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.

Fitzpatrick School

Governance	DISTRICT	Report Type	Elementarymiddle
Address	11061 Knights Rd.	Enrollment	834
	Philadelphia, Pa 19154	Grade Range	'00-08'
Phone/Fax	215-281-2602 / 215-281-3330	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Fitzpatrick	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	**14.55%**	**$25,176,520**	**$173,056,624**
Building	34.53 %	$16,425,848	$47,576,086
Grounds	04.77 %	$826,554	$17,333,159

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	00.00 %	$0	$1,097,782
Exterior Walls (Shows condition of the structural condition of the exterior facade)	01.42 %	$38,001	$2,670,871
Windows (Shows functionality of exterior windows)	16.59 %	$193,431	$1,166,047
Exterior Doors (Shows condition of exterior doors)	44.02 %	$62,886	$142,869
Interior Doors (Classroom doors)	89.31 %	$287,269	$321,668
Interior Walls (Paint and Finishes)	00.90 %	$10,217	$1,130,116
Plumbing Fixtures	29.07 %	$785,305	$2,701,669
Boilers	06.35 %	$101,394	$1,597,219
Chillers/Cooling Towers	65.60 %	$1,373,895	$2,094,264
Radiators/Unit Ventilators/HVAC	158.49 %	$5,828,963	$3,677,795
Heating/Cooling Controls	111.45 %	$1,287,125	$1,154,925
Electrical Service and Distribution	110.51 %	$917,024	$829,835
Lighting	67.58 %	$2,004,890	$2,966,874
Communications and Security (Cameras, Pa System and Fire Alarm)	68.10 %	$756,737	$1,111,295

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.

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.

Fitzpatrick (Annex) School

Governance	DISTRICT	Report Type	Elementarymiddle
Address	11061 Knights Rd.	Enrollment	
	Philadelphia, Pa 19154	Grade Range	'00-08'
Phone/Fax	215-281-2602 / 215-281-3330	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Fitzpatrick	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	**14.55%**	**$25,176,520**	**$173,056,624**
Building	37.02 %	$2,279,466	$6,158,036
Grounds	04.77 %	$826,554	$17,333,159

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	89.32 %	$508,787	$569,636
Exterior Walls (Shows condition of the structural condition of the exterior facade)	08.98 %	$35,033	$390,250
Windows (Shows functionality of exterior windows)	225.73 %	$384,592	$170,375
Exterior Doors (Shows condition of exterior doors)	22.89 %	$4,778	$20,875
Interior Doors (Classroom doors)	20.07 %	$9,432	$47,000
Interior Walls (Paint and Finishes)	04.54 %	$7,502	$165,125
Plumbing Fixtures	12.42 %	$33,782	$271,904
Boilers	00.00 %	$0	$160,749
Chillers/Cooling Towers	00.00 %	$0	$210,773
Radiators/Unit Ventilators/HVAC	47.88 %	$177,234	$370,144
Heating/Cooling Controls	461.39 %	$536,300	$116,235
Electrical Service and Distribution	158.35 %	$132,251	$83,517
Lighting	07.02 %	$20,953	$298,595
Communications and Security (Cameras, Pa System and Fire Alarm)	54.85 %	$61,349	$111,844

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

S804001;Rush and FitzPatrick

Final

Site Assessment Report

January 31, 2017

PARSONS

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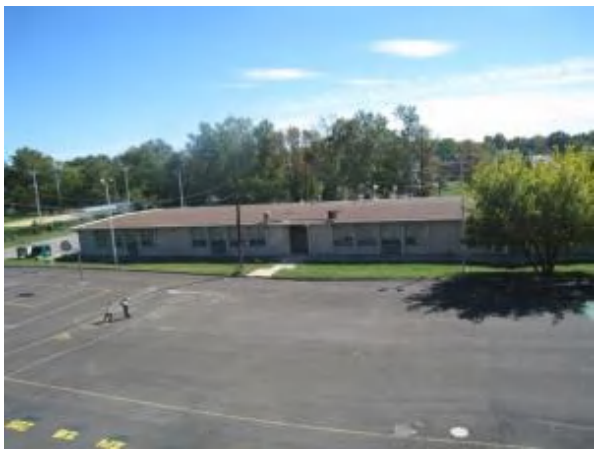
Site Executive Summary

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

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

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

Gross Area (SF):	285,445
Year Built:	1960
Last Renovation:	
Replacement Value:	$173,056,624
Repair Cost:	$25,176,520.38
Total FCI:	14.55 %
Total RSLI:	53.73 %



Description:

See respective Building nodes for narrative reports.

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 3 / Tm 2
Status:	Accepted by SDP	Team:	Tm 2
Site ID:	S804001		

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	50.30 %	0.00 %	$0.00
A20 - Basement Construction	49.21 %	0.00 %	$0.00
B10 - Superstructure	50.38 %	0.01 %	$3,245.57
B20 - Exterior Enclosure	62.35 %	7.13 %	$1,260,421.31
B30 - Roofing	84.81 %	7.53 %	$508,786.73
C10 - Interior Construction	47.98 %	4.74 %	$348,787.56
C20 - Stairs	59.63 %	56.33 %	$234,152.59
C30 - Interior Finishes	62.88 %	9.26 %	$1,253,154.47
D10 - Conveying	105.71 %	77.40 %	$171,935.68
D20 - Plumbing	42.15 %	37.58 %	$2,926,307.50
D30 - HVAC	68.90 %	40.21 %	$12,444,684.20
D40 - Fire Protection	80.97 %	48.25 %	$1,144,434.29
D50 - Electrical	75.71 %	23.80 %	$3,939,487.52
E10 - Equipment	21.20 %	2.07 %	$93,445.81
E20 - Furnishings	17.89 %	3.47 %	$21,122.76
G20 - Site Improvements	0.00 %	6.87 %	$826,554.39
G40 - Site Electrical Utilities	0.00 %	0.00 %	$0.00
Totals:	**53.73 %**	**14.55 %**	**$25,176,520.38**

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)
B804001;Rush	173,550	4.79	$1,844,494.79	$880,634.84	$0.00	$1,019,780.22	$752,985.46
B804002;Rush Annex	13,845	14.09	$32,347.30	$321,781.37	$245,287.55	$7,864.71	$539,475.81
B839001;Fitzpatrick	85,550	34.53	$7,079,802.96	$3,777,691.98	$1,305,051.23	$0.00	$4,263,302.13
B839201;Fitzpatrick (Annex)	12,500	37.02	$717,606.75	$1,135,298.00	$299,877.23	$0.00	$126,683.66
G804001;Grounds	1,220,600	4.77	$6,924.15	$362,482.53	$457,147.71	$0.00	$0.00
Total:		**14.55**	**$9,681,175.95**	**$6,477,888.72**	**$2,307,363.72**	**$1,027,644.93**	**$5,682,447.06**

Deficiencies By Priority

1 - Response Time (< 2 yr) - $9,681,175.95
2 - Response Time (2-3 yrs) - $6,477,888.72
3 - Response Time (3-4 yrs) - $2,307,363.72
4 - Response Time (4-5 yrs) - $1,027,644.93
5 - Response Time (> 5 yrs) - $5,682,447.06

Budget Estimate Total: $25,176,520.38

Executive Summary

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

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

Function:	Middle School
Gross Area (SF):	173,550
Year Built:	1968
Last Renovation:	2007
Replacement Value:	$93,848,331
Repair Cost:	$4,497,895.31
Total FCI:	4.79 %
Total RSLI:	55.39 %

Description:

Facility Condition Assessment

October 2015

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School District of Philadelphia
The Arts Academy at Benjamin Rush
11081 Knights Road
Philadelphia, PA 19154

173,550 SF / 1,169 Students / LN 08

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Rush Annex

11081 Knights Road

Philadelphia, PA 19154

.

13,845 SF

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General

The Arts Academy at Benjamin Rush (high school) is located at 11081 Knights Road. The two-story main building was constructed in 1968. The one-story Annex was constructed in 1971 and now being renovated to serve as the School District IT Center. The main building contains classrooms, science labs, kitchen, cafeteria, auditorium, gymnasium, and IMC (instructional material center). The inspection team was told that there was a major interior renovation approximately 8 years ago in 2007 where windows, doors, and most finishes were replaced. The front entrance to the Main Building faces Knights Road. There are parking lots to the right and left of the main building and behind the Annex. A loop road provides access to the mechanical areas and loading dock behind the main building. There is a partial basement containing the boilers and boiler support equipment. Air handlers are located in mechanical rooms throughout the building. The access and maintenance of equipment in these upper mechanical equipment rooms is very challenging. These rooms are accessed from classrooms which would cause a disturbance to the class if accessed during teaching. Additionally, the mechanical spaces are very narrow and odd-shaped; it is almost impossible to remove any full component and even with disassembly it would be very difficult to remove broken down parts of equipment. Simple maintenance activities such as filter changing or pipe valve access is difficult with some spaces having access less than 12” in width; some air handler access doors cannot be opened. Gerry Harkins, the Building Engineer accompanied the FCA team during the inspection.

The inspection Team met Principal Lori Defields at the time of the field inspection. In particular, she indicated that the heating and air conditioning system does not provide the same level of comfort in all spaces – some rooms are hot and some are cold. The team was also told that there are leaks on the second floor from the HVAC system that are probably from piping problems. The elevator is old, not reliable, and to ensure safe operations, the building engineer must operate the elevator to minimize potential accidents. Another issue of concern is the crumbling paving at the drop-off area in front of the building. This is a safety hazard, potential tripping hazard, and should be repaired to prevent accidents.

Architectural/Structural

Foundations are constructed of concrete and concrete block. There is a partial basement containing the boiler and other heating system equipment. Footings at the bottom of the foundations were not seen and their construction type or condition could not be ascertained. There was no evidence of any major settlement.

First floor slabs on grade have a few areas of cracking showing through terrazzo floor finishes at in corridors. There was no cracking observed through VCT (vinyl composition tile) in any second floor space. The structural system observed in the basement and upper floor mechanical rooms was structural steel beams and concrete columns (which could be steel encased in concrete, but this could not be ascertained). Except for the gym and auditorium, all steel beams observed were fireproofed.

Roof construction over the gymnasium and auditorium high bay was observed to be steel beams, long-span bar joists, and a metal roof deck. Roof construction over the other sections of the building could not be seen, but it is thought that they are also constructed of steel beams, joists, and a metal deck. The roof deck above all parts of the building consists of a metal deck pitched to roof drains. From the lack of standing water and dirt stains, it appears that the slope of the deck is adequate to drain the water from the roof. Roof access to the main roof is via a roof hatch in the main roof. Factory painted aluminum coping caps off the top of the exterior walls above the roof deck. There is a ladder to the upper roof over the mechanical equipment area, but the ladder ending requires stepping onto the coping which can trample and damage the metal. The main roof has low parapets and has internal roof drains at low points with vertical leaders running down through the building in internal chases. There are no vertical leaders running down the outside of the exterior walls. There are no overflow scuppers or overflow roof drains, and although required by today’s building codes, if the roof deck was designed to carry the load of the water contained by the parapet if all roof drains were clogged, this is not a structural concern.

Exterior walls of the main building are constructed of brick that has been painted off-light tan. The upper part of the wall is finished with a metal mansard which has been painted light blue. The painted brick is generally in good condition, however the mansard and coping at the top are fading and peeling in many locations. It is unfortunate that the brick which is a long-lasting natural material has been covered with a high maintenance material such as paint. However, one section of the main building in the rear is unpainted and it can be seen that the brick and the anti-graffiti coating applied to the first floor is worn and developing mildew, in need of cleaning or painting; thus it can be understood that the paint was meant to be a solution to the messy looking walls. Similarly, although the factory painted steel has been field painted with a less durable paint; in the rear in the same location as the unpainted brick, the one remaining unpainted section of steel mansard is very worn, rusting and should have been painted with the other mansards. Along the top of the fascia panels under the coping, insulation utilized to seal the continuous gap is falling out and needs to be re-inserted. It might be difficult to repaint the field painted steel mansards and coping; it is recommended to replace all steel materials with new

materials painted with long-lasting factory paint. Half of the plaster soffit under the bottom of the mansard is stained from dirt, mildew and damaged by birds or squirrels. These sections of soffit should be cleaned and painted to eliminate the stained areas. Louvers into the upper floor mechanical rooms are set into metal panels (the material could not be verified) without any insulation on the inside. The lack of insulation contributes to a lack of temperature control in these rooms as the mechanical spaces will get very hot in the summer and very cold in the winter.

The annex is constructed of buff brick with an anti-graffiti coating on most of the wall. That coating is peeling, developing mildew underneath and has graffiti on it. The coating should be removed, reapplied or painted over as was done on the main building with paint to match the main building. There were some areas of brickwork that required repointing.

Exterior windows in the main building were recently replaced with clear anodized aluminum framed windows with double insulating glazing. These windows help to maintain the heat in the winter and prevent wind and rain from entering the building. Windows have black insect/security screens on the exterior, which are in good condition. One window unit on the first floor that has been leaking and was being repaired at the time of the building inspection.

Some of the windows on the rear side of the Annex have been covered with metal panels, since internal functions have been changed from office to equipment operations. The remaining 6 windows appear to be the original single glazed aluminum framed single hung units, which are in fair condition.

Exterior doors at the front entrance to the main building are new glass and aluminum doors in a matching glass and aluminum curtainwall system. Other corridor or stairway exit doors in the main building and the Annex are new flush, FRP (fiberglass reinforced plastic) doors with narrow vertical vision panels with security screens and aluminum door frames. Mechanical area entrance/exit doors around the building are also FRP and aluminum. The loading dock door is a roll-up door that is rusting along the bottom. This is mainly because the loading dock slopes into the building collecting water and allowing it to flow into the building; the concrete slope should be changed to pitch away from the door and the rollup door should be repainted. All personnel doors are in excellent condition, and being high quality doors, they should provide long service life.

The Annex building also has new FRP personnel doors but does not have an accessible ramp into the building. This would be an easy feature to add to an entrance door

Roof coverings on both the main building and the Annex consist of a fully adhered built-up rolled asphalt membrane system, with light gray impregnated surface granules. It was indicated that the main building roof was replaced in 2011. It was not known if the annex roof was replaced at that time; there was no access to the Annex roof, however it appears to be the same color and condition as the main roof, thus it can be assumed that it has been replaced at the same time as the main roof. The main roof deck is generally and in good condition. There is a raised mechanical equipment area enclosed by a metal mansard matching the mansard on the main building wall. Coping over edge of all roofs has been field painted and is fading and peeling. Flashing is asphalt-backed, granule impregnated material fully adhered to rooftop ventilation ductwork and low parapets. Roof membranes and flashing appeared to be in good condition with no roof leaks reported. There are two exhaust fans and one condensing unit located closer than 10 feet from the edge of the edge of the roof. They should be moved to be more than 10 feet away as required by code; otherwise, a 42” guardrail is required for edge protection.

Partitions in all first floor rooms and corridors are constructed of painted block (concrete masonry units) throughout both floors. Corners are bull-nose block to soften the hard edges and provide a more durable surface. Wall bases coved vinyl base applied to most block walls, excluding the toilet rooms and mechanical rooms. There were two areas of cracks observed in the second floor corridors near Stairway 2 during the inspection, but they did not seem to indicate any structural deficiency. This highly durable wall system is in good condition. Since the building is protected by an automatic fire sprinkler system, doors and walls are not fire rated. Wall finishes in the auditorium consist of block with wood tambour (grooved wood, decorative wood plywood applied to the block and other attenuating fabric materials applied to the wood. The music instruction room also has sound attenuating fabrics applied to the walls and the gymnasium has a more durable sound attenuating fabric applied to those walls. There are a few gypsum board and metal stud partitions in the school office. All partitions are in good condition. Walls in the Annex are also block and in good condition.

Interior doors used for classrooms, offices, storage rooms, gymnasium, auditorium, bathrooms, and second floor stairways are clear stained solid wood oak veneer doors with steel frames. Many of these wood doors have narrow lite glass vision panels (wired glass on stairways) where vision is desirable. Most wood door surfaces are in very good condition, since the building had undergone a renovation approximately 8 years ago. Stairways and cafeteria doors have panic hardware that appears to be latching properly; the 3 pairs of gymnasium doors’ panic hardware are not working well and should be replaced. Most classrooms, offices, and special function room doors throughout the building have lever-handle locksets with security locks that can be locked from the inside of the classroom, as required today for lock-down security. The approximately 10 doors do not have security locks should have the existing locks replaced with the security locks. Doors to first floor stairways are painted steel and are showing signs of wear; they should be repainted. Doors into the rooms in the Annex are painted wood and do not have wired glass. Since there are no sprinklers in this building, these doors need to be fire rated, must have wired glass, and therefore they should be changed.

Interior fittings/hardware include smartboards or whiteboards with metal marker trays mounted on one wall in each classroom. The IMC (instructional material center) space has wood bookcases along the walls and freestanding in the room. There are also wood and plastic laminate tables, and plastic & metal chairs all in good condition. Gymnasium locker rooms have built-in recessed painted steel lockers which are in good condition. Toilet room partitions are HDPE (high density polyethylene) plastic partitions and doors, in good condition. Science labs have oak laboratory base and wall cabinets with black chemresin work surfaces. The toilet rooms seen in the main building and the Annex all had plastic toilet room accessories in place and operational. Accessible toilet rooms complied with ADA guidelines for size and accessories. The lobby walls are lined with bulletin boards and are designed to accommodate students entering the building and passing through security X-Ray devices. First floor corridors also have bulletin boards scattered through the building. Parts of first floor corridors and most second floor corridors have recessed painted steel lockers along corridors.

Stair construction consists of concrete filled steel treads with steel nosings, steel risers, and steel stringers. Handrails are 36” high with guards 42” high along open sides of stairs, landings and platforms. Balusters are spaced at 4” maximum spacing. Stair treads, concrete platforms, and landings are finished with clear sealer, in fair condition beginning to appear dirty. The painted handrails are worn and should be repainted. There is one 4 riser steel and concrete stair in the Annex from the main floor to grade; the handrails should be painted.

Wall finishes throughout the main building and Annex are full height painted concrete masonry units (block) or painted gypsum board in all areas of the building. There are few if any locations where the walls are damaged and in need of repainting; areas that could be repainted are the wall areas under toilet room sinks and selected areas of corridors such as the corners.

Floor finishes in the classrooms, second floor corridors, offices, cafeteria, and areas under seating in the auditorium consist of vinyl composition tile (VCT). Generally, first floor tiles are in good condition. Dirt is beginning to built up in many corners along walls and at doors, requiring a more thorough regular cleaning ritual to reduce the dirt/wax build-up and extend the life of the floor. Stairs have sealed concrete finishes which are in need of stripping, cleaning, and resealing. First floor lobby and entrance stair, first floor corridors, and all toilet rooms have a terrazzo floor finish which needs to be cleaned to promote the appearance of cleanliness. Some areas of the first floor corridor have cracks crossing the corridor in various locations which need to be repaired to prevent further damage. The IMC and school office have carpet which is in good condition but needs to be cleaned as part of a regular maintenance routine. The gymnasium has a wood floor that is in good condition except for one area that got wet as a result of a piping leak; that part of the floor is now separated and warped and should be replaced. Floor finishes in the Annex are VCT in corridors and some rooms, carpet in other rooms, and ceramic tile in toilet rooms.

Ceiling finishes in most spaces throughout both floors of the building including classrooms, corridors, cafeteria, toilet rooms, and kitchens consist of a standard 2x4 suspended acoustical ceiling tile system. Some second floor ceiling tiles are sagging and should be replaced. The auditorium has suspended gypsum board ceiling “clouds”. The gymnasium has open ceiling exposing structural and utility systems. Ceilings in the Annex are similar 2x4 suspended acoustical tile ceiling systems found in the main building.

Fixed furnishings include lab benches constructed of oak and chemical resistant countertops and lockers in second floor corridors. The cafeteria has portable table/chair units that are used for breakfast and lunch and can be folded up and moved to allow the space to be used for other functions. The kitchen area has stainless steel service counters and food preparation fittings, furnishings, and equipment which was in good operating condition. The auditorium has wood seating that is generally in good condition.

There is a 3000 lb. capacity, 2 stop hydraulic elevator in the building; the second floor stop can have the doors open to either end of the cab. With a fully accessible ramp into the first floor, this building has full accessibility to all spaces in both floors. However, the elevator is old and lacks signage (height and utilization of braille), chimes, lower call button height and other features that that means it does not meet today’s ADA guidelines. In light of the poor operating condition of the elevator, it should be replaced with a new ADA compliant elevator.

There is wheelchair accessibility into the main entrance of the building.

Mechanical

Plumbing Fixtures – The Main 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. Science classrooms are equipped with lab sinks and prep sinks which are original and should be replaced since they have exceeded their service life, however a few classrooms have had casework and prep sinks replaced. Many of the plumbing fixtures appear to have been replaced as part of the 2007 renovation project. Since these fixtures were recently replaced the majority of the remaining service life still exists and the fixtures should not need to be replaced for 25 years. The bathrooms are also equipped with floor drains. The Annex is equipped with wall hung urinals (flush valve type), wall hung and floor set water closets (flush valve type), and wall hung lavatories with wheel handle faucets. Most of the fixtures appear to have been recently replaced and will not need to be renovated for 20-25 years.

Throughout the Main Building of the school there wall hung self-contained electric drinking high/low fountains are located in the corridors. Electric wall hung water coolers are also located in the Cafeteria. The Gymnasium is equipped with recessed electric water

coolers. The electric water coolers appear to have been part of the recent renovations in 2007 and do not need to be replaced. The Annex has wall hung electric water coolers which appear to be in good working condition and do not need to be replaced at this time.

Wall hung service sinks are available throughout the Main Building for use by the janitorial staff. The sinks show signs of heavy use as would be expected but do not appear to need to be replaced for another 5 to 10 years. The Main Building 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 grease trap located below the floor and is accessible by a floor access panel. The triple wash sink (with lever handles) and hand sink (with lever handles) show signs of normal usage. The kitchen is also equipped with multiple hand sinks and other prep sinks which are a combination of hard sanitary connections and indirect/floor sink connections. The serving line area is also equipped with a hand sink. Chemicals are injected manually into the sanitizing basin. The Annex's service sink shows signs of heavy use and wear and should be replaced,

The Main Building science lab classrooms are equipped with one combination emergency eyewash and shower fixture for each lab with a floor drain at the location as well. Air and gas turrets are available at the lab tables in the science labs.

Domestic Water Distribution – It appears that the 6" domestic water service piping is mostly soldered copper. Water service enters the Main Building on the first floor level, with backflow preventer (RPZA – reduced pressure zone assembly). A 4" water meter on the main line upon entering the Main Building. The backflow preventer appears to be new. The piping is copper with soldered joints. A separate RPZA backflow preventer is utilized on each makeup water service for the boiler system, chilled water system and condenser water system. The distribution piping appears to be within the boiler room appears to have been replaced during the boiler renovation, however the condition of the water distribution system to the plumbing fixtures should be verified by a contractor. Any original domestic water piping that has not already been replaced should be replaced as it has surpassed its service life. The Annex is fed from the Main Building's domestic water service.

There are two vertical tank type natural gas fired water heaters for the Main Building. Both are approximately 100 gallons, AO Smith Master Fit model, which were installed as part of the 2007 renovation project. There is a 140 degree supply loop for the kitchen and a thermostatic mixing valve which provides 120 degree supply to the restrooms. Both water heaters are located in the boiler mechanical equipment room. The hot water system is equipped with a recirculation pump to serve the water heaters as well and an expansion tank. The water heater appears to be in satisfactory condition, however, the District should plan on replacing the heaters in 3 – 5 years. The Annex is domestic water heating system is served by a vertical, tank type, electric, Bradford White water heater, model M230R6DS-1NCWW, 3500 Watts, upper and lower elements, 208V- single phase and appears to have been installed in 2008. The heater has 3-5 years of service life left and should not be replaced at this time.

Sanitary Waste - The sanitary waste piping system in the Main 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 renovated science labs, however sanitary waste lines were replaced with acid resistant piping from the sink connections to the acid waste dilution tank located in the main boiler mechanical equipment room. This piping is polypropylene Type II ASTM D4101 schedule 40 FRPP. The piping on the discharge of the sanitary dilution tank is cast iron, no hub piping. The sanitary systems leaves the Main Building by gravity flow. The sanitary waste piping system in the Annex 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 systems leaves the Annex by gravity flow.

Rain Water Drainage - The rain water drains from the roof are routed through mechanical chases in the Main Building and connect to the underground site drainage system. There are no overflow scuppers or a secondary roof drainage system for the building. A duplex sump pump below an accessible grated pit in the main boiler mechanical equipment room to handle foundation drainage. The pump appears to be original and should be replaced. For the Annex, 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 no overflow scuppers or a secondary roof drainage system for the building.

Energy Supply – For the Main Building, 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 below ground at the rear of the Main Building in a grassy area adjacent to the drive. The fuel pumps and controls appear to have been replaced as part of the 2007 renovation and will not need to be replaced for 15 years. The tank is equipped with a leak detection and level monitoring and alarm system. A 3" natural gas service enters the building on the first floor level in the room service room within the main boiler mechanical equipment room. The natural gas main is welded, black steel piping while the branches are threaded, black steel.

Heat Generating Systems – The two heating water boilers serve the heating needs for the Main Building as part of a four pipe system. Heating water is generated by two HB Smith 5,032 MBH , model 4500A-S/W-17, natural draft, with dual fuel burners. Both boilers are equipped with Power Flame dual fuel burners, natural gas and number 2 fuel oil, model LNIAC-GO-30.These appear to be low NOx burners. The boilers are equipped with induced draft Auburn fans on each flue. 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 boilers were installed in 2007 and will not need to be replaced for 10 years. There is draft control on both of the boiler flues. Combustion air louvers

serve the boiler room to provide combustion air for the boiler operation. 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. The heating water pumping system consists of three pumps, end suction, base mounted, centrifugal, constant volume, manufactured by Taco, 585 GPM, 50 HP, 165 feet head. The pumps should be replaced as they are rusted and show signs of wear.

Cooling Generating Systems – Currently the Main Building of the school is served by a temporary 500 ton water cooled chiller as part of a four pipe system, which is set at the rear of the Main Building near the basement stair entrance to the main boiler mechanical equipment room. Temporary heavy duty hoses are connected between the chilled water supply and return systems and condenser water supply and return systems. The existing McQuay chiller, refrigerant 134a (evaporator model E3612812, condenser model C3012BNYY38) was damaged by a chilled water pump explosion which destroyed the chilled water pump and damaged the chiller and the chiller control panel to the point that it no longer is operational. The cooling tower which serves the condenser water system is Baltimore Aircoil Company, Series 1500, induced draft tower. There are two cooling towers, each with two cells, 225 tons per tower and axial fans equipped with variable frequency drives. The chilled water pumping system consists of three pumps, end suction, base mounted, centrifugal, constant volume, manufactured by Taco, 1395 GPM, 100 HP, 165 feet head. The condenser water pumping system consists of three pumps, end suction, base mounted, centrifugal, constant volume, manufactured by Taco, 1650 GPM, 30 HP, 50 feet head. A cooling only split system serves each the LAN rooms as well as the elevator machine equipment room. The condensing unit are located on the roof. The system consists of a Carrier indoor evaporator a condenser unit with a system capacity of two tons or three tons. The main boiler equipment room is equipped with an ASHRAE 15 Safety Standard for Refrigeration Systems which establishes the requirements for an exhaust purge system in the event of a refrigerant leak.

Distribution Systems – The Main Building heating and chilled water distribution piping is black steel with welded fittings. The piping within the boiler mechanical equipment room as well as the distribution piping to air handling units, rooftop units, reheat coils, unit ventilators, fan coil units, unit heaters and fin tube radiation systems. At this time the piping should not be replaced and it still is within its service life, however the District should plan to hire a qualified contractor in 15 years to examine the distribution piping and perform additional testing to locate and replace any damaged piping and to quantify any extent of potential failures. The Annex heating/chilled water distribution piping is black steel with welded fittings. The piping serves the unit ventilators and convection heaters. At this time the piping should not be replaced and it still is within its service life, however the District should plan to hire a qualified contractor in 15 years to examine the distribution piping and perform additional testing to locate and replace any damaged piping and to quantify any extent of potential failures.

Fresh air is admitted into the Main Building through the unit ventilators (manufactured by AAF – American Air Filter) outside air intakes air handling units and rooftop units. For the unit ventilators, 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. For the rooftop units, outside air is introduced through the mix air section and for the air handlers outside air is ducted from the roof to the mixed air section of the air handler. Energy recovery to precondition the outside air is provided on four of the air handlers and all four of the rooftop units.

The Main Building uses unit ventilators, fan coil units, rooftop units and air handlers which are equipped with heating water and chilled water coils to serve the classes and other spaces in the building. The air handlers and rooftop units serve the areas as follows:

Air Handlers

Studios (Dance, Art, Production)

Cafeteria

Music Areas

Gymnasium

Auditorium

Rooftop Units (manufactured by Venmar)

Classrooms

Media

Administration

In addition, fan coil units serve the boys and girls lockers, general classrooms, multipurpose rooms, entrances, computer labs, biology

science classrooms and physical science classrooms.

The Annex is served by the Main Building's heating and cooling system, however the piping configuration is a two pipe system for the unit ventilators. The unit ventilators appear to have been installed within the past ten years and should not be replaced at this time as they have approximately 15 years left of service life. One area of the Annex has been set up a data center and is served by computer grade air conditioning units split systems. The condenser models are Liebert DCDT572Y, R-22, 8 condenser fans, typical of 2, installed in 2010

The Gymnasium in the Main Building is served by an air handler unit (located in the main air handler equipment room) with a ducted overhead supply system with round concentric diffusers and an overhead return air system with return located high within the space. The air handler unit is equipped with a cooling coil, however the coil is not piped or connected to the chilled water system. The unit was installed as part of the 2007 renovation and should not need to be replaced for 15 - 20 years as long as a preventative maintenance program has been put in place and is executed.

The Auditorium is served by an air handler unit (located in the main air handler equipment room) with a ducted overhead supply system with square concentric louvered faced diffusers and a return air system located low at the side and front of the stage. The unit was installed as part of the 2007 renovation and should not need to be replaced for 15 - 20 years as long as a preventative maintenance program has been put in place and is executed.

Currently the kitchen in the Main Building is not provided with a dedicated unit to provide heating and cooling or dedicated hood make up air systems. A dedicated make up air unit with tempering should be installed. 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. The three hoods (one double island hood and wall canopy hood) are equipped with and Ansul fire suppression system.

The cafeteria in the Main Building is an air handler unit (located in the main air handler equipment room) with a ducted overhead supply system with square lay in ACT diffusers and a return air lay in ACT grilles. The unit was installed as part of the 2007 renovation and should not need to be replaced for 15 - 20 years as long as a preventative maintenance program has been put in place and is executed.

Terminal & Package Units - There are 28 exhaust fans which serve a variety of spaces; restrooms, electrical rooms, mechanical spaces, kiln, girls and boys lockers, and labs. Fan styles range from upblast for kitchen exhaust applications, to hood intakes, to roof ventilators, inline for mechanical rooms, to centrifugal utility set vertical discharge cone fans for science for fume hoods. Some of these fan are beginning to show corrosion and rust. It is recommended that these fans be replaced within the next 5 – 7 years. These fans were installed in 2007. Restroom exhaust is drawn through exhaust grilles in the wall. Several bathrooms and other areas such as door entries/exits to the outdoors as well as other select locations with exterior exposure or the upper floor are served with convection heaters

Controls & Instrumentation - The control system for the Main Building consist of a DDC system of which actuators and valves are pneumatic. The DDC system is a Honeywell DDC system which provides controls and monitoring of the HVAC equipment. Pneumatic room thermostats drive the unit ventilators, the damper actuators and control valves. It appears that DDC zone temperature sensors have been installed in some locations throughout the school. There is an air compressor, located in the main boiler mechanical equipment room manufactured by Ingersoll Rand, model 2475N.5 along with an Ingersoll Rand refrigerated air dryer. The Annex has a stand alone pneumatic control system. There is an air compressor and air dryer that appears to have exceeded its service life so it is recommended to be replaced. Wall thermostats control the unit ventilator systems.

Sprinklers - The school Main Building is fully covered by an automatic sprinkler system. Stairwells are equipped with a standpipe riser. The kitchen hood systems have an Ansul fire suppression system installed. The Annex is not covered by a sprinkler system. Installing a sprinkler system with quick response type heads should reduce insurance costs by providing protection for the property investment. Hydraulic calculations would need to be performed to see how the Annex could be fed from the existing system.

Electrical

Site Electrical Service to the main building comes from medium voltage overhead lines on wooden poles along Fairdale Drive. The main service switchgear consists of a 600A medium voltage load interrupter, metering transformer section, a dry type transformer rated at 2000/2300/3067KVA, 13200V to 480/277V, 3PH, 4 wires and a 3000A, 480/277V distribution switchboard. The main switchboard feeds all chillers, boilers, cooling tower, chilled water, and hot water pumps via an 800A Motor Control Center. The main switchboard also feeds eight power distribution panels. One 300KVAR capacitor bank is installed for the system power factor correction.

There are several 480/277 volt panel boards throughout the main building that feed lighting fixtures directly and power receptacles via step down transformers sized 30KVA to 112.5KVA for converting 480V to 120/208V power. Distribution panels, transformers, and panel boards are placed in various electrical rooms throughout the main building and are in good condition. Electrical distribution for

Annex Building comes from a 1200A main distribution panel located in the Annex electrical room. This distribution panel board which feeds all loads in Annex building, is fed from the main building power distribution system. For equipment requiring 120/208v power, a 300KVA, step down transformer is provided for the required voltage. The distribution system in the Annex is new and in very good condition.

Classrooms, corridors, offices, and other areas typically have an adequate number of duplex receptacles on each wall. No major deficiencies with respect to receptacle numbers and location were observed in either building.

Main building interior spaces are illuminated by various types of lighting fixtures. Recessed 2x2 or 2x4 fluorescent fixtures with T8 lamps are used in classrooms, offices, corridors, and the dining area. The Gymnasium is illuminated with pendant mounted metal halide fixtures whichhave high energy consumption and are difficult to re-lamp. The Auditorium is illuminated by ceiling mounted down lighting and wall mounted decorative up/down cylindrical lighting fixtures. Lighting systems in the classrooms are controlled by wall switches and motion sensors. Lighting fixtures are in general well maintained and the illumination levels are adequate and in accordance with today's lighting standards. In the Annex building, classrooms, office area, and corridors have 2x4 fluorescent lighting fixtures with T8 lamps. Toilet rooms are illuminated by 1x4 industrial type fluorescent lighting fixtures with outdated T12 lamps.

The Fire Alarm system is automated, addressable, and in compliance with today's safety codes. The Smoke detection system consists of smoke detectors in ductwork and area smoke detectors. There are also manual pull stations for fire notification. There are a sufficient number of horn/strobes installed in classrooms, corridors, offices and other areas in main and annex buildings.

The telephone and data systems in both buildings are new and working adequately. A main distribution frame (MDF) along with a telephone PBX system (telephone within an enterprise that switches calls between enterprise users on local lines while allowing all users to share a certain number of external phone lines) services the communication system in both buildings. The School is also equipped with a Wi-Fi system.

A separate PA system does not exist in either building. The school uses the telephone system for public announcements. This system is working adequately.

Each classroom in the main building has intercom telephone service. The system permits paging and intercom communications from the main office to classrooms, classrooms to the main office, and classroom to classroom. Outside line access from a classroom phone through the PBX is blocked. The system interfaces with the master clock system for class change signaling utilizing paging speakers. The system is also equipped with a tone generator and input from program/clock controller. No paging system is provided in the Annex building and none is required.

Clock and program system are working adequately in main building. Classrooms are provided with 12 inch diameter, wall mounted clocks. The clocks are controlled by central master control panel. The master control is also programmed for class change. No clock system is installed in annex building and we understand that this is not required.

Television system (CATV) is not provided in either building and is not required.

Both buildings have video surveillance systems. A sufficient number of cameras are installed at exit doors, corridors and other critical areas, controlled by a Closed Circuit Television system (CCTV) located in main building. The system is working properly.

Emergency Power System (backup power generator) is provided for both buildings. A 100KW, 480/277V, 3PH, 4W diesel generator, manufactured by Detroit, is installed in the Boiler Room of the main building and provides power to the life safety related equipment in the main building. A second diesel generator, manufactured by Cummins, is installed outside the Annex Building. This generator, estimated at 100KW, 480/277V, 3 PH, 4W is for providing power to main district IT servers and other life safety equipment in the Annex. Life safety equipment includes emergency lights, exit signs, and other critical loads necessary for building operation. For equipment requiring 120/208v emergency power, a step down transformer is provided. The generators are relatively new, well maintained, and in good condition.

An Uninterruptible Power System (UPS) is provided for the IT racks in main building. The source of power for servers in annex building has not been verified since the IT Room door was locked and inaccessible at the time of inspection. However it is assumed that the servers in the Annex building are supported by UPS, based on similar installations in other schools in the District.

Emergency lighting and exit signs are provided in both buildings and fed by the emergency generator back up power system.

Lightning protection system installed in the main building. The mechanical equipment on the roof were protected against lightning strikes. A Risk Assessment Study needs to be conducted to verify if lightning protection system is properly installed at the main building. No lightning protection is required for Annex building and none is installed.

Grounding systems are present in both buildings and appear to be adequate.

An old hydraulic type elevator is in operation at the main building. The elevator not working properly and should be replaced.

Stage lighting is provided in school auditorium with front lighting, upstage lighting, high-side lighting, backlighting, and scenery lighting. Additionally, there are dimmable house lights and switchable stage work lights provided for general illumination during rehearsals other activities. Supplemental lighting can be turned off by a dimmer bank during performances.

A sound system is provided in school auditorium and is working properly.

Outside perimeter building areas and parking areas around both buildings have lighting that is adequate for personnel safety and security of property.

The exterior building and parking areas of both buildings are monitored by a video surveillance system.

Site paging system is not provided. No speakers are installed on exterior walls.

Grounds

There are two parking areas to the right and left of the building and a large asphalt drop-off area in front of the building. Mechanical access and deliveries are at the loading dock, accessed by a loop road entered from the east driveway on Knights Road and leaving by the west driveway. The trash dumpster is to the west of the loading dock, also accessed by the loop road. Paving, parking, and the loop road is constructed of asphalt and is in poor condition almost everywhere around the site. The east side front parking area on Knights Road mostly used by faculty is probably in good enough condition to be crack-filled and sealed with sealer. The wide, 2 lane drop-off area is particularly poor condition with many ruts and patched areas; curbing and concrete sidewalk along the drop-off lanes are also degrading and need to be repaired. There is no curb cut at the drop-off lane to access the ramp leading to the main entrance door. Also, accessible route signage to direct people from handicap parking spaces to the ramp access at the front door is missing and should be provided. There is an entrance ramp into the main lobby at the drop off area at the front of the building facing Knights Road. The ramped surface requires tactile warning (textured concrete or an integral rubber pad) at the start of the ramped surface, but otherwise has the appropriate handrails, sloped surfaces, and barrier free design to comply with today's ADA guidelines. More complete Accessible Route signage is also required from handicap parking spaces leading to the accessible entrance to better indicate the accessible route.

There are a number of low brick retaining walls and stair/ramp walls on the front and west side of the building. Many areas of the brick wall are breaking off, cracking, and are missing grout. Railings for the stairs and ramps are in good condition but in some locations the posts are breaking out of their connections to the brick retaining walls. One section of wall on the southeast corner of the building is broken and missing the guard railing, a result of a car that lost control and collided with the wall. Extensive repairs need to be made to the brick walls and railings.

Site fencing is composed of chain link fencing which closes off the rear area with the loading dock, dumpster and cooling tower; fence is in fair condition.

RECOMMENDATIONS

Architectural

Main Bldg

- Strip and reseal concrete floors in stairways and general maintenance area (10,600sf)
- Replace fading, peeling repainted metal panel mansard around building, over the main entrance, and along the raised mechanical area (13,000 sf)
- Repaint plaster soffit (6,000sf)
- Replace roll up door into mechanical area (8x12)
- Brick Pointing of flue (100sf)
- Repaint steel doors and metal frames in mechanical rooms, stairs (20) 3x7
- Repoint cracked block in two locations near Stairway 2 (100sf)
- Repair cracked terrazzo in first floor corridor, approx 4 areas. (150sf)
- Strip and clean all terrazzo in toilet rooms (5000sf)
- Replace section of wood floor in gym, damaged from broken heating pipe leaks (300sf)

- Replace 2x4 acoustical ceiling tiles damaged by broken heating pipe leaks; insert into existing grid (500sf)
- Provide security hardware for classrooms and offices, locking from the inside of the room (10)
- Repaint handrails in all stairs (350ft)
- Replace elevator with 2 stop double entrance hydraulic elevator, 3000lb capacity, including today's ADA signage, audio, and visual features.
- Replace carpet in auditorium aisles (2400sf)

Annex

- Strip and power wash anti-graffiti coating from building and re-apply clear coating for 8ft ht. around building (4,800sf)

Mechanical

Main 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 for the Main Building.
- Replace the three heating water pumps, 585 gpm, 50 HP.
- Replace the three chilled water pumps, 1395 gpm, 100 HP.
- Replace the three heating water pumps, 1650 gpm, 30 HP.
- Replace 550 ton water cooled chiller.

Annex

- Replace service sink (janitor sink) in the Annex.
- 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 for the Annex.
- Inspect and replace, as needed, the original domestic water piping in the Annex.
- Replace the pneumatic controls for the HVAC systems with modern DDC modules, valves and actuators to improve reliability and energy efficiency for the Annex.
- Install a fire protection sprinkler system with quick response type heads to reduce insurance costs by providing protection for the property for the Annex
- Inspect and replace the original as needed the domestic water piping in the Annex.
- The two pipe system shall be converted to a four pipe system for the Annex.

Electrical

Main Building

- Perform lightning protection studies to ascertain that the mechanical equipment on the roof is protected against lightning strikes.
- Provide outdoor speakers for the school yard. Estimated 10 each.

Annex

- Replace industrial fluorescent fixtures in two toilet rooms with decorative fluorescent fixtures. Two each

Grounds

- Repave damaged west parking lot (near Library) and access driveways with new asphalt; parking striping (28,000sf)
- Repair 14 riser stair on north side of Library building
- Provide new handrails on 14 riser stairway
- Replace guard railing at areaway at northwest corner of building (broken from car collision) (20 ft.)
- Replace rear parking lot behind and adjacent to Annex (28,000sf)
- Repave site roadways (34,000sf)
- Sealcoat right side (east) parking lot; 600ft crack fill; parking striping (58,000sf)
- Replace damaged concrete curbing (200lf)
- Reconstruct loading dock surface to drain away from building (300sf)

- Reconstruct failing, cracking, leaning brick walls along ramps, stairs, and planter into front of building (100ft)
- Paint concrete retaining walls along front ramp, exits, and areaways to hide dirt, rust stains, and graffiti (600sf)

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B804001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S804001		

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	53.00 %	0.00 %	$0.00
A20 - Basement Construction	53.00 %	0.00 %	$0.00
B10 - Superstructure	53.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	63.58 %	4.08 %	$509,353.45
B30 - Roofing	80.07 %	0.00 %	$0.00
C10 - Interior Construction	52.43 %	0.39 %	$18,858.03
C20 - Stairs	66.33 %	0.70 %	$1,918.10
C30 - Interior Finishes	52.59 %	2.06 %	$178,569.58
D10 - Conveying	105.71 %	77.40 %	$171,935.68
D20 - Plumbing	34.67 %	22.34 %	$752,985.46
D30 - HVAC	55.64 %	14.60 %	$2,817,992.08
D40 - Fire Protection	77.14 %	0.00 %	$0.00
D50 - Electrical	58.77 %	0.45 %	$46,282.93
E10 - Equipment	14.29 %	0.00 %	$0.00
E20 - Furnishings	12.50 %	0.00 %	$0.00
Totals:	**55.39 %**	**4.79 %**	**$4,497,895.31**

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	$27.30	S.F.	173,550	100	1968	2068		53.00 %	0.00 %	53			$4,737,915
A1030	Slab on Grade	$5.17	S.F.	173,550	100	1968	2068		53.00 %	0.00 %	53			$897,254
A2010	Basement Excavation	$4.36	S.F.	173,550	100	1968	2068		53.00 %	0.00 %	53			$756,678
A2020	Basement Walls	$9.91	S.F.	173,550	100	1968	2068		53.00 %	0.00 %	53			$1,719,881
B1010	Floor Construction	$85.34	S.F.	173,550	100	1968	2068		53.00 %	0.00 %	53			$14,810,757
B1020	Roof Construction	$14.39	S.F.	173,550	100	1968	2068		53.00 %	0.00 %	53			$2,497,385
B2010	Exterior Walls	$43.20	S.F.	173,550	100	1968	2068		53.00 %	6.66 %	53		$499,055.47	$7,497,360
B2020	Exterior Windows	$27.52	S.F.	173,550	40	2007	2047		80.00 %	0.00 %	32			$4,776,096
B2030	Exterior Doors	$1.16	S.F.	173,550	25	2007	2032		68.00 %	5.12 %	17		$10,297.98	$201,318
B3010105	Built-Up	$37.76	S.F.	120,312	20	2011	2031		80.00 %	0.00 %	16			$4,542,981
B3010120	Single Ply Membrane	$38.73	S.F.		20				0.00 %	0.00 %				$0
B3010130	Preformed Metal Roofing	$54.22	S.F.	200	30	1968	1998	2047	106.67 %	0.00 %	32			$10,844
B3010140	Shingle & Tile	$38.73	S.F.		20				0.00 %	0.00 %				$0
B3020	Roof Openings	$0.06	S.F.	120,512	30	2011	2041		86.67 %	0.00 %	26			$7,231
C1010	Partitions	$21.05	S.F.	173,550	100	1968	2068		53.00 %	0.00 %	53			$3,653,228
C1020	Interior Doors	$3.76	S.F.	173,550	40	2007	2047		80.00 %	2.89 %	32		$18,858.03	$652,548
C1030	Fittings	$2.90	S.F.	173,550	40	1968	2008	2020	12.50 %	0.00 %	5			$503,295
C2010	Stair Construction	$1.18	S.F.	173,550	100	1968	2068		53.00 %	0.94 %	53		$1,918.10	$204,789

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 $
C2020	Stair Finishes	$0.39	S.F.	173,550	30	1968	1998	2047	106.67 %	0.00 %	32			$67,685
C3010230	Paint & Covering	$13.21	S.F.	173,550	10	2007	2017	2020	50.00 %	1.25 %	5		$28,750.05	$2,292,596
C3010231	Vinyl Wall Covering	$0.97	S.F.		15				0.00 %	0.00 %				$0
C3010232	Wall Tile	$2.63	S.F.		30				0.00 %	0.00 %				$0
C3020411	Carpet	$7.30	S.F.	8,500	10	2007	2017	2020	50.00 %	43.28 %	5		$26,857.82	$62,050
C3020412	Terrazzo & Tile	$75.52	S.F.	16,100	50	1968	2018	2020	10.00 %	5.58 %	5		$67,850.12	$1,215,872
C3020413	Vinyl Flooring	$9.68	S.F.	128,750	20	2007	2027		60.00 %	0.00 %	12			$1,246,300
C3020414	Wood Flooring	$22.27	S.F.	9,600	25	1968	1993	2020	20.00 %	4.22 %	5		$9,030.29	$213,792
C3020415	Concrete Floor Finishes	$0.97	S.F.	10,600	50	1968	2018	2020	10.00 %	396.34 %	5		$40,752.05	$10,282
C3030	Ceiling Finishes	$20.97	S.F.	173,550	25	2007	2032		68.00 %	0.15 %	17		$5,329.25	$3,639,344
D1010	Elevators and Lifts	$1.28	S.F.	173,550	35	1968	2003	2052	105.71 %	77.40 %	37		$171,935.68	$222,144
D2010	Plumbing Fixtures	$13.52	S.F.	173,550	35	1968	2003	2023	22.86 %	0.00 %	8			$2,346,396
D2020	Domestic Water Distribution	$1.68	S.F.	173,550	25	1968	1993	2022	28.00 %	0.00 %	7			$291,564
D2030	Sanitary Waste	$2.32	S.F.	173,550	30	1968	1998	2047	106.67 %	187.01 %	32		$752,985.46	$402,636
D2040	Rain Water Drainage	$1.90	S.F.	173,550	30	1968	1998	2026	36.67 %	0.00 %	11			$329,745
D3020	Heat Generating Systems	$18.67	S.F.	173,550	35	1968	2003	2022	20.00 %	15.74 %	7		$509,890.11	$3,240,179
D3030	Cooling Generating Systems	$24.48	S.F.	173,550	30	1968	1998	2032	56.67 %	54.33 %	17		$2,308,101.97	$4,248,504
D3040	Distribution Systems	$42.99	S.F.	173,550	25	2007	2032		68.00 %	0.00 %	17			$7,460,915
D3050	Terminal & Package Units	$11.60	S.F.	173,550	20	2007	2027		60.00 %	0.00 %	12			$2,013,180
D3060	Controls & Instrumentation	$13.50	S.F.	173,550	20	2007	2027		60.00 %	0.00 %	12			$2,342,925
D4010	Sprinklers	$7.05	S.F.	173,550	35	2007	2042		77.14 %	0.00 %	27			$1,223,528
D4020	Standpipes	$1.01	S.F.	173,550	35	2007	2042		77.14 %	0.00 %	27			$175,286
D5010	Electrical Service/Distribution	$9.70	S.F.	173,550	30	1968	1998	2037	73.33 %	0.00 %	22			$1,683,435
D5020	Lighting and Branch Wiring	$34.68	S.F.	173,550	20	1968	1988	2027	60.00 %	0.00 %	12			$6,018,714
D5030	Communications and Security	$12.99	S.F.	173,550	15	1968	1983	2022	46.67 %	0.83 %	7		$18,772.62	$2,254,415
D5090	Other Electrical Systems	$1.41	S.F.	173,550	30	1968	1998	2027	40.00 %	11.24 %	12		$27,510.31	$244,706
E1020	Institutional Equipment	$4.82	S.F.	173,550	35	1968	2003	2020	14.29 %	0.00 %	5			$836,511
E1090	Other Equipment	$11.10	S.F.	173,550	35	1968	2003	2020	14.29 %	0.00 %	5			$1,926,405
E2010	Fixed Furnishings	$2.13	S.F.	173,550	40	1968	2008	2020	12.50 %	0.00 %	5			$369,662
								Total	**55.39 %**	**4.79 %**			**$4,497,895.31**	**$93,848,331**

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: B3010130 - Preformed Metal Roofing — This system contains no images

Note: mansard over main entrance

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

Note:
painted block 98%
brick 1%
wood and acoustical panels 1%

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

Note:
Concrete: 10,600 6%
Wood: 9,600 5%
VCT:128,750 74%
Carpet: 8,500 5%
CT/QT/terrazzo: 16,100 10%

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:	**$4,497,895**	**$0**	**$0**	**$0**	**$0**	**$9,475,339**	**$0**	**$7,827,867**	**$3,269,579**	**$0**	**$0**	**$25,070,681**
*** A - Substructure**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
*** A10 - Foundations**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1010 - Standard Foundations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1030 - Slab on Grade	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
*** A20 - Basement Construction**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2010 - Basement Excavation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2020 - Basement Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B - Shell	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B10 - Superstructure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1010 - Floor Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1020 - Roof Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B20 - Exterior Enclosure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2010 - Exterior Walls	$499,055	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$499,055**
B2020 - Exterior Windows	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2030 - Exterior Doors	$10,298	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$10,298**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

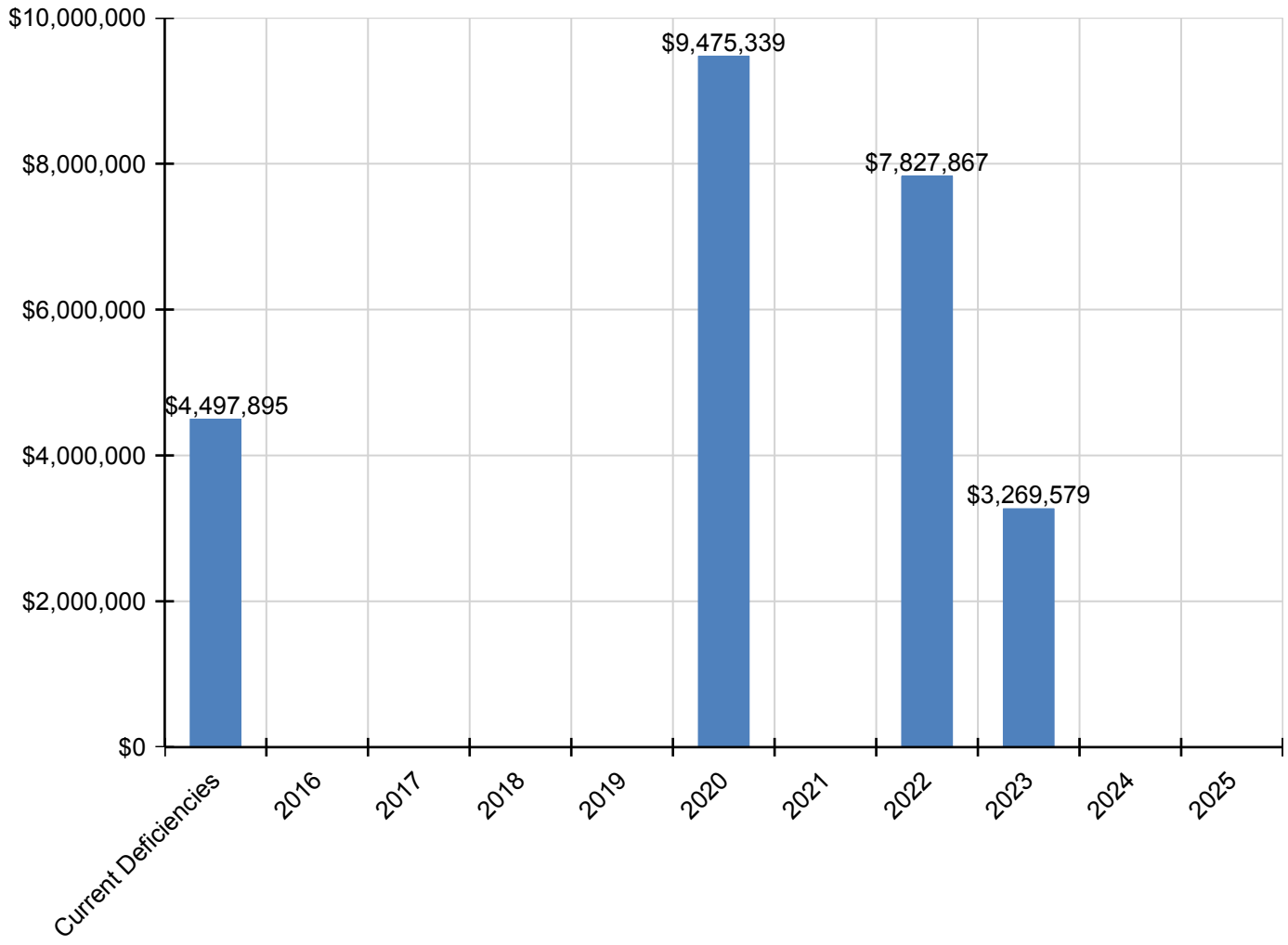
C1020 - Interior Doors	$18,858	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$18,858**
C1030 - Fittings	$0	$0	$0	$0	$0	$641,803	$0	$0	$0	$0	$0	**$641,803**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$1,918	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,918**
C2020 - Stair Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$28,750	$0	$0	$0	$0	$2,923,521	$0	$0	$0	$0	$0	**$2,952,271**
C3010231 - Vinyl Wall Covering	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010232 - Wall Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020411 - Carpet	$26,858	$0	$0	$0	$0	$79,126	$0	$0	$0	$0	$0	**$105,984**
C3020412 - Terrazzo & Tile	$67,850	$0	$0	$0	$0	$1,550,482	$0	$0	$0	$0	$0	**$1,618,332**
C3020413 - Vinyl Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020414 - Wood Flooring	$9,030	$0	$0	$0	$0	$272,628	$0	$0	$0	$0	$0	**$281,658**
C3020415 - Concrete Floor Finishes	$40,752	$0	$0	$0	$0	$13,111	$0	$0	$0	$0	$0	**$53,863**
C3030 - Ceiling Finishes	$5,329	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$5,329**
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	$171,936	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$171,936**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$0	$0	$0	$0	$0	$0	$0	$0	$3,269,579	$0	$0	**$3,269,579**
D2020 - Domestic Water Distribution	$0	$0	$0	$0	$0	$0	$0	$394,445	$0	$0	$0	**$394,445**
D2030 - Sanitary Waste	$752,985	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$752,985**
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	$509,890	$0	$0	$0	$0	$0	$0	$4,383,512	$0	$0	$0	**$4,893,402**
D3030 - Cooling Generating Systems	$2,308,102	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,308,102**
D3040 - Distribution Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

D4020 - Standpipes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D50 - Electrical	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5010 - Electrical Service/Distribution	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5020 - Lighting and Branch Wiring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5030 - Communications and Security	$18,773	$0	$0	$0	$0	$0	$0	$3,049,910	$0	$0	$0	**$3,068,683**
D5090 - Other Electrical Systems	$27,510	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$27,510**
E - Equipment & Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E10 - Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E1020 - Institutional Equipment	$0	$0	$0	$0	$0	$1,066,720	$0	$0	$0	$0	$0	**$1,066,720**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$2,456,555	$0	$0	$0	$0	$0	**$2,456,555**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$0	$0	$0	$0	$0	$471,393	$0	$0	$0	$0	$0	**$471,393**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

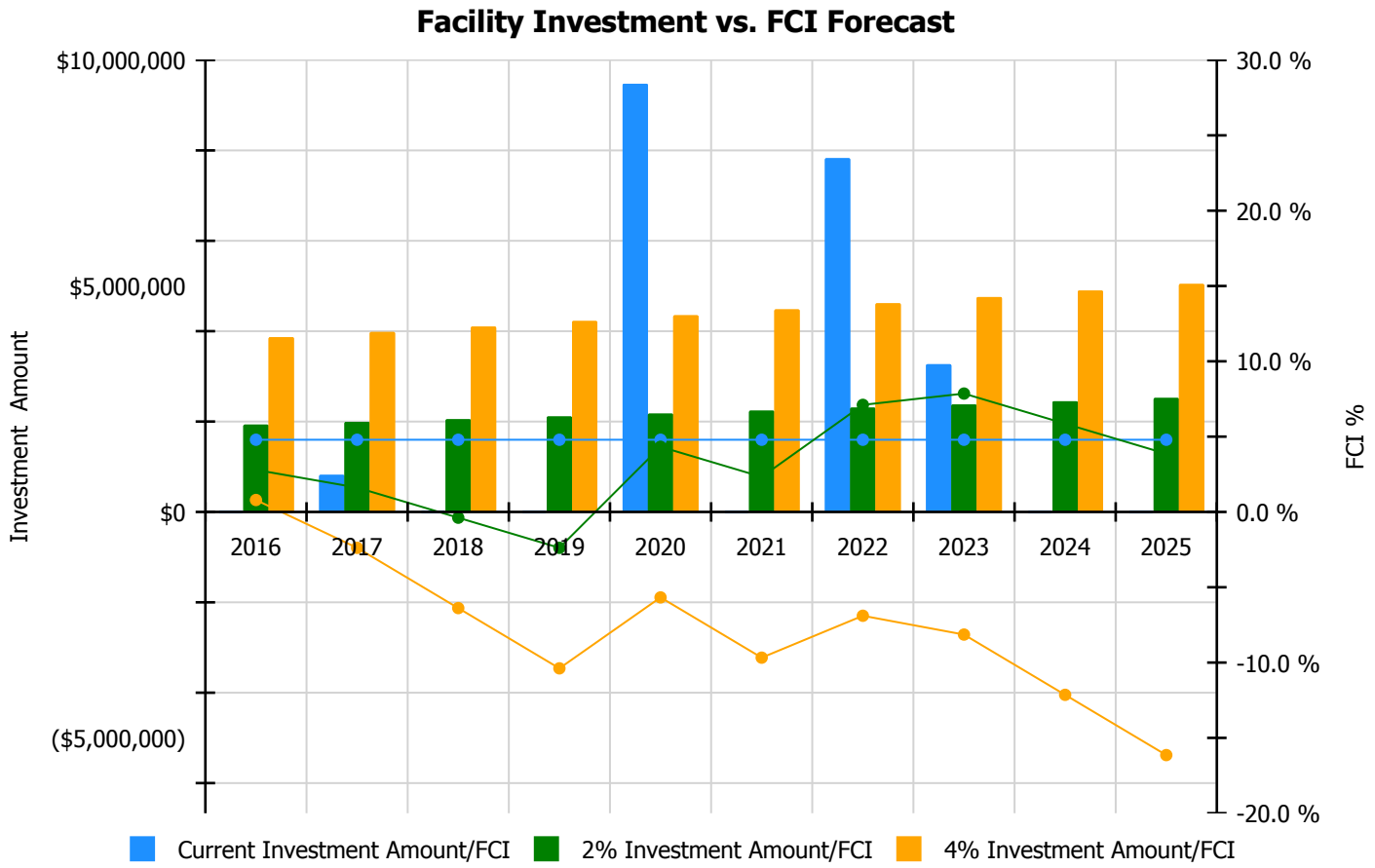
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

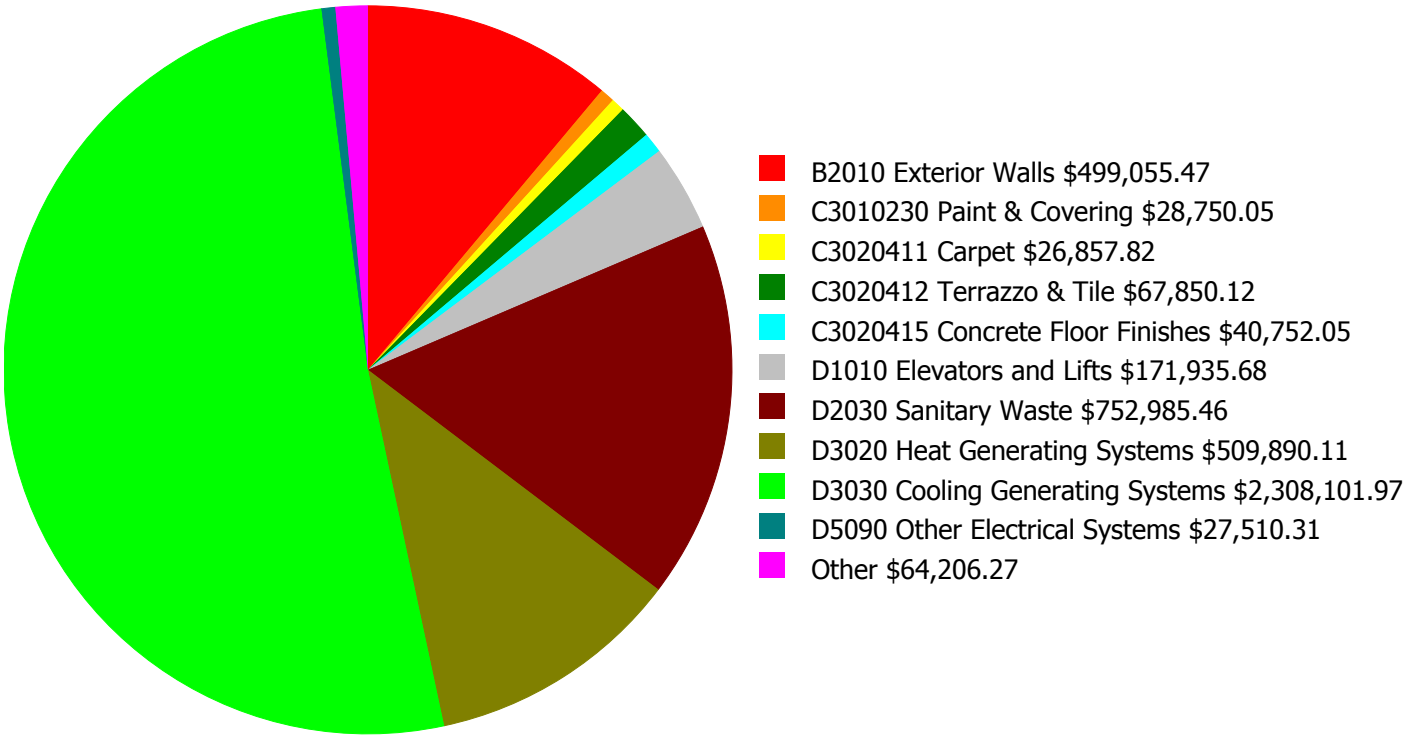
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 4.79%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$1,933,276.00	2.79 %	$3,866,551.00	0.79 %
2017	$820,754	$1,991,274.00	1.62 %	$3,982,548.00	-2.38 %
2018	$0	$2,051,012.00	-0.38 %	$4,102,024.00	-6.38 %
2019	$0	$2,112,542.00	-2.38 %	$4,225,085.00	-10.38 %
2020	$9,475,339	$2,175,919.00	4.33 %	$4,351,837.00	-5.67 %
2021	$0	$2,241,196.00	2.33 %	$4,482,393.00	-9.67 %
2022	$7,827,867	$2,308,432.00	7.11 %	$4,616,864.00	-6.89 %
2023	$3,269,579	$2,377,685.00	7.86 %	$4,755,370.00	-8.14 %
2024	$0	$2,449,016.00	5.86 %	$4,898,031.00	-12.14 %
2025	$0	$2,522,486.00	3.86 %	$5,044,972.00	-16.14 %
Total:	**$21,393,539**	**$22,162,838.00**		**$44,325,675.00**	

Deficiency Summary by System

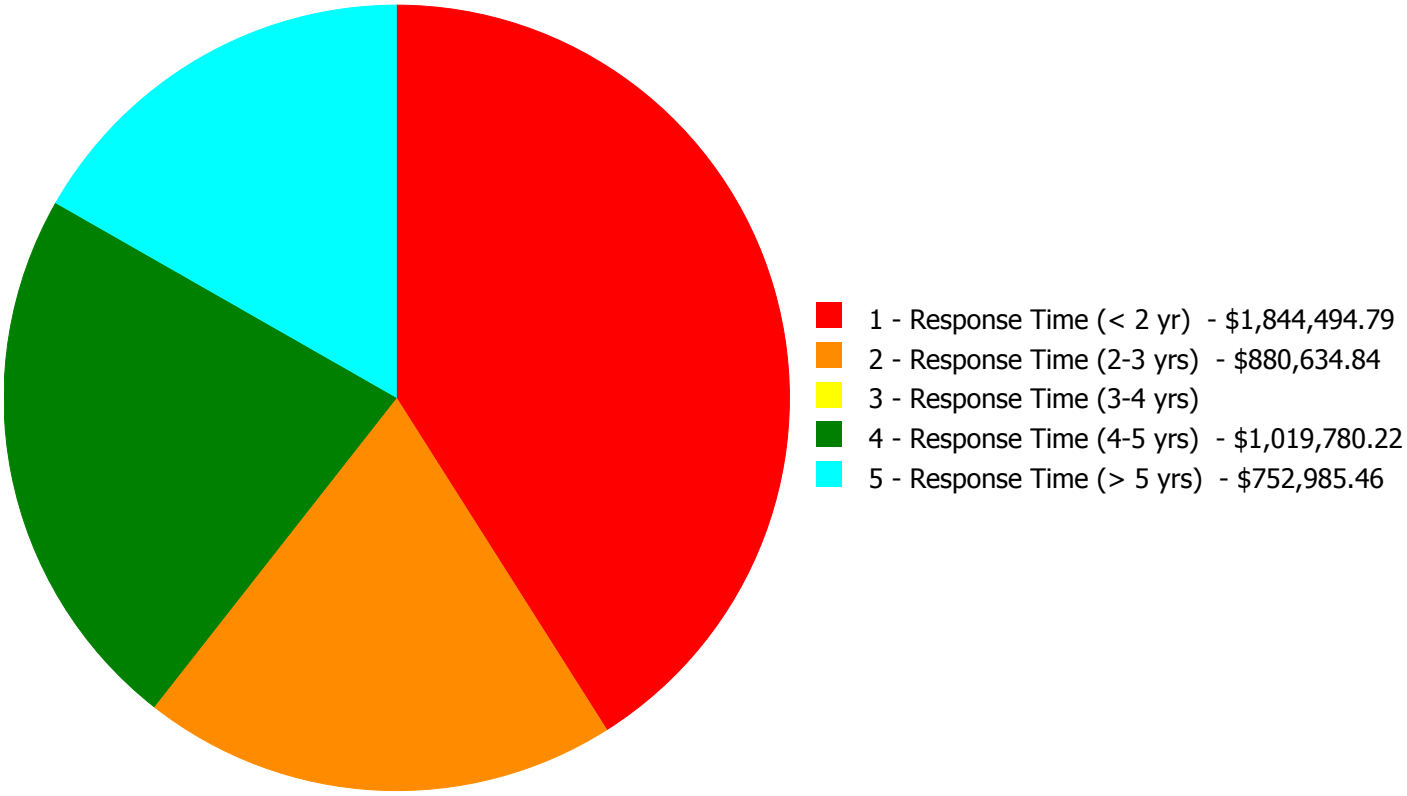
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $4,497,895.31

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: $4,497,895.31

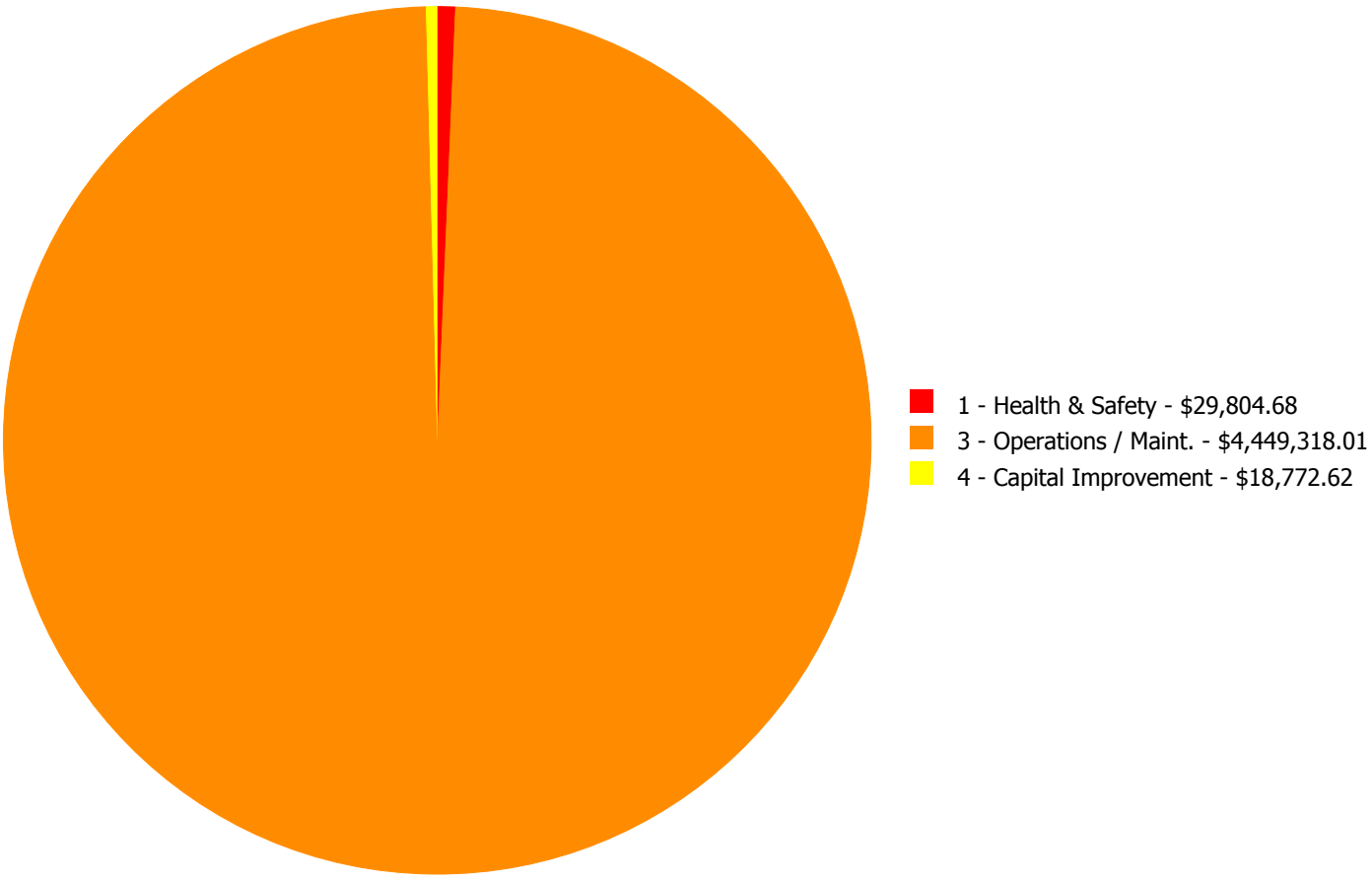
Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
B2010	Exterior Walls	$0.00	$499,055.47	$0.00	$0.00	$0.00	$499,055.47
B2030	Exterior Doors	$0.00	$10,297.98	$0.00	$0.00	$0.00	$10,297.98
C1020	Interior Doors	$0.00	$18,858.03	$0.00	$0.00	$0.00	$18,858.03
C2010	Stair Construction	$0.00	$1,918.10	$0.00	$0.00	$0.00	$1,918.10
C3010230	Paint & Covering	$0.00	$28,750.05	$0.00	$0.00	$0.00	$28,750.05
C3020411	Carpet	$0.00	$26,857.82	$0.00	$0.00	$0.00	$26,857.82
C3020412	Terrazzo & Tile	$0.00	$67,850.12	$0.00	$0.00	$0.00	$67,850.12
C3020414	Wood Flooring	$0.00	$9,030.29	$0.00	$0.00	$0.00	$9,030.29
C3020415	Concrete Floor Finishes	$0.00	$40,752.05	$0.00	$0.00	$0.00	$40,752.05
C3030	Ceiling Finishes	$0.00	$5,329.25	$0.00	$0.00	$0.00	$5,329.25
D1010	Elevators and Lifts	$0.00	$171,935.68	$0.00	$0.00	$0.00	$171,935.68
D2030	Sanitary Waste	$0.00	$0.00	$0.00	$0.00	$752,985.46	$752,985.46
D3020	Heat Generating Systems	$0.00	$0.00	$0.00	$509,890.11	$0.00	$509,890.11
D3030	Cooling Generating Systems	$1,798,211.86	$0.00	$0.00	$509,890.11	$0.00	$2,308,101.97
D5030	Communications and Security	$18,772.62	$0.00	$0.00	$0.00	$0.00	$18,772.62
D5090	Other Electrical Systems	$27,510.31	$0.00	$0.00	$0.00	$0.00	$27,510.31
	Total:	$1,844,494.79	$880,634.84	$0.00	$1,019,780.22	$752,985.46	$4,497,895.31

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: $4,497,895.31

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: D3030 - Cooling Generating Systems

Location: Boiler Room
Distress: Damaged
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Replace base mounted, double suction CHW pump (8" size, 75 HP, to 2500 GPM)
Qty: 3.00
Unit of Measure: Ea.
Estimate: $942,811.90
Assessor Name: Craig Anding
Date Created: 02/07/2016

Notes: Replace the three chilled water pumps, 1395 gpm, 100 HP.

System: D3030 - Cooling Generating Systems

Location: Boiler Room
Distress: Damaged
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Replace chiller, water-cooled (500 tons)
Qty: 1.00
Unit of Measure: Ea.
Estimate: $855,399.96
Assessor Name: Craig Anding
Date Created: 02/07/2016

Notes: Replace 550 ton water cooled chiller.

System: D5030 - Communications and Security

Location: Rush - Exterior Walls

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 1 - Response Time (< 2 yr)

Correction: Add/Replace Paging System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $18,772.62

Assessor Name: Craig Anding

Date Created: 10/22/2015

Notes: Provide outdoor speakers to cover the school yard. Estimated 10 each.

System: D5090 - Other Electrical Systems

Location: Rush - Roof

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

Priority: 1 - Response Time (< 2 yr)

Correction: Provide Lightning Protection System

Qty: 1.00

Unit of Measure: LS

Estimate: $27,510.31

Assessor Name: Craig Anding

Date Created: 10/22/2015

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

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

System: B2010 - Exterior Walls

Location: Rush - exterior mansard panels

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Remove and replace insulated metal exterior wall panels

Qty: 13,000.00

Unit of Measure: S.F.

Estimate: $492,597.59

Assessor Name: Craig Anding

Date Created: 12/18/2015

Notes: Replace fading, peeling repainted metal panel mansard around building, over the main entrance, and along the raised mechanical area (13,000 sf)

System: B2010 - Exterior Walls

Location: Rush - flue

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: 100.00

Unit of Measure: S.F.

Estimate: $3,228.94

Assessor Name: Craig Anding

Date Created: 12/18/2015

Notes: Brick Pointing of flue (100sf)

System: B2010 - Exterior Walls

Location: Rush - interior masonry cracks

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: 100.00

Unit of Measure: S.F.

Estimate: $3,228.94

Assessor Name: Craig Anding

Date Created: 12/18/2015

Notes: Repoint cracked block in two locations near Stairway 2 (100sf)

System: B2030 - Exterior Doors

Location: Rush - loading dock

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace overhead door - pick the closest type and size and add for the operator if required

Qty: 1.00

Unit of Measure: Ea.

Estimate: $10,297.98

Assessor Name: Craig Anding

Date Created: 12/18/2015

Notes: Replace roll up door into mechanical area (8x12)

System: C1020 - Interior Doors

Location: Rush - interior doors

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Refinish interior doors

Qty: 20.00

Unit of Measure: Ea.

Estimate: $16,563.66

Assessor Name: Craig Anding

Date Created: 12/18/2015

Notes: Repaint steel doors and metal frames in mechanical rooms and stairs (20) 3x7

System: C1020 - Interior Doors

Location: Rush - classroom 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: 10.00

Unit of Measure: Ea.

Estimate: $2,294.37

Assessor Name: Craig Anding

Date Created: 12/18/2015

Notes: Provide security hardware for classrooms and offices, locking from the inside of the room (10)

System: C2010 - Stair Construction

Location: Rush - stairways

Distress: Appearance

Category: 3 - Operations / Maint.

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

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

Qty: 350.00

Unit of Measure: L.F.

Estimate: $1,918.10

Assessor Name: Craig Anding

Date Created: 12/18/2015

Notes: Repaint handrails in all stairs (350ft)

System: C3010230 - Paint & Covering

Location: Rush - soffit

Distress: Appearance

Category: 3 - Operations / Maint.

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

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

Qty: 3,000.00

Unit of Measure: S.F.

Estimate: $24,248.85

Assessor Name: Craig Anding

Date Created: 12/18/2015

Notes: Repaint plaster soffit (6,000sf)

System: C3010230 - Paint & Covering

Location: Rush - concrete retaining walls in front of building

Distress: Appearance

Category: 3 - Operations / Maint.

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

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

Qty: 600.00

Unit of Measure: S.F.

Estimate: $4,501.20

Assessor Name: Craig Anding

Date Created: 12/18/2015

Notes: Paint concrete retaining walls along front entrance ramp, exits, and areaways to hide dirt, rust stains, and graffiti (600sf)

System: C3020411 - Carpet

Location: Rush - auditorium

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Remove and replace carpet

Qty: 2,400.00

Unit of Measure: S.F.

Estimate: $26,857.82

Assessor Name: Craig Anding

Date Created: 12/18/2015

Notes: Replace carpet in auditorium aisles (2400sf)

System: C3020412 - Terrazzo & Tile

Location: Rush - toilet room floors
Distress: Appearance
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Refinish terrazzo or tile flooring
Qty: 5,000.00
Unit of Measure: S.F.
Estimate: $64,582.28
Assessor Name: Craig Anding
Date Created: 12/18/2015

Notes: Strip and clean all terrazzo in toilet rooms (5000sf)

System: C3020412 - Terrazzo & Tile

Location: Rush - terrazzo floors - first floor
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Refinish terrazzo or tile flooring
Qty: 150.00
Unit of Measure: S.F.
Estimate: $3,267.84
Assessor Name: Craig Anding
Date Created: 12/18/2015

Notes: Repair cracked terrazzo in first floor corridor, approx 4 areas. (150sf)

System: C3020414 - Wood Flooring

Location: Rush - gym floor

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace partial area of wood flooring and refinish entire floor - set replacement area

Qty: 300.00

Unit of Measure: S.F.

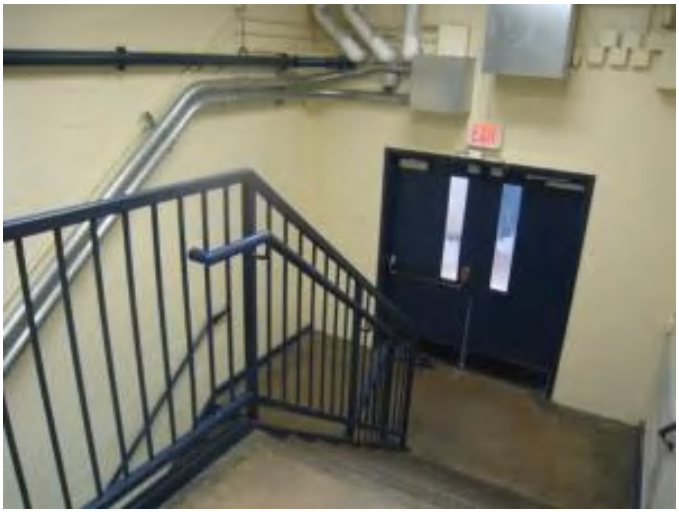
Estimate: $9,030.29

Assessor Name: Craig Anding

Date Created: 12/18/2015

Notes: Replace section of wood floor in gym, damaged from broken heating pipe leaks (300sf)

System: C3020415 - Concrete Floor Finishes



Location: Rush - floors

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Clean and reseal concrete floors

Qty: 10,600.00

Unit of Measure: S.F.

Estimate: $40,752.05

Assessor Name: Craig Anding

Date Created: 12/18/2015

Notes: Strip and reseal concrete floors in stairways and general maintenance area (10,600sf)

System: C3030 - Ceiling Finishes

Location: Rush - ceiling tiles

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 500.00

Unit of Measure: S.F.

Estimate: $5,329.25

Assessor Name: Craig Anding

Date Created: 12/18/2015

Notes: Replace 2x4 acoustical ceiling tiles damaged by broken heating pipe leaks; insert into existing grid (500sf)

System: D1010 - Elevators and Lifts

Location: Rush - elevator

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Replace elevator - 2 stop hydraulic

Qty: 1.00

Unit of Measure: Ea.

Estimate: $171,935.68

Assessor Name: Craig Anding

Date Created: 12/18/2015

Notes: Replace elevator with 2 stop double entrance hydraulic elevator, 3000lb capacity, including today's ADA signage, audio, and visual features.

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

System: D3020 - Heat Generating Systems

Location: Boiler Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace pump, base-mounted, end suction HHW (6" size, 25 HP, to 1550 GPM)

Qty: 3.00

Unit of Measure: Ea.

Estimate: $509,890.11

Assessor Name: Craig Anding

Date Created: 02/07/2016

Notes: Replace the three heating water pumps, 585 gpm, 50 HP.

System: D3030 - Cooling Generating Systems

Location: Boiler Room

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Replace base mounted, end suction CHW pump (6" size, 25 HP, to 1550 GPM)

Qty: 3.00

Unit of Measure: Ea.

Estimate: $509,890.11

Assessor Name: Craig Anding

Date Created: 02/07/2016

Notes: Replace the three condenser water pumps, 1650 gpm, 30 HP.

Priority 5 - Response Time (> 5 yrs):

System: D2030 - Sanitary Waste

Location: Throughout Building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Inspect sanitary waste piping and replace damaged sections. (+200KSF)

Qty: 173,500.00

Unit of Measure: S.F.

Estimate: $752,985.46

Assessor Name: Craig Anding

Date Created: 02/07/2016

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 for the Main Building.

Equipment Inventory

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

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D3020 Heat Generating Systems	Boiler, cast iron, gas & oil, hot water, 5256 MBH	2.00	Ea.	B-2	HB Smith	4500A-S/W-17			35	2007	2042	$184,139.90	$405,107.78
D3020 Heat Generating Systems	Boiler, cast iron, gas & oil, hot water, 5256 MBH	2.00	Ea.	B-1	HB Smith	4500A-S/W-17			35	2007	2042	$184,139.90	$405,107.78
D3020 Heat Generating Systems	Pump, base mounted with motor, double suction, 6" size, 50 HP, to 1200 GPM	3.00	Ea.	HHWP-3	Taco				35	2007	2042	$43,918.10	$144,929.73
D3020 Heat Generating Systems	Pump, base mounted with motor, double suction, 6" size, 50 HP, to 1200 GPM	3.00	Ea.	HHWP-2	Taco				35	2007	2042	$43,918.10	$144,929.73
D3020 Heat Generating Systems	Pump, base mounted with motor, double suction, 6" size, 50 HP, to 1200 GPM	3.00	Ea.	HHWP-1	Taco				35	2007	2042	$43,918.10	$144,929.73
D3020 Heat Generating Systems	Pump, base mounted with motor, double suction, 8" size, 100 HP, to 3000 GPM	3.00	Ea.	CHWP-2	Taco				35	2007	2042	$90,320.00	$298,056.00
D3020 Heat Generating Systems	Pump, base mounted with motor, double suction, 8" size, 100 HP, to 3000 GPM	3.00	Ea.	CHWP-3	Taco				35	2007	2042	$90,320.00	$298,056.00
D3020 Heat Generating Systems	Pump, base mounted with motor, double suction, 8" size, 100 HP, to 3000 GPM	3.00	Ea.	CHWP-1	Taco				35	2007	2042	$90,320.00	$298,056.00
D3020 Heat Generating Systems	Pump, base mounted with motor, end-suction, 6" size, 25 HP, to 1550 GPM	3.00	Ea.	CWP-3	Taco				35	2007	2042	$51,821.10	$171,009.63
D3020 Heat Generating Systems	Pump, base mounted with motor, end-suction, 6" size, 25 HP, to 1550 GPM	3.00	Ea.	CWP-2	Taco				35	2007	2042	$51,821.10	$171,009.63
D3020 Heat Generating Systems	Pump, base mounted with motor, end-suction, 6" size, 25 HP, to 1550 GPM	3.00	Ea.	CWP-1	Taco				35	2007	2042	$51,821.10	$171,009.63
D3030 Cooling Generating Systems	Chiller, centrifugal, water cooled, packaged hermetic, standard controls, 400 ton	1.00	Ea.	CH-1	McQuay				30	2007	2037	$218,800.20	$240,680.22
D3030 Cooling Generating Systems	Cooling tower, galvanized steel, packaged unit, draw thru, 600 ton	2.00	Ea.	CT-2	BAC	Series 1500			30	2007	2037	$99,126.20	$218,077.64
D3030 Cooling Generating Systems	Cooling tower, galvanized steel, packaged unit, draw thru, 600 ton	2.00	Ea.	CT-1	BAC	Series 1500			30	2007	2037	$99,126.20	$218,077.64
D3040 Distribution Systems	AHU, central station, cool/heat coils, constant volume, filters, 10,000 CFM	1.00	Ea.	AHU-2	Venmar				25	2007	2032	$58,369.30	$64,206.23
D3040 Distribution Systems	AHU, central station, cool/heat coils, constant volume, filters, 15,000 CFM	1.00	Ea.	AHU-4	Venmar				25	2007	2032	$100,819.70	$110,901.67
D3040 Distribution Systems	AHU, central station, cool/heat coils, constant volume, filters, 20,000 CFM	1.00	Ea.	AHU-3	Venmar				25	2007	2032	$121,593.30	$133,752.63
D3040 Distribution Systems	AHU, central station, cool/heat coils, constant volume, filters, 20,000 CFM	1.00	Ea.	AHU-1	Venmar				25	2007	2032	$121,593.30	$133,752.63
D3040 Distribution Systems	AHU, field fabricated, built up, cool/heat coils, filters, constant volume, 40,000 CFM	1.00	Ea.	AHU-9	Venmar				25	2007	2032	$151,511.80	$166,662.98
D3040 Distribution Systems	AHU, rooftop, cool/heat coils, constant volume, filters, 20,000 CFM	4.00	Ea.	RTU-8	Venmar	W-2-10e-PP	SO000296-08		25	2007	2032	$181,994.80	$800,777.12
D3040 Distribution Systems	AHU, rooftop, cool/heat coils, constant volume, filters, 20,000 CFM	4.00	Ea.	RTU-7	Venmar	W-2-16e-PP	SO000296-07		25	2007	2032	$181,994.80	$800,777.12

D3040 Distribution Systems	AHU, rooftop, cool/heat coils, constant volume, filters, 20,000 CFM	4.00	Ea.	RTU-6	Venmar	W-2-11e-PP	SO000296-06		25	2007	2032	$181,994.80	$800,777.12
D3040 Distribution Systems	AHU, rooftop, cool/heat coils, constant volume, filters, 20,000 CFM	4.00	Ea.	RTU-5	Venmar	W-2-14e-PP	SO000296-05		25	2007	2032	$181,994.80	$800,777.12
D5010 Electrical Service/Distribution	Load interrupter switch, 2 position, 300 kVA & below, 13.8 kV, 600 amp w/CLF fuses, NEMA 1	1.00	Ea.	Electrical Room					30	1968	2028	$42,600.60	$46,860.66
D5010 Electrical Service/Distribution	Switchboards, distribution section, aluminum bus bars, 4 W, 120/208 or 277/480 V, 3000 amp, excl breakers	3.00	Ea.						30	1968	2028	$10,743.30	$35,452.89
D5010 Electrical Service/Distribution	Transformer, liquid-filled, 5 kV or 15 kV primary, 277/480 V secondary, 3 phase, 2000 kVA, pad mounted	1.00	Ea.	Electrical Room					30	1968	2028	$71,415.00	$78,556.50
												Total:	**$7,302,291.81**

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:	Annex
Gross Area (SF):	13,845
Year Built:	1968
Last Renovation:	
Replacement Value:	$8,141,012
Repair Cost:	$1,146,756.74
Total FCI:	14.09 %
Total RSLI:	56.31 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B804002
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S804001		

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	53.00 %	0.00 %	$0.00
A20 - Basement Construction	53.00 %	0.00 %	$0.00
B10 - Superstructure	53.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	41.67 %	5.02 %	$32,347.30
B30 - Roofing	80.00 %	0.00 %	$0.00
C10 - Interior Construction	39.01 %	0.00 %	$0.00
C20 - Stairs	53.00 %	0.00 %	$0.00
C30 - Interior Finishes	71.06 %	0.00 %	$0.00
D20 - Plumbing	35.76 %	86.67 %	$506,520.57
D30 - HVAC	74.97 %	20.89 %	$321,781.37
D40 - Fire Protection	0.00 %	229.36 %	$286,107.50
D50 - Electrical	59.57 %	0.00 %	$0.00
E10 - Equipment	14.29 %	0.00 %	$0.00
E20 - Furnishings	0.00 %	0.00 %	$0.00
Totals:	**56.31 %**	**14.09 %**	**$1,146,756.74**

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	$24.32	S.F.	13,845	100	1968	2068		53.00 %	0.00 %	53			$336,710
A1030	Slab on Grade	$15.51	S.F.	13,845	100	1968	2068		53.00 %	0.00 %	53			$214,736
A2010	Basement Excavation	$13.07	S.F.	13,845	100	1968	2068		53.00 %	0.00 %	53			$180,954
A2020	Basement Walls	$23.02	S.F.	13,845	100	1968	2068		53.00 %	0.00 %	53			$318,712
B1010	Floor Construction	$92.20	S.F.	13,845	100	1968	2068		53.00 %	0.00 %	53			$1,276,509
B1020	Roof Construction	$24.11	S.F.	13,845	100	1968	2068		53.00 %	0.00 %	53			$333,803
B2010	Exterior Walls	$31.22	S.F.	13,845	100	1968	2068		53.00 %	7.48 %	53		$32,347.30	$432,241
B2020	Exterior Windows	$13.63	S.F.	13,845	40	1968	2008	2020	12.50 %	0.00 %	5			$188,707
B2030	Exterior Doors	$1.67	S.F.	13,845	25	2007	2032		68.00 %	0.00 %	17			$23,121
B3010105	Built-Up	$37.76	S.F.	13,845	20	2011	2031		80.00 %	0.00 %	16			$522,787
B3010120	Single Ply Membrane	$38.73	S.F.		20				0.00 %	0.00 %				$0
B3010130	Preformed Metal Roofing	$54.22	S.F.		30				0.00 %	0.00 %				$0
B3010140	Shingle & Tile	$38.73	S.F.		20				0.00 %	0.00 %				$0
B3020	Roof Openings	$0.68	S.F.	13,845	20	2011	2031		80.00 %	0.00 %	16			$9,415
C1010	Partitions	$14.93	S.F.	13,845	100	1968	2068		53.00 %	0.00 %	53			$206,706
C1020	Interior Doors	$3.76	S.F.	13,845	40	1968	2008	2020	12.50 %	0.00 %	5			$52,057
C1030	Fittings	$4.12	S.F.	13,845	40	1968	2008	2020	12.50 %	0.00 %	5			$57,041
C2010	Stair Construction	$1.28	S.F.	13,845	100	1968	2068		53.00 %	0.00 %	53			$17,722

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.	13,845	10	2015	2025		100.00 %	0.00 %	10			$182,892
C3010231	Vinyl Wall Covering	$0.97	S.F.		15				0.00 %	0.00 %				$0
C3010232	Wall Tile	$2.63	S.F.		30				0.00 %	0.00 %				$0
C3020411	Carpet	$7.30	S.F.	4,800	10	2015	2025		100.00 %	0.00 %	10			$35,040
C3020412	Terrazzo & Tile	$75.52	S.F.	1,000	50	1968	2018	2020	10.00 %	0.00 %	5			$75,520
C3020413	Vinyl Flooring	$9.68	S.F.	7,545	20	2007	2027		60.00 %	0.00 %	12			$73,036
C3020414	Wood Flooring	$22.27	S.F.		25				0.00 %	0.00 %				$0
C3020415	Concrete Floor Finishes	$0.97	S.F.		50				0.00 %	0.00 %				$0
C3030	Ceiling Finishes	$20.97	S.F.	13,845	25	2007	2032		68.00 %	0.00 %	17			$290,330
D2010	Plumbing Fixtures	$31.58	S.F.	13,845	35	1968	2003	2021	17.14 %	1.80 %	6		$7,864.71	$437,225
D2020	Domestic Water Distribution	$3.78	S.F.	13,845	25	1968	1993	2042	108.00 %	484.14 %	27		$253,368.31	$52,334
D2030	Sanitary Waste	$3.56	S.F.	13,845	25	1968	1993	2042	108.00 %	497.66 %	27		$245,287.55	$49,288
D2040	Rain Water Drainage	$3.29	S.F.	13,845	30	1968	1998	2031	53.33 %	0.00 %	16			$45,550
D3020	Heat Generating Systems	$18.67	S.F.	13,845	35	2007	2042		77.14 %	0.00 %	27			$258,486
D3030	Cooling Generating Systems	$24.48	S.F.	13,845	30	2007	2037		73.33 %	0.00 %	22			$338,926
D3040	Distribution Systems	$42.99	S.F.	13,845	25	2007	2032		68.00 %	0.00 %	17			$595,197
D3050	Terminal & Package Units	$11.60	S.F.	13,845	20	2007	2027		60.00 %	0.00 %	12			$160,602
D3060	Controls & Instrumentation	$13.50	S.F.	13,845	20	1968	1988	2037	110.00 %	172.16 %	22		$321,781.37	$186,908
D4010	Sprinklers	$8.02	S.F.	13,845	35				0.00 %	257.67 %			$286,107.50	$111,037
D4020	Standpipes	$0.99	S.F.	13,845	35				0.00 %	0.00 %				$13,707
D5010	Electrical Service/Distribution	$9.70	S.F.	13,845	30	1968	1998	2037	73.33 %	0.00 %	22			$134,297
D5020	Lighting and Branch Wiring	$34.68	S.F.	13,845	20	1968	1988	2027	60.00 %	0.00 %	12			$480,145
D5030	Communications and Security	$12.99	S.F.	13,845	15	1968	1983	2022	46.67 %	0.00 %	7			$179,847
D5090	Other Electrical Systems	$1.41	S.F.	13,845	30	1968	1998	2037	73.33 %	0.00 %	22			$19,521
E1020	Institutional Equipment	$4.82	S.F.	13,845	35	1968	2003	2020	14.29 %	0.00 %	5			$66,733
E1090	Other Equipment	$11.10	S.F.	13,845	35	1968	2003	2020	14.29 %	0.00 %	5			$153,680
E2010	Fixed Furnishings	$2.13	S.F.	13,845	40				0.00 %	0.00 %				$29,490
								Total	**56.31 %**	**14.09 %**			**$1,146,756.74**	**$8,141,012**

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: C3010 - Wall Finishes — This system contains no images

Note: painted block and painted gyp bd 100%

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

Note:

CT	1,000	7%
Conc	500	3.5%
VCT	7,545	54.5%
Carpet	4,800	35%

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

Note:

ACT	13,345	96%
Exposed	500	4%

System: D5010 - Electrical Service/Distribution — This system contains no images

Note: (1) 75 KVA, 480V to 208/120V transformer
(1) 300 KVA, 480 to 208/120V transformer

Renewal Schedule

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

Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$1,146,757**	**$0**	**$0**	**$0**	**$0**	**$757,136**	**$574,277**	**$243,307**	**$0**	**$0**	**$322,172**	**$3,043,648**
*** A - Substructure**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
*** A10 - Foundations**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1010 - Standard Foundations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1030 - Slab on Grade	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
*** A20 - Basement Construction**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2010 - Basement Excavation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2020 - Basement Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B - Shell	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B10 - Superstructure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1010 - Floor Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1020 - Roof Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B20 - Exterior Enclosure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2010 - Exterior Walls	$32,347	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$32,347**
B2020 - Exterior Windows	$0	$0	$0	$0	$0	$240,640	$0	$0	$0	$0	$0	**$240,640**
B2030 - Exterior Doors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

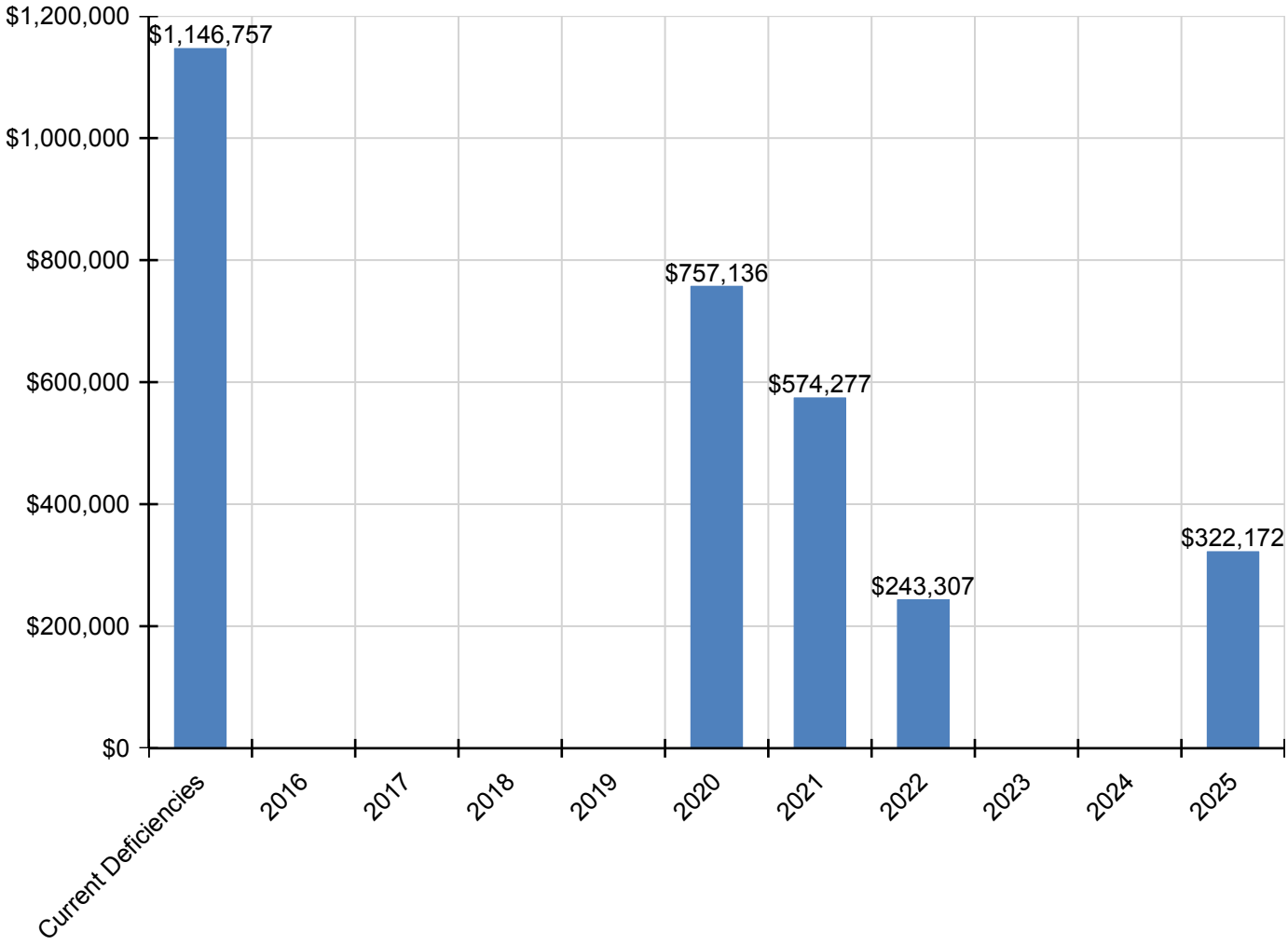
C1020 - Interior Doors	$0	$0	$0	$0	$0	$66,384	$0	$0	$0	$0	$0	**$66,384**
C1030 - Fittings	$0	$0	$0	$0	$0	$72,740	$0	$0	$0	$0	$0	**$72,740**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010 - Wall Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010230 - Paint & Covering	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$270,372	**$270,372**
C3010231 - Vinyl Wall Covering	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010232 - Wall Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020411 - Carpet	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$51,800	**$51,800**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$96,303	$0	$0	$0	$0	$0	**$96,303**
C3020413 - Vinyl Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020414 - Wood Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020415 - Concrete Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3030 - Ceiling Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D - Services	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$7,865	$0	$0	$0	$0	$0	$574,277	$0	$0	$0	$0	**$582,142**
D2020 - Domestic Water Distribution	$253,368	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$253,368**
D2030 - Sanitary Waste	$245,288	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$245,288**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3030 - Cooling Generating Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3040 - Distribution Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$321,781	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$321,781**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$286,108	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$286,108**
D4020 - Standpipes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D50 - Electrical	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5010 - Electrical Service/Distribution	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

D5020 - Lighting and Branch Wiring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5030 - Communications and Security	$0	$0	$0	$0	$0	$0	$0	$243,307	$0	$0	$0	**$243,307**
D5090 - Other Electrical Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E - Equipment & Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E10 - Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E1020 - Institutional Equipment	$0	$0	$0	$0	$0	$85,098	$0	$0	$0	$0	$0	**$85,098**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$195,972	$0	$0	$0	$0	$0	**$195,972**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

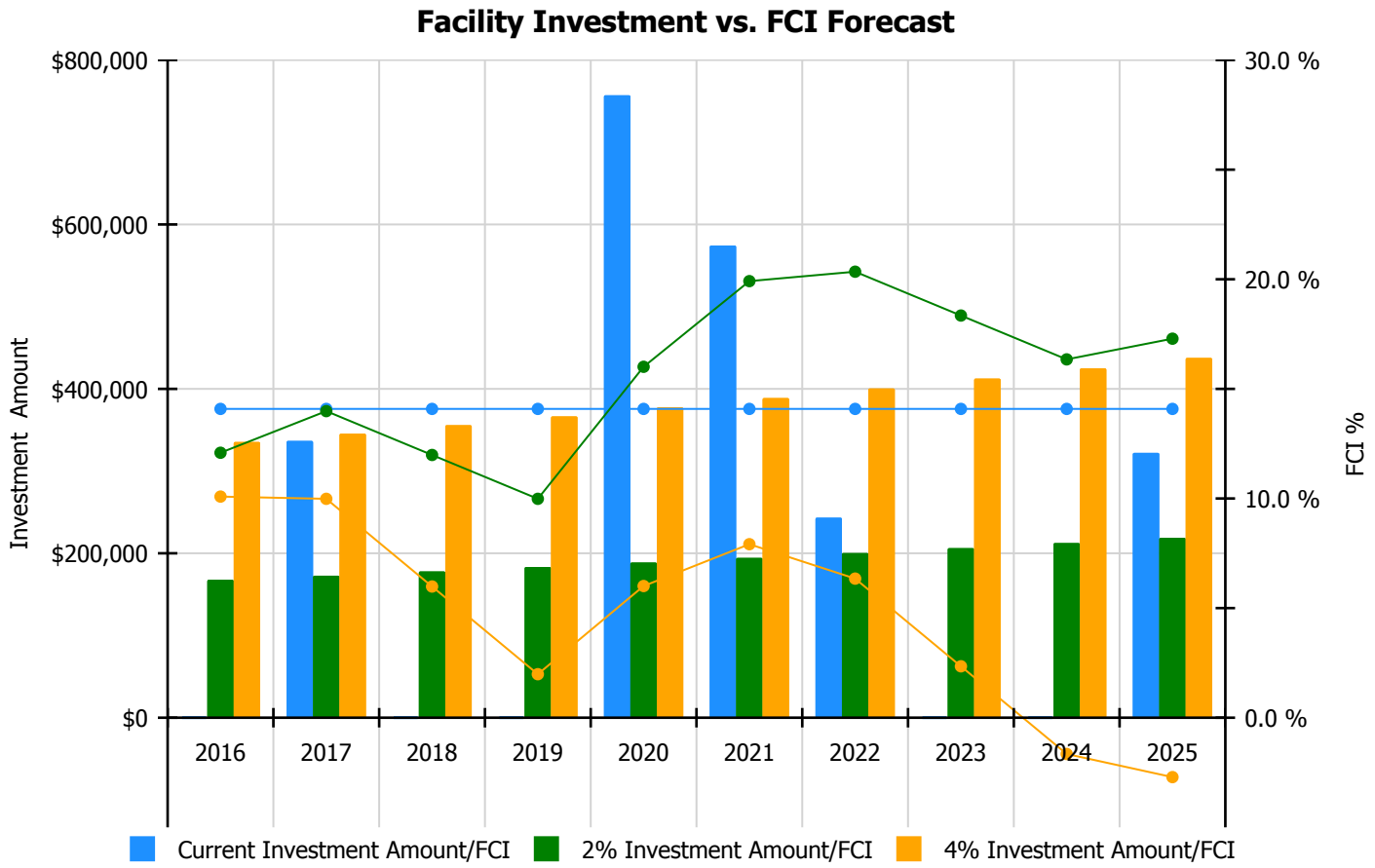
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

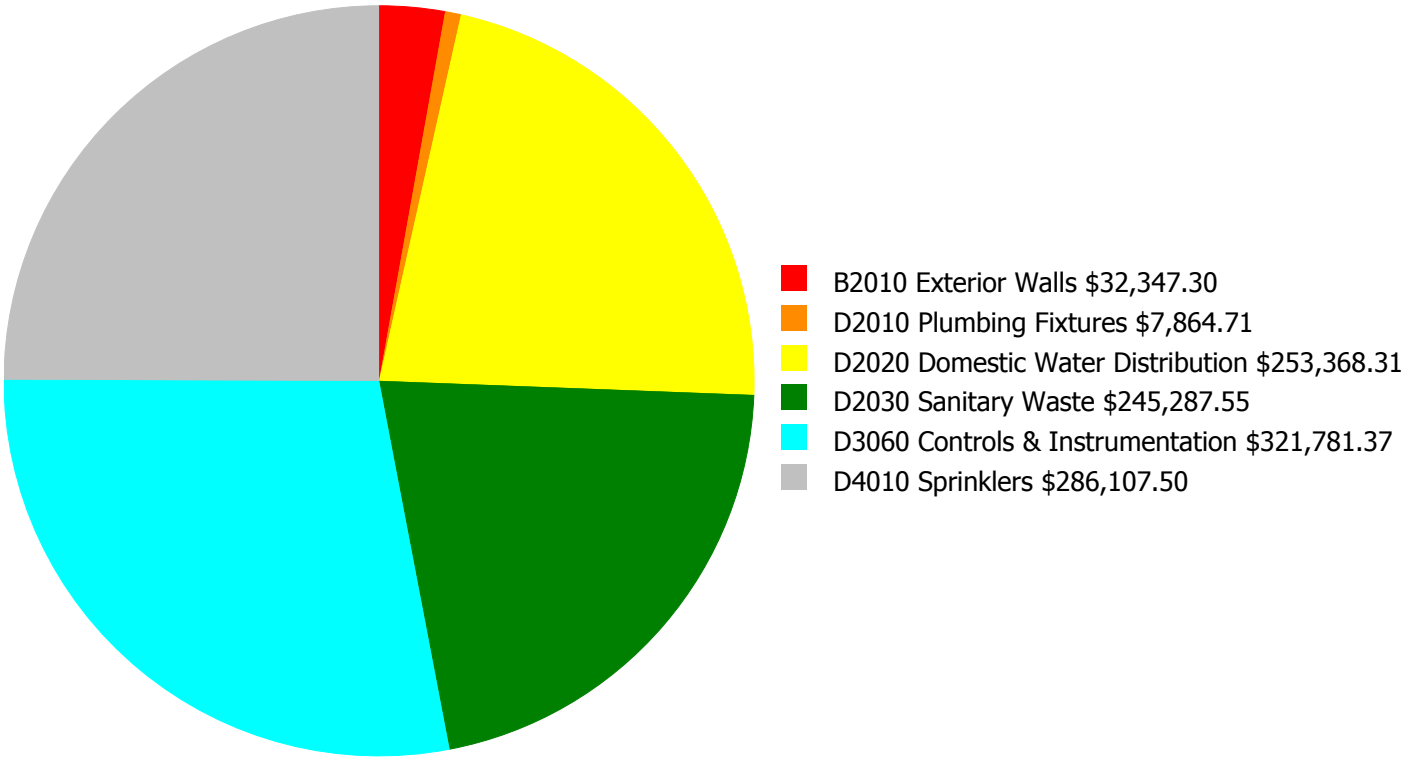
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 14.09%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$167,705.00	12.09 %	$335,410.00	10.09 %
2017	$336,712	$172,736.00	13.98 %	$345,472.00	9.98 %
2018	$0	$177,918.00	11.98 %	$355,836.00	5.98 %
2019	$0	$183,256.00	9.98 %	$366,511.00	1.98 %
2020	$757,136	$188,753.00	16.01 %	$377,507.00	6.01 %
2021	$574,277	$194,416.00	19.91 %	$388,832.00	7.91 %
2022	$243,307	$200,248.00	20.35 %	$400,497.00	6.35 %
2023	$0	$206,256.00	18.35 %	$412,512.00	2.35 %
2024	$0	$212,443.00	16.35 %	$424,887.00	-1.65 %
2025	$322,172	$218,817.00	17.29 %	$437,634.00	-2.71 %
Total:	**$2,233,603**	**$1,922,548.00**		**$3,845,098.00**	

Deficiency Summary by System

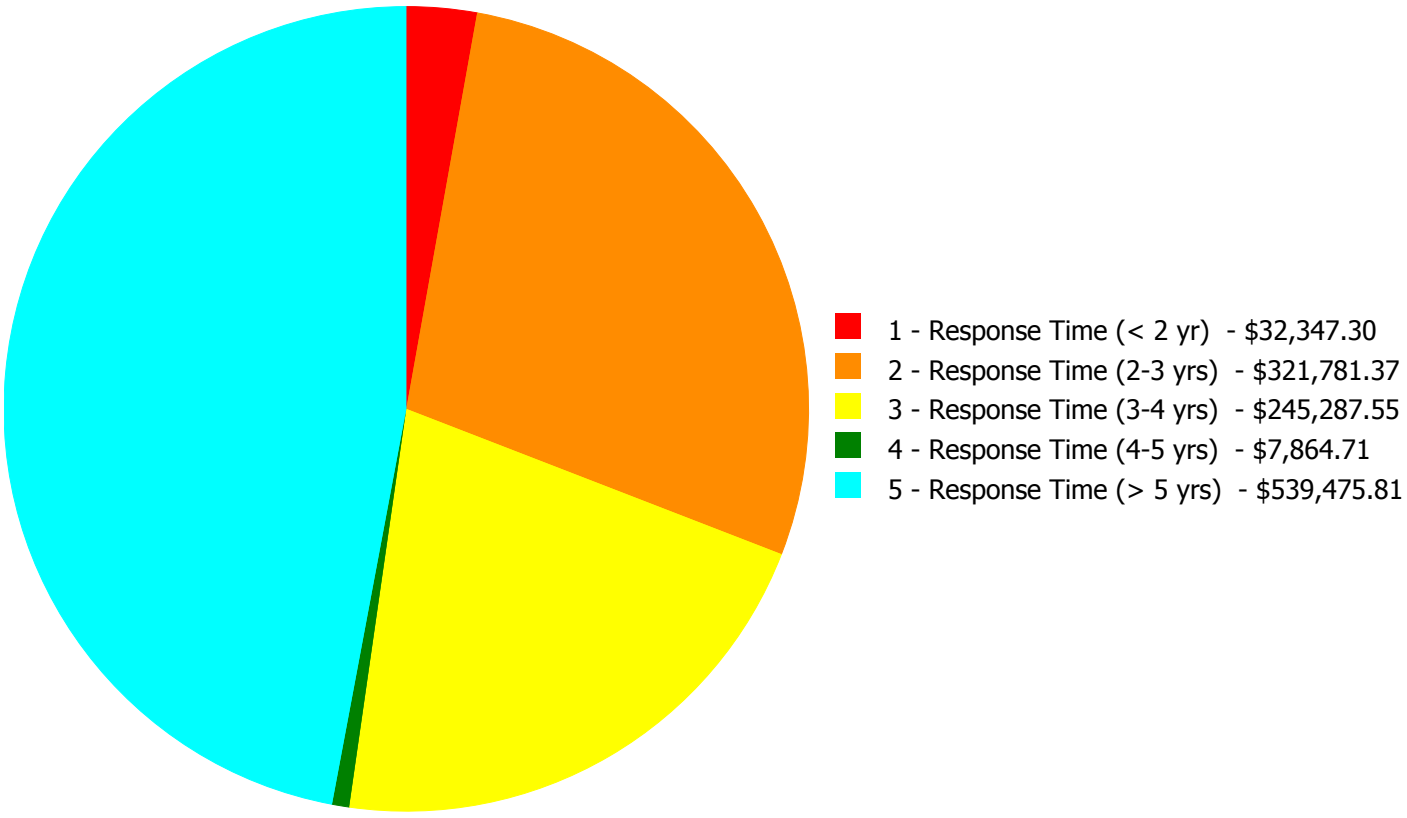
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $1,146,756.74

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: $1,146,756.74

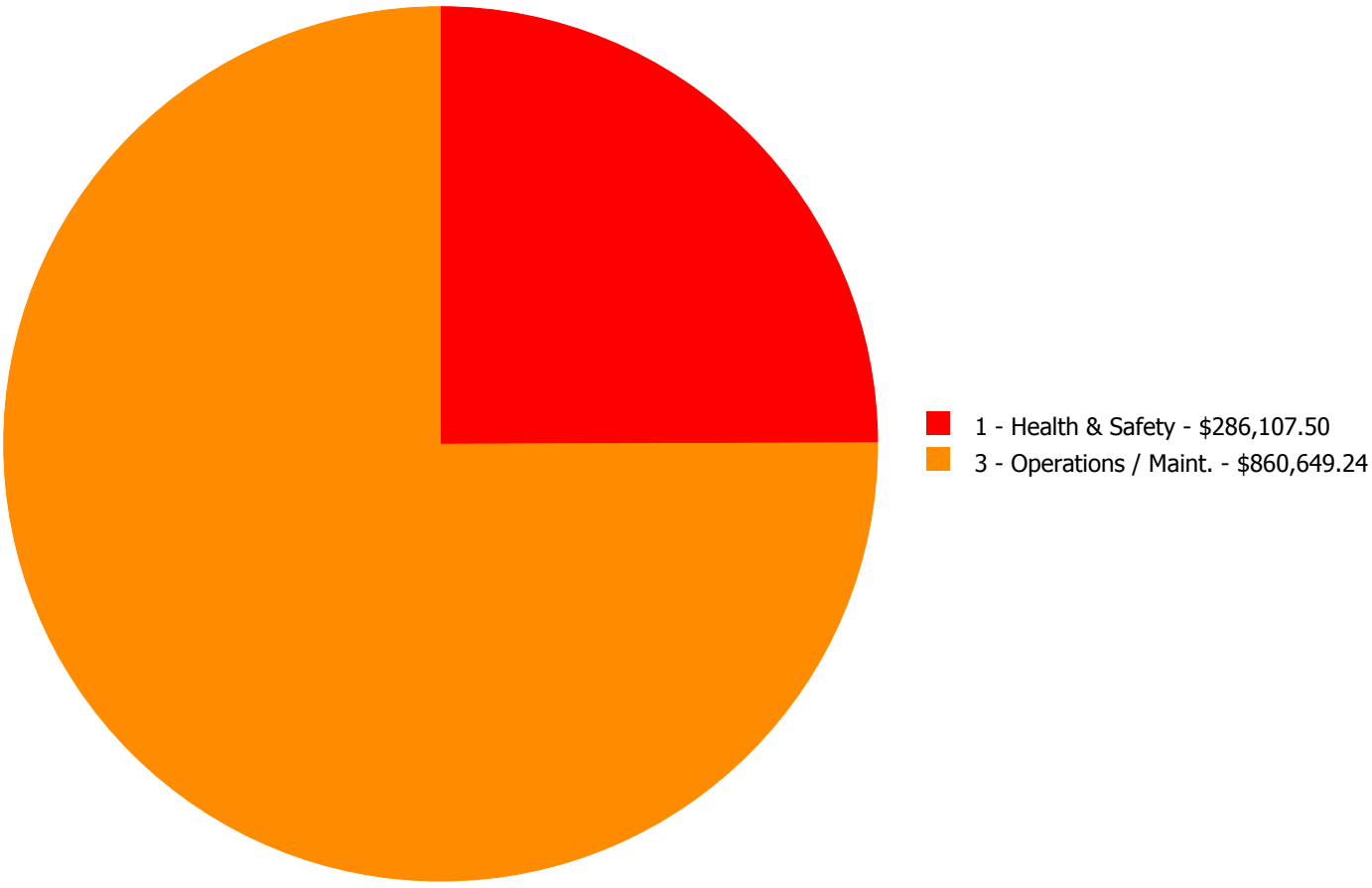
Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
B2010	Exterior Walls	$32,347.30	$0.00	$0.00	$0.00	$0.00	$32,347.30
D2010	Plumbing Fixtures	$0.00	$0.00	$0.00	$7,864.71	$0.00	$7,864.71
D2020	Domestic Water Distribution	$0.00	$0.00	$0.00	$0.00	$253,368.31	$253,368.31
D2030	Sanitary Waste	$0.00	$0.00	$245,287.55	$0.00	$0.00	$245,287.55
D3060	Controls & Instrumentation	$0.00	$321,781.37	$0.00	$0.00	$0.00	$321,781.37
D4010	Sprinklers	$0.00	$0.00	$0.00	$0.00	$286,107.50	$286,107.50
	Total:	$32,347.30	$321,781.37	$245,287.55	$7,864.71	$539,475.81	$1,146,756.74

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: $1,146,756.74

Deficiency Details by Priority

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

Priority 1 - Response Time (< 2 yr):

System: B2010 - Exterior Walls

Location: Rush Annex - exterior walls

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Remove graffiti - power wash and paint

Qty: 4,800.00

Unit of Measure: S.F.

Estimate: $32,347.30

Assessor Name: Craig Anding

Date Created: 12/18/2015

Notes: Strip and power wash anti-graffiti coating from building and re-apply clear coating for 8ft ht. around building (4,800sf)

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

System: D3060 - Controls & Instrumentation

Location: Throughout Building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace pneumatic controls with DDC (75KSF)

Qty: 15,000.00

Unit of Measure: S.F.

Estimate: $321,781.37

Assessor Name: Craig Anding

Date Created: 02/07/2016

Notes: Replace the pneumatic controls for the HVAC systems with modern DDC modules, valves and actuators to improve reliability and energy efficiency for the Annex.

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

System: D2030 - Sanitary Waste

This deficiency has no image.

Location: Throughout 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: 50,000.00

Unit of Measure: S.F.

Estimate: $245,287.55

Assessor Name: Craig Anding

Date Created: 02/07/2016

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 for the Annex.

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

System: D2010 - Plumbing Fixtures

Location: Janitor Closet

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 1.00

Unit of Measure: Ea.

Estimate: $7,864.71

Assessor Name: Craig Anding

Date Created: 02/07/2016

Notes: Replace service sink (janitor sink) in the Annex.

Priority 5 - Response Time (> 5 yrs):

System: D2020 - Domestic Water Distribution

Location: Throughout Building
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 5 - Response Time (> 5 yrs)
Correction: Replace domestic water piping (75 KSF)
Qty: 50,000.00
Unit of Measure: S.F.
Estimate: $253,368.31
Assessor Name: Craig Anding
Date Created: 02/07/2016

Notes: Inspect and replace, as needed, the original domestic water piping in the Annex.

System: D4010 - Sprinklers

Location: Throughout Building
Distress: Life Safety / NFPA / PFD
Category: 1 - Health & Safety
Priority: 5 - Response Time (> 5 yrs)
Correction: Install a fire protection sprinkler system
Qty: 20,000.00
Unit of Measure: S.F.
Estimate: $286,107.50
Assessor Name: Craig Anding
Date Created: 02/07/2016

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

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
D5010 Electrical Service/Distribution	Switchboards, pressure switch, 4 wire, 120/208 V, 1200 amp, incl CT compartment, excl CT's or PT's	1.00	Ea.	Electrical Room					30	1968	2037	$29,559.60	$32,515.56
												Total:	**$32,515.56**

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):	85,550
Year Built:	1960
Last Renovation:	
Replacement Value:	$47,576,086
Repair Cost:	$16,425,848.30
Total FCI:	34.53 %
Total RSLI:	68.35 %

Description:

Facility Condition Assessment
October 2015

School District of Philadelphia
Aloysius Fitzpatrick Elementary School
11061 Knights Road
Philadelphia, PA 19154

85,550 SF / 875 Students / LN 08

Fitzpatrick Annex

11061 Knights Road
Philadelphia, PA 19154

12,500 sf / LN 08

General

Aloysius Fitzpatrick Elementary School is located at 11061 Knights Road. The main building was constructed in 1960, has 85,550

square feet and is 3 stories tall; it has a full ground floor that is partially below grade facing Knights Road and completely above grade in the rear. The “basement” containing the boiler and mechanical rooms is one half story below the ground floor but has grade-level exits to the rear. The gymnasium is also one-half level below the ground floor, below the lowest level of elevator access. The front entrance to the Main Building faces Knights Road. The Fitzpatrick Annex was constructed in 1968 and is located behind the main building, connected to the south side of the main building asphalt playground with a concrete walkway. The main entrance to the Annex faces Chalfont Drive. Also on the site for a short period of time were elements 2, 3, 4, and 5, which were small freestanding portable buildings constructed in 1963 and demolished in 1980. Carlos Mota, the Building Engineer accompanied the FCA team during the inspection.

The inspection Team met Principal Karen White who expressed concern over some issues. The heating system controls do not operate properly creating hot and cold rooms throughout the building; the system is either all-on or all-off. The gymnasium has a below grade wall that is always damp. The electrical system has no additional capacity for smartboards or air conditioning units. There is a handicap ramp into the building, but the gym is 8 steps below elevator access and is not accessible. There are no surveillance cameras inside or outside. The annex has no air-conditioning and needs it to make the building less uncomfortable on warm days.

Architectural/Structural

Foundations in the Main Building are constructed of brick and concrete. Basement brick and masonry joints are in good condition with no major settlement cracks observed. Footings were not seen and their construction type or condition could not be ascertained. Since the building is set on a hill, the ground floor is at grade on the rear and although the boiler room and gym are 8 risers below the ground floor, they are also at grade in the rear. There is no basement in the Annex therefore foundations could not be seen. There was no major settlement seen in any above grade walls of the Annex.

Floor slabs in the Main Building basement are in good condition although somewhat dirty and in need of stripping, cleaning and repainting. Upper floor slabs are constructed of cast-in-place concrete with cast-in-place concrete beams. No major cracking was observed on any floor slab inspected in the Main Building or the Annex.

Roof construction in the Main Building consists of reinforced concrete beams and deck, bearing on concrete columns and beams with masonry wall infill on the exterior. The gymnasium has an exposed concrete beam and deck system with classrooms above which is thought to be the typical structural system over the entire building. The roof deck above all parts of the building consists of a “flat” deck with almost no overall slope and pitch to roof drains. Roof access is via a hatch in the roof. The roof has no parapets and has one brick masonry roof structure which houses the elevator machine room, accessed by a steel stair. The steel stair is located on a point on the main roof that falls within a 10ft distance to the edge of the roof. At that location, a 42” high guard rail is required to help prevent an accidental fall off the roof; instead of the rail, the stair could be turned to avoid the 10ft edge distance requirement. The roof of the elevator mechanical structure is accessed by a ladder up the northeast wall. The auditorium roof is below the main roof accessed by a fixed ladder mounted on the brick wall; two other lower areas connected to the auditorium are accessed by ground supported portable ladders. All roofs have internal roof drains at low points with rectangular dished areas around the drains to help water flow into the drains; vertical leaders run through the building in internal chases connecting to the storm sewer system underground. There are no vertical leaders running down the outside of the exterior walls. None of the roofs have overflow scuppers or overflow roof drains, but as long as the roof deck was designed to carry the load of the water contained by the parapet if all roof drains were clogged, this is not a structural concern. Roof structure over the Annex is constructed of precast concrete “T” units with a high point in the middle of the structure, sloping slightly to both sides where one horizontal gutter located on the north side of the roof collects water and drains to two drain pipes, spilling onto the grass. The south side of the roof has no gutters or leaders and simply spills water onto the parking lot. This uncontrolled condition certainly creates icy conditions during the cold season as water spills and drains along the building exits and parking areas. Edges of some of the roof panels are spalling and need to be repaired to prevent further degredation.

Exterior walls on the main building are generally in good condition except for the southeast corner of the building (right hand side of the gymnasium section when viewed from the south) which has a vertical crack extending through the bricks almost the entire 4 story height. Also, the upper eastern side of the building facing the playground has some brick joints which have lost grout. The stairway on the northeast corner of the building has peeling paint on the exterior wall, possibly due to lost grout and moisture penetration on the outside wall; the north wall should be repointed. On the roof level, the brick flue has some cracked joints in a few locations. The reglet joint around the elevator penthouse needs to be recaulked along the insertion into the brick. Windows run horizontally between concrete column elements and brick building corners; windows have brick headers supported by steel lintels, all in good condition. Large areas of the ground level brick wall have been painted brown or dark red to hide past graffiti elements on the walls; the paint is no uniform in color, wearing away and should be reapplied. Two rusted wall mounted ventilation louvers on south and southeast walls damaged from vandalism or impact from playground balls need to be replaced. Exterior walls in the annex are loadbearing precast concrete panels each with integral concrete pilaster/columns built into each panel. Panels are painted white and in some locations are peeling, other locations are faded or discolored due to having been painted with a mismatching color; the entire building should be repainted. Univent louvers are dented and need to be replaced. At least two of vertical the panel joints need to be re-caulked because the outside can be seen from gaps between adjacent panels when inspected from inside the building. There is some spalling of the “T”s at the edges, which should be repaired to prevent further spalling.

Exterior windows in the main building are the original 1960 units with clear anodized aluminum frames with single glazing upper sections and operable hopper-style single glazed lower half units. Single glazed windows provide almost no insulation value and do not meet today's energy code requirements making them a large source of heat loss. Windows no longer provide a tight seal against the outside and there is evidence of water stains around many window sills. A few classrooms have window-mounted air conditioners. First floor and basement windows have galvanized steel security screens on the exterior, which are in good condition. The Annex has similar leaky, drafty, 1960's single pane windows with galvanized security screens on all windows. All windows in both buildings should be replaced to provide better closure in cold weather and more comfort in in the warm seasons.

Exterior doors in the main building at the front entrances and two other student entrances are flush, painted, hollow metal steel doors & frames with narrow vertical vision panels with security screens. Exit doors or mechanical area entrance/exit doors around the building are flush, painted hollow metal steel doors & frames without vision panels. Doors are generally in fair condition, with few dents and no graffiti. Most exteriors of doors could use a new coat of paint. Most hardware is operational with some doors needing adjustment. Weatherstripping should be inspected on all doors as gaps can be seen in some doors; weatherstipping should be replaced where not closing tight to prevent cold weather air infiltration. There are no ADA compliant handicap accessible ramps and entrances into the building, however the door facing the play area near the cafeteria on the ground floor is only one step up from grade. An accessible sloped walkway (a ramp that is less than 5% slope, not requiring a handrail) can easily be provided at north east or west doors to provide wheelchair access. The gymnasium is 8 risers below that entry point (in the corridor), which is the lowest elevator stop, therefore to gain access to the gym, wheel chair students must go outside this door and re-enter further down the driveway. The entrance to the gym from the outside at the south entry door has a ramp constructed inside to allow wheelchair people to get up to the gymnasium level. Accessible Route signage would be required at the front of the building to lead people to the accessible entrances in the rear. The entrances into the Annex are no more than one step up at all doors and could also benefit from sloped walkways into the building. Annex exterior doors are steel and need to be repainted.

Roof coverings on both buildings consists of fully adhered built-up rolled asphalt membrane systems, with impregnated surface granules. Both roofing systems are more than 20 years old and approaching the end of their useful lifespans and should be replaced. The main roof over the third floor classroom area of the main building was physically inspected by the inspection Team, but the lower auditorium roof and the Annex roof were only accessible only by ladder and were inspected by viewing from the main building roof. Roof structures include masonry walls, and chimney on the main building; plumbing vents, ventilation ductwork, and roof drains can be found on both buildings. Flashing on the main building terminates under aluminum counterflashing either set into masonry with reglets or attached to roof structures; the reglet joints need to be recaulked along the masonry. Overlapping joints of asphalt membrane have some exposed and cracking asphalt and should be frequently inspected to ensure water-tightness. The main building membrane is also gradually losing the granule layer which will cause the asphalt membrane to degrade faster in the sunlight. Underneath the roof deck in third floor classrooms and corridors, there is some peeling paint which could be moisture coming through the roof system or just high humidity from radiator overheating in the winter. The Annex has a leak around a roof penetration evident inside the building.

Partitions in the main building are constructed of painted block (concrete masonry units) throughout the entire school. Corners are bull -nose block to soften the hard edges and provide a more durable surface. Wall bases are either painted block or glazed block. There were no joint cracks observed in the block during the inspection. This highly durable wall system is in good condition. Partitions in the Annex are precast concrete wall panels on the exterior walls and the longitudinal corridor walls. Gaps to the exterior were seen between some exterior panels; these should be sealed to keep out cold air. Other areas near the roof had stains from roof leaks around pipe penetrations. Partitions between classrooms are gypsum board and metal stud. The corridor between areas 3 and 4 (Pre-K area) are concrete block.

Interior doors used for classrooms, offices, storage rooms, and bathrooms are solid wood oak veneer doors and steel frames. Many of these wood doors have narrow lite wired glass vision panels where vision is desirable; some have security screens. On the 2nd and 3rd floors, most wood door surfaces need to be refinished. Classroom, office, and special function room doors throughout the 2nd and 3rd floors of the building have old nob-style locksets (except for stairways) and should have lever-handle locksets. First floor classroom doors have been replaced with solid wood veneer fire rated doors with FireLite fire rated glazing and lever locksets that can be locked from the inside of the classroom, as required today for lock-down security. Other classroom and office doors should be upgraded with this security feature. Wood doors have steel door frames which need repainting. Stairway and cafeteria doors have hollow metal doors with narrow lite wired glass vision panels and steel door frames, with panic hardware in fair condition with worn finishes and with some requiring adjustment. All steel doors and frames throughout the building need to be repainted. Interior basement doors in the mechanical room are hollow metal steel doors with steel frames which should be repainted. Annex interior doors are stained solid wood doors and are in good condition.

Interior fittings/hardware in the main building include black slate chalkboards and tackboards with metal chalk trays mounted on one wall in each classroom. Some of the classrooms have smartboards over blackboards. Each classroom has at least one built-in metal cabinet for storage and a recessed coat and storage area. The library space was created by removing the wall between two classrooms. It has free-standing plastic laminate bookcases, tables, and wood chairs that are all in good condition. Toilet room partitions are either the original metal painted partitions in fair condition or replacement HDPE plastic partitions and doors, generally in good condition. Most toilet rooms have accessories in place and operational. Toilet rooms have a minimally accessible toilet compartments that has a toilet and sink with enough maneuverability space for wheelchairs, but no grab bars or properly mounted

accessories, not fully meeting ADA. Sinks also do not meet accessibility requirements since they do not have wrist blade faucets, leg protection, and extended or properly mounted bowl heights.

Stair construction consists of concrete treads with steel nosings, steel risers, and steel treads with steel nosings on concrete pan treads; steel handrails are 30" high and guards are 36" high at tops of landings, with no guards on open sides of stairways. Railings do not have 4" spaced balusters but instead have an "industrial style" mid-height horizontal tube baluster. Stairway handrails and guards do not meet today's code requirements and should be replaced. Concrete platforms and landings are finished with clear sealer, but the concrete has a mottled appearance and looks dirty. Stair 1 (middle stair) is rusting on the underside of some risers and treads. Stairs platforms and landings should be stripped and refinished to give them a cleaner appearance.

Wall finishes in the basement, first, and second, floors are full height painted concrete masonry units (block) throughout the building. There are a few locations in 1st and 2nd corridors and classrooms where the walls are damaged and in need of repainting. In a number of locations in 3rd floor classrooms and in the corridor overlooking the auditorium roof, paint is peeling. This could be due to entrapped moisture from leaks through penetrations or the masonry wall, or it could be due to overheating and steam from the heating system. The walls in the north stair are also peeling. Walls should be properly prepared and repainted. The Annex wall finishes are painted block, precast panel or gypsum board. Except for some locations where the painted interior surfaces of precast wall panels are peeling near radiators or panel joints and in need of repainting, all Annex surfaces are in good condition.

Floor finishes consist of vinyl asbestos tile (VAT) or vinyl composition tile (VCT). The gymnasium, cafeteria, lobby area, auditorium, stage, and most classrooms have VAT; 2nd and 3rd floor corridors, the school office, and some classrooms have been refinished with VCT and have been well maintained. The rooms with VAT should be tested for asbestos and if they are asbestos containing, although they are not damaged, they should be properly removed and replaced at some point in the near future. Basements, stairs, and toilet rooms have sealed concrete finishes which are in need of stripping, cleaning, and resealing; toilet rooms in particular should have a clean finish to promote the appearance of cleanliness. The library and some administrative offices have carpet, which needs to be cleaned or replaced.

Ceiling finishes in most of the spaces throughout the main building consist of exposed precast concrete plank painted white, with surface mounted 1x4 fluorescent lighting fixtures in corridors, classrooms, and offices. Some rooms have been recently upgraded with suspended 2x4 acoustical tile ceilings with recesses lighting. The auditorium has surface mounted 12"x12" tongue and groove ceiling tiles with suspended lighting fixtures. Ceiling tiles are stained from roof leaks, losing adhesion, and need to be replaced. The cafeteria has surface mounted 12"x12" tongue and groove ceiling tiles with surface mounted lighting fixtures. Electrical conduit is secured to the concrete deck in exposed ceilings and exposed to view. The exposed painted ceiling surfaces are well maintained. The gym has a concrete deck over an exposed concrete beams painted white and in good condition. Ceilings in the Annex are exposed concrete T roof structure with surface mounted 1x4 fluorescent lighting fixtures in ¾ of the rooms (classrooms) and suspended 2x4 acoustical tile ceiling system in ¼ of the rooms (office areas).

Fixed furnishings include wood seating in the auditorium which is in good condition. Some chairs might need adjustment and some need refinishing, but overall the appearance is good with minimal repairs required. The cafeteria has folding tables for serving students. The kitchen area has stainless steel service counters and food preparation fittings. The Annex has no fixed furnishings.

There is a 2000lb capacity traction elevator in the main building, serving all 4 floors.

There is an ADA accessible ramp into the main building at the gymnasium entrance. Other entrances are not accessible, although with a small sloped walkway, the playground entrance to the ground floor near the elevator could be made accessible. A sloped walkway should be added to one of the doors in the Annex to make that building wheelchair accessible.

Mechanical

Plumbing Fixtures –The Main 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. There is a water closet, lavatory and hand sink located in each of the kindergarten classrooms. Science classrooms are equipped with lab sinks and prep sinks which are original and should be replaced since they have exceeded their service life, however a few classrooms have had casework and prep sinks replaced. 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 on the first floor but not the second or third floors.

The Annex is equipped with floor set 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. 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 not equipped with floor drains.

In the Main Building drinking fountains in the corridors and at the restrooms are wall hung fountains. Drinking fountains are typically located at the bathroom groups. The gymnasium is equipped with wall hung stainless steel drinking fountains. Most appear to be the original installed equipment. The replacement of all drinking fountains is recommended as the equipment is approximately 56 years old and beyond its service life.

In the Annex there is a wall hung EWC in the corridor located at the restroom. In addition, there is a vertical EWC in the building. The replacement of all drinking fountains is recommended as the equipment is beyond its service life.

In the Main Building, wall hung service sinks as well as floor set mop basins are original available throughout the building for use by the janitorial staff. Service sinks are located in the vicinity of the bathroom groups and drinking fountains. 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 lever 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.

In the Annex, a floor set service sink is located in a custodial closet and is original. The sink shows signs of heavy use and should be replaced.

Domestic Water Distribution –For the Main Building it appears that the 4" domestic water service piping is mostly soldered copper. Water service enters the building in the basement with a 2" water meter on the main line upon entering the building through Classroom B-6. The water meter appears to be new. No backflow preventer was found on the water service. 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 Annex water supply is fed by a 4" water service with a 4" double check backflow preventer (RPZA – reduced pressure zone assembly) and a 1-1/2" water meter on the main line upon entering the building on the first floor in a mechanical services room. 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 Main Building domestic water system is produced by a Bradford White (Magnum), vertical tank, 80 gallon, electric, model MII80-18 -3SF-37, 18 kW, 208V-3phase which is located in the boiler mechanical equipment room. The hot water system is equipped with a recirculation pump as well. There are P/T relief on the tank, however an expansion tank was not found for the system. The domestic water equipment was manufactured in February 2015 and has its full service life available as long as regular maintenance is performed.

The Annex domestic water system consist of a five vertical tank type electric water heaters. Four heaters are, each serve a pair of toilet rooms, 15 gallon, 1500 watts, 115-120V-single phase of which three are manufactured by Bradford White and one by AO Smith. The fifth water heater serves the kitchen which is a 40 gallon, 4500 watts, 208V-single phase unit manufactured by Bradford White. The systems are not equipped with an expansion tank or circulating pump but does have a P/T relief. The water heaters appear to be in good condition and have an estimate remaining service life of 5 years.

Sanitary Waste - The sanitary waste piping system in the Main Building appears to be galvanized steel with threaded fittings 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. The Annex sanitary system is a gravity system as well.

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 no overflow scuppers for the building since the roof does not have parapets. The Annex has roof drain system consist of gutters and downspouts.

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 rear of the building near the boiler room. The fuel pumps and controls were replaced approximately ten years ago when the boilers were replaced and have another 10 – 15 years of service life remaining. The 4" natural gas enters the building in the basement into the main boiler mechanical equipment room. There is a fuel oil monitoring system for the underground tank with the control/annunciator located in the main boiler mechanical equipment room. 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 4,793 MBH, HB Smith sectional, cast iron, 2 model 4500A-18 steam boilers with dual fuel burners, however, oil only is being utilized since the school has not had a gas service modification to handle the additional gas loads. The boilers however, have been fitted with the required gas train to operate once the gas service has been upgraded. Both boilers are equipped with Power Flame dual fuel burners, natural gas and number 2 fuel oil,

model LNIAC5-GO-30, low NOX. The boilers were installed approximately 10 years ago and have 20 – 25 years remaining of service life provided that a preventative maintenance program is performed on a regular basis. Each boiler is equipped with an Auburn fan induced draft control. There were combustion air dampers with electric actuators which 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.

The Annex mechanical heating equipment is fed from the Main Building's boiler heating system.

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 which has not been replaced as part of the boiler renovation 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, however, according to the building engineer there have not been significant problems with steam trap failures. 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. There are no condensate return receivers for the steam system. The condensate is 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

For the Main Building, fresh air is admitted into the building through the unit ventilators and outside air intakes to air handling equipment. 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. Additional ventilation air is provided via operable windows in the cafeteria, auditorium and gymnasium. The new unit ventilators should be designed for quiet operation and equipped with hot water and chilled water coils, and integral heat exchangers.

Similarly, the Annex classrooms are served by unit ventilators, are configured of that of the Main Building and should be replaced as well for the same reasons and same recommendations.

The Main Building uses unit ventilators (manufactured by Nesbitt) with steam coils in the classrooms and wall hung steam convectors in the hallways at the end of hallways, and suspended heating water convectors in bathrooms and stairwells, at mid landings of stairwells and below windows located in hallways. In addition, there are recessed steam convectors in hallways and at door entrances to stairwells. Currently these convectors are the sole source of heat for these areas. Relief air from the classrooms is transferred into the corridor and then is transferred to the foul air relief risers located at the end of the corridors which then terminate at the roof level.

The gymnasium in the Main Building is served by two heating and ventilating units which are ceiling suspended with steam coils. The H&V units supply air to the space through an overhead ducted with a pants leg supply duct system which terminates with a supply diffuser on each branch. Return grilles are also provided on each H&V unit. In addition there are two low wall exhaust/relief grilles ducted to a relief air fan at the opposite end of the H&V locations in the gym. Windows can also be opened for natural ventilation. It is recommended to replace these systems with a roof top mounted unit with an overhead supply air distribution system which distributes the air more evenly throughout the space and return/relief air ductwork and low return intake grilles which would be protected from damage.

The cafeteria in the Main Building is served by steam convectors and an air handling unit, H&V unit with a steam coil and ducted supply and return systems. The air handling unit is no longer operated to serve the space and the steam convector provide the required heating. The air handling unit and steam convectors 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 not provided with a dedicated make up air unit for the hood exhaust systems. It is recommended that a hood exhaust system be implemented for any equipment which generates heat. These systems should be coupled with a heating and ventilating make up air 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.

The auditorium in the Main Building is served by heating and ventilating unit with steam heating coils. The H&V unit supply air to the space through an overhead ducted supply system with concentric circular diffusers and low return grilles located at the front of the stage. A roof top unit system or air handling unit system equipped with heating water and chilled water coils should be provided to replace this equipment.

The IMC in the Main Building is served by a window AC units for cooling and unit ventilators and convection heaters for heating. It is recommended to replace this equipment with a packaged roof top unit which provides heating, cooling and ventilation to the space.

Terminal & Package Units – In the Main Building, there are a few areas which are served by window air conditioning units but predominantly the building does not have cooling systems. There are roof mounted exhaust fans which serve the restrooms. Exhaust fans should be replaced. The kitchen hood exhaust fan is also located on the roof. Make up air for the toilet exhaust is transferred via a door grille or transfer duct between the bathroom and the corridor. The LAN IT room is served by a split system DX, Mr Slim Mitsubishi unit with the condensing unit located remotely. There are two remote condensers, one which serves the LAN room and the other which serves the elevator machine room (PUY-A36NHA).

In the Annex, the bathrooms are served by wall exhaust fans. Replace exhaust ans.

In the Annex, six split system AC units serves six classes while the seventh class is served by window AC units. The classrooms in the Annex are served by a combination of exposed ducted supply systems with registers or lay in two by two supply air diffusers in an acoustical ceiling grid system. Baseboard electric convectors serve the classrooms while baseboard electric convector heaters and electric wall heaters serve the hallway. These systems should be replaced with in kind new systems.

Controls & Instrumentation – In the Main Building, the original pneumatic systems (Honeywell) 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 reciprocating simplex air compressors which generate control air for the temperature control system which are located in the boiler room which feed a common storage tank. A common refrigerated air dryer manufactured by Hankinson, model HPRS-10, serves the compressors. The maintenance staff reports temperature control is generally lacking throughout the facility and in general there are areas that are overheating while others are cold. 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 51 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 the Main Building and the Annex 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, neither the Main Building nor the Annex. 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. The kitchen hood in the cafeteria is equipped with an Ansul fire suppression system.

Electrical

Site Electrical Service is delivered to the main building from medium voltage overhead lines on wooden poles along Chalfont Drive. One pit mounted utility transformer with 13.2KVAC voltage primary and 208/120VAC secondary and at an estimated available power of 300 KVA is installed outside the building for supplying power to facility. The site electrical service for the Annex is delivered from medium voltage overhead lines on wooden poles along Chalfont Drive. The incoming power from the utility is via a medium voltage transformer (estimated 300KVA) with 13.2KVAC primary side and 208/120VAC secondary voltage, located in the transformer room of the building.

The service entrance to the main building consists of a disconnect switch, utility meter, main switchboard (estimated 1000A) and distribution panel boards, located in the Boiler Room in the basement of the building. The switchboard and distribution panel boards are open bus, fusible open switch style and have far exceed their useful life. These devices are not safe to be in service and require replacement. The service entrance to the Annex facility consists of a disconnect switch, utility meter, and four 400A outgoing disconnect switches located in the Annex electrical room. The service entrance, and disconnect switches are old and should be replaced.

Power distribution in main building is achieved through corridor located lighting/receptacle panel boards. Panel boards, two on each floor. There are five more power panels also provided in roof access closet for feeding mechanical loads. It appears that panel boards and branch circuit breakers have out-lived their useful lives thus are ready candidates for upgrade/replacement. Power distribution in the Annex building is achieved through eight lighting/receptacle panel boards. There are four in the office area, one in each classroom and one in the food preparation room. It appears that panel boards and branch circuit breakers have out-lived their useful lives and should be replaced.

Receptacles are not provided in adequate numbers in the classrooms of the main building. The recommendation is to have a

minimum of two receptacles on each classroom wall. The Computer Room has an adequate number of receptacles mounted on vertical power poles throughout the room. Receptacles in Annex building classrooms are not tamper-resistant type. The Electrical Code states that receptacles subject to child access be either tamper-resistant or GFCI.

The majority of lighting fixtures in classrooms, corridors, and offices (over 95%) have outdated T12 fluorescent lamps; these should be upgraded. The gymnasium is illuminated by pendent mounted metal halide fixtures which have high energy consumption and are difficult to re-lamp. Auditorium lighting fixtures are old and have exceed their useful life and should also be upgraded. Mechanical room and boiler rooms lighting fixtures have been upgraded with 1x4 surface or pendent mounted industrial fluorescents and are in good condition. Lighting in the Annex classrooms and corridors are provided by 1x4 surface mounted fluorescent fixtures with outdated T12 lamps and should be upgraded. Lighting in the Annex office areas have been upgraded with 2x4 lay-in type fluorescent fixtures with T8 lamps and are in good condition.

Fire Alarm Systems in both building are inadequate and past their useful lives. They are also not compliant with the current fire codes; they should be upgraded.

The school telephone and data systems are new and working adequately. A main distribution frame (MDF) along with a telephone PBX system (telephone within an enterprise that switches calls between enterprise users on local lines while allowing all users to share a certain number of external phone lines) services the communication system of the building. The school is also equipped with a Wi-Fi system.

Separate PA system does not exist. The school uses the telephone systems for public announcements. This system is working adequately.

Each classroom is served by telephone intercom service. The system permits paging and intercom communication between the main office phone to classroom phones, classrooms to the main office, and classroom to classroom. Outside line access from a classroom phone through the PBX is blocked. The system is interfaces with master clock system for class change signaling utilizing paging speakers. The system also equipped with a tone generator and input from program/clock controller.

Existing clock system is not working. The school has a time system controller consisting of combination of clock and speaker installed on a wall in each classroom and a master time programmer manufactured by ”STANDARD” located in the main office. The clocks are not controlled properly with the central master controller.The system is old and has exceeded its useful service life thus requiring replacement. The present bell system is working adequately.

Television System is not provided in the school.

Video surveillance system is not provided in the school. School provided only with access control system including door contact and motion security sensors in critical areas. The school desires a complete video surveillance system with cameras located in critical areas, such as exit doors, corridors, and building exterior areas. The cameras should be controlled by a Closed Circuit Television (CCTV) system. The Annex building has an adequate security system, but does not have a video surveillance system.

Emergency Power is provided in the main building. A new 25KW, 208/120V, 3PH, 4W diesel generator manufactured by Generac was recently installed in the Boiler Room. Emergency lighting fixtures and all other critical loads are fed by this emergency generator.

UPS (uninterruptable Power System) is provided for the all distribution frames (LAN switches) in both buildings.

Emergency lighting, including exit lights is provided in both buildings. Sufficient numbers of lighting fixtures in corridors, library, and egress ways in the main building are fed by the emergency distribution panel board. Emergency battery-pack lighting fixtures are provided in Annex building corridors. Exit signs in both buildings are not battery-pack type.

Lightning Protection System in the main building is adequate and is incompliant with NFPA 780. Lightning protection is not required for annex building.

Grounding system is present in both buildings and appears to be adequate.

A 30 horsepower rated new elevator, manufactured by Imperial Electric Company is in operation in the main building. The elevator appears to be working properly.

Theater Lighting and dimming controls are old and do not comply with present day electrical codes. Lights are turned on and off by branch circuit breakers in the lighting panel and not by diming system. These days in modern school auditoriums, stage lighting is provided with front, upstage, high side, backlighting and scenery lighting. In addition to the stage lights, dimmable house lights and switchable stage work lights are recommended for general illumination during rehearsals and other activities outside performances.

Supplemental fluorescent lighting is also required in the stage area for lectures and testing. These supplemental lighting fixtures should be controlled by dimmer bank controls during performances.

Sound System in the Auditorium is old and does not comply with recent multipurpose auditorium sound system requirements recommended by ECE40020 and should be replaced.

Site Lighting System is adequate. There are sufficient numbers of lights provided around the building

Site Video Surveillance system is not provided in the school.

Site Paging system is provided in the school and working adequately. Site speakers provide coverage in the playground.

Grounds

Paving and parking is constructed of asphalt and parts of the paved areas are in poor condition. Cracked and broken areas within the asphalt play area and the driveway access should be repaved. Other areas of the play area should be crackfilled and sealed. Faculty parking is to the north and up a flight of stairs, near the Rush Academy parking. The faculty lot also needs to have cracks filled and then should be sealed. The parking areas at the Annex are similarly in fair condition with some areas requiring repaving and the majority of the lot requiring crack-filling and sealing. Large concrete bollards at entrance to Annex parking should be removed and replaced with proper curb and guardrail.

The stair that leads into the main building lobby from Knights Road has been patched and is ugly but not crumbling. New center handrails are needed to replace non-compliant handrails. The stair that leads up to the faculty parking to the north near the Rush Academy are in good condition, but new handrails are also needed on both sides of that stairway.

Site fencing around the main building and the Annex is composed of chain link fencing which is in fair condition with some rusting sections around the site; it is not necessary to address this deficiency at this time. There is no fence and gate to close-off the entrance to the parking lot which might be a security issue, if deemed important by the School District.

The main building has poor drainage in the front of the building. Grading needs to be adjusted to allow water flow around the building to the sides and into existing storm drains in the grass in front of the basement windows. Storm drains also need to be cleaned out.

RECOMMENDATIONS

Architectural

Main Building

- Strip and reseal concrete floors in stairways, toilet rooms and part of basement, (10,900sf)
- Repoint cracked and failing masonry walls on chimney, at southeast corner of building running vertically from ground to roof, above windows facing play area and other locations around building (600sf)
- Add 42” high guardrail on roof at stair into elevator machine room (20ft)
- Replace weatherstripping on exterior metal doors and repaint doors and frames (18) 3x7
- Recaulk flashing and counterflashing at brick walls on roof (300lf)
- Replace all windows with new anodized aluminum frame insulated glass units (560 3x7 units)
- Repaint steel doors and metal frames in mechanical rooms, stairs, and basement (45) 3x7
- Replace all original wood doors into classroom, toilet rooms, office, and auditorium in corridors where damaged; first floor doors already replaced (50) 3x7
- Replace non-fire rated, non-safety glazed transoms on (2^{nd} and 3^{rd} floor, mostly) doors (50 @ 6sf)
- Provide security hardware for classrooms and offices, locking from the inside of the room; first floor doors already have security locks (50)
- Repair and repaint interior plaster walls where damaged in corridors, classrooms, gymnasium

office (steam leak and rust), and stairways (2000sf)
- Provide toilet room accessories where partitions are replaced (4 toilet rooms)
- Replace metal and transite toilet room partitions in faculty toilet rooms with HDPE plastic partitions (8 toilet compartments)
- Replace stairway handrails and guards with code compliant system (600lf)
- New stair to boiler room
- Repaint rusted stairway bottom side (100sf)
- Remove 9”x9” VAT floors in classrooms, offices, cafeteria, and auditorium with and replace with VCT (54,950sf)
- Refinish auditorium seats (30)
- Replace auditorium ceiling tile (5400sf)
- Replace exterior handrails along Knights Road entrance stairs, complying with 2015 building codes (32ft total length) and side stairs leading up to faculty parking lot (36ft total length)

Annex

- Replace failing roof (14,788sf)
- Replace horizontal gutter and two downspouts; add horizontal gutter and 2 downspouts (200ft ea)
- Recaulk wall panels with gaps in joints (100lf sealant)
- Repaint exterior of wall panels (3200sf)
- Repaint interior water stained and peeling wall panels (1000sf)
- Patch spalling ends of precast roof “T”s (20)
- Replace windows (64 - 3x7 units)
- Repaint exterior doors (8 - 3x7)
- Replace all univent louvers (8 – 3x6)
- Replace VCT (9500sf)
- Provide lever locksets and security hardware for classrooms and offices, locking from the inside of the room (12)
- Provide handicap accessible toilet room accessories in one toilet room

Mechanical

Main Building

- In the Main Building replace all lavatories in the building with lower flow fixtures, as the fixtures are original.
- In the Main Building replace all water closets in the building with lower flow fixtures, as the fixtures are original.
- In the Main Building replace all urinals in the building with lower flow fixtures, as the fixtures are original.
- In the Main Building 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.
- In the Main Building replace service sinks (janitor sinks) in the building.
- In the Main 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.

- In the Main Building replace the 10,000 gallon underground storage tank (UST) installed before 2000.
- In the Main Building add automatic sanitizing chemicals to the stainless steel sink in the cafeteria.
- In the Main Building Inspect and replace the original as needed the domestic water piping in the building.
- In Main Building replace exhaust fans.
- In the Main Building conduct a steam trap survey to identify and replace failed traps passing live steam into the condensate piping system.
- In the Main Building hire a qualified contractor to examine the steam and condensate piping in service for 56 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.
- In the Main Building 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.
- In the Main Building replace the existing unit ventilators throughout the building with new units designed to provide adequate ventilation per ASHRAE Std 62. The new units shall be equipped with hot water / chilled water coils and integral heat recovery wheels. Install steam converters in the existing boiler room with circulating pumps, distribution piping and controls to provide heating hot water for the new coils.
- In the Main Building 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.
- In the Main Building provide ventilation, heating and cooling for the gymnasium by installing a packaged roof top unit.
- In the Main Building provide ventilation, heating and cooling for the auditorium by installing a packaged roof top unit.
- In the Main Building provide ventilation for the corridors at five basement and first floor entryways (7 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.
- In the Main Building 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.
- In the Main Building replace the pneumatic controls for the HVAC systems with modern DDC modules, valves and actuators to improve reliability and energy efficiency.
- In the Main Building provide a new building automation system (BAS) with communication interface to the preferred system in use throughout the District.
- In the Main Building and Annex 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.
- In the Main Building install a new sprinkler system throughout the building.

Annex

- In the Annex replace all lavatories in the building with lower flow fixtures, as the fixtures are original.

- In the Annex replace all water closets in the building with lower flow fixtures, as the fixtures are original.
- In the Annex 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.
- In the Annex replace service sinks (janitor sinks) in the building.
- In the Annex Inspect and replace the original as needed the domestic water piping in the building.
- Replace boiler feedwater system.
- In Annex replace exhaust fans.
- In the Annex 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.
- In the Annex provide a new building automation system (BAS) with communication interface to the preferred system in use throughout the District.
- In the Annex install a new sprinkler system throughout the building.

Electrical

Main Building

- Upgrade the existing electrical service with a new service. Replace the existing switchboard with new 2000A, 208/120V, 3PH, 4 wire switchboards.
- Replace the entire distribution system with new panel boards and new feeders. Provide arc flash label on all panel boards. Estimated, 15 panel boards.
- Install minimum two receptacles on each wall of class rooms and sufficient number of receptacles in other areas per NEC.
- Replace all lighting fixtures with new fluorescent lighting fixtures with T-5 lamp. Replace Gymnasium lights with LED high bay fixtures. Estimated 16each.
- 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 classroom, corridors, offices, toilets, library and other recommended areas per codes.
- Provide an adequate video surveillance system including camera and Closed Circuit Television (CCTV) for monitoring the system. Cameras should install in the corridors, school entrance doors and on the walls around the building. Provide monitor in main office and building engineer office.
- Provide new stage lighting and controller in Auditorium.

Annex

- Replace four existing disconnect switches with a new 1000A switchboard.
- Replace GFIC receptacle in the areas subject to kid access. Estimated 100 each.
- Provide an adequate video surveillance system including camera and Closed Circuit Television (CCTV) for monitoring the system. Cameras should install in the corridors, school entrance doors and on the walls around the building. Provide monitor in main office and building engineer office.
- Provide wireless master clock system with 50 battery type clocks.

Grounds

- Regrade depressed area, flooding in front of Main Building - improve drainage (3000sf)
- Repave damaged areas of asphalt parking lot, entrance from Chalfont Rd, and play area with new asphalt (20,000sf)
- Fill cracks and sealcoat play area and faculty parking lot (80,000sf)
- Provide sloped walkways into main building to provide ADA handicap accessible access into building (100sf)
- Regrade flooding grassy area at entrance to Annex from play area (1000sf)
- Repave entrance to Annex parking lot (10,000sf)
- Fill cracks and sealcoat Annex parking lot (30,000ft)
- Provide sloped walkways into Annex to provide ADA handicap accessible access into building (100sf)
- Replace concrete cube bollards with concrete curbing (50ft)

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B839001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S804001		

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	45.00 %	0.00 %	$0.00
A20 - Basement Construction	45.00 %	0.00 %	$0.00
B10 - Superstructure	45.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	61.37 %	7.40 %	$294,317.45
B30 - Roofing	100.00 %	0.00 %	$0.00
C10 - Interior Construction	44.39 %	16.39 %	$319,763.66
C20 - Stairs	45.00 %	212.08 %	$232,234.49
C30 - Interior Finishes	88.37 %	26.09 %	$952,916.34
D20 - Plumbing	49.64 %	39.77 %	$1,383,691.99
D30 - HVAC	92.81 %	90.28 %	$8,591,377.41
D40 - Fire Protection	105.71 %	111.35 %	$858,326.79
D50 - Electrical	109.31 %	73.15 %	$3,678,651.60
E10 - Equipment	37.14 %	6.86 %	$93,445.81
E20 - Furnishings	32.50 %	11.59 %	$21,122.76
Totals:	**68.35 %**	**34.53 %**	**$16,425,848.30**

Condition Detail

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

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

System Listing

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

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

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

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
A1010	Standard Foundations	$24.32	S.F.	85,550	100	1960	2060		45.00 %	0.00 %	45			$2,080,576
A1030	Slab on Grade	$15.51	S.F.	85,550	100	1960	2060		45.00 %	0.00 %	45			$1,326,881
A2010	Basement Excavation	$13.07	S.F.	85,550	100	1960	2060		45.00 %	0.00 %	45			$1,118,139
A2020	Basement Walls	$23.02	S.F.	85,550	100	1960	2060		45.00 %	0.00 %	45			$1,969,361
B1010	Floor Construction	$92.20	S.F.	85,550	100	1960	2060		45.00 %	0.00 %	45			$7,887,710
B1020	Roof Construction	$24.11	S.F.	85,550	100	1960	2060		45.00 %	0.00 %	45			$2,062,611
B2010	Exterior Walls	$31.22	S.F.	85,550	100	1960	2060		45.00 %	1.42 %	45		$38,001.26	$2,670,871
B2020	Exterior Windows	$13.63	S.F.	85,550	40	2015	2055		100.00 %	16.59 %	40		$193,430.68	$1,166,047
B2030	Exterior Doors	$1.67	S.F.	85,550	25	1960	1985	2028	52.00 %	44.02 %	13		$62,885.51	$142,869
B3010105	Built-Up	$37.76	S.F.	27,532	20	2015	2035		100.00 %	0.00 %	20			$1,039,608
B3010120	Single Ply Membrane	$38.73	S.F.		20				0.00 %	0.00 %				$0
B3010130	Preformed Metal Roofing	$54.22	S.F.		30				0.00 %	0.00 %				$0
B3010140	Shingle & Tile	$38.73	S.F.		20				0.00 %	0.00 %				$0
B3020	Roof Openings	$0.68	S.F.	85,550	20	2015	2035		100.00 %	0.00 %	20			$58,174
C1010	Partitions	$14.93	S.F.	85,550	100	1960	2060		45.00 %	0.00 %	45			$1,277,262
C1020	Interior Doors	$3.76	S.F.	85,550	40	1960	2000	2037	55.00 %	89.31 %	22		$287,269.42	$321,668
C1030	Fittings	$4.12	S.F.	85,550	40	1960	2000	2028	32.50 %	9.22 %	13		$32,494.24	$352,466
C2010	Stair Construction	$1.28	S.F.	85,550	100	1960	2060		45.00 %	212.08 %	45		$232,234.49	$109,504

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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.	85,550	10	1960	1970	2020	50.00 %	0.90 %	5		$10,216.97	$1,130,116
C3010231	Vinyl Wall Covering	$0.97	S.F.		15				0.00 %	0.00 %				$0
C3010232	Wall Tile	$2.63	S.F.		30				0.00 %	0.00 %				$0
C3020411	Carpet	$7.30	S.F.	1,875	10	2015	2025		100.00 %	0.00 %	10			$13,688
C3020412	Terrazzo & Tile	$75.52	S.F.		50				0.00 %	0.00 %				$0
C3020413	Vinyl Flooring	$9.68	S.F.	72,775	20	2015	2035		100.00 %	118.30 %	20		$833,408.41	$704,462
C3020414	Wood Flooring	$22.27	S.F.		25				0.00 %	0.00 %				$0
C3020415	Concrete Floor Finishes	$0.97	S.F.	10,900	50	1960	2010	2050	70.00 %	396.34 %	35		$41,905.41	$10,573
C3030	Ceiling Finishes	$20.97	S.F.	85,550	25	1960	1985	2042	108.00 %	3.76 %	27		$67,385.55	$1,793,984
D2010	Plumbing Fixtures	$31.58	S.F.	85,550	35	1960	1995	2028	37.14 %	29.07 %	13		$785,305.47	$2,701,669
D2020	Domestic Water Distribution	$2.90	S.F.	85,550	25	1960	1985	2042	108.00 %	122.55 %	27		$304,041.52	$248,095
D2030	Sanitary Waste	$2.90	S.F.	85,550	25	1960	1985	2042	108.00 %	118.64 %	27		$294,345.00	$248,095
D2040	Rain Water Drainage	$3.29	S.F.	85,550	30	1960	1990	2035	66.67 %	0.00 %	20			$281,460
D3020	Heat Generating Systems	$18.67	S.F.	85,550	35	1960	1995	2052	105.71 %	6.35 %	37		$101,394.17	$1,597,219
D3030	Cooling Generating Systems	$24.48	S.F.	85,550	30	1960	1990	2033	60.00 %	65.60 %	18		$1,373,894.91	$2,094,264
D3040	Distribution Systems	$42.99	S.F.	85,550	25	1960	1985	2042	108.00 %	158.49 %	27		$5,828,962.85	$3,677,795
D3050	Terminal & Package Units	$11.60	S.F.	85,550	20	1960	1980	2028	65.00 %	0.00 %	13			$992,380
D3060	Controls & Instrumentation	$13.50	S.F.	85,550	20	1960	1980	2037	110.00 %	111.45 %	22		$1,287,125.48	$1,154,925
D4010	Sprinklers	$8.02	S.F.	85,550	35			2052	105.71 %	125.10 %	37		$858,326.79	$686,111
D4020	Standpipes	$0.99	S.F.	85,550	35			2052	105.71 %	0.00 %	37			$84,695
D5010	Electrical Service/Distribution	$9.70	S.F.	85,550	30	1960	1990	2047	106.67 %	110.51 %	32		$917,024.31	$829,835
D5020	Lighting and Branch Wiring	$34.68	S.F.	85,550	20	1960	1980	2037	110.00 %	67.58 %	22		$2,004,889.82	$2,966,874
D5030	Communications and Security	$12.99	S.F.	85,550	15	1960	1975	2032	113.33 %	68.10 %	17		$756,737.47	$1,111,295
D5090	Other Electrical Systems	$1.41	S.F.	85,550	30	1960	1990	2037	73.33 %	0.00 %	22			$120,626
E1020	Institutional Equipment	$4.82	S.F.	85,550	35	1960	1995	2028	37.14 %	22.66 %	13		$93,445.81	$412,351
E1090	Other Equipment	$11.10	S.F.	85,550	35	1960	1995	2028	37.14 %	0.00 %	13			$949,605
E2010	Fixed Furnishings	$2.13	S.F.	85,550	40	1960	2000	2028	32.50 %	11.59 %	13		$21,122.76	$182,222
								Total	**68.35 %**	**34.53 %**			**$16,425,848.30**	**$47,576,086**

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: C30 - Interior Finishes — This system contains no images

Note: painted block 100%

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

Note: Concrete = 10900 13%
VCT - = 17825 21%
VAT - = 54950 64%
Carpet- = 1875 2%

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

Note: acoustical tile ceiling 16190 19%
exposed painted conc 69360 81%

Renewal Schedule

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

Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$16,425,848**	**$0**	**$0**	**$0**	**$0**	**$1,441,125**	**$0**	**$0**	**$0**	**$0**	**$20,234**	**$17,887,207**
*** A - Substructure**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
*** A10 - Foundations**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1010 - Standard Foundations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1030 - Slab on Grade	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
*** A20 - Basement Construction**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2010 - Basement Excavation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2020 - Basement Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B - Shell	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B10 - Superstructure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1010 - Floor Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1020 - Roof Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B20 - Exterior Enclosure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2010 - Exterior Walls	$38,001	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$38,001**
B2020 - Exterior Windows	$193,431	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$193,431**
B2030 - Exterior Doors	$62,886	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$62,886**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

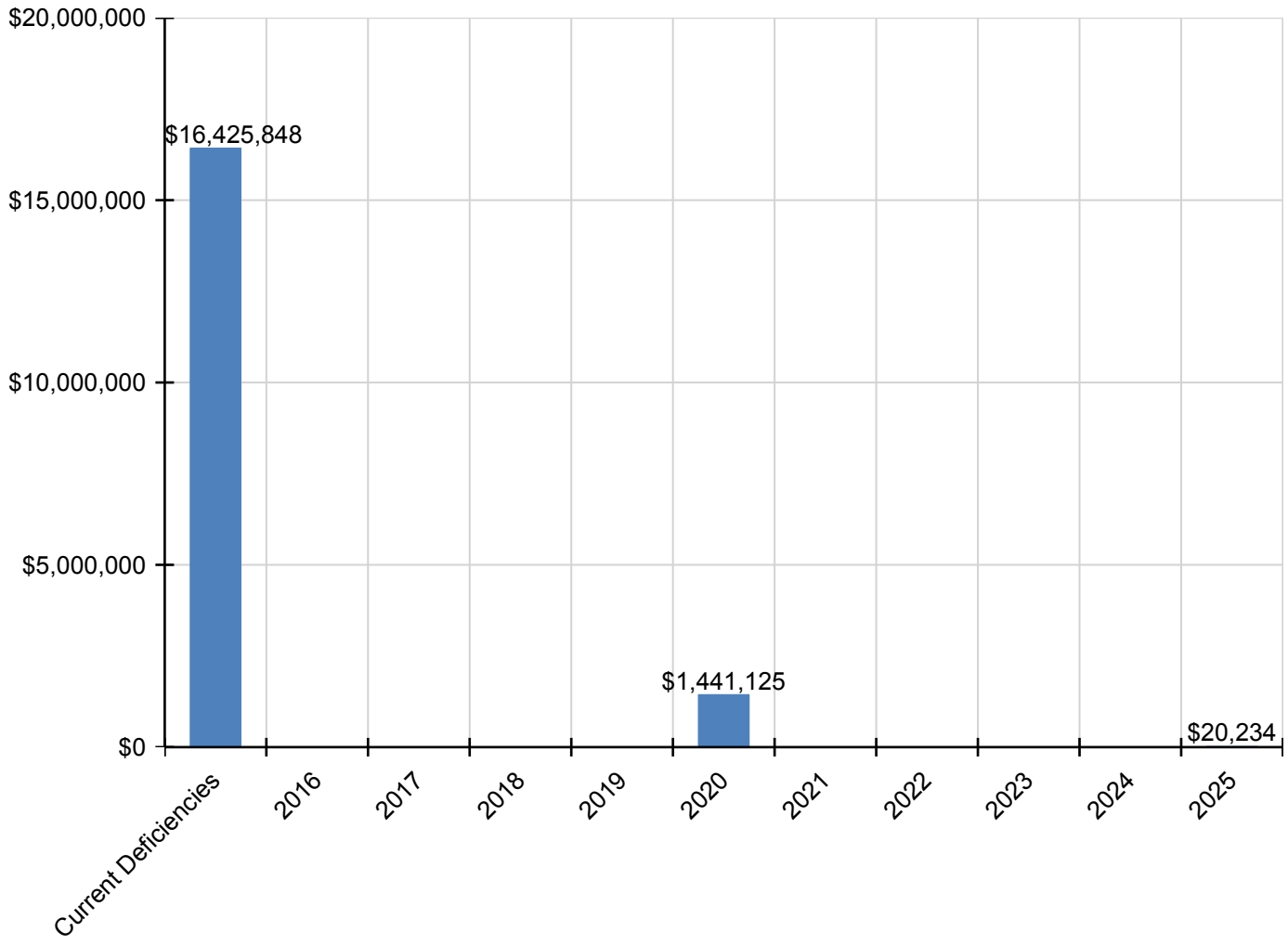
C1020 - Interior Doors	$287,269	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$287,269**
C1030 - Fittings	$32,494	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$32,494**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$232,234	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$232,234**
C30 - Interior Finishes	$0	$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	$10,217	$0	$0	$0	$0	$1,441,125	$0	$0	$0	$0	$0	**$1,451,342**
C3010231 - Vinyl Wall Covering	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010232 - Wall Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020411 - Carpet	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$20,234	**$20,234**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020413 - Vinyl Flooring	$833,408	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$833,408**
C3020414 - Wood Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020415 - Concrete Floor Finishes	$41,905	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$41,905**
C3030 - Ceiling Finishes	$67,386	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$67,386**
D - Services	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$785,305	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$785,305**
D2020 - Domestic Water Distribution	$304,042	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$304,042**
D2030 - Sanitary Waste	$294,345	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$294,345**
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	$101,394	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$101,394**
D3030 - Cooling Generating Systems	$1,373,895	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,373,895**
D3040 - Distribution Systems	$5,828,963	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$5,828,963**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$1,287,125	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,287,125**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$858,327	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$858,327**
D4020 - Standpipes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D50 - Electrical	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5010 - Electrical Service/Distribution	$917,024	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$917,024**

D5020 - Lighting and Branch Wiring	$2,004,890	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,004,890**
D5030 - Communications and Security	$756,737	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$756,737**
D5090 - Other Electrical Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$93,446	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$93,446**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$21,123	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$21,123**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

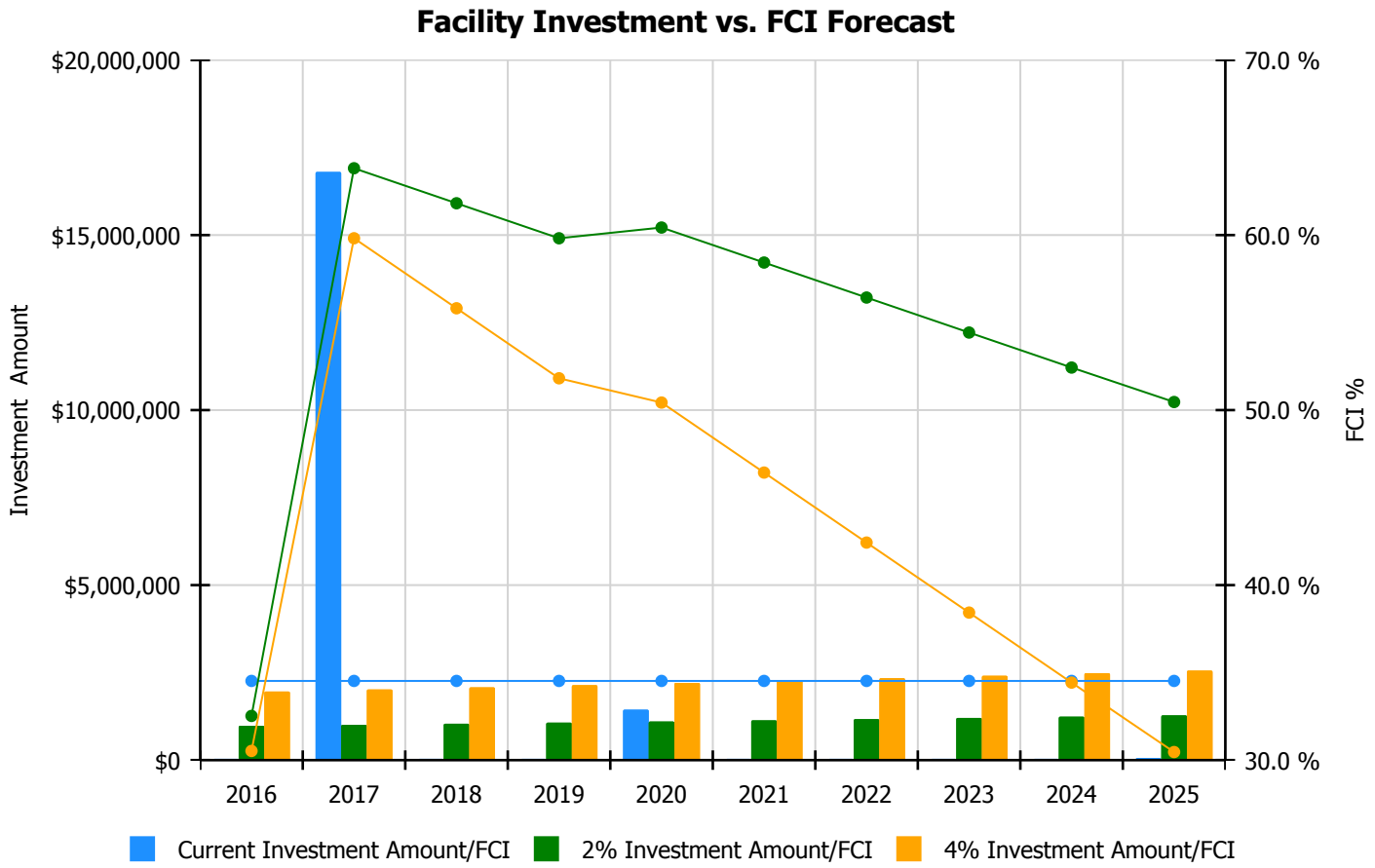
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

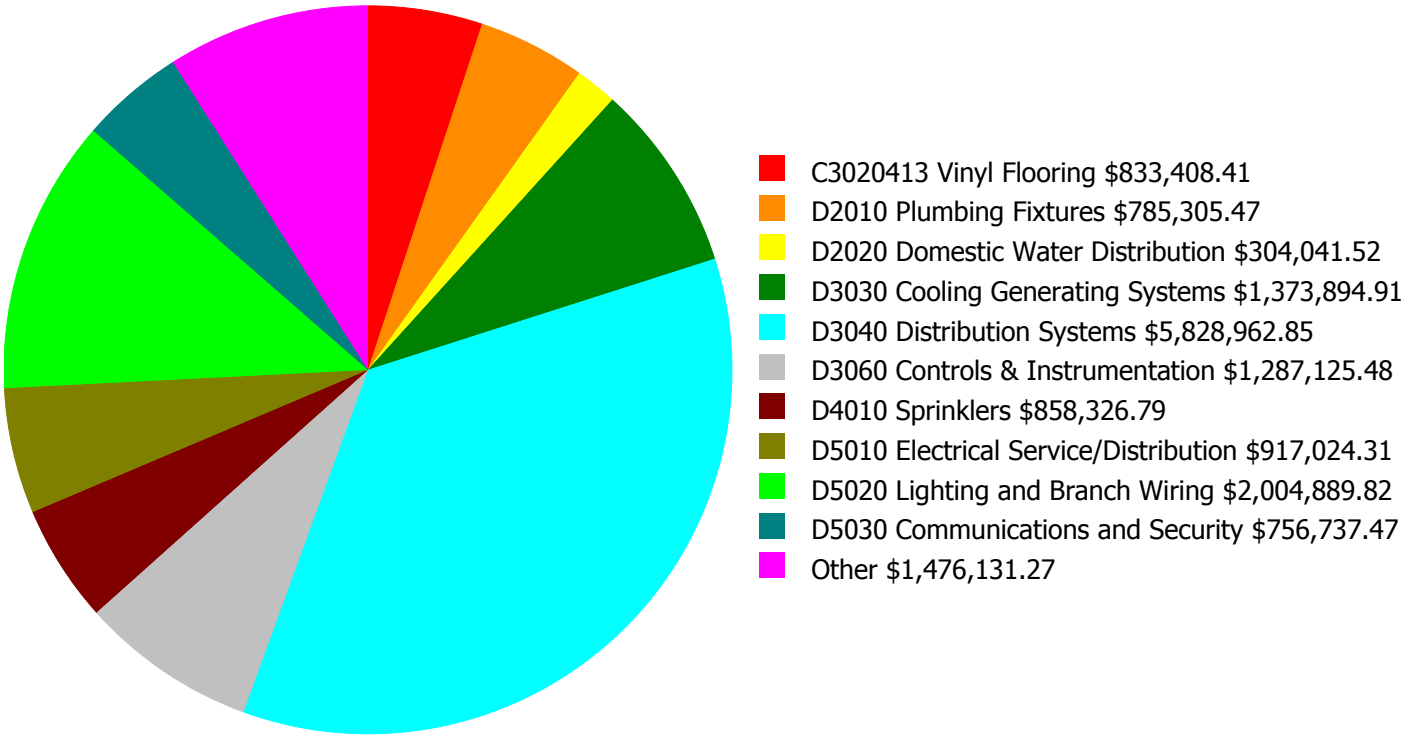
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 34.53%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$980,067.00	32.53 %	$1,960,135.00	30.53 %
2017	$16,803,398	$1,009,469.00	63.82 %	$2,018,939.00	59.82 %
2018	$0	$1,039,753.00	61.82 %	$2,079,507.00	55.82 %
2019	$0	$1,070,946.00	59.82 %	$2,141,892.00	51.82 %
2020	$1,441,125	$1,103,074.00	60.43 %	$2,206,149.00	50.43 %
2021	$0	$1,136,167.00	58.43 %	$2,272,333.00	46.43 %
2022	$0	$1,170,252.00	56.43 %	$2,340,503.00	42.43 %
2023	$0	$1,205,359.00	54.43 %	$2,410,718.00	38.43 %
2024	$0	$1,241,520.00	52.43 %	$2,483,040.00	34.43 %
2025	$20,234	$1,278,766.00	50.46 %	$2,557,531.00	30.46 %
Total:	**$18,264,757**	**$11,235,373.00**		**$22,470,747.00**	

Deficiency Summary by System

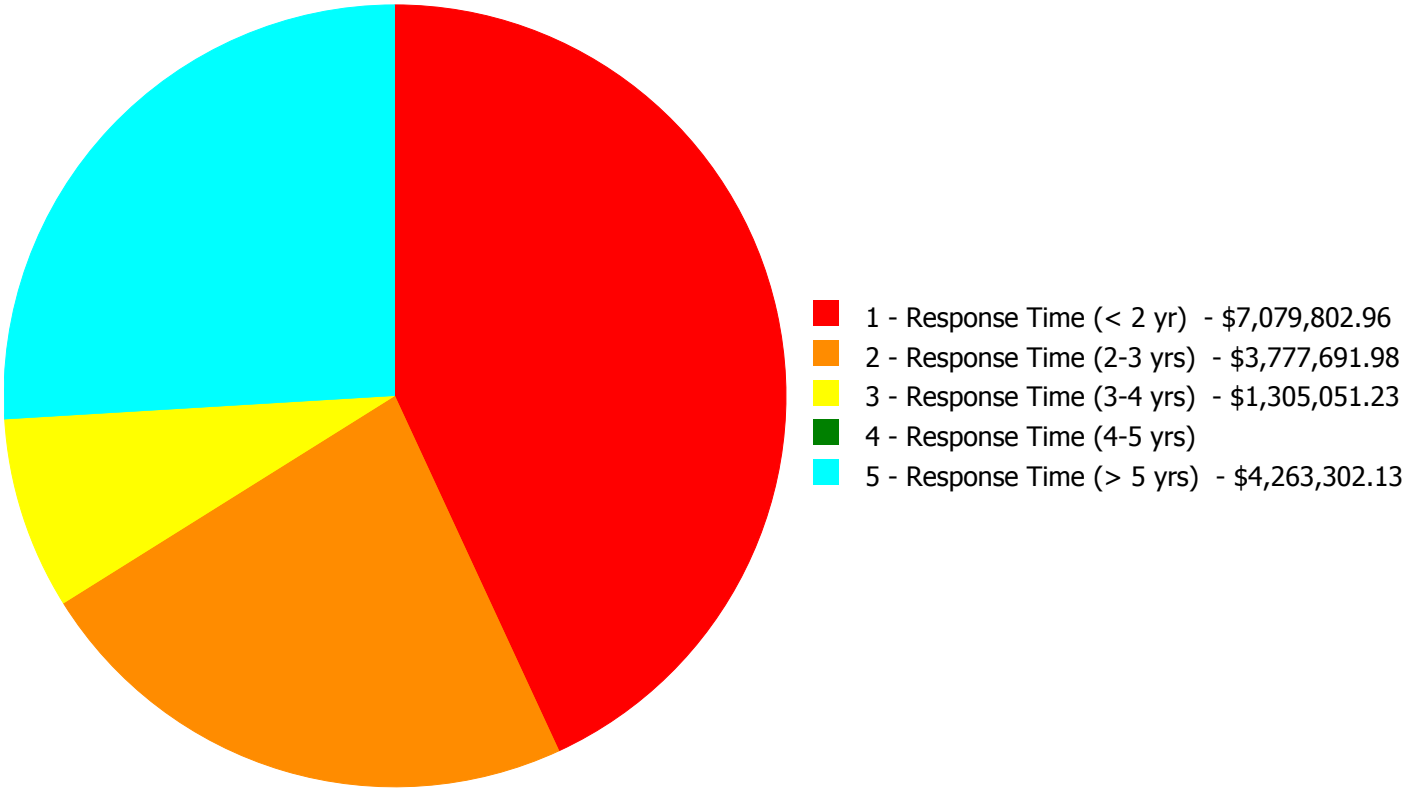
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $16,425,848.30

Deficiency Summary by Priority

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



Budget Estimate Total: $16,425,848.30

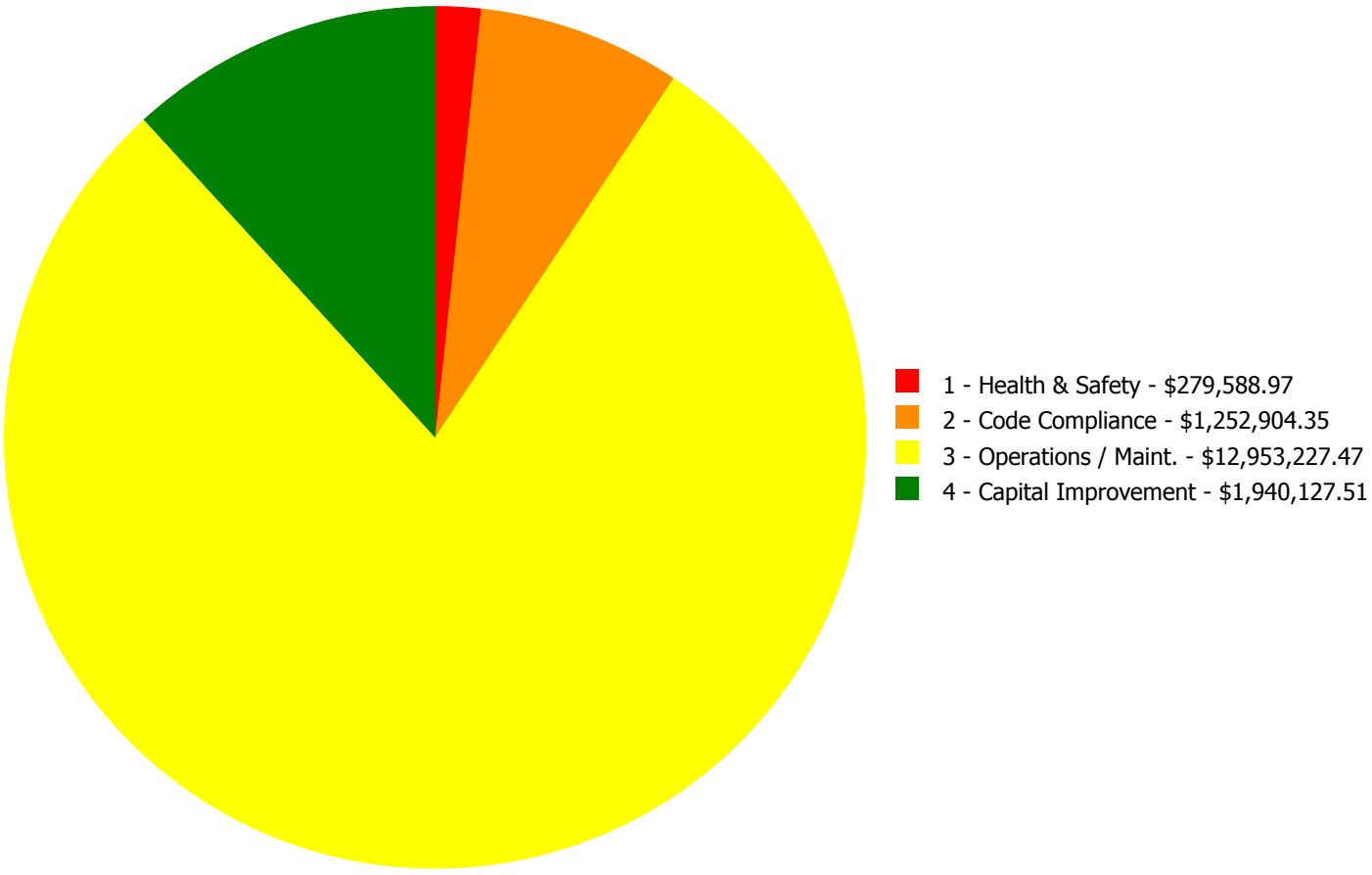
Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
B2010	Exterior Walls	$0.00	$38,001.26	$0.00	$0.00	$0.00	$38,001.26
B2020	Exterior Windows	$0.00	$193,430.68	$0.00	$0.00	$0.00	$193,430.68
B2030	Exterior Doors	$0.00	$62,885.51	$0.00	$0.00	$0.00	$62,885.51
C1020	Interior Doors	$0.00	$287,269.42	$0.00	$0.00	$0.00	$287,269.42
C1030	Fittings	$0.00	$32,494.24	$0.00	$0.00	$0.00	$32,494.24
C2010	Stair Construction	$216,487.84	$15,746.65	$0.00	$0.00	$0.00	$232,234.49
C3010230	Paint & Covering	$0.00	$10,216.97	$0.00	$0.00	$0.00	$10,216.97
C3020413	Vinyl Flooring	$0.00	$833,408.41	$0.00	$0.00	$0.00	$833,408.41
C3020415	Concrete Floor Finishes	$0.00	$41,905.41	$0.00	$0.00	$0.00	$41,905.41
C3030	Ceiling Finishes	$0.00	$67,385.55	$0.00	$0.00	$0.00	$67,385.55
D2010	Plumbing Fixtures	$0.00	$785,305.47	$0.00	$0.00	$0.00	$785,305.47
D2020	Domestic Water Distribution	$0.00	$0.00	$0.00	$0.00	$304,041.52	$304,041.52
D2030	Sanitary Waste	$0.00	$0.00	$294,345.00	$0.00	$0.00	$294,345.00
D3020	Heat Generating Systems	$0.00	$101,394.17	$0.00	$0.00	$0.00	$101,394.17
D3030	Cooling Generating Systems	$0.00	$0.00	$0.00	$0.00	$1,373,894.91	$1,373,894.91
D3040	Distribution Systems	$3,091,217.71	$0.00	$1,010,706.23	$0.00	$1,727,038.91	$5,828,962.85
D3060	Controls & Instrumentation	$0.00	$1,287,125.48	$0.00	$0.00	$0.00	$1,287,125.48
D4010	Sprinklers	$0.00	$0.00	$0.00	$0.00	$858,326.79	$858,326.79
D5010	Electrical Service/Distribution	$917,024.31	$0.00	$0.00	$0.00	$0.00	$917,024.31
D5020	Lighting and Branch Wiring	$2,004,889.82	$0.00	$0.00	$0.00	$0.00	$2,004,889.82
D5030	Communications and Security	$756,737.47	$0.00	$0.00	$0.00	$0.00	$756,737.47
E1020	Institutional Equipment	$93,445.81	$0.00	$0.00	$0.00	$0.00	$93,445.81
E2010	Fixed Furnishings	$0.00	$21,122.76	$0.00	$0.00	$0.00	$21,122.76
	Total:	$7,079,802.96	$3,777,691.98	$1,305,051.23	$0.00	$4,263,302.13	$16,425,848.30

Deficiency Summary by Category

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



Budget Estimate Total: $16,425,848.30

Deficiency Details by Priority

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

Priority 1 - Response Time (< 2 yr):

System: C2010 - Stair Construction

Location: Fitzpatrick - stairways

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 1 - Response Time (< 2 yr)

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

Qty: 600.00

Unit of Measure: L.F.

Estimate: $202,275.17

Assessor Name: System

Date Created: 12/23/2015

Notes: Replace stairway handrails and guards with code compliant system (600lf)

System: C2010 - Stair Construction

Location: Fitzpatrick - exterior handrails

Distress: Building / MEP Codes

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

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

Qty: 68.00

Unit of Measure: L.F.

Estimate: $11,169.27

Assessor Name: System

Date Created: 12/23/2015

Notes: Replace exterior handrails along Knights Road entrance stairs, complying with 2015 building codes (32ft total length) and side stairs leading up to faculty parking lot (36ft total length)

System: C2010 - Stair Construction

Location: Fitzpatrick - roof edge

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 1 - Response Time (< 2 yr)

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

Qty: 20.00

Unit of Measure: L.F.

Estimate: $3,043.40

Assessor Name: System

Date Created: 12/23/2015

Notes: Add 42" high guardrail on roof at stair into elevator machine room (20ft)

System: D3040 - Distribution Systems

Location: Fitzpatrick - throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

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

Qty: 60,000.00

Unit of Measure: S.F.

Estimate: $2,894,351.11

Assessor Name: System

Date Created: 02/07/2016

Notes: In the Main Building replace the existing unit ventilators throughout the building with new units designed to provide adequate ventilation per ASHRAE Std 62. The new units shall be equipped with hot water / chilled water coils and integral heat exchangers

System: D3040 - Distribution Systems

Location: Fitzpatrick - 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: 02/07/2016

Notes: In the Main Building 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: Fitzpatrick - Boiler Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Replace Switchboard

Qty: 1.00

Unit of Measure: Ea.

Estimate: $519,686.77

Assessor Name: System

Date Created: 10/21/2015

Notes: Upgrade the existing electrical service with a new service. Replace the existing switchboard with new 2000A, 208/120V, 3PH, 4 wire switchboards.

System: D5010 - Electrical Service/Distribution

Location: Fitzpatrick - 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: $397,337.54

Assessor Name: System

Date Created: 10/21/2015

Notes: Replace the entire distribution system with new panel boards and new feeders. Provide arc flash label on all panel boards. Estimated, 15 panel boards.

System: D5020 - Lighting and Branch Wiring

Location: Fitzpatrick- Entire Building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Replace Lighting Fixtures (SF)

Qty: 1.00

Unit of Measure: S.F.

Estimate: $1,438,657.22

Assessor Name: System

Date Created: 10/22/2015

Notes: Replace all lighting fixtures with new fluorescent lighting fixtures with T-5 lamp. Replace Gymnasium lights with LED high bay fixtures. Estimated 16each.

System: D5020 - Lighting and Branch Wiring

Location: Fitzpatrick- 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: $566,232.60

Assessor Name: System

Date Created: 10/22/2015

Notes: Install minimum two receptacles on each wall of class rooms and sufficient number of receptacles in other areas per NEC.

System: D5030 - Communications and Security

Location: Fitzpatrick- Entire Building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Replace fire alarm system

Qty: 1.00

Unit of Measure: S.F.

Estimate: $488,620.33

Assessor Name: System

Date Created: 10/22/2015

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: Fitzpatrick- Entire Building

Distress: Security Issue

Category: 1 - Health & Safety

Priority: 1 - Response Time (< 2 yr)

Correction: Add/Replace Video Surveillance System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $268,117.14

Assessor Name: System

Date Created: 10/22/2015

Notes: Provide an adequate video surveillance system including camera and Closed Circuit Television (CCTV) for monitoring the system. Cameras should install in the corridors, school entrance doors and on the walls around the building. Provide monitor in main office and building engineer office.

System: E1020 - Institutional Equipment

Location: Fitzpatrick - Entire Building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Add/Replace Stage Theatrical Lighting System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $93,445.81

Assessor Name: System

Date Created: 10/22/2015

Notes: Provide new stage lighting and controller in Auditorium.

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

System: B2010 - Exterior Walls

Location: Fitzpatrick - 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: 600.00

Unit of Measure: S.F.

Estimate: $19,373.68

Assessor Name: System

Date Created: 12/23/2015

Notes: Repoint cracked and failing masonry walls on chimney, at southeast corner of building running vertically from ground to roof, above windows facing play area and other locations around building (600sf)

System: B2010 - Exterior Walls

Location: Fitzpatrick - brick walls at roof

Distress: Building Envelope Integrity

Category: 3 - Operations / Maint.

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

Correction: Remove and replace expansion joints at exterior walls

Qty: 200.00

Unit of Measure: L.F.

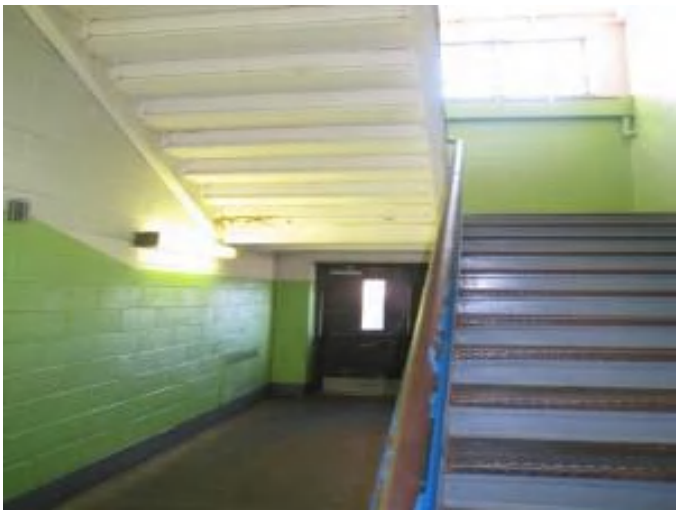
Estimate: $17,868.47

Assessor Name: System

Date Created: 12/23/2015

Notes: Recaulk flashing and counterflashing at brick walls on roof (200lf)

System: B2010 - Exterior Walls



Location: Fitzpatrick - stairway rust

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Prepare and paint exterior steel beams or steel surfaces

Qty: 100.00

Unit of Measure: S.F.

Estimate: $759.11

Assessor Name: System

Date Created: 12/23/2015

Notes: Repaint rusted stairway bottom side (100sf)

System: B2020 - Exterior Windows

Location: Fitzpatrick - interior transoms above doors

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

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

Qty: 50.00

Unit of Measure: Ea.

Estimate: $189,258.99

Assessor Name: System

Date Created: 12/23/2015

Notes: Replace non-fire rated, non-safety glazed transoms above doors on 2nd and 3rd floor, mostly - with fire rated glazing (50 @ 6sf)

System: B2020 - Exterior Windows

Location: Fitzpatrick - windows

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 1.00

Unit of Measure: Ea.

Estimate: $4,171.69

Assessor Name: System

Date Created: 12/23/2015

Notes: Replace all windows with new anodized aluminum frame insulated glass units (560 3x7 units)

System: B2030 - Exterior Doors

Location: Fitzpatrick - exterior doors

Distress: Energy Efficiency

Category: 3 - Operations / Maint.

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

Correction: Replace hardware with compliant hardware, paint and weatherstrip - per leaf

Qty: 18.00

Unit of Measure: Ea.

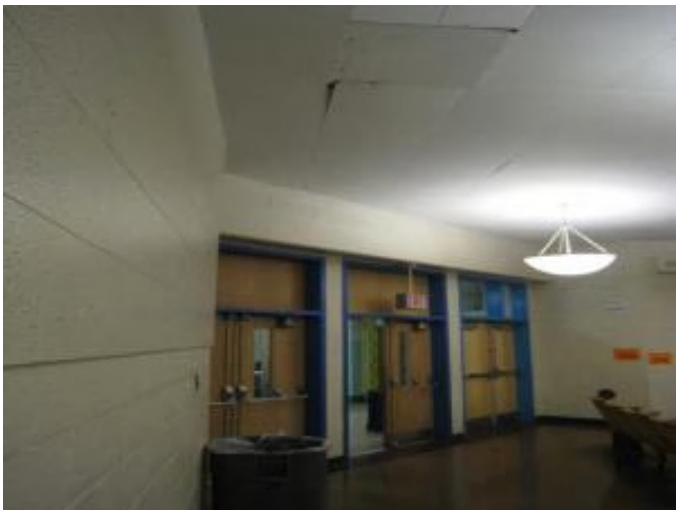
Estimate: $62,885.51

Assessor Name: System

Date Created: 12/23/2015

Notes: Replace weatherstripping on exterior metal doors and repaint doors and frames (18) 3x7

System: C1020 - Interior Doors



Location: Fitzpatrick - interior doors

Distress: Appearance

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: 50.00

Unit of Measure: Ea.

Estimate: $238,529.36

Assessor Name: System

Date Created: 12/23/2015

Notes: Replace all original wood doors into classroom, toilet rooms, office, and auditorium in corridors where damaged; first floor doors already replaced (50) 3x7

System: C1020 - Interior Doors

Location: Fitzpatrick - interior doors

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Refinish interior doors

Qty: 45.00

Unit of Measure: Ea.

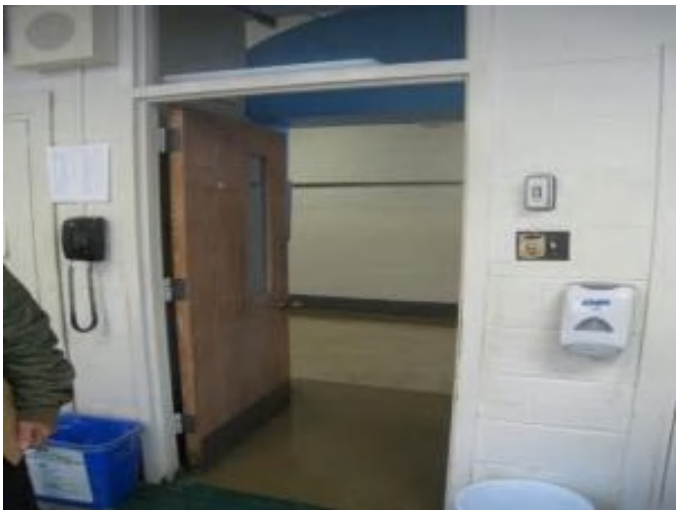
Estimate: $37,268.23

Assessor Name: System

Date Created: 12/23/2015

Notes: Repaint steel doors and metal frames in mechanical rooms, stairs, and basement (45) 3x7

System: C1020 - Interior Doors



Location: Fitzpatrick - interior door hardware

Distress: Security Issue

Category: 1 - Health & Safety

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

Correction: Provide security hardware for classroom and office doors

Qty: 50.00

Unit of Measure: Ea.

Estimate: $11,471.83

Assessor Name: System

Date Created: 12/23/2015

Notes: Provide security hardware for classrooms and offices, locking from the inside of the room; first floor doors already have security locks (50)

System: C1030 - Fittings

Location: Fitzpatrick - toilet rooms

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace toilet partitions

Qty: 8.00

Unit of Measure: Ea.

Estimate: $20,531.24

Assessor Name: System

Date Created: 12/23/2015

Notes: Replace metal and transite toilet room partitions in faculty toilet rooms with HDPE plastic partitions (8 toilet compartments)

System: C1030 - Fittings

Location: Fitzpatrick - toilet rooms

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace toilet accessories - select accessories and quantity

Qty: 4.00

Unit of Measure: Ea.

Estimate: $11,963.00

Assessor Name: System

Date Created: 12/23/2015

Notes: Provide toilet room accessories where partitions are replaced (4 toilet rooms)

System: C2010 - Stair Construction

Location: Fitzpatrick - boiler room stairs

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Add exterior stairs - per flight - galvanized or painted for rooftop use

Qty: 1.00

Unit of Measure: Flight

Estimate: $15,746.65

Assessor Name: System

Date Created: 12/23/2015

Notes: New stair to boiler room

System: C3010230 - Paint & Covering

Location: Fitzpatrick - interior walls

Distress: Appearance

Category: 3 - Operations / Maint.

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

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

Qty: 2,000.00

Unit of Measure: S.F.

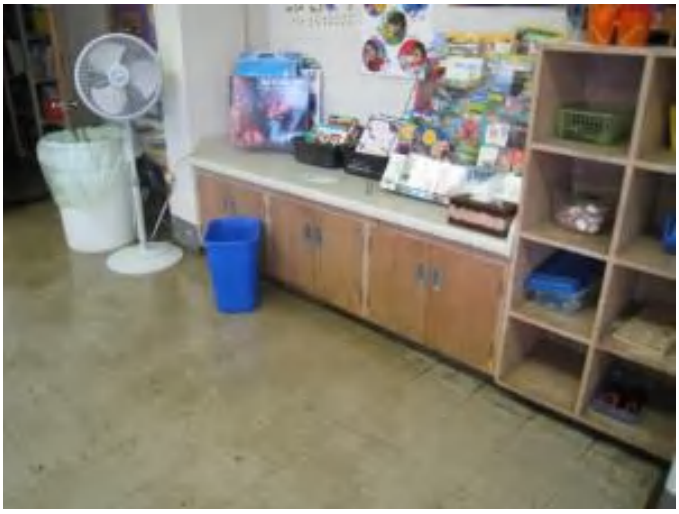
Estimate: $10,216.97

Assessor Name: System

Date Created: 12/23/2015

Notes: Repair and repaint interior plaster walls and concrete ceilings where damaged in corridors, classrooms, gymnasium office (duct), and stairways (2000sf)

System: C3020413 - Vinyl Flooring



Location: Fitzpatrick - floors

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove VAT and replace with VCT - SF of area

Qty: 54,950.00

Unit of Measure: S.F.

Estimate: $833,408.41

Assessor Name: System

Date Created: 12/23/2015

Notes: Remove 9”x9” VAT floors in classrooms, offices, cafeteria, and auditorium with and replace with VCT (54,950sf)

System: C3020415 - Concrete Floor Finishes

Location: Fitzpatrick - mechanical rooms, toilet rooms, stairs

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Clean and reseal concrete floors

Qty: 10,900.00

Unit of Measure: S.F.

Estimate: $41,905.41

Assessor Name: System

Date Created: 12/23/2015

Notes: Strip and reseal concrete floors in stairways, toilet rooms and part of basement, (10,900sf)

System: C3030 - Ceiling Finishes

Location: Fitzpatrick - auditorium

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace glued on or mechanically attached acoustical ceiling tiles

Qty: 5,400.00

Unit of Measure: S.F.

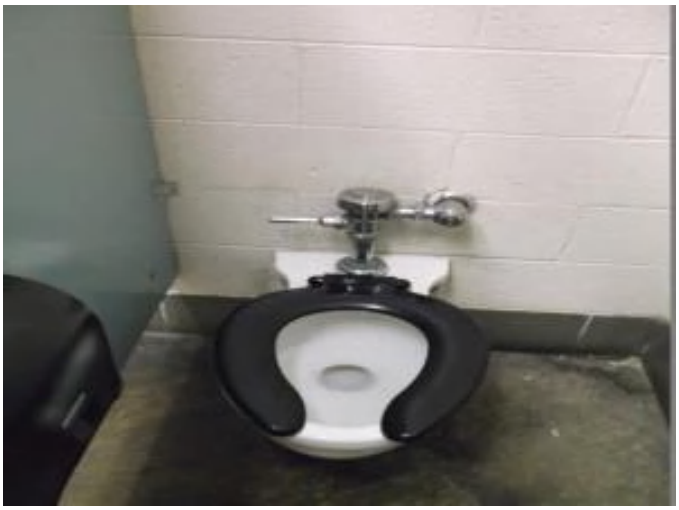
Estimate: $67,385.55

Assessor Name: System

Date Created: 12/23/2015

Notes: Replace auditorium ceiling tile (5400sf)

System: D2010 - Plumbing Fixtures



Location: Fitzpatrick - 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: 48.00

Unit of Measure: Ea.

Estimate: $358,183.10

Assessor Name: System

Date Created: 02/07/2016

Notes: In the Main Building replace all water closets in the building with lower flow fixtures, as the fixtures are original.

System: D2010 - Plumbing Fixtures

Location: Fitzpatrick - 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: 8.00

Unit of Measure: Ea.

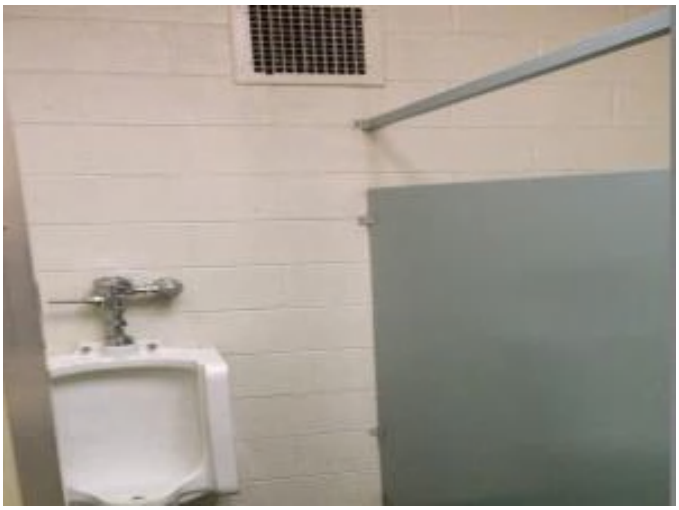
Estimate: $125,543.18

Assessor Name: System

Date Created: 02/07/2016

Notes: In the Main Building 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: Fitzpatrick - throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or replace stall or floor type urinal

Qty: 24.00

Unit of Measure: Ea.

Estimate: $125,098.05

Assessor Name: System

Date Created: 02/07/2016

Notes: In the Main Building replace all urinals in the building with lower flow fixtures, as the fixtures are original.

System: D2010 - Plumbing Fixtures

Location: Fitzpatrick - 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: 32.00

Unit of Measure: Ea.

Estimate: $121,952.40

Assessor Name: System

Date Created: 02/07/2016

Notes: In the Main Building replace all lavatories in the building with lower flow fixtures, as the fixtures are original

System: D2010 - Plumbing Fixtures

Location: Fitzpatrick - 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: 8.00

Unit of Measure: Ea.

Estimate: $54,528.74

Assessor Name: System

Date Created: 02/07/2016

Notes: In the Main Building replace service sinks (janitor sinks) in the building.

System: D3020 - Heat Generating Systems

Location: Fitzpatrick - throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace boiler feed pump (duplex) and surge tank

Qty: 1.00

Unit of Measure: Ea.

Estimate: $101,394.17

Assessor Name: System

Date Created: 02/07/2016

Notes: Replace boiler feedwater system.

System: D3060 - Controls & Instrumentation

Location: Fitzpatrick - 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: 60,000.00

Unit of Measure: S.F.

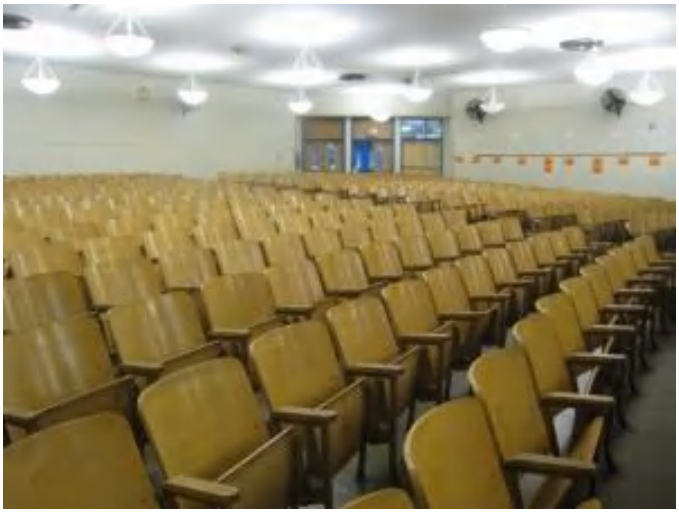
Estimate: $1,287,125.48

Assessor Name: System

Date Created: 02/07/2016

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

System: E2010 - Fixed Furnishings



Location: Fitzpatrick - auditorium

Distress: Appearance

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: 30.00

Unit of Measure: Ea.

Estimate: $21,122.76

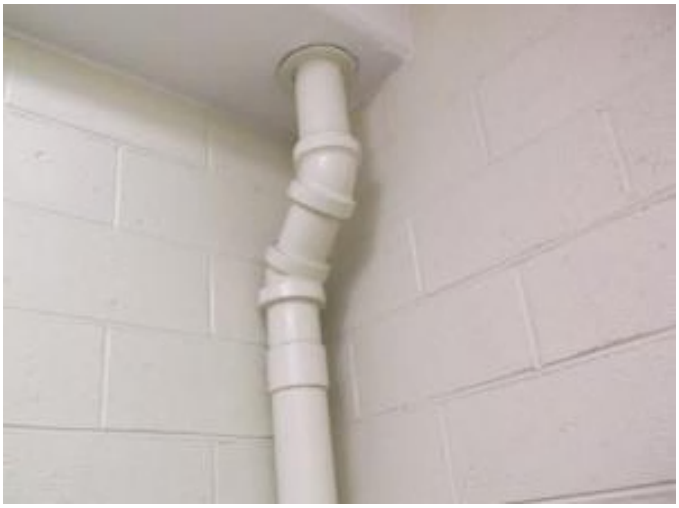
Assessor Name: System

Date Created: 12/23/2015

Notes: Refinish auditorium seats (30)

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

System: D2030 - Sanitary Waste



Location: Fitzpatrick - 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: 60,000.00

Unit of Measure: S.F.

Estimate: $294,345.00

Assessor Name: System

Date Created: 02/07/2016

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

System: D3040 - Distribution Systems

Location: Fitzpatrick - 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: 60,000.00

Unit of Measure: S.F.

Estimate: $567,622.35

Assessor Name: System

Date Created: 02/07/2016

Notes: In the Main Building hire a qualified contractor to examine the steam and condensate piping in service for 56 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

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System: D3040 - Distribution Systems

Location: Fitzpatrick - roof

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace power roof ventilator (24" dia.)

Qty: 10.00

Unit of Measure: Ea.

Estimate: $443,083.88

Assessor Name: System

Date Created: 02/07/2016

Notes: In Main Building replace exhaust fans.

Priority 5 - Response Time (> 5 yrs):

System: D2020 - Domestic Water Distribution

Location: Fitzpatrick - 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: 60,000.00

Unit of Measure: S.F.

Estimate: $304,041.52

Assessor Name: System

Date Created: 02/07/2016

Notes: In the Main Building Inspect and replace the original as needed the domestic water piping in the building.

System: D3030 - Cooling Generating Systems

Location: Fitzpatrick - throughout the building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 85,550.00

Unit of Measure: S.F.

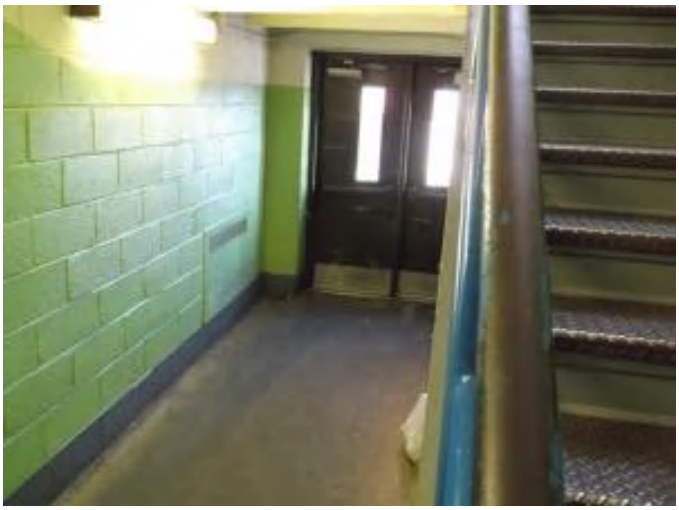
Estimate: $1,373,894.91

Assessor Name: System

Date Created: 02/07/2016

Notes: In the Main Building 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: Fitzpatrick - 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: 7.00

Unit of Measure: C

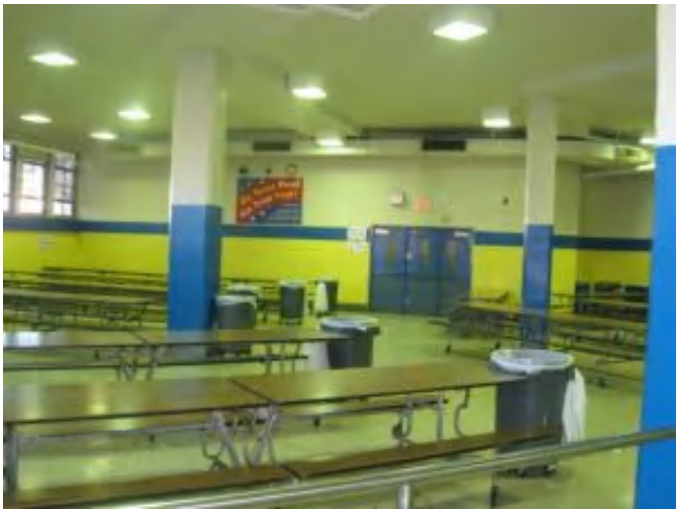
Estimate: $581,426.94

Assessor Name: System

Date Created: 02/07/2016

Notes: In the Main Building provide ventilation for the corridors at five basement and first floor entryways (7 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.

System: D3040 - Distribution Systems



Location: Fitzpatrick - roof

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 850.00

Unit of Measure: Student

Estimate: $434,958.00

Assessor Name: System

Date Created: 02/07/2016

Notes: In the Main Building 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: D3040 - Distribution Systems

Location: Fitzpatrick - roof

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 6,000.00

Unit of Measure: S.F.

Estimate: $344,860.27

Assessor Name: System

Date Created: 02/07/2016

Notes: In the Main Building provide ventilation, heating and cooling for the gymnasium by installing a packaged roof top unit.

System: D3040 - Distribution Systems

Location: Fitzpatrick - roof

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 200.00

Unit of Measure: Seat

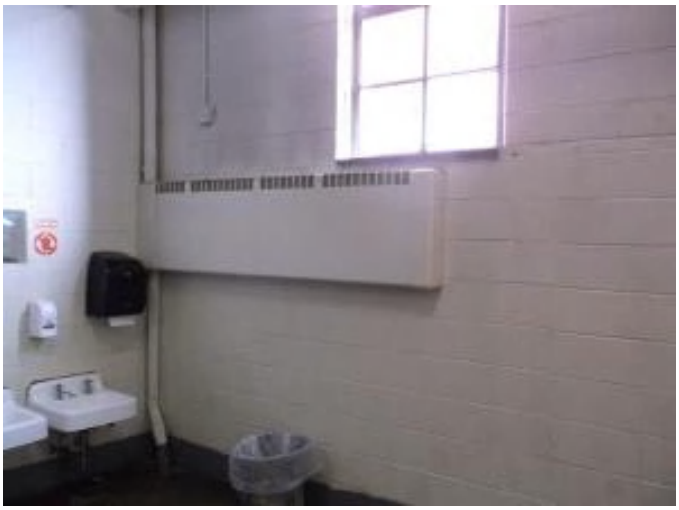
Estimate: $285,085.41

Assessor Name: System

Date Created: 02/07/2016

Notes: In the Main Building provide ventilation, heating and cooling for the auditorium by installing a packaged roof top unit.

System: D3040 - Distribution Systems



Location: Fitzpatrick - throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace finned tube radiation terminals (per 100 LF)

Qty: 200.00

Unit of Measure: L.F.

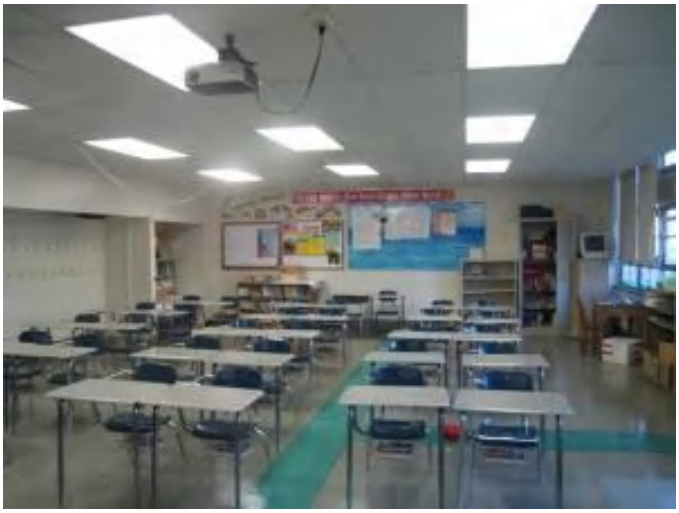
Estimate: $80,708.29

Assessor Name: System

Date Created: 02/07/2016

Notes: In the Main Building 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.

System: D4010 - Sprinklers



Location: Fitzpatrick - throughout the building

Distress: Life Safety / NFPA / PFD

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

Correction: Install a fire protection sprinkler system

Qty: 60,000.00

Unit of Measure: S.F.

Estimate: $858,326.79

Assessor Name: System

Date Created: 02/07/2016

Notes: In the Main Building 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. In the Main Building 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, cast iron, gas & oil, steam, 5520 MBH	2.00	Ea.	Main boiler mechnical equipment room	HB Smith	4500A			35			$190,236.50	$418,520.30
D3020 Heat Generating Systems	Boiler, cast iron, gas & oil, steam, 5520 MBH	2.00	Ea.	Main boiler mechnical equipment room	HB Smith	4500A			35			$190,236.50	$418,520.30
D5010 Electrical Service/Distribution	Switchboards, no main disconnect, 4 wire, 120/208 V, 1000 amp, incl CT compartment, excl CT's or PT's	1.00	Ea.	Boiler Room (Fitzpatrick)					30	1960	2017	$8,973.45	$9,870.80
												Total:	**$846,911.40**

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:	Annex
Gross Area (SF):	12,500
Year Built:	1968
Last Renovation:	
Replacement Value:	$6,158,036
Repair Cost:	$2,279,465.64
Total FCI:	37.02 %
Total RSLI:	63.28 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B839201
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S804001		

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	53.00 %	0.00 %	$0.00
A20 - Basement Construction	53.00 %	0.00 %	$0.00
B10 - Superstructure	53.00 %	0.22 %	$3,245.57
B20 - Exterior Enclosure	65.59 %	72.98 %	$424,403.11
B30 - Roofing	97.96 %	89.32 %	$508,786.73
C10 - Interior Construction	7.59 %	3.57 %	$10,165.87
C20 - Stairs	53.00 %	0.00 %	$0.00
C30 - Interior Finishes	45.99 %	22.48 %	$121,668.55
D20 - Plumbing	50.43 %	80.41 %	$283,109.48
D30 - HVAC	101.07 %	121.71 %	$713,533.34
D40 - Fire Protection	34.29 %	0.00 %	$0.00
D50 - Electrical	109.31 %	42.39 %	$214,552.99
E10 - Equipment	14.29 %	0.00 %	$0.00
E20 - Furnishings	12.50 %	0.00 %	$0.00
Totals:	**63.28 %**	**37.02 %**	**$2,279,465.64**

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	$24.32	S.F.	12,500	100	1968	2068		53.00 %	0.00 %	53			$304,000
A1030	Slab on Grade	$15.51	S.F.	12,500	100	1968	2068		53.00 %	0.00 %	53			$193,875
A2010	Basement Excavation	$13.07	S.F.	12,500	100	1968	2068		53.00 %	0.00 %	53			$163,375
A2020	Basement Walls	$23.02	S.F.	12,500	100	1968	2068		53.00 %	0.00 %	53			$287,750
B1010	Floor Construction	$92.20	S.F.	12,500	100	1968	2068		53.00 %	0.00 %	53			$1,152,500
B1020	Roof Construction	$24.11	S.F.	14,778	100	1968	2068		53.00 %	0.91 %	53		$3,245.57	$356,298
B2010	Exterior Walls	$31.22	S.F.	12,500	100	1968	2068		53.00 %	8.98 %	53		$35,033.07	$390,250
B2020	Exterior Windows	$13.63	S.F.	12,500	40	2015	2055		100.00 %	225.73 %	40		$384,592.00	$170,375
B2030	Exterior Doors	$1.67	S.F.	12,500	25	1968	1993	2020	20.00 %	22.89 %	5		$4,778.04	$20,875
B3010105	Built-Up	$37.76	S.F.	14,778	20	2015	2035		100.00 %	89.79 %	20		$501,047.16	$558,017
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.	300	20				0.00 %	66.61 %			$7,739.57	$11,619
B3020	Roof Openings	$0.68	S.F.	0	20	2015	2035		100.00 %	0.00 %	20			$0
C1010	Partitions	$14.93	S.F.	12,500	100	1968	2068	2020	5.00 %	0.00 %	5			$186,625
C1020	Interior Doors	$3.76	S.F.	12,500	40	1968	2008	2020	12.50 %	20.07 %	5		$9,432.07	$47,000
C1030	Fittings	$4.12	S.F.	12,500	40	1968	2008	2020	12.50 %	1.42 %	5		$733.80	$51,500
C2010	Stair Construction	$1.28	S.F.	12,500	100	1968	2068		53.00 %	0.00 %	53			$16,000

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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.	12,500	10	1968	1978	2020	50.00 %	4.54 %	5		$7,502.00	$165,125
C3010231	Vinyl Wall Covering	$0.97	S.F.		15				0.00 %	0.00 %				$0
C3010232	Wall Tile	$2.63	S.F.		30				0.00 %	0.00 %				$0
C3020411	Carpet	$7.30	S.F.	3,000	10	2015	2025		100.00 %	0.00 %	10			$21,900
C3020412	Terrazzo & Tile	$75.52	S.F.		50				0.00 %	0.00 %				$0
C3020413	Vinyl Flooring	$9.68	S.F.	9,500	20	2015	2035		100.00 %	124.15 %	20		$114,166.55	$91,960
C3020414	Wood Flooring	$22.27	S.F.		25				0.00 %	0.00 %				$0
C3020415	Concrete Floor Finishes	$0.97	S.F.		50				0.00 %	0.00 %				$0
C3030	Ceiling Finishes	$20.97	S.F.	12,500	25	1968	1993	2020	20.00 %	0.00 %	5			$262,125
D2010	Plumbing Fixtures	$31.58	S.F.	8,610	35	1968	2003	2027	34.29 %	12.42 %	12		$33,782.14	$271,904
D2020	Domestic Water Distribution	$3.12	S.F.	8,610	25	1968	1993	2042	108.00 %	471.59 %	27		$126,683.66	$26,863
D2030	Sanitary Waste	$2.90	S.F.	8,610	25	1968	1993	2042	108.00 %	491.18 %	27		$122,643.68	$24,969
D2040	Rain Water Drainage	$3.29	S.F.	8,610	30	2015	2045		100.00 %	0.00 %	30			$28,327
D3020	Heat Generating Systems	$18.67	S.F.		35				0.00 %	0.00 %				$0
D3030	Cooling Generating Systems	$24.48	S.F.		30				0.00 %	0.00 %				$0
D3040	Distribution Systems	$42.99	S.F.	8,610	25	1968	1993	2042	108.00 %	47.88 %	27		$177,233.55	$370,144
D3050	Terminal & Package Units	$11.60	S.F.	8,610	20	1968	1988	2028	65.00 %	0.00 %	13			$99,876
D3060	Controls & Instrumentation	$13.50	S.F.	8,610	20	1968	1988	2037	110.00 %	461.39 %	22		$536,299.79	$116,235
D4010	Sprinklers	$8.02	S.F.	8,610	35	1968	2003	2027	34.29 %	0.00 %	12			$69,052
D4020	Standpipes	$0.99	S.F.	8,610	35	1968	2003	2027	34.29 %	0.00 %	12			$8,524
D5010	Electrical Service/Distribution	$9.70	S.F.	8,610	30	1968	1998	2047	106.67 %	158.35 %	32		$132,251.04	$83,517
D5020	Lighting and Branch Wiring	$34.68	S.F.	8,610	20	1968	1988	2037	110.00 %	7.02 %	22		$20,952.93	$298,595
D5030	Communications and Security	$12.99	S.F.	8,610	15	1968	1983	2032	113.33 %	54.85 %	17		$61,349.02	$111,844
D5090	Other Electrical Systems	$1.41	S.F.	8,610	30	1968	1998	2037	73.33 %	0.00 %	22			$12,140
E1010	Commercial Equipment	$2.13	S.F.	8,610	35	1968	2003	2020	14.29 %	0.00 %	5			$18,339
E1020	Institutional Equipment	$5.15	S.F.	8,610	35	1968	2003	2020	14.29 %	0.00 %	5			$44,342
E1090	Other Equipment	$11.10	S.F.	8,610	35	1968	2003	2020	14.29 %	0.00 %	5			$95,571
E2010	Fixed Furnishings	$2.13	S.F.	12,500	40	1968	2008	2020	12.50 %	0.00 %	5			$26,625
								Total	**63.28 %**	**37.02 %**			**$2,279,465.64**	**$6,158,036**

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: C3010 - Wall Finishes — This system contains no images

Note: painted block, painted precast concrete, painted gyp bd 100%

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

Note:

carpet	3000sf	24%
VCT	9500sf	76%

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

Note:

acoustical tile ceiling	3000sf	24%
exposed painted concrete	9500sf	76%

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:	**$2,279,466**	**$0**	**$0**	**$0**	**$0**	**$1,170,800**	**$0**	**$0**	**$0**	**$0**	**$32,375**	**$3,482,640**
*** A - Substructure**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
*** A10 - Foundations**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1010 - Standard Foundations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1030 - Slab on Grade	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
*** A20 - Basement Construction**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2010 - Basement Excavation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2020 - Basement Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B - Shell	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B10 - Superstructure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1010 - Floor Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1020 - Roof Construction	$3,246	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$3,246**
B20 - Exterior Enclosure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2010 - Exterior Walls	$35,033	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$35,033**
B2020 - Exterior Windows	$384,592	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$384,592**
B2030 - Exterior Doors	$4,778	$0	$0	$0	$0	$26,620	$0	$0	$0	$0	$0	**$31,398**
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	$501,047	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$501,047**
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	$7,740	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$7,740**
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	$0	$0	$0	$0	$0	$237,985	$0	$0	$0	$0	$0	**$237,985**

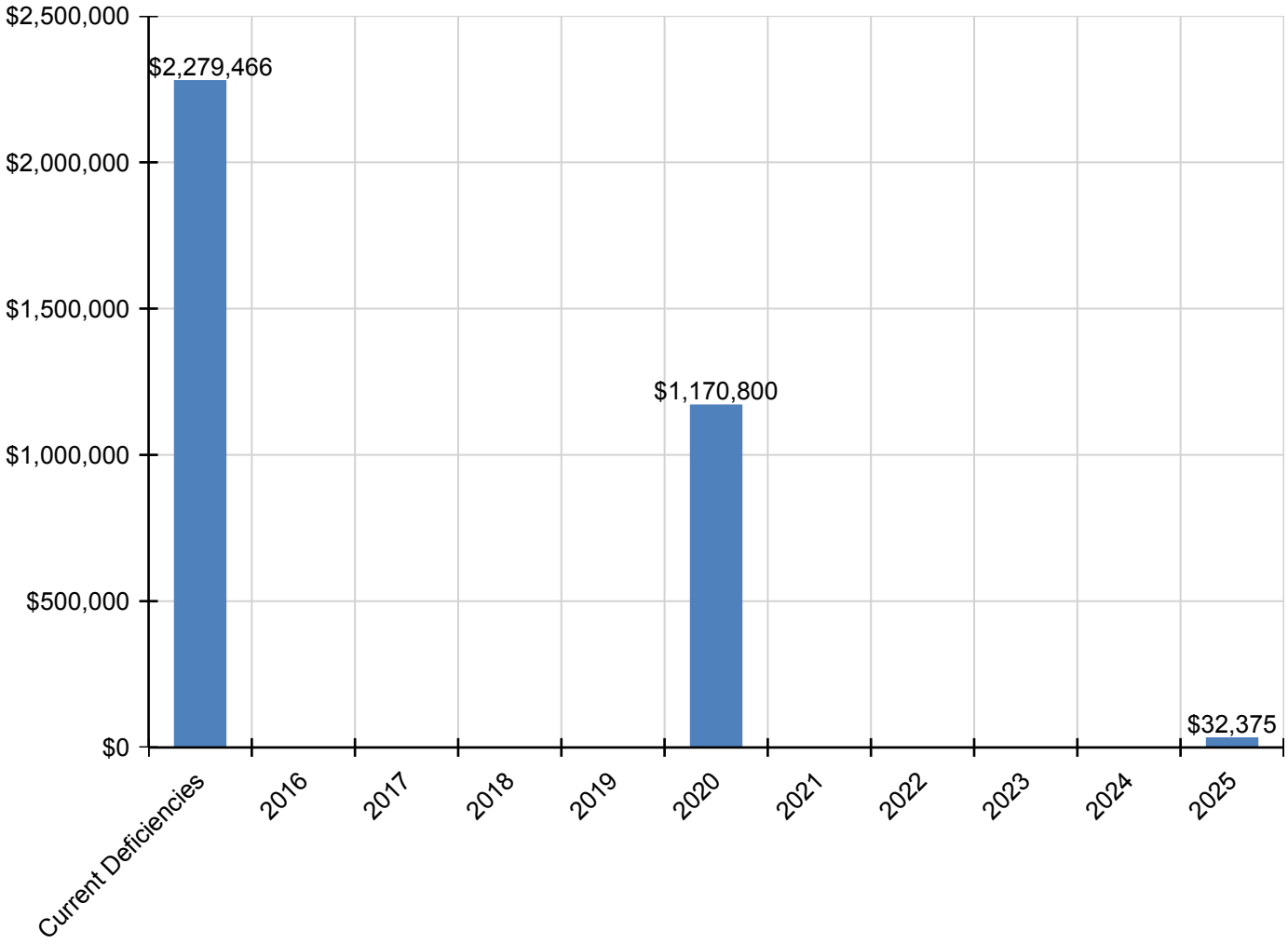
C1020 - Interior Doors	$9,432	$0	$0	$0	$0	$59,934	$0	$0	$0	$0	$0	**$69,367**
C1030 - Fittings	$734	$0	$0	$0	$0	$65,673	$0	$0	$0	$0	$0	**$66,407**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C30 - Interior Finishes	$0	$0	$0	$0	$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	$7,502	$0	$0	$0	$0	$210,568	$0	$0	$0	$0	$0	**$218,070**
C3010231 - Vinyl Wall Covering	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010232 - Wall Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020411 - Carpet	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$32,375	**$32,375**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020413 - Vinyl Flooring	$114,167	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$114,167**
C3020414 - Wood Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020415 - Concrete Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3030 - Ceiling Finishes	$0	$0	$0	$0	$0	$334,263	$0	$0	$0	$0	$0	**$334,263**
D - Services	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$33,782	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$33,782**
D2020 - Domestic Water Distribution	$126,684	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$126,684**
D2030 - Sanitary Waste	$122,644	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$122,644**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3030 - Cooling Generating Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3040 - Distribution Systems	$177,234	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$177,234**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$536,300	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$536,300**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$132,251	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$132,251**

D5020 - Lighting and Branch Wiring	$20,953	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$20,953**
D5030 - Communications and Security	$61,349	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$61,349**
D5090 - Other Electrical Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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**
E1010 - Commercial Equipment	$0	$0	$0	$0	$0	$23,386	$0	$0	$0	$0	$0	**$23,386**
E1020 - Institutional Equipment	$0	$0	$0	$0	$0	$56,545	$0	$0	$0	$0	$0	**$56,545**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$121,872	$0	$0	$0	$0	$0	**$121,872**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$0	$0	$0	$0	$0	$33,953	$0	$0	$0	$0	$0	**$33,953**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

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

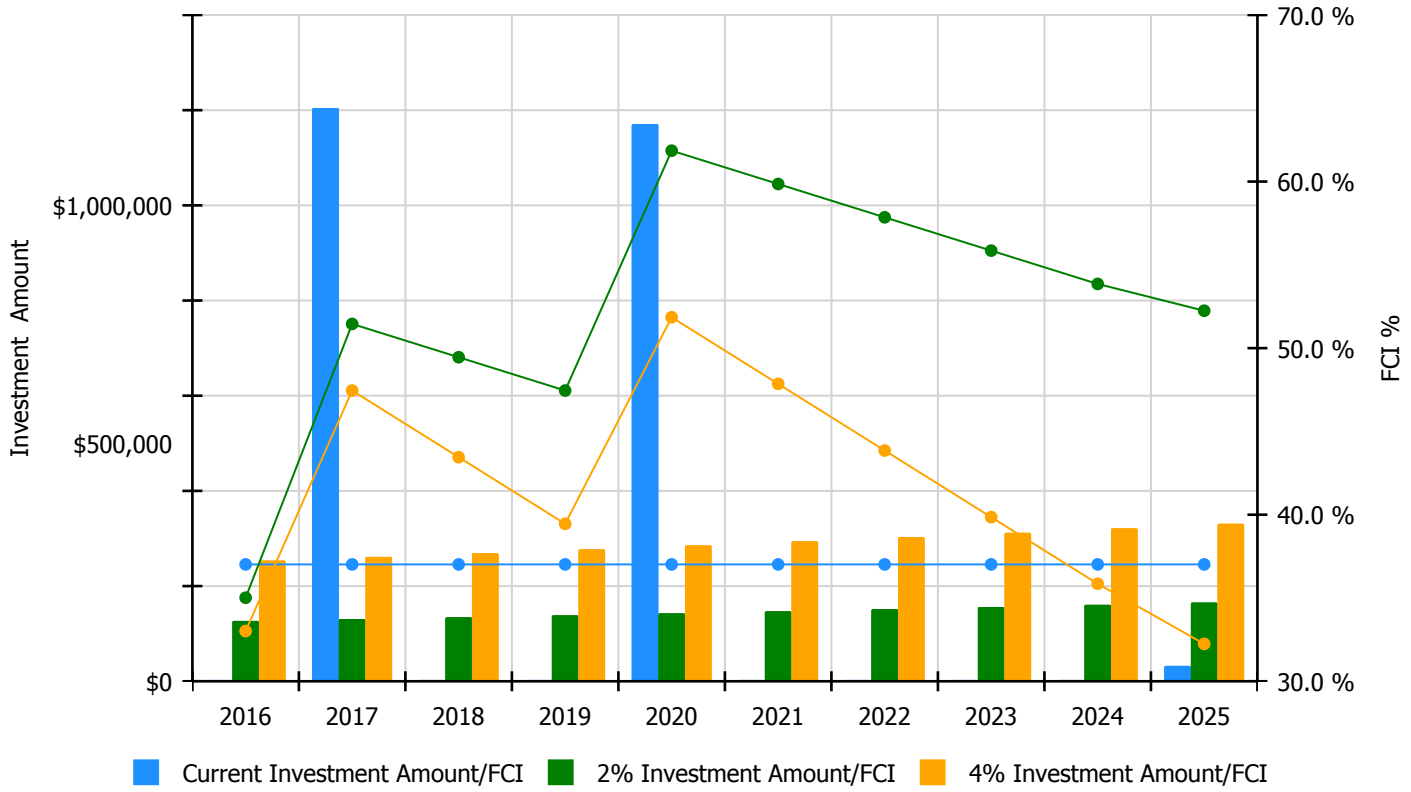


10 Year FCI Forecast by Investment Scenario

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

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

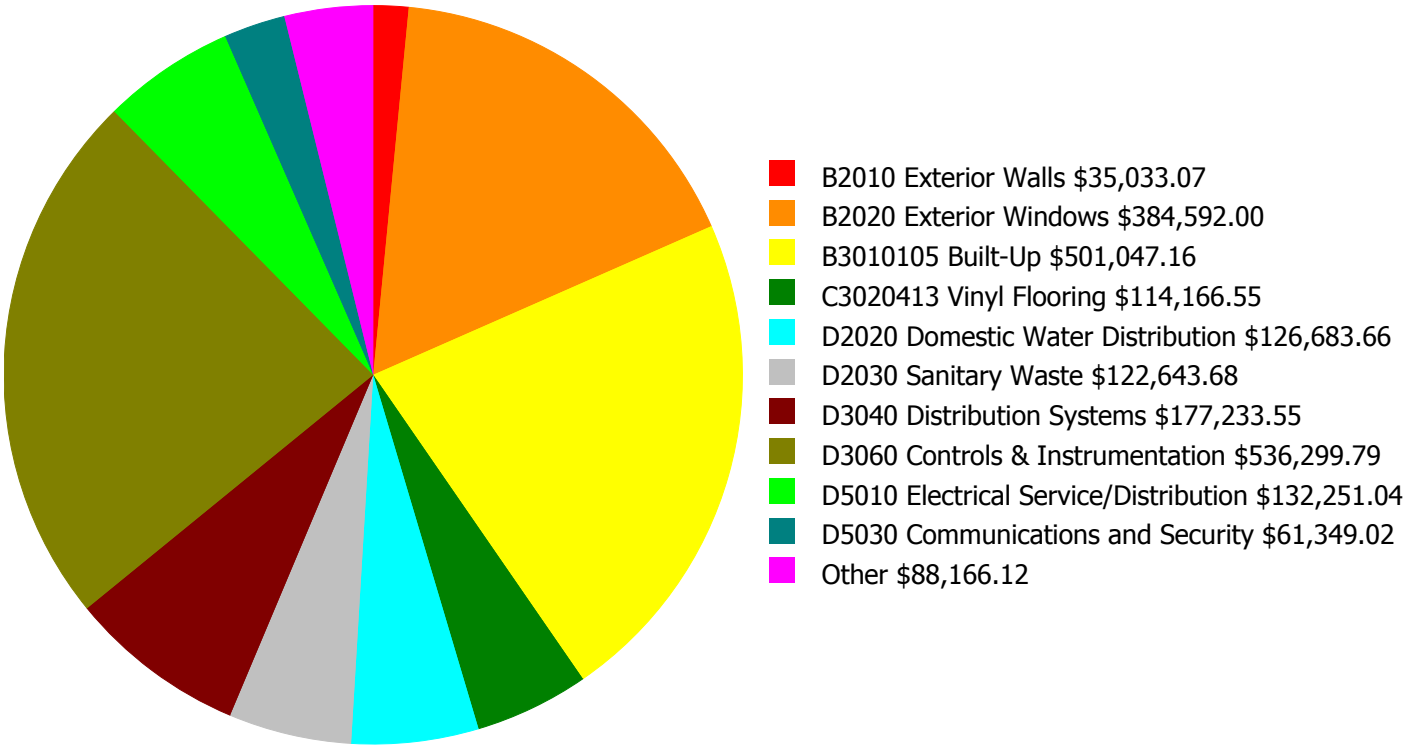
Facility Investment vs. FCI Forecast



Year	Investment Amount Current FCI - 37.02%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$126,856.00	35.02 %	$253,711.00	33.02 %
2017	$1,204,529	$130,661.00	51.45 %	$261,322.00	47.45 %
2018	$0	$134,581.00	49.45 %	$269,162.00	43.45 %
2019	$0	$138,618.00	47.45 %	$277,237.00	39.45 %
2020	$1,170,800	$142,777.00	61.85 %	$285,554.00	51.85 %
2021	$0	$147,060.00	59.85 %	$294,121.00	47.85 %
2022	$0	$151,472.00	57.85 %	$302,944.00	43.85 %
2023	$0	$156,016.00	55.85 %	$312,033.00	39.85 %
2024	$0	$160,697.00	53.85 %	$321,394.00	35.85 %
2025	$32,375	$165,518.00	52.25 %	$331,035.00	32.25 %
Total:	**$2,407,703**	**$1,454,256.00**		**$2,908,513.00**	

Deficiency Summary by System

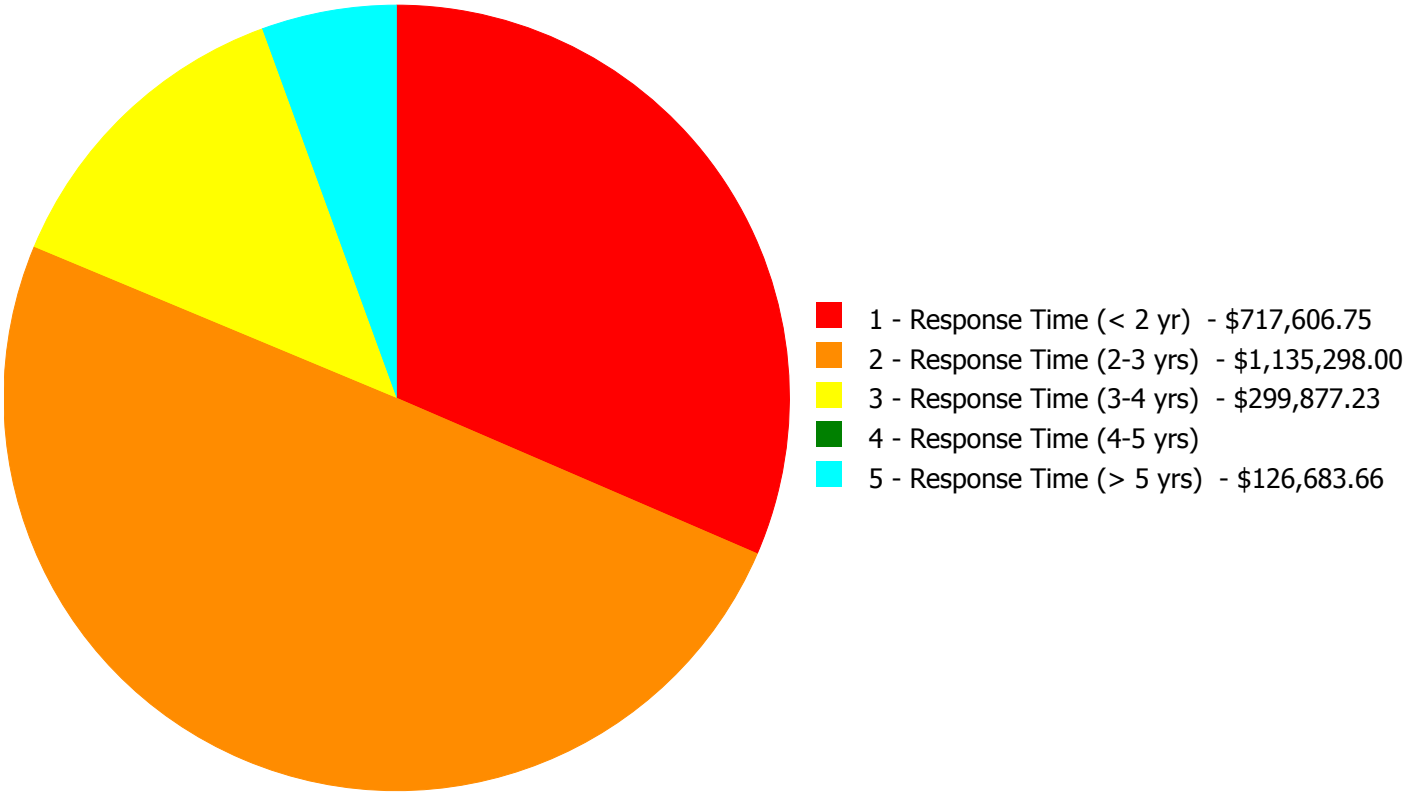
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $2,279,465.64

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: $2,279,465.64

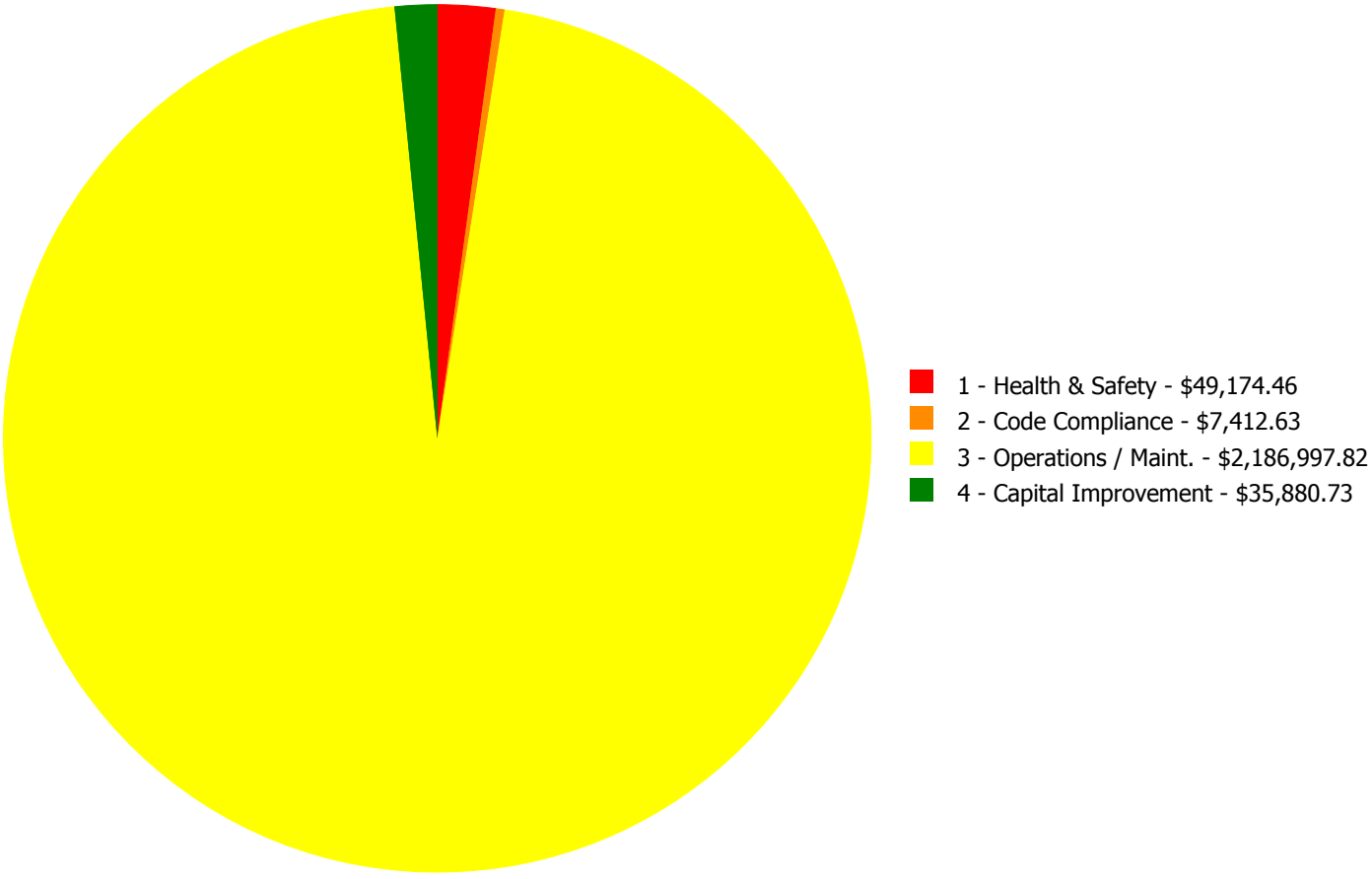
Deficiency By Priority Investment Table

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
B1020	Roof Construction	$0.00	$3,245.57	$0.00	$0.00	$0.00	$3,245.57
B2010	Exterior Walls	$2,006.60	$33,026.47	$0.00	$0.00	$0.00	$35,033.07
B2020	Exterior Windows	$0.00	$384,592.00	$0.00	$0.00	$0.00	$384,592.00
B2030	Exterior Doors	$0.00	$4,778.04	$0.00	$0.00	$0.00	$4,778.04
B3010105	Built-Up	$501,047.16	$0.00	$0.00	$0.00	$0.00	$501,047.16
B3010140	Shingle & Tile	$0.00	$7,739.57	$0.00	$0.00	$0.00	$7,739.57
C1020	Interior Doors	$0.00	$9,432.07	$0.00	$0.00	$0.00	$9,432.07
C1030	Fittings	$0.00	$733.80	$0.00	$0.00	$0.00	$733.80
C3010230	Paint & Covering	$0.00	$7,502.00	$0.00	$0.00	$0.00	$7,502.00
C3020413	Vinyl Flooring	$0.00	$114,166.55	$0.00	$0.00	$0.00	$114,166.55
D2010	Plumbing Fixtures	$0.00	$33,782.14	$0.00	$0.00	$0.00	$33,782.14
D2020	Domestic Water Distribution	$0.00	$0.00	$0.00	$0.00	$126,683.66	$126,683.66
D2030	Sanitary Waste	$0.00	$0.00	$122,643.68	$0.00	$0.00	$122,643.68
D3040	Distribution Systems	$0.00	$0.00	$177,233.55	$0.00	$0.00	$177,233.55
D3060	Controls & Instrumentation	$0.00	$536,299.79	$0.00	$0.00	$0.00	$536,299.79
D5010	Electrical Service/Distribution	$132,251.04	$0.00	$0.00	$0.00	$0.00	$132,251.04
D5020	Lighting and Branch Wiring	$20,952.93	$0.00	$0.00	$0.00	$0.00	$20,952.93
D5030	Communications and Security	$61,349.02	$0.00	$0.00	$0.00	$0.00	$61,349.02
	Total:	$717,606.75	$1,135,298.00	$299,877.23	$0.00	$126,683.66	$2,279,465.64

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: $2,279,465.64

Deficiency Details by Priority

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

Priority 1 - Response Time (< 2 yr):

System: B2010 - Exterior Walls

Location: Fitzpatrick Annex - wall panels
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Re-caulk exterior control joints and other caulk joints
Qty: 100.00
Unit of Measure: L.F.
Estimate: $2,006.60
Assessor Name: Craig Anding
Date Created: 12/23/2015

Notes: Recaulk wall panels with gaps in joints (100lf sealant)

System: B3010105 - Built-Up

Location: Fitzpatrick Annex - roof
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Remove and Replace Built Up Roof
Qty: 14,788.00
Unit of Measure: S.F.
Estimate: $501,047.16
Assessor Name: Craig Anding
Date Created: 12/23/2015

Notes: Replace failing roof (14,788sf)

System: D5010 - Electrical Service/Distribution

Location: Fitzpatrick Annex - Electrical Room
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Replace Switchboard
Qty: 1.00
Unit of Measure: Ea.
Estimate: $132,251.04
Assessor Name: Craig Anding
Date Created: 10/22/2015

Notes: Replace four existing disconnect switches with a new 800A switchboard.

System: D5020 - Lighting and Branch Wiring

Location: Fitzpatrick Annex - Entire Building
Distress: Inadequate
Category: 4 - Capital Improvement
Priority: 1 - Response Time (< 2 yr)
Correction: Replace Wiring Device
Qty: 1.00
Unit of Measure: Ea.
Estimate: $20,952.93
Assessor Name: Craig Anding
Date Created: 10/22/2015

Notes: Replace GFIC receptacle in the areas subject to kid access. Estimated 100 each.

System: D5030 - Communications and Security

Location: Fitzpatrick Annex - Entire Building
Distress: Security Issue
Category: 1 - Health & Safety
Priority: 1 - Response Time (< 2 yr)
Correction: Add/Replace Video Surveillance System
Qty: 1.00
Unit of Measure: Ea.
Estimate: $46,421.22
Assessor Name: Craig Anding
Date Created: 10/22/2015

Notes: Provide an adequate video surveillance system including camera and Closed Circuit Television (CCTV) for monitoring the system. Cameras should install in the corridors, school entrance doors and on the walls around the building. Provide monitor in main office and building engineer office.

System: D5030 - Communications and Security

Location: Fitzpatrick Annex - 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: $14,927.80
Assessor Name: Craig Anding
Date Created: 10/22/2015

Notes: Provide wireless master clock system with 20 battery type clocks.

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

System: B1020 - Roof Construction

Location: Fitzpatrick Annex - exterior T section ends

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 100.00

Unit of Measure: S.F.

Estimate: $3,245.57

Assessor Name: Craig Anding

Date Created: 12/23/2015

Notes: Patch spalling ends of precast roof "T"s (20)

System: B2010 - Exterior Walls

Location: Fitzpatrick Annex - exterior wall panels

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Repaint exterior walls - concrete or stucco

Qty: 3,200.00

Unit of Measure: S.F.

Estimate: $23,671.78

Assessor Name: Craig Anding

Date Created: 12/23/2015

Notes: Repaint exterior of wall panels (3200sf)

System: B2010 - Exterior Walls

Location: Fitzpatrick Annex - univent louvers

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace exterior wall louvers - pick the closest size and insert the number of louvers

Qty: 8.00

Unit of Measure: Ea.

Estimate: $9,354.69

Assessor Name: Craig Anding

Date Created: 12/23/2015

Notes: Replace all univent louvers (8 – 3x6)

System: B2020 - Exterior Windows

Location: Fitzpatrick Annex - windows

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 64.00

Unit of Measure: Ea.

Estimate: $384,592.00

Assessor Name: Craig Anding

Date Created: 12/23/2015

Notes: Replace windows (64 - 3x7 units)

System: B2030 - Exterior Doors

Location: Fitzpatrick Annex - exterior doors

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Refinish and repaint exterior doors - per leaf

Qty: 8.00

Unit of Measure: Ea.

Estimate: $4,778.04

Assessor Name: Craig Anding

Date Created: 12/23/2015

Notes: Repaint exterior doors (8 - 3x7)

System: B3010140 - Shingle & Tile

Location: Fitzpatrick Annex - roof

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Replace missing or broken leaders and downspouts - choose the proper size and material

Qty: 400.00

Unit of Measure: L.F.

Estimate: $7,739.57

Assessor Name: Craig Anding

Date Created: 12/23/2015

Notes: Replace horizontal gutter and two downspouts; add horizontal gutter and 2 downspouts (200ft ea)

System: C1020 - Interior Doors

Location: Fitzpatrick Annex - doors

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Replace door knobs with compliant lever type

Qty: 12.00

Unit of Measure: Ea.

Estimate: $6,678.83

Assessor Name: Craig Anding

Date Created: 12/23/2015

Notes: Provide lever locksets and security hardware for classrooms and offices, locking from the inside of the room (12)

System: C1020 - Interior Doors

Location: Fitzpatrick Annex - 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: 12.00

Unit of Measure: Ea.

Estimate: $2,753.24

Assessor Name: Craig Anding

Date Created: 12/23/2015

Notes: Provide security hardware for classrooms and offices, locking from the inside of the room (12)

System: C1030 - Fittings

Location: Fitzpatrick Annex - toilet room

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Replace toilet accessories - select accessories and quantity

Qty: 1.00

Unit of Measure: Ea.

Estimate: $733.80

Assessor Name: Craig Anding

Date Created: 12/23/2015

Notes: Provide handicap accessible toilet room accessories in one toilet room

System: C3010230 - Paint & Covering

Location: Fitzpatrick Annex - interior walls

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 1,000.00

Unit of Measure: S.F.

Estimate: $7,502.00

Assessor Name: Craig Anding

Date Created: 12/23/2015

Notes: Repaint interior water stained and peeling wall panels (1000sf)

System: C3020413 - Vinyl Flooring

Location: Fitzpatrick Annex - floors

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace VCT

Qty: 9,500.00

Unit of Measure: S.F.

Estimate: $114,166.55

Assessor Name: Craig Anding

Date Created: 12/23/2015

Notes: Replace VCT (9500sf)

System: D2010 - Plumbing Fixtures

Location: Fitzpatrick Annex - throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 1.00

Unit of Measure: Ea.

Estimate: $15,692.89

Assessor Name: Craig Anding

Date Created: 02/07/2016

Notes: In the Annex 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: Fitzpatrick Annex - 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: 1.00

Unit of Measure: Ea.

Estimate: $7,462.15

Assessor Name: Craig Anding

Date Created: 02/07/2016

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

System: D2010 - Plumbing Fixtures

Location: Fitzpatrick Annex - throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 1.00

Unit of Measure: Ea.

Estimate: $6,816.09

Assessor Name: Craig Anding

Date Created: 02/07/2016

Notes: In the Annex replace service sinks (janitor sinks) in the building.

System: D2010 - Plumbing Fixtures

Location: Fitzpatrick Annex - 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: 1.00

Unit of Measure: Ea.

Estimate: $3,811.01

Assessor Name: Craig Anding

Date Created: 02/07/2016

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

System: D3060 - Controls & Instrumentation

Location: Fitzpatrick Annex - 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: 25,000.00

Unit of Measure: S.F.

Estimate: $536,299.79

Assessor Name: Craig Anding

Date Created: 02/07/2016

Notes: In the Annex provide a new building automation system (BAS) with communication interface to the preferred system in use throughout the District.

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

System: D2030 - Sanitary Waste

Location: Fitzpatrick Annex - 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: 25,000.00

Unit of Measure: S.F.

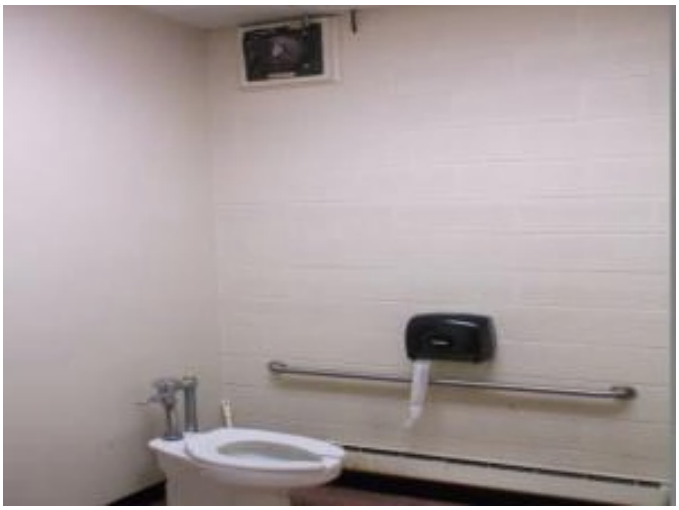
Estimate: $122,643.68

Assessor Name: Craig Anding

Date Created: 02/07/2016

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

System: D3040 - Distribution Systems



Location: Fitzpatrick Annex - roof

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace power roof ventilator (24" dia.)

Qty: 4.00

Unit of Measure: Ea.

Estimate: $177,233.55

Assessor Name: Craig Anding

Date Created: 02/07/2016

Notes: In Annex replace exhaust fans.

Priority 5 - Response Time (> 5 yrs):

System: D2020 - Domestic Water Distribution

Location: Fitzpatrick Annex - 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: 25,000.00

Unit of Measure: S.F.

Estimate: $126,683.66

Assessor Name: Craig Anding

Date Created: 02/07/2016

Notes: In the Annex inspect and replace the original as needed the domestic water piping in the building.

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

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):	1,220,600
Year Built:	1968
Last Renovation:	
Replacement Value:	$17,333,159
Repair Cost:	$826,554.39
Total FCI:	4.77 %
Total RSLI:	0.00 %

Description:

Attributes:

General Attributes:

Bldg ID:	S804001	Site ID:	S804001

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	0.00 %	6.87 %	$826,554.39
G40 - Site Electrical Utilities	0.00 %	0.00 %	$0.00
Totals:	**0.00 %**	**4.77 %**	**$826,554.39**

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.	55,800	30				0.00 %	0.00 %				$642,816
G2020	Parking Lots	$7.65	S.F.	143,700	30				0.00 %	65.66 %			$721,844.30	$1,099,305
G2030	Pedestrian Paving	$11.52	S.F.	142,100	40				0.00 %	1.47 %			$24,127.96	$1,636,992
G2040	Site Development	$4.36	S.F.	1,220,600	25				0.00 %	1.51 %			$80,582.13	$5,321,816
G2050	Landscaping & Irrigation	$3.78	S.F.	879,000	15				0.00 %	0.00 %				$3,322,620
G4020	Site Lighting	$3.58	S.F.	1,220,600	30				0.00 %	0.00 %				$4,369,748
G4030	Site Communications & Security	$0.77	S.F.	1,220,600	30				0.00 %	0.00 %				$939,862
								Total	**0.00 %**	**4.77 %**			**$826,554.39**	**$17,333,159**

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.

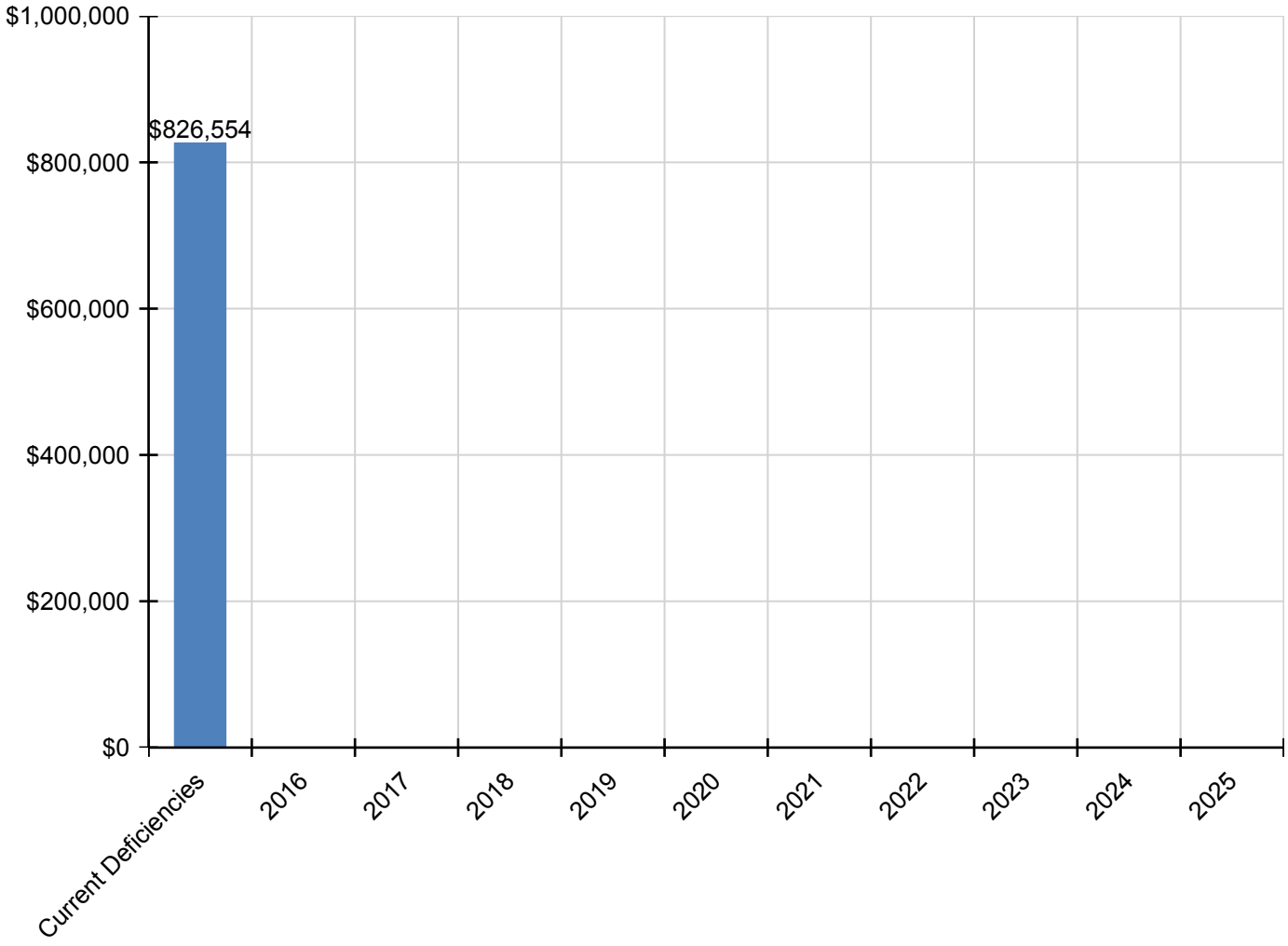
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$826,554**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$826,554**
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	$721,844	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$721,844**
G2030 - Pedestrian Paving	$24,128	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$24,128**
G2040 - Site Development	$80,582	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$80,582**
G2050 - Landscaping & Irrigation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G40 - Site Electrical Utilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4020 - Site Lighting	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4030 - Site Communications & Security	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

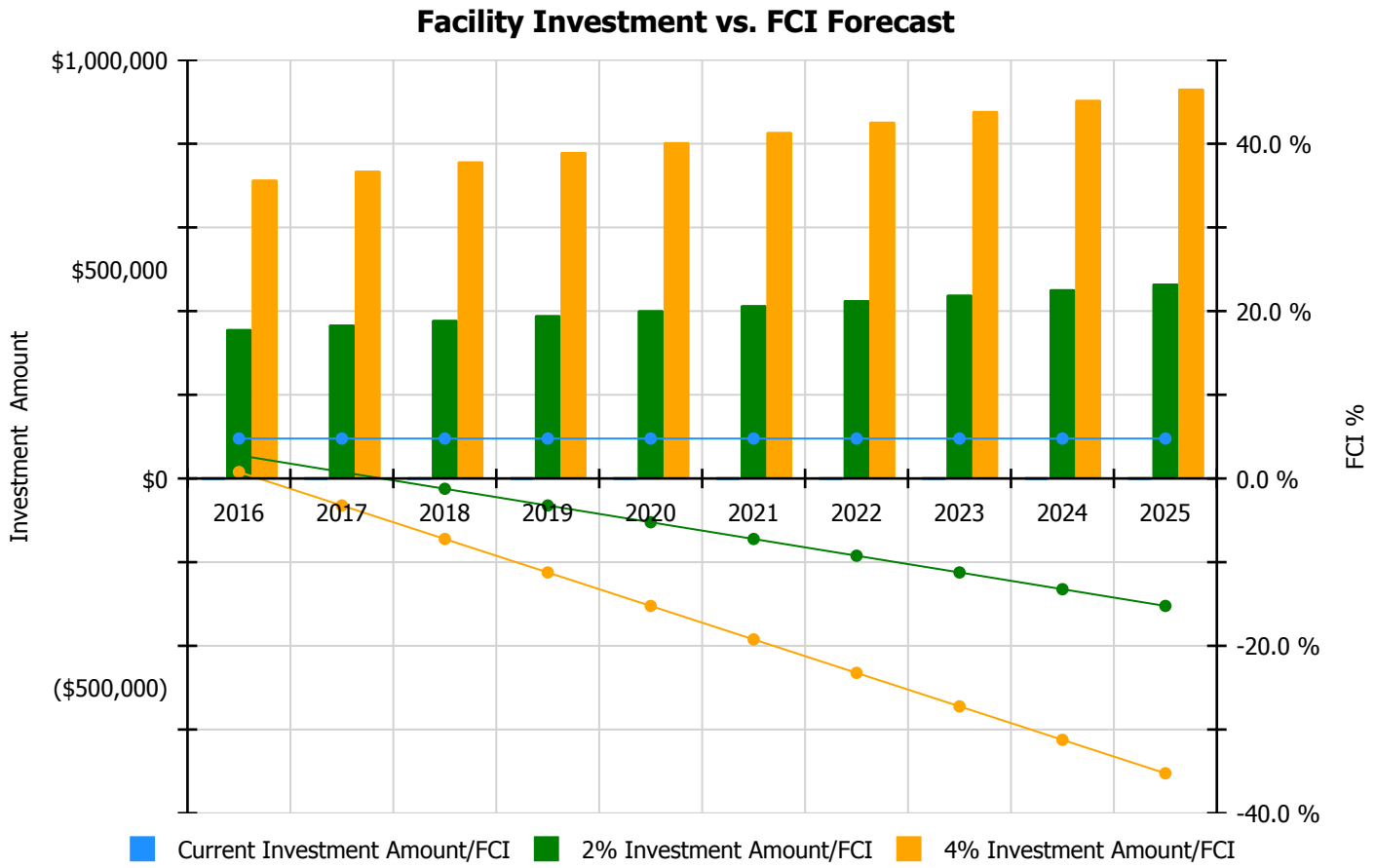
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



10 Year FCI Forecast by Investment Scenario

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

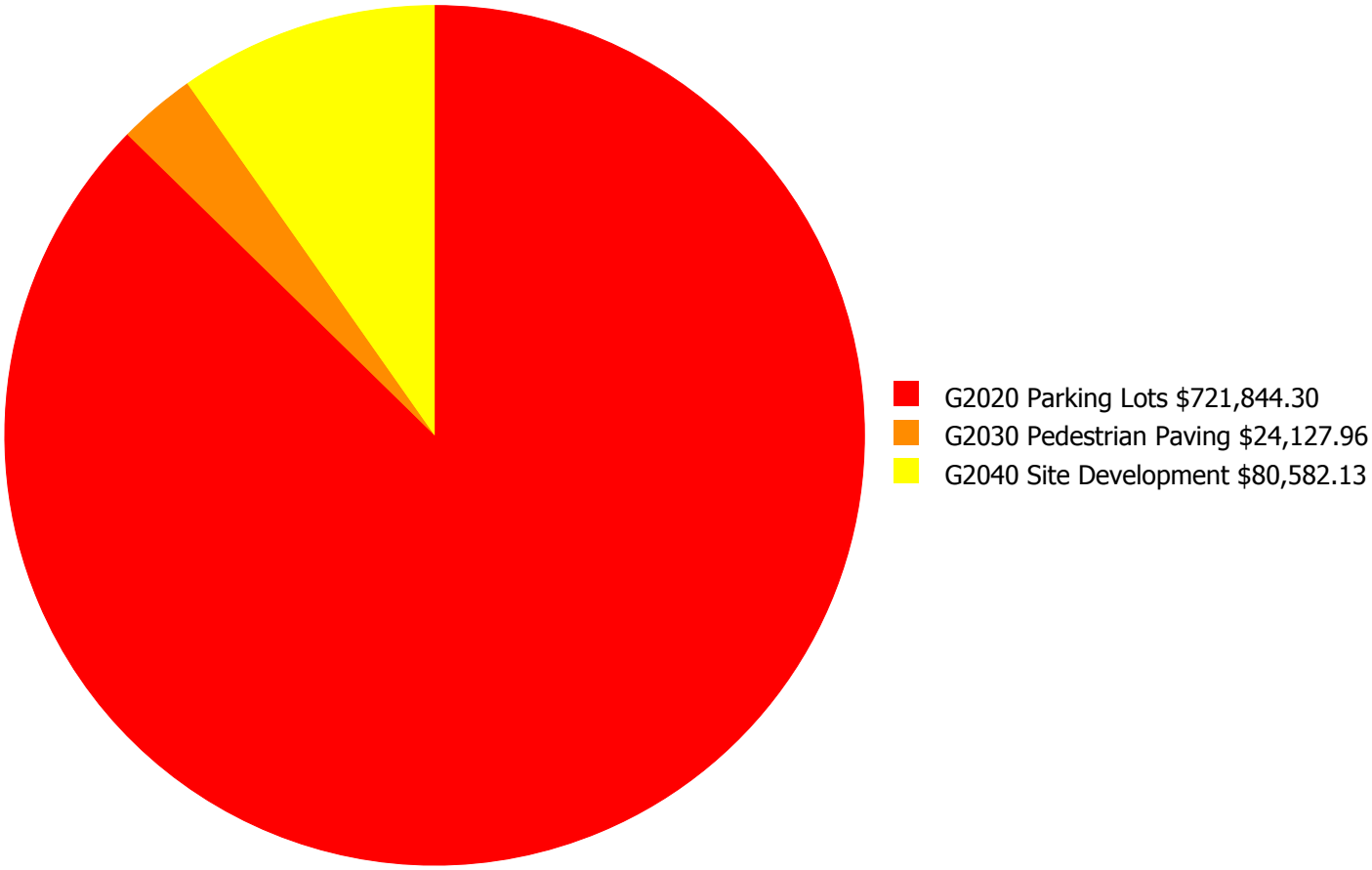
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 4.77%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$357,063.00	2.77 %	$714,126.00	0.77 %
2017	$0	$367,775.00	0.77 %	$735,550.00	-3.23 %
2018	$0	$378,808.00	-1.23 %	$757,616.00	-7.23 %
2019	$0	$390,172.00	-3.23 %	$780,345.00	-11.23 %
2020	$0	$401,878.00	-5.23 %	$803,755.00	-15.23 %
2021	$0	$413,934.00	-7.23 %	$827,868.00	-19.23 %
2022	$0	$426,352.00	-9.23 %	$852,704.00	-23.23 %
2023	$0	$439,143.00	-11.23 %	$878,285.00	-27.23 %
2024	$0	$452,317.00	-13.23 %	$904,634.00	-31.23 %
2025	$0	$465,886.00	-15.23 %	$931,773.00	-35.23 %
Total:	**$0**	**$4,093,328.00**		**$8,186,656.00**	

Deficiency Summary by System

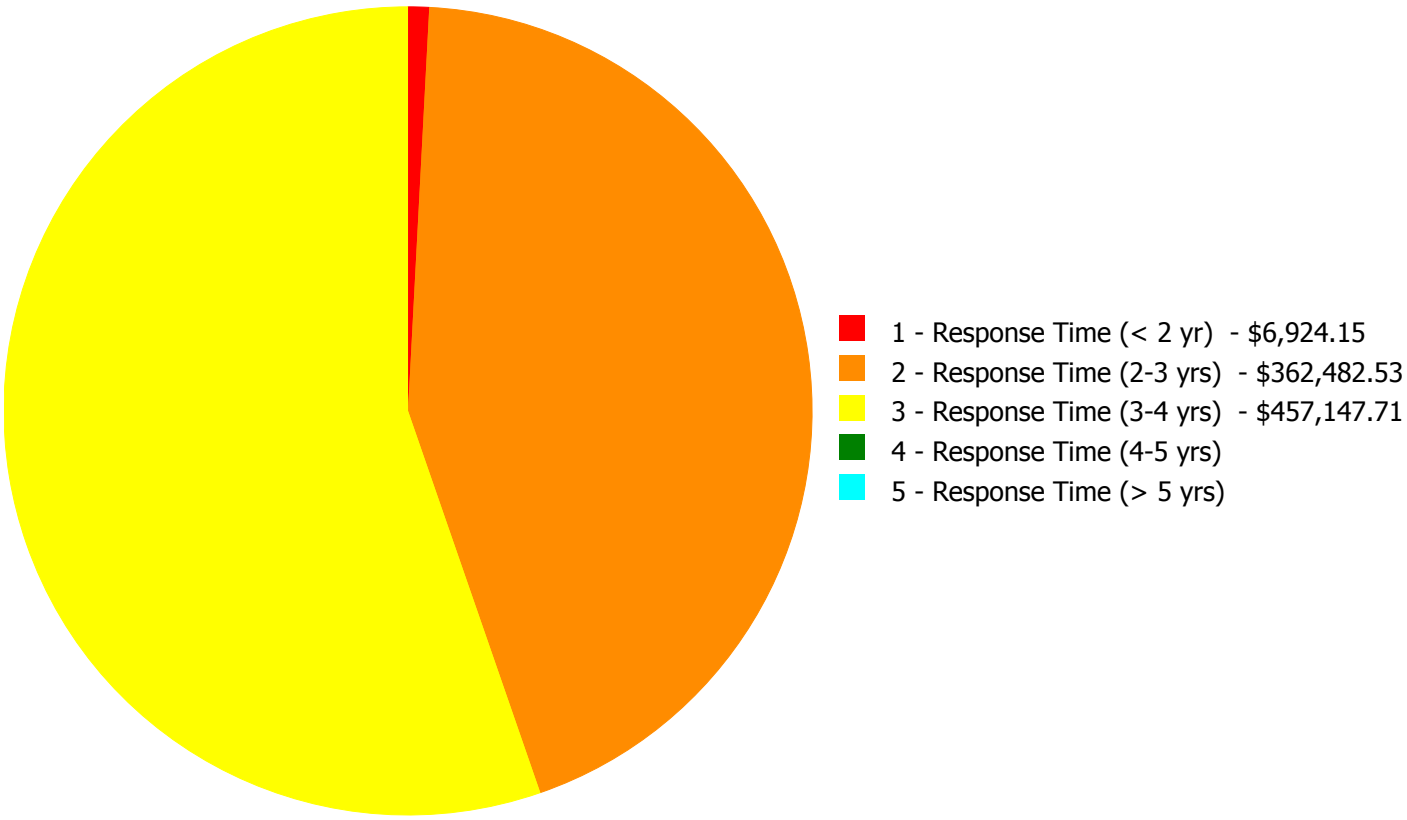
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $826,554.39

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: $826,554.39

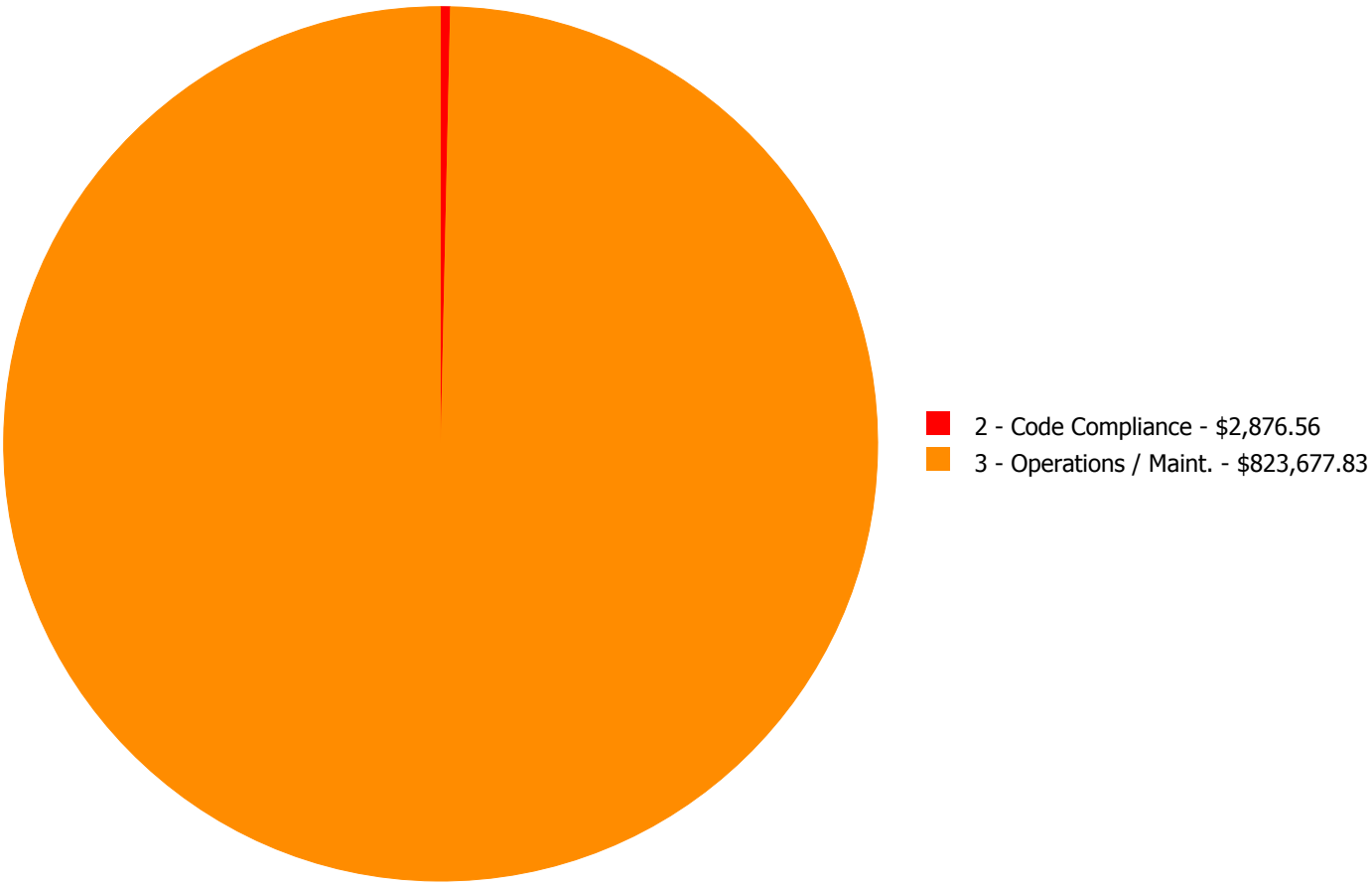
Deficiency By Priority Investment Table

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	$264,696.59	$457,147.71	$0.00	$0.00	$721,844.30
G2030	Pedestrian Paving	$6,924.15	$17,203.81	$0.00	$0.00	$0.00	$24,127.96
G2040	Site Development	$0.00	$80,582.13	$0.00	$0.00	$0.00	$80,582.13
	Total:	$6,924.15	$362,482.53	$457,147.71	$0.00	$0.00	$826,554.39

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: $826,554.39

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

Location: Rush - northwest corner of building

Distress: Damaged

Category: 3 - Operations / Maint.

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: 20.00

Unit of Measure: L.F.

Estimate: $6,924.15

Assessor Name: Steven Litman

Date Created: 12/18/2015

Notes: Replace guard railing at areaway at northwest corner of building (broken from car collision) (20 ft)

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

System: G2020 - Parking Lots

Location: Fitzpatrick - play area

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Fill pavement cracks and reseal parking lot - including striping - change the LF of crack repair if it is severe

Qty: 80,000.00

Unit of Measure: S.F.

Estimate: $115,638.48

Assessor Name: Steven Litman

Date Created: 12/23/2015

Notes: Fill cracks and sealcoat play area and faculty parking lot (80,000sf)

System: G2020 - Parking Lots

Location: Rush - parking lots

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Fill pavement cracks and reseal parking lot - including striping - change the LF of crack repair if it is severe

Qty: 58,000.00

Unit of Measure: S.F.

Estimate: $79,108.27

Assessor Name: Steven Litman

Date Created: 12/18/2015

Notes: Sealcoat right side (east) parking lot; 600ft crack fill; parking striping (58,000sf)

System: G2020 - Parking Lots

Location: Fitzpatrick Annex - parking lot

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Fill pavement cracks and reseal parking lot - including striping - change the LF of crack repair if it is severe

Qty: 30,000.00

Unit of Measure: S.F.

Estimate: $43,993.79

Assessor Name: Steven Litman

Date Created: 12/23/2015

Notes: Fill cracks and sealcoat Annex parking lot (30,000ft)

System: G2020 - Parking Lots

Location: Rush - roadways

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace curbing

Qty: 200.00

Unit of Measure: L.F.

Estimate: $15,713.73

Assessor Name: Steven Litman

Date Created: 12/18/2015

Notes: Replace damaged concrete curbing (200lf)

System: G2020 - Parking Lots

Location: Rush - loading dock
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and replace concrete paving
Qty: 300.00
Unit of Measure: S.F.
Estimate: $6,313.88
Assessor Name: Steven Litman
Date Created: 12/18/2015

Notes: Reconstruct loading dock surface to drain away from building (300sf)

System: G2020 - Parking Lots

Location: Fitzpatrick Annex - parking lot entrance
Distress: Inadequate
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and replace curbing
Qty: 50.00
Unit of Measure: L.F.
Estimate: $3,928.44
Assessor Name: Steven Litman
Date Created: 12/23/2015

Notes: Replace concrete cube bollards with concrete curbing (50ft)

System: G2030 - Pedestrian Paving

Location: Rush - stair down from Library parking lot

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Install an exterior ADA ramp - based on 5' wide by the linear foot - up to 84" rise - per LF of ramp - figure 1 LF of ramp per inch of rise

Qty: 15.00

Unit of Measure: L.F.

Estimate: $10,386.22

Assessor Name: Steven Litman

Date Created: 12/18/2015

Notes: Provide new handrails each side of 14 riser stair on north side of Library

System: G2030 - Pedestrian Paving

Location: Rush - stair down from Library parking lot

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Remove and replace concrete paving - pedestrian or parking - 8" concrete thickness

Qty: 150.00

Unit of Measure: S.F.

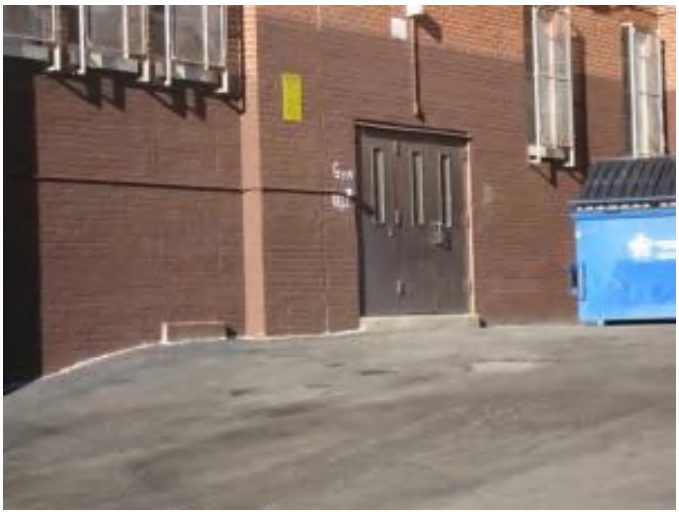
Estimate: $3,941.03

Assessor Name: Steven Litman

Date Created: 12/18/2015

Notes: Repair 14 riser stair on north side of Library building

System: G2030 - Pedestrian Paving



Location: Fitzpatrick - handicap sloped entrance

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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: 12/23/2015

Notes: Provide sloped walkways into main building to provide ADA handicap accessible access into building (100sf)

System: G2030 - Pedestrian Paving

Location: Fitzpatrick Annex - sloped walkway

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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: 12/23/2015

Notes: Provide sloped walkways into Annex to provide ADA handicap accessible access into building (100sf)

System: G2040 - Site Development

Location: Rush - front walks and walls

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Repair exterior brick retaining wall - per LF of wall - up to 4' tall

Qty: 100.00

Unit of Measure: L.F.

Estimate: $51,562.51

Assessor Name: Steven Litman

Date Created: 12/18/2015

Notes: Reconstruct failing, cracking, leaning brick walls along ramps, stairs, and planter into front of building (100ft)

System: G2040 - Site Development

Location: Fitzpatrick - regrading

Distress: Inadequate

Category: 3 - Operations / Maint.

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

Correction: Repair drepressed areas in parking or pedestrian paving caused by subrade subsidence - per SF base on approximately 100 SF or more

Qty: 3,000.00

Unit of Measure: S.F.

Estimate: $24,873.96

Assessor Name: Steven Litman

Date Created: 12/23/2015

Notes: Regrade depressed area, flooding in front of Main Building - improve drainage (3000sf)

System: G2040 - Site Development

Location: Fitzpatrick Annex - regrading

Distress: Inadequate

Category: 3 - Operations / Maint.

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

Correction: Repair drepressed areas in parking or pedestrian paving caused by subrade subsidence - per SF base on approximately 100 SF or more

Qty: 500.00

Unit of Measure: S.F.

Estimate: $4,145.66

Assessor Name: Steven Litman

Date Created: 12/23/2015

Notes: Regrade flooding grassy area at entrance to Annex from play area (1000sf)

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

System: G2020 - Parking Lots

Location: Rush - roadways

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Resurface parking lot - grind and resurface including striping

Qty: 34,000.00

Unit of Measure: S.F.

Estimate: $129,525.18

Assessor Name: Steven Litman

Date Created: 12/18/2015

Notes: Repave site roadways (34,000sf)

System: G2020 - Parking Lots

Location: Rush - parking lot

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Resurface parking lot - grind and resurface including striping

Qty: 28,000.00

Unit of Measure: S.F.

Estimate: $106,667.80

Assessor Name: Steven Litman

Date Created: 12/18/2015

Notes: Replace rear parking lot behind and adjacent to Annex (28,000sf)

System: G2020 - Parking Lots

Location: Rush - parking lot

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Resurface parking lot - grind and resurface including striping

Qty: 28,000.00

Unit of Measure: S.F.

Estimate: $106,667.80

Assessor Name: Steven Litman

Date Created: 12/18/2015

Notes: Repave damaged west parking lot (near Library) and access driveways with new asphalt; parking striping (28,000sf)

System: G2020 - Parking Lots

Location: Fitzpatrick - parking and delivery area

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Resurface parking lot - grind and resurface including striping

Qty: 20,000.00

Unit of Measure: S.F.

Estimate: $76,191.28

Assessor Name: Steven Litman

Date Created: 12/23/2015

Notes: Repave damaged areas of asphalt parking lot and play area with new asphalt (20,000sf)

System: G2020 - Parking Lots

Location: Fitzpatrick Annex - repaving

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Resurface parking lot - grind and resurface including striping

Qty: 10,000.00

Unit of Measure: S.F.

Estimate: $38,095.64

Assessor Name: Steven Litman

Date Created: 12/23/2015

Notes: Repave entrance to Annex parking lot (10,000sf)

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