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.

Morrison School

Governance	DISTRICT	Report Type	Elementarymiddle
Address	5100 N. 3Rd St.	Enrollment	726
	Philadelphia, Pa 19120	Grade Range	'00-08'
Phone/Fax	215-456-3004 / 215-456-5564	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Morrison	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	**40.55%**	**$17,303,914**	**$42,675,720**
Building	41.21 %	$17,230,331	$41,814,868
Grounds	08.55 %	$73,583	$860,852

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	03.13 %	$37,147	$1,185,998
Exterior Walls (Shows condition of the structural condition of the exterior facade)	00.46 %	$14,297	$3,096,528
Windows (Shows functionality of exterior windows)	66.26 %	$1,001,205	$1,510,931
Exterior Doors (Shows condition of exterior doors)	149.73 %	$182,146	$121,646
Interior Doors (Classroom doors)	77.67 %	$228,719	$294,468
Interior Walls (Paint and Finishes)	12.25 %	$162,821	$1,328,881
Plumbing Fixtures	47.08 %	$533,950	$1,134,247
Boilers	67.04 %	$1,050,122	$1,566,301
Chillers/Cooling Towers	68.03 %	$1,397,047	$2,053,725
Radiators/Unit Ventilators/HVAC	162.39 %	$5,856,660	$3,606,603
Heating/Cooling Controls	132.84 %	$1,504,558	$1,132,569
Electrical Service and Distribution	00.00 %	$0	$813,772
Lighting	45.26 %	$1,316,950	$2,909,444
Communications and Security (Cameras, Pa System and Fire Alarm)	65.01 %	$708,437	$1,089,783

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

S739001;Morrison

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):	83,894
Year Built:	1924
Last Renovation:	
Replacement Value:	$42,675,720
Repair Cost:	$17,303,913.83
Total FCI:	40.55 %
Total RSLI:	73.87 %

Description:

Facility Condition Assessment
July 2015

School District of Philadelphia
Andrew J. Morrison School
5100 N. 3rd St.
Philadelphia, PA 19120

83,894 SF / 710 Students / LN 07

General

Andrew J. Morrison School is located at 5100 N. 3rd Street. The original building, "Element 1" was constructed in 1924 and is 3 stories tall with a full basement. In 1993 (approximately), a three-story classroom addition and a one story gymnasium addition were constructed onto the northwest and southwest wings of the original building. The original Morrison School building can be found on the National Historical Register, number 88002302 with the address of 300 Duncannon Street. There is an ongoing project in the basement of the original building creating a new cafeteria for students. Ericson Stokes, the Building Engineer accompanied the FCA

team during the inspection. The inspection team met with Principal Alfaro during the time of the site visit. She indicated that critical issues that need improvement were toilet room ventilation (there does not seem to be any working ventilation at this time), inadequate heating especially in the gymnasium, windows do not operate easily and leak (air) in the winter, and lighting levels in the building are inadequate.

Architectural/Structural

Foundations are constructed of brick and concrete in the old building and exposed concrete block walls in the addition. Basement brick and masonry joints are in good condition with no major settlement cracks observed. Footings were not seen and their construction type or condition could not be ascertained.

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

Roof construction over the old building ("Element 1") consists of reinforced concrete beams and deck, bearing on masonry walls. The superstructure is constructed of reinforced concrete columns, beams, and floor slabs. The main building roof deck is flat with minimum overall slope and pitch to roof drains. Roof access is via a door out of a masonry penthouse. Element 1 roofs have (2) 3ft high brick parapets, which are not aging well. Large areas of efflorescence and spalling bricks are visible; lower roofs have fragments of brick on the surface from spalling. Limestone coping on top of the Element 1 parapets is aging with gaps appearing between blocks where mortar or caulking has worn away. There are many opportunities for water infiltration along the parapet; proof of this can be seen in ceilings and walls the two stairways adjacent to the auditorium and other rooms with outside walls. The roof structure over both additions is constructed of steel bar joists and the floor structure is probably steel beam, supported on steel columns, based on knowing when the building was constructed. The roof structure of the gymnasium addition consists of exposed steel beams and bar joists with fireproofing in areas lower than 20 above floors as per today's building code; the structure over the gym floor is higher than 20 feet above the floor and therefore has no fireproofing, as allowed by code. Both addition roofs are flat roofs with minimal pitch in one direction to roof edges where roof drains are located. There are gravel stops with minimal parapets along edges of both additions and the auditorium (part of the original structure), and internal roof drains at low points. None of the roofs have overflow scuppers or overflow roof drains. All structure observed from attics or access stairs appeared to be in good condition.

Exterior walls in all buildings are generally in good condition. Most windows have limestone lintels, some have limestone sills, and the windows in the original building also have limestone jambs. Although most of these limestone elements appear to be in good condition, there are roughly a dozen limestone lintels on the original building that have cracked. Some of the limestone sills on the parking lot elevation have lost grout. One area of concern is the upper corner of a wall over an entrance to the gym on the parking lot side, which has stepped cracking on both sides of the corner. It appears to be loose enough to fall off the building at any time. The brickwork on the additions has been treated with an anti-graffiti coating, which may help protect the brick an allow for better cleanability, but in doing so gives the brick a milky white, unattractive appearance.

Exterior windows in the old 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 are in poor condition with oxidized frames and severely scratched single-pane plexiglass vision panels. Since most classrooms have window-mounted air conditioners, windows are not often opened. Single pane plexiglas units do not meet today's energy code requirements and are large sources of heat loss and replacement with more modern units are recommended. Windows in both additions are more modern single hung, clear anodized aluminum frame window units containing 1" insulated glass and window screens on all windows, and exterior security screens on first floor windows. They appear to be in fair to good working condition.

Exterior doors throughout the complex are painted steel framed flush hollow metal units with steel frames. Some doors have small, glazed vision panels. Doors are generally in fair condition, with dented panels, rusted frames, and some graffiti. Most hardware is operational, but some needs adjustment or replacement if not repairable. There is one handicap entrance on the south end of the northwest addition with an accessible ramp and ADA compliant guardrail/handrail. Weatherstripping is missing on all doors.

Roof coverings on the old building and the two additions consist of a silver-painted, fully adhered rolled asphalt sheet system with asphalt backed flashing membrane up onto rooftop ventilation ductwork, vents, and masonry parapets. Roof structures include toilet room vents, ventilation ductwork, and roof drains. On the old building roof, flashing terminates under aluminum counterflashing either set into masonry with reglets or attached to roof structures. Along the inside of the main building roof parapet and the auditorium roof parapet, flashing is sealed to the top of the limestone coping blocks, and coated with silver paint. This system appears to be water tight. Silver paint is beginning to wear off, reducing its solar reflectivity benefit. There are some areas of shallow standing water as the roof insulation appears to have settled preventing complete waterflow to the roof drains. Where parapets have not been coating with membrane and silver paint, there is a noticeable amount of brick fragments on the roofing membrane,

accumulating around roof drains. This is a result of spalling aged masonry, requiring repair to prevent further disintegration of the brick. The membrane, flashing, and counterflashing embedded in brickwork covering the top of the flashing is weathered and is probably past its normal service life of 20 years. Caulking along the tops of the reglets is cracked and has been recaulked in some locations, showing signs of continued degredation and potential failure. There are many masonry joint cracks in the brick rooftop walls and chimney structures which are probably a source of water infiltration. All exposed masonry and limestone coping above roof membranes require repointing and repair.

Partitions in the old building basement are constructed of painted brick and plaster. The upper 3 floors of the original building are constructed of plaster on wood lath partitions. They are in relatively good condition, only in need of minor touch up and paint. There are wood framed clerestory glass panels located in walls above classroom doors to the corridors. These clerestory panels are in generally good condition being above the reach of anyone, but the glass is not wired or fire rated. These should be removed and replaced with fire rated glazing or gypsum board wall assemblies. Walls in the addition are constructed of painted concrete block in corridors, bathrooms and stairways. They are in good structural condition.

Interior doors used for classrooms, offices, storage rooms, and bathrooms in the old building are either the original wood raised panel doors with plate glass (not fire rated or wired) and either the original or updated hardware, or replacement wood doors with narrow wired glass vision panels (in some cases) and newer replacement hardware. The glass used in the original wood doors is not code compliant, the glass framing mullions are fragile and many panes of glass are broken. These doors should be replaced with new wood doors and fire rated vision panels. Some interior basement doors in the old building and most interior stairway doors are hollow metal doors and hollow metal frames; many frames are rusted where coming in contact with floors. Most hollow metal stair doors in the old building and the additions are generally in fair condition. Damaged doors and frames can be repaired. Some panic hardware doesn't operate properly and should be adjusted to completely close stairway doors. Not all stairway doors have labels to indicate fire rating, although glass in these doors is wired glass usually indicating a fire rated door. Doors have old nob-style locksets and should have lever-handle locksets with door closers. None of the classroom doors can be locked from the inside of the classroom, as required today for lock-down security.

Interior fittings/hardware in the old building include black slate chalkboards with wood chalk trays mounted on one wall in each classroom. Most classrooms have smartboards which have been mounted to the blackboard wall. Some of the classrooms in the original building have some of the original wood built-ins that have been either refinished or repainted to extend their useability. Toilet room partitions in the old building are what appears to be the original marble partitions with wood doors. These are in poor condition and should be replaced. Toilet partitions in the new additions are floor mounted painted steel partitions which are in fair condition. Not all toilet rooms have a complete set of standard toilet room accessories such as toilet tissue dispensers, soap dispensers, paper towel or hand dryers, and ADA grab bars.

Stair construction in the original building consists of concrete treads with steel nosings, concrete risers, and concrete stringers with wood handrails (29" high) and guards (36" high) and steel balusters with 3" spacing. Since handrail and guard heights are not in compliance with today's codes, new handrail and guard systems are required. There are 3 main stairways in the original building (Elements 1) connecting the three stories and the basement; there is one "grand" entrance stairway, ½ story in height connecting the grade entrance to the first floor. Concrete is finished with clear sealer,worn away from years of use. The stairways in the addition have concrete treads with steel nosings, steel risers, and steel stringers, with code compliant steel pipe handrails (36" high) and guards (42" high) with steel mesh balusters complying with today's code requirements for stairways. These stairs are unfinished un sealed concrete that should be cleaned and sealed to improve the appearance.

Wall finishes in floors 1, 2 and 3 in the old building are painted plaster. Classroom walls are generally in good condition. Corridors have some damage that can be plastered/spackled and repainted. Corridor walls have dark oak wood accent trim at wainscot height, a providing some historical character. There are a number of locations in the stair towers near the auditorium and corridor walls that have damaged plaster from roof or wall leaks. After determining the leak source and making repairs, the plaster should be repaired and repainted. In the basement, extensive peeling paint was observed in the walls and ceilings in the mechanical room, due to the humid environment created by frequent steam release from steam vents during heating. There is also a general lack of maintenance of mechanical area walls, floors and ceilings in this space.

Floor finishes in the classrooms of the original building consist of either dark stained oak floors or vinyl composition tile floors. Some of the oak floors have been refinished, proving that there is still useable life left in the other floors; all floors should be stripped, sanded, and refinished to renew their appearance. Similarly, some corridors in the old building consist of recently refinished 2'x2' cast -in-place concrete panels, which appear to be somewhat dark, but in good condition. All concrete panel corridors should be stripped, cleaned, and refinished to give them renewed life and a clean appearance. Floors in the gymnasium are finished with a seamless vinyl surface. This floor is worn, cracked, and dirty in various locations and needs to be replaced. Some classrooms in the original building have been overlayed with VCT (vinyl composition tile) over the old wood floors. This vinyl in some of these classrooms can be stripped and rewaxed, but in general, tile edges are warping with age and some are damaged; full replacement of this type of floor in the old building is recommended. VCT is used throughout the new addition and is in good enough condition to be stripped and

rewaxed. The library was recently carpeted and is in good condition.

Ceiling finishes are mostly 2x4 suspended acoustical tile ceilings with recessed 2x4 fluorescent lighting fixtures or surface mounted 1x4 fluorescent lighting fixtures throughout the original building and the two additions. Most ceilings are in fair condition with some replacement required of broken, dirty or warped ceiling tiles. The gymnasium has an exposed ceiling with painted steel bar joists and suspended lighting fixtures.

Elevator is 2100lb hydraulic, with 4 stops.

Fixed furnishings include recently installed new plastic laminate library bookcases, which are in good condition. The auditorium has the original wood seating which is being used today. A number of chairs are broken and should be repaired to once again be fully operational. Wood seatbacks and seats are scratched but can be refinished. Gym doubles as a cafeteria by use of folding tables.

Mechanical

Plumbing Fixtures - Many of the original plumbing fixtures remain in service, both in the original building and in the addition. Some of the fixtures in the original building may have been updated in the 1960s. Fixtures in the restrooms on each floor consist of wall mounted water closets, wall hung urinals or floor mounted urinals, and lavatories with wheel handle faucets. The building engineer reported having problems with the floor mounted urinals and pipes, indicating that there is a strong urine smell seeping out into the hallway throughout the school day. It is recommended that in the original building, all plumbing fixtures should be remodeled and replaced since all fixtures are well beyond their useful service life. In the addition, replacement of all plumbing fixtures is also recommended as the fixtures were installed in 1988 and are nearing the end of their service life.

Drinking fountains in the corridors and at the restrooms are wall hung. In the original building, the drinking fountains are well beyond their service life and replacement is recommended. In the addition, the existing drinking fountains have integral refrigerated coolers and appear to be the original installed equipment. Replacement is recommended for all drinking fountains in the addition as well.

Service sinks are located in the hallways of the original building for use by the janitorial staff. They appear to be the original equipment. It should be noted that these sinks are not in a closet (no doors) and have no exhaust which means they do not follow today's standard location criteria . No janitorial sinks were noted in the addition. Replacement and enclosure in closets is recommended for all service sinks in the building.

The Cafeteria was under construction/renovation so no assessment of equipment and utilities was performed in the cafeteria area.

Domestic Water Distribution - piping is soldered copper. Water service enters the building in the basement, with backflow preventers and the water meter on the main line after entering the building. The distribution piping appears to be original equipment and was confirmed to be original by the building engineer. A thorough inspection of the domestic water distribution system is recommended due to its age.

One Bradford White natural gas fired vertical water heater tank is installed in the basement of the original building with appropriate piping, controls, and venting. The water heater in the main building appears 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 hub and spigot cast iron pipe which appears to be the original equipment. It was not possible to determine the type of sewer pipe in the addition during the assessment. The complete sanitary system in the original building is well beyond its serviceable life. An inspection of the sanitary system in the original building is recommended. The sanitary system in the addition is nearing the end of its serviceable life and should be inspected as well.

Rain Water Drainage - The rain water drains from the roof are routed through mechanical chases in the building. Both the original building and the addition have roof overflow drains.

Energy Supply - The facilities use natural gas only for all heat sources in the building, having the gas meter behind a cage entering the building in the basement of the old building. There is no backup heating source such as fuel oil.

Heat Generating Systems - Steam is generated in the basement of the original building by two Weil McLain K-26 natural gas fired boilers. The boilers sit on 6" high concrete pads and each have a capacity of 4200 lb/hr steam. The boilers appear to be nearing the end of their serviceable life and should be replaced within the next 5-10 years.

Distribution Systems - The boiler feed water is treated with a combination of chemicals, controlled with a Master water treatment

controller. There is a boiler feed tank with integrated controls and duplex pumps serving the boiler. The steam traps are failing throughout the building with steam constantly released into the boiler room resulting in moisture problems. The steam and condensate return lines are only partially insulated and are beyond their serviceable life; all steam piping should be insulated.

Ventilation and additional heating for the main building was provided by 2 house fans in the basement which are both non operational. The air was pushed into the various rooms of the building through ducts built into the walls. The air was exhausted from other ducts built into the walls, up through the attic space, and out through roof mounted vents. The outdoor air louvers were replaced with non-operable windows and the AHUs are currently being used as a storage area. This system is not currently operational and the only fresh air that the building receives is through the windows when open. This system has clearly been abandoned in place and if demolished and removed, would provide space for additional mechanical equipment or storage.

Ventilation in the addition is accomplished through unit ventilators. These units have steam coils for heating and have outside air intakes to provide fresh air to the addition.

Terminal & Package Units – All rooms in this facility have window air conditioning units. Approximately 75% of the air conditioning units are in service. The gymnasium has an AHU but it does not provide adequate heat; additionally, the windows are not operable. There is a concern about the fresh air supply to the gym. A study should be performed to determine the existing provided amount of fresh air versus code requirements. The third floor of the addition has 3 rooftop units that provide heat and air conditioning to the areas in the addition through diffusers in the drop ceiling.

Controls & Instrumentation - There are some pneumatic thermostats on the walls that are not in service. The pneumatic control valves on the radiators in the original building 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 addition has a rudimentary BMS system which was inoperable at the time of assessment and for over a year. The building engineer has resorted to manual control when possible to continue heat to the addition. Since this system is not working properly and is not functional, all existing controls should be removed and replaced with new DDC system.

Sprinklers - There are no sprinklers in the original building. The building addition has pressurized standpipes which was installed in 1997 when the building was constructed. There is a fire pump in the basement rated at 125psi at 1250 gpm with a jockey pump to maintain pressure. It is recommended to install a new sprinkler system throughout the original building and the addition.

Electrical

Site Electrical Service is from Medium voltage overhead lines on wooden poles along 4th St. One pad mounted utility transformer with medium voltage primary (Voltage level unknown at this time) and 208/120VAC secondary and at an estimated available power of 750 KVA is installed outside the building for supplying power to facility.

The service entrance (main distribution switchboard) of the facility is located in Boiler room in the basement of the building and consists of two 1600A compartments, utility compartment for main incoming feeder and one for one for outgoing feeders. Utility meter was installed in separate enclosure adjacent to the switchboard assembly. Service entrance is new and is in a very good condition with an ample capacity.

Power distribution is achieved through corridor located lighting/receptacle panel boards. Panel boards, tow on 2nd floor, and three on other floors, are flush mounted. It appears that panel boards and branch circuit breakers are in a good condition. The distribution system is working adequate without any major deficiencies.

There are inadequate receptacles in classrooms, computer room, etc. There is a mix of grounding type and non-grounding type receptacles observed in the class rooms and receptacles are missing on majority of class room walls. Recommendation is to have a minimum of two receptacles on classroom walls but the current installations fall short of this recommendation. The computer room is lacking the requirements for a receptacle at every three feet on a wall

Lighting in old wing of the building is not adequate. 2x4 lay in grade or 1x4 surface mounted fluorescent fixtures with outdated T-12 lamps are used. Lighting fixtures with T-12 lamps are obsolete and should be replaced. In newer wing of the building, lighting fixtures and lighting

Level is still in a good condition and replacement is not required.

Fire Alarm System in the old building is inadequate. The system is past its useful life and does not meet today's codes and should be replaced with a new, code compliant system. It is code requirement that the fire alarm systems in the old and the new wings of the building be able to communicate to each other.

Telephone/LAN systems in the buildings are working adequately.

Public address / music are not provided by separate systems in this school. The telephone system is used for public announcements. This system is working adequately.

Intercom System and paging is functioning adequately except in the gymnasium. The paging system is consists of a one way communication system from the 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 are not functioning properly. The present class change system is working adequately.

Television System is not provided in the schools

Security system, access control, and video surveillance are provided, consisting of a door contact and video surveillance system. A sufficient number of cameras are installed at exit doors, corridors and other critical areas; they are controlled by a Closed Circuit Television system (CCTV). The system is working properly.

Emergency Power Systems (back-up power generator) is old and not in working condition.

UPS (uninterruptable power supply) is provided for the Local Area Network.

Emergency Lighting System / Exit Lighting are not provided in the old wing of the school. This is a safety issue, code violation. Emergency lighting and exit lighting are appearing to be adequate.

Lightning Protection System is adequate. It is accomplished with air terminals mounted on the chimney; however, some repairs are needed. A study is needed to verify that the air terminals provide the proper coverage.

Grounding system is present and appears to be adequate in design.

There is one 25HP hydraulic type elevator manufactured by US Elevator, is provided in the school. The elevator working properly and no major deficiency observed during the assessment.

Theater Lighting and the dimming controller in main building is not adequate. Lights are turned on and off by feeder breakers. This is dangerous and should be updated to a local switching system.

Auditorium Sound System is old and should be replaced with a new PA/sound system.

Site paging system is provided and operating adequately.

Site Video Surveillance system is provided and monitored a closed circuit camera system. It appears to be operating adequately.

Grounds

Paving and parking is constructed of asphalt and in need of crack filling is some areas and repaving in other areas. There is a sunken catch basin at the entrance to the courtyard play area off N 4th Street. The entry gate at this entrance is broken and needs to be replaced. The teachers' parking lot needs to be repaved. Asphalt areas serve as parking and playground areas, separated by a chain link fence. Stairways into the front of the old building are limestone blocks (tread/riser) with grouted joints between blocks, in need regrouting. Stairs into the new additions are concrete and in fair condition. The number of required parking spaces for school staff is unknown. New handrails are required for the main entrance stairway on N. 5th Street; handrails in the stairways located in the courtyards are newer and mostly comply with today's codes.

Site fencing is wrought iron or steel post and is rusted in many areas, but generally in good condition. There are some damaged and bent fence panels in need of replacement in the area of Element 2. Brick pilasters framing the Duncannon Street stairway need to be

repointed. Granite coping blocks form the top of a low retaining wall on which the Duncannon Street fence is attached; coping blocks need to be reset.

Landscaping is in need of trimming and maintenance.

RECOMMENDATIONS

Architectural

- Strip and repaint concrete foundation (basement) walls in mechanical rooms (8000sf)
- Clean and repaint basement floor in mechanical rooms , hallways, and stairways throughout the building (13000sf)
- Replace all exterior windows with insulated single hung units (240 in old bldg. x 3.5x8)
- Repaint all exterior doors (20)3x7
- Repair flashing and counterflashing on all roofs with brick parapets (300lf)
- Repair low areas of roof (1000sf)
- Remove non-rated glass panels between most classrooms and corridors; fill with fire rated gyp bd sys. (24)
- Add two freestanding handrail systems along 4th Street stairway, complying with 2015 building codes (60ft)
- Repaint all steel doors, frames, and hardware in mechanical rooms, basement, and stairways (30)
- Refinish wood doors in addition (30)
- Replace wood doors in Element 1 with solid core wood doors with narrow vision panel (36)
- Provide security hardware for classrooms and offices, locking from the inside of the room (50)
- Repair and repaint all interior plaster walls where damaged mostly in corridors and stairways (12000)
- Provide toilet room accessories where missing or damaged (7 toilet rooms)
- Provide toilet room partitions where missing or damaged (7 toilet rooms)
- Strip, sand, repair and refinish all wood floors in classrooms (24000sf)
- Remove and replace 12”x12” VCT floors where cracked and broken in Element 1 classrooms; replace gymnasium floor (8000sf)
- Strip and refinish 12”x12” VCT floors in Classroom Addition (27,000sf)
- Replace warped and damaged 2x4 suspended acoustical tile ceiling system (9000sf)
- Repaint concrete ceilings where damaged in mechanical rooms and toilet rooms (6000sf)
- Replace moldy plaster ceiling over entrance to gymnasium addition (100sf)
- Remove and replace stairway handrails and guards with code compliant systems in Element 1 (3) 4 story (600lf rail)
- Regrout damaged masonry joints at brick posts on N. 5th Street and Duncannon sides (100sf)
- Regrout under limestone sills and repair cracked limestone heads over windows (100ft)
- Reconstruct top of wall at top over entrance to southwest addition (200sf).
- Repoint granite stairs on N 4th Street and Duncannon Street (29 treads, 12’ long)
- Add two freestanding handrails along main entrance stair, complying with 2015 building codes (60ft total length)
- Refinish auditorium seats

Mechanical

- Replace all lavatories throughout building
- Replace all water closets throughout building
- Replace all urinals throughout building
- Replace all service sinks throughout the building
- Replace all drinking fountains throughout the building
- Inspect sanitary system throughout the building and repair/replace as necessary.
- Inspect domestic water distribution system throughout the building and repair/replace as necessary.
- The boilers appear to be at the end of their serviceable life and should be replaced within the next 5 years
- Install a new DDC system and provide training for maintenance personnel
- Install a new sprinkler system
- Remove existing steam distribution system. Install hot water distribution system.
- Install chiller and chilled water distribution system
- Install unit ventilators in all classrooms
- Install AHUs to condition the cafeteria.
- Install AHUs to condition the gymnasium.
- Install AHUs to condition the auditorium

Electrical

- Install minimum of two receptacles in each wall of class rooms and sufficient number of receptacles in other areas per NEC. Add a two-compartment surface mounted raceway, for data & power in the computer lab room.
- Replace all lighting fixtures with new fluorescent lighting fixtures with T-5 lamps in old the building.
- Replace existing fire alarm system on the old building with an automatic fire alarm system including smoke detectors in corridors and other recommended areas per NEC. Install horn/strobes in class rooms, corridors, offices, toilets, library and other recommended areas per codes. Connect new fire panel to fire panel located in the new wing.
- Replace existing master clock controller.
- Install a new emergency power system including 80 KW diesel generator and respective transfer switch.
- Provide emergency power to sufficient number of lighting fixtures in corridors, hallways, stairways and other egress ways to get minimum 1fc at egress ways per code in entire building.
- Provide new stage lighting and lighting controller in the Auditorium.
- Provide new sound system including a freestanding 19" rack backstage area with a mixer, amplifiers, CD player, cassette player, AM-FM radio, graphic or parametric equalizer, and receivers

Grounds

- Repave teachers' parking lot (7000)
- Repair/repave sunken catch basin and paving at entrance courtyard (2500)
- Fill cracks in asphalt (200)
- Repaint rusted sections of steel fence (500ft)

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 1 / Tm 2
Status:	Accepted by SDP	Team:	Tm 2
Site ID:	S739001		

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	59.00 %	0.00 %	$0.00
A20 - Basement Construction	59.00 %	0.00 %	$0.00
B10 - Superstructure	59.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	54.04 %	25.33 %	$1,197,647.87
B30 - Roofing	25.00 %	3.13 %	$37,146.91
C10 - Interior Construction	64.28 %	13.40 %	$275,872.65
C20 - Stairs	59.00 %	148.05 %	$175,128.15
C30 - Interior Finishes	49.08 %	19.31 %	$802,423.06
D10 - Conveying	37.14 %	0.00 %	$0.00
D20 - Plumbing	96.11 %	72.33 %	$1,239,018.33
D30 - HVAC	107.77 %	105.10 %	$9,808,386.39
D40 - Fire Protection	105.71 %	177.71 %	$1,201,657.51
D50 - Electrical	110.11 %	46.64 %	$2,299,767.85
E10 - Equipment	21.21 %	6.80 %	$90,802.49
E20 - Furnishings	37.50 %	57.35 %	$102,479.58
G20 - Site Improvements	36.88 %	10.86 %	$73,583.04
G40 - Site Electrical Utilities	50.00 %	0.00 %	$0.00
Totals:	**73.87 %**	**40.55 %**	**$17,303,913.83**

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)
B739001;Morrison	83,894	41.21	$2,643,459.36	$6,385,381.44	$2,396,374.21	$1,754,967.92	$4,050,147.86
G739001;Grounds	42,200	8.55	$9,127.23	$37,788.87	$26,666.94	$0.00	$0.00
Total:		**40.55**	**$2,652,586.59**	**$6,423,170.31**	**$2,423,041.15**	**$1,754,967.92**	**$4,050,147.86**

Deficiencies By Priority

1 - Response Time (< 2 yr) - $2,652,586.59
2 - Response Time (2-3 yrs) - $6,423,170.31
3 - Response Time (3-4 yrs) - $2,423,041.15
4 - Response Time (4-5 yrs) - $1,754,967.92
5 - Response Time (> 5 yrs) - $4,050,147.86

Budget Estimate Total: $17,303,913.83

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):	83,894
Year Built:	1924
Last Renovation:	
Replacement Value:	$41,814,868
Repair Cost:	$17,230,330.79
Total FCI:	41.21 %
Total RSLI:	74.57 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B739001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S739001		

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	59.00 %	0.00 %	$0.00
A20 - Basement Construction	59.00 %	0.00 %	$0.00
B10 - Superstructure	59.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	54.04 %	25.33 %	$1,197,647.87
B30 - Roofing	25.00 %	3.13 %	$37,146.91
C10 - Interior Construction	64.28 %	13.40 %	$275,872.65
C20 - Stairs	59.00 %	148.05 %	$175,128.15
C30 - Interior Finishes	49.08 %	19.31 %	$802,423.06
D10 - Conveying	37.14 %	0.00 %	$0.00
D20 - Plumbing	96.11 %	72.33 %	$1,239,018.33
D30 - HVAC	107.77 %	105.10 %	$9,808,386.39
D40 - Fire Protection	105.71 %	177.71 %	$1,201,657.51
D50 - Electrical	110.11 %	46.64 %	$2,299,767.85
E10 - Equipment	21.21 %	6.80 %	$90,802.49
E20 - Furnishings	37.50 %	57.35 %	$102,479.58
Totals:	**74.57 %**	**41.21 %**	**$17,230,330.79**

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.	83,894	100	1924	2024	2074	59.00 %	0.00 %	59			$1,543,650
A1030	Slab on Grade	$7.73	S.F.	83,894	100	1924	2024	2074	59.00 %	0.00 %	59			$648,501
A2010	Basement Excavation	$6.55	S.F.	83,894	100	1924	2024	2074	59.00 %	0.00 %	59			$549,506
A2020	Basement Walls	$12.70	S.F.	83,894	100	1924	2024	2074	59.00 %	0.00 %	59			$1,065,454
B1010	Floor Construction	$75.10	S.F.	83,894	100	1924	2024	2074	59.00 %	0.00 %	59			$6,300,439
B1020	Roof Construction	$13.88	S.F.	83,894	100	1924	2024	2074	59.00 %	0.00 %	59			$1,164,449
B2010	Exterior Walls	$36.91	S.F.	83,894	100	1924	2024	2074	59.00 %	0.46 %	59		$14,296.87	$3,096,528
B2020	Exterior Windows	$18.01	S.F.	83,894	40	1993	2033		45.00 %	66.26 %	18		$1,001,204.58	$1,510,931
B2030	Exterior Doors	$1.45	S.F.	83,894	25	1993	2018	2025	40.00 %	149.73 %	10		$182,146.42	$121,646
B3010105	Built-Up	$37.76	S.F.	31,359	20	1988	2008	2020	25.00 %	3.14 %	5		$37,146.91	$1,184,116
B3010120	Single Ply Membrane	$38.73	S.F.	0	20				0.00 %	0.00 %				$0
B3010130	Preformed Metal Roofing	$54.22	S.F.	0	30				0.00 %	0.00 %				$0
B3010140	Shingle & Tile	$38.73	S.F.	0	25				0.00 %	0.00 %				$0
B3020	Roof Openings	$0.06	S.F.	31,359	20	1988	2008	2020	25.00 %	0.00 %	5			$1,882
C1010	Partitions	$17.91	S.F.	83,894	100	1924	2024	2074	59.00 %	0.31 %	59		$4,616.62	$1,502,542
C1020	Interior Doors	$3.51	S.F.	83,894	40	1924	1964	2037	55.00 %	77.67 %	22		$228,719.01	$294,468
C1030	Fittings	$3.12	S.F.	83,894	40	1924	1964	2057	105.00 %	16.25 %	42		$42,537.02	$261,749
C2010	Stair Construction	$1.41	S.F.	83,894	100	1924	2024	2074	59.00 %	148.05 %	59		$175,128.15	$118,291

Site Assessment Report - B739001;Morrison

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.	83,894	10	1993	2003	2020	50.00 %	14.69 %	5		$162,820.92	$1,108,240
C3010231	Vinyl Wall Covering	$0.97	S.F.		15				0.00 %	0.00 %				$0
C3010232	Wall Tile	$2.63	S.F.	83,894	30	1993	2023		26.67 %	0.00 %	8			$220,641
C3020411	Carpet	$7.30	S.F.	2,000	10	1993	2003	2027	120.00 %	0.00 %	12			$14,600
C3020412	Terrazzo & Tile	$75.52	S.F.	2,000	50	1924	1974	2026	22.00 %	0.00 %	11			$151,040
C3020413	Vinyl Flooring	$9.68	S.F.	35,894	20	1993	2013	2032	85.00 %	65.26 %	17		$226,763.18	$347,454
C3020414	Wood Flooring	$22.27	S.F.	24,000	25	1924	1949	2042	108.00 %	48.35 %	27		$258,406.56	$534,480
C3020415	Concrete Floor Finishes	$0.97	S.F.	20,000	50	1924	1974	2042	54.00 %	257.62 %	27		$49,978.93	$19,400
C3030	Ceiling Finishes	$20.97	S.F.	83,894	25	1924	1949	2022	28.00 %	5.94 %	7		$104,453.47	$1,759,257
D1010	Elevators and Lifts	$1.53	S.F.	83,894	35	1993	2028		37.14 %	0.00 %	13			$128,358
D2010	Plumbing Fixtures	$13.52	S.F.	83,894	35	1924	1959	2052	105.71 %	47.08 %	37		$533,949.62	$1,134,247
D2020	Domestic Water Distribution	$1.68	S.F.	83,894	25	1924	1949	2042	108.00 %	247.16 %	27		$348,353.75	$140,942
D2030	Sanitary Waste	$2.90	S.F.	83,894	25	1924	1949	2042	108.00 %	146.62 %	27		$356,714.96	$243,293
D2040	Rain Water Drainage	$2.32	S.F.	83,894	30	1924	1954	2020	16.67 %	0.00 %	5			$194,634
D3020	Heat Generating Systems	$18.67	S.F.	83,894	35	1924	1959	2052	105.71 %	67.04 %	37		$1,050,121.66	$1,566,301
D3030	Cooling Generating Systems	$24.48	S.F.	83,894	30			2047	106.67 %	68.03 %	32		$1,397,046.54	$2,053,725
D3040	Distribution Systems	$42.99	S.F.	83,894	25	1924	1949	2042	108.00 %	162.39 %	27		$5,856,660.42	$3,606,603
D3050	Terminal & Package Units	$11.60	S.F.	83,894	20	1988	2008	2037	110.00 %	0.00 %	22			$973,170
D3060	Controls & Instrumentation	$13.50	S.F.	83,894	20	1988	2008	2037	110.00 %	132.84 %	22		$1,504,557.77	$1,132,569
D4010	Sprinklers	$7.05	S.F.	83,894	35			2052	105.71 %	203.17 %	37		$1,201,657.51	$591,453
D4020	Standpipes	$1.01	S.F.	83,894	35			2052	105.71 %	0.00 %	37			$84,733
D5010	Electrical Service/Distribution	$9.70	S.F.	83,894	30	1924	1954	2047	106.67 %	0.00 %	32			$813,772
D5020	Lighting and Branch Wiring	$34.68	S.F.	83,894	20	1924	1944	2037	110.00 %	45.26 %	22		$1,316,949.51	$2,909,444
D5030	Communications and Security	$12.99	S.F.	83,894	15	1924	1939	2032	113.33 %	65.01 %	17		$708,436.85	$1,089,783
D5090	Other Electrical Systems	$1.41	S.F.	83,894	30	1924	1954	2047	106.67 %	231.95 %	32		$274,381.49	$118,291
E1020	Institutional Equipment	$4.82	S.F.	83,894	35	1924	1959	2028	37.14 %	22.46 %	13		$90,802.49	$404,369
E1090	Other Equipment	$11.10	S.F.	83,894	35	1924	1959	2020	14.29 %	0.00 %	5			$931,223
E2010	Fixed Furnishings	$2.13	S.F.	83,894	40	1924	1964	2030	37.50 %	57.35 %	15		$102,479.58	$178,694
								Total	**74.57 %**	**41.21 %**			**$17,230,330.79**	**$41,814,868**

System Notes

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

System: C1010 - Partitions — This system contains no images

Note:
block 25%
plaster or gyp on studs 75%

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

Note:
ceramic wall tile 3%
painted block or plaster 96%
wood 1%

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

Note:
concrete with sealer 24%
stained oak floor with clear sealer 28%
VCT and seamless vinyl (gym) 44%
ceramic tile 2%
carpet 2%

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:	**$17,230,331**	**$0**	**$0**	**$0**	**$0**	**$4,361,310**	**$0**	**$2,380,031**	**$307,451**	**$0**	**$179,831**	**$24,458,954**
*** 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	$14,297	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$14,297**
B2020 - Exterior Windows	$1,001,205	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,001,205**
B2030 - Exterior Doors	$182,146	$0	$0	$0	$0	$0	$0	$0	$0	$0	$179,831	**$361,977**
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	$37,147	$0	$0	$0	$0	$1,509,986	$0	$0	$0	$0	$0	**$1,547,133**
B3010120 - Single Ply Membrane	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010130 - Preformed Metal Roofing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010140 - Shingle & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3020 - Roof Openings	$0	$0	$0	$0	$0	$2,400	$0	$0	$0	$0	$0	**$2,400**
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	$4,617	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$4,617**

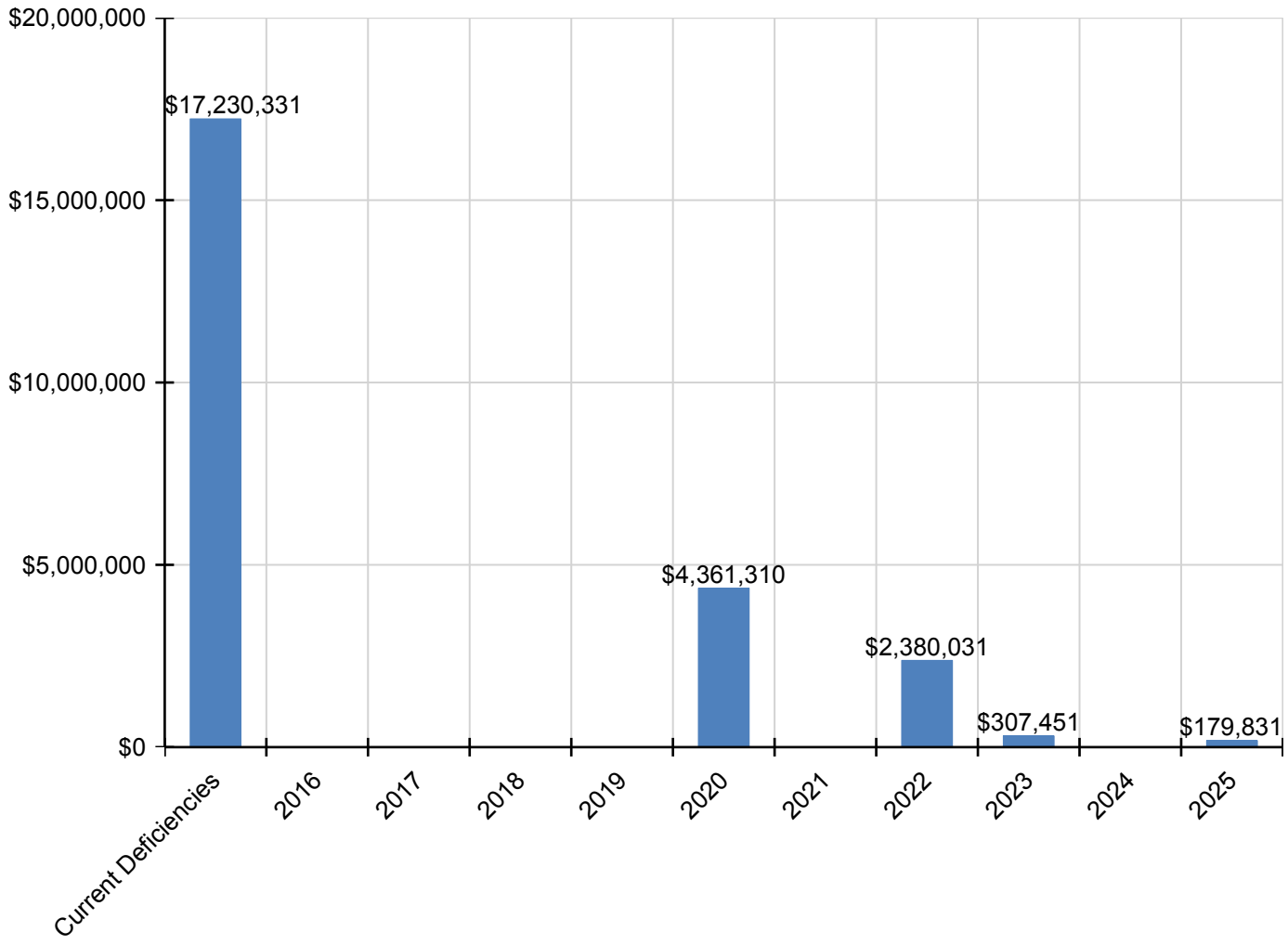
C1020 - Interior Doors	$228,719	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$228,719**
C1030 - Fittings	$42,537	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$42,537**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$175,128	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$175,128**
C30 - Interior Finishes	$0	$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	$162,821	$0	$0	$0	$0	$1,413,229	$0	$0	$0	$0	$0	**$1,576,050**
C3010231 - Vinyl Wall Covering	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010232 - Wall Tile	$0	$0	$0	$0	$0	$0	$0	$0	$307,451	$0	$0	**$307,451**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020411 - Carpet	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020413 - Vinyl Flooring	$226,763	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$226,763**
C3020414 - Wood Flooring	$258,407	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$258,407**
C3020415 - Concrete Floor Finishes	$49,979	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$49,979**
C3030 - Ceiling Finishes	$104,453	$0	$0	$0	$0	$0	$0	$2,380,031	$0	$0	$0	**$2,484,484**
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	$533,950	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$533,950**
D2020 - Domestic Water Distribution	$348,354	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$348,354**
D2030 - Sanitary Waste	$356,715	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$356,715**
D2040 - Rain Water Drainage	$0	$0	$0	$0	$0	$248,197	$0	$0	$0	$0	$0	**$248,197**
D30 - HVAC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3020 - Heat Generating Systems	$1,050,122	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,050,122**
D3030 - Cooling Generating Systems	$1,397,047	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,397,047**
D3040 - Distribution Systems	$5,856,660	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$5,856,660**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$1,504,558	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,504,558**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$1,201,658	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,201,658**
D4020 - Standpipes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

D50 - Electrical	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5010 - Electrical Service/Distribution	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5020 - Lighting and Branch Wiring	$1,316,950	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,316,950**
D5030 - Communications and Security	$708,437	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$708,437**
D5090 - Other Electrical Systems	$274,381	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$274,381**
E - Equipment & Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E10 - Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E1020 - Institutional Equipment	$90,802	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$90,802**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$1,187,498	$0	$0	$0	$0	$0	**$1,187,498**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$102,480	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$102,480**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

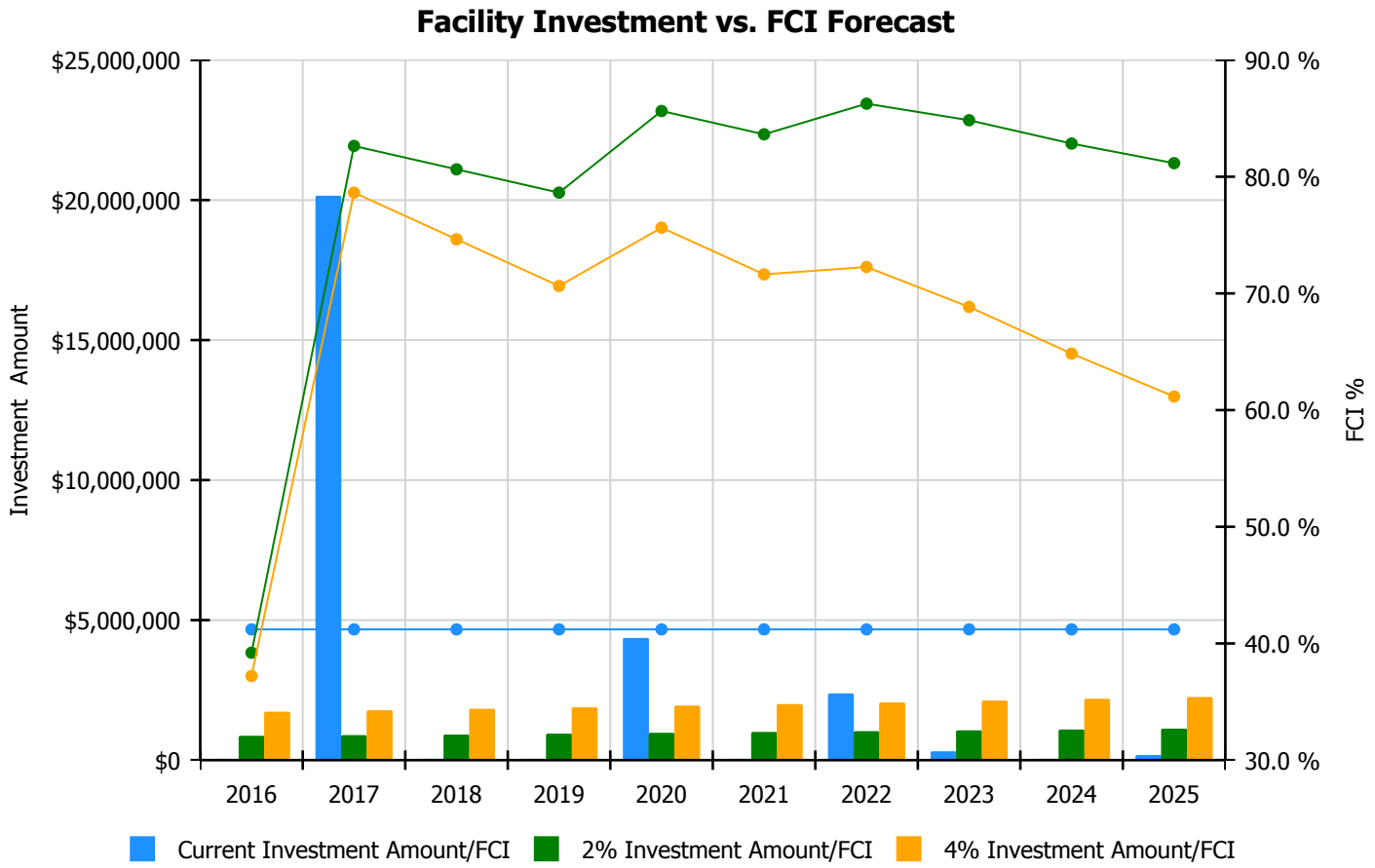
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

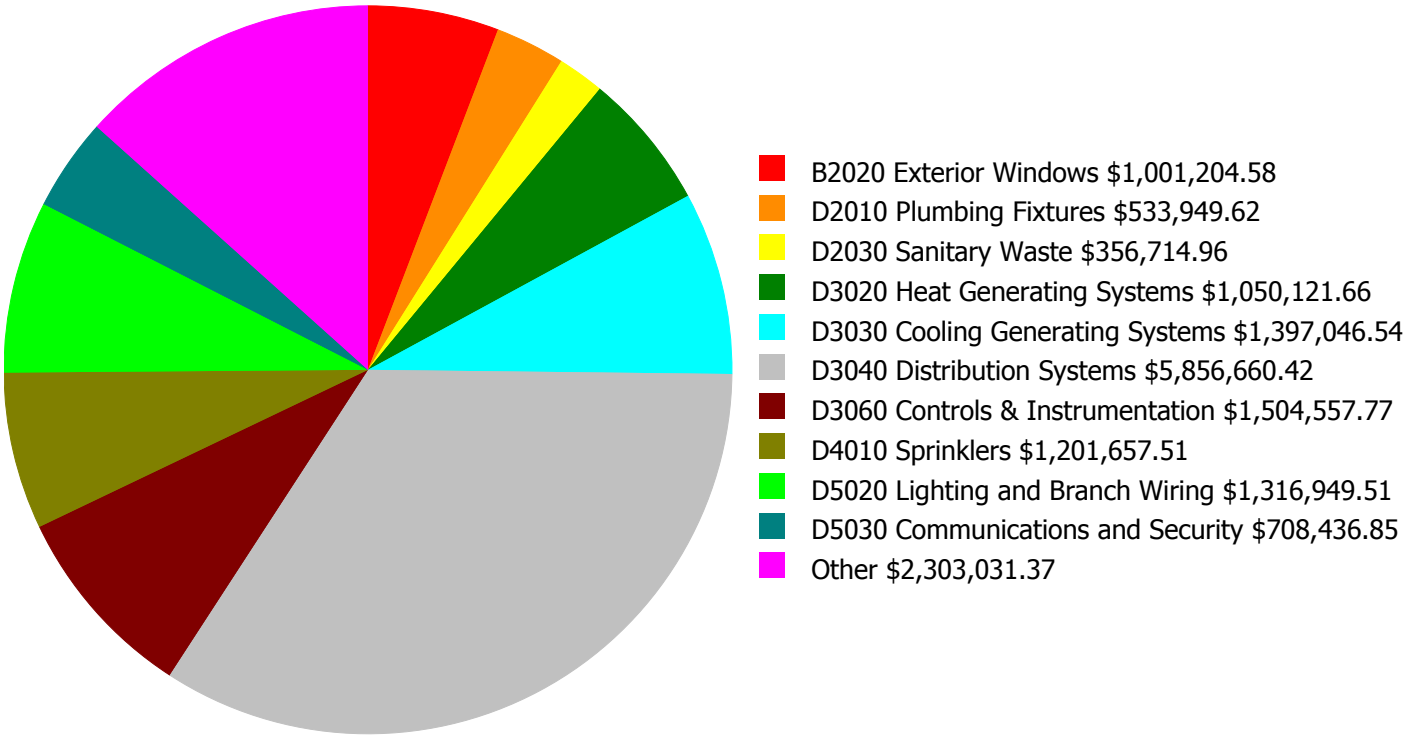
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 41.21%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$861,386.00	39.21 %	$1,722,773.00	37.21 %
2017	$20,152,930	$887,228.00	82.64 %	$1,774,456.00	78.64 %
2018	$0	$913,845.00	80.64 %	$1,827,689.00	74.64 %
2019	$0	$941,260.00	78.64 %	$1,882,520.00	70.64 %
2020	$4,361,310	$969,498.00	85.63 %	$1,938,996.00	75.63 %
2021	$0	$998,583.00	83.63 %	$1,997,166.00	71.63 %
2022	$2,380,031	$1,028,540.00	86.26 %	$2,057,081.00	72.26 %
2023	$307,451	$1,059,396.00	84.84 %	$2,118,793.00	68.84 %
2024	$0	$1,091,178.00	82.84 %	$2,182,357.00	64.84 %
2025	$179,831	$1,123,914.00	81.16 %	$2,247,827.00	61.16 %
Total:	**$27,381,552**	**$9,874,828.00**		**$19,749,658.00**	

Deficiency Summary by System

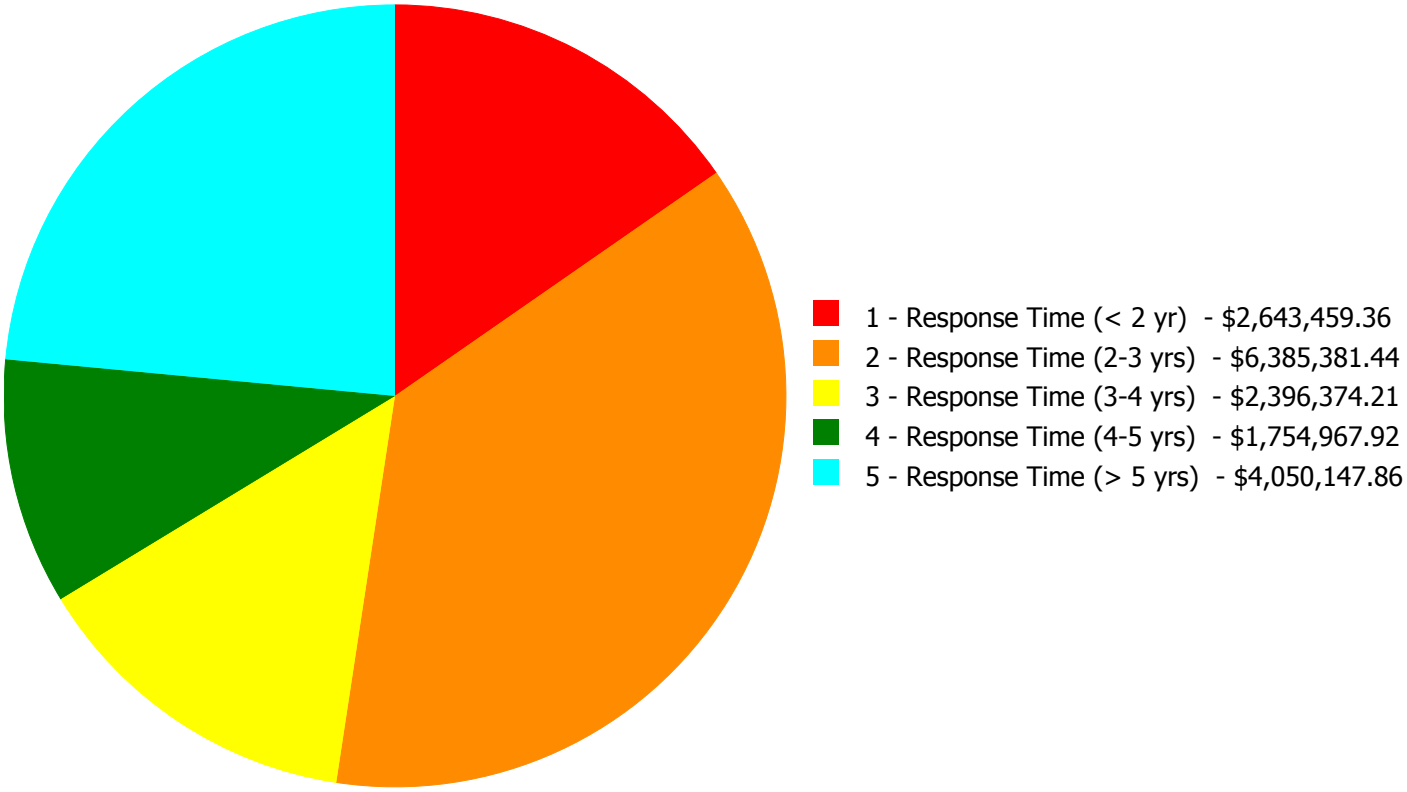
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $17,230,330.79

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: $17,230,330.79

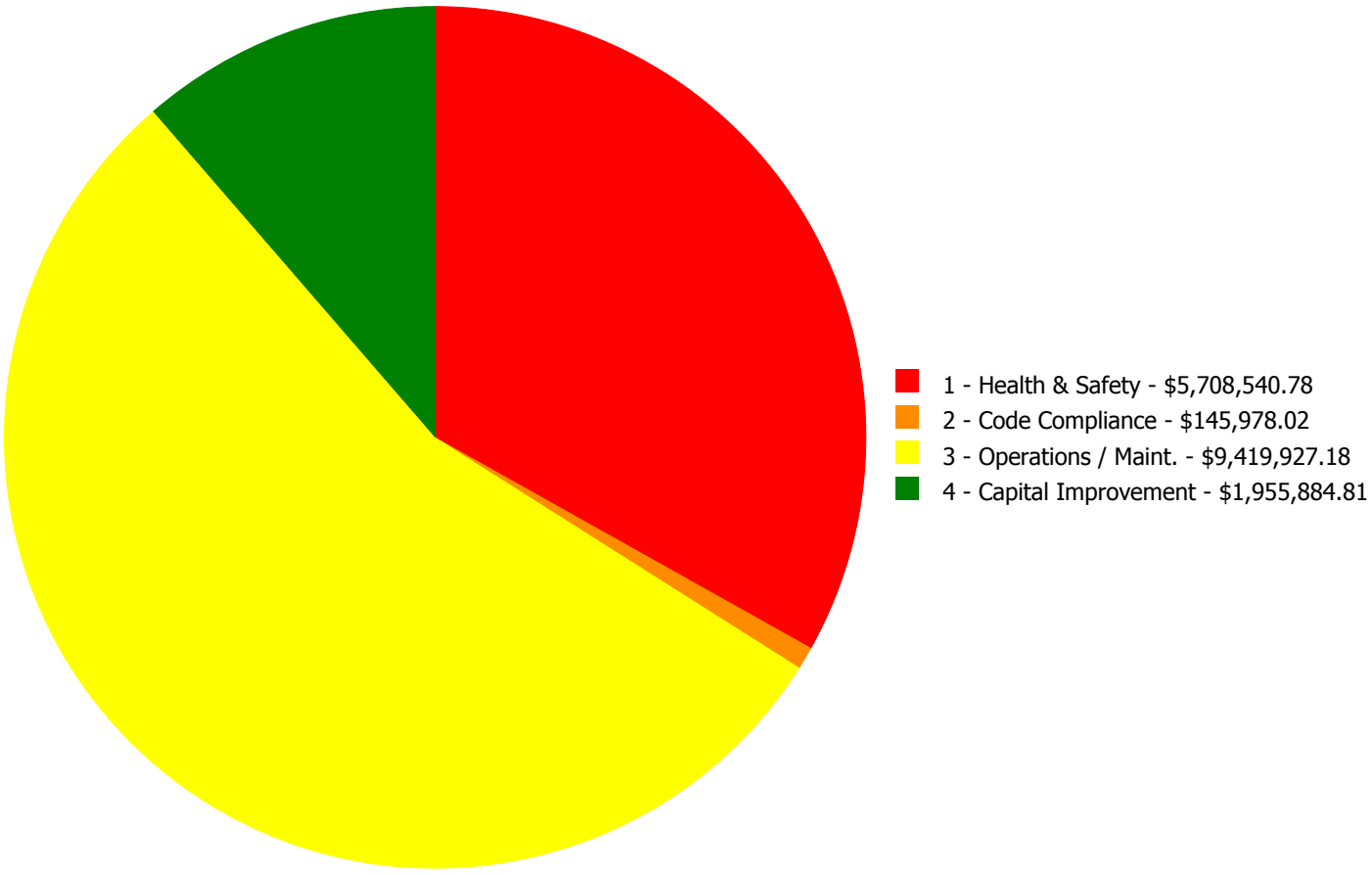
Deficiency By Priority Investment Table

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	$6,457.90	$7,838.97	$0.00	$0.00	$0.00	$14,296.87
B2020	Exterior Windows	$0.00	$1,001,204.58	$0.00	$0.00	$0.00	$1,001,204.58
B2030	Exterior Doors	$0.00	$182,146.42	$0.00	$0.00	$0.00	$182,146.42
B3010105	Built-Up	$37,146.91	$0.00	$0.00	$0.00	$0.00	$37,146.91
C1010	Partitions	$0.00	$4,616.62	$0.00	$0.00	$0.00	$4,616.62
C1020	Interior Doors	$0.00	$228,719.01	$0.00	$0.00	$0.00	$228,719.01
C1030	Fittings	$34,156.06	$8,380.96	$0.00	$0.00	$0.00	$42,537.02
C2010	Stair Construction	$175,128.15	$0.00	$0.00	$0.00	$0.00	$175,128.15
C3010230	Paint & Covering	$0.00	$162,820.92	$0.00	$0.00	$0.00	$162,820.92
C3020413	Vinyl Flooring	$0.00	$226,763.18	$0.00	$0.00	$0.00	$226,763.18
C3020414	Wood Flooring	$0.00	$258,406.56	$0.00	$0.00	$0.00	$258,406.56
C3020415	Concrete Floor Finishes	$0.00	$49,978.93	$0.00	$0.00	$0.00	$49,978.93
C3030	Ceiling Finishes	$0.00	$6,296.16	$98,157.31	$0.00	$0.00	$104,453.47
D2010	Plumbing Fixtures	$0.00	$93,638.02	$0.00	$348,131.30	$92,180.30	$533,949.62
D2020	Domestic Water Distribution	$0.00	$0.00	$0.00	$0.00	$348,353.75	$348,353.75
D2030	Sanitary Waste	$0.00	$0.00	$0.00	$356,714.96	$0.00	$356,714.96
D3020	Heat Generating Systems	$0.00	$0.00	$0.00	$1,050,121.66	$0.00	$1,050,121.66
D3030	Cooling Generating Systems	$0.00	$0.00	$0.00	$0.00	$1,397,046.54	$1,397,046.54
D3040	Distribution Systems	$0.00	$4,052,091.53	$793,659.13	$0.00	$1,010,909.76	$5,856,660.42
D3060	Controls & Instrumentation	$0.00	$0.00	$1,504,557.77	$0.00	$0.00	$1,504,557.77
D4010	Sprinklers	$0.00	$0.00	$0.00	$0.00	$1,201,657.51	$1,201,657.51
D5020	Lighting and Branch Wiring	$1,316,949.51	$0.00	$0.00	$0.00	$0.00	$1,316,949.51
D5030	Communications and Security	$708,436.85	$0.00	$0.00	$0.00	$0.00	$708,436.85
D5090	Other Electrical Systems	$274,381.49	$0.00	$0.00	$0.00	$0.00	$274,381.49
E1020	Institutional Equipment	$90,802.49	$0.00	$0.00	$0.00	$0.00	$90,802.49
E2010	Fixed Furnishings	$0.00	$102,479.58	$0.00	$0.00	$0.00	$102,479.58
	Total:	$2,643,459.36	$6,385,381.44	$2,396,374.21	$1,754,967.92	$4,050,147.86	$17,230,330.79

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: $17,230,330.79

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 brick wall - addition
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Repair cracks in masonry - replace missing mortar and repoint - SF of wall area
Qty: 200.00
Unit of Measure: S.F.
Estimate: $6,457.90
Assessor Name: System
Date Created: 08/11/2015

Notes: Reconstruct top of wall at top over entrance to southwest addition

System: B3010105 - Built-Up

Location: roofs
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Blister or membrane repair - partial areas
Qty: 1,000.00
Unit of Measure: S.F.
Estimate: $20,345.84
Assessor Name: System
Date Created: 08/11/2015

Notes: Repair flashing and counterflashing on all roofs with brick parapets

System: B3010105 - Built-Up

Location: roof parapets

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: 300.00

Unit of Measure: L.F.

Estimate: $16,801.07

Assessor Name: System

Date Created: 08/11/2015

Notes: Repair flashing and counterflashing on all roofs with brick parapets

System: C1030 - Fittings

Location: toilet rooms

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Replace toilet accessories - select accessories and quantity

Qty: 7.00

Unit of Measure: Ea.

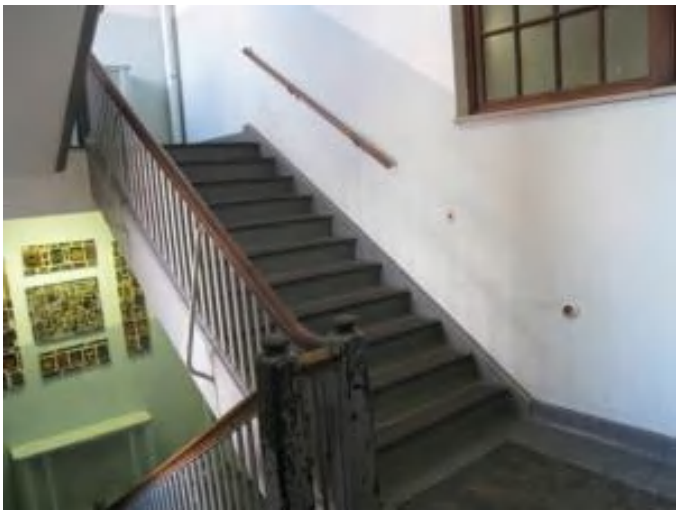
Estimate: $34,156.06

Assessor Name: System

Date Created: 08/11/2015

Notes: Provide toilet room accessories where missing or damaged

System: C2010 - Stair Construction



Location: stairways - old building

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: 300.00

Unit of Measure: L.F.

Estimate: $140,427.23

Assessor Name: System

Date Created: 08/11/2015

Notes: Remove and replace stairway handrails and guards with code compliant systems in Element 1 (3) 4 story wall mounted handrails; center mounted railings and balustrade

System: C2010 - Stair Construction

Location: exterior entrance stairs

Distress: Failing

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Repair exterior stairs

Qty: 29.00

Unit of Measure: Riser

Estimate: $33,766.75

Assessor Name: System

Date Created: 08/11/2015

Notes: Repoint granite stairs on N 4th Street and Duncannon Street

System: C2010 - Stair Construction

Location: exterior entrance stairway

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 1 - Response Time (< 2 yr)

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

Qty: 60.00

Unit of Measure: L.F.

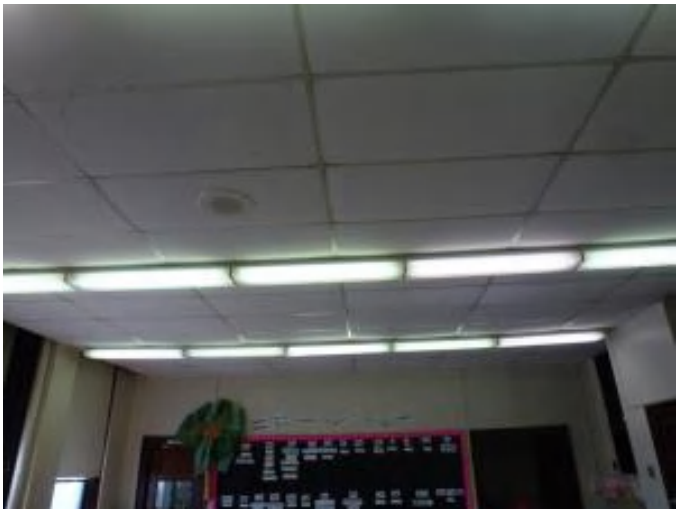
Estimate: $934.17

Assessor Name: System

Date Created: 08/11/2015

Notes: Add two freestanding handrail systems along 4th Street stairway, complying with 2015 building codes

System: D5020 - Lighting and Branch Wiring



Location: Entire Building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Replace Lighting Fixtures (SF)

Qty: 1.00

Unit of Measure: S.F.

Estimate: $606,886.47

Assessor Name: System

Date Created: 08/06/2015

Notes: Replace all lighting fixtures with new fluorescent lighting fixtures with T-5 lamps in old the building.

System: D5020 - Lighting and Branch Wiring

Location: Entire building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 1 - Response Time (< 2 yr)

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

Qty: 1.00

Unit of Measure: S.F.

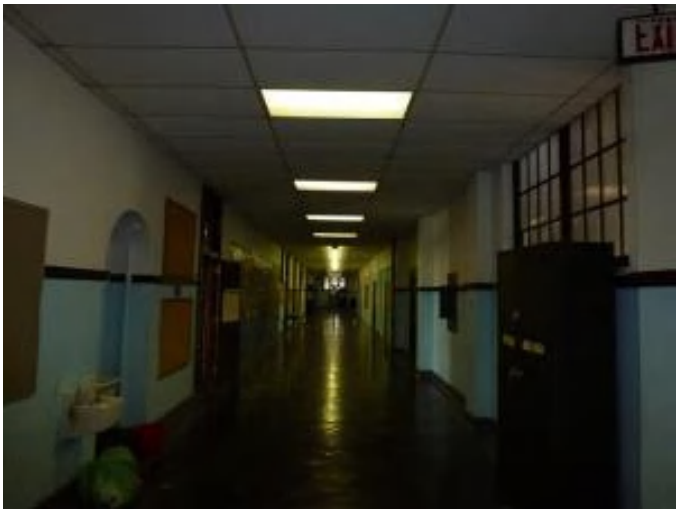
Estimate: $558,838.27

Assessor Name: System

Date Created: 08/06/2015

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

System: D5020 - Lighting and Branch Wiring



Location: Entire Building

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

Priority: 1 - Response Time (< 2 yr)

Correction: Add wiring device

Qty: 1.00

Unit of Measure: Ea.

Estimate: $151,224.77

Assessor Name: System

Date Created: 08/06/2015

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

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.

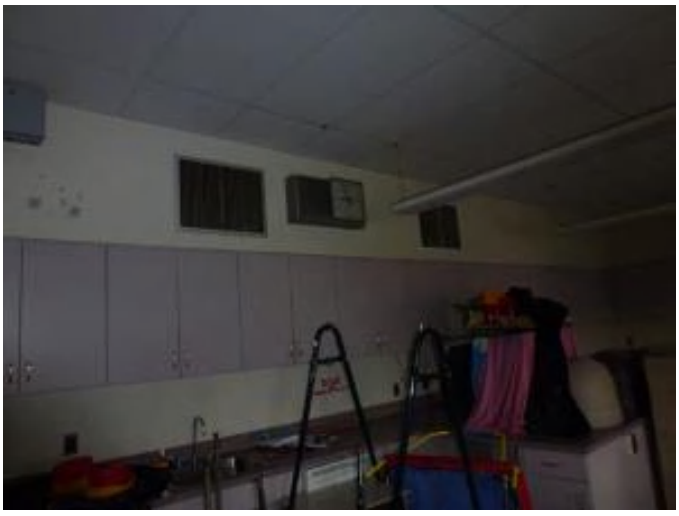
Estimate: $481,009.64

Assessor Name: System

Date Created: 08/06/2015

Notes: Replace existing fire alarm system on the old building with an automatic fire alarm system including smoke detectors in corridors and other recommended areas per NEC. Install horn/strobes in class rooms, corridors, offices, toilets, library and other recommended areas per codes. Connect new fire panel to fire panel located in the new wing. recommended areas per 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: $164,874.77

Assessor Name: System

Date Created: 08/06/2015

Notes: Replace existing master clock controller.

System: D5030 - Communications and Security

This deficiency has no image.

Location: Auditorium
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Add/Replace Sound System
Qty: 1.00
Unit of Measure: LS
Estimate: $44,838.79
Assessor Name: System
Date Created: 08/06/2015

Notes: Provide new sound system including a freestanding 19" rack backstage area with a mixer, amplifiers, CD player, cassette player, AM-FM radio, graphic or parametric equalizer, and receivers

System: D5030 - Communications and Security

Location: exterior
Distress: Security Issue
Category: 1 - Health & Safety
Priority: 1 - Response Time (< 2 yr)
Correction: Add/Replace Paging System
Qty: 1.00
Unit of Measure: Ea.
Estimate: $17,713.65
Assessor Name: System
Date Created: 08/06/2015

Notes: Provide sufficient numbers of outdoor speakers in exterior walls.

System: D5090 - Other Electrical Systems

Location: Boiler Room in the basement

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

Priority: 1 - Response Time (< 2 yr)

Correction: Replace standby generator system

Qty: 1.00

Unit of Measure: Ea.

Estimate: $248,314.26

Assessor Name: System

Date Created: 08/06/2015

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

System: D5090 - Other Electrical Systems

Location: roof and chimney

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: $26,067.23

Assessor Name: System

Date Created: 08/06/2015

Notes: Perform Grounding and lightning protection studies to ascertain adequacy of existing systems.

System: E1020 - Institutional Equipment

Location: Auditorium

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Add/Replace Stage Theatrical Lighting System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $90,802.49

Assessor Name: System

Date Created: 08/06/2015

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

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

System: B2010 - Exterior Walls

Location: exterior limestone panels - old building

Distress: Damaged

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: $4,610.03

Assessor Name: System

Date Created: 08/11/2015

Notes: Regrout under limestone sills and repair cracked limestone heads over windows

System: B2010 - Exterior Walls

Location: exterior brick structures along street

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 100.00

Unit of Measure: S.F.

Estimate: $3,228.94

Assessor Name: System

Date Created: 08/11/2015

Notes: Regrout damaged masonry joints at brick posts on N. 5th Street and Duncannon sides

System: B2020 - Exterior Windows

Location: windows

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: 240.00

Unit of Measure: Ea.

Estimate: $1,001,204.58

Assessor Name: System

Date Created: 08/11/2015

Notes: Replace all exterior windows with insulated single hung units

System: B2030 - Exterior Doors

Location: exterior doors

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Remove and replace exterior doors - per leaf

Qty: 20.00

Unit of Measure: Ea.

Estimate: $182,146.42

Assessor Name: System

Date Created: 08/11/2015

Notes: Repaint all exterior doors

System: C1010 - Partitions

Location: corridors - old building

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

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

Qty: 200.00

Unit of Measure: S.F.

Estimate: $4,616.62

Assessor Name: System

Date Created: 08/11/2015

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

System: C1020 - Interior Doors

Location: interior doors in old building

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: 36.00

Unit of Measure: Ea.

Estimate: $167,556.20

Assessor Name: System

Date Created: 08/11/2015

Notes: Replace wood doors in Element 1 with solid core wood doors with narrow vision panel

System: C1020 - Interior Doors

Location: interior doors
Distress: Appearance
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Refinish interior doors
Qty: 30.00
Unit of Measure: Ea.
Estimate: $24,845.49
Assessor Name: System
Date Created: 08/11/2015

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

System: C1020 - Interior Doors

Location: interior doors in addition
Distress: Appearance
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Refinish interior doors
Qty: 30.00
Unit of Measure: Ea.
Estimate: $24,845.49
Assessor Name: System
Date Created: 08/11/2015

Notes: Refinish wood doors in addition

System: C1020 - Interior Doors

Location: classroom and office doors

Distress: Security Issue

Category: 1 - Health & Safety

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: System

Date Created: 08/11/2015

Notes: Provide security hardware for classrooms and offices, locking from the inside of the room

System: C1030 - Fittings

Location: toilet rooms - old building

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace damaged toilet paritions - handicap units

Qty: 7.00

Unit of Measure: Ea.

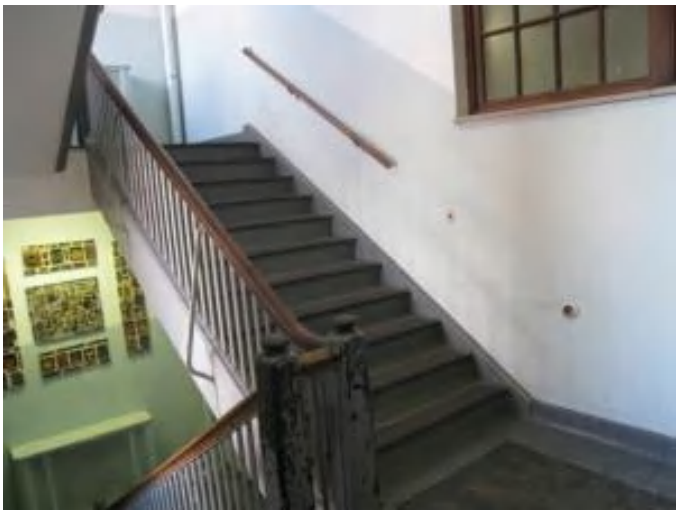
Estimate: $8,380.96

Assessor Name: System

Date Created: 08/11/2015

Notes: Provide toilet room partitions where missing or damaged

System: C3010230 - Paint & Covering



Location: walls - old building

Distress: Appearance

Category: 3 - Operations / Maint.

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

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

Qty: 12,000.00

Unit of Measure: S.F.

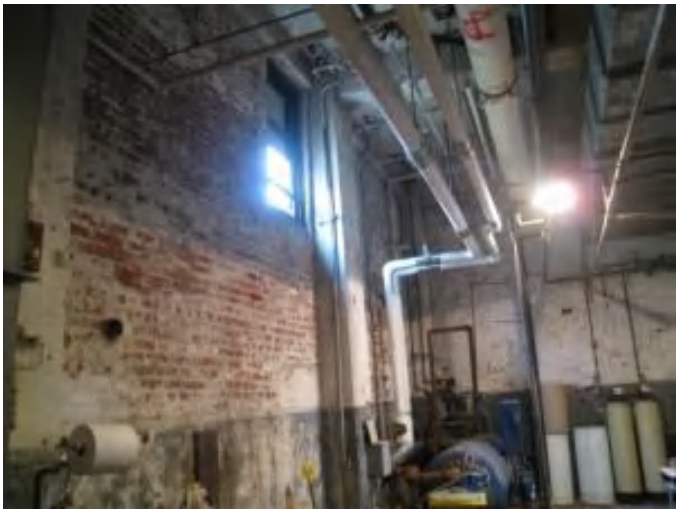
Estimate: $102,804.91

Assessor Name: System

Date Created: 08/11/2015

Notes: Repair and repaint all interior plaster walls where damaged mostly in corridors and stairways

System: C3010230 - Paint & Covering



Location: mechanical room

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 8,000.00

Unit of Measure: S.F.

Estimate: $60,016.01

Assessor Name: System

Date Created: 08/11/2015

Notes: Repaint mechanical room walls

System: C3020413 - Vinyl Flooring

Location: old building and gymnasium

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace vinyl sheet flooring

Qty: 8,000.00

Unit of Measure: S.F.

Estimate: $146,489.25

Assessor Name: System

Date Created: 08/11/2015

Notes: Remove and replace 12”x12” VCT floors where cracked and broken in Element 1 classrooms; replace gymnasium floor

System: C3020413 - Vinyl Flooring

Location: floors - addition

Distress: Appearance

Category: 3 - Operations / Maint.

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

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

Qty: 27,000.00

Unit of Measure: S.F.

Estimate: $80,273.93

Assessor Name: System

Date Created: 08/11/2015

Notes: Strip and refinish 12”x12” VCT floors in Classroom Addition

System: C3020414 - Wood Flooring

Location: classrooms - old building

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Refinish wood floors

Qty: 24,000.00

Unit of Measure: S.F.

Estimate: $258,406.56

Assessor Name: System

Date Created: 08/11/2015

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

System: C3020415 - Concrete Floor Finishes

Location: mechanical room, corridors, stairways - old building

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Clean and reseal concrete floors

Qty: 13,000.00

Unit of Measure: S.F.

Estimate: $49,978.93

Assessor Name: System

Date Created: 08/11/2015

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

System: C3030 - Ceiling Finishes

Location: soffit - addition entrance

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Ceiling mold remediation - select the material and insert quantities

Qty: 100.00

Unit of Measure: S.F.

Estimate: $6,296.16

Assessor Name: System

Date Created: 08/11/2015

Notes: Replace moldy plaster ceiling over entrance to gymnasium addition

System: D2010 - Plumbing Fixtures

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or replace wall hung urinals

Qty: 22.00

Unit of Measure: Ea.

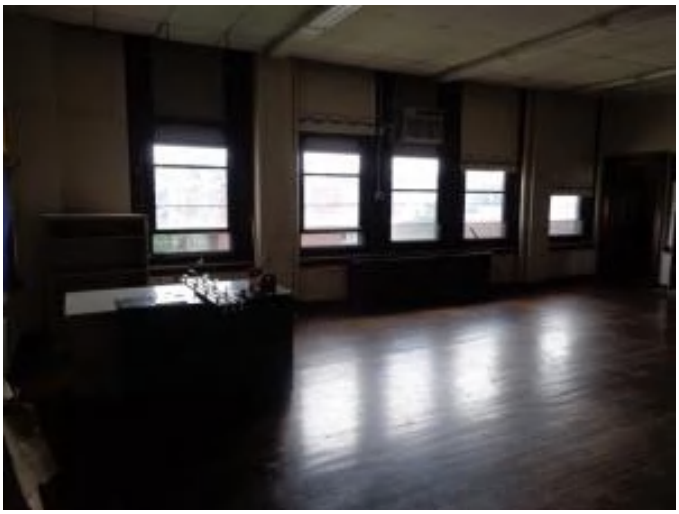
Estimate: $93,638.02

Assessor Name: System

Date Created: 08/27/2015

Notes: Replace all urinals throughout building

System: D3040 - Distribution Systems



Location: Throughout the building

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

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

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

Qty: 84,000.00

Unit of Measure: S.F.

Estimate: $4,052,091.53

Assessor Name: System

Date Created: 08/27/2015

Notes: Install unit ventilators in all classrooms

System: E2010 - Fixed Furnishings

Location: auditorium

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 400.00

Unit of Measure: Ea.

Estimate: $102,479.58

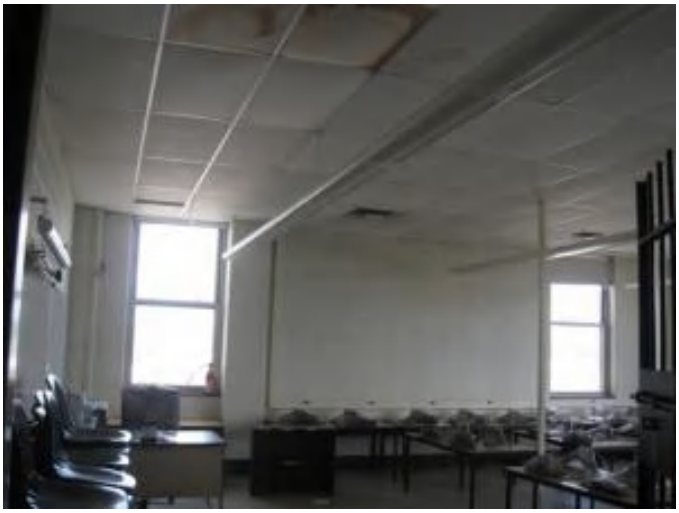
Assessor Name: System

Date Created: 08/11/2015

Notes: Refinish auditorium seats

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

System: C3030 - Ceiling Finishes



Location: ceilings

Distress: Appearance

Category: 3 - Operations / Maint.

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

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

Qty: 9,000.00

Unit of Measure: S.F.

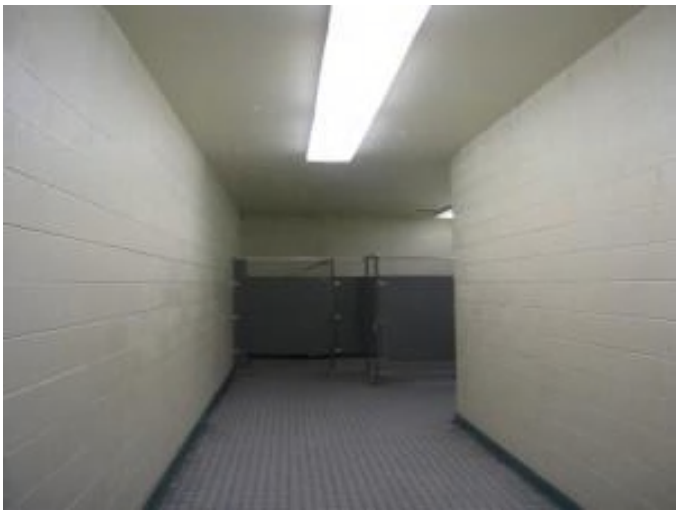
Estimate: $69,435.14

Assessor Name: System

Date Created: 08/11/2015

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

System: C3030 - Ceiling Finishes



Location: ceilings in mechanical rooms and toilet rooms

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Re-paint ceilings - SF of ceilings

Qty: 6,000.00

Unit of Measure: S.F.

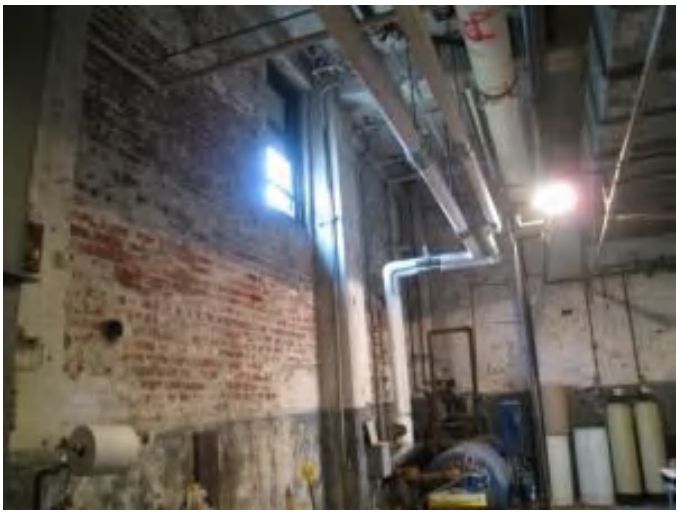
Estimate: $28,722.17

Assessor Name: System

Date Created: 08/11/2015

Notes: Repaint concrete ceilings where damaged in mechanical rooms and toilet rooms

System: D3040 - Distribution Systems



Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 83,893.00

Unit of Measure: S.F.

Estimate: $793,659.13

Assessor Name: System

Date Created: 08/27/2015

Notes: Remove existing steam distribution system. Install hot water distribution system.

System: D3060 - Controls & Instrumentation

Location: Throughout the building

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Replace pneumatic controls with DDC (150KSF)

Qty: 84,000.00

Unit of Measure: S.F.

Estimate: $1,504,557.77

Assessor Name: System

Date Created: 08/27/2015

Notes: Install a new DDC system and provide training for maintenance personnel

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

System: D2010 - Plumbing Fixtures

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or replace water closet - quantify additional units

Qty: 22.00

Unit of Measure: Ea.

Estimate: $164,167.25

Assessor Name: System

Date Created: 08/27/2015

Notes: Replace all water closets throughout building

System: D2010 - Plumbing Fixtures

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 10.00

Unit of Measure: Ea.

Estimate: $156,928.96

Assessor Name: System

Date Created: 08/27/2015

Notes: Replace all drinking fountains throughout the building

System: D2010 - Plumbing Fixtures

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 5.00

Unit of Measure: Ea.

Estimate: $27,035.09

Assessor Name: System

Date Created: 08/27/2015

Notes: Replace all service sinks throughout the building

System: D2030 - Sanitary Waste

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 84,000.00

Unit of Measure: S.F.

Estimate: $356,714.96

Assessor Name: System

Date Created: 08/27/2015

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

System: D3020 - Heat Generating Systems

Location: Boiler Mechanical Equipment Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 2.00

Unit of Measure: Ea.

Estimate: $1,050,121.66

Assessor Name: System

Date Created: 08/27/2015

Notes: The boilers appear to be at the end of their serviceable life and should be replaced within the next 5 years

Priority 5 - Response Time (> 5 yrs):

System: D2010 - Plumbing Fixtures

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 20.00

Unit of Measure: Ea.

Estimate: $92,180.30

Assessor Name: System

Date Created: 08/27/2015

Notes: Replace all lavatories throughout building

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: 84,000.00

Unit of Measure: S.F.

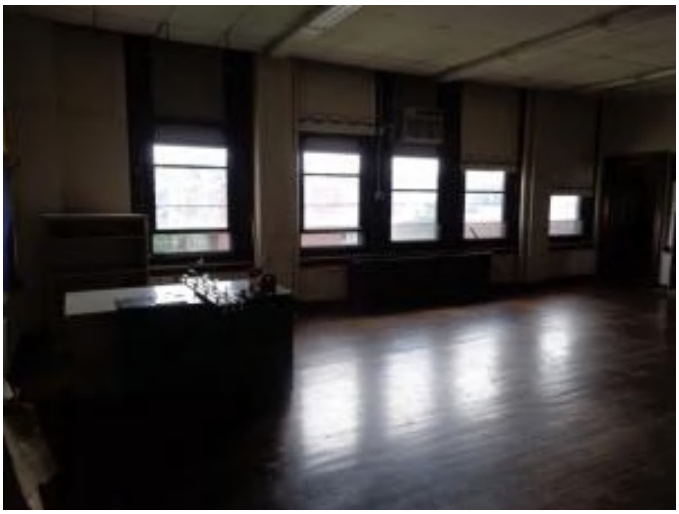
Estimate: $348,353.75

Assessor Name: System

Date Created: 08/27/2015

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

System: D3030 - Cooling Generating Systems



Location: Throughout the 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: 84,000.00

Unit of Measure: S.F.

Estimate: $1,397,046.54

Assessor Name: System

Date Created: 08/27/2015

Notes: Install chiller and chilled water distribution system

System: D3040 - Distribution Systems

Location: Auditorium

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 250.00

Unit of Measure: Seat

Estimate: $356,356.80

Assessor Name: System

Date Created: 08/27/2015

Notes: Install AHUs to condition the auditorium

System: D3040 - Distribution Systems

Location: Cafeteria
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 5 - Response Time (> 5 yrs)
Correction: Install HVAC unit for Cafeteria (850 students).
Qty: 700.00
Unit of Measure: Pr.
Estimate: $327,276.48
Assessor Name: System
Date Created: 08/27/2015

Notes: Install AHUs to condition the cafeteria

System: D3040 - Distribution Systems

Location: Gymnasium
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 5 - Response Time (> 5 yrs)
Correction: Install HVAC unit for Cafeteria (850 students).
Qty: 700.00
Unit of Measure: Pr.
Estimate: $327,276.48
Assessor Name: System
Date Created: 08/27/2015

Notes: Install AHUs to condition the gymnasium

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:	84,000.00
Unit of Measure:	S.F.
Estimate:	$1,201,657.51
Assessor Name:	System
Date Created:	08/27/2015

Notes: Install a new sprinkler system

Equipment Inventory

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

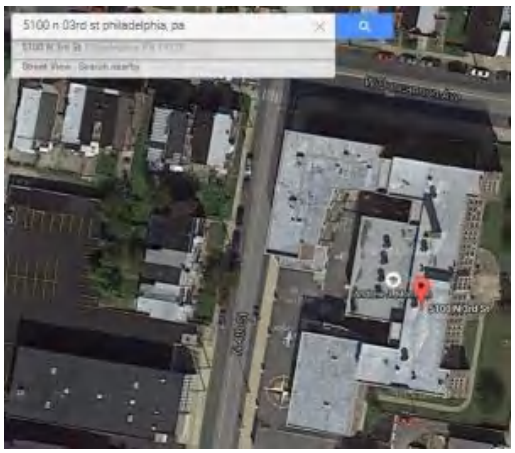
Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D3020 Heat Generating Systems	Boiler, gas fired, natural or propane, cast iron, steam, gross output, 5660 MBH, includes standard controls and insulated jacket, packaged	1.00	Ea.	boiler room	Weil McLain	K-26 series 1			35	1980	2015	$115,609.50	$127,170.45
D3020 Heat Generating Systems	Boiler, gas fired, natural or propane, cast iron, steam, gross output, 5660 MBH, includes standard controls and insulated jacket, packaged	1.00	Ea.	boiler room	Weil McLain	K-26 series 1			35	1980	2015	$115,609.50	$127,170.45
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 1600 A	1.00	Ea.	Boiler Room					30	1988	2025	$40,458.15	$44,503.97
												Total:	**$298,844.87**

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:	
Gross Area (SF):	42,200
Year Built:	1924
Last Renovation:	
Replacement Value:	$860,852
Repair Cost:	$73,583.04
Total FCI:	8.55 %
Total RSLI:	39.67 %



Description:

Attributes:

General Attributes:

Bldg ID:	S739001	Site ID:	S739001

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	36.88 %	10.86 %	$73,583.04
G40 - Site Electrical Utilities	50.00 %	0.00 %	$0.00
Totals:	**39.67 %**	**8.55 %**	**$73,583.04**

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.	5,000	30	1993	2023		26.67 %	0.00 %	8			$57,600
G2020	Parking Lots	$7.65	S.F.	15,000	30	1993	2023		26.67 %	35.69 %	8		$40,953.01	$114,750
G2030	Pedestrian Paving	$11.52	S.F.	23,200	40	1993	2033		45.00 %	0.00 %	18			$267,264
G2040	Site Development	$4.36	S.F.	42,200	25	1993	2018	2021	24.00 %	17.73 %	6		$32,630.03	$183,992
G2050	Landscaping & Irrigation	$3.78	S.F.	14,200	15	1993	2008	2026	73.33 %	0.00 %	11			$53,676
G4020	Site Lighting	$3.58	S.F.	42,200	30	1993	2023	2030	50.00 %	0.00 %	15			$151,076
G4030	Site Communications & Security	$0.77	S.F.	42,200	30	1993	2023	2030	50.00 %	0.00 %	15			$32,494
								Total	**39.67 %**	**8.55 %**			**$73,583.04**	**$860,852**

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.

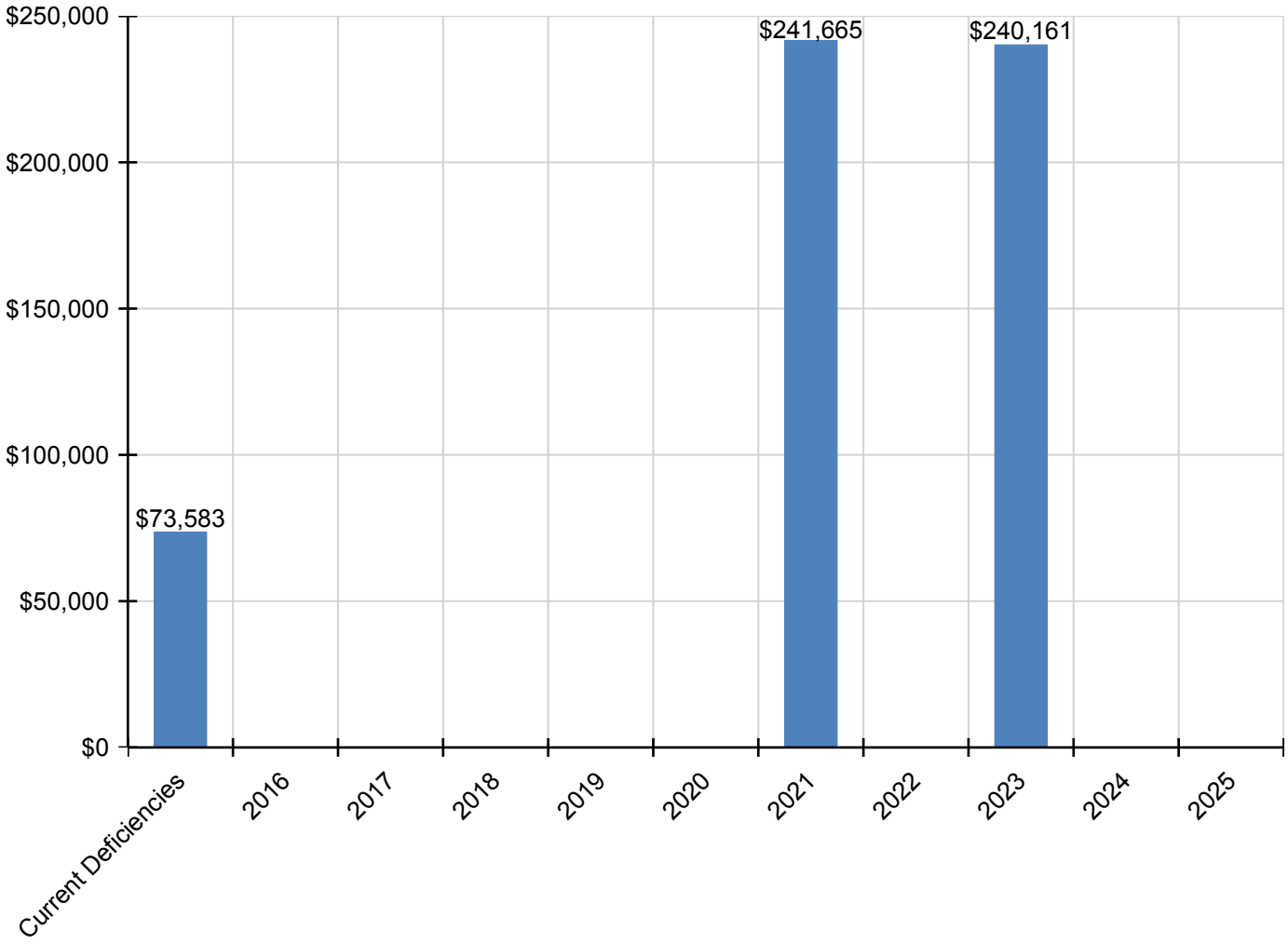
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$73,583**	**$0**	**$0**	**$0**	**$0**	**$0**	**$241,665**	**$0**	**$240,161**	**$0**	**$0**	**$555,409**
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	$80,263	$0	$0	**$80,263**
G2020 - Parking Lots	$40,953	$0	$0	$0	$0	$0	$0	$0	$159,898	$0	$0	**$200,851**
G2030 - Pedestrian Paving	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2040 - Site Development	$32,630	$0	$0	$0	$0	$0	$241,665	$0	$0	$0	$0	**$274,295**
G2050 - Landscaping & Irrigation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G40 - Site Electrical Utilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4020 - Site Lighting	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4030 - Site Communications & Security	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

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

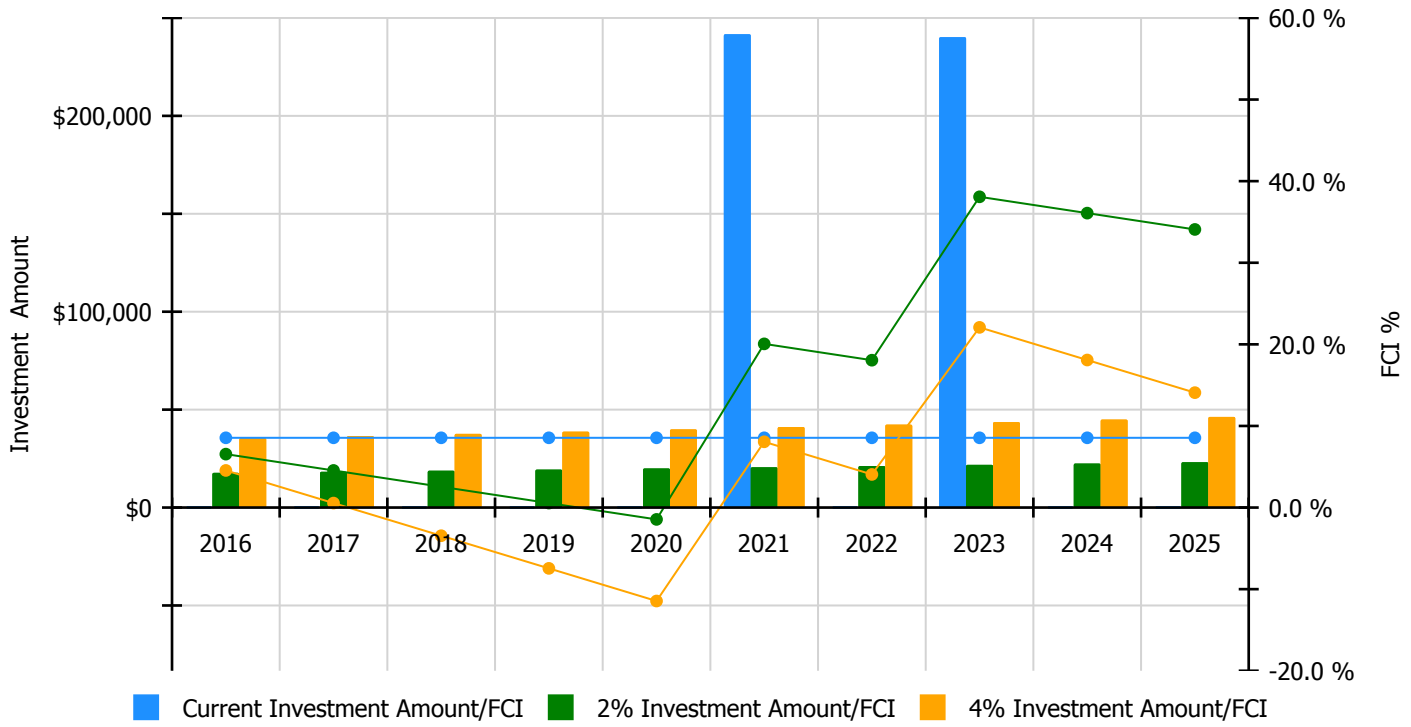


10 Year FCI Forecast by Investment Scenario

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

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

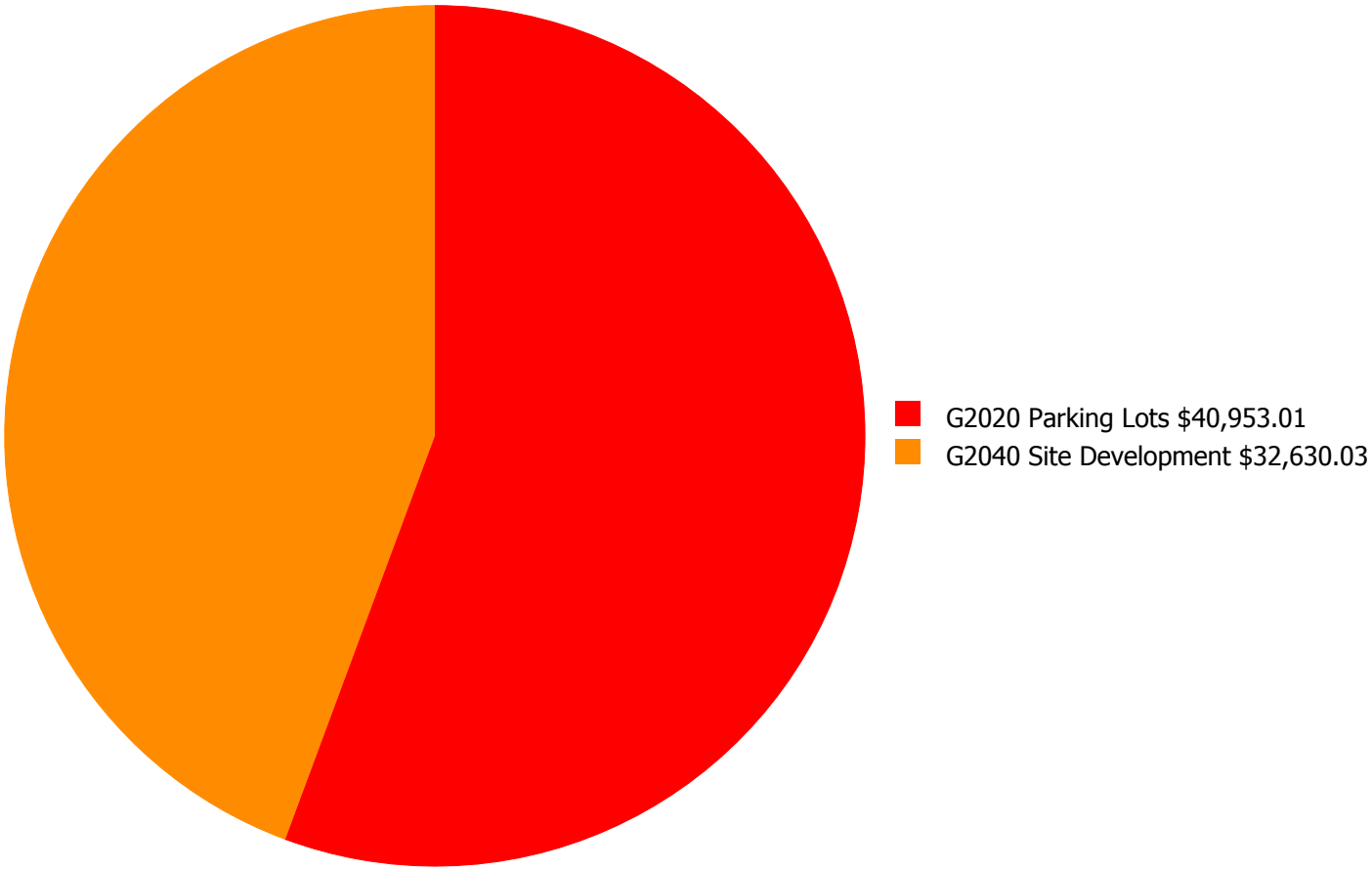
Facility Investment vs. FCI Forecast



Year	Investment Amount Current FCI - 8.55%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$17,734.00	6.55 %	$35,467.00	4.55 %
2017	$0	$18,266.00	4.55 %	$36,531.00	0.55 %
2018	$0	$18,814.00	2.55 %	$37,627.00	-3.45 %
2019	$0	$19,378.00	0.55 %	$38,756.00	-7.45 %
2020	$0	$19,959.00	-1.45 %	$39,919.00	-11.45 %
2021	$241,665	$20,558.00	20.06 %	$41,116.00	8.06 %
2022	$0	$21,175.00	18.06 %	$42,350.00	4.06 %
2023	$240,161	$21,810.00	38.08 %	$43,620.00	22.08 %
2024	$0	$22,464.00	36.08 %	$44,929.00	18.08 %
2025	$0	$23,138.00	34.08 %	$46,277.00	14.08 %
Total:	**$481,826**	**$203,296.00**		**$406,592.00**	

Deficiency Summary by System

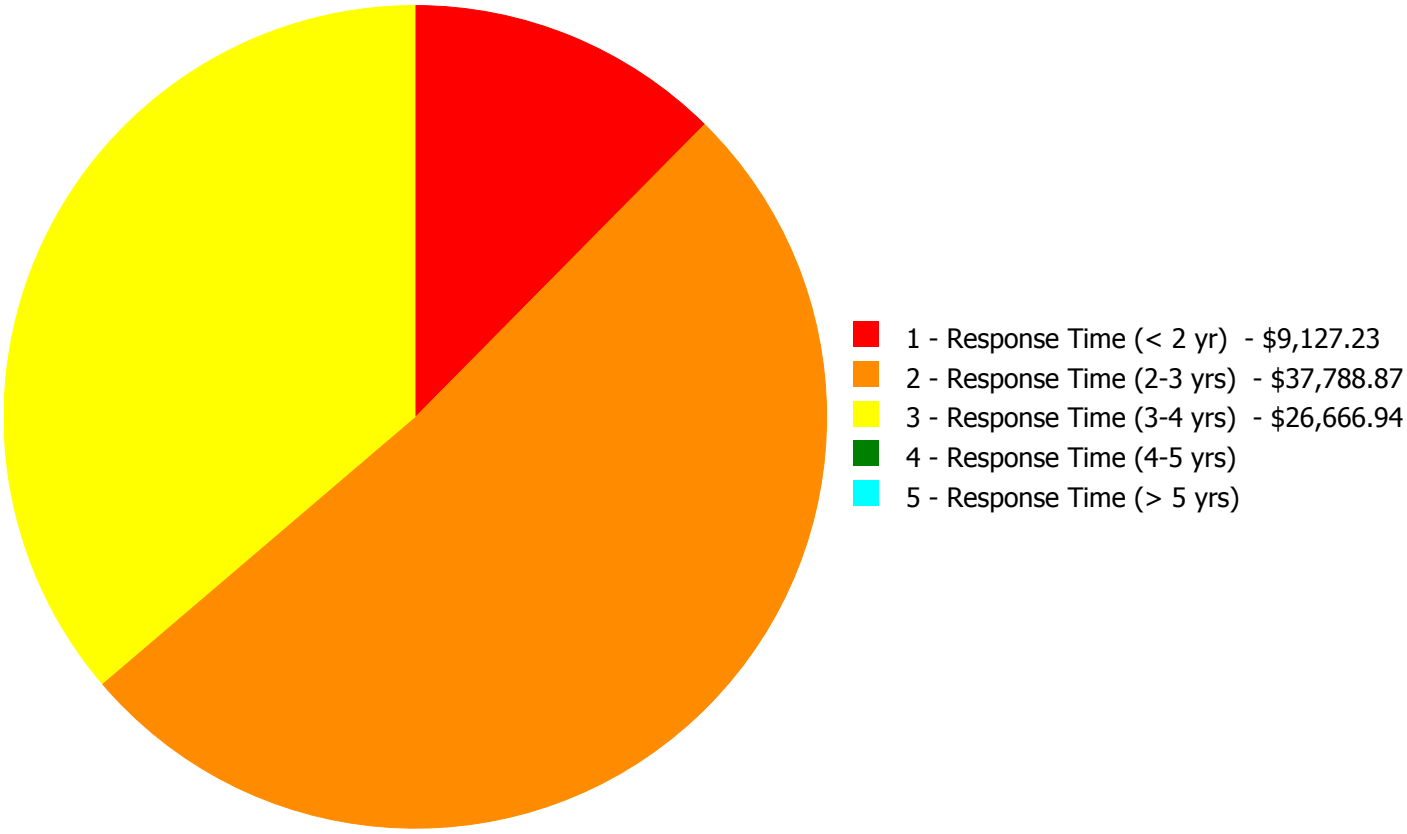
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $73,583.04

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: $73,583.04

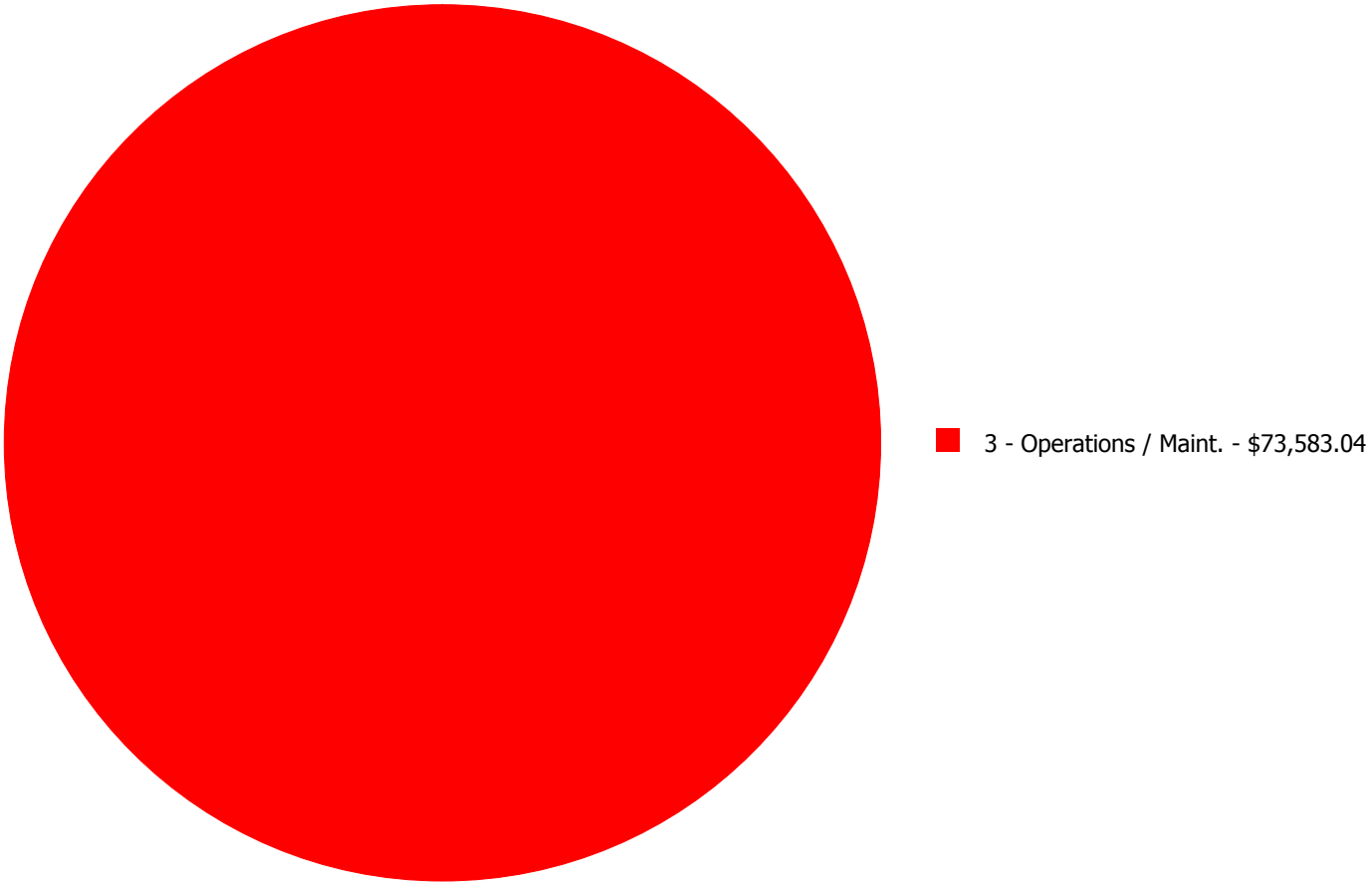
Deficiency By Priority Investment Table

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	$9,127.23	$5,158.84	$26,666.94	$0.00	$0.00	$40,953.01
G2040	Site Development	$0.00	$32,630.03	$0.00	$0.00	$0.00	$32,630.03
	Total:	$9,127.23	$37,788.87	$26,666.94	$0.00	$0.00	$73,583.04

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: $73,583.04

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: G2020 - Parking Lots

Location: parking lot entrance

Distress: Failing

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Resurface parking lot - grind and resurface including striping

Qty: 2,500.00

Unit of Measure: S.F.

Estimate: $9,127.23

Assessor Name: Craig Anding

Date Created: 08/11/2015

Notes: Repair/repave sunken catch basin and paving at entrance courtyard

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

System: G2020 - Parking Lots

Location: parking lot / play area

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 600.00

Unit of Measure: L.F.

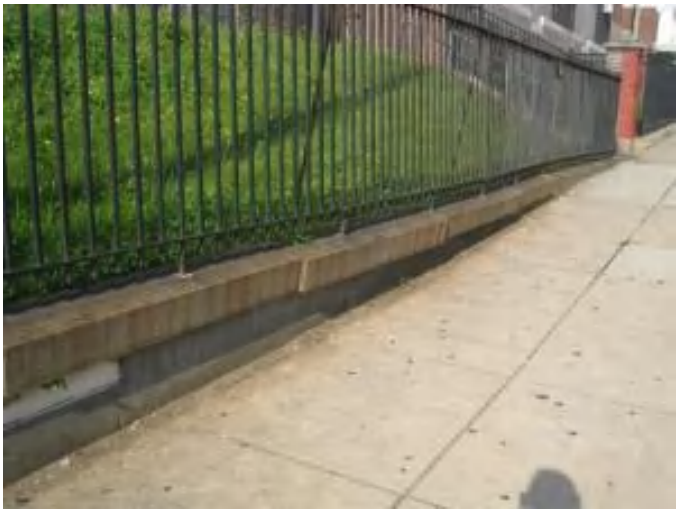
Estimate: $5,158.84

Assessor Name: Craig Anding

Date Created: 08/11/2015

Notes: Fill cracks in asphalt

System: G2040 - Site Development



Location: site fence

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 500.00

Unit of Measure: L.F.

Estimate: $32,630.03

Assessor Name: Craig Anding

Date Created: 08/11/2015

Notes: Repaint rusted sections of steel fence

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

System: G2020 - Parking Lots

Location: parking lot

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Resurface parking lot - grind and resurface including striping

Qty: 7,000.00

Unit of Measure: S.F.

Estimate: $26,666.94

Assessor Name: Craig Anding

Date Created: 08/11/2015

Notes: Repave teachers' parking lot

Equipment Inventory

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

No data found for this asset

Glossary

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

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

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

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

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

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

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

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

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

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

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