

## 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.

### Powel School

Governance	DISTRICT	Report Type	Elementary
Address	301 N. 36Th St. Philadelphia, Pa 19104	Enrollment	282
Phone/Fax	215-823-8201 / 215-823-8215	Grade Range	'00-04'
Website	Www.Philasd.Org/Schools/Powel	Admissions Category	Neighborhood
		Turnaround Model	N/A

### 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%
<b>Buildings</b>				
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.
<b>Systems</b>				
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>47.02%</b>	<b>\$5,335,102</b>	<b>\$11,346,006</b>
Building	48.35 %	\$4,979,149	\$10,297,412
Grounds	33.95 %	\$355,954	\$1,048,594

### Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
<b>Roof</b> (Shows physical condition of roof)	87.83 %	\$336,841	\$383,534
<b>Exterior Walls</b> (Shows condition of the structural condition of the exterior facade)	00.59 %	\$3,329	\$561,960
<b>Windows</b> (Shows functionality of exterior windows)	279.37 %	\$685,416	\$245,340
<b>Exterior Doors</b> (Shows condition of exterior doors)	215.46 %	\$64,769	\$30,060
<b>Interior Doors</b> (Classroom doors)	41.12 %	\$27,828	\$67,680
<b>Interior Walls</b> (Paint and Finishes)	68.88 %	\$243,860	\$354,060
<b>Plumbing Fixtures</b>	05.52 %	\$31,386	\$568,440
<b>Boilers</b>	00.00 %	\$0	\$336,060
<b>Chillers/Cooling Towers</b>	43.73 %	\$192,713	\$440,640
<b>Radiators/Unit Ventilators/HVAC</b>	83.80 %	\$648,423	\$773,820
<b>Heating/Cooling Controls</b>	158.90 %	\$386,138	\$243,000
<b>Electrical Service and Distribution</b>	172.13 %	\$300,543	\$174,600
<b>Lighting</b>	31.21 %	\$194,830	\$624,240
<b>Communications and Security</b> (Cameras, Pa System and Fire Alarm)	175.04 %	\$409,287	\$233,820

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  
**S139001;Powel**  
Final  
**Site Assessment Report**

January 30, 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):	18,000
Year Built:	1961
Last Renovation:	
Replacement Value:	\$11,346,006
Repair Cost:	\$5,335,102.36
Total FCI:	47.02 %
Total RSLI:	66.18 %



### Description:

Facility Assessment  
November 2015

**School District of Philadelphia**  
**Samuel Powel Elementary School**  
**301 North 36th Street**  
**Philadelphia, PA 19104**

18,000 SF / 199 Students / LN 02

### General

The Samuel Powel Elementary School building is located at 301 North 36th Street in Philadelphia, PA. The 2 story, 18,000 square foot building was originally constructed in 1961. The one-story library is an addition circa 1965. The building has no basement. There are two unattached modular/portable buildings on site that are not included in the scope of this assessment.

The school capacity is approximately 199 students with 2015/16 enrollment of 293 serving grades K-4.

## Site Assessment Report - S139001;Powel

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The main school plan is rectangular with the long axis running N/S. The addition is a rectangle rubbing E/W and is connected to the main building by a corridor.

Mr. Henry Jenkins, Building Engineer, accompanied the team on its tour of the school and provided information on building systems and maintenance history. Ms. Kimberly Ellerbee, principal, provided input to the Parsons assessment team on current problems. She also informed the Parsons team that a new school to replace Powel was being constructed 2 blocks from the site and would be occupied in 2019, at which time Powel would close.

### Architectural/Structural Systems

The building bears on concrete foundations that are not showing visible signs of significant settlement or damage. Most of the first floor is constructed over crawl space. The first floor steps down to the boiler room and multi-purpose room level with slab on grade, somewhat following the site slope. The main structure is cast in place concrete framing. Exterior walls are brick masonry on CMU. The north wall has an anti-graffiti coating for about six feet above the sidewalk. In general, masonry is in good condition. The addition is a modular building of pre-cast concrete framing and exterior walls. Windows are single pane glass and acrylic glazing in aluminum frames. Operable units are hopper style. Windows are not energy efficient and are in poor condition with failed gaskets, difficult operation and discolored glazing. Windows at north and east elevations and at the library have security grilles. Exterior doors are hollow metal in hollow metal frames with glazing, in functional condition. Door appearance is poor. The main entrance to the school is at the east elevation facing the playground. This location is ambiguous for visitors due to poor visibility from the street. Roofing is low slope built-up with a granular cap sheet. Roofs are in fair condition with some patching, wrinkling, and considerable loss of granules on the wear surface. Drainage is via interior roof drains with no overflow drains or scuppers. Roof access is via fixed ladder to a roof hatch. There are no ladders to lower roofs. Generally, the building is not accessible per ADA requirements, though there is an exterior ramp constructed at the south entry to the multi-purpose room.

Partition walls are typically CMU in good condition. The corridor wall at the main office has glazing in hollow metal frames. Partitions at the counselor's offices are partial height modular panels with frosted glass and doors. This system does not provide desired acoustical privacy. There is a folding panelized partition that divides the multi-purpose room, and two upper classrooms are divided by a folding panelized partition. A partial height gypboard on metal stud partition creates a kitchen/storage room within the multi-purpose room. Interior classroom and office doors are generally original solid core wood veneer in hollow metal frames with slot lights and transom lights. Doors do not have ADA hardware and are in overall fair condition. Wardrobe doors are removed. Doors leading to exit stairways are hollow metal with slot lights in hollow metal frames in functional condition. Exit stairwell doors do not have panic hardware. Doors swing in the direction of exit and are recessed, therefore they do not reduce exit width when opened.

Fittings include: toilet accessories in poor condition; toilet partitions are a mixture of baked enamel and plastic in fair condition; obsolete chalk boards; bulletin boards; interior identifying signage is typically engraved wooden plaques and is inadequate; and metal storage lockers are installed in classrooms.

Stair construction is concrete with metal nosings fair condition. Treads and landings are concrete. Handrails are painted tubular steel. Handrails do not meet modern codes for configuration with no extensions at landings, and improper mounting height. Barrier rails at landings and stairs are too low.

Interior wall finishes are paint in generally good condition. A mural decorates the corridor linking the school building with the library addition. Flooring is mostly VCT in good condition. Carpet tile in good condition is installed in the library and the principal's office is carpeted. Toilet rooms have painted concrete floors and service areas have sealed concrete floors. The floor in the corridor to the library is sealed concrete. Two small storage rooms had 9" VAT. Ceilings are typically painted structure in good condition. The library, offices, and restrooms have 12" glued on acoustical tile that is in poor condition. Many water damaged and yellowed tiles were observed.

The building has no elevator.

Institutional Equipment includes: a motorized projection screen at the multipurpose room that is adequate; Smartboards in every classroom; and library shelving that is adequate. Other equipment includes limited kitchen equipment in fair to good condition and basketball backstops in the gym in good condition.

Furnishings include: fixed casework in classrooms, generally in fair to poor condition; and window roller shades, generally in good condition.

### Mechanical Systems



## Site Assessment Report - S139001;Powel

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Toilet room plumbing fixtures are mostly original equipment. Fixtures in the restrooms on each floor consist of wall hung water closets, urinals and lavatories. Flush valves are installed in pipe chases. Faucets have separate hot and cold faucets. Fixtures are in good condition should provide reliable service for the next 5-10 years. The cafeteria kitchen is located in the multipurpose room and has a cast iron wall mounted lavatory for food service personnel. There is no cooking or cleaning sink for the school cafeteria. The second floor teacher's lounge has an enameled, stamped steel, single basin, dual drain board, residential kitchen sink mounted on a painted sheet metal cabinet. Service sinks are located both in corridors and in cleaning closets. Corridor sinks are wall mounted cast iron with integral backsplash, stainless steel rim, and vacuum breaker spout. Closet sinks are floor level concrete with wall mounted faucets. Drinking fountains in the corridors are wall hung, porcelain or stainless steel, non-refrigerated, and non-accessible. They are well beyond their service life and should be replaced with accessible type.

A 3" city water service enters the building from 36<sup>th</sup> Street. The 3" meter and valves are located next to the boiler room. There is no backflow preventer and one should be installed. There is a backflow preventer for boiler makeup water. The domestic hot and cold water distribution piping is copper piping and soldered connections. The maintenance staff reports no significant problems with domestic piping and the supply is adequate to the fixtures. The water heater for the main building was not located but hot water was available from second floor lavatories in less than 20 seconds. The library addition has a 12 gallon electric water heater located next to the sink it serves installed in 2009 which is in good condition and will not need replacement. There is no domestic water pressure booster system.

The sanitary sewer piping is threaded and also hub and spigot galvanized pipe. There is no sewage ejector. The engineer did not report problems with the sanitary waste piping systems nor was there any visible cause for concern. The sewer piping is likely original; however it should remain serviceable for 10 -15 more years.

Rain water discharge pipes are threaded galvanized steel and run inside the building. The library roof has gutters leading to downspouts that discharge at ground level. The roof does not have overflow drains. Rain water drain pipes are likely original, and like sanitary drains should be serviceable for 10 - 15 more years. There is a roof leak around the penetration for the gravity exhaust vent.

Low pressure steam is generated at 15 lbs/sq. in. or less by two 1,550 MBH (46.3 HP) Kewanee fire tube boilers installed in 1994. Each boiler is equipped with a Webster burner manufactured in 1994 operating natural gas only. Burners are plumbed for oil but the building does not have an oil tank. Gas service was installed in 1994 (according to the inspection label date) with a 4 inch supply pipe entering next to the boiler room. There is no gas booster. Combustion air makeup is supplied by louvers equipped with automatic dampers. The district will not need to replace these boilers in the next 10 - 15 years. The condensate and boiler feed system are in the boiler room next to the chemical treatment system. The condensate collection tank is located in a pit below the boiler room floor level. It has two pumps and there was a work order to repair one of them. The feed water tank has a pump for each boiler and a spare pump and separate piping to each boiler. A water softener is installed for the makeup water, located next to the boiler room. No problems were reported with steam traps. Steam and condensate piping is black steel with welded and threaded fittings.

The main building has no central cooling generating equipment. The library has a 5 ton roof top heat pump installed in 2006. It is in good condition with at least 5 years remaining life. There is also a 2 ton roof top condensing unit for a ductless air conditioner in the computer network equipment room. A 40 ton system should be installed for the main building.

Classrooms in the main building have unit ventilators for heating and ventilation. They are late 20<sup>th</sup> century style, likely installed in 1994 when boilers were replaced. They are reaching the end of their lifespan and lack cooling capability and should be replaced when air conditioning is added to the building. Classroom excess air discharges to the corridors through transfer ducts in the closets, then to a vertical duct chase leading to gravity vent on the roof. The library has heating, cooling, and ventilation provided by its rooftop heat pump. There is a central duct with slot diffusers running the length of the ceiling with return grills beside it at the far end. Toilet rooms exhaust into the pipe chases which lead to roof top exhaust fans. The cafeteria kitchen has a gas burning convection oven with its exhaust ducted outside and piped to above the roof level. The teacher lounge has a gas burning range without exhaust hood. It should be removed, replaced with an electric range, or have an exhaust hood installed.

The main building has finned tube convection units for heating in toilets, closets, corridors, offices, and supplementing unit vents in the classrooms. Classroom convectors match the unit vents. Other units look mostly original but are in good condition and should not need replacement for 10 years. The library has electric baseboard heating to supplement the heat pump.

Remnants of the original pneumatic systems still exist in the building although they are non-functional. Electronic room thermostats are similar vintage as unit vents. A new building automation system (BAS) with modern DDC modules and communications network should be installed to serve the HVAC systems in this building to improve reliability and energy efficiency. An interface should be provided with the preferred system in use throughout the District.

The school building does not have stand pipes or sprinklers. A fire protection sprinkler system should be installed to increase occupant

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safety. A fire pump may be required depending on the available city water pressure.

### Electrical Systems

This school is provided with two electrical services: one service is rated 400A, 120/240V; and the other is rated 300A, 120/240V. The 400A, 120/240V service and the utility meter No PECO 01017149130 are located in the first floor of the original building. The 300A, 120/240V service and the utility meter PECO 124087525 are located in the first floor of the addition building. Each service is provided with pull box, meter section, main disconnect and distribution sections. The combined capacity of both services have no extra capacity for expansion or new Heating, Ventilation, Air Conditioning (HVAC) system. A single service needs to be provided. The new service will be 208V/120 V, 3 phase power, 600A Amperes and will be located in the original building. The new electrical service will feed HVAC (Heating, Ventilation and Air Conditioning) equipment, receptacles, lighting and other smaller loads.

The first floor of the original building is provided with (2) 120/240V recessed, panel boards. The second floor of the original building is provided with (1) 120/240V, Square D panel board. The addition building is provided with (1) panelboard. Since the system voltage of the proposed electrical service is not compatible with the existing panelboards. Replace all panel boards and add (1) panelboard per floor.

There number of receptacles in classrooms varies, approximately in 80% of the classrooms the quantity of receptacles are inadequate. Teachers use extension cords. The teacher's whiteboard wall and the opposite of it need to be provided with double compartment surface raceways, the other two walls with minimum two-duplex outlets each, when feasible.

Classrooms, corridors, library and the gymnasium/cafeteria are illuminated with surface mounted, wraparound lens fluorescent fixtures. Approximately 80% of the fluorescent fixtures are provided with T-12 lamps. T-12 lamps are becoming more expensive, consume more energy and are difficult to find, therefore replace all existing fluorescent fixtures with T-12 lamps with fluorescent fixtures with T-8 lamps.

The Fire Alarm system is manufactured by S.H. Couch Inc. The system is approximately 30 years old. The present Fire Alarm system does not meet current code and needs to be replaced. Fire alarm system is tested every day in the morning.

The present telephone system is adequate. During the assessment, randomly, we verified that each wall mounted handset is provided with dial tone.

An independent and separate PA system does not exist, or is not working. School uses the telephone systems for public announcement. The system is working adequately for most part.

The present clock controller is manufactured by Simplex Time Control and the clocks are manufactured by Edwards. During the assessment the clocks work properly. Since the District School tendency is to use wireless clock system. Replace existing clock system.

There is not television system.

The school security system consists of door contacts at the boiler room only. For a safer environment provide surveillance CCTV cameras in the interior of the building.

This school is not provided with emergency power system. Provide an emergency power system to feed lighting, Fire alarm system, Security system, Public address system and selected mechanical equipment.

There is adequate UPS in the IT room.

The emergency lighting is obtained with wall mounted lighting fixtures with battery backup. Emergency lighting fixtures are located along the exit pathway. Exit signs are located at each exit door and corridors. Exit signs are illuminated with incandescent lamps. Replace existing exit signs with LED type.

The school lightning protection system is accomplished with air terminals mounted on the chimney. A study needs to be conducted to verify the air terminals provide the proper coverage.

The school perimeter is illuminated with wall mounted lighting fixtures. There were no indication of additional fixtures are needed.

There are not outdoor, surveillance CCTV cameras around the building perimeter. For a safer environment provide outdoor, surveillance CCTV cameras.



There is a wall mounted loud speaker facing the playground area. There were no indication that additional loud speaker is required.

### Grounds Systems

This school has no on-site parking. Asphalt playgrounds are in fair condition with some settled areas, ponding, alligatoring, deeper cracking and vegetation in the asphalt. The playground is generally elevated above adjacent streets/sidewalks and steps are in need of repair. The south side of the building features brick screen walls enclosing a patio with picket fencing, retaining walls, planter areas, concrete paving and steps with evidence of repairs. Other pedestrian paving is concrete along city streets.

Fencing surrounds the east end of the site from building corner to building corner, consisting of low picket fencing atop low brick walls. A vehicle sized gate occurs in the north fence. Playground equipment is installed over padded play surfaces and is separated from the asphalt playground by low picket fencing. There is a flagpole in the south courtyard.

Landscaping consists of mature street trees at the site perimeter and on-site mature trees situated in raised stone planters. There is a strip of garden plot behind a portable building. Lawn areas infill the playground equipment area and the southeast corner of the site. There is no irrigation system.

### Recommendations

- Replace roofing
- Install roof hatch and ladder at library addition
- Replace exterior windows
- Replace exterior doors
- Reconfigure toilet rooms on each floor for accessibility; provide new toilet partitions and toilet accessories including grab bars. Provide unisex accessible toilets on each floor for faculty/staff and in the nurse office.
- Replace interior door hardware
- Install full height partitions at counselor offices
- Paint interior walls
- Replace interior signage
- Replace 12" acoustical tile ceilings where they occur
- Replace chalkboards with marker boards
- Replace drinking fountains in the corridors with accessible type
- Install 3 inch back flow preventer at water entry
- Install a 40 ton air-conditioning system for the entire building
- Replace unit vents due to age and lack of cooling coils
- Upgrade HVAC controls to digital
- Install a fire protection sprinkler system, including fire pump if required by city water pressure
- Provide a new electrical service 208/120V, 3 phase power, 600 Amperes
- Replace (4) existing panelboards and add (1) per floor. Total of (7) 208/120V panel boards
- Provide (2) 25FT surface raceways with 24" receptacles on center and two-duplex wall mount receptacles. Approximately 160
- Replace 80% of the existing lighting fixtures with, surface mounted fluorescent fixtures with T8 lamps. Approximately 190 fixtures
- Replace old fire alarm system with addressable type with audio/visual devices at corridors and classrooms. Approximate 25 devices
- Provide wireless, synchronized, battery operated clock system. Approximate 20 clocks
- Provide indoor surveillance CCTV cameras for a complete coverage of the school interior. Approximately 7 CCTV cameras
- Provide 20 KW, outdoor, diesel powered generator.
- Replace exit signs with incandescent lamps with exit signs with LED lamps. Approximately 20
- Prepare a study to determine if the air terminals on the chimney provide the proper protection to the school building
- Provide outdoor surveillance CCTV cameras. Approximate 10 CCTV cameras
- Resurface asphalt parking lot / playground
- Repair site steps

### Attributes:

#### General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 4 / Tm 3
Status:	Accepted by SDP	Team:	Tm 3
Site ID:	S139001		

## 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	46.00 %	0.00 %	\$0.00
A20 - Basement Construction	46.00 %	0.00 %	\$0.00
B10 - Superstructure	46.00 %	0.00 %	\$0.00
B20 - Exterior Enclosure	65.51 %	89.99 %	\$753,512.87
B30 - Roofing	110.00 %	87.83 %	\$336,841.16
C10 - Interior Construction	66.38 %	226.53 %	\$930,096.37
C20 - Stairs	46.00 %	376.68 %	\$86,788.12
C30 - Interior Finishes	81.83 %	32.60 %	\$288,783.27
D20 - Plumbing	34.50 %	8.97 %	\$65,692.65
D30 - HVAC	89.02 %	61.29 %	\$1,227,273.13
D40 - Fire Protection	94.10 %	158.77 %	\$257,498.03
D50 - Electrical	110.05 %	96.02 %	\$1,032,663.20
E10 - Equipment	28.57 %	0.00 %	\$0.00
E20 - Furnishings	105.00 %	0.00 %	\$0.00
G20 - Site Improvements	41.26 %	22.67 %	\$171,576.10
G40 - Site Electrical Utilities	45.58 %	63.22 %	\$184,377.46
<b>Totals:</b>	<b>66.18 %</b>	<b>47.02 %</b>	<b>\$5,335,102.36</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)
B139001;Powel	18,000	48.35	\$473,497.85	\$1,988,216.59	\$573,225.79	\$459,437.41	\$1,484,771.16
G139001;Grounds	50,200	33.95	\$0.00	\$28,080.02	\$327,873.54	\$0.00	\$0.00
<b>Total:</b>		<b>47.02</b>	<b>\$473,497.85</b>	<b>\$2,016,296.61</b>	<b>\$901,099.33</b>	<b>\$459,437.41</b>	<b>\$1,484,771.16</b>

### Deficiencies By Priority



- 1 - Response Time (< 2 yr) - \$473,497.85
- 2 - Response Time (2-3 yrs) - \$2,016,296.61
- 3 - Response Time (3-4 yrs) - \$901,099.33
- 4 - Response Time (4-5 yrs) - \$459,437.41
- 5 - Response Time (> 5 yrs) - \$1,484,771.16

**Budget Estimate Total: \$5,335,102.36**

**Executive Summary**

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

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

Function:	Elementary School
Gross Area (SF):	18,000
Year Built:	1961
Last Renovation:	
Replacement Value:	\$10,297,412
Repair Cost:	\$4,979,148.80
Total FCI:	48.35 %
Total RSLI:	68.60 %



**Description:**

**Attributes:**

**General Attributes:**

Active:	Open	Bldg ID:	B139001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S139001		

## 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	46.00 %	0.00 %	\$0.00
A20 - Basement Construction	46.00 %	0.00 %	\$0.00
B10 - Superstructure	46.00 %	0.00 %	\$0.00
B20 - Exterior Enclosure	65.51 %	89.99 %	\$753,512.87
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C10 - Interior Construction	66.38 %	226.53 %	\$930,096.37
C20 - Stairs	46.00 %	376.68 %	\$86,788.12
C30 - Interior Finishes	81.83 %	32.60 %	\$288,783.27
D20 - Plumbing	34.50 %	8.97 %	\$65,692.65
D30 - HVAC	89.02 %	61.29 %	\$1,227,273.13
D40 - Fire Protection	94.10 %	158.77 %	\$257,498.03
D50 - Electrical	110.05 %	96.02 %	\$1,032,663.20
E10 - Equipment	28.57 %	0.00 %	\$0.00
E20 - Furnishings	105.00 %	0.00 %	\$0.00
<b>Totals:</b>	<b>68.60 %</b>	<b>48.35 %</b>	<b>\$4,979,148.80</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	RSLT%	FCI%	RSL	eCR	Deficiency \$	Replacement Value \$
A1010	Standard Foundations	\$24.32	S.F.	18,000	100	1961	2061	2061	46.00 %	0.00 %	46			\$437,760
A1030	Slab on Grade	\$15.51	S.F.	18,000	100	1961	2061	2061	46.00 %	0.00 %	46			\$279,180
A2010	Basement Excavation	\$13.07	S.F.	18,000	100	1961	2061	2061	46.00 %	0.00 %	46			\$235,260
A2020	Basement Walls	\$23.02	S.F.	18,000	100	1961	2061	2061	46.00 %	0.00 %	46			\$414,360
B1010	Floor Construction	\$92.20	S.F.	18,000	100	1961	2061	2061	46.00 %	0.00 %	46			\$1,659,600
B1020	Roof Construction	\$24.11	S.F.	18,000	100	1961	2061	2061	46.00 %	0.00 %	46			\$433,980
B2010	Exterior Walls	\$31.22	S.F.	18,000	100	1961	2061	2061	46.00 %	0.59 %	46		\$3,328.61	\$561,960
B2020	Exterior Windows	\$13.63	S.F.	18,000	40	1961	2001	2057	105.00 %	279.37 %	42		\$685,415.62	\$245,340
B2030	Exterior Doors	\$1.67	S.F.	18,000	25	1961	1986	2042	108.00 %	215.46 %	27		\$64,768.64	\$30,060
B3010105	Built-Up	\$37.76	S.F.	9,833	20	1998	2018	2037	110.00 %	89.73 %	22		\$333,161.83	\$371,294
B3010120	Single Ply Membrane	\$38.73	S.F.		20				0.00 %	0.00 %				\$0
B3010130	Preformed Metal Roofing	\$54.22	S.F.		30				0.00 %	0.00 %				\$0
B3010140	Shingle & Tile	\$38.73	S.F.		20				0.00 %	0.00 %				\$0
B3020	Roof Openings	\$0.68	S.F.	18,000	20	1961	1981	2037	110.00 %	30.06 %	22		\$3,679.33	\$12,240
C1010	Partitions	\$14.93	S.F.	18,000	100	1961	2061		46.00 %	307.62 %	46		\$826,685.76	\$268,740
C1020	Interior Doors	\$3.76	S.F.	18,000	40	1961	2001	2057	105.00 %	41.12 %	42		\$27,828.47	\$67,680
C1030	Fittings	\$4.12	S.F.	18,000	40	1961	2001	2057	105.00 %	101.92 %	42		\$75,582.14	\$74,160
C2010	Stair Construction	\$1.28	S.F.	18,000	100	1961	2061		46.00 %	376.68 %	46		\$86,788.12	\$23,040

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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 \$
C3010230	Paint & Covering	\$19.67	S.F.	18,000	10	2004	2014	2027	120.00 %	68.88 %	12		\$243,859.57	\$354,060
C3010231	Vinyl Wall Covering	\$0.00	S.F.	18,000	15				0.00 %	0.00 %				\$0
C3010232	Wall Tile	\$0.00	S.F.	18,000	30				0.00 %	0.00 %				\$0
C3020411	Carpet	\$7.30	S.F.	1,800	10	2006	2016	2023	80.00 %	0.00 %	8			\$13,140
C3020412	Terrazzo & Tile	\$75.52	S.F.		50				0.00 %	0.00 %				\$0
C3020413	Vinyl Flooring	\$9.68	S.F.	14,400	20	2006	2026	2026	55.00 %	0.00 %	11			\$139,392
C3020414	Wood Flooring	\$22.27	S.F.		25				0.00 %	0.00 %				\$0
C3020415	Concrete Floor Finishes	\$0.97	S.F.	1,800	50	2006	2056	2056	82.00 %	0.00 %	41			\$1,746
C3030	Ceiling Finishes	\$20.97	S.F.	18,000	25	2004	2029	2029	56.00 %	11.90 %	14		\$44,923.70	\$377,460
D2010	Plumbing Fixtures	\$31.58	S.F.	18,000	35	1961	1996	2025	28.57 %	5.52 %	10		\$31,385.79	\$568,440
D2020	Domestic Water Distribution	\$2.90	S.F.	18,000	25	2009	2034		76.00 %	65.72 %	19		\$34,306.86	\$52,200
D2030	Sanitary Waste	\$2.90	S.F.	18,000	25	1961	1986	2025	40.00 %	0.00 %	10			\$52,200
D2040	Rain Water Drainage	\$3.29	S.F.	18,000	30	1961	1991	2030	50.00 %	0.00 %	15			\$59,220
D3020	Heat Generating Systems	\$18.67	S.F.	18,000	35	1994	2029		40.00 %	0.00 %	14			\$336,060
D3030	Cooling Generating Systems	\$24.48	S.F.	18,000	30	2006	2036	2045	100.00 %	43.73 %	30		\$192,712.73	\$440,640
D3040	Distribution Systems	\$42.99	S.F.	18,000	25	1994	2019	2042	108.00 %	83.80 %	27		\$648,422.75	\$773,820
D3050	Terminal & Package Units	\$11.60	S.F.	18,000	20	1961	1981	2025	50.00 %	0.00 %	10			\$208,800
D3060	Controls & Instrumentation	\$13.50	S.F.	18,000	20	1961	1981	2037	110.00 %	158.90 %	22		\$386,137.65	\$243,000
D4010	Sprinklers	\$8.02	S.F.	18,000	35			2052	105.71 %	178.37 %	37		\$257,498.03	\$144,360
D4020	Standpipes	\$0.99	S.F.	18,000	35				0.00 %	0.00 %				\$17,820
D5010	Electrical Service/Distribution	\$9.70	S.F.	18,000	30	1961	1991	2047	106.67 %	172.13 %	32		\$300,543.49	\$174,600
D5020	Lighting and Branch Wiring	\$34.68	S.F.	18,000	20	1961	1981	2037	110.00 %	31.21 %	22		\$194,830.49	\$624,240
D5030	Communications and Security	\$12.99	S.F.	18,000	15	1961	1976	2032	113.33 %	175.04 %	17		\$409,286.59	\$233,820
D5090	Other Electrical Systems	\$2.38	S.F.	18,000	30	1961	1991	2047	106.67 %	298.79 %	32		\$128,002.63	\$42,840
E1020	Institutional Equipment	\$4.82	S.F.	18,000	35	1961	1996	2025	28.57 %	0.00 %	10			\$86,760
E1090	Other Equipment	\$11.10	S.F.	18,000	35	1961	1996	2025	28.57 %	0.00 %	10			\$199,800
E2010	Fixed Furnishings	\$2.13	S.F.	18,000	40	1961	2001	2057	105.00 %	0.00 %	42			\$38,340
<b>Total</b>									<b>68.60 %</b>	<b>48.35 %</b>			<b>\$4,979,148.80</b>	<b>\$10,297,412</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.

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**System:** C3010 - Wall Finishes This system contains no images

**Note:** Paint 100%

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

**Note:** Carpet 10%  
Vinyl 80%  
Concrete 10%

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

**Note:** Painted structure 80%  
12" acoustical tile 20%

## 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>\$4,979,149</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$18,310</b>	<b>\$0</b>	<b>\$1,649,792</b>	<b>\$6,647,250</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>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>	\$3,329	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,329
<b>B2020 - Exterior Windows</b>	\$685,416	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$685,416
<b>B2030 - Exterior Doors</b>	\$64,769	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$64,769
<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>	\$333,162	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$333,162
<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>	\$3,679	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,679
<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>	\$826,686	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$826,686

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C1020 - Interior Doors	\$27,828	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$27,828
C1030 - Fittings	\$75,582	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$75,582
C20 - Stairs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C2010 - Stair Construction	\$86,788	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$86,788
C30 - Interior Finishes	\$0	\$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	\$0
C3010230 - Paint & Covering	\$243,860	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$243,860
C3010231 - Vinyl Wall Covering	\$0	\$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	\$0
C3020 - Floor Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020411 - Carpet	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$18,310	\$0	\$0	\$18,310
C3020412 - Terrazzo & Tile	\$0	\$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	\$0
C3020414 - Wood Flooring	\$0	\$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	\$0
C3030 - Ceiling Finishes	\$44,924	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$44,924
D - Services	\$0	\$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	\$0
D2010 - Plumbing Fixtures	\$31,386	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$840,329	\$871,715
D2020 - Domestic Water Distribution	\$34,307	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$34,307
D2030 - Sanitary Waste	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$77,168	\$77,168
D2040 - Rain Water Drainage	\$0	\$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	\$0
D3020 - Heat Generating Systems	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3030 - Cooling Generating Systems	\$192,713	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$192,713
D3040 - Distribution Systems	\$648,423	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$648,423
D3050 - Terminal & Package Units	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$308,671	\$308,671
D3060 - Controls & Instrumentation	\$386,138	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$386,138
D40 - Fire Protection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D4010 - Sprinklers	\$257,498	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$257,498
D4020 - Standpipes	\$0	\$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	\$0
D5010 - Electrical Service/Distribution	\$300,543	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$300,543

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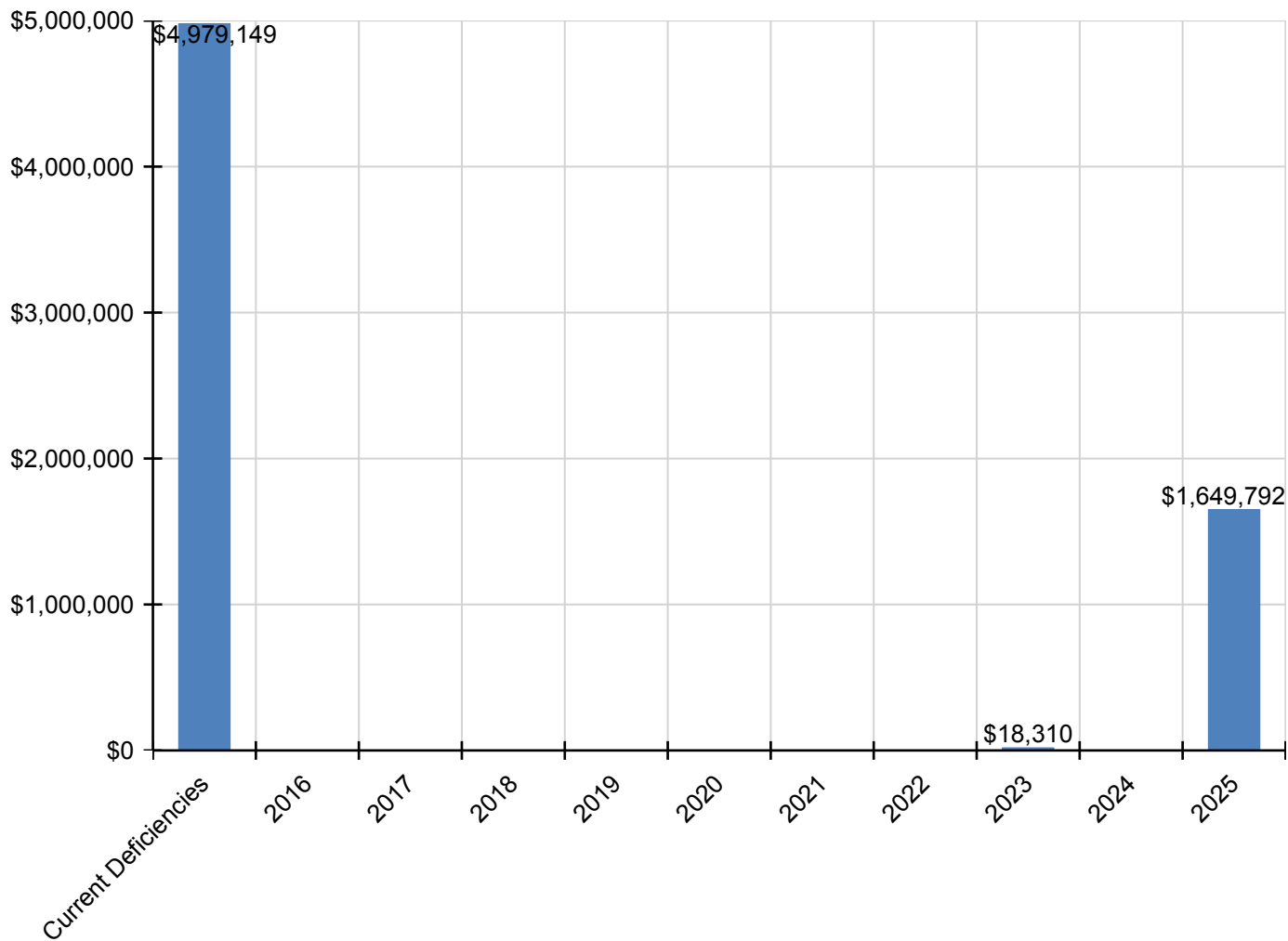
D5020 - Lighting and Branch Wiring	\$194,830	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$194,830
D5030 - Communications and Security	\$409,287	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$409,287
D5090 - Other Electrical Systems	\$128,003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$128,003
E - Equipment & Furnishings	\$0	\$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	\$0
E1020 - Institutional Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$128,258	\$128,258
E1090 - Other Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$295,366	\$295,366
E20 - Furnishings	\$0	\$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	\$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.

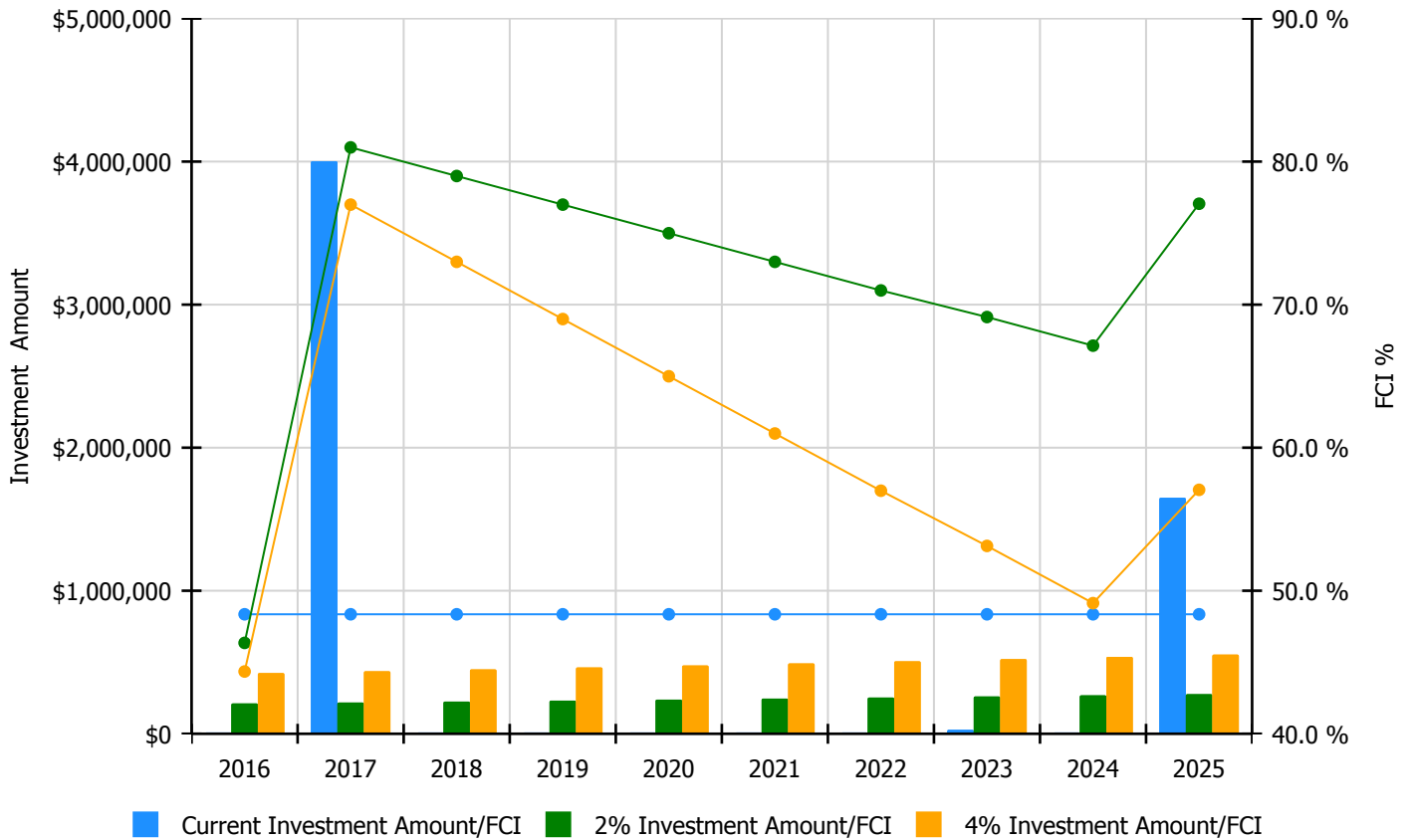


## 10 Year FCI Forecast by Investment Scenario

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

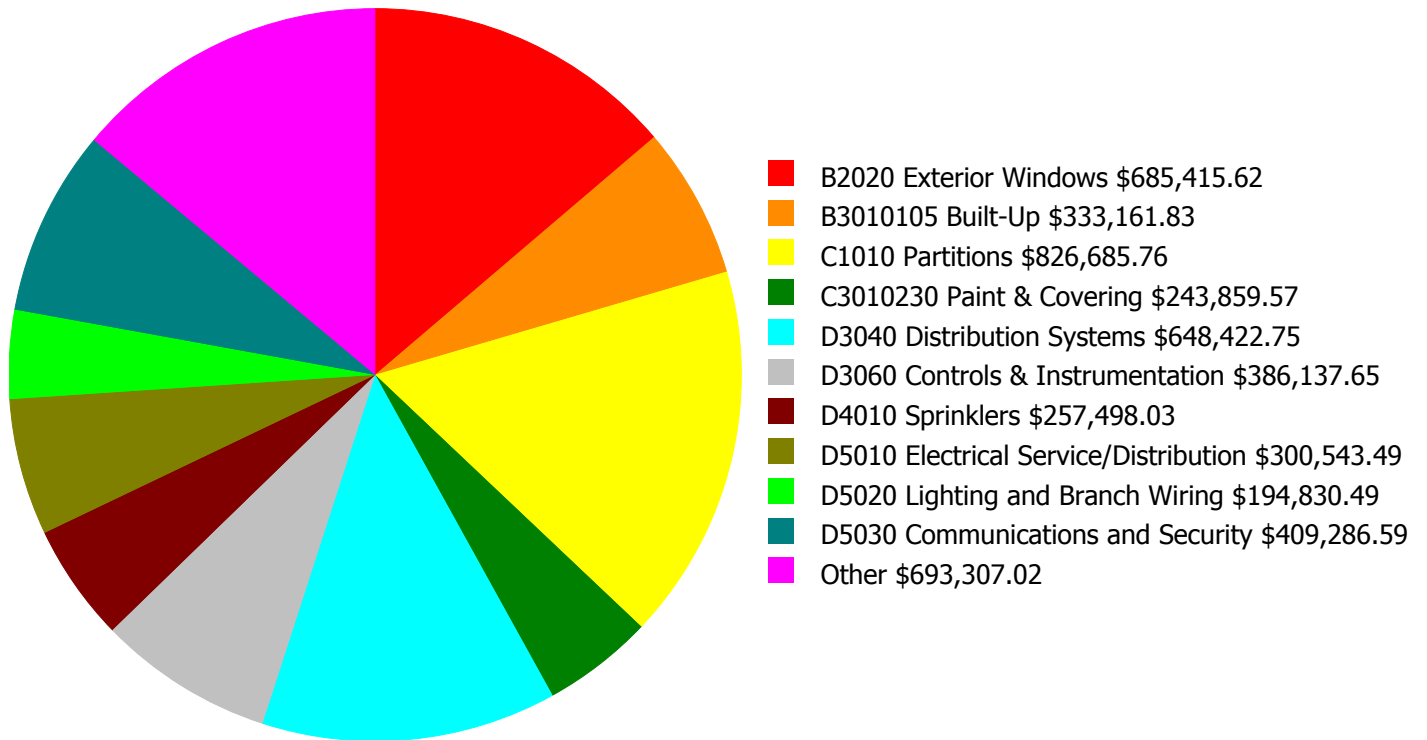
**Facility Investment vs. FCI Forecast**



Year	Investment Amount Current FCI - 48.35%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	\$0	\$212,127.00	46.35 %	\$424,253.00	44.35 %
2017	\$4,002,605	\$218,490.00	80.99 %	\$436,981.00	76.99 %
2018	\$0	\$225,045.00	78.99 %	\$450,090.00	72.99 %
2019	\$0	\$231,797.00	76.99 %	\$463,593.00	68.99 %
2020	\$0	\$238,750.00	74.99 %	\$477,501.00	64.99 %
2021	\$0	\$245,913.00	72.99 %	\$491,826.00	60.99 %
2022	\$0	\$253,290.00	70.99 %	\$506,581.00	56.99 %
2023	\$18,310	\$260,889.00	69.13 %	\$521,778.00	53.13 %
2024	\$0	\$268,716.00	67.13 %	\$537,431.00	49.13 %
2025	\$1,649,792	\$276,777.00	77.05 %	\$553,554.00	57.05 %
<b>Total:</b>	<b>\$5,670,707</b>	<b>\$2,431,794.00</b>		<b>\$4,863,588.00</b>	

## Deficiency Summary by System

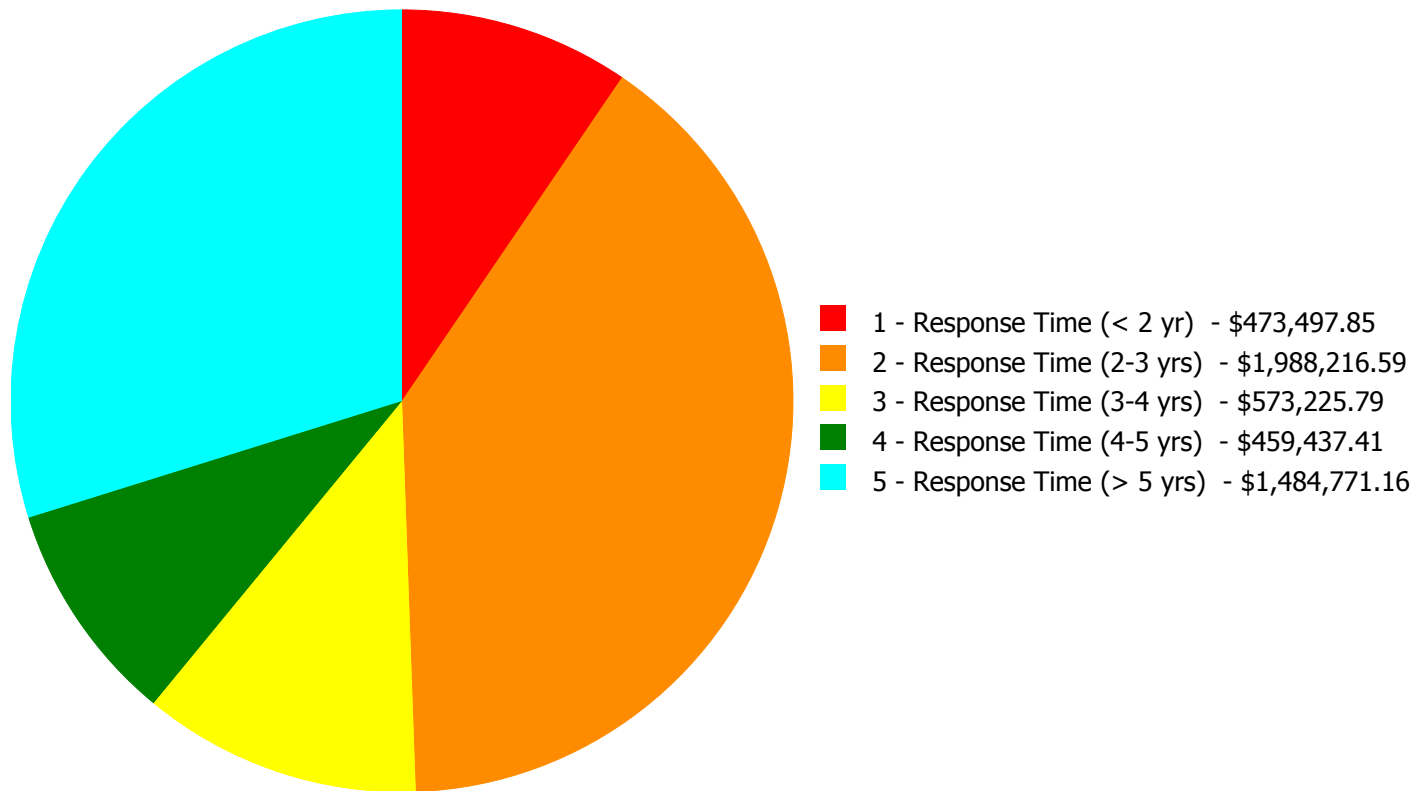
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



**Budget Estimate Total: \$4,979,148.80**

## 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: \$4,979,148.80**

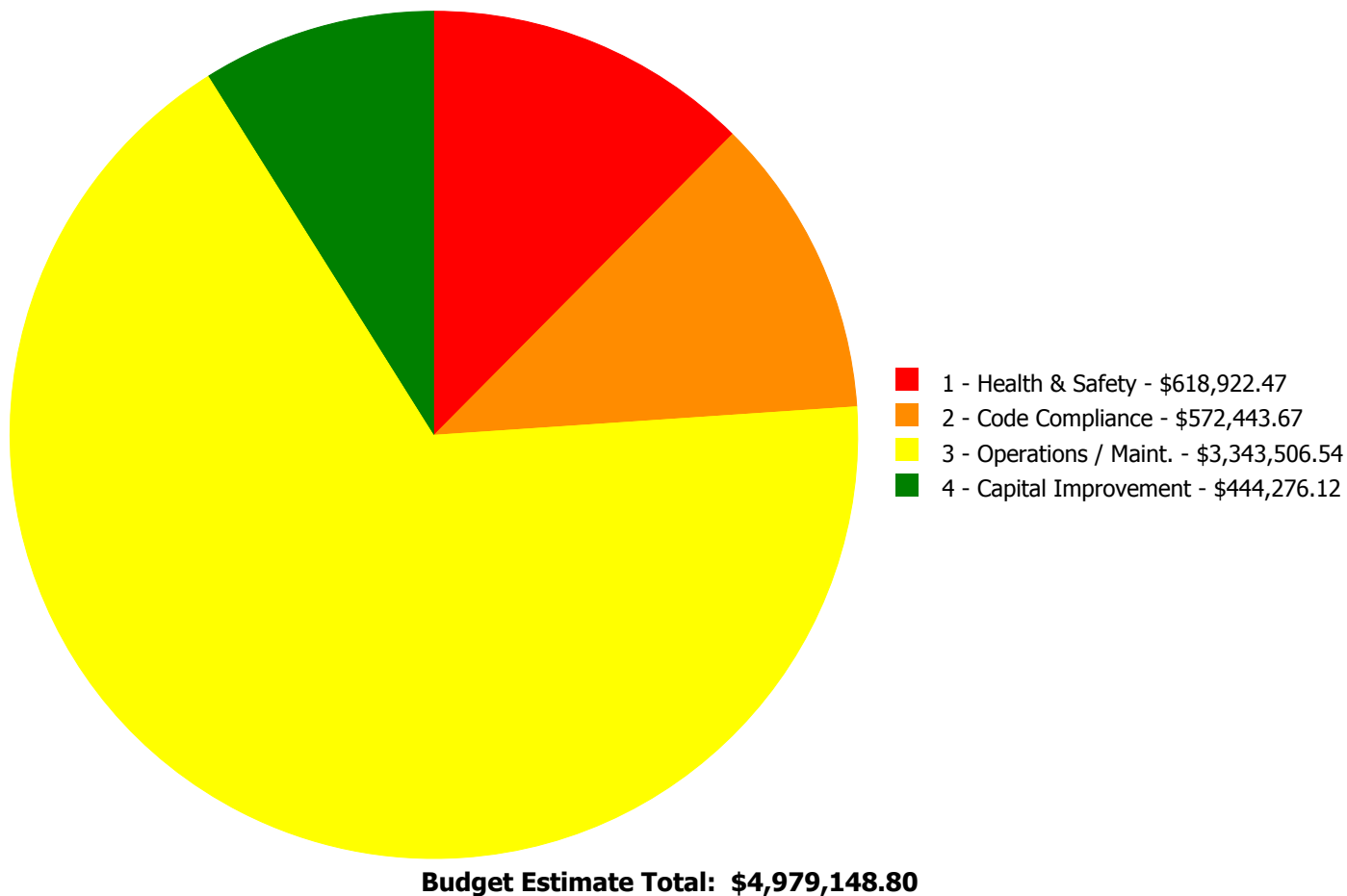
## Deficiency By Priority Investment Table

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	\$3,328.61	\$0.00	\$0.00	\$0.00	\$3,328.61
B2020	Exterior Windows	\$0.00	\$685,415.62	\$0.00	\$0.00	\$0.00	\$685,415.62
B2030	Exterior Doors	\$0.00	\$64,768.64	\$0.00	\$0.00	\$0.00	\$64,768.64
B3010105	Built-Up	\$333,161.83	\$0.00	\$0.00	\$0.00	\$0.00	\$333,161.83
B3020	Roof Openings	\$0.00	\$3,679.33	\$0.00	\$0.00	\$0.00	\$3,679.33
C1010	Partitions	\$53,547.90	\$773,137.86	\$0.00	\$0.00	\$0.00	\$826,685.76
C1020	Interior Doors	\$0.00	\$27,828.47	\$0.00	\$0.00	\$0.00	\$27,828.47
C1030	Fittings	\$0.00	\$75,582.14	\$0.00	\$0.00	\$0.00	\$75,582.14
C2010	Stair Construction	\$86,788.12	\$0.00	\$0.00	\$0.00	\$0.00	\$86,788.12
C3010230	Paint & Covering	\$0.00	\$243,859.57	\$0.00	\$0.00	\$0.00	\$243,859.57
C3030	Ceiling Finishes	\$0.00	\$44,923.70	\$0.00	\$0.00	\$0.00	\$44,923.70
D2010	Plumbing Fixtures	\$0.00	\$31,385.79	\$0.00	\$0.00	\$0.00	\$31,385.79
D2020	Domestic Water Distribution	\$0.00	\$34,306.86	\$0.00	\$0.00	\$0.00	\$34,306.86
D3030	Cooling Generating Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$192,712.73	\$192,712.73
D3040	Distribution Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$648,422.75	\$648,422.75
D3060	Controls & Instrumentation	\$0.00	\$0.00	\$0.00	\$0.00	\$386,137.65	\$386,137.65
D4010	Sprinklers	\$0.00	\$0.00	\$0.00	\$0.00	\$257,498.03	\$257,498.03
D5010	Electrical Service/Distribution	\$0.00	\$0.00	\$300,543.49	\$0.00	\$0.00	\$300,543.49
D5020	Lighting and Branch Wiring	\$0.00	\$0.00	\$56,936.20	\$137,894.29	\$0.00	\$194,830.49
D5030	Communications and Security	\$0.00	\$0.00	\$87,743.47	\$321,543.12	\$0.00	\$409,286.59
D5090	Other Electrical Systems	\$0.00	\$0.00	\$128,002.63	\$0.00	\$0.00	\$128,002.63
	<b>Total:</b>	\$473,497.85	\$1,988,216.59	\$573,225.79	\$459,437.41	\$1,484,771.16	\$4,979,148.80

## 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: B3010105 - Built-Up



**Location:** Roof

**Distress:** Beyond Service Life

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

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

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

**Qty:** 9,833.00

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

**Estimate:** \$333,161.83

**Assessor Name:** System

**Date Created:** 02/23/2016

**Notes:** Remove and replace roofing

#### System: C1010 - Partitions



**Location:** Counselors office

**Distress:** Inadequate

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

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

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

**Qty:** 960.00

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

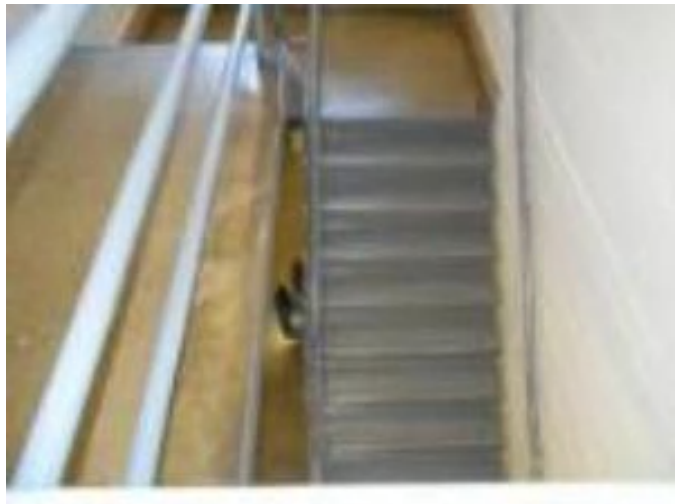
**Estimate:** \$53,547.90

**Assessor Name:** System

**Date Created:** 02/23/2016

**Notes:** Install full height partitions at counselor offices

**System: C2010 - Stair Construction**



**Location:** Stairways

**Distress:** Building / MEP Codes

**Category:** 2 - Code Compliance

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

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

**Qty:** 150.00

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

**Estimate:** \$86,788.12

**Assessor Name:** System

**Date Created:** 02/23/2016

**Notes:** Replace stairway handrails with compliant rails

---

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

**System: B2010 - Exterior Walls**



**Location:** Library roof  
**Distress:** Inadequate  
**Category:** 3 - Operations / Maint.  
**Priority:** 2 - Response Time (2-3 yrs)  
**Correction:** Add fixed ladders to wall  
**Qty:** 12.00  
**Unit of Measure:** V.L.F.  
**Estimate:** \$3,328.61  
**Assessor Name:** System  
**Date Created:** 02/23/2016

**Notes:** Install roof hatch and ladder at library addition

---

**System: B2020 - Exterior Windows**



**Location:** Exterior windows  
**Distress:** Beyond Service Life  
**Category:** 3 - Operations / Maint.  
**Priority:** 2 - Response Time (2-3 yrs)  
**Correction:** Remove and replace aluminum windows - pick the appropriate size and style and insert the number of units  
**Qty:** 114.00  
**Unit of Measure:** Ea.  
**Estimate:** \$685,415.62  
**Assessor Name:** System  
**Date Created:** 02/23/2016

**Notes:** Replace exterior windows

---

**System: B2030 - Exterior Doors**



**Location:** Exterior doors

**Distress:** Beyond Service Life

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

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

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

**Qty:** 8.00

**Unit of Measure:** Ea.

**Estimate:** \$64,768.64

**Assessor Name:** System

**Date Created:** 02/23/2016

**Notes:** Replace exterior doors

---

**System: B3020 - Roof Openings**



**Location:** Library roof

**Distress:** Inadequate

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

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

**Correction:** Replace roof hatch - pick the closest size

**Qty:** 1.00

**Unit of Measure:** Ea.

**Estimate:** \$3,679.33

**Assessor Name:** System

**Date Created:** 02/23/2016

**Notes:** Install roof hatch and ladder at library addition

---

**System: C1010 - Partitions**



**Location:** Both floors

**Distress:** Accessibility

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

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

**Correction:** Build new gang restroom to meet code or occupant needs - select type and number of fixtures and toilet partitions for mens or womens

**Qty:** 2.00

**Unit of Measure:** Ea.

**Estimate:** \$421,508.00

**Assessor Name:** System

**Date Created:** 02/23/2016

**Notes:** Reconfigure toilet rooms on each floor for accessibility; provide new toilet partitions and toilet accessories including grab bars.

---

**System: C1010 - Partitions**



**Location:** Both floors

**Distress:** Accessibility

**Category:** 2 - Code Compliance

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

**Correction:** Build new single restroom to meet code requirements

**Qty:** 5.00

**Unit of Measure:** Ea.

**Estimate:** \$351,629.86

**Assessor Name:** System

**Date Created:** 02/23/2016

**Notes:** Provide unisex accessible toilets on each floor for faculty/staff and in the nurse office.

---

**System: C1020 - Interior Doors**



**Location:** Interior doors

**Distress:** Accessibility

**Category:** 2 - Code Compliance

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

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

**Qty:** 50.00

**Unit of Measure:** Ea.

**Estimate:** \$27,828.47

**Assessor Name:** System

**Date Created:** 02/23/2016

**Notes:** Replace interior door hardware

---

**System: C1030 - Fittings**



**Location:** Classrooms

**Distress:** Inadequate

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

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

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

**Qty:** 20.00

**Unit of Measure:** Ea.

**Estimate:** \$59,327.39

**Assessor Name:** System

**Date Created:** 02/23/2016

**Notes:** Replace chalkboards with marker boards

---



**System: C1030 - Fittings**



**Location:** Interior signage  
**Distress:** Inadequate  
**Category:** 2 - Code Compliance  
**Priority:** 2 - Response Time (2-3 yrs)  
**Correction:** Replace missing or damaged signage - insert the number of rooms  
**Qty:** 60.00  
**Unit of Measure:** Ea.  
**Estimate:** \$16,254.75  
**Assessor Name:** System  
**Date Created:** 02/23/2016

**Notes:** Replace interior signage

---

**System: C3010230 - Paint & Covering**



**Location:** Interior walls  
**Distress:** Beyond Service Life  
**Category:** 3 - Operations / Maint.  
**Priority:** 2 - Response Time (2-3 yrs)  
**Correction:** Repair and repaint all interior walls - SF of wall surface  
**Qty:** 36,000.00  
**Unit of Measure:** S.F.  
**Estimate:** \$243,859.57  
**Assessor Name:** System  
**Date Created:** 02/23/2016

**Notes:** Paint interior walls

---

**System: C3030 - Ceiling Finishes**



**Location:** Interior ceilings

**Distress:** Beyond Service Life

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

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

**Correction:** Remove and replace glued on or mechanically attached acoustical ceiling tiles

**Qty:** 3,600.00

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

**Estimate:** \$44,923.70

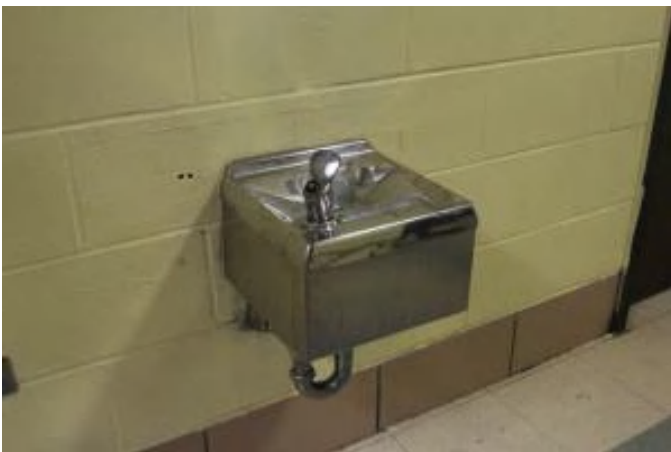
**Assessor Name:** System

**Date Created:** 02/23/2016

**Notes:** Replace 12" acoustical tile ceilings where they occur

---

**System: D2010 - Plumbing Fixtures**



**Location:** Corridors

**Distress:** Accessibility

**Category:** 2 - Code Compliance

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

**Correction:** Remove and replace water fountains to meet ADA - includes high and low fountains and new recessed alcove

**Qty:** 2.00

**Unit of Measure:** Ea.

**Estimate:** \$31,385.79

**Assessor Name:** System

**Date Created:** 02/15/2016

**Notes:** Replace drinking fountains in the corridors with accessible type

---



**System: D2020 - Domestic Water Distribution**



**Location:** Boiler room

**Distress:** Building / MEP Codes

**Category:** 2 - Code Compliance

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

**Correction:** Provide 3" reduced pressure back flow preventer

**Qty:** 1.00

**Unit of Measure:** Ea.

**Estimate:** \$34,306.86

**Assessor Name:** System

**Date Created:** 02/15/2016

**Notes:** Install 3 inch backflow preventer at water entry

---

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

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



**Location:** Entire Building

**Distress:** Inadequate

**Category:** 4 - Capital Improvement

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

**Correction:** Replace Electrical Distribution System (U)

**Qty:** 1.00

**Unit of Measure:** Ea.

**Estimate:** \$153,731.07

**Assessor Name:** System

**Date Created:** 01/22/2016

**Notes:** Replace (4) existing panelboards and add (1) per floor. Total of (7) 208/120V panel boards.

---

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



**Location:** First Floor

**Distress:** Inadequate

**Category:** 4 - Capital Improvement

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

**Correction:** Replace Switchboard

**Qty:** 1.00

**Unit of Measure:** Ea.

**Estimate:** \$146,812.42

**Assessor Name:** System

**Date Created:** 01/21/2016

**Notes:** Provide a new electrical service 208/120V, 3 phase power, 600 Amperes

---

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



**Location:** Entire Building  
**Distress:** Inadequate  
**Category:** 4 - Capital Improvement  
**Priority:** 3 - Response Time (3-4 yrs)  
**Correction:** Add wiring device  
**Qty:** 160.00  
**Unit of Measure:** Ea.  
**Estimate:** \$56,936.20  
**Assessor Name:** System  
**Date Created:** 01/22/2016

**Notes:** Provide (2)25FT of surface raceways with 24" receptacles on center and two-duplex wall mount receptacles. Approximate 160

---

**System: D5030 - Communications and Security**



**Location:** Entire Building  
**Distress:** Life Safety / NFPA / PFD  
**Category:** 1 - Health & Safety  
**Priority:** 3 - Response Time (3-4 yrs)  
**Correction:** Replace fire alarm system  
**Qty:** 1.00  
**Unit of Measure:** S.F.  
**Estimate:** \$87,743.47  
**Assessor Name:** System  
**Date Created:** 01/22/2016

**Notes:** Replace old fire alarm system with addressable type with audio/visual devices at corridors and classrooms. Approximate 25 devices

---

**System: D5090 - Other Electrical Systems**

This deficiency has no image.

**Location:** Outdoor

**Distress:** Inadequate

**Category:** 4 - Capital Improvement

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

**Correction:** Add Standby Generator System

**Qty:** 1.00

**Unit of Measure:** Ea.

**Estimate:** \$86,796.43

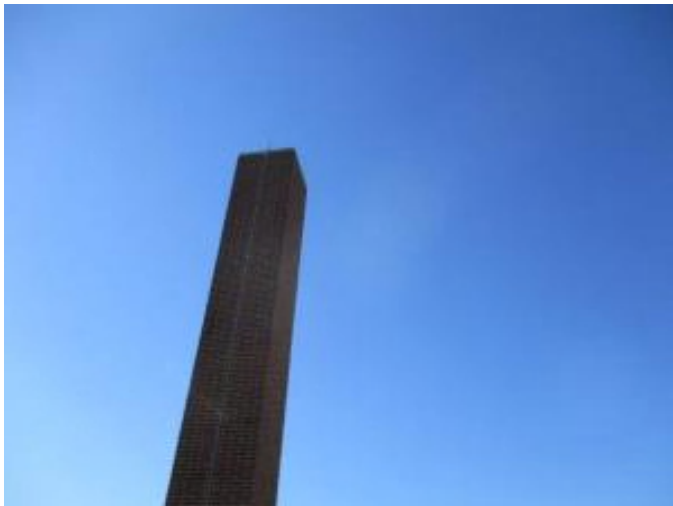
**Assessor Name:** System

**Date Created:** 01/22/2016

**Notes:** Provide 20 KW, outdoor, diesel powered generator.

---

**System: D5090 - Other Electrical Systems**



**Location:** Roof

**Distress:** Building / MEP Codes

**Category:** 2 - Code Compliance

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

**Correction:** Repair Lightning Protection System

**Qty:** 1.00

**Unit of Measure:** Job

**Estimate:** \$24,249.82

**Assessor Name:** System

**Date Created:** 01/22/2016

**Notes:** Prepare a study to determine if the air terminals on the chimney provide the proper protection to the school building.

---

**System: D5090 - Other Electrical Systems**



**Location:** Entire Building

**Distress:** Obsolete

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

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

**Correction:** Replace Emergency/Exit Lighting

**Qty:** 20.00

**Unit of Measure:** Ea.

**Estimate:** \$16,956.38

**Assessor Name:** System

**Date Created:** 01/22/2016

**Notes:** Replace exit signs with incandescent lamps with exit signs with LED lamps. Approximate 20

---

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

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



**Location:** Entire Building

**Distress:** Obsolete

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

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

**Correction:** Add Lighting Fixtures

**Qty:** 190.00

**Unit of Measure:** Ea.

**Estimate:** \$137,894.29

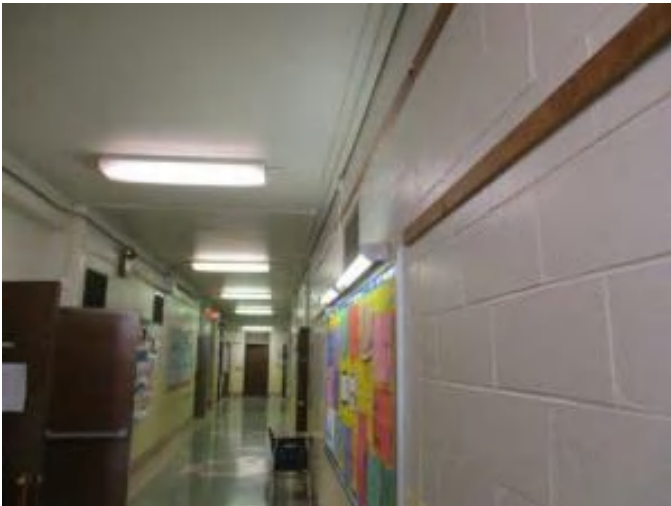
**Assessor Name:** System

**Date Created:** 01/22/2016

**Notes:** Replace 80% of the existing lighting fixtures with, surface mounted fluorescent fixtures with T8 lamps. Approximate 190 fixtures

---

**System: D5030 - Communications and Security**



**Location:** Entire Building

**Distress:** Security Issue

**Category:** 1 - Health & Safety

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

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

**Qty:** 7.00

**Unit of Measure:** Ea.

**Estimate:** \$273,680.97

**Assessor Name:** System

**Date Created:** 01/22/2016

**Notes:** Provide indoor surveillance CCTV cameras for a complete coverage of the school interior. Approximate 7 CCTV cameras

---

**System: D5030 - Communications and Security**



**Location:** Entire Building

**Distress:** Obsolete

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

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

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

**Qty:** 20.00

**Unit of Measure:** Ea.

**Estimate:** \$47,862.15

**Assessor Name:** System

**Date Created:** 01/22/2016

**Notes:** Provide wireless, synchronized, battery operated clock system. Approximate 20 clocks

---



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

**System: D3030 - Cooling Generating Systems**



**Location:** Main building

**Distress:** Inadequate

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

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

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

**Qty:** 12,000.00

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

**Estimate:** \$192,712.73

**Assessor Name:** System

**Date Created:** 02/15/2016

**Notes:** Install 40 ton air-conditioning system for the entire building

---

**System: D3040 - Distribution Systems**



**Location:** Main building

**Distress:** Beyond Service Life

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

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

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

**Qty:** 13.00

**Unit of Measure:** Ea.

**Estimate:** \$648,422.75

**Assessor Name:** System

**Date Created:** 02/15/2016

**Notes:** Replace original unit vents due to age and lack of cooling capability

---



**System: D3060 - Controls & Instrumentation**



**Location:** Main building  
**Distress:** Obsolete  
**Category:** 3 - Operations / Maint.  
**Priority:** 5 - Response Time (> 5 yrs)  
**Correction:** Replace pneumatic controls with DDC (75KSF)  
**Qty:** 18,000.00  
**Unit of Measure:** S.F.  
**Estimate:** \$386,137.65  
**Assessor Name:** System  
**Date Created:** 02/15/2016

**Notes:** Upgrade controls to digital

---

**System: D4010 - Sprinklers**



**Location:** Entire building  
**Distress:** Life Safety / NFPA / PFD  
**Category:** 1 - Health & Safety  
**Priority:** 5 - Response Time (> 5 yrs)  
**Correction:** Install a fire protection sprinkler system  
**Qty:** 18,000.00  
**Unit of Measure:** S.F.  
**Estimate:** \$257,498.03  
**Assessor Name:** System  
**Date Created:** 02/16/2016

**Notes:** Install a fire protection sprinkler system, including fire pump if required by city water pressure

---

## Equipment Inventory

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

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D3020 Heat Generating Systems	Boiler, packaged scotch marine, fire tube, gross output, #2 oil, 15 PSI steam, 1675 MBH, 50 H.P.	2.00	Ea.	Boiler room					35	1994	2029	\$72,046.50	\$158,502.30
D3030 Cooling Generating Systems	Heat pump, air to air single package, 5 ton cooling, 27 MBH heat @ 0Deg.F, excludes interconnecting tubing, curbs, pads and ductwork	1.00	Ea.	Library roof					30	2006	2036	\$7,442.33	\$8,186.56
D5010 Electrical Service/Distribution	Load centers, 1 phase, 3 wire, main lugs, rainproof, 120/240 V, 400 amp, 42 circuits, incl 20 A 1 pole plug-in breakers	1.00	Ea.	First floor					30	1961	2047	\$3,663.90	\$4,030.29
D5010 Electrical Service/Distribution	Load centers, 1 phase, 3 wire, main lugs, rainproof, 120/240 V, 400 amp, 42 circuits, incl 20 A 1 pole plug-in breakers	1.00	Ea.	First Floor electrical room					30	1961	2047	\$3,663.90	\$4,030.29
												<b>Total:</b>	<b>\$174,749.44</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):	50,200
Year Built:	1961
Last Renovation:	
Replacement Value:	\$1,048,594
Repair Cost:	\$355,953.56
Total FCI:	33.95 %
Total RSLI:	42.46 %



**Description:**

**Attributes:**

**General Attributes:**

Bldg ID:	S139001	Site ID:	S139001
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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	41.26 %	22.67 %	\$171,576.10
G40 - Site Electrical Utilities	45.58 %	63.22 %	\$184,377.46
<b>Totals:</b>	<b>42.46 %</b>	<b>33.95 %</b>	<b>\$355,953.56</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	RSLT%	FCI%	RSL	eCR	Deficiency \$	Replacement Value \$
G2010	Roadways	\$11.52	S.F.		30				0.00 %	0.00 %				\$0
G2020	Parking Lots	\$8.50	S.F.		30				0.00 %	0.00 %				\$0
G2030	Pedestrian Paving	\$12.30	S.F.	40,200	40	1961	2001	2028	32.50 %	29.02 %	13		\$143,496.08	\$494,460
G2040	Site Development	\$4.36	S.F.	50,200	25	1961	1986	2028	52.00 %	12.83 %	13		\$28,080.02	\$218,872
G2050	Landscaping & Irrigation	\$4.36	S.F.	10,000	15	1961	1976	2028	86.67 %	0.00 %	13			\$43,600
G4020	Site Lighting	\$4.84	S.F.	50,200	30	1961	1991	2025	33.33 %	0.00 %	10			\$242,968
G4030	Site Communications & Security	\$0.97	S.F.	50,200	30	1961	1991	2047	106.67 %	378.65 %	32		\$184,377.46	\$48,694
<b>Total</b>									<b>42.46 %</b>	<b>33.95 %</b>			<b>\$355,953.56</b>	<b>\$1,048,594</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%*

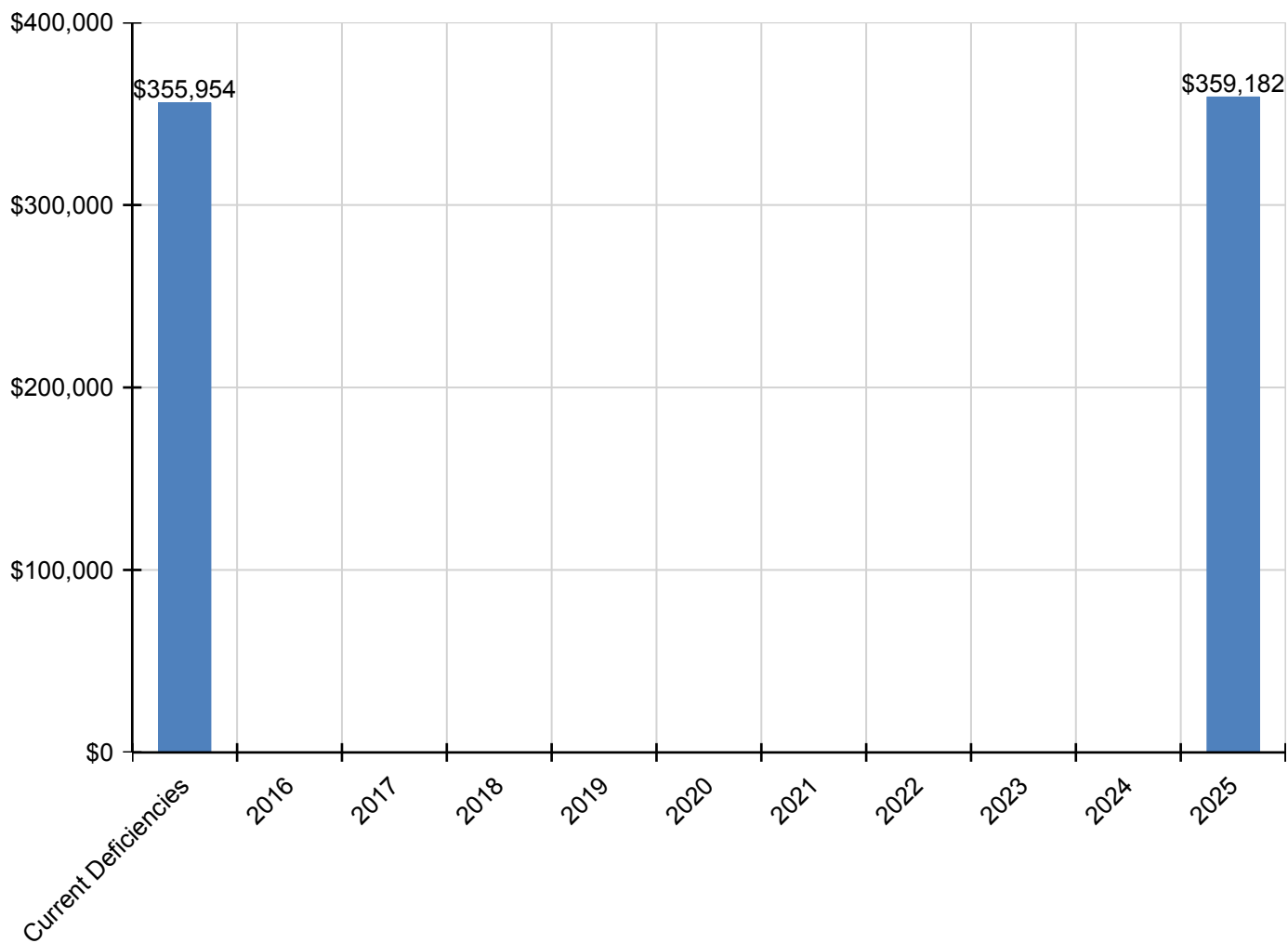
System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
<b>Total:</b>	\$355,954	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$359,182	\$715,135
G - Building Sitework	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G20 - Site Improvements	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G2010 - Roadways	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G2020 - Parking Lots	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G2030 - Pedestrian Paving	\$143,496	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$143,496
G2040 - Site Development	\$28,080	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,080
G2050 - Landscaping & Irrigation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G40 - Site Electrical Utilities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G4020 - Site Lighting	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$359,182	\$359,182
G4030 - Site Communications & Security	\$184,377	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$184,377

*\* Indicates non-renewable system*



## Forecasted Sustainment Requirement

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

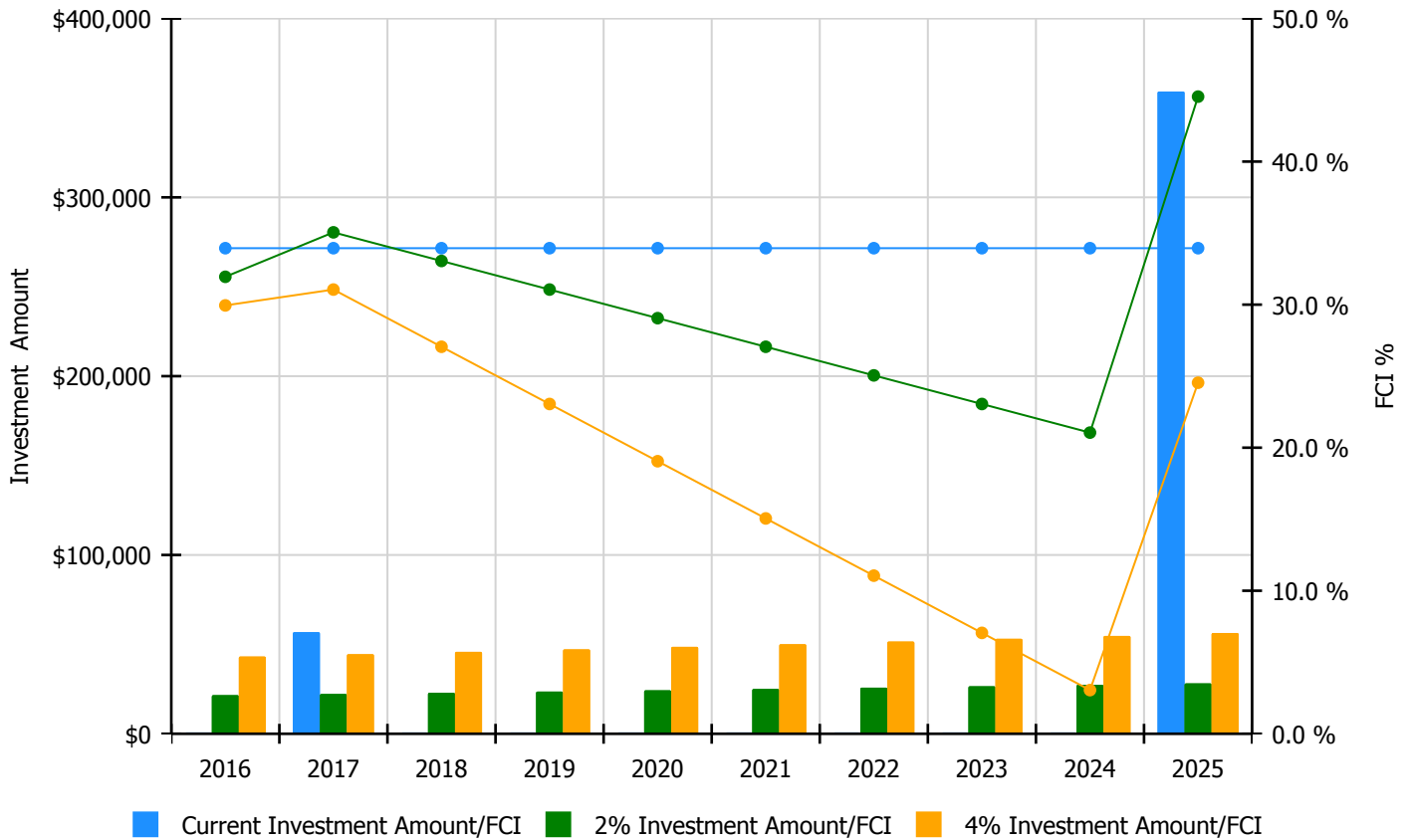


## 10 Year FCI Forecast by Investment Scenario

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

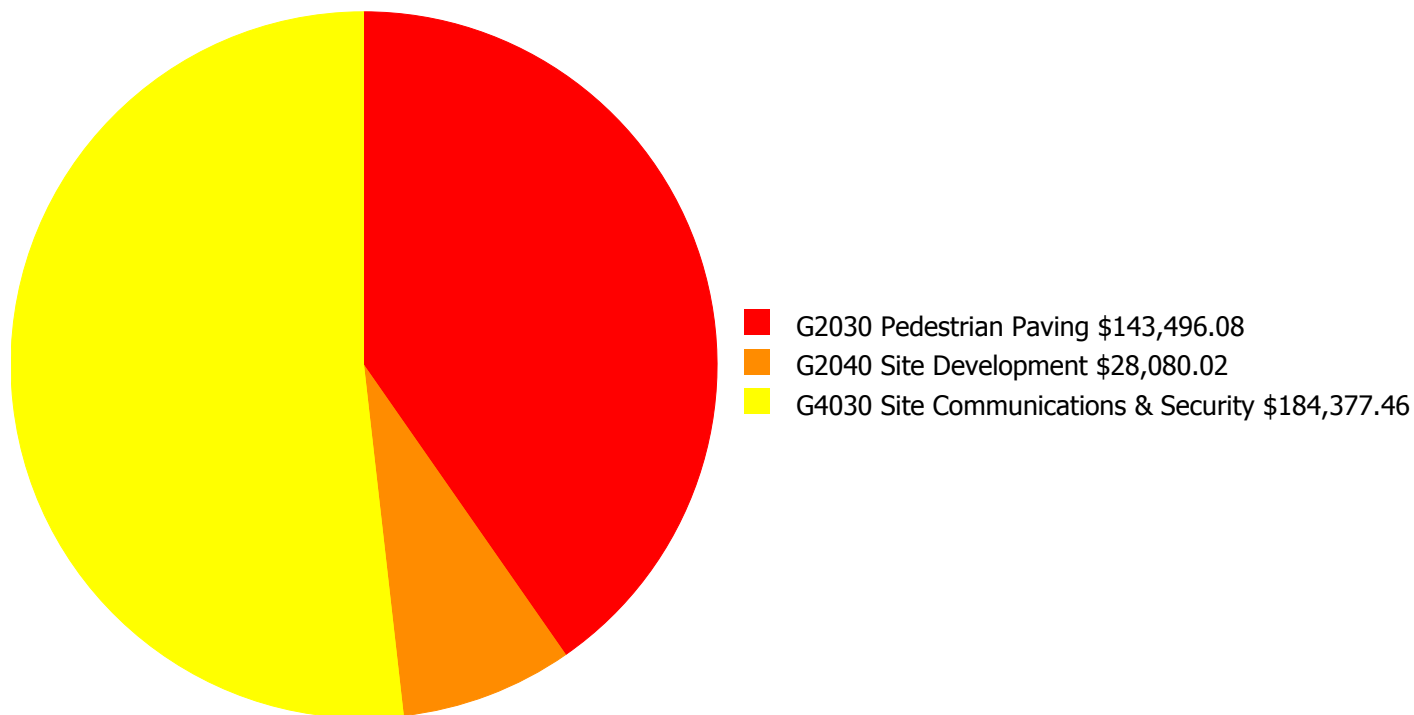
**Facility Investment vs. FCI Forecast**



Year	Investment Amount Current FCI - 33.95%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	\$0	\$21,601.00	31.95 %	\$43,202.00	29.95 %
2017	\$56,825	\$22,249.00	35.05 %	\$44,498.00	31.05 %
2018	\$0	\$22,917.00	33.05 %	\$45,833.00	27.05 %
2019	\$0	\$23,604.00	31.05 %	\$47,208.00	23.05 %
2020	\$0	\$24,312.00	29.05 %	\$48,624.00	19.05 %
2021	\$0	\$25,042.00	27.05 %	\$50,083.00	15.05 %
2022	\$0	\$25,793.00	25.05 %	\$51,586.00	11.05 %
2023	\$0	\$26,567.00	23.05 %	\$53,133.00	7.05 %
2024	\$0	\$27,364.00	21.05 %	\$54,727.00	3.05 %
2025	\$359,182	\$28,184.00	44.54 %	\$56,369.00	24.54 %
<b>Total:</b>	<b>\$416,007</b>	<b>\$247,633.00</b>		<b>\$495,263.00</b>	

## Deficiency Summary by System

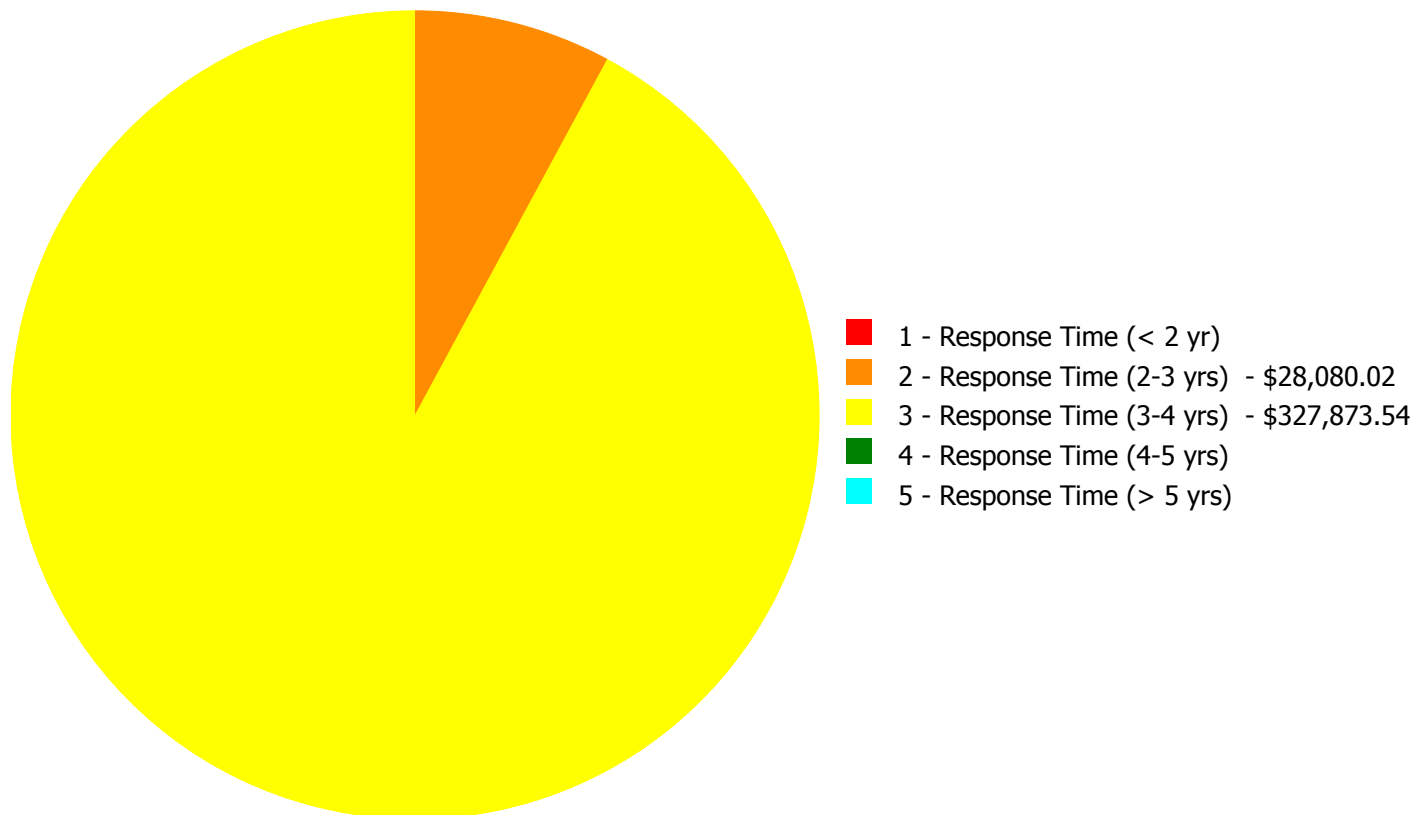
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



**Budget Estimate Total: \$355,953.56**

## 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: \$355,953.56**

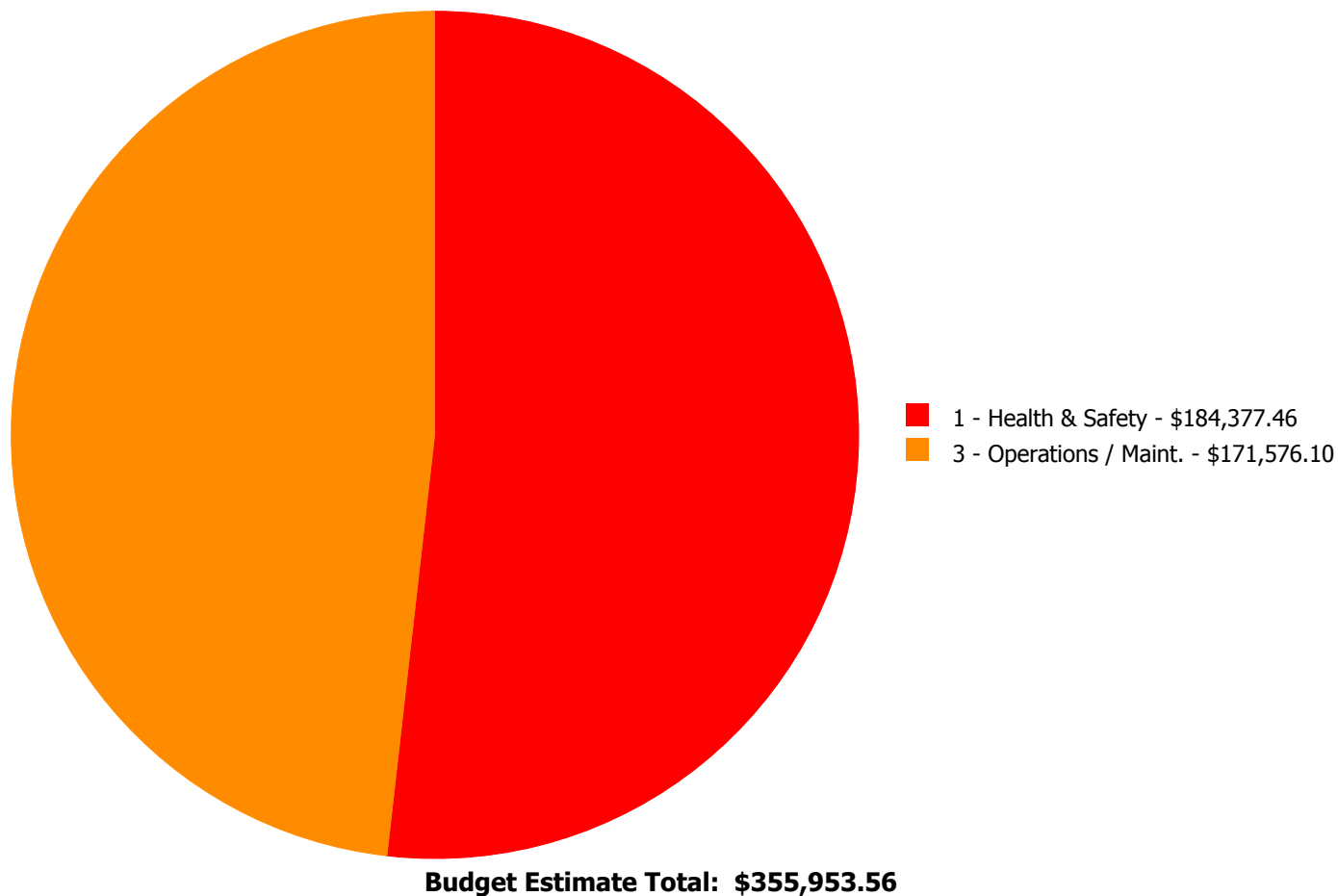
## Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
G2030	Pedestrian Paving	\$0.00	\$0.00	\$143,496.08	\$0.00	\$0.00	\$143,496.08
G2040	Site Development	\$0.00	\$28,080.02	\$0.00	\$0.00	\$0.00	\$28,080.02
G4030	Site Communications & Security	\$0.00	\$0.00	\$184,377.46	\$0.00	\$0.00	\$184,377.46
<b>Total:</b>		\$0.00	\$28,080.02	\$327,873.54	\$0.00	\$0.00	\$355,953.56

## 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:** Site steps

**Distress:** Failing

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

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

**Correction:** Remove and replace on grade concrete steps - based on 6' wide steps and 6 or 12 risers - modify estimate to suit the configuration

**Qty:** 2.00

**Unit of Measure:** Flight

**Estimate:** \$28,080.02

**Assessor Name:** Craig Anding

**Date Created:** 02/23/2016

**Notes:** Repair site steps

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

**System: G2030 - Pedestrian Paving**



**Location:** Playground

**Distress:** Beyond Service Life

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

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

**Correction:** Resurface AC pedestrian paving - grind and resurface

**Qty:** 40,200.00

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

**Estimate:** \$143,496.08

**Assessor Name:** Craig Anding

**Date Created:** 02/23/2016

**Notes:** Resurface asphalt parking lot / playground

---

**System: G4030 - Site Communications & Security**



**Location:** Building Perimeter

**Distress:** Security Issue

**Category:** 1 - Health & Safety

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

**Correction:** Add Video Surveillance System

**Qty:** 10.00

**Unit of Measure:** Ea.

**Estimate:** \$184,377.46

**Assessor Name:** Craig Anding

**Date Created:** 01/22/2016

**Notes:** Provide outdoor surveillance CCTV cameras. Approximate 10 CCTV cameras

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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

## 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