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.

Holme School

Governance	DISTRICT	Report Type	Elementary
Address	9125 Academy Rd.	Enrollment	574
	Philadelphia, Pa 19114	Grade Range	'00-06'
Phone/Fax	215-335-5656 / 215-335-5033	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Holme	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	**45.13%**	**$18,085,797**	**$40,071,143**
Building	48.80 %	$17,842,431	$36,559,203
Grounds	06.93 %	$243,367	$3,511,940

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	75.63 %	$985,303	$1,302,758
Exterior Walls (Shows condition of the structural condition of the exterior facade)	01.20 %	$32,289	$2,694,430
Windows (Shows functionality of exterior windows)	00.00 %	$0	$1,314,730
Exterior Doors (Shows condition of exterior doors)	241.18 %	$255,284	$105,850
Interior Doors (Classroom doors)	160.93 %	$412,353	$256,230
Interior Walls (Paint and Finishes)	37.24 %	$430,581	$1,156,320
Plumbing Fixtures	46.99 %	$463,781	$986,960
Boilers	50.07 %	$682,475	$1,362,910
Chillers/Cooling Towers	65.60 %	$1,172,322	$1,787,040
Radiators/Unit Ventilators/HVAC	119.75 %	$3,758,008	$3,138,270
Heating/Cooling Controls	158.90 %	$1,566,000	$985,500
Electrical Service and Distribution	211.65 %	$1,498,690	$708,100
Lighting	68.08 %	$1,723,470	$2,531,640
Communications and Security (Cameras, Pa System and Fire Alarm)	43.71 %	$414,491	$948,270

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

S827001;Holme

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):	73,000
Year Built:	1950
Last Renovation:	
Replacement Value:	$40,071,143
Repair Cost:	$18,085,797.35
Total FCI:	45.13 %
Total RSLI:	74.29 %

Description:

Facility Condition Assessment
August 2015

School District of Philadelphia FCA
Thomas Holme Elementary School
9120 Academy Road
Philadelphia, PA 19114

73,000sf; 795 students; LN 08

General

Thomas Holme Elementary School is located at 9120 Academy Road. The Main Building was constructed in 1950, has 73,000 square feet, and is 2 stories tall with a full basement. The building is "V"- shaped conforming to the shape of the property formed by Academy and Willits Roads. The front door is located at the apex of the "V", faces the intersection of Academy Road and Willits Road and has a small drive-through drop off / parking area large enough for parking of approximately 10 cars. The main student entrance, main parking lots, asphalt playground, fields, and school bus drop off faces the rear (north) of the property, accessed from Academy

Road and Willits Road. There are two precast concrete "portable buildings" located on the site that are not part of this Facility Condition Assessment. Alan Ozimkiewicz, the Building Engineer, accompanied the team during the building inspection. The inspection team met with Principal Roye-Gill at the time of inspection. She indicated that critical items requiring improvement were the control of heat temperature and output in the building, lack of air-conditioning in the auditorium, inadequate electrical power (there are blackouts when all smartboards are being used), and the lack of a proper ADA compliant ramp to allow for handicap access into the building.

Architectural/Structural

Foundations in the Main Building are constructed of concrete and concrete block seen in the mechanical equipment rooms in the basement. Wall surfaces are in poor condition with extensive peeling paint and some cracking near basement windows observed. There is cracking and spalling of some walls under louvers in exterior walls. Boilers and mechanical equipment are located in a large open room. There are other rooms in the basement had been previously used for coal and ash storage when coal was the fuel source, but now this space is mostly open, unused, and still very dirty with coal dust; these spaces could be reassigned to other mechanical, utility support, or storage functions. There is a small equipment mezzanine with an abandoned tank and there are crawlspaces that were not accessed during the inspection. There is adequate space for present operating building mechanical equipment.

Floor slabs in the mechanical basement in the Main Building are in fair condition with no major cracks or settlement seen. First floor and Upper floor slabs in two-story wings are constructed of poured concrete slabs with concrete beam supporting structure. Raised slabs appeared to be level and in good condition

Roof system over the Main Building is constructed of a structural concrete deck on concrete supporting girders, beams, and columns. The good condition of the beams can be seen in almost any location as ceilings are finished in plaster or ceiling tiles secured to the concrete deck between the beams. The roof system over the gym and cafeteria consists of longspan concrete beams with smaller concrete sections spanning between the concrete beams. Some cracks were seen in one area of the roof deck over the gym. One area in the northwest corner of the gym has noticeable spalling and staining of the concrete deck due to leakage around a roof drain.

Exterior walls of the Main Building are constructed of brick with stucco accent panels under first and second floor windows. Walls are in good condition and appear to have been well maintained. There are some ongoing joint cracks forming at corners. Joint cracks and rusting of window lintels can be seen in some locations. There are areas along the roof and at corners that had apparently cracked but have recently been repaired. The brick wall over the gymnasium still has masonry joint problems. Grout is falling out from between bricks and can be seen accumulating on the gymnasium roof. This wall needs to be investigated as to why the grout is falling out and then it should be repointed. Univent louvers are located in stucco panels in first and second floor rooms and in brick under basement/grade level rooms; they are generally in good condition.

Exterior windows in the Main Building consist of painted aluminum frame units with insulating glass. These are replacement units installed in 2006 and are generally in good condition, however the blue paint used on the frames is showing signs of significant fading. Windows on the basement level on street elevations and all windows facing the playground / parking lot have heavy window screens (security screens). There are some screens outside the gym at grade level facing the playground that had been defaced with graffiti; these have been cleaned and painted to adequately remove and hide evidence of the graffiti. Interior window sills are soapstone (black slate) and in good condition; exterior sills are limestone also in good condition. Most classrooms have window air-conditioning units installed.

Exterior doors are painted hollow metal steel doors and frame units, some with narrow lite vision panels with security grating. The paint on all doors and frames is in poor condition with rust forming on most door frames and bottoms of some door panels. Doors and frames should be repainted to minimize further deterioration. Exit hardware and door closers are generally working but original equipment or replaced years ago and past its normal service life.

Roof coverings consist of a fully adhered rolled asphalt sheet system, with light gray granules embedded in the surface. Roofs are accessed by a ladder through a roof hatch. Flashing along the perimeter and rooftop equipment consists of the same type of membrane, secured to brick walls and equipment bases with aluminum counterflashing at the membrane termination. Flashing and counterflashing appear to be newer than the roof membrane and may have been replaced a number of years ago. There is a limestone parapet along the top of the brick exterior wall. It has been painted beige on the top and roof-side surfaces, presumably as a measure of moisture-proofing; limestone coping has its natural appearance facing the street. Roof membranes are worn with most ceramic granules wearing away, exposing the cracked asphalt membrane along the edges of the sheets. There are dirty areas over part of the roof indicating poor drainage and areas that have inadequate slope. There are no gutters or vertical leaders. Roof drainage is by an internal roof drain system draining by internal vertical leaders to a storm system below grade. There are overflow scuppers in the parapet at roof deck level. The roof drain over the gym that was seen to be leaking from the inside seems to be

sinking when seen from the outside. Although the membrane appears to be well-maintained and free of major visible defects, the entire roofing system is old, appears to be beyond its normal service life, and should be replaced soon.

Partitions in all spaces are constructed of concrete block. The gymnasium, cafeteria, toilet rooms, main building entrance, and stairways have glazed block wainscot walls for superior durability with painted block for the upper wall finish. Stairway walls facing corridors are full height, subdivided steel-framed glass walls, which do not conform to fire-rated stairway construction requirements of today's building codes. Classrooms, offices, and corridors have painted block walls in good physical condition. Some cracking was observed in basement block walls in the gym and cafeteria, which should be repointed. There is a large, full height full width metal folding partition separating the gymnasium from cafeteria. The partition is dented, has peeling paint and is not easy to operate. The design of the partition is dangerous with a surface level track on the floor, creating a tripping hazard when passing through the partition when open. It should be replaced with a durable moveable wall system with a recessed floor track, designed for this high-abuse environment. The wall of the Head Start Room, facing the cafeteria, is constructed of translucent glass block, which is in good condition.

Interior doors in classrooms, offices, and other rooms are mostly the original solid core oak veneer wood doors. Some have glass vision panels of varying sizes; most glass is not wired glass and it is not known if the glass is tempered. Stairway doors are steel panel units with subdivided, wired glass vision panels. Most door frames are rusting near the floor and many door panels are damaged, have broken glass or are beyond repair. Although it appears that classroom and office door hardware is not original, they do not have lever locksets with updated security locking feature that allows for locking from inside the room. Most exit hardware in stairways is old and needs replacement to provide proper closing and latching. Many doors have the original door closers which are beyond their normal useful service life. All interior doors and hardware need replacement.

Interior fittings/hardware include blackboards in all classrooms. Classrooms have storage areas with doors having blackboards or tackboards on the upper half of the surface, providing additional useful wall space to teachers. Toilet room partitions are probably the original partitions and might be constructed of transite, which could contain asbestos; they should be analyzed for asbestos content before removal and replacement with new plastic toilet room partitions and doors. Toilet room accessories (toilet paper dispensers, soap, paper towel or dryers, grab bars, door latches) are located in all toilet rooms, however some were broken. Accessible toilet room features and accessories such as wrist-blade faucets, drain pipe protection, grab bars, and accessories were absent.

Stair construction consists of concrete-filled treads with steel risers and stringers, painted steel handrails 36" high with extensions at stair run bottoms, guards 42" high and balusters with 4" maximum spacing as required by today's building codes. Steel handrails and guards need to be repainted, but basically conform to today's codes. Stair landings and platforms are exposed concrete that is in need of cleaning and painting. Some cracks in landings were seen and should be repaired before repainting.

Wall finishes in the corridors, offices and classrooms consist of painted block. Many walls have areas of minor surface damages; the walls are in need of repainting. Toilet rooms, stairways, cafeteria and gymnasium have glazed block wainscots with painted block above. The auditorium has painted block walls with a mid-height decorative plywood panel wainscot, in fair condition, requiring repair and refinishing in high traffic areas. The physical condition of the walls is good and if repainted will rejuvenate the general appearance.

Floor finishes consist mostly of 9" x 9" VAT (vinyl asbestos tile) in the main entrance lobby, most classrooms, offices, corridors, the auditorium, and the stage. A few classrooms and one section of one corridor have been refinished with VCT (vinyl composition tile) where flooring had been damaged by water or cracks. There are a number of cracks in existing VAT surfaces and most floors have ground in dirt under the wax coating. All VAT should be tested for asbestos then properly removed with new VCT reinstalled in its place. The gymnasium and cafeteria have VCT, which is in fair condition, although there are areas of cracked a broken tiles which need to be replaced. Toilet rooms are ceramic mosaic tile, which is dirty and need to be cleaned. The parts of the school office suite and the medical suite adjacent to the main entrance are finished in carpet and the other parts of those spaces are VAT. The VAT spaces should be tested and the material removed/replaced with VCT if asbestos is present.

Ceiling finishes in first floor classrooms and corridors are 12"x12" concealed spline acoustical tile ceilings glued to the deck above, with surface mounted fluorescent lighting fixtures. The auditorium has a concealed spline glued to deck ceiling with surface mounted metal halide lighting fixtures. Most ceilings and lighting fixtures are in fair to poor condition, requiring replacement. The gymnasium, cafeteria, kitchen, and second floor classrooms have exposed concrete beam and deck ceilings with suspended fluorescent lighting fixtures.

Furnishings in the building include light oak plywood veneer folding seating for almost 372 people in the auditorium. Seating finish and operation are in fair condition. Seats need to be repaired where broken and refinished. The cafeteria has a food preparation kitchen and food service counters. Folding tables are used for children's seating. The integrated metal shelving surrounding the univents in classrooms have cracked and peeling paint, requiring repainting.

The front door and all other doors into the Main Building have stairways leading up to the doors and are not ADA accessible. However a small ramped surface has been provided at the doors in the corridor connection between the smaller "portable building" and the main building on the Academy Street side, allowing for wheelchair access into the building. Handicap and accessible parking spaces are not marked nor are accessible routes. These features should be provided.

There is no elevator in the building, but one should be provided. Service from grade level (basement) to second floor, 3 stops.

An automatic sprinkler system is not provided in the building.

Mechanical

Plumbing Fixtures – The building is equipped with wall hung urinals (flush valve type), wall hung water closets (flush valve type), and wall hung lavatories with wheel handle faucets. Many of the original plumbing fixtures remain in service, however, these fixtures have reached the end of their service life and should be replaced. New fixtures will provide lower water consumption and provide savings on water heating costs. The bathrooms are also equipped with floor drains.

Drinking fountains in the corridors and at the restrooms are wall hung fountains. There are a few vertical floor standing electrical water coolers. Drinking fountains are typically located in the hallways at intervals, but are not located at the bathroom groups. There are drinking fountains located in each of the kindergarten classrooms. Most appear to be the original installed equipment. The replacement of all drinking fountains is recommended as the equipment is approximately 65 years old and beyond its service life.

Wall hung service sinks are original and are available throughout the building for use by the janitorial staff. Service sinks are typically located in the vicinity of the bathroom groups. The sinks appear have exceeded their service life, and should be replaced. The Cafeteria's food prep/kitchen is equipped with one, three compartment stainless steel sink with wheel handle operated faucets and its sanitary connection is served by a floor mounted grease trap. The kitchen is also equipped with a hand sink. The triple wash sink (with wheel handles) and hand sink (with lever handles) show signs of normal usage. The grease interceptor shows no signs of rust or corrosion and is accessible for maintenance. Chemicals are injected manually into the sanitizing basin.

Domestic Water Distribution – It appears that the 4" domestic water service piping is mostly soldered copper. Water service enters the building in the basement, with double check backflow preventer (RPZA – reduced pressure zone assembly) and a 4" water meter on the main line upon entering the building. The water meter appears to be new. The piping is copper with soldered joints. The distribution piping appears to be original and is at the end of its service life and is recommended to be inspected and repaired as needed.

The previous domestic water generation system has been decommissioned with some components remaining which have been abandoned in place. There are two instantaneous natural gas fired tankless water heaters, Paloma Model PH24-M-DN, at this facility which are located in the boiler mechanical room. Each heater is rated for a maximum gas input of 178,500 btuh, minimum 37,700 btuh. The hot water system is equipped with a recirculation pump as well. All water heaters appear to be in satisfactory condition and should not need replacement within the next 10 years. A water softener was located in the boiler room for treating the boiler make up water system. The water softener system appears to be relatively new.

Sanitary Waste - The sanitary waste piping system in the original building is extra heavy cast iron with lead and oakum seals and appears to be the original piping installed in the building. It is therefore recommended to inspect this piping and repair or replace sections as needed. The sanitary system leaves the building by gravity flow.

Rain Water Drainage - The rain water drains from the roof are routed through mechanical chases in the building and connect to the underground site drainage system. There are overflow scuppers for the building.

Energy Supply - Duplex fuel oil supply pumps provide the required fuel to the boilers when operating on fuel oil. The 10,000 gallon fuel storage tank is located underground adjacent to the entry drive in the grassy area from Willits Road. The fuel pumps and controls are original vintage, are beyond their serviceable life and therefore should be replaced. Natural gas enters the building in the basement. The natural gas main is welded, black steel piping while the branches are threaded, black steel.

Heat Generating Systems – Low pressure steam is generated at 15 lbs/sq. in. or less by two 3,385 MBH Weil McLain 94 series steam boilers with dual fuel burners. All boilers are equipped with Power Flame dual fuel burners, natural gas and number 2 fuel oil, model CR4-GO-30. The boilers appear to have been install in the 1970's and are at the end of their service life and should be replaced. There is no draft control on the either boiler flue. Combustion air louvers serve the boiler room to provide combustion air for the boiler operation. Burner controls provide full modulation with electronic ignition, digital flame sensing and pressure atomization on oil. Burner oil pumps are driven by independent motors. The gas train serving each boiler appears to have code required venting of the regulators

and dual solenoid valves with venting of the chamber between. The oil supply to the burner is equipped with dual solenoid valves and strainer/disposable media filter.

Distribution Systems – The building steam distribution piping is black steel with welded fittings. . The condensate piping is Schedule 80 black steel with threaded fittings. The piping has been in use beyond its service life and will require more frequent attention from the maintenance staff to address pipe/valve failures as time passes. The District should hire a qualified contractor to examine the distribution piping and perform additional testing to locate and replace any damaged piping and to further quantify the extent of potential failures. The District should budget for replacing this piping over the next 5 years.

The boiler feed water is collected by a boiler feedwater pad mounted system and is treated with a combination of chemicals by a water treatment controller. The old condensate receiver system has been abandoned, so the condensate is now returned directly to the boiler feedwater tank and then pumped back to the boiler. The condensate return piping is black steel with threaded joints. The boiler feedwater assembly is equipped with three pumps and a pump control panel. The steam traps are failing throughout the building and have not been replaced for 20 years as per the building engineer. It is recommended that the District conduct a steam trap survey to determine the quantity and condition of all steam taps. The boiler feed tank, pumps and associated components are nearing the end of their service life and should be replaced.

Fresh air is admitted into the building through the unit ventilators and by opening windows. Ventilation air is induced into the spaces through the outside air intake grilles located in the building exterior wall which are ducted to the unit ventilators.

The building uses unit ventilators with steam coils in the classrooms and steam convectors in the hallways and currently is the sole source of heat for these areas. During our survey most steam convection heaters were recessed models, if however there any steam radiators in service without guards or enclosures, these units should be replaced with finned tube convectors to protect students from exposure to the hot surfaces..

The gymnasium is served by recessed unit ventilators with steam coils with supply and return grilles which are flush with the wall surface. There are also outside air intakes which are used for natural ventilation of the space and horizontal steam unit heaters which provide additional heat located on the wall opposite of the unit ventilators. It is recommended to replace these systems with a roof top mounted unit with an overhead supply air distribution system and return air ductwork and low return intake grilles which would be protected from damage.

The cafeteria is served by unit ventilators with steam coils. The unit ventilators are part of the original building equipment, have exceeded their life expectancy and should be replaced. A roof top mounted unit could be provided with heating and cooling coils as well as ventilation to meet the outside air ventilation requirements for the cafeteria seating area. The kitchen is provided with heating and ventilation as well as a general exhaust system for the space. It is recommended that a hood exhaust system be implemented for any equipment which generates heat. This system should be coupled with a heating and ventilating supply air system. Proper air flow pressurization and balancing should be performed for the seating area with respect to the kitchen to maintain the kitchen under negative pressurization.

Terminal & Package Units - There are a few which have window air conditioning units but predominantly the building does not have cooling systems.. There are four roof mounted exhaust fans of which three serve the restrooms while one serves the general exhaust from the kitchen.

Controls & Instrumentation - The original pneumatic systems still provide basic control functions. Pneumatic room thermostats drive the unit ventilators, the damper actuators and control valves. Wall mounted pneumatic thermostats on the corridor walls control the steam radiators. There are two air compressors which generate control air for the temperature control system which are located in the boiler room. A common refrigerated air dryer serves the compressors. The maintenance staff reports temperature control is generally lacking throughout the facility. Potential problems with oil, moisture or dirt in the pneumatic copper tubing can be one source of problems. The small rubber gaskets and tubing connections at control devices can become brittle over time and fail to compound control problems. The pneumatic systems are beyond their service life and require too much attention from the maintenance staff. The original control valves, dampers and pneumatic actuators are over 65 years old and should be replaced. These controls should be converted to DDC.

A new building automation system (BAS) with modern DDC modules and communications network should be installed to serve the HVAC systems in this building to improve reliability and energy efficiency. An interface should be provided with the preferred system in use throughout the District.

Sprinklers - The school building is NOT covered by an automatic sprinkler system. Installing a sprinkler system with quick response type heads should reduce insurance costs by providing protection for the property investment. A fire pump may be required depending

on the available city water pressure.

Electrical

The site electrical service for the school facilities is from medium voltage overhead lines on wooden poles along Willits Rd. The incoming power from the utility is via a 300KVA medium voltage transformer with 2400VAC primary side and 208/120VAC secondary located in the transformer room of the building.

The service entrance to the facility consists of a disconnect switch, utility meter and the main distribution panel located in building engineer room. Main distribution panel (estimated 800A) is an old open bus, open switch style power panel and should be replaced. The electrical service entrance does not have enough capacity for future loads.

Power distribution is achieved through corridor located lighting/receptacle panel boards. There are five panel boards located on each floor. It appears that panel boards and branch circuit breakers have out-lived their useful lives and need to be replaced.

In general there are not enough receptacles are installed in the class rooms and corridors of the main building. There is a mix of grounding type as well as non-grounding type receptacles. Recommendations indicate a minimum of two receptacles on each classroom wall; the current installation falls short of this recommendation. The computer room should have receptacles at three feet on center on each wall. Recommendations indicate the use of surge protective type receptacles for computers.

Most lighting fluorescent lighting fixtures (over 98%) have outdated T12 lamps; these fixtures should be replaced with T8 fixtures. Auditorium lighting has been upgraded, using new 1x1 surface mounted compact fluorescent lighting fixtures.

Fire Alarm System consists of a 120V manual fire alarm system. The system does not meet current fire alarm codes and should be replaced.

Telephone / LAN equipment/devices are located in the school
Information Technology Room. This room was not accessible at the time of assessment. The computer room, some classrooms, and some offices are have data outlets. The system is new and working properly.

Public address / music system – A separate PA system does not exist. The school uses the telephone system for public announcements. This system is working adequately.

Intercom System and paging – The existing paging system is completely working properly. It consists of one way communications from office to classrooms. Two way communications are obtained through wall mounted phones in the classrooms and other areas. The paging speakers are old and should be replaced.

Master clock system is not provided in the school. Classrooms are provided with a 12” round battery-type clock. A new master clock system is needed. The present bell system is working adequately.

Television system is not provided in the school.

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

Emergency Power System consisting of a 25KW, 240/120V, 1PH, 3W diesel generator manufactured by “Generac” is installed in the boiler room. This generator is new but it does not have capacity for any future emergency loads.

IT room was locked and the power source for the IT servers could not be verified. However it is assumed, based on similar installation at other schools, that the servers are supported by a UPS. If this is not the case, it is recommendation to provide UPS power to IT equipment.

Emergency lighting is not provided in the school. This is a life safety code violation which needs to be addressed immediately. The existing diesel generator was not in service at the time of inspection. Exit signs appear to be battery-pack type.

Lightning Protection System is adequate, 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.

Elevator is not provided in this school.

Theater lighting and dimming controls are old should be replaced.

Sound System in auditorium is old and should be replaced.

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

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

Site Paging System is adequate.

Grounds

There is a small front parking and drop-off area is paved with 4' (nominal) square concrete panels and is in good condition. There is no curbing forming the edge of this paved area; curbs should be provided to prevent water from washing into the drop-off area. Landscaping needs to be trimmed. The main stairway and other side stairways into the building are constructed of limestone treads which need to be repointed. School buses and vehicle access is into the parking / playground area in the rear from Academy Road and Willits Road. All asphalt parking areas and roadways in the rear are cracked, failing and should be repaired with crack filler and repaved where repair is not possible. Proper ADA compliant handicap parking spaces, accessible routes, ramp into the main building, and signage should be provided. Better demarcation and fencing should be provided to separate children play areas from parking areas on asphalt paving. The number of required parking spaces for school staff and faculty is unknown, however there seems to be adequate space for faculty and staff parking. These areas should be restriped with the number of the parking spaces required by zoning and needed by the school. The trash dumpster area needs to be repaved with heavy grade concrete to prevent settling and failure. There is a chain link fence that provides partial closure to the property. It connects to the ends of the school building at the Willits and Academy Road sides, then surrounds the athletic fields adjacent to the parking lots to the north. The front of the building and two sides facing Willits and Academy Roads are not enclosed. This does not appear to be a security issue since those exposed building elevations had no apparent vandalism. Some fence sections installed in the parking lot are leaning and require replacement, but generally the fence is in good condition. Gates that seal off the two parking lot access points to the rear are missing and need to be replaced. The flagpole located in the front entrance area requires repainting.

RECOMMENDATIONS

Architectural

- Clean and reseal/repaint concrete floor slab mechanical rooms and stair treads (5000sf)
- Repaint basement walls in area of mechanical equipment (5000sf)
- Repair cracked basement walls around louvers and other areas (300sf)
- Repair/repoint masonry cracks in exterior walls and damaged masonry (1000sf)
- Remove and replace roof (34,385sf roofing)
- Replace old, broken wood interior doors with new solid core oak doors and steel frames with lever handle hardware sets (100) 3'x7'
- Provide security hardware for classrooms and offices locking from inside of room (60 each)
- Replace exterior doors and hardware (33) 3'x7'
- Provide fire rated walls in place of non-rated glass walls above stair doors, where stairs meet corridor (1000sf)
- Repaint railings and balustrades in stairways (240ft)
- Replace damaged and cracked VCT floors in cafeteria and other rooms (500sf)
- Repair concrete slabs under cracking VAT (100sf)
- Replace VAT after testing to confirm presence of asbestos (53,000sf)
- Strip and polish bathroom terrazzo floors (1500sf)
- Replace all acoustical tile ceilings with new suspended acoustical tile clg system (60,000sf)
- Repaint approximately one-quarter of interior walls (80,000sf)
- Repaint water damaged exposed ceilings (5000)
- Repaint steel shelving around univents (2400sf)
- Replace all toilet room partitions (approx. 40 toilet compartments; 25 urinals)

- Replace broken or missing toilet room accessories (approx. 6 sets)
- Repair scratched and damaged folding wood auditorium chairs (100 chairs)
- Repair wood wainscot in auditorium (500sf)
- Provide new ADA ramp into rear of building (up 6")
- Provide hydraulic elevator, 3 stops.
- Repoint stairs (4 risers, 12ft long; 5 risers 7ft long)

Mechanical

- Replace all lavatories in the building with lower flow fixtures, since existing fixtures are original.
- Replace all water closets in the building with lower flow fixtures, since existing fixtures are original.
- Replace all urinals in the building with lower flow fixtures, since existing fixtures are original.
- Replace the wall hung drinking fountains and integral refrigerated coolers in the corridors and at the restrooms. These units are well beyond their service life and most are NOT accessible type.
- Replace service sinks (janitor sinks) in the building.
- Hire a qualified contractor to perform a detailed examination of the sanitary waste piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.
- Replace the 10,000 gallon underground storage tank (UST) installed before 2000 located underground adjacent to the entry drive in the grassy area from Willits Road.
- Add automatic sanitizing chemicals to the stainless steel sink in the cafeteria.
- Replace two instantaneous natural gas fired tankless water heaters.
- Inspect and replace the original as needed the domestic water piping in the building
- Hire a qualified contractor to perform a detailed examination of the sanitary waste piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.
- Conduct a steam trap survey to identify and replace failed traps passing live steam into the condensate piping system.
- Replace duplex fuel oil pumps.
- Replace the two 3,385 MBH Weil McLain 94 series steam boilers estimated to have been in service since the 1970s.
- Replace the steam convection units and any of the original radiant heating (manifold) terminals fashioned from welded piping still present in the building with finned tube elements to protect students from exposure to the hot surfaces.
- Replace the existing unit ventilators throughout the building with new units designed to provide adequate ventilation per ASHRAE Std 62. The new units shall be equipped with hot water / chilled water coils and integral heat recovery wheels. Install steam converters in the existing boiler room with circulating pumps, distribution piping and controls to provide heating hot water for the new coils.
- Remove the window air conditioning units and install a 250 ton air-cooled chiller on the roof with chilled water distribution piping and pumps located in a mechanical room on the basement level to supply more reliable air conditioning for the building with a much longer service life. A structural engineer's should review of the available reserve roof loading capacity to determine if there is structural capacity to put a new chiller on the roof.
- Provide ventilation, heating and cooling for the gymnasium by installing a packaged roof top unit.
- Provide ventilation for the corridors at six basement and first floor entryways (9 locations total) by installing fan coil air handling units hung from the structure with outdoor air ducted to the unit from louvers in the window openings
- Provide ventilation, heating and cooling for the Cafeteria by removing the existing unit ventilators and installing a package rooftop constant volume air handling unit with distribution ductwork and registers.
- Replace the pneumatic controls for the HVAC systems with modern DDC modules, valves and actuators to improve reliability and energy efficiency.
- Provide a new building automation system (BAS) with communication interface to the preferred system in use throughout the District.
- Install a fire protection sprinkler system with quick response type heads to reduce insurance costs by providing protection for the property. A fire pump may be required depending on the available city water pressure.
- Install a new sprinkler system throughout the building
- Remove existing steam boilers and steam distribution system. Install hot water boilers and hot water distribution system.

Electrical

- Upgrade the existing electrical service with a new service. Replace the existing switchboard with new 1600A, 480/277, 3PH, 4 wire switchboard. Provide two 150KVA, 480V to 120/208V step down transformers for providing power to Kitchen equipments, receptacles and other 208 volt loads throughout the building.
- Replace the entire distribution system with new panels and new wiring/conduits. Our recommendation is to replace existing conduits and wiring to new junction boxes, receptacles, and lighting. Provide arc flash label on the electrical equipment. Estimated 16 panel boards.

- Install minimum two receptacles in each classroom wall and provide a sufficient number of receptacles in other areas per NEC recommendations. We recommend adding a two-compartment surface mounted raceway, for data & power for the computer lab room. Estimated 300 receptacles.
- Replace all lighting fixtures with new fluorescent lighting fixtures with T-5 lamps throughout all buildings. Provide emergency power to sufficient number of lights in corridors and other egress ways.

Grounds

- Repave damaged sections of concrete walkway at building entrance (100sf)
- Add curbing along entrance / drop-off loop (500ft)
- Paint rusted flagpole
- Replace exterior railing at basement stair in front (12ft)
- Repave asphalt parking and play surfaces; including re-striping (50,000sf)
- Replace damaged chain link fencing (100lf x 8ft tall)
- Provide chain link gates (2) swinging gates

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 2 / Tm 2
Status:	Accepted by SDP	Team:	Tm 2
Site ID:	S827001		

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	35.00 %	0.00 %	$0.00
A20 - Basement Construction	35.00 %	0.26 %	$3,619.32
B10 - Superstructure	35.00 %	0.06 %	$4,211.89
B20 - Exterior Enclosure	50.46 %	6.99 %	$287,573.89
B30 - Roofing	110.00 %	75.63 %	$985,302.53
C10 - Interior Construction	42.15 %	36.54 %	$654,573.84
C20 - Stairs	35.00 %	12.23 %	$12,589.19
C30 - Interior Finishes	127.74 %	55.69 %	$1,959,886.21
D10 - Conveying	0.00 %	414.14 %	$462,551.02
D20 - Plumbing	110.82 %	83.24 %	$1,240,764.51
D30 - HVAC	107.77 %	88.40 %	$7,178,805.52
D40 - Fire Protection	105.71 %	177.49 %	$1,044,299.01
D50 - Electrical	110.11 %	90.91 %	$3,901,013.33
E10 - Equipment	14.29 %	7.93 %	$92,124.15
E20 - Furnishings	12.50 %	9.72 %	$15,116.32
G20 - Site Improvements	42.05 %	9.21 %	$243,366.62
G40 - Site Electrical Utilities	56.67 %	0.00 %	$0.00
Totals:	**74.29 %**	**45.13 %**	**$18,085,797.35**

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)
B827001;Holme	73,000	48.80	$3,833,800.40	$5,282,690.24	$3,501,295.75	$76,455.07	$5,148,189.27
G827001;Grounds	200,000	6.93	$11,198.20	$41,690.21	$190,478.21	$0.00	$0.00
Total:		**45.13**	**$3,844,998.60**	**$5,324,380.45**	**$3,691,773.96**	**$76,455.07**	**$5,148,189.27**

Deficiencies By Priority

- 1 - Response Time (< 2 yr) - $3,844,998.60
- 2 - Response Time (2-3 yrs) - $5,324,380.45
- 3 - Response Time (3-4 yrs) - $3,691,773.96
- 4 - Response Time (4-5 yrs) - $76,455.07
- 5 - Response Time (> 5 yrs) - $5,148,189.27

Budget Estimate Total: $18,085,797.35

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):	73,000
Year Built:	1950
Last Renovation:	
Replacement Value:	$36,559,203
Repair Cost:	$17,842,430.73
Total FCI:	48.80 %
Total RSLI:	77.04 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B827001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S827001		

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	35.00 %	0.00 %	$0.00
A20 - Basement Construction	35.00 %	0.26 %	$3,619.32
B10 - Superstructure	35.00 %	0.06 %	$4,211.89
B20 - Exterior Enclosure	50.46 %	6.99 %	$287,573.89
B30 - Roofing	110.00 %	75.63 %	$985,302.53
C10 - Interior Construction	42.15 %	36.54 %	$654,573.84
C20 - Stairs	35.00 %	12.23 %	$12,589.19
C30 - Interior Finishes	127.74 %	55.69 %	$1,959,886.21
D10 - Conveying	0.00 %	414.14 %	$462,551.02
D20 - Plumbing	110.82 %	83.24 %	$1,240,764.51
D30 - HVAC	107.77 %	88.40 %	$7,178,805.52
D40 - Fire Protection	105.71 %	177.49 %	$1,044,299.01
D50 - Electrical	110.11 %	90.91 %	$3,901,013.33
E10 - Equipment	14.29 %	7.93 %	$92,124.15
E20 - Furnishings	12.50 %	9.72 %	$15,116.32
Totals:	**77.04 %**	**48.80 %**	**$17,842,430.73**

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.	73,000	100	1950	2050		35.00 %	0.00 %	35			$1,343,200
A1030	Slab on Grade	$7.73	S.F.	73,000	100	1950	2050		35.00 %	0.00 %	35			$564,290
A2010	Basement Excavation	$6.55	S.F.	73,000	100	1950	2050		35.00 %	0.00 %	35			$478,150
A2020	Basement Walls	$12.70	S.F.	73,000	100	1950	2050		35.00 %	0.39 %	35		$3,619.32	$927,100
B1010	Floor Construction	$75.10	S.F.	73,000	100	1950	2050		35.00 %	0.08 %	35		$4,211.89	$5,482,300
B1020	Roof Construction	$13.88	S.F.	73,000	100	1950	2050		35.00 %	0.00 %	35			$1,013,240
B2010	Exterior Walls	$36.91	S.F.	73,000	100	1950	2050		35.00 %	1.20 %	35		$32,289.47	$2,694,430
B2020	Exterior Windows	$18.01	S.F.	73,000	40	2006	2046		77.50 %	0.00 %	31			$1,314,730
B2030	Exterior Doors	$1.45	S.F.	73,000	25	1950	1975	2042	108.00 %	241.18 %	27		$255,284.42	$105,850
B3010105	Built-Up	$37.76	S.F.	34,385	20	1950	1970	2037	110.00 %	75.89 %	22		$985,302.53	$1,298,378
B3010120	Single Ply Membrane	$38.73	S.F.		20				0.00 %	0.00 %				$0
B3010130	Preformed Metal Roofing	$54.22	S.F.		30				0.00 %	0.00 %				$0
B3010140	Shingle & Tile	$38.73	S.F.		25				0.00 %	0.00 %				$0
B3020	Roof Openings	$0.06	S.F.	73,000	20	1950	1970	2037	110.00 %	0.00 %	22			$4,380
C1010	Partitions	$17.91	S.F.	73,000	100	1950	2050		35.00 %	9.42 %	35		$123,121.51	$1,307,430
C1020	Interior Doors	$3.51	S.F.	73,000	40	1950	1990	2057	105.00 %	160.93 %	42		$412,352.93	$256,230
C1030	Fittings	$3.12	S.F.	73,000	40	1950	1990	2020	12.50 %	52.29 %	5		$119,099.40	$227,760
C2010	Stair Construction	$1.41	S.F.	73,000	100	1950	2050		35.00 %	12.23 %	35		$12,589.19	$102,930

Site Assessment Report - B827001;Holme

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.	73,000	10	1950	1960	2037	220.00 %	44.65 %	22		$430,581.22	$964,330
C3010231	Vinyl Wall Covering	$0.97	S.F.		15				0.00 %	0.00 %				$0
C3010232	Wall Tile	$2.63	S.F.	73,000	30	1950	1980	2020	16.67 %	0.00 %	5			$191,990
C3020411	Carpet	$7.30	S.F.	1,460	10	1950	1960	2027	120.00 %	0.00 %	12			$10,658
C3020412	Terrazzo & Tile	$75.52	S.F.	2,920	50	1950	2000	2020	10.00 %	2.20 %	5		$4,850.93	$220,518
C3020413	Vinyl Flooring	$9.68	S.F.	61,320	20	1950	1970	2037	110.00 %	97.88 %	22		$580,998.03	$593,578
C3020414	Wood Flooring	$22.27	S.F.		25				0.00 %	0.00 %				$0
C3020415	Concrete Floor Finishes	$0.97	S.F.	7,300	50	1950	2000	2020	10.00 %	205.83 %	5		$14,575.07	$7,081
C3030	Ceiling Finishes	$20.97	S.F.	73,000	25	1950	1975	2042	108.00 %	60.68 %	27		$928,880.96	$1,530,810
D1010	Elevators and Lifts	$1.53	S.F.	73,000	35				0.00 %	414.14 %			$462,551.02	$111,690
D2010	Plumbing Fixtures	$13.52	S.F.	73,000	35	1950	1985	2052	105.71 %	46.99 %	37		$463,780.74	$986,960
D2020	Domestic Water Distribution	$1.68	S.F.	73,000	25	1950	1975	2047	128.00 %	341.54 %	32		$418,864.04	$122,640
D2030	Sanitary Waste	$2.90	S.F.	73,000	25	1950	1975	2047	128.00 %	169.16 %	32		$358,119.73	$211,700
D2040	Rain Water Drainage	$2.32	S.F.	73,000	30	1950	1980	2047	106.67 %	0.00 %	32			$169,360
D3020	Heat Generating Systems	$18.67	S.F.	73,000	35	1950	1985	2052	105.71 %	50.07 %	37		$682,474.97	$1,362,910
D3030	Cooling Generating Systems	$24.48	S.F.	73,000	30	1950	1980	2047	106.67 %	65.60 %	32		$1,172,321.97	$1,787,040
D3040	Distribution Systems	$42.99	S.F.	73,000	25	1950	1975	2042	108.00 %	119.75 %	27		$3,758,008.42	$3,138,270
D3050	Terminal & Package Units	$11.60	S.F.	73,000	20	1950	1970	2037	110.00 %	0.00 %	22			$846,800
D3060	Controls & Instrumentation	$13.50	S.F.	73,000	20	1950	1970	2037	110.00 %	158.90 %	22		$1,566,000.16	$985,500
D4010	Sprinklers	$7.05	S.F.	73,000	35	1950	1985	2052	105.71 %	202.91 %	37		$1,044,299.01	$514,650
D4020	Standpipes	$1.01	S.F.	73,000	35	1950	1985	2052	105.71 %	0.00 %	37			$73,730
D5010	Electrical Service/Distribution	$9.70	S.F.	73,000	30	1950	1980	2047	106.67 %	211.65 %	32		$1,498,690.37	$708,100
D5020	Lighting and Branch Wiring	$34.68	S.F.	73,000	20	1950	1970	2037	110.00 %	68.08 %	22		$1,723,469.51	$2,531,640
D5030	Communications and Security	$12.99	S.F.	73,000	15	1950	1965	2032	113.33 %	43.71 %	17		$414,490.90	$948,270
D5090	Other Electrical Systems	$1.41	S.F.	73,000	30	1950	1980	2047	106.67 %	256.84 %	32		$264,362.55	$102,930
E1020	Institutional Equipment	$4.82	S.F.	73,000	35	1950	1985	2020	14.29 %	26.18 %	5		$92,124.15	$351,860
E1090	Other Equipment	$11.10	S.F.	73,000	35	1950	1985	2020	14.29 %	0.00 %	5			$810,300
E2010	Fixed Furnishings	$2.13	S.F.	73,000	40	1950	1990	2020	12.50 %	9.72 %	5		$15,116.32	$155,490
								Total	**77.04 %**	**48.80 %**			**$17,842,430.73**	**$36,559,203**

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: C3020 - Floor Finishes — This system contains no images

Note:
concrete 10%
VCT (vinyl tile) 11%
VAT (vinyl asbestos tile) 73%
carpet 2%
ceramic mosaic tile 4%

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

Note:
acoustical tile 67%
exposed conc 33%

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:	**$17,842,431**	**$0**	**$0**	**$0**	**$0**	**$2,505,770**	**$0**	**$0**	**$0**	**$0**	**$0**	**$20,348,200**
*** 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	$3,619	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$3,619**
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	$4,212	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$4,212**
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	$32,289	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$32,289**
B2020 - Exterior Windows	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2030 - Exterior Doors	$255,284	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$255,284**
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	$985,303	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$985,303**
B3010120 - Single Ply Membrane	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010130 - Preformed Metal Roofing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010140 - Shingle & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3020 - Roof Openings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C - Interiors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C10 - Interior Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C1010 - Partitions	$123,122	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$123,122**

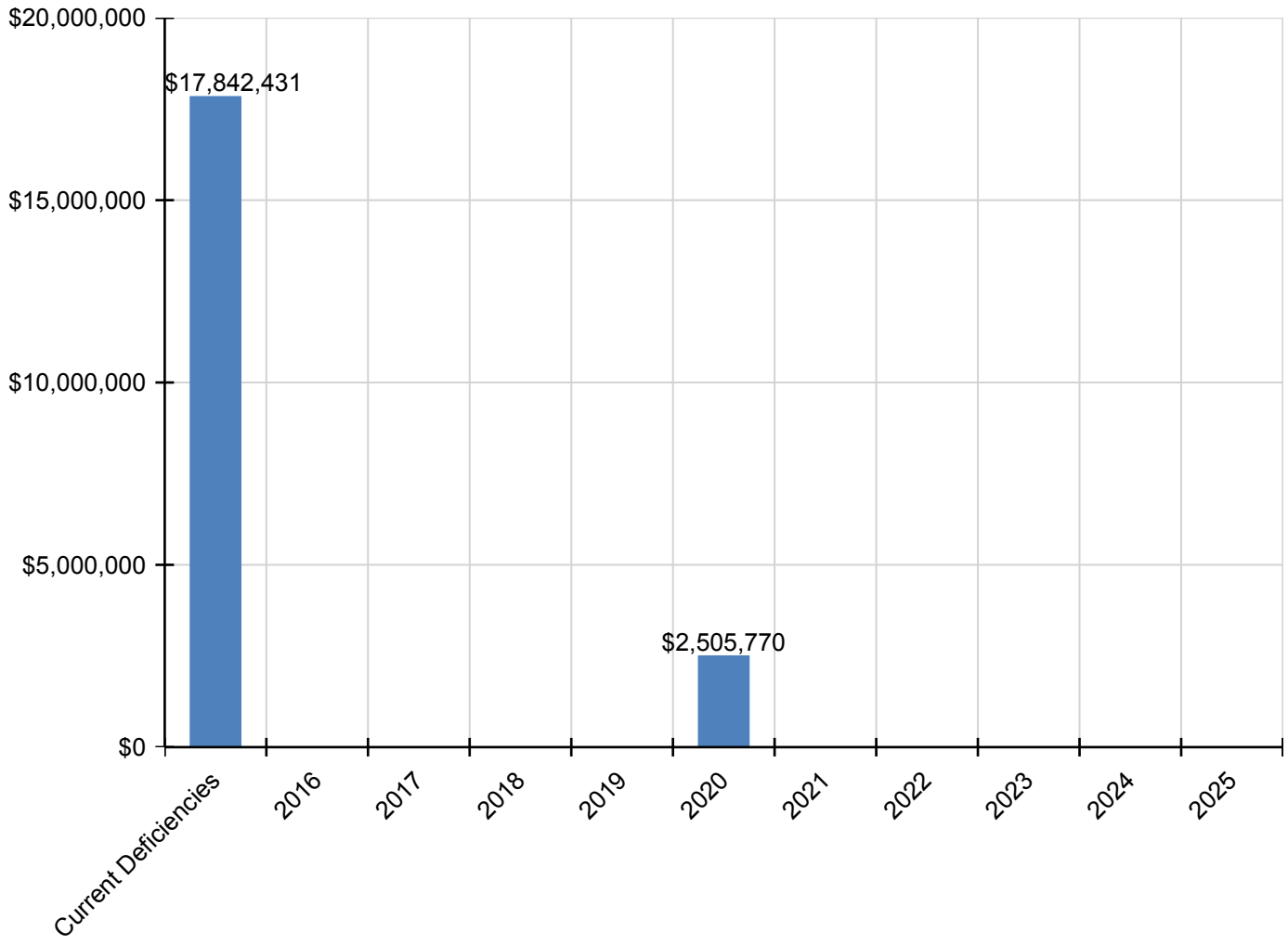
C1020 - Interior Doors	$412,353	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$412,353**
C1030 - Fittings	$119,099	$0	$0	$0	$0	$290,440	$0	$0	$0	$0	$0	**$409,539**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$12,589	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$12,589**
C30 - Interior Finishes	$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	$430,581	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$430,581**
C3010231 - Vinyl Wall Covering	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010232 - Wall Tile	$0	$0	$0	$0	$0	$244,826	$0	$0	$0	$0	$0	**$244,826**
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	$4,851	$0	$0	$0	$0	$281,205	$0	$0	$0	$0	$0	**$286,056**
C3020413 - Vinyl Flooring	$580,998	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$580,998**
C3020414 - Wood Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020415 - Concrete Floor Finishes	$14,575	$0	$0	$0	$0	$9,030	$0	$0	$0	$0	$0	**$23,605**
C3030 - Ceiling Finishes	$928,881	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$928,881**
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	$462,551	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$462,551**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$463,781	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$463,781**
D2020 - Domestic Water Distribution	$418,864	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$418,864**
D2030 - Sanitary Waste	$358,120	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$358,120**
D2040 - Rain Water Drainage	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D30 - HVAC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3020 - Heat Generating Systems	$682,475	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$682,475**
D3030 - Cooling Generating Systems	$1,172,322	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,172,322**
D3040 - Distribution Systems	$3,758,008	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$3,758,008**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$1,566,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,566,000**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$1,044,299	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,044,299**
D4020 - Standpipes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

D50 - Electrical	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5010 - Electrical Service/Distribution	$1,498,690	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,498,690**
D5020 - Lighting and Branch Wiring	$1,723,470	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,723,470**
D5030 - Communications and Security	$414,491	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$414,491**
D5090 - Other Electrical Systems	$264,363	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$264,363**
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	$92,124	$0	$0	$0	$0	$448,692	$0	$0	$0	$0	$0	**$540,817**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$1,033,296	$0	$0	$0	$0	$0	**$1,033,296**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$15,116	$0	$0	$0	$0	$198,281	$0	$0	$0	$0	$0	**$213,397**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

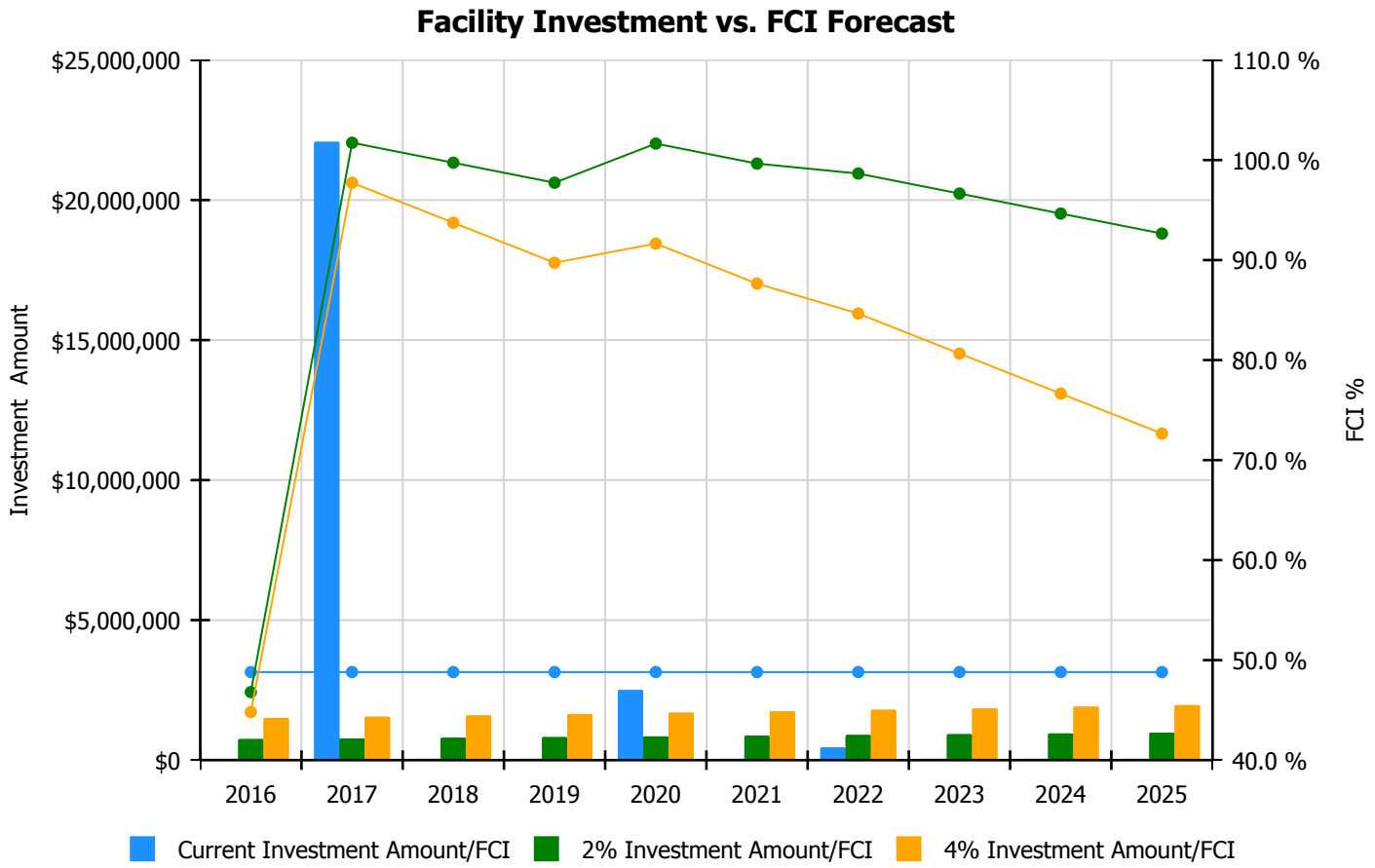
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

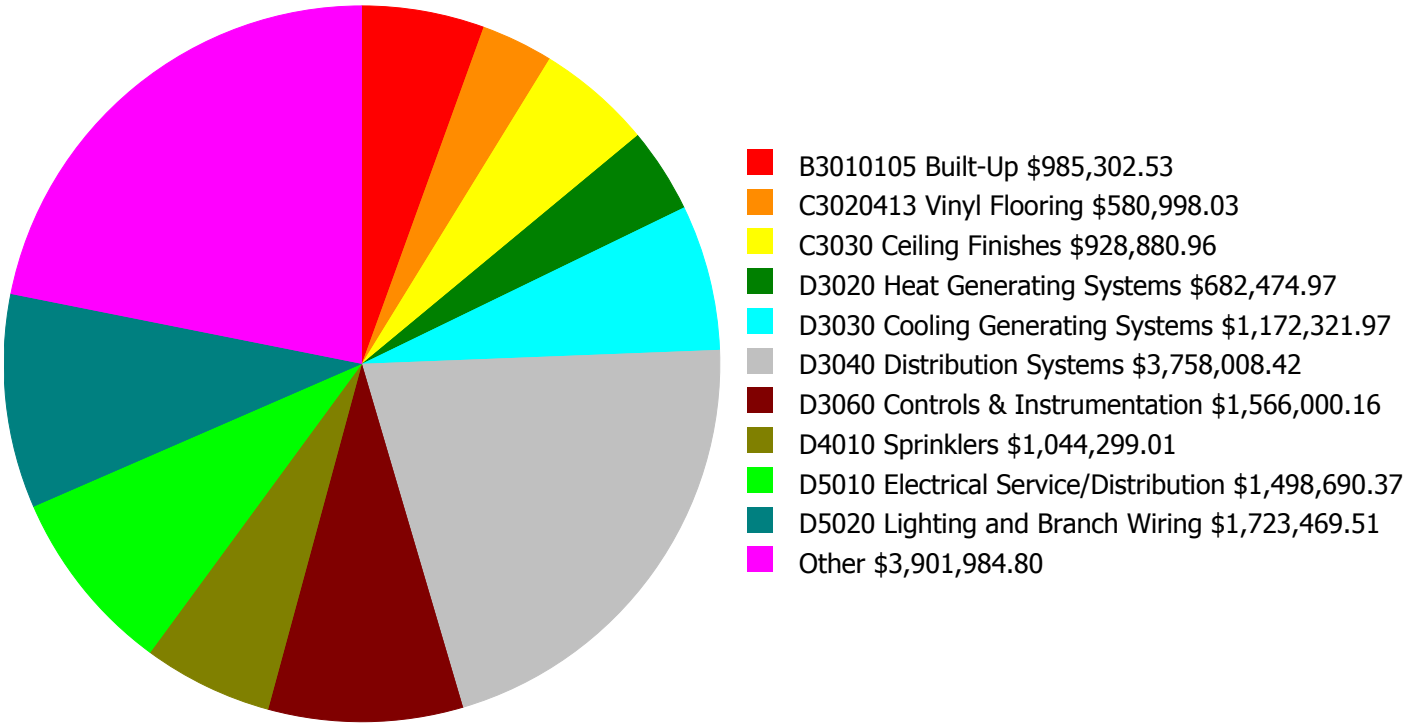
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 48.8%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$753,120.00	46.80 %	$1,506,239.00	44.80 %
2017	$22,079,886	$775,713.00	101.73 %	$1,551,426.00	97.73 %
2018	$0	$798,985.00	99.73 %	$1,597,969.00	93.73 %
2019	$0	$822,954.00	97.73 %	$1,645,908.00	89.73 %
2020	$2,505,770	$847,643.00	101.64 %	$1,695,285.00	91.64 %
2021	$0	$873,072.00	99.64 %	$1,746,144.00	87.64 %
2022	$452,316	$899,264.00	98.65 %	$1,798,528.00	84.65 %
2023	$0	$926,242.00	96.65 %	$1,852,484.00	80.65 %
2024	$0	$954,029.00	94.65 %	$1,908,059.00	76.65 %
2025	$0	$982,650.00	92.65 %	$1,965,300.00	72.65 %
Total:	**$25,037,971**	**$8,633,672.00**		**$17,267,342.00**	

Deficiency Summary by System

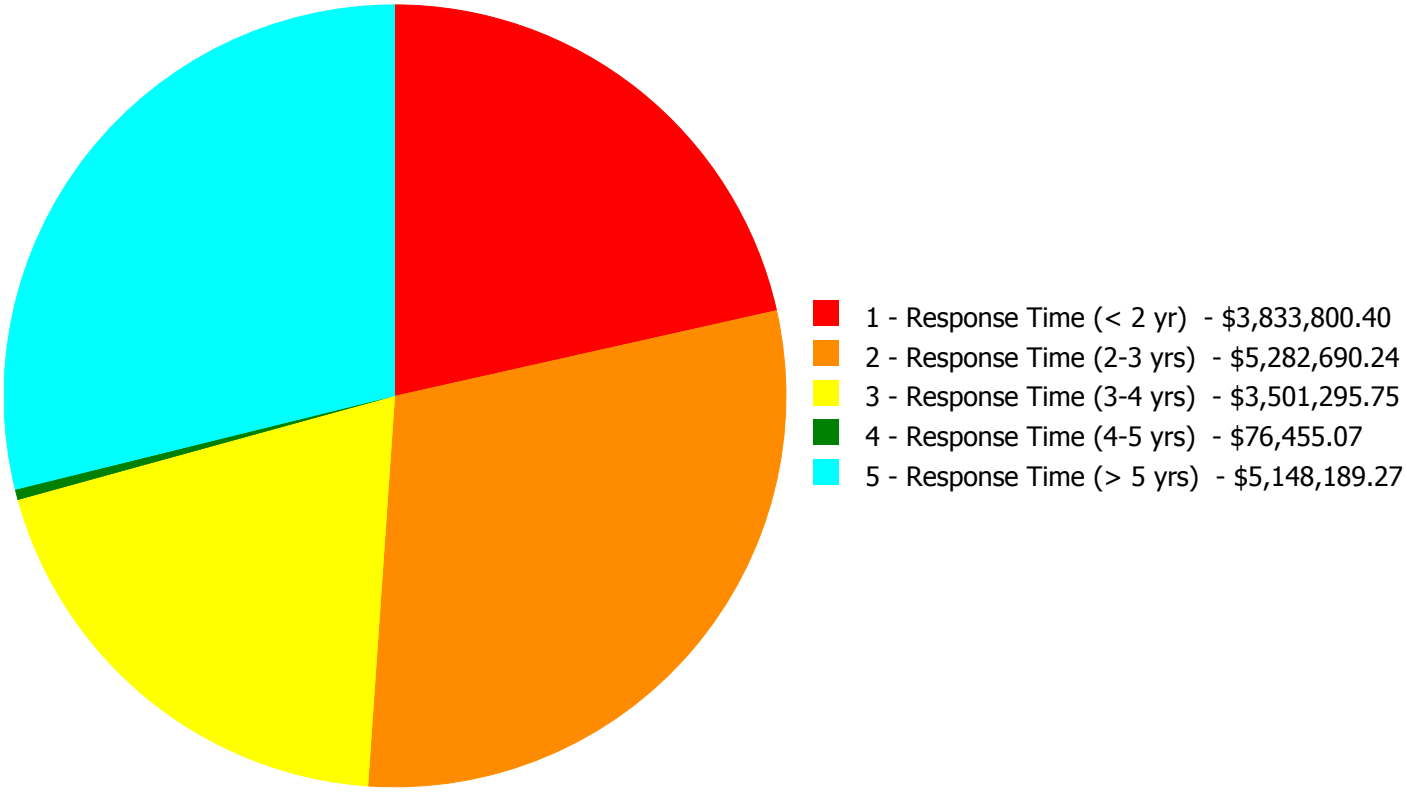
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $17,842,430.73

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: $17,842,430.73

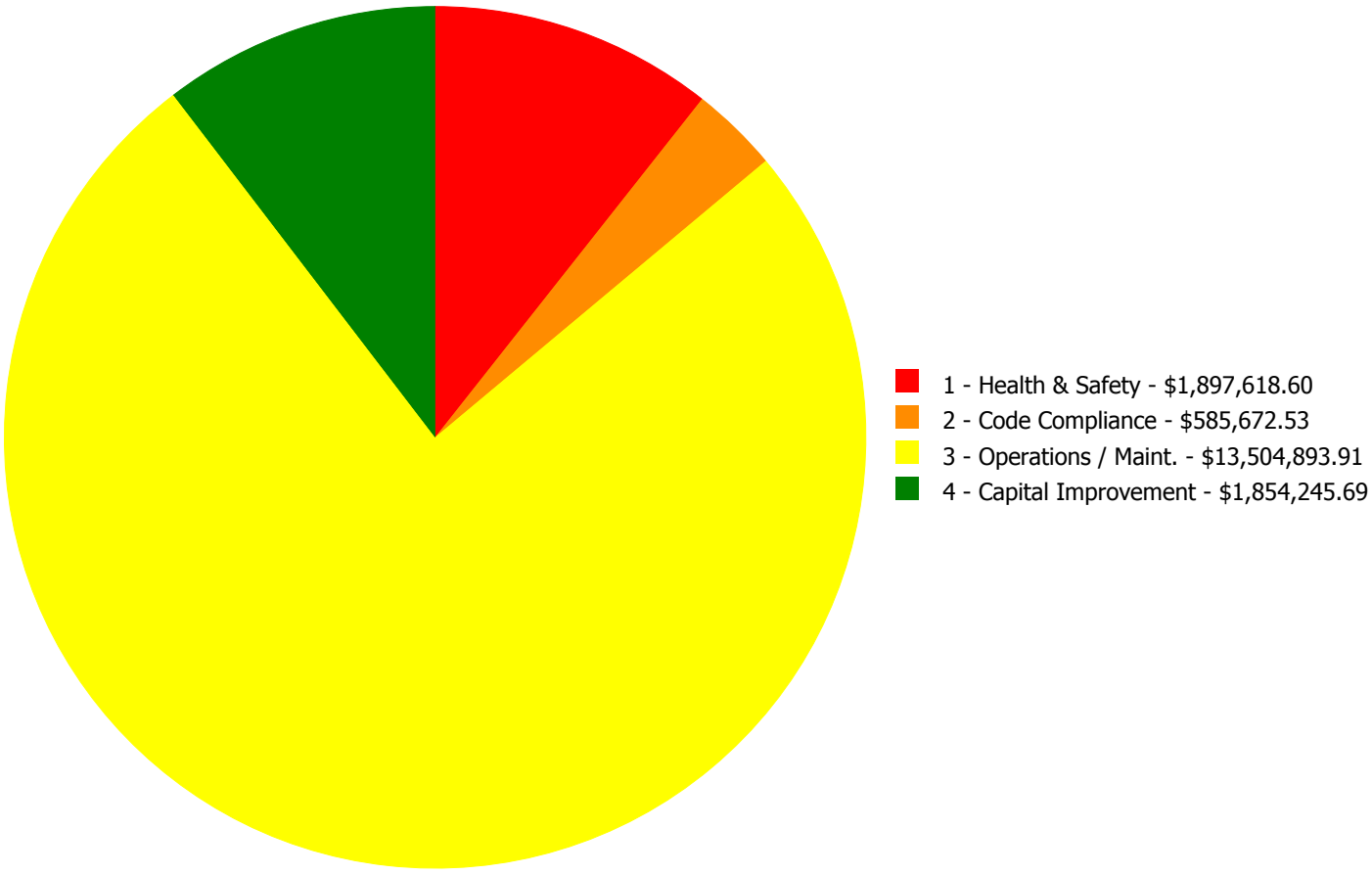
Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
A2020	Basement Walls	$0.00	$3,619.32	$0.00	$0.00	$0.00	$3,619.32
B1010	Floor Construction	$0.00	$4,211.89	$0.00	$0.00	$0.00	$4,211.89
B2010	Exterior Walls	$0.00	$32,289.47	$0.00	$0.00	$0.00	$32,289.47
B2030	Exterior Doors	$0.00	$255,284.42	$0.00	$0.00	$0.00	$255,284.42
B3010105	Built-Up	$985,302.53	$0.00	$0.00	$0.00	$0.00	$985,302.53
C1010	Partitions	$123,121.51	$0.00	$0.00	$0.00	$0.00	$123,121.51
C1020	Interior Doors	$0.00	$412,352.93	$0.00	$0.00	$0.00	$412,352.93
C1030	Fittings	$0.00	$119,099.40	$0.00	$0.00	$0.00	$119,099.40
C2010	Stair Construction	$155.69	$12,433.50	$0.00	$0.00	$0.00	$12,589.19
C3010230	Paint & Covering	$0.00	$430,581.22	$0.00	$0.00	$0.00	$430,581.22
C3020412	Terrazzo & Tile	$0.00	$4,850.93	$0.00	$0.00	$0.00	$4,850.93
C3020413	Vinyl Flooring	$0.00	$580,998.03	$0.00	$0.00	$0.00	$580,998.03
C3020415	Concrete Floor Finishes	$0.00	$14,575.07	$0.00	$0.00	$0.00	$14,575.07
C3030	Ceiling Finishes	$0.00	$904,945.82	$23,935.14	$0.00	$0.00	$928,880.96
D1010	Elevators and Lifts	$0.00	$462,551.02	$0.00	$0.00	$0.00	$462,551.02
D2010	Plumbing Fixtures	$0.00	$463,780.74	$0.00	$0.00	$0.00	$463,780.74
D2020	Domestic Water Distribution	$0.00	$0.00	$0.00	$48,947.09	$369,916.95	$418,864.04
D2030	Sanitary Waste	$0.00	$0.00	$358,119.73	$0.00	$0.00	$358,119.73
D3020	Heat Generating Systems	$0.00	$0.00	$655,796.89	$0.00	$26,678.08	$682,474.97
D3030	Cooling Generating Systems	$0.00	$0.00	$0.00	$0.00	$1,172,321.97	$1,172,321.97
D3040	Distribution Systems	$196,866.60	$0.00	$1,026,168.56	$0.00	$2,534,973.26	$3,758,008.42
D3060	Controls & Instrumentation	$0.00	$1,566,000.16	$0.00	$0.00	$0.00	$1,566,000.16
D4010	Sprinklers	$0.00	$0.00	$0.00	$0.00	$1,044,299.01	$1,044,299.01
D5010	Electrical Service/Distribution	$1,498,690.37	$0.00	$0.00	$0.00	$0.00	$1,498,690.37
D5020	Lighting and Branch Wiring	$523,048.65	$0.00	$1,200,420.86	$0.00	$0.00	$1,723,469.51
D5030	Communications and Security	$414,490.90	$0.00	$0.00	$0.00	$0.00	$414,490.90
D5090	Other Electrical Systems	$0.00	$0.00	$236,854.57	$27,507.98	$0.00	$264,362.55
E1020	Institutional Equipment	$92,124.15	$0.00	$0.00	$0.00	$0.00	$92,124.15
E2010	Fixed Furnishings	$0.00	$15,116.32	$0.00	$0.00	$0.00	$15,116.32
	Total:	$3,833,800.40	$5,282,690.24	$3,501,295.75	$76,455.07	$5,148,189.27	$17,842,430.73

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: $17,842,430.73

Deficiency Details by Priority

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

Priority 1 - Response Time (< 2 yr):

System: B3010105 - Built-Up

Location: roof
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Remove and Replace Built Up Roof
Qty: 34,385.00
Unit of Measure: S.F.
Estimate: $985,302.53
Assessor Name: System
Date Created: 09/18/2015

Notes: Remove and replace roof (34,385sf roofing)

System: C1010 - Partitions

Location: stairway walls at corridors
Distress: Building / MEP Codes
Category: 2 - Code Compliance
Priority: 1 - Response Time (< 2 yr)
Correction: Install fire rated walls and door where required - insert number of doors
Qty: 1,000.00
Unit of Measure: S.F.
Estimate: $123,121.51
Assessor Name: System
Date Created: 09/18/2015

Notes: Provide fire rated walls in place of non-rated glass walls above stair doors, where stairs meet corridor (1000sf)

System: C2010 - Stair Construction

Location: basement stair in front of building

Distress: Failing

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

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

Qty: 10.00

Unit of Measure: L.F.

Estimate: $155.69

Assessor Name: System

Date Created: 09/18/2015

Notes: Replace exterior railing at basement stair in front (12ft)

System: D3040 - Distribution Systems

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Conduct a steam trap survey and replace failed units.

Qty: 60,000.00

Unit of Measure: S.F.

Estimate: $196,866.60

Assessor Name: System

Date Created: 11/17/2015

Notes: Conduct a steam trap survey to identify and replace failed traps passing live steam into the condensate piping system.

System: D5010 - Electrical Service/Distribution

Location: Basement

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Add Electrical Switchgear and Distribution System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $1,093,290.83

Assessor Name: System

Date Created: 09/09/2015

Notes: Upgrade the existing electrical service with a new service. Replace the existing switchboard with new 1600A, 480/277, 3PH, 4 wire switchboard. Provide two 150KVA,480V to 120/208V step down transformer for providing power to Kitchen equipment, receptacles and other 208volts loads throughout the building.

System: D5010 - Electrical Service/Distribution

Location: Entire Building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Replace Electrical Distribution System (U)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $405,399.54

Assessor Name: System

Date Created: 09/09/2015

Notes: Replace the entire distribution system with new panels and new wiring/conduits. Our recommendation is to replace existing conduits and wiring to new Junction boxes, receptacles, and lighting. Provide arc flush label on the electrical equipment. Estimated 16 panel boards.

System: D5020 - Lighting and Branch Wiring

Location: Entire Building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 1 - Response Time (< 2 yr)

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

Qty: 1.00

Unit of Measure: S.F.

Estimate: $523,048.65

Assessor Name: System

Date Created: 09/09/2015

Notes: Install minimum two receptacles in each wall of class rooms and sufficient number of receptacles in other areas per NEC. We recommend adding a two-compartment surface mounted raceway, for data power, for the computer lab room. Estimated 300 receptacles.

System: D5030 - Communications and Security

Location: Entier 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: $347,739.98

Assessor Name: System

Date Created: 09/09/2015

Notes: Replace existing fire alarm system 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.

System: D5030 - Communications and Security

Location: Auditorium

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 1 - Response Time (< 2 yr)

Correction: Add/Replace Sound System

Qty: 1.00

Unit of Measure: LS

Estimate: $39,453.05

Assessor Name: System

Date Created: 09/09/2015

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: Entire building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 1 - Response Time (< 2 yr)

Correction: Add/Replace Clock System or Components

Qty: 1.00

Unit of Measure: Ea.

Estimate: $27,297.87

Assessor Name: System

Date Created: 09/09/2015

Notes: Provide master clock system including wireless master clock controller and new clock in the classes and offices.

System: E1020 - Institutional Equipment

This deficiency has no image.

Location: auditorium

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 1 - Response Time (< 2 yr)

Correction: Add/Replace Stage Theatrical Lighting System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $92,124.15

Assessor Name: System

Date Created: 09/09/2015

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

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

System: A2020 - Basement Walls

Location: mechanical room

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Repair cracks in foundation walls - pick the appropriate repair and insert the LF

Qty: 300.00

Unit of Measure: L.F.

Estimate: $3,619.32

Assessor Name: System

Date Created: 09/18/2015

Notes: Repair cracked basement walls around louvers and other areas (300sf)

System: B1010 - Floor Construction

Location: basement

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Repair spalled concrete floor - pick the correct repair and insert the SF of floor area

Qty: 100.00

Unit of Measure: S.F.

Estimate: $4,211.89

Assessor Name: System

Date Created: 09/18/2015

Notes: Repair concrete slabs under cracking VAT (100sf)

System: B2010 - Exterior Walls

Location: exterior walls

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 1,000.00

Unit of Measure: S.F.

Estimate: $32,289.47

Assessor Name: System

Date Created: 09/18/2015

Notes: Repair/repoint masonry cracks in exterior walls and damaged masonry (1000sf)

System: B2030 - Exterior Doors

Location: exterior doors

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Remove and replace exterior doors - per leaf

Qty: 33.00

Unit of Measure: Ea.

Estimate: $255,284.42

Assessor Name: System

Date Created: 09/18/2015

Notes: Replace exterior doors and hardware (33) 3'x7'

System: C1020 - Interior Doors

Location: interior rooms

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 100.00

Unit of Measure: Ea.

Estimate: $398,586.74

Assessor Name: System

Date Created: 09/18/2015

Notes: Replace old, broken wood interior doors with new solid core oak doors and steel frames with lever handle hardware sets (100) 3’x7’

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: 60.00

Unit of Measure: Ea.

Estimate: $13,766.19

Assessor Name: System

Date Created: 09/18/2015

Notes: Provide security hardware for classrooms and offices locking from inside of room (60 each)

System: C1030 - Fittings

Location: toilet rooms

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Remove and replace toilet partitions

Qty: 40.00

Unit of Measure: Ea.

Estimate: $102,656.19

Assessor Name: System

Date Created: 09/18/2015

Notes: Replace all toilet room partitions (approx. 40 toilet compartments; 25 urinals)

System: C1030 - Fittings

Location: toilet rooms

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Replace toilet accessories - select accessories and quantity

Qty: 6.00

Unit of Measure: Ea.

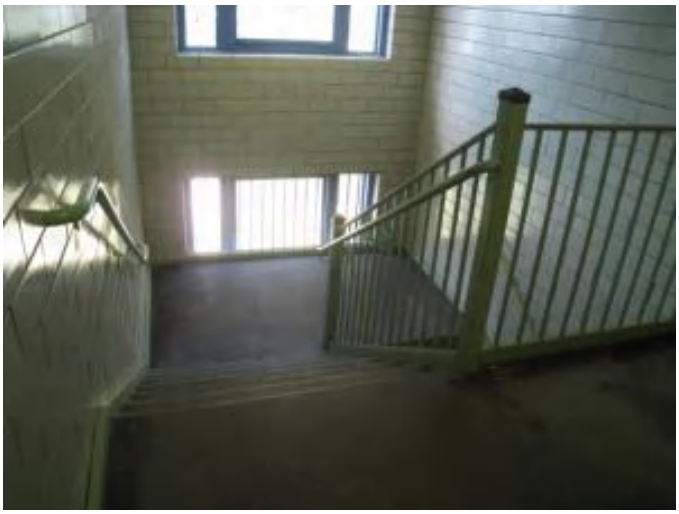
Estimate: $16,443.21

Assessor Name: System

Date Created: 09/18/2015

Notes: Replace broken or missing toilet room accessories (approx. 6 sets)

System: C2010 - Stair Construction



Location: stairways

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Re-paint stairway metal balustrade - based on SF of balustrades - paint both sides

Qty: 700.00

Unit of Measure: S.F.

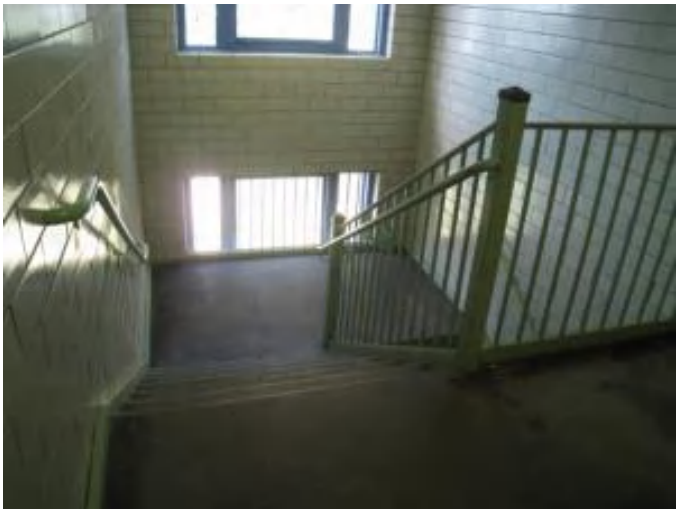
Estimate: $9,922.63

Assessor Name: System

Date Created: 09/18/2015

Notes: Repaint balustrade in stairways (240ft)

System: C2010 - Stair Construction



Location: stairs

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Re-paint stairway handrails - per LF of handrail pipe

Qty: 240.00

Unit of Measure: L.F.

Estimate: $1,315.27

Assessor Name: System

Date Created: 09/18/2015

Notes: Repaint railings in stairways (240ft of railing run)

System: C2010 - Stair Construction

Location: exterior stairs

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 80.00

Unit of Measure: L.F.

Estimate: $1,195.60

Assessor Name: System

Date Created: 09/18/2015

Notes: Repoint stairs (4 risers, 12ft long; 5 risers 7ft long)

System: C3010230 - Paint & Covering

Location: classrooms and corridors

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 80,000.00

Unit of Measure: S.F.

Estimate: $408,678.96

Assessor Name: System

Date Created: 09/18/2015

Notes: Repaint approximately one-quarter of interior walls (80,000sf)

System: C3010230 - Paint & Covering

Location: classroom storage units adj to univents

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 2,400.00

Unit of Measure: S.F.

Estimate: $16,257.30

Assessor Name: System

Date Created: 09/18/2015

Notes: Repaint steel shelving around univents (2400sf)

System: C3010230 - Paint & Covering

Location: auditorium walls

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 500.00

Unit of Measure: S.F.

Estimate: $5,644.96

Assessor Name: System

Date Created: 09/18/2015

Notes: Repair wood wainscot in auditorium (500sf)

System: C3020412 - Terrazzo & Tile

Location: toilet rooms
Distress: Appearance
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Refinish terrazzo or tile flooring
Qty: 1,500.00
Unit of Measure: S.F.
Estimate: $4,850.93
Assessor Name: System
Date Created: 09/18/2015

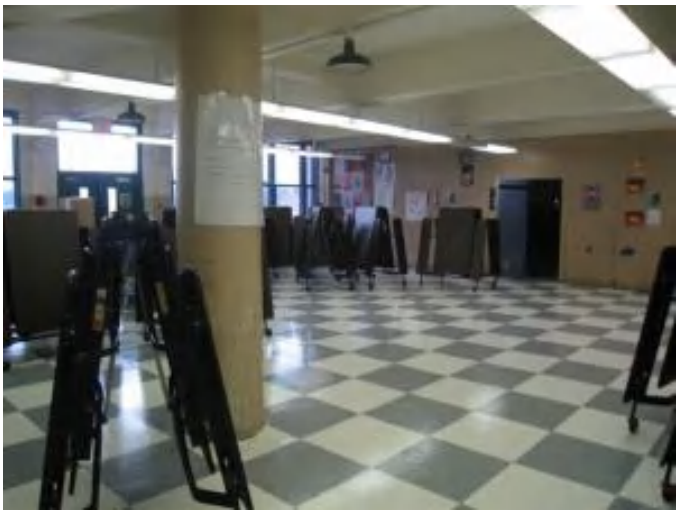
Notes: Strip and polish bathroom terrazzo floors (1500sf)

System: C3020413 - Vinyl Flooring

Location: all floors
Distress: Health Hazard / Risk
Category: 1 - Health & Safety
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove VAT and replace with VCT - SF of area
Qty: 53,000.00
Unit of Measure: S.F.
Estimate: $575,190.85
Assessor Name: System
Date Created: 09/18/2015

Notes: Replace VAT after testing to confirm presence of asbestos (53,000sf)

System: C3020413 - Vinyl Flooring



Location: cafeteria, gym, other rooms
Distress: Damaged
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and replace VCT
Qty: 500.00
Unit of Measure: S.F.
Estimate: $5,807.18
Assessor Name: System
Date Created: 09/18/2015

Notes: Replace damaged and cracked VCT floors in cafeteria and other rooms (500sf)

System: C3020415 - Concrete Floor Finishes

Location: mechanical area and stairs
Distress: Appearance
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Clean and reseal concrete floors
Qty: 5,000.00
Unit of Measure: S.F.
Estimate: $14,575.07
Assessor Name: System
Date Created: 09/18/2015

Notes: Clean and reseal/repaint concrete floor slab mechanical rooms and stair treads (5000sf)

System: C3030 - Ceiling Finishes

Location: all rooms

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 60,000.00

Unit of Measure: S.F.

Estimate: $904,945.82

Assessor Name: System

Date Created: 09/18/2015

Notes: Replace all acoustical tile ceilings with new suspended acoustical tile clg system (60,000sf)

System: D1010 - Elevators and Lifts

This deficiency has no image.

Location: near new ADA ramp

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Add interior hydraulic elevator - 3 floors - adjust the electrical run lengths to hook up the elevator

Qty: 1.00

Unit of Measure: Ea.

Estimate: $462,551.02

Assessor Name: System

Date Created: 09/18/2015

Notes: Provide hydraulic elevator, 3 stops.

System: D2010 - Plumbing Fixtures

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 30.00

Unit of Measure: Ea.

Estimate: $223,864.43

Assessor Name: System

Date Created: 11/17/2015

Notes: Replace all water closets in the building with lower flow fixtures, as the fixtures are original.

System: D2010 - Plumbing Fixtures

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 9.00

Unit of Measure: Ea.

Estimate: $141,236.07

Assessor Name: System

Date Created: 11/17/2015

Notes: Replace the wall hung drinking fountains and integral refrigerated coolers in the corridors and at the restrooms. These units are well beyond their service life and most are NOT accessible type.

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: 19.00

Unit of Measure: Ea.

Estimate: $63,062.59

Assessor Name: System

Date Created: 11/17/2015

Notes: Replace all urinals in the building with lower flow fixtures, as the fixtures are original.

System: D2010 - Plumbing Fixtures

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 5.00

Unit of Measure: Ea.

Estimate: $34,080.46

Assessor Name: System

Date Created: 11/17/2015

Notes: Replace service sinks (janitor sinks) in the building.

System: D2010 - Plumbing Fixtures

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 9.00

Unit of Measure: Ea.

Estimate: $1,537.19

Assessor Name: System

Date Created: 11/17/2015

Notes: Replace all lavatories in the building with lower flow fixtures, as the fixtures are original.

System: D3060 - Controls & Instrumentation

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace pneumatic controls with DDC (75KSF)

Qty: 73,000.00

Unit of Measure: S.F.

Estimate: $1,566,000.16

Assessor Name: System

Date Created: 11/17/2015

Notes: Replace the pneumatic controls for the HVAC systems with modern DDC modules, valves and actuators to improve reliability and energy efficiency.
Provide a new building automation system (BAS) with communication interface to the preferred system in use throughout the District.

System: E2010 - Fixed Furnishings

Location: auditorium

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 100.00

Unit of Measure: Ea.

Estimate: $15,116.32

Assessor Name: System

Date Created: 09/18/2015

Notes: Repair scratched and damaged folding wood auditorium chairs (100 chairs)

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

System: C3030 - Ceiling Finishes

Location: water damaged exposed ceilings

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Re-paint ceilings - SF of ceilings

Qty: 5,000.00

Unit of Measure: S.F.

Estimate: $23,935.14

Assessor Name: System

Date Created: 09/18/2015

Notes: Repaint water damaged exposed ceilings (5000)

System: D2030 - Sanitary Waste

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Inspect sanitary waste piping and replace damaged sections. (+50KSF)

Qty: 73,000.00

Unit of Measure: S.F.

Estimate: $358,119.73

Assessor Name: System

Date Created: 11/17/2015

Notes: Hire a qualified contractor to perform a detailed examination of the sanitary waste piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures

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System: D3020 - Heat Generating Systems

Location: Boiler Mechanical Equipment Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 2.00

Unit of Measure: Ea.

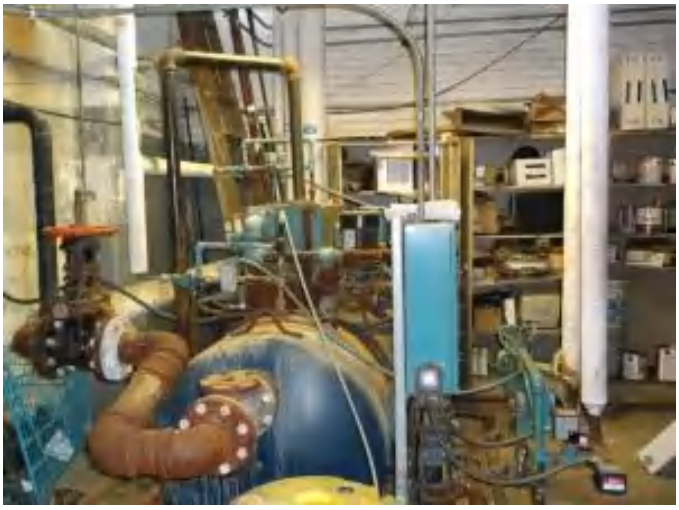
Estimate: $655,796.89

Assessor Name: System

Date Created: 11/17/2015

Notes: Replace the two 3,385 MBH Weil McLain 94 series steam boilers estimated to have been in service since the 1970s.

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: 73,000.00

Unit of Measure: S.F.

Estimate: $690,607.29

Assessor Name: System

Date Created: 11/17/2015

Notes: Hire a qualified contractor to examine the steam and condensate piping in service for 65 years and perform additional testing to locate and replace any damaged piping and to further quantify the extent of potential failures. The District should budget for replacing this piping over the next 10 years.

System: D3040 - Distribution Systems

Location: Cafeteria

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Install / replace HVAC unit for Auditorium (800 seat).

Qty: 600.00

Unit of Measure: Seat

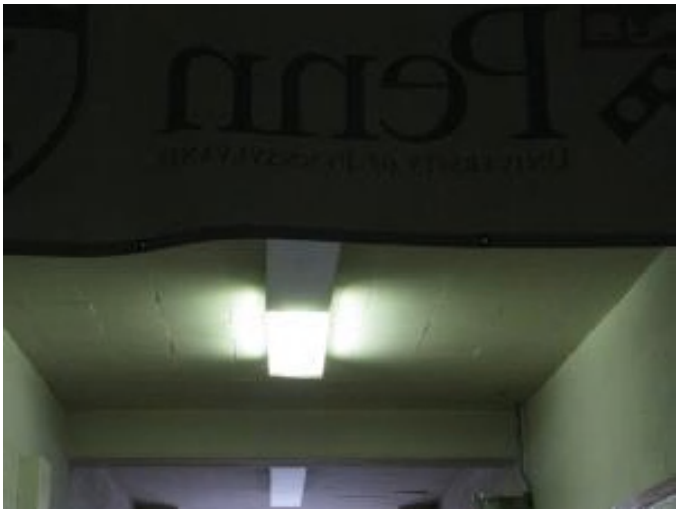
Estimate: $335,561.27

Assessor Name: System

Date Created: 11/20/2015

Notes: Provide ventilation, heating and cooling for the Auditorium by removing the existing unit ventilators and convection heaters and installing a package rooftop constant volume air handling unit with distribution ductwork and registers.

System: D5020 - Lighting and Branch Wiring



Location: Entire Building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace Lighting Fixtures (SF)

Qty: 0.00

Unit of Measure: S.F.

Estimate: $1,200,420.86

Assessor Name: System

Date Created: 09/09/2015

Notes: Replace all lighting fixtures with new fluorescent lighting fixtures with T-5 lamp throughout all buildings. Provide emergency power to sufficient number of lights in corridors and other egress ways.

System: D5090 - Other Electrical Systems

Location: Basement

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

Correction: Replace standby generator system

Qty: 1.00

Unit of Measure: Ea.

Estimate: $236,854.57

Assessor Name: System

Date Created: 09/09/2015

Notes: Replace the existing emergency generator with a 100KW diesel generator.

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

System: D2020 - Domestic Water Distribution

Location: Boiler Mechanical Equipment Room
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 4 - Response Time (4-5 yrs)
Correction: Replace instantaneous water heater
Qty: 2.00
Unit of Measure: Ea.
Estimate: $48,947.09
Assessor Name: System
Date Created: 11/17/2015

Notes: Replace two instantaneous natural gas fired tankless water heaters.

System: D5090 - Other Electrical Systems

Location: Roof
Distress: Life Safety / NFPA / PFD
Category: 1 - Health & Safety
Priority: 4 - Response Time (4-5 yrs)
Correction: Provide Lightning Protection System
Qty: 1.00
Unit of Measure: LS
Estimate: $27,507.98
Assessor Name: System
Date Created: 09/09/2015

Notes: Provide lightning protection studies to ascertain adequacy of existing systems.

Priority 5 - Response Time (> 5 yrs):

System: D2020 - Domestic Water Distribution

Location: Throughout the building
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 5 - Response Time (> 5 yrs)
Correction: Replace domestic water piping (75 KSF)
Qty: 73,000.00
Unit of Measure: S.F.
Estimate: $369,916.95
Assessor Name: System
Date Created: 11/17/2015

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

System: D3020 - Heat Generating Systems

Location: Boiler Mechanical Equipment Room
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 5 - Response Time (> 5 yrs)
Correction: Replace fuel oil pumps
Qty: 1.00
Unit of Measure: Ea.
Estimate: $26,678.08
Assessor Name: System
Date Created: 11/17/2015

Notes: Replace duplex fuel oil pumps.

System: D3030 - Cooling Generating Systems

Location: Adjacent to building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

Correction: Install chilled water system with distribution piping and pumps. (+75KSF)

Qty: 73,000.00

Unit of Measure: S.F.

Estimate: $1,172,321.97

Assessor Name: System

Date Created: 11/17/2015

Notes: Remove the window air conditioning units and install a 250 ton air-cooled chiller on the roof with chilled water distribution piping and pumps located in a mechanical room on the basement level to supply more reliable air conditioning for the building with a much longer service life.

System: D3040 - Distribution Systems

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 20.00

Unit of Measure: C

Estimate: $1,661,219.77

Assessor Name: System

Date Created: 11/17/2015

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

System: D3040 - Distribution Systems

Location: Gym

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 12,000.00

Unit of Measure: Ea.

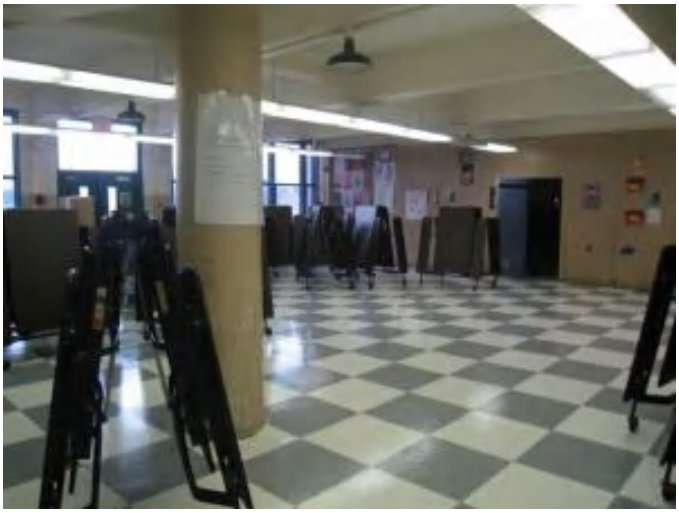
Estimate: $616,602.09

Assessor Name: System

Date Created: 11/17/2015

Notes: Provide ventilation, heating and cooling for the gymnasium by installing a packaged roof top unit.

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: 550.00

Unit of Measure: Pr.

Estimate: $257,151.40

Assessor Name: System

Date Created: 11/17/2015

Notes: Provide ventilation, heating and cooling for the Cafeteria by removing the existing unit ventilators and installing a package rooftop constant volume air handling unit with distribution ductwork and registers.

System: D4010 - Sprinklers

Location: Throughout the building

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

Priority: 5 - Response Time (> 5 yrs)

Correction: Install a fire protection sprinkler system

Qty: 73,000.00

Unit of Measure: S.F.

Estimate: $1,044,299.01

Assessor Name: System

Date Created: 11/17/2015

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

Equipment Inventory

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

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 3770 MBH, includes burners, controls and insulated jacket, packaged	2.00	Ea.	Boiler Mechanical Equipment Room	Weil McLain	1994			35			$101,088.50	$222,394.70
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 3770 MBH, includes burners, controls and insulated jacket, packaged	2.00	Ea.	Boiler Mechanical Equipment Room	Weil McLain	1994			35			$101,088.50	$222,394.70
D5010 Electrical Service/Distribution	Switchboards, main lugs only, 3 pole, 3 wire, to 600 volt, 800 amp	1.00	Ea.	Building engineer office					30	1950	2017	$3,539.70	$3,893.67
												Total:	**$448,683.07**

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):	200,000
Year Built:	1950
Last Renovation:	
Replacement Value:	$3,511,940
Repair Cost:	$243,366.62
Total FCI:	6.93 %
Total RSLI:	45.67 %

Description:

Attributes:

General Attributes:

Bldg ID:	S827001	Site ID:	S827001

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	42.05 %	9.21 %	$243,366.62
G40 - Site Electrical Utilities	56.67 %	0.00 %	$0.00
Totals:	**45.67 %**	**6.93 %**	**$243,366.62**

Condition Detail

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

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

System Listing

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

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

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

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
G2010	Roadways	$11.52	S.F.		30				0.00 %	0.00 %				$0
G2020	Parking Lots	$7.65	S.F.	8,000	30	1950	1980	2047	106.67 %	328.46 %	32		$201,018.97	$61,200
G2030	Pedestrian Paving	$11.52	S.F.	127,000	40	1950	1990	2028	32.50 %	0.86 %	13		$12,636.48	$1,463,040
G2040	Site Development	$4.36	S.F.	200,000	25	1950	1975	2029	56.00 %	3.41 %	14		$29,711.17	$872,000
G2050	Landscaping & Irrigation	$3.78	S.F.	65,000	15	1950	1965	2020	33.33 %	0.00 %	5			$245,700
G4020	Site Lighting	$3.58	S.F.	200,000	30	1950	1980	2032	56.67 %	0.00 %	17			$716,000
G4030	Site Communications & Security	$0.77	S.F.	200,000	30	1950	1980	2032	56.67 %	0.00 %	17			$154,000
								Total	**45.67 %**	**6.93 %**			**$243,366.62**	**$3,511,940**

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.

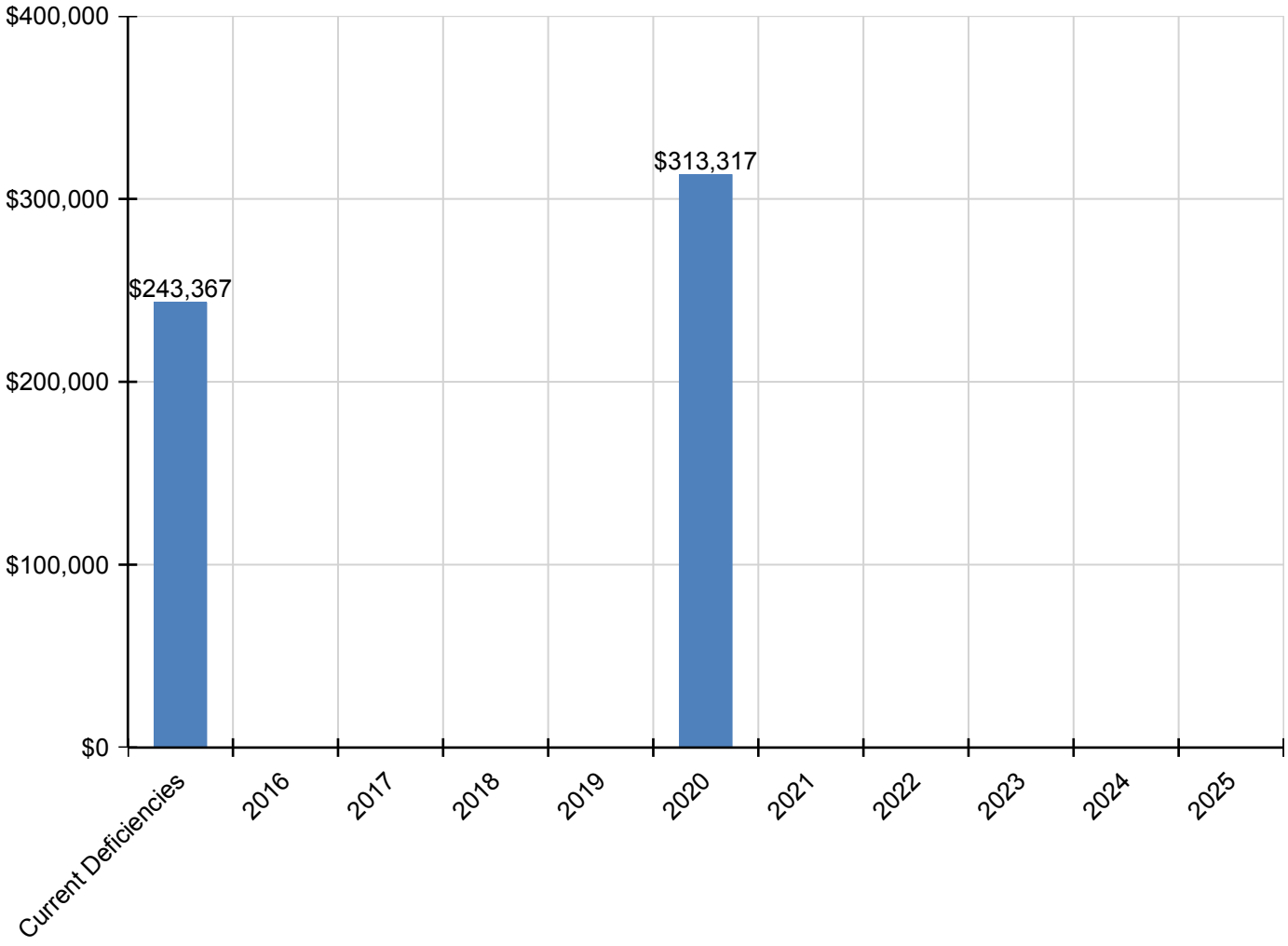
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$243,367**	**$0**	**$0**	**$0**	**$0**	**$313,317**	**$0**	**$0**	**$0**	**$0**	**$0**	**$556,684**
G - Building Sitework	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G20 - Site Improvements	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2010 - Roadways	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2020 - Parking Lots	$201,019	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$201,019**
G2030 - Pedestrian Paving	$12,636	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$12,636**
G2040 - Site Development	$29,711	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$29,711**
G2050 - Landscaping & Irrigation	$0	$0	$0	$0	$0	$313,317	$0	$0	$0	$0	$0	**$313,317**
G40 - Site Electrical Utilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4020 - Site Lighting	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4030 - Site Communications & Security	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

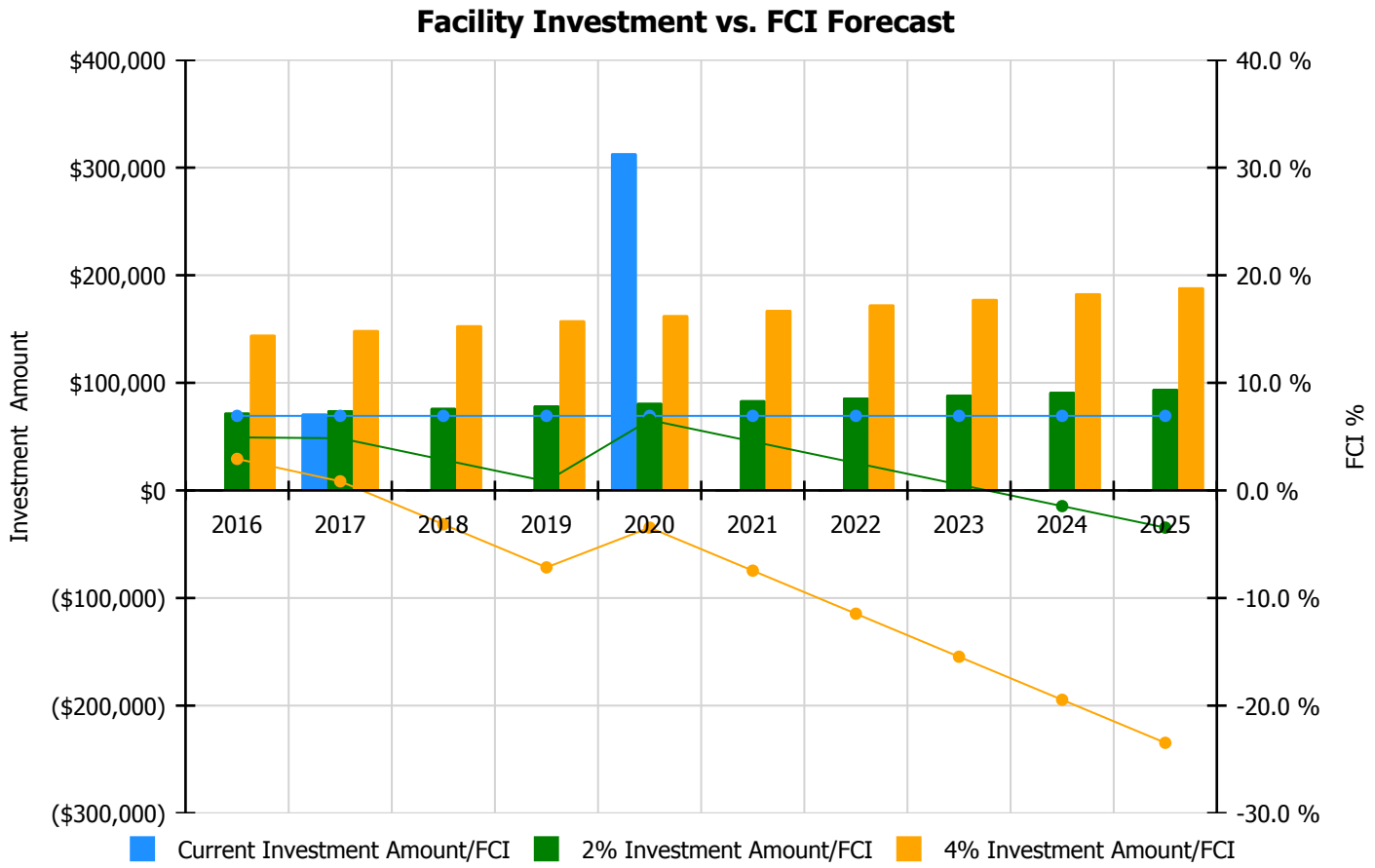
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



10 Year FCI Forecast by Investment Scenario

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

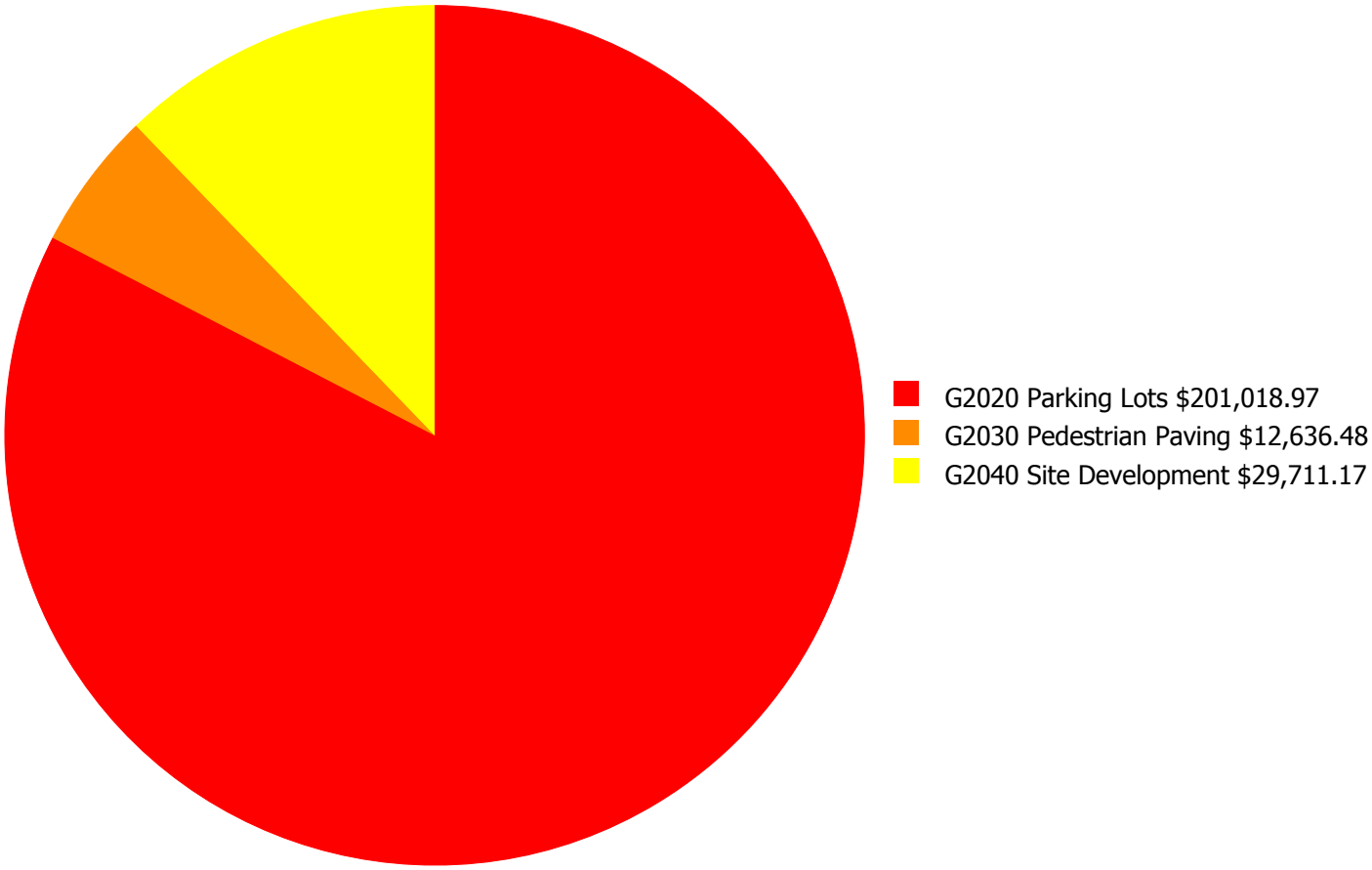
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 6.93%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$72,346.00	4.93 %	$144,692.00	2.93 %
2017	$71,420	$74,516.00	4.85 %	$149,033.00	0.85 %
2018	$0	$76,752.00	2.85 %	$153,504.00	-3.15 %
2019	$0	$79,054.00	0.85 %	$158,109.00	-7.15 %
2020	$313,317	$81,426.00	6.54 %	$162,852.00	-3.46 %
2021	$0	$83,869.00	4.54 %	$167,738.00	-7.46 %
2022	$0	$86,385.00	2.54 %	$172,770.00	-11.46 %
2023	$0	$88,976.00	0.54 %	$177,953.00	-15.46 %
2024	$0	$91,646.00	-1.46 %	$183,291.00	-19.46 %
2025	$0	$94,395.00	-3.46 %	$188,790.00	-23.46 %
Total:	**$384,737**	**$829,365.00**		**$1,658,732.00**	

Deficiency Summary by System

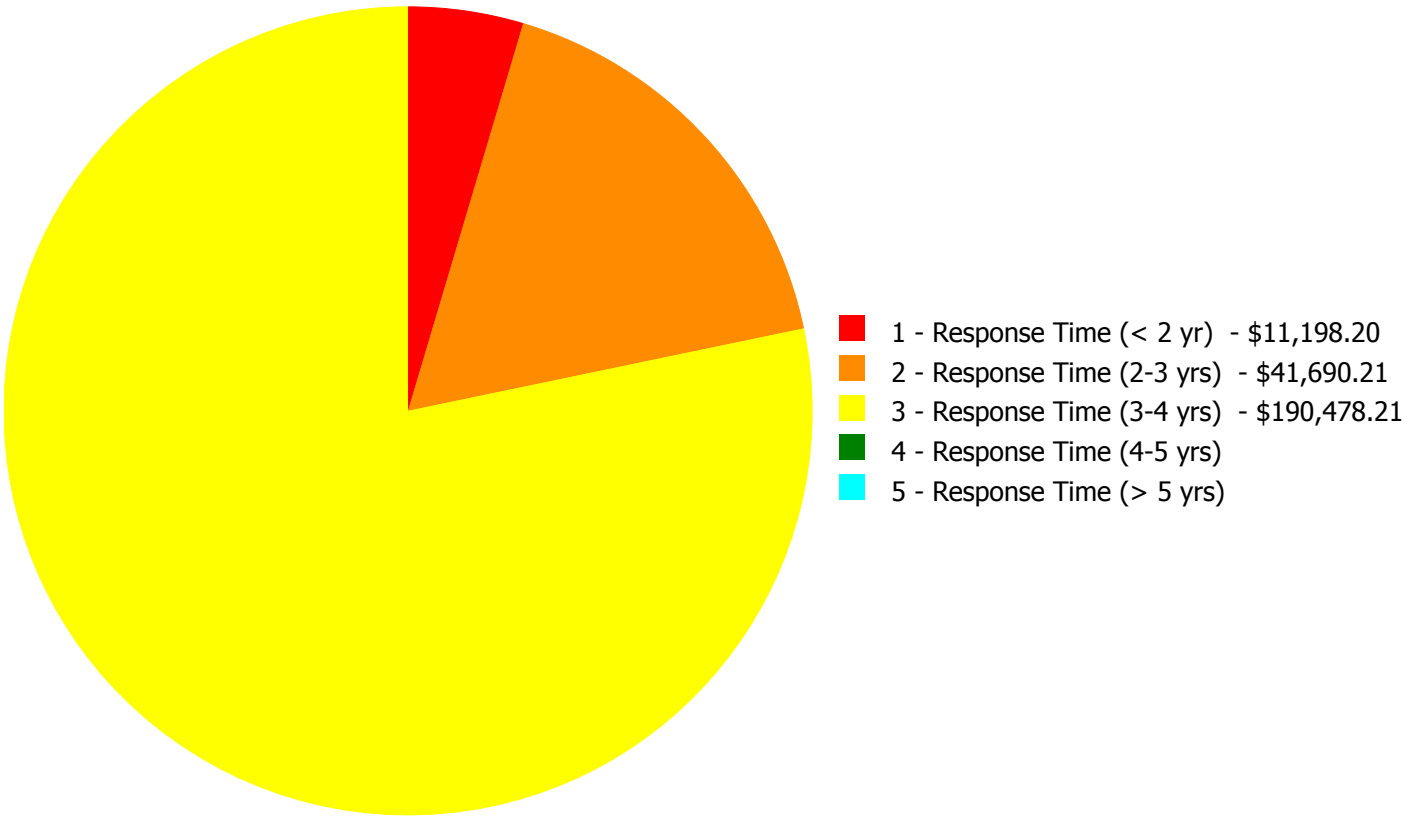
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $243,366.62

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: $243,366.62

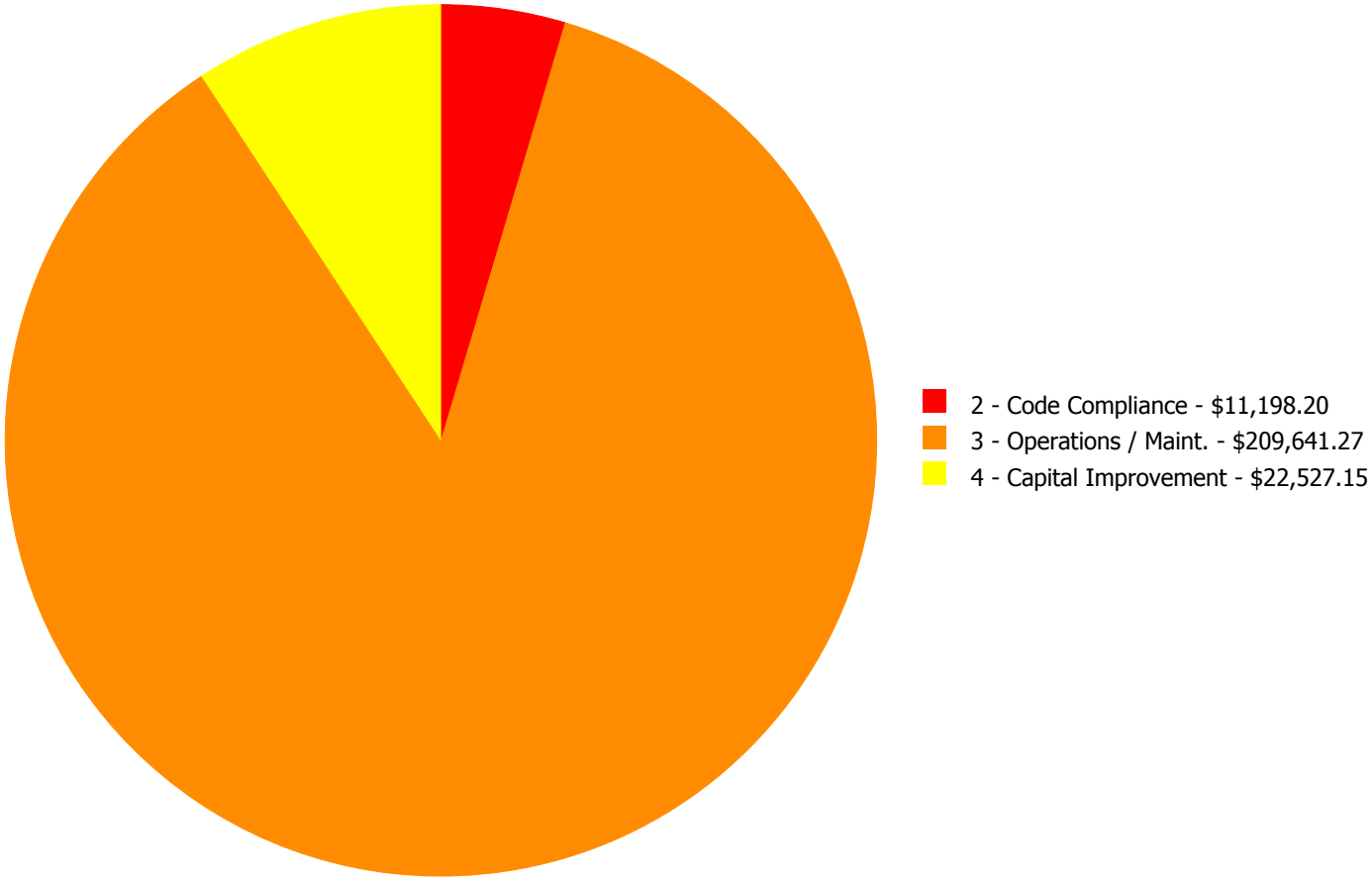
Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
G2020	Parking Lots	$0.00	$10,540.76	$190,478.21	$0.00	$0.00	$201,018.97
G2030	Pedestrian Paving	$11,198.20	$1,438.28	$0.00	$0.00	$0.00	$12,636.48
G2040	Site Development	$0.00	$29,711.17	$0.00	$0.00	$0.00	$29,711.17
	Total:	$11,198.20	$41,690.21	$190,478.21	$0.00	$0.00	$243,366.62

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: $243,366.62

Deficiency Details by Priority

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

Priority 1 - Response Time (< 2 yr):

System: G2030 - Pedestrian Paving

This deficiency has no image.

Location: rear entrance door

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 1 - Response Time (< 2 yr)

Correction: Install an exterior ADA ramp - based on 5' wide by the linear foot - up to a 48" rise - per LF of ramp - figure 1 LF per inch of rise

Qty: 10.00

Unit of Measure: L.F.

Estimate: $11,198.20

Assessor Name: Steven Litman

Date Created: 09/18/2015

Notes: Provide new ADA ramp into rear of building (up 6")

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

System: G2020 - Parking Lots

Location: front drop-off area

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Install needed parking wheel stops

Qty: 80.00

Unit of Measure: Ea.

Estimate: $10,540.76

Assessor Name: Steven Litman

Date Created: 09/18/2015

Notes: Add curbing along entrance / drop-off loop (500ft)

System: G2030 - Pedestrian Paving

Location: front drop-off area

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 100.00

Unit of Measure: S.F.

Estimate: $1,438.28

Assessor Name: Steven Litman

Date Created: 09/18/2015

Notes: Repave damaged sections of concrete walkway at building entrance (100sf)

System: G2040 - Site Development

Location: Willits and Academy Roads

Distress: Inadequate

Category: 4 - Capital Improvement

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

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

Qty: 2.00

Unit of Measure: Ea.

Estimate: $11,986.39

Assessor Name: Steven Litman

Date Created: 09/18/2015

Notes: Provide chain link gates (2) - swinging gates at locations labeled "driveway access"

System: G2040 - Site Development

Location: rear parking lot area

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Replace chain link fence - 8' high

Qty: 100.00

Unit of Measure: L.F.

Estimate: $11,198.78

Assessor Name: Steven Litman

Date Created: 09/18/2015

Notes: Replace damaged chain link fencing (100lf x 8ft tall)

System: G2040 - Site Development

Location: front
Distress: Appearance
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Paint steel picket fence - LF of fence 6' high
Qty: 50.00
Unit of Measure: L.F.
Estimate: $3,263.00
Assessor Name: Steven Litman
Date Created: 09/18/2015

Notes: Paint rusted flagpole

System: G2040 - Site Development

Location: front of building
Distress: Appearance
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Paint steel picket fence - LF of fence 6' high
Qty: 50.00
Unit of Measure: L.F.
Estimate: $3,263.00
Assessor Name: Steven Litman
Date Created: 09/18/2015

Notes: Paint rusted flagpole

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

System: G2020 - Parking Lots

Location: rear parking / playground area

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Resurface parking lot - grind and resurface including striping

Qty: 50,000.00

Unit of Measure: S.F.

Estimate: $190,478.21

Assessor Name: Steven Litman

Date Created: 09/18/2015

Notes: Repave asphalt parking and play surfaces; including re-striping (50,000sf)

Equipment Inventory

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

No data found for this asset

Glossary

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

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

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

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

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

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

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

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

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

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

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