#### **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.

# **Audenried high School**

Governance CHARTER Report Type High Address 3301 Tasker St. Enrollment 605
Philadelphia, Pa 19145 Grade Range '09-12'

Phone/Fax 215-952-4801 / N/A Admissions Category Neighborhood
Website Www.Universalcompanies.Org/Education/Audenried- Turnaround Model Renaissance Charter

Charter-School/

# **Building/System FCI Tiers**

Facilit	v Candition Inday (FCI)	_ Cost of Assess	sed Deficiencies	
raciiit	y Condition Index (FCI)		nent Value	
< 15%	15 to 25%	25 to 45%	45 to 60%	> 60%
		Buildings	•	
Minimal Current Capital Funding Required			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	00.10%	\$105,992	\$108,511,539
Building	00.08 %	\$87,140	\$107,457,855
Grounds	01.79 %	\$18,853	\$1,053,684

# **Major Building Systems**

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	00.00 %	\$0	\$3,965,329
Exterior Walls (Shows condition of the structural condition of the exterior facade)	00.00 %	\$0	\$9,137,448
Windows (Shows functionality of exterior windows)	00.00 %	\$0	\$5,820,893
Exterior Doors (Shows condition of exterior doors)	00.00 %	\$0	\$245,357
Interior Doors (Classroom doors)	00.00 %	\$0	\$795,296
Interior Walls (Paint and Finishes)	00.00 %	\$0	\$2,794,113
Plumbing Fixtures	00.00 %	\$0	\$2,859,683
Boilers	00.00 %	\$0	\$3,948,985
Chillers/Cooling Towers	00.00 %	\$0	\$5,177,887
Radiators/Unit Ventilators/HVAC	00.00 %	\$0	\$9,093,030
Heating/Cooling Controls	00.00 %	\$0	\$2,855,453
Electrical Service and Distribution	00.00 %	\$0	\$2,051,696
Lighting	00.91 %	\$66,520	\$7,335,340
Communications and Security (Cameras, Pa System and Fire Alarm)	00.00 %	\$0	\$2,747,580

**School District of Philadelphia** 

# S280001; Audenried

Final
Site Assessment Report
February 1, 2017



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# **Site Executive Summary**

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

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

Following are the cost model's system details for this facility. The Replacement Value is the amount needed to replace the property of the same present value. The Current Repair Amount, also known as Condition Needs, represents the budgeted contractor installed costs plus owner's soft costs for the repair, replacement or renewal for a component or system level deficiency. It excludes contributing costs for other components or systems that might also be associated with the corrective actions due to packaging the work. Facility Condition Index (FCI) is an industry-standard measurement calculated as the ratio of the repair costs to correct a facility's deficiencies to the facility's Current Replacement Value. Condition Index (CI) for a system is calculated as the sum of 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): 211,515

Year Built: 2008

Last Renovation:

Replacement Value: \$108,511,539

Repair Cost: \$105,992.20

Total FCI: 0.10 %

Total RSLI: 80.58 %



#### **Description:**

Facility Assessment August 2015

**School District of Philadelphia** 

Universal Audenried Charter High 3301 Tasker St.

Philadelphia, PA 19145

211,515 SF / 1,107 Students / LN 01

**GENERAL** 

The recently constructed Universal Audenried Charter High School is identified as B280001 and was originally designated as the Charles Y Audenried Junior High School. This facility is located at 3301 Tasker St, in the Grays Ferry area of Philadelphia, PA. The design of the square-shaped, concrete and steel-framed building includes brick facades with a concrete foundation.

The main entrance faces the South Eastern exterior facing the plaza, drop off point. This School serves students in grades 9 to 12. This school was reported to have been constructed in 2008 / 2009 and consist of three stories with a total gross square footage of 211,515 GSF.

This school has several classrooms, a library, kitchen and student commons, Gym, Auditorium and cafeteria, Electricity Academy, The Academy of Health Science, lecture rooms, Practicum Lab, state of the art science labs, Foreign Language Labs, Student Business Success Center, state of the art computer labs, Food Labs, Voice Rooms, Music Labs, Ceramic lab with Kilns, Diesel Academy, Body Shop, Automotive Shop, Culinary School with supporting administrative spaces. This school also is home to The Arts, Entertainment and Communications Academy and The Culinary Human Services Academy.

The information for this report was collected during a site visit on August 25, 2015.

Mr. Najee Ruley, Building Engineer, accompanied the assessment team on a tour of the school and provided detailed information on the building systems and maintenance history. Ms. Tamelia Hinson-Threadgill, Executive Vice President of Real Estate Development, Universal Companies, also shared information about the school with the assessment team.

#### STRUCTURAL EXTERIOR CLOSURE

Foundations are concrete and in very good condition. There were no issues related to the foundation that surfaced during the time of the inspection. Therefore no recommendations are required at this time.

The superstructure is a combination of masonry and steel support. The concrete floor and metal decking roof construction is in good condition and no recommendations are warranted at this time.

The main entrance of this school faces the South Eastern corner and there are several supporting egress paths and secondary entrances that face each exterior elevation of the school.

The exterior brick surfaces are in like new condition and there were no issues that surfaced during the time of the inspection therefore no recommendations are required at this time.

The exterior window system is a weather guard double pane aluminum framed application. This system is in like new condition and expected to have a normal life cycle that extends beyond the outlook of this report. There are no recommendations required at this time.

The exterior door system is a mix of metal door metal frames systems and storefront systems. In each case the door systems are well maintained and there were no issues that surfaced therefore no recommendations are required at this time.

There are seven roof sections and different roof elevations ranging from the main roof to the mechanical roof. Coping materials, and the height of the flashing also varies in different sections. The roofing system is a built up application that was reported to have been installed during the original construction of 2008. Although the roofing system is currently in very good condition care should be taken to ensure that the standard maintenance issues such as drain cleaning and debris removal continues. There are no recommendations required for the roofing system at this time.

Special consideration for those that may be physically challenged was a main factor in the construction of this new school. This schools design is a good example for the district as the needs of the physically challenged appear to have been paramount. Currently, there are two compliant entrances at grade and with an approved ADA exterior ramp. The path of travel is clear from this access points as the interior path of travel is supported by interior ramps, dedicated wheelchair lift, elevator, compliant signage, restrooms amities, compliant door hardware, hand rails and guard rails to meet the needs of the physically challenged.

Interior partitions consist of a painted CMU finish with small sections of wall tile in the restrooms. The partitions are in like new condition.

The interior corridor system consist of wooden doors with metal frames is code compliant with both ADA and fire safety. The corridor door system is in like new condition and no recommendations are required at this time.

The modern construction and support for the conducive level of education is apparent with the classroom accommodations such as the white boards, tack boards and advanced media support for modern educational needs. There are no upgrades or recommendations required at this time.

The interior metal and concrete stair finishes have graspable handrails on both sides, and the rails have a specific end geometry. The current guardrail construction is designed to support passage of a 4 inch diameter sphere (6 inches in the triangle formed by the lower rail and tread/riser angle). The stairs were designed with the safety of the students and the physically challenged in mind. Considering the like new condition and the construction design, there are no recommendations for the stairs at this time.

The interior finishes consist of a painted CMU wall finish with a ceramic finish in the restrooms. The painted finish is on a program of consistent renewal and in very good condition. The ceramic finish is in like new condition. The interior finishes are in good condition and will require an almost continuous program of renewal of the applied finishes to maintain an acceptable appearance. The cyclical painting program at year's end is the best approach to maintaining the quality of the interior finishes. Considering the condition of the painted interior surfaces there are no recommendations required at this time for either the wall tile or the painted CMU finish.

The interior carpet finish was installed as part of the original construction in 2008 and is in very good condition considering the high traffic use of a school. Although there are a few minor issues at the doorways the carpet is expected to have a life cycle that extends beyond the outlook of this purview. There are no recommendations required at this time.

The remaining finishes consist of a concrete floor in the mechanical spaces, ceramic tile in the restrooms and in the kitchen and a standard 12x12 vinyl floor tile for the remaining areas of this school. The interior floor finishes are in like new condition and there were no issues that surfaced during the time of the inspection therefore no recommendations are required at this time.

The ceiling finish is a mix of 2x4 acoustical tile finish and painted drywall finish. The drywall finish is in the restrooms and the acoustical tile finish is the majority finish in the school. There are a few sections of exposed ceiling such as in the mechanical space and in the gym. Overall the ceiling finishes are in like new condition, with this in mind there are no recommendations required at this time.

The auditorium modern design includes fixed seating and open stage design. The auditorium is in very good condition and considering the low traffic use this finish will have a longer than normal life cycle. Considering there were no issues that surfaced during the time of the inspection there are no recommendations required at this time.

The school gym is in very good condition the wooden floor and modern backboards and sports supports. There were no issues that surfaced thus no recommendations required.

#### **MECHANICAL SYSTEMS**

PLUMBING- Plumbing fixtures are standard china commercial quality with wall mounted lavatories, urinals and water closets. Lavatories have dual handle faucets and urinals and water closets have concealed flush valves with push button operators. Water coolers are stainless steel high/low type and custodial closets have mop basins. There are some counter top stainless steel sinks and lab counter tops with integral sinks.

Hot water is provided by two PVI gas water heaters in the mechanical room. The heaters are seven hundred fifty gallons each. There are two small pressurization tanks adjacent to the water heaters and a master mixing valve in the mechanical room controls hot water temperature. A triplex Delta domestic booster pump system with (3) five hp pumps maintains building water pressure. An Ingersoll Rand air compressor in the construction shop is piped to compressed air outlets and a storage room on the second level contains medical gas cylinders for the science labs. Lab stations have gas shutoff valves with a master shutoff at the instructors table. Shop areas and science classrooms have emergency showers with eyewashes. An exterior oil separator is located underground adjacent to the diesel shop. Kitchen waste is piped to an exterior grease trap with access covers.

Sanitary, waste and vent piping is hubless cast iron with banded couplings. There is some acid resisting waste piping for lab areas. Domestic hot and cold water is insulated rigid copper piping. There is a six inch water service with three inch meter from E. Tabor Rd. The service includes two parallel backflow preventers. The four inch gas service valve assembly is located on the loading dock. Gas piping is black steel with welded or screwed fittings. Piping exposed on the roof for exterior equipment is supported by roller supports with rods secured to the roof. There is a roof drainage system with interior piping.

The plumbing system is from the original 1999 installation and no significant alterations have been made. All components are in good condition and should have remaining service life from ten to twenty years.

HVAC- The building is heated by hot water generated by two HB Smith Mills 350 cast iron sectional gas/oil boilers in the mechanical room. The boilers are sixty two hp with Powerflame burners and separate oil pumps. Hot water is circulated to heating coils in fan powered induction boxes and radiation units. There are also rooftop HVAC units with gas heating sections providing preheat.

Boilers and water heaters are connected to a stainless steel double wall factory manufactured vent system to a roof cap. There are combustion air louvers and dampers and an exhaust fan in the mechanical room.

There are four Armstrong hot water pumps in the mechanical room. Two are twenty hp base mounted end suction with variable frequency drives and two are inline five hp located overhead in the piping system.

Central air conditioning is provided by twelve Trane rooftop package HVAC units, some VAV and some constant volume. Units have gas heating sections, and some have factory accessories including energy recovery wheels, modulating burners, exhaust fans, static pressure controls and variable frequency drives. The rooftop units have PVC condensate drain lines which need to be extended closer to roof drains to eliminate ponding at current pipe termination points. IT rooms have a total of six ductless split systems with roof mounted condensing units. There are two gas fired humidification systems on the roof.

Zoning is provided by approximately forty fan powered terminal units with hot water coils. Ductwork is sheet metal connected to ceiling diffusers and sidewall grills and spiral construction in exposed areas. There are twenty eight fans consisting of roof mounted utility fans, centrifugal roof ventilators, upblast fans and indoor inline fans. An overhead carbon monoxide exhaust system is located in the diesel shop, with flexible hoses for connection to engine exhaust. The building has two kitchens, the main kitchen and the culinary school kitchen. The main kitchen has a total of four hoods. Two have fire suppression systems. The culinary school kitchen has three hoods over cooking equipment and one above the dishwasher. One of the hoods has a fire suppression system. The hoods do not have integral makeup air. There are low velocity ceiling grills providing makeup air adjacent to the hoods. There are gravity smoke relief vents on the roof above the auditorium for smoke removal.

There is a digital building automation system with graphic display by Niagara Controls. The system is reportedly functioning properly.

All components of the HVAC system are from the original 1999 construction and no significant modifications have been made. The sheet metal covers on the radiation units in the multipurpose room have some damage. Otherwise the systems and equipment are in good condition and should have remaining service life from ten to twenty years.

FIRE PROTECTION-The building has a complete automatic sprinkler system with standpipes. Piping is black steel with Victaulic couplings. There are exposed upright and recessed sprinkler heads with flush cover plates. A row of sprinkler heads at the glass wall separating the lobby and cafeteria provides a water curtain.

The fire service is an eight inch line into the mechanical room. There is an Aurora one thousand gpm diesel fire pump and a jockey pump in the mechanical room. A one hundred eighty seven gallon fuel tank in the mechanical room serves the fire pump. A dry pipe valve assembly is connected to piping in areas subject to freezing. There are no noted or reported problems with the fire protection system.

#### **ELECTRICAL SYSTEMS**

Electrical Service--The building is served by a 13.2 kV underground service from a PECO Energy Company utility pole to a General Electric medium voltage load interrupter switch and 2500 kVA, 13.2 kV-480/277V, 3 phase, 4 wire transformer located in the Electrical Vault that supplies General Electric 4000A Main Switchboard MDSB located in Main Electrical Room D133.

Main Switchboard MDSB feeds mechanical equipment, HVAC packaged units, kitchen panelboards, step-down transformers for 208/120 volt loads, and 480/277V distribution panelboards in electrical closets in each building area on each floor that serve 480/277V loads and 208/120V loads, via step-down transformers, in that area of the building. Main Switchboard MDSB also feeds 400A Standby automatic transfer switch (ATS) ATS-DS that serves 400A Normal/Standby Distribution Panelboard DSDP, and a 225A Emergency ATS-NE that serves 225A Normal Emergency Distribution Panelboard NEDP. All electrical panelboards are manufactured by General Electric and step-down transformers are Olsun Electrics Corporation. All electrical distribution equipment was installed in the original 2008 construction project and is in good condition, with over 20 years of useful life remaining.

Receptacles-- Classrooms are supplied with an adequate quantity of receptacles, including isolated ground receptacles. Some classrooms are provided with surface metal raceway with duplex receptacles; some other classrooms and computer labs have floor boxes with receptacles to serve workstations that are not located along a wall. All receptacles located within 6 feet of wet locations are ground-fault circuit-interrupting (GFCI) type. There are approximately ten (10) duplex receptacles in the kitchen that need to be replaced with GFCI type, as required by NFPA 70, National Electrical Code (NEC) Article 210.8 (B).

Lighting-- Fixtures in classrooms are 2x4, 3 lamp, recessed fluorescent troffers with parabolic louvers. Fixtures in the main lobby, corridors, workrooms, offices, stairways, restrooms, locker rooms and kitchen are 1x4 or 2x4 fluorescent fixtures with acrylic prismatic lenses and T8 lamps.

Cable suspended direct/indirect fluorescent fixtures with T8 lamps are located in the cafeteria, clerical areas, vocal and instrumental music rooms, weight room and IMC. There are approximately 10 lighting fixtures in Weight Room E120 that have damaged fixture diffusers or housings and need to be replaced.

Recessed fluorescent downlights with CFL's are used in corridors, cafeteria, clerical areas, restaurant and other areas to supplement linear fluorescent fixtures.

Metal halide and quartz halogen downlights are provided in the auditorium. The stage is provided with three electric stage lighting battens and theatrical lighting fixtures. There is a Colortran Dimming Panel to control lighting in the auditorium.

The two gymnasiums and diesel academy are provided with low-bay industrial metal halide fixtures with prismatic lenses. There are seven (7) lighting fixtures in Gymnasium E100 that are not working and need to be re-lamped or repaired. Lighting is controlled by key switches. Industrial fluorescent fixtures are used in mechanical and electrical rooms and similar spaces.

Classrooms are provided with multiple switches and occupancy sensors for lighting control. Occupancy sensors and switches are provided in most other rooms for lighting control.

There is a Leviton Z-Max lighting control system for controlling lighting in classrooms and corridors. Wall mounted lighting control stations are provided in all classrooms. The Building Engineer reports there are approximately 12 low voltage lighting control stations in classrooms and corridors that are not functional and require manual switching at the relay packs to operate the system. An allowance is included in this report for testing each lighting control station for proper operation and for repairing and/or replacing up to 12 defective control stations and/or relays.

There are lighting fixtures on the exterior of the building above the access doors to each roof, but no additional lighting at rooftop equipment. It is recommended for service and safety considerations that at least four (4) floodlighting fixtures with light switches be provided on the lower roof and two (2) floodlighting fixtures with light switch be provided on the higher roof.

The perimeter of the building is illuminated with decorative wall packs and downlights located in canopies and under the second floor overhang at the IMC. There are also lighting fixtures located above the exit discharges. Exterior lighting is controlled by the Leviton lighting control panel in Electrical Room D133.

In general, interior and exterior lighting systems are in very good condition with a remaining useful life that extends beyond this report.

Fire Alarm System-- The fire alarm system is an addressable type by General Electric EST 3. The fire alarm control panel (FACP), power booster panel and battery supply is located in Engineer's Office D116. There are three (3) remote fire alarm annunciator panels located in the entrance vestibule, Main Office B116 and Security/Camera Room A102. The fire alarm system includes pull stations, smoke and heat detectors, duct detectors, audible and visual notification appliances, control panels, elevator recall operation and interface with fire suppression system. Notification appliances are provided in all rooms required to meet ADA requirements. The system is expected to have 12 years of useful life remaining.

Telephone/LAN-- Telephone is provided by VoIP. Each classroom is provided with a telephone. Data outlets are also provided in each classroom. Wireless access points are provided in classrooms, auditorium, gymnasiums, IMC and cafeteria for Wi-Fi service throughout the entire school. The Main Distribution Frame/Telecom equipment is located in Room D129. The Server Room is located in D139. There are seven Intermediate Distribution Frame telecommunication rooms that are located in the building.

Public Address/Paging/Sound Systems-- The paging system is accessed through the telephone system. The public address system switch and three 250W amplifiers are located in MDF Room D129. Each classroom has a flush ceiling mounted paging speaker. The classrooms also have separate ceiling speakers and audio/video/LCD projector equipment jacks for the multimedia system. There are also flush mounted public speakers in corridor ceilings. There are also separate sound systems for the auditorium, gymnasiums and vocal and instrumental music rooms. These systems are estimated to have 13 years of useful life remaining.

Clock and Program System--There is a master clock with tone generator located in MDF D129. Primex clocks are provided in classrooms, corridors, auditorium, cafeteria, IMC and gymnasiums. The ceiling speakers are used for announcements and program system.

Television Distribution System-- The television system demarcation point is in Room D138 with rack mounted distribution coax patch panels located in MDF Room 129. Television/multimedia equipment jacks are provided in all classrooms and in some other rooms.

Video Surveillance and Security Systems-- Interior video surveillance cameras provide coverage of all corridors, auditorium, gymnasium, cafeteria and stairwells. Exterior cameras are building mounted and provide coverage of the site and entrances. The cameras are monitored on four flat panels mounted in the security console located in Security/Camera Room A102. The CCTV equipment rack and digital recording equipment is located in Room A101. There is also a GE security system Interlogics panel located in Room A102.

Emergency Power System-- A Cummins 400 kW/500kVA, 480/277V, 3 phase, 4 wire standby generator with weatherproof enclosure and double-wall sub-base fuel oil storage tank is located in Receiving D126 on the west side of the building. There is a 200 kW load bank for generator load testing. The generator supplies 800A Emergency Generator Distribution Panelboard EGDP, which feeds 400A Normal/Standby Distribution Panelboard DSDP and 225A Normal/Emergency Distribution Panelboard NEDP. Panelboard DSDP feeds the fire pump, jockey pump, two elevators and HVAC packaged rooftop units. Panelboard NEDP feeds emergency and exit lighting loads. Feeders are 480 volt and distributed radially to panelboards located in electrical closets on each floor, with step-down transformers feeding 208/120V panelboards. A generator annunciator panel is located in Engineer's Office D116. The generator has a remaining useful life of 13 years.

A Kohler 40 kW/50 kVA, 480/277V, 3 phase, 4 wire standby generator with weatherproof enclosure and sub-base fuel oil storage tank was added in Receiving D126 after the 2008 construction project. It is believed that this generator serves the IT equipment.

Emergency Lighting System / Exit Lighting-- Emergency egress lighting fixtures and exit signs are connected to emergency power and fed from emergency lighting panelboards supplied by Normal/Emergency Distribution Panelboard NEDP. Selected high intensity discharge lighting fixtures used for emergency lighting are provided with quartz re-strike. Exit signs are LED type. There are approximately 10 ceiling mounted exit signs in Food Lab D215 and in Locker Rooms E107 and E112 that have damaged mounting plates and need to be repaired or replaced. Otherwise, exit signs are in good condition and have at least 13 years of useful life remaining.

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

Conveying Systems-- There are two Kone LCE traction passengers that serve the building. Elevator No. 1 is located on the northeast side of the school off the main lobby and Elevator No. 2 is located on the west side of the kitchen. Both elevator controllers and cabs s are served by standby power. Separate safety switches are provided for cab lighting, as required by the elevator code. The elevator cabs also meet ADA requirements. Smoke and heat detectors are installed as required to provide elevator recall on fire alarm. The elevators are in good condition and have over 20 years of useful life remaining.

#### **GROUNDS**

On the North Western section of this site there is a drive through lane and general staff parking for dropping off students. The asphalt sections are in like new condition and there were no issues that surfaced during the time of the inspection. The sidewalk systems are in very good condition and the landscaping although scarce is well maintained and in good condition. There are no recommendations for the asphalt or concrete finish required at this time.

There is limited landscaping and hardscape, some of the trees from the original campus remain however, the turfed areas and young trees are in very good condition and appear to be well maintained. There are no recommendations required at this time.

The trash dumpster is located near the southern exterior on concrete pads is open to the students and to the public. The exterior services are not protected. Upgrades to protect the exterior services and trash area is necessary for the safety of the students and the general public. Construction of a secure lockable dumpster area is recommended.

Site Lighting-- Other than the building mounted lighting fixtures, there are no pole mounted site lighting fixtures.

Site video surveillance—exterior cameras are mounted on the exterior of the building to provide surveillance of building entrances and the site.

## RECOMMENDATIONS

- Secure Dumpsters
- Extend PVC condensate drain lines from rooftop HVAC units to roof drains to eliminate ponding at current termination points.
- Replace ten (10) duplex receptacles in Kitchen D120 with ground-fault circuit-interrupting (GFCI) type receptacles to comply with NFPA 70, Article 210.8 (B) for personnel protection.
- Repair/replace ten (10) suspended indirect/direct lighting fixtures in Weight Room E120 that have damaged reflectors and/or

housings.

- Re-lamp or repair seven (7) lighting fixtures in Gymnasium E100 that are not working.
- Test wall mounted lighting control stations in all classrooms and corridors for the Leviton Z-Max lighting control system for proper operation and control. Repair and/or replace defective control stations and/or lighting relays. An allowance for (12) defective controls/relays are included.
- Provide six (6) floodlighting fixtures and switches on the lower and higher roofs to provide illumination for service of rooftop HVAC equipment and for personnel safety.
- Repair/replace approximately ten (10) ceiling mounted exit signs in Food Lab D215 and in Locker Rooms E107 and E112 that have damaged mounting plates or are completely missing.

#### **Attributes:**

#### **General Attributes:**

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

Site ID: S280001

# **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.

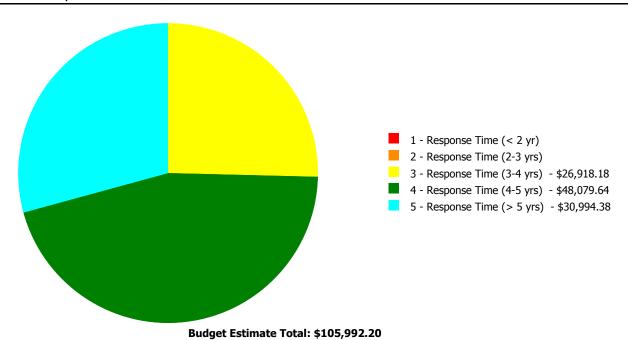
# **Current Investment Requirement and Condition by Uniformat Classification**

UNIFORMAT Classification	RSLI%	FCI %	Current Repair
A10 - Foundations	93.00 %	0.00 %	\$0.00
B10 - Superstructure	93.00 %	0.00 %	\$0.00
B20 - Exterior Enclosure	88.64 %	0.00 %	\$0.00
B30 - Roofing	68.21 %	0.00 %	\$0.00
C10 - Interior Construction	90.48 %	0.00 %	\$0.00
C20 - Stairs	88.94 %	0.00 %	\$0.00
C30 - Interior Finishes	74.14 %	0.00 %	\$0.00
D10 - Conveying	80.00 %	0.00 %	\$0.00
D20 - Plumbing	78.58 %	0.30 %	\$12,141.86
D30 - HVAC	72.79 %	0.00 %	\$0.00
D40 - Fire Protection	80.00 %	0.00 %	\$0.00
D50 - Electrical	64.63 %	0.60 %	\$74,997.82
E10 - Equipment	80.00 %	0.00 %	\$0.00
E20 - Furnishings	82.50 %	0.00 %	\$0.00
G20 - Site Improvements	75.55 %	2.07 %	\$18,852.52
G40 - Site Electrical Utilities	76.67 %	0.00 %	\$0.00
Totals:	80.58 %	0.10 %	\$105,992.20

# **Condition Deficiency Priority**

Facility Name	Gross Area (S.F.)				3 - Response Time (3-4 yrs)		
B280001;Audenried	211,515	0.08	\$0.00	\$0.00	\$26,918.18	\$48,079.64	\$12,141.86
G280001;Grounds	71,300	1.79	\$0.00	\$0.00	\$0.00	\$0.00	\$18,852.52
Total:		0.10	\$0.00	\$0.00	\$26,918.18	\$48,079.64	\$30,994.38

# **Deficiencies By Priority**



# **Executive Summary**

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

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

High School Gross Area (SF): 211,515 Year Built: 2008 Last Renovation: Replacement Value: \$107,457,855 Repair Cost: \$87,139.68 Total FCI: 0.08 % Total RSLI: 80.63 %



#### **Description:**

Function:

#### Attributes: **General Attributes:**

Active: Open Bldg ID: B280001

Sewage Ejector: No Status: Accepted by SDP

S280001 Site ID:

# **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	93.00 %	0.00 %	\$0.00
B10 - Superstructure	93.00 %	0.00 %	\$0.00
B20 - Exterior Enclosure	88.64 %	0.00 %	\$0.00
B30 - Roofing	68.21 %	0.00 %	\$0.00
C10 - Interior Construction	90.48 %	0.00 %	\$0.00
C20 - Stairs	88.94 %	0.00 %	\$0.00
C30 - Interior Finishes	74.14 %	0.00 %	\$0.00
D10 - Conveying	80.00 %	0.00 %	\$0.00
D20 - Plumbing	78.58 %	0.30 %	\$12,141.86
D30 - HVAC	72.79 %	0.00 %	\$0.00
D40 - Fire Protection	80.00 %	0.00 %	\$0.00
D50 - Electrical	64.63 %	0.60 %	\$74,997.82
E10 - Equipment	80.00 %	0.00 %	\$0.00
E20 - Furnishings	82.50 %	0.00 %	\$0.00
Totals:	80.63 %	0.08 %	\$87,139.68

# **Condition Detail**

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

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

# **System Listing**

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

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

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

System Code	System Description	Unit Price \$	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency \$	Replacement Value \$
A1010	Standard Foundations	\$27.30	S.F.	211,515	100	2008	2108		93.00 %	0.00 %	93			\$5,774,360
A1030	Slab on Grade	\$5.17	S.F.	211,515	100	2008	2108		93.00 %	0.00 %	93			\$1,093,533
B1010	Floor Construction	\$85.34	S.F.	211,515	100	2008	2108		93.00 %	0.00 %	93			\$18,050,690
B1020	Roof Construction	\$14.39	S.F.	96,143	100	2008	2108		93.00 %	0.00 %	93			\$1,383,498
B2010	Exterior Walls	\$43.20	S.F.	211,515	100	2008	2108		93.00 %	0.00 %	93			\$9,137,448
B2020	Exterior Windows	\$27.52	S.F.	211,515	40	2008	2048		82.50 %	0.00 %	33			\$5,820,893
B2030	Exterior Doors	\$1.16	S.F.	211,515	25	2008	2033		72.00 %	0.00 %	18			\$245,357
B3010105	Built-Up	\$37.76	S.F.	76,143	20	2008	2028		65.00 %	0.00 %	13			\$2,875,160
B3010130	Preformed Metal Roofing	\$54.22	S.F.	20,000	30	2008	2038		76.67 %	0.00 %	23			\$1,084,400
B3020	Roof Openings	\$0.06	S.F.	96,143	30	2008	2038		76.67 %	0.00 %	23			\$5,769
C1010	Partitions	\$21.05	S.F.	211,515	100	2008	2108		93.00 %	0.00 %	93			\$4,452,391
C1020	Interior Doors	\$3.76	S.F.	211,515	40	2008	2048		82.50 %	0.00 %	33			\$795,296
C1030	Fittings	\$2.90	S.F.	211,515	40	2008	2048		82.50 %	0.00 %	33			\$613,394
C2010	Stair Construction	\$1.18	S.F.	211,515	100	2008	2108		93.00 %	0.00 %	93			\$249,588
C2020	Stair Finishes	\$0.39	S.F.	211,515	30	2008	2038		76.67 %	0.00 %	23			\$82,491
C3010230	Paint & Covering	\$13.21	S.F.	211,515	10	2008	2018	2023	80.00 %	0.00 %	8			\$2,794,113
C3020411	Carpet	\$7.30	S.F.	15,000	10	2008	2018	2022	70.00 %	0.00 %	7			\$109,500
C3020412	Terrazzo & Tile	\$75.52	S.F.	10,000	50	2008	2058		86.00 %	0.00 %	43			\$755,200

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 \$
C3020413	Vinyl Flooring	\$9.68	S.F.	170,515	20	2008	2028		65.00 %	0.00 %	13			\$1,650,585
C3020414	Wood Flooring	\$22.27	S.F.	8,000	25	2008	2033		72.00 %	0.00 %	18			\$178,160
C3020415	Concrete Floor Finishes	\$0.97	S.F.	8,000	50	2008	2058		86.00 %	0.00 %	43			\$7,760
C3030	Ceiling Finishes	\$20.97	S.F.	211,515	25	2008	2033		72.00 %	0.00 %	18			\$4,435,470
D1010	Elevators and Lifts	\$1.28	S.F.	211,515	35	2008	2043		80.00 %	0.00 %	28			\$270,739
D2010	Plumbing Fixtures	\$13.52	S.F.	211,515	35	2008	2043		80.00 %	0.00 %	28			\$2,859,683
D2020	Domestic Water Distribution	\$1.68	S.F.	211,515	25	2008	2033		72.00 %	0.00 %	18			\$355,345
D2030	Sanitary Waste	\$2.32	S.F.	211,515	30	2008	2038		76.67 %	2.47 %	23		\$12,141.86	\$490,715
D2040	Rain Water Drainage	\$1.90	S.F.	211,515	30	2008	2038		76.67 %	0.00 %	23			\$401,879
D3020	Heat Generating Systems	\$18.67	S.F.	211,515	35	2008	2043		80.00 %	0.00 %	28			\$3,948,985
D3030	Cooling Generating Systems	\$24.48	S.F.	211,515	30	2008	2038		76.67 %	0.00 %	23			\$5,177,887
D3040	Distribution Systems	\$42.99	S.F.	211,515	25	2008	2033		72.00 %	0.00 %	18			\$9,093,030
D3050	Terminal & Package Units	\$11.60	S.F.	211,515	20	2008	2028		65.00 %	0.00 %	13			\$2,453,574
D3060	Controls & Instrumentation	\$13.50	S.F.	211,515	20	2008	2028		65.00 %	0.00 %	13			\$2,855,453
D4010	Sprinklers	\$7.05	S.F.	211,515	35	2008	2043		80.00 %	0.00 %	28			\$1,491,181
D4020	Standpipes	\$1.01	S.F.	211,515	35	2008	2043		80.00 %	0.00 %	28			\$213,630
D5010	Electrical Service/Distribution	\$9.70	S.F.	211,515	30	2008	2038		76.67 %	0.00 %	23			\$2,051,696
D5020	Lighting and Branch Wiring	\$34.68	S.F.	211,515	20	2008	2028		65.00 %	0.91 %	13		\$66,519.63	\$7,335,340
D5030	Communications and Security	\$12.99	S.F.	211,515	15	2008	2023		53.33 %	0.00 %	8			\$2,747,580
D5090	Other Electrical Systems	\$1.41	S.F.	211,515	30	2008	2038		76.67 %	2.84 %	23		\$8,478.19	\$298,236
E1020	Institutional Equipment	\$4.82	S.F.	211,515	35	2008	2043		80.00 %	0.00 %	28			\$1,019,502
E1090	Other Equipment	\$11.10	S.F.	211,515	35	2008	2043		80.00 %	0.00 %	28			\$2,347,817
E2010	Fixed Furnishings	\$2.13	S.F.	211,515	40	2008	2048		82.50 %	0.00 %	33			\$450,527
								Total	80.63 %	0.08 %			\$87,139.68	\$107,457,855

# **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:** Painted CMU or Drywall Finish 100%

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

**Note:** Carpet 6%

Tile 5% Vinyl 81% Wood 4% Concrete 4%

**System:** D5010 - Electrical Service/Distribution This system contains no images

**Note:** There is one (1) 2500 kVA 13.2 kV-480/277V service transformer and (40) secondary 480-208/120V transformers as

follows: (1) 225 kVA

(1) 225 KVA (2) 150 kVA

(1) 112.5 kVA

(1) 112.5 KVA (5) 75 kVA

(13) 45 kVA

(16) 30 kVA

(2) 15 kVA

# **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:	\$87,140	\$0	\$0	\$0	\$0	\$0	\$0	\$148,138	\$7,722,056	\$0	\$0	\$7,957,334
* 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
B - Shell	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B10 - Superstructure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B1010 - Floor Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B1020 - Roof Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B20 - Exterior Enclosure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B2010 - Exterior Walls	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B2020 - Exterior Windows	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B2030 - Exterior Doors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B30 - Roofing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B3010 - Roof Coverings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B3010105 - Built-Up	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B3010130 - Preformed Metal Roofing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B3020 - Roof Openings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C - Interiors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C10 - Interior Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C1010 - Partitions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C1020 - Interior Doors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C1030 - Fittings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C20 - Stairs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C2010 - Stair Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C2020 - Stair Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

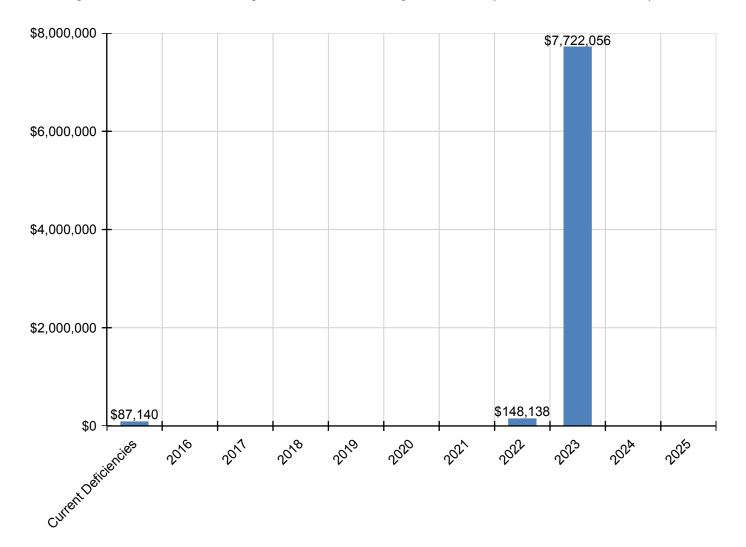
C30 - Interior Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3010 - Wall Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3010230 - Paint & Covering	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,893,448	\$0	\$0	\$3,893,448
C3020 - Floor Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020411 - Carpet	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$148,138	\$0	\$0	\$0	\$148,138
C3020412 - Terrazzo & Tile	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020413 - Vinyl Flooring	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020414 - Wood Flooring	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020415 - Concrete Floor Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3030 - Ceiling Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D - Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D10 - Conveying	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D1010 - Elevators and Lifts	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D20 - Plumbing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2010 - Plumbing Fixtures	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2020 - Domestic Water Distribution	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2030 - Sanitary Waste	\$12,142	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,142
D2040 - Rain Water Drainage	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D30 - HVAC	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3020 - Heat Generating Systems	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3030 - Cooling Generating Systems	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3040 - Distribution Systems	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3050 - Terminal & Package Units	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3060 - Controls & Instrumentation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D40 - Fire Protection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D4010 - Sprinklers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D4020 - Standpipes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D50 - Electrical	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D5010 - Electrical Service/Distribution	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D5020 - Lighting and Branch Wiring	\$66,520	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$66,520
D5030 - Communications and Security	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,828,607	\$0	\$0	\$3,828,607
D5090 - Other Electrical Systems	\$8,478	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,478
E - Equipment & Furnishings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

E10 - Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E1020 - Institutional Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E1090 - Other Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E20 - Furnishings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
E2010 - Fixed Furnishings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

<sup>\*</sup> Indicates non-renewable system

# **Forecasted Sustainment Requirement**

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

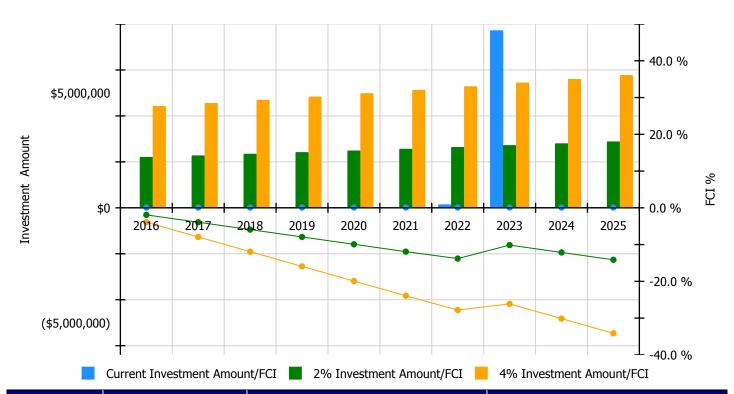


# 10 Year FCI Forecast by Investment Scenario

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

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

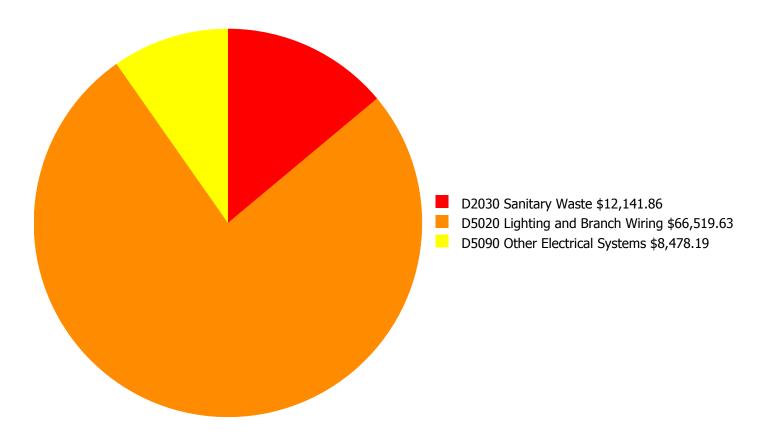
# **Facility Investment vs. FCI Forecast**



	Investment Amount	2% Investm	ent	4% Investment				
Year	Current FCI - 0.08%	rent FCI - 0.08% Amount FCI		Amount	FCI			
2016	\$0	\$2,213,632.00	-1.92 %	\$4,427,264.00	-3.92 %			
2017	\$0	\$2,280,041.00	-3.92 %	\$4,560,082.00	-7.92 %			
2018	\$0	\$2,348,442.00	-5.92 %	\$4,696,884.00	-11.92 %			
2019	\$0	\$2,418,895.00	-7.92 %	\$4,837,791.00	-15.92 %			
2020	\$0	\$2,491,462.00	-9.92 %	\$4,982,924.00	-19.92 %			
2021	\$0	\$2,566,206.00	-11.92 %	\$5,132,412.00	-23.92 %			
2022	\$148,138	\$2,643,192.00	-13.81 %	\$5,286,384.00	-27.81 %			
2023	\$7,722,056	\$2,722,488.00	-10.13 %	\$5,444,976.00	-26.13 %			
2024	\$0	\$2,804,163.00	-12.13 %	\$5,608,325.00	-30.13 %			
2025	\$0	\$2,888,287.00	-14.13 %	\$5,776,575.00	-34.13 %			
Total:	\$7,870,194	\$25,376,808.00		\$50,753,617.00				

# **Deficiency Summary by System**

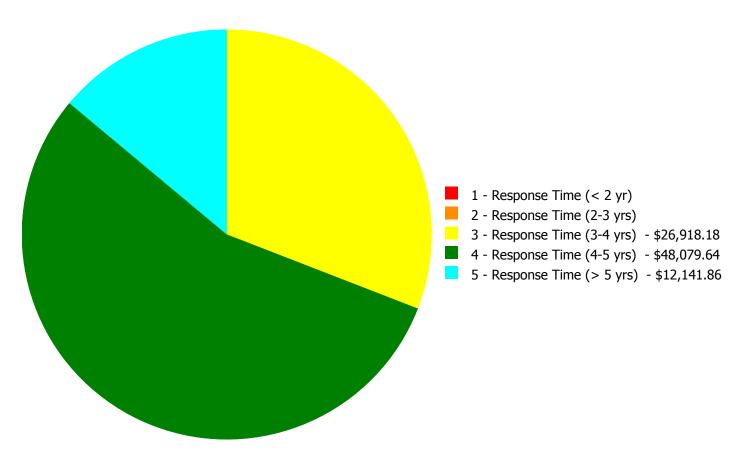
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



**Budget Estimate Total: \$87,139.68** 

# **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: \$87,139.68** 

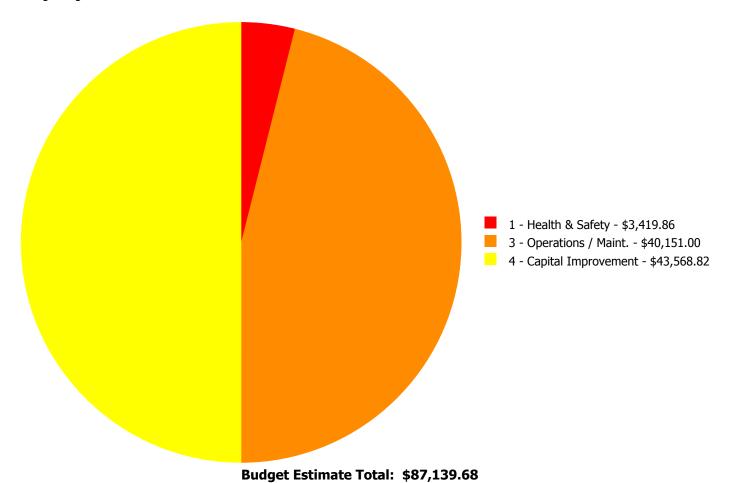
# **Deficiency By Priority Investment Table**

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

System Code	System Description			3 - Response Time (3-4 yrs)		5 - Response Time (> 5 yrs)	Total
D2030	Sanitary Waste	\$0.00	\$0.00	\$0.00	\$0.00	\$12,141.86	\$12,141.86
D5020	Lighting and Branch Wiring	\$0.00	\$0.00	\$18,439.99	\$48,079.64	\$0.00	\$66,519.63
D5090	Other Electrical Systems	\$0.00	\$0.00	\$8,478.19	\$0.00	\$0.00	\$8,478.19
	Total:	\$0.00	\$0.00	\$26,918.18	\$48,079.64	\$12,141.86	\$87,139.68

# **Deficiency Summary by Category**

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



# **Deficiency Details by Priority**

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

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

System: D5020 - Lighting and Branch Wiring



**Location:** Weight Room E120

**Distress:** Damaged

Category: 3 - Operations / Maint.

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

**Correction:** Replace lighting fixtures

**Qty:** 10.00

Unit of Measure: Ea.

**Estimate:** \$11,158.89

**Assessor Name:** Craig Anding

**Date Created:** 10/04/2015

**Notes:** Repair/replace ten (10) suspended indirect/direct lighting fixtures in Weight Room E120 that have damaged reflectors and/or housings.

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



**Location:** Gymnasium E100

**Distress:** Maintenance Required

Category: 3 - Operations / Maint.

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

Correction: Maintain Lighting Fixtures

**Qty:** 7.00

Unit of Measure: Ea.

**Estimate:** \$7,281.10

**Assessor Name:** Craig Anding

**Date Created:** 10/04/2015

Notes: Re-lamp or repair seven (7) lighting fixtures in Gymnasium E100 that are not working.

# **System: D5090 - Other Electrical Systems**



**Location:** Food Lab D215 and Locker Rooms

**Distress:** Damaged

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

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

**Correction:** Replace Emergency/Exit Lighting

**Qty:** 10.00

**Unit of Measure:** Ea.

**Estimate:** \$8,478.19

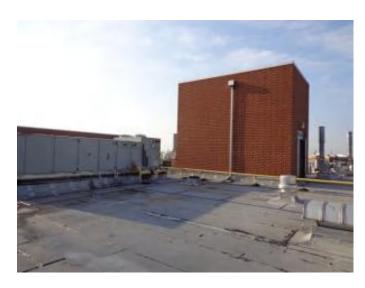
**Assessor Name:** Craig Anding

**Date Created:** 10/04/2015

**Notes:** Repair/replace approximately ten (10) ceiling mounted exit signs in Food Lab D215 and in Locker Rooms E107 and E112 that have damaged mounting plates or are completely missing.

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

### System: D5020 - Lighting and Branch Wiring



Location: Roof

**Distress:** Inadequate

Category: 4 - Capital Improvement

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

**Correction:** Add Lighting Fixtures

**Qty:** 6.00

Unit of Measure: Ea.

**Estimate:** \$31,426.96

**Assessor Name:** Craig Anding

**Date Created:** 10/04/2015

**Notes:** Provide six (6) floodlighting fixtures and switches on the lower and higher roofs to provide illumination for service of rooftop HVAC equipment and for personnel safety.

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



**Location:** Lighting Control System

**Distress:** Damaged

Category: 3 - Operations / Maint.

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

**Correction:** Replace Wiring Device

**Qty:** 12.00

Unit of Measure: Ea.

**Estimate:** \$13,232.82

**Assessor Name:** Craig Anding

**Date Created:** 10/04/2015

**Notes:** Test wall mounted lighting control stations in all classrooms and corridors for the Leviton Z-Max lighting control system for proper operation and control. Repair and/or replace defective control stations and/or lighting relays. An allowance for (12) defective

controls/relays are included.

# System: D5020 - Lighting and Branch Wiring



**Location:** Kitchen D120

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

**Category:** 1 - Health & Safety

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

**Correction:** Replace Wiring Device

**Qty:** 10.00

Unit of Measure: Ea.

**Estimate:** \$3,419.86

**Assessor Name:** Craig Anding

**Date Created:** 10/04/2015

**Notes:** Replace ten (10) duplex receptacles in Kitchen D120 with ground-fault circuit-interrupting (GFCI) type receptacles to comply with NFPA 70, Article 210.8 (B) for personnel protection.

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

System: D2030 - Sanitary Waste



Location: roof

**Distress:** Inadequate

**Category:** 4 - Capital Improvement

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

**Correction:** Add PVC drain lines to RTUs

**Qty:** 200.00

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

**Estimate:** \$12,141.86

Assessor Name: Craig Anding

**Date Created:** 11/20/2015

**Notes:** Extend PVC condensate drain lines from rooftop HVAC units to roof drains to eliminate ponding at current termination points.

# **Equipment Inventory**

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

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D1010 Elevators and Lifts	Traction geared elevators, freight, 4000 lb, 5 floors, 50 FPM class'B'	1.00	Ea.	Area B (east elevator)	Kone	Type V3F25	20253190		30	2008	2038	\$209,055.00	\$229,960.50
D1010 Elevators and Lifts	Traction geared elevators, freight, 4000 lb, 5 floors, 50 FPM class'B'	1.00	Ea.	Area D (west elevator)	Kone	Type V3F25	20253191		30	2008	2038	\$209,055.00	\$229,960.50
D3050 Terminal & Package Units	A/C packaged, DX, air cooled, hot water heat, VAV, 30 ton	1.00	Ea.	roof	trane	sxhf304			20	2008	2028	\$65,820.70	\$72,402.77
D3050 Terminal & Package Units	A/C packaged, DX, air cooled, hot water heat, VAV, 50 ton	1.00	Ea.	roof	trane	sfhs504			20	2008	2028	\$104,997.00	\$115,496.70
D3050 Terminal & Package Units	Rooftop air conditioner, multizone, cool/heat, variable volume distribution, 120 ton cooling, includes, standard controls, curb and economizer	1.00	Ea.	roof	trane	sfhg134			20	2008	2028	\$294,624.00	\$324,086.40
D3050 Terminal & Package Units	Rooftop air conditioner, multizone, cool/heat, variable volume distribution, 120 ton cooling, includes, standard controls, curb and economizer	1.00	Ea.	roof	trane	sfhg134			20	2008	2028	\$294,624.00	\$324,086.40
D3050 Terminal & Package Units	Rooftop air conditioner, single zone, electric cool, gas heat, 80 ton cooling, 1000 MBH heating, includes, standard controls, curb and economizer	1.00	Ea.	roof	trane	sxhf754			20	2008	2028	\$112,530.00	\$123,783.00
D3050 Terminal & Package Units	Rooftop air conditioner, single zone, electric cool, gas heat, 80 ton cooling, 1000 MBH heating, includes, standard controls, curb and economizer	1.00	Ea.	roof	trane	sfhf754			20	2008	2028	\$112,530.00	\$123,783.00
D5010 Electrical Service/Distribution	Load interrupter switch, 2 position, 400 kVA & above, 13.8 kV, 600 amp w/CLF fuses, NEMA 1	1.00	Ea.	Transformer Vault - Area D	General Electric	Breakmaster	86121		30	2008	2038	\$42,849.00	\$47,133.90
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NEHB, 277/480 V, 400 A, 1 stories, 25' horizontal	7.00	Ea.	D2A - Room A211	General Electric	A Series II			30	2008	2038	\$17,698.50	\$136,278.45
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NEHB, 277/480 V, 400 A, 1 stories, 25' horizontal	7.00	Ea.	D2B - Room B212	General Electric	A Series II			30	2008	2038	\$17,698.50	\$136,278.45
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NEHB, 277/480 V, 400 A, 1 stories, 25' horizontal	7.00	Ea.	D1E - Room E122	General Electric	A Series II			30	2008	2038	\$17,698.50	\$136,278.45
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NEHB, 277/480 V, 400 A, 1 stories, 25' horizontal	7.00	Ea.	D1A - Room A120	General Electric	A Series II			30	2008	2038	\$17,698.50	\$136,278.45
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NEHB, 277/480 V, 400 A, 1 stories, 25' horizontal	7.00	Ea.	D2D - Room D205	General Electric	A Series II			30	2008	2038	\$17,698.50	\$136,278.45
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NEHB, 277/480 V, 400 A, 1 stories, 25' horizontal	7.00	Ea.	M2D - Ro0m D205	General Electric	A Series II			30	2008	2038	\$17,698.50	\$136,278.45

											Total:	\$3,313,915.39
D5010 Electrical Service/Distribution	Transformer, dry-type, 3 phase 15 kV primary 277/480 volt secondary, 3000 kVA	1.00	-	ransformer Vault Area D	General Electric		P110791- 1LUBDS7964 9001	30	2008	2038	\$191,889.00	\$211,077.90
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 277/480 V, 800 A	1.00	-	lain Electrical oom D133	General Electric	Spectra Series	Req. No. 77349369P3	30	2008	2038	\$31,205.25	\$34,325.78
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 277/480 V, 800 A	2.00	C	lectrical Closet 202	General Electric	A Series II		30	2008	2038	\$31,205.25	\$68,651.55
D5010 Electrical Service/Distribution	Switchboards, pressure switch, 4 wire, 120/208 V, 4000 amp, incl CT compartment, excl CT's or PT's	3.00		lain Electrical oom D133	General Electric	NA	NA	30	2008	2038	\$69,552.00	\$229,521.60
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NQOD, 120/208 V, 600 A, 1 stories, 25' horizontal	4.00	Ea. Ki	itchen D120	General Electric	A Series II		30	2008	2038	\$18,536.85	\$81,562.14
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NQOD, 120/208 V, 600 A, 1 stories, 25' horizontal	4.00	Ea. Fo	ood Lab D215	General Electric	A Series II		30	2008	2038	\$18,536.85	\$81,562.14
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NQOD, 120/208 V, 400 A, 1 stories, 25' horizontal	1.00	Ea. Re	eceiving D126	Cutler-Hammer	PRL3A		30	2008	2038	\$12,109.50	\$13,320.45
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NEHB, 277/480 V, 600 A, 1 stories, 25' horizontal	1.00		lectrical Closet 315	General Electric	A Series II		30	2008	2038	\$27,075.60	\$29,783.16
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NEHB, 277/480 V, 400 A, 1 stories, 25' horizontal	1.00		lain Electrical oom D133	General Electric	A Series II	NA	30	2008	2038	\$17,698.50	\$19,468.35
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NEHB, 277/480 V, 400 A, 1 stories, 25' horizontal	7.00		3B2 - Room 319	General Electric	A Series II		30	2008	2038	\$17,698.50	\$136,278.45

# **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): 71,300

Year Built: 2008

Last Renovation:

Replacement Value: \$1,053,684

Repair Cost: \$18,852.52

Total FCI: 1.79 %

Total RSLI: 75.70 %



#### **Description:**

#### **Attributes:**

**General Attributes:** 

Bldg ID: S280001 Site ID: S280001

# **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	75.55 %	2.07 %	\$18,852.52
G40 - Site Electrical Utilities	76.67 %	0.00 %	\$0.00
Totals:	75.70 %	1.79 %	\$18,852.52

### **Condition Detail**

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

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

## **System Listing**

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

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

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

System Code	System Description	Unit Price \$	UoM	Qty	Life	Year Installed		Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency \$	Replacement Value \$
G2020	Parking Lots	\$7.65	S.F.	11,900	30	2008	2038		76.67 %	0.00 %	23			\$91,035
G2030	Pedestrian Paving	\$11.52	S.F.	36,500	40	2008	2048		82.50 %	0.00 %	33			\$420,480
G2040	Site Development	\$4.36	S.F.	71,300	25	2008	2033		72.00 %	6.06 %	18		\$18,852.52	\$310,868
G2050	Landscaping & Irrigation	\$3.78	S.F.	22,900	15	2008	2023		53.33 %	0.00 %	8			\$86,562
G4020	Site Lighting	\$1.26	S.F.	71,300	30	2008	2038		76.67 %	0.00 %	23			\$89,838
G4030	Site Communications & Security	\$0.77	S.F.	71,300	30	2008	2038		76.67 %	0.00 %	23			\$54,901
	Total								75.70 %	1.79 %			\$18,852.52	\$1,053,684

# **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.

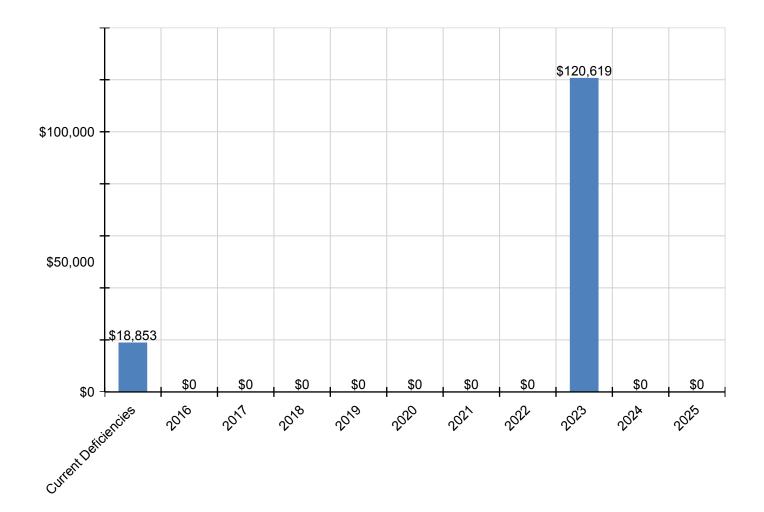
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	\$18,853	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$120,619	\$0	\$0	\$139,472
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	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G2040 - Site Development	\$18,853	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$18,853
G2050 - Landscaping & Irrigation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$120,619	\$0	\$0	\$120,619
G40 - Site Electrical Utilities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G4020 - Site Lighting	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G4030 - Site Communications & Security	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

<sup>\*</sup> Indicates non-renewable system

# **Forecasted Sustainment Requirement**

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

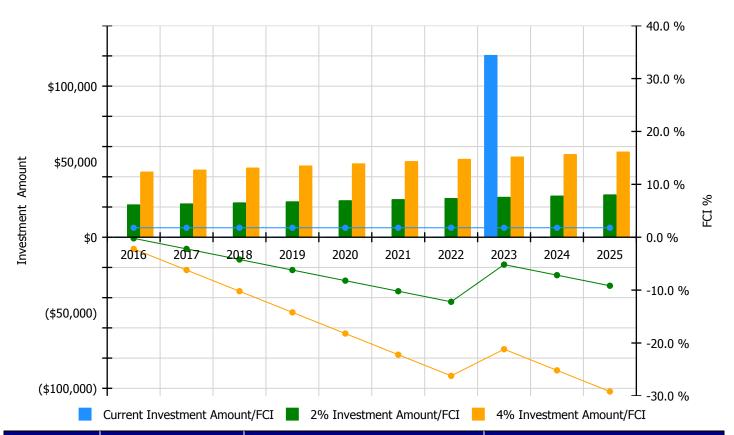


# 10 Year FCI Forecast by Investment Scenario

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

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

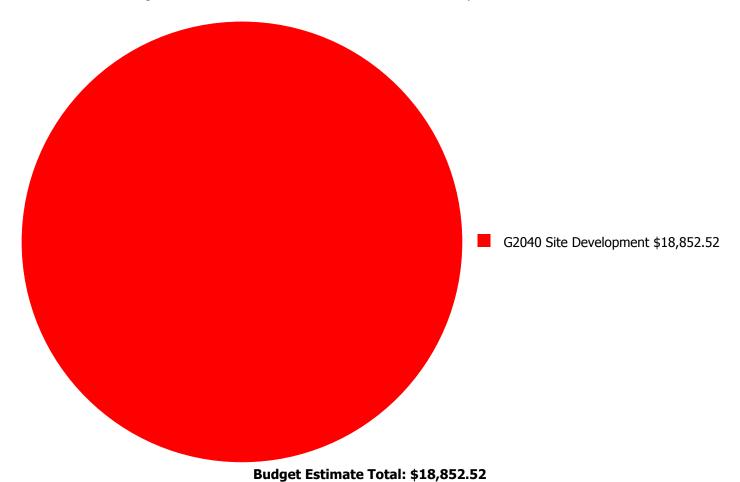
### **Facility Investment vs. FCI Forecast**



	Investment Amount	2% Investm	ent	4% Investment			
Year	Current FCI - 1.79%	Amount	FCI	Amount	FCI		
2016	\$0	\$21,706.00	-0.21 %	\$43,412.00	-2.21 %		
2017	\$0	\$22,357.00	-2.21 %	\$44,714.00	-6.21 %		
2018	\$0	\$23,028.00	-4.21 %	\$46,056.00	-10.21 %		
2019	\$0	\$23,719.00	-6.21 %	\$47,437.00	-14.21 %		
2020	\$0	\$24,430.00	-8.21 %	\$48,860.00	-18.21 %		
2021	\$0	\$25,163.00	-10.21 %	\$50,326.00	-22.21 %		
2022	\$0	\$25,918.00	-12.21 %	\$51,836.00	-26.21 %		
2023	\$120,619	\$26,696.00	-5.17 %	\$53,391.00	-21.17 %		
2024	\$0	\$27,496.00	-7.17 %	\$54,993.00	-25.17 %		
2025	\$0	\$28,321.00	-9.17 %	\$56,643.00	-29.17 %		
Total:	\$120,619	\$248,834.00		\$497,668.00			

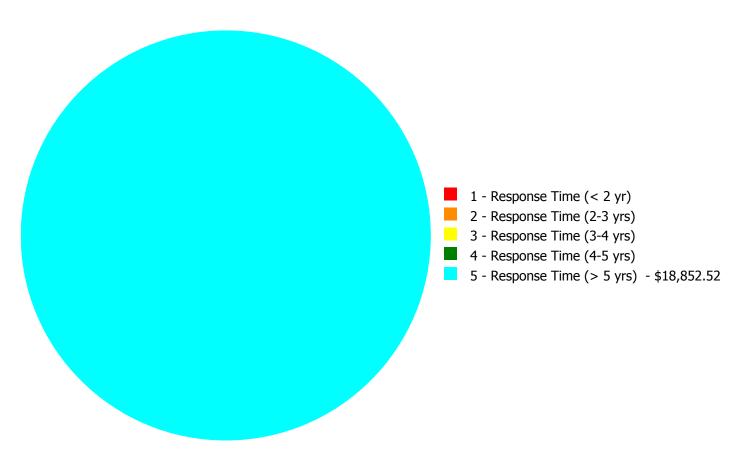
## **Deficiency Summary by System**

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.



# **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: \$18,852.52** 

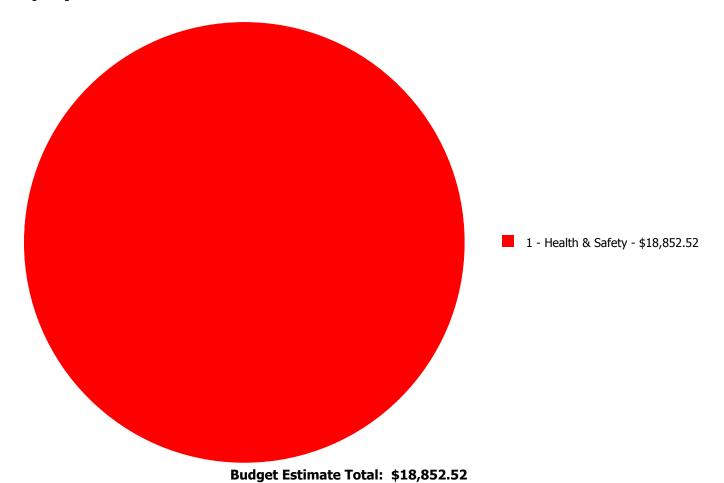
# **Deficiency By Priority Investment Table**

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

System Code	System Description			3 - Response Time (3-4 yrs)		5 - Response Time (> 5 yrs)	Total
G2040	Site Development	\$0.00	\$0.00	\$0.00	\$0.00	\$18,852.52	\$18,852.52
	Total:	\$0.00	\$0.00	\$0.00	\$0.00	\$18,852.52	\$18,852.52

# **Deficiency Summary by Category**

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



### **Deficiency Details by Priority**

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

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

System: G2040 - Site Development



Location: Site

**Distress:** Health Hazard / Risk

**Category:** 1 - Health & Safety

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

**Correction:** Build secure trash dumpster enclosure

**Qty:** 1.00

Unit of Measure: Ea.

**Estimate:** \$18,852.52

**Assessor Name:** Ben Nixon

**Date Created:** 09/28/2015

**Notes:** The trash dumpster is located near the southern exterior on concrete pads is open to the students and to the public. The exterior services are not protected. Upgrades to protect the exterior services and trash area is necessary for the safety of the students and the general public. Construction of a secure lockable dumpster area is recommended.

# **Equipment Inventory**

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

No data found for this asset

#### Glossary

ABMA American Boiler Manufacturers Association 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 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

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

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)

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