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.

Franklin Elementary School

Governance	DISTRICT	Report Type	Elementarymiddle
Address	5735 Rising Sun Ave.	Enrollment	999
	Philadelphia, Pa 19120	Grade Range	'00-08'
Phone/Fax	215-728-5017 / 215-728-5992	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Franklin	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	**41.77%**	**$19,097,344**	**$45,719,502**
Building	42.22 %	$18,870,958	$44,693,752
Grounds	22.07 %	$226,386	$1,025,750

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	10.58 %	$144,618	$1,367,125
Exterior Walls (Shows condition of the structural condition of the exterior facade)	01.79 %	$58,076	$3,243,282
Windows (Shows functionality of exterior windows)	63.34 %	$1,002,415	$1,582,539
Exterior Doors (Shows condition of exterior doors)	07.50 %	$9,556	$127,412
Interior Doors (Classroom doors)	107.14 %	$330,458	$308,424
Interior Walls (Paint and Finishes)	04.89 %	$72,179	$1,477,095
Plumbing Fixtures	01.89 %	$22,509	$1,188,002
Boilers	32.48 %	$532,781	$1,640,533
Chillers/Cooling Towers	118.26 %	$2,543,883	$2,151,058
Radiators/Unit Ventilators/HVAC	166.01 %	$6,271,090	$3,777,531
Heating/Cooling Controls	226.49 %	$2,686,710	$1,186,245
Electrical Service and Distribution	48.08 %	$409,772	$852,339
Lighting	01.16 %	$35,300	$3,047,332
Communications and Security (Cameras, Pa System and Fire Alarm)	51.38 %	$586,504	$1,141,431

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

S728001;Franklin ES

Final

Site Assessment Report

January 31, 2017

PARSONS

Table of Contents

Site Executive Summary

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

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

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

Gross Area (SF):	87,870
Year Built:	1915
Last Renovation:	1999
Replacement Value:	$45,719,502
Repair Cost:	$19,097,343.87
Total FCI:	41.77 %
Total RSLI:	58.26 %

Description:

Facility Condition Assessment

July 2015

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School District of Philadelphia

Ben Franklin Elementary School

5735 Rising Sun Avenue

Philadelphia, PA 19120

87,870 SF / 696 Students / LN 07

General

Ben Franklin Elementary School is located at 5735 Rising Sun Avenue. The front entrance of the building faces Rising Sun Avenue. The original building (Element 1) was constructed in 1915, has 26,500 square feet, and is 3 stories tall with a full basement. Element 2 was constructed in 1931 has 18,170 square feet and consists of a 3 story classroom addition and an Auditorium addition, both with full basements. Then, in 1954, the Element 3 addition was constructed, consisting of a 1 story classroom addition of approximately 10,000sf, connected to the Element 2 classroom addition. When the most recent addition was constructed facing Cheltenham Avenue in 1999, Element 3 was demolished to make space for the children's play area which now faces Sentner Street. The total square footage of Ben Franklin Elementary School today is 87,870 square feet. This building can be found on the National Historical Register, number 88002274 with the Rising Sun Avenue address. Kevin McGuire, the Relief Building Engineer accompanied the team during the building inspection.

Architectural/Structural

Foundations appear to be constructed of concrete and brick. Joints are generally in good condition. Extensive peeling paint was observed on basement walls and ceilings, mainly due to high room moisture related to excessive steam released by the boilers and a lack of general maintenance of the space. The walls in the room that used to be the coal room are completely black with soot. All basement mechanical room walls need to be cleaned and repainted. Footings were not seen and their construction type or condition could not be ascertained. There is evidence of rusting on the steel lintels above most basement windows in the original building (Element 1) with some localized joint cracking extending beyond the lintels which can be seen from outside the building. Cracks of this nature can be sources of water infiltration from outside into the basement..

Floor slabs in the basement are in good condition although covered with dirt and in need of stripping, cleaning and repainting. Upper floor slabs in the main 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.

Roof construction over the main building is 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 in the main building is via a door out of a masonry penthouse. The roof over the auditorium is constructed of heavy timber trusses with wood decking. What could be seen appeared to be in good condition as observed in the attic space. The roof access to the latest addition is by a permanent ladder leading to a roof hatch. Roof construction in the addition is steel bar joist and metal deck, typical of today's construction for this type of building. Roof drains have crickets leading to dished areas for drainage, similar to those on the original building. The supports for the curved roofs over the entrance to the addition on Cheltenham Avenue are rusting and need to be repainted.

Exterior walls and penthouse structures in the original building are generally in good condition, however the lintels above most basement windows, some upper windows, and some doors are rusted with brick joint cracks extending from the lintels into the brick joints in the walls. The rusted lintels should be replaced when windows are replaced. The exterior above-grade foundation wall of the main has some graffiti and is very dirty; limestone window jambs, head, and sills, the limestone band, and limestone work around entrances are also dirty and in need of powerwashing. There is some cracking on the brick roof-structure walls and parapets; these open joints need to be repointed. There is cracking of the horizontal counterflashing joint which is a potential source of water penetration; this needs to be recaulked. A more detailed inspection of the main building masonry is required to repair all failing joints and ensure a watertight envelope. Aluminum coping was recently installed (possibly with construction of the latest addition) over the original building coping and is used on the new building. It appears to be in good condition. The brickwork and limestone window jambs, sills, and heads on the addition appear to be in good condition. The Cheltenham Street side of the building has a large amount of dirt and mildew covering brick and stonework, especially around the building name; this needs to be powerwashed. The lower, street-level part of the building addition walls are sealed with an anti-graffiti coating, giving the wall a milky appearance.

Exterior windows in the main building were replaced in the 1980's with bronze anodized, aluminum frame, operable, single hung units with single thickness clear plexiglass acrylic vision panel glazing. Windows in the addition are the same type of single-glazed plexiglass panels installed in single-hung clear anodized aluminum frame units with aluminum panels above and below the windows. The building engineer indicated that there have been complaints that all windows are cold and drafty in the winter. Windows in the original building are in poor condition with oxided frames and severely scratched single-pane plexiglass. 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 in the original building and the addition do not meet today's energy code requirements and are large sources of heat loss. Basement level windows are at grade when viewed from the outside and have galvanized steel security screens attached to the windows; the lower section of 1st floor windows on the original building and the auditorium windows also have security screens, all in good condition.

Exterior doors on the main building are painted steel flush hollow metal units with steel frames. The main entrance and secondary

main entrance on Front Street have decorative limestone around door openings which should be cleaned to highlight their style and artistic technique. Some doors have small glazing vision panels with steel security mesh. Door panels and frames in the original building are in need of refinishing to remove dents, rust, and layers of paint; they should then receive fresh coats of paint. Door hardware is generally poor condition; panic hardware and locks are broken or not functioning, and hardware is not ADA compliant. There are no handicap entrances, and no accessible ramps. All exterior hardware systems need to be replaced. The personnel entrance doors on the addition are clear anodized aluminum and glass and are in good condition. Some door hardware is in need of adjustment but in general appears to be functioning properly.

Roof covering on the main building flat roof, the top flat section of the auditorium, and the addition roof is a ceramic granule impregnated, fully adhered rolled asphalt sheet system. Brick rooftop structures, brick parapets, and most ventilation fan structures are flashed with metal-faced asphalt-backed flashing. Copper counterflashing is used over the metal flashing on the original building. The metal-asphalt flashing extends the full height of the short parapet walls on the addition. The roof membrane is in fair condition with dried cracked asphalt seen along membrane joints. There are some places on the new addition where the membrane is buckling and there are multiple locations on all roofs where water does not completely drain into roof drains. These areas of ponding need to be built-up to provide better slope and drainage to drains. Roof openings include toilet room vents, ventilation ductwork, and roof drains. Although no leaks were reported at this time, there have been leaks into classrooms which probably originates from the roof. There are some joint cracks in the penthouse and chimney structures that could be the source of water infiltration and should be repointed. New cracks are forming in various locations including the chimney. Copper counter flashing on brick rooftop structures and parapets have been repaired with excessive amounts of caulking which is now weathered, cracking, and the potential sources of future leaks. The sloped sides of the auditorium roof are covered with lightweight "residential-type, 3-tab" asphalt roofing shingles sloping to pitched metal troughs on the three low sides of the roof. Leaks along the low flat roof intersection to the main building corridor have created large water-damaged/effloresced areas in plaster walls and ceilings in backstage rooms and have been reportedly repaired. Troughs forming gutters along both eaves have been recently recaulked as they have been previous sources of leaks, but may be sources of new leaks, evident above windows and doors. The shingle roof appears to have some useful life remaining, but the troughs should be inspected and tested for water-tightness and adequacy of drainage.

Partitions in classrooms and corridors in the original building basement are constructed of glazed brick masonry wainscots with painted upper brick sections. The upper 3 floor corridors in the original building have glazed brick wainscots with painted plaster on wood or terra cotta lath partitions. There are wood framed clerestory glass panels located in walls above classroom doors in the corridors. These panels are in generally good condition being above the reach of anyone, but the glass is not wired or fire rated. Classroom walls throughout the original building are mostly painted plaster. Between some classrooms are manually operated full height wood folding partions which are not used and provide little sound insulation between classrooms. The auditorium lobby in the original building has marble wainscot and painted plaster walls. Also in the auditorium lobby is a larger-than-life, white plaster, sitting statue of Benjamin Franklin. Corridors, classrooms, cafeteria, kitchen, and other rooms in the addition have painted concrete masonry unit (block) walls. There are some glazed block/tile accents in transition corridor spaces.

Interior doors in the original building are either the original wood and plate glass (not fire rated or wired) raised panel doors with original hardware, or replacement wood doors with narrow lite wired glass vision panels and replacement hardware at least 20 years of age. Most wood doors in the original building regardless of age or type are damaged, have broken glass or broken hardware. Some interior basement doors and most interior stairway doors are metal in metal frames; most steel frames are rusted where coming in contact with floors. Doors are generally in poor condition throughout the original building, are not ADA compliant, do not have ADA or proper locking hardware, and are not fire rated where required. Stairway doors do not positively latch as required of fire rated doors. Classroom doors do not have security locking feature from inside classrooms. All interior doors and hardware in the original building opening into corridors need to be replaced. Auditorium doors are raised panel wood doors that are probably original; these doors could be refinished with new hardware installed, to maintain its historical elements. Doors in the addition are less than 20 years old. Made of solid core wood with oak veneer, these doors should be repaired where damaged and refinished. Door hardware on classroom and office doors opening into corridors do not have security hardware, locking from the inside and need to be replaced. Stair and exit doors in the addition need to be adjusted to ensure good operation of panic hardware.

Interior fittings/hardware in the original building include black slate chalkboards with oak chalk trays or bulletin boards either integral to the original dark oak folding wall partitions built into the folding panels or mounted on plaster walls. The oak folding wall panels are no longer opened as they are heavy and most hinges and bearings are not operable. These wall panels need to be replaced with sturdier, safer, fixed partitions. Classrooms in the addition have white boards. Some classrooms have smartboards which connect to the teacher's laptop computers, used for teaching in lieu of blackboards. Toilet room partitions in the main building and the addition are solid plastic partitions, mostly in good condition. Toilet room accessories (toilet paper dispensers, soap, paper towel or dryers, grab bars, door latches) have been recently replaced.

Stair construction in the original building consists of concrete or steel treads, risers, and stringers with wood handrails (29" high), guards (36" high), and steel ballusters with 3" spacing. Since handrail and guard heights are not in compliance with today's codes, new handrail and guard systems are required. Stairs in the addition are constructed with steel stringers, steel risers and concrete

filled steel treads and platforms. Railings and guards in the new stairs in the addition all comply with today's codes for heights and baluster spacing. These stair railing systems all need to be repainted. All concrete stairs have a sealed natural finish, but have years of waxed in dirt and are in need of stripping and re-sealing.

Wall finishes in the original building are plaster which is generally in good condition but in need of a new coat of paint. Corridors in the original building have 48" glazed brick wainscots that are generally in good condition. Stained wood trim in all rooms is damaged and worn requiring refinishing. Toilet room walls on upper floors are painted plaster; most have marble wainscots. Toilet room walls in the basement are painted brick. Toilet rooms in the addition have full height ceramic tile walls. The auditorium has a paneled wood wainscot that is worn and damaged in need of repair and refinishing. The wainscots integrated with wood window sills which also requires refinishing. There are some areas of water damage on plaster surfaces due to water penetration from coping leaks, roof leaks, or gutter leaks. Backstage rooms have water damaged walls and ceilings. Assuming these leaks have been addressed after roof, gutter, and lintel repairs, the plaster should be repaired. Stage area has fluted plaster surrounds that have impact damages in a few locations that need to be repaired. The queuing area outside the auditorium has marble columns, marble wainscot, and plaster walls with decorative plaster capitals on square marble covered columns. These historical marble and plaster decorative elements can be revitalized with some minor repair and a new coat of paint. Wall finishes in the addition are either painted block in classrooms, in fair condition, or painted gypsum board in some offices and in the Media Center (aka Library). Gypsum board in the Media Center is damaged wherever a desk or chair can come in contact, requiring respackling and repainting.

Floor finishes in the original building classrooms, offices and the auditorium consist of dark stained oak floors. Most are in good enough condition to be stripped to remove the years of built-up dirt and varnish, sanded, and refinished. There are some rooms (main office and nurse) with 12"x12" vinyl composition tile (VCT) over the original wood floors. The gymnasium is finished in a seamless vinyl coating. All 12"x12" VCT floors in the original building are worn and need to be removed and replaced. Stair landing surfaces in the original building are finished in exposed concrete that have years of dirt ground into and waxed into the surfaces; stair treads and risers are painted. Stairs should be stripped, cleaned and resealed or repainted. Stairs landings and platforms in the addition are finished in 12x12 VCT. All corridor floors in the original building are finished with 4'x4' (nominal size) concrete tiles which appear to be a highly durable monolithic system. Edges along the walls are painted; Most of these corridor floors have not recently been stripped and cleaned and have years of dirt sealed into the surface and corners, causing their color to be very dark and dingy. There is an especially large build-up of dirt at all corners. The few sections of corridor that have been stripped and refinished (and edges repainted) look surprisingly clean, proving it can be made to be an attractive finish, again. The queuing area outside the auditorium is finished in terrazzo, which has some minor cracks that should be repaired. All toilet rooms in the original building have sealed/waxed concrete as the floor finish; like the corridors there are years of sealed in dirt and grime which needs to be stripped away before resealing the floor. Classroom and upper corridor floors in the addition are all 12x12 VCT that has been well cleaned and waxed. There are some areas at doorways or corridors where the VCT has cracked and should be repaired. Toilet rooms have mosaic-sized ceramic tiles and wall base in good condition. Cafeteria and most first floor corridor transition spaces in the addition are finished in terrazzo; some cracking can be seen at various locations in the cafeteria, in need of repair. The Media Center (aka Library) and the associated offices are finished in carpet, which is dirty and stained and requires replacement; some offices in other areas are water damaged and require replacement.

Basement ceilings and all toilet room ceilings in the original building are exposed painted concrete deck above, with suspended lighting fixtures. Almost all other spaces throughout the original building have painter plaster or painted concrete deck ceiling with suspended fluorescent or incandescent lighting fixtures. These ceilings are discolored and damaged and need to be repainted. The auditorium and lobby area outside the auditorium has a plaster ceiling with detail work and suspended incandescent lighting fixtures that appear to be original. The plaster ceiling has water damages that can be repaired to bring the decorative ceiling back to life. Backstage plaster ceiling have extensive damage probably from roof leaks; ceilings need to be reconstructed. The addition has almost exclusively 2x4 suspended acoustical tile ceilings, with suspended or recesses fluorescent lighting fixtures; approximately 15% of these ceilings require new ceiling tiles.

Furnishings in the building include the original folding wood seating in the auditorium, still in use. Some of the seats (approx. 10%) need to be repaired to operate properly and many are scratched; at least 75% have surface damages. Repair of the seats and complete refinishing is recommended if parts can be obtained to restore the operation; otherwise, full replacement is required. Casework and storage cabinets in the classrooms and the office is damaged, worn and needs replacement.

There is a 4-stop elevator that travels between the basement (grade) level, an intermediate level and the upper two floors. It was in good operating condition.

There is a handicap accessible ramp into the addition front door.

Mechanical

Plumbing Fixtures – In the original building, students can only use are the gang toilet rooms in the basement; all others are not functioning. In the gang toilet rooms, 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. The addition appears to have all of the original plumbing fixtures. 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; some have refrigerated coolers. Most appear to be the original installed equipment. It is recommended to replace all drinking fountains in the original building and in the addition with new drinking fountains meeting ADA.

No service sinks were identified in the original building during the inspection. The new addition has service sinks that are the original equipment. It is recommended to install new service sinks for the janitorial staff throughout the building and repair the janitors closets as needed. One janitor closet in particular is leaking through the wall into the adjacent classroom floor.

The Cafeteria, located in the new addition, has one three compartment stainless steel sink with lever operated faucets, sanitizing chemicals, and grease trap. There is also a secondary two compartment stainless steel sink. These appear to be in satisfactory condition and should not require replacement for the next 10 years.

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, double check (RPZA – reduced pressure zone assembly) and the water meter on the main line after entering the building. The distribution piping is not insulated correctly resulting in damage from dripping condensation. A thorough inspection of the domestic water distribution piping is recommended throughout the building.

There are two vertical natural gas fired water heater tanks in this facility; one in the original building and one in the new addition. They have the appropriate piping, controls, and venting. 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. It is recommended to inspect this piping and repair or replace sections as needed. The sanitary waste piping in the new addition appears to be the original equipment. This piping 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 appropriate roof overflow drains.

Energy Supply - Duplex fuel oil supply pumps provide the required fuel to the boilers when operating on fuel oil. There is an underground fuel tank located adjacent to the building. The pumps and controls appear to be beyond their serviceable life and should be replaced.

Natural gas enters the building in the basement with two natural gas meters, one on the main line and one on a branch. There are two natural gas booster pumps in the basement, however one does not work and the piping has been capped off.

Heat Generating Systems - Steam is generated in the main building by two Weil McLain 94 series dual fuel steam boilers. All boilers are equipped with Power Flame duel fuel burners. There is a third boiler in the mechanical room that has been condemned. There is significant flash steam from the condensate return that is released into the mechanical room. There is not enough make-up air, as stated by the building engineer. The boilers are nearing the end of their service life and will most likely need replacement within the next 5-10 years.

Cooling Generating Systems – Chilled water is generated for the new addition by a York YCAS air cooled chiller using R-22 refrigerant and was installed in August of 2000. It is recommended to convert the chiller to a new refrigerant or replace the existing chiller with a new chiller.

Distribution Systems - The boiler feed water is treated with a combination of chemicals, controlled with a water treatment controller that is missing its cover. Its proper operation could not be confirmed. Steam is sent to a shell and tube heat exchanger to warm the heating hot water to serve the new addition. The original building still uses steam for heating. There are two heating hot water supply pumps. It appears that what was one time a sump pump has been converted into a condensate receiver tank with duplex pumps returning the condensate to the boilers. Moisture issues are apparent throughout the basement, though the causes could not be determined at the time of inspection. The steam traps are failing throughout the building as stated 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 is provided by a house fan in the basement. The air is pushed into the various rooms of the building through ducts built into the walls. The air is exhausted from other ducts built into the walls, up through the attic space, and out through roof mounted vents. Additional fresh air in the original building is available through the operable windows throughout the building.

The original building uses steam radiators in the classrooms and the hallways as the primary source of heat for these areas. The new addition uses unit ventilators throughout the classrooms and RTUs (roof top units) in other spaces. The unit ventilators in the new addition use hot or cold water to condition the air. The building engineer indicated that some unit ventilators have been freezing and bursting their coils. These unit ventilators are nearing the end of their service life and should be replaced within the next 5 years.

There is a significant floor vibration in the IMC that is most likely from a rotating piece of mechanical equipment and should be inspected immediately.

Terminal & Package Units – The original building has window AC units in the computer room The new addition has 3 RTUs (roof top units) that condition the space and provide fresh air. The RTUs appear to be in satisfactory condition and should not need replacement within the next 5 years.

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 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. The new addition has the originally installed BMS (building management system) but it is not working. It is recommended to install a new BMS system for the entire building.

Sprinklers - There are no sprinklers in original building. The new addition is sprinklered throughout and does not have a fire pump. There is appropriate wet chemical suppression systems installed in the kitchen areas. It is recommended to add sprinklers to the original building.

Electrical

Site Electrical Service is fed from medium voltage overhead lines on wooden poles along Rising Sun Ave. One pad mounted utility transformer with medium voltage primary (Voltage level unknown at this time) and 480/277VAC secondary and at an estimated available power of 500 KVA is installed outside of the building for supplying power to the facility.

The service entrance to the facility consists of a disconnect switch, a utility meter, and an 800A rated main distribution switchboard located in the Electrical Room in the basement. Service entrance equipment including the main distribution switchboard was installed in 1999 and is in good condition but has no capacity for future HVAC loads.

Main distribution switchboard feeds AC units and other mechanical loads. Main distribution switchboard also feeds lighting and receptacle loads via panel boards located in the corridor, two on each floor of both wings throughout the building. There are two 225KVA phase transformers for stepping down 480VAC to 120/208VAC, for powering the 208 volt panels. The distribution system is in a good condition and does not need to be replaced.

There are sufficient number of receptacles installed in classrooms, offices, corridors and other areas throughout the building. No major deficiencies were observed.

Lighting system of the facility have been upgraded in 1999 during the school renovation and expansion and generally is in good condition with some minor maintenance and repairs needed to some of the fixtures. Classrooms are illuminated by linear direct/indirect 8 foot long fluorescent lighting fixtures with 4- T8 lamps. Lighting is controlled by wall mounted switches and motion sensors.

Fire Alarm System is inadequate, past its useful life, and does not comply with current codes.

Telephone/LAN systems in the buildings are working adequately.

There is no PA/music system in the building. PA announcements are made through the telephone system. There is a speaker system in the cafeteria.

Intercom and paging is functioning adequately except in the gymnasium where repairs are required. The paging system consists of

one-way communication 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 clocks in the classrooms are not 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, controlled by a Closed Circuit Television system (CCTV). The system is working properly.

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

UPS is provided for the Local Area Network.

Emergency lighting system, including exit lights are provided in the buildings. Sufficient numbers of lighting fixtures in corridors, the library, and exit ways are provided with standard back-up batteries. Emergency exit signs are provided in the proper locations.

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.

There is one 30HP hydraulic type elevator manufactured by Otis Electric Company, is provided in the school. The elevator working properly and no major deficiencies observed during the assessment.

Theater lighting and dimming controls in main building are old and inadequate. Lights are turned on and off by circuit breakers.

Sound System in auditorium is old and should be replaced.

Site Lighting System is adequate.

Site Video Surveillance system is not provided in the school.

Site Paging System is provided and seems to be operating adequately.

Grounds

Paving and parking is constructed of asphalt paving for parking and playground areas. There is an expansive paved area serves as the playground and a separate fenced area for faculty parking. This area has many lengthwise cracks that need to be filled. Parking area striping in the faculty lot is worn, almost invisible, and needs to be restriped; the number of required parking spaces for school staff is unknown. Front walkways along Sentner Street and Rising Sun Avenue leading up to building entrances are paved with 4'x4' (nominal) concrete panels; roughly half are in need of replacement and although the damaged panels are not all contiguous, it may be possible to replace only those that are failing. Granite block stairways into the building are need resetting, regrouting, and new railing systems. There is a quarry tile patio adjacent to an auditorium exit that has broken tiles and appears to have been neglected for years; it is in need of reconstruction.

Wrought iron fencing surrounding the site is generally in good condition, however many sections are in need of repainting. The large gate that leads to the faculty parking lot from Cheltenham Avenue needs to be replaced. There are some damaged and bent fence panels also in need of replacement. New fencing and pedestrian gates are required along Sentner Street.

Landscaping is in need of trimming and maintenance along Cheltenham Avenue.

RECOMMENDATIONS

Architectural

- Strip and repaint concrete foundation (basement) walls in mechanical rooms (5,000sf)
- Clean and repaint basement floor in mechanical rooms; clean and reseal concrete floors in hallways and stairways (240x10x3=7,200+5000sf=12,000sf)
- Remove and replace all lintels and cracked masonry at original building basement windows, 2nd floor windows, and rooftop structures (30)
- Replace all exterior windows in original building and addition with insulated single hung units (200)3.5x8 in original building (requires wood trim refinishing) and (200)3.5x8 in addition (no trim)
- Replace all exterior hollow metal doors and provide ADA and code compliant exit hardware; repaint frames.(16)3x7
- Repair and recaulk joint where copper counterflashing set into brick (200ft)
- Replace wrinkled roof membrane over addition connection corridor and improved slope near roof drains on all roofs (4000sf)
- Repair limestone window jambs and banding on old building (200sf)
- Remove graffiti along basement walls above grade (3000sf)
- Powerwash exterior of building, selected areas (18,000sf)
- Remove non-rated glass panels between classrooms and corridors; fill with fire rated gyp bd sys. (30 @ 6sf)
- Remove and replace all wood interior doors, frames and hardware in classrooms, closets, offices, etc. in original building (40)
- Refinish wood doors in addition (50)
- Provide 1 hour fire doors on stairway enclosures (12) 3x7 doors
- Provide security hardware for classrooms and offices, locking from inside classroom. (50)
- Remove and replace all basement steel doors, frames, and hardware in mechanical rooms and gym (18) 3x7 doors
- Remove folding wood partitions and closet doors; replace with gypsum board and metal stud walls (9) @300sf ea =2700sf
- Provide toilet room accessories to replace damaged components (6 sets)
- Repair water damage, cracks, and repaint all interior plaster walls in classrooms, gym, and backstage auditorium rooms (4,000sf)
- Replace damaged 2x4 acoustical ceiling tiles (6000sf)
- Remove and replace stairway handrails and guards with code compliant systems (2) 3 story + (2) 1 story;=50x8=400lf
- Reset treads and regrout all joints between limestone block tread/risers at exterior stairs (60 treads)
- Strip, sand, repair and refinish all wood floors in classrooms and in auditorium (12,000sf)
- Replace carpet in water damaged offices (500)
- Remove and replace all 12”x12” VCT floors in gymnasium and other rooms (3,000sf)
- Repair cracked terrazzo in cafeteria and auditorium lobby (200sf)
- Repair and refinish damaged folding wood auditorium chairs (400)
- Repair and refinish wood panels in auditorium (1000sf)
- Repair damaged gypsum board in library (500sf)

Mechanical

- Replace drinking fountains throughout the building.
- Replace service sinks throughout the building
- Inspect and replace as needed the domestic water piping throughout the building
- Inspect and replace as needed the sanitary system throughout the original building. Hire a qualified contractor to perform a detailed examination of the sanitary waste piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.
- Replace duplex fuel oil pumps and skid
- The boilers are nearing the end of their serviceable life and should be replaced within the next 5 years
- Replace unit ventilators in the new building and install unit ventilators in the Original building. Replace the existing unit ventilators throughout the building with new units designed to provide adequate ventilation per ASHRAE Std. 62. The new units shall be equipped with hot water / chilled water coils and integral heat recovery wheels. Install steam converters in the existing boiler room with circulating pumps, distribution piping and controls to provide heating hot water for the new coils.
- Install a new DDC system throughout the building. Provide a new building automation system (BAS) with communication interface to the preferred system in use throughout the District.
- Install a fire protection sprinkler system with quick response type heads to reduce insurance costs by providing protection for the property. A fire pump may be required depending on the available city water pressure.
- Remove existing steam boilers and steam distribution system. Install hot water boilers and hot water distribution system.
- Install chiller and chilled water distribution system in original building
- Convert existing air cooled chiller to a new refrigerant or replace chiller in the new addition.
- Inspect floor vibration in IMC

Electrical

- Replace service entrance switchboard with 1600A for providing additional capacity for future HVAC loads.
- Replace damaged lighting fixtures. Estimated 100
- Replace existing fire alarm system with a new automatic Fire Alarm System including control panel, initiated devices in corridors, air ducts, electrical and LAN rooms, library, and computer rooms. Provide notification devices in class rooms, offices, auditorium, corridors, other area recommended by codes.
- Replace existing wireless clock system with new wireless clock system.
- Install a new 100KVA diesel generator for emergency and life safety loads.
- Perform lightning protection studies to ascertain that the mechanical equipments on the roof are protected against the lightning strokes.

Grounds

- Repave parking / playground with asphalt (30,000sf)
- Replace concrete paving in front of building (1600sf)
- Repaint damaged wrought iron fencing and Repair entrance gate (500lf)

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 1 / Tm 2
Status:	Accepted by SDP	Team:	Tm 2
Site ID:	S728001		

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	33.33 %	0.00 %	$0.00
A20 - Basement Construction	33.33 %	0.00 %	$0.00
B10 - Superstructure	33.33 %	0.00 %	$0.00
B20 - Exterior Enclosure	34.06 %	21.60 %	$1,070,047.32
B30 - Roofing	30.85 %	10.58 %	$144,617.97
C10 - Interior Construction	40.94 %	22.30 %	$480,861.89
C20 - Stairs	33.33 %	79.18 %	$98,101.70
C30 - Interior Finishes	39.77 %	8.45 %	$432,971.82
D10 - Conveying	54.29 %	0.00 %	$0.00
D20 - Plumbing	115.84 %	71.00 %	$1,273,930.60
D30 - HVAC	119.44 %	123.12 %	$12,034,464.19
D40 - Fire Protection	54.29 %	262.58 %	$1,859,709.47
D50 - Electrical	50.06 %	25.09 %	$1,295,871.75
E10 - Equipment	21.13 %	0.00 %	$0.00
E20 - Furnishings	12.50 %	96.38 %	$180,381.10
G20 - Site Improvements	51.49 %	28.47 %	$226,386.06
G40 - Site Electrical Utilities	46.67 %	0.00 %	$0.00
Totals:	**58.26 %**	**41.77 %**	**$19,097,343.87**

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)
B728001;Franklin ES	87,870	42.22	$7,379,309.18	$4,773,033.08	$1,256,512.36	$409,772.21	$5,052,330.98
G728001;Grounds	53,000	22.07	$0.00	$112,099.14	$114,286.92	$0.00	$0.00
Total:		**41.77**	**$7,379,309.18**	**$4,885,132.22**	**$1,370,799.28**	**$409,772.21**	**$5,052,330.98**

Deficiencies By Priority

- 1 - Response Time (< 2 yr) - $7,379,309.18
- 2 - Response Time (2-3 yrs) - $4,885,132.22
- 3 - Response Time (3-4 yrs) - $1,370,799.28
- 4 - Response Time (4-5 yrs) - $409,772.21
- 5 - Response Time (> 5 yrs) - $5,052,330.98

Budget Estimate Total: $19,097,343.87

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):	87,870
Year Built:	1915
Last Renovation:	
Replacement Value:	$44,693,752
Repair Cost:	$18,870,957.81
Total FCI:	42.22 %
Total RSLI:	58.44 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B728001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S728001		

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	33.33 %	0.00 %	$0.00
A20 - Basement Construction	33.33 %	0.00 %	$0.00
B10 - Superstructure	33.33 %	0.00 %	$0.00
B20 - Exterior Enclosure	34.06 %	21.60 %	$1,070,047.32
B30 - Roofing	30.85 %	10.58 %	$144,617.97
C10 - Interior Construction	40.94 %	22.30 %	$480,861.89
C20 - Stairs	33.33 %	79.18 %	$98,101.70
C30 - Interior Finishes	39.77 %	8.45 %	$432,971.82
D10 - Conveying	54.29 %	0.00 %	$0.00
D20 - Plumbing	115.84 %	71.00 %	$1,273,930.60
D30 - HVAC	119.44 %	123.12 %	$12,034,464.19
D40 - Fire Protection	54.29 %	262.58 %	$1,859,709.47
D50 - Electrical	50.06 %	25.09 %	$1,295,871.75
E10 - Equipment	21.13 %	0.00 %	$0.00
E20 - Furnishings	12.50 %	96.38 %	$180,381.10
Totals:	**58.44 %**	**42.22 %**	**$18,870,957.81**

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.	87,870	150	1915	2065		33.33 %	0.00 %	50			$1,616,808
A1030	Slab on Grade	$7.73	S.F.	87,870	150	1915	2065		33.33 %	0.00 %	50			$679,235
A2010	Basement Excavation	$6.55	S.F.	87,870	150	1915	2065		33.33 %	0.00 %	50			$575,549
A2020	Basement Walls	$12.70	S.F.	87,870	150	1915	2065		33.33 %	0.00 %	50			$1,115,949
B1010	Floor Construction	$75.10	S.F.	87,870	150	1915	2065		33.33 %	0.00 %	50			$6,599,037
B1020	Roof Construction	$13.88	S.F.	87,870	150	1915	2065		33.33 %	0.00 %	50			$1,219,636
B2010	Exterior Walls	$36.91	S.F.	87,870	100	1915	2015		0.00 %	1.79 %	0		$58,076.01	$3,243,282
B2020	Exterior Windows	$18.01	S.F.	87,870	40	1980	2020	2057	105.00 %	63.34 %	42		$1,002,415.22	$1,582,539
B2030	Exterior Doors	$1.45	S.F.	87,870	25	1980	2005	2020	20.00 %	7.50 %	5		$9,556.09	$127,412
B3010105	Built-Up	$37.76	S.F.	30,835	20	1999	2019	2021	30.00 %	12.42 %	6		$144,617.97	$1,164,330
B3010120	Single Ply Membrane	$38.73	S.F.		20				0.00 %	0.00 %				$0
B3010130	Preformed Metal Roofing	$54.22	S.F.		30				0.00 %	0.00 %				$0
B3010140	Shingle & Tile	$38.73	S.F.	5,100	25	1999	2024		36.00 %	0.00 %	9			$197,523
B3020	Roof Openings	$0.06	S.F.	87,870	20	1915	1935	2020	25.00 %	0.00 %	5			$5,272
C1010	Partitions	$17.91	S.F.	87,870	150	1915	2065		33.33 %	8.47 %	50		$133,324.70	$1,573,752
C1020	Interior Doors	$3.51	S.F.	87,870	40	1915	1955	2057	105.00 %	107.14 %	42		$330,458.31	$308,424
C1030	Fittings	$3.12	S.F.	87,870	40	1915	1955	2020	12.50 %	6.23 %	5		$17,078.88	$274,154
C2010	Stair Construction	$1.41	S.F.	87,870	150	1915	2065		33.33 %	79.18 %	50		$98,101.70	$123,897

Site Assessment Report - B728001;Franklin ES

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
C3010230	Paint & Covering	$13.21	S.F.	87,870	10	1915	1925	2020	50.00 %	6.22 %	5		$72,179.17	$1,160,763
C3010231	Vinyl Wall Covering	$0.97	S.F.	87,870	15	1915	1930	2020	33.33 %	0.00 %	5			$85,234
C3010232	Wall Tile	$2.63	S.F.	87,870	30	1915	1945	2020	16.67 %	0.00 %	5			$231,098
C3020411	Carpet	$7.30	S.F.	4,390	10	1999	2009	2027	120.00 %	69.84 %	12		$22,381.52	$32,047
C3020412	Terrazzo & Tile	$75.52	S.F.	11,420	50	1915	1965	2020	10.00 %	0.00 %	5			$862,438
C3020413	Vinyl Flooring	$9.68	S.F.	10,500	20	1999	2019	2020	25.00 %	70.94 %	5		$72,105.20	$101,640
C3020414	Wood Flooring	$22.27	S.F.	35,150	25	1915	1940	2042	108.00 %	17.88 %	27		$139,970.22	$782,791
C3020415	Concrete Floor Finishes	$0.97	S.F.	26,410	50	1915	1965	2067	104.00 %	245.33 %	52		$62,849.49	$25,618
C3030	Ceiling Finishes	$20.97	S.F.	87,870	25	1915	1940	2020	20.00 %	3.45 %	5		$63,486.22	$1,842,634
D1010	Elevators and Lifts	$1.53	S.F.	87,870	35	1999	2034		54.29 %	0.00 %	19			$134,441
D2010	Plumbing Fixtures	$13.52	S.F.	87,870	35	1915	1950	2055	114.29 %	1.89 %	40		$22,508.98	$1,188,002
D2020	Domestic Water Distribution	$1.68	S.F.	87,870	25	1915	1940	2045	120.00 %	421.39 %	30		$622,060.37	$147,622
D2030	Sanitary Waste	$2.90	S.F.	87,870	25	1915	1940	2045	120.00 %	246.98 %	30		$629,361.25	$254,823
D2040	Rain Water Drainage	$2.32	S.F.	87,870	30	1915	1945	2050	116.67 %	0.00 %	35			$203,858
D3020	Heat Generating Systems	$18.67	S.F.	87,870	35	1915	1950	2055	114.29 %	32.48 %	40		$532,780.71	$1,640,533
D3030	Cooling Generating Systems	$24.48	S.F.	87,870	30	1915	1945	2050	116.67 %	118.26 %	35		$2,543,883.06	$2,151,058
D3040	Distribution Systems	$42.99	S.F.	87,870	25	1915	1940	2045	120.00 %	166.01 %	30		$6,271,090.10	$3,777,531
D3050	Terminal & Package Units	$11.60	S.F.	87,870	20	1915	1935	2040	125.00 %	0.00 %	25			$1,019,292
D3060	Controls & Instrumentation	$13.50	S.F.	87,870	20	1915	1935	2040	125.00 %	226.49 %	25		$2,686,710.32	$1,186,245
D4010	Sprinklers	$7.05	S.F.	87,870	35	1999	2034		54.29 %	300.20 %	19		$1,859,709.47	$619,484
D4020	Standpipes	$1.01	S.F.	87,870	35	1999	2034		54.29 %	0.00 %	19			$88,749
D5010	Electrical Service/Distribution	$9.70	S.F.	87,870	30	1999	2029	2029	46.67 %	48.08 %	14		$409,772.21	$852,339
D5020	Lighting and Branch Wiring	$34.68	S.F.	87,870	20	1999	2019	2020	25.00 %	1.16 %	5		$35,300.07	$3,047,332
D5030	Communications and Security	$12.99	S.F.	87,870	15	1915	1930	2032	113.33 %	51.38 %	17		$586,503.63	$1,141,431
D5090	Other Electrical Systems	$1.41	S.F.	87,870	30	1915	1945	2047	106.67 %	213.32 %	32		$264,295.84	$123,897
E1020	Institutional Equipment	$4.82	S.F.	87,870	35	1915	1950	2021	17.14 %	0.00 %	6			$423,533
E1090	Other Equipment	$11.10	S.F.	87,870	35	1915	1950	2023	22.86 %	0.00 %	8			$975,357
E2010	Fixed Furnishings	$2.13	S.F.	87,870	40	1915	1955	2020	12.50 %	96.38 %	5		$180,381.10	$187,163
								Total	**58.44 %**	**42.22 %**			**$18,870,957.81**	**$44,693,752**

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: B3010 - Roof Coverings — This system contains no images

Note:
shingles 5000sf 16%
built-up roof 25000sf 84%

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

Note:
Paint on plaster, block or gyp bd 80%
Glazed brick/block 18%
wood 1%
marble 1%

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

Note:

Concrete – 30%
Wood - 40%
VCT - 12%
Terrazzo 8%
Quarry tile / ceramic tile 5%
Carpet 5%

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

Note:
plaster or painted concrete deck 50%
2x4 suspended ACT 50%

Renewal Schedule

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

Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$18,870,958**	**$0**	**$0**	**$0**	**$0**	**$10,106,149**	**$2,085,591**	**$0**	**$1,359,109**	**$283,495**	**$0**	**$32,705,302**
*** 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	$58,076	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$58,076**
B2020 - Exterior Windows	$1,002,415	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,002,415**
B2030 - Exterior Doors	$9,556	$0	$0	$0	$0	$162,476	$0	$0	$0	$0	$0	**$172,032**
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	$144,618	$0	$0	$0	$0	$0	$1,529,298	$0	$0	$0	$0	**$1,673,916**
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	$283,495	$0	**$283,495**
B3020 - Roof Openings	$0	$0	$0	$0	$0	$6,723	$0	$0	$0	$0	$0	**$6,723**
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	$133,325	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$133,325**

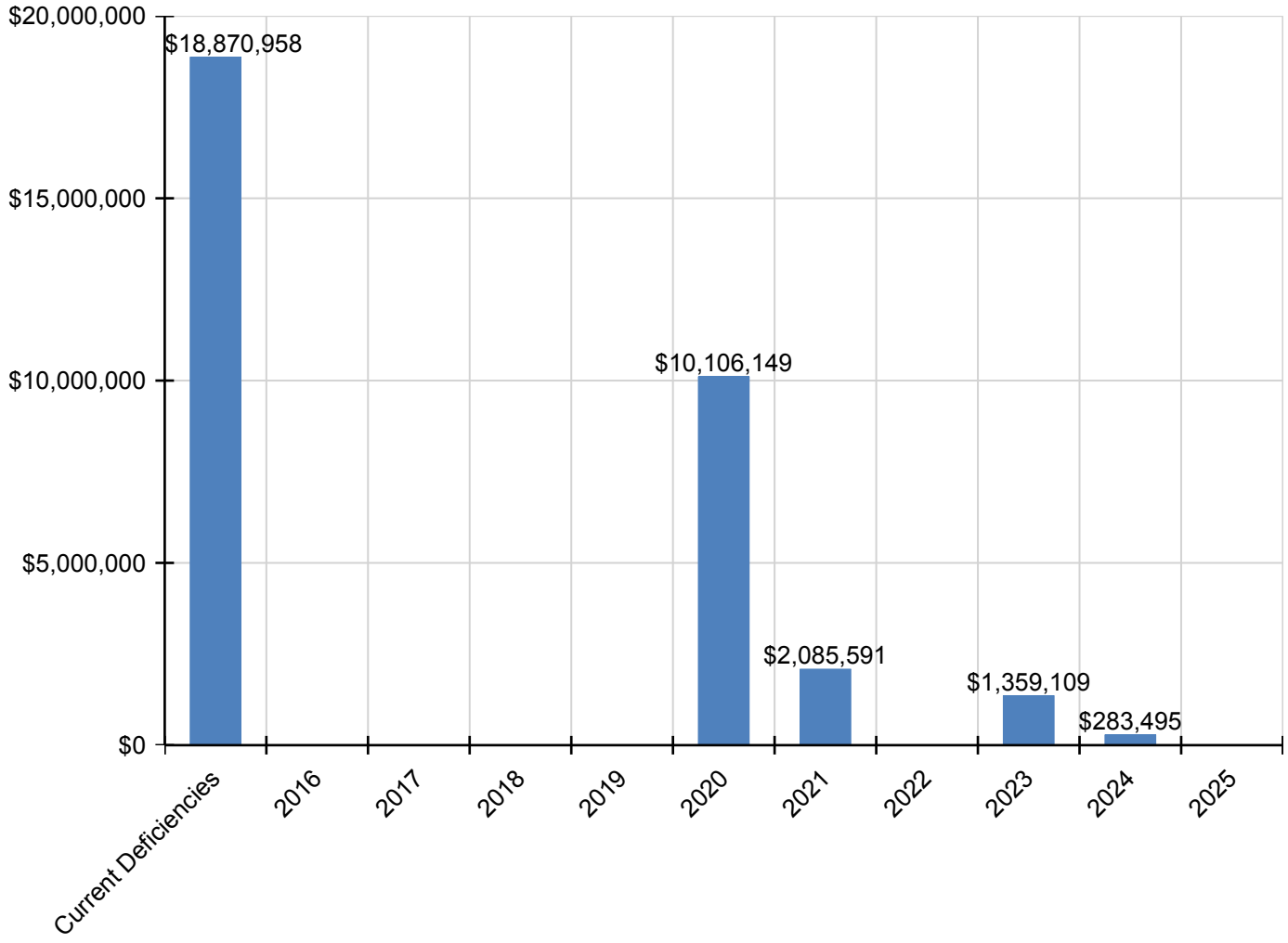
C1020 - Interior Doors	$330,458	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$330,458**
C1030 - Fittings	$17,079	$0	$0	$0	$0	$349,602	$0	$0	$0	$0	$0	**$366,681**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$98,102	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$98,102**
C30 - Interior Finishes	$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	$72,179	$0	$0	$0	$0	$1,480,206	$0	$0	$0	$0	$0	**$1,552,386**
C3010231 - Vinyl Wall Covering	$0	$0	$0	$0	$0	$108,690	$0	$0	$0	$0	$0	**$108,690**
C3010232 - Wall Tile	$0	$0	$0	$0	$0	$294,697	$0	$0	$0	$0	$0	**$294,697**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020411 - Carpet	$22,382	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$22,382**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$1,099,782	$0	$0	$0	$0	$0	**$1,099,782**
C3020413 - Vinyl Flooring	$72,105	$0	$0	$0	$0	$129,611	$0	$0	$0	$0	$0	**$201,717**
C3020414 - Wood Flooring	$139,970	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$139,970**
C3020415 - Concrete Floor Finishes	$62,849	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$62,849**
C3030 - Ceiling Finishes	$63,486	$0	$0	$0	$0	$2,349,729	$0	$0	$0	$0	$0	**$2,413,215**
D - Services	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D10 - Conveying	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D1010 - Elevators and Lifts	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$22,509	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$22,509**
D2020 - Domestic Water Distribution	$622,060	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$622,060**
D2030 - Sanitary Waste	$629,361	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$629,361**
D2040 - Rain Water Drainage	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D30 - HVAC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3020 - Heat Generating Systems	$532,781	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$532,781**
D3030 - Cooling Generating Systems	$2,543,883	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,543,883**
D3040 - Distribution Systems	$6,271,090	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$6,271,090**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$2,686,710	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,686,710**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$1,859,709	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,859,709**
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	$409,772	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$409,772**
D5020 - Lighting and Branch Wiring	$35,300	$0	$0	$0	$0	$3,885,962	$0	$0	$0	$0	$0	**$3,921,262**
D5030 - Communications and Security	$586,504	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$586,504**
D5090 - Other Electrical Systems	$264,296	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$264,296**
E - Equipment & Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E10 - Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E1020 - Institutional Equipment	$0	$0	$0	$0	$0	$0	$556,293	$0	$0	$0	$0	**$556,293**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$1,359,109	$0	$0	**$1,359,109**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$180,381	$0	$0	$0	$0	$238,670	$0	$0	$0	$0	$0	**$419,051**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

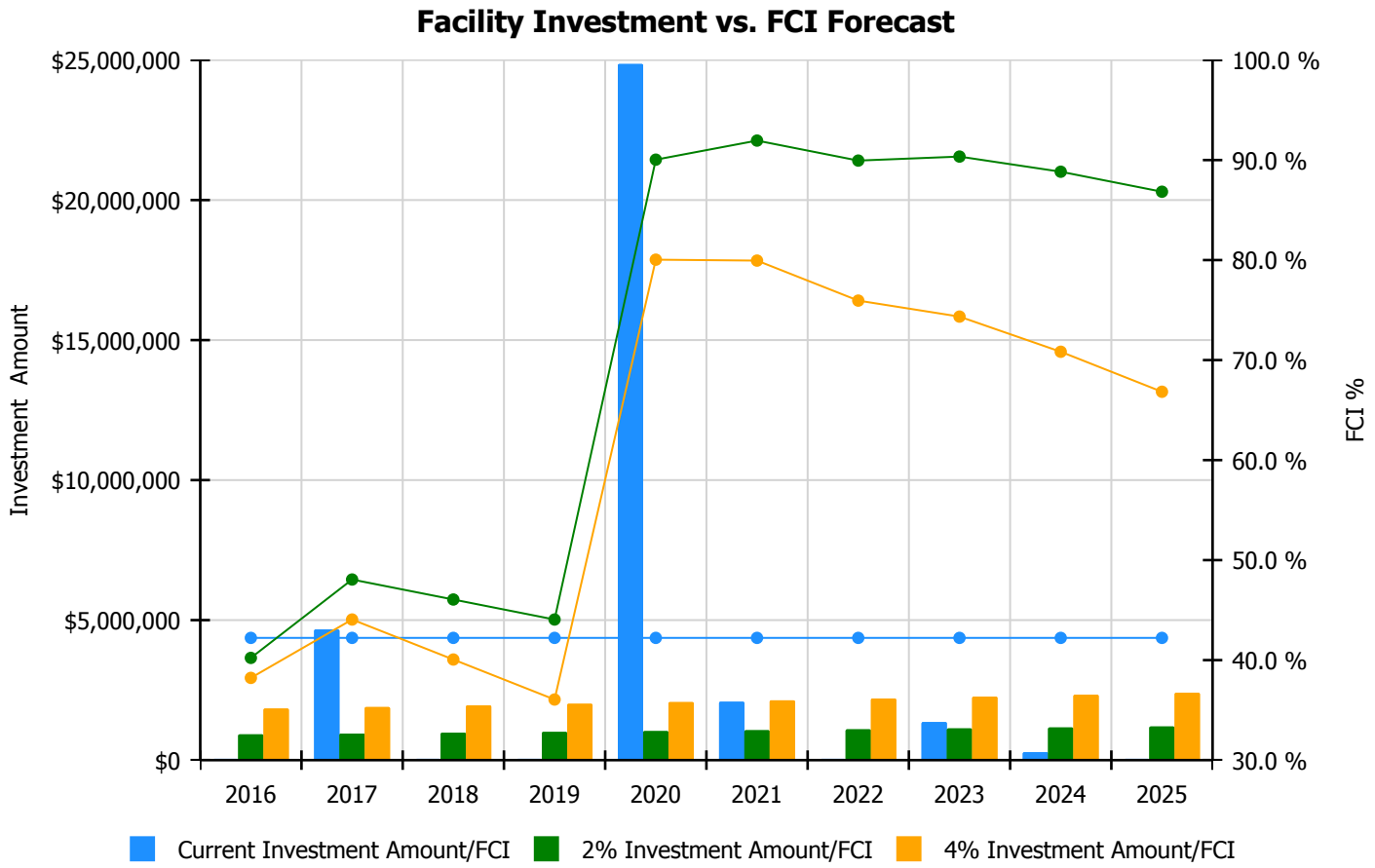
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

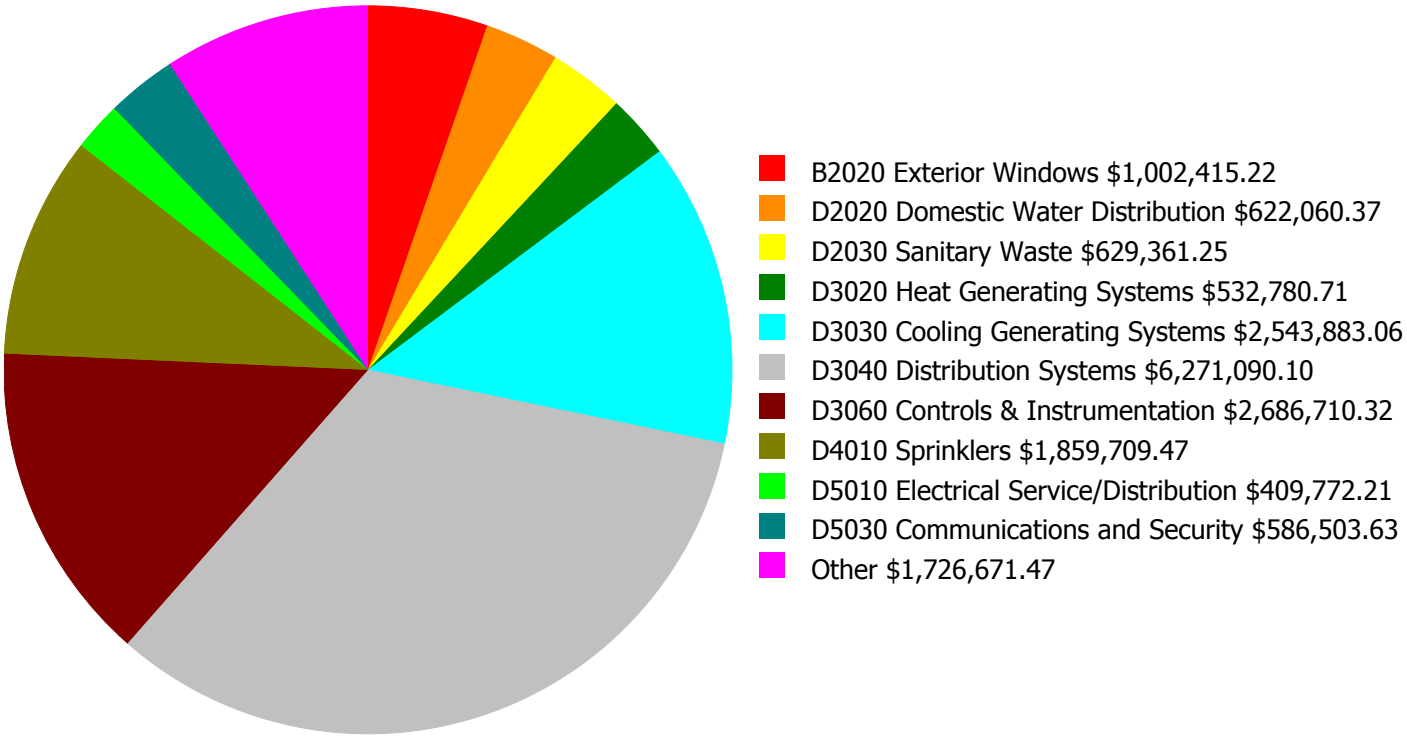
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 42.22%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$920,691.00	40.22 %	$1,841,383.00	38.22 %
2017	$4,664,162	$948,312.00	48.06 %	$1,896,624.00	44.06 %
2018	$0	$976,761.00	46.06 %	$1,953,523.00	40.06 %
2019	$0	$1,006,064.00	44.06 %	$2,012,128.00	36.06 %
2020	$24,858,909	$1,036,246.00	90.04 %	$2,072,492.00	80.04 %
2021	$2,085,591	$1,067,334.00	91.95 %	$2,134,667.00	79.95 %
2022	$0	$1,099,354.00	89.95 %	$2,198,707.00	75.95 %
2023	$1,359,109	$1,132,334.00	90.35 %	$2,264,668.00	74.35 %
2024	$283,495	$1,166,304.00	88.83 %	$2,332,608.00	70.83 %
2025	$0	$1,201,293.00	86.83 %	$2,402,587.00	66.83 %
Total:	**$33,251,265**	**$10,554,693.00**		**$21,109,387.00**	

Deficiency Summary by System

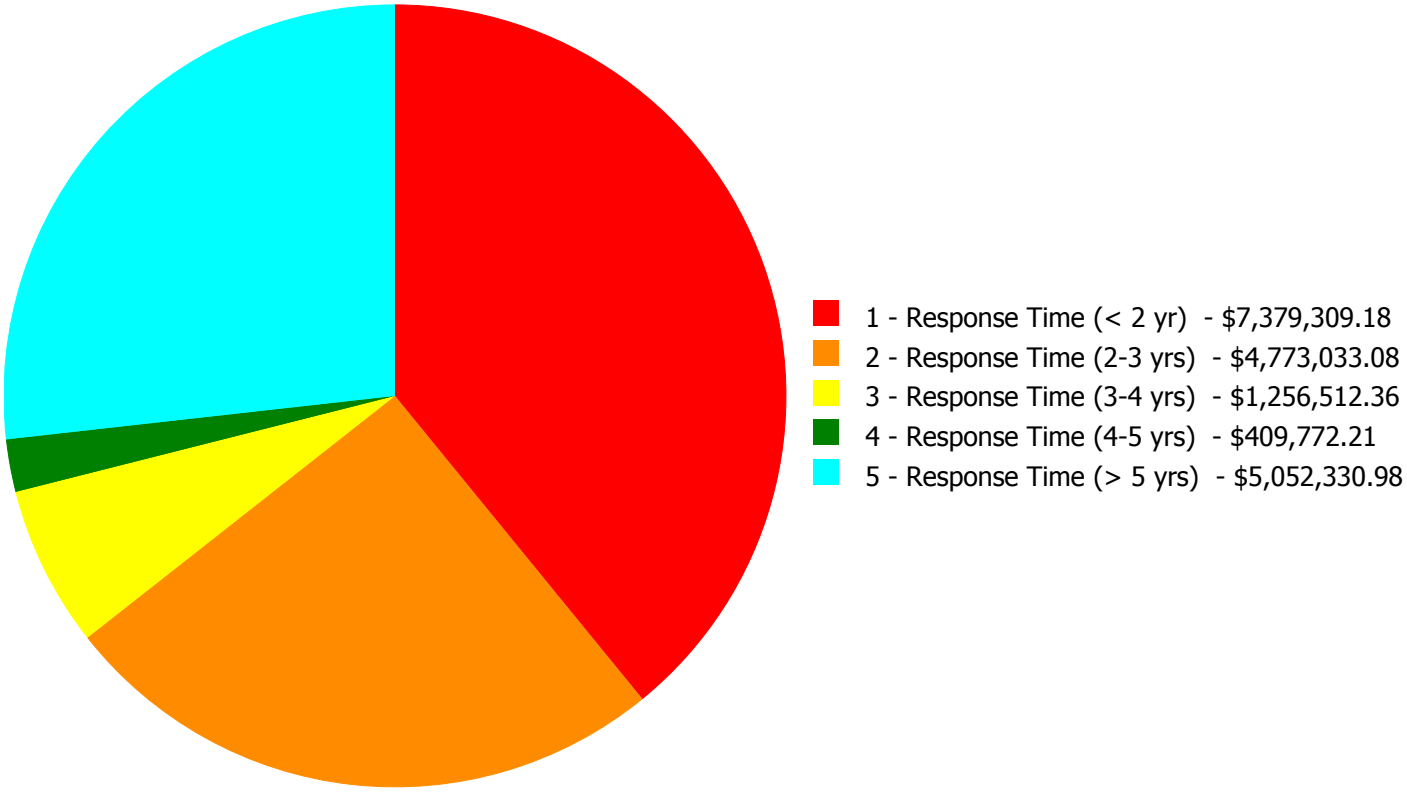
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $18,870,957.81

Deficiency Summary by Priority

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



Budget Estimate Total: $18,870,957.81

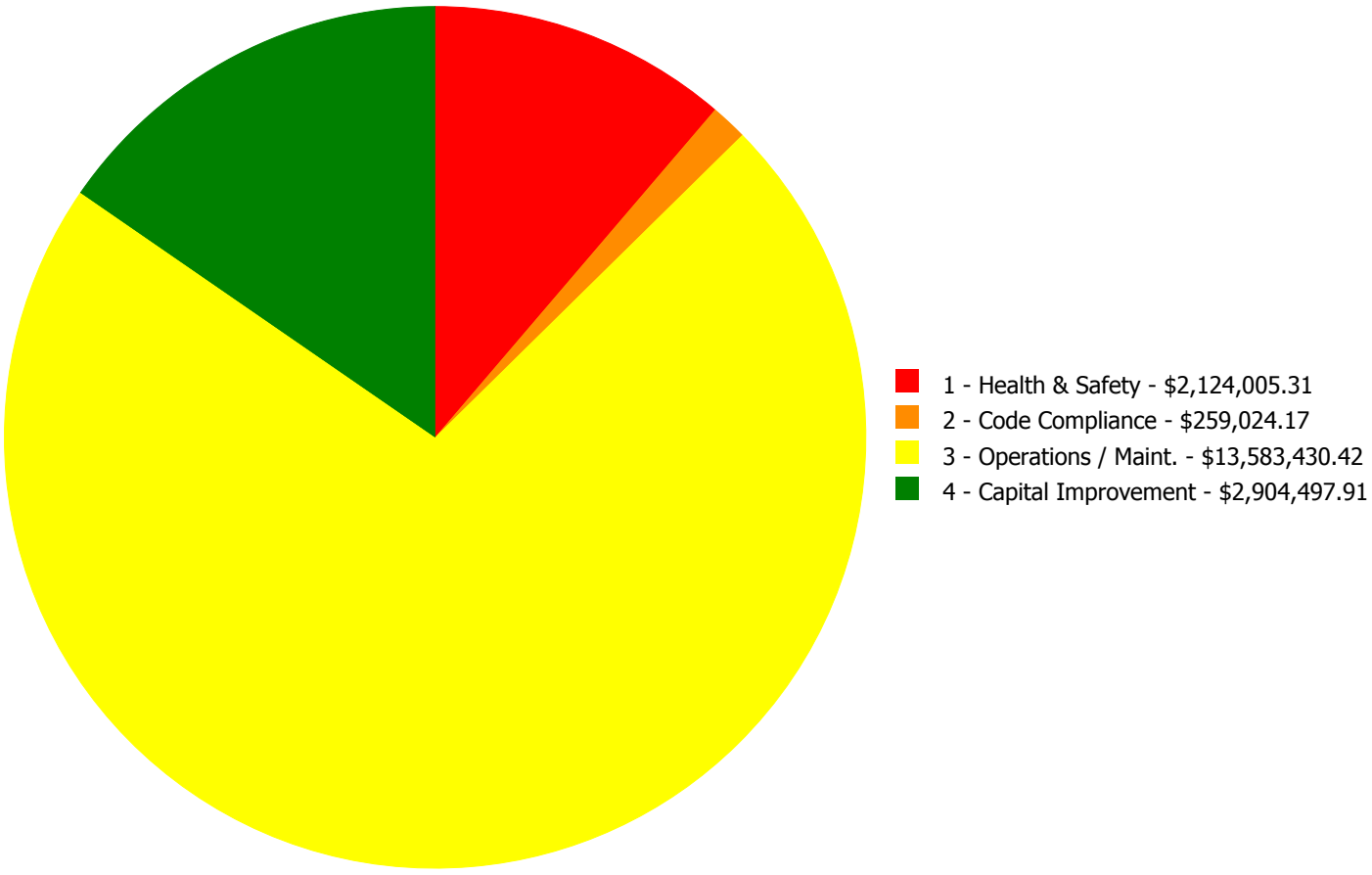
Deficiency By Priority Investment Table

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	$20,217.06	$37,858.95	$0.00	$0.00	$0.00	$58,076.01
B2020	Exterior Windows	$0.00	$1,002,415.22	$0.00	$0.00	$0.00	$1,002,415.22
B2030	Exterior Doors	$0.00	$9,556.09	$0.00	$0.00	$0.00	$9,556.09
B3010105	Built-Up	$144,617.97	$0.00	$0.00	$0.00	$0.00	$144,617.97
C1010	Partitions	$84,714.83	$48,609.87	$0.00	$0.00	$0.00	$133,324.70
C1020	Interior Doors	$0.00	$330,458.31	$0.00	$0.00	$0.00	$330,458.31
C1030	Fittings	$0.00	$17,078.88	$0.00	$0.00	$0.00	$17,078.88
C2010	Stair Construction	$93,618.16	$4,483.54	$0.00	$0.00	$0.00	$98,101.70
C3010230	Paint & Covering	$0.00	$72,179.17	$0.00	$0.00	$0.00	$72,179.17
C3020411	Carpet	$0.00	$22,381.52	$0.00	$0.00	$0.00	$22,381.52
C3020413	Vinyl Flooring	$0.00	$72,105.20	$0.00	$0.00	$0.00	$72,105.20
C3020414	Wood Flooring	$0.00	$139,970.22	$0.00	$0.00	$0.00	$139,970.22
C3020415	Concrete Floor Finishes	$0.00	$62,849.49	$0.00	$0.00	$0.00	$62,849.49
C3030	Ceiling Finishes	$0.00	$63,486.22	$0.00	$0.00	$0.00	$63,486.22
D2010	Plumbing Fixtures	$0.00	$22,508.98	$0.00	$0.00	$0.00	$22,508.98
D2020	Domestic Water Distribution	$0.00	$0.00	$0.00	$0.00	$622,060.37	$622,060.37
D2030	Sanitary Waste	$118,494.44	$0.00	$510,866.81	$0.00	$0.00	$629,361.25
D3020	Heat Generating Systems	$0.00	$0.00	$506,102.63	$0.00	$26,678.08	$532,780.71
D3030	Cooling Generating Systems	$0.00	$0.00	$0.00	$0.00	$2,543,883.06	$2,543,883.06
D3040	Distribution Systems	$6,271,090.10	$0.00	$0.00	$0.00	$0.00	$6,271,090.10
D3060	Controls & Instrumentation	$0.00	$2,686,710.32	$0.00	$0.00	$0.00	$2,686,710.32
D4010	Sprinklers	$0.00	$0.00	$0.00	$0.00	$1,859,709.47	$1,859,709.47
D5010	Electrical Service/Distribution	$0.00	$0.00	$0.00	$409,772.21	$0.00	$409,772.21
D5020	Lighting and Branch Wiring	$35,300.07	$0.00	$0.00	$0.00	$0.00	$35,300.07
D5030	Communications and Security	$586,503.63	$0.00	$0.00	$0.00	$0.00	$586,503.63
D5090	Other Electrical Systems	$24,752.92	$0.00	$239,542.92	$0.00	$0.00	$264,295.84
E2010	Fixed Furnishings	$0.00	$180,381.10	$0.00	$0.00	$0.00	$180,381.10
	Total:	$7,379,309.18	$4,773,033.08	$1,256,512.36	$409,772.21	$5,052,330.98	$18,870,957.81

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: $18,870,957.81

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: B2010 - Exterior Walls

Location: exterior basement - at grade
Distress: Appearance
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Remove graffiti - power wash and paint
Qty: 3,000.00
Unit of Measure: S.F.
Estimate: $20,217.06
Assessor Name: Craig Anding
Date Created: 09/06/2015

Notes: Remove graffiti along basement walls above grade (3000sf)

System: B3010105 - Built-Up

Location: roof
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Remove and Replace Built Up Roof
Qty: 4,000.00
Unit of Measure: S.F.
Estimate: $135,528.04
Assessor Name: Craig Anding
Date Created: 09/06/2015

Notes: Replace wrinkled roof membrane over addition connection corridor and improved slope near roof drains on all roofs (4000sf)

System: B3010105 - Built-Up

Location: roof

Distress: Failing

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Repair or replace flashing where it connects to masonry parapet - choose proper material

Qty: 200.00

Unit of Measure: L.F.

Estimate: $9,089.93

Assessor Name: Craig Anding

Date Created: 09/06/2015

Notes: Repair and recaulk joint where copper counterflashing set into brick (200ft)

System: C1010 - Partitions

Location: stairs / corridors

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 1 - Response Time (< 2 yr)

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

Qty: 1,200.00

Unit of Measure: S.F.

Estimate: $84,714.83

Assessor Name: Craig Anding

Date Created: 09/07/2015

Notes: Provide 1 hour fire doors on stairway enclosures (12) 3x7 doors and fire rated walls at corridors (1200sdf)

System: C2010 - Stair Construction

Location: orig bldg 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: 200.00

Unit of Measure: L.F.

Estimate: $93,618.16

Assessor Name: Craig Anding

Date Created: 09/07/2015

Notes: Remove and replace stairway handrails and guards with code compliant systems (2) 3 story + (2) 1 story;=25x8=200lf handrails wall mounted and 200 lf railings with balustrade centermounted

System: D2030 - Sanitary Waste

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Replace damaged sanitary piping (per LF)

Qty: 500.00

Unit of Measure: L.F.

Estimate: $118,494.44

Assessor Name: Craig Anding

Date Created: 10/23/2015

Notes: Replace as needed the sanitary system throughout the original building.

System: D3040 - Distribution Systems

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

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: 130,000.00

Unit of Measure: S.F.

Estimate: $6,271,090.10

Assessor Name: Craig Anding

Date Created: 10/23/2015

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

System: D5020 - Lighting and Branch Wiring

Location: entire building

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Maintain Lighting Fixtures

Qty: 1.00

Unit of Measure: Ea.

Estimate: $35,300.07

Assessor Name: Craig Anding

Date Created: 08/12/2015

Notes: Replace damaged lighting fixtures. Estimated 100

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: $382,784.60

Assessor Name: Craig Anding

Date Created: 08/12/2015

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

System: D5030 - Communications and Security

Location: entire building

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Add/Replace Clock System or Components

Qty: 1.00

Unit of Measure: Ea.

Estimate: $203,719.03

Assessor Name: Craig Anding

Date Created: 08/12/2015

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

System: D5090 - Other Electrical Systems

This deficiency has no image.

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: $24,752.92

Assessor Name: Craig Anding

Date Created: 08/12/2015

Notes: Perform lightning protection studies to ascertain that the mechanical equipment on the roof are protected against the lightning strikes.

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

System: B2010 - Exterior Walls

Location: exterior
Distress: Appearance
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Sooty and dirty walls - powerwash
Qty: 18,000.00
Unit of Measure: S.F.
Estimate: $19,687.23
Assessor Name: Craig Anding
Date Created: 09/07/2015

Notes: Powerwash exterior of building, selected areas (18,000sf)

System: B2010 - Exterior Walls

Location: exterior
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and replacing failing steel lintels in brick wall construction
Qty: 30.00
Unit of Measure: L.F.
Estimate: $14,759.03
Assessor Name: Craig Anding
Date Created: 09/06/2015

Notes: Remove and replace all lintels and cracked masonry at original building basement windows, 2nd floor windows, and rooftop structures (30)

System: B2010 - Exterior Walls

Location: exterior

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Repoint horizontal or vertical joints at limestone coping

Qty: 200.00

Unit of Measure: L.F.

Estimate: $3,412.69

Assessor Name: Craig Anding

Date Created: 09/06/2015

Notes: Repair limestone coping, window jambs, and banding on old building (200sf)

System: B2020 - Exterior Windows

Location: exterior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 1.00

Unit of Measure: Ea.

Estimate: $1,002,415.22

Assessor Name: Craig Anding

Date Created: 09/06/2015

Notes: Replace all exterior windows in original building and addition with insulated single hung units (200)3.5x8 in original building (requires wood trim refinishing) and (200)3.5x8 in addition (no trim)

System: B2030 - Exterior Doors

Location: exterior

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Refinish and repaint exterior doors - per leaf

Qty: 16.00

Unit of Measure: Ea.

Estimate: $9,556.09

Assessor Name: Craig Anding

Date Created: 09/06/2015

Notes: Replace all exterior hollow metal doors and provide ADA and code compliant exit hardware; repaint frames.(16)3x7

System: C1010 - Partitions

Location: classrooms

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Folding partition inoperable - remove and replace - select quality

Qty: 1,800.00

Unit of Measure: S.F.

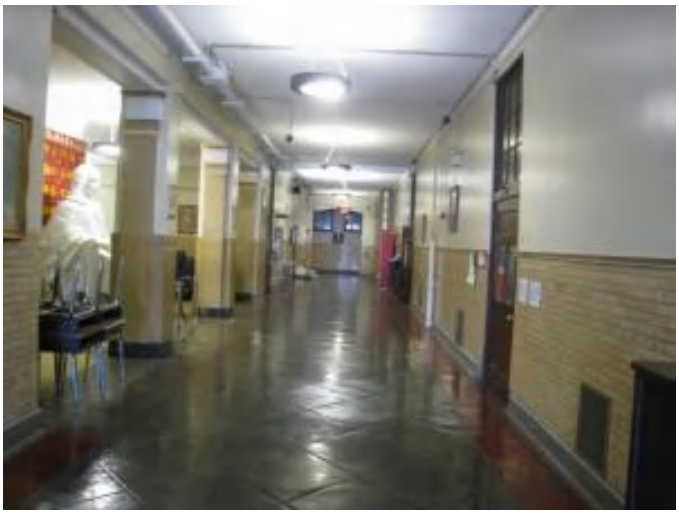
Estimate: $28,547.88

Assessor Name: Craig Anding

Date Created: 09/07/2015

Notes: Remove folding wood partitions and closet doors; replace with gypsum board and metal stud walls (6) @300sf ea =1800sf

System: C1010 - Partitions



Location: corridors and stairs

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: 750.00

Unit of Measure: S.F.

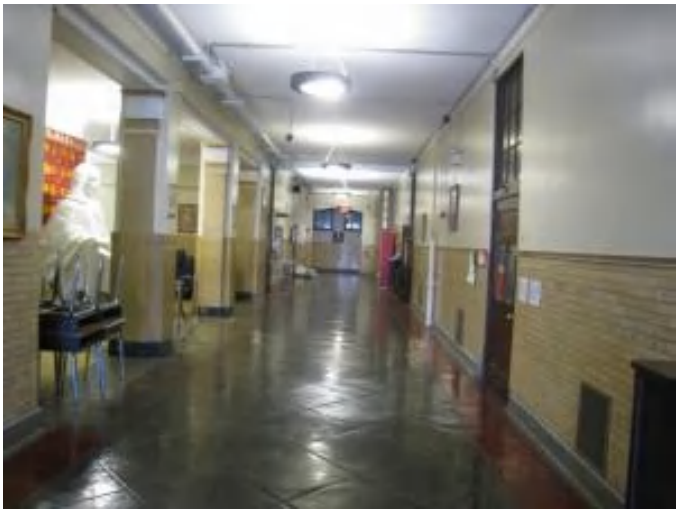
Estimate: $20,061.99

Assessor Name: Craig Anding

Date Created: 09/07/2015

Notes: Remove non-rated glass panels between classrooms and corridors; fill with fire rated gyp bd sys. (30 @ 9sf) + stairways (6x80sf)

System: C1020 - Interior Doors



Location: classrooms in orig bldg

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 40.00

Unit of Measure: Ea.

Estimate: $186,173.56

Assessor Name: Craig Anding

Date Created: 09/07/2015

Notes: Remove and replace all wood interior doors, frames and hardware in classrooms, closets, offices, etc. in original building (40)

System: C1020 - Interior Doors

Location: basement

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace hollow metal frames and doors

Qty: 18.00

Unit of Measure: Ea.

Estimate: $91,403.77

Assessor Name: Craig Anding

Date Created: 09/07/2015

Notes: Remove and replace all basement steel doors, frames, and hardware in mechanical rooms and gym (18) 3x7 doors

System: C1020 - Interior Doors

Location: classrooms in addition

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Refinish interior doors

Qty: 50.00

Unit of Measure: Ea.

Estimate: $41,409.15

Assessor Name: Craig Anding

Date Created: 09/07/2015

Notes: Refinish wood doors in addition (50)

System: C1020 - Interior Doors

Location: all 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: 50.00

Unit of Measure: Ea.

Estimate: $11,471.83

Assessor Name: Craig Anding

Date Created: 09/07/2015

Notes: Provide security hardware for classrooms and offices, locking from inside classroom. (50)

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: $17,078.88

Assessor Name: Craig Anding

Date Created: 09/07/2015

Notes: Provide toilet room accessories to replace damaged components (6 sets)

System: C2010 - Stair Construction

Location: exterior stairs

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 300.00

Unit of Measure: L.F.

Estimate: $4,483.54

Assessor Name: Craig Anding

Date Created: 09/07/2015

Notes: Reset treads and regrout all joints between limestone block tread/risers at exterior stairs (28 treads)

System: C3010230 - Paint & Covering

Location: interior walls

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 4,000.00

Unit of Measure: S.F.

Estimate: $34,268.30

Assessor Name: Craig Anding

Date Created: 09/07/2015

Notes: Repair water damage, cracks, and repaint all interior plaster walls in classrooms, gym, auditorium, and backstage auditorium rooms (4,000sf)

System: C3010230 - Paint & Covering

Location: basement

Distress: Appearance

Category: 3 - Operations / Maint.

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

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

Qty: 5,000.00

Unit of Measure: S.F.

Estimate: $33,869.39

Assessor Name: Craig Anding

Date Created: 09/06/2015

Notes: Strip and repaint concrete foundation (basement) walls in mechanical rooms (5,000sf)

System: C3010230 - Paint & Covering

Location: library

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: 500.00

Unit of Measure: S.F.

Estimate: $4,041.48

Assessor Name: Craig Anding

Date Created: 09/07/2015

Notes: Repair damaged gypsum board in library (500sf)

System: C3020411 - Carpet

Location: office; library
Distress: Damaged
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and replace carpet
Qty: 2,000.00
Unit of Measure: S.F.
Estimate: $22,381.52
Assessor Name: Craig Anding
Date Created: 09/07/2015

Notes: Replace carpet in water damaged office and damaged, dirty carpet in library (1000)

System: C3020413 - Vinyl Flooring

Location: cafeteria; auditorium lobby
Distress: Damaged
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and replace VCT
Qty: 3,000.00
Unit of Measure: S.F.
Estimate: $36,052.60
Assessor Name: Craig Anding
Date Created: 09/07/2015

Notes: Repair cracked terrazzo in cafeteria and auditorium lobby (200sf)

System: C3020413 - Vinyl Flooring

Location: offices, gym
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and replace VCT
Qty: 3,000.00
Unit of Measure: S.F.
Estimate: $36,052.60
Assessor Name: Craig Anding
Date Created: 09/07/2015

Notes: Remove and replace all 12”x12” VCT floors in gymnasium and other rooms (3,000sf)

System: C3020414 - Wood Flooring

Location: classrooms, auditorium, offices
Distress: Appearance
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Refinish wood floors
Qty: 12,000.00
Unit of Measure: S.F.
Estimate: $129,203.28
Assessor Name: Craig Anding
Date Created: 09/07/2015

Notes: Strip, sand, repair and refinish all wood floors in classrooms and in auditorium (12,000sf)

System: C3020414 - Wood Flooring

Location: auditorium walls

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Refinish wood floors

Qty: 1,000.00

Unit of Measure: S.F.

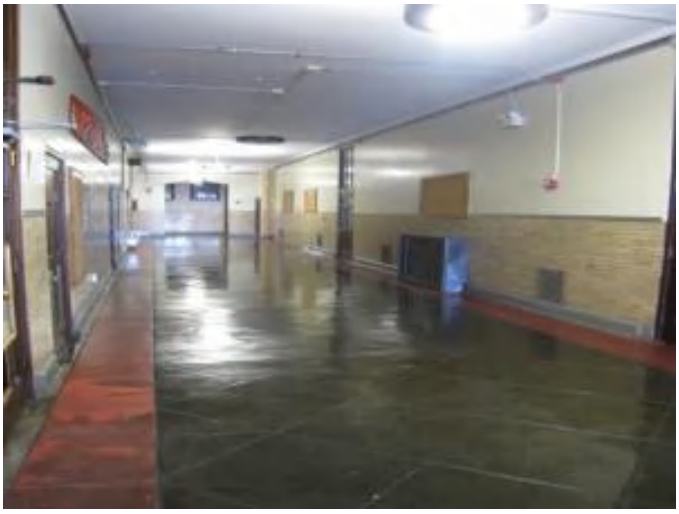
Estimate: $10,766.94

Assessor Name: Craig Anding

Date Created: 09/07/2015

Notes: Repair and refinish wood panels in auditorium (1000sf)

System: C3020415 - Concrete Floor Finishes



Location: all floors

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Prepare and repaint concrete floor

Qty: 12,000.00

Unit of Measure: S.F.

Estimate: $62,849.49

Assessor Name: Craig Anding

Date Created: 09/06/2015

Notes: Clean and repaint basement floor in mechanical rooms; clean and reseal concrete floors in hallways and stairways (240x10x3=7,200+5000sf=12,000sf)

System: C3030 - Ceiling Finishes

Location: interior

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 6,000.00

Unit of Measure: S.F.

Estimate: $63,486.22

Assessor Name: Craig Anding

Date Created: 09/07/2015

Notes: Replace damaged 2x4 acoustical ceiling tiles (6000sf)

System: D2010 - Plumbing Fixtures

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 1.00

Unit of Measure: Ea.

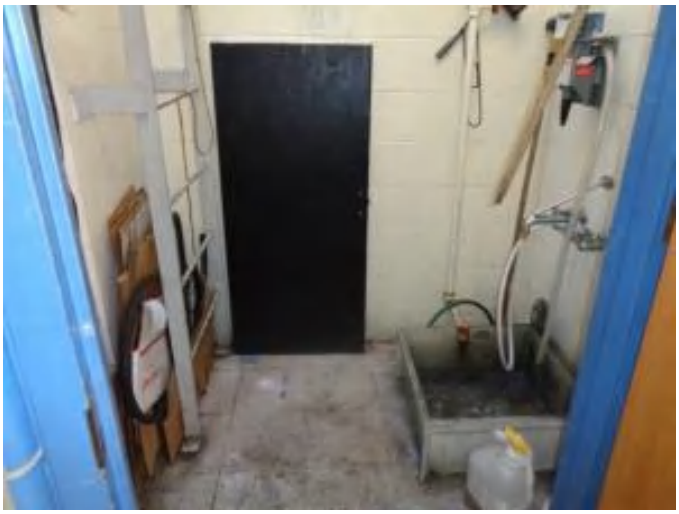
Estimate: $15,692.89

Assessor Name: Craig Anding

Date Created: 10/23/2015

Notes: Replace drinking fountains throughout the building as these units are well beyond their service life.

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 floor janitor or mop sink - insert the quantity

Qty: 1.00

Unit of Measure: Ea.

Estimate: $6,816.09

Assessor Name: Craig Anding

Date Created: 10/23/2015

Notes: Replace service sinks throughout the building

System: D3060 - Controls & Instrumentation

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace pneumatic controls with DDC (150KSF)

Qty: 150,000.00

Unit of Measure: S.F.

Estimate: $2,686,710.32

Assessor Name: Craig Anding

Date Created: 10/23/2015

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

System: E2010 - Fixed Furnishings

Location: auditorium

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 200.00

Unit of Measure: Ea.

Estimate: $180,381.10

Assessor Name: Craig Anding

Date Created: 09/07/2015

Notes: Repair and refinish damaged folding wood auditorium chairs (400)

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

System: D2030 - Sanitary Waste

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 120,300.00

Unit of Measure: S.F.

Estimate: $510,866.81

Assessor Name: Craig Anding

Date Created: 10/23/2015

Notes: Inspect and replace as needed the sanitary system throughout the original building. Hire a qualified contractor to perform a detailed examination of the sanitary waste piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.

System: D3020 - Heat Generating Systems

Location: Boiler Mechancial Equipment Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 1.00

Unit of Measure: Ea.

Estimate: $506,102.63

Assessor Name: Craig Anding

Date Created: 10/23/2015

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

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System: D5090 - Other Electrical Systems

This deficiency has no image.

Location: Basement

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

Correction: Add Standby Generator System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $239,542.92

Assessor Name: Craig Anding

Date Created: 08/12/2015

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

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

System: D5010 - Electrical Service/Distribution

Location: Elerical Room

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add service entrance switchboard

Qty: 1.00

Unit of Measure: Ea.

Estimate: $409,772.21

Assessor Name: Craig Anding

Date Created: 08/31/2015

Notes: Replace service entrance switchboard with 1600A for providing additional capacity for future HVAC loads.

Priority 5 - Response Time (> 5 yrs):

System: D2020 - Domestic Water Distribution

Location: Throughout the building
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 5 - Response Time (> 5 yrs)
Correction: Replace domestic water piping (150 KSF)
Qty: 150,000.00
Unit of Measure: S.F.
Estimate: $622,060.37
Assessor Name: Craig Anding
Date Created: 10/23/2015

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

System: D3020 - Heat Generating Systems

Location: Boiler Mechanical Equipment Room
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 5 - Response Time (> 5 yrs)
Correction: Replace fuel oil pumps
Qty: 1.00
Unit of Measure: Ea.
Estimate: $26,678.08
Assessor Name: Craig Anding
Date Created: 10/23/2015

Notes:

System: D3030 - Cooling Generating Systems

Location: Adjacent to building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 150,000.00

Unit of Measure: S.F.

Estimate: $2,494,725.70

Assessor Name: Craig Anding

Date Created: 10/23/2015

Notes: Install chiller and chilled water distribution system in original building

System: D3030 - Cooling Generating Systems

Location: Adjacent to building

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

Correction: Convert air-cooled chiller to alternative refrigerant (80T)

Qty: 1.00

Unit of Measure: Ea.

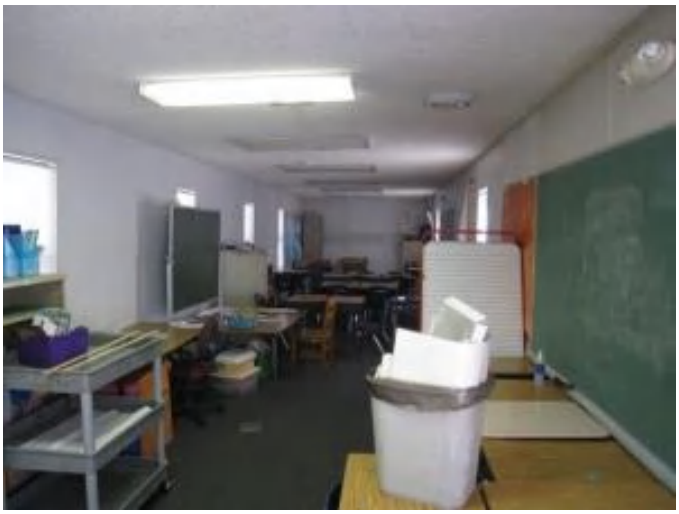
Estimate: $49,157.36

Assessor Name: Craig Anding

Date Created: 10/23/2015

Notes:

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: 130,000.00

Unit of Measure: S.F.

Estimate: $1,859,709.47

Assessor Name: Craig Anding

Date Created: 10/23/2015

Notes: Install a fire protection sprinkler system with quick response type heads to reduce insurance costs by providing protection for the property. A fire pump may be required depending on the available city water pressure.

Equipment Inventory

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

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 5230 MBH, includes burners, controls and insulated jacket, packaged	2.00	Ea.	Boiler Mechanical Equipment Room	Weil McLain	1994			35			$122,870.00	$270,314.00
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 5230 MBH, includes burners, controls and insulated jacket, packaged	2.00	Ea.	Boiler Mechanical Equipment Room	Weil McLain	1994			35			$122,870.00	$270,314.00
D3030 Cooling Generating Systems	Water chiller, reciprocating, packaged, air cooled, 145 ton cooling, includes standard controls, excludes remote air cooled condensers	1.00	Ea.	Outside Mechanical Yard	York	YCAS0180			30	2000	2030	$85,420.50	$93,962.55
D5010 Electrical Service/Distribution	Motor control center, structures, 22,000 rms, takes any combination of starters, 600 amp, up to 72" high	4.00	Ea.	Mechnical Room					30	1999	2029	$3,663.90	$16,121.16
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 277/480 V, 800 A	1.00	Ea.	Electrical room in the basement					30	1999	2029	$31,205.25	$34,325.78
												Total:	**$685,037.49**

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):	53,000
Year Built:	1915
Last Renovation:	
Replacement Value:	$1,025,750
Repair Cost:	$226,386.06
Total FCI:	22.07 %
Total RSLI:	50.40 %

Description:

Attributes:

General Attributes:

Bldg ID:	S728001	Site ID:	S728001

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	51.49 %	28.47 %	$226,386.06
G40 - Site Electrical Utilities	46.67 %	0.00 %	$0.00
Totals:	**50.40 %**	**22.07 %**	**$226,386.06**

Condition Detail

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

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

System Listing

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

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

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

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
G2010	Roadways	$11.52	S.F.		30				0.00 %	0.00 %				$0
G2020	Parking Lots	$7.65	S.F.	12,000	30	1999	2029		46.67 %	124.50 %	14		$114,286.92	$91,800
G2030	Pedestrian Paving	$11.52	S.F.	41,000	40	1999	2039		60.00 %	4.87 %	24		$23,012.55	$472,320
G2040	Site Development	$4.36	S.F.	53,000	25	1999	2024		36.00 %	38.55 %	9		$89,086.59	$231,080
G2050	Landscaping & Irrigation	$3.78	S.F.		15				0.00 %	0.00 %				$0
G4020	Site Lighting	$3.58	S.F.	53,000	30	1999	2029		46.67 %	0.00 %	14			$189,740
G4030	Site Communications & Security	$0.77	S.F.	53,000	30	1999	2029		46.67 %	0.00 %	14			$40,810
								Total	**50.40 %**	**22.07 %**			**$226,386.06**	**$1,025,750**

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.

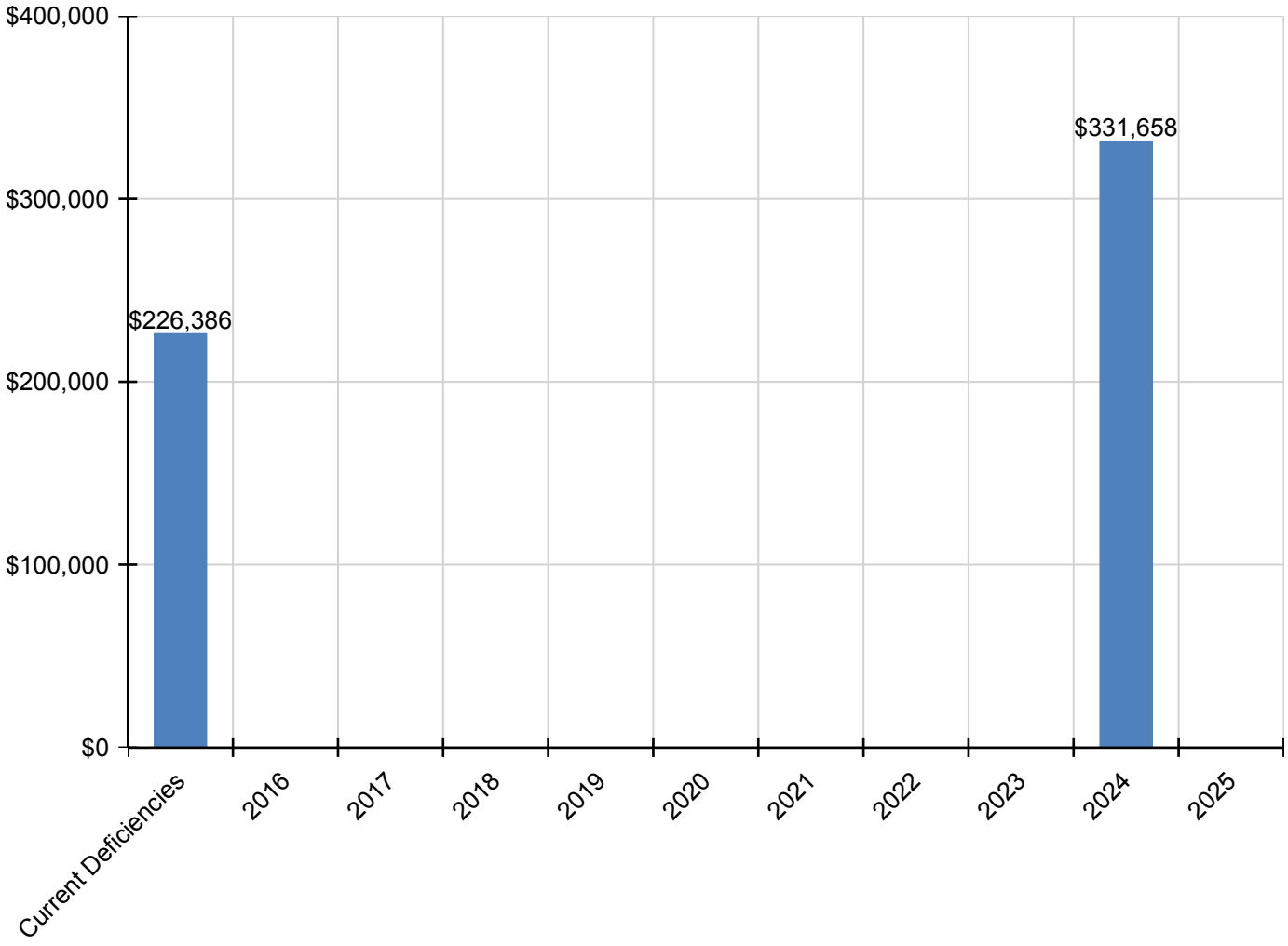
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$226,386**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$331,658**	**$0**	**$558,044**
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	$114,287	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$114,287**
G2030 - Pedestrian Paving	$23,013	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$23,013**
G2040 - Site Development	$89,087	$0	$0	$0	$0	$0	$0	$0	$0	$331,658	$0	**$420,744**
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

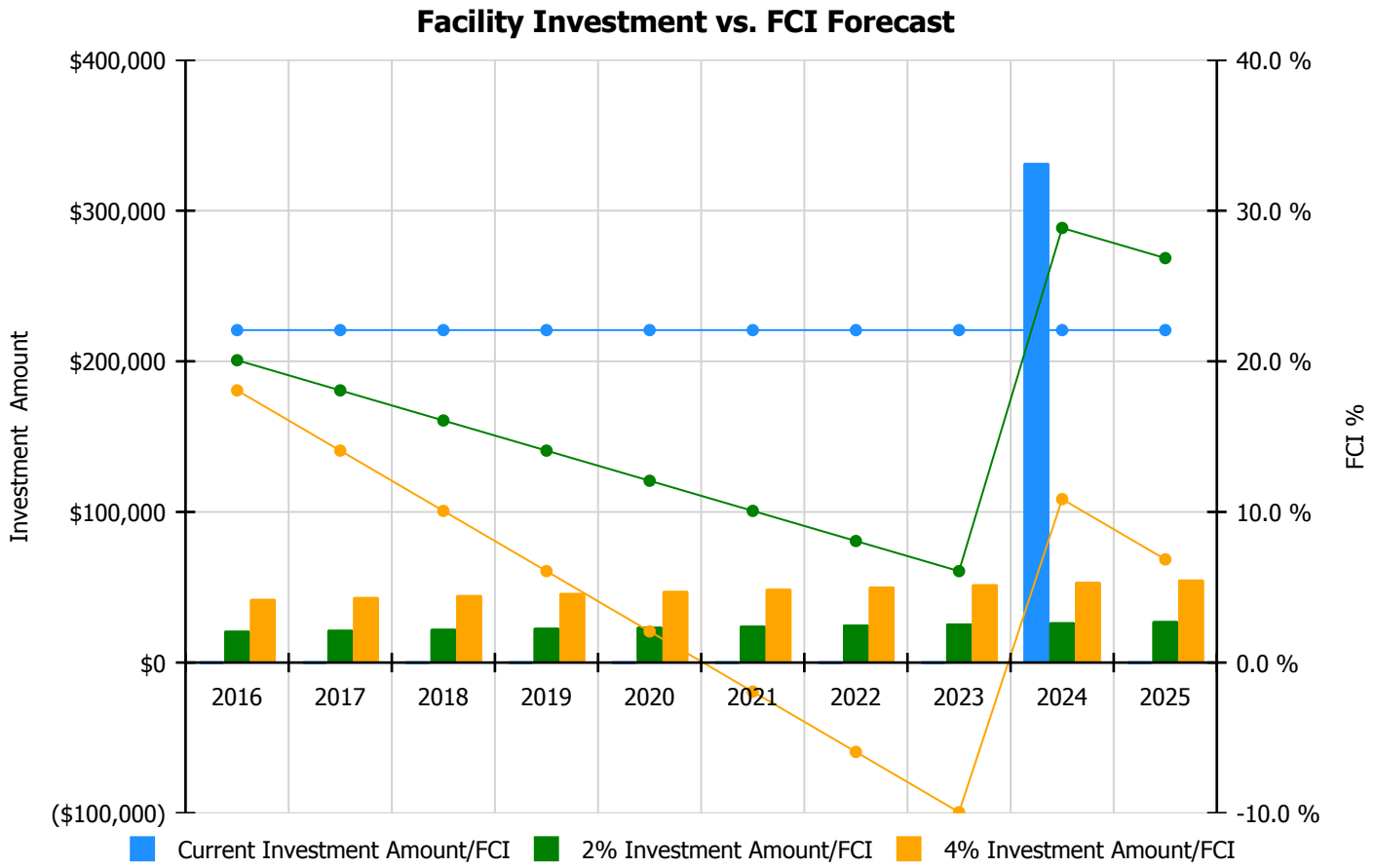
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

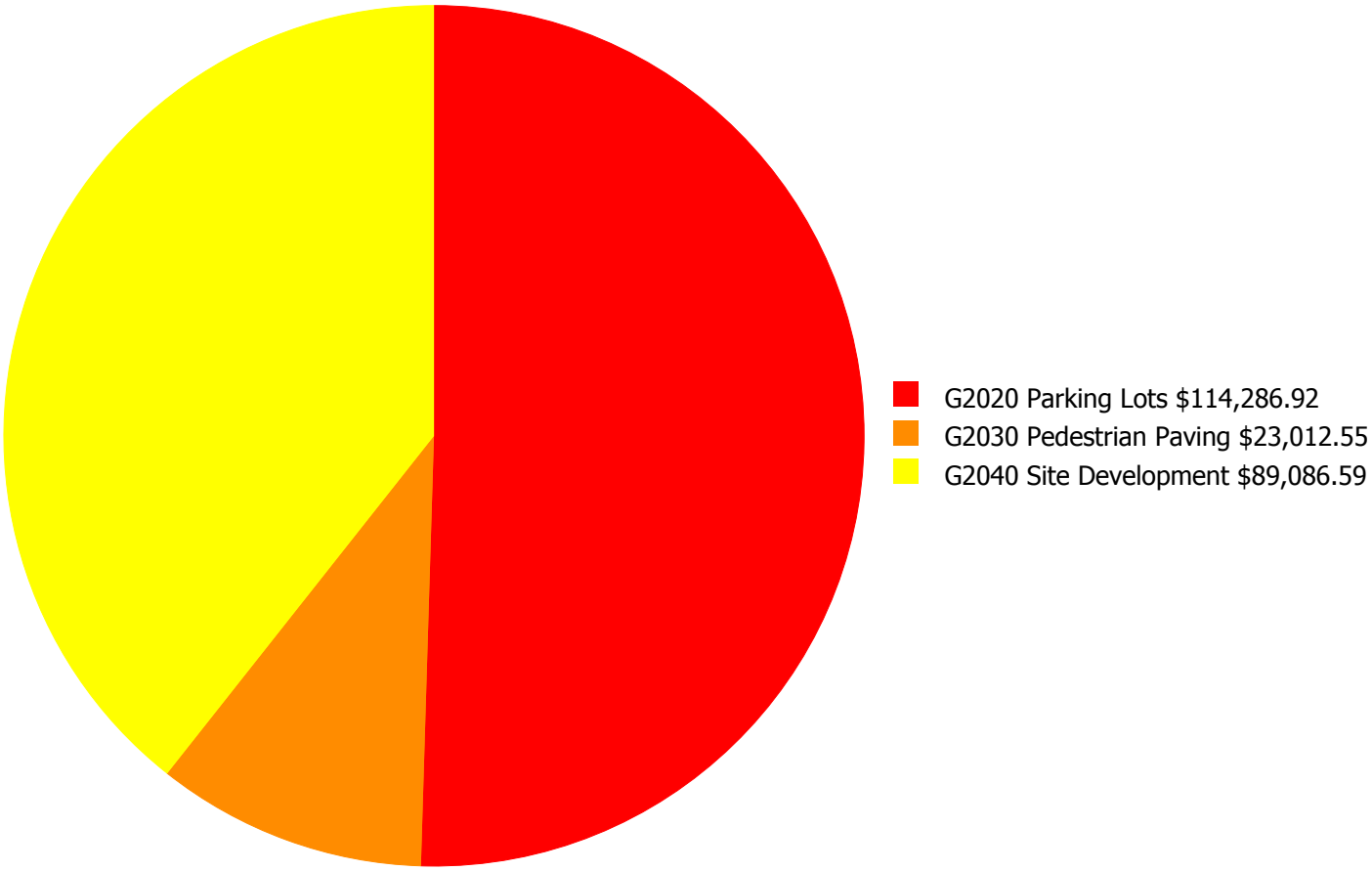
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 22.07%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$21,130.00	20.07 %	$42,261.00	18.07 %
2017	$0	$21,764.00	18.07 %	$43,529.00	14.07 %
2018	$0	$22,417.00	16.07 %	$44,835.00	10.07 %
2019	$0	$23,090.00	14.07 %	$46,180.00	6.07 %
2020	$0	$23,783.00	12.07 %	$47,565.00	2.07 %
2021	$0	$24,496.00	10.07 %	$48,992.00	-1.93 %
2022	$0	$25,231.00	8.07 %	$50,462.00	-5.93 %
2023	$0	$25,988.00	6.07 %	$51,976.00	-9.93 %
2024	$331,658	$26,767.00	28.85 %	$53,535.00	10.85 %
2025	$0	$27,570.00	26.85 %	$55,141.00	6.85 %
Total:	**$331,658**	**$242,236.00**		**$484,476.00**	

Deficiency Summary by System

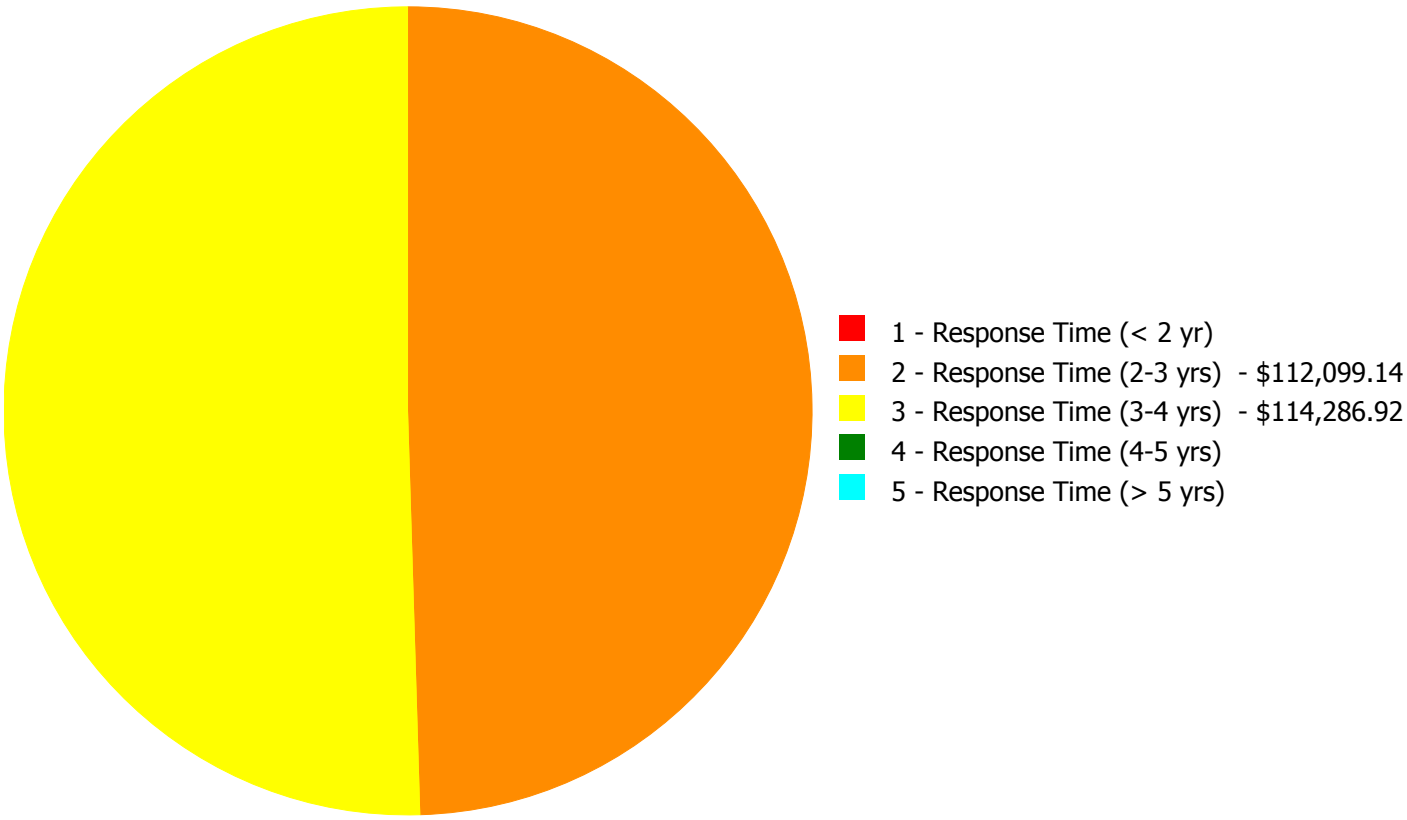
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $226,386.06

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: $226,386.06

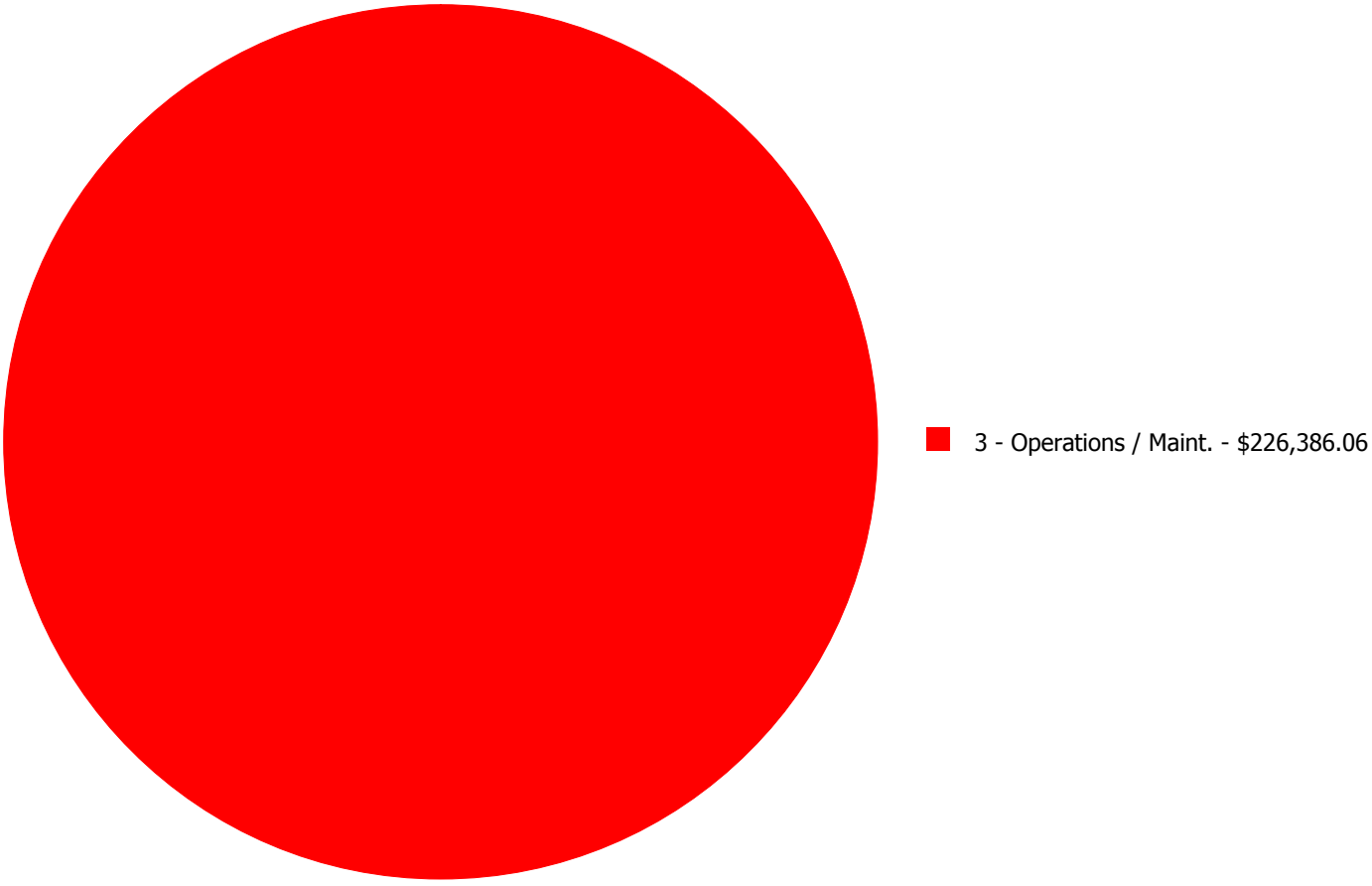
Deficiency By Priority Investment Table

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	$0.00	$114,286.92	$0.00	$0.00	$114,286.92
G2030	Pedestrian Paving	$0.00	$23,012.55	$0.00	$0.00	$0.00	$23,012.55
G2040	Site Development	$0.00	$89,086.59	$0.00	$0.00	$0.00	$89,086.59
	Total:	$0.00	$112,099.14	$114,286.92	$0.00	$0.00	$226,386.06

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: $226,386.06

Deficiency Details by Priority

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

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

System: G2030 - Pedestrian Paving

Location: front and side walkways

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: 1,600.00

Unit of Measure: S.F.

Estimate: $23,012.55

Assessor Name: Craig Anding

Date Created: 09/07/2015

Notes: Replace concrete paving in front of building (1600sf)

System: G2040 - Site Development

Location: site fence

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 500.00

Unit of Measure: L.F.

Estimate: $89,086.59

Assessor Name: Craig Anding

Date Created: 09/07/2015

Notes: Repaint damaged wrought iron fencing (500lf)

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

System: G2020 - Parking Lots

Location: asphalt playground

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Resurface parking lot - grind and resurface including striping

Qty: 30,000.00

Unit of Measure: S.F.

Estimate: $114,286.92

Assessor Name: Craig Anding

Date Created: 09/07/2015

Notes: Repave parking / playground with asphalt(45,000sf)

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