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.

Nebinger School

Governance	DISTRICT	Report Type	Elementarymiddle
Address	601 Carpenter St.	Enrollment	360
	Philadelphia, Pa 19147	Grade Range	'00-08'
Phone/Fax	215-952-6202 / 215-952-6392	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Nebinger	Turnaround Model	N/A

Building/System FCI Tiers

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

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

Building and Grounds

	FCI	Repair Costs	Replacement Cost
Overall	**47.04%**	**$13,940,281**	**$29,633,270**
Building	36.06 %	$9,959,657	$27,622,153
Grounds	19.64 %	$111,317	$566,797

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	00.00 %	$0	$581,155
Exterior Walls (Shows condition of the structural condition of the exterior facade)	02.54 %	$55,387	$2,177,690
Windows (Shows functionality of exterior windows)	147.22 %	$1,564,305	$1,062,590
Exterior Doors (Shows condition of exterior doors)	08.17 %	$6,987	$85,550
Interior Doors (Classroom doors)	06.72 %	$13,914	$207,090
Interior Walls (Paint and Finishes)	10.21 %	$95,438	$934,560
Plumbing Fixtures	09.84 %	$78,464	$797,680
Boilers	101.10 %	$1,113,599	$1,101,530
Chillers/Cooling Towers	00.00 %	$0	$1,444,320
Radiators/Unit Ventilators/HVAC	48.93 %	$1,241,186	$2,536,410
Heating/Cooling Controls	158.90 %	$1,265,676	$796,500
Electrical Service and Distribution	144.38 %	$826,271	$572,300
Lighting	40.61 %	$830,886	$2,046,120
Communications and Security (Cameras, Pa System and Fire Alarm)	50.21 %	$384,831	$766,410

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

S259001;Nebinger

Final

Site Assessment Report

January 31, 2017

PARSONS

Table of Contents

Site Executive Summary 4

Site Condition Summary 10

B259001;Nebinger 12

- Executive Summary 12
  - Condition Summary 13
- Condition Detail 14
  - System Listing 15
  - System Notes 18
  - Renewal Schedule 19
    - Forecasted Sustainment Requirement 22
  - Condition Index Forecast by Investment Scenario 23
  - Deficiency Summary By System 24
  - Deficiency Summary By Priority 25
  - Deficiency By Priority Investment 26
  - Deficiency Summary By Category 27
  - Deficiency Details By Priority 28
- Equipment Inventory Detail 50

G259001;Grounds 51

- Executive Summary 51
  - Condition Summary 52
- Condition Detail 53
  - System Listing 54
  - System Notes 55
  - Renewal Schedule 56
    - Forecasted Sustainment Requirement 57
  - Condition Index Forecast by Investment Scenario 58
  - Deficiency Summary By System 59
  - Deficiency Summary By Priority 60
  - Deficiency By Priority Investment 61

Deficiency Summary By Category 62
Deficiency Details By Priority 63
Equipment Inventory Detail 66
Glossary 67

Site Executive Summary

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

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

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

Gross Area (SF):	80,000
Year Built:	1924
Last Renovation:	
Replacement Value:	$29,633,270
Repair Cost:	$13,940,281.37
Total FCI:	47.04 %
Total RSLI:	63.29 %

Description:

Facility Assessment
August 19th, 2015

School District of Philadelphia
George W. Nebinger Elementary School
601 Carpenter Street
Philadelphia, PA 19147

59,000 SF / 517 Students / LN 01

GENERAL

Mr. Dave Loftus FAC, provided input to the assessment team on current problems. Mr. Dan Thomas, Building Engineer accompanied us on our tour of the school and provided us with detailed information on the building systems and maintenance history. Mr. Thomas has been in the school for a year.

The 5 story, 59,000 square foot building was originally constructed in 1924. The building has a multi-level basement.

STRUCTURAL / EXTERIOR CLOSURE

The building typically rests on concrete foundations and bearing walls that are not showing signs of settlement damage. The main structure typically consists of cast-in-place concrete columns, beams, and concrete, one way ribbed slab. Water intrusion is causing deterioration of brick walls in basement gym. The main roof structure consists of concrete one-way slab supported by main structural frame. Main roofing is built up application in good condition. The building envelope is typically masonry and concrete with face brick in good condition. Fire tower landings have metal grates in exterior openings that are rusted and failing. Capstone pointing on parapet wall is cracked and needs repaired. Elevations are enhanced with decorative stonework and tile around entrances and windows. The original windows were replaced in the early 1990s with extruded aluminum, double hung windows, Lexan Plexiglas with insect/security screens. All windows are generally in poor condition with heavy hazing. Exterior doors are typically hollow metal in good condition. Public access doors have granite stoops and stairs. The building is not accessible per ADA requirements due to first floor grade separation.

Partition walls are plastered ceramic hollow blocks in good condition. Interior doors are generally metal frame with solid core wood doors good condition. Doors leading to exit stairways are hollow metal frame and doors in good condition. Approximately half of the interior doors have lever type handles. Fittings include: toilet accessories in good condition; marble and composite plastic toilet partitions in good condition; and handrails and ornamental metals, generally in fair condition. Most toilet partitions and accessories are accessible. Interior identifying signage is typically directly painted on door and wall surfaces in good condition. Stair construction is generally concrete with cast iron nosing in good condition and marble staircases at main entrance in good condition. Stair railings are cast iron balusters and wood railing in good condition.

The interior wall finishes include: painted plaster with wood panel wainscot in auditorium in good condition; ceramic tile wainscot in toilets in good condition; and glazed brick wainscot in gym, kitchen, cafeteria, fire towers, and basement areas in good condition; and marble wainscot in main entry stairs in good condition. Paint is generally in good condition with damaged plaster areas in auditorium and small areas throughout building due to water intrusion and peeling paint in fire towers and boiler room. Flooring includes patterned or bare concrete in stairways, corridors, toilets, storage, and basement service areas in good condition; hardwood in most classrooms, auditorium, stage, IMC, kitchen, and main office area in good condition; and vinyl flooring in some classrooms and gym in good condition. Ceiling finishes include: suspended acoustic tile system in classrooms, corridors, and office areas in varying condition with some new and some nearing the end of service life; and painted plaster or structural concrete in toilets, stairways, gym, auditorium, stage, kitchen, main entry and basement areas in fair condition with some water damaged areas.

The building has one elevator serving 5 floors and is accessible from 1st floor hallway.

Commercial and Institutional equipment includes: stage equipment in good condition, and gym equipment in fair condition. Other equipment includes: food service equipment in good condition.

Fixed furnishings include: fixed casework in classrooms, corridors and library, generally in fair to good condition; and fixed auditorium seating for 360 generally in fair condition with some damaged and missing seats.

MECHANICAL SYSTEMS

Plumbing fixtures in toilet rooms throughout the building include contemporary low flow floor mounted water closets, wall hung urinals and lavatories. They appear to be less than 15 years old and have a remaining service life of at least 10 years remaining. The flush valves and supply pipes are exposed but they have not been damaged. Valves and faucets work well and are drip free. With routine maintenance valves will last at least 5 more years.

The cafeteria kitchen has a floor standing, 3 basin, 2 faucets, stainless steel, pot sink without a disposal, sanitization chemical injection system, or grease trap. Autism support room on the second floor has a two basin stainless steel cabinet mounted kitchen sink, along with a refrigerator and electric range. There is no clothes washer supply or drain connection. Fourth floor science classroom has a laboratory sink for instructor at the front of the room and two for students along the inside wall. All sinks are in good condition and will not need replacement in less than 5 years.

Drinking fountains are located in hallways on each floor. They are stainless steel, wall mounted, inaccessible, without

coolers. There are triple fountain fixtures in the basement. Fountains are beyond their service life and should be replaced with accessible fixtures.

Domestic water distribution piping is copper with soldered as well as swaged connections. There is water hammer when the toilets are flushed, and hammer arrestors should be replaced. Otherwise the distribution piping is in fair condition and will last at least 5 more years. Water service enters the building in the basement boiler room from the Carpenter St. side of the building via a 4" line. The entry line has a bronze compound 4" meter with bypass line and block valves, and then it goes to one 4" double back flow prevention valve without a bypass line. Water entry pipe and fittings are all in good condition and will last 10 more years. The boiler makeup water connection does not have a backflow preventer and one should be installed. There is a domestic water pressure booster system with twin 2 HP pumps and a pneumatic storage tank which has been recently installed with crimped pipe connections. Hot water is generated by a 65 gallon gas fired water heater installed August 2014 which will not need replacement for 10 years.

Both sanitary drain and rain water drain systems include threaded galvanized steel, hub and spigot cast iron, band coupled hub less cast iron, and copper pipe. Rain water drain piping runs in pipe chases inside the building. They are both beyond their expected service life. The principal's office sink drain backs up occasionally. Severe rust is visible in some areas. Many sections have been repaired individually. Both systems should be completely and thoroughly inspected and repaired or replaced as needed. There is a groundwater sump in the boiler room with 1 pump working and 1 motor missing as well as problems with the float switch. A second pump should be installed and the level controls replaced.

The building was originally heated by radiators in all the rooms and ventilated with heated and washed air from a single house fan in the basement mechanical room supplying built-in ducts to the classrooms which then exhausted up to the attic and out the roof through gravity vents. The fan is no longer operable.

The building has 2 Weil McLain cast iron sectional steam boilers installed in 1975. They are pressure atomized oil fired only and have a 4,960 MBH (148 HP) capacity. They are beyond their expected service life and should be replaced. The condensate sump in the boiler room has two pumps. Two boiler feed water pumps are piped individually to the boilers without a crossover line. There is a chemical injection system, but no water softener. The entire condensate collection and boiler feed water system in the boiler room should be replaced along with the boilers.

The building has no central cooling generating system. There are 22 window unit air-conditioners and 1 mini-split system, totaling approximately 45 ton cooling capacity. The entire building should be upgraded to a centralized cooling system with 145 ton total capacity.

There is a single air handler in the basement mechanical room. It is original to the building including intake damper, cast iron primary steam coils, air washer, 15 HP fan, and cast iron secondary steam coils. The steam coil sections are 9 feet wide and 9 feet tall. It supplied conditioned air to rooms on all floors though un-insulated sheet-metal ducts in the basement connecting to vertical clay block ducts for each individual room. The auditorium ventilation is supplied from a below floor plenum through floor diffusers located beneath the seats. The AHU fan drive belt is broken and the unit is inoperable. The air handler is obsolete and should be replaced with a modern unit including heating, cooling, humidification, and dehumidification sections. Basement metal duct should be replaced with insulated duct as part of the cooling system addition upgrade.

Steam distribution and condensate return piping is threaded steel. Visible areas of piping looked serviceable and the engineer did not report problems with piping or with heating in general. However due to age of the steam system, the piping should be inspected and replaced as needed.

The building has cast iron radiators with pneumatic or manual steam supply control valves and thermostatic steam traps. Radiators have surpassed their service live and should be replaced with finned tube convection heaters.

The building was equipped with pneumatic controls for HVAC. The air compressor is inoperative and the control system is obsolete regardless. The control system should be replaced with a modern direct digital control system when the other HVAC upgrades are implemented.

The building does not have stand pipes or sprinklers. A fire sprinkler system should be installed, including if needed a fire pump.

ELECTRICAL SYSTEMS

Most probably an underground lateral service from a pole mounted transformer serves this school. The electrical equipment is located in the fan room. The fan room houses the utility main disconnect switch, utility metering 221MU40622 and 215MU40812 and estimated 600A 120/240V distribution section. The existing service has no extra capacity for expansion or new Heating, Ventilation, Air Conditioning (HVAC) system. The electrical service entrance needs to be upgraded. The new service will be 480V/277V, 3 phase power, approximate 800 Amperes and will be located in the vicinity of the existing electrical service. The new electrical service would feed a 480V Motor Control Center (MCC) and HVAC (Heating, Ventilation and Air Conditioning) equipment, and a 480V 3 phase to 120V/208V 3 phase 225 KVA step-down transformer to feed receptacles, lighting and other smaller loads.

There are 120/240V panel-boards in each floor for lighting and receptacles. These panel-boards and associated wiring have exceeded the end of their useful life and are undersized to absorb additional loads. They need to be replaced. There are (3) 50KVA phase converters from 240V to 120/208V which normally feeds newest mechanical equipment. Panel-board's doors at corridors are not locked and represent a potential hazard for students. As a safety issue all panel-boards at corridor or in areas where students are present must be provided with lockable devices.

There numbers of receptacles in 75% of the classrooms 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.

Most of the classrooms, corridors, stairways are illuminated with recessed mounted fluorescent fixtures. Remodeled classrooms are illuminated with recessed, up/down, modern fluorescent fixtures. The auditorium is illuminated with pendant mounted architectural fixture with most probably incandescent lamps. The Gymnasium is illuminated with surface mounted fixtures. Fluorescent lighting fixtures in remodeled areas use T-8 lamps. Fluorescent fixtures in non-remodeled areas use T-12 lamps. Building Engineer replaced burned T-12 lamps with T-8 when ballast/time allows. Approximately 90% of the fixtures need to be replaced.

The Fire Alarm system is manufactured by S.H. Couch Co 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.

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

The present clocks are old and difficult to find parts and repair. Replace clock system with wireless, battery operated clock system.

There is not television system.

The security system consists of CCTV cameras at corridors and building exterior. There are missing CCTV cameras at the gym, fourth floor the auditorium. Provide additional CCTV cameras.

There is not emergency power system. Provide an outdoor, diesel powered, 60KW generator.

There is adequate UPS in the IT room.

The emergency lighting is obtained with wall mounted battery backup emergency lights. Exit signs are located at each exit door and corridors. Since school is not provided with emergency power per Uniform Building Code the exit signs need to be provided with storage battery unit.

The lightning protection is obtained with air terminals at the school chimney. A study should be conducted to determine if the existing lightning system provide the proper protection to the school building.

The school has one traction power elevator rated approximately 25HP at 240V. Elevator controller and motor are

approximately 15 years old and are expected to provide 10 more years of useful service life.

The stage theatrical lighting is composed of ceiling mounted one single row of down lights that are ON/OFF from local panel-board. Provide a dimming panel and additional theatrical lighting.

There is a local Rauland sound system. It is approximately 8 years old. The present sound system is adequate.

GROUND SYSTEMS

The site surrounds the building on all four sides which is set back from the street. Play yard on north side and parking for staff vehicles on west side are asphalt paving in good condition. Metal and chain link fence surrounding and separating yard is in fair condition. Landscaping includes mature trees along public sidewalks in good condition and rain garden landscape on north edge as part of the “soak it up Philly” initiative.

Accessibility: the building does have an accessible entrance. Toilets are equipped with accessible fixtures, partitions and accessories, such as grab bars and accessible partitions. Some of the doors in the building have lever type door handles.

The school perimeter is illuminated with wall mounted fixtures. Provide each exit door with a lighting fixture above the door to create a safer environment.

CCTV cameras are provided around the building perimeter. To provide a complete coverage of the building 6 more cameras are required.

There is not wall mounted loud speaker facing the parking lot/playground area. Provide (2) loud speakers.

RECOMMENDATIONS

- Repair basement walls – brick damage
- Repair and re-point capstones on parapet walls – cracked and allowing water intrusion
- Repair stonework on fire tower and replace metal grating – rusted and failing
- Replace Plexiglas window – hazed
- Provide ADA compliant exterior door hardware at one entrance
- Replace interior door handles with lever type handles and latch sets
- Install signage for accessible facilities and routes
- Repair and paint interior plaster walls – damaged (10% of plaster area)
- Repaint fire towers and service areas - peeling
- Repair and paint plaster ceilings – damaged (10% of plaster area)
- Replace suspended acoustic tile ceiling system – beyond service life (75% of suspended ceiling)
- Install acoustic panels in gym for sound absorption
- Replace damaged or missing seats in auditorium
- Provide ADA compliant ramp at one entrance (location TBD)
- Replace drinking fountains with accessible ones including integral chillers throughout building.
- Replace water hammer arrestors to eliminate water hammer when flushing toilets.
- Install backflow preventer on boiler water makeup line.
- Inspect and repair sanitary drain piping due to age and reported backups.
- Inspect and repair rain water drain piping due to age and visible corrosion.
- Repair ground water sump pump system with new pump and level control.
- Replace boilers due to age.
- Replace condensate collection and feed water system due to age
- Replace original obsolete AHU and radiators with modern ventilation system for classrooms.
- Inspect and replace steam and condensate piping as needed due to age.
- Replace obsolete and failed pneumatic control system with DDC.
- Install fire sprinkler system with pump if needed.
- Provide a new electrical service 480V/277V, 3 phase power, approximate 800 Amperes and will be located in the vicinity of the existing electrical service.
- Replace the entire distribution system with new panels and new wiring/conduits. Approximate (20) 208/120V panel boards.

- Provide (2)25FT of surface raceways with receptacles spaced 24” on center/classroom and 4 wall mount receptacles/classroom. Approximate 432 receptacles
- Replace 90% of the existing lighting fixtures with up/down, recessed fluorescent fixtures with T8 lamps. Approximate 700 fixtures
- Replace old fire alarm system with addressable type with audio/visual devices at corridors and classrooms. Approximate 79 devices
- Replace clock and bell system with wireless, battery operated, clock system. Approximate 60 clocks.
- Add CCTV cameras to provide a full coverage of the building interior. Approximate 32 CCTV cameras
- Provide 60KW, outdoor, diesel powered generator.
- Replace existing exit signs with battery backup type. Approximate 50
- Prepare a study to determine if the existing lightning protection system provides the proper coverage for the school building.
- Provide a dimming system and additional theatrical lighting.
- Provide wall mounted fixtures above each exit door. Approximate 10
- Provide CCTV cameras to the building exterior for full coverage of the perimeter. Approximate 6 CCTV cameras.
- Provide two PA loud speakers facing the playground and parking lot.

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 2 / Tm 3
Status:	Accepted by SDP	Team:	Tm 3
Site ID:	S259001		

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.

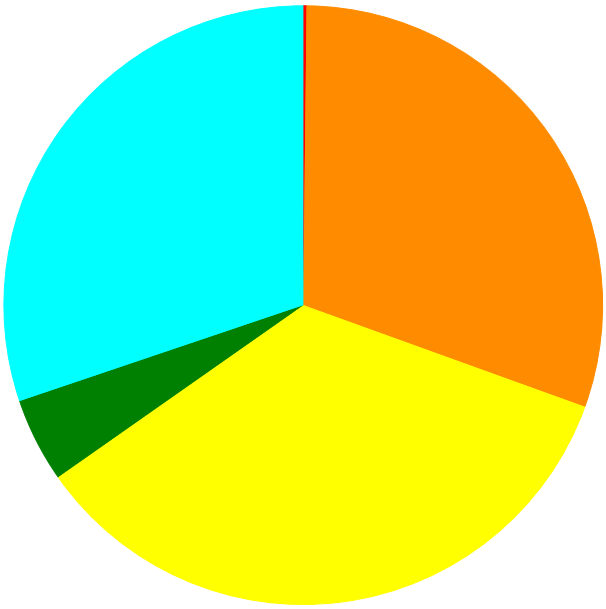
Current Investment Requirement and Condition by Uniformat Classification

UNIFORMAT Classification	RSLI%	FCI %	Current Repair
A10 - Foundations	37.00 %	0.00 %	$0.00
A20 - Basement Construction	37.00 %	2.17 %	$24,701.93
B10 - Superstructure	37.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	39.14 %	48.91 %	$1,626,678.86
B30 - Roofing	40.00 %	0.00 %	$0.00
C10 - Interior Construction	33.76 %	1.19 %	$17,165.20
C20 - Stairs	37.00 %	0.00 %	$0.00
C30 - Interior Finishes	79.66 %	22.56 %	$639,509.04
D10 - Conveying	34.29 %	0.00 %	$0.00
D20 - Plumbing	57.81 %	52.69 %	$634,841.01
D30 - HVAC	84.30 %	114.12 %	$7,489,769.12
D40 - Fire Protection	92.47 %	177.49 %	$844,019.92
D50 - Electrical	110.11 %	63.01 %	$2,185,110.67
E10 - Equipment	56.20 %	34.39 %	$323,055.06
E20 - Furnishings	25.00 %	35.10 %	$44,113.47
G20 - Site Improvements	63.74 %	5.68 %	$22,915.86
G40 - Site Electrical Utilities	106.67 %	54.15 %	$88,401.23
Totals:	**63.29 %**	**47.04 %**	**$13,940,281.37**

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)
B259001;Nebinger	59,000	47.58	$1,793.97	$4,160,748.96	$4,824,384.67	$633,976.48	$4,208,060.20
G259001;Grounds	28,100	19.64	$22,915.86	$68,292.61	$20,108.62	$0.00	$0.00
Total:		**47.04**	**$24,709.83**	**$4,229,041.57**	**$4,844,493.29**	**$633,976.48**	**$4,208,060.20**

Deficiencies By Priority



- 1 - Response Time (< 2 yr) - $24,709.83
- 2 - Response Time (2-3 yrs) - $4,229,041.57
- 3 - Response Time (3-4 yrs) - $4,844,493.29
- 4 - Response Time (4-5 yrs) - $633,976.48
- 5 - Response Time (> 5 yrs) - $4,208,060.20

Budget Estimate Total: $13,940,281.37

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):	59,000
Year Built:	1924
Last Renovation:	
Replacement Value:	$29,066,473
Repair Cost:	$13,828,964.28
Total FCI:	47.58 %
Total RSLI:	63.04 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B259001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S259001		

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	37.00 %	0.00 %	$0.00
A20 - Basement Construction	37.00 %	2.17 %	$24,701.93
B10 - Superstructure	37.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	39.14 %	48.91 %	$1,626,678.86
B30 - Roofing	40.00 %	0.00 %	$0.00
C10 - Interior Construction	33.76 %	1.19 %	$17,165.20
C20 - Stairs	37.00 %	0.00 %	$0.00
C30 - Interior Finishes	79.66 %	22.56 %	$639,509.04
D10 - Conveying	34.29 %	0.00 %	$0.00
D20 - Plumbing	57.81 %	52.69 %	$634,841.01
D30 - HVAC	84.30 %	114.12 %	$7,489,769.12
D40 - Fire Protection	92.47 %	177.49 %	$844,019.92
D50 - Electrical	110.11 %	63.01 %	$2,185,110.67
E10 - Equipment	56.20 %	34.39 %	$323,055.06
E20 - Furnishings	25.00 %	35.10 %	$44,113.47
Totals:	**63.04 %**	**47.58 %**	**$13,828,964.28**

Condition Detail

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

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

System Listing

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

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

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

Site Assessment Report - B259001;Nebinger

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
A1010	Standard Foundations	$18.40	S.F.	59,000	100	1924	2024	2052	37.00 %	0.00 %	37			$1,085,600
A1030	Slab on Grade	$7.73	S.F.	59,000	100	1924	2024	2052	37.00 %	0.00 %	37			$456,070
A2010	Basement Excavation	$6.55	S.F.	59,000	100	1924	2024	2052	37.00 %	0.00 %	37			$386,450
A2020	Basement Walls	$12.70	S.F.	59,000	100	1924	2024	2052	37.00 %	3.30 %	37		$24,701.93	$749,300
B1010	Floor Construction	$75.10	S.F.	59,000	100	1924	2024	2052	37.00 %	0.00 %	37			$4,430,900
B1020	Roof Construction	$13.88	S.F.	59,000	100	1924	2024	2052	37.00 %	0.00 %	37			$818,920
B2010	Exterior Walls	$36.91	S.F.	59,000	100	1924	2024	2052	37.00 %	2.54 %	37		$55,386.92	$2,177,690
B2020	Exterior Windows	$18.01	S.F.	59,000	40	1992	2032		42.50 %	147.22 %	17		$1,564,304.66	$1,062,590
B2030	Exterior Doors	$1.45	S.F.	59,000	25	2003	2028		52.00 %	8.17 %	13		$6,987.28	$85,550
B3010105	Built-Up	$37.76	S.F.	15,297	20	2003	2023		40.00 %	0.00 %	8			$577,615
B3020	Roof Openings	$0.06	S.F.	59,000	20	2003	2023		40.00 %	0.00 %	8			$3,540
C1010	Partitions	$17.91	S.F.	59,000	100	1924	2024	2052	37.00 %	0.00 %	37			$1,056,690
C1020	Interior Doors	$3.51	S.F.	59,000	40	1985	2025		25.00 %	6.72 %	10		$13,914.24	$207,090
C1030	Fittings	$3.12	S.F.	59,000	40	1985	2025		25.00 %	1.77 %	10		$3,250.96	$184,080
C2010	Stair Construction	$1.41	S.F.	59,000	100	1924	2024	2052	37.00 %	0.00 %	37			$83,190
C3010230	Paint & Covering	$12.66	S.F.	59,000	10	2012	2022		70.00 %	12.78 %	7		$95,437.69	$746,940
C3010232	Wall Tile	$3.18	S.F.	59,000	30	1985	2015	2025	33.33 %	0.00 %	10			$187,620
C3020413	Vinyl Flooring	$9.68	S.F.	11,800	20	2003	2023		40.00 %	0.00 %	8			$114,224
C3020414	Wood Flooring	$22.27	S.F.	23,600	25	2003	2028		52.00 %	0.00 %	13			$525,572
C3020415	Concrete Floor Finishes	$0.97	S.F.	23,600	50	2003	2053		76.00 %	0.00 %	38			$22,892
C3030	Ceiling Finishes	$20.97	S.F.	59,000	25	1985	2010	2042	108.00 %	43.97 %	27		$544,071.35	$1,237,230
D1010	Elevators and Lifts	$1.53	S.F.	59,000	35	1992	2027		34.29 %	0.00 %	12			$90,270
D2010	Plumbing Fixtures	$13.52	S.F.	59,000	35	1995	2030		42.86 %	9.84 %	15		$78,464.48	$797,680
D2020	Domestic Water Distribution	$1.68	S.F.	59,000	25	1960	1985	2021	24.00 %	5.35 %	6		$5,305.82	$99,120
D2030	Sanitary Waste	$2.90	S.F.	59,000	25	1925	1950	2042	108.00 %	169.16 %	27		$289,439.34	$171,100
D2040	Rain Water Drainage	$2.32	S.F.	59,000	30	1925	1955	2047	106.67 %	191.14 %	32		$261,631.37	$136,880
D3020	Heat Generating Systems	$18.67	S.F.	59,000	35	1975	2010	2052	105.71 %	101.10 %	37		$1,113,599.43	$1,101,530
D3030	Cooling Generating Systems	$24.48	S.F.	59,000	0				0.00 %	83.39 %			$1,204,454.53	$1,444,320
D3040	Distribution Systems	$42.99	S.F.	59,000	25	1925	1950	2042	108.00 %	154.00 %	27		$3,906,039.29	$2,536,410
D3050	Terminal & Package Units	$11.60	S.F.	59,000	20	1925	1945	2037	110.00 %	0.00 %	22			$684,400
D3060	Controls & Instrumentation	$13.50	S.F.	59,000	20	1965	1985	2037	110.00 %	158.90 %	22		$1,265,675.87	$796,500
D4010	Sprinklers	$7.05	S.F.	59,000	35			2052	105.71 %	202.91 %	37		$844,019.92	$415,950
D4020	Standpipes	$1.01	S.F.	59,000	35				0.00 %	0.00 %				$59,590
D5010	Electrical Service/Distribution	$9.70	S.F.	59,000	30	1925	1955	2047	106.67 %	144.38 %	32		$826,271.48	$572,300
D5020	Lighting and Branch Wiring	$34.68	S.F.	59,000	20	1925	1945	2037	110.00 %	40.61 %	22		$830,885.68	$2,046,120
D5030	Communications and Security	$12.99	S.F.	59,000	15	1925	1940	2032	113.33 %	50.21 %	17		$384,831.48	$766,410
D5090	Other Electrical Systems	$1.41	S.F.	59,000	30	1925	1955	2047	106.67 %	172.04 %	32		$143,122.03	$83,190
E1020	Institutional Equipment	$4.82	S.F.	59,000	35	1992	2027		34.29 %	113.60 %	12		$323,055.06	$284,380
E1090	Other Equipment	$11.10	S.F.	59,000	35	2003	2038		65.71 %	0.00 %	23			$654,900
E2010	Fixed Furnishings	$2.13	S.F.	59,000	40	1985	2025		25.00 %	35.10 %	10		$44,113.47	$125,670
								Total	**63.04 %**	**47.58 %**			**$13,828,964.28**	**$29,066,473**

System Notes

The facility description in the site executive summary contains an overview of each system. The notes listed below provide additional information on select systems found within the facility.

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

Note: 80% - Paint & Covering
20% - Wall Tile (18% glazed brick, 2% ceramic)

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

Note: 20% - Vinyl flooring
40% - Wood flooring
40% - Concrete floor finishes

System: D5010 - Electrical Service/Distribution

Note:

Renewal Schedule

eCOMET forecasts future Capital Renewal funding needed to address expiring systems based on the Next Renewal year found in the Cost Models. A 3% annual inflation factor is applied to the costs for systems expiring in future years. The table below reflects recommended Capital Renewal funding needs over the next 10 years. Note: Cells with a zero value indicate systems for which renewal is not scheduled in that year.

Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$13,828,964**	**$0**	**$0**	**$0**	**$0**	**$0**	**$130,190**	**$1,010,506**	**$968,973**	**$0**	**$1,041,409**	**$16,980,042**
*** A - Substructure**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A10 - Foundations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1010 - Standard Foundations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1030 - Slab on Grade	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A20 - Basement Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2010 - Basement Excavation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2020 - Basement Walls	$24,702	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$24,702**
B - Shell	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B10 - Superstructure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1010 - Floor Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1020 - Roof Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B20 - Exterior Enclosure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2010 - Exterior Walls	$55,387	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$55,387**
B2020 - Exterior Windows	$1,564,305	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,564,305**
B2030 - Exterior Doors	$6,987	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$6,987**
B30 - Roofing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010 - Roof Coverings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010105 - Built-Up	$0	$0	$0	$0	$0	$0	$0	$0	$804,875	$0	$0	**$804,875**
B3020 - Roof Openings	$0	$0	$0	$0	$0	$0	$0	$0	$4,933	$0	$0	**$4,933**
C - Interiors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C10 - Interior Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C1010 - Partitions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C1020 - Interior Doors	$13,914	$0	$0	$0	$0	$0	$0	$0	$0	$0	$306,143	**$320,057**
C1030 - Fittings	$3,251	$0	$0	$0	$0	$0	$0	$0	$0	$0	$272,127	**$275,378**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

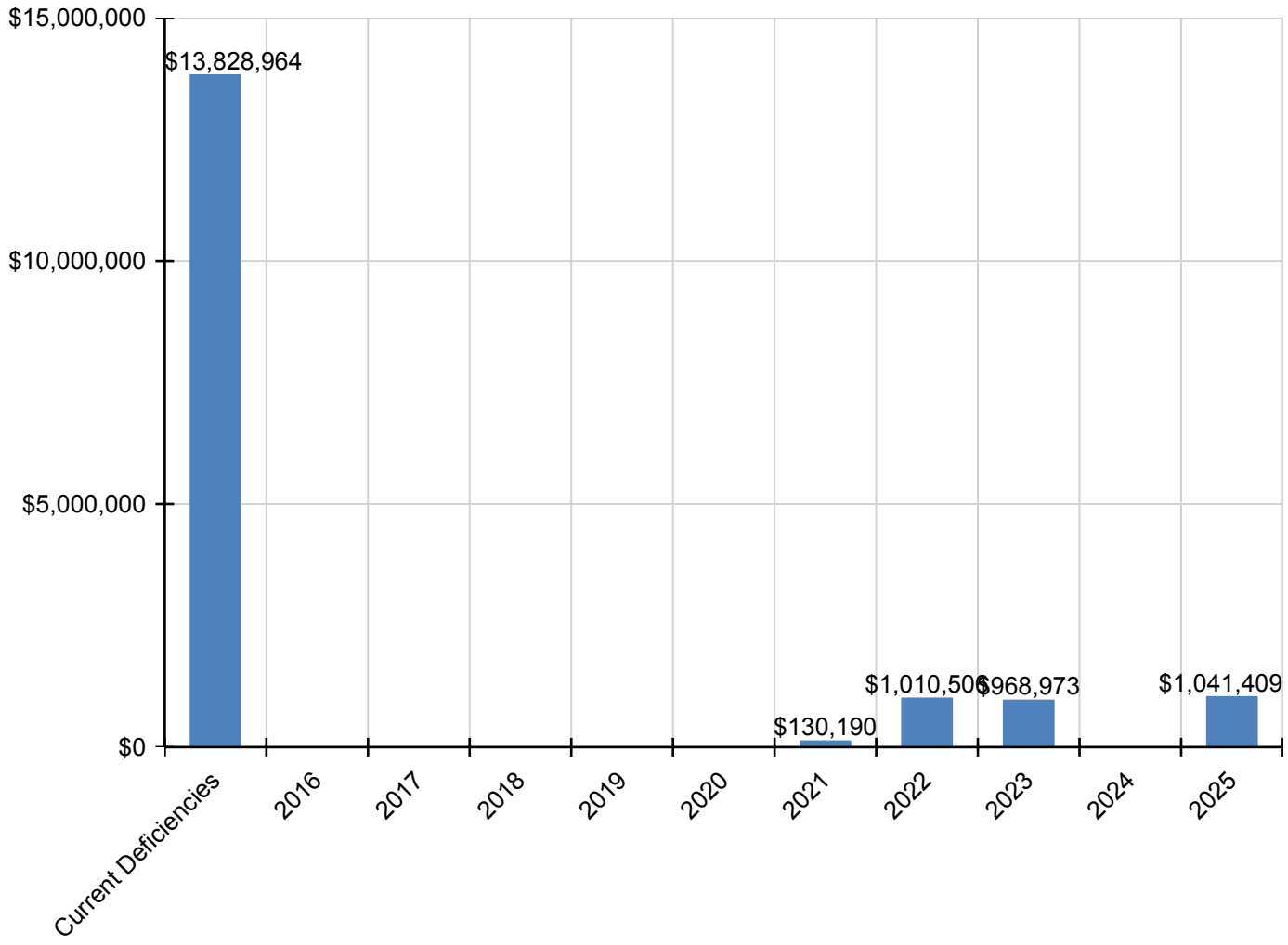
C2010 - Stair Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010 - Wall Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010230 - Paint & Covering	$95,438	$0	$0	$0	$0	$0	$0	$1,010,506	$0	$0	$0	**$1,105,944**
C3010232 - Wall Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$277,360	**$277,360**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020413 - Vinyl Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$159,165	$0	$0	**$159,165**
C3020414 - Wood Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020415 - Concrete Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3030 - Ceiling Finishes	$544,071	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$544,071**
D - Services	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D10 - Conveying	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D1010 - Elevators and Lifts	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$78,464	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$78,464**
D2020 - Domestic Water Distribution	$5,306	$0	$0	$0	$0	$0	$130,190	$0	$0	$0	$0	**$135,496**
D2030 - Sanitary Waste	$289,439	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$289,439**
D2040 - Rain Water Drainage	$261,631	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$261,631**
D30 - HVAC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3020 - Heat Generating Systems	$1,113,599	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,113,599**
D3030 - Cooling Generating Systems	$1,204,455	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,204,455**
D3040 - Distribution Systems	$3,906,039	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$3,906,039**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$1,265,676	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,265,676**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$844,020	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$844,020**
D4020 - Standpipes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D50 - Electrical	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5010 - Electrical Service/Distribution	$826,271	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$826,271**
D5020 - Lighting and Branch Wiring	$830,886	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$830,886**
D5030 - Communications and Security	$384,831	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$384,831**
D5090 - Other Electrical Systems	$143,122	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$143,122**
E - Equipment & Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

E10 - Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E1020 - Institutional Equipment	$323,055	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$323,055**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$44,113	$0	$0	$0	$0	$0	$0	$0	$0	$0	$185,779	**$229,892**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

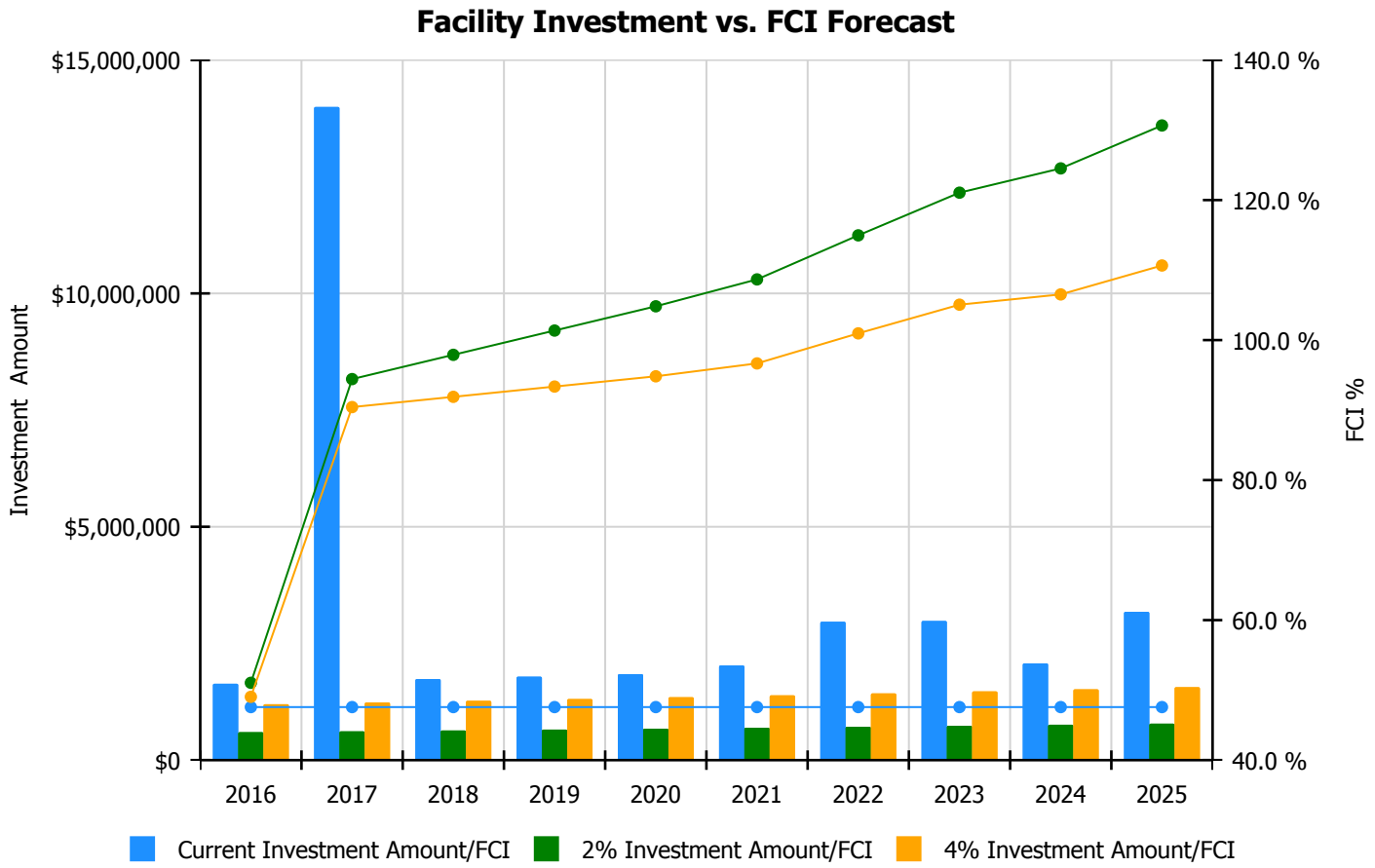
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



10 Year FCI Forecast by Investment Scenario

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

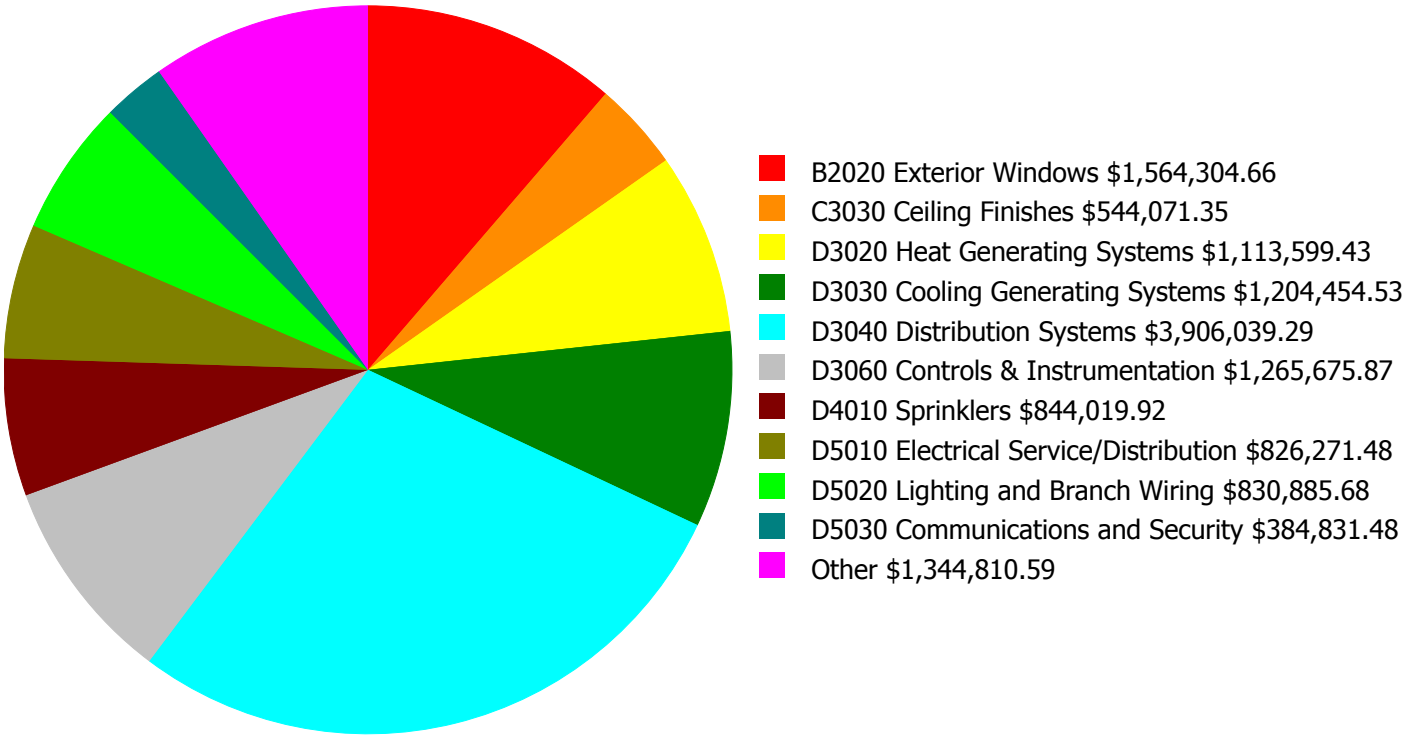
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 47.58%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$1,636,415	$598,769.00	51.04 %	$1,197,539.00	49.04 %
2017	$13,994,941	$616,732.00	94.43 %	$1,233,465.00	90.43 %
2018	$1,736,072	$635,234.00	97.89 %	$1,270,469.00	91.89 %
2019	$1,788,154	$654,291.00	101.36 %	$1,308,583.00	93.36 %
2020	$1,841,799	$673,920.00	104.82 %	$1,347,840.00	94.82 %
2021	$2,027,243	$694,138.00	108.67 %	$1,388,276.00	96.67 %
2022	$2,964,471	$714,962.00	114.96 %	$1,429,924.00	100.96 %
2023	$2,981,556	$736,411.00	121.06 %	$1,472,822.00	105.06 %
2024	$2,072,961	$758,503.00	124.52 %	$1,517,006.00	106.52 %
2025	$3,176,559	$781,258.00	130.65 %	$1,562,516.00	110.65 %
Total:	**$34,220,171**	**$6,864,218.00**		**$13,728,440.00**	

Deficiency Summary by System

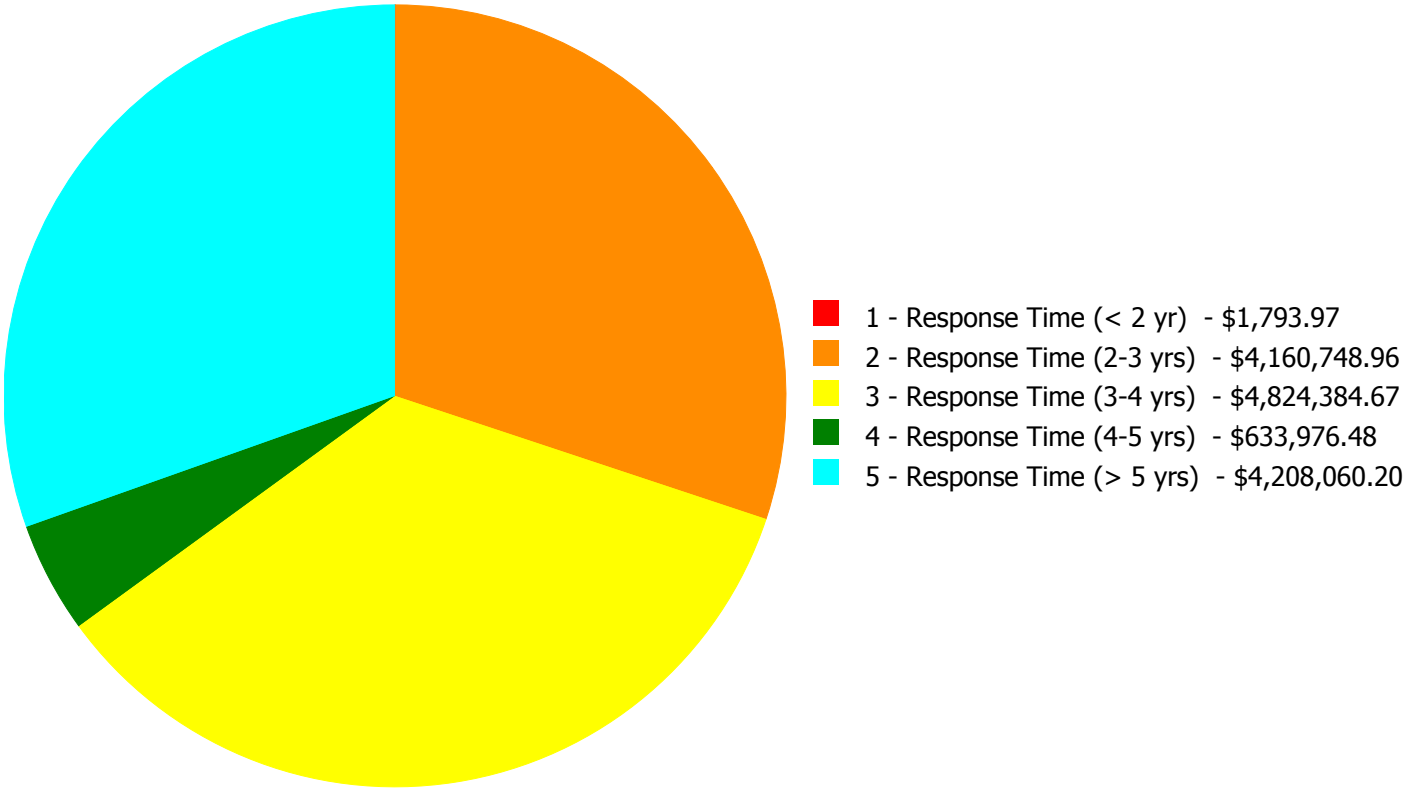
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $13,828,964.28

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: $13,828,964.28

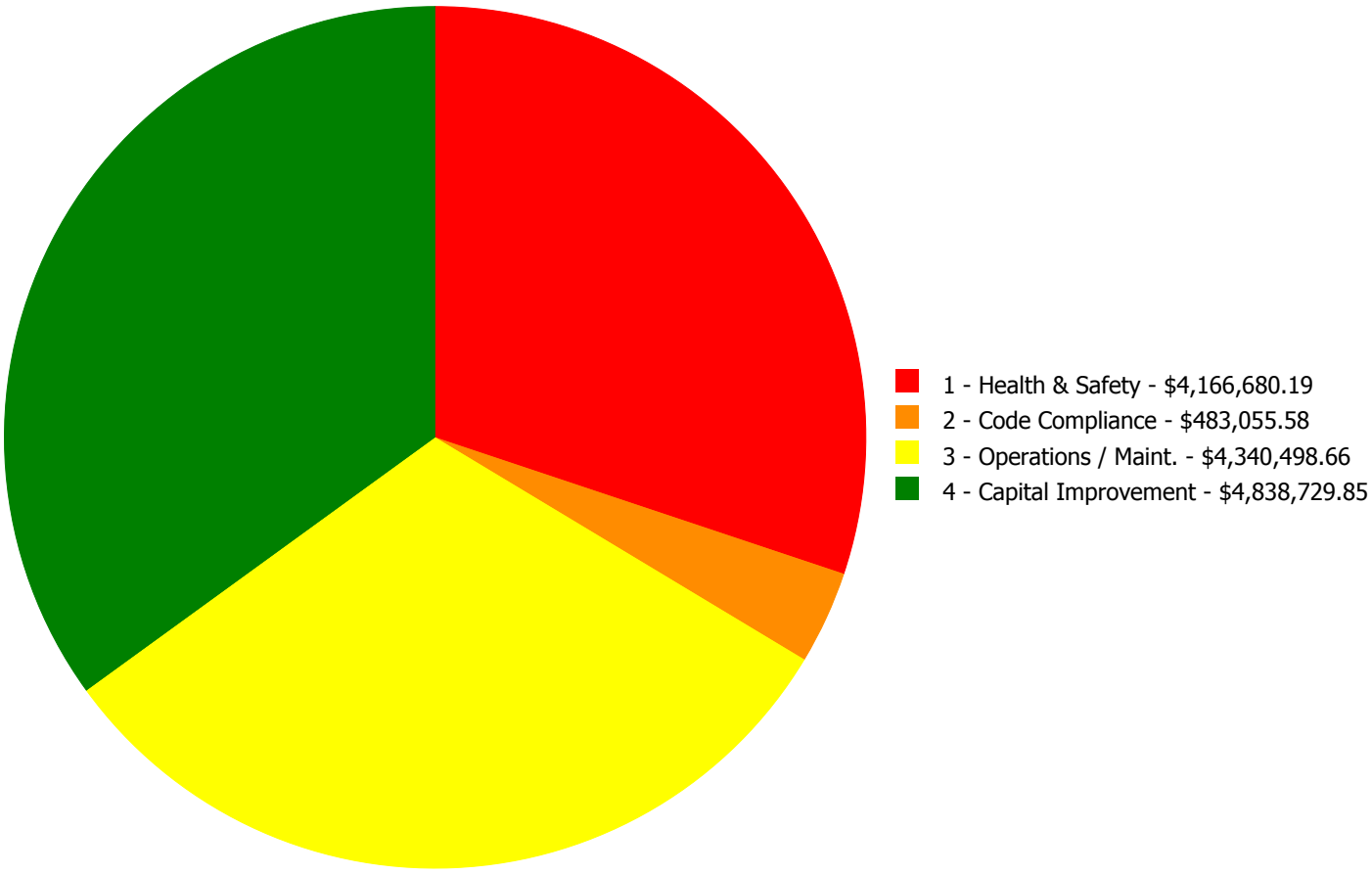
Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
A2020	Basement Walls	$1,793.97	$22,907.96	$0.00	$0.00	$0.00	$24,701.93
B2010	Exterior Walls	$0.00	$30,029.21	$0.00	$25,357.71	$0.00	$55,386.92
B2020	Exterior Windows	$0.00	$0.00	$1,564,304.66	$0.00	$0.00	$1,564,304.66
B2030	Exterior Doors	$0.00	$6,987.28	$0.00	$0.00	$0.00	$6,987.28
C1020	Interior Doors	$0.00	$13,914.24	$0.00	$0.00	$0.00	$13,914.24
C1030	Fittings	$0.00	$3,250.96	$0.00	$0.00	$0.00	$3,250.96
C3010230	Paint & Covering	$0.00	$0.00	$75,003.74	$20,433.95	$0.00	$95,437.69
C3030	Ceiling Finishes	$0.00	$0.00	$0.00	$544,071.35	$0.00	$544,071.35
D2010	Plumbing Fixtures	$0.00	$78,464.48	$0.00	$0.00	$0.00	$78,464.48
D2020	Domestic Water Distribution	$0.00	$5,305.82	$0.00	$0.00	$0.00	$5,305.82
D2030	Sanitary Waste	$0.00	$0.00	$289,439.34	$0.00	$0.00	$289,439.34
D2040	Rain Water Drainage	$0.00	$261,631.37	$0.00	$0.00	$0.00	$261,631.37
D3020	Heat Generating Systems	$0.00	$101,394.17	$1,012,205.26	$0.00	$0.00	$1,113,599.43
D3030	Cooling Generating Systems	$0.00	$0.00	$0.00	$0.00	$1,204,454.53	$1,204,454.53
D3040	Distribution Systems	$0.00	$0.00	$1,746,453.54	$0.00	$2,159,585.75	$3,906,039.29
D3060	Controls & Instrumentation	$0.00	$1,265,675.87	$0.00	$0.00	$0.00	$1,265,675.87
D4010	Sprinklers	$0.00	$0.00	$0.00	$0.00	$844,019.92	$844,019.92
D5010	Electrical Service/Distribution	$0.00	$826,271.48	$0.00	$0.00	$0.00	$826,271.48
D5020	Lighting and Branch Wiring	$0.00	$830,885.68	$0.00	$0.00	$0.00	$830,885.68
D5030	Communications and Security	$0.00	$269,325.65	$115,505.83	$0.00	$0.00	$384,831.48
D5090	Other Electrical Systems	$0.00	$121,649.73	$21,472.30	$0.00	$0.00	$143,122.03
E1020	Institutional Equipment	$0.00	$323,055.06	$0.00	$0.00	$0.00	$323,055.06
E2010	Fixed Furnishings	$0.00	$0.00	$0.00	$44,113.47	$0.00	$44,113.47
	Total:	$1,793.97	$4,160,748.96	$4,824,384.67	$633,976.48	$4,208,060.20	$13,828,964.28

Deficiency Summary by Category

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



Budget Estimate Total: $13,828,964.28

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: A2020 - Basement Walls

Location: Basement

Distress: Failing

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Sumps and sump pumps to control water intrusion in basement area - based on number of likely sumps needed

Qty: 1.00

Unit of Measure: Ea.

Estimate: $1,793.97

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Repair ground water sump pump system with new pump and level control.

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

System: A2020 - Basement Walls

Location: Gym

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Repair concrete wall in poor condition including rebar dowelling - insert the SF of wall area

Qty: 100.00

Unit of Measure: S.F.

Estimate: $22,907.96

Assessor Name: Craig Anding

Date Created: 09/14/2015

Notes: Repair basement walls – brick damage

System: B2010 - Exterior Walls

Location: Parapet wall

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 930.00

Unit of Measure: S.F.

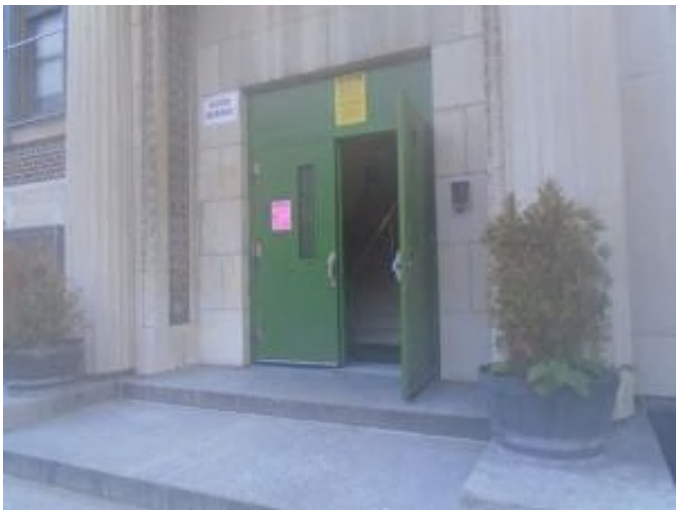
Estimate: $30,029.21

Assessor Name: Craig Anding

Date Created: 09/14/2015

Notes: Repair and re-point capstones on parapet walls – cracked and allowing water intrusion

System: B2030 - Exterior Doors



Location: Entrance

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Replace hardware with compliant hardware, paint and weatherstrip - per leaf

Qty: 2.00

Unit of Measure: Ea.

Estimate: $6,987.28

Assessor Name: Craig Anding

Date Created: 09/14/2015

Notes: Provide ADA compliant exterior door hardware at one entrance

System: C1020 - Interior Doors

Location: Various

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Replace door knobs with compliant lever type

Qty: 25.00

Unit of Measure: Ea.

Estimate: $13,914.24

Assessor Name: Craig Anding

Date Created: 09/14/2015

Notes: Replace interior door handles with lever type handles and latch sets

System: C1030 - Fittings

Location: Various

Distress: Inadequate

Category: 4 - Capital Improvement

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

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

Qty: 12.00

Unit of Measure: Ea.

Estimate: $3,250.96

Assessor Name: Craig Anding

Date Created: 09/14/2015

Notes: Install signage for accessible facilities and routes

System: D2010 - Plumbing Fixtures

Location: Hallways

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: 5.00

Unit of Measure: Ea.

Estimate: $78,464.48

Assessor Name: Craig Anding

Date Created: 10/21/2015

Notes: Replace drinking fountains with accessible ones including integral chillers throughout building.

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: $2,921.60

Assessor Name: Craig Anding

Date Created: 10/21/2015

Notes: Install backflow preventer on boiler water makeup line.

System: D2020 - Domestic Water Distribution

Location: Toilet rooms

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Replace pipe and fittings

Qty: 1.00

Unit of Measure: L.F.

Estimate: $2,384.22

Assessor Name: Craig Anding

Date Created: 10/21/2015

Notes: Replace water hammer arrestors.

System: D2040 - Rain Water Drainage

Location: Entire building

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 59,000.00

Unit of Measure: S.F.

Estimate: $261,631.37

Assessor Name: Craig Anding

Date Created: 10/21/2015

Notes: Inspect and repair rain water drain piping due to age and visible corrosion.

System: D3020 - Heat Generating Systems

Location: Boiler Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace boiler feed pump (duplex) and surge tank

Qty: 1.00

Unit of Measure: Ea.

Estimate: $101,394.17

Assessor Name: Craig Anding

Date Created: 01/20/2016

Notes: Replace condensate collection and feed water system due to age.

System: D3060 - Controls & Instrumentation

Location: Entire building

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Replace pneumatic controls with DDC (75KSF)

Qty: 59,000.00

Unit of Measure: S.F.

Estimate: $1,265,675.87

Assessor Name: Craig Anding

Date Created: 10/21/2015

Notes: Replace obsolete and failed pneumatic control system with modern DDC.

System: D5010 - Electrical Service/Distribution

Location: Basement

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Replace Switchboard

Qty: 1.00

Unit of Measure: Ea.

Estimate: $433,625.19

Assessor Name: Craig Anding

Date Created: 10/21/2015

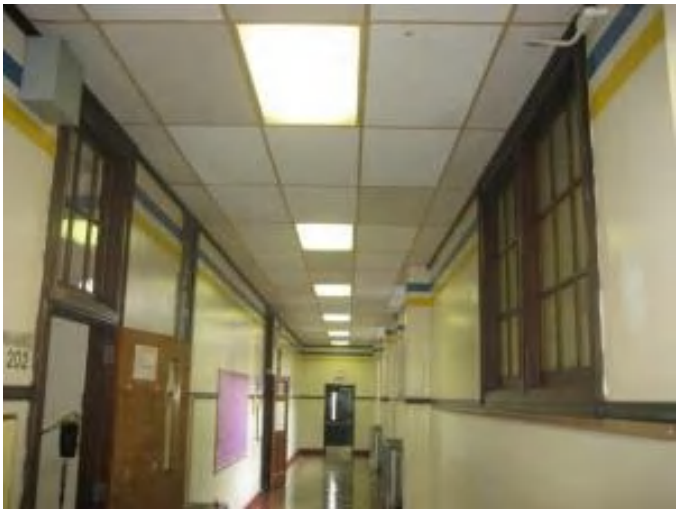
Notes: Provide a new electrical service 480V/277V, 3 phase power, approximate 800 Amperes and will be located in the vicinity of the existing electrical service.

System: D5010 - Electrical Service/Distribution

Location: Entire Building
Distress: Inadequate
Category: 4 - Capital Improvement
Priority: 2 - Response Time (2-3 yrs)
Correction: Replace Panelboard
Qty: 20.00
Unit of Measure: Ea.
Estimate: $392,646.29
Assessor Name: Craig Anding
Date Created: 10/21/2015

Notes: Replace the entire distribution system with new panels and new wiring/conduits. Approximate (20) 208/120V panel boards.

System: D5020 - Lighting and Branch Wiring



Location: Entire Building
Distress: Energy Efficiency
Category: 4 - Capital Improvement
Priority: 2 - Response Time (2-3 yrs)
Correction: Replace lighting fixtures
Qty: 700.00
Unit of Measure: Ea.
Estimate: $596,550.44
Assessor Name: Craig Anding
Date Created: 10/21/2015

Notes: Replace 90% of the existing lighting fixtures with up/down, recessed fluorescent fixtures with T8 lamps. Approximate 700 fixtures

System: D5020 - Lighting and Branch Wiring

Location: Classrooms

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add wiring device

Qty: 432.00

Unit of Measure: Ea.

Estimate: $172,527.97

Assessor Name: Craig Anding

Date Created: 10/21/2015

Notes: Provide (2)25FT of surface raceways with receptacles spaced 24” on center/classroom and 4 wall mount receptacles/classroom. Approximate 432 receptacles

System: D5020 - Lighting and Branch Wiring

Location: Exit doors and corridors

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Replace lighting fixtures

Qty: 50.00

Unit of Measure: Ea.

Estimate: $61,807.27

Assessor Name: Craig Anding

Date Created: 10/21/2015

Notes: Replace existing exit signs with battery backup type. Approximate 50

System: D5030 - Communications and Security

Location: Entire Building

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Replace fire alarm system

Qty: 79.00

Unit of Measure: S.F.

Estimate: $156,765.43

Assessor Name: Craig Anding

Date Created: 10/21/2015

Notes: Replace old fire alarm system with addressable type with audio/visual devices at corridors and classrooms. Approximate 79 devices

System: D5030 - Communications and Security

Location: Entire Building

Distress: Obsolete

Category: 3 - Operations / Maint.

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

Correction: Add/Replace Clock System or Components

Qty: 60.00

Unit of Measure: Ea.

Estimate: $112,560.22

Assessor Name: Craig Anding

Date Created: 10/21/2015

Notes: Replace clock and bell system with wireless, battery operated, clock system. Approximate 60 clocks.

System: D5090 - Other Electrical Systems

Location: Outdoor

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add Standby Generator System

Qty: 1.00

Unit of Measure: Ea.

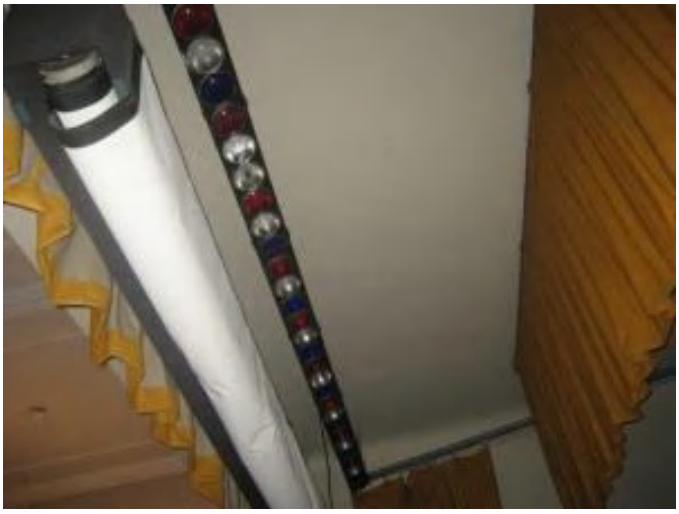
Estimate: $121,649.73

Assessor Name: Craig Anding

Date Created: 10/21/2015

Notes: Provide 60KW, outdoor, diesel powered generator.

System: E1020 - Institutional Equipment



Location: Auditorium

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add/Replace Stage Theatrical Lighting System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $323,055.06

Assessor Name: Craig Anding

Date Created: 10/21/2015

Notes: Provide a dimming system and additional theatrical lighting.

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

System: B2020 - Exterior Windows

Location: Windows

Distress: Energy Efficiency

Category: 4 - Capital Improvement

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

Correction: Remove and replace double slider windows

Qty: 310.00

Unit of Measure: Ea.

Estimate: $1,564,304.66

Assessor Name: Craig Anding

Date Created: 09/14/2015

Notes: Replace Plexiglas window – hazed

System: C3010230 - Paint & Covering

Location: Various

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 9,500.00

Unit of Measure: S.F.

Estimate: $75,003.74

Assessor Name: Craig Anding

Date Created: 09/14/2015

Notes: Repair and paint interior plaster walls – damaged (10% of plaster area)

System: D2030 - Sanitary Waste

Location: Entire building

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 59,000.00

Unit of Measure: S.F.

Estimate: $289,439.34

Assessor Name: Craig Anding

Date Created: 10/21/2015

Notes: Inspect and repair sanitary drain piping due to age and reported backups.

System: D3020 - Heat Generating Systems

Location: Boiler Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace boiler, cast iron sectional (150 HP)

Qty: 2.00

Unit of Measure: Ea.

Estimate: $1,012,205.26

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Replace boilers due to age.

System: D3040 - Distribution Systems

Location: Entire building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 59,000.00

Unit of Measure: S.F.

Estimate: $558,161.87

Assessor Name: Craig Anding

Date Created: 10/21/2015

Notes: Inspect and replace steam and condensate piping as needed due to age.

System: D3040 - Distribution Systems

This deficiency has no image.

Location: Auditorium

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

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

Correction: Replace HVAC unit for Auditorium (200 seat).

Qty: 200.00

Unit of Measure: Seat

Estimate: $333,093.30

Assessor Name: Craig Anding

Date Created: 01/18/2017

Notes: Replace HVAC system serving the Auditorium with a new system designed to provide minimum outdoor air ventilation required by code.

System: D3040 - Distribution Systems

This deficiency has no image.

Location: IMC

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

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

Correction: Replace HVAC unit for IMC (850 students).

Qty: 517.00

Unit of Measure: Student

Estimate: $271,068.81

Assessor Name: Craig Anding

Date Created: 01/18/2017

Notes: Replace HVAC system serving the IMC with a new system designed to provide minimum outdoor air ventilation required by code.

System: D3040 - Distribution Systems

This deficiency has no image.

Location: Gym

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

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

Correction: Replace HVAC unit for Gymnasium (single station)

Qty: 6,000.00

Unit of Measure: S.F.

Estimate: $227,475.37

Assessor Name: Craig Anding

Date Created: 01/18/2017

Notes: Replace HVAC system serving the Gymnasium with a new system designed to provide minimum outdoor air ventilation required by code.

System: D3040 - Distribution Systems

This deficiency has no image.

Location: Admin
Distress: Health Hazard / Risk
Category: 1 - Health & Safety
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace HVAC unit for Admin (2000 students).
Qty: 517.00
Unit of Measure: Student
Estimate: $215,931.21
Assessor Name: Craig Anding
Date Created: 01/18/2017

Notes: Replace HVAC system serving the Administrative offices with a new system designed to provide minimum outdoor air ventilation required by code.

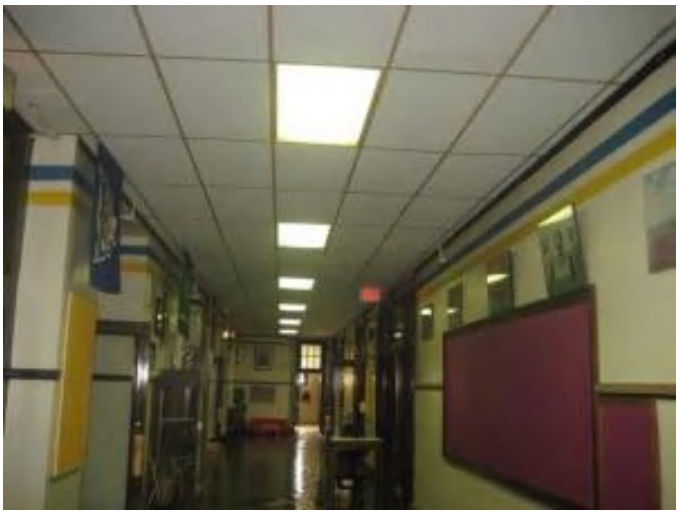
System: D3040 - Distribution Systems

This deficiency has no image.

Location: Cafeteria
Distress: Building / MEP Codes
Category: 2 - Code Compliance
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace HVAC unit for Cafeteria (850)
Qty: 517.00
Unit of Measure: Student
Estimate: $140,722.98
Assessor Name: Craig Anding
Date Created: 01/18/2017

Notes: Replace the existing HVAC system serving the Cafeteria with a new system designed to provide minimum outdoor air ventilation required by code.

System: D5030 - Communications and Security



Location: Entire Building
Distress: Security Issue
Category: 1 - Health & Safety
Priority: 3 - Response Time (3-4 yrs)
Correction: Add/Replace Video Surveillance System
Qty: 32.00
Unit of Measure: Ea.
Estimate: $115,505.83
Assessor Name: Craig Anding
Date Created: 10/21/2015

Notes: Add CCTV cameras to provide a full coverage of the building interior. Approximate 32 CCTV cameras

System: D5090 - Other Electrical Systems

Location: Roof
Distress: Building / MEP Codes
Category: 2 - Code Compliance
Priority: 3 - Response Time (3-4 yrs)
Correction: Provide Lightning Protection System
Qty: 1.00
Unit of Measure: LS
Estimate: $21,472.30
Assessor Name: Craig Anding
Date Created: 10/21/2015

Notes: Prepare a study to determine if the existing lightning system provide the proper protection to the school building.

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

System: B2010 - Exterior Walls

Location: Fire Towers

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Repoint masonry at masonry to steel picket connection, refinish steel picket and repoint masonry - insert LF of masonry pointing and SF of picket

Qty: 86.00

Unit of Measure: L.F.

Estimate: $25,357.71

Assessor Name: Craig Anding

Date Created: 09/14/2015

Notes: Repair stonework on fire tower and replace metal grating – rusted and failing

System: C3010230 - Paint & Covering

Location: Fire tower, boiler

Distress: Appearance

Category: 3 - Operations / Maint.

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

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

Qty: 4,000.00

Unit of Measure: S.F.

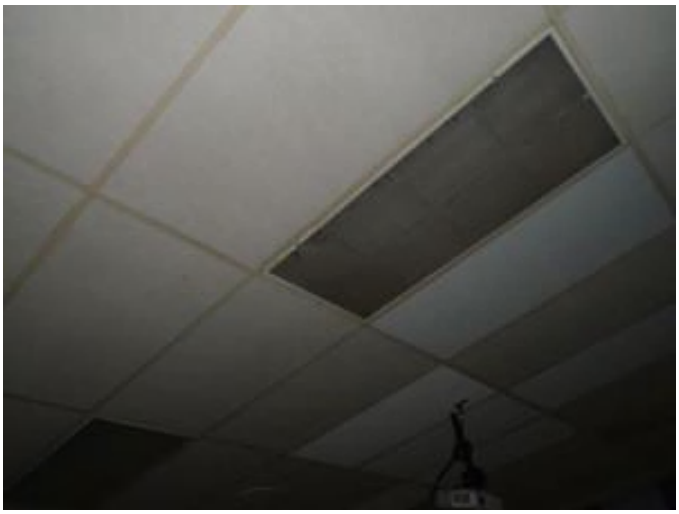
Estimate: $20,433.95

Assessor Name: Craig Anding

Date Created: 09/14/2015

Notes: Repaint fire towers and service areas - peeling

System: C3030 - Ceiling Finishes



Location: Various

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 33,000.00

Unit of Measure: S.F.

Estimate: $497,720.20

Assessor Name: Craig Anding

Date Created: 09/14/2015

Notes: Replace suspended acoustic tile ceiling system – beyond service life (75% of suspended ceiling)

System: C3030 - Ceiling Finishes

Location: Gym

Distress: Inadequate

Category: 4 - Capital Improvement

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

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

Qty: 2,765.00

Unit of Measure: S.F.

Estimate: $26,665.02

Assessor Name: Craig Anding

Date Created: 09/14/2015

Notes: Install acoustic panels in gym for sound absorption

System: C3030 - Ceiling Finishes

Location: Auditorium

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Repair and resurface plaster ceilings - 2 coats plaster

Qty: 1,500.00

Unit of Measure: S.F.

Estimate: $19,686.13

Assessor Name: Craig Anding

Date Created: 09/14/2015

Notes: Repair and paint plaster ceilings – damaged (10% of plaster area)

System: E2010 - Fixed Furnishings

Location: Auditorium

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 50.00

Unit of Measure: Ea.

Estimate: $44,113.47

Assessor Name: Craig Anding

Date Created: 09/14/2015

Notes: Replace damaged or missing seats in auditorium

Priority 5 - Response Time (> 5 yrs):

System: D3030 - Cooling Generating Systems

This deficiency has no image.

Location: B259001;Nebinger

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 75,000.00

Unit of Measure: S.F.

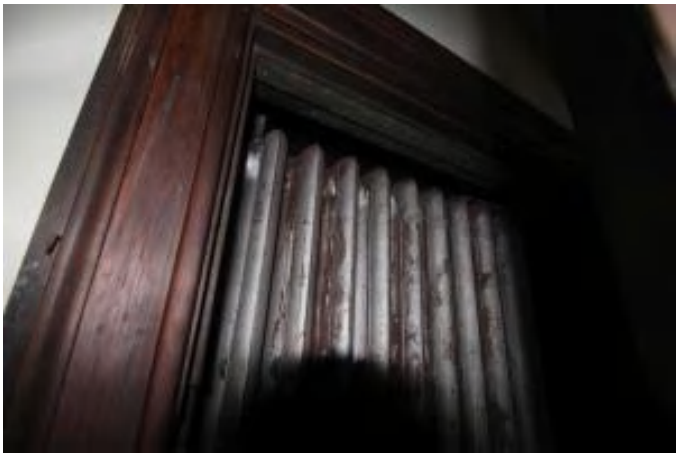
Estimate: $1,204,454.53

Assessor Name: Craig Anding

Date Created: 01/18/2017

Notes: Provide a central chilled water system with air-cooled chiller(s), circulation pumps and distribution piping.

System: D3040 - Distribution Systems



Location: Classrooms

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 26.00

Unit of Measure: Room

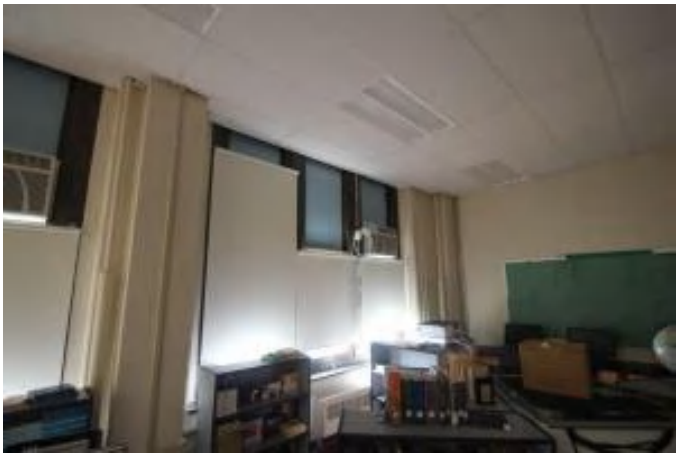
Estimate: $2,159,585.75

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Replace original obsolete AHU and radiators with a new system designed to provide minimum outdoor air ventilation required by code for classrooms.

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: 59,000.00

Unit of Measure: S.F.

Estimate: $844,019.92

Assessor Name: Craig Anding

Date Created: 10/21/2015

Notes: Install fire sprinkler system with pump if needed.

Equipment Inventory

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

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D1010 Elevators and Lifts	Electric traction freight elevators, base unit, standard finish, 4000 lb, 200 fpm, 4 stop	1.00	Ea.	Roof					35	1992	2027	$164,636.00	$181,099.60
D3020 Heat Generating Systems	Boiler, oil fired, flame retention burner, cast iron, steam, gross output, 4940 MBH, includes standard controls and insulated flush jacket, packaged	2.00	Ea.	Boiler room	Weil McLain	PS6478	107387B		35	1975	2052	$103,881.00	$228,538.20
D3020 Heat Generating Systems	Boiler, oil fired, flame retention burner, cast iron, steam, gross output, 4940 MBH, includes standard controls and insulated flush jacket, packaged	2.00	Ea.	Boiler room	Weil McLain	PS6479	107388B		35	1975	2052	$103,881.00	$228,538.20
D3040 Distribution Systems	AHU, field fabricated, built up, cool/heat coils, filters, constant volume, 40,000 CFM	1.00	Ea.	Mechanical room					25	1925	2042	$151,511.80	$166,662.98
D5010 Electrical Service/Distribution	Panelboards, 3 pole 3 wire, main lugs, 240 V, 400 amp, no main breaker	1.00	Ea.	Basement- fan room					30	1925	2047	$2,297.70	$2,527.47
												Total:	**$807,366.45**

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):	28,100
Year Built:	1924
Last Renovation:	
Replacement Value:	$566,797
Repair Cost:	$111,317.09
Total FCI:	19.64 %
Total RSLI:	76.11 %

Description:

Attributes:

General Attributes:

Bldg ID:	S259001	Site ID:	S259001

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	63.74 %	5.68 %	$22,915.86
G40 - Site Electrical Utilities	106.67 %	54.15 %	$88,401.23
Totals:	**76.11 %**	**19.64 %**	**$111,317.09**

Condition Detail

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

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

System Listing

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

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

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

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
G2020	Parking Lots	$8.50	S.F.	7,600	30	2003	2033		60.00 %	0.00 %	18			$64,600
G2030	Pedestrian Paving	$12.30	S.F.	16,000	40	2003	2043		70.00 %	11.64 %	28		$22,915.86	$196,800
G2040	Site Development	$4.36	S.F.	28,100	25	2003	2028		52.00 %	0.00 %	13			$122,516
G2050	Landscaping & Irrigation	$4.36	S.F.	4,500	15	2013	2028		86.67 %	0.00 %	13			$19,620
G4020	Site Lighting	$4.84	S.F.	28,100	30			2047	106.67 %	6.76 %	32		$9,198.38	$136,004
G4030	Site Communications & Security	$0.97	S.F.	28,100	30			2047	106.67 %	290.58 %	32		$79,202.85	$27,257
								Total	**76.11 %**	**19.64 %**			**$111,317.09**	**$566,797**

System Notes

The facility description in the site executive summary contains an overview of each system. The notes listed below provide additional information on select systems found within the facility.

No data found for this asset

Renewal Schedule

eCOMET forecasts future Capital Renewal funding needed to address expiring systems based on the Next Renewal year found in the Cost Models. A 3% annual inflation factor is applied to the costs for systems expiring in future years. The table below reflects recommended Capital Renewal funding needs over the next 10 years. Note: Cells with a zero value indicate systems for which renewal is not scheduled in that year.

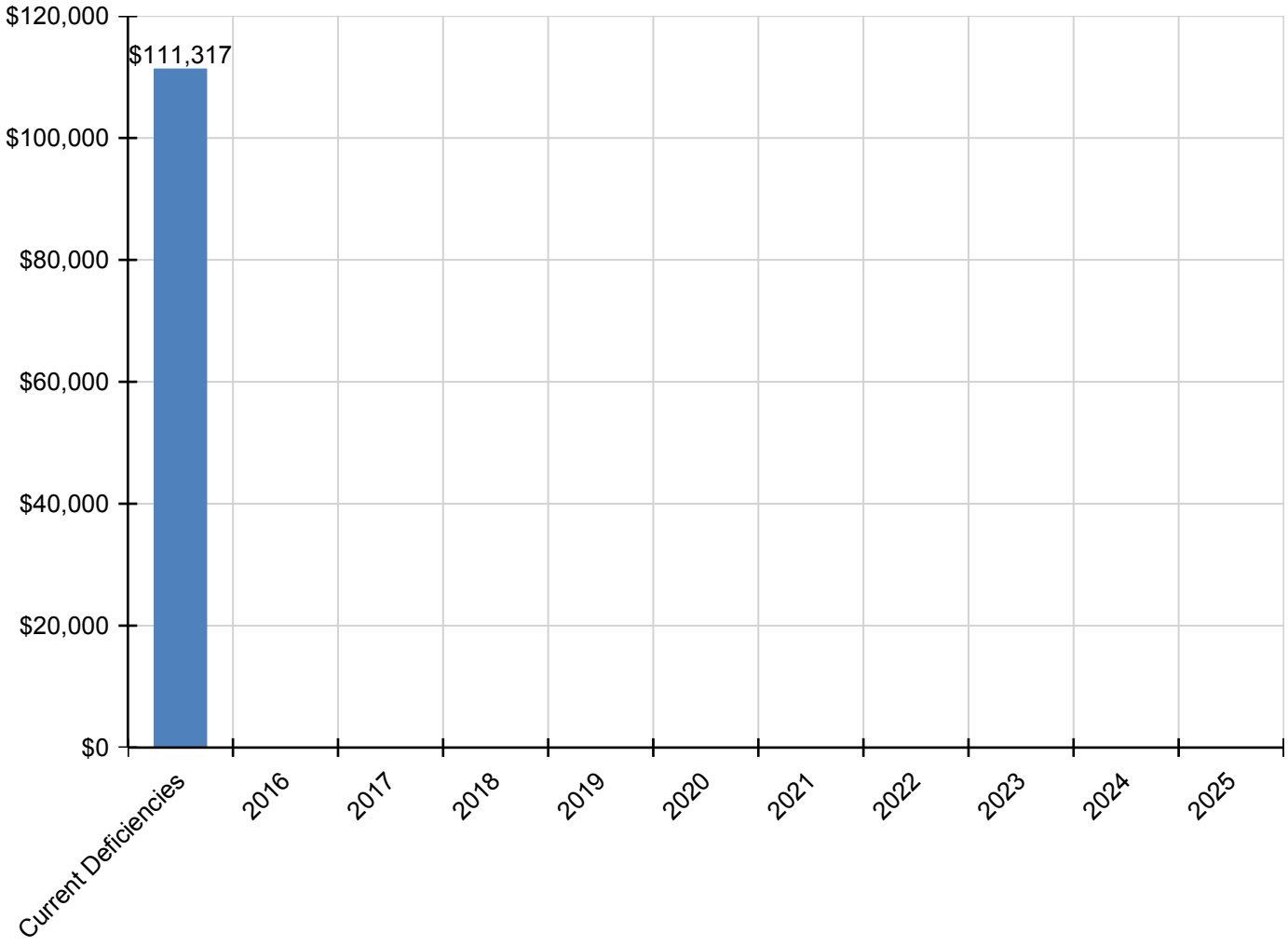
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$111,317**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$111,317**
G - Building Sitework	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G20 - Site Improvements	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2020 - Parking Lots	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2030 - Pedestrian Paving	$22,916	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$22,916**
G2040 - Site Development	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$9,198	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$9,198**
G4030 - Site Communications & Security	$79,203	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$79,203**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

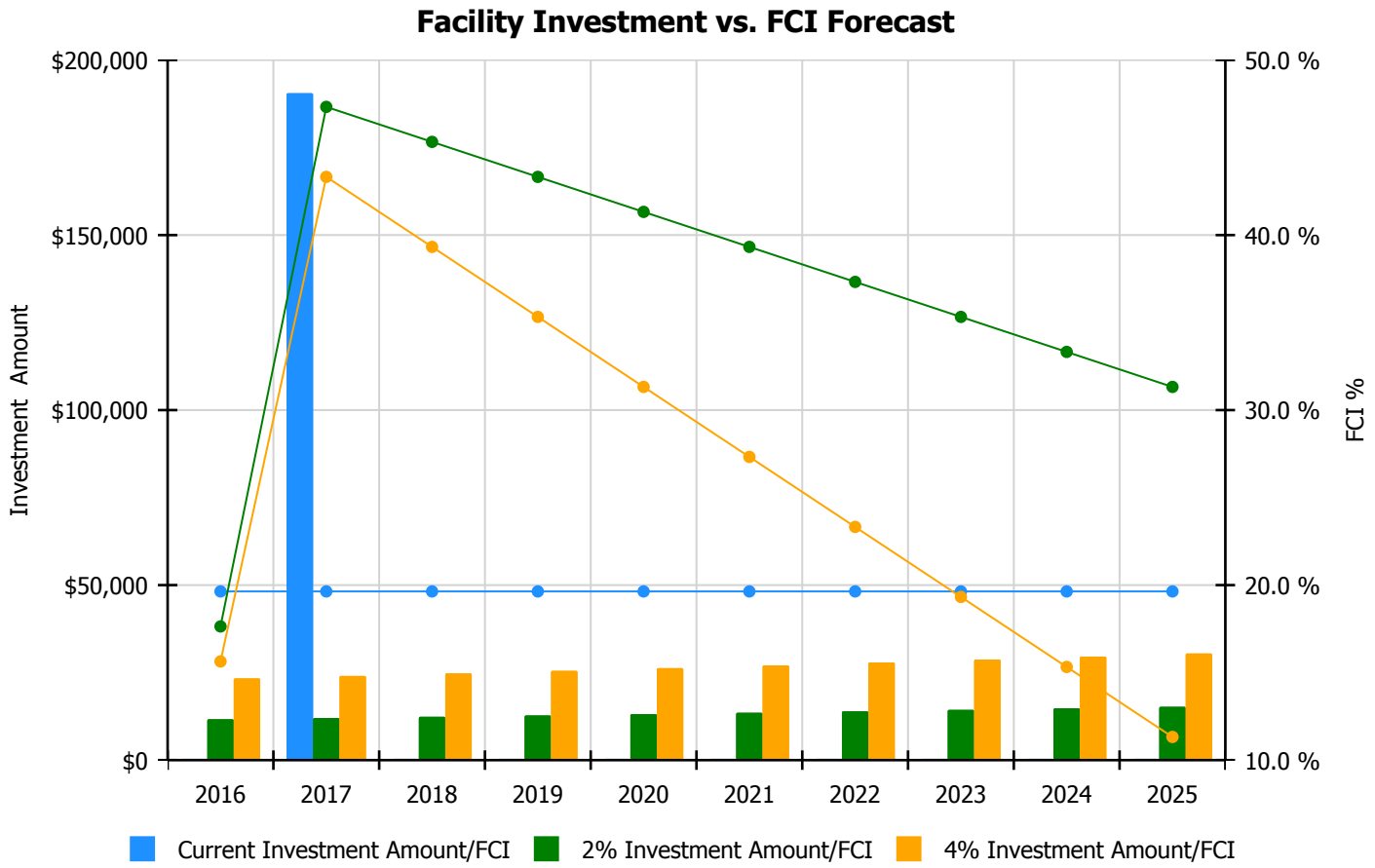
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



10 Year FCI Forecast by Investment Scenario

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

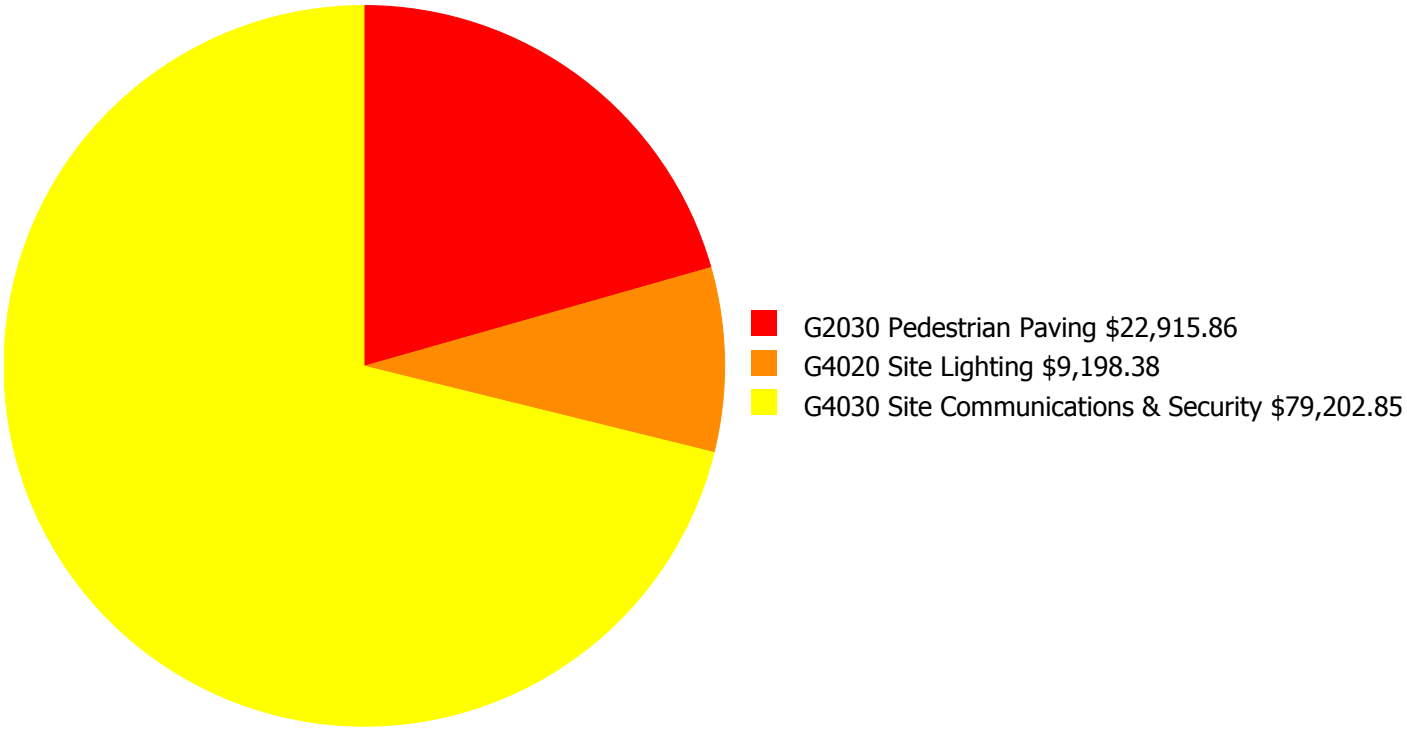
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 19.64%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$11,676.00	17.64 %	$23,352.00	15.64 %
2017	$190,524	$12,026.00	47.32 %	$24,053.00	43.32 %
2018	$0	$12,387.00	45.32 %	$24,774.00	39.32 %
2019	$0	$12,759.00	43.32 %	$25,517.00	35.32 %
2020	$0	$13,141.00	41.32 %	$26,283.00	31.32 %
2021	$0	$13,536.00	39.32 %	$27,071.00	27.32 %
2022	$0	$13,942.00	37.32 %	$27,884.00	23.32 %
2023	$0	$14,360.00	35.32 %	$28,720.00	19.32 %
2024	$0	$14,791.00	33.32 %	$29,582.00	15.32 %
2025	$0	$15,235.00	31.32 %	$30,469.00	11.32 %
Total:	**$190,524**	**$133,853.00**		**$267,705.00**	

Deficiency Summary by System

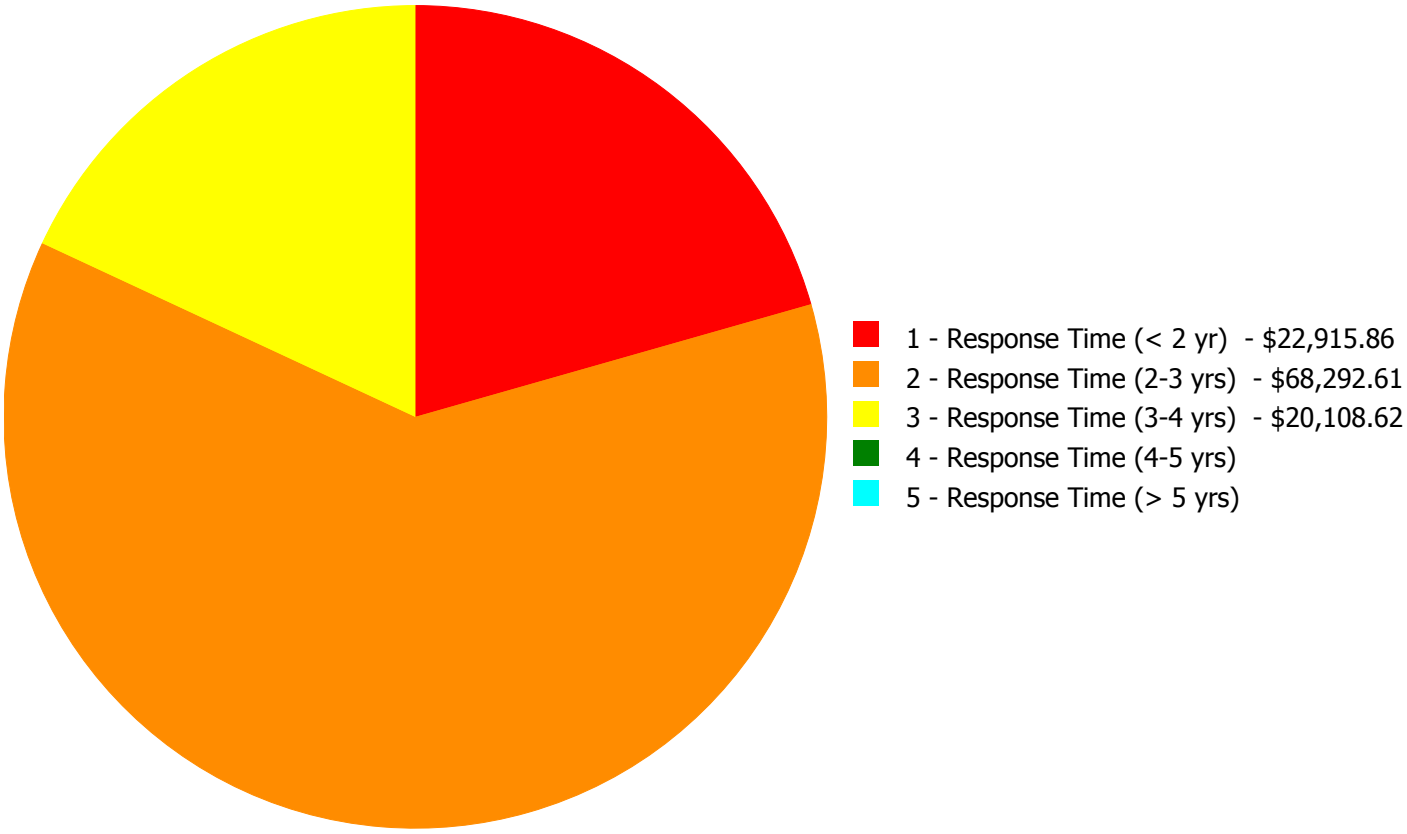
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $111,317.09

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: $111,317.09

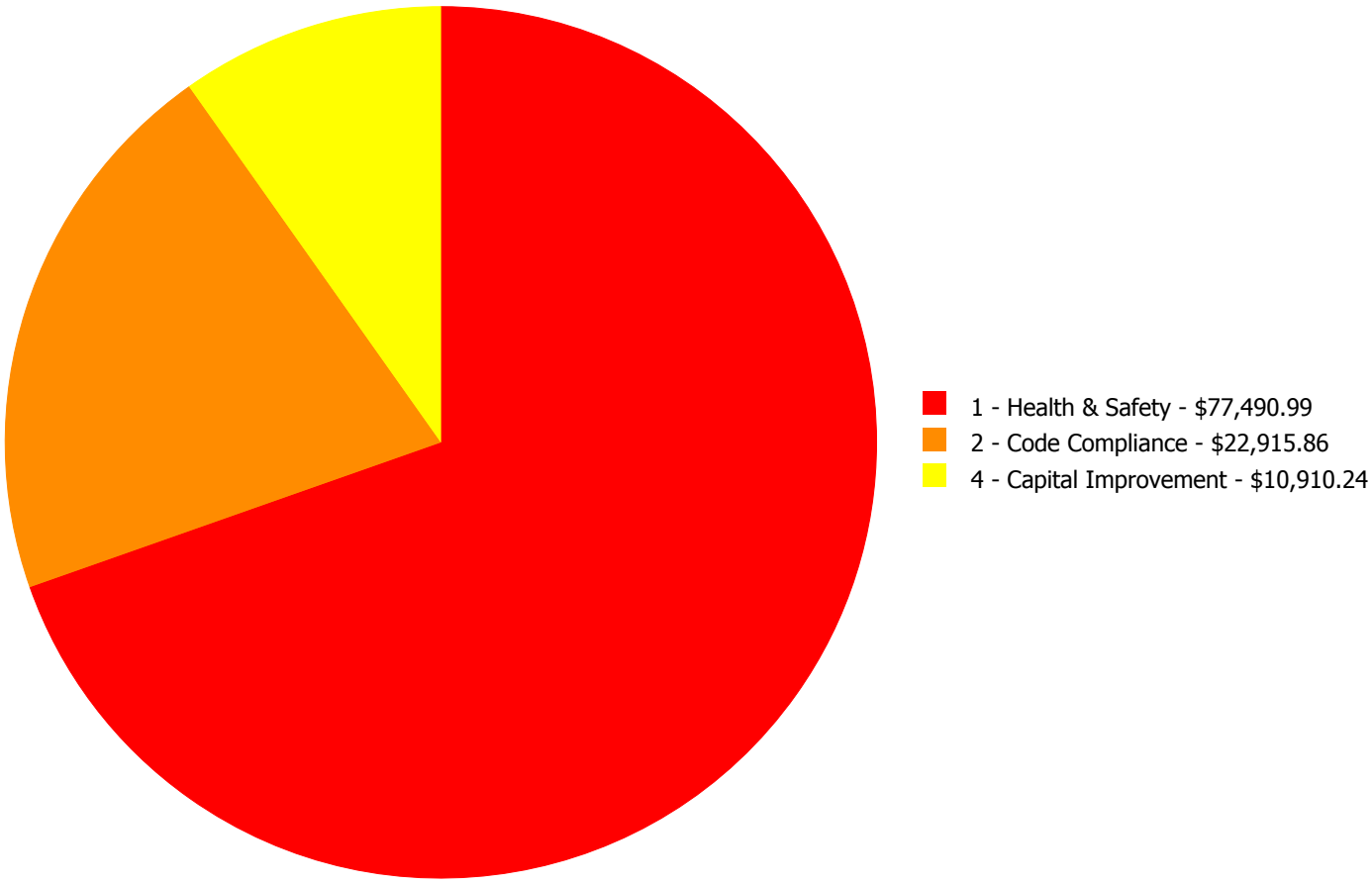
Deficiency By Priority Investment Table

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	$22,915.86	$0.00	$0.00	$0.00	$0.00	$22,915.86
G4020	Site Lighting	$0.00	$0.00	$9,198.38	$0.00	$0.00	$9,198.38
G4030	Site Communications & Security	$0.00	$68,292.61	$10,910.24	$0.00	$0.00	$79,202.85
	Total:	$22,915.86	$68,292.61	$20,108.62	$0.00	$0.00	$111,317.09

Deficiency Summary by Category

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



Budget Estimate Total: $111,317.09

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: G2030 - Pedestrian Paving

Location: Entrance

Distress: Accessibility

Category: 2 - Code Compliance

Priority: 1 - Response Time (< 2 yr)

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

Qty: 20.00

Unit of Measure: L.F.

Estimate: $22,915.86

Assessor Name: System

Date Created: 09/15/2015

Notes: Provide ADA compliant ramp at one entrance (location TBD)

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

System: G4030 - Site Communications & Security

Location: Outdoor

Distress: Security Issue

Category: 1 - Health & Safety

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

Correction: Add Video Surveillance System

Qty: 6.00

Unit of Measure: Ea.

Estimate: $68,292.61

Assessor Name: System

Date Created: 10/21/2015

Notes: Provide CCTV cameras to the building exterior for full coverage of the perimeter. Approximate 6 CCTV cameras.

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

System: G4020 - Site Lighting

Location: Exit doors
Distress: Security Issue
Category: 1 - Health & Safety
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace site lighting fixture
Qty: 10.00
Unit of Measure: Ea.
Estimate: $9,198.38
Assessor Name: System
Date Created: 10/21/2015

Notes: Provide wall mounted fixtures above each exit door. Approximate 10

System: G4030 - Site Communications & Security

Location: Playground/parking
Distress: Inadequate
Category: 4 - Capital Improvement
Priority: 3 - Response Time (3-4 yrs)
Correction: Add Site Paging System
Qty: 2.00
Unit of Measure: Ea.
Estimate: $10,910.24
Assessor Name: System
Date Created: 10/21/2015

Notes: Provide two PA loud speakers facing the playground and parking lot.

Equipment Inventory

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

No data found for this asset

Glossary

ABMA	American Boiler Manufacturers Association http://www.abma.com/
ACEEE	American Council for an Energy-Efficient Economy
ACGIH	American Council of Governmental and Industrial Hygienists
AEE	Association of Energy Engineers
AFD	Adjustable Frequency Drive
AFTC	After Tax Cash Flow
AGA	American Gas Association
AHU	Air Handling Unit
Amp	Ampere
ANSI	American National Standards Institute
ARI	Air Conditioning and Refrigeration Institute
ASD	Adjustable Speed Drive
ASHRAE	American Society of Heating Refrigerating and Air-Conditioning Engineers Inc.
ASME	American Society of Mechanical Engineers
Assessment	Visual survey of a facility to determine its condition. It involves looking at the age of systems reviewing information from local sources and visual evidence of potential problems to assign a condition rating. It does not include destructive testing of materials or testing of systems or equipment for functionality.
ATS	After Tax Savings
AW	Annual worth
BACNET	Building Automation Control Network
BAS	Building Automation System
BCR	Benefit Cost Ratio
BEP	Business Energy Professional (AEE)
BF	Ballast Factor
BHP	Boiler Horsepower (boilers)
BHP	Brake Horsepower (motors)
BLCC	Building Life Cycle Cost analysis program (FEMP)
BOCA	Building Officials and Code Administrators
BTCF	Before Tax Cash Flow

BTS	Before Tax Savings
Btu	British thermal unit
Building Addition	An area space or component of a building added to a building after the original building's year built date.
CAA	Clean Air Act
CAAA-90	Clean Air Act Amendments of 1990
CABO	Council of American Building Officials
CAC	Conventional Air Conditioning
CADDET	Center for the Analysis and Dissemination of Demonstrated Energy Technologies
Calculated Next Renewal	The year a system or element would be expected to expire based solely on the date it was installed and the expected useful lifetime for that kind of system.
Capital Renewal	Capital renewal is condition work (excluding suitability and energy audit work) that includes the replacement of building systems or elements (as they become obsolete or beyond their useful life) not normally included in an annual operating budget. Calculated next renewal The year a system or element would be expected to expire based solely on the date it was installed and the expected useful lifetime for that kind of system. Next renewal The assessor adjusted expected useful life of a system or element based on on-site inspection.
CDD	Cooling Degree Days
CDGP	Certified Distributed Generation Professional
CEC	California Energy Commission
CEM	Certified Energy Manager
CEP	Certified Energy Procurement Professional
CFC	Chlorofluorocarbon
CFD	Cash Flow Diagram
CFL	Compact Fluorescent Light
CFM cfm	Cubic Feet per Minute
CHP	Combined Heat and Power (a.k.a. cogeneration)
CHW	Chilled Water
Condition	Condition refers to the state of physical fitness or readiness of a facility system or system element for its intended use.
COP	Coefficient of Performance
Cp	Heat Capacity of Material
CPUC	California Public Utility Commission
CRI	Color Rendering Index
CRT	Cathode Ray Tube VDT HMI

CTC	Competitive Transition Charge
Cu	Coefficient of Utilization
Current Replacement Value (CRV)	CRV represents the hypothetical total cost of rebuilding or replacing an existing facility in current dollars to its optimal condition (excluding auxiliary facilities) under current codes and construction standards.
Cv	Value Coefficient
CWS	Chilled Water System
D d	Distance (usually feet)
DB	Dry Bulb
DCV	Demand Control Ventilation
DD	Degree Day
DDB	Double Declining Balance
DDC	Direct Digital Controls
Deferred maintenance	Deferred maintenance is condition work (excluding suitability and energy audit needs) deferred on a planned or unplanned basis to a future budget cycle or postponed until funds are available.
Deficiency	A deficiency is a repair item that is damaged missing inadequate or insufficient for an intended purpose.
Delta	Difference
Delta P	Pressure Difference
Delta T	Temperature Difference
DG	Distributed Generation
DOE	Department of Energy
DP	Dew Point
DR	Demand Response
DX	Direct Expansion Air Conditioner
EA	Energy Audit
EBITDA	Earnings before Interest Taxes Depreciation and Amortization
ECI	Energy Cost Index
ECM	Energy Conservation Measure
ECO	Energy Conservation Opportunity
ECPA	Energy Conservation and Production Act
ECR	Energy Conservation Recommendation
ECS	Energy Control System

EER	Energy Efficiency Ratio
EERE	Energy Efficiency and Renewable Energy division of US DOE
EIA	Energy Information Agency
EIS	Energy Information System
EMCS	Energy Management Computer System
EMO	Energy Management Opportunity
EMP	Energy Management Project
EMR	Energy Management Recommendation
EMS	Energy Management System
Energy Utilization Index (EUI)	EUI is the measure of total energy consumed in the cooling or heating of a building in a period expressed as British thermal unit (BTU) per (cooled or heated) gross square foot.
EO	Executive Order
EPA	Environmental Protection Agency
EPACT	Energy Policy Act of 1992
EPCA	Energy Production and Conservation Act of 1975
EPRI	Electric Power Research Institute
EREN	Efficiency and Renewable Energy (Division of USDOE)
ERV	Energy Recovery Ventilator
ESCO	Energy Service Company
ESPC	Energy Savings Performance Contract
EUI	Energy Use Index
EWG	Exempt Wholesale Generators
Extended Facility Condition Index (EFCI)	EFCI is calculated as the condition needs for the current year plus facility system renewal needs going out to a set time in the future divided by Current Replacement Value.
f	Frequency
F	Fahrenheit
Facility	A facility refers to site(s) building(s) or building addition(s) or combinations thereof that provide a particular service.
Facility Condition Assessment (FCA)	FCA is a process for evaluating the condition of buildings and facilities for programming and budgetary purposes through an on site inspection and evaluation process.
Facility Condition Index (FCI)	FCI is an industry-standard measurement of a facility's condition that is the ratio of the cost to correct a facility's deficiencies to the Current Replacement Value of the facilities. The higher the FCI the poorer the condition of a facility. After an FCI is established for all buildings within a portfolio a building's condition can be ranked relative to other buildings. The FCI may also represent the condition of a portfolio based on the cumulative FCIs of the portfolio's facilities.

FC	Footcandle
FCA	Fuel Cost Adjustment
FEMIA	Federal Energy Management Improvement Act of 1988
FEMP	Federal Energy Management Program
FERC	Federal Energy Regulatory Commission
FESR	Fuel Energy Savings Ratio
FLA	Full Load Amps
FLF	Facility Load Factor (usually monthly)
FLRPM	Full Load Revolutions per Minute
FMS	Facility Management System
FPM fpm	Feet per Minute (velocity)
FSEC	Florida Solar Energy Center
Ft	Foot
GPM gpm	Gallons per Minute
GRI	Gas Research Institute
Gross Square Feet (GSF)	The size of the enclosed floor space of a building in square feet measured to the outside face of the enclosing wall.
GUI	Graphical User Interface
H h	Enthalpy Btu/lb
HCFC	Hydrochlorofluorocarbons
HDD	Heating Degree days
HFC	Hydrofluorocarbons
HHV	Higher Heating Value
HID	High Intensity Discharge (lamp)
HMI	Human Machine Interface
HMMI	Human Man Machine Interface
HO	High Output (lamp)
HP Hp hp	Horsepower
HPS	High Pressure Sodium (lamp)
HR	Humidity Ratio
Hr hr	Hour

HRU	Heat Recovery Unit
HVAC	Heating Ventilation and Air-Conditioning
Hz	Hertz
I	Intensity (lumen output of lamp)
I i	Interest rate or Discount rate
IAQ	Indoor Air Quality
ICA	International Cogeneration Alliance
ICBO	International Conference of Buildings Officials
ICC	International Code Council
ICP	Institutional Conservation Program
IECC	International Energy Conservation Code
IEEE	Institute of Electrical and Electronic Engineers
IESNA	Illuminating Engineering Society of North America
Install year	The year a building or system was built or the most recent major renovation date (where a minimum of 70 of the system?s Current Replacement Value (CRV) was replaced).
IRP	Integrated Resource Planning
IRR	Internal Rate of Return
ISO	Independent System Operator
ITA	Independent Tariff Administrator
k	Kilo multiple of thousands in SI system
K	Kelvins (color temperature of lamp)
K k	Thermal Conductivity of Material
KVA	Kilovolt Ampere
KVAR	Kilovolt Ampere Reactive
kW	kiloWatt
kWh	kiloWatt hour
L	Length (usually feet)
LCC	Life Cycle Costing
LDC	Local Distribution Company
LEED	Leadership in Energy and Environmental Design
LEED EB	LEED for Existing Buildings

LEED NC	LEED for new construction
LF	Load Factor
LHV	Lower Heating Value
Life cycle	The period of time that a building or site system or element can be expected to adequately serve its intended function.
LPS	Low Pressure Sodium (lamp)
Lu	Lumen Output of a Lamp or Fixture
M	Mega multiple of millions in SI system
M&V	Measurement and Verification
MACRS	Modified Accelerated Cost Recovery System
MARR	Minimum Attractive Rate of Return
Mbtu	Thousand Btu
MCF	Thousand Cubic Feet (usually of gas)
MEC	Model Energy Code
Mm	Multiple of Thousands in I/P System
MMBtu	Million Btu
MMCS	Maintenance Management Computer System
MMI	Man Machine Interface
MMS	Maintenance Management System
MSE 2000	Management System for Energy 2000 (ANSI Georgia Tech Univ)
MW	MegaWatt
MWH MWh	MegaWatt hour
NAAQS	National Ambient Air Quality Standards
NAESCO	National Association of Energy Service Companies
NAIMA	North American Insulation Manufacturers Association
NEA	National Energy Act of 1978
NECPA	National Energy Conservation Policy Act
NEMA	National Electrical Manufacturer's Association
NERC	North American Electric Reliability Council
Next Renewal	The Next Renewal date is an override of the 'Calculated Next Renewal' date and is based upon the assessor?s visual inspection.

NFPA	National Fire Protection Association
NGPA	National Gas Policy Act of 1978
NLRPM	No Load Revolutions per Minute (speed)
Nn	Equipment or Project lifetime in economic analysis
NOPR	Notice of Proposed Rule Making from FERC
NOx	Nitrogen Oxide Compounds
NPV	Net present value in economic analysis
NREL	National Renewable Energy Laboratory
NUG	Non-Utility Generator
O&M	Operation and Maintenance
OA	Outside Air
ODP	Ozone Depletion Potential
OPAC	Off-Peak Air Conditioning
P	Present value in economic analysis
PBR	Performance Based Rates
PEA	Preliminary Energy Audit
PF	Power Factor
PID	Proportional plus integral plus derivative (control system)
PM	Portfolio Manager in Energy Star rating system
PM	Preventive Maintenance
PoolCo	Power Pool Company or Organization
POU	Point of Use
PQ	Power Quality
PSC	Public Service Commission
PSIA psia	Pounds per square inch absolute (pressure)
PSIG psig	Pounds per square inch gauge (pressure)
PUC	Public Utility Commission
PUHCA	Public Utilities Holding Company Act of 1935
PURPA	Public Utilities Regulatory Policies of 1978
PV	Photovotaic system

PV	Present Value
PW	Present Worth
PX	Power Exchange
q	Rate of heat flow in Btu per hour
Q	Heat load due to conduction using degree days
QF	Qualifying Facility
R	Electrical resistance
R	Thermal Resistance
RC	Remote controller
RCR	Room Cavity Ratio
RCRA	Resource Conservation and Recovery Act
Remaining Service Life (RSL)	RSL is the number of years service remaining for a system or equipment item. It is automatically calculated based on the difference between the current year and the 'Calculated Next Renewal' date or the 'Next Renewal' date whichever one is the later date.
Remaining Service Life Index (RSLI)	RSLI is defined as a percentage ratio of the remaining service life of a system. It usually ranges from 0 to 100
REMR	Repair Evaluation Maintenance Rehabilitation (REMR) is a scale used to objectively rank systems based on their condition
Renewal Schedule	A timeline that provides the items that need repair the year in which the repair is needed and the estimated price of the renewal.
RH	Relative Humidity
RLA	Running Load Amps
RMS	Root Mean Square
RO	Reverse Osmosis
ROI	Return on Investment
RPM	Revolutions Per Minute
RTG	Regional Transmission Group
RTO	Regional Transmission Organization
RTP	Real Time Pricing
SBCCI	Southern Building Code Congress International
SC	Scheduling Coordinator
SC	Shading Coefficient
SCADA	Supervisory Control and Data Acquisition Systems

SEER	Seasonal Energy Efficiency Ratio
SHR	Sensible Heat Ratio
Site	The grounds and utilities roadways landscaping fencing and other typical land improvements needed to support the facility.
Soft Cost	An expense item that is not considered direct construction cost. Soft cost includes architectural engineering financing legal fees and other pre-and-post construction expenses.
SOx	Sulfur Oxide Compounds
SP	Static Pressure
SP SPB	Simple Payback
SPP	Simple Payback Period
SPP	Small Power Producers
STR	Stack Temperature Rise
SV	Specific Volume
System	System refers to building and related site work elements as described by ASTM Uniformat II Classification for Building Elements (E1557-97) a format for classifying major facility elements common to most buildings. Elements usually perform a given function regardless of the design specification construction method or materials used. See also Uniformat II.
T	Temperature
T	Tubular (lamps)
TAA	Technical Assistance Audit
TCP/IP	Transmission Control Protocol/Internet Protocol
TES	Thermal Energy Storage
THD	Total Harmonic Distortion
TOD	Time of Day
TOU	Time of Use
TQM	Total Quality Management
TransCo	Transmission Company
U	Thermal Conductance
UDC	Utility Distribution Company
UL	Underwriters Laboratories
UNIFORMAT II	The ASTM UNIFORMAT II Classification for Building Elements (E1557-97) a format for classifying major facility components common to most buildings.
USGBC	US Green Building Council
v	Specific Volume

V	Volts Voltage
V	Volume
VAV	Variable Air Volume
VDT	Video Display Terminal
VFD	Variable Frequency Drive
VHO	Very High Output
VSD	Variable Speed Drive
W	Watts
W	Width
WB	Wet bulb
WH Wh	Watt Hours
Year built	The year that a building or addition was originally built based on substantial completion or occupancy.
Z	Electrical Impedance