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.

Harding Middle School

Governance	DISTRICT	Report Type	Middle
Address	2000 Wakeling St.	Enrollment	710
	Philadelphia, Pa 19124	Grade Range	'06-08'
Phone/Fax	215-537-2528 / 215-537-2850	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Harding	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	**37.89%**	**$26,755,363**	**$70,616,891**
Building	40.16 %	$26,518,041	$66,037,388
Grounds	05.18 %	$237,322	$4,579,503

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	89.59 %	$1,806,318	$2,016,260
Exterior Walls (Shows condition of the structural condition of the exterior facade)	00.71 %	$39,998	$5,659,178
Windows (Shows functionality of exterior windows)	132.01 %	$3,651,602	$2,766,250
Exterior Doors (Shows condition of exterior doors)	73.63 %	$138,000	$187,433
Interior Doors (Classroom doors)	92.56 %	$419,942	$453,717
Interior Walls (Paint and Finishes)	11.37 %	$191,667	$1,686,417
Plumbing Fixtures	00.88 %	$15,444	$1,747,649
Boilers	00.00 %	$0	$2,413,359
Chillers/Cooling Towers	78.84 %	$2,494,726	$3,164,383
Radiators/Unit Ventilators/HVAC	125.60 %	$6,979,611	$5,557,059
Heating/Cooling Controls	153.96 %	$2,686,710	$1,745,064
Electrical Service and Distribution	86.13 %	$1,079,948	$1,253,861
Lighting	22.86 %	$1,024,819	$4,482,876
Communications and Security (Cameras, Pa System and Fire Alarm)	51.86 %	$870,764	$1,679,139

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

S711001;Harding

Final

Site Assessment Report

January 31, 2017

PARSONS

Table of Contents

Site Executive Summary

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

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

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

Gross Area (SF):	129,264
Year Built:	1924
Last Renovation:	
Replacement Value:	$70,616,891
Repair Cost:	$26,755,363.13
Total FCI:	37.89 %
Total RSLI:	62.27 %

Description:

Facility Condition Assessment
July 2015

School District of Philadelphia
Warren G. Harding Middle School
2000 Wakeling Street
Philadelphia, PA 19124

129,264sf; 1,197 students; LN 07

General

Warren G. Harding Middle School is located at 2000 Wakeling Street. The main entrance faces Torresdale Avenue. This school was constructed in 1923, has 129,264 square feet, and is 3 stories tall. There is a basement under the north side of the building, on the side of the parking lot. The Warren G. Harding School can be found on the National Historical Register, number 88002277 with the address of 2000 Wakeling Street. Dante Mancini, the Building Engineer accompanied the team during the building inspection. There is an ongoing project replacing and rebuilding limestone cornices and entrances on the front and sides of the building.

Architectural/Structural

Foundations appear to be constructed of concrete and brick. Joints are in good condition with no major settlement cracks observed. There is some peeling paint observed on the interior of the north basement walls, facing the parking lot, probably due to water infiltration thru exterior cracks in the masonry. There are partially low headroom sections of the basement where coal had been stored for use in the boilers and where ductwork is located to provide air to the auditorium and classrooms above, part of the house ventilation system. There are exposed reinforced concrete columns throughout the space. Footings were not seen and their construction type or condition could not be ascertained.

Floor slabs in the basement are in good condition and appear to have been cleaned recently. Upper floor slabs are also constructed of cast-in-place concrete with cast-in-place concrete beams. Columns, beams and floor deck above also appeared to be in good condition. Cracking and spalling of the concrete structure was not observed anywhere.

Roof construction is a complex system of flat, minimum overall slope areas and low-slope pitched areas between walls and adjacent higher flat-roof areas. The building is shaped like a square "O" with all the space inside the "O" filled with buildings. This type of building design creates many pockets, walls with roofs terminating against them, and areas of potential leaks. The roof superstructure is constructed of reinforced concrete columns, beams, and floor slabs. The roof over the main classroom section (perimeter "O") of the building is reinforced concrete beams and deck, bearing on masonry walls with a flat roof and minimum pitch to roof drains. Roof drains are located at low areas of the roof in the center area of the rectangular "O"; there are no dished areas around the roof drains, but there are crickets which direct the water towards the drains and away from the parapet walls. Access to the main "O" roof is via a door out of a brick penthouse. Access to other lower roofs appears to be somewhat difficult, by use of portable ladders or through adjacent windows. The roof over the auditorium also a "flat" roof but with a more noticeable pitch. It is drained to roof drains along the low parapet wall. Between the auditorium in the center area and the classroom "O" walls are the girl's gym on one side and the boy's gym on the other side; these elements are drained with horizontal gutters along low eaves, which lead to vertical leaders to lower roof sections. The lower roof sections are in turn pitched to the lowest areas of the internal roof system, leading to internal roof drains down through the building to the storm system underground. This complex arrangement creates many cavities and low areas that can trap water, snow, leaves, and debris; they also create many areas of potentially poor drainage and high probability for leaks. The cascading low areas also will trap and hold snow and ice in winter months that can cause freeze-thaw damage to roofing and adjacent building walls. Frequent and diligent maintenance is required to keep this system draining the collected water.

Exterior brick walls facing the street are generally in good condition. The doorway overhangs and cornices around the front and sides of the building were under repair and reconstruction at the time of the site inspection. The remaining limestone cornices, lintels and horizontal accent band need to be powerwashed after repairs have been made to the entrances. Front and side elevation windows utilize limestone lintels which are in good condition with minimal cracking and gaps over windows. Masonry walls facing the inside of the "O" have been repointed "recently" within the past 10 years (estimated). These walls have a residual covering of mortar on the brickwork giving a dirty, ugly, whitewashed appearance. Brick masonry walls inside and above the rear window well adjacent to the parking lot have also been repointed and have the same dirty whitewashed appearance. Lintels in the rear side of the building are formed of bricks set on steel beams or angles. This system has been failing causing cracks in the masonry over windows which have been repaired in some cases while other cracks continue to form. Also on the north (rear) wall of the building, there are steel stairway security gratings set into the brick that are rusting and causing staining of the brick wall below. Limestone foundation extending down 48" from window sills to grade around the building is painted but now peeling in a number of locations; it is in need of repainting. The decorative limestone band that wraps around the building needs repointing and powerwashing. Of most concern is an area of serious structural spalling and failing of concrete beams and the slab that spans from the parking area across the below-grade window well which runs most of the length of the building along the parking lot. This concrete "bridge" has lost a great deal of concrete material exposing reinforcing rods and appearing to be to the point of failure at any time. Since it is the only way to receive deliveries from the parking lot into the building, this beam and the adjacent areaway concrete retaining walls need to be repaired immediately before collapsing into the window well below.

Exterior windows were replaced in the 1980's with bronze anodized aluminum frame operable single hung units with single thickness clear plexiglass acrylic vision panel glazing. Windows are in poor condition with oxidized frames and severely scratched single-pane plexiglass vision panels. Operable units are difficult to operate up due to broken internal counterbalance weights. Single pane plexiglas units do not meet today's energy code requirements and are large sources of heat loss. The only basement level windows that are exposed to grade are the ones in the north side window well. Galvanized steel security screens are attached to basement windows, the lower section of 1st floor windows, and the auditorium windows and are all in good condition.

Exterior doors are painted steel framed flush hollow metal units with steel frames. The main entrance and secondary main entrances around the building have limestone accents panels, columns, and cornices that were being repaired at the time of inspection. Some doors have small glazing vision panels. Doors are in generally poor condition, have broken or non-functioning panic hardware, rusted

dented panels and frames, and are not ADA compliant. There are no handicap entrances, no accessible ramps and no elevators. All exterior steel doors, frames, and hardware systems need to be replaced. There is no handicap accessible ADA ramp and entrance into the building.

Roof covering on the main building flat roof is a fully adhered rolled asphalt sheet system that was painted silver many years ago. At this point in time, the silver paint is mostly worn off over most of the roof membrane surface. Roof openings include toilet room vents, ventilation ductwork, and roof drains. Brick rooftop structures, brick parapets, and ventilation fan structures are flashed with the same silver painted asphaltic material, which is showing signs of aging and weathering. Low parapets less than a foot in height are flashed full height with the asphalt membrane. Taller parapets of aluminum counterflashing attached to the brick and sealed with caulking along the top edge; this caulking is cracking with age and no longer provides an effective seal. The roof membrane is in poor condition with much of the silver paint weathered away. Wrinkles and alligator cracks are forming in the membrane. The membrane, flashing, and counterflashing embedded in brickwork covering the top of the flashing is weathered and is probably past its normal service life of 20 years. Many joint cracks in the parapets, penthouse, and chimney structures have been repointed and others continue to form and may be the source of water infiltration. There have been leaks onto exterior walls below as shown by spalling and pealing plaster on the walls. Aluminum coping used on the tops of all parapet walls is at least 10 years old and appears to be in good condition. This is a replacement system installed over the original limestone coping blocks which still remains underneath the aluminum.

Partitions in basements are constructed of brick masonry and concrete. The upper 3 floors of the building have plaster on wood lath partitions. There are wood framed clerestory glass panels located in walls above classroom doors in the corridors. These panels are in generally good condition being above the reach of anyone, but the glass is not wired or fire rated. Between some classrooms are manually operated full height wood folding partions. It appears that some of these moveable wall systems are still operational, although their stability before and after opening could not be determined.

Interior doors are either the original oak wood and plate glass (not fire rated or wired) raised panel doors with replacement hardware or replacement wood doors with narrow lite wired glass vision panels and replacement hardware at least 20 years of age. Many of the original wood doors have damaged panels, broken glass, and broken hardware. Some interior basement doors and most interior stairway doors are hollow metal in hollow metal frames; many are rusted where coming in contact with floors. Doors are generally in poor condition throughout the building, are not ADA compliant, do not have ADA or proper locking hardware, and are not fire rated where required. Stairway doors do not positively latch as required of fire rated doors. Classroom doors do not have security locking feature from inside classrooms. Newer wood replacement doors can be refinished and reused, but steel stairway doors and the original wood doors need to be replaced. All door hardware needs to be replaced.

Interior fittings/hardware include black slate chalkboards with oak chalk trays or bulletin boards integral to the original dark oak folding wall partitions built into the folding panels. Most have white boards and smart boards mounted onto the panels, since chalk blackboards are no longer used. Folding wood panels are covered with staples and small gouges. Most of these folding partition units are no longer opened as they are heavy and most hinges and bearings are not operable. Damaged units need to be replaced with sturdier, safer, fixed partitions; operational panels may remain although refinishing is required. Toilet room partitions are solid plastic replacement partitions. Some do not have doors. Toilet room accessories (toilet paper dispensers, soap, paper towel or dryers, grab bars, door latches) have been recently replaced in most toilet rooms. Some components are missing and others are not fully functional. Missing toilet partitions and partition components need to be added and full sets of toilet room accessories are required.

Stair construction in most stairways consists of concrete treads, risers, and stringers with wood handrails (29" high), guards (36" high), and steel ballusters with 3" spacing. The two emergency egress stairs facing the parking lot are constructed of concrete treads, risers, and stringers with steel handrails (29" high) and full height glass and steel walls between stair runs. Since handrail and guard heights are not in compliance with today's codes, new handrail and guard systems are required for all stairs.

Wall finishes in the old building are plaster which is cracked with surface crazing in a number of classroom and corridor locations. There is damage in most classrooms at doorways and corners; corridors also have scattered areas of damage. There are also areas of water damage on upper floor plaster walls due to water penetration from coping or roof leaks or lintel leaks. Stained wood trim in all rooms is damaged and worn requiring filling and refinishing. Toilet room walls are painted plaster above a recently installed ceramic tile wainscot. The auditorium has painted wood wainscot and decorative plaster pilasters and decorative wood classical architectural elements in need of repair and repainting. The queuing area outside the auditorium is part of the grand lobby entrance to the building. This two-story space has white marble walls with marble columns, capitals, and trimmed archways, marble stairs, marble and terrazzo floors, and plaster walls and ceilings. These historical marble and plaster decorative elements are in good condition and need some minor cleaning, repair and new paint. In the auditorium and backstage, there are a number of wall and ceiling areas that have been damaged from water leaks, coming from the trapped wall/roof areas previously discussed in the roof discussion. Assuming these leaks have been addressed after roof and wall repairs, the auditorium plaster should be repaired.

Floor finishes in the building consist of dark stained oak floors in classrooms and the auditorium, vinyl composition tile in classrooms

and cafeterias, seamless vinyl in the gymnasium, and concrete in corridors and basement. Wood floors are generally in good enough condition to be stripped, sanded, and refinished. Classrooms, cafeteria, and other rooms with either 12"x12" vinyl composition tile (VCT) or 9"x9" VAT over wood are worn, have damages and cupping edges; the finishes in these rooms should be removed and replaced with new VCT where severely damaged; stripped and cleaned if possible where not damaged. Nine by nine inch tile floors may have asbestos and need to tested to confirm the possible presence of asbestos. If present, the tiles should be removed using proper asbestos abatement procedures and replaced with 12"x12" VCT. The gymnasium floors have holes and crack damages and are worn; these floors should also be replaced. All corridor floors are finished with 2'x2' (nominal size) concrete tiles which appear to be a monolithic system and highly durable. Edges along the walls are painted; These corridor floors have not recently been stripped and cleaned and have years of dirt sealed into the surface and corners, causing their color to be very dark and dingy. There is an especially large build-up of dirt at all corners. Toilet room floors also have a sealed concrete floor finish. A thorough cleaning and resealing of these floors is required. The cafeteria kitchen floor is concrete, which is not a sanitary floor finish. It should be refinished with a cleanable sanitary coating.

Ceiling finishes are mostly 2x4 suspended acoustical tile ceiling system with recessed 2x4 fluorescent lighting fixtures throughout the building. Most 2x4 ceilings and lighting fixtures are aging and in fair condition; ceiling tiles damaged by water leaks should be replaced. The auditorium has a plaster ceiling with decorative cornice elements and moldings; areas damaged by roof and wall leaks should be replastered and repaired. The boys and girls gymnasiums have exposed structural joist and deck ceilings. The paint that once covered the exposed room-side of the metal roof deck is peeling; bar joists and the metal deck are in need of refinishing.

Furnishings in the building include the original folding wood seating in the auditorium which is still in use. Many of the 600 (approximate number) seats need to be repaired to operate properly and many are scratched; at least 50% are damaged. The broken seating should be repaired and the worn seating should be refinished. Casework and storage cabinets in the classrooms and the office is damaged, worn and needs replacement. Student lockers throughout the building appear to be in good condition.

An elevator was not present in this school. An ADA accessible elevator is required.

Mechanical

Plumbing Fixtures - Many of the original plumbing fixtures in the building have been replaced within the past 15 years. Fixtures in the restrooms on each floor consist of wall mounted water closets, wall hung urinals, and lavatories with press or wheel handle faucets. The plumbing fixtures appear to be in satisfactory condition and should not need replacement for the next 10 years.

Drinking fountains in the corridors and at the restrooms are wall hung. Some original equipment drinking fountains remain while some appear to have been replaced 20-30 years ago. It is recommended to replace all drinking fountains throughout the building.

Service sinks are available in the hallways for use by the janitorial staff and appears to be 50 years old. These sinks are generally in converted closets and have no exhaust. Replacement is recommended for all service sinks in the building.

The Cafeteria has two, two-basin stainless steel service sinks with sanitizing chemicals and appropriate grease traps. These sinks spear to be in satisfactory condition and should not need replacement for the next 10 years.

Domestic Water Distribution - Domestic water distribution piping is primarily soldered copper. Water service enters the building in the basement, with backflow preventers and the water meter on the main line after entering the building. The distribution piping appears to have been updated at some point in the buildings life. However, there are areas where the copper pipe as begun to leak. There are no water booster pumps in this facility. A thorough inspection of the domestic water distribution system is recommended due to its age and the prevalence of leaks.

Two Bradford White natural gas fired vertical water heater tanks are installed in the basement of the building with appropriate piping, controls, and venting. The water heaters were installed in 2012 and appear to be in satisfactory condition. They should not need replacement for the next 10 years.

Sanitary Waste - The sanitary waste piping are hub and spigot or threaded cast iron pipe. Some appear to be the original equipment and some appears to have been replaced approximately 40 years ago. The complete sanitary system is well beyond its serviceable life. It is recommended to inspect the sanitary system and repair or replace as needed.

Rain Water Drainage – Most of the rain water drains from the roof are routed through mechanical chases in the building. Some are routed through downspouts on the exterior of the building. There are no roof overflow drains on any roof, however, the main roof has no parapet on the inside and will spill over onto the lower roofs if roof drains are flooded. Roof overflow drains should be added to the low roofs to allow water to be removed from these areas if low roof drains are blocked.

Energy Supply - The facilities use fuel oil or natural gas for heat sources. Both the fuel oil and natural gas enter the building in the basement. The fuel oil is stored in an underground tank adjacent to the building underneath a concrete sidewalk. There is a single duplex fuel oil pump skid and two duplex natural gas pump skids in the basement mechanical area.

Heat Generating Systems - Steam is generated in the basement of the original building by three Smith 4500A series dual fuel boilers, each having a gross output of 6947 MBH. The boilers sit on 6" concrete pads. The boilers appear to be in satisfactory condition and should not need replacement for the next 10 years.

Distribution Systems - The boiler feed water is treated with a combination of chemicals, controlled with a digital water treatment controller. There is a condensate return tank with integrated controls and duplex pumps serving the boiler feed tank. The boiler feed tank has 4 pumps with an integrated skid mounted control panel. A flash tank is integrated into the system as well. Overall the distribution equipment in the mechanical room appears to be newly installed and should not need repair or replacement for the next 10 years.

The steam and condensate return lines throughout the building are older, are missing insulation, and are most likely beyond their service life. According to the building engineer, most radiators in the building have hand control valves to allow users to turn up or down the heat as needed.

Ventilation and additional heating for the main building was provided by 3 house fans in the basement. The air is pushed into the various rooms of the building through ducts built into the walls. The air is exhausted from other ducts built into the walls, up through the attic space, and out through roof mounted vents. All house fans appear to have been recently repaired, to include coils, steam traps, louvers, and motors. The house fans are fully operational according to the building engineer.

The classrooms have operable windows to allow for additional ventilation. The auditorium also has operable windows controlled by electronic actuators. There is a concern about fresh air available in the gym as the only ventilation available are windows near the ceiling.

Terminal & Package Units – Approximately 1/3 of classrooms have window air conditioning units. The gymnasium had an AHU but it does not provide adequate heat and the windows are not operable. There is a concern about the fresh air available in the gym.

There appeared to be two DX fan coil units in closets in the third floor with louvers in the wall to allow for fresh air serving two classrooms per unit. This was not able to be confirmed since the closets were locked.

Controls & Instrumentation - There are some pneumatic thermostats on the walls that are not in service. Most steam radiators have hand valves to allow manual modulation of the heat in each room.

This system is not a proper control method and is ultimately minimally functional. Remove all existing controls and replace with new DDC system.

Sprinklers - There are no sprinklers in the original building. It is recommended to install a new sprinkler system.

Electrical

Site electrical service is fed from the medium voltage overhead lines on wooden poles along Ditman St. One pit mounted utility transformer with medium voltage primary (voltage level unknown at this time) and 208/120VAC secondary at an estimated available power of 150 KVA is installed outside the building for supplying power to facility.

The service entrance to the facility consists of a disconnect switch, utility meter, and 1200A switchboard located in the Boiler Room in the basement. This equipment has exceed its useful life and should be replaced.

Main distribution switchboard feeds AC units and other mechanical and kitchen loads. Lighting and receptacles are fed by several 240/120V panel boards throughout the building. Four flush mounted panel boards are located in the corridors of each floor. There is one 100KVA phase converter transformer for converting 208VAC to 120/240VAC, single phase for powering the lighting/receptacle panels. These panel boards and branch circuit breakers have exceeded their useful lives and should be replaced.

In general there are not enough receptacles in the classrooms. It is recommended to have a minimum of two receptacles on each wall. The computer room should have receptacles at three feet on center on each wall.

Lighting - Most lighting fixtures in classrooms, offices, and corridors were upgraded three years ago and are in a good condition. Lighting fixtures in the kitchen and cafeteria are old, have outdated T12 lamps, and should be replaced. The Auditorium is illuminated by outdated wall mounted lighting fixtures and high bay metal halide lighting fixtures, which are not an appropriate type of lighting fixture for this type of space. The lighting levels in gymnasium are below the standard 80 footcandle lighting level IES recommendation.

Fire Alarm System - Building is equipped with 120V manual fire alarm system made by Couch Company. The company has been out of business since 1985; spare parts have not been available since 2003. The existing system does not meet current fire alarm codes and should be replaced.

Telephone / LAN - The telephone/LAN equipment/devices are in the IT room located in the main office. The Computer Room, some classrooms, and some offices are provided with data outlets. In general, the telephone and Local Area network system is adequate.

Public address / Music- The present public address and music system is old, inadequate and should be replaced.

Intercom and paging systems are functional. The paging system is a one way communication system from the office to each classroom. Two way communications is obtained by use of wall mounted phones in the classrooms and other rooms.

The existing clock system is not functioning properly. The existing bell system is working adequately.

Television system is not provided in this school.

Security Systems, access control, and video surveillance systems are provided in this school. A sufficient number of cameras are installed to cover exit doors, corridors, and other critical areas; they are controlled by a Closed Circuit Television system (CCTV). This system is working properly.

Emergency Power System is provided in the school. A 30KW, 240/120V, 1PH, 3W diesel generator manufactured by "Onan" is installed in the boiler room. This generator is old and has exceeded its useful life; it should be replaced.

Uninterruptible Power System (UPS) is provided for Local Area Network.

Emergency lighting system includes exit lights and is provided in the building. Lighting for corridors, the library, and egress ways are fed by the emergency back-up power system.

Lightning Protection System on the building is adequate. It is accomplished with air terminal mounted on the chimney; however, some repairs are needed to make the system fully operational. A study needs to be conducted to verify that the air terminals provide the proper coverage.

Grounding is present and is adequate.

Elevator is not provided in the building.

Theater Lighting and dimming controls is old and not code compliant. Lights are turned on and off by circuit breakers, which are not designed for frequent on/off use. A proper lighting panel for light switching is required.

Site Lighting System is not adequate. Existing lighting fixtures located on exterior building walls do not provide the adequate footcandle levels required by code and do not provide adequate site security.

Site Video Surveillance system is not provided in the school.

Site paging system is not adequate. Existing speakers on exterior walls are not enough to cover the area.

Grounds

Walkway paving is constructed of 4'x4' (nominal) concrete panels; roughly 25% are in need of replacement and although they are not all contiguous, it may be possible to replace only those that are failing. There are 2 parking lots, paved in asphalt, both in need of repaving and restriping, replacing the same number of existing markings with new markings. The number of required parking spaces for school staff is unknown. Granite block stairways into the building are need resetting and regrouting. New handrails and guards are required at all stairs. An ADA accessible entrance with ADA marked parking spaces and accessible route is not included in either

of the existing parking areas. The proper number of accessible parking spaces and an ADA accessible ramp needs to be provided.

Wrought iron fencing is generally in good condition. There are some damaged and bent fence panels in need of replacement. Most of the fence is rusted and requires repainting. The gates providing street and pedestrian access are either missing or inoperative and require replacement.

Landscaping is in need of trimming and maintenance on all sides of the building.

RECOMMENDATIONS

Architectural

- Strip and repaint concrete foundation (interior basement) walls in mechanical rooms (4,000sf)
- Remove concrete walk "bridge" over window well; repair concrete areaway retaining wall, replace beam and raised structural slab (500sf)
- Clean and repaint basement floor in mechanical rooms; clean and reseal concrete floors in hallways, stairways, and toilet rooms (42,264sf)
- Replace all exterior windows with insulated single hung units (126+126+94+94+120)3.5x6 = 600
- Repoint cracks in parapet above counterflashing, masonry walls above roof, cracks in brick walls on facing inside of "O", and joints above and below limestone band (400sf)
- Replace steel emergency exit stairway gratings (300sf)
- Powerwash rear building wall and limestone band that surrounds building (10000sf)
- Replace all exterior doors with ADA and code compliant exit hardware; repaint doors and frames.(20)3x7
- Remove and replace existing flat roof and insulation; 9 levels (53,312sf)
- Remove non-rated glass panels between classrooms and corridors; fill with fire rated gyp bd sys. (40 @ 6sf)
- Remove and replace all original wood interior doors, frames and hardware in classrooms, closets, offices, etc. (40)
- Refinish replacement wood interior doors and frames in hallways (30)
- Provide security hardware for classrooms and offices, locking from inside classroom. (80)
- Remove and replace all basement steel doors, frames, and hardware in mechanical rooms; fire rated doors with panic hardware for stairs (12+36) 3x7 doors
- Remove folding wood partitions; replace with gypsum board and metal stud walls (8) @300sf ea =2700sf
- Provide toilet room accessories where broken or missing (12 sets)
- Repair water damage, cracks, and repaint interior and exterior plaster walls (20,000sf)
- Repair cracked painted brick wall in gym (500sf)
- Remove and replace stairway handrails and guards with code compliant systems (6) 4 story;=50x24=1200lf
- Regrout all joints between limestone block tread/risers at exterior stairs (40 treads, 12ft long)
- Strip, sand, repair and refinish all wood floors in classrooms and in auditorium (38,000sf)
- Remove and replace all seamless vinyl floors in gymnasiums (6,000sf)
- Replace VCT floors assume (assume 50% of total sf of VCT) (18,000sf)
- Strip and clean VCT floors (assume 50% of total sf of VCT) (18,000sf)
- Replace VAT floors using proper asbestos abatement procedures if determined asbestos is present. (6000sf)
- Strip and refinish terrazzo in lobby (3000sf)
- Repair cracks in terrazzo (100lf)
- Repaint plaster ceilings where damaged by water (1,000sf)
- Replace 2x4 acoustical tile ceilings where damaged or where grid is rusted (35,000)
- Repaint exposed bar joist & metal deck ceilings over boys and girls gyms (6000sf)
- Repair or replace damaged folding wood auditorium chairs; 50% of total = 300; refinish all 600
- Provide new hydraulic elevator

Mechanical

- Replace all service sinks throughout the building
- Replace all drinking fountains throughout the building
- Inspect sanitary system throughout the building and repair/replace as necessary.
- Inspect domestic water distribution system throughout the building and repair/replace as necessary.
- Install a new DDC system and provide training for maintenance personnel. a new building automation system (BAS) with communication interface to the preferred system in use throughout the District.
- Install a fire protection sprinkler system with quick response type heads to reduce insurance costs by providing protection for the property in the main building. A fire pump may be required depending on the available city water pressure.

- Remove existing steam distribution system. Install hot water distribution system.
- Install chiller and chilled water distribution system
- Add overflow drains to low roofs to prevent flooding of low roofs
- Install unit ventilators in all classrooms. Replace the existing unit ventilators throughout the building with new units designed to provide adequate ventilation per ASHRAE Std. 62. The new units shall be equipped with hot water / chilled water coils and integral heat recovery wheels. Install steam converters in the existing boiler room with circulating pumps, distribution piping and controls to provide heating hot water for the new coils
- Install AHUs to condition the cafeteria. Provide ventilation, heating and cooling for the cafeteria by removing the electric convection heaters and installing a package rooftop constant volume air handling unit with distribution ductwork and registers for supply and return air
- Install AHUs to condition the 2 gymnasiums. Provide ventilation, heating and cooling for the Auditorium by installing a package rooftop constant volume air handling unit with distribution ductwork and registers
- Install AHUs to condition the auditorium.c Provide ventilation, heating and cooling for the Auditorium by installing a package rooftop constant volume air handling unit with distribution ductwork and registers

Electrical

- Upgrade the existing electrical service with new electrical service. Replace the existing switchboard with a new1600A, 480/277,3PH, and 4 wire switchboard. Provide five 75KVA, 480V to 120/208V transformers for 208/120V loads.
- Replace the entire distribution system with new panel boards and new feeders. Provide arc flash labels on all panel boards. Estimated, 14 panel boards.
- Install minimum two receptacles in each wall of all classrooms.
- Install surface mounted raceway with two-compartments for data and power in the computer lab room.
- Install new lighting fixtures in auditorium, kitchen, dining room, and access way to the roof area. T-8 lighting fixtures are recommended.
- Replace existing fire alarm system with a new automatic Fire Alarm System including control panel, initiation devices in corridors, air ducts, electrical rooms, LAN rooms, library, and computer rooms. Provide notification devices in classrooms, offices, auditorium, corridors, other areas as recommended by codes.
- Replace existing master clock controller with a new system.
- Install a new emergency power system including 30KVA diesel generator and automatic transfer switch.
- Provide new stage lighting and lighting controller in the Auditorium.
- Provide new sound system including a freestanding 19” rack back-stage with mixer pre-amplifiers, CD player, cassette player, AM-FM radio, graphic or parametric equalizer, and receivers for wireless microphone.
- Replace existing exterior lighting fixtures with wall mounted flood lights. Estimated 12 lighting fixtures.
- Install 1 camera on each corner of the building exterior and one on the main entrance of the building.
- Provide exterior speakers at different locations to cover the exterior area. Estimate 3 speakers.

Grounds

- Repave damaged sections of concrete walkway (5,000sf)
- Provide an ADA accessible ramp into the building
- Replace damaged wrought iron fencing (300lf)
- Replace chain link fence surrounding parking lots; including 2-20ft gates (1200lf)
- Fill cracks in side parking lot (600ft)
- Repave 100% of rear parking lot (16,000sf

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 1 / Tm 2
Status:	Accepted by SDP	Team:	Tm 2
Site ID:	S711001		

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	39.33 %	0.00 %	$0.00
A20 - Basement Construction	39.33 %	3.67 %	$68,319.72
B10 - Superstructure	39.33 %	0.00 %	$0.00
B20 - Exterior Enclosure	60.00 %	44.46 %	$3,829,599.81
B30 - Roofing	109.85 %	89.59 %	$1,806,317.78
C10 - Interior Construction	45.31 %	15.37 %	$487,505.03
C20 - Stairs	39.33 %	108.73 %	$198,166.77
C30 - Interior Finishes	62.96 %	25.62 %	$1,558,373.09
D10 - Conveying	77.14 %	325.19 %	$643,131.77
D20 - Plumbing	83.51 %	51.20 %	$1,326,308.32
D30 - HVAC	79.51 %	84.57 %	$12,161,047.27
D40 - Fire Protection	0.00 %	82.38 %	$858,326.79
D50 - Electrical	110.11 %	42.45 %	$3,225,623.95
E10 - Equipment	38.01 %	4.41 %	$90,802.49
E20 - Furnishings	12.50 %	96.07 %	$264,518.15
G20 - Site Improvements	27.18 %	7.54 %	$237,322.19
G40 - Site Electrical Utilities	31.77 %	0.00 %	$0.00
Totals:	**62.27 %**	**37.89 %**	**$26,755,363.13**

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)
B711001;Harding	129,264	40.16	$5,316,567.83	$9,663,505.22	$1,526,571.67	$2,709.45	$10,008,686.77
G711001;Grounds	329,100	5.18	$38,972.72	$198,349.47	$0.00	$0.00	$0.00
Total:		**37.89**	**$5,355,540.55**	**$9,861,854.69**	**$1,526,571.67**	**$2,709.45**	**$10,008,686.77**

Deficiencies By Priority

1 - Response Time (< 2 yr) - $5,355,540.55
2 - Response Time (2-3 yrs) - $9,861,854.69
3 - Response Time (3-4 yrs) - $1,526,571.67
4 - Response Time (4-5 yrs) - $2,709.45
5 - Response Time (> 5 yrs) - $10,008,686.77

Budget Estimate Total: $26,755,363.13

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:	Middle School
Gross Area (SF):	129,264
Year Built:	1924
Last Renovation:	
Replacement Value:	$66,037,388
Repair Cost:	$26,518,040.94
Total FCI:	40.16 %
Total RSLI:	64.61 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B711001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S711001		

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	39.33 %	0.00 %	$0.00
A20 - Basement Construction	39.33 %	3.67 %	$68,319.72
B10 - Superstructure	39.33 %	0.00 %	$0.00
B20 - Exterior Enclosure	60.00 %	44.46 %	$3,829,599.81
B30 - Roofing	109.85 %	89.59 %	$1,806,317.78
C10 - Interior Construction	45.31 %	15.37 %	$487,505.03
C20 - Stairs	39.33 %	108.73 %	$198,166.77
C30 - Interior Finishes	62.96 %	25.62 %	$1,558,373.09
D10 - Conveying	77.14 %	325.19 %	$643,131.77
D20 - Plumbing	83.51 %	51.20 %	$1,326,308.32
D30 - HVAC	79.51 %	84.57 %	$12,161,047.27
D40 - Fire Protection	0.00 %	82.38 %	$858,326.79
D50 - Electrical	110.11 %	42.45 %	$3,225,623.95
E10 - Equipment	38.01 %	4.41 %	$90,802.49
E20 - Furnishings	12.50 %	96.07 %	$264,518.15
Totals:	**64.61 %**	**40.16 %**	**$26,518,040.94**

Condition Detail

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

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

System Listing

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

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

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

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
A1010	Standard Foundations	$23.16	S.F.	129,264	150	1924	2074		39.33 %	0.00 %	59			$2,993,754
A1030	Slab on Grade	$5.17	S.F.	129,264	150	1924	2074		39.33 %	0.00 %	59			$668,295
A2010	Basement Excavation	$4.36	S.F.	129,264	150	1924	2074		39.33 %	0.00 %	59			$563,591
A2020	Basement Walls	$10.05	S.F.	129,264	150	1924	2074		39.33 %	5.26 %	59		$68,319.72	$1,299,103
B1010	Floor Construction	$85.94	S.F.	129,264	150	1924	2074		39.33 %	0.00 %	59			$11,108,948
B1020	Roof Construction	$9.26	S.F.	129,264	150	1924	2074		39.33 %	0.00 %	59			$1,196,985
B2010	Exterior Walls	$43.78	S.F.	129,264	150	1924	2074		39.33 %	0.71 %	59		$39,997.89	$5,659,178
B2020	Exterior Windows	$21.40	S.F.	129,264	40	1980	2020	2057	105.00 %	132.01 %	42		$3,651,601.90	$2,766,250
B2030	Exterior Doors	$1.45	S.F.	129,264	25	1980	2005	2020	20.00 %	73.63 %	5		$138,000.02	$187,433
B3010105	Built-Up	$37.76	S.F.	53,312	20	1980	2000	2037	110.00 %	89.73 %	22		$1,806,317.78	$2,013,061
B3010120	Single Ply Membrane	$38.73	S.F.		20				0.00 %	0.00 %				$0
B3010130	Preformed Metal Roofing	$54.22	S.F.		30				0.00 %	0.00 %				$0
B3010140	Shingle & Tile	$38.73	S.F.		20				0.00 %	0.00 %				$0
B3020	Roof Openings	$0.06	S.F.	53,312	30	1980	2010	2020	16.67 %	0.00 %	5			$3,199
C1010	Partitions	$17.91	S.F.	129,264	150	1924	2074		39.33 %	2.84 %	59		$65,694.58	$2,315,118
C1020	Interior Doors	$3.51	S.F.	129,264	40	1924	1964	2057	105.00 %	92.56 %	42		$419,942.11	$453,717
C1030	Fittings	$3.12	S.F.	129,264	40	1924	1964	2020	12.50 %	0.46 %	5		$1,868.34	$403,304
C2010	Stair Construction	$1.41	S.F.	129,264	150	1924	2074		39.33 %	108.73 %	59		$198,166.77	$182,262

Site Assessment Report - B711001;Harding

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
C3010230	Paint & Covering	$13.21	S.F.	127,264	10	1924	1934	2025	100.00 %	11.40 %	10		$191,667.02	$1,681,157
C3010231	Vinyl Wall Covering	$0.97	S.F.		15				0.00 %	0.00 %				$0
C3010232	Wall Tile	$2.63	S.F.	2,000	30	1990	2020	2030	50.00 %	0.00 %	15			$5,260
C3020411	Carpet	$7.30	S.F.	0	10				0.00 %	0.00 %				$0
C3020412	Terrazzo & Tile	$75.52	S.F.	3,000	50	1924	1974	2020	10.00 %	1.58 %	5		$3,587.37	$226,560
C3020413	Vinyl Flooring	$9.68	S.F.	36,000	20	1924	1944	2037	110.00 %	137.63 %	22		$479,617.80	$348,480
C3020414	Wood Flooring	$22.27	S.F.	48,000	25	1924	1949	2042	108.00 %	38.27 %	27		$409,143.72	$1,068,960
C3020415	Concrete Floor Finishes	$0.97	S.F.	42,614	50	1924	1974	2067	104.00 %	393.08 %	52		$162,485.36	$41,336
C3030	Ceiling Finishes	$20.97	S.F.	129,264	25	1980	2005	2020	20.00 %	11.51 %	5		$311,871.82	$2,710,666
D1010	Elevators and Lifts	$1.53	S.F.	129,264	35	1924	1959	2042	77.14 %	325.19 %	27		$643,131.77	$197,774
D2010	Plumbing Fixtures	$13.52	S.F.	129,264	35	1924	1959	2042	77.14 %	0.88 %	27		$15,443.90	$1,747,649
D2020	Domestic Water Distribution	$1.68	S.F.	129,264	25	1924	1949	2032	68.00 %	286.45 %	17		$622,060.37	$217,164
D2030	Sanitary Waste	$2.52	S.F.	129,264	30	1924	1954	2047	106.67 %	156.83 %	32		$510,866.81	$325,745
D2040	Rain Water Drainage	$2.32	S.F.	129,264	30	1924	1954	2047	106.67 %	59.33 %	32		$177,937.24	$299,892
D3020	Heat Generating Systems	$18.67	S.F.	129,264	35	1924	1959	2042	77.14 %	0.00 %	27			$2,413,359
D3030	Cooling Generating Systems	$24.48	S.F.	129,264	30				0.00 %	78.84 %			$2,494,725.70	$3,164,383
D3040	Distribution Systems	$42.99	S.F.	129,264	25	1924	1949	2042	108.00 %	125.60 %	27		$6,979,611.25	$5,557,059
D3050	Terminal & Package Units	$11.60	S.F.	129,264	20	1924	1944	2037	110.00 %	0.00 %	22			$1,499,462
D3060	Controls & Instrumentation	$13.50	S.F.	129,264	20	1924	1944	2037	110.00 %	153.96 %	22		$2,686,710.32	$1,745,064
D4010	Sprinklers	$7.05	S.F.	129,264	35				0.00 %	94.19 %			$858,326.79	$911,311
D4020	Standpipes	$1.01	S.F.	129,264	35				0.00 %	0.00 %				$130,557
D5010	Electrical Service/Distribution	$9.70	S.F.	129,264	30	1924	1954	2047	106.67 %	86.13 %	32		$1,079,948.15	$1,253,861
D5020	Lighting and Branch Wiring	$34.68	S.F.	129,264	20	1924	1944	2037	110.00 %	22.86 %	22		$1,024,818.88	$4,482,876
D5030	Communications and Security	$12.99	S.F.	129,264	15	1924	1939	2032	113.33 %	51.86 %	17		$870,763.64	$1,679,139
D5090	Other Electrical Systems	$1.41	S.F.	129,264	30	1924	1954	2047	106.67 %	137.22 %	32		$250,093.28	$182,262
E1020	Institutional Equipment	$4.82	S.F.	129,264	35	1924	1959	2029	40.00 %	14.57 %	14		$90,802.49	$623,052
E1090	Other Equipment	$11.10	S.F.	129,264	35	1924	1959	2028	37.14 %	0.00 %	13			$1,434,830
E2010	Fixed Furnishings	$2.13	S.F.	129,264	40	1924	1964	2020	12.50 %	96.07 %	5		$264,518.15	$275,332
								Total	**64.61 %**	**40.16 %**			**$26,518,040.94**	**$66,037,388**

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: C1010 - Partitions — This system contains no images

Note: plaster walls 90%
glazed or painted brick 10%

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

Note: painted plaster or brick 91%
glazed brick 7%
marble 2%

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

Note: sealed concrete 33%
stained oak with clear finish 28%
VCT, VAT and seamless vinyl (gym) 37%
6000sf gym
6000sf VAT -= test for asbestos and abate if needed

terrazzo floors in entrance lobby 1st and 2nd floors 2%

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

Note: 2x4 acoustical tile ceilings 90%
painted plaster or concrete deck 10%

System: D5090 - Other Electrical Systems — This system contains no images

Note: 100KVA phase converter transformer.

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:	**$26,518,041**	**$0**	**$0**	**$0**	**$0**	**$4,854,047**	**$0**	**$0**	**$0**	**$0**	**$2,485,268**	**$33,857,357**
*** 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	$68,320	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$68,320**
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	$39,998	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$39,998**
B2020 - Exterior Windows	$3,651,602	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$3,651,602**
B2030 - Exterior Doors	$138,000	$0	$0	$0	$0	$239,014	$0	$0	$0	$0	$0	**$377,015**
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	$1,806,318	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,806,318**
B3010120 - Single Ply Membrane	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010130 - Preformed Metal Roofing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010140 - Shingle & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3020 - Roof Openings	$0	$0	$0	$0	$0	$4,079	$0	$0	$0	$0	$0	**$4,079**
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	$65,695	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$65,695**

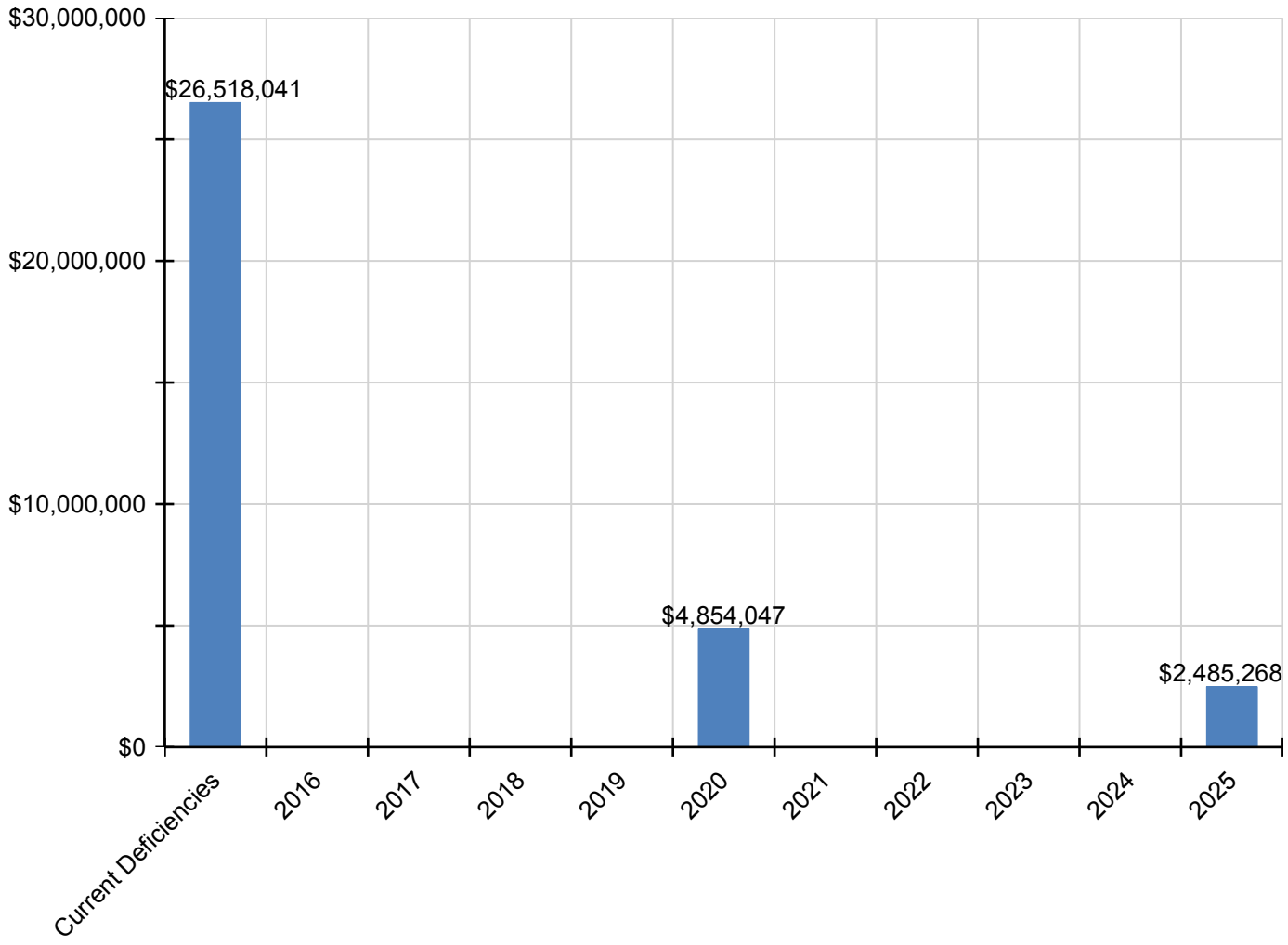
C1020 - Interior Doors	$419,942	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$419,942**
C1030 - Fittings	$1,868	$0	$0	$0	$0	$514,293	$0	$0	$0	$0	$0	**$516,162**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$198,167	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$198,167**
C30 - Interior Finishes	$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	$191,667	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,485,268	**$2,676,935**
C3010231 - Vinyl Wall Covering	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010232 - Wall Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020411 - Carpet	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020412 - Terrazzo & Tile	$3,587	$0	$0	$0	$0	$288,910	$0	$0	$0	$0	$0	**$292,497**
C3020413 - Vinyl Flooring	$479,618	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$479,618**
C3020414 - Wood Flooring	$409,144	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$409,144**
C3020415 - Concrete Floor Finishes	$162,485	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$162,485**
C3030 - Ceiling Finishes	$311,872	$0	$0	$0	$0	$3,456,646	$0	$0	$0	$0	$0	**$3,768,518**
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	$643,132	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$643,132**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$15,444	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$15,444**
D2020 - Domestic Water Distribution	$622,060	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$622,060**
D2030 - Sanitary Waste	$510,867	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$510,867**
D2040 - Rain Water Drainage	$177,937	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$177,937**
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	$2,494,726	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,494,726**
D3040 - Distribution Systems	$6,979,611	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$6,979,611**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$2,686,710	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,686,710**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$858,327	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$858,327**
D4020 - Standpipes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

D50 - Electrical	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5010 - Electrical Service/Distribution	$1,079,948	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,079,948**
D5020 - Lighting and Branch Wiring	$1,024,819	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,024,819**
D5030 - Communications and Security	$870,764	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$870,764**
D5090 - Other Electrical Systems	$250,093	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$250,093**
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	$90,802	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$90,802**
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	$264,518	$0	$0	$0	$0	$351,105	$0	$0	$0	$0	$0	**$615,623**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

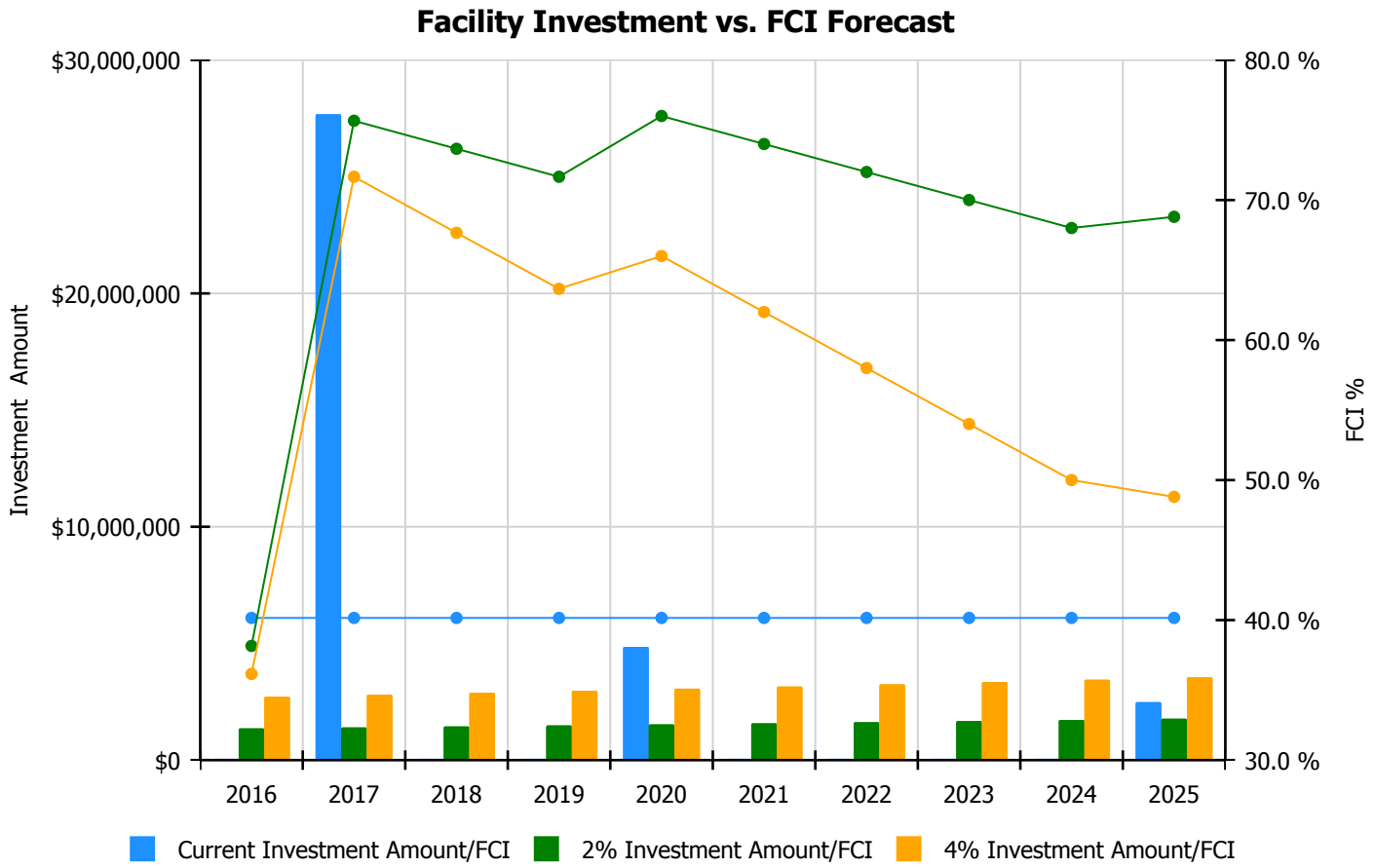
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

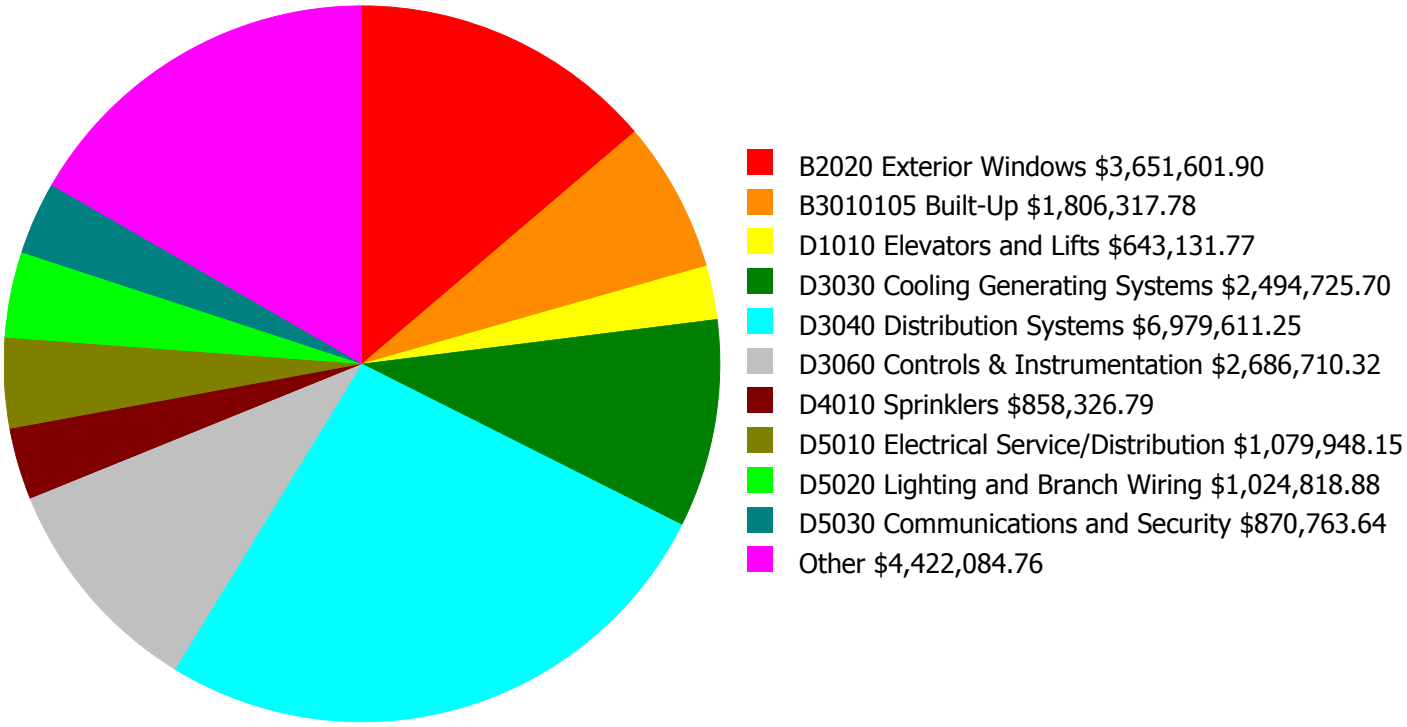
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 40.16%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$1,360,370.00	38.16 %	$2,720,740.00	36.16 %
2017	$27,677,693	$1,401,181.00	75.66 %	$2,802,363.00	71.66 %
2018	$0	$1,443,217.00	73.66 %	$2,886,433.00	67.66 %
2019	$0	$1,486,513.00	71.66 %	$2,973,026.00	63.66 %
2020	$4,854,047	$1,531,109.00	76.00 %	$3,062,217.00	66.00 %
2021	$0	$1,577,042.00	74.00 %	$3,154,084.00	62.00 %
2022	$0	$1,624,353.00	72.00 %	$3,248,706.00	58.00 %
2023	$0	$1,673,084.00	70.00 %	$3,346,167.00	54.00 %
2024	$0	$1,723,276.00	68.00 %	$3,446,553.00	50.00 %
2025	$2,485,268	$1,774,975.00	68.80 %	$3,549,949.00	48.80 %
Total:	**$35,017,009**	**$15,595,120.00**		**$31,190,238.00**	

Deficiency Summary by System

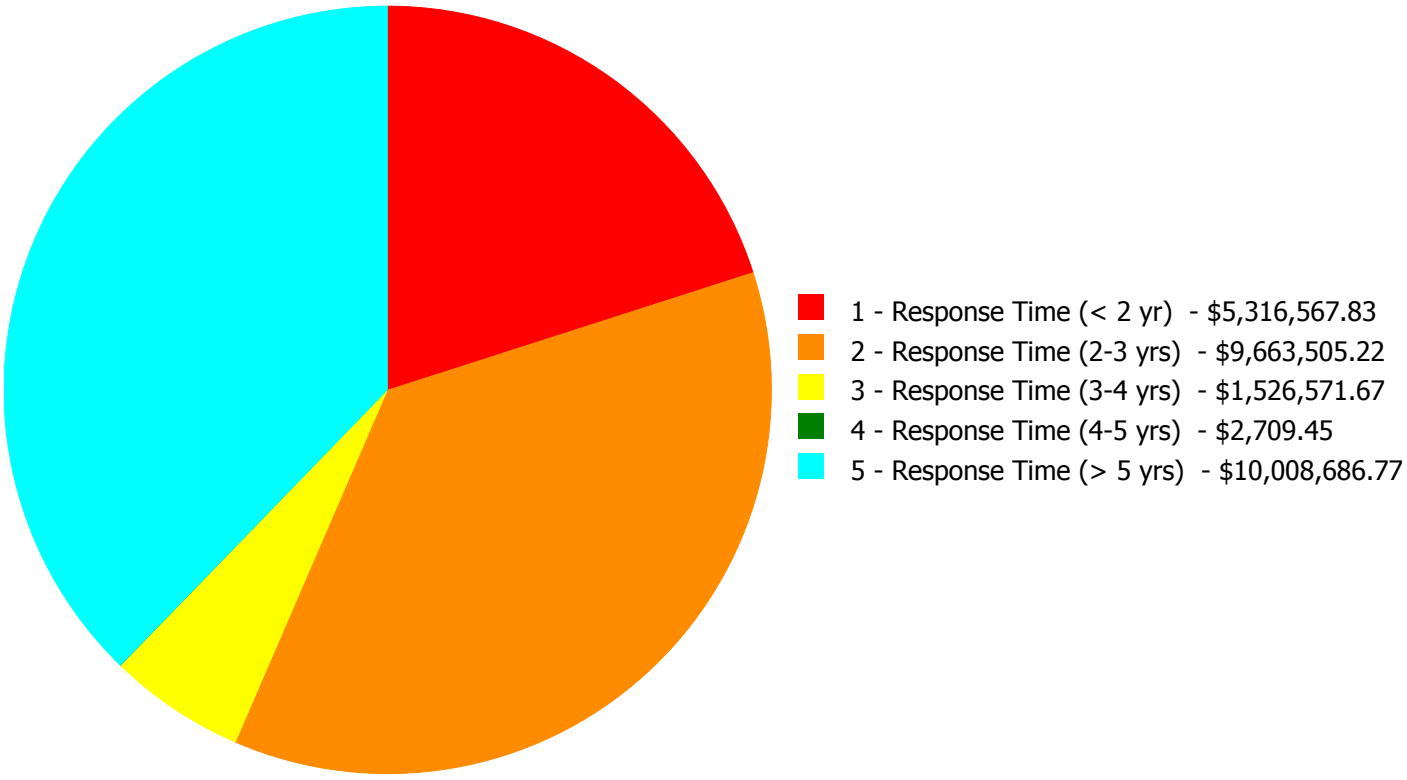
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $26,518,040.94

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: $26,518,040.94

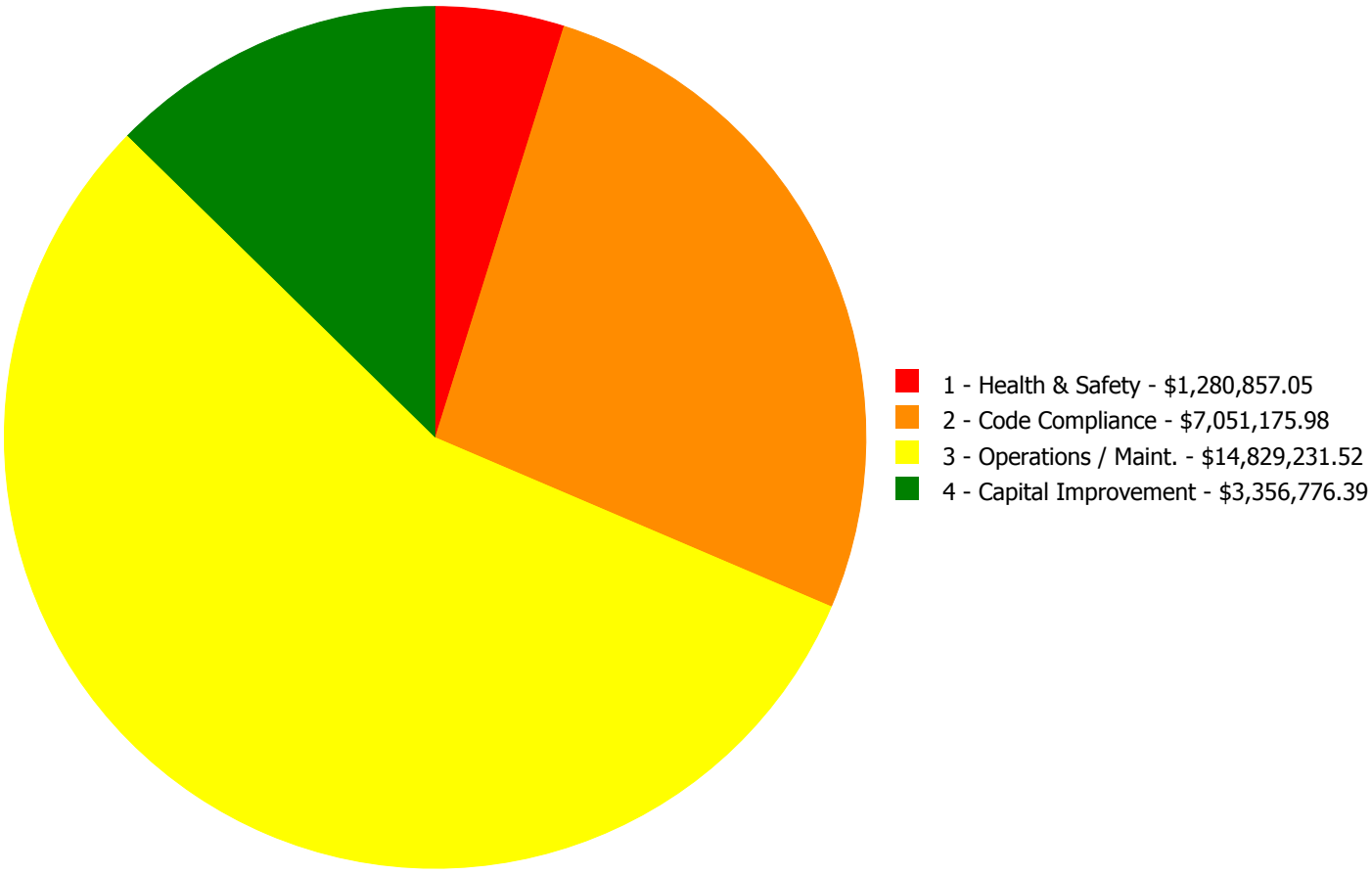
Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
A2020	Basement Walls	$0.00	$68,319.72	$0.00	$0.00	$0.00	$68,319.72
B2010	Exterior Walls	$0.00	$29,060.54	$10,937.35	$0.00	$0.00	$39,997.89
B2020	Exterior Windows	$0.00	$3,651,601.90	$0.00	$0.00	$0.00	$3,651,601.90
B2030	Exterior Doors	$0.00	$138,000.02	$0.00	$0.00	$0.00	$138,000.02
B3010105	Built-Up	$1,806,317.78	$0.00	$0.00	$0.00	$0.00	$1,806,317.78
C1010	Partitions	$5,539.94	$60,154.64	$0.00	$0.00	$0.00	$65,694.58
C1020	Interior Doors	$0.00	$419,942.11	$0.00	$0.00	$0.00	$419,942.11
C1030	Fittings	$0.00	$1,868.34	$0.00	$0.00	$0.00	$1,868.34
C2010	Stair Construction	$190,993.12	$7,173.65	$0.00	$0.00	$0.00	$198,166.77
C3010230	Paint & Covering	$0.00	$161,659.02	$30,008.00	$0.00	$0.00	$191,667.02
C3020412	Terrazzo & Tile	$0.00	$3,587.37	$0.00	$0.00	$0.00	$3,587.37
C3020413	Vinyl Flooring	$0.00	$479,617.80	$0.00	$0.00	$0.00	$479,617.80
C3020414	Wood Flooring	$0.00	$409,143.72	$0.00	$0.00	$0.00	$409,143.72
C3020415	Concrete Floor Finishes	$0.00	$162,485.36	$0.00	$0.00	$0.00	$162,485.36
C3030	Ceiling Finishes	$0.00	$283,149.65	$28,722.17	$0.00	$0.00	$311,871.82
D1010	Elevators and Lifts	$0.00	$643,131.77	$0.00	$0.00	$0.00	$643,131.77
D2010	Plumbing Fixtures	$0.00	$15,443.90	$0.00	$0.00	$0.00	$15,443.90
D2020	Domestic Water Distribution	$0.00	$0.00	$0.00	$0.00	$622,060.37	$622,060.37
D2030	Sanitary Waste	$0.00	$0.00	$510,866.81	$0.00	$0.00	$510,866.81
D2040	Rain Water Drainage	$0.00	$177,937.24	$0.00	$0.00	$0.00	$177,937.24
D3030	Cooling Generating Systems	$0.00	$0.00	$0.00	$0.00	$2,494,725.70	$2,494,725.70
D3040	Distribution Systems	$0.00	$0.00	$946,037.34	$0.00	$6,033,573.91	$6,979,611.25
D3060	Controls & Instrumentation	$0.00	$2,686,710.32	$0.00	$0.00	$0.00	$2,686,710.32
D4010	Sprinklers	$0.00	$0.00	$0.00	$0.00	$858,326.79	$858,326.79
D5010	Electrical Service/Distribution	$1,079,948.15	$0.00	$0.00	$0.00	$0.00	$1,079,948.15
D5020	Lighting and Branch Wiring	$1,024,818.88	$0.00	$0.00	$0.00	$0.00	$1,024,818.88
D5030	Communications and Security	$868,054.19	$0.00	$0.00	$2,709.45	$0.00	$870,763.64
D5090	Other Electrical Systems	$250,093.28	$0.00	$0.00	$0.00	$0.00	$250,093.28
E1020	Institutional Equipment	$90,802.49	$0.00	$0.00	$0.00	$0.00	$90,802.49
E2010	Fixed Furnishings	$0.00	$264,518.15	$0.00	$0.00	$0.00	$264,518.15
	Total:	$5,316,567.83	$9,663,505.22	$1,526,571.67	$2,709.45	$10,008,686.77	$26,518,040.94

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: $26,518,040.94

Deficiency Details by Priority

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

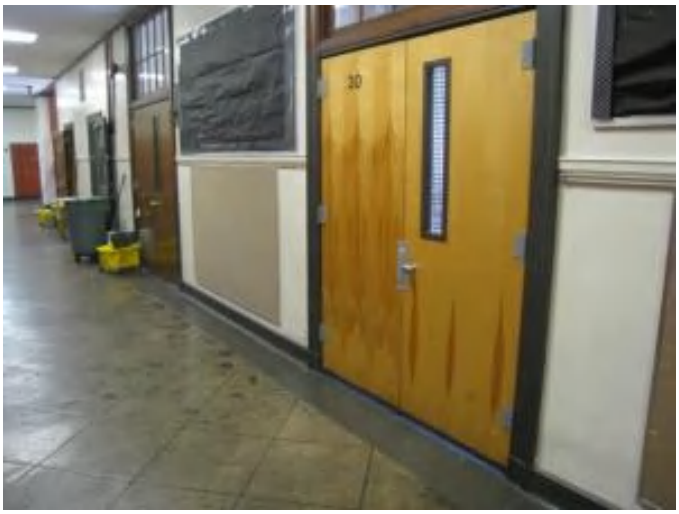
Priority 1 - Response Time (< 2 yr):

System: B3010105 - Built-Up

Location: roof
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Remove and Replace Built Up Roof
Qty: 53,312.00
Unit of Measure: S.F.
Estimate: $1,806,317.78
Assessor Name: System
Date Created: 08/14/2015

Notes: Remove and replace existing flat roof and insulation; 9 levels

System: C1010 - Partitions



Location: corridor walls
Distress: Building / MEP Codes
Category: 2 - Code Compliance
Priority: 1 - Response Time (< 2 yr)
Correction: Install fire rated walls and door where required - insert number of doors
Qty: 240.00
Unit of Measure: S.F.
Estimate: $5,539.94
Assessor Name: System
Date Created: 08/14/2015

Notes: Remove non-rated glass panels between classrooms and corridors; fill with fire rated gyp bd sys.

System: C2010 - Stair Construction

Location: stairways

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 1 - Response Time (< 2 yr)

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

Qty: 400.00

Unit of Measure: L.F.

Estimate: $190,993.12

Assessor Name: System

Date Created: 08/14/2015

Notes: Remove and replace stairway handrails and guards with code compliant systems (wall mounted rails and center rails with balustrade)

System: D5010 - Electrical Service/Distribution

Location: Boiler Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Replace Switchboard

Qty: 1.00

Unit of Measure: Ea.

Estimate: $695,911.00

Assessor Name: System

Date Created: 08/07/2015

Notes: Upgrade the existing electrical service with a new service. Replace the existing switchboard with new1600A, 480/277,3PH, and 4 wire switchboard. Provide five 75KVA, 480V to 120/208V transformer tor 208/120V loads.

System: D5010 - Electrical Service/Distribution

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Replace Electrical Distribution System (U)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $384,037.15

Assessor Name: System

Date Created: 08/07/2015

Notes: Replace the entire distribution system with new panel boards and new feeders. Provide arc flush label on the all panel boards. Estimated, 14 panel boards.

System: D5020 - Lighting and Branch Wiring

Location: Classrooms

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 1 - Response Time (< 2 yr)

Correction: Replace Wiring Devices (SF) - surface mounted conduit and boxes

Qty: 0.00

Unit of Measure: S.F.

Estimate: $859,341.24

Assessor Name: System

Date Created: 08/07/2015

Notes: Install minimum two receptacles in each wall of class rooms. It is recommend that surface mounted raceway with tow-compartment, for data and power, be installed in the computer lab room.

System: D5020 - Lighting and Branch Wiring

Location: Gymnasium, kitchen,dining room, access to roof

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Replace Wiring Devices (SF) - surface mounted conduit and boxes

Qty: 0.00

Unit of Measure: S.F.

Estimate: $142,797.51

Assessor Name: System

Date Created: 08/07/2015

Notes: Install new lighting fixtures in auditorium, kitchen, dining room, access to the roof area. A new fluorescent lighting (T-8) will be recommended. Estimated 15% of the building

System: D5020 - Lighting and Branch Wiring

Location: Exterior walls

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Add Exterior Lighting

Qty: 1.00

Unit of Measure: Ea.

Estimate: $22,680.13

Assessor Name: System

Date Created: 08/10/2015

Notes: Replace existing exterior lighting fixtures with wall mounted flood light. Estimate 12 lighting fixtures.

System: D5030 - Communications and Security

Location: Entire Building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Replace fire alarm system

Qty: 1.00

Unit of Measure: S.F.

Estimate: $598,669.83

Assessor Name: System

Date Created: 08/10/2015

Notes: Replace existing fire alarm system with a new automatic Fire Alarm System including control panel, initiated devices in corridors, air ducts, electrical and LAN rooms, library, and computer rooms. Provide notification devices in class rooms, offices, auditorium, corridors, other area recommended by codes.

System: D5030 - Communications and Security

Location: Main Office

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Add/Replace Clock System or Components

Qty: 0.00

Unit of Measure: Ea.

Estimate: $164,874.77

Assessor Name: System

Date Created: 08/10/2015

Notes: Replace existing master clock controller.

System: D5030 - Communications and Security

Location: Exterior walls

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

Priority: 1 - Response Time (< 2 yr)

Correction: Add/Replace Video Surveillance System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $63,082.05

Assessor Name: System

Date Created: 08/10/2015

Notes: Install 1 camera on each corner of the exterior building and one on the main entrance of the building.

System: D5030 - Communications and Security

Location: Auditorium

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Add/Replace Sound System

Qty: 1.00

Unit of Measure: LS

Estimate: $41,427.54

Assessor Name: System

Date Created: 08/10/2015

Notes: Provide new sound system including a freestanding 19” tack back stage with mixer per amplifiers, CD player, cassette player, AM-FM radio, graphic or parametric equalizer, and receivers for wireless microphone.

System: D5090 - Other Electrical Systems

Location: Basement

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

Priority: 1 - Response Time (< 2 yr)

Correction: Replace standby generator system

Qty: 1.00

Unit of Measure: Ea.

Estimate: $250,093.28

Assessor Name: System

Date Created: 08/10/2015

Notes: Install a new emergency power system including 100KVA diesel generator and respective transfer switch.

System: E1020 - Institutional Equipment

Location: Auditorium

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Add/Replace Stage Theatrical Lighting System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $90,802.49

Assessor Name: System

Date Created: 08/10/2015

Notes: Provide new stage lighting and lighting controller in the Auditorium.

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

System: A2020 - Basement Walls

Location: rear entrance bridge

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Repair spalled concrete - pick the appropriate repair and insert the SF of wall area

Qty: 500.00

Unit of Measure: S.F.

Estimate: $68,319.72

Assessor Name: System

Date Created: 08/14/2015

Notes: Remove concrete walk "bridge" over window well; repair concrete areaway retaining wall, replace beam and raised structural slab

System: B2010 - Exterior Walls

Location: gym

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: 500.00

Unit of Measure: S.F.

Estimate: $16,144.74

Assessor Name: System

Date Created: 08/16/2015

Notes: Repair cracked painted brick wall in gym

System: B2010 - Exterior Walls

Location: exterior walls

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: 400.00

Unit of Measure: S.F.

Estimate: $12,915.80

Assessor Name: System

Date Created: 08/14/2015

Notes: Repoint cracks in parapet above counterflashing, masonry walls above roof, cracks in brick walls on facing inside of "O", and joints above and below limestone band

System: B2020 - Exterior Windows

Location: exterior walls - windows

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 600.00

Unit of Measure: Ea.

Estimate: $3,605,549.99

Assessor Name: System

Date Created: 08/14/2015

Notes: Replace all exterior windows with insulated single hung units

System: B2020 - Exterior Windows

Location: fire stairs exterior grating
Distress: Damaged
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Replace security screens
Qty: 300.00
Unit of Measure: S.F.
Estimate: $46,051.91
Assessor Name: System
Date Created: 08/14/2015

Notes: Replace steel emergency exit stairway gratings

System: B2030 - Exterior Doors

Location: exterior doors
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and replace exterior doors - per leaf
Qty: 20.00
Unit of Measure: Ea.
Estimate: $138,000.02
Assessor Name: System
Date Created: 08/14/2015

Notes: Replace all exterior doors with ADA and code compliant exit hardware; repaint doors and frames.

System: C1010 - Partitions

Location: classrooms

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Remove folding wood partitions; replace with metal studs and gypsum board painted

Qty: 2,700.00

Unit of Measure: S.F.

Estimate: $60,154.64

Assessor Name: System

Date Created: 08/14/2015

Notes: Remove folding wood partitions; replace with gypsum board and metal stud walls

System: C1020 - Interior Doors

Location: classroom doors in corridors

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 40.00

Unit of Measure: Ea.

Estimate: $186,173.56

Assessor Name: System

Date Created: 08/14/2015

Notes: Remove and replace all original wood interior doors, frames and hardware in classrooms, closets, offices, etc

System: C1020 - Interior Doors

Location: basement

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Remove and replace hollow metal frames and doors

Qty: 48.00

Unit of Measure: Ea.

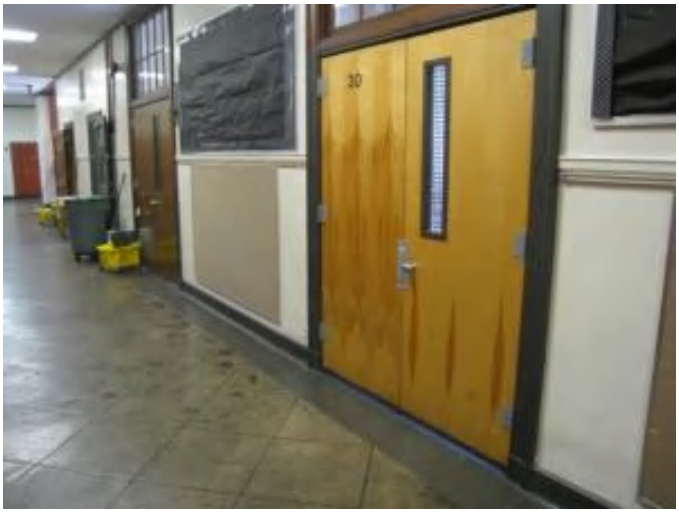
Estimate: $182,286.31

Assessor Name: System

Date Created: 08/14/2015

Notes: Remove and replace all basement steel doors, frames, and hardware in mechanical rooms

System: C1020 - Interior Doors



Location: hallways

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Refinish interior doors

Qty: 40.00

Unit of Measure: Ea.

Estimate: $33,127.32

Assessor Name: System

Date Created: 08/14/2015

Notes: Refinish replacement wood interior doors and frames in hallways

System: C1020 - Interior Doors

Location: classrooms, offices

Distress: Security Issue

Category: 1 - Health & Safety

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

Correction: Provide security hardware for classroom and office doors

Qty: 80.00

Unit of Measure: Ea.

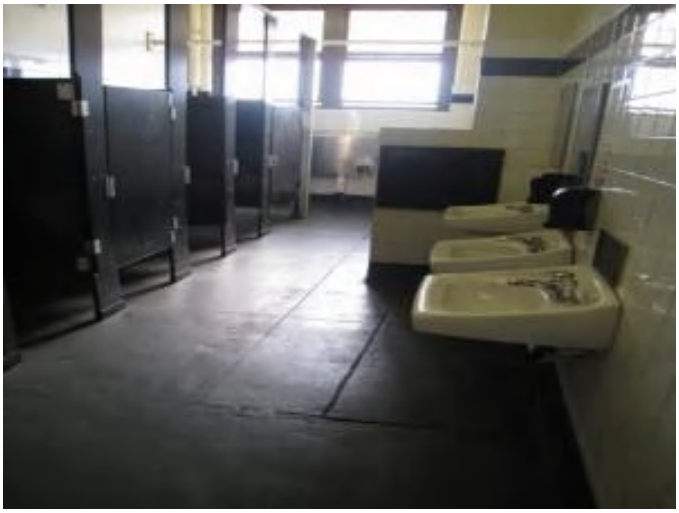
Estimate: $18,354.92

Assessor Name: System

Date Created: 08/14/2015

Notes: provide security hardware in classroom and office doors which permits the doors to be locked from the inside

System: C1030 - Fittings



Location: toilet rooms

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Replace toilet accessories - select accessories and quantity

Qty: 12.00

Unit of Measure: Ea.

Estimate: $1,868.34

Assessor Name: System

Date Created: 08/14/2015

Notes: Provide toilet room accessories where broken or missing

System: C2010 - Stair Construction

Location: exterior stairs

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Regrout joints between stone treads and risers - LF of grout

Qty: 480.00

Unit of Measure: L.F.

Estimate: $7,173.65

Assessor Name: System

Date Created: 08/14/2015

Notes: Regrout all joints between limestone block tread/risers at exterior stairs

System: C3010230 - Paint & Covering

Location: interior plaster walls

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 20,000.00

Unit of Measure: S.F.

Estimate: $161,659.02

Assessor Name: System

Date Created: 08/14/2015

Notes: Repair water damage, cracks, and repaint interior and exterior plaster walls

System: C3020412 - Terrazzo & Tile

Location: lobby - terrazzo floor
Distress: Damaged
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Replace and re-grout floor tile
Qty: 100.00
Unit of Measure: S.F.
Estimate: $3,587.37
Assessor Name: System
Date Created: 08/14/2015

Notes: Repair cracks in terrazzo

System: C3020413 - Vinyl Flooring

Location: interior room floors - cafeteria, classrooms
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and replace VCT
Qty: 18,000.00
Unit of Measure: S.F.
Estimate: $216,315.57
Assessor Name: System
Date Created: 08/14/2015

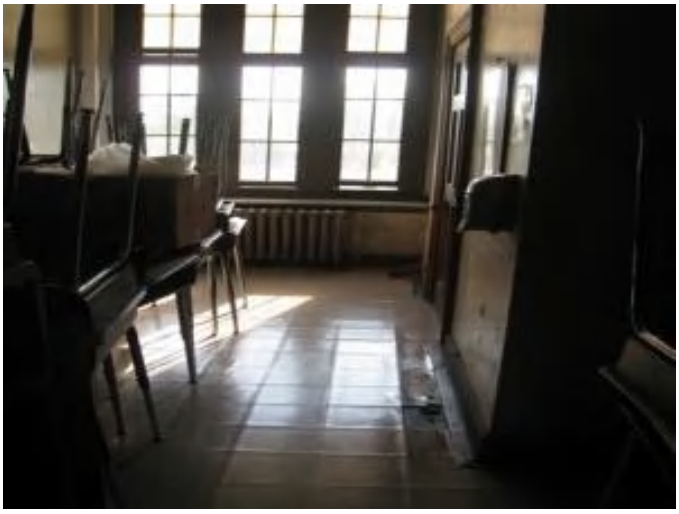
Notes: Replace VCT floors assume (assume 50% of total sf of VCT)

System: C3020413 - Vinyl Flooring

Location: gym - seamless vinyl
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and replace vinyl sheet flooring
Qty: 6,000.00
Unit of Measure: S.F.
Estimate: $109,866.94
Assessor Name: System
Date Created: 08/14/2015

Notes: Remove and replace all seamless vinyl floors in gymnasiums

System: C3020413 - Vinyl Flooring



Location: all interior room floors
Distress: Life Safety / NFPA / PFD
Category: 1 - Health & Safety
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove VAT and replace with VCT - SF of area
Qty: 6,000.00
Unit of Measure: S.F.
Estimate: $91,000.01
Assessor Name: System
Date Created: 08/14/2015

Notes: Replace VAT floors using proper asbestos abatement procedures if determined asbestos is present.

System: C3020413 - Vinyl Flooring

Location: interior room floors - offices, classrooms

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Strip clean and wax vinyl floor - closest RS Means estimate item we could find

Qty: 18,000.00

Unit of Measure: S.F.

Estimate: $53,515.95

Assessor Name: System

Date Created: 08/14/2015

Notes: Strip and clean VCT floors (assume 50% of total sf of VCT)

System: C3020413 - Vinyl Flooring

This deficiency has no image.

Location: lobby - terrazzo floor

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Strip clean and wax vinyl floor - closest RS Means estimate item we could find

Qty: 3,000.00

Unit of Measure: S.F.

Estimate: $8,919.33

Assessor Name: System

Date Created: 08/14/2015

Notes: Strip and refinish terrazzo in lobby

System: C3020414 - Wood Flooring

Location: classrooms, auditorium

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Refinish wood floors

Qty: 38,000.00

Unit of Measure: S.F.

Estimate: $409,143.72

Assessor Name: System

Date Created: 08/14/2015

Notes: Strip, sand, repair and refinish all wood floors in classrooms and in auditorium

System: C3020415 - Concrete Floor Finishes

Location: basement floor

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Clean and reseal concrete floors

Qty: 42,264.00

Unit of Measure: S.F.

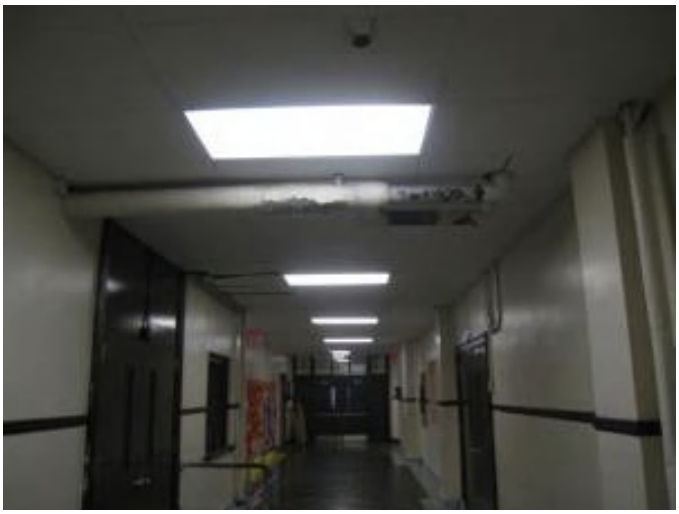
Estimate: $162,485.36

Assessor Name: System

Date Created: 08/14/2015

Notes: Clean and repaint basement floor in mechanical rooms; clean and reseal concrete floors in hallways, stairways, and toilet rooms

System: C3030 - Ceiling Finishes



Location: ceilings - classrooms, corridors, offices

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace ceiling tiles only in suspended ceiling - pick the proper material

Qty: 35,000.00

Unit of Measure: S.F.

Estimate: $270,025.56

Assessor Name: System

Date Created: 08/14/2015

Notes: Replace 2x4 acoustical tile ceilings where damaged

System: C3030 - Ceiling Finishes

Location: auditorium

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Repair and resurface plaster ceilings - 2 coats plaster

Qty: 1,000.00

Unit of Measure: S.F.

Estimate: $13,124.09

Assessor Name: System

Date Created: 08/14/2015

Notes:

System: D1010 - Elevators and Lifts

This deficiency has no image.

Location: to be determined

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Add interior elevator - 4 floors - adjust the electrical run lengths to hook up the elevator

Qty: 1.00

Unit of Measure: Ea.

Estimate: $643,131.77

Assessor Name: System

Date Created: 08/14/2015

Notes: Provide new hydraulic elevator

System: D2010 - Plumbing Fixtures

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace wall janitor or mop sink - insert the quantity

Qty: 1.00

Unit of Measure: Ea.

Estimate: $7,864.71

Assessor Name: System

Date Created: 10/12/2015

Notes: Replace all service sinks throughout the building

System: D2010 - Plumbing Fixtures

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 1.00

Unit of Measure: Ea.

Estimate: $7,579.19

Assessor Name: System

Date Created: 10/12/2015

Notes: Replace all drinking fountains throughout the building

System: D2040 - Rain Water Drainage

Location: low roofs

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Add internal overflow roof drains - add one for each 10,000 SF of roof or one for each separate section of roof

Qty: 8.00

Unit of Measure: Ea.

Estimate: $177,937.24

Assessor Name: System

Date Created: 10/12/2015

Notes: Add overflow drains

System: D3060 - Controls & Instrumentation

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace pneumatic controls with DDC (150KSF)

Qty: 150,000.00

Unit of Measure: S.F.

Estimate: $2,686,710.32

Assessor Name: System

Date Created: 10/12/2015

Notes: Install a new DDC system and provide training for maintenance personnel. Provide a new building automation system (BAS) with communication interface to the preferred system in use throughout the District.

System: E2010 - Fixed Furnishings

Location: auditorium

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 300.00

Unit of Measure: Ea.

Estimate: $264,518.15

Assessor Name: System

Date Created: 08/14/2015

Notes: Repair or replace damaged folding wood auditorium chairs; 50% of total = 300; refinish all 600

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

System: B2010 - Exterior Walls

Location: exterior wall
Distress: Appearance
Category: 3 - Operations / Maint.
Priority: 3 - Response Time (3-4 yrs)
Correction: Sooty and dirty walls - powerwash
Qty: 10,000.00
Unit of Measure: S.F.
Estimate: $10,937.35
Assessor Name: System
Date Created: 08/14/2015

Notes: Powerwash rear building wall and limestone band that surrounds building

System: C3010230 - Paint & Covering

Location: basement stairs
Distress: Appearance
Category: 3 - Operations / Maint.
Priority: 3 - Response Time (3-4 yrs)
Correction: Repair substrate and repaint interior concrete or CMU walls - SF of wall surface
Qty: 4,000.00
Unit of Measure: S.F.
Estimate: $30,008.00
Assessor Name: System
Date Created: 08/14/2015

Notes: Strip and repaint concrete foundation (interior basement) walls in mechanical

System: C3030 - Ceiling Finishes

Location: gym ceilings

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Re-paint ceilings - SF of ceilings

Qty: 6,000.00

Unit of Measure: S.F.

Estimate: $28,722.17

Assessor Name: System

Date Created: 08/14/2015

Notes: Repaint exposed bar joist metal deck ceilings over boys and girls gyms

System: D2030 - Sanitary Waste

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Inspect sanitary waste piping and replace damaged sections. (+100KSF)

Qty: 120,300.00

Unit of Measure: S.F.

Estimate: $510,866.81

Assessor Name: System

Date Created: 10/12/2015

Notes: Inspect sanitary system throughout the building and repair/replace as necessary.

System: D3040 - Distribution Systems

Location: Throughout the 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: 100,000.00

Unit of Measure: S.F.

Estimate: $946,037.34

Assessor Name: System

Date Created: 10/12/2015

Notes: Hire a qualified contractor to inspect the steam and condensate systems to identify and replace damage sections and to quantify the extent of potential failures.

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

System: D5030 - Communications and Security

Location: Exterior walls

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add/Replace Sound System

Qty: 1.00

Unit of Measure: LS

Estimate: $2,709.45

Assessor Name: System

Date Created: 08/10/2015

Notes: Provide more exterior speakers on different locations to cover the area. Estimate 3 speakers.

Priority 5 - Response Time (> 5 yrs):

System: D2020 - Domestic Water Distribution

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace domestic water piping (150 KSF)

Qty: 150,000.00

Unit of Measure: S.F.

Estimate: $622,060.37

Assessor Name: System

Date Created: 10/12/2015

Notes: Inspect domestic water distribution system throughout the building and repair/replace as necessary.

System: D3030 - Cooling Generating Systems

Location: Adjacent to building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

Correction: Install chilled water system with distribution piping and pumps. (+150KSF)

Qty: 150,000.00

Unit of Measure: S.F.

Estimate: $2,494,725.70

Assessor Name: System

Date Created: 10/12/2015

Notes: Install chiller and chilled water distribution system

System: D3040 - Distribution Systems

Location: Throughout the building

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 57.00

Unit of Measure: C

Estimate: $4,734,476.35

Assessor Name: System

Date Created: 10/12/2015

Notes: Install unit ventilators in all classrooms. Replace the existing unit ventilators throughout the building with new units designed to provide adequate ventilation per ASHRAE Std. 62. The new units shall be equipped with hot water / chilled water coils and integral heat recovery wheels. Install steam converters in the existing boiler room with circulating pumps, distribution piping and controls to provide heating hot water for the new coils

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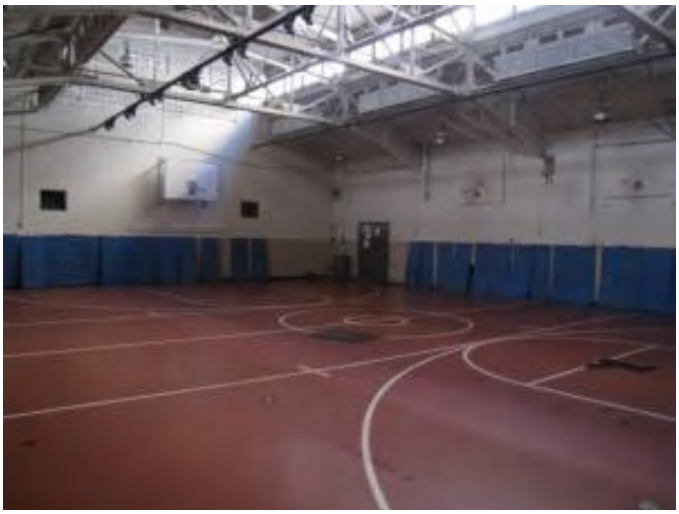
System: D3040 - Distribution Systems



Location: Gymnasiums

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 12,000.00

Unit of Measure: Ea.

Estimate: $616,602.09

Assessor Name: System

Date Created: 10/12/2015

Notes: Install AHUs to condition the 2 gymnasiums. Provide ventilation, heating and cooling for the Auditorium by installing a package rooftop constant volume air handling unit with distribution ductwork and registers

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System: D3040 - Distribution Systems

Location: Cafeteria

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 850.00

Unit of Measure: Pr.

Estimate: $397,410.06

Assessor Name: System

Date Created: 10/12/2015

Notes: Install AHUs to condition the cafeteria. Provide ventilation, heating and cooling for the Cafeteria by removing the electric convection heaters and installing a package rooftop constant volume air handling unit with distribution ductwork and registers for supply and return air

System: D3040 - Distribution Systems

Location: Auditorium

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 200.00

Unit of Measure: Seat

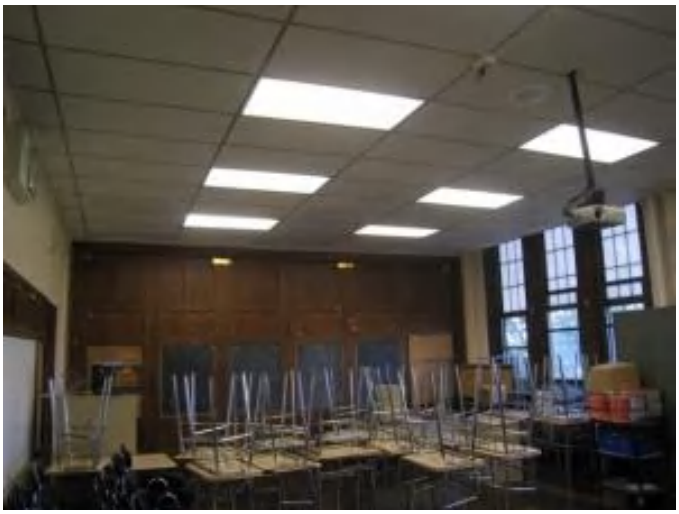
Estimate: $285,085.41

Assessor Name: System

Date Created: 10/12/2015

Notes: Install AHUs to condition the auditorium. Provide ventilation, heating and cooling for the Auditorium by installing a package rooftop constant volume air handling unit with distribution ductwork and registers

System: D4010 - Sprinklers



Location: Throughout the building

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

Priority: 5 - Response Time (> 5 yrs)

Correction: Install a fire protection sprinkler system

Qty: 60,000.00

Unit of Measure: S.F.

Estimate: $858,326.79

Assessor Name: System

Date Created: 10/12/2015

Notes: Install a fire protection sprinkler system with quick response type heads to reduce insurance costs by providing protection for the property in the main building.

Equipment Inventory

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

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 6970 MBH, includes burners, controls and insulated jacket, packaged	3.00	Ea.	Boiler Mechanical Equipment Room	Smith	4500A			35	1990	2025	$161,965.00	$534,484.50
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 6970 MBH, includes burners, controls and insulated jacket, packaged	3.00	Ea.	Boiler Mechanical Equipment Room	Smith	4500A			35	1990	2025	$161,965.00	$534,484.50
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 6970 MBH, includes burners, controls and insulated jacket, packaged	3.00	Ea.	Boiler Mechanical Equipment Room	Smith	4500A			35	1990	2025	$161,965.00	$534,484.50
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 800 A	1.00	Ea.						20		2017	$21,766.05	$23,942.66
												Total:	**$1,627,396.16**

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):	329,100
Year Built:	1924
Last Renovation:	
Replacement Value:	$4,579,503
Repair Cost:	$237,322.19
Total FCI:	5.18 %
Total RSLI:	28.61 %

Description:

Attributes:

General Attributes:

Bldg ID:	S711001	Site ID:	S711001

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	27.18 %	7.54 %	$237,322.19
G40 - Site Electrical Utilities	31.77 %	0.00 %	$0.00
Totals:	**28.61 %**	**5.18 %**	**$237,322.19**

Condition Detail

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

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

System Listing

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

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

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

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
G2010	Roadways	$11.52	S.F.		30				0.00 %	0.00 %				$0
G2020	Parking Lots	$7.65	S.F.	21,000	30	1970	2000	2047	106.67 %	39.80 %	32		$63,935.23	$160,650
G2030	Pedestrian Paving	$11.52	S.F.	50,100	40	1924	1964	2020	12.50 %	19.21 %	5		$110,886.97	$577,152
G2040	Site Development	$4.36	S.F.	329,100	25	1924	1949	2020	20.00 %	4.36 %	5		$62,499.99	$1,434,876
G2050	Landscaping & Irrigation	$3.78	S.F.	258,000	15	1924	1939	2020	33.33 %	0.00 %	5			$975,240
G4020	Site Lighting	$3.58	S.F.	329,100	30	1924	1954	2024	30.00 %	0.00 %	9			$1,178,178
G4030	Site Communications & Security	$0.77	S.F.	329,100	30	1924	1954	2027	40.00 %	0.00 %	12			$253,407
								Total	**28.61 %**	**5.18 %**			**$237,322.19**	**$4,579,503**

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.

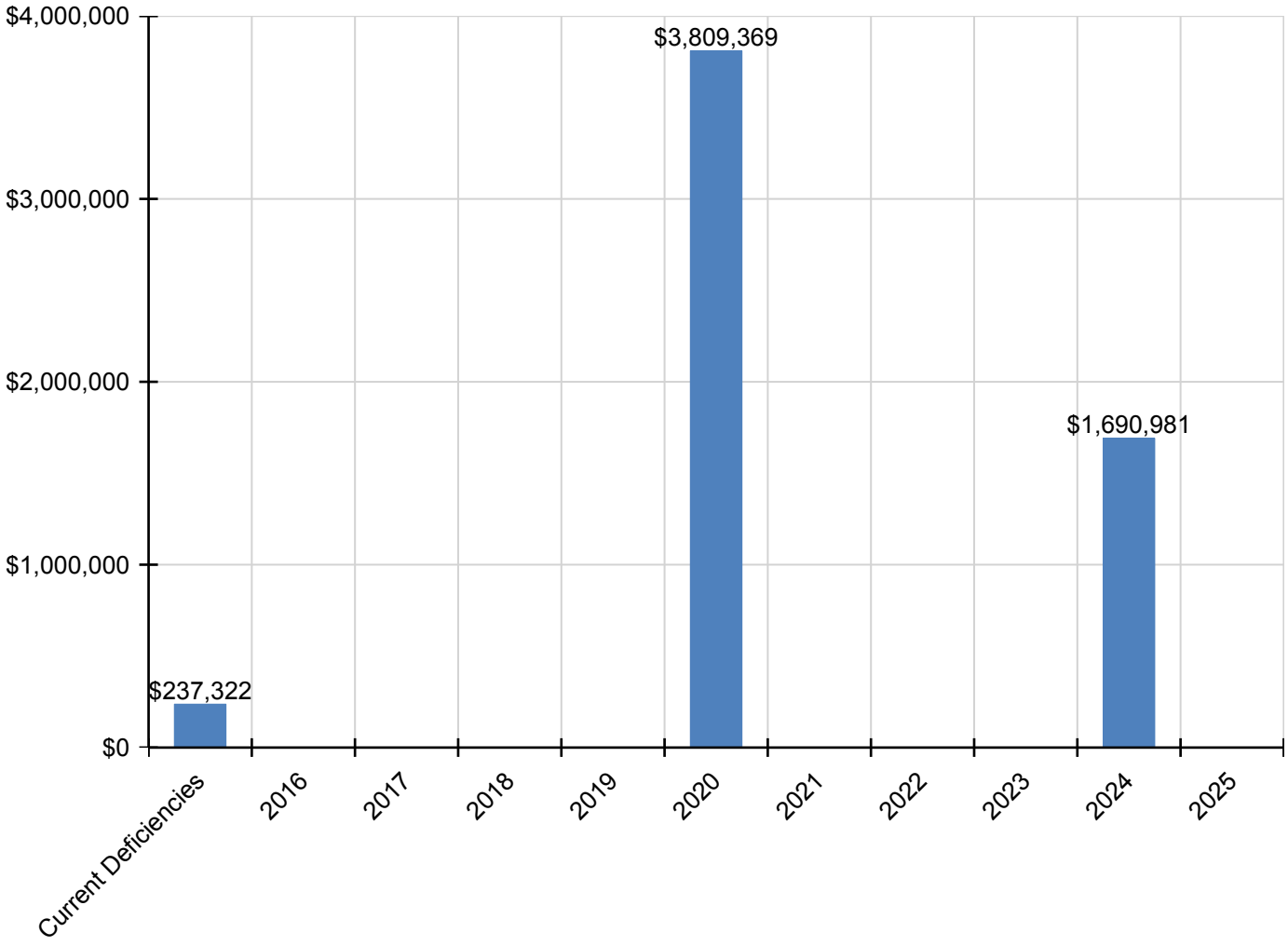
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$237,322**	**$0**	**$0**	**$0**	**$0**	**$3,809,369**	**$0**	**$0**	**$0**	**$1,690,981**	**$0**	**$5,737,672**
G - Building Sitework	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G20 - Site Improvements	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2010 - Roadways	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2020 - Parking Lots	$63,935	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$63,935**
G2030 - Pedestrian Paving	$110,887	$0	$0	$0	$0	$735,985	$0	$0	$0	$0	$0	**$846,872**
G2040 - Site Development	$62,500	$0	$0	$0	$0	$1,829,756	$0	$0	$0	$0	$0	**$1,892,256**
G2050 - Landscaping & Irrigation	$0	$0	$0	$0	$0	$1,243,627	$0	$0	$0	$0	$0	**$1,243,627**
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	$1,690,981	$0	**$1,690,981**
G4030 - Site Communications & Security	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

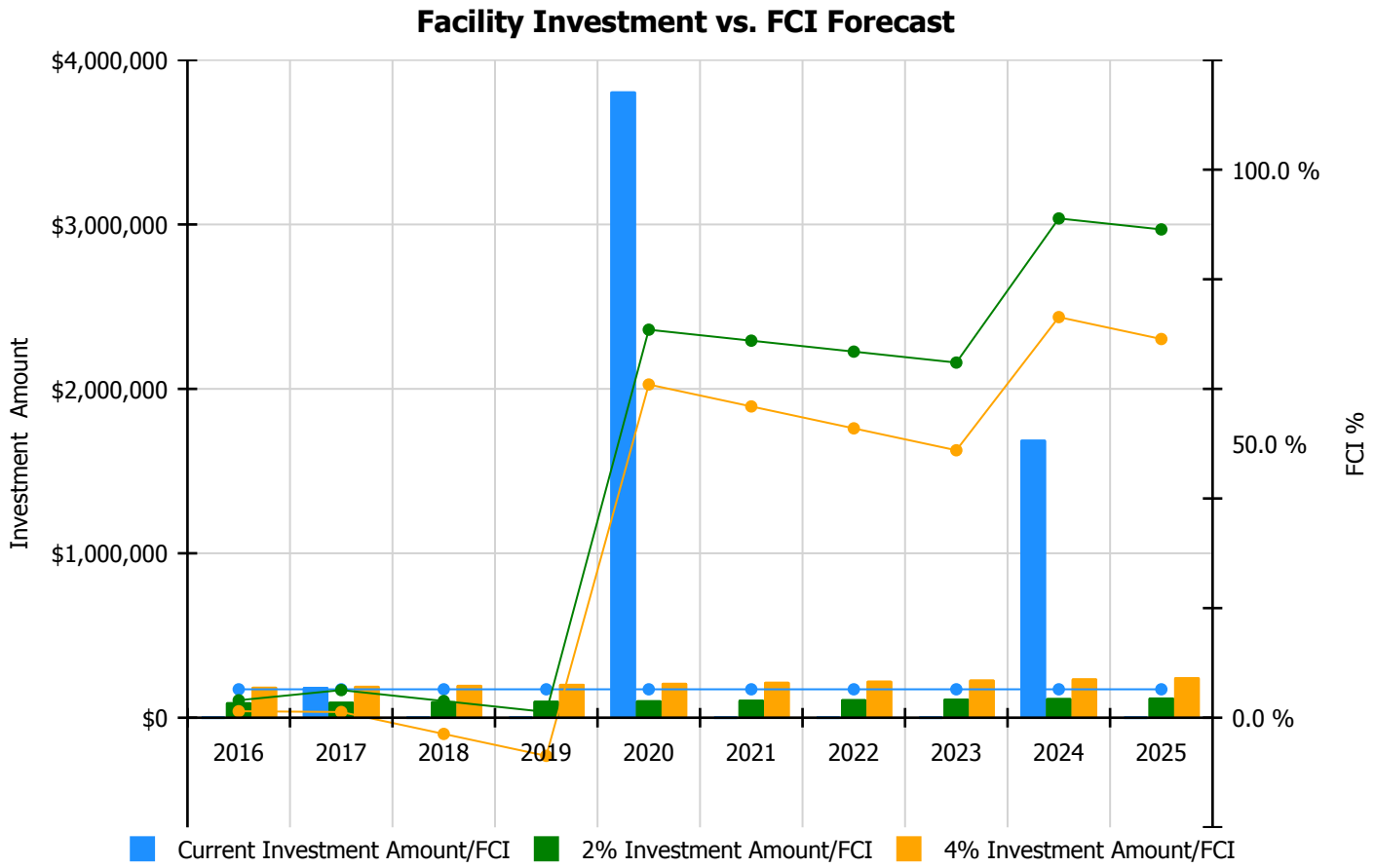
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



10 Year FCI Forecast by Investment Scenario

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

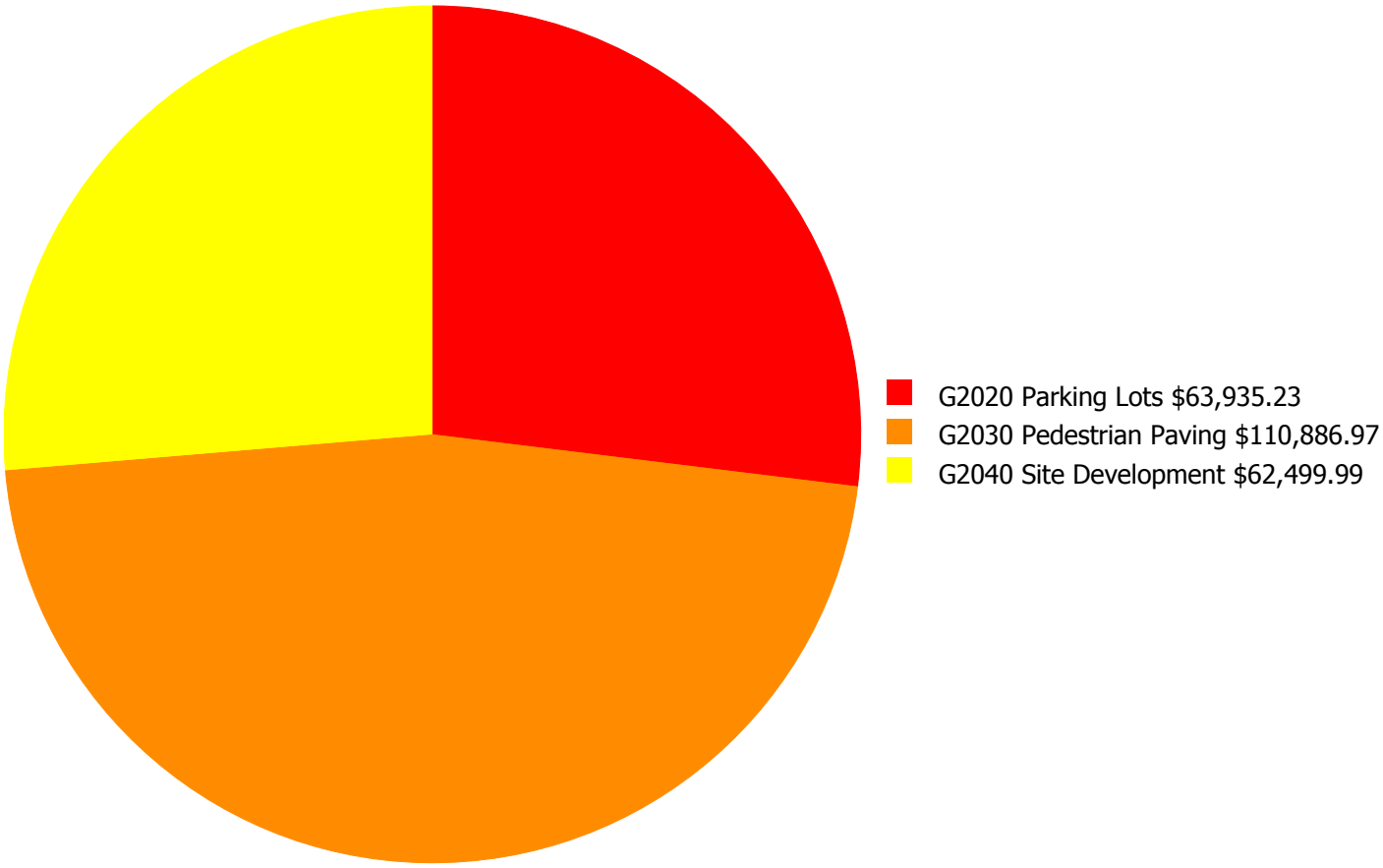
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 5.18%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$94,338.00	3.18 %	$188,676.00	1.18 %
2017	$187,477	$97,168.00	5.04 %	$194,336.00	1.04 %
2018	$0	$100,083.00	3.04 %	$200,166.00	-2.96 %
2019	$0	$103,085.00	1.04 %	$206,171.00	-6.96 %
2020	$3,809,369	$106,178.00	70.80 %	$212,356.00	60.80 %
2021	$0	$109,363.00	68.80 %	$218,727.00	56.80 %
2022	$0	$112,644.00	66.80 %	$225,288.00	52.80 %
2023	$0	$116,024.00	64.80 %	$232,047.00	48.80 %
2024	$1,690,981	$119,504.00	91.10 %	$239,009.00	73.10 %
2025	$0	$123,089.00	89.10 %	$246,179.00	69.10 %
Total:	**$5,687,827**	**$1,081,476.00**		**$2,162,955.00**	

Deficiency Summary by System

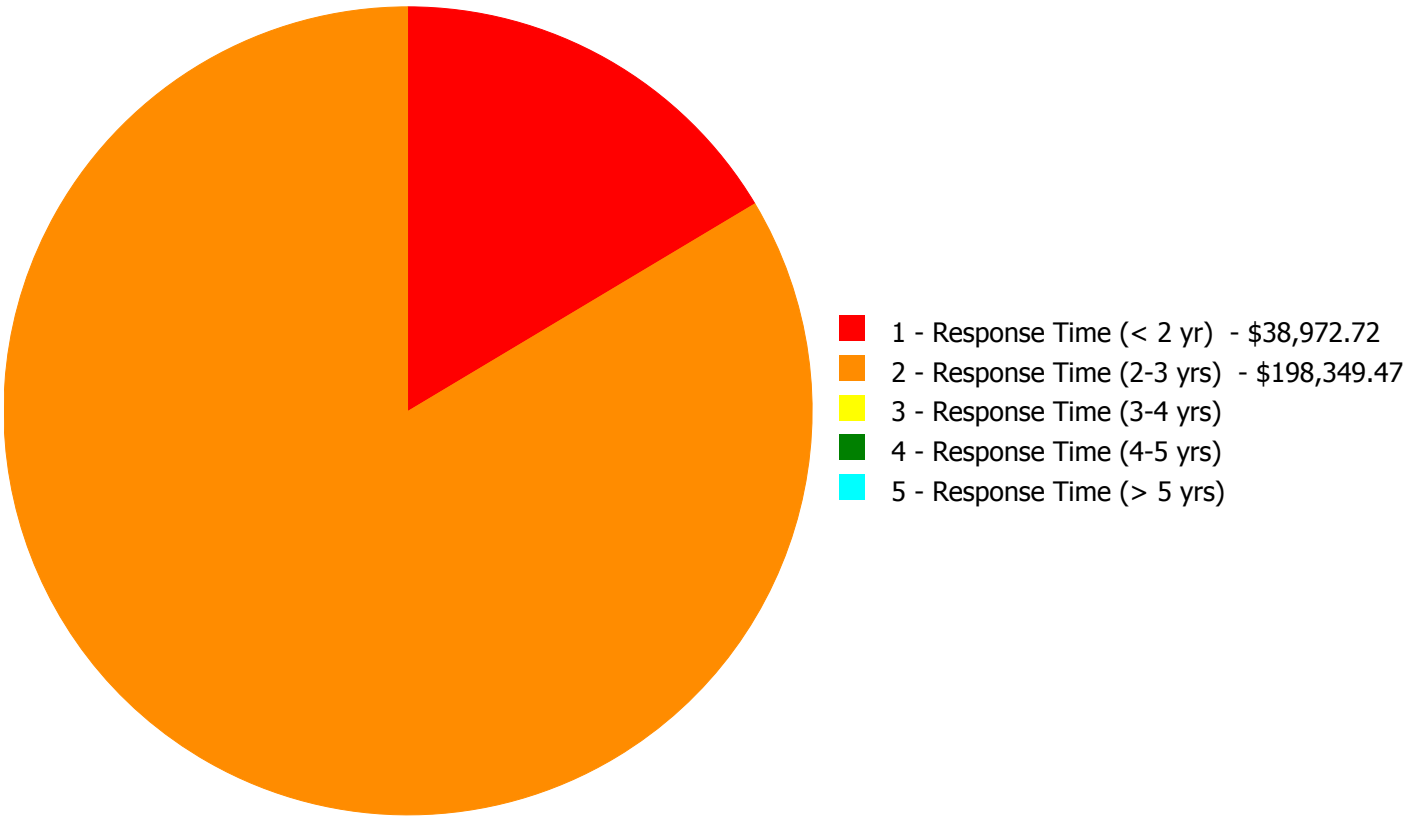
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $237,322.19

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: $237,322.19

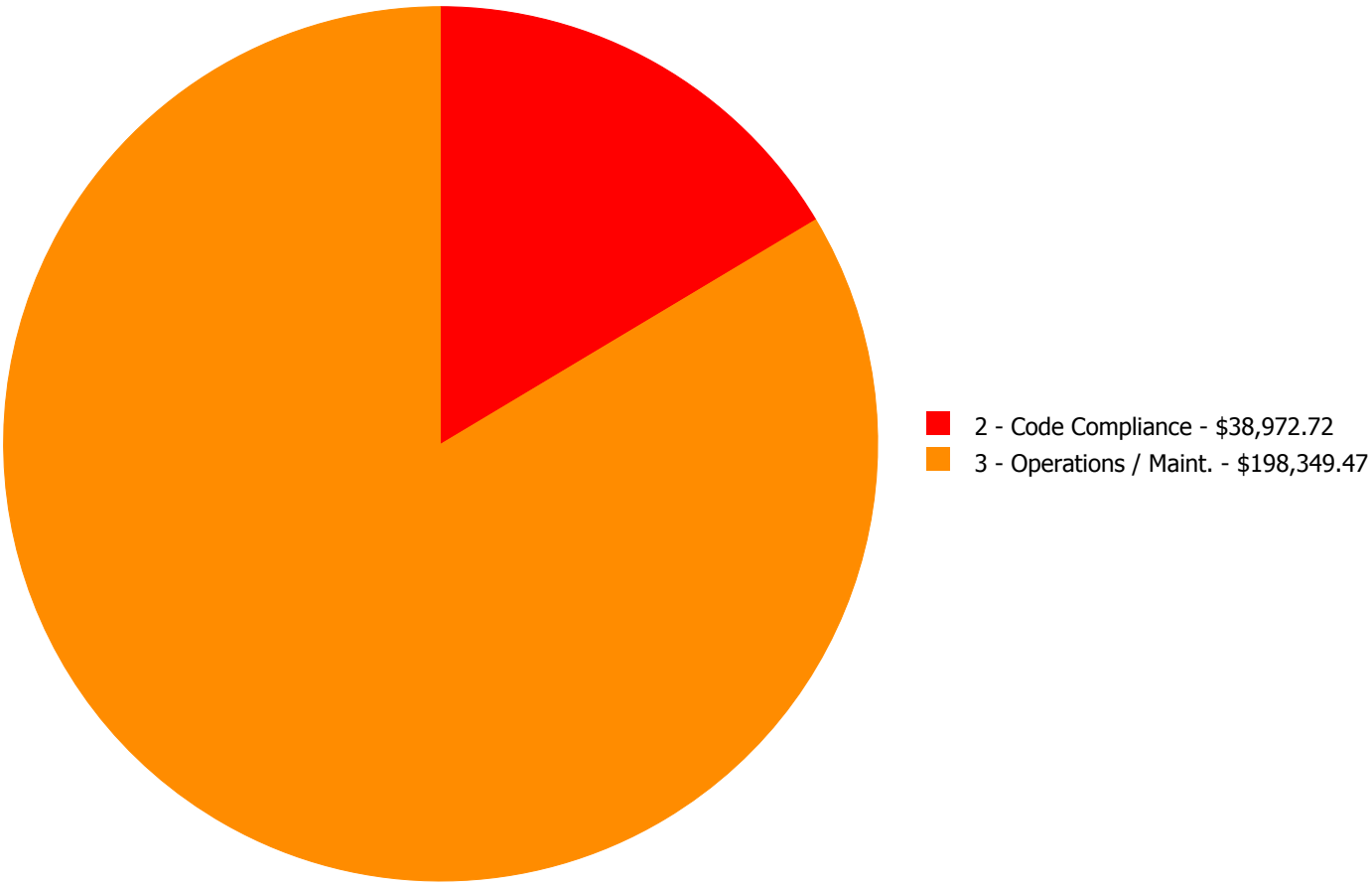
Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
G2020	Parking Lots	$0.00	$63,935.23	$0.00	$0.00	$0.00	$63,935.23
G2030	Pedestrian Paving	$38,972.72	$71,914.25	$0.00	$0.00	$0.00	$110,886.97
G2040	Site Development	$0.00	$62,499.99	$0.00	$0.00	$0.00	$62,499.99
	Total:	$38,972.72	$198,349.47	$0.00	$0.00	$0.00	$237,322.19

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: $237,322.19

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

This deficiency has no image.

Location: to be determined

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: 30.00

Unit of Measure: L.F.

Estimate: $38,972.72

Assessor Name: Craig Anding

Date Created: 10/23/2015

Notes: Provide an ADA accessible ramp into the building

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

System: G2020 - Parking Lots

Location: parking lot

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Resurface parking lot - grind and resurface including striping

Qty: 16,000.00

Unit of Measure: S.F.

Estimate: $60,953.02

Assessor Name: Craig Anding

Date Created: 08/16/2015

Notes: Repave 100% of rear parking lot

System: G2020 - Parking Lots

Location: parking lot

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Fill cracks in AC paving - by the LF - select appropriate width and depth

Qty: 600.00

Unit of Measure: L.F.

Estimate: $2,982.21

Assessor Name: Craig Anding

Date Created: 08/16/2015

Notes: Fill cracks in side parking lot

System: G2030 - Pedestrian Paving

Location: sidewalk

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 5,000.00

Unit of Measure: S.F.

Estimate: $71,914.25

Assessor Name: Craig Anding

Date Created: 08/14/2015

Notes:

System: G2040 - Site Development

Location: site fence

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 300.00

Unit of Measure: L.F.

Estimate: $50,513.60

Assessor Name: Craig Anding

Date Created: 08/14/2015

Notes: Replace damaged wrought iron fencing

System: G2040 - Site Development

Location: site fence

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace chain link gate - 8' high

Qty: 2.00

Unit of Measure: Ea.

Estimate: $11,986.39

Assessor Name: Craig Anding

Date Created: 08/14/2015

Notes: Replace chain link fence surrounding parking lots; including 2-20ft gates

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