a remaining useful life that extends beyond this report.

To serve a proposed central air conditioning system, a 600A, 15 kV load interrupter switch, 1000 kVA, 13.2 kV-480/277V, 3 phase, 4 wire dry type transformer and 1600A, 480/277V switchboard with associated circuit breakers would need to be provided.

The 1972 Addition is served by a 13.2 kV feeder from the medium voltage switchgear in the original 1927 building to a 500/677 kVA, AA/FA, 13.2-208/120V, 3 phase 4 wire, dry type Cutler Hammer transformer that feeds a Cutler-Hammer 2000A switchboard with main circuit breaker and IQ DP-4000 power meter. The main circuit breaker feeds a Zinsco 1600A 208/120V, 3 phase, 4 wire switchboard that feeds panelboards in corridors and in the gymnasium equipment rooms. The panelboards in the gymnasium offices in the 1972 building addition have exceeded their expected useful life and should be replaced within the next 3 to 5 years.

**Receptacles--** Most classrooms are typically supplied with only two or three duplex receptacles and are not adequate. Some of these "older" receptacles are not grounding type and need to be replaced with grounding type. A few classrooms had surface metal raceway that provided additional receptacles.

There are also non-grounding type receptacles in corridors at panelboard locations that will need to be replaced. Approximately 74

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classrooms will need additional receptacles. An allowance for replacement of 120 duplex receptacles with 3-wire grounding type is also included in this report.

There are approximately 10 duplex receptacles located within six (6) feet of a sink in various locations that are not ground-fault circuit-interrupting type and 17 receptacles in the Basement kitchen that will need to be replaced with ground-fault circuit-interrupting type to comply with NFPA 70, National Electrical Code (NEC) Article 210.8.

Lighting-- Fixtures in corridors are generally 2x4 lay-in grid fluorescent troffers with T8 lamps and acrylic prismatic lenses. Classrooms have 2x4 lay-in grid fluorescent fixtures or surface mounted modular fluorescent fixtures with T12 lamps in rooms without lay-in ceilings. Some classrooms are provided with 2x4 lay-in grid parabolic fluorescent troffers. Most classrooms have two switches for lighting control. Replace lighting system in classrooms that have T12 lamps (approximately 109,900 SF). Replace fluorescent lighting system that has T12 lamps in offices, mechanical rooms, toilet rooms, locker rooms and other miscellaneous rooms. Replace incandescent lighting fixtures in shower rooms with wet location fluorescent fixtures.

The auditorium has 25 drum type incandescent fixtures above and below the balcony with 15 pendant mounted incandescent fixtures above the house floor. The 300W incandescent lamps have been replaced with 200W compact fluorescent lamps. There is also a theatrical lighting position on each side of the auditorium with four (4) theatrical fixtures. The stage has three (3) rows of electric stage lighting and a Strand Lighting CD 80 dimmer cabinet with (48) 2.4 kW dimmer modules that was installed in 2000 and is fed from a 600A safety switch. There are no work lights above the stage. It is recommended that the incandescent lighting fixtures in the auditorium be re-lamped with dimmable LED lamps to reduce energy consumption and maintenance cost and to significantly increase lamp life.

The gymnasiums in both the original building and 1972 addition are illuminated with pendant mounted metal halide industrial style lighting fixtures. There are also incandescent fixtures that provide emergency lighting in the gyms.

There are fluorescent strip and wraparound fixtures with T12 lamps in the locker rooms in the Basement of the 1972 addition. The shower rooms have incandescent ceiling mounted fixtures that are not suitable for damp/wet locations. All of the fixtures need to be replaced.

The kitchen is provided with 2x4, 4 lamp lensed troffers with T8 lamps. The old Print Shop has fluorescent wraparound fixtures with T12 lamps that are obsolete and need to be replaced.

The dance studio is illuminated with recessed metal halide lighting fixtures that have reached the end of their useful life and need to be replaced.

The Boiler Room has industrial type metal halide fixtures and 4 foot industrial fluorescent fixtures with wire guards at boiler locations. The gas service room and the basement area under the alley on the south side of the building has 4 foot industrial fluorescent fixtures with T12 lamps that are beyond their useful life and need to be replaced

There are several 2x4 lighting fixtures in corridors that need to be cleaned and/or repaired with new lenses throughout the building. An allowance for 30 fixtures is included in this report to be cleaned and/or repaired.

Restrooms, stairwells and exit vestibules typically have surface mounted modular fluorescent fixtures with acrylic lenses.

Wall mounted lighting fixtures are located on the exterior of the building at exit discharges and along the entire perimeter. Along the north wall of the 1972 addition, there is a continuous linear fluorescent wall bracket that illuminates the mural. Lighting system is in good condition.

Fire Alarm System-- The fire alarm system control panel is an addressable type by Notifier that is located in the Building Engineer's office. The fire alarm system is maintained and serviced by Keystone Fire Protection Company. The system includes manual pull stations, audio/visual notification appliances and smoke detectors in elevator lobbies and machine room. Notification appliances need to be provided in the Main Electrical Room.

Audible and visual notification appliances are provided in corridors, classrooms, restrooms, auditorium, gymnasium, cafeteria and kitchen. The fire alarm system was installed with the electrical system upgrade in 2007 is estimated to have 12 years of useful life remaining before replacement.

Telephone/LAN-- A telephone is provided in each classroom. There are no hard wired data outlets in the classrooms. Wireless access points are provided in classrooms, corridors, auditorium, gymnasiums and cafeteria for Wi-Fi service throughout the entire school. The

## Site Assessment Report - S401001;Gratz

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Main IT Room is located on Floor 2, adjacent to Room 216.

Public Address/Paging/Sound Systems-- The paging system is accessed through the telephone system. There are three (3) 250W Bogen amplifiers for the paging system that serve both the original building and 1972 addition. Each classroom has a ceiling paging speaker. There are also paging speakers in corridor ceilings. This system is estimated to have 12 to 15 years of useful life remaining. A separate sound system and cabinet is provided for the auditorium. Portable sound systems are used in the gymnasiums.

Clock and Program System--The program system is obsolete and the original speakers in classrooms and corridors have been abandoned in place and replaced with recessed ceiling speakers. The paging system is used for program changes. There is no clock system in the school. Clocks that are provided in some classrooms are individual battery type. A wireless clock system is recommended.

Television System-- There are coax television outlets in classroom, but no televisions.

Video Surveillance and Security Systems-- Interior video surveillance cameras provide coverage of all corridors, auditorium, gymnasiums, cafeteria, stairwells and exit vestibules. Cameras are typically located at the intersection of corridors. Obsolete cameras remain and have been abandoned in place in the corridors. Exterior cameras are building mounted and provide coverage of the site and entrances. There are approximately 114 surveillance cameras that are monitored on nine (9) monitors in the Security Room 207A on Floor 2. The video surveillance cameras were reported to have reached the end of their useful life and need to be replaced.

Magnetic door contacts are provided on exterior and stairwell doors. The 1972 addition has magnetic locks with request-to-exit pushbutton stations at stairwell doors. There are also a few doors that are provided with card readers to allow ingress/egress. There is also an Aiphone intercom system at the Main Entrance to the school.

Emergency Power System--There is a Cummins 150 kW, 208/120V, 3 phase 4 wire standby generator with 366 gallon sub-base fuel oil tank located in the Main Electrical Room. This generator supplies Panelboard GDP, rated 600A, which supplies standby loads in the 1927 original building and Automatic Transfer Switch (ATS) ATS-LS that feeds Panelboards ELP1 and ELP2. Both elevators are also supplied by standby power. The emergency power system equipment was installed in 2001 and has an estimated remaining useful life of 16 years.

An ASCO 940 ATS is located on stage left to provide emergency lighting for the auditorium.

There is also a Zenith 100A, 208/120V, 3 phase, 4 wire ATS in the Basement Electrical Room in the 1972 building addition that supplies emergency lighting loads.

Emergency Lighting System / Exit Lighting-- Egress lighting fixtures and exit signs are supplied with emergency power from the standby generator. No emergency lighting is provided in the Boiler Room. There are several locations where exit signs are missing (in the gymnasiums) or not visible at both ends of the corridors and need to be added to identify the exit passage. Also, there are several exit signs that are not illuminated and require maintenance or replacement.

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

Conveying Systems--There are two electric traction elevators in the building. The east elevator cab and machine room was refurbished and upgraded in 1985 and is expected to have a remaining useful life of at least 5 years. The west elevator is a motor-generator type that needs to be refurbished and modernized.

### GROUNDS

The sidewalk system is original to the buildings construction. There are a several areas of cracking concrete but no tripping hazards. The sidewalk system is expected to expire in the near future. Removal of the entire system is recommended. Universal upgrades are required and should include all aspects of current ADA legislation.

The trash dumpster is located south of the main building enclosed by site fencing but open to students. The exterior services are not protected. Upgrades to protect the exterior services and trash area is necessary for the safety of the students and the general public. Construction of a secure lockable dumpster area is recommended.

This school has a perimeter fence surrounding the service parking and loading dock area. The fence has several areas of repairs and the mounting post are damaged in several areas, overall the fence is in fair condition. This fence system is recommended to be removed and replaced with a new system within the next five to ten years.

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This schools parking area has a perimeter fence that appears to double as a baseball diamond complete with backstop. The fence consist of either a chain link or metal picket fence and has several areas in need of repairs. The mounting post are damaged in several areas, gates are damaged and locking units no longer function. Overall the fence is in fair condition considering the age of the application. This fence system is recommended to be removed and replaced with a new system within the next five to ten years.

The parking play area has no assigned parking and limited markers for approved activity areas. No curb cuts for access to the sidewalks that lead to the ADA main entrance. The parking play lot is in poor condition, the harsh environmental conditions associated with snow removal have taken its toll on the asphalt surface. Also, there is no marked path of ingress to the main entrance. This project provides a budgetary consideration for a play, parking lot renewal program that includes all aspects of the current ADA legislation. Asphalt removal and replacement is recommended.

The hand rails to the basement level entrance, sidewalk stairs from the parking area and access levels to the basement are not current with requirements that the hand rails be graspable and continuous. In some cases the hand rails have been damaged and in other cases removed. This deficiency provides a budgetary consideration to remove and replace the exterior hand rail guard rail system for the parking area and school site.

This school has limited landscaping with a few mature trees and small sections of turf. The landscaping is in good condition and is on a program of renewal. There were no issues that surfaced during the time of the inspection therefore no projects or recommendations are required at this time.

There is a small retaining wall that is made of stone that surrounds the older section of the school. The retaining wall is in good condition. There are no recommendations required at this time.

Although not considered to be a school system there is a flagstone walkway to the flag pole that is in poor condition. Several of the stones are missing causing tripping hazards and the flag pole is in need of repair. Care should be taken to ensure that this issue is corrected as part of a minor maintenance issue prior to the use of the flag pole.

Site Lighting-- Site lighting is provided by wall mounted HID lighting fixtures on the building that are aimed to illuminate the site. There are also 2 round light poles with post top mounted globe type luminaires and 3 square light poles with 4 metal halide luminaires per pole that illuminate the sidewalk to the Main Entrance.

The parking lot located on the west side of N. 18<sup>th</sup> Street is illuminated with ten (10) light poles, each with 2 to 4 floodlighting fixtures, for a total of 28 luminaires, of which 13 luminaries are not operational and need to serviced.

### RECOMMENDATIONS

- Replace auditorium seating
- Remove and replace stage curtain
- Remove and replace dock bumpers
- Remove and replace or install new scoreboard
- Remove and replace or install basketball backstop and hoop
- Remove and replace suspended acoustic ceilings
- Clean and reseal concrete floors
- Remove and replace wood flooring
- Remove VAT and replace with VCT
- Replace and re-grout floor tile
- Remove and replace carpet
- Remove and replace wall tile
- Repair and repaint all interior walls
- Replace inadequate or install proper stair railing
- Replace missing or damaged signage
- Remove and replace tack boards
- Remove and replace interior doors
- Install fire rated walls R.O.T.C.
- Remove non-rated interior glass panels
- Install fire rated walls and door where required
- Build fire resistant elevator lobby to comply with fire separation requirements
- Remove and Replace Built Up Roof
- Remove and replace exterior doors



## Site Assessment Report - S401001;Gratz

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- Repair spalled concrete wall structure
- Remove and replace aluminum windows
- Repair cracks in masonry
- Replace or install exterior guardrails
- Remove and replace parking lot
- Remove and replace chain link gate
- Remove and replace metal picket fence
- Build secure trash dumpster enclosure
- Remove and replace concrete sidewalk or paving
- Remove the existing window air conditioning units and install a total of 860 tons of air-cooled chillers on the roof with chilled water distribution piping, pumps, chemical treatment and controls located in a mechanical room on the basement level.
- Install complete NFPA wet pipe automatic sprinkler system and standpipes. If required provide fire pump and jockey pump with controller.
- Provide a new central station air handling unit for the auditorium with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems.
- Provide a new central station air handling unit for the cafeteria with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems.
- Complete installation of new direct digital control system and building automation system with software, remote computer control capability and graphics package.
- Inspect old cast iron sanitary piping including camera observation and replace damaged sections.
- Install (2) one ton ductless DX split systems to cool elevator equipment penthouses. Locate condensing unit on adjacent roof. Include refrigerant line set and drain line.
- Replace domestic hot and cold water piping including valves, fittings, hangars and insulation.
- Provide a four pipe fan coil system for original building with roof mounted outside air system ducted to each fan coil unit. Provide a fan coil unit for each classroom and separate area. Include new heat exchanger and pumps for hot water, piping, control valves and controls, to replace steam heating system.
- Repair/replace damaged steam supply header at one boiler.
- Provide a new central station air handling unit for the gymnasium with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems.
- Provide a 600A, 15 kV load interrupter switch, 1000 kVA, 13.2 kV-480/277V, 3 phase, 4 wire dry type transformer and 1600A, 480/277V switchboard with associated circuit breakers to serve proposed central air conditioning system.
- Replace two panelboards in the gymnasium offices in the 1972 building addition.
- Add surface raceway system with minimum of four duplex receptacles each in approximately 74 classrooms.
- Replace approximately 120 non-grounding type duplex receptacles with 3-wire grounding type.
- Replace 10 duplex receptacles located within six (6) feet of a sink in various locations that are not ground-fault circuit-interrupting type and 17 receptacles in the Basement kitchen with ground-fault circuit-interrupting type to comply with NFPA 70, National Electrical Code (NEC) Article 210.8.
- Replace lighting system in classrooms that have T12 lamps (approximately 109,900 SF).
- Replace fluorescent lighting system in offices, restrooms, locker rooms, stairwells, exit vestibules, old Print Shop, mechanical rooms, basement areas and other miscellaneous rooms having T12 fluorescent lamps (approximately 64,000 SF).
- Replace incandescent lighting fixtures in shower rooms in the 1972 building addition with wet location fluorescent fixtures.
- Re-lamp the incandescent lighting fixtures in the auditorium with dimmable LED lamps to reduce energy consumption and maintenance cost and to significantly increase lamp life.
- Replace recessed metal halide downlights in the dance studio with recessed fluorescent lighting fixtures.
- Provide an allowance for 30 fluorescent lighting fixtures to be cleaned and/or repaired.
- Clean and re-lamp (10) wall pack lighting fixtures on the exterior of the building.
- Provide wireless clock system in all classrooms, cafeteria, auditorium, gymnasium, library and similar large rooms.
- Replace 114 video surveillance cameras, including 8 exterior cameras, that were reported to have reached the end of their useful life and need to be replaced.
- Add approximately 15 exit signs in gymnasiums and corridors where signage is missing or not visible at both ends of the corridors. Also, provide an allowance for maintenance or replacement of 30 exit signs that are not illuminated.
- Refurbish and modernize the west elevator.
- Maintain and/or service 28 floodlighting fixtures illuminating the parking lot on the west side of N. 18<sup>th</sup> Street.

### Attributes:

#### General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 2 / Tm 1
Status:	Accepted by SDP	Team:	Tm 1
Site ID:	S401001		

## 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.

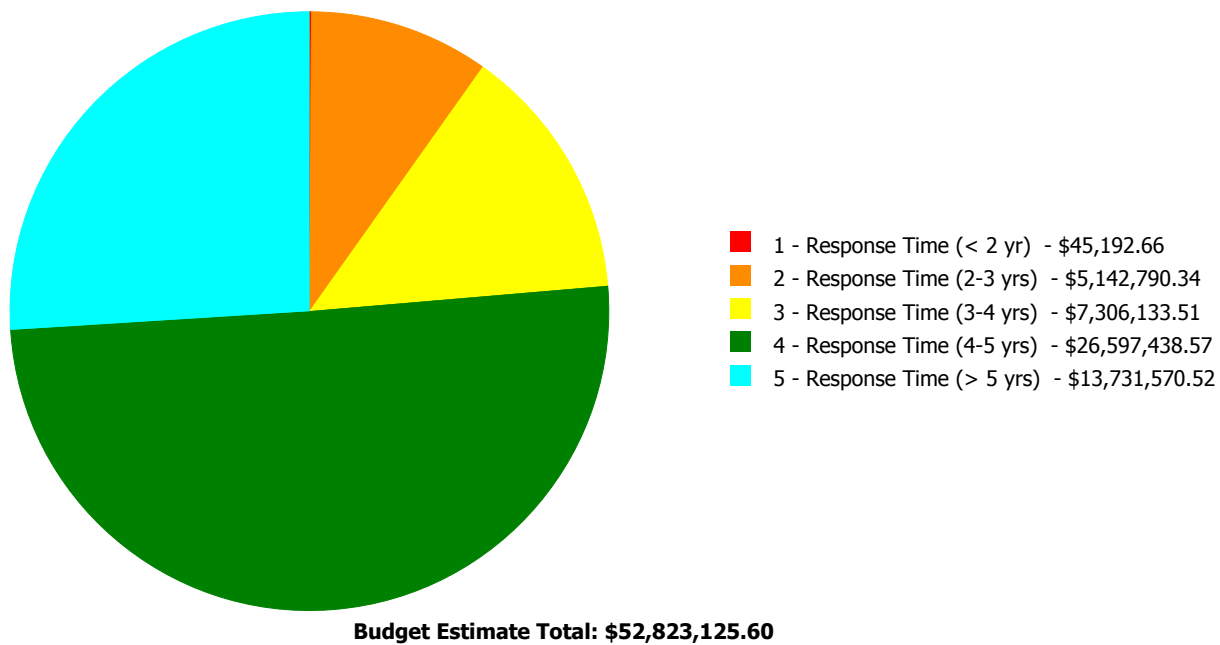
### Current Investment Requirement and Condition by Uniformat Classification

UNIFORMAT Classification	RSLI%	FCI %	Current Repair
A10 - Foundations	15.00 %	0.00 %	\$0.00
A20 - Basement Construction	15.00 %	0.00 %	\$0.00
B10 - Superstructure	15.00 %	0.00 %	\$0.00
B20 - Exterior Enclosure	12.32 %	14.69 %	\$3,644,060.77
B30 - Roofing	24.99 %	89.59 %	\$1,948,215.65
C10 - Interior Construction	30.35 %	50.22 %	\$4,800,669.41
C20 - Stairs	23.69 %	62.35 %	\$337,725.60
C30 - Interior Finishes	40.75 %	47.01 %	\$8,567,942.19
D10 - Conveying	28.57 %	15.60 %	\$68,878.73
D20 - Plumbing	77.06 %	47.87 %	\$3,207,163.87
D30 - HVAC	97.86 %	44.59 %	\$17,112,408.55
D40 - Fire Protection	92.47 %	177.49 %	\$4,935,379.02
D50 - Electrical	92.66 %	25.26 %	\$5,121,686.21
E10 - Equipment	16.28 %	1.28 %	\$70,228.45
E20 - Furnishings	105.00 %	223.78 %	\$1,644,446.08
G20 - Site Improvements	57.89 %	78.74 %	\$1,335,451.65
G40 - Site Electrical Utilities	47.05 %	5.15 %	\$28,869.42
<b>Totals:</b>	<b>48.53 %</b>	<b>28.88 %</b>	<b>\$52,823,125.60</b>

### 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)
B401001;Gratz	345,000	28.49	\$45,192.66	\$4,762,031.84	\$7,277,264.09	\$26,225,206.46	\$13,149,109.48
G401001;Grounds	144,600	60.46	\$0.00	\$380,758.50	\$28,869.42	\$372,232.11	\$582,461.04
<b>Total:</b>		<b>28.88</b>	<b>\$45,192.66</b>	<b>\$5,142,790.34</b>	<b>\$7,306,133.51</b>	<b>\$26,597,438.57</b>	<b>\$13,731,570.52</b>

### Deficiencies By Priority



## 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:	High School
Gross Area (SF):	345,000
Year Built:	1927
Last Renovation:	
Replacement Value:	\$180,640,950
Repair Cost:	\$51,458,804.53
Total FCI:	28.49 %
Total RSLI:	48.44 %



### Description:

#### Attributes:

##### General Attributes:

Active:	Open	Bldg ID:	B401001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S401001		

## 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	RSI %	FCI %	Current Repair Cost
A10 - Foundations	15.00 %	0.00 %	\$0.00
A20 - Basement Construction	15.00 %	0.00 %	\$0.00
B10 - Superstructure	15.00 %	0.00 %	\$0.00
B20 - Exterior Enclosure	12.32 %	14.69 %	\$3,644,060.77
B30 - Roofing	24.99 %	89.59 %	\$1,948,215.65
C10 - Interior Construction	30.35 %	50.22 %	\$4,800,669.41
C20 - Stairs	23.69 %	62.35 %	\$337,725.60
C30 - Interior Finishes	40.75 %	47.01 %	\$8,567,942.19
D10 - Conveying	28.57 %	15.60 %	\$68,878.73
D20 - Plumbing	77.06 %	47.87 %	\$3,207,163.87
D30 - HVAC	97.86 %	44.59 %	\$17,112,408.55
D40 - Fire Protection	92.47 %	177.49 %	\$4,935,379.02
D50 - Electrical	92.66 %	25.26 %	\$5,121,686.21
E10 - Equipment	16.28 %	1.28 %	\$70,228.45
E20 - Furnishings	105.00 %	223.78 %	\$1,644,446.08
<b>Totals:</b>	<b>48.44 %</b>	<b>28.49 %</b>	<b>\$51,458,804.53</b>



## 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	\$27.30	S.F.	345,000	100	1927	2027	2030	15.00 %	0.00 %	15			\$9,418,500
A1030	Slab on Grade	\$5.17	S.F.	345,000	100	1927	2027	2030	15.00 %	0.00 %	15			\$1,783,650
A2010	Basement Excavation	\$4.36	S.F.	345,000	100	1927	2027	2030	15.00 %	0.00 %	15			\$1,504,200
A2020	Basement Walls	\$9.91	S.F.	345,000	100	1927	2027	2030	15.00 %	0.00 %	15			\$3,418,950
B1010	Floor Construction	\$85.34	S.F.	345,000	100	1927	2027	2030	15.00 %	0.00 %	15			\$29,442,300
B1020	Roof Construction	\$14.39	S.F.	345,000	100	1927	2027	2030	15.00 %	0.00 %	15			\$4,964,550
B2010	Exterior Walls	\$43.20	S.F.	345,000	100	1927	2027		12.00 %	4.64 %	12		\$691,162.41	\$14,904,000
B2020	Exterior Windows	\$27.52	S.F.	345,000	40	1990	2030	2020	12.50 %	28.22 %	5		\$2,679,678.74	\$9,494,400
B2030	Exterior Doors	\$1.16	S.F.	345,000	25	1990	2015	2020	20.00 %	68.27 %	5		\$273,219.62	\$400,200
B3010105	Built-Up	\$37.76	S.F.	57,500	20	1990	2010	2020	25.00 %	89.73 %	5		\$1,948,215.65	\$2,171,200
B3020	Roof Openings	\$0.06	S.F.	57,500	30	1990	2020		16.67 %	0.00 %	5			\$3,450
C1010	Partitions	\$21.05	S.F.	345,000	100	1927	2027	2030	15.00 %	35.14 %	15		\$2,551,753.28	\$7,262,250
C1020	Interior Doors	\$3.76	S.F.	345,000	40	1927	1967	2057	105.00 %	143.52 %	42		\$1,861,735.61	\$1,297,200
C1030	Fittings	\$2.90	S.F.	345,000	40	1927	1967	2033	45.00 %	38.70 %	18		\$387,180.52	\$1,000,500
C2010	Stair Construction	\$1.18	S.F.	345,000	100	1927	2027	2030	15.00 %	82.96 %	15		\$337,725.60	\$407,100
C2020	Stair Finishes	\$0.39	S.F.	345,000	30	1927	1957	2030	50.00 %	0.00 %	15			\$134,550
C3010230	Paint & Covering	\$13.21	S.F.	325,000	10	2010	2020		50.00 %	15.78 %	5		\$677,387.70	\$4,293,250
C3010232	Wall Tile	\$11.70	S.F.	20,000	30	1990	2020		16.67 %	298.88 %	5		\$699,386.34	\$234,000

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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 \$
C3020411	Carpet	\$7.30	S.F.	5,000	10	2010	2020		50.00 %	153.30 %	5		\$55,953.81	\$36,500
C3020412	Terrazzo & Tile	\$75.52	S.F.	20,000	50	1927	1977	2020	10.00 %	7.13 %	5		\$107,620.99	\$1,510,400
C3020413	Vinyl Flooring	\$9.68	S.F.	40,000	20	1927	1947	2020	25.00 %	78.34 %	5		\$303,333.36	\$387,200
C3020414	Wood Flooring	\$22.27	S.F.	200,000	25	1927	1952	2020	20.00 %	65.45 %	5		\$2,915,207.10	\$4,454,000
C3020415	Concrete Floor Finishes	\$0.97	S.F.	80,000	50	1927	1977	2037	44.00 %	49.54 %	22		\$38,445.33	\$77,600
C3030	Ceiling Finishes	\$20.97	S.F.	345,000	25	1990	2015	2029	56.00 %	52.12 %	14		\$3,770,607.56	\$7,234,650
D1010	Elevators and Lifts	\$1.28	S.F.	345,000	35	1927	1962	2025	28.57 %	15.60 %	10		\$68,878.73	\$441,600
D2010	Plumbing Fixtures	\$13.52	S.F.	345,000	35	2006	2041		74.29 %	0.00 %	26			\$4,664,400
D2020	Domestic Water Distribution	\$1.68	S.F.	345,000	25			2042	108.00 %	293.49 %	27		\$1,701,042.51	\$579,600
D2030	Sanitary Waste	\$2.32	S.F.	345,000	30			2047	106.67 %	188.17 %	32		\$1,506,121.36	\$800,400
D2040	Rain Water Drainage	\$1.90	S.F.	345,000	30	1927	1957	2025	33.33 %	0.00 %	10			\$655,500
D3020	Heat Generating Systems	\$18.67	S.F.	345,000	35	2006	2041		74.29 %	0.52 %	26		\$33,651.12	\$6,441,150
D3030	Cooling Generating Systems	\$24.48	S.F.	345,000	30			2047	106.67 %	69.19 %	32		\$5,843,209.49	\$8,445,600
D3040	Distribution Systems	\$42.99	S.F.	345,000	25	2006	2031	2039	96.00 %	67.71 %	24		\$10,043,164.26	\$14,831,550
D3050	Terminal & Package Units	\$11.60	S.F.	345,000	20			2037	110.00 %	0.73 %	22		\$29,282.82	\$4,002,000
D3060	Controls & Instrumentation	\$13.50	S.F.	345,000	20			2037	110.00 %	24.97 %	22		\$1,163,100.86	\$4,657,500
D4010	Sprinklers	\$7.05	S.F.	345,000	35			2052	105.71 %	202.91 %	37		\$4,935,379.02	\$2,432,250
D4020	Standpipes	\$1.01	S.F.	345,000	35				0.00 %	0.00 %				\$348,450
D5010	Electrical Service/Distribution	\$9.70	S.F.	345,000	30	1927	1957	2031	53.33 %	16.89 %	16		\$565,095.14	\$3,346,500
D5020	Lighting and Branch Wiring	\$34.68	S.F.	345,000	20	1927	1947	2037	110.00 %	33.37 %	22		\$3,992,754.66	\$11,964,600
D5030	Communications and Security	\$12.99	S.F.	345,000	15	1927	1942	2027	80.00 %	11.75 %	12		\$526,677.11	\$4,481,550
D5090	Other Electrical Systems	\$1.41	S.F.	345,000	30	1927	1957	2031	53.33 %	7.64 %	16		\$37,159.30	\$486,450
E1020	Institutional Equipment	\$4.82	S.F.	345,000	35	1927	1962	2020	14.29 %	4.13 %	5		\$68,743.62	\$1,662,900
E1090	Other Equipment	\$11.10	S.F.	345,000	35	1927	1962	2021	17.14 %	0.04 %	6		\$1,484.83	\$3,829,500
E2010	Fixed Furnishings	\$2.13	S.F.	345,000	40	1927	1967	2057	105.00 %	223.78 %	42		\$1,644,446.08	\$734,850
<b>Total</b>									<b>48.44 %</b>	<b>28.49 %</b>			<b>\$51,458,804.53</b>	<b>\$180,640,950</b>

## 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.

<b>System:</b>	C3010 - Wall Finishes	This system contains no images
<b>Note:</b>	Painted wall finish 60% Brick wall finish 20% Marble finish 20%	
<b>System:</b>	C3020 - Floor Finishes	This system contains no images
<b>Note:</b>	Carpet 1% Terrazzo, Tile and Marble 6% Vinyl 12% Wood 57% Concrete 24%	
<b>System:</b>	D5010 - Electrical Service/Distribution	This system contains no images
<b>Note:</b>	There are three (3) substation transformers. Two (2) are rated 750 kVA, 13.2 kV-208/120V, 3 phase, 4 wire, and one (1) is rated 500 /677 kVA, 13.2 kV-208/120V, 3phase, 4 wire. There is one (1) secondary isolation transformer rated 300 kVA, 208V-208/120V, 3 phase, 4 wire..	

## 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
<b>Total:</b>	<b>\$51,458,805</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$31,430,529</b>	<b>\$5,029,886</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,621,852</b>	<b>\$89,541,070</b>
<b>* A - Substructure</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>* A10 - Foundations</b>	\$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
<b>* A20 - Basement Construction</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
A2010 - Basement Excavation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
A2020 - Basement Walls	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B - Shell</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B10 - Superstructure</b>	\$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
<b>B20 - Exterior Enclosure</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B2010 - Exterior Walls	\$691,162	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$691,162
B2020 - Exterior Windows	\$2,679,679	\$0	\$0	\$0	\$0	\$12,107,273	\$0	\$0	\$0	\$0	\$0	\$14,786,952
B2030 - Exterior Doors	\$273,220	\$0	\$0	\$0	\$0	\$510,336	\$0	\$0	\$0	\$0	\$0	\$783,555
<b>B30 - Roofing</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B3010 - Roof Coverings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B3010105 - Built-Up	\$1,948,216	\$0	\$0	\$0	\$0	\$2,768,717	\$0	\$0	\$0	\$0	\$0	\$4,716,933
B3020 - Roof Openings	\$0	\$0	\$0	\$0	\$0	\$4,399	\$0	\$0	\$0	\$0	\$0	\$4,399
<b>C - Interiors</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>C10 - Interior Construction</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C1010 - Partitions	\$2,551,753	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,551,753
C1020 - Interior Doors	\$1,861,736	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,861,736
C1030 - Fittings	\$387,181	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$387,181
C20 - Stairs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



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C2010 - Stair Construction	\$337,726	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$337,726
C2020 - Stair Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C30 - Interior Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3010 - Wall Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3010230 - Paint & Covering	\$677,388	\$0	\$0	\$0	\$0	\$5,474,759	\$0	\$0	\$0	\$0	\$0	\$6,152,146
C3010232 - Wall Tile	\$699,386	\$0	\$0	\$0	\$0	\$298,397	\$0	\$0	\$0	\$0	\$0	\$997,783
C3020 - Floor Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020411 - Carpet	\$55,954	\$0	\$0	\$0	\$0	\$46,545	\$0	\$0	\$0	\$0	\$0	\$102,499
C3020412 - Terrazzo & Tile	\$107,621	\$0	\$0	\$0	\$0	\$1,926,064	\$0	\$0	\$0	\$0	\$0	\$2,033,685
C3020413 - Vinyl Flooring	\$303,333	\$0	\$0	\$0	\$0	\$493,758	\$0	\$0	\$0	\$0	\$0	\$797,091
C3020414 - Wood Flooring	\$2,915,207	\$0	\$0	\$0	\$0	\$5,679,747	\$0	\$0	\$0	\$0	\$0	\$8,594,954
C3020415 - Concrete Floor Finishes	\$38,445	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$38,445
C3030 - Ceiling Finishes	\$3,770,608	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,770,608
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	\$68,879	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$652,821	\$721,700
D20 - Plumbing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2010 - Plumbing Fixtures	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2020 - Domestic Water Distribution	\$1,701,043	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,701,043
D2030 - Sanitary Waste	\$1,506,121	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,506,121
D2040 - Rain Water Drainage	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$969,031	\$969,031
D30 - HVAC	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3020 - Heat Generating Systems	\$33,651	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$33,651
D3030 - Cooling Generating Systems	\$5,843,209	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,843,209
D3040 - Distribution Systems	\$10,043,164	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,043,164
D3050 - Terminal & Package Units	\$29,283	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$29,283
D3060 - Controls & Instrumentation	\$1,163,101	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,163,101
D40 - Fire Protection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D4010 - Sprinklers	\$4,935,379	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,935,379
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	\$565,095	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$565,095
D5020 - Lighting and Branch Wiring	\$3,992,755	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,992,755

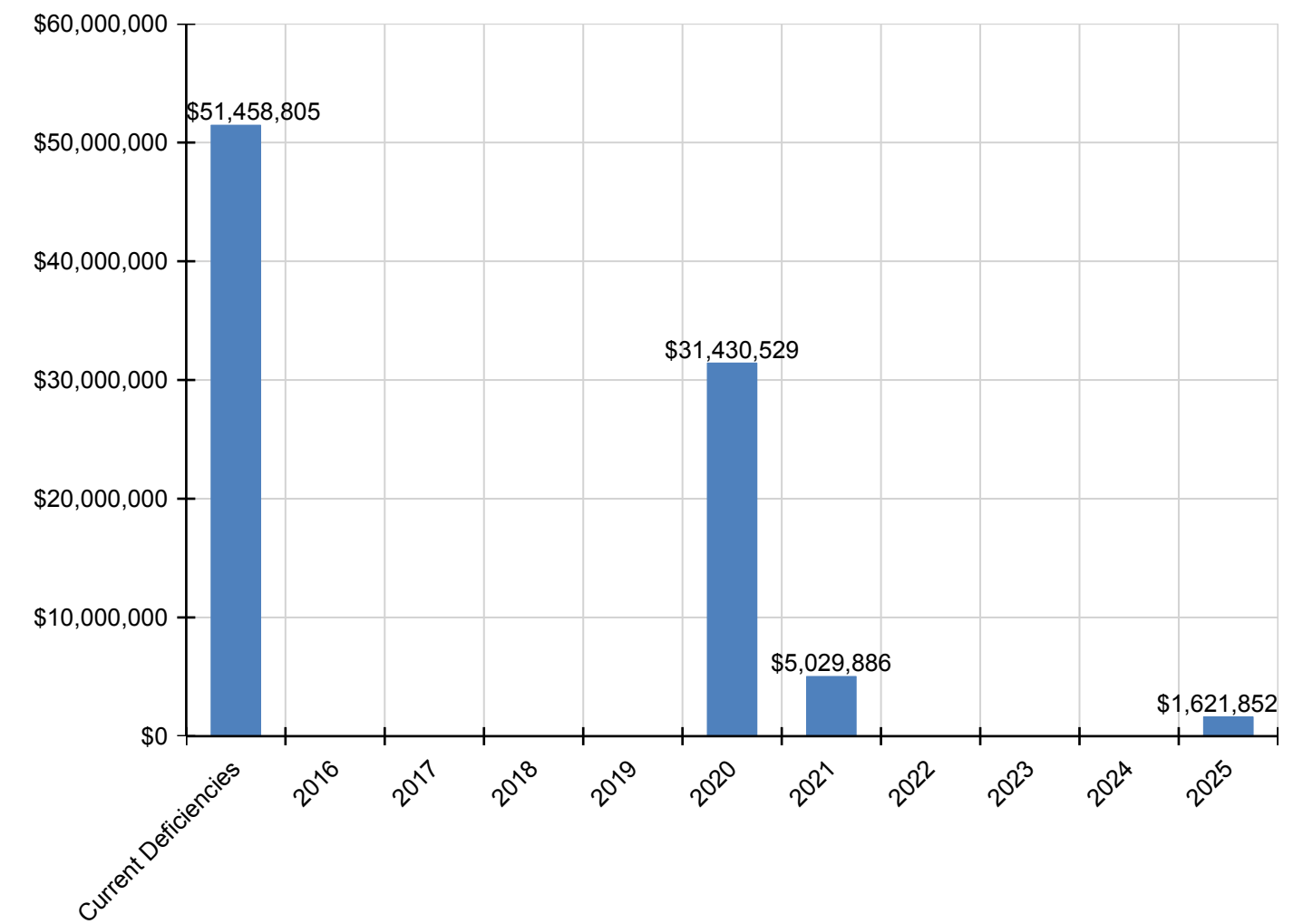
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D5030 - Communications and Security	\$526,677	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$526,677
D5090 - Other Electrical Systems	\$37,159	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$37,159
E - Equipment & Furnishings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E10 - Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E1020 - Institutional Equipment	\$68,744	\$0	\$0	\$0	\$0	\$2,120,533	\$0	\$0	\$0	\$0	\$0	\$2,189,276
E1090 - Other Equipment	\$1,485	\$0	\$0	\$0	\$0	\$0	\$5,029,886	\$0	\$0	\$0	\$0	\$5,031,370
E20 - Furnishings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E2010 - Fixed Furnishings	\$1,644,446	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,644,446

\* Indicates non-renewable system

Forecasted Sustainment Requirement

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

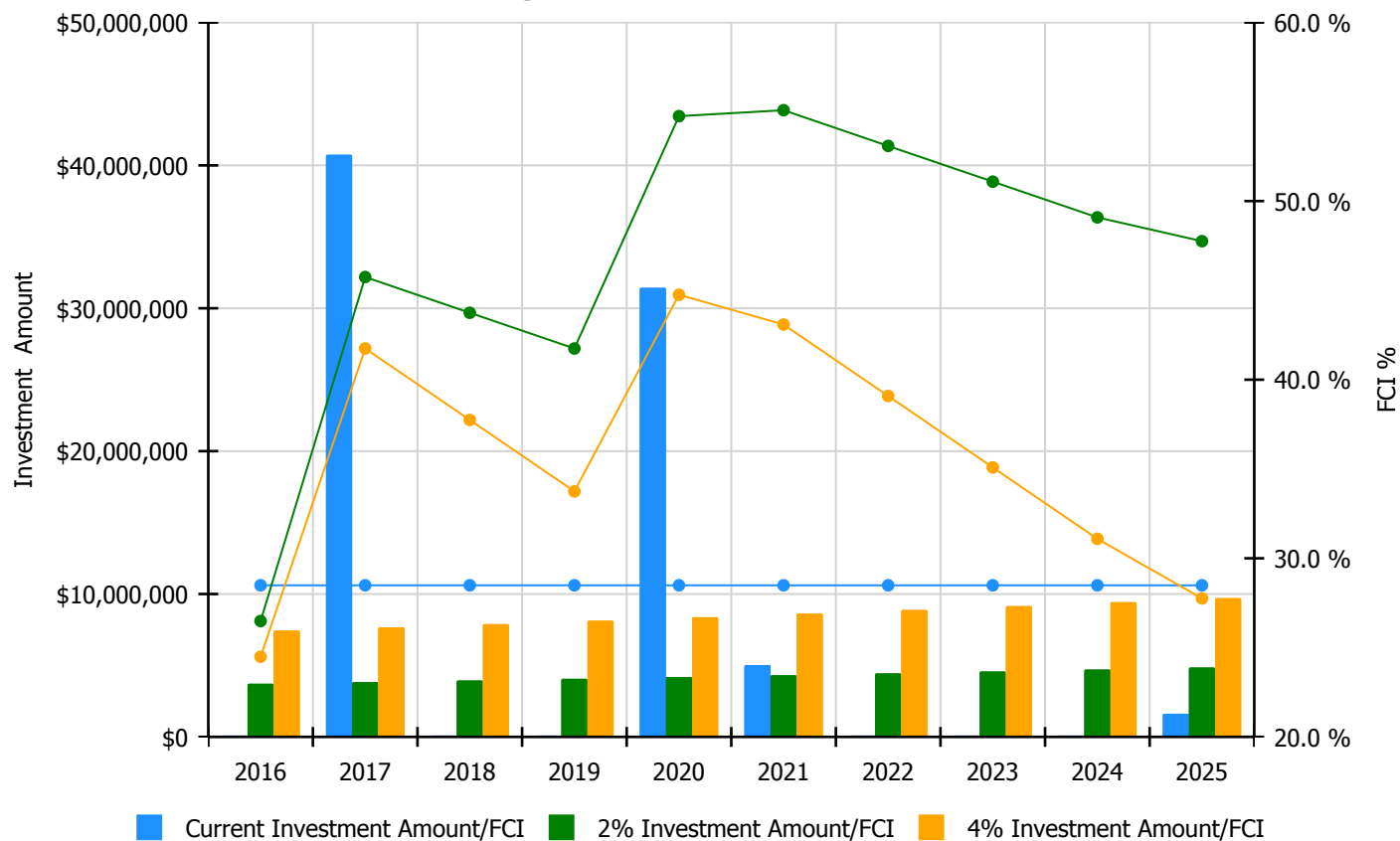


## 10 Year FCI Forecast by Investment Scenario

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

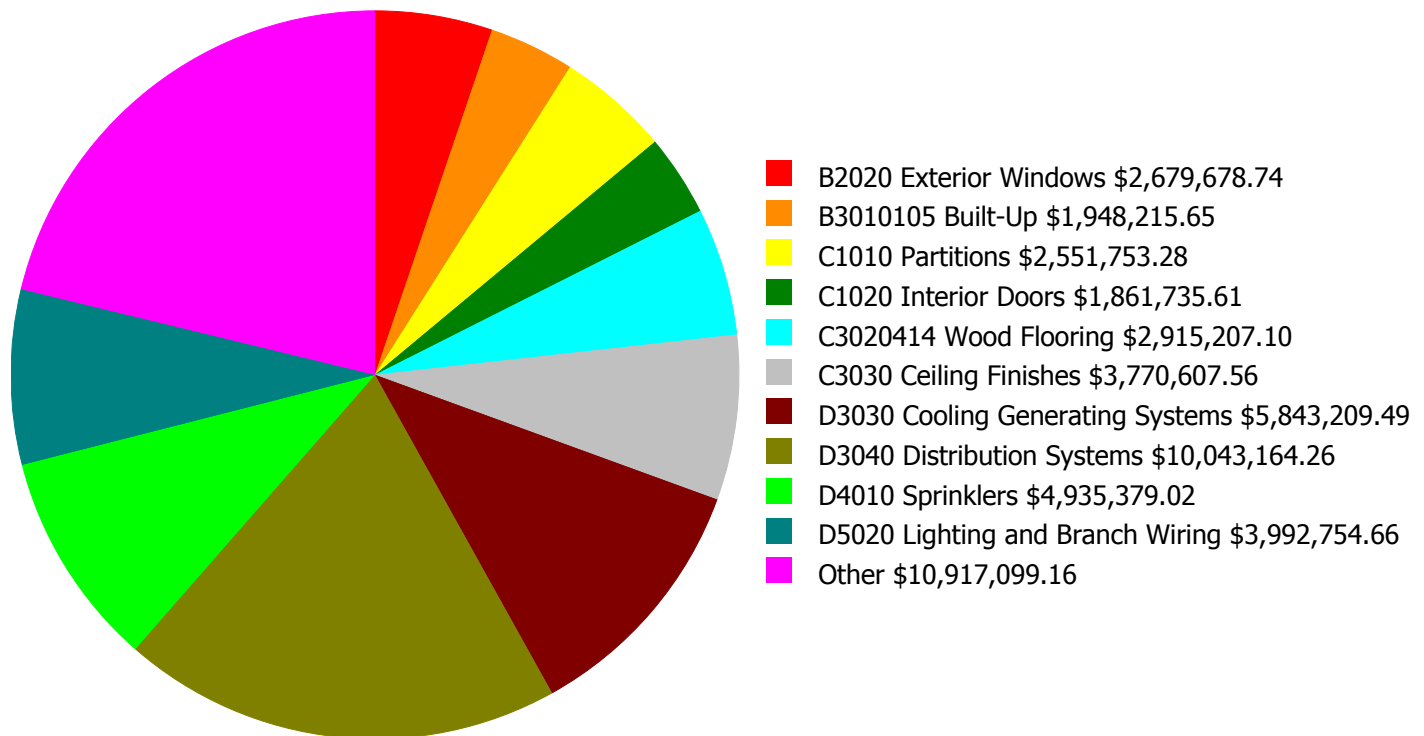
**Facility Investment vs. FCI Forecast**



Year	Investment Amount Current FCI - 28.49%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	\$0	\$3,721,204.00	26.49 %	\$7,442,407.00	24.49 %
2017	\$40,744,289	\$3,832,840.00	45.75 %	\$7,665,679.00	41.75 %
2018	\$0	\$3,947,825.00	43.75 %	\$7,895,650.00	37.75 %
2019	\$0	\$4,066,260.00	41.75 %	\$8,132,519.00	33.75 %
2020	\$31,430,529	\$4,188,247.00	54.76 %	\$8,376,495.00	44.76 %
2021	\$5,029,886	\$4,313,895.00	55.09 %	\$8,627,790.00	43.09 %
2022	\$0	\$4,443,312.00	53.09 %	\$8,886,623.00	39.09 %
2023	\$0	\$4,576,611.00	51.09 %	\$9,153,222.00	35.09 %
2024	\$0	\$4,713,909.00	49.09 %	\$9,427,819.00	31.09 %
2025	\$1,621,852	\$4,855,327.00	47.76 %	\$9,710,653.00	27.76 %
<b>Total:</b>	<b>\$78,826,555</b>	<b>\$42,659,430.00</b>		<b>\$85,318,857.00</b>	

## 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.

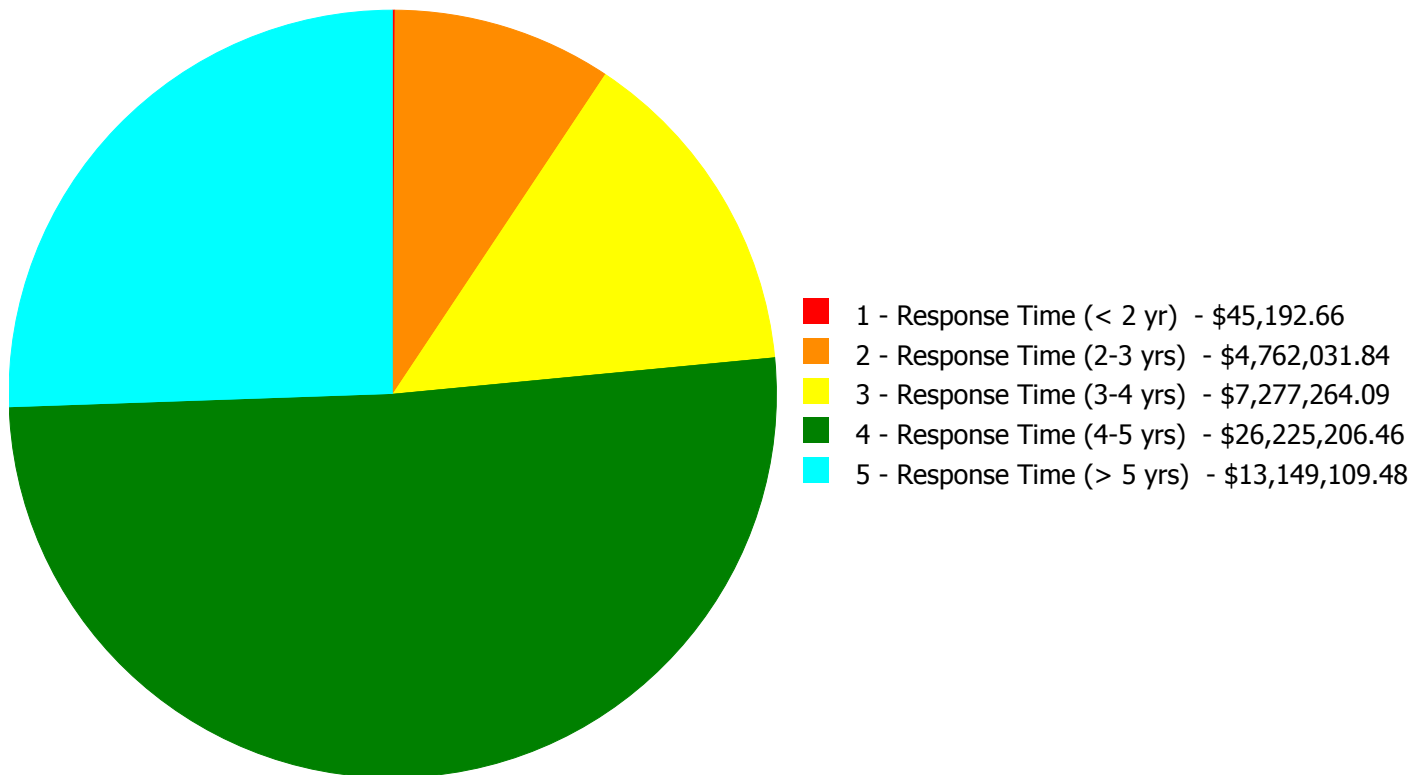


**Budget Estimate Total: \$51,458,804.53**



## 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: \$51,458,804.53**

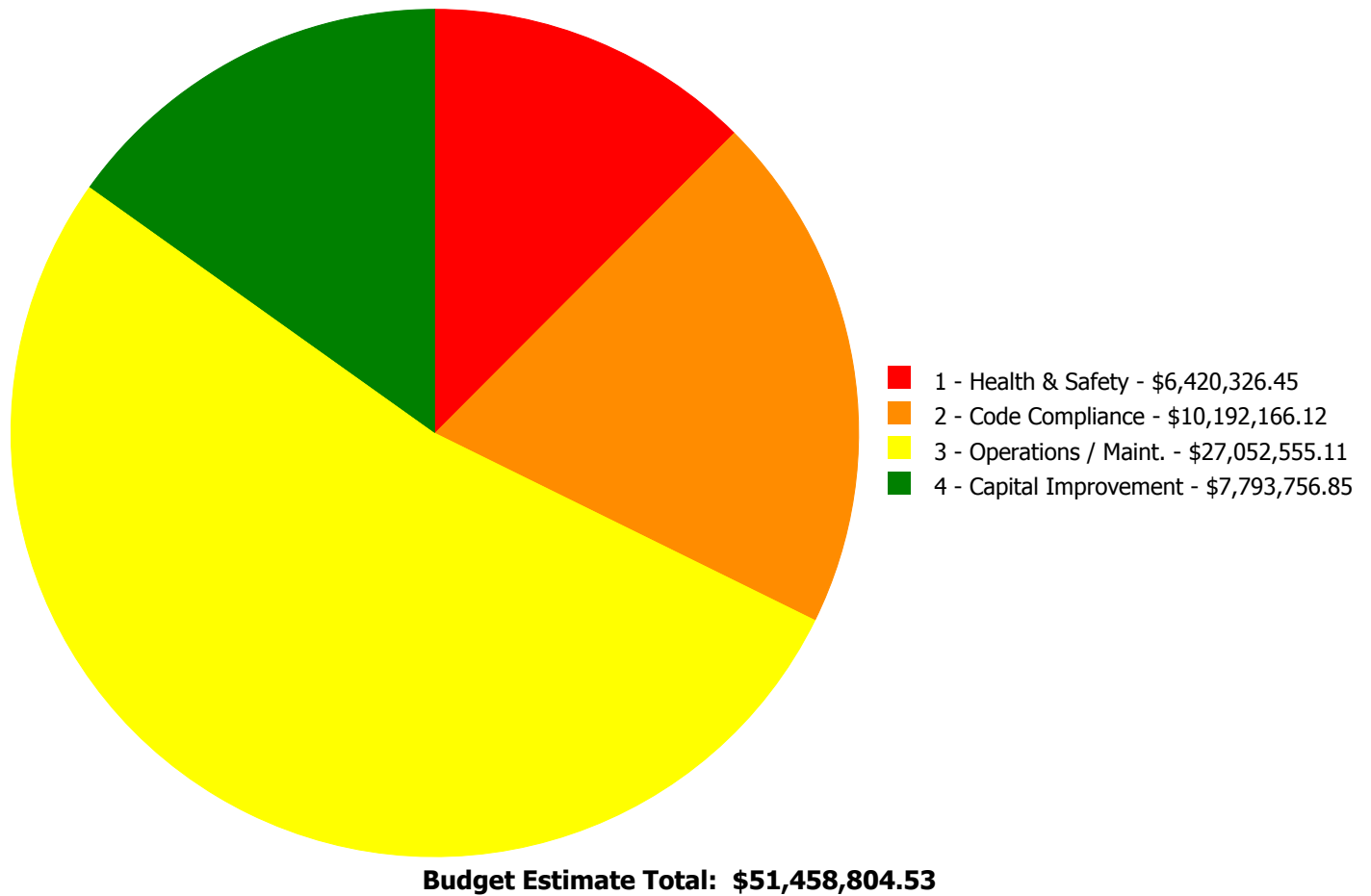
## Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
B2010	Exterior Walls	\$0.00	\$645,789.44	\$45,372.97	\$0.00	\$0.00	\$691,162.41
B2020	Exterior Windows	\$0.00	\$0.00	\$0.00	\$2,679,678.74	\$0.00	\$2,679,678.74
B2030	Exterior Doors	\$0.00	\$273,219.62	\$0.00	\$0.00	\$0.00	\$273,219.62
B3010105	Built-Up	\$0.00	\$0.00	\$1,948,215.65	\$0.00	\$0.00	\$1,948,215.65
C1010	Partitions	\$11,541.54	\$562,471.72	\$213,994.60	\$0.00	\$1,763,745.42	\$2,551,753.28
C1020	Interior Doors	\$0.00	\$0.00	\$0.00	\$1,861,735.61	\$0.00	\$1,861,735.61
C1030	Fittings	\$0.00	\$0.00	\$0.00	\$0.00	\$387,180.52	\$387,180.52
C2010	Stair Construction	\$0.00	\$337,725.60	\$0.00	\$0.00	\$0.00	\$337,725.60
C3010230	Paint & Covering	\$0.00	\$0.00	\$677,387.70	\$0.00	\$0.00	\$677,387.70
C3010232	Wall Tile	\$0.00	\$0.00	\$0.00	\$0.00	\$699,386.34	\$699,386.34
C3020411	Carpet	\$0.00	\$0.00	\$0.00	\$0.00	\$55,953.81	\$55,953.81
C3020412	Terrazzo & Tile	\$0.00	\$0.00	\$0.00	\$0.00	\$107,620.99	\$107,620.99
C3020413	Vinyl Flooring	\$0.00	\$0.00	\$0.00	\$303,333.36	\$0.00	\$303,333.36
C3020414	Wood Flooring	\$0.00	\$2,915,207.10	\$0.00	\$0.00	\$0.00	\$2,915,207.10
C3020415	Concrete Floor Finishes	\$0.00	\$0.00	\$0.00	\$38,445.33	\$0.00	\$38,445.33
C3030	Ceiling Finishes	\$0.00	\$0.00	\$0.00	\$3,770,607.56	\$0.00	\$3,770,607.56
D1010	Elevators and Lifts	\$0.00	\$0.00	\$68,878.73	\$0.00	\$0.00	\$68,878.73
D2020	Domestic Water Distribution	\$0.00	\$0.00	\$0.00	\$1,701,042.51	\$0.00	\$1,701,042.51
D2030	Sanitary Waste	\$0.00	\$0.00	\$0.00	\$1,506,121.36	\$0.00	\$1,506,121.36
D3020	Heat Generating Systems	\$33,651.12	\$0.00	\$0.00	\$0.00	\$0.00	\$33,651.12
D3030	Cooling Generating Systems	\$0.00	\$0.00	\$0.00	\$5,843,209.49	\$0.00	\$5,843,209.49
D3040	Distribution Systems	\$0.00	\$0.00	\$0.00	\$1,737,065.43	\$8,306,098.83	\$10,043,164.26
D3050	Terminal & Package Units	\$0.00	\$0.00	\$0.00	\$0.00	\$29,282.82	\$29,282.82
D3060	Controls & Instrumentation	\$0.00	\$0.00	\$0.00	\$1,163,100.86	\$0.00	\$1,163,100.86
D4010	Sprinklers	\$0.00	\$0.00	\$0.00	\$4,935,379.02	\$0.00	\$4,935,379.02
D5010	Electrical Service/Distribution	\$0.00	\$0.00	\$51,059.54	\$514,035.60	\$0.00	\$565,095.14
D5020	Lighting and Branch Wiring	\$0.00	\$27,618.36	\$3,780,370.87	\$171,451.59	\$13,313.84	\$3,992,754.66
D5030	Communications and Security	\$0.00	\$0.00	\$454,824.73	\$0.00	\$71,852.38	\$526,677.11
D5090	Other Electrical Systems	\$0.00	\$0.00	\$37,159.30	\$0.00	\$0.00	\$37,159.30
E1020	Institutional Equipment	\$0.00	\$0.00	\$0.00	\$0.00	\$68,743.62	\$68,743.62
E1090	Other Equipment	\$0.00	\$0.00	\$0.00	\$0.00	\$1,484.83	\$1,484.83
E2010	Fixed Furnishings	\$0.00	\$0.00	\$0.00	\$0.00	\$1,644,446.08	\$1,644,446.08
<b>Total:</b>		\$45,192.66	\$4,762,031.84	\$7,277,264.09	\$26,225,206.46	\$13,149,109.48	\$51,458,804.53

## 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:



## 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: C1010 - Partitions



**Location:** Basement R.O.T.C. Storage Room

**Distress:** Damaged

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

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

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

**Qty:** 500.00

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

**Estimate:** \$11,541.54

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** The basement level storage area of the R.O.T.C. section is damaged. As indicted in the photos the wall failure has exposed electrical wires and metal studs. This deficiency provides a budgetary consideration to build a fire rated wall to replace this section. This deficiency is expected to be coordinated with other interior efforts.

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#### System: D3020 - Heat Generating Systems



**Location:** mechanical room

**Distress:** Damaged

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

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

**Correction:** Repair boiler

**Qty:** 1.00

**Unit of Measure:** Ea.

**Estimate:** \$33,651.12

**Assessor Name:** System

**Date Created:** 09/23/2015

**Notes:** Repair/replace damaged steam supply header at one boiler.

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

**System: B2010 - Exterior Walls**



**Location:** Exterior Elevation

**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:** 20,000.00

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

**Estimate:** \$645,789.44

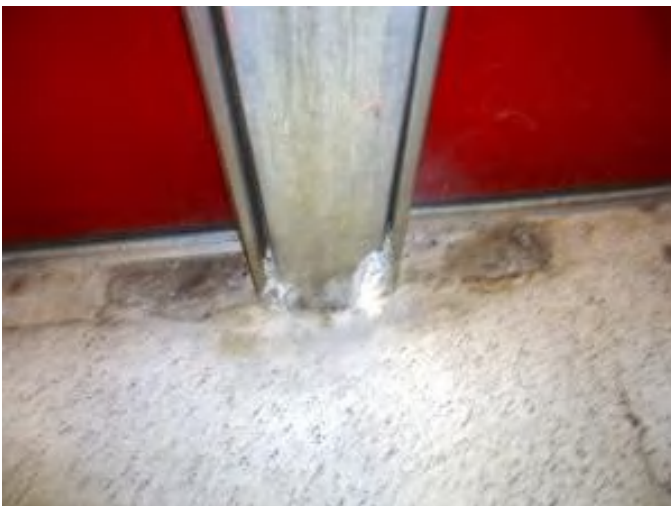
**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** The exterior brick surfaces are generally in fair to good condition for their age. In some locations, bricks have cracked or spalled and should be replaced. The repointing of deteriorated mortar joints is also recommended, using mortar of a similar color and consistency as the original. Following the detailed examination of the brick and repair of mortar construction joints, the entire building should be pressure washed to remove stains and embedded pollutants. If moisture is found to be penetrating the masonry facade, the application of a spray sealant to the suspected exterior masonry surface is recommended.

---

**System: B2030 - Exterior Doors**



**Location:** Exterior Elevation

**Distress:** Damaged

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

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

**Correction:** Remove and replace exterior doors - per leaf

**Qty:** 30.00

**Unit of Measure:** Ea.

**Estimate:** \$273,219.62

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** The exterior doors are metal applications with metal frames. The exterior door system for this school is a very high traffic system. Most of the doors are in fair condition but are aging at a faster rate than expected based on traffic and condition. The service doors on the roof have expired and failed compromising access to elevator rooms and tower rooms. The exterior door system, store front and service doors are recommended for upgrade.

**System: C1010 - Partitions**



**Location:** Elevator

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

**Category:** 1 - Health & Safety

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

**Correction:** Build fire resistant elevator lobby to comply with fire separation requirements - each floor

**Qty:** 12.00

**Unit of Measure:** Ea.

**Estimate:** \$426,124.50

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** The present floor plan arrangement has the elevator lobbies opening up into the existing hall corridors. IBC 2000 states that elevators opening into a fire resistant corridor shall be provided with an elevator lobby at each floor containing such a corridor. The lobby should completely separate the elevators from the corridor with rated partitions. Elevator lobbies need to have at least one means of egress and contain smoke detectors. This deficiency recommends the construction of fire resistant barrier with automatically closing fire doors to be installed between the elevator lobbies and the corridors to provide the required separation and protection.

---

**System: C1010 - Partitions**



**Location:** Corridor Doors

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

**Category:** 1 - Health & Safety

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

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

**Qty:** 30.00

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

**Estimate:** \$136,347.22

**Assessor Name:** System

**Date Created:** 09/22/2015

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



**System: C2010 - Stair Construction**



**Location:** Stairs

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

**Category:** 1 - Health & Safety

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

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

**Qty:** 2,000.00

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

**Estimate:** \$337,725.60

**Assessor Name:** System

**Date Created:** 09/22/2015

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

---

**System: C3020414 - Wood Flooring**



**Location:** Building Wide

**Distress:** Damaged

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

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

**Correction:** Remove and replace wood flooring

**Qty:** 100,000.00

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

**Estimate:** \$2,915,207.10

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** The classrooms and auditorium in this school have a wooden floor finish that appears to be from original construction. As indicated in the photos the floors in the basement level were under water during the time of the inspection as a result of a water line leak discovered during the inspection. Also, on the third floor the wooden floor under the 12x12 tile floor was saturated with water as a result of a backed up condensation line. Other sections of wooden flooring is showing signs of age such as the effects of sanding and refinishing with yearly cleaning and waxing with some repairs. Most of the floor finish is in fair condition however, the finish is beyond its expected life cycle. It is recommended that the wooden floor finish be removed and replaced with an in kind finish.



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



**Location:** Classrooms

**Distress:** Beyond Service Life

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

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

**Correction:** Replace Wiring Device

**Qty:** 120.00

**Unit of Measure:** Ea.

**Estimate:** \$27,618.36

**Assessor Name:** System

**Date Created:** 10/15/2015

**Notes:** Replace approximately 120 non-grounding type duplex receptacles with 3-wire grounding type.

---

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

**System: B2010 - Exterior Walls**



**Location:** Exterior Elevation

**Distress:** Damaged

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

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

**Correction:** Repair spalled concrete wall structure

**Qty:** 800.00

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

**Estimate:** \$45,372.97

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** The exterior concrete finish is spalling as indicated in the photos. Thus far the damage is limited to the interior sections of the roof on the addition. This deficiency provides a budgetary consideration for repairs to the concrete sections that are damaged. This work should be coordinated with the recommended exterior point and tuck work.

---

**System: B3010105 - Built-Up**



**Location:** Roof

**Distress:** Damaged

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

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

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

**Qty:** 57,500.00

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

**Estimate:** \$1,948,215.65

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** There are a number of roof sections and different roof elevations ranging from the main roof to the addition roof. Parapet heights, coping materials, and the height of the flashing also varies in different sections. The main roof is a built up application that was installed in the early 1990'S. The other built up roofs have not conclusive installation dates and have been seal coated several times to extend the life cycle of the application. During the time of the inspection it was reported that several leaks are active and a consistent repair program is consuming efforts to maintain the roof. Considering the age and condition of the roofing systems, universal upgrades are recommended. Remove and replace all roof sections. This deficiency is expected to completed as part of an exterior effort coordinated with other recommendations included in this report.

---

**System: C1010 - Partitions**



**Location:** Hallways

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

**Category:** 1 - Health & Safety

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

**Correction:** Remove non-rated interior glass panels and replace with studs, gypsum board, paint (E) wall

**Qty:** 8,000.00

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

**Estimate:** \$213,994.60

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** There are several transom lites and sidelights constructed into hallway wall systems. It is recommended that the lites and sidelights be removed and replaced with a fire rated wall construction. The deficiency provides a budgetary consideration to correct the hallway, transoms, lites and sidelights.

---

**System: C3010230 - Paint & Covering**



**Location:** Building Wide

**Distress:** Damaged

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

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

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

**Qty:** 100,000.00

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

**Estimate:** \$677,387.70

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** There are painted walls, trim, and some painted ceilings in this building. Sections of the building, some textured concrete surfaces have been painted as well. The interior finishes are in fair to poor condition depending on the location of the finish. For example due to recent roof leaks over the auditorium several areas will require repair and repainting. Also, sections of the fifth floor are damaged due to neglect. This school will require an almost continuous program of renewal of the applied finishes to maintain an acceptable appearance. Cyclical painting should be considered for a standard approach to maintaining the quality of the interior finishes. It is recommended that all previously painted surfaces be repainted according to established cycles for this occupancy and use type. Minor repairs should be completed before work begins. The abandoned section of the fifth floor is expected to require major repairs and additional efforts to restore the finishes. This effort is expected to be coordinated with other mechanical electrical efforts in order to prevent overlapping efforts.

---

**System: D1010 - Elevators and Lifts**



**Location:** West elevator

**Distress:** Beyond Service Life

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

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

**Correction:** Upgrade passenger elevator cab and controls

**Qty:** 1.00

**Unit of Measure:** Ea.

**Estimate:** \$68,878.73

**Assessor Name:** System

**Date Created:** 10/16/2015

**Notes:** Refurbish and modernize the west elevator.

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



**Location:** Gymnasium Offices

**Distress:** Beyond Service Life

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

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

**Correction:** Replace Panelboard

**Qty:** 2.00

**Unit of Measure:** Ea.

**Estimate:** \$51,059.54

**Assessor Name:** System

**Date Created:** 10/15/2015

**Notes:** Replace two panelboards in the gymnasium offices in the 1972 building addition.

---

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



**Location:** Classrooms

**Distress:** Beyond Service Life

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

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

**Correction:** Replace Lighting Fixtures (SF)

**Qty:** 109,900.00

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

**Estimate:** \$2,582,475.00

**Assessor Name:** System

**Date Created:** 10/15/2015

**Notes:** Replace lighting system in classrooms that have T12 lamps (approximately 109,900 SF).

---

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



**Location:** Various rooms

**Distress:** Beyond Service Life

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

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

**Correction:** Replace Lighting Fixtures (SF)

**Qty:** 64,000.00

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

**Estimate:** \$1,121,651.78

**Assessor Name:** System

**Date Created:** 10/15/2015

**Notes:** Replace fluorescent lighting system in offices, restrooms, locker rooms, stairwells, exit vestibules, old Print Shop, mechanical rooms, basement areas and other miscellaneous rooms having T12 fluorescent lamps (approximately 64,000 SF).

---

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



**Location:** Dance Studio

**Distress:** Beyond Service Life

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

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

**Correction:** Replace Lighting Fixtures (SF)

**Qty:** 2,148.00

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

**Estimate:** \$45,004.96

**Assessor Name:** System

**Date Created:** 10/16/2015

**Notes:** Replace recessed metal halide downlights in the dance studio with recessed fluorescent lighting fixtures.

---



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



**Location:** 1972 Shower Rooms

**Distress:** Beyond Service Life

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

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

**Correction:** Replace lighting fixtures

**Qty:** 24.00

**Unit of Measure:** Ea.

**Estimate:** \$21,992.44

**Assessor Name:** System

**Date Created:** 10/15/2015

**Notes:** Replace incandescent lighting fixtures in shower rooms in the 1972 building addition with wet location fluorescent fixtures.

---

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



**Location:** Basement Kitchen and various locations

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

**Category:** 1 - Health & Safety

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

**Correction:** Replace Wiring Device

**Qty:** 27.00

**Unit of Measure:** Ea.

**Estimate:** \$9,246.69

**Assessor Name:** System

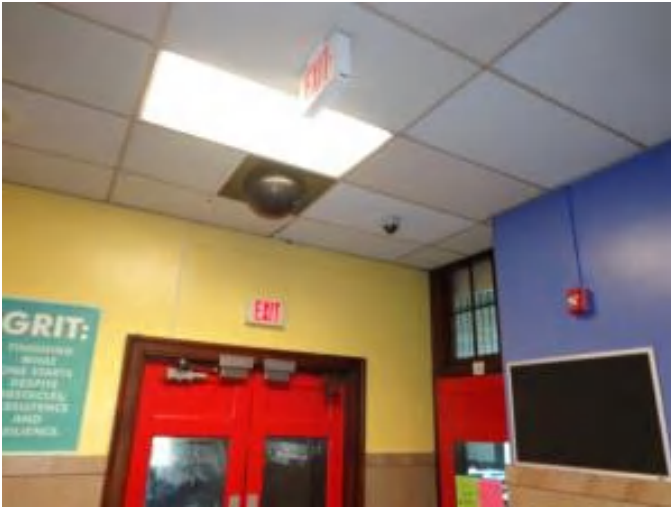
**Date Created:** 10/15/2015

**Notes:** Replace 10 duplex receptacles located within six (6) feet of a sink in various locations that are not ground-fault circuit-interrupting type and 17 receptacles in the Basement kitchen with ground-fault circuit-interrupting type to comply with NFPA 70, National Electrical Code (NEC) Article 210.8.

---



**System: D5030 - Communications and Security**



**Location:** Building wide

**Distress:** Beyond Service Life

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

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

**Correction:** Add/Replace Video Surveillance System

**Qty:** 114.00

**Unit of Measure:** Ea.

**Estimate:** \$454,824.73

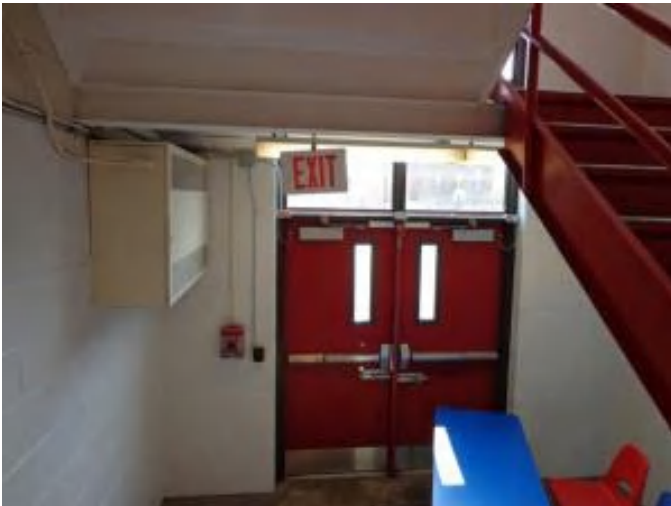
**Assessor Name:** System

**Date Created:** 10/16/2015

**Notes:** Replace 114 video surveillance cameras, including 8 exterior cameras, that were reported to have reached the end of their useful life and need to be replaced.

---

**System: D5090 - Other Electrical Systems**



**Location:** Gymnasium and corridors

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

**Category:** 1 - Health & Safety

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

**Correction:** Add Emergency/Exit Lighting

**Qty:** 15.00

**Unit of Measure:** Ea.

**Estimate:** \$37,159.30

**Assessor Name:** System

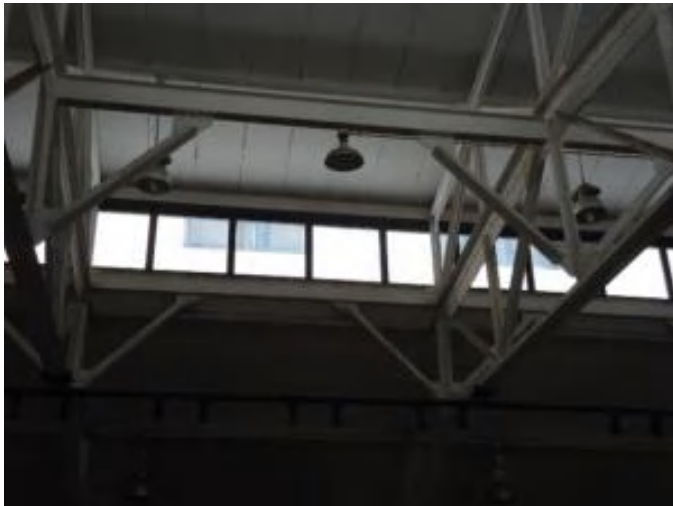
**Date Created:** 10/16/2015

**Notes:** Add approximately 15 exit signs in gymnasiums and corridors where signage is missing or not visible at both ends of the corridors. Also, provide an allowance for maintenance or replacement of 30 exit signs that are not illuminated.

---

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

**System: B2020 - Exterior Windows**



**Location:** Exterior Elevation

**Distress:** Damaged

**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:** 430.00

**Unit of Measure:** Ea.

**Estimate:** \$2,679,678.74

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** Most of the exterior windows have been upgraded from the original applications. As indicated in the photos several of the windows appear to be original. A majority of the window system is estimated to have been installed in the 1990's. Several of the windows no longer work and will require attention prior to an overall effort. Overall, the windows are in fair condition based on the year of installation or last renovation. The entire exterior window system is recommended to be replaced with units that retain their dimensions and profiles, but that incorporate updated energy-efficient features.

---

**System: C1020 - Interior Doors**



**Location:** Building Wide

**Distress:** Damaged

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

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

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

**Qty:** 400.00

**Unit of Measure:** Ea.

**Estimate:** \$1,861,735.61

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** Interior doors are typically wood in wood frames with transom lites, sidelights, wired glass glazing. Other interior doors include wooden glass pane doors with original wooden pane frames, hollow metal in hollow metal frames at stairwells and exit ways. Doors are generally in good condition considering the age of the application. Universal upgrades are required for the interior door systems it is recommended that the interior doors system be removed and replaced with a new modern metal framed hollow metal door system with consideration for ADA compliance.

---

**System: C3020413 - Vinyl Flooring**



**Location:** Building Wide

**Distress:** Health Hazard / Risk

**Category:** 1 - Health & Safety

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

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

**Qty:** 20,000.00

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

**Estimate:** \$303,333.36

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** This school has sections of 12x12 floor tile that represents upgrades and abatement of the 9x9 tile. In some cases the 12x12 was used to cover the wooden floor finish. However, suspected asbestos containing materials (ACM) are believed to be limited to the original vinyl floor tile and mastic. While currently sound and manageable in place, future renovation efforts should include provision to test and abate any and all ACM.

**System: C3020415 - Concrete Floor Finishes**



**Location:** Hallways

**Distress:** Damaged

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

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

**Correction:** Clean and reseal concrete floors

**Qty:** 10,000.00

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

**Estimate:** \$38,445.33

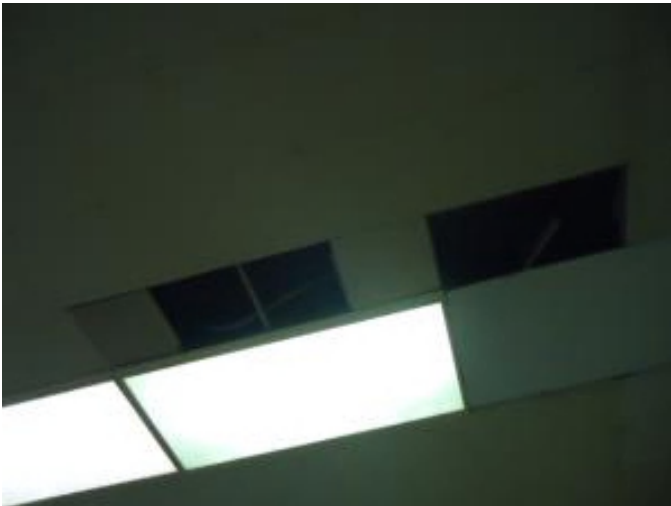
**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** The hallways, stair landings and mechanical spaces have a sealed concrete finish. The hallway concrete finish is diamond cut and placed as 24x24 inch sections. As indication in the photos most of the finish is in good condition. However what is not apparent in the photos is that several of the sections are loose and require re-grouting and in some places replacement. This deficiency provides a budgetary consideration for section by section repairs to the concrete floors and consideration for refinishing work once repairs are complete.

---

**System: C3030 - Ceiling Finishes**



**Location:** Building Wide

**Distress:** Damaged

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

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

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

**Qty:** 250,000.00

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

**Estimate:** \$3,770,607.56

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** The ceiling finish is a mix of 12 x 12 ceiling grid, painted and 2 x 4 Acoustical tile finish. Ceilings have been repaired in several areas and is in good condition considering the age of the application and the current condition of the school. The ceiling finish is expected to require upgrades to support the recommended mechanical electrical efforts in this report. This deficiency provides a budgetary consideration for removal and replacement of the current ceiling finish to a new acoustical tile finish. Considering the recommended mechanical and electrical upgrades this effort should be completed as part of an overall renewal program for the school. No work should be considered until after the recommended exterior efforts are complete.

**System: D2020 - Domestic Water Distribution**



**Location:** entire building

**Distress:** Beyond Service Life

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

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

**Correction:** Replace domestic water piping (350 KSF)

**Qty:** 345,000.00

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

**Estimate:** \$1,701,042.51

**Assessor Name:** System

**Date Created:** 09/23/2015

**Notes:** Replace domestic hot and cold water piping including valves, fittings, hangars and insulation

---

**System: D2030 - Sanitary Waste**



**Location:** entire building

**Distress:** Beyond Service Life

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

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

**Correction:** Inspect sanitary waste piping and replace damaged sections. (+300KSF)

**Qty:** 342,780.00

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

**Estimate:** \$1,506,121.36

**Assessor Name:** System

**Date Created:** 09/23/2015

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

---



**System: D3030 - Cooling Generating Systems**



**Location:** roof, mechanical room

**Distress:** Inadequate

**Category:** 4 - Capital Improvement

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

**Correction:** Install chilled water system with distribution piping and pumps. (+350KSF)

**Qty:** 345,000.00

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

**Estimate:** \$5,843,209.49

**Assessor Name:** System

**Date Created:** 09/23/2015

**Notes:** Remove the existing window air conditioning units and install a total of 860 tons of air-cooled chillers on the roof with chilled water distribution piping, pumps, chemical treatment and controls located in a mechanical room on the basement level.

---

**System: D3040 - Distribution Systems**



**Location:** cafeteria

**Distress:** Building / MEP Codes

**Category:** 2 - Code Compliance

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

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

**Qty:** 2,398.00

**Unit of Measure:** Pr.

**Estimate:** \$1,121,166.59

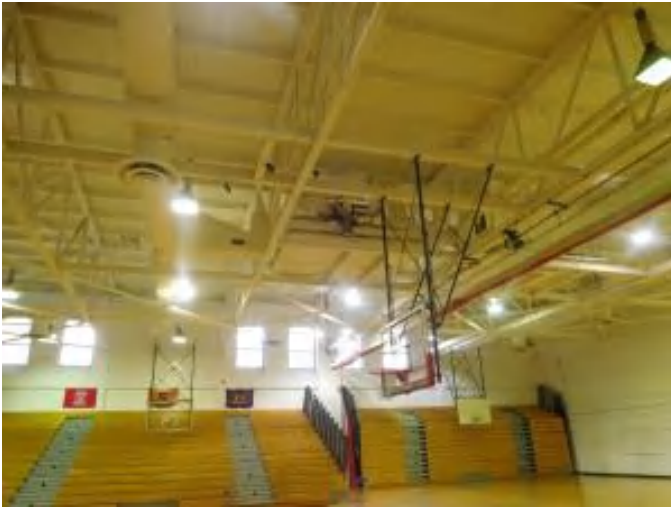
**Assessor Name:** System

**Date Created:** 09/23/2015

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

---

**System: D3040 - Distribution Systems**



**Location:** gymnasium

**Distress:** Building / MEP Codes

**Category:** 2 - Code Compliance

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

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

**Qty:** 6,000.00

**Unit of Measure:** Ea.

**Estimate:** \$308,301.04

**Assessor Name:** System

**Date Created:** 09/23/2015

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

---

**System: D3040 - Distribution Systems**



**Location:** auditorium

**Distress:** Building / MEP Codes

**Category:** 2 - Code Compliance

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

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

**Qty:** 550.00

**Unit of Measure:** Seat

**Estimate:** \$307,597.80

**Assessor Name:** System

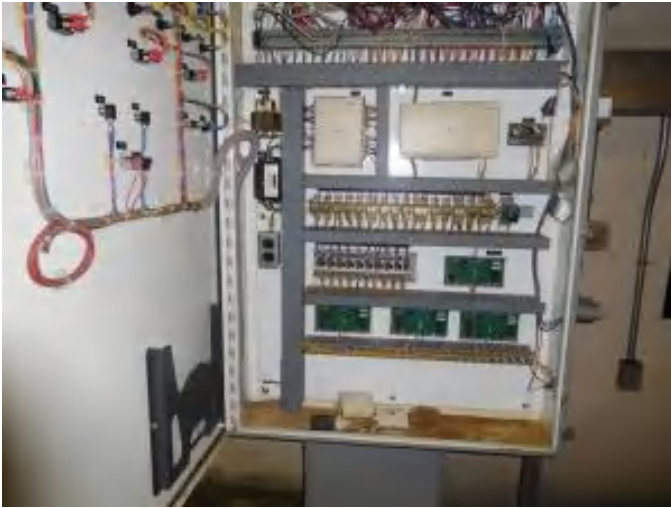
**Date Created:** 09/23/2015

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

---



**System: D3060 - Controls & Instrumentation**



**Location:** entire building

**Distress:** Inadequate

**Category:** 4 - Capital Improvement

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

**Correction:** Replace pneumatic controls with DDC (350KSF)

**Qty:** 345,000.00

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

**Estimate:** \$1,163,100.86

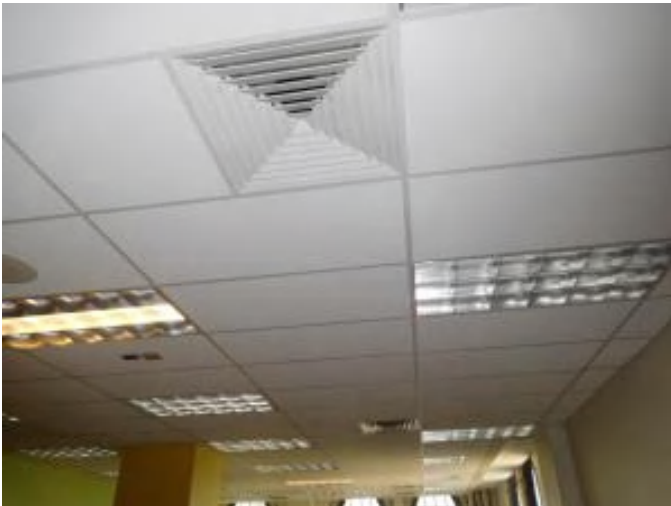
**Assessor Name:** System

**Date Created:** 09/23/2015

**Notes:** Complete installation of new direct digital control system and building automation system with software, remote computer control capability and graphics package.

---

**System: D4010 - Sprinklers**



**Location:** entire building

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

**Category:** 1 - Health & Safety

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

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

**Qty:** 345,000.00

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

**Estimate:** \$4,935,379.02

**Assessor Name:** System

**Date Created:** 09/23/2015

**Notes:** Install complete NFPA wet pipe automatic sprinkler system and standpipes. If required provide fire pump and jockey pump with controller.

---

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



**Location:** Main Electrical Room

**Distress:** Inadequate

**Category:** 4 - Capital Improvement

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

**Correction:** Add Electrical Switchgear and Distribution System

**Qty:** 1.00

**Unit of Measure:** Ea.

**Estimate:** \$514,035.60

**Assessor Name:** System

**Date Created:** 10/15/2015

**Notes:** Provide a 600A, 15 kV load interrupter switch, 1000 kVA, 13.2 kV-480/277V, 3 phase, 4 wire dry type transformer and 1600A, 480/277V switchboard with associated circuit breakers to serve proposed central air conditioning system.

---

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



**Location:** Classrooms

**Distress:** Inadequate

**Category:** 4 - Capital Improvement

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

**Correction:** Provide surface raceway system and wiring devices

**Qty:** 1,480.00

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

**Estimate:** \$157,477.03

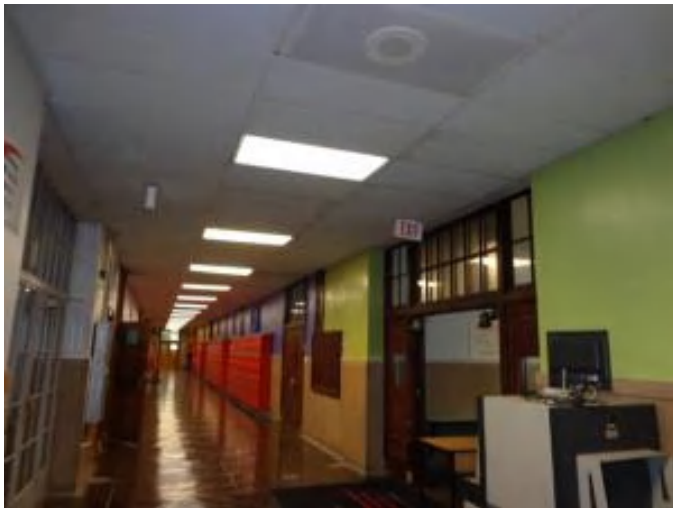
**Assessor Name:** System

**Date Created:** 10/15/2015

**Notes:** Add surface raceway system with minimum of four duplex receptacles each in approximately 74 classrooms.

---

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



**Location:** Corridors

**Distress:** Damaged

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

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

**Correction:** Maintain Lighting Fixtures

**Qty:** 30.00

**Unit of Measure:** Ea.

**Estimate:** \$11,108.93

**Assessor Name:** System

**Date Created:** 10/16/2015

**Notes:** Provide an allowance for 30 fluorescent lighting fixtures to be cleaned and/or repaired.

---

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



**Location:** Exterior building

**Distress:** Maintenance Required

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

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

**Correction:** Maintain Lighting Fixtures

**Qty:** 10.00

**Unit of Measure:** Ea.

**Estimate:** \$2,865.63

**Assessor Name:** System

**Date Created:** 10/16/2015

**Notes:** Clean and re-lamp (10) wall pack lighting fixtures on the exterior of the building.

---

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

**System: C1010 - Partitions**



**Location:** Science Labs

**Distress:** Damaged

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

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

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

**Qty:** 5.00

**Unit of Measure:** Ea.

**Estimate:** \$1,763,745.42

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** Lab casework and countertops are located in the science classrooms on the fifth floor of this school. They vary in design, age, and degree of deterioration. Selective replacement of both base cabinets and countertops should be anticipated within ten years. The new cabinetry should be designed in accordance with current requirements and include utility upgrades.

---

**System: C1030 - Fittings**



**Location:** Classrooms

**Distress:** Beyond Service Life

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

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

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

**Qty:** 300.00

**Unit of Measure:** Ea.

**Estimate:** \$206,469.63

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** The classroom chalk boards are covered with temporary white boards in several rooms. There are several classrooms with the original chalk boards. This system is beyond its expected life and universal upgrades are warranted. Remove and upgrade chalkboards to new marker board systems.

---

**System: C1030 - Fittings**



**Location:** Building Wide

**Distress:** Accessibility

**Category:** 2 - Code Compliance

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

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

**Qty:** 550.00

**Unit of Measure:** Ea.

**Estimate:** \$149,001.86

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** There is no directional signage and room signage is a custom design in places and scarce or painted with no consistency in others. Accessibility signage criteria have been established for the physically challenged. These include mounting heights, contrast and finish, raised and Braille characters and pictograms, and character proportions and heights. It is recommended that compliant signage be installed throughout the building.

---

**System: C1030 - Fittings**



**Location:** Building Wide

**Distress:** Damaged

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

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

**Correction:** Remove and replace tackboards - select size

**Qty:** 40.00

**Unit of Measure:** Ea.

**Estimate:** \$31,709.03

**Assessor Name:** System

**Date Created:** 09/22/2015

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

---



**System: C3010232 - Wall Tile**



**Location:** Building Wide

**Distress:** Beyond Service Life

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

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

**Correction:** Remove and replace wall tile

**Qty:** 20,000.00

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

**Estimate:** \$699,386.34

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** The tile wall finishes appear to have been replaced in the early 1990's and are in fair condition. The finish is expected to require upgrade within the next ten years based on the high traffic use in this school. This deficiency provides a budgetary consideration for universal upgrades to the wall tile finish.

---

**System: C3020411 - Carpet**



**Location:** Administrative Spaces

**Distress:** Beyond Service Life

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

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

**Correction:** Remove and replace carpet

**Qty:** 5,000.00

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

**Estimate:** \$55,953.81

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** The interior carpet finish was installed approximately in 2000 and is in fair condition considering the age and high traffic conditions. This finish will exceed its expected life within the next five years and is recommended for removal and replacement.

---

**System: C3020412 - Terrazzo & Tile**



**Location:** Kitchen

**Distress:** Damaged

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

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

**Correction:** Replace and re-grout floor tile

**Qty:** 3,000.00

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

**Estimate:** \$107,620.99

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** The 6x6 tile floor finish in the kitchen is in fair condition. However, there are several areas of broken tile and edge issues near the doors and breaks between finishes. This deficiency provides a budgetary consideration to repair and reground the tile floor finish.

---

**System: D3040 - Distribution Systems**



**Location:** original building

**Distress:** Building / MEP Codes

**Category:** 2 - Code Compliance

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

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

**Qty:** 100.00

**Unit of Measure:** C

**Estimate:** \$8,306,098.83

**Assessor Name:** System

**Date Created:** 09/23/2015

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

---



**System: D3050 - Terminal & Package Units**

This deficiency has no image.

**Location:** roof

**Distress:** Inadequate

**Category:** 4 - Capital Improvement

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

**Correction:** Install ductless split system for equipment room

**Qty:** 2.00

**Unit of Measure:** Ea.

**Estimate:** \$29,282.82

**Assessor Name:** System

**Date Created:** 09/23/2015

**Notes:** Install (2) one ton ductless DX split systems to cool elevator equipment penthouses. Locate condensing unit on adjacent roof. Include refrigerant line set and drain line.

---

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



**Location:** Auditorium

**Distress:** Energy Efficiency

**Category:** 4 - Capital Improvement

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

**Correction:** Replace lamp

**Qty:** 40.00

**Unit of Measure:** Ea.

**Estimate:** \$13,313.84

**Assessor Name:** System

**Date Created:** 10/15/2015

**Notes:** Re-lamp the incandescent lighting fixtures in the auditorium with dimmable LED lamps to reduce energy consumption and maintenance cost and to significantly increase lamp life.

---

**System: D5030 - Communications and Security**



**Location:** Building wide

**Distress:** Inadequate

**Category:** 4 - Capital Improvement

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

**Correction:** Add/Replace Clock System or Components

**Qty:** 0.00

**Unit of Measure:** Ea.

**Estimate:** \$71,852.38

**Assessor Name:** System

**Date Created:** 10/16/2015

**Notes:** Provide wireless clock system in all classrooms, cafeteria, auditorium, gymnasium, library and similar large rooms.

---

**System: E1020 - Institutional Equipment**



**Location:** Old Gyms

**Distress:** Beyond Service Life

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

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

**Correction:** Remove and replace or install basketball backstop and hoop - pick the appropriate style of backstop

**Qty:** 4.00

**Unit of Measure:** Ea.

**Estimate:** \$50,460.31

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** The boys and girls Gyms are no longer the main areas as this school had a new Gym addition constructed within the past ten years. This new Gym is in like new condition with modern backstops and sports safety barriers. However the old Gyms are still used as either a student common area or practice court. The interior backboards and support equipment is beyond its service life. Damaged boards are recommended for removal and replacement.

---

**System: E1020 - Institutional Equipment**



**Location:** Boys Gym

**Distress:** Damaged

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

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

**Correction:** Remove and replace or install new scoreboard - pick the appropriate scoreboard

**Qty:** 2.00

**Unit of Measure:** Ea.

**Estimate:** \$18,283.31

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** The practice Gyms or Boy's and Girl's Gyms each have a single scoreboard that appears to be from the early 1950's. This deficiency provides a budgetary consideration for the removal and replacement of each scoreboard.

---

**System: E1090 - Other Equipment**



**Location:** Loading Dock

**Distress:** Inadequate

**Category:** 4 - Capital Improvement

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

**Correction:** Remove and replace dock bumpers

**Qty:** 4.00

**Unit of Measure:** Ea.

**Estimate:** \$1,484.83

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** The loading dock is located just off the parking area between the dumpsters and the access point for support vehicles entering the school. The school was not constructed with a modern loading dock. Materials are hand trucked down the exterior walkway to the basement level and enters the school from that point. In order to modernize this process barriers and bumpers are recommended to be installed at the entrance point with enough room for a delivery truck to turn around and back into the spot. This deficiency provides a budgetary consideration to modify this loading dock.

---

**System: E2010 - Fixed Furnishings**



**Location:** Auditorium

**Distress:** Beyond Service Life

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

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

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

**Qty:** 1,800.00

**Unit of Measure:** Ea.

**Estimate:** \$1,623,429.92

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** The fixed seating for this school is from the original construction. The systems are in fair condition considering the age and usage. This project provides a budgetary consideration for universal upgrades for the fixed seating and furnishing of this school. Ensure that ADA requirements are followed with the new seating layout.

---

**System: E2010 - Fixed Furnishings**



**Location:** Stage

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

**Category:** 1 - Health & Safety

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

**Correction:** Remove and replace stage curtain - insert the LF of track and SF of curtain

**Qty:** 1.00

**Unit of Measure:** Ea.

**Estimate:** \$21,016.16

**Assessor Name:** System

**Date Created:** 09/22/2015

**Notes:** The school stage has a stage curtain assembly that appears to be from the original construction. Modern applications are typically fire-proof applications with adjustable tracks and electric support for operation. The curtains are torn in a few section and the track is not functioning properly, overall the system is in poor condition. It is recommended that the curtain and track system be upgraded to a new system. Special care should be considered in regards to modern fire proofing for the new installation.

---

## Equipment Inventory

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

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D1010 Elevators and Lifts	Traction geared elevators, passenger, 3500 lb, 5 floors, 200 FPM	2.00	Ea.	NW Corner	Millar Elevator	NA	NA		35			\$181,650.00	\$399,630.00
D1010 Elevators and Lifts	Traction geared elevators, passenger, 3500 lb, 5 floors, 200 FPM	2.00	Ea.	NE Corner	Millar Elevator	NA	NA		35			\$181,650.00	\$399,630.00
D2020 Domestic Water Distribution	Pump, pressure booster system, 5 HP pump, includes diaphragm tank, control and pressure switch	1.00	Ea.	mechanical room	federal				25	2006	2031	\$10,972.50	\$12,069.75
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 5810 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	mechanical room	hb smith	mills 650			35	2006	2041	\$136,832.50	\$150,515.75
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 5810 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	mechanical room	hb smith	mills 650			35	2006	2041	\$136,832.50	\$150,515.75
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 5810 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	mechanical room	hb smith	mills 650			35	2006	2041	\$136,832.50	\$150,515.75
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 5810 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	mechanical room	hb smith	mills 650			35	2006	2041	\$136,832.50	\$150,515.75
D3040 Distribution Systems	Pump, circulating, cast iron, close coupled, end suction, bronze impeller, flanged joints, 25 H.P., to 1550 GPM, 5" size	1.00	Ea.	mechanical room	armstrong				25	2006	2031	\$10,858.50	\$11,944.35
D3040 Distribution Systems	Pump, circulating, cast iron, close coupled, end suction, bronze impeller, flanged joints, 25 H.P., to 1550 GPM, 5" size	1.00	Ea.	mechanical room	armstrong				25	2006	2031	\$10,858.50	\$11,944.35
D5010 Electrical Service/Distribution	Load interrupter switch, 2 position, 400 kVA & above, 13.8 kV, 600 amp w/CLF fuses, NEMA 1	4.00	Ea.	Main Electrical Room	Cutler-Hammer	None	None		30	2007	2037	\$42,849.00	\$188,535.60
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NQOD, 120/208 V, 400 A, 1 stories, 25' horizontal	2.00	Ea.	Second Floor Kitchen	Cutler-Hammer	PRL 1A	NA		30	1991	2021	\$12,109.50	\$26,640.90
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NQOD, 120/208 V, 400 A, 1 stories, 25' horizontal	1.00	Ea.	Main Electrical Room	Cutler-Hammer	PRL 4B	NA		30	2001	2031	\$12,109.50	\$13,320.45
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NQOD, 120/208 V, 400 A, 1 stories, 25' horizontal	3.00	Ea.	Basement Kitchen	Cutler-Hammer	PRL 1A	NA		30	2001	2031	\$12,109.50	\$39,961.35
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NQOD, 120/208 V, 400 A, 1 stories, 25' horizontal	1.00	Ea.	Second Floor Computer Room	Cutler-Hammer	PRL 1A	NA		30	2007	2037	\$12,109.50	\$13,320.45
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NQOD, 120/208 V, 600 A, 1 stories, 25' horizontal	1.00	Ea.	Main Electrical Room	Curier-Hammer	PRL 4A	NA		30	2001	2031	\$18,536.85	\$20,390.54
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 1200 A	1.00	Ea.	Main Electrical Room	Cutler-Hammer	Pow-R-Line	NA		30	2007	2037	\$27,696.60	\$30,466.26

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D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 1600 A	1.00	Ea.	1972 Addition Main Electrical Room	Zinsco	NA	327121		30			\$40,458.15	\$44,503.97
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 2000 A	4.50	Ea.	Main Electrical Room	Cutler-Hammer	Pow-R-Line			30	2001	2031	\$47,537.55	\$235,310.88
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 2000 A	4.50	Ea.	Main Electrical Room	Cutler-Hammer	Pow-R-Line			30	2001	2031	\$47,537.55	\$235,310.88
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 800 A	1.00	Ea.	Main Electrical Room	Cutler-Hammer	PRL 4A	NA		30	2007	2037	\$21,766.05	\$23,942.66
D5010 Electrical Service/Distribution	Transformer, dry-type, 3 phase 15 kV primary 277/480 volt secondary, 500 kVA	1.00	Ea.	1972 Addition Main Electrical Room	Cutler-Hammer	NA	1LUB DS78742001		30	2007	2037	\$74,520.00	\$81,972.00
D5010 Electrical Service/Distribution	Transformer, dry-type, 3 phase 15 kV primary 277/480 volt secondary, 750 kVA	2.00	Ea.	Main Electrical Room	Cutler-Hammer	NA	1LUB DS78743001		30	2007	2037	\$96,255.00	\$211,761.00
D5010 Electrical Service/Distribution	Transformer, dry-type, 3 phase 15 kV primary 277/480 volt secondary, 750 kVA	2.00	Ea.	Main Electrical Room	Cutler-Hammer	NA	1LUB DS79415002		30	2007	2037	\$96,255.00	\$211,761.00
												<b>Total:</b>	<b>\$2,814,479.39</b>



## 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): 144,600

Year Built: 1927

Last Renovation:

Replacement Value: \$2,256,638

Repair Cost: \$1,364,321.07

Total FCI: 60.46 %

Total RSLI: 55.20 %



### Description:

#### Attributes:

##### General Attributes:

Bldg ID:	S401001	Site ID:	S401001
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## 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	57.89 %	78.74 %	\$1,335,451.65
G40 - Site Electrical Utilities	47.05 %	5.15 %	\$28,869.42
<b>Totals:</b>	<b>55.20 %</b>	<b>60.46 %</b>	<b>\$1,364,321.07</b>

### 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 \$
G2020	Parking Lots	\$7.65	S.F.	55,500	30	1980	2010	2027	40.00 %	33.31 %	12		\$141,409.06	\$424,575
G2030	Pedestrian Paving	\$11.52	S.F.	55,800	40	1980	2020	2025	25.00 %	22.37 %	10		\$143,828.50	\$642,816
G2040	Site Development	\$4.36	S.F.	128,900	25	1950	1975	2042	108.00 %	186.87 %	27		\$1,050,214.09	\$562,004
G2050	Landscaping & Irrigation	\$3.78	S.F.	17,600	15	1960	1975	2025	66.67 %	0.00 %	10			\$66,528
G4020	Site Lighting	\$3.58	S.F.	128,900	30	1980	2010	2030	50.00 %	6.26 %	15		\$28,869.42	\$461,462
G4030	Site Communications & Security	\$0.77	S.F.	128,900	30			2025	33.33 %	0.00 %	10			\$99,253
<b>Total</b>									<b>55.20 %</b>	<b>60.46 %</b>			<b>\$1,364,321.07</b>	<b>\$2,256,638</b>

## 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.

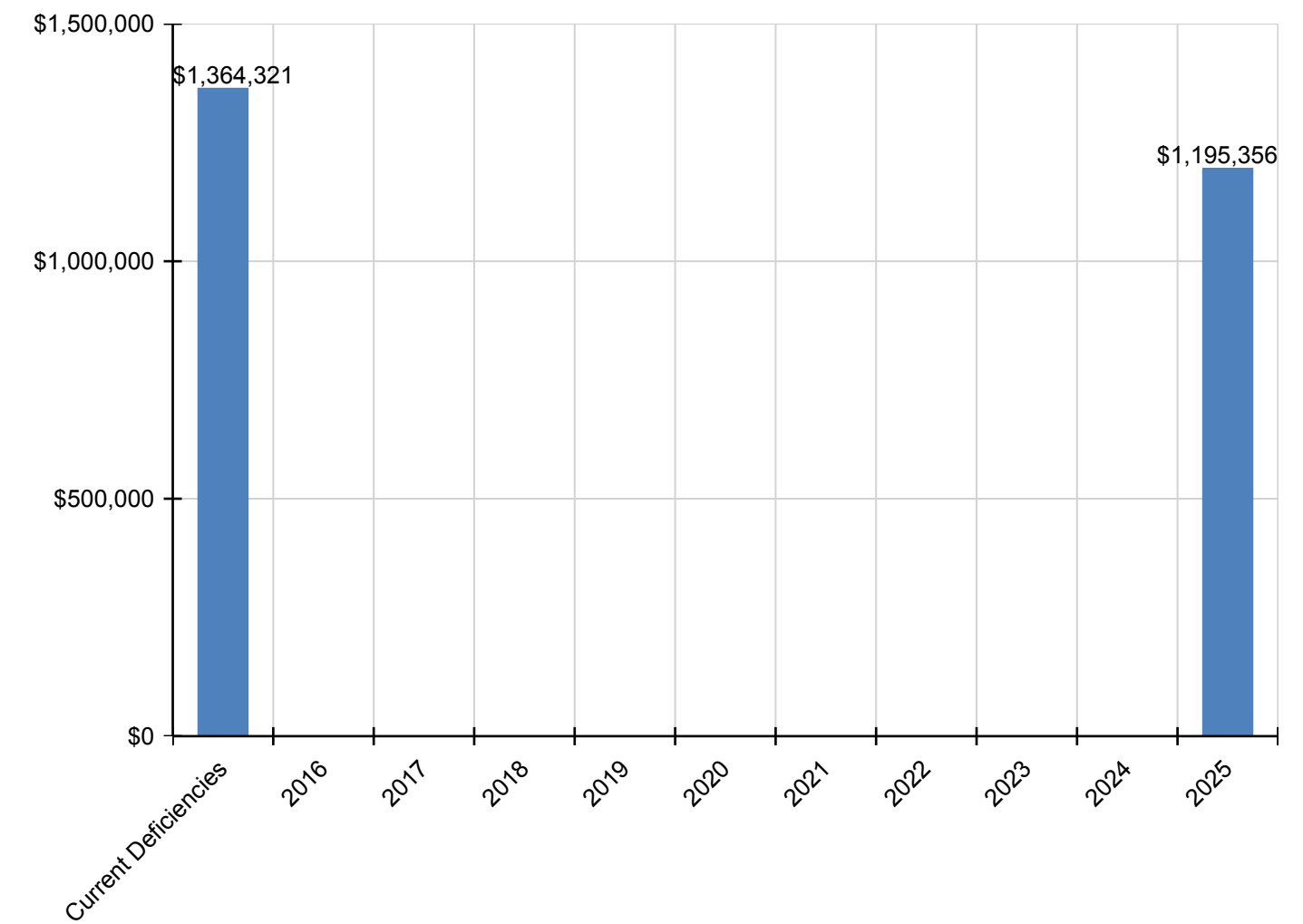
*Inflation Rate: 3%*

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
<b>Total:</b>	<b>\$1,364,321</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,195,356</b>	<b>\$2,559,677</b>
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
G2020 - Parking Lots	\$141,409	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$141,409
G2030 - Pedestrian Paving	\$143,829	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$950,281	\$1,094,109
G2040 - Site Development	\$1,050,214	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,050,214
G2050 - Landscaping & Irrigation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$98,349	\$98,349
G40 - Site Electrical Utilities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G4020 - Site Lighting	\$28,869	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,869
G4030 - Site Communications & Security	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$146,726	\$146,726

*\* Indicates non-renewable system*

Forecasted Sustainment Requirement

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

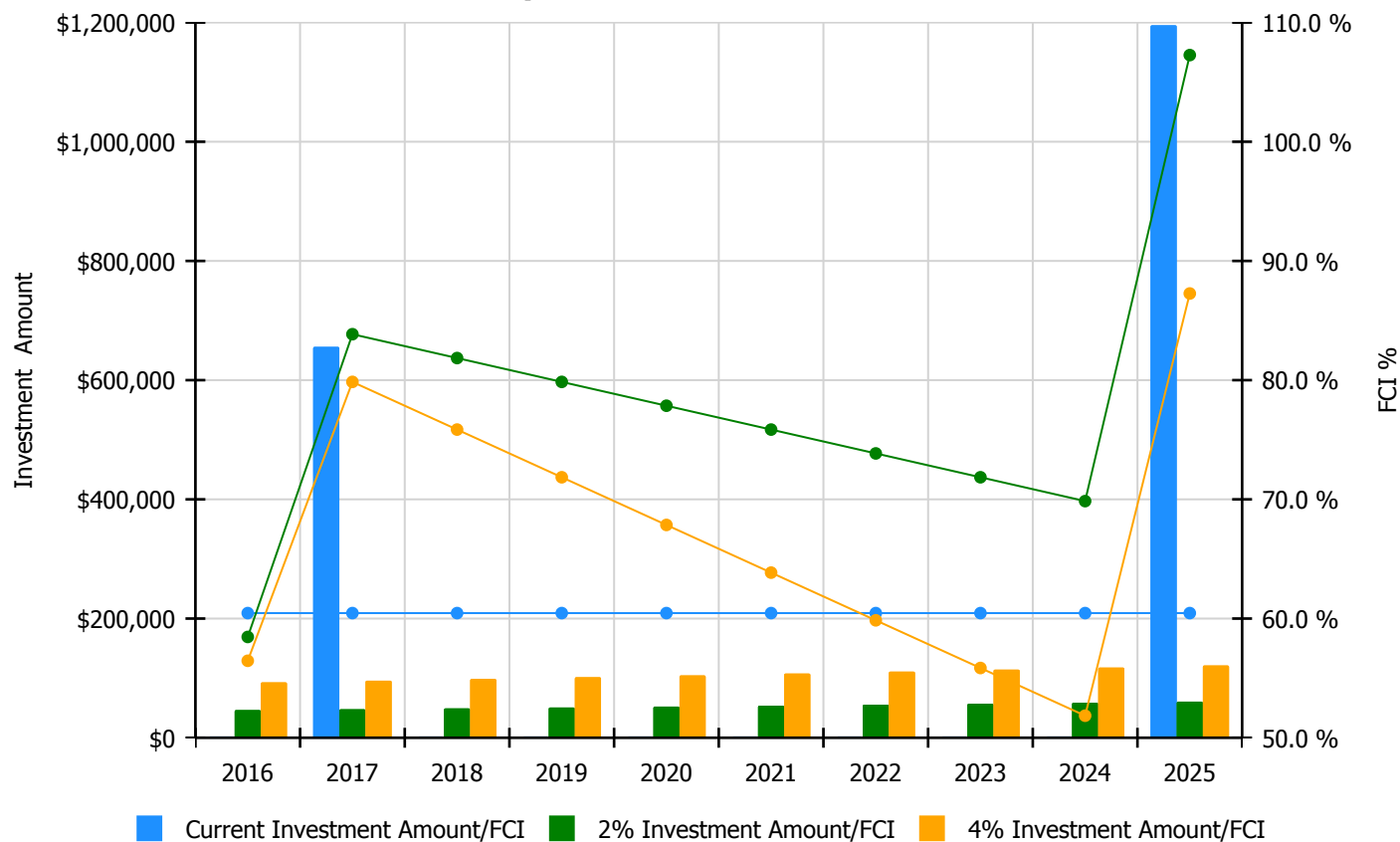


## 10 Year FCI Forecast by Investment Scenario

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

**Facility Investment vs. FCI Forecast**

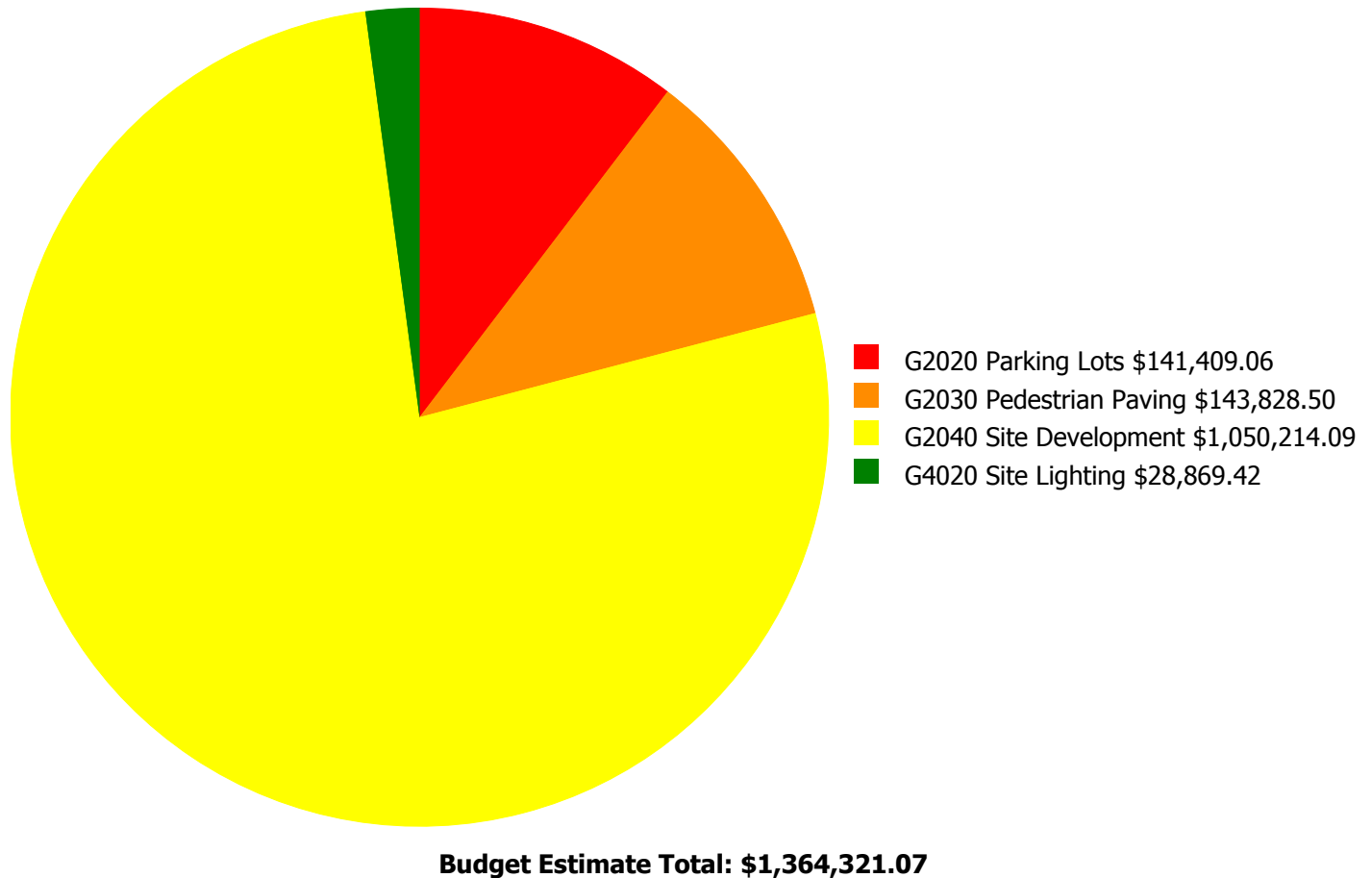


Year	Investment Amount Current FCI - 60.46%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	\$0	\$46,487.00	58.46 %	\$92,973.00	56.46 %
2017	\$655,853	\$47,881.00	83.85 %	\$95,763.00	79.85 %
2018	\$0	\$49,318.00	81.85 %	\$98,636.00	75.85 %
2019	\$0	\$50,797.00	79.85 %	\$101,595.00	71.85 %
2020	\$0	\$52,321.00	77.85 %	\$104,642.00	67.85 %
2021	\$0	\$53,891.00	75.85 %	\$107,782.00	63.85 %
2022	\$0	\$55,508.00	73.85 %	\$111,015.00	59.85 %
2023	\$0	\$57,173.00	71.85 %	\$114,346.00	55.85 %
2024	\$0	\$58,888.00	69.85 %	\$117,776.00	51.85 %
2025	\$1,195,356	\$60,655.00	107.27 %	\$121,309.00	87.27 %
<b>Total:</b>	<b>\$1,851,208</b>	<b>\$532,919.00</b>		<b>\$1,065,837.00</b>	



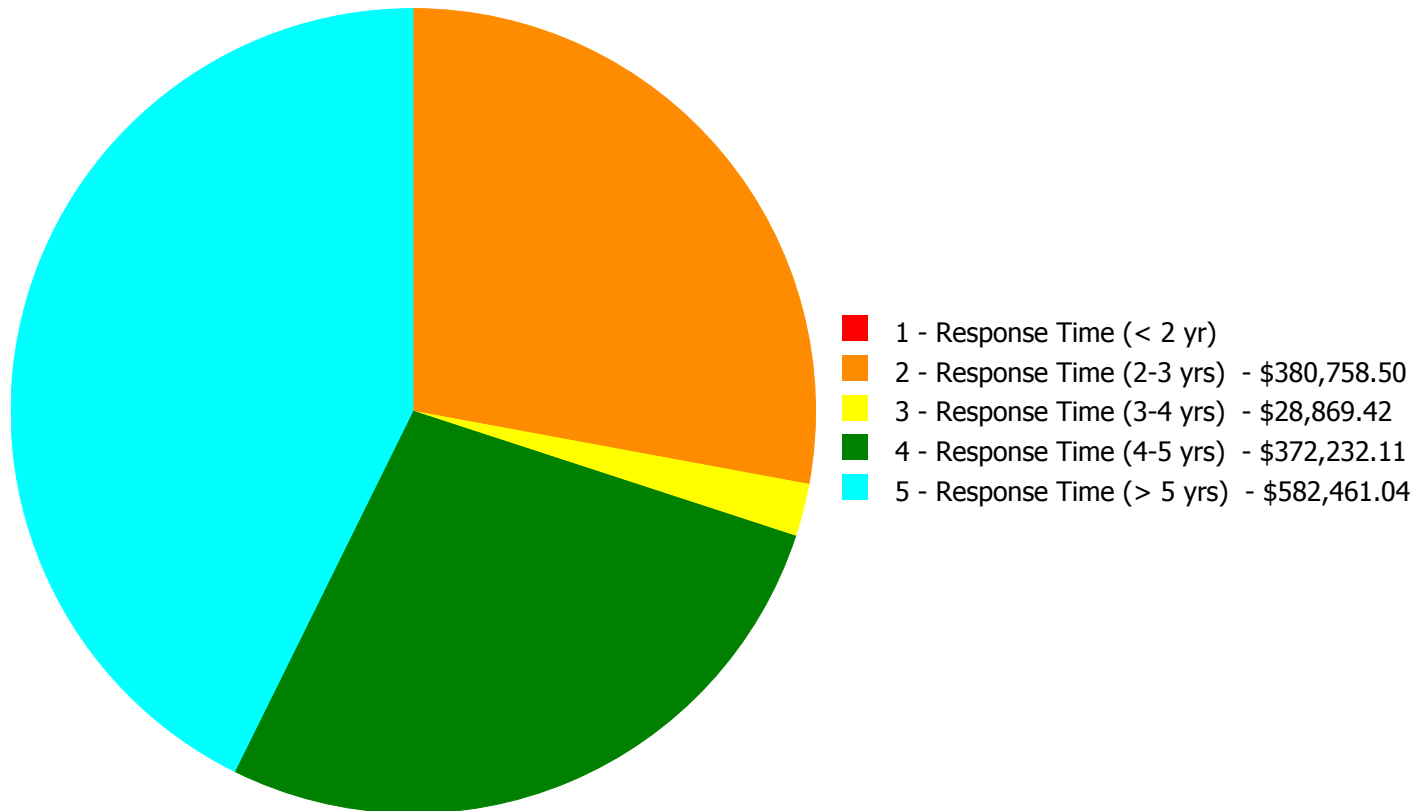
## Deficiency Summary by System

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.



## 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: \$1,364,321.07**

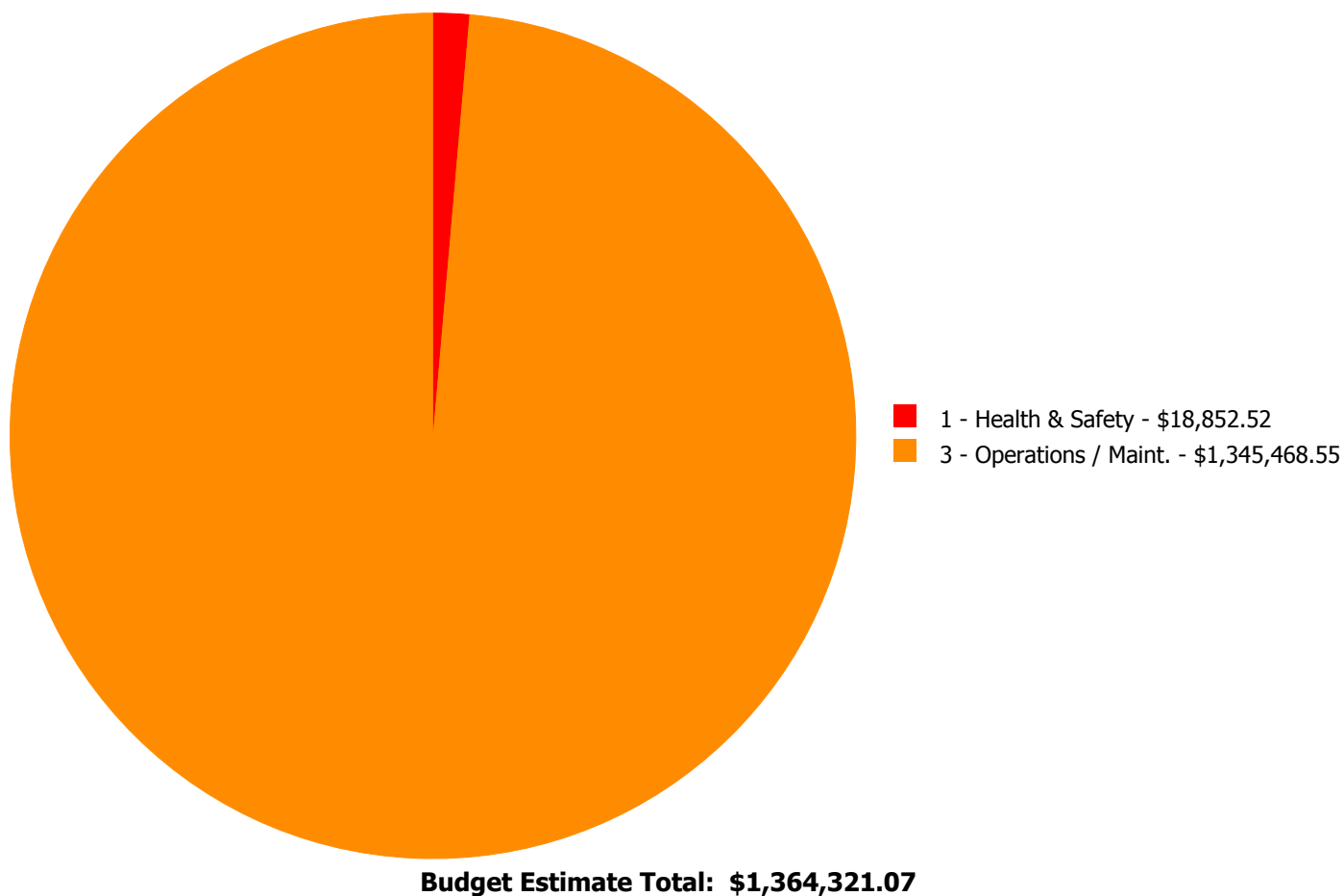
## Deficiency By Priority Investment Table

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	\$141,409.06	\$0.00	\$141,409.06
G2030	Pedestrian Paving	\$0.00	\$0.00	\$0.00	\$0.00	\$143,828.50	\$143,828.50
G2040	Site Development	\$0.00	\$380,758.50	\$0.00	\$230,823.05	\$438,632.54	\$1,050,214.09
G4020	Site Lighting	\$0.00	\$0.00	\$28,869.42	\$0.00	\$0.00	\$28,869.42
	<b>Total:</b>	\$0.00	\$380,758.50	\$28,869.42	\$372,232.11	\$582,461.04	\$1,364,321.07

## 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:



## Deficiency Details by Priority

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

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

#### System: G2040 - Site Development



**Location:** Parking Lot

**Distress:** Damaged

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

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

**Correction:** Replace chain link fence - 8' high

**Qty:** 3,400.00

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

**Estimate:** \$380,758.50

**Assessor Name:** Craig Anding

**Date Created:** 09/22/2015

**Notes:** This schools parking area has a perimeter fence that appears to double as a baseball diamond complete with backstop. The fence consist of either a chain link or metal picket fence and has several areas in need of repairs. The mounting post are damaged in several areas, gates are damaged and locking units no longer function. Overall the fence is in fair condition considering the age of the application. This fence system is recommended to be removed and replaced with a new system within the next five to ten years.

---

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

**System: G4020 - Site Lighting**



**Location:** Parking Lot

**Distress:** Maintenance Required

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

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

**Correction:** Maintain Site Lighting Fixture

**Qty:** 28.00

**Unit of Measure:** Ea.

**Estimate:** \$28,869.42

**Assessor Name:** Craig Anding

**Date Created:** 10/16/2015

**Notes:** Maintain and/or service 28 floodlighting fixtures illuminating the parking lot on the west side of N. 18th Street.

---

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

**System: G2020 - Parking Lots**



**Location:** Parking Lot

**Distress:** Damaged

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

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

**Correction:** Remove and replace AC paving parking lot

**Qty:** 10,000.00

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

**Estimate:** \$141,409.06

**Assessor Name:** Craig Anding

**Date Created:** 09/22/2015

**Notes:** The parking play area has no assigned parking and limited markers for approved activity areas. No curb cuts for access to the sidewalks that lead to the ADA main entrance. The parking play lot is in poor condition, the harsh environmental conditions associated with snow removal have taken its toll on the asphalt surface. Also, there is no marked path of ingress to the main entrance. This project provides a budgetary consideration for a play, parking lot renewal program that includes all aspects of the current ADA legislation. Asphalt removal and replacement is recommended.

---

**System: G2040 - Site Development**



**Location:** Site

**Distress:** Damaged

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

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

**Correction:** Replace or install exterior guardrails

**Qty:** 1,200.00

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

**Estimate:** \$230,823.05

**Assessor Name:** Craig Anding

**Date Created:** 09/22/2015

**Notes:** The hand rails to the basement level entrance, sidewalk stairs from the parking area and access levels to the basement are not current with requirements that the hand rails be graspable and continuous. In some cases the hand rails have been damaged and in other cases removed. This deficiency provides a budgetary consideration to remove and replace the exterior hand rail guard rail system for the parking area and school site.

---



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

**System: G2030 - Pedestrian Paving**



**Location:** Sidewalk

**Distress:** Damaged

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

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

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

**Qty:** 10,000.00

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

**Estimate:** \$143,828.50

**Assessor Name:** Craig Anding

**Date Created:** 09/22/2015

**Notes:** The sidewalk system is original to the buildings construction. There are a several areas of cracking concrete but no tripping hazards. The sidewalk system is expected to expire in the near future. Removal of the entire system is recommended. Universal upgrades are required and should include all aspects of current ADA legislation.

---

**System: G2040 - Site Development**



**Location:** Site

**Distress:** Damaged

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

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

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

**Qty:** 2,400.00

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

**Estimate:** \$419,780.02

**Assessor Name:** Craig Anding

**Date Created:** 09/22/2015

**Notes:** This school has a perimeter fence surrounding the service parking and loading dock area. The fence has several areas of repairs and the mounting post are damaged in several areas, overall the fence is in fair condition. This fence system is recommended to be removed and replaced with a new system within the next five to ten years.

---

**System: G2040 - Site Development**



**Location:** Site

**Distress:** Health Hazard / Risk

**Category:** 1 - Health & Safety

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

**Correction:** Build secure trash dumpster enclosure

**Qty:** 1.00

**Unit of Measure:** Ea.

**Estimate:** \$18,852.52

**Assessor Name:** Craig Anding

**Date Created:** 09/22/2015

**Notes:** The trash dumpster is located south of the main building enclosed by site fencing but open to students. The exterior services are not protected. Upgrades to protect the exterior services and trash area is necessary for the safety of the students and the general public. Construction of a secure lockable dumpster area is recommended.

---

## Equipment Inventory

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

No data found for this asset

## Glossary

ABMA	American Boiler Manufacturers Association <a href="http://www.abma.com/">http://www.abma.com/</a>
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

## Site Assessment Report - S401001;Gratz

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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

## Site Assessment Report - S401001;Gratz

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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



## Site Assessment Report - S401001;Gratz

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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.

## Site Assessment Report - S401001;Gratz

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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

## Site Assessment Report - S401001;Gratz

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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

## Site Assessment Report - S401001;Gratz

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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.

## Site Assessment Report - S401001;Gratz

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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	Photovoltaic system

## Site Assessment Report - S401001;Gratz

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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

## Site Assessment Report - S401001;Gratz

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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 Unifomat 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 Unifomat 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



## Site Assessment Report - S401001;Gratz

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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

School District of Philadelphia

# **S401201;Gratz Field**

Final

## **Site Assessment Report**

February 1, 2017



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## 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 the deficiencies divided by the sum of a system's Replacement Value (both values include soft-cost) expressed as a percentage ranging from 0% 100%.

Gross Area (SF):	80,000
Year Built:	1864
Last Renovation:	
Replacement Value:	\$13,721,666
Repair Cost:	\$2,209.78
Total FCI:	0.02 %
Total RSLI:	75.33 %



### Description:

Facility Assessment

August 2015

School District of Philadelphia

Gratz Field House (Stands)

1601 Hunting Park Avenue

Philadelphia, PA 19140

LN 04

GENERAL

There are three sections of this school complex included in this report: The Gratz Pool, Gratz Stadium and Gratz Field House. The

## Site Assessment Report - S401201;Gratz Field

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Gratz Pool is abandoned thus no inspection information is reported.

The information for this report was collected during a site visit on August 18, 2015.

Mr. Erik Zipay, Athletic Director, accompanied the assessment team on a tour of the field house.

### **GRATZ POOL**

The Gratz Pool is currently abandoned and not included in this report.

### **GRATZ FIELD HOUSE**

#### ARCHITECTURAL / STRUCTURAL SYSTEMS

The Field house was constructed in 2007/08 and is in like new condition. This small facility consists of a small administration office, locker rooms and storage rooms. The slab on grade CMU structure has a pitched metal roof and several exterior doors. The interior finishes consist of wall tile, and floor tile in the showers with unfinished CMU and painted floors for the remaining sections of this support facility. The facility is a support facility for the Gratz Stadium. There were no issues that surfaced during the time of the inspection therefore no projects are required at this time.

#### MECHANICAL SYSTEMS

PLUMBING-Plumbing fixtures are standard china commercial quality with wall mounted lavatories, urinals and water closets. Lavatories have dual lever or wheel handle faucets and urinals and water closets have concealed manual flush valves with push button operators. Water coolers are stainless steel high/low type. Locker areas have stall type showers with single control shower valves.

Hot water is provided by four Bradford White gas water heaters in one of the mechanical rooms. The heaters are one hundred gallons each, direct vent and combustion with pvc vent and combustion air piping. There is a small pressurization tanks adjacent to the water heaters. An inline circulating pump is part of the system. A stainless steel cabinet houses a master mixing valve to control hot water temperature and a pressure reducing valve.

Sanitary, waste and vent piping is hubless cast iron with banded couplings. Domestic hot and cold water is insulated rigid copper piping. A block wall plumbing chase provides good access to all piping. There is a two inch water line entering the building that appears to be routed from the pool building. Gas service is a three inch line from Staub St.

The plumbing system is from the original 2007 installation and no significant alterations have been made. Water heaters, pumps and service entrance equipment are in the mechanical room. All components are in good condition and should have remaining service life well in excess of this report period, up to twenty five years.

HVAC- The building has forced air heating from two Sterling indirect gas fired horizontal furnaces with one in each mechanical room. A ducted distribution system connects to ceiling diffusers. Each unit has a double wall type B vent to a roof cap. Each room has a combustion air louver and an inline exhaust fan for toilet exhaust. An electronic thermostat controls each unit. There is no air conditioning and based on the building usage none is recommended.

FIRE PROTECTION- There is no fire protection system.

#### ELECTRICAL SYSTEMS

Electrical Service--The field house is supplied by an underground service from PECO Energy Company to Cutler-Hammer 250A, 480/277V, 3 phase, 4 wire Panelboard DP-T, located in the Mechanical/Electrical Room on the east side of the building. Panelboard DP-T serves interior and exterior lighting loads and supplies Transformer LRP-T, rated 30 kVA, 208/120V, 3 phase, 4 wire, which serves receptacles, exhaust fans, water heater and fire alarm control panel and DDC panels. The electrical service equipment was installed in 2007.

Receptacles--All wiring devices are in good condition. Ground-fault circuit-interrupting devices are provided within six (6) feet of sinks, as required by NFPA 70, National Electrical Code Article 210.8.

Lighting-- Lighting fixtures in the locker rooms and office are surface mounted fluorescent wraparounds with acrylic prismatic lenses and T8 lamps. Fixtures in the shower rooms are vapor-tight fluorescent with T 8 lamps. Estimated remaining useful life is 12 years.



## Site Assessment Report - S401201;Gratz Field

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The exterior of the building is provided with HID fixtures mounted to the roof overhang.

Fire Alarm System-- A Siemens FS-250 fire alarm control panel is located in the Mechanical/Electrical Room. The fire alarm system is a manual system consisting of pull stations and audible/visual notification appliances. The system is in good condition and has an estimated remaining useful life of 10 years.

Video Surveillance System-- There is a Pelco Master Power Supply Panel in the Mechanical/Electrical Room for video surveillance cameras mounted on each of the four (4) Musco light poles.

Emergency Lighting / Exit Lighting-- Emergency egress and exit lighting are battery powered. Emergency lighting units and exit signs are provided in the locker rooms and restrooms.

### **GRATZ STADIUM**

The Gratz Stadium or Marcus Foster Memorial Stadium is a newly constructed stadium seating structure with modern access for those that may be physically challenged. Concessions, restrooms and ticket counter along with special seating and access ramp are some of the considerations in this new stadium seating arrangement. The structure is a steel framed CMU construction with no windows and the interior finish is limited to exposed CMU and painted concrete. No issues surfaced during the time of the inspection and no recommendations are required at this time.

Wall pack lighting fixtures are provided above the equipment rooms at the grandstand on the south side of the Marcus Foster Memorial Stadium.

Emergency egress and exit lighting are battery powered. Emergency lighting units and exit signs are provided at the access ramp at the grandstand. The remote emergency lighting heads mounted on each side of the press are missing and need to be replaced.

### **GROUNDS**

The grounds for the Gratz Stadium or Marcus Foster Memorial Stadium is a newly designed artificial turf surface installed in 2008 as part of the renovation effort for this site. This site has new score boards, fencing, turn styles, ramps and access points for wheelchair support. There is a rubberized running track and field goals with soccer goals with a practice area for universal sports. Also, the area has some general landscaping that consists of mature trees and general turf. The grounds are in like new condition and no deficiencies are warranted at this time.

There are four (4) Musco poles, each with 18 floodlighting fixtures that illuminate Marcus Foster Memorial Stadium.

### **RECOMMENDATIONS**

- Replace missing remote emergency lighting heads on each side of the press box at the grandstand on the south side of Marcus Foster Stadium and provide additional emergency lighting units for increased illumination of the grandstand stairs.

### **Attributes:**

#### **General Attributes:**

Active:	Open	Bldg Lot Tm:	Lot 2 / Tm 1
Status:	Accepted by SDP	Team:	Tm 1
Site ID:	S401201		

## 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.

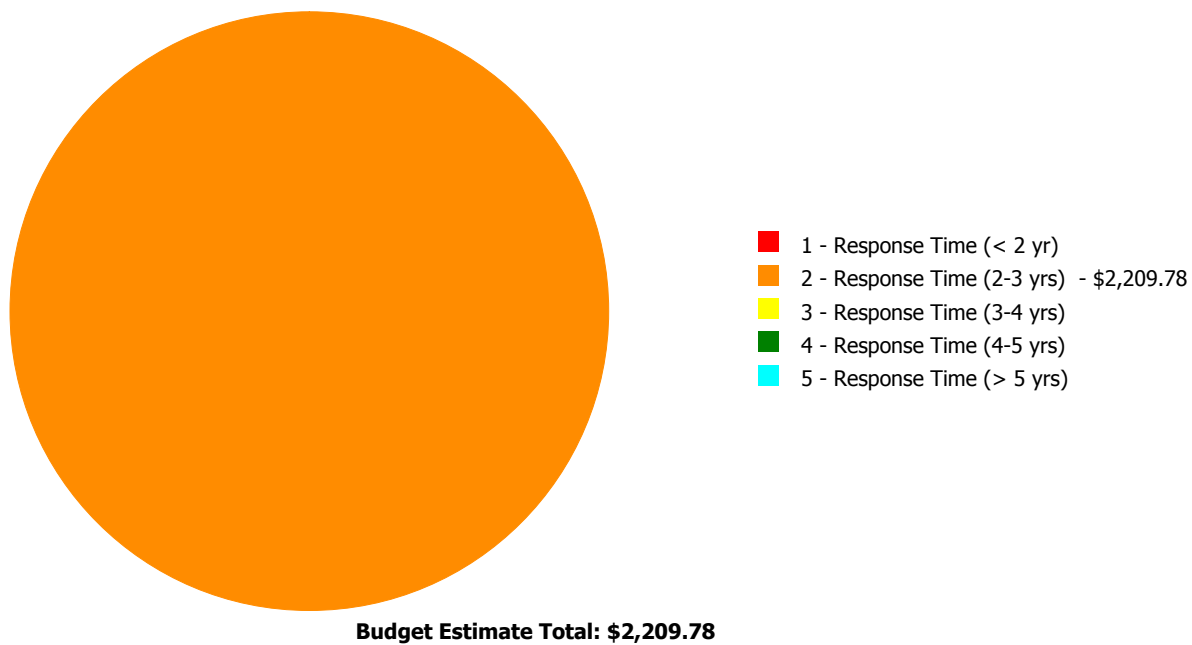
### Current Investment Requirement and Condition by Uniformat Classification

UNIFORMAT Classification	RSLI%	FCI %	Current Repair
A10 - Foundations	92.00 %	0.00 %	\$0.00
A20 - Basement Construction	0.00 %	0.00 %	\$0.00
A30 - Pool Construction	0.00 %	0.00 %	\$0.00
B10 - Superstructure	92.00 %	0.00 %	\$0.00
B20 - Exterior Enclosure	90.86 %	0.00 %	\$0.00
B30 - Roofing	66.96 %	0.00 %	\$0.00
C10 - Interior Construction	89.97 %	0.00 %	\$0.00
C20 - Stairs	92.00 %	0.00 %	\$0.00
C30 - Interior Finishes	70.18 %	0.00 %	\$0.00
D20 - Plumbing	73.28 %	0.00 %	\$0.00
D30 - HVAC	66.43 %	0.00 %	\$0.00
D40 - Fire Protection	77.14 %	0.00 %	\$0.00
D50 - Electrical	59.85 %	0.38 %	\$2,209.78
E10 - Equipment	68.00 %	0.00 %	\$0.00
E20 - Furnishings	80.00 %	0.00 %	\$0.00
G20 - Site Improvements	55.60 %	0.00 %	\$0.00
G40 - Site Electrical Utilities	73.33 %	0.00 %	\$0.00
<b>Totals:</b>	<b>75.33 %</b>	<b>0.02 %</b>	<b>\$2,209.78</b>

### 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)
B401901;Gratz Pool	16,200	0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B401902;Gratz Fieldhouse	6,850	0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B401903;Gratz Field (Stands)	14,850	0.04	\$0.00	\$2,209.78	\$0.00	\$0.00	\$0.00
G401201;Grounds	262,200	0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Total:</b>		<b>0.02</b>	<b>\$0.00</b>	<b>\$2,209.78</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>

### Deficiencies By Priority



## 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:	Pool
Gross Area (SF):	16,200
Year Built:	1978
Last Renovation:	
Replacement Value:	\$0
Repair Cost:	\$0.00
Total FCI:	0.00 %
Total RSLI:	0.00 %



### Description:

-- -- THIS BUILDING WAS NOT INCLUDED IN THE SCOPE OF WORK -- --

### Attributes:

#### General Attributes:

Active:	Open	Bldg ID:	
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S401201		

## 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	0.00 %	0.00 %	\$0.00
A20 - Basement Construction	0.00 %	0.00 %	\$0.00
A30 - Pool Construction	0.00 %	0.00 %	\$0.00
B10 - Superstructure	0.00 %	0.00 %	\$0.00
B20 - Exterior Enclosure	0.00 %	0.00 %	\$0.00
B30 - Roofing	0.00 %	0.00 %	\$0.00
C10 - Interior Construction	0.00 %	0.00 %	\$0.00
C20 - Stairs	0.00 %	0.00 %	\$0.00
C30 - Interior Finishes	0.00 %	0.00 %	\$0.00
D20 - Plumbing	0.00 %	0.00 %	\$0.00
D30 - HVAC	0.00 %	0.00 %	\$0.00
D40 - Fire Protection	0.00 %	0.00 %	\$0.00
D50 - Electrical	0.00 %	0.00 %	\$0.00
E10 - Equipment	0.00 %	0.00 %	\$0.00
<b>Totals:</b>	<b>0.00 %</b>	<b>0.00 %</b>	<b>\$0.00</b>

### 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 the system 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	\$5.42	S.F.	0	100	1978	2078		63.00 %	0.00 %	63			\$0
A1030	Slab on Grade	\$17.93	S.F.	0	100	1978	2078		63.00 %	0.00 %	63			\$0
A2010	Basement Excavation	\$0.62	S.F.	0	100	1978	2078		63.00 %	0.00 %	63			\$0
A2020	Basement Walls	\$8.99	S.F.	0	100	1978	2078		63.00 %	0.00 %	63			\$0
A3010	Pool Excavation	\$38.73	S.F.	0	100	1978	2078		63.00 %	0.00 %	63			\$0
A3020	Pool Shell	\$106.51	S.F.	0	40	1978	2018		7.50 %	0.00 %	3			\$0
B1010	Floor Construction	\$64.58	S.F.	0	100	1978	2078		63.00 %	0.00 %	63			\$0
B1020	Roof Construction	\$56.76	S.F.	0	100	1978	2078		63.00 %	0.00 %	63			\$0
B2010	Exterior Walls	\$112.94	S.F.	0	100	1978	2078		63.00 %	0.00 %	63			\$0
B2020	Exterior Windows	\$7.92	S.F.	0	40	1978	2018	2078	157.50 %	0.00 %	63			\$0
B2030	Exterior Doors	\$2.07	S.F.	0	25	1978	2003	2078	252.00 %	0.00 %	63			\$0
B3010105	Built-Up	\$37.76	S.F.	0	20	1978	1998	2078	315.00 %	0.00 %	63			\$0
B3010120	Single Ply Membrane	\$38.73	S.F.		20	1978	1998	2078	315.00 %	0.00 %	63			\$0
B3010130	Preformed Metal Roofing	\$54.22	S.F.		30	1978	2008	2078	210.00 %	0.00 %	63			\$0
B3010140	Shingle & Tile	\$38.73	S.F.		30	1978	2008	2078	210.00 %	0.00 %	63			\$0
B3020	Roof Openings	\$1.43	S.F.	0	30	1978	2008	2078	210.00 %	0.00 %	63			\$0
C1010	Partitions	\$5.17	S.F.	0	100	1978	2078	2078	63.00 %	0.00 %	63			\$0
C1020	Interior Doors	\$1.05	S.F.	0	25	1978	2003	2078	252.00 %	0.00 %	63			\$0



# Site Assessment Report - B401901:Gratz Pool

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 \$
C1030	Fittings	\$2.13	S.F.	0	25	1978	2003	2078	252.00 %	0.00 %	63			\$0
C2010	Stair Construction	\$2.61	S.F.	0	100	1978	2078		63.00 %	0.00 %	63			\$0
C3010230	Paint & Covering	\$13.21	S.F.	0	10	1978	1988	2078	630.00 %	0.00 %	63			\$0
C3010231	Vinyl Wall Covering	\$0.97	S.F.	0	15	1978	1993	2078	420.00 %	0.00 %	63			\$0
C3010232	Wall Tile	\$2.63	S.F.	0	30	1978	2008	2078	210.00 %	0.00 %	63			\$0
C3020411	Carpet	\$7.30	S.F.		10	1978	1988	2078	630.00 %	0.00 %	63			\$0
C3020412	Terrazzo & Tile	\$75.52	S.F.	0	30	1978	2008	2078	210.00 %	0.00 %	63			\$0
C3020413	Vinyl Flooring	\$9.68	S.F.	0	20	1978	1998	2078	315.00 %	0.00 %	63			\$0
C3020414	Wood Flooring	\$22.27	S.F.		25	1978	2003	2078	252.00 %	0.00 %	63			\$0
C3020415	Concrete Floor Finishes	\$0.97	S.F.	0	50	1978	2028	2078	126.00 %	0.00 %	63			\$0
C3030	Ceiling Finishes	\$18.90	S.F.	0	40	1978	2018	2078	157.50 %	0.00 %	63			\$0
C3040	Pool Finishes	\$24.21	S.F.	0	20	1978	1998	2078	315.00 %	0.00 %	63			\$0
D2010	Plumbing Fixtures	\$14.10	S.F.	0	35	1978	2013	2078	180.00 %	0.00 %	63			\$0
D2020	Domestic Water Distribution	\$6.64	S.F.	0	25	1978	2003	2078	252.00 %	0.00 %	63			\$0
D2030	Sanitary Waste	\$3.66	S.F.	0	25	1978	2003	2078	252.00 %	0.00 %	63			\$0
D2040	Rain Water Drainage	\$2.42	S.F.	0	30	1978	2008	2078	210.00 %	0.00 %	63			\$0
D3020	Heat Generating Systems	\$18.67	S.F.	0	35	1978	2013	2078	180.00 %	0.00 %	63			\$0
D3030	Cooling Generating Systems	\$24.48	S.F.	0	30	1978	2008	2078	210.00 %	0.00 %	63			\$0
D3040	Distribution Systems	\$42.99	S.F.	0	25	1978	2003	2078	252.00 %	0.00 %	63			\$0
D3050	Terminal & Package Units	\$11.60	S.F.	0	20	1978	1998	2078	315.00 %	0.00 %	63			\$0
D3060	Controls & Instrumentation	\$13.50	S.F.	0	20				0.00 %	0.00 %				\$0
D4010	Sprinklers	\$8.71	S.F.	0	40	1978	2018	2078	157.50 %	0.00 %	63			\$0
D4020	Standpipes	\$1.67	S.F.	0	40	1978	2018	2078	157.50 %	0.00 %	63			\$0
D5010	Electrical Service/Distribution	\$3.91	S.F.	0	30	1978	2008	2078	210.00 %	0.00 %	63			\$0
D5020	Lighting and Branch Wiring	\$23.92	S.F.	0	20	1978	1998	2078	315.00 %	0.00 %	63			\$0
D5030	Communications and Security	\$6.72	S.F.	0	15	1978	1993	2078	420.00 %	0.00 %	63			\$0
D5090	Other Electrical Systems	\$0.46	S.F.	0	30	1978	2008	2078	210.00 %	0.00 %	63			\$0
E1020	Institutional Equipment	\$42.18	S.F.	0	35	1978	2013	2078	180.00 %	0.00 %	63			\$0
E1090	Other Equipment	\$35.83	S.F.	0	35	1978	2013	2078	180.00 %	0.00 %	63			\$0
<b>Total</b>									<b>0.00 %</b>	<b>0.00 %</b>				<b>\$0</b>

## 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
<b>Total:</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>* A - Substructure</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>A10 - Foundations</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>A1010 - Standard Foundations</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>A1030 - Slab on Grade</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>A20 - Basement Construction</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>A2010 - Basement Excavation</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>A2020 - Basement Walls</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>A30 - Pool Construction</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>A3010 - Pool Excavation</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>A3020 - Pool Shell</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B - Shell</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B10 - Superstructure</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B1010 - Floor Construction</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B1020 - Roof Construction</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B20 - Exterior Enclosure</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B2010 - Exterior Walls</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B2020 - Exterior Windows</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B2030 - Exterior Doors</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B30 - Roofing</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B3010 - Roof Coverings</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B3010105 - Built-Up</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B3010120 - Single Ply Membrane</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B3010130 - Preformed Metal Roofing</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B3010140 - Shingle &amp; Tile</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B3020 - Roof Openings</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

## Site Assessment Report - B401901:Gratz Pool

C - Interiors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C10 - Interior Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C1010 - Partitions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C1020 - Interior Doors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C1030 - Fittings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C20 - Stairs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C2010 - Stair Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C30 - Interior Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3010 - Wall Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3010230 - Paint & Covering	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3010231 - Vinyl Wall Covering	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3010232 - Wall Tile	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020 - Floor Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020411 - Carpet	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020412 - Terrazzo & Tile	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020413 - Vinyl Flooring	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020414 - Wood Flooring	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020415 - Concrete Floor Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3030 - Ceiling Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3040 - Pool Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D - Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D20 - Plumbing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2010 - Plumbing Fixtures	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2020 - Domestic Water Distribution	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2030 - Sanitary Waste	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2040 - Rain Water Drainage	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D30 - HVAC	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3020 - Heat Generating Systems	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3030 - Cooling Generating Systems	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3040 - Distribution Systems	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3050 - Terminal & Package Units	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3060 - Controls & Instrumentation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D40 - Fire Protection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

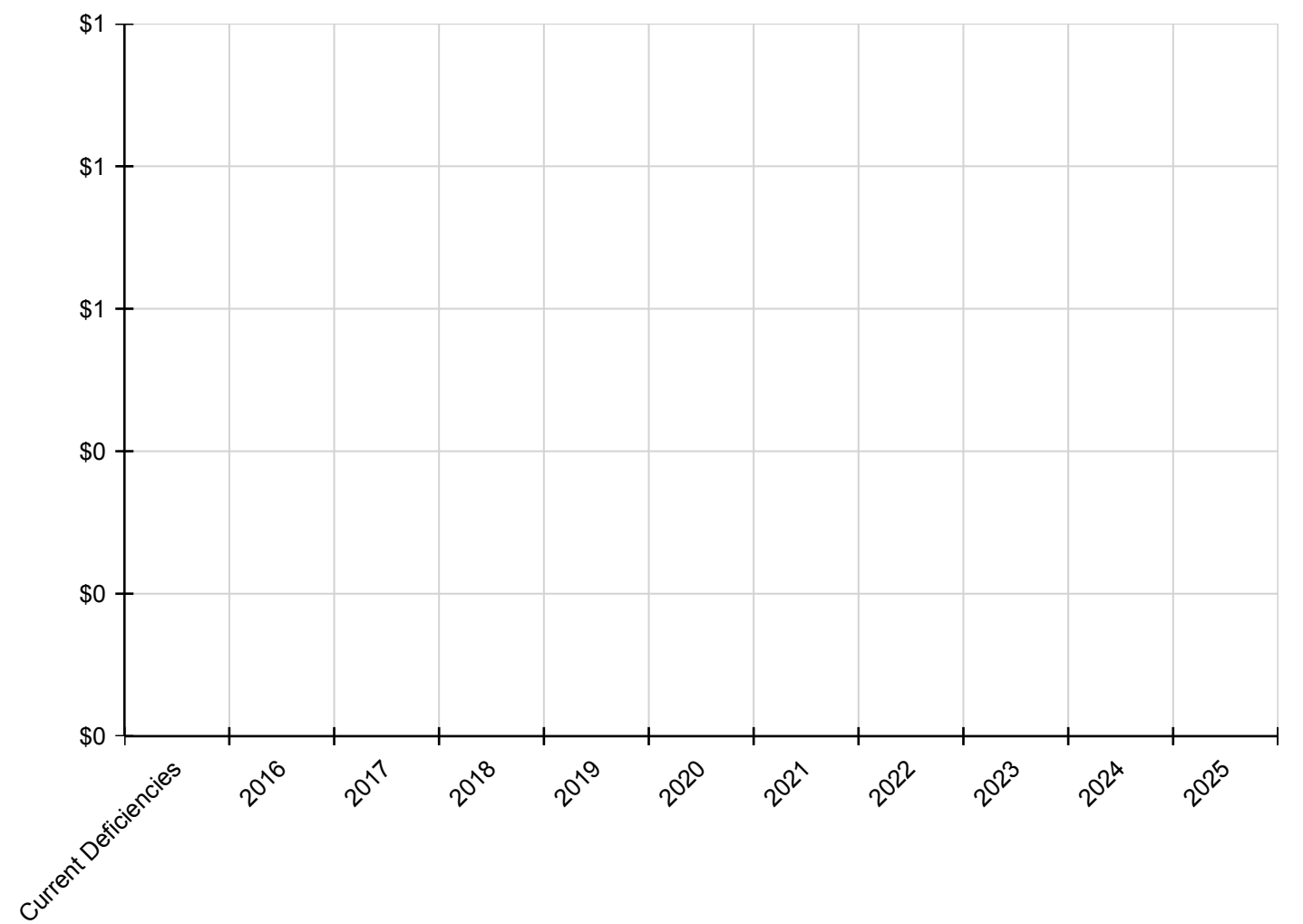
## Site Assessment Report - B401901:Gratz Pool

D4010 - Sprinklers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D4020 - Standpipes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D50 - Electrical	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D5010 - Electrical Service/Distribution	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D5020 - Lighting and Branch Wiring	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D5030 - Communications and Security	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D5090 - Other Electrical Systems	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E - Equipment & Furnishings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E10 - Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E1020 - Institutional Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E1090 - Other Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

\* 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

No data found for this asset



## 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.

No data found for this asset

## 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:

No data found for this asset

## Deficiency By Priority Investment Table

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

No data found for this asset

## 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:

No data found for this asset

## Deficiency Details by Priority

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

No data found for this asset

## Equipment Inventory

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

No data found for this asset

## 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:	Fieldhouse
Gross Area (SF):	6,850
Year Built:	2007
Last Renovation:	
Replacement Value:	\$4,004,386
Repair Cost:	\$0.00
Total FCI:	0.00 %
Total RSLI:	79.30 %



### Description:

#### Attributes:

##### General Attributes:

Active:	Open	Bldg ID:	B401902
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S401201		

## 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	92.00 %	0.00 %	\$0.00
B10 - Superstructure	92.00 %	0.00 %	\$0.00
B20 - Exterior Enclosure	91.57 %	0.00 %	\$0.00
B30 - Roofing	73.33 %	0.00 %	\$0.00
C10 - Interior Construction	89.97 %	0.00 %	\$0.00
C30 - Interior Finishes	70.18 %	0.00 %	\$0.00
D20 - Plumbing	73.28 %	0.00 %	\$0.00
D30 - HVAC	66.43 %	0.00 %	\$0.00
D40 - Fire Protection	77.14 %	0.00 %	\$0.00
D50 - Electrical	58.93 %	0.00 %	\$0.00
E10 - Equipment	68.00 %	0.00 %	\$0.00
E20 - Furnishings	80.00 %	0.00 %	\$0.00
<b>Totals:</b>	<b>79.30 %</b>	<b>0.00 %</b>	<b>\$0.00</b>



### 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.

# Site Assessment Report - B401902;Gratz Fieldhouse

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	\$5.42	S.F.	6,850	100	2007	2107		92.00 %	0.00 %	92			\$37,127
A1030	Slab on Grade	\$17.93	S.F.	6,850	100	2007	2107		92.00 %	0.00 %	92			\$122,821
B1010	Floor Construction	\$64.58	S.F.	6,850	100	2007	2107		92.00 %	0.00 %	92			\$442,373
B1020	Roof Construction	\$56.76	S.F.	6,850	100	2007	2107		92.00 %	0.00 %	92			\$388,806
B2010	Exterior Walls	\$112.94	S.F.	6,850	100	2007	2107		92.00 %	0.00 %	92			\$773,639
B2030	Exterior Doors	\$2.07	S.F.	6,850	25	2007	2032		68.00 %	0.00 %	17			\$14,180
B3010130	Preformed Metal Roofing	\$54.22	S.F.	7,250	30	2007	2037		73.33 %	0.00 %	22			\$393,095
C1010	Partitions	\$5.17	S.F.	6,850	100	2007	2107		92.00 %	0.00 %	92			\$35,415
C1020	Interior Doors	\$1.05	S.F.	6,850	40	2007	2047		80.00 %	0.00 %	32			\$7,193
C3010232	Wall Tile	\$1.68	S.F.	6,850	30	2007	2037		73.33 %	0.00 %	22			\$11,508
C3020412	Terrazzo & Tile	\$75.52	S.F.	685	30	2007	2037		73.33 %	0.00 %	22			\$51,731
C3020415	Concrete Floor Finishes	\$0.97	S.F.	6,165	50	2007	2057		84.00 %	0.00 %	42			\$5,980
C3030	Ceiling Finishes	\$18.90	S.F.	6,850	25	2007	2032		68.00 %	0.00 %	17			\$129,465
D2010	Plumbing Fixtures	\$14.10	S.F.	6,850	35	2007	2042		77.14 %	0.00 %	27			\$96,585
D2020	Domestic Water Distribution	\$6.64	S.F.	6,850	25	2007	2032		68.00 %	0.00 %	17			\$45,484
D2030	Sanitary Waste	\$3.66	S.F.	6,850	25	2007	2032		68.00 %	0.00 %	17			\$25,071
D3020	Heat Generating Systems	\$4.94	S.F.	6,850	35	2007	2042		77.14 %	0.00 %	27			\$33,839
D3030	Cooling Generating Systems	\$7.51	S.F.	6,850	30	2007	2037		73.33 %	0.00 %	22			\$51,444
D3040	Distribution Systems	\$36.27	S.F.	6,850	25	2007	2032		68.00 %	0.00 %	17			\$248,450
D3050	Terminal & Package Units	\$11.60	S.F.	6,850	20	2007	2027		60.00 %	0.00 %	12			\$79,460
D3060	Controls & Instrumentation	\$13.50	S.F.	6,850	20	2007	2027		60.00 %	0.00 %	12			\$92,475
D4010	Sprinklers	\$8.71	S.F.	6,850	35	2007	2042		77.14 %	0.00 %	27			\$59,664
D4020	Standpipes	\$1.67	S.F.	6,850	35	2007	2042		77.14 %	0.00 %	27			\$11,440
D5010	Electrical Service/Distribution	\$3.91	S.F.	6,850	30	2007	2037		73.33 %	0.00 %	22			\$26,784
D5020	Lighting and Branch Wiring	\$23.92	S.F.	6,850	20	2007	2027		60.00 %	0.00 %	12			\$163,852
D5030	Communications and Security	\$6.72	S.F.	6,850	15	2007	2022		46.67 %	0.00 %	7			\$46,032
D5090	Other Electrical Systems	\$0.46	S.F.	6,850	20	2007	2027		60.00 %	0.00 %	12			\$3,151
E1020	Institutional Equipment	\$42.18	S.F.	6,850	25	2007	2032		68.00 %	0.00 %	17			\$288,933
E1090	Other Equipment	\$35.83	S.F.	6,850	25	2007	2032		68.00 %	0.00 %	17			\$245,436
E2010	Fixed Furnishings	\$10.65	S.F.	6,850	40	2007	2047		80.00 %	0.00 %	32			\$72,953
<b>Total</b>									<b>79.30 %</b>					<b>\$4,004,386</b>

### 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.

<b>System:</b>	C3010 - Wall Finishes	This system contains no images
<b>Note:</b>	Exposed CMU 90% Wall Tile 10%	
<b>System:</b>	C3020 - Floor Finishes	This system contains no images
<b>Note:</b>	concrete floors 90% Tile 10%	
<b>System:</b>	D5010 - Electrical Service/Distribution	This system contains no images
<b>Note:</b>	There is one (1) 30 kVA step-down transformer. There are no inventory items to record.	

## 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
<b>Total:</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$62,275</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$62,275</b>
<b>* A - Substructure</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>* A10 - Foundations</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>A1010 - Standard Foundations</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>A1030 - Slab on Grade</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B - Shell</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B10 - Superstructure</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B1010 - Floor Construction</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B1020 - Roof Construction</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B20 - Exterior Enclosure</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B2010 - Exterior Walls</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B2030 - Exterior Doors</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B30 - Roofing</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B3010 - Roof Coverings</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B3010130 - Preformed Metal Roofing</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>C - Interiors</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>C10 - Interior Construction</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>C1010 - Partitions</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>C1020 - Interior Doors</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>C30 - Interior Finishes</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>C3010 - Wall Finishes</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>C3010232 - Wall Tile</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>C3020 - Floor Finishes</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>C3020412 - Terrazzo &amp; Tile</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>C3020415 - Concrete Floor Finishes</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>C3030 - Ceiling Finishes</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

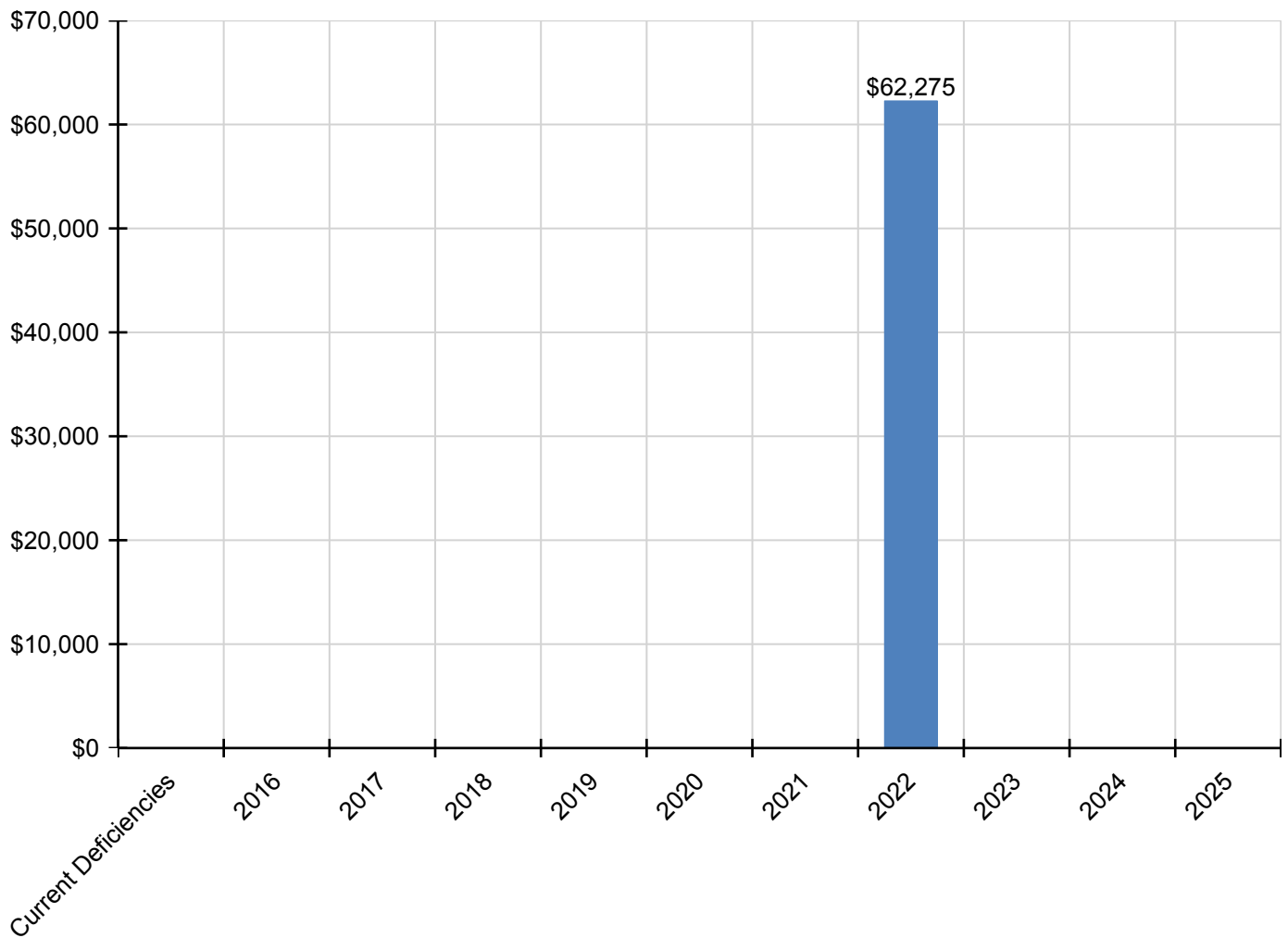
## Site Assessment Report - B401902;Gratz Fieldhouse

D - Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D20 - Plumbing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2010 - Plumbing Fixtures	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2020 - Domestic Water Distribution	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2030 - Sanitary Waste	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D30 - HVAC	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3020 - Heat Generating Systems	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3030 - Cooling Generating Systems	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3040 - Distribution Systems	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3050 - Terminal & Package Units	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3060 - Controls & Instrumentation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D40 - Fire Protection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D4010 - Sprinklers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D4020 - Standpipes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D50 - Electrical	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D5010 - Electrical Service/Distribution	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D5020 - Lighting and Branch Wiring	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D5030 - Communications and Security	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$62,275	\$0	\$0	\$0	\$62,275
D5090 - Other Electrical Systems	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E - Equipment & Furnishings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E10 - Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E1020 - Institutional Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E1090 - Other Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E20 - Furnishings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E2010 - Fixed Furnishings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

\* Indicates non-renewable system

## Forecasted Sustainment Requirement

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

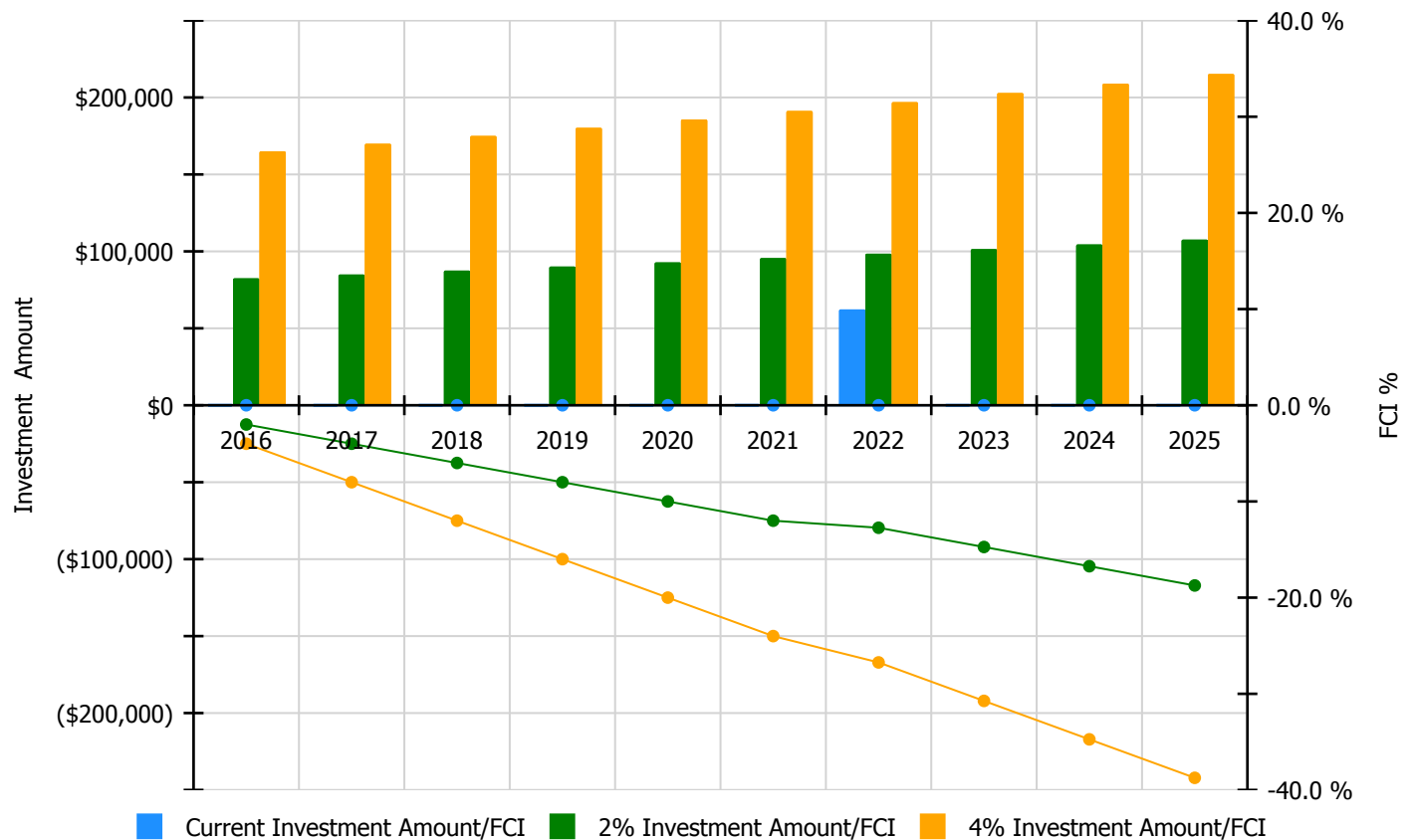


## 10 Year FCI Forecast by Investment Scenario

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

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

### Facility Investment vs. FCI Forecast



Year	Investment Amount Current FCI - 0%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	\$0	\$82,490.00	-2.00 %	\$164,981.00	-4.00 %
2017	\$0	\$84,965.00	-4.00 %	\$169,930.00	-8.00 %
2018	\$0	\$87,514.00	-6.00 %	\$175,028.00	-12.00 %
2019	\$0	\$90,139.00	-8.00 %	\$180,279.00	-16.00 %
2020	\$0	\$92,844.00	-10.00 %	\$185,687.00	-20.00 %
2021	\$0	\$95,629.00	-12.00 %	\$191,258.00	-24.00 %
2022	\$62,275	\$98,498.00	-12.74 %	\$196,996.00	-26.74 %
2023	\$0	\$101,453.00	-14.74 %	\$202,905.00	-30.74 %
2024	\$0	\$104,496.00	-16.74 %	\$208,993.00	-34.74 %
2025	\$0	\$107,631.00	-18.74 %	\$215,262.00	-38.74 %
<b>Total:</b>	<b>\$62,275</b>	<b>\$945,659.00</b>		<b>\$1,891,319.00</b>	



## 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.

No data found for this asset

## 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:

No data found for this asset

## Deficiency By Priority Investment Table

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

No data found for this asset

## 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:

No data found for this asset

## Deficiency Details by Priority

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

No data found for this asset

## Equipment Inventory

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

No data found for this asset

## 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:	Stands
Gross Area (SF):	14,850
Year Built:	2007
Last Renovation:	
Replacement Value:	\$4,962,279
Repair Cost:	\$2,209.78
Total FCI:	0.04 %
Total RSLI:	86.96 %



### Description:

#### Attributes:

##### General Attributes:

Active:	Open	Bldg ID:	B401903
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S401201		

## 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	92.00 %	0.00 %	\$0.00
B10 - Superstructure	92.00 %	0.00 %	\$0.00
B20 - Exterior Enclosure	90.58 %	0.00 %	\$0.00
B30 - Roofing	60.00 %	0.00 %	\$0.00
C20 - Stairs	92.00 %	0.00 %	\$0.00
D50 - Electrical	60.51 %	0.65 %	\$2,209.78
<b>Totals:</b>	<b>86.96 %</b>	<b>0.04 %</b>	<b>\$2,209.78</b>



### 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	\$10.75	S.F.	14,850	100	2007	2107		92.00 %	0.00 %	92			\$159,638
A1030	Slab on Grade	\$17.93	S.F.	14,850	100	2007	2107		92.00 %	0.00 %	92			\$266,261
B1010	Floor Construction	\$107.59	S.F.	14,850	100	2007	2107		92.00 %	0.00 %	92			\$1,597,712
B2010	Exterior Walls	\$125.87	S.F.	14,850	100	2007	2107		92.00 %	0.00 %	92			\$1,869,170
B2030	Exterior Doors	\$7.92	S.F.	14,850	25	2007	2032		68.00 %	0.00 %	17			\$117,612
B3010120	Single Ply Membrane	\$24.21	S.F.	14,850	20	2007	2027		60.00 %	0.00 %	12			\$359,519
C2010	Stair Construction	\$17.04	S.F.	14,850	100	2007	2107		92.00 %	0.00 %	92			\$253,044
D5010	Electrical Service/Distribution	\$2.42	S.F.	14,850	30	2007	2037	2027	40.00 %	0.00 %	12			\$35,937
D5020	Lighting and Branch Wiring	\$15.03	S.F.	14,850	20	2007	2027	2027	60.00 %	0.00 %	12			\$223,196
D5030	Communications and Security	\$4.20	S.F.	14,850	15	2007	2022	2027	80.00 %	0.00 %	12			\$62,370
D5090	Other Electrical Systems	\$1.20	S.F.	14,850	30	2007	2037	2027	40.00 %	12.40 %	12		\$2,209.78	\$17,820
<b>Total</b>									<b>86.96 %</b>	<b>0.04 %</b>			<b>\$2,209.78</b>	<b>\$4,962,279</b>

## 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

## Site Assessment Report - B401903;Gratz Field (Stands)

### 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.

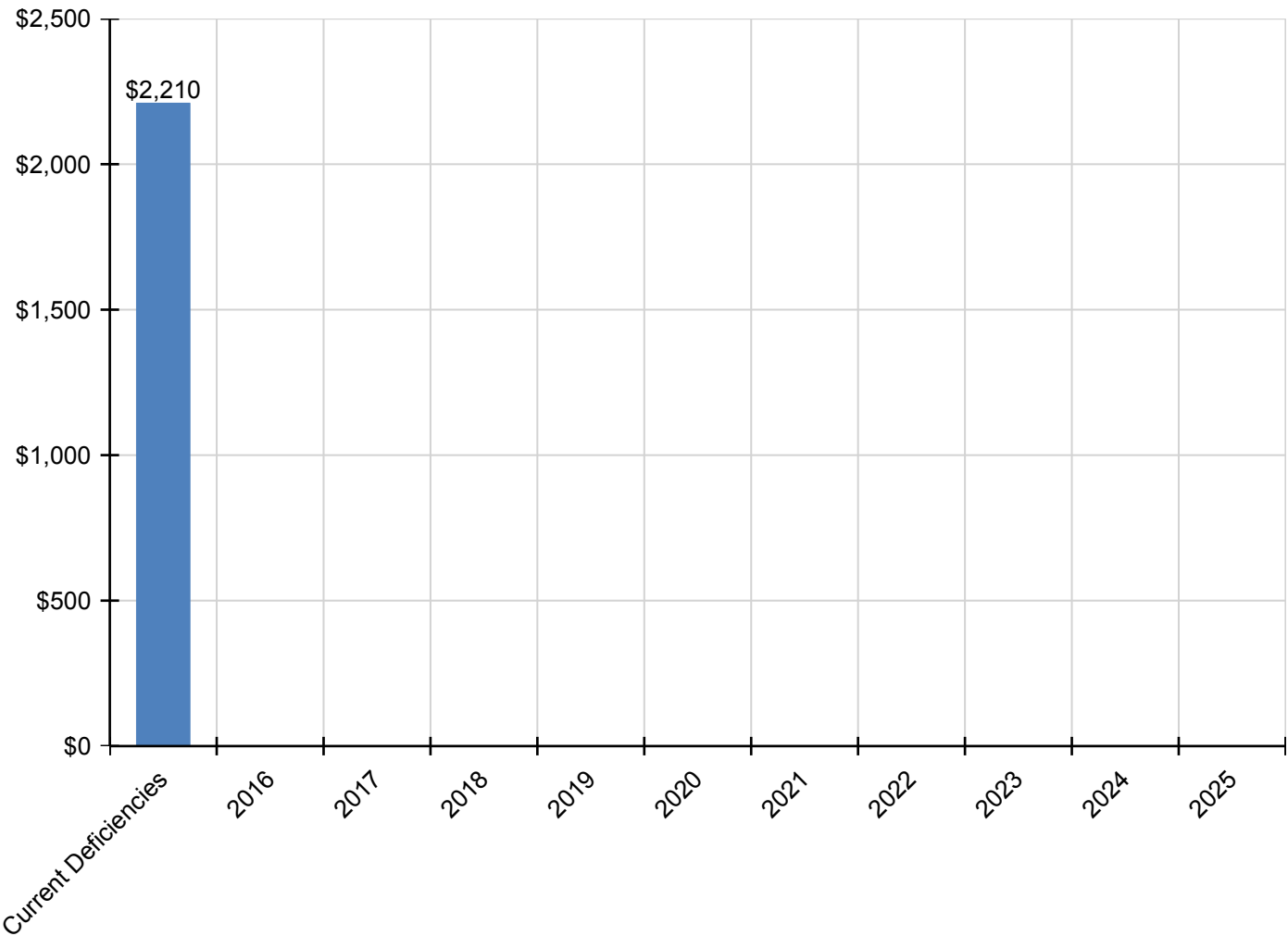
*Inflation Rate: 3%*

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
<b>Total:</b>	<b>\$2,210</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,210</b>
<b>* A - Substructure</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>A10 - Foundations</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>A1010 - Standard Foundations</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>A1030 - Slab on Grade</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B - Shell</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B10 - Superstructure</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B1010 - Floor Construction</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B20 - Exterior Enclosure</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B2010 - Exterior Walls</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B2030 - Exterior Doors</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B30 - Roofing</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B3010 - Roof Coverings</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>B3010120 - Single Ply Membrane</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>C - Interiors</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>C20 - Stairs</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>C2010 - Stair Construction</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>D - Services</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>D50 - Electrical</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>D5010 - Electrical Service/Distribution</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>D5020 - Lighting and Branch Wiring</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>D5030 - Communications and Security</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>D5090 - Other Electrical Systems</b>	\$2,210	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,210

*\* Indicates non-renewable system*

Forecasted Sustainment Requirement

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

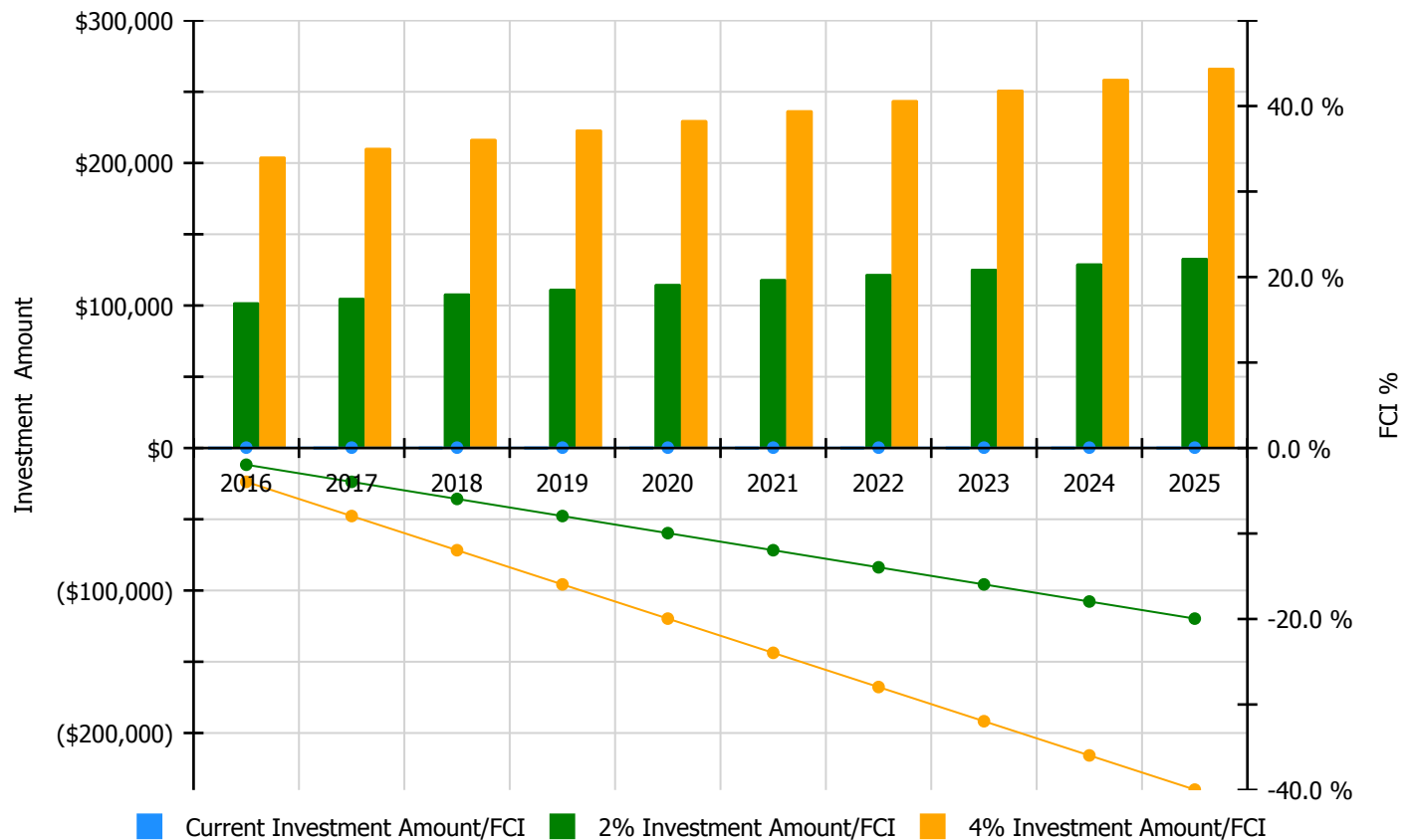


## 10 Year FCI Forecast by Investment Scenario

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

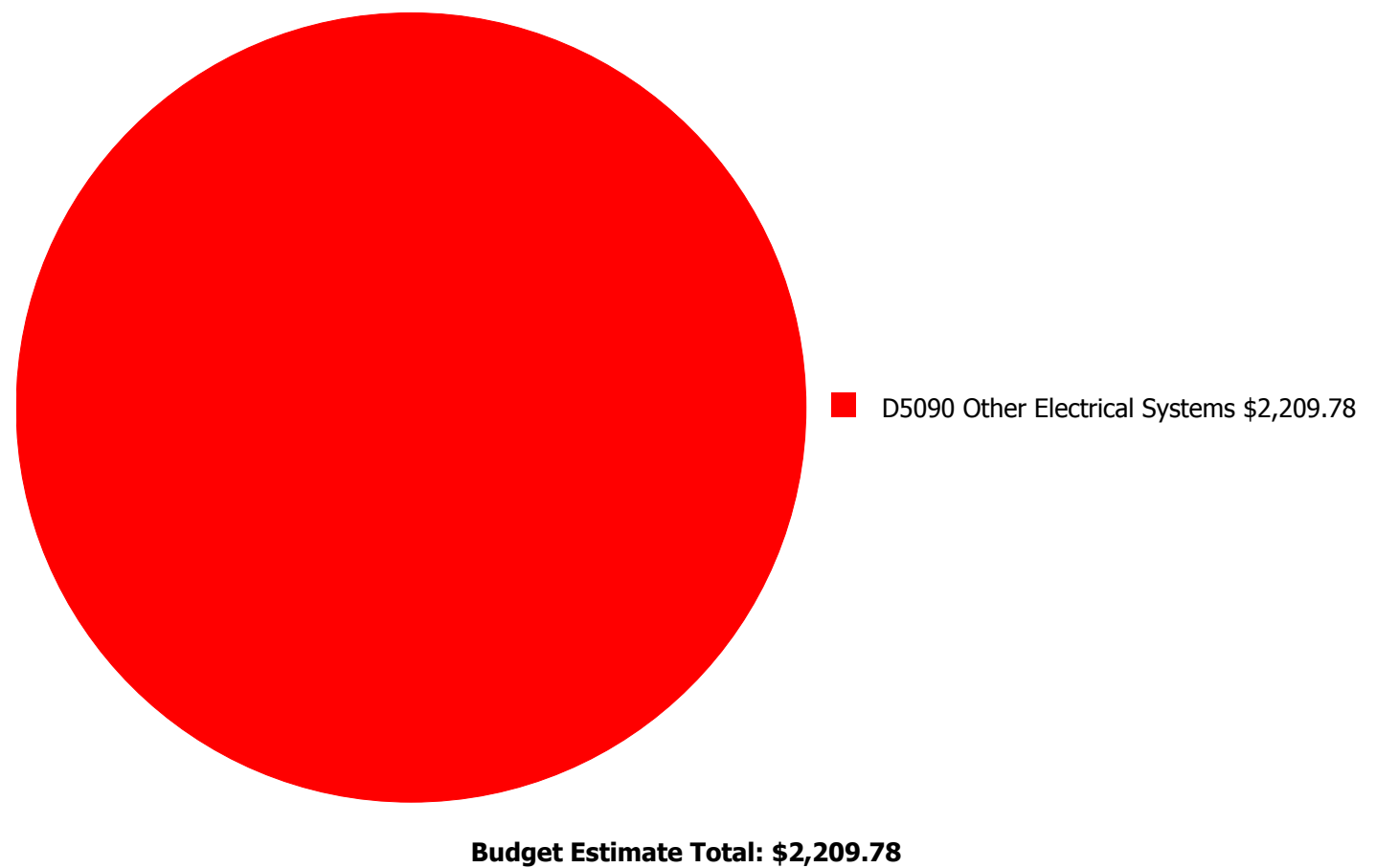
**Facility Investment vs. FCI Forecast**



Year	Investment Amount Current FCI - 0.04%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	\$0	\$102,223.00	-1.96 %	\$204,446.00	-3.96 %
2017	\$0	\$105,290.00	-3.96 %	\$210,579.00	-7.96 %
2018	\$0	\$108,448.00	-5.96 %	\$216,897.00	-11.96 %
2019	\$0	\$111,702.00	-7.96 %	\$223,404.00	-15.96 %
2020	\$0	\$115,053.00	-9.96 %	\$230,106.00	-19.96 %
2021	\$0	\$118,504.00	-11.96 %	\$237,009.00	-23.96 %
2022	\$0	\$122,060.00	-13.96 %	\$244,119.00	-27.96 %
2023	\$0	\$125,721.00	-15.96 %	\$251,443.00	-31.96 %
2024	\$0	\$129,493.00	-17.96 %	\$258,986.00	-35.96 %
2025	\$0	\$133,378.00	-19.96 %	\$266,756.00	-39.96 %
<b>Total:</b>	<b>\$0</b>	<b>\$1,171,872.00</b>		<b>\$2,343,745.00</b>	

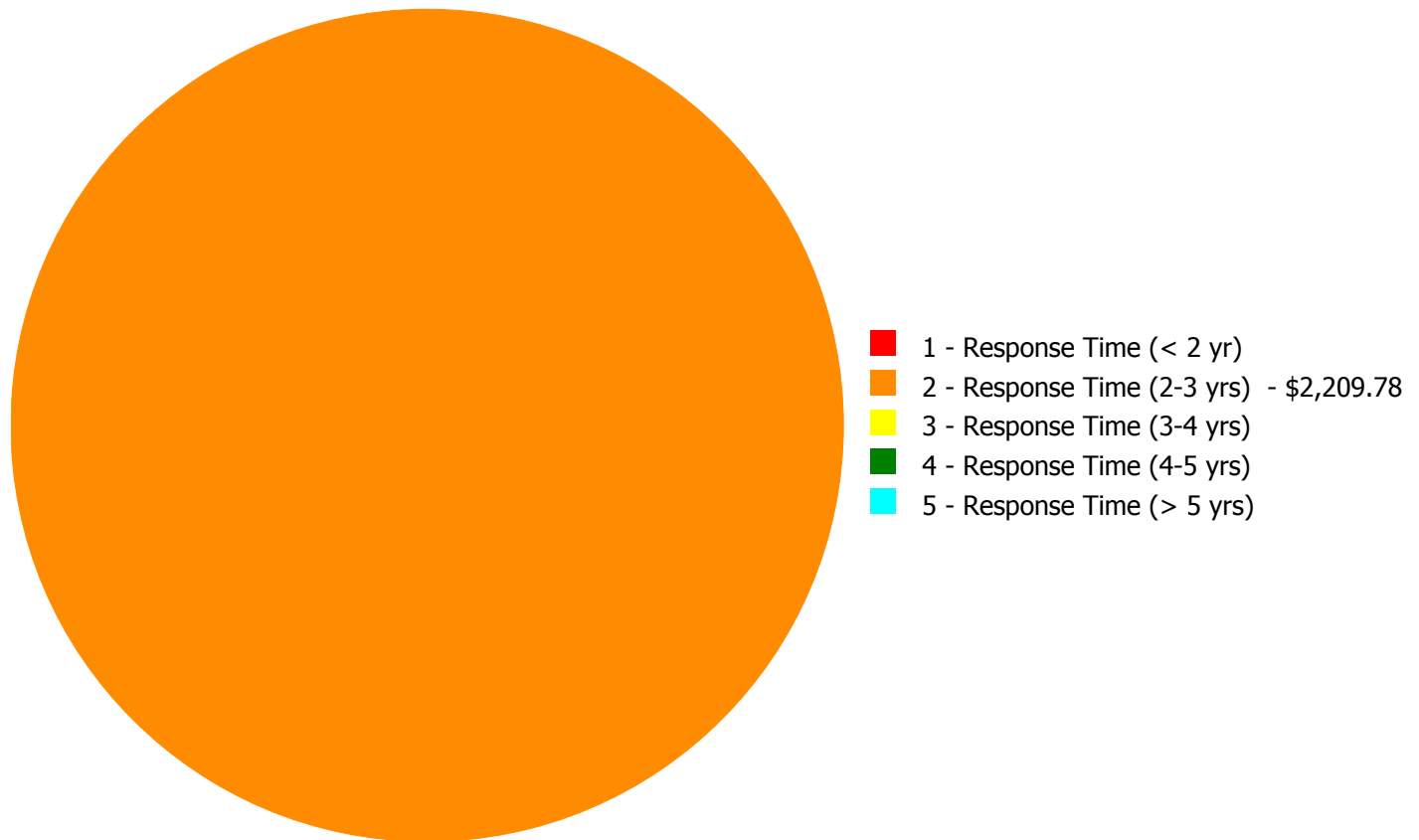
Deficiency Summary by System

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.



## 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: \$2,209.78**



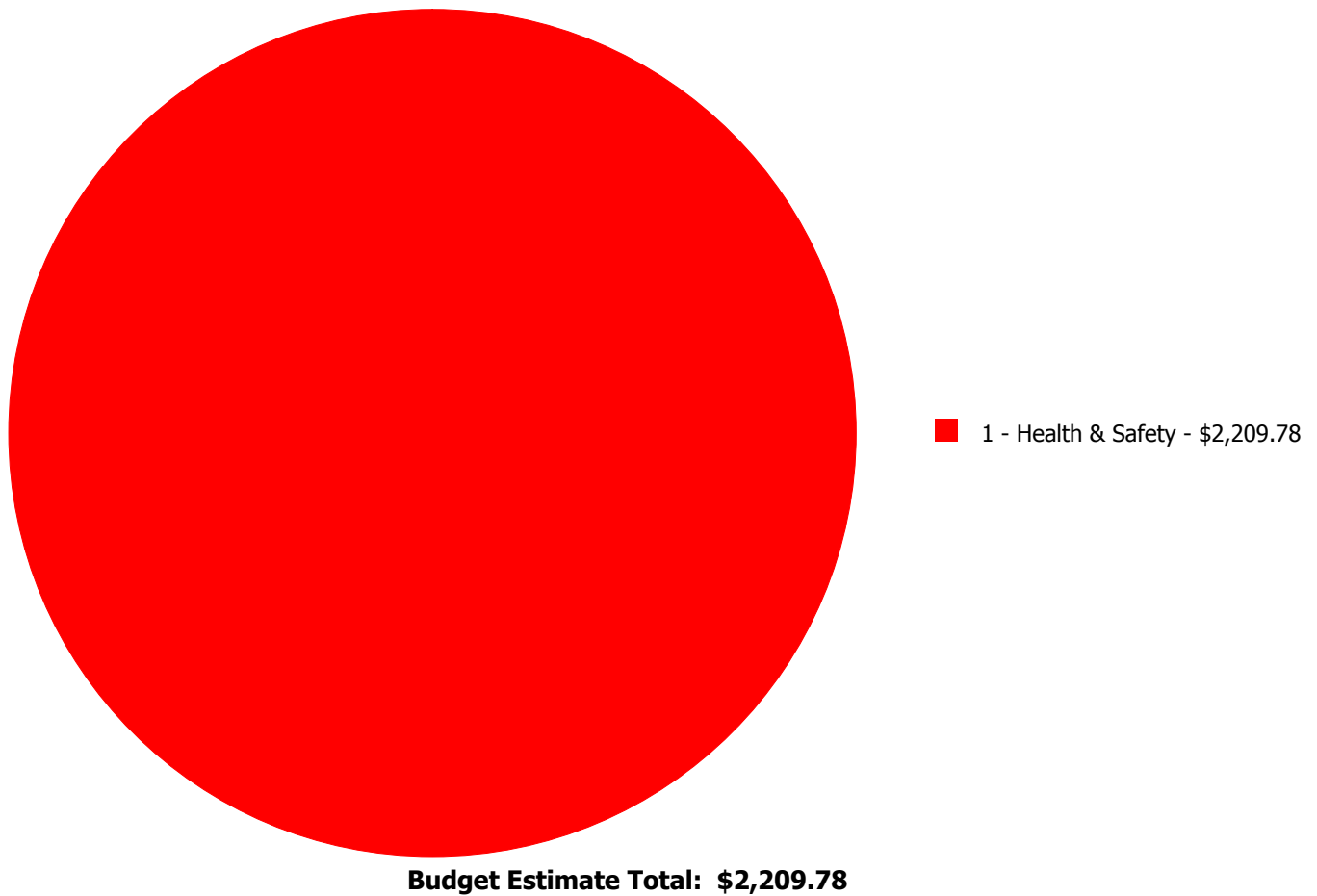
Deficiency By Priority Investment Table

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
D5090	Other Electrical Systems	\$0.00	\$2,209.78	\$0.00	\$0.00	\$0.00	\$2,209.78
	Total:	\$0.00	\$2,209.78	\$0.00	\$0.00	\$0.00	\$2,209.78

## 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:



## Deficiency Details by Priority

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

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

#### System: D5090 - Other Electrical Systems



**Location:** Grandstands

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

**Category:** 1 - Health & Safety

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

**Correction:** Replace Emergency/Exit Lighting

**Qty:** 2.00

**Unit of Measure:** Ea.

**Estimate:** \$2,209.78

**Assessor Name:** Tom Moe

**Date Created:** 09/23/2015

**Notes:** Replace missing remote emergency lighting heads on each side of the press box at the grandstand on the south side of Marcus Foster Stadium and provide additional emergency lighting units for increased illumination of the grandstand stairs.

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## Equipment Inventory

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

No data found for this asset

## 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): 262,200

Year Built: 1978

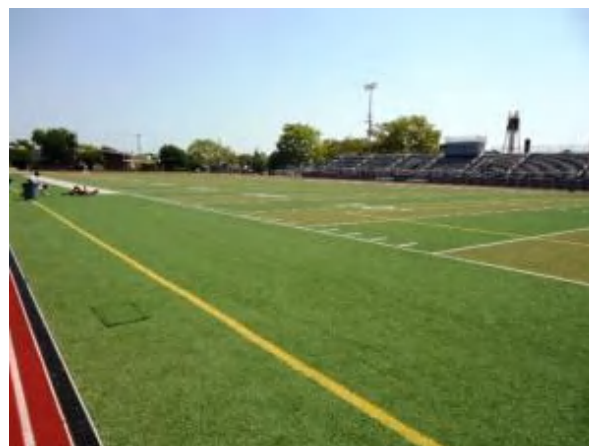
Last Renovation: 2007

Replacement Value: \$4,755,001

Repair Cost: \$0.00

Total FCI: 0.00 %

Total RSLI: 59.85 %



### Description:

#### Attributes:

##### General Attributes:

Bldg ID:	S401201	Site ID:	S401201
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## 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	55.60 %	0.00 %	\$0.00
G40 - Site Electrical Utilities	73.33 %	0.00 %	\$0.00
<b>Totals:</b>	<b>59.85 %</b>	<b>0.00 %</b>	<b>\$0.00</b>

### Condition Detail

This section of the report contains results of the Facility Condition Assessment. The building is separated into system components based on UNIFORMAT II classification. The columns in the System Listing table below represent the following:

1. System Code: A code that identifies the system.
2. System Description: A brief description of a system present in the building.
3. Unit Price \$: The unit price of the system.
4. UoM: The unit of measure for of the system.
5. Qty: The quantity for the system
6. Life: anticipated service life for thesystem based on Building Owners and Managers Association (BOMA) recommendations.
7. Year Installed: The date of system installation.
8. Calc Next Renewal Year: The date of system expiration based on the life, NR stands for non renewable.
9. Next Renewal Year: The suggested system expiration date by the assessor based on visual inspection.
10. CI: The Condition Index of the system.
11. FCI: The Facility Condition Index of the system.
12. RSL: Remaining Service Life.
13. eCR: eCOMET Condition Rating (not used).
14. Deficiency \$: The financial investment to repair/replace system.

## System Listing

The System Listing table below lists each of the systems organized by their UNIFORMAT II classification. The assessment team was tasked with recording the most recent replacement year of each system, determining the remaining service life based on the theoretical life, and evaluating the condition to confirm the forecast next replacement year. The system listing is the basis for all data contained in the Building Assessment Report.

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

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

System Code	System Description	Unit Price \$	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency \$	Replacement Value \$
G2030	Pedestrian Paving	\$11.52	S.F.	61,000	40	2007	2047		80.00 %	0.00 %	32			\$702,720
G2040960	Synthetic Turf Football Field	\$18.40	S.F.	76,600	10	2007	2017	2020	50.00 %	0.00 %	5			\$1,409,440
G2040970	Synthetic Running Track	\$24.21	S.F.	51,700	10	2007	2017	2020	50.00 %	0.00 %	5			\$1,251,657
G2050	Landscaping & Irrigation	\$3.78	S.F.	66,300	15	2007	2022		46.67 %	0.00 %	7			\$250,614
G4020	Site Lighting	\$3.58	S.F.	262,200	30	2007	2037		73.33 %	0.00 %	22			\$938,676
G4030	Site Communications & Security	\$0.77	S.F.	262,200	30	2007	2037		73.33 %	0.00 %	22			\$201,894
<b>Total</b>									<b>59.85 %</b>					<b>\$4,755,001</b>



## 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.

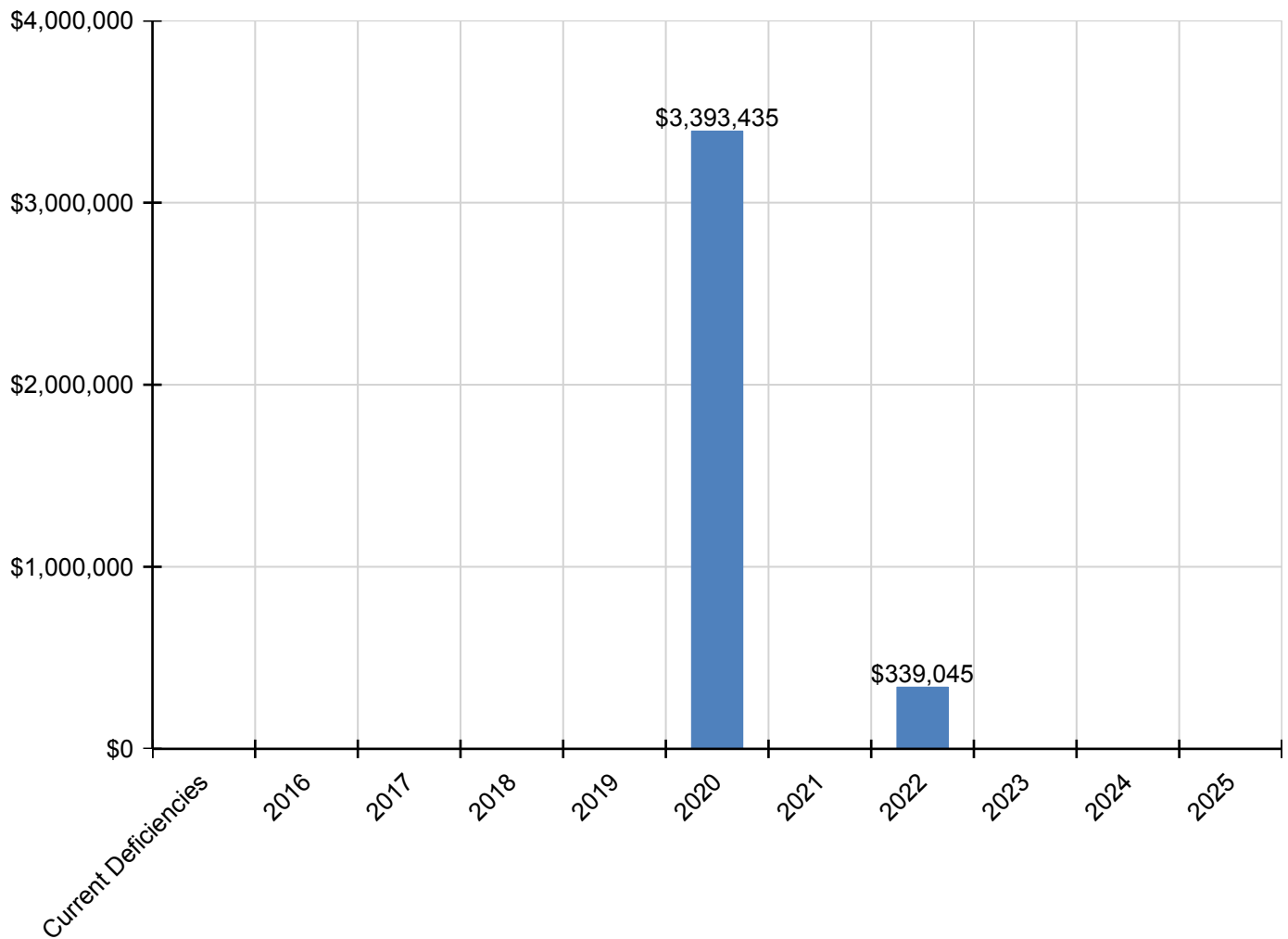
*Inflation Rate: 3%*

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
<b>Total:</b>	\$0	\$0	\$0	\$0	\$0	\$3,393,435	\$0	\$339,045	\$0	\$0	\$0	\$3,732,481
G - Building Sitework	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G20 - Site Improvements	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G2030 - Pedestrian Paving	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G2040 - Site Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G2040960 - Synthetic Turf Football Field	\$0	\$0	\$0	\$0	\$0	\$1,797,320	\$0	\$0	\$0	\$0	\$0	\$1,797,320
G2040970 - Synthetic Running Track	\$0	\$0	\$0	\$0	\$0	\$1,596,115	\$0	\$0	\$0	\$0	\$0	\$1,596,115
G2050 - Landscaping & Irrigation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$339,045	\$0	\$0	\$0	\$339,045
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.

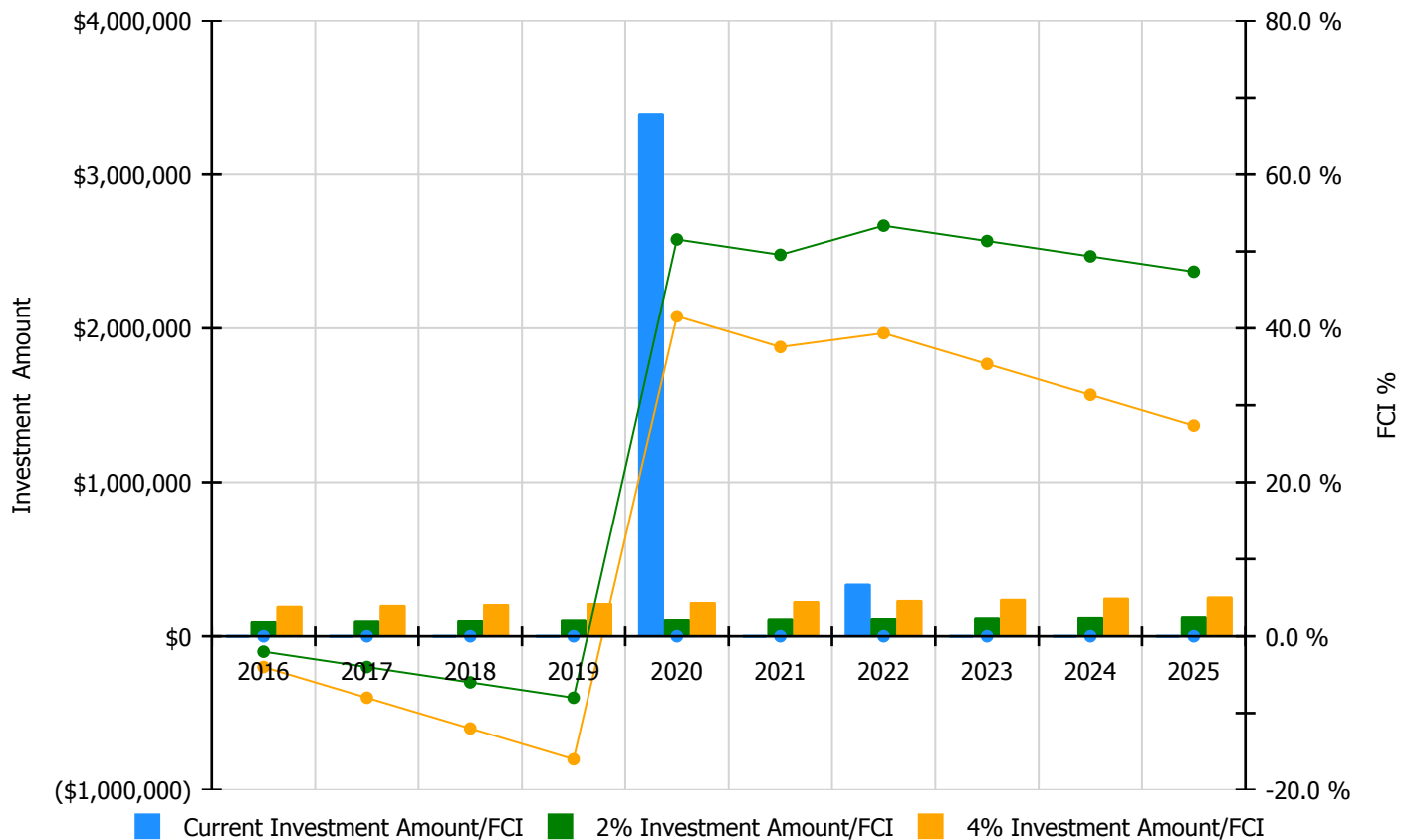


## 10 Year FCI Forecast by Investment Scenario

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

**Facility Investment vs. FCI Forecast**



Year	Investment Amount Current FCI - 0%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	\$0	\$97,953.00	-2.00 %	\$195,906.00	-4.00 %
2017	\$0	\$100,892.00	-4.00 %	\$201,783.00	-8.00 %
2018	\$0	\$103,918.00	-6.00 %	\$207,837.00	-12.00 %
2019	\$0	\$107,036.00	-8.00 %	\$214,072.00	-16.00 %
2020	\$3,393,435	\$110,247.00	51.56 %	\$220,494.00	41.56 %
2021	\$0	\$113,554.00	49.56 %	\$227,109.00	37.56 %
2022	\$339,045	\$116,961.00	53.36 %	\$233,922.00	39.36 %
2023	\$0	\$120,470.00	51.36 %	\$240,940.00	35.36 %
2024	\$0	\$124,084.00	49.36 %	\$248,168.00	31.36 %
2025	\$0	\$127,806.00	47.36 %	\$255,613.00	27.36 %
<b>Total:</b>	<b>\$3,732,481</b>	<b>\$1,122,921.00</b>		<b>\$2,245,844.00</b>	

## 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.

No data found for this asset

## 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:

No data found for this asset

## Deficiency By Priority Investment Table

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

No data found for this asset

## 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:

No data found for this asset



## Deficiency Details by Priority

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

No data found for this asset

## Equipment Inventory

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

No data found for this asset

## Glossary

ABMA	American Boiler Manufacturers Association <a href="http://www.abma.com/">http://www.abma.com/</a>
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

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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	Photovoltaic 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