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.

Lowell School

Governance	DISTRICT	Report Type	Elementary
Address	450 W. Nedro Ave.	Enrollment	769
	Philadelphia, Pa 19120	Grade Range	'00-04'
Phone/Fax	215-276-5272 / 215-276-5278	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Lowell	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	**31.88%**	**$16,598,294**	**$52,063,536**
Building	32.30 %	$16,378,220	$50,707,420
Grounds	16.23 %	$220,074	$1,356,116

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	87.44 %	$1,310,710	$1,499,033
Exterior Walls (Shows condition of the structural condition of the exterior facade)	00.26 %	$9,687	$3,746,623
Windows (Shows functionality of exterior windows)	74.43 %	$1,360,696	$1,828,141
Exterior Doors (Shows condition of exterior doors)	55.31 %	$81,405	$147,185
Interior Doors (Classroom doors)	107.30 %	$382,287	$356,290
Interior Walls (Paint and Finishes)	10.85 %	$185,075	$1,706,332
Plumbing Fixtures	29.67 %	$407,236	$1,372,375
Boilers	65.72 %	$1,245,414	$1,895,136
Chillers/Cooling Towers	38.78 %	$963,564	$2,484,891
Radiators/Unit Ventilators/HVAC	66.33 %	$2,894,351	$4,363,786
Heating/Cooling Controls	143.78 %	$1,970,254	$1,370,345
Electrical Service and Distribution	52.05 %	$512,500	$984,618
Lighting	35.54 %	$1,251,179	$3,520,263
Communications and Security (Cameras, Pa System and Fire Alarm)	33.25 %	$438,389	$1,318,576

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.

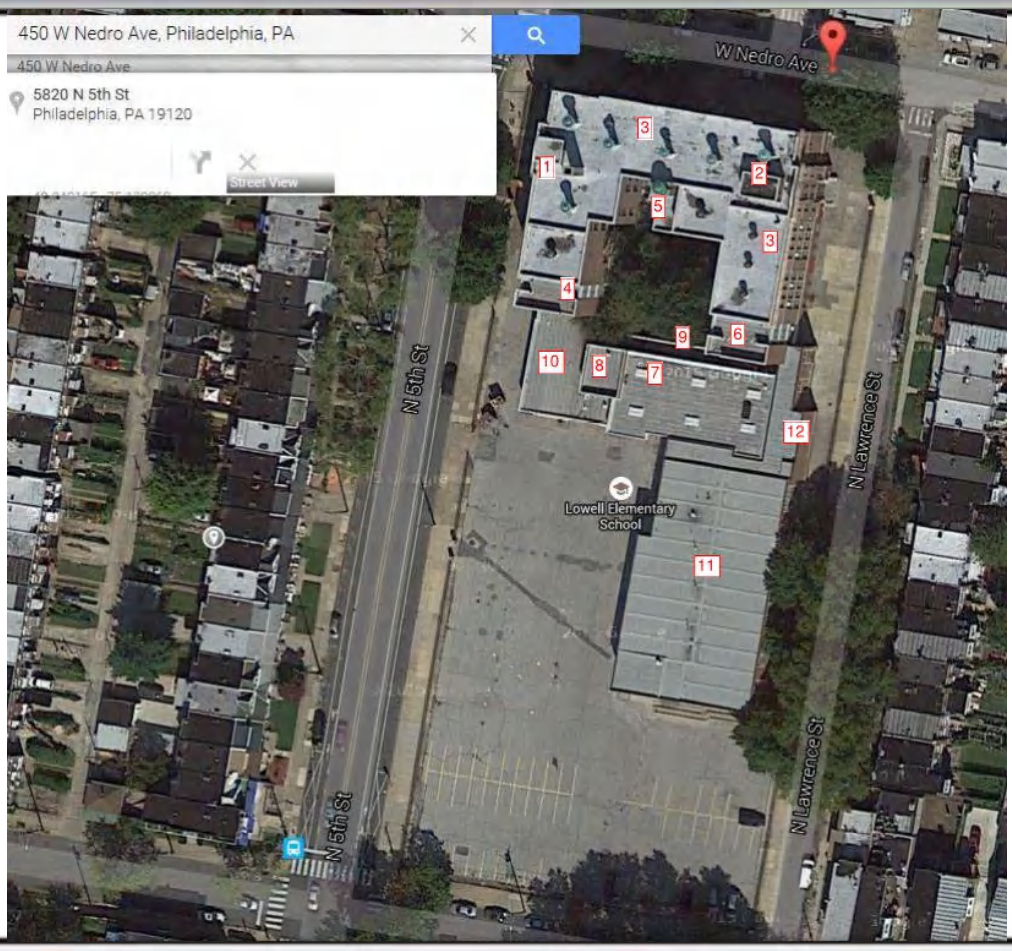
School District of Philadelphia

S735001;Lowell

Final

Site Assessment Report

January 31, 2017



PARSONS

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Site Executive Summary

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

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

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

Gross Area (SF):	101,507
Year Built:	1913
Last Renovation:	1999
Replacement Value:	$52,063,536
Repair Cost:	$16,598,293.99
Total FCI:	31.88 %
Total RSLI:	71.08 %

Description:

Facility Condition Assessment
July 2015

School District of Philadelphia FCA
James R. Lowell School
450 W. Nedro Avenue
Philadelphia, PA 19120

58,200sf / 1,053 students / LN 07

General

Lowell School is located at 450 W. Nedro Avenue. The main entrance faces Nedro Ave. This school has a multiple additions. The original building "Element 1" was constructed in 1913, has 58,200 square feet, and is 3 stories tall with a full basement. Two three-story additions with basements, "Element 2" and Element 3" were constructed onto the original building at some time in the 1940's or possibly earlier; they contain a total of 3 classrooms per floor. The next addition constructed is called the Michael Marcase Educational Center. It was constructed around 1970 and contains the gymnasium, cafeteria, and associated support spaces. The newest and

final addition called the Shirley Z. Sherman Annex, was constructed in the late 1990s and contain two stories of classrooms. The total estimated square footage of the original building and the additions is now 101,507sf. The original Lowell School structure can be found on the National Historical Register, number 88002295 with the address of 5801-5 North 5th Street. There is an ongoing project at the old building involving masonry and stone repair, replacement, and restoration. Nelson King, the Building Engineer accompanied the FCA team during the inspection.

Architectural/Structural

Foundations are constructed of brick and concrete in the old building and exposed concrete block walls in the additions. Basement brick and masonry joints are in good condition with no major settlement cracks observed. Extensive peeling paint was observed in brick basement walls and ceilings in the old building, mainly due to a lack of general maintenance of the space. Footings were not seen and their construction type or condition could not be ascertained. There is evidence of rusting on the steel lintels in the old building above most basement windows with some localized joint cracking extending beyond the lintels which can be seen from inside the basement and outside the building.

Floor slabs in the basement of the old building are in good condition although covered with dirt and in need of stripping, cleaning and repainting. Upper floor slabs in the old building are also constructed of cast-in-place concrete with cast-in-place concrete beams. Cracking and spalling of the concrete structure was not observed anywhere.

Roof construction over the old building consists of reinforced concrete beams and deck, bearing on masonry walls. The superstructure is constructed of reinforced concrete columns, beams, and floor slabs. The main building roof deck is flat with minimum overall slope; areas around roof drains are depressed for drainage. Roof access is via a door out of a masonry penthouse. The roof structure over the Marcase Addition was not seen, but is probably constructed of a steel structure supported on steel columns, based on knowing when the building was constructed. The roof structure of the gymnasium addition (the Shirley Sherman Annex) consists of steel beams and bar joists with fireproofing in areas less than 20 above floors as per today's building code. Both addition roofs are flat roofs with minimal pitch in one direction to roof edges with gravel stops, minimal parapets, and internal roof drains at low points; there are no overflow scuppers or overflow roof drains. All structure observed from attics or access stairs appeared to be in good condition.

Exterior walls in all buildings are generally in good condition, however lintels above most basement windows, some upper windows, and some doors in the old building are rusted with brick joint cracks extending from the lintels into the brick joints in the walls. Some efflorescence is present on the Marcase Addition near the roof gravel stop and in the interior courtyard play area and the masonry of the Sherman Annex has either been repaired or is experiencing some efflorescence. All brick masonry on the playground/parking area side and any other isolated locations should be powerwashed to achieve a uniform appearance. The brickwork by the playground stairs of the Sherman Annex needs to be repointed.

Exterior windows in the old building were replaced in the 1990'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 and down or do not stay open due to broken internal counterbalance weights, accidentally slamming closed in some cases – a potential safety hazard. Single pane plexiglas units do not meet today's energy code requirements and are large sources of heat loss. Windows in both additions are more modern single hung, dark bronze anodized aluminum frame window units containing 1" insulated glass and window screens on all windows, and exterior security screens on first floor windows. There are some broken window panes in the clerestory units above the gym in the Marcase addition and there are some damage window screens in some of the second floor windows in the Sherman addition.

Exterior doors throughout the complex are painted steel framed flush hollow metal units with steel frames. Some doors have small, glazed vision panels. Doors are generally in poor condition, have broken or non-functioning panic hardware, rusted dented panels and frames, and are not ADA compliant. There is one handicap accessible entrance on the south end of the Sherman Addition with an accessible ramp and ADA compliant guardrail/handrail. All exterior steel doors, frames, and hardware systems in the old building and the Marcase Addition have exceeded their useful lifespan and need to be replaced. Exterior doors, frames, and hardware in the Sherman Annex are also in very poor condition and should also be replaced.

Roof coverings on the two additions consist of a ceramic granule impregnated, fully adhered rolled asphalt sheet system with asphalt backed metal flashing up onto rooftop ventilation ductwork, vents, and masonry parapets. Flashing is tucked under the aluminum coping used throughout and appears to be water tight. Membranes and flashing on the additions seem to be in good condition however there are some areas of standing water where the insulation below has compressed causing low areas. On the original building, the membrane consists of a fully adhered rolled asphalt system painted silver for solar reflection. The paint is wearing away as the system is aging. There are some areas of ponding due to substrate compression, which are potential sources of leaks. Flashing terminates under reglets set into the brick parapets, sealed with caulking. 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. Caulking along the tops of the reglets is cracked and has been recaulked in areas, showing signs of continued degredation and potential failure. Roof structures include toilet room vents, ventilation ductwork, and roof drains. Flashing around the bases of the penetrations on the original building roof appears to be in poor condition and past its normal service life, although no leaks were reported. The original building has aluminum coping with joints that have been recaulked and are now cracking. There are some brick joint cracks in the penthouse and chimney structures have been repointed or caulked (incorrect method of repair) and may be the source of future water infiltration. The original building roof system and coping need to be replaced.

Partitions in basements are constructed of concrete masonry units. The upper 2 floors of the original building are plaster on wood lath partitions. They appear to have been refinished at the time of construction of the additions and are therefore in relatively good condition, only in need of minor touch up and paint. Window and door trim has also been repaired and repainted/restained and the old-style folding/moveable partition walls from the early 1900s are gone. There are, however, wood framed clerestory glass panels located in walls above classroom doors to the corridors. These panels are in generally good condition being above the reach of anyone, but the glass is not wired or fire rated. These should be removed and replaced with fire rated glazing or gypsum board assemblies. Walls in the Sherman Annex are constructed of metal stud with gypsum board finish in the classrooms and "marlite-type" fiber reinforced plastic ("fiberglass") panels in corridors, bathrooms and stairways. These panels are in average to poor condition with broken battens between panels, built-up dirt along battens, and scratches, damages, and marks mainly in corridor panels. These panels should be scrubbed to remove ground in dirt and broken battens should be replaced. Panels that cannot be repaired should be replaced.

Interior doors used for classrooms, offices, storage rooms, and bathrooms in the old building are either the original wood and plate glass (not fire rated or wired) raised panel doors with original or updated hardware, or replacement wood doors with narrow wired glass vision panels (in some cases) and replacement hardware. Although the old wood doors have been refinished, the glass is not code compliant and the glass framing is fragile; these doors should be replaced with new wood doors and fire rated vision panels. Some interior basement doors in the old building and most interior stairway doors are hollow metal in hollow metal frames; many frames are rusted where coming in contact with floors. Doors in both the old building and the additions are generally in poor condition. Those in the old building and Marcase Addition are not ADA compliant and need to be replaced. Wood doors in the Sherman Annex are mostly in good enough condition to be refinished, but metal doors need to be replaced. Many doors have non-functioning hardware and not all stairway doors have labels to indicate fire rating. None of the classroom doors can be locked from the inside of the classroom, as required today for lock-down security.

Interior fittings/hardware in the old building and the Shirley Sherman Annex include black slate chalkboards with metal chalk trays mounted on one wall in each classroom. Classrooms in the old building and the new additions have plastic laminate cubby/storage units. Toilet room partitions in the old building and new additions are floor mounted plastic partitions which replaced the original marble partitions; they are in good condition. Not all toilet compartments have doors. Not all toilet rooms have a complete set of standard toilet room accessories such as toilet tissue dispensers, soap dispensers, paper towel or hand dryers, and ADA grab bars.

Stair construction in the original building consists of concrete treads, risers, and stringers with wood handrails (29" high) and guards (36" high) and steel balusters with 3" spacing. Since handrail and guard heights are not in compliance with today's codes, new handrail and guard systems are required. There are 3 main stairways in the original building (Elements 1, 2, 3). Two stairways were constructed between the Marcase Addition and the old buildings; they are constructed of steel pan treads filled with concrete, steel risers, and steel stringers. Concrete is finished with clear sealer. The Sherman Annex stairways have concrete treads with rubber nosing/tread overlays, steel risers, and steel stringers, with steel pipe handrails (36" high) and guards (42" high) with vertical steel balusters at 4" spacing complying with today's code requirements for stairways.

Wall finishes in the old building are painted plaster which has been recently repaired and in good condition. The Marcase Addition includes the gymnasium, cafeteria and associated spaces, finished in painted concrete block. FRP wall panels are used as the finish material in Sherman Annex corridors, stairs, and toilet rooms. The FRP panels used in the Annex stairways should be tested to ensure they meet fire rating requirements for materials used in fire rated stairway enclosures.

Floor finishes in the classrooms of the original building consist of mostly dark stained oak floors which were refinished recently; although some floors need to be stripped and refinished, most are in good condition. Similarly, corridors in the old building consist of recently refinished 4'x4' concrete panels, typical for a building of this era and are somewhat dark, but in good condition. A couple classrooms in Element 1 utilize VAT (vinyl asbestos tile) as a floor finish. Samples of this material should be taken and analyzed for the possible presence of asbestos. If present, VAT floor tiles should be removed by a contractor trained and specializing in asbestos abatement. Floors in the gymnasium and other spaces in the Marcase and Sherman additions are 12"x12" VCT (vinyl composition tile). These floors are dirty, cracked, and broken in various locations; these floors need to be replaced. Stair surfaces are exposed sealed concrete that has years of dirt ground into the surfaces; these should be stripped, cleaned and resealed.

Ceiling finishes are mostly 2x4 suspended acoustical tile ceilings with recessed 2x4 fluorescent lighting fixtures throughout the original

building and the two additions. The gymnasium has an exposed ceiling with painted steel bar joists and suspended lighting fixtures. Most ceiling tiles are warped and grids are dirty. All ceilings should be replaced with a new suspended ceiling grid and tile system.

Elevator is 2500lb hydraulic, with 2 stops.

Gym doubles as a cafeteria, using folding tables for seating.

Mechanical

Plumbing Fixtures – In the original building, the only bathrooms that the students use are the gang bathrooms in the basement. There are wall hung urinals, floor mounted water closets, and wall hung lavatories with lever handles. These have been updated within the last 10 years and appear to be in satisfactory condition. Plumbing fixtures in the original building should not need replacement for the next 10 years. The Marcase addition appears to have all of the original plumbing fixtures, installed in 1970 when the addition was constructed. These fixtures are past their serviceable life and replacement is recommended. The Sherman addition also appears to have all of the original wall hung plumbing fixtures in place with appropriate lever handles. These 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 with some having refrigerated coolers. Most appear to be the original installed equipment. Replacement of all drinking fountains in the original building and in the Marcase addition is recommended. The drinking fountains in the Sherman addition appear to be in satisfactory condition and should not need replacement for the next 10 years.

Service sinks are available throughout the building for use by the janitorial staff. The sinks in the original building and the Marcase addition appear to be the original equipment, past their normal service life, and it is recommended to replace them. The service sinks in the Sherman addition appear to be in satisfactory condition and should not need replacement for the next 10 years. The Cafeteria, located in the Marcase addition, has one three compartment stainless steel sink with lever operated faucets and grease trap. No chemicals or sanitizing basin sinks available. It is recommended to add sanitizing chemicals to the stainless steel sink in the cafeteria.

Domestic Water Distribution – It appears that the domestic water distribution piping is mostly 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 in the Original building is near the end of its service life and it is recommended to inspect the piping and repair sections as needed. The distribution piping in the Marcase and Shearman additions is in satisfactory condition and should not need replacement for the next 10 years.

There are three vertical natural gas fired water heater tanks at this facility. One is installed in the basement of the original building with appropriate piping, controls, and venting. The other is installed in the upper level mechanical space in the Marcase addition, also with appropriate piping, controls, and venting. The last is installed in the Sherman addition. All water heaters appear to be in satisfactory condition and should not need replacement for the next 10 years.

Sanitary Waste - The sanitary waste piping system in the original building is cast iron with lead and oakum seals and appears to be the original equipment installed in the building. It is therefore recommended to inspect this piping and repair or replace sections as needed. The sanitary waste piping in the Marcase addition appears to be the original equipment and is nearing the end of its service life. An inspection of the sanitary piping in the Marcase addition is recommended. The sanitary piping in the Sherman addition is in satisfactory condition and should not need repairs or replacement for the next 10 years.

Rain Water Drainage - The rain water drains from the roof are routed through mechanical chases in the building. There are no roof overflow drains in the Original building, the Marcase addition, or the Sherman addition. The District should consider adding overflow scuppers to the building to protect the roof from flooding.

Energy Supply - Duplex fuel oil supply pumps provide the required fuel to the boilers when operating on fuel oil. The concrete fuel tank is located in the basement alongside the fuel oil pumps. The pumps and controls appear to be beyond their serviceable life and should be replaced. Inspection of the concrete fuel tank and the addition of required ventilation and fire suppression/alarm in the fuel storage area is recommended. Natural gas enters the building in the basement with two natural gas meters, one on the main line and one on a branch. There is one natural gas booster pump in the basement but its operation could not be confirmed.

Heat Generating Systems - Steam is generated in the main building by three 2,539 MBH Weil McLain 88 series dual fuel steam boilers. All boilers were equipped with Power Flame duel fuel burners. There is significant rust and signs of water damage in the basement, indicative of frequent leaks or moisture problems. The boilers are nearing the end of their service life and will most likely need replacement within the next 5-10 years. Additionally, there are three coal fired boilers that were abandoned in place in a large area of

the basement. These could be removed to open up an area for additional storage or for additional mechanical equipment.

Distribution Systems - The boiler feed water is treated with a combination of chemicals, controlled with a Kisco water treatment controller. It appears that what was once a sump pump has been converted into a condensate receiver tank with duplex pumps supplying the boiler feed tank. The boiler feed tank is pad mounted with 4 boiler feed pumps and control panel. Moisture issues are apparent throughout the basement, though the cause could not be determined at the time of inspection. The steam traps are failing throughout the building, as indicated by the building engineer. The condensate receiver and boiler feed tank are nearing the end of their service life.

Ventilation and additional heating for the main building was provided by a house fan in the basement which is non operational. The air was pushed into the various rooms of the building through ducts built into the walls. The air was exhausted from a second set of ducts built into the walls, up through the attic space, and out through roof mounted vents. This system is not currently operational and the only fresh air that the original building receives is through the open windows.

The Original building uses steam radiators in the classrooms and the hallways and currently is the sole source of heat for these areas. The Marcase and Sherman additions use unit ventilators. The unit ventilators in the Marcase addition appear to be original equipment and should be replaced. The unit ventilators in the Sherman addition are DX units with electric heat and appear to be in satisfactory condition. However, these units use R-22 refrigerant and will need to be converted or replaced within the next 5 years.

Terminal & Package Units - Approximately half of the rooms in the original building have window air conditioning units. Most of these units are in service. The Marcase addition uses electric resistance heaters in the hallways.

Controls & Instrumentation - There are some pneumatic thermostats on the walls of the original building that are not in service. The pneumatic control valves on the radiators are not in service. Most of the heating radiators are flowing at 100% flow when the steam is on. This results in an "on-off" control for the whole building, i.e. when the boilers are on, the whole building has heat. And when the boilers are off, the whole building is without heat. There is also a heating problem in element 2 of the building, consequently, classes have been moved out of that wing due to lack of heat in the winter. Adding a new DDC system to the entire building is recommended.

Sprinklers - There are no sprinklers in the building. Sprinklers should be added to the entire building.

Electrical

The site electrical service for the school facilities is from medium voltage overhead lines on wooden poles along 5th Street. The incoming power from the utility is via a main pad mounted power transformer with 480/277 VAC secondary located in the transformer room of Shirley Sherman Annex Building. The transformer is estimated at 750 KVA, the primary side is of medium voltage that is unknown at this time.

The main service entrance switchboard, manufactured by Eaton, consists of an incoming section and three outgoing distribution sections. It is located in the main electrical room in the Shirley Sherman Annex Building. Utility meter was installed in a separate enclosure adjacent to the switchboard assembly. The switchboard was installed in 1999 and is in good working condition, therefore not requiring any upgrade /replacement.

The main service entrance switchboard feeds all electrical loads for the Shirley Sherman Annex, Gymnasium, the Marcase Addition, and the original Main Building (Element 1). The original building is fed via a 480VAC to 120/208VAC transformer located in the basement of the original building. This power system replaced the original power system. Power distribution equipment such as panel boards and circuit breakers in the Shirley Sherman Annex Building and Gymnasium are in good working condition; the equipment in the original building are old and require repairs or upgrade/replacement.

Lighting in all buildings is not adequate. There are different type of fluorescent lighting fixtures utilized. The most common type of lamp is the outdated T-12 lamps, which has lighting levels that do not meet today's IES (Illuminating Engineering Society) recommended levels for corridors, classrooms, and other rooms.

Emergency Lighting System / Exit Lighting are not installed in the school. This does not comply with today's codes/standards and is of a safety concern.

Site Lighting System is adequate; however some lighting fixtures require repair to make the system fully operational.

Fire Alarm System is inadequate and is past its useful life. Additionally, it does not comply with today's fire codes.

Telephone/LAN systems in the buildings are working adequately.

There is no separate PA/music system provided in the building. PA announcements are made through the telephone.

Intercom and paging system is functioning adequately everywhere except in the gymnasium. The paging system consists of one-way communication system from the main office to all classrooms. Two way communications is achieved through wall mounted phones in the classrooms and other areas.

Clock and Program System consists of a GPS-type clock controller. The older clocks in the classrooms are not functioning properly; newer clocks that have been recently replaced or repaired appear to be functioning properly.

Television System is not provided in the school.

Security system, access control, and video surveillance are provided. They consist of door contacts and a video surveillance system. Cameras are installed at egress doors, corridors, and other critical areas they are monitored by a Closed Circuit Television system (CCTV). The system is working properly.

Emergency Power System (back-up power generator) is not provided in the school.

UPS is provided for the Local Area Network.

Lightning Protection System is adequate. It is accomplished with air terminals mounted on the chimney; however, some repairs are needed. A study is needed to verify that the air terminals provide the proper coverage. Grounding system is present and appears to be adequate in design.

A 20 horsepower rated hydraulic type elevator that is manufactured by Dove Elevators is in operation at the school. It was noted that it appears to be operating properly; no deficiencies were noted.

Theater Lighting and dimming controls in the original building is old and not functioning properly. Ain order to turn theater lighting off and on, circuit breakers must be utilized. This causes excessive wear on the circuit breaker switches and is not a recommended way to turn lights off and on.

Sound System is present in main building, however it is old and should be replaced with a new PA/sound system.

Site Lighting System is adequate; however some lighting fixtures need to be repaired to make the system fully operational.

Site Video Surveillance system is provided and monitored by Closed Circuit Television (CCTV) system. It appears to be operating adequately.

Site Paging is provided and seems to be operating adequately.

Grounds

Paving and parking is constructed of asphalt and in need of repaving. Asphalt areas serve as parking and playground areas, separated by fences. Stairways into the building are limestone blocks (tread/riser) with grouted joints between blocks; all stairs need regrouting. Parking and play area striping is worn and almost invisible. Clear separation of play area and parking is not evident. The number of required parking spaces for school staff is unknown. The 2 cast in place concrete stairs into the Marcase addition and the ramp that leads into the Sherman addition have concrete that is spalling. Some of the rail posts on the handicap ramp into the Sherman addition need to be reset.

There is a courtyard between the Element 1 and the Marcase addition. The space is planted with some trees has and playground equipment in the space. A chopped tire playground surface is used as the base material in this playground. This area is open to the sky, above.

Fencing is chain-link system generally in good condition. There are some damaged and bent fence panels in need of replacement in the area of Element 2. Steel pipe handrails to rear parking and playground area and up front stairs are not in compliance with stair and handrail requirements of today’s building code. New handrails and guards to entrances and play areas are required for safety and

code compliance. The handrail/guard along the handicap ramp needs to be re-grouted.

Landscaping is in need of trimming and maintenance.

RECOMMENDATIONS

Architectural

- Strip and repaint concrete foundation (basement) walls in mechanical rooms (8000sf)
- Clean and repaint basement floor in mechanical rooms , hallways, and stairways throughout the building (13000sf)
- Inspect original building (Element 1) for locations of any lintels or brickwork requiring replacement / repairs, not covered in ongoing exterior wall renovation project.
- Inspect all exterior walls of Element 1 to determine if cleaning and powerwashing of exterior brickwork front + sides of main building is required.
- Replace all exterior windows with insulated single hung units, if not replaced as part of ongoing project; replace broken, leaking clerestory windows above Marcase Gym (200 in old bldg. x 3.5x8; 24 in Marcase x 4'x4')
- Replace all exterior doors with ADA and code compliant exit hardware (20)3x7
- Remove and replace all existing flat roof and insulation assemblies in all buildings - 11 levels; trim trees on roof. (39,636sf)
- Repair grand marble stairs in entrance vestibule (11 risers, 12'6" wide)
- Add two freestanding handrails and two wall mounted handrail and guard systems, complying with 2015 building codes (30ft for each)
- Remove non-rated glass panels between most classrooms and corridors; fill with fire rated gyp bd sys. (24)
- Remove and replace all original wood interior doors in Element 1-3, frames and hardware in classrooms, closets, offices, etc. (50, 3'x7')
- Provide security hardware for classrooms and offices, locking from inside classroom. (25)
- Repair and refinish replacement wood doors in Marcase and Sherman additions(25)
- Remove and replace all steel doors, frames, and hardware in mechanical rooms, basement, and stairways (30)
- Remove folding wood partitions; replace with gypsum board and metal stud walls (6)300sf ea
- Repair and repaint all interior plaster walls where damaged (20000)
- Provide toilet room accessories and partitions where missing or damaged (6 toilet rooms)
- Clean FRP wall panels, replace broken components in Sherman Annex corridors. (12000)
- Strip, sand, repair and refinish all wood floors in classrooms (6000sf x 3= 18000sf)
- Remove and replace 12"x12" VCT floors where cracked along column lines in Sherman Annex corridors and classrooms; replace gymnasium floor (8000sf)
- Sample and analyze rooms with 9"x9" VAT, testing for asbestos
- Replace warped and damaged 2x4 suspended acoustical tile ceiling system (15000sf)
- Repaint plaster and concrete ceilings where damaged (5000sf)
- Remove and replace stairway handrails and guards with code compliant systems in Elements 1-3 (3) 4 story (600lf rail)
- Regrout damaged masonry joints at exterior ramp on parking lot side of building and brick posts on N. 5th Street side. (300sf)
- Regrout stairs on Nedro Ave side; regrout railings on parking lot side (10 risers)
- Replace 3 exterior stairs in Lawrence Ave. parking lot side of building (15 risers, 15ft wide, average)

Mechanical:

- Replace lavatories in the Marcase addition
- Replace water closets in the Marcase addition
- Replace urinals in the Marcase addition
- Replace drinking fountains in the Marcase addition and the Original building
- Replace service sinks (janitor sinks) in the Marcase addition and the Original building
- Add sanitizing chemicals to the stainless steel sink in the cafeteria
- Inspect and replace as needed the domestic water piping in the Original building
- Inspect and replace as needed the sanitary system throughout the Marcase addition and the Original building.
- Replace duplex fuel oil pumps and skid
- Replace the concrete fuel tank
- Add overflow scuppers to roofs with parapets
- The boilers are nearing the end of their serviceable life and should be replaced within the next 5 years
- Replace unit ventilators in the Marcase addition and install unit ventilators in the Original building

- Install a new DDC system throughout the building
- Install a new sprinkler system throughout the building
- Remove existing steam boilers and steam distribution system. Install hot water boilers and hot water distribution system.
- Install chiller and chilled water distribution system
- Install AHUs to condition the cafeteria
- Install AHUs to condition the gymnasium

Electrical

- Replace the entire distribution system with new panel boards and new feeders in the located in the original building. Provide arc flash label on all panel boards in all buildings. It is estimated that one distribution panel board and seventeen lighting/power panel boards are located throughout the buildings and should be scheduled for replacement.
- Replace all lighting fixtures with new fluorescent lighting fixtures with T-5 lamps throughout all buildings.
- Replace existing fire alarm system with a new automatic fire alarm system in compliance with today's fire codes. Horn/strobes shall be installed in class rooms, corridors, offices, toilets, and the library, etc.
- Replace existing master clock controller with a new unit.
- Install a new diesel generator, sized approximately at 30KW, for emergency power system.
- Provide lighting fixtures designed to be used with emergency power. Lighting level shall be at least one foot-candle along egress pathways such as corridors, hallways, stairways, and other areas as required by today's fire codes.
- Provide new stage lighting and lighting controller in the Auditorium.
- Provide new sound system including a freestanding 19" rack backstage area with a mixer, amplifiers, CD player, cassette player, AM-FM radio, graphic or parametric equalizer, and receivers
- Install minimum two receptacles in each wall of class rooms. In the computer room, it is recommend that a surface mounted raceway with two-compartments be installed; one for data and the other for power.
- Perform grounding and lightning protection studies to ascertain adequacy of existing systems.

Grounds

- Repave asphalt parking / playground area (37,000sf)
- Replace bent and broken sections of steel post fencing (600sf)
- Repaint rusted sections of steel fence (800ft)
- Replace damaged sections of 4'x4' concrete slab around building (500sf)
- Re-grout handrail/guard at handicap ramp into building.

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 1 / Tm 2
Status:	Accepted by SDP	Team:	Tm 2
Site ID:	S735001		

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	52.00 %	0.00 %	$0.00
A20 - Basement Construction	52.00 %	0.00 %	$0.00
B10 - Superstructure	52.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	65.78 %	25.37 %	$1,451,787.94
B30 - Roofing	109.94 %	87.44 %	$1,310,710.23
C10 - Interior Construction	61.31 %	18.43 %	$458,968.26
C20 - Stairs	15.00 %	114.17 %	$163,404.02
C30 - Interior Finishes	54.84 %	14.32 %	$726,876.70
D10 - Conveying	28.57 %	0.00 %	$0.00
D20 - Plumbing	76.37 %	50.77 %	$1,052,352.35
D30 - HVAC	92.24 %	62.64 %	$7,073,583.06
D40 - Fire Protection	105.71 %	192.34 %	$1,573,597.67
D50 - Electrical	109.31 %	41.50 %	$2,476,137.58
E10 - Equipment	14.29 %	5.62 %	$90,802.49
E20 - Furnishings	12.50 %	0.00 %	$0.00
G20 - Site Improvements	34.30 %	21.12 %	$220,073.69
G40 - Site Electrical Utilities	40.00 %	0.00 %	$0.00
Totals:	**71.08 %**	**31.88 %**	**$16,598,293.99**

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)
B735001;Lowell	101,507	32.30	$3,269,241.11	$5,509,988.14	$3,790,038.56	$741,829.90	$3,067,122.59
G735001;Grounds	72,200	16.23	$9,617.63	$210,456.06	$0.00	$0.00	$0.00
Total:		**31.88**	**$3,278,858.74**	**$5,720,444.20**	**$3,790,038.56**	**$741,829.90**	**$3,067,122.59**

Deficiencies By Priority

- 1 - Response Time (< 2 yr) - $3,278,858.74
- 2 - Response Time (2-3 yrs) - $5,720,444.20
- 3 - Response Time (3-4 yrs) - $3,790,038.56
- 4 - Response Time (4-5 yrs) - $741,829.90
- 5 - Response Time (> 5 yrs) - $3,067,122.59

Budget Estimate Total: $16,598,293.99

Executive Summary

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

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

Function:	Elementary School
Gross Area (SF):	101,507
Year Built:	1913
Last Renovation:	1999
Replacement Value:	$50,707,420
Repair Cost:	$16,378,220.30
Total FCI:	32.30 %
Total RSLI:	72.03 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B735001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S735001		

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	52.00 %	0.00 %	$0.00
A20 - Basement Construction	52.00 %	0.00 %	$0.00
B10 - Superstructure	52.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	65.78 %	25.37 %	$1,451,787.94
B30 - Roofing	109.94 %	87.44 %	$1,310,710.23
C10 - Interior Construction	61.31 %	18.43 %	$458,968.26
C20 - Stairs	15.00 %	114.17 %	$163,404.02
C30 - Interior Finishes	54.84 %	14.32 %	$726,876.70
D10 - Conveying	28.57 %	0.00 %	$0.00
D20 - Plumbing	76.37 %	50.77 %	$1,052,352.35
D30 - HVAC	92.24 %	62.64 %	$7,073,583.06
D40 - Fire Protection	105.71 %	192.34 %	$1,573,597.67
D50 - Electrical	109.31 %	41.50 %	$2,476,137.58
E10 - Equipment	14.29 %	5.62 %	$90,802.49
E20 - Furnishings	12.50 %	0.00 %	$0.00
Totals:	**72.03 %**	**32.30 %**	**$16,378,220.30**

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	$18.40	S.F.	101,507	100	1913	2013	2067	52.00 %	0.00 %	52			$1,867,729
A1030	Slab on Grade	$7.73	S.F.	101,507	100	1913	2013	2067	52.00 %	0.00 %	52			$784,649
A2010	Basement Excavation	$6.55	S.F.	101,507	100	1913	2013	2067	52.00 %	0.00 %	52			$664,871
A2020	Basement Walls	$12.70	S.F.	101,507	100	1913	2013	2067	52.00 %	0.00 %	52			$1,289,139
B1010	Floor Construction	$75.10	S.F.	101,507	100	1913	2013	2067	52.00 %	0.00 %	52			$7,623,176
B1020	Roof Construction	$13.88	S.F.	101,507	100	1913	2013	2067	52.00 %	0.00 %	52			$1,408,917
B2010	Exterior Walls	$36.91	S.F.	101,507	150	1913	2063	2067	34.67 %	0.26 %	52		$9,686.84	$3,746,623
B2020	Exterior Windows	$18.01	S.F.	101,507	40	1970	2010	2067	130.00 %	74.43 %	52		$1,360,696.06	$1,828,141
B2030	Exterior Doors	$1.45	S.F.	101,507	25	1970	1995	2030	60.00 %	55.31 %	15		$81,405.04	$147,185
B3010105	Built-Up	$37.76	S.F.	39,636	20	1995	2015	2037	110.00 %	87.58 %	22		$1,310,710.23	$1,496,655
B3010120	Single Ply Membrane	$38.73	S.F.	0	20				0.00 %	0.00 %				$0
B3010130	Preformed Metal Roofing	$54.22	S.F.	0	30				0.00 %	0.00 %				$0
B3010140	Shingle & Tile	$38.73	S.F.	0	25				0.00 %	0.00 %				$0
B3020	Roof Openings	$0.06	S.F.	39,636	20	1913	1933	2030	75.00 %	0.00 %	15			$2,378
C1010	Partitions	$17.91	S.F.	101,507	100			2067	52.00 %	2.50 %	52		$45,452.96	$1,817,990
C1020	Interior Doors	$3.51	S.F.	101,507	40	1913	1953	2067	130.00 %	107.30 %	52		$382,287.07	$356,290
C1030	Fittings	$3.12	S.F.	101,507	40	1913	1953	2030	37.50 %	9.86 %	15		$31,228.23	$316,702
C2010	Stair Construction	$1.41	S.F.	101,507	100	1913	2013	2030	15.00 %	114.17 %	15		$163,404.02	$143,125

Site Assessment Report - B735001;Lowell

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	$14.18	S.F.	101,507	10	1913	1923	2020	50.00 %	12.86 %	5		$185,075.18	$1,439,369
C3010231	Vinyl Wall Covering	$0.00	S.F.		15				0.00 %	0.00 %				$0
C3010232	Wall Tile	$2.63	S.F.	101,507	30	1995	2025		33.33 %	0.00 %	10			$266,963
C3020411	Carpet	$7.30	S.F.	0	10				0.00 %	0.00 %				$0
C3020412	Terrazzo & Tile	$75.52	S.F.	1,000	50	1995	2045		60.00 %	0.00 %	30			$75,520
C3020413	Vinyl Flooring	$9.68	S.F.	44,507	20	1995	2015	2037	110.00 %	31.41 %	22		$135,341.99	$430,828
C3020414	Wood Flooring	$22.27	S.F.	32,000	25	1913	1938	2030	60.00 %	27.20 %	15		$193,804.92	$712,640
C3020415	Concrete Floor Finishes	$0.97	S.F.	24,000	50	1913	1963	2030	30.00 %	162.78 %	15		$37,895.17	$23,280
C3030	Ceiling Finishes	$20.97	S.F.	101,507	25	1995	2020	2027	48.00 %	8.21 %	12		$174,759.44	$2,128,602
D1010	Elevators and Lifts	$1.53	S.F.	101,507	35	1970	2005	2025	28.57 %	0.00 %	10			$155,306
D2010	Plumbing Fixtures	$13.52	S.F.	101,507	35	1913	1948	2052	105.71 %	29.67 %	37		$407,235.63	$1,372,375
D2020	Domestic Water Distribution	$1.68	S.F.	101,507	25	1913	1938	2020	20.00 %	172.94 %	5		$294,920.31	$170,532
D2030	Sanitary Waste	$2.90	S.F.	101,507	25	1913	1938	2020	20.00 %	115.41 %	5		$339,728.54	$294,370
D2040	Rain Water Drainage	$2.32	S.F.	101,507	30	1913	1943	2020	16.67 %	4.45 %	5		$10,467.87	$235,496
D3020	Heat Generating Systems	$18.67	S.F.	101,507	35	1913	1948	2052	105.71 %	65.72 %	37		$1,245,414.39	$1,895,136
D3030	Cooling Generating Systems	$24.48	S.F.	101,507	30			2047	106.67 %	38.78 %	32		$963,563.63	$2,484,891
D3040	Distribution Systems	$42.99	S.F.	101,507	25	1913	1938	2042	108.00 %	66.33 %	27		$2,894,351.11	$4,363,786
D3050	Terminal & Package Units	$11.60	S.F.	101,507	20	1913	1933	2027	60.00 %	0.00 %	12			$1,177,481
D3060	Controls & Instrumentation	$13.50	S.F.	101,507	20	1913	1933	2020	25.00 %	143.78 %	5		$1,970,253.93	$1,370,345
D4010	Sprinklers	$7.05	S.F.	101,507	35	1913	1948	2052	105.71 %	219.89 %	37		$1,573,597.67	$715,624
D4020	Standpipes	$1.01	S.F.	101,507	35	1913	1948	2052	105.71 %	0.00 %	37			$102,522
D5010	Electrical Service/Distribution	$9.70	S.F.	101,507	30	1913	1943	2047	106.67 %	52.05 %	32		$512,500.11	$984,618
D5020	Lighting and Branch Wiring	$34.68	S.F.	101,507	20	1913	1933	2037	110.00 %	35.54 %	22		$1,251,179.04	$3,520,263
D5030	Communications and Security	$12.99	S.F.	101,507	15	1913	1928	2032	113.33 %	33.25 %	17		$438,389.44	$1,318,576
D5090	Other Electrical Systems	$1.41	S.F.	101,507	30	1913	1943	2037	73.33 %	191.49 %	22		$274,068.99	$143,125
E1020	Institutional Equipment	$4.82	S.F.	101,507	35	1913	1948	2020	14.29 %	18.56 %	5		$90,802.49	$489,264
E1090	Other Equipment	$11.10	S.F.	101,507	35	1913	1948	2020	14.29 %	0.00 %	5			$1,126,728
E2010	Fixed Furnishings	$2.13	S.F.	101,507	40	1913	1953	2020	12.50 %	0.00 %	5			$216,210
								Total	**72.03 %**	**32.30 %**			**$16,378,220.30**	**$50,707,420**

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: rough estimates:
wood stud and lath- 60%
metal stud 15%
concrete block or brick 25%

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

Note: glazed brick 2%
FRP panels (Sherman Annex corridors and stairs) 10%
painted block or gyp bd 88%

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

Note: ceramic tile (CT) floor and wall base 1%
vinyl tile (VCT) in classrooms and corridor; seamless in gym 43%
stained wood oak floor 32%
concrete (sealed) 24%

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

Note: Secondary transformer:
1-225KVA, 480 to 208/120V
1-75KVA. 480 to 208/120V
1-37.5KVA 480 to 208/120V

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:	**$16,378,220**	**$0**	**$0**	**$0**	**$0**	**$6,812,525**	**$0**	**$0**	**$0**	**$0**	**$624,244**	**$23,814,989**
*** 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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B - Shell	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B10 - Superstructure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1010 - Floor Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1020 - Roof Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B20 - Exterior Enclosure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2010 - Exterior Walls	$9,687	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$9,687**
B2020 - Exterior Windows	$1,360,696	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,360,696**
B2030 - Exterior Doors	$81,405	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$81,405**
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	$1,310,710	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,310,710**
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	$0	$0	$0	$0	$0	$0	**$0**
C - Interiors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C10 - Interior Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C1010 - Partitions	$45,453	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$45,453**

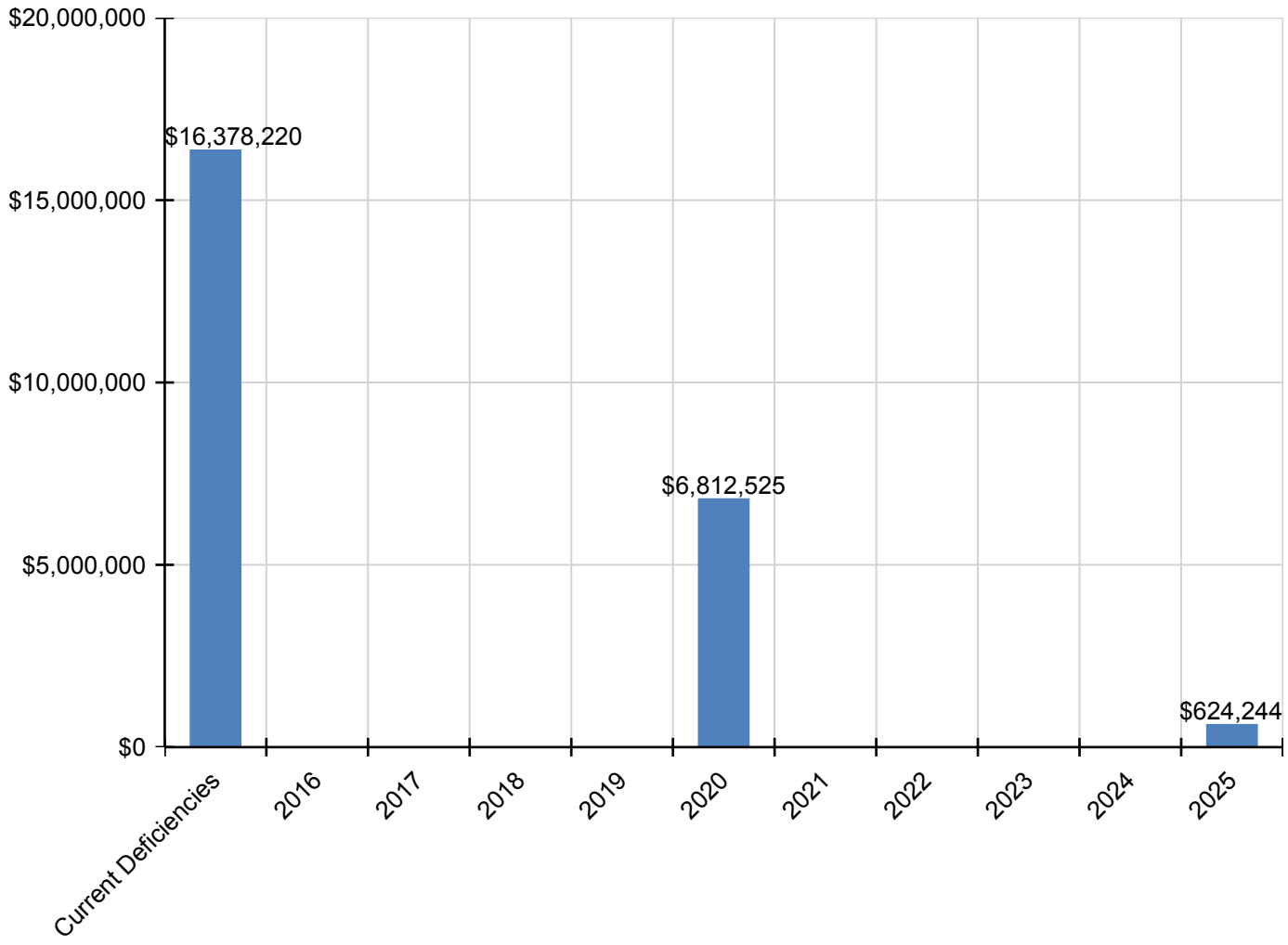
C1020 - Interior Doors	$382,287	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$382,287**
C1030 - Fittings	$31,228	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$31,228**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$163,404	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$163,404**
C30 - Interior Finishes	$0	$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	$185,075	$0	$0	$0	$0	$1,835,486	$0	$0	$0	$0	$0	**$2,020,561**
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	$394,654	**$394,654**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020411 - Carpet	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020413 - Vinyl Flooring	$135,342	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$135,342**
C3020414 - Wood Flooring	$193,805	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$193,805**
C3020415 - Concrete Floor Finishes	$37,895	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$37,895**
C3030 - Ceiling Finishes	$174,759	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$174,759**
D - Services	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D10 - Conveying	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D1010 - Elevators and Lifts	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$229,589	**$229,589**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$407,236	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$407,236**
D2020 - Domestic Water Distribution	$294,920	$0	$0	$0	$0	$217,462	$0	$0	$0	$0	$0	**$512,383**
D2030 - Sanitary Waste	$339,729	$0	$0	$0	$0	$375,381	$0	$0	$0	$0	$0	**$715,110**
D2040 - Rain Water Drainage	$10,468	$0	$0	$0	$0	$300,305	$0	$0	$0	$0	$0	**$310,773**
D30 - HVAC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3020 - Heat Generating Systems	$1,245,414	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,245,414**
D3030 - Cooling Generating Systems	$963,564	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$963,564**
D3040 - Distribution Systems	$2,894,351	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,894,351**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$1,970,254	$0	$0	$0	$0	$1,747,465	$0	$0	$0	$0	$0	**$3,717,719**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$1,573,598	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,573,598**
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	$512,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$512,500**
D5020 - Lighting and Branch Wiring	$1,251,179	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,251,179**
D5030 - Communications and Security	$438,389	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$438,389**
D5090 - Other Electrical Systems	$274,069	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$274,069**
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	$623,910	$0	$0	$0	$0	$0	**$714,712**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$1,436,804	$0	$0	$0	$0	$0	**$1,436,804**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$0	$0	$0	$0	$0	$275,711	$0	$0	$0	$0	$0	**$275,711**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

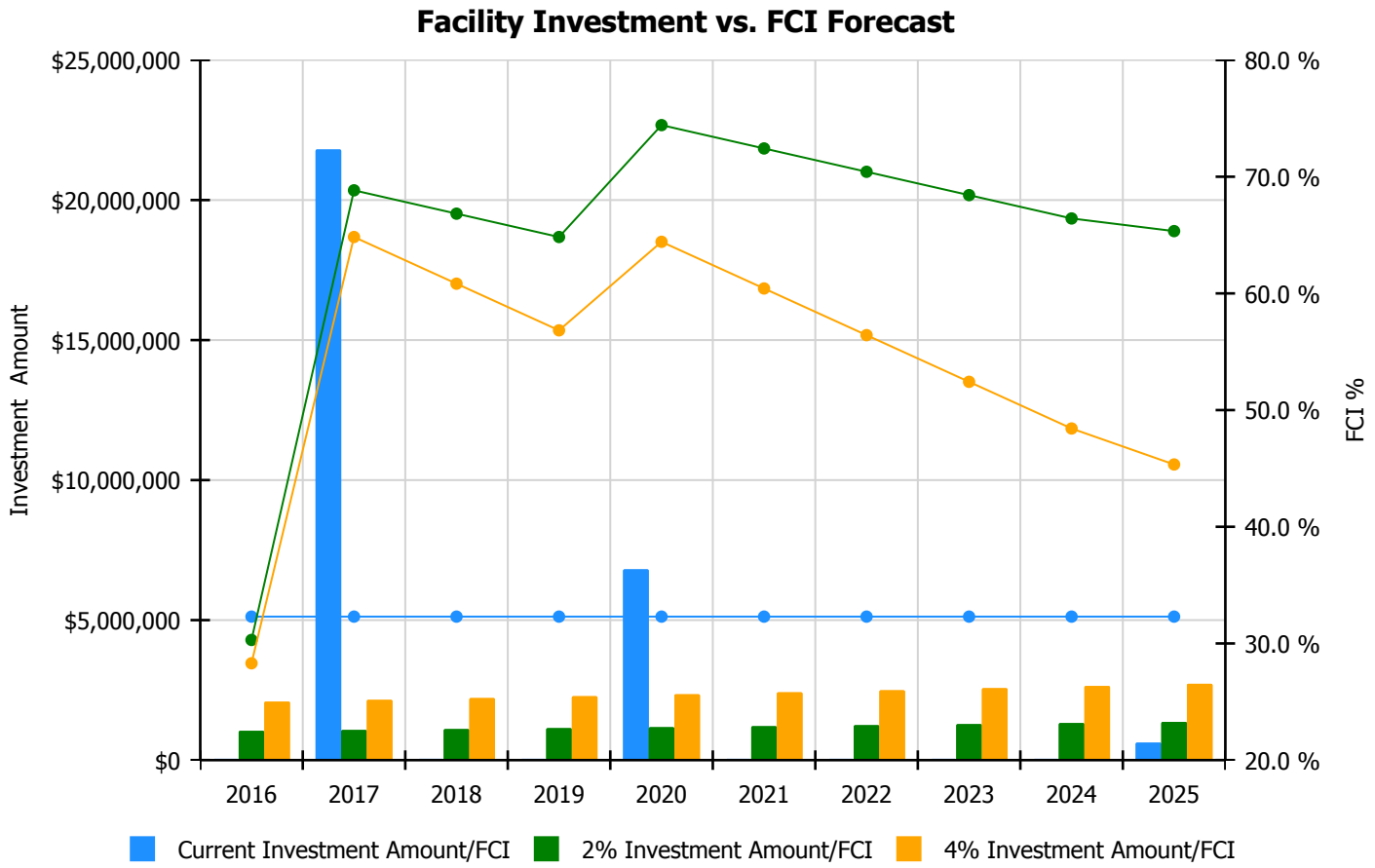
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

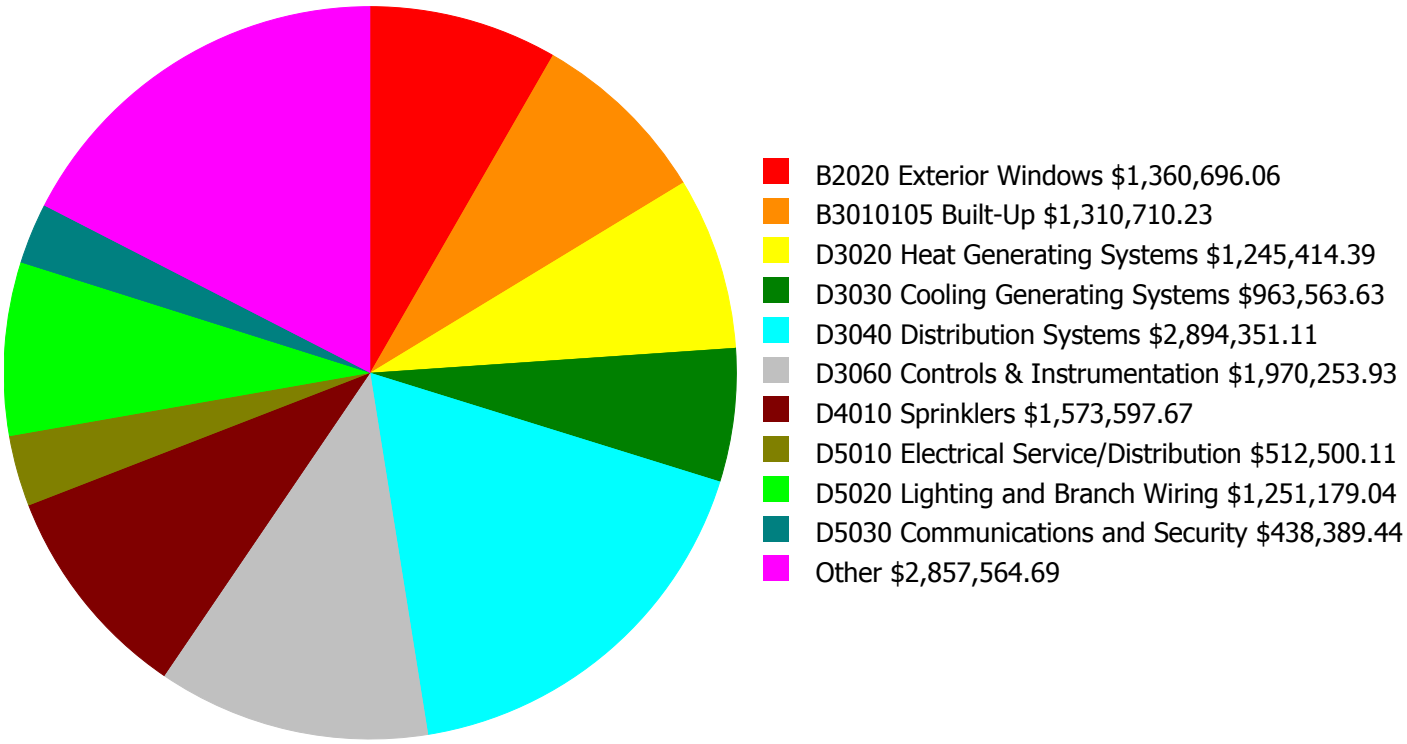
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 32.3%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$1,044,573.00	30.30 %	$2,089,146.00	28.30 %
2017	$21,805,529	$1,075,910.00	68.83 %	$2,151,820.00	64.83 %
2018	$0	$1,108,187.00	66.83 %	$2,216,375.00	60.83 %
2019	$0	$1,141,433.00	64.83 %	$2,282,866.00	56.83 %
2020	$6,812,525	$1,175,676.00	74.42 %	$2,351,352.00	64.42 %
2021	$0	$1,210,946.00	72.42 %	$2,421,892.00	60.42 %
2022	$0	$1,247,275.00	70.42 %	$2,494,549.00	56.42 %
2023	$0	$1,284,693.00	68.42 %	$2,569,386.00	52.42 %
2024	$0	$1,323,234.00	66.42 %	$2,646,467.00	48.42 %
2025	$624,244	$1,362,931.00	65.34 %	$2,725,861.00	45.34 %
Total:	**$29,242,297**	**$11,974,858.00**		**$23,949,714.00**	

Deficiency Summary by System

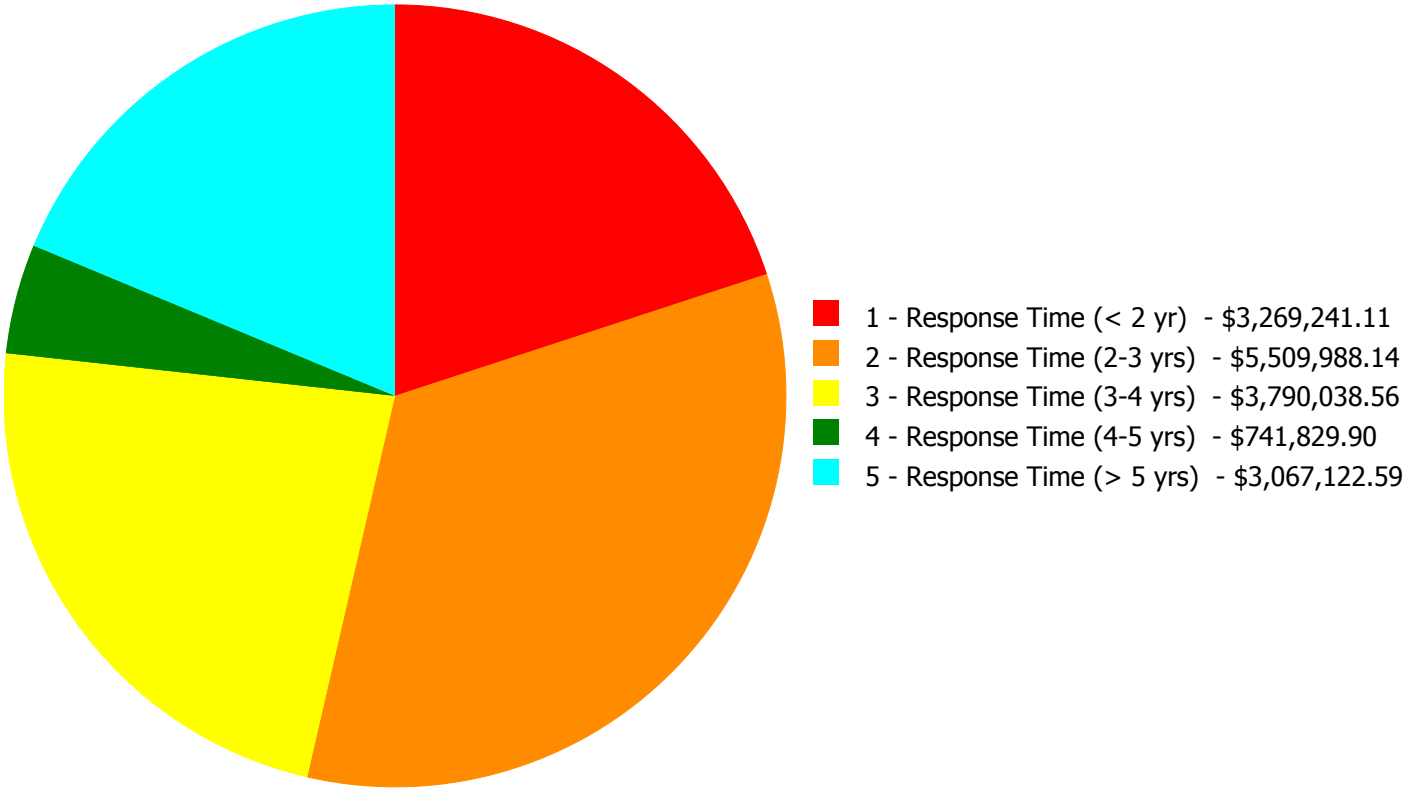
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $16,378,220.30

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: $16,378,220.30

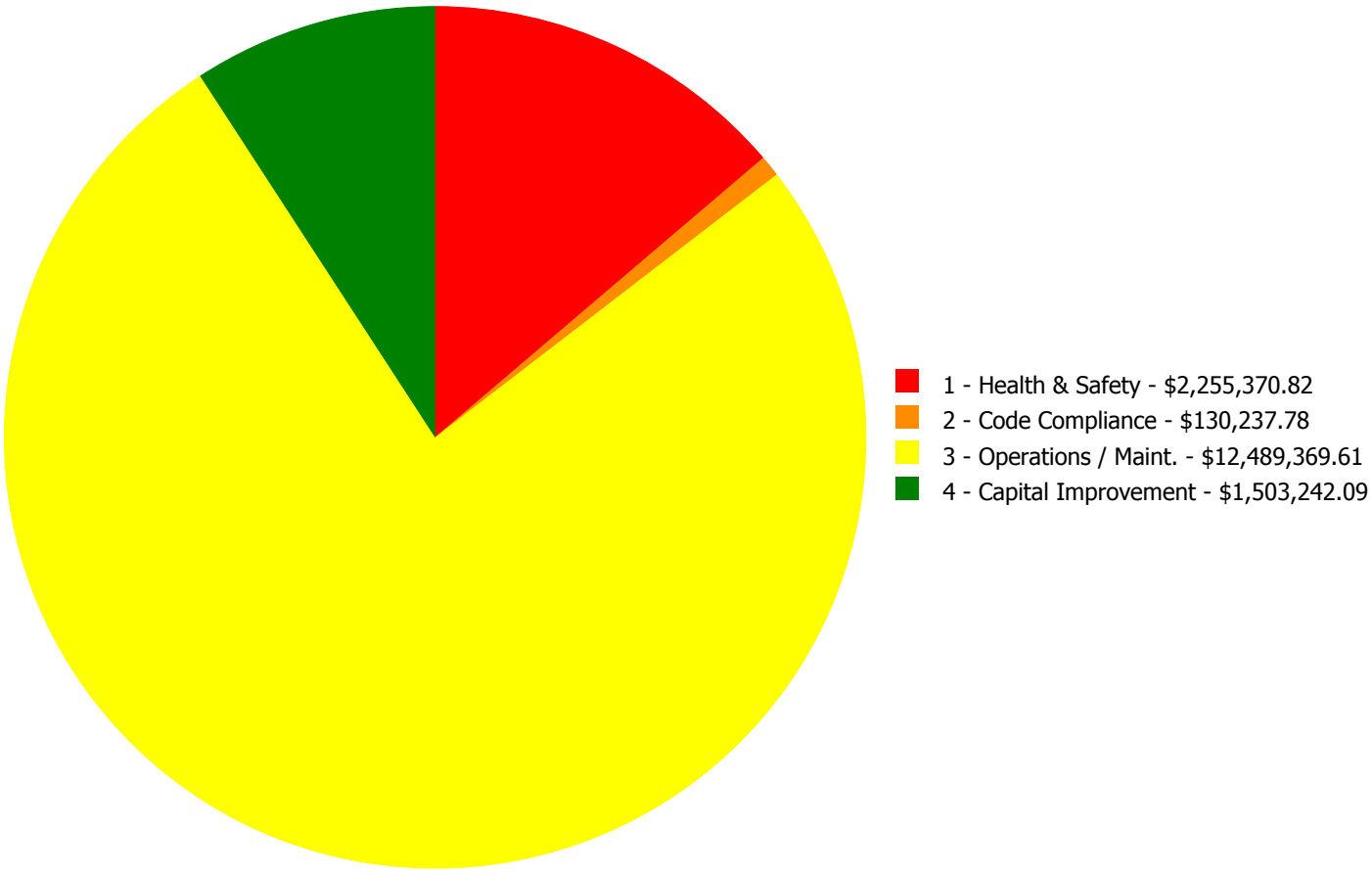
Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
B2010	Exterior Walls	$0.00	$9,686.84	$0.00	$0.00	$0.00	$9,686.84
B2020	Exterior Windows	$0.00	$1,360,696.06	$0.00	$0.00	$0.00	$1,360,696.06
B2030	Exterior Doors	$0.00	$81,405.04	$0.00	$0.00	$0.00	$81,405.04
B3010105	Built-Up	$1,310,710.23	$0.00	$0.00	$0.00	$0.00	$1,310,710.23
C1010	Partitions	$0.00	$45,452.96	$0.00	$0.00	$0.00	$45,452.96
C1020	Interior Doors	$0.00	$382,287.07	$0.00	$0.00	$0.00	$382,287.07
C1030	Fittings	$0.00	$31,228.23	$0.00	$0.00	$0.00	$31,228.23
C2010	Stair Construction	$159,069.92	$4,334.10	$0.00	$0.00	$0.00	$163,404.02
C3010230	Paint & Covering	$0.00	$49,597.64	$135,477.54	$0.00	$0.00	$185,075.18
C3020413	Vinyl Flooring	$0.00	$135,341.99	$0.00	$0.00	$0.00	$135,341.99
C3020414	Wood Flooring	$0.00	$193,804.92	$0.00	$0.00	$0.00	$193,804.92
C3020415	Concrete Floor Finishes	$0.00	$37,895.17	$0.00	$0.00	$0.00	$37,895.17
C3030	Ceiling Finishes	$0.00	$150,824.30	$23,935.14	$0.00	$0.00	$174,759.44
D2010	Plumbing Fixtures	$0.00	$122,614.84	$0.00	$284,620.79	$0.00	$407,235.63
D2020	Domestic Water Distribution	$0.00	$0.00	$0.00	$0.00	$294,920.31	$294,920.31
D2030	Sanitary Waste	$0.00	$0.00	$0.00	$339,728.54	$0.00	$339,728.54
D2040	Rain Water Drainage	$0.00	$10,467.87	$0.00	$0.00	$0.00	$10,467.87
D3020	Heat Generating Systems	$0.00	$0.00	$983,695.33	$26,678.08	$235,040.98	$1,245,414.39
D3030	Cooling Generating Systems	$0.00	$0.00	$0.00	$0.00	$963,563.63	$963,563.63
D3040	Distribution Systems	$0.00	$2,894,351.11	$0.00	$0.00	$0.00	$2,894,351.11
D3060	Controls & Instrumentation	$0.00	$0.00	$1,970,253.93	$0.00	$0.00	$1,970,253.93
D4010	Sprinklers	$0.00	$0.00	$0.00	$0.00	$1,573,597.67	$1,573,597.67
D5010	Electrical Service/Distribution	$512,500.11	$0.00	$0.00	$0.00	$0.00	$512,500.11
D5020	Lighting and Branch Wiring	$574,502.42	$0.00	$676,676.62	$0.00	$0.00	$1,251,179.04
D5030	Communications and Security	$438,389.44	$0.00	$0.00	$0.00	$0.00	$438,389.44
D5090	Other Electrical Systems	$274,068.99	$0.00	$0.00	$0.00	$0.00	$274,068.99
E1020	Institutional Equipment	$0.00	$0.00	$0.00	$90,802.49	$0.00	$90,802.49
	Total:	$3,269,241.11	$5,509,988.14	$3,790,038.56	$741,829.90	$3,067,122.59	$16,378,220.30

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: $16,378,220.30

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: all roofs
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Remove and Replace Built Up Roof
Qty: 39,636.00
Unit of Measure: S.F.
Estimate: $1,310,710.23
Assessor Name: System
Date Created: 08/10/2015

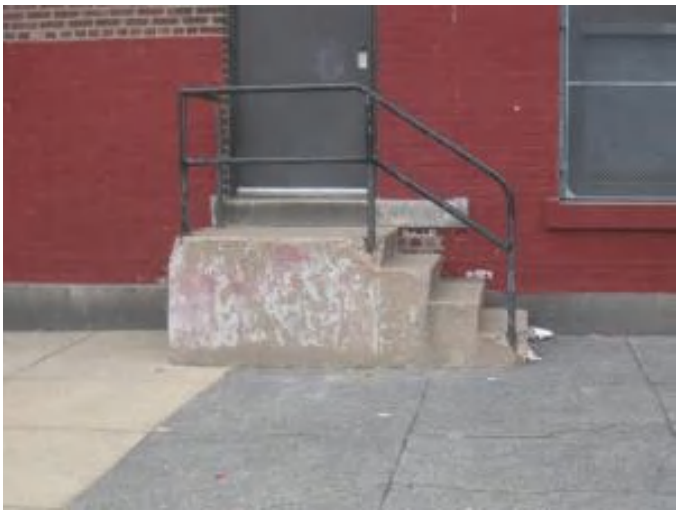
Notes: Remove and replace all existing flat roof and insulation assemblies in all buildings; 11 levels Trim trees on roof

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: 600.00
Unit of Measure: L.F.
Estimate: $98,552.36
Assessor Name: System
Date Created: 08/10/2015

Notes: Remove and replace stairway handrails and guards with code compliant systems in Elements 1-3 (3) 4 story

System: C2010 - Stair Construction



Location: exterior stairs

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Repair exterior stairs

Qty: 15.00

Unit of Measure: Riser

Estimate: $50,385.79

Assessor Name: System

Date Created: 08/10/2015

Notes: Replace 3 exterior stairs in Lawrence Ave. parking lot side of building

System: C2010 - Stair Construction

Location: old building entrance stairway

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: 60.00

Unit of Measure: L.F.

Estimate: $10,131.77

Assessor Name: System

Date Created: 08/10/2015

Notes: Add two freestanding handrails and two wall mounted handrail and guard systems, complying with 2015 building codes

System: D5010 - Electrical Service/Distribution

Location: main electrical room in Sherman Annex

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: $512,500.11

Assessor Name: System

Date Created: 07/29/2015

Notes: Replace the entire distribution system with new panel boards and new feeders in the old building. Provide arc flash label on the all panel boards in entire building. Estimated, 1 distribution panel and 17 lighting/power panel boards.

System: D5020 - Lighting and Branch Wiring

Location: Entire Building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 1 - Response Time (< 2 yr)

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

Qty: 1.00

Unit of Measure: S.F.

Estimate: $417,005.91

Assessor Name: System

Date Created: 07/30/2015

Notes: Install minimum two receptacles in each wall of class rooms and sufficient number of receptacles in other areas per NEC. We recommend adding a two-compartment surface mounted raceway, for data power, for the computer lab room.

System: D5020 - Lighting and Branch Wiring

Location: Entire Building

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

Priority: 1 - Response Time (< 2 yr)

Correction: Provide surface raceway system and wiring devices

Qty: 1.00

Unit of Measure: L.F.

Estimate: $157,496.51

Assessor Name: System

Date Created: 07/30/2015

Notes: Provide emergency power to sufficient number of lighting fixtures in corridors, hallways, stairways and other egress ways to get minimum 1fc at egress ways per code.

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: $315,716.89

Assessor Name: System

Date Created: 07/30/2015

Notes: Replace existing fire alarm system with an automatic fire alarm system including smoke detector in corridor and other recommended area per NEC, horn/strobe in class rooms, corridors, offices ,toilets library and other recommended areas per codes.

System: D5030 - Communications and Security

This deficiency has no image.

Location: Auditorium

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 1 - Response Time (< 2 yr)

Correction: Add/Replace Sound System

Qty: 1.00

Unit of Measure: LS

Estimate: $92,969.54

Assessor Name: System

Date Created: 07/30/2015

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

System: D5030 - Communications and Security

Location: school office

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 1 - Response Time (< 2 yr)

Correction: Add/Replace Clock System or Components

Qty: 0.00

Unit of Measure: Ea.

Estimate: $29,703.01

Assessor Name: System

Date Created: 07/30/2015

Notes: Replace existing master clock with new wireless clock system.

System: D5090 - Other Electrical Systems

This deficiency has no image.

Location: Basement of the Main Building
Distress: Life Safety / NFPA / PFD
Category: 1 - Health & Safety
Priority: 1 - Response Time (< 2 yr)
Correction: Add Standby Generator System
Qty: 1.00
Unit of Measure: Ea.
Estimate: $245,510.84
Assessor Name: System
Date Created: 07/30/2015

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

System: D5090 - Other Electrical Systems

Location: Roof
Distress: Life Safety / NFPA / PFD
Category: 1 - Health & Safety
Priority: 1 - Response Time (< 2 yr)
Correction: Repair Lightning Protection System
Qty: 1.00
Unit of Measure: Job
Estimate: $28,558.15
Assessor Name: System
Date Created: 08/05/2015

Notes:

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

System: B2010 - Exterior Walls

Location: exterior masonry elements

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 300.00

Unit of Measure: S.F.

Estimate: $9,686.84

Assessor Name: System

Date Created: 08/10/2015

Notes: Regrout damaged masonry joints at exterior ramp on parking lot side of building and brick posts on N. 5th Street side

System: B2020 - Exterior Windows

Location: windows - all buildings

Distress: Damaged

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: 220.00

Unit of Measure: Ea.

Estimate: $1,360,696.06

Assessor Name: System

Date Created: 08/10/2015

Notes: Replace all (200) exterior windows with insulated single hung units, if not replaced as part of ongoing project; replace (20) broken, leaking clerestory windows above Marcase Gym

System: B2030 - Exterior Doors

Location: exterior doors

Distress: Failing

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: $81,405.04

Assessor Name: System

Date Created: 08/10/2015

Notes: Replace all exterior doors with ADA and code compliant exit hardware

System: C1010 - Partitions

Location: classrooms

Distress: Damaged

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: 1,800.00

Unit of Measure: S.F.

Estimate: $40,103.09

Assessor Name: System

Date Created: 08/10/2015

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

System: C1010 - Partitions

Location: old building corridors

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

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

Qty: 200.00

Unit of Measure: S.F.

Estimate: $5,349.87

Assessor Name: System

Date Created: 08/10/2015

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

System: C1020 - Interior Doors

Location: old building classrooms, offices

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: 50.00

Unit of Measure: Ea.

Estimate: $229,636.95

Assessor Name: System

Date Created: 08/10/2015

Notes: Remove and replace all original wood interior doors in Element 1-3, frames and hardware in classrooms, closets, offices, etc.

System: C1020 - Interior Doors

Location: mechanical rooms; basement

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace interior doors - wood doors with hollow metal frames - per leaf

Qty: 30.00

Unit of Measure: Ea.

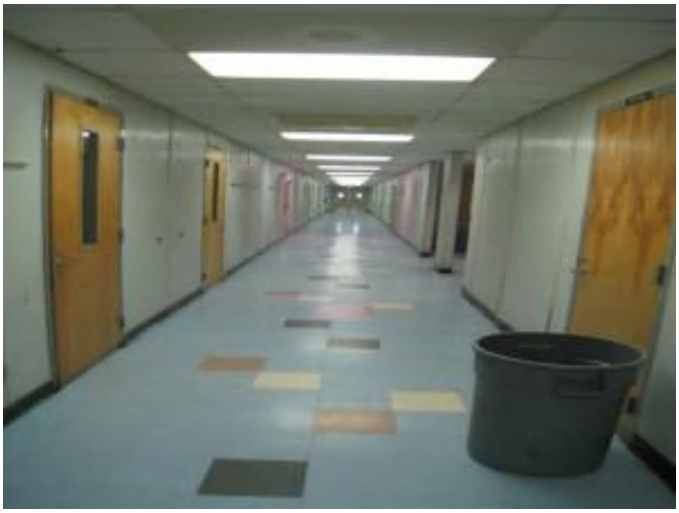
Estimate: $126,209.64

Assessor Name: System

Date Created: 08/10/2015

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

System: C1020 - Interior Doors



Location: Sherman Annex and Marcase Addition

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Refinish interior doors

Qty: 25.00

Unit of Measure: Ea.

Estimate: $20,704.57

Assessor Name: System

Date Created: 08/10/2015

Notes: Repair and refinish replacement wood doors in Marcase and Sherman additions

System: C1020 - Interior Doors

Location: classrooms and offices

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Provide security hardware for classroom and office doors

Qty: 25.00

Unit of Measure: Ea.

Estimate: $5,735.91

Assessor Name: System

Date Created: 08/10/2015

Notes: Provide security hardware for classrooms and offices, locking from inside classroom.

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: 6.00

Unit of Measure: Ea.

Estimate: $15,829.80

Assessor Name: System

Date Created: 08/10/2015

Notes: Provide toilet room accessories where missing or damaged

System: C1030 - Fittings

Location: toilet rooms

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace toilet partitions

Qty: 6.00

Unit of Measure: Ea.

Estimate: $15,398.43

Assessor Name: System

Date Created: 08/10/2015

Notes: Provide toilet room partitions where missing or damaged

System: C2010 - Stair Construction

Location: exterior stairs

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 150.00

Unit of Measure: L.F.

Estimate: $2,241.79

Assessor Name: System

Date Created: 08/10/2015

Notes: Regrout stairs on Nedro Ave side; regrout railings on parking lot side

System: C2010 - Stair Construction

Location: old building entrance stairway

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 140.00

Unit of Measure: L.F.

Estimate: $2,092.31

Assessor Name: System

Date Created: 08/10/2015

Notes: Repair grand marble stairs in entrance vestibule

System: C3010230 - Paint & Covering

Location: mechanical rooms

Distress: Appearance

Category: 3 - Operations / Maint.

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

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

Qty: 8,000.00

Unit of Measure: S.F.

Estimate: $29,186.93

Assessor Name: System

Date Created: 08/10/2015

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

System: C3010230 - Paint & Covering

Location: Sherman Annex

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: 10,000.00

Unit of Measure: S.F.

Estimate: $20,410.71

Assessor Name: System

Date Created: 08/10/2015

Notes: Clean FRP wall panels, replace broken components in Sherman Annex corridors.

System: C3020413 - Vinyl Flooring

Location: Sherman Annex corridors and classrooms; gym

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace VCT

Qty: 10,000.00

Unit of Measure: S.F.

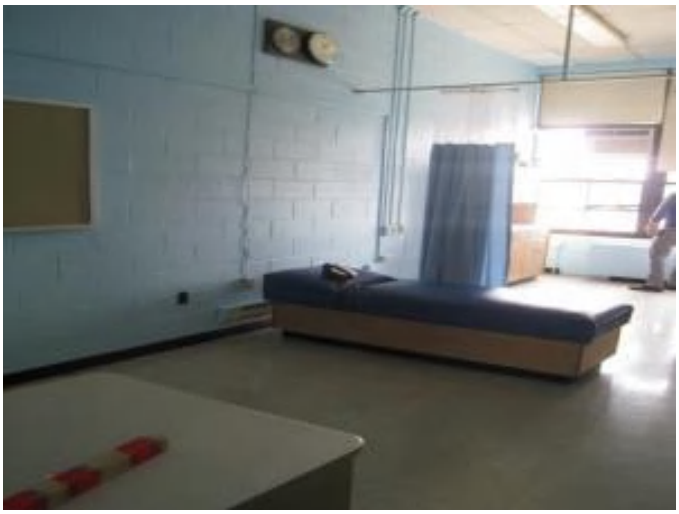
Estimate: $120,175.32

Assessor Name: System

Date Created: 08/10/2015

Notes: Remove and replace 12”x12” VCT floors where cracked along column lines in Sherman Annex corridors and classrooms; replace gymnasium floor

System: C3020413 - Vinyl Flooring



Location: old building 1st fl (kindergarten)
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: 1,000.00
Unit of Measure: S.F.
Estimate: $15,166.67
Assessor Name: System
Date Created: 08/10/2015

Notes: Sample and analyze rooms with 9”x9” VAT, testing for asbestos

System: C3020414 - Wood Flooring

Location: classrooms - old building
Distress: Appearance
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Refinish wood floors
Qty: 18,000.00
Unit of Measure: S.F.
Estimate: $193,804.92
Assessor Name: System
Date Created: 08/10/2015

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

System: C3020415 - Concrete Floor Finishes

Location: hallways, stairways, mechanical room

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Clean and reseal concrete floors

Qty: 13,000.00

Unit of Measure: S.F.

Estimate: $37,895.17

Assessor Name: System

Date Created: 08/10/2015

Notes: Clean and repaint basement floor in mechanical rooms, hallways, and stairways throughout the building

System: C3030 - Ceiling Finishes

Location: ceilings

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 10,000.00

Unit of Measure: S.F.

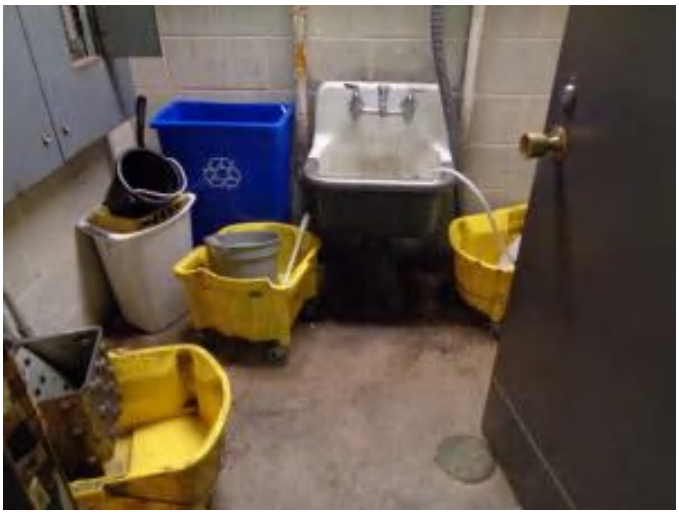
Estimate: $150,824.30

Assessor Name: System

Date Created: 08/10/2015

Notes: Replace warped and damaged 2x4 suspended acoustical tile ceiling system

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: 8.00

Unit of Measure: Ea.

Estimate: $62,917.66

Assessor Name: System

Date Created: 08/17/2015

Notes: Replace service sinks (janitor sinks) in the Marcase addition and the Original 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 or replace water closet - quantify additional units

Qty: 8.00

Unit of Measure: Ea.

Estimate: $59,697.18

Assessor Name: System

Date Created: 08/17/2015

Notes: Replace water closets in the Marcase addition

System: D2040 - Rain Water Drainage

Location: Roof

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Create new overflow scupper through a parapet with up to 100' downspout

Qty: 1.00

Unit of Measure: Ea.

Estimate: $10,467.87

Assessor Name: System

Date Created: 08/17/2015

Notes: Add roof overflow scuppers to roof with parapets

System: D3040 - Distribution Systems

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace the existing unit ventilators with new units designed to provide adequate ventilation per ASHRAE Std 62 - insert the SF of bldg. in the qty.

Qty: 60,000.00

Unit of Measure: S.F.

Estimate: $2,894,351.11

Assessor Name: System

Date Created: 08/21/2015

Notes: Replace unit ventilators in the Marcase addition and install unit ventilators in the Original building

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

System: C3010230 - Paint & Covering

Location: old building

Distress: Appearance

Category: 3 - Operations / Maint.

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

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

Qty: 20,000.00

Unit of Measure: S.F.

Estimate: $135,477.54

Assessor Name: System

Date Created: 08/10/2015

Notes: Repair and repaint all interior plaster walls where damaged

System: C3030 - Ceiling Finishes

Location: ceilings - toilet rooms and mech areas

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Re-paint ceilings - SF of ceilings

Qty: 5,000.00

Unit of Measure: S.F.

Estimate: $23,935.14

Assessor Name: System

Date Created: 08/10/2015

Notes: Repaint plaster and concrete ceilings where damaged

System: D3020 - Heat Generating Systems

Location: Boiler Mechanical Equipment Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace boiler, cast iron sectional (100 HP)

Qty: 3.00

Unit of Measure: Ea.

Estimate: $983,695.33

Assessor Name: System

Date Created: 08/17/2015

Notes: The boilers are nearing the end of their serviceable life and should be replaced within the next 5 years

System: D3060 - Controls & Instrumentation

Location: Throughout the building

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Replace pneumatic controls with DDC (150KSF)

Qty: 110,000.00

Unit of Measure: S.F.

Estimate: $1,970,253.93

Assessor Name: System

Date Created: 08/17/2015

Notes: Install a new DDC system throughout the building

System: D5020 - Lighting and Branch Wiring

Location: Entire Building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace Lighting Fixtures (SF)

Qty: 1.00

Unit of Measure: S.F.

Estimate: $676,676.62

Assessor Name: System

Date Created: 07/30/2015

Notes: Replace all lighting fixtures with new fluorescent lighting fixtures with T-5 lamp throughout the building.

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

System: D2010 - Plumbing Fixtures

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 14.00

Unit of Measure: Ea.

Estimate: $219,700.55

Assessor Name: System

Date Created: 08/17/2015

Notes: Replace drinking fountains in the Marcase addition and the Original building

System: D2010 - Plumbing Fixtures

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or replace lavatory - quantify accessible if required

Qty: 10.00

Unit of Measure: Ea.

Estimate: $46,330.65

Assessor Name: System

Date Created: 08/17/2015

Notes: Replace lavatories in the Marcase addition

System: D2010 - Plumbing Fixtures

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or replace wall hung urinals

Qty: 6.00

Unit of Measure: Ea.

Estimate: $18,589.59

Assessor Name: System

Date Created: 08/17/2015

Notes: Replace urinals in the Marcase addition

System: D2030 - Sanitary Waste

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 80,000.00

Unit of Measure: S.F.

Estimate: $339,728.54

Assessor Name: System

Date Created: 08/17/2015

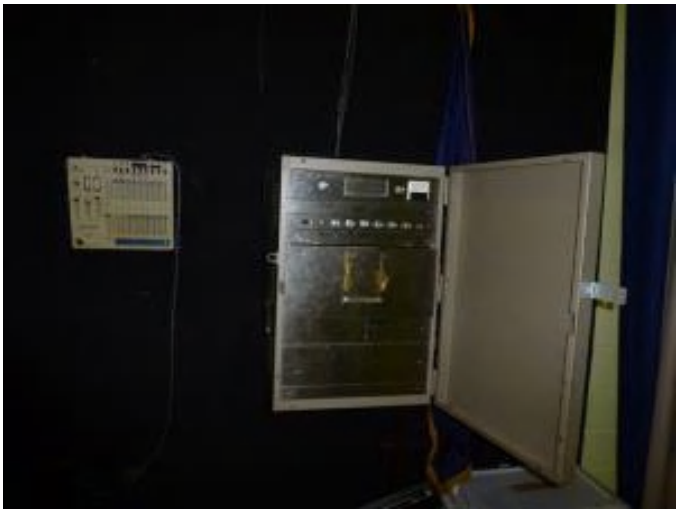
Notes: Inspect and replace as needed the sanitary system throughout the Marcase addition and the Original building

System: D3020 - Heat Generating Systems

Location: Boiler Mechanical Equipment Room
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 4 - Response Time (4-5 yrs)
Correction: Replace fuel oil pumps
Qty: 1.00
Unit of Measure: Ea.
Estimate: $26,678.08
Assessor Name: System
Date Created: 08/17/2015

Notes: Replace duplex fuel oil pumps and skid

System: E1020 - Institutional Equipment



Location: backstage
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 4 - Response Time (4-5 yrs)
Correction: Add/Replace Stage Theatrical Lighting System
Qty: 1.00
Unit of Measure: Ea.
Estimate: $90,802.49
Assessor Name: System
Date Created: 07/30/2015

Notes: Replace new stage lighting and controller in Auditorium.

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 (75 KSF)

Qty: 58,200.00

Unit of Measure: S.F.

Estimate: $294,920.31

Assessor Name: System

Date Created: 08/17/2015

Notes: Inspect and replace as needed the domestic water piping in the Original building

System: D3020 - Heat Generating Systems

This deficiency has no image.

Location: Boiler Mechanical Equipment Room

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

Priority: 5 - Response Time (> 5 yrs)

Correction: Provide fuel oil tank, above ground concrete encased (8,000 gal)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $235,040.98

Assessor Name: System

Date Created: 08/17/2015

Notes: Replace the concrete fuel tank in the basement mechanical area

System: D3030 - Cooling Generating Systems

This deficiency has no image.

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. (+75KSF)

Qty: 60,000.00

Unit of Measure: S.F.

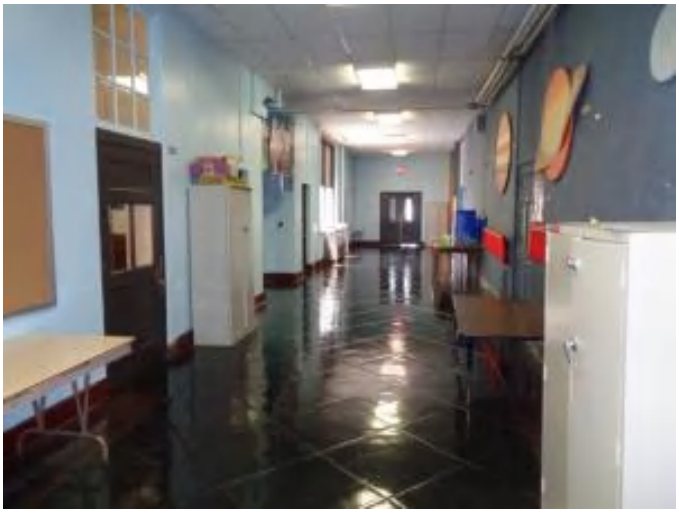
Estimate: $963,563.63

Assessor Name: System

Date Created: 08/21/2015

Notes: Install chiller and chilled water distribution system

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: 110,000.00

Unit of Measure: S.F.

Estimate: $1,573,597.67

Assessor Name: System

Date Created: 08/17/2015

Notes: Install a new sprinkler system throughout the building

Equipment Inventory

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

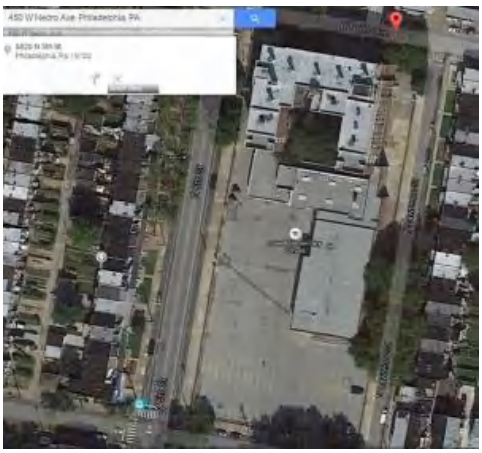
Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 4650 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	boiler room	Weil McLain	1388			35			$112,258.50	$123,484.35
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 4650 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	boiler room	Weil McLain	1388			35			$112,258.50	$123,484.35
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 4650 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	boiler room	Weil McLain	1388			35			$112,258.50	$123,484.35
D5010 Electrical Service/Distribution	Load interrupter switch, 2 position, 400 kVA & above, 13.8 kV, 600 amp w/CLF fuses, NEMA 1	1.00	Ea.	Electrical room					30		2025	$42,849.00	$47,133.90
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 277/480 V, 600 A	1.00	Ea.	Main electrical room					30	1995	2025	$26,578.80	$29,236.68
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 277/480 V, 800 A	1.00	Ea.	Building main electrical room					30	1995	2025	$31,205.25	$34,325.78
												Total:	**$481,149.41**

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):	72,200
Year Built:	1913
Last Renovation:	
Replacement Value:	$1,356,116
Repair Cost:	$220,073.69
Total FCI:	16.23 %
Total RSLI:	35.62 %



Description:

Attributes:

General Attributes:

Bldg ID:	S735001	Site ID:	S735001

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	34.30 %	21.12 %	$220,073.69
G40 - Site Electrical Utilities	40.00 %	0.00 %	$0.00
Totals:	**35.62 %**	**16.23 %**	**$220,073.69**

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.	0	30	1990	2020	2026	36.67 %	0.00 %	11			$0
G2020	Parking Lots	$7.65	S.F.	27,000	30	1990	2020	2026	36.67 %	68.24 %	11		$140,953.87	$206,550
G2030	Pedestrian Paving	$11.52	S.F.	45,200	40	1970	2010	2026	27.50 %	1.38 %	11		$7,191.43	$520,704
G2040	Site Development	$4.36	S.F.	72,200	25	1913	1938	2026	44.00 %	22.85 %	11		$71,928.39	$314,792
G2050	Landscaping & Irrigation	$3.78	S.F.	0	15	1913	1928	2026	73.33 %	0.00 %	11			$0
G4020	Site Lighting	$3.58	S.F.	72,200	30	1970	2000	2027	40.00 %	0.00 %	12			$258,476
G4030	Site Communications & Security	$0.77	S.F.	72,200	30	1970	2000	2027	40.00 %	0.00 %	12			$55,594
								Total	**35.62 %**	**16.23 %**			**$220,073.69**	**$1,356,116**

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.

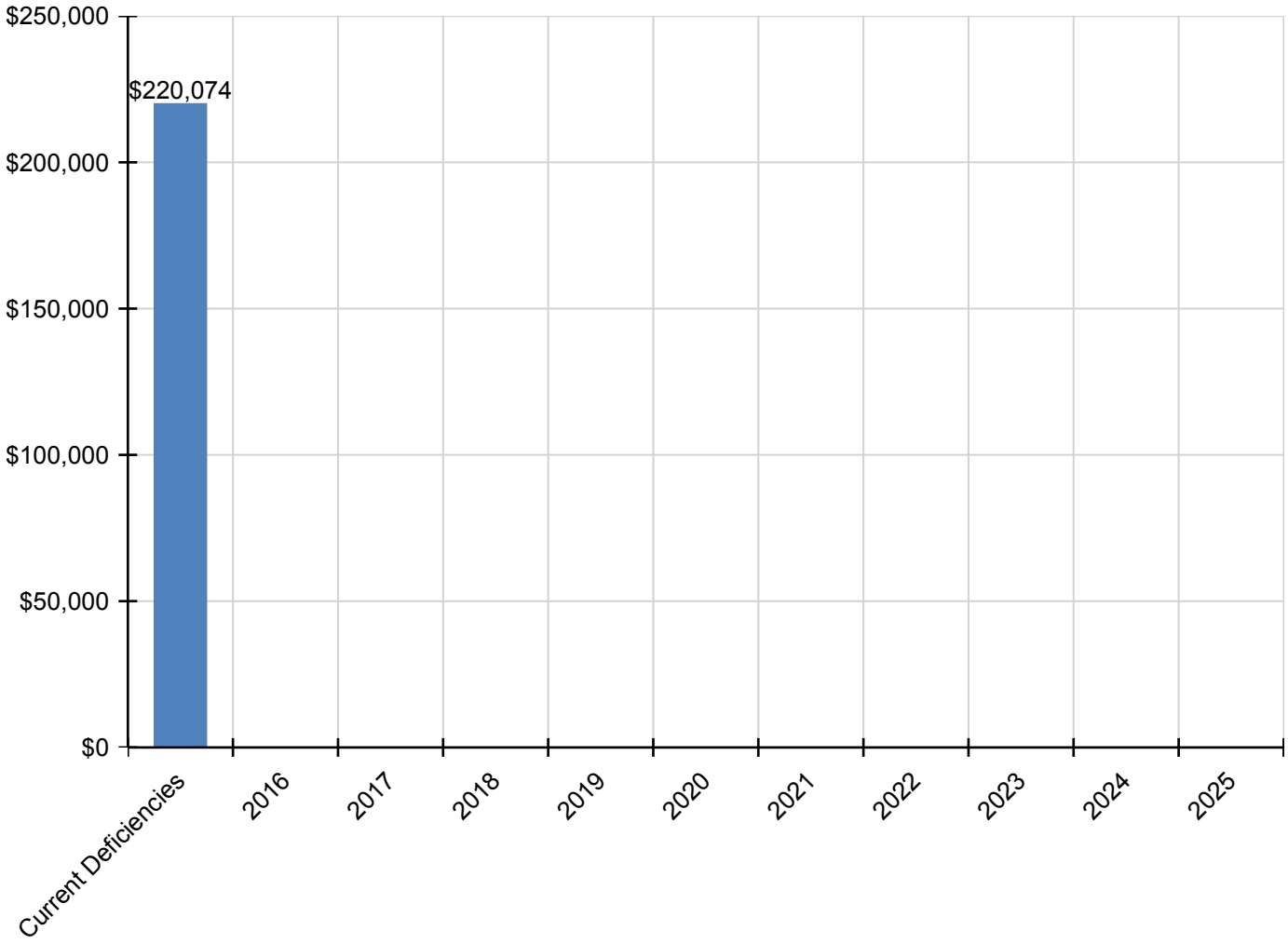
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$220,074**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$220,074**
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	$140,954	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$140,954**
G2030 - Pedestrian Paving	$7,191	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$7,191**
G2040 - Site Development	$71,928	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$71,928**
G2050 - Landscaping & Irrigation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G40 - Site Electrical Utilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4020 - Site Lighting	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4030 - Site Communications & Security	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

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

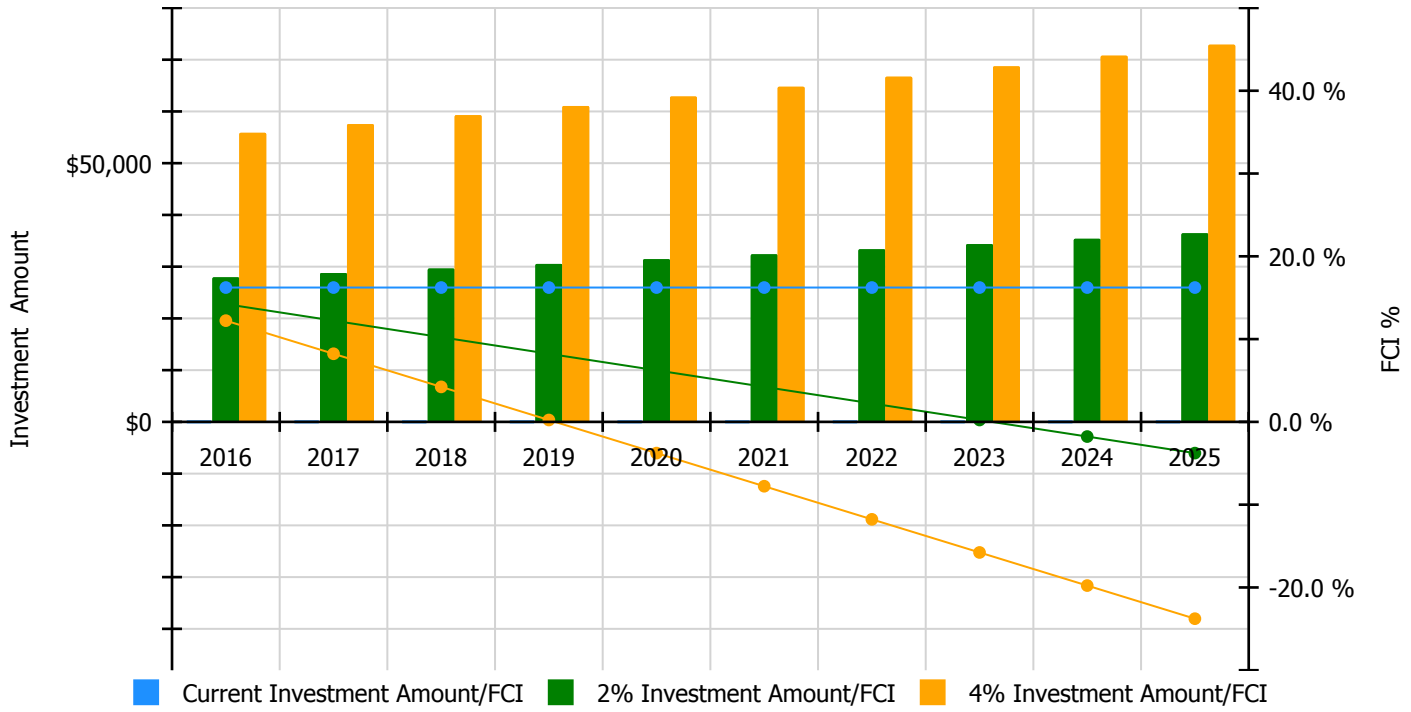


10 Year FCI Forecast by Investment Scenario

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

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

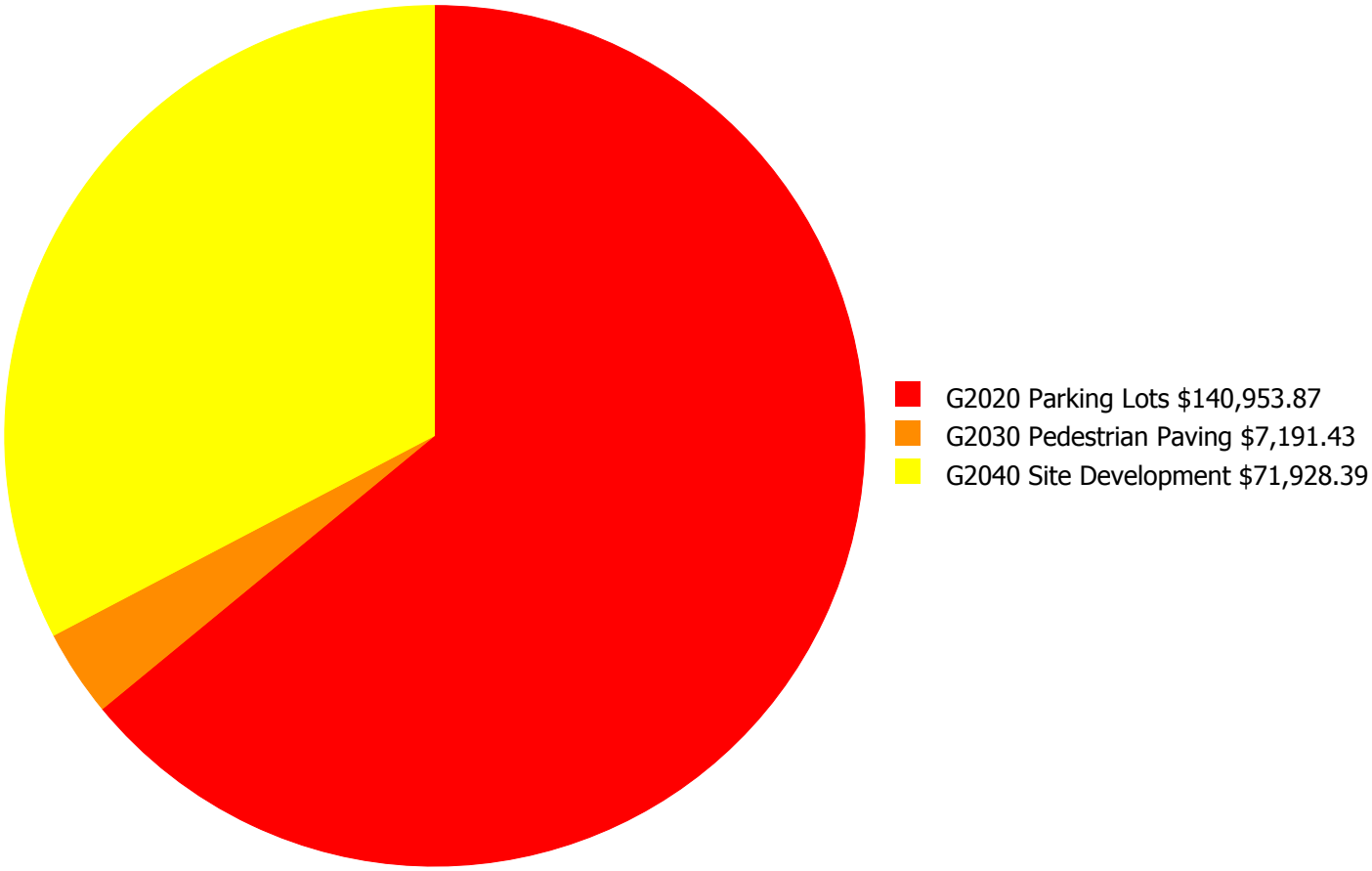
Facility Investment vs. FCI Forecast



Year	Investment Amount Current FCI - 16.23%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$27,936.00	14.23 %	$55,872.00	12.23 %
2017	$0	$28,774.00	12.23 %	$57,548.00	8.23 %
2018	$0	$29,637.00	10.23 %	$59,275.00	4.23 %
2019	$0	$30,526.00	8.23 %	$61,053.00	0.23 %
2020	$0	$31,442.00	6.23 %	$62,884.00	-3.77 %
2021	$0	$32,385.00	4.23 %	$64,771.00	-7.77 %
2022	$0	$33,357.00	2.23 %	$66,714.00	-11.77 %
2023	$0	$34,358.00	0.23 %	$68,715.00	-15.77 %
2024	$0	$35,388.00	-1.77 %	$70,777.00	-19.77 %
2025	$0	$36,450.00	-3.77 %	$72,900.00	-23.77 %
Total:	**$0**	**$320,253.00**		**$640,509.00**	

Deficiency Summary by System

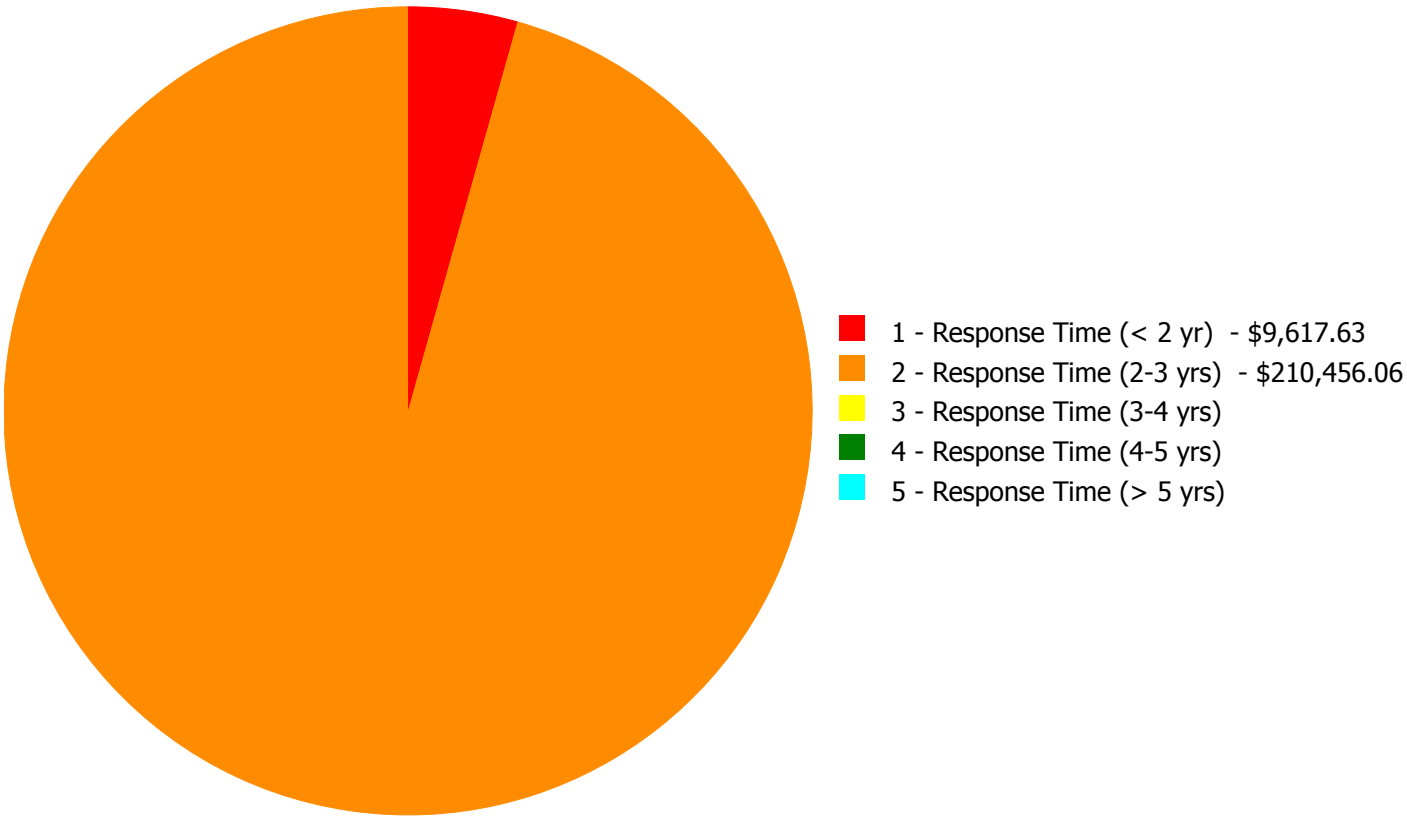
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $220,073.69

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: $220,073.69

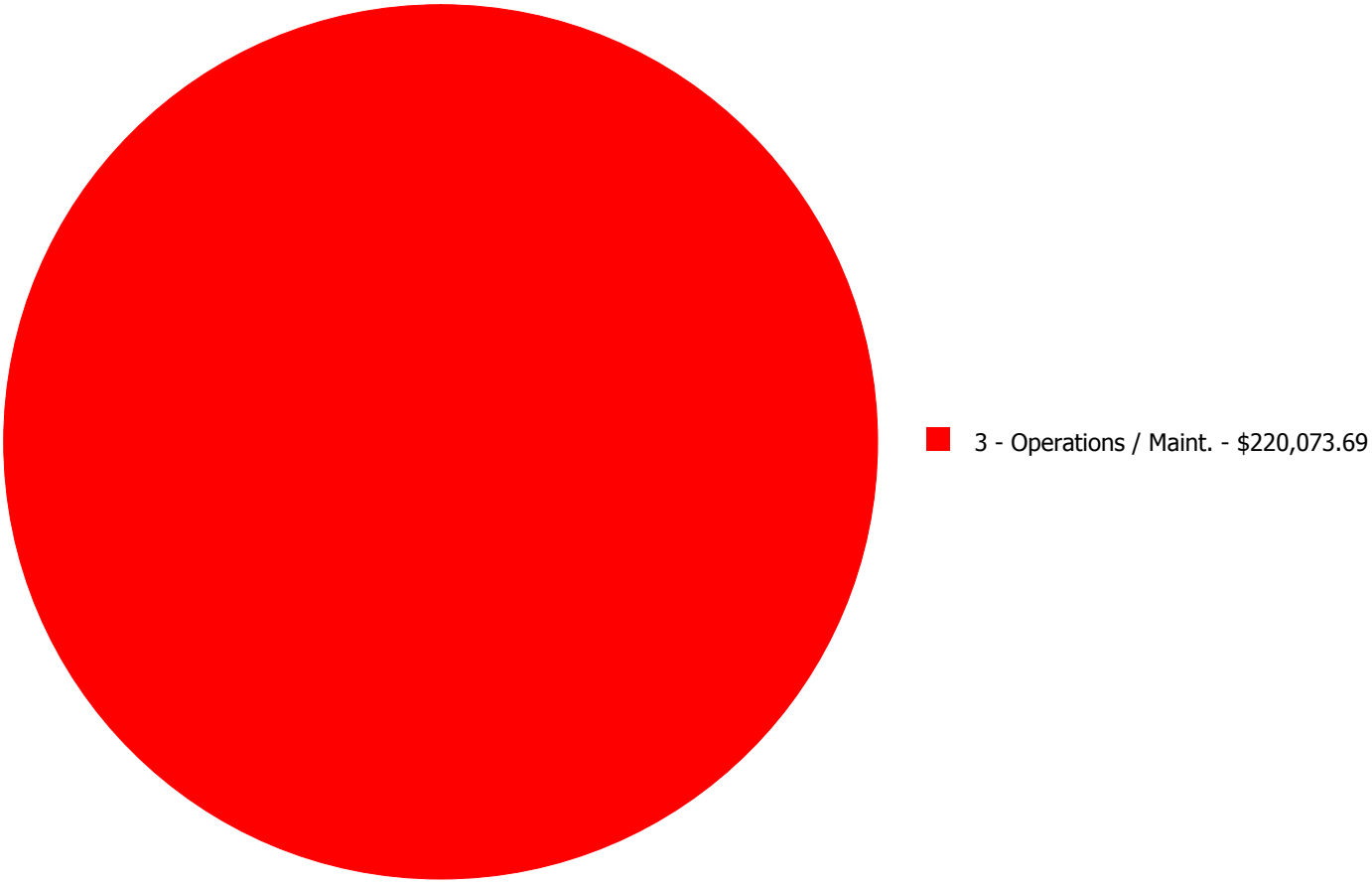
Deficiency By Priority Investment Table

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	$140,953.87	$0.00	$0.00	$0.00	$140,953.87
G2030	Pedestrian Paving	$0.00	$7,191.43	$0.00	$0.00	$0.00	$7,191.43
G2040	Site Development	$9,617.63	$62,310.76	$0.00	$0.00	$0.00	$71,928.39
	Total:	$9,617.63	$210,456.06	$0.00	$0.00	$0.00	$220,073.69

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: $220,073.69

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: G2040 - Site Development

Location: handicap ramp - play area

Distress: Failing

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Replace or install exterior guardrails

Qty: 50.00

Unit of Measure: L.F.

Estimate: $9,617.63

Assessor Name: Steven Litman

Date Created: 10/23/2015

Notes: Re-grout handrail/guard along handicap ramp into building

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

System: G2020 - Parking Lots

Location: parking lot / play area

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Resurface parking lot - grind and resurface including striping

Qty: 37,000.00

Unit of Measure: S.F.

Estimate: $140,953.87

Assessor Name: Steven Litman

Date Created: 08/10/2015

Notes:

System: G2030 - Pedestrian Paving

Location: site - entrance doors

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: 500.00

Unit of Measure: S.F.

Estimate: $7,191.43

Assessor Name: Steven Litman

Date Created: 08/10/2015

Notes: Replace damaged sections of 4’x4’ concrete slab around building

System: G2040 - Site Development

Location: site

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Paint steel picket fence - LF of fence 6' high

Qty: 800.00

Unit of Measure: L.F.

Estimate: $52,208.04

Assessor Name: Steven Litman

Date Created: 08/10/2015

Notes: Repaint rusted sections of steel fence

System: G2040 - Site Development

Location: site

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: 60.00

Unit of Measure: L.F.

Estimate: $10,102.72

Assessor Name: Steven Litman

Date Created: 08/10/2015

Notes: Replace bent and broken sections of steel post fencing

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