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.

Meehan Middle School

Governance	DISTRICT	Report Type	Middle
Address	3001 Ryan Ave.	Enrollment	579
	Philadelphia, Pa 19152	Grade Range	'07-08'
Phone/Fax	215-335-5654 / 215-335-5992	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Meehan	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	**17.25%**	**$48,686,262**	**$282,314,385**
Building	24.36 %	$22,080,782	$90,641,722
Grounds	07.43 %	$1,845,596	$24,844,316

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	92.01 %	$2,844,635	$3,091,814
Exterior Walls (Shows condition of the structural condition of the exterior facade)	00.93 %	$72,328	$7,790,230
Windows (Shows functionality of exterior windows)	17.76 %	$676,000	$3,806,334
Exterior Doors (Shows condition of exterior doors)	78.70 %	$202,374	$257,157
Interior Doors (Classroom doors)	74.70 %	$457,343	$612,279
Interior Walls (Paint and Finishes)	09.37 %	$215,900	$2,304,210
Plumbing Fixtures	30.10 %	$735,344	$2,442,993
Boilers	25.78 %	$870,234	$3,375,698
Chillers/Cooling Towers	17.85 %	$790,009	$4,426,777
Radiators/Unit Ventilators/HVAC	31.46 %	$2,444,458	$7,769,821
Heating/Cooling Controls	162.52 %	$3,963,664	$2,438,911
Electrical Service and Distribution	113.67 %	$1,809,611	$1,591,925
Lighting	49.74 %	$2,834,545	$5,698,277
Communications and Security (Cameras, Pa System and Fire Alarm)	11.27 %	$240,518	$2,134,813

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

S801001;Lincoln, Meehan, and Field

Final

Site Assessment Report

January 31, 2017

PARSONS

Table of Contents

Site Executive Summary

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

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

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

Gross Area (SF):	509,522
Year Built:	
Last Renovation:	
Replacement Value:	$282,314,385
Repair Cost:	$48,686,262.39
Total FCI:	17.25 %
Total RSLI:	77.58 %

Description:

New Track and Field

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 2 / Tm 2
Status:	Accepted by SDP	Team:	Tm 2
Site ID:	S801001		

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	76.10 %	0.00 %	$0.00
A20 - Basement Construction	75.74 %	1.81 %	$120,497.75
A30 - Pool Construction	24.90 %	0.00 %	$0.00
B10 - Superstructure	74.63 %	1.49 %	$714,899.28
B20 - Exterior Enclosure	78.99 %	5.36 %	$1,885,980.31
B30 - Roofing	80.76 %	81.94 %	$10,188,578.46
C10 - Interior Construction	78.13 %	9.14 %	$1,094,088.71
C20 - Stairs	61.34 %	3.69 %	$42,099.92
C30 - Interior Finishes	67.14 %	7.08 %	$1,517,938.40
D10 - Conveying	50.59 %	0.00 %	$0.00
D20 - Plumbing	96.08 %	44.41 %	$4,385,208.14
D30 - HVAC	95.34 %	29.91 %	$15,378,315.12
D40 - Fire Protection	93.65 %	62.20 %	$2,471,257.28
D50 - Electrical	87.53 %	31.66 %	$8,616,880.95
E10 - Equipment	48.13 %	3.30 %	$283,125.98
E20 - Furnishings	54.98 %	4.80 %	$141,795.60
G20 - Site Improvements	38.69 %	10.11 %	$1,845,596.49
G40 - Site Electrical Utilities	80.00 %	0.00 %	$0.00
Totals:	**77.58 %**	**17.25 %**	**$48,686,262.39**

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)
B801001;Lincoln	260,200	6.02	$7,315,058.14	$289,211.27	$624,132.01	$0.00	$267,414.19
B801902;Lincoln Field - Locker Facility	18,529	55.67	$1,339,206.25	$2,841,743.75	$1,137,917.98	$24,473.55	$1,238,378.76
B801903;Lincoln Field - Pool House	10,000	87.10	$990,026.18	$1,074,207.54	$1,015,854.73	$145,007.25	$4,874,506.12
B801909;Lincoln Field - Stands, Toilet Facilities, Track, and Field	16,700	35.46	$616,595.97	$958,012.39	$8,137.95	$0.00	$0.00
B814001;Meehan	204,093	24.36	$8,044,025.50	$7,067,798.38	$3,114,365.02	$72,189.91	$3,782,403.06
G801001;Grounds	3,785,800	7.43	$848,454.35	$987,896.82	$9,245.32	$0.00	$0.00
Total:		**17.25**	**$19,153,366.39**	**$13,218,870.15**	**$5,909,653.01**	**$241,670.71**	**$10,162,702.13**

Deficiencies By Priority

- 1 - Response Time (< 2 yr) - $19,153,366.39
- 2 - Response Time (2-3 yrs) - $13,218,870.15
- 3 - Response Time (3-4 yrs) - $5,909,653.01
- 4 - Response Time (4-5 yrs) - $241,670.71
- 5 - Response Time (> 5 yrs) - $10,162,702.13

Budget Estimate Total: $48,686,262.39

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.

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Function:	High School
Gross Area (SF):	260,200
Year Built:	2009
Last Renovation:	
Replacement Value:	$141,243,380
Repair Cost:	$8,495,815.61
Total FCI:	6.02 %
Total RSLI:	82.61 %

Description:

Facility Condition Assessment

August 2015

School District of Philadelphia

Abraham Lincoln High School

3201 Ryan Avenue

Philadelphia, PA 19136

262,000sf; 1,586 students; LN 08

General

Abraham Lincoln High School is located at 3201 Ryan Avenue. This building was constructed on the site adjacent to the old high school which was demolished after this new facility was opened in 2009. This building has 262,000 square feet, and is mostly 1 story tall with a 2 story section. The main student entrance is set far back from Rowland Street and faces an open filed that fills the space previously occupied by the old school building. The building is comprised of 3 major elements with glass entrance vestibules at the intersections of the elements, connected to long

bright atrium corridors decreasing in width at the lines of element connection. Three courtyards are formed within each of the elements, letting daylight into the building. The Football Field House and the Locker Facility structures were built a few years after the original high school building in 1956 and still remain in use. The Pool House was constructed as an addition to the Locker Facility in 1974. It is used by the high school and by the community. With the construction of the new school building, the football field received a make-over receiving AstroTurf in the football field and the track surrounding the field. The faculty and visitor parking is broken into two lots, one accessed from Ryan Avenue and the other accessed from Rowland Street with a driveway passing by the Locker Facility. Connected to the High School building (and constructed at the same time) is a one-story Child Care Center with a separate exterior entrance and no internal connection to the high school. The general condition of this facility is similar to that of the main building and is in generally good condition. David Smith, the Building Engineer accompanied the team through the main high school building during the building inspections; Joe the Assistant Engineer led the team through the Locker Facility, Pool House and Stands.

Jack Nelson principal met with the team during the time of inspection. He had concerns relating to security. The site (in particular, the Ryan Street parking lot) cannot be closed to outsiders; cars travel through the parking lot to avoid the traffic light at Sackett Street. Even though parking is adequate for school days, parking for events is not adequate requiring off-site street parking for event attendees. There is no lighting on the football field which has led to vandalism on the Stands, Field House and the AstroTurf (fires have been set on the AstroTurf). Inside the building, the Principal believes that the benches along the corridor outside the cafeteria are sources of congestion and congregation of students impeding student movement, leading to scuffles. Students have damaged and broken (or been thrown into) the vision panels along the cafeteria corridor; safety glass is required in these vision panels. The HVAC system has growing operational problems with control valves failing on an increasing basis.

Architectural/Structural

Foundations were not seen as the building has no basements. The boilers, chillers, and electrical rooms are on the ground levels (first floors). With no serious settlement cracks observed in floors or bases of walls, it might be deduced that the foundations are stable and performing as designed.

Floor slabs in the first floor areas (on grade) are in good condition with minor cracks and movement seen in VCT at control joints between adjacent concrete slabs and columns, which is not unusual for slabs on grade. Concrete floors in the main building mechanical room and electrical rooms are also in good condition. Upper floor slab structures in the main building were not seen but are presumed to be constructed of poured concrete on metal deck on steel beams, since all roof decks are of similar steel beam and metal deck construction. There are some cracks forming on ground floor slabs along column control joint lines and “diamonds” around columns, telegraphing through and causing cracking of vinyl composition floor tiles (pictures 152, 158, 163). One stairway showed some small slab cracks at the second floor level and the intermediate platform. Since none of these floor cracks were seen to extend into the walls above, it might be concluded that these are simply minor settlement cracks without any serious structural implications. Additionally, since most of the VCT cracks seen were on the grade level slab and not the upper floor slab (except for the stairway), this is another good sign of relatively stable conditions with minor compression of the subbase below the concrete slab.

Roof system construction consists of metal deck on steel bar joists or beams on steel beams/girders supported by steel columns. There are many different roof levels which are accessed from a number of different roof hatches or roof stairs. All roofs are slightly pitched to form a slope to internal roof drains except for one roof pitched to openings in the parapet draining to scuppers and vertical leaders. There are air handlers, exhaust fans, gravity vents, and chillers located on the roof. Some of the rooftop equipment is closer than 10’ from the edge of the roof, which is not allowed by the building code without a 42” high guard rail for protection or fall protection device clips located around the equipment. The two main entrance vestibules project up above the main roof, creating small flat roof areas and walls requiring flashing. Over the cafeteria is an unusual shaped “V” roof with clerestory glass on the high sides, letting light down into the cafeteria. These vertically projected elements create some very small and narrow pockets and isolated areas that are difficult to access and yet require frequent inspection to ensure water tight flashing details and removal of debris (mostly balls, bottles, etc.). These elements with walls above the roof in conjunction with the large number of rooftop equipment, create and many areas of flashing, counterflashing and reglet maintenance.

Exterior walls are constructed of three different systems. Foam core insulated metal siding with a satin aluminum panel finish, corrugated metal siding also with a satin aluminum finish, and brick. Buff brick is used throughout most building elevations between windows and on corners. Yellow glazed brick is used as an accent between windows and on some smaller elements. Slate blue/gray brick is used on the rear elevation walls as a corner accent and all around the building below the windows as a foundation element. The slate brick also carries into the main concrete sidewalk in the front of the building. These all combine with a clear anodized aluminum insulated window system (discussed below). Having been constructed in 2007-2009, these four systems are not old enough to be failing assuming a quality installation and in fact are still in good condition with no deficiencies noted. Masonry grout joints and caulked metal panel joints are still tight with no visible failures observed in the inspection.

Exterior windows building consist of double pane insulated glazing in clear anodized aluminum curtainwall system frames. Window units are triple stacked with louvers underneath for fresh air intake for univents under each window. First floor glazing units have black, fine mesh security screens that might also function as bug screens, which do not detract from the appearance of the building. Stair towers located on the exterior

have full height glass without screens. The outside pane of one of the glazing units in Stairway 1 was observed to be broken; the inside pane still seemed to be intact. Also, in Stairway 4, one of the inside covers of the aluminum tube system frames was missing. Gaskets in all units appeared to be intact and windows appeared to be in good condition. Building entrances are all constructed of full height clear glass letting in copious amounts of light into the atrium corridors inside. The main entrance vestibule is a tall element that terminates into the 2nd floor roof, calling attention to the main entrance. There is a glass greenhouse the size of a double classroom in the front of the building on the left side; it is actively utilized by students for project work. The corridor across from the cafeteria has full height windows facing the courtyard. Aluminum tube frame corners do not seal properly, at the tops of the entrance vestibules where those elements meet the roof coping; there are gaps and openings where rain and snow can enter the wall cavity below. These areas need to

Exterior doors are either dark brown flush textured FRP units with aluminum door frames where exiting from mechanical/utility areas or exit stairways or clear anodized aluminum framed full height glass units where located in vestibules or other personnel entrance/exits. Vestibule glass is insulated whereas door glass is single pane. The corridor opposite the cafeteria and the main entrance atrium have pairs of full height glass and aluminum doors for access to the courtyard. The main entrances to the building are ADA accessible, have power actuated door operators, and have a curb cuts at the driveway outside the doors. The service entrance to the mechanical area has a gray painted roll-up door and a double 3x7 personnel door, both located at grade level. All doors are in good condition with no major deficiencies noted.

Roof coverings on the flat roofs consist of a fully adhered rolled asphalt sheet system with light gray ceramic granules impregnated into the membrane surface. Flashing is fully adhered granule-impregnated sheets, the same as the roofing membrane, adhered to the roof membrane and terminated under the clear anodized aluminum coping or steel equipment flashing where equipment is roof mounted. Coping is between 24" and 12" above the roof deck depending on the slope of the roof deck. As required by code, all roof drains have corresponding overflow drains immediately adjacent, with the drainage bowl located a couple inches higher than the roof drain inlet bowl. Along one of the roof decks, where roof drains are adjacent to the low parapet wall, overflow scuppers provide overflow protection, as allowed by code. The entire roof membrane is demonstrating serious delamination, bubbling, and adhesion failure. Long wrinkles in the membrane surface are numerous, areas of open roofing have been patched and many mechanical equipment curbs and parapets have been repaired with asphaltic mastic. Although there are no reported leaks, the roof membrane is failing and in poor condition considering it's 8 year old age. The building engineer has already contacted the roofing contractor with whom they have the warranty, but since no leaks were found, the membrane was not deemed by the contractor to be failing; additional effort needs to be undertaken to repair the membrane before numerous leaks and membrane detachment occurs. Roof openings include toilet room vents, ventilation ductwork, exhaust fans, and roof drains with overflows, all with the appropriate fully adhered granule impregnated flashing system; many of these penetrations have been patched and mopped with extra mastic, indicating problems with the flashings. Counterflashing is missing in locations where roof coping meets walls and along brick. Isolated areas of roof deck and vertical intersections on the roof have a fully adhered black EPDM (ethylene propylene diene monomer, aka "rubber") membrane to provide protection in lieu of asphaltic flashing; this is found on the sides of the cafeteria clerestory; around the base of the upper glass entrance atrium where it terminates along the roofline, and up and over the roof expansion joints. This system is an appropriate, flexible, and durable material that is well-suited for odd shaped, high movement, small areas (it is also a long-lasting durable solution for an entire roof.) Roof overflow inlets have gratings, matching main roof drains. Aluminum coping used on the tops walls is factory painted light gray very closely matching the satin-finish aluminum wall panels and window framing.

Partitions in the classrooms, offices, cafeteria, library, and other special rooms are mostly painted block partitions. Some walls separating adjacent classrooms or enclosing ducts, pipes, or columns in chase walls, are gypsum board on metal studs. Walls in the Child Care Center are gypsum board on metal stud. Most gypsum board enclosures in the main school building are damaged from desks and chairs rubbing into the wall surfaces; these walls require spackling and painting repairs. Walls in the Child Care Center are in good condition with some isolated areas of damage that require spackling and repainting. The auditorium has block walls with the first 20 (approximately) courses set on the diagonal creating a pattern of angles designed to diffuse sound and reduce reverberation in the auditorium. Wood panels are also used for visual accent and sound reverberation reduction. The gymnasium is constructed of block partitions with approximately 6 courses of acoustical block under the windows located below the roof. Corridors are generally painted block or yellow glazed accents blocks at classroom doorways, stairways, lobbies, cafeteria, auditorium, and gymnasium. There is a large vision panel grouping in the cafeteria wall facing the corridor adjacent to the courtyard. Some of the glass lites are not safety glass or plexiglass. Glass units have broken by students due to vandalism and fights; this vision panel grouping now has glass, safety glass and plexiglass. All units need to be constructed of safety glass, preferable laminated glass. Vision panels in the Child Care Center corridor are not safety or laminated glass and should be replaced with laminated glass to minimize chance of breakage and to comply with code. All block walls are in good condition. Toilet rooms have painted block walls with ceramic tile on plumbing walls and cove bases at floors. There is graffiti in some toilet rooms which has visually damaged wall surfaces but not the integrity of the block; these walls should be repainted. A few classrooms have acoustical accordion partitions that are used to divide larger classrooms into smaller spaces; they are in good condition and occasionally utilized by teachers.

Interior doors on stairways, classrooms, offices, and specialized rooms are solid core oak veneer wood. Classrooms, corridors, and stairways have narrow lite wired glass vision panels; the auditorium, storage rooms, mechanical rooms, and toilet rooms have solid doors without vision panels; some office doors are half-glass. Most doors are generally in good condition throughout the building and with continued good care and maintenance should last a long time; the doors that have minor scratches and damages should be repaired. However the wood doors in the mechanical area that have delaminated and have surface and edge damages from impact and general use should be replaced with hollow metal

doors for more durability, as there are already some hollow metal doors in the mechanical area and a few other storage or mechanical rooms throughout the building. Classroom and office doors already have lever locksets with updated security locking feature that allows for locking from inside the room. Some exit hardware in stairways needs adjustment to improve closing and latching operations.

Fittings include whiteboards attached to one wall and tackboards attached to another wall in each classroom. Smartboards are mounted in front of whiteboards in some classrooms and on other walls in other classrooms. Toilet room partitions are solid plastic partitions and doors; some had graffiti. Since these partitions cannot be painted, they should be cleaned or refinished according to manufacturer's instructions. Toilet room accessories (toilet paper dispensers, soap, paper towel or dryers, grab bars, door latches) are located in all toilet rooms; some were missing or broken. Toilet rooms are ADA compliant with grab bars, wrist-blade faucets and other accessible toilet room accessories where required in compliance with today's building codes and accessibility requirements. The library has book cases and areas with fabric chairs and tables for reading. Classrooms have minimal built –ins, but instead have metal shelving and storage cabinets where needed. Specialized rooms like the music rooms have wood veneer and plastic laminate counters. Chemistry labs have chemresin counter tops with oak cabinets and chemical resistant plastic laminate desks and tables; there is one chemical fume hood and one safety shower in each lab. Art rooms have oak tables and plastic laminate counters. Horticulture has metal shelving, miscellaneous equipment, and portable tables scattered throughout the room. A large greenhouse is connected to an exterior door in the horticulture room. The auditorium has a production booth in the rear with a large multi-channel sound mixing board and DVR/video mixing system.

Stairs are concrete filled treads, steel risers, and steel stringers with painted steel handrails 36" high, steel guards 42" high and steel balusters with mesh or 4" maximum spacing complying with today's building codes. Steel handrails and guards need to be repainted. Treads, landings, and platforms are exposed sealed concrete that is in need of cleaning and painting.

Wall finishes consist of painted block or gypsum board. Concrete block walls are generally in good condition. Classrooms have a combination of block and gypsum board partitions. Where desks are adjacent to gypsum board, there is surface damage which should be spackled and repainted.

Floors consist mostly of 12"x12" vinyl composition tile (VCT) in classrooms, offices, corridors, the auditorium, and the cafeteria. There are a number of cracks in VCT surfaces on ground floor corridors along column control joints that cross the corridors. In removing these tiles for repair, the slab should be studied to ascertain if there is a settlement problem. The library, and some offices have glued-down carpet. The auditorium has VCT under seating and carpet in the aisles; carpeting is in fair condition and should be cleaned as part of maintenance. The stage in the auditorium has an oak floor as does the TV/media rooms near the auditorium. Toilet rooms have ceramic mosaic tile floors, all in good condition and in need of a thorough cleaning. Art and Horticulture rooms have sealed concrete floor finishes, which are very dirty from the materials ground into the floor in normal use. The slabs in these two rooms should be stripped, cleaned and refinished with a more cleanable industrial epoxy or urethane floor system. The gymnasium floor is an oak plank floor in good condition. The kitchen has quarry tile, which is highly durable and in good condition. The cafeteria and the two atria leading from the two building entrances are VCT. The main surfaces are in good condition, however there are cracks at almost every column control joint and column isolation joint due to minor slab settlement; similar cracking and settling was observed in other corridors around the building. Tiles in cracked areas should be removed, the slab flashpatched to level the surface, then refinished with new VCT. Building entrances used by students and guests have recessed traffic mats. They are all beginning to show signs of wear and detachment from the slab below; they should be removed and re-secured or replaced with new traffic mats.

Classrooms and general classroom corridors have 2x4 suspended acoustical tile ceiling system with recessed 2x4 fluorescent lighting fixtures. Most 2x4 ceilings and lighting fixtures are in good condition and spaces are bright due to good lighting and many windows. The auditorium has a black-painted ceiling cavity and white, convex-shaped, suspended gypsum board ceiling "clouds", which allows for placement of lighting between the clouds while serving to provide some sound diffusion in the space. The library (IMC), gymnasium, cafeteria, and two main atrium areas (adjacent to two main building entrances) exposed metal deck and steel bar joints ceilings with suspended industrial metal halide lighting fixtures. Whereas this ceiling and lighting system works well in tall spaces like the gym and atria, it is not effective in the cafeteria where food is served and color is important. Additionally, in all spaces where these fixtures are utilized, many are not working or burning out, providing skewed colored lighting in the space. Alternate forms of lighting should be provided in the cafeteria and regular maintenance should be provided or fixture replacement should be considered in other spaces with this lighting.

Furnishings include light oak plywood veneer folding seating for almost 1200 people in the auditorium. Spaces for wheelchairs are located in various locations throughout the seating layout. Seating finish and operation seem to be in good condition. Steel student lockers are built into corridor niches throughout the building and appear to be in good condition.

There is a one, two-stop 2500 lb. capacity hydraulic elevator is present in this high school building. It is finished with stainless steel walls and doors and in good condition. Operation is by key activation. Backup electrical power is provided to the elevator. The two main front doors into the building are the ADA accessible, with handicap parking spaces located in two parking areas outside both entrance doors.

Mechanical

Plumbing Fixtures – The building is equipped with wall hung urinals wall hung water closets (flush valve type), and wall hung lavatories with wheel handle faucets, of which many of the original plumbing fixtures remain in service. The fixtures are part of the original building construction of 2009 and do not need to be replaced. The bathrooms were equipped with floor drains.

Throughout the school there high/low ADA compliant self-contained electric drinking fountains are located in the corridors and in the vicinity of large bathroom groups. Floor drains are also located by the electric water coolers. Drinking fountains are also located in the Cafeteria and the Gymnasium. The fixtures are part of the original building construction of 2009 and do not need to be replaced.

Floor set mop/service sinks are original and are available throughout the building for use by the janitorial staff. Service sinks are typically throughout the building and are generally not located in the vicinity of bathrooms. The fixtures are part of the original building construction of 2009 and do not need to 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 grease trap located below the floor and is accessible by a floor access panel. The kitchen is also equipped with a hand sink. In addition, there are single compartment and double compartment sinks within the kitchen which have indirect discharge into floor sinks. The triple wash sink (with lever handles) and hand sink (with lever handles) show signs of normal usage. The grease interceptor was not be inspected or accessed at the time of the survey access was limited due to use. Chemicals are injected manually into the sanitizing basin.

Domestic Water Distribution – It appears that the 6" domestic water service piping is mostly soldered copper. Water service enters the building on the ground level, from Ryan Avenue, with double check backflow preventer (RPZA – reduced pressure zone assembly) and a 4" water meter on the main line upon entering the building. There are three water meters which serve the school property from Ryan Avenue; one for the school and two which serve the fieldhouse and the pool. The backflow preventer and water meter appear to be new. The piping is copper with soldered joints. A separate RPZA backflow preventer serves the cold water make up line for the heating water system. Also, a separate RPZA backflow preventer serves the cold water make up line for the chilled water system

There are three instantaneous type natural gas fired water heaters, AO Smith model AT10710-100 (minimum input 24,000 btuh, maximum 240,000 btuh) which serve the facilities restrooms with 120 degree supply water. Provision have been mad to add two additional heaters in the future which already have the points of connections installed as well as the flues. The kitchen is served by two instantaneous type natural gas fired water heaters, Takagi model TK-3 (minimum input 11,000 btuh, maximum 199,000 btuh), which serve the kitchen with 140 degree supply water. All are located in the boiler mechanical equipment room. The hot water system is equipped with inline recirculation pumps to serve the water heaters. The water heater appears to be in satisfactory condition, were installed as part of the 2009 construction and do not need to be replaced.

Sanitary Waste - The sanitary waste piping system in the building consists of no hub, cast iron piping. The sanitary system leaves the building by gravity flow.

Rain Water Drainage - The rain water drains from the roof are routed through mechanical chases in the building and connect to the underground site drainage system. Some of the roof areas are equipped with a secondary roof drain overflow system while other roof areas have scuppers in the parapet.

Energy Supply - Duplex fuel oil supply pumps provide the required fuel to the boilers when operating on fuel oil. The 20,000 gallon, double wall, fuel storage tank is located below ground which was installed in 2009. The fuel pumps and controls were installed as well in 2009 and will not need to be replaced for 15 – 20 years. An 8" natural gas service enters the building on the ground level near the loading dock entry. The natural gas main is welded, black steel piping while the branches are threaded, black steel.

Heat Generating Systems – The three heating water boilers serve the heating needs for the building. Heating water is generated by three, 350 HP Easco, model FST 350W030, with dual fuel burners. All boilers are equipped with IF-16-GO-75.These appear to be low NOx burners. 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 2009 and will not need to be replaced for 30 – 35 years. There is draft control on all 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 primary pumps consist of four pumps, P-10, 11, 12 and 13, which are Bell & Gossett, base mounted end suction, constant volume, 1200 gpm, 50 ft head, 20 HP, 1200 rpm. The heating water secondary pumps consist of three pumps, P-14, 15 and 16, which are Bell & Gossett, base mounted end suction, 1200 gpm, 150 ft head, 60 HP, 1800 rpm with variable speed drives.

Cooling Generating Systems – Adjacent to the boiler mechanical equipment room is the mechanical equipment room which houses the building chillers. There are two 500 nominal tonnage McQuay centrifugal chillers, model WSC (evaporator E3112CF2-B, condenser C30128LYY2-B), R134a. The chillers are served by a two cell roof mounted Evapco, induced draft, counterflow cooling tower, model USS 224-018, nominal tonnage 1051

tons.

The chilled water primary pumps consist of four pumps, P-1, 2 and 3, which are Bell & Gossett, base mounted end suction, constant volume, 1200 gpm, 50 ft head, 20 HP, 1200 rpm. The chilled water secondary pumps consist of three pumps, P-4, 5 and 6, which are Bell & Gossett, base mounted end suction, 1200 gpm, 150 ft head, 60 HP, 1800 rpm with variable speed drives.

The condenser water pumps consist of three pumps, P-7, 8, and 9, which are Bell & Gossett, vertical split case, constant volume, 1500 gpm, 60 ft head, 40 HP, 1200 rpm

Distribution Systems – The building heating, chilled and condenser water distribution piping is black steel with welded fittings. The piping was installed during the 2009 construction and does not need to be replaced.

The building uses unit ventilators with heating and cooling coils in the classrooms. Generally vertical unit ventilators are located at the building perimeter walls of the classrooms for the classroom with an exterior exposed wall. For the interior spaces horizontal fan coils (mounted above the acoustical ceiling) serves these areas.

There are twelve main rooftop unit systems which serve the facility. AHU-1, 2 and 3 are equipped heating and cooling coils as well as an energy recovery section. These three units provide outside air ventilation to the classrooms via ducted supply and return air to the energy recovery section. AHU-4 is equipped with heating and cooling coils and serves the Administrative Offices via ducted supply and return. There are reheat coils in the supply ductwork for the reheat zone control of the spaces. AHU-5 is equipped with heating and cooling coils as well as an energy recovery section and serves the Cafeteria via ducted supply and return air to the energy recovery section. AHU-6 is equipped with heating and cooling coils as well as an energy recovery section and serves the Auditorium via ducted supply and return air to the energy recovery section. AHU-7 is equipped with heating and cooling coils and serves the Day Care via ducted supply and return. There are reheat coils in the supply ductwork for the reheat zone control of the spaces. AHU-8 is equipped with heating and cooling coils and serves Music via ducted supply and return air. There are reheat coils in the supply ductwork for the reheat zone control of the spaces. AHU-9 and 10 are equipped with heating and cooling coils as well as an energy recovery section and serves the Gymnasium via ducted supply and return air to the energy recovery section. AHU-11 is equipped with heating and cooling coils as well as an energy recovery section and serves the Fitness Center Gymnasium via ducted supply and return air to the energy recovery section. AHU-12 is equipped with heating and cooling coils as well as an energy recovery section and serves the Lockers via ducted supply and return air to the energy recovery section In addition, exhaust fans provide relief from the spaces to maintain the proper building pressurization. These systems were installed under the new building construction in 2009 do not need to be replaced for 25 to 30 years.

The kitchen hood is served by a makeup air unit manufactured by Captive Aire, model A3-I 700-918 and an upblast exhaust fan, Captive Aire model NCA 36 HPFA.

Terminal & Package Units - There are roof mounted exhaust fans which serve the restrooms. Roof mounted exhaust fans also provide relief for AHUs to maintain the building's proper pressurization relationship to the outdoors. Roof mounted utility exhaust fans serve the science laboratory fume hoods. Other roof mounted exhaust fans also serve select areas such as the kiln area and electrical rooms. Cabinet unit heaters and fin tube radiation units serve to buffer areas which are exposed to the outdoors such as entryways. Ten split system AC units serve IDF rooms and select electrical closets.

Controls & Instrumentation – the control system is DDC. The boilers, chillers, pumps, unit ventilators, fan coils, exhaust fans control a Honeywell DDC system provides the control and monitoring. Pneumatic control supply air is provided by an Ingersoll Rand 80 gallon vertical tank, model 2475, simplex compressor and air dryer located in the boiler room, which generates control air for the pneumatic components of temperature control system.

A new building automation system (BAS) with modern DDC modules and communications network has been installed when the building was constructed in 2009 to control and monitor the central plan equipment.

Sprinklers - The building is covered fully by an automatic sprinkler system.

Electrical

Site Electrical Service comes from medium voltage overhead lines on wooden poles along Ryan St. The main service switchgear, located in the Main Electrical Room, receives power from an overhead pole via an underground raceway. The main service switchgear is 1200A rated, consisting of an incoming section, a section for current and potential transformers, and two branch feeder sections with 600A medium voltage load interrupter. Each medium voltage load interrupter feeds a unit substation (USB-A/USB-B). A utility meter is installed in a separate enclosure adjacent to the switchgear assembly. Each unit substation consist of a 600A medium voltage load interrupter, a dry type transformer rated at

2500KVA, 13200V to 480/277V, 3PH, 4 wires and a 3000A, 480/277 rated distribution switchboard. USB-A is located in the Main Electrical Room and the USB-B Generator Room. Unit Substation USB-A feeds chillers, boilers, chilled water pumps, hot water pumps and four, 400A distribution panel boards. Unit Substation USB-B feeds seven other 400A rated distribution panel boards. One 150KVAR capacitor bank is installed for the system power factor correction.

There are eleven distribution panel boards throughout the campus that feeds lighting panels directly and power panels via step down transformers sized 15KVA to 225KVA for converting 480V to 120/208V power. Distribution panels, transformers, and panel boards are placed in various electrical rooms throughout the campus

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

Interior building spaces are illuminated by various types of lighting fixtures. Recessed 2x4 fluorescent fixtures with T8 lamps are used in classrooms and offices. In corridors, 1x4 surface mounted fixtures are used. The high ceiling entrance hall, dining area, and gymnasium are illuminated by pendent mounted metal halide fixtures. In general these fixtures have high energy consumption and are difficult to re-lamp. Lighting systems are controlled by a centralized lighting computer that is connected to the school LAN system to allow remote access for programming and monitoring. Lighting fixtures are in general well maintained and the illumination levels are sufficient in accordance with today's lighting standards.

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

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 in the building. The School is also equipped with a WI-FI system.

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

Each classroom 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.

Clock and program system are working adequately. Classrooms are provided with 12 inch diameter, wall mounted, round clocks. The clocks are controlled by central master control panel. The master control is also programmed for class change.

Television system (CATV) is provided in the school. All classrooms, the cafeteria, and the school entrance hall have CATV outlets with access for smart boards and computers to connect to the internet.

The school has a video surveillance system. A sufficient number of cameras are installed at exit doors, corridors and other critical areas, controlled by a Closed Circuit Television system (CCTV). The system is working properly.

Emergency Power System (backup power generator) is provided in the school. A 500KW, 480/277V, 3PH, 4W diesel generator manufactured by "Kohler" is installed in the boiler room for feeding the elevator, life safety functions such as lighting, exit signs and other critical emergency loads. The generator is new and in very good condition.

An Uninterruptible Power System (UPS) is provided for the IT racks.

Emergency lighting and exit lighting, is provided in corridors, library, auditorium, and exit ways, fed by the emergency backup generator. All exit signs are equipped with batteries and fed by emergency power.

There is no lightning protection system installed in the school. A Risk Assessment Study needs to be conducted to verify if lightning protection system is required to be provided for the school.

A Grounding system is provided.

A 20 horsepower rated hydraulic type elevator, manufactured by ThyssenKrupp elevator is in operation at the school. The elevator appears to be working properly.

Campus areas, parking areas, and building perimeters have lighting that is adequate for personnel safety and security of property.

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

Site paging system appears to have a sufficient number of speakers located on building exterior walls and appears to be working adequately.

Stage lighting is provided 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 fluorescent lighting is also provided in stage area for lectures and testing. Supplemental lighting can be turned off by a dimmer bank during performances.

A sound system is provided in school auditorium.

Grounds

Front, side and rear concrete walkways are generally in good condition. There are some cracked concrete panels, requiring replacement.

Asphalt parking areas in the front of the main building facing Rowland Avenue and the side facing Ryan Avenue have some broken areas requiring patching and other sections that are developing small cracks requiring crack filling. There are some broken pavement areas in the rear near the service entrance. After patching and crack repairs, all asphalt surfaces should be sealed to minimize asphalt surface degredation. All areas should then receive new striping. ADA accessible parking spaces are provided in the front and Ryan Avenue lots, as close as possible to the main entrance doors. Curb cuts are provided to allow for wheelchair access to front sidewalks; entrances do not require ramps since they are already at grade level. The number of required parking spaces for school staff and faculty is unknown, but the Principal indicated no problems with respect to faculty parking. He did mention that there were not enough spaces for event parking and that cars are then required to park on side streets. If additional parking is to be provided, some of the athletic field space in the front yard would need to be sacrificed.

Parking for the Locker Facility and Pool House is in fair condition with some cracks requiring filling.

The football field and track surrounding the field are constructed of AstroTurf. There are two new burned areas and at least 16 old patched areas on the football field. There are areas of graffiti on the track, requiring cleaning if possible. The 4ft high fence around the track needs to be repainted. Poor visibility from the street and lack of site lighting has contributed to allowing vandalism to occur on this high-cost field and track.

A site fence with gates and full closure is not provided around the property. A 10ft high chain link fence constructed of rusted galvanized steel is located around parts of the property, however sections are missing and full closure is not provided. It is possible that the fence was installed around the old building with new sections possibly added with the construction of the new high school in 2009, but this could not be confirmed. If a full site fence is desired, it would be over 7000 feet long

RECOMMENDATIONS

Architectural

Clean and reseal/repaint concrete floor slab mechanical rooms, art room, horticulture room, and stairs (24,000sf)

Replace built-up roof over entire building; include fall protection devices @ mech. equip. (215,000sf)

Replace broken insulated window glazing unit in Stairway 1 (15sf)

Replace missing aluminum mullion cover in Stairway 4 (5lf)

Provide extension of mullion covers with base flashing at roof level of entrance vestibules (40sf)

Replace vision panel glazing along cafeteria wall with laminated safety glazing in existing aluminum frames - (8) 72” x 80” units with 4 subdivisions (mullions)

Repaint hollow metal door frames (40) 3’x7’

Refinish oak doors where damaged (10 doors)

Repair cracks in VCT floors at exit doors, along expansion joints, and column line control joints in corridors and cafeteria– replace VCT (2000sf)

Replace traffic mat at main personnel entrances (250sf)

Repair and repaint damaged gypsum board from accidental impact in classrooms, - 40 areas 100sf each.

Repaint toilet room walls after graffiti is removed (4 toilet rooms @ 1000sf each = 3000sf)

Replace damaged/graffiti covered toilet partitions (8 toilet partitions)

Replace missing or broken toilet room accessories (10 mirrors and 2soap dispensers, 2 paper towel dispensers estimated)

Replace handrail/guard at rear exit stair near auditorium (5ft)

Repaint stairway handrails and guards (200lf)

Mechanical

Provide training for facility operating personnel on the mechanical systems and the DDC systems.

Provide retro-commissioning on the building HVAC systems.

Electrical

Provide lightning protection studies to ascertain adequacy of existing systems.

Replace all halide lighting fixtures with LED high bay lighting fixtures. Estimated 300 each

Grounds

Repave damaged sections of concrete walkway in front of building (200sf)

Fill cracks in asphalt parking lot (1000ft)

Patch asphalt paving (1000sf)

Restripe parking lots (280 spaces + 9 HC)

Provide gates for parking lot entrance facing Sackett Street (2) 24ft gates

Replace/provide site fence around entire property (7000ft)

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B801001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S801001		

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	94.00 %	0.00 %	$0.00
A20 - Basement Construction	94.00 %	0.00 %	$0.00
B10 - Superstructure	94.00 %	0.09 %	$23,964.19
B20 - Exterior Enclosure	90.26 %	0.30 %	$55,495.52
B30 - Roofing	70.02 %	89.49 %	$7,286,344.19
C10 - Interior Construction	91.84 %	0.68 %	$48,819.16
C20 - Stairs	90.52 %	1.36 %	$5,574.10
C30 - Interior Finishes	68.48 %	1.28 %	$156,385.53
D10 - Conveying	82.86 %	0.00 %	$0.00
D20 - Plumbing	81.64 %	0.00 %	$0.00
D30 - HVAC	76.68 %	0.92 %	$267,414.19
D40 - Fire Protection	82.86 %	0.00 %	$0.00
D50 - Electrical	69.68 %	4.26 %	$651,818.73
E10 - Equipment	82.86 %	0.00 %	$0.00
E20 - Furnishings	85.00 %	0.00 %	$0.00
Totals:	**82.61 %**	**6.02 %**	**$8,495,815.61**

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.	260,200	100	2009	2109		94.00 %	0.00 %	94			$7,103,460
A1030	Slab on Grade	$5.17	S.F.	260,200	100	2009	2109		94.00 %	0.00 %	94			$1,345,234
A2010	Basement Excavation	$4.36	S.F.	260,200	100	2009	2109		94.00 %	0.00 %	94			$1,134,472
A2020	Basement Walls	$9.91	S.F.	260,200	100	2009	2109		94.00 %	0.00 %	94			$2,578,582
B1010	Floor Construction	$85.34	S.F.	260,200	100	2009	2109		94.00 %	0.11 %	94		$23,964.19	$22,205,468
B1020	Roof Construction	$14.39	S.F.	260,200	100	2009	2109		94.00 %	0.00 %	94			$3,744,278
B2010	Exterior Walls	$43.20	S.F.	260,200	100	2009	2109		94.00 %	0.00 %	94			$11,240,640
B2020	Exterior Windows	$27.52	S.F.	260,200	40	2009	2049		85.00 %	0.78 %	34		$55,495.52	$7,160,704
B2030	Exterior Doors	$1.16	S.F.	260,200	25	2009	2034		76.00 %	0.00 %	19			$301,832
B3010105	Built-Up	$37.76	S.F.	215,000	20	2009	2029		70.00 %	89.73 %	14		$7,284,632.36	$8,118,400
B3010120	Single Ply Membrane	$38.73	S.F.	200	20	2009	2029		70.00 %	22.10 %	14		$1,711.83	$7,746
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	$0.06	S.F.	260,200	30	2009	2039		80.00 %	0.00 %	24			$15,612
C1010	Partitions	$21.05	S.F.	260,200	100	2009	2109		94.00 %	0.00 %	94			$5,477,210
C1020	Interior Doors	$3.76	S.F.	260,200	40	2009	2049		85.00 %	2.34 %	34		$22,856.70	$978,352
C1030	Fittings	$2.90	S.F.	260,200	40	2009	2049		85.00 %	3.44 %	34		$25,962.46	$754,580
C2010	Stair Construction	$1.18	S.F.	260,200	100	2009	2109		94.00 %	1.82 %	94		$5,574.10	$307,036

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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 $
C2020	Stair Finishes	$0.39	S.F.	260,200	30	2009	2039		80.00 %	0.00 %	24			$101,478
C3010230	Paint & Covering	$13.21	S.F.	260,200	10	2009	2019	2020	50.00 %	1.17 %	5		$40,081.67	$3,437,242
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.	10,000	10	2009	2019	2020	50.00 %	0.00 %	5			$73,000
C3020412	Terrazzo & Tile	$75.52	S.F.	10,700	50	2009	2059		88.00 %	0.00 %	44			$808,064
C3020413	Vinyl Flooring	$9.68	S.F.	186,500	20	2009	2029		70.00 %	1.33 %	14		$24,035.06	$1,805,320
C3020414	Wood Flooring	$22.27	S.F.	29,000	25	2009	2034		76.00 %	0.00 %	19			$645,830
C3020415	Concrete Floor Finishes	$0.97	S.F.	24,000	50	2009	2059		88.00 %	396.34 %	44		$92,268.80	$23,280
C3030	Ceiling Finishes	$20.97	S.F.	260,200	25	2009	2034		76.00 %	0.00 %	19			$5,456,394
D1010	Elevators and Lifts	$1.28	S.F.	260,200	35	2009	2044		82.86 %	0.00 %	29			$333,056
D2010	Plumbing Fixtures	$13.52	S.F.	260,200	35	2009	2044		82.86 %	0.00 %	29			$3,517,904
D2020	Domestic Water Distribution	$1.68	S.F.	260,200	25	2009	2034		76.00 %	0.00 %	19			$437,136
D2030	Sanitary Waste	$2.32	S.F.	260,200	30	2009	2039		80.00 %	0.00 %	24			$603,664
D2040	Rain Water Drainage	$1.90	S.F.	260,200	30	2009	2039		80.00 %	0.00 %	24			$494,380
D3020	Heat Generating Systems	$18.67	S.F.	260,200	35	2009	2044		82.86 %	0.00 %	29			$4,857,934
D3030	Cooling Generating Systems	$24.48	S.F.	260,200	30	2009	2039		80.00 %	0.00 %	24			$6,369,696
D3040	Distribution Systems	$42.99	S.F.	260,200	25	2009	2034		76.00 %	0.00 %	19			$11,185,998
D3050	Terminal & Package Units	$11.60	S.F.	260,200	20	2009	2029		70.00 %	0.00 %	14			$3,018,320
D3060	Controls & Instrumentation	$13.50	S.F.	260,200	20	2009	2029		70.00 %	7.61 %	14		$267,414.19	$3,512,700
D4010	Sprinklers	$7.05	S.F.	260,200	35	2009	2044		82.86 %	0.00 %	29			$1,834,410
D4020	Standpipes	$1.01	S.F.	260,200	35	2009	2044		82.86 %	0.00 %	29			$262,802
D5010	Electrical Service/Distribution	$9.70	S.F.	260,200	30	2009	2039		80.00 %	0.00 %	24			$2,523,940
D5020	Lighting and Branch Wiring	$34.68	S.F.	260,200	20	2009	2029		70.00 %	6.92 %	14		$624,132.01	$9,023,736
D5030	Communications and Security	$12.99	S.F.	260,200	15	2009	2024		60.00 %	0.00 %	9			$3,379,998
D5090	Other Electrical Systems	$1.41	S.F.	260,200	30	2009	2039		80.00 %	7.55 %	24		$27,686.72	$366,882
E1020	Institutional Equipment	$4.82	S.F.	260,200	35	2009	2044		82.86 %	0.00 %	29			$1,254,164
E1090	Other Equipment	$11.10	S.F.	260,200	35	2009	2044		82.86 %	0.00 %	29			$2,888,220
E2010	Fixed Furnishings	$2.13	S.F.	260,200	40	2009	2049		85.00 %	0.00 %	34			$554,226
								Total	**82.61 %**	**6.02 %**			**$8,495,815.61**	**$141,243,380**

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 (or limited amount of painted gyp bd) 100%

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

Note:
concrete: 24,000sf 9%
wood (gym +stage): 29,000sf 11%
VCT: 186,500sf 72%
Ceramic or Quarry tile: 10,700sf 4%
carpet: 10,000sf 4%

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

Note:
Gypsum board ceilings (clouds in aud): 15,700sf 6%
Suspended acoustical tile: 177,000sf 68%
Exposed structure: 67,500sf 26%

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

Note:
3- 15KVA,480V-120/208V, transformer
3- 30KVA,480V-120/208V, transformer
3- 45KVA,480V-120/208V, transformer
3- 75KVA,480V-120/208V, transformer
3- 112.5KVA,480V-120/208V, transformer
3- 225KVA,480V-120/208V, 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:	**$8,495,816**	**$0**	**$0**	**$0**	**$0**	**$4,476,266**	**$0**	**$0**	**$0**	**$4,851,144**	**$0**	**$17,823,225**
*** 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	$23,964	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$23,964**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2020 - Exterior Windows	$55,496	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$55,496**
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	$7,284,632	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$7,284,632**
B3010120 - Single Ply Membrane	$1,712	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,712**
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**

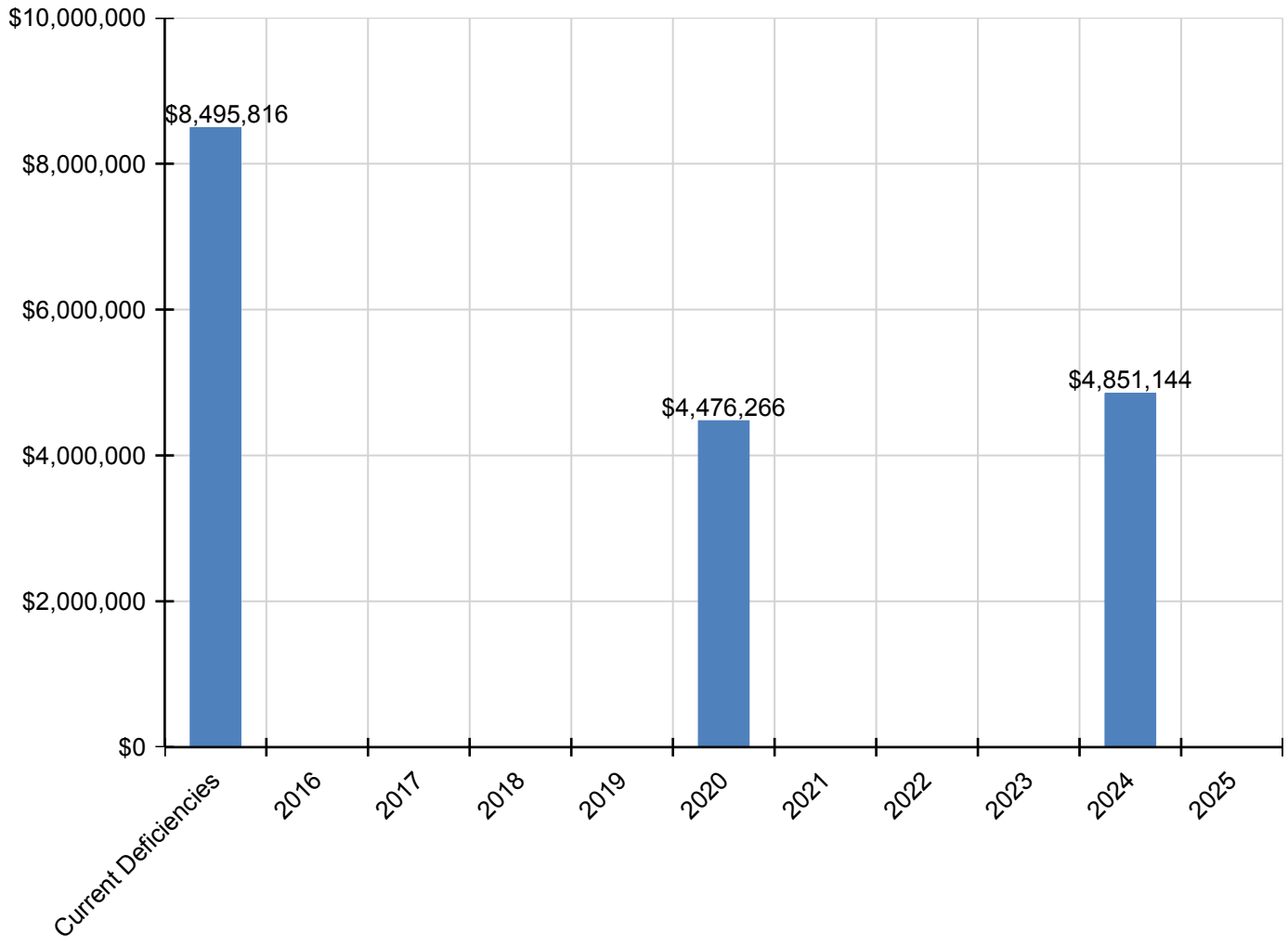
C1020 - Interior Doors	$22,857	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$22,857**
C1030 - Fittings	$25,962	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$25,962**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$5,574	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$5,574**
C2020 - Stair Finishes	$0	$0	$0	$0	$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	$40,082	$0	$0	$0	$0	$4,383,176	$0	$0	$0	$0	$0	**$4,423,258**
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	$93,090	$0	$0	$0	$0	$0	**$93,090**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020413 - Vinyl Flooring	$24,035	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$24,035**
C3020414 - Wood Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020415 - Concrete Floor Finishes	$92,269	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$92,269**
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**
D10 - Conveying	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D1010 - Elevators and Lifts	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2020 - Domestic Water Distribution	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2030 - Sanitary Waste	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$267,414	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$267,414**
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	$624,132	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$624,132**
D5030 - Communications and Security	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,851,144	$0	**$4,851,144**
D5090 - Other Electrical Systems	$27,687	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$27,687**
E - Equipment & Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E10 - Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E1020 - Institutional Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

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

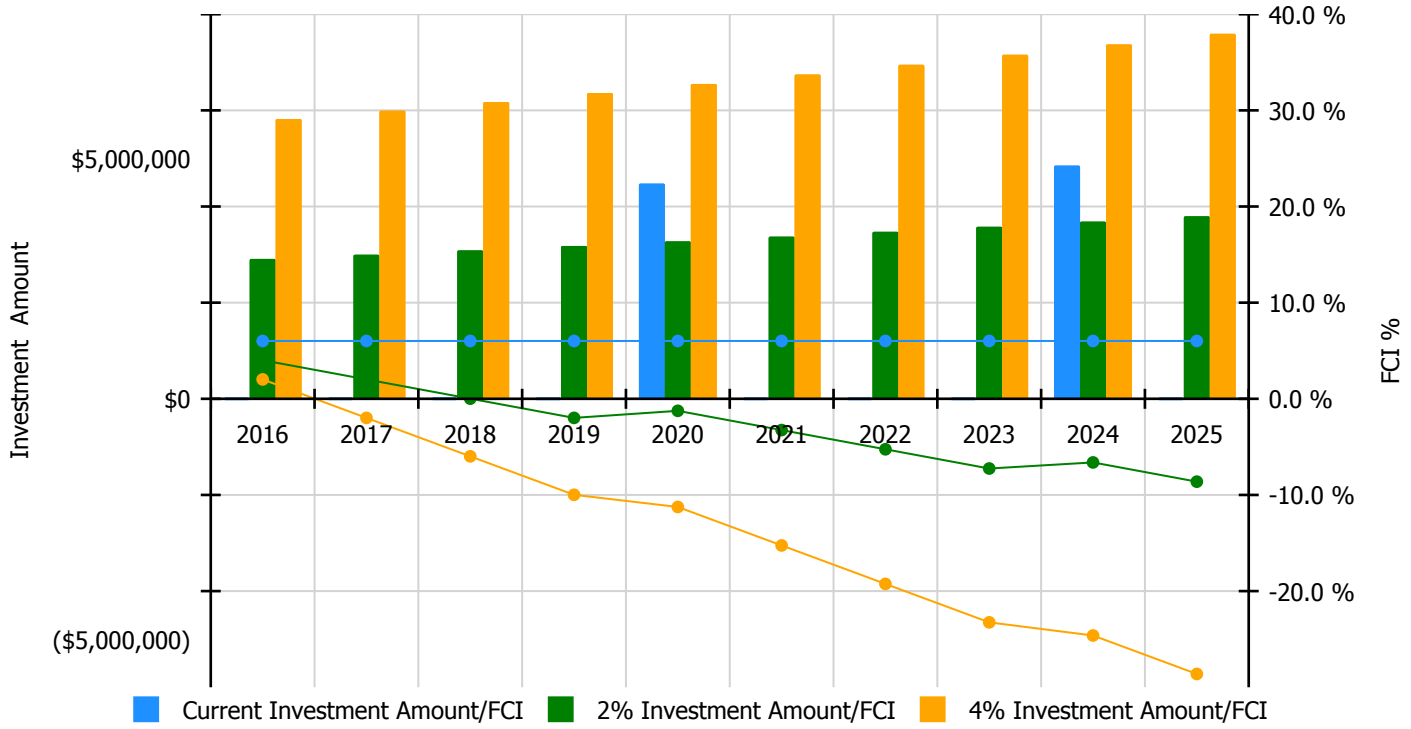


10 Year FCI Forecast by Investment Scenario

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

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

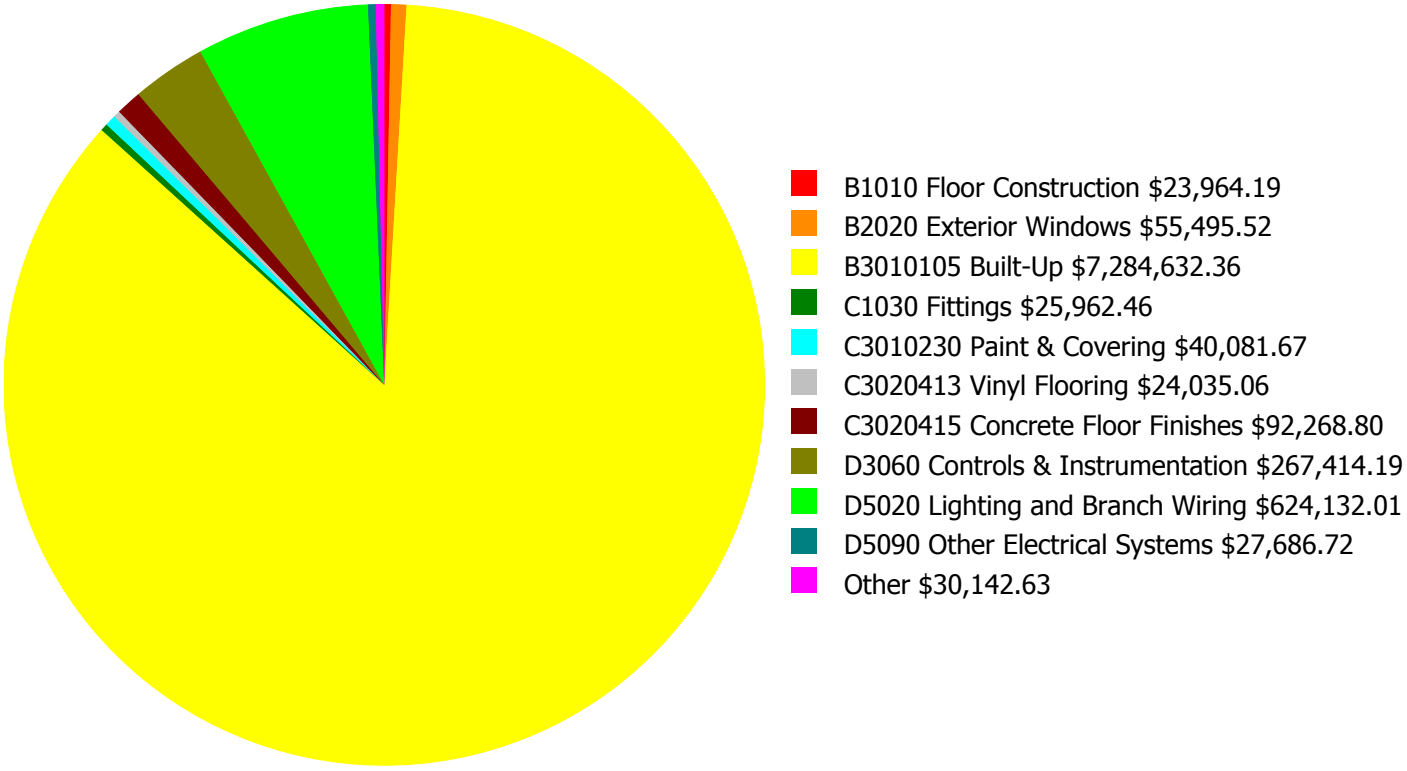
Facility Investment vs. FCI Forecast



Year	Investment Amount Current FCI - 6.02%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$2,909,614.00	4.02 %	$5,819,227.00	2.02 %
2017	$0	$2,996,902.00	2.02 %	$5,993,804.00	-1.98 %
2018	$0	$3,086,809.00	0.02 %	$6,173,618.00	-5.98 %
2019	$0	$3,179,413.00	-1.98 %	$6,358,827.00	-9.98 %
2020	$4,476,266	$3,274,796.00	-1.25 %	$6,549,592.00	-11.25 %
2021	$0	$3,373,040.00	-3.25 %	$6,746,079.00	-15.25 %
2022	$0	$3,474,231.00	-5.25 %	$6,948,462.00	-19.25 %
2023	$0	$3,578,458.00	-7.25 %	$7,156,916.00	-23.25 %
2024	$4,851,144	$3,685,811.00	-6.62 %	$7,371,623.00	-24.62 %
2025	$0	$3,796,386.00	-8.62 %	$7,592,772.00	-28.62 %
Total:	**$9,327,410**	**$33,355,460.00**		**$66,710,920.00**	

Deficiency Summary by System

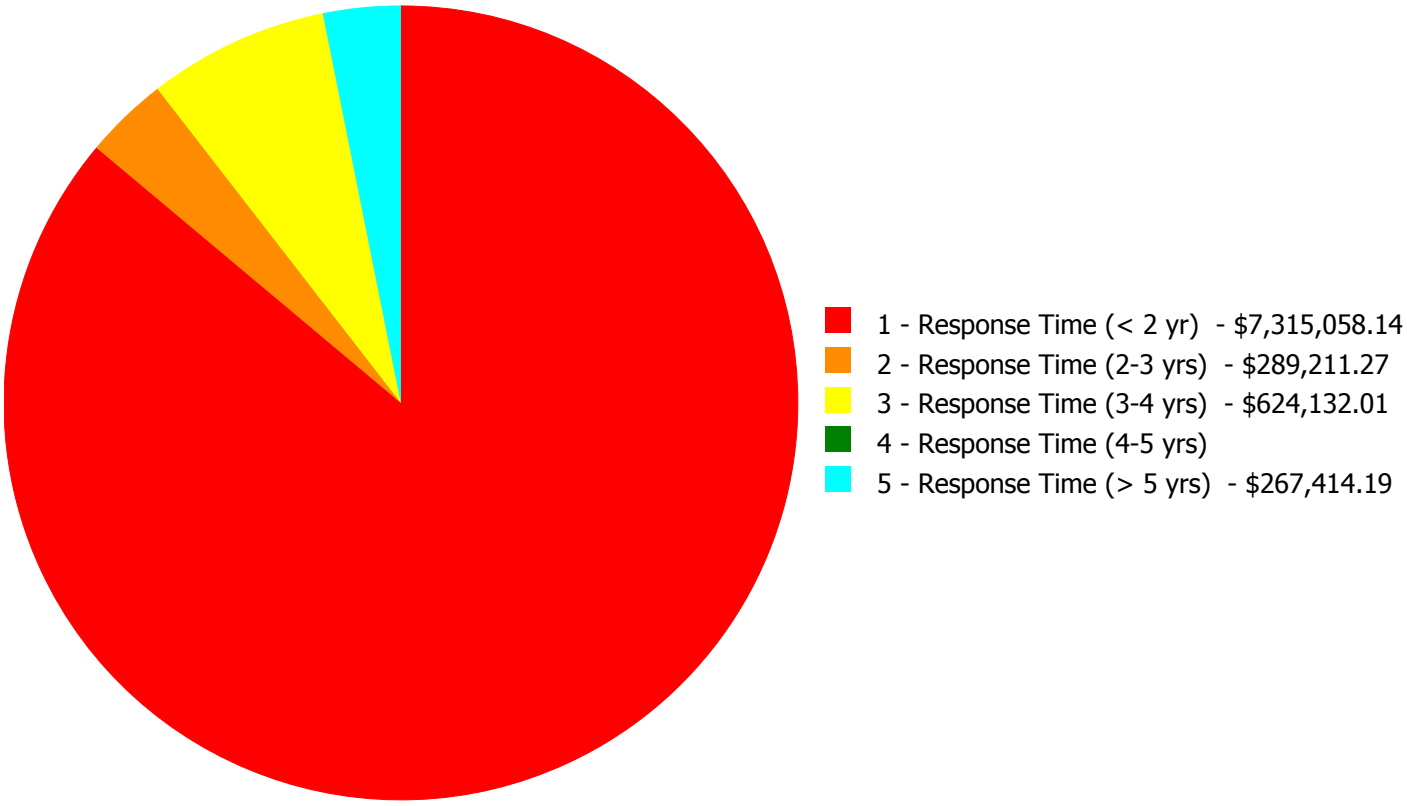
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $8,495,815.61

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: $8,495,815.61

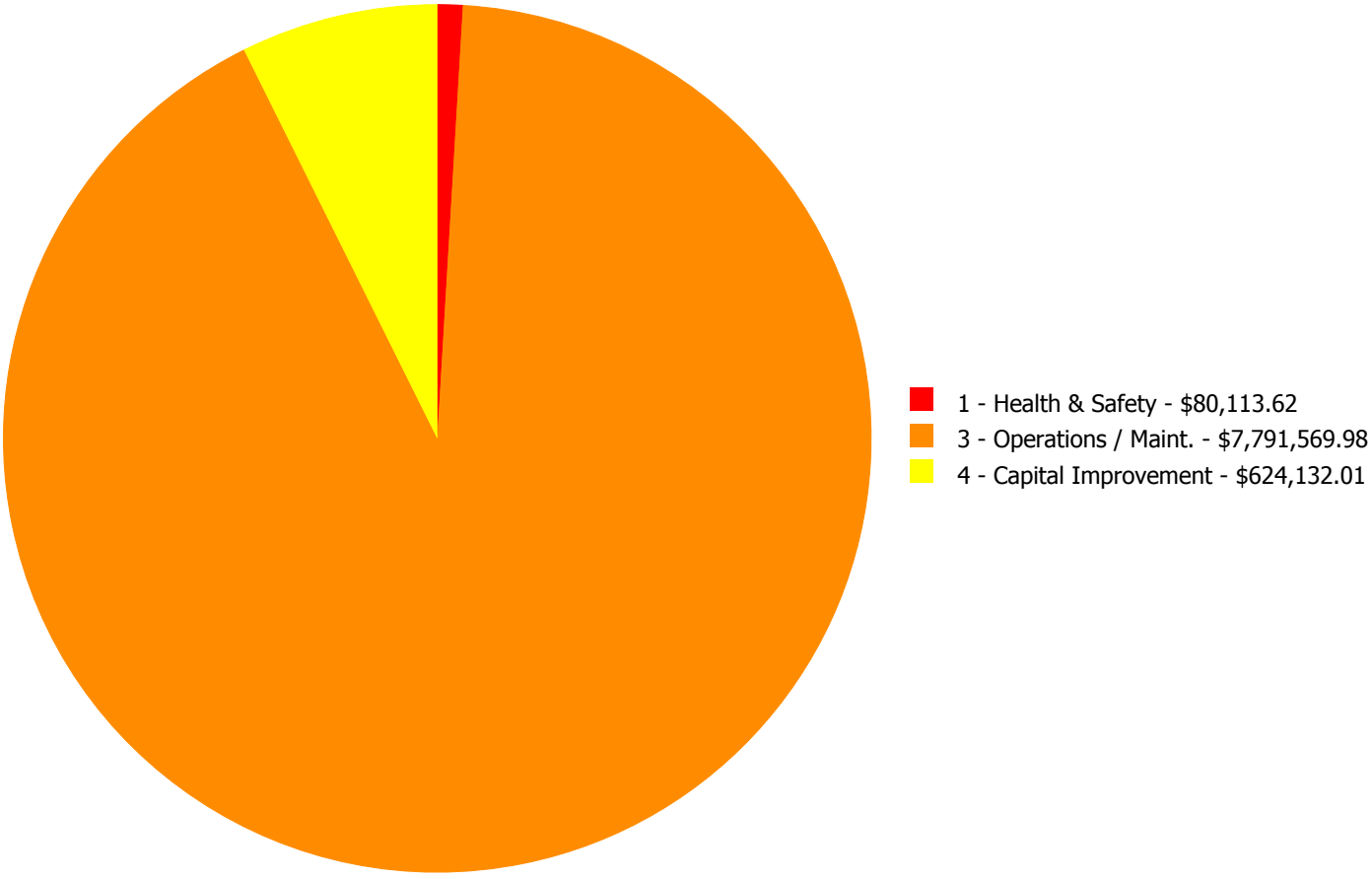
Deficiency By Priority Investment Table

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
B1010	Floor Construction	$0.00	$23,964.19	$0.00	$0.00	$0.00	$23,964.19
B2020	Exterior Windows	$0.00	$55,495.52	$0.00	$0.00	$0.00	$55,495.52
B3010105	Built-Up	$7,284,632.36	$0.00	$0.00	$0.00	$0.00	$7,284,632.36
B3010120	Single Ply Membrane	$0.00	$1,711.83	$0.00	$0.00	$0.00	$1,711.83
C1020	Interior Doors	$0.00	$22,856.70	$0.00	$0.00	$0.00	$22,856.70
C1030	Fittings	$0.00	$25,962.46	$0.00	$0.00	$0.00	$25,962.46
C2010	Stair Construction	$2,739.06	$2,835.04	$0.00	$0.00	$0.00	$5,574.10
C3010230	Paint & Covering	$0.00	$40,081.67	$0.00	$0.00	$0.00	$40,081.67
C3020413	Vinyl Flooring	$0.00	$24,035.06	$0.00	$0.00	$0.00	$24,035.06
C3020415	Concrete Floor Finishes	$0.00	$92,268.80	$0.00	$0.00	$0.00	$92,268.80
D3060	Controls & Instrumentation	$0.00	$0.00	$0.00	$0.00	$267,414.19	$267,414.19
D5020	Lighting and Branch Wiring	$0.00	$0.00	$624,132.01	$0.00	$0.00	$624,132.01
D5090	Other Electrical Systems	$27,686.72	$0.00	$0.00	$0.00	$0.00	$27,686.72
	Total:	$7,315,058.14	$289,211.27	$624,132.01	$0.00	$267,414.19	$8,495,815.61

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: $8,495,815.61

Deficiency Details by Priority

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

Priority 1 - Response Time (< 2 yr):

System: B3010105 - Built-Up

Location: Lincoln - Main Building - roof
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Remove and Replace Built Up Roof
Qty: 215,000.00
Unit of Measure: S.F.
Estimate: $7,284,632.36
Assessor Name: Craig Anding
Date Created: 11/18/2015

Notes: Replace built-up roof over entire building; include fall protection devices @ mech. equip. (215,000sf)

System: C2010 - Stair Construction

Location: Lincoln - Main Building - rear stair
Distress: Damaged
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Replace inadequate or install proper stair railing - select appropriate material
Qty: 18.00
Unit of Measure: L.F.
Estimate: $2,739.06
Assessor Name: Craig Anding
Date Created: 11/18/2015

Notes: Replace handrail/guard at rear exit stair near auditorium (5ft)

System: D5090 - Other Electrical Systems

Location: Lincoln - Main Building - Roof

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

Priority: 1 - Response Time (< 2 yr)

Correction: Repair Lightning Protection System

Qty: 1.00

Unit of Measure: Job

Estimate: $27,686.72

Assessor Name: Craig Anding

Date Created: 09/14/2015

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

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

System: B1010 - Floor Construction

Location: Lincoln - Main Building - entrance vestibule

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace metal floor grate or traffic mat

Qty: 250.00

Unit of Measure: S.F.

Estimate: $23,964.19

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Replace traffic mat at main personnel entrances (250sf)

System: B2020 - Exterior Windows

Location: Lincoln - Main Building - cafe vision panels

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

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

Correction: Remove and replace curtain wall systems - SF of curtain wall area

Qty: 320.00

Unit of Measure: S.F.

Estimate: $52,426.90

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Replace vision panel glazing along cafeteria wall with laminated safety glazing in existing aluminum frames - (8) 72” x 80” units with 4 subdivisions (mullions)

System: B2020 - Exterior Windows

Location: Lincoln - Main Building - stair 1 window

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Replace glazing - broken or plywood covered - pick the appropriate material

Qty: 15.00

Unit of Measure: S.F.

Estimate: $2,249.44

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Replace broken insulated window glazing unit in Stairway 1 (15sf)

System: B2020 - Exterior Windows

Location: Lincoln - Main Building - stair 4 mullion

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace curtain wall systems - SF of curtain wall area

Qty: 5.00

Unit of Measure: S.F.

Estimate: $819.18

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Replace missing aluminum mullion cover in Stairway 4 (5lf)

System: B3010120 - Single Ply Membrane

Location: Lincoln - Main Building - mullions @ roof coping

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or replace parapet caps - single ply roof

Qty: 20.00

Unit of Measure: L.F.

Estimate: $1,711.83

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Provide extension of mullion covers and improved base flashing at roof level of entrance vestibules (20lf)

System: C1020 - Interior Doors

Location: Lincoln - Main Building - interior doors

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Repair and repaint HM door frames - per frame

Qty: 40.00

Unit of Measure: Ea.

Estimate: $14,574.87

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Repaint hollow metal door frames (40) 3'x7'

System: C1020 - Interior Doors

Location: Lincoln - Main Building - interior doors
Distress: Appearance
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Refinish interior doors
Qty: 10.00
Unit of Measure: Ea.
Estimate: $8,281.83
Assessor Name: Craig Anding
Date Created: 11/18/2015

Notes: Refinish oak doors where damaged (10 doors)

System: C1030 - Fittings

Location: Lincoln - Main Building - toilet rooms
Distress: Damaged
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: Craig Anding
Date Created: 11/18/2015

Notes: Replace damaged/graffiti covered toilet partitions (8 toilet partitions)

System: C1030 - Fittings

Location: Lincoln - Main Building - toilet rooms

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Replace toilet accessories - select accessories and quantity

Qty: 10.00

Unit of Measure: Ea.

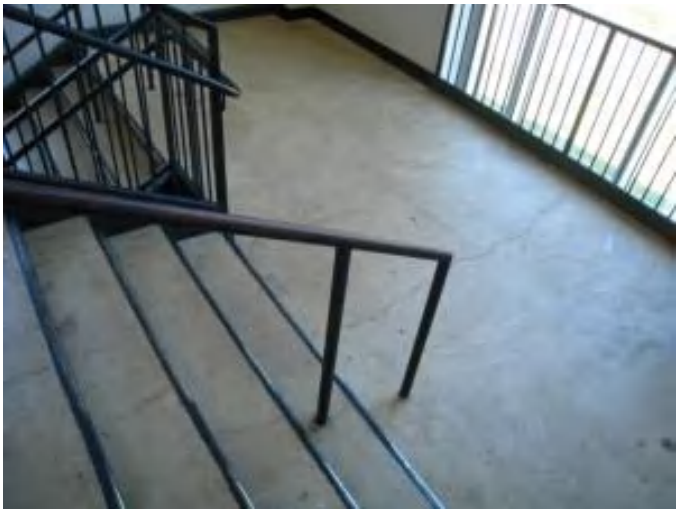
Estimate: $5,431.22

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Replace missing or broken toilet room accessories (10 mirrors and 2 soap dispensers, 2 paper towel dispensers estimated)

System: C2010 - Stair Construction



Location: Lincoln - Main Building - stair railings

Distress: Appearance

Category: 3 - Operations / Maint.

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

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

Qty: 200.00

Unit of Measure: S.F.

Estimate: $2,835.04

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Repaint stairway handrails and guards (200lf)

System: C3010230 - Paint & Covering

Location: Lincoln - Main Building - walls

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 4,000.00

Unit of Measure: S.F.

Estimate: $21,642.32

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Repair and repaint damaged gypsum board from accidental impact in classrooms, - 40 areas 100sf each.

System: C3010230 - Paint & Covering

Location: Lincoln - Main Building - toilet rooms

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: 3,000.00

Unit of Measure: S.F.

Estimate: $18,439.35

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Repaint toilet room walls after graffiti is removed (4 toilet rooms @ 1000sf each = 3000sf)

System: C3020413 - Vinyl Flooring

Location: Lincoln - Main Building - corridors

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace VCT

Qty: 2,000.00

Unit of Measure: S.F.

Estimate: $24,035.06

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Repair cracks in VCT floors at exit doors, along expansion joints, and column line control joints in corridors and cafeteria– replace VCT (2000sf)

System: C3020415 - Concrete Floor Finishes

Location: Lincoln - Main Building - conc floors

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Clean and reseal concrete floors

Qty: 24,000.00

Unit of Measure: S.F.

Estimate: $92,268.80

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Clean and reseal/repaint concrete floor slab mechanical rooms, art room, horticulture room, and stairs (24,000sf)

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

System: D5020 - Lighting and Branch Wiring

Location: Lincoln - Main Building - open ceiling spaces

Distress: Energy Efficiency

Category: 4 - Capital Improvement

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

Correction: Replace lighting fixtures

Qty: 300.00

Unit of Measure: Ea.

Estimate: $624,132.01

Assessor Name: Craig Anding

Date Created: 09/14/2015

Notes: Replace all halide lighting fixtures with LED high bay lighting fixtures. Estimated 300 each

Priority 5 - Response Time (> 5 yrs):

System: D3060 - Controls & Instrumentation

Location: Lincoln - Main Building - Throughout the building

Distress: Energy Efficiency

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Recommission DDC Building Management System

Qty: 90,000.00

Unit of Measure: S.F.

Estimate: $267,414.19

Assessor Name: Craig Anding

Date Created: 12/28/2015

Notes: Provide retro-commissioning on the building HVAC systems.

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	Load interrupter switch, 2 position, 400 kVA & above w/CLF fuses, 4.8 kV, 600 amp, NEMA 1	3.00	Ea.	Electrical and generator room					30	2009	2039	$38,502.00	$127,056.60
D5010 Electrical Service/Distribution	Switchboards, no main disconnect, 4 wire, 277/480 V, 3000 amp, incl CT compartment, excl CT's or PT's	6.00	Ea.	Electrical and generator rooms					30	2009	2039	$12,792.60	$84,431.16
D5010 Electrical Service/Distribution	Transformer, liquid-filled, 5 kV or 15 kV primary, 277/480 V secondary, 3 phase, 2500 kVA, pad mounted	2.00	Ea.						30	2009	2039	$83,835.00	$184,437.00
D5090 Other Electrical Systems	Generator set, diesel, 3 phase 4 wire, 277/480 V, 500 kW, incl battery, charger, muffler, & day tank, excl conduit, wiring, & concrete	1.00	Ea.						30	2009	2039	$130,410.00	$143,451.00
												Total:	**$539,375.76**

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:	Stands
Gross Area (SF):	18,529
Year Built:	1955
Last Renovation:	
Replacement Value:	$11,821,741
Repair Cost:	$6,581,720.29
Total FCI:	55.67 %
Total RSLI:	76.28 %

Description:

Facility Condition Assessment

August 2015

School District of Philadelphia

Abraham Lincoln Locker Facility

3201 Ryan Avenue

Philadelphia, PA 19136

18,529sf; LN 08

Abraham Lincoln High School is located at 3201 Ryan Avenue. The Football Field House and the Locker Facility structures were built a few years after the original high school building in 1956 and still remain in use. The Pool House was constructed as an addition to the Locker Facility in 1974. It is used by the high school and by the community. Joe the Assistant Engineer led the team through the Locker Facility, Pool House and Stands.

Architectural/Structural

Foundations for the Locker Facility could not be seen. Although upper sections of some walls are cracking lower sections of walls are still intact and upper cracking might not be due to foundation settlement. A full and detailed survey of all cracked and failing areas needs to be implemented to determine the extent and viability of repairing this structure.

Floor slabs on grade are in fair condition with no major cracking or spalling. There is a small upper floor in part of the Locker Facility which had been used as a coach's apartment. Floor slab in that areas is also in good condition.

Roof system over the Locker Facility consists of concrete beams supporting a concrete roof deck. There are areas of serious cracking, spalling and crumbling where concrete beams connect to masonry walls in a few locations, visible from inside and the outside. Concrete beams span from exterior wall to wall approximately 60 feet long. Connections need to be reconstructed to maintain load carrying capability. A full and detailed survey of all cracked and failing areas needs to be implemented to determine the extent and viability of repairing this structure.

Exterior walls are constructed of brick masonry with concrete masonry units (block) on the interior. Most wall surfaces near grade and between columns are in fair condition with no major defects visible. Walls at 3 beam bearing points and both western outside corners in the Locker Facility have large cracks and missing sections of grout, structural degredation and crumbling of the masonry and concrete beams in progress. Bearing points under three concrete beams have large visible areas of cracking and seriously weakened points of support. Stepped cracks are visible at the two western wall upper building corners indicating the possibility of through the wall masonry failure. These failing masonry walls and masonry beam supports should be reconstructed as soon as possible as they support long beams carrying concrete roofs and equipment on the roofs.

Windows are constructed of a fixed/operable hopper-type, clear or bronze anodized aluminum frame system with single pane plexiglass vision panels. This system is worn with the plexiglass so scratched that it is no longer transparent. Efflorescence is and staining is visible under some windows from leaks or possibly from being left open when raining. Regardless, all windows are failing and should be replaced.

This building takes exceptional abuse due to the sports related activities that occur there and the moist, harsh environments of the toilet rooms. All exterior doors and frames are damaged, have faded paint and many are rusted. All doors, frames, and hardware need to be replaced with rugged FRP doors that the District has started using in new facilities, like the main building. The galvanized steel roll up door that encloses the large equipment (tractor) storage area has graffiti on the exterior and should be painted. It appears that due to the lack of headroom inside, the coiling mechanism for the door is installed on the building exterior. This is an unusual installation for this type of door; although covered with a metal cover, it exposes the mechanism to temperature extremes and rapid aging.

Roofing over this building is possibly over 20 years old. It is a black asphalt system with dark gravel embedded in the surface, internal roof drains, and a gravel stop edge. The upper area has been repaired at least 10 years ago with a silver coating and another patch was made on the silver coating and the lower dark roof covering more recently. There is a low area between the Locker Facility and the Pool House that was more recently repaired with the District Standard rolled, light granule impregnated asphalt system, including new metal flashing. This area does not appear to have any problem areas. The overall system is aged and probably past its useful normal life span, but not yet failing – the roof covering is not the most serious issue with this building.

Interior partitions are concrete masonry units (block). Locker room interior walls are structurally sound and in good physical condition. One area of wall near the Locker Facility has stepped cracking under a large duct penetration. Block partitions are generally in good condition with minor damages.

Interior doors are hollow metal with steel frames. All frames are steel and are damaged, rusted and beyond repair. All doors and frames require replacement.

Fittings consist of toilet partitions, which are in poor and failing condition, missing doors, partition dividers, and toilet room accessories. Full replacement is required.

There one concrete stair up to the "coaches apartment" above the locker area. This space is no longer in use, although in fair condition. It could be renovated and used once again as apartment of conference room if desired by the District or school.

Due to the high moisture from toilet rooms and lack of good ventilation and space conditioning, walls have suffered from temperature extremes and from condensation - walls are in poor condition. In one area of the Locker Facility, structural failure is causing cracking and spalling of brick and block supports for beams; these areas need to be repaired and refinished before repainting. Some of the locker room walls have been repainted with dark paint, exaggerating the poor lighting of the space. All walls need to be repainted with a lighter color.

Floors finishes are exposed concrete that is stained, dirty, and in need of refinishing with new sealer or non-slip paint.

Ceilings in the Locker Facility are exposed concrete that has spalled exposing reinforcing rods in many locations. These areas need to be patched

to prevent structural failure. Most concrete ceilings have peeling paint. Some ceilings have water marks from previous roof leaks; these marks are cosmetic and could be cleaned to improve the appearance.

Furnishings consist of lockers in boy's and girl's areas. Boy's lockers are old, damaged, abused, and in poor condition needing replacement. Girl's lockers are newer, in good condition and could be reused. Fences around locker areas are in fair condition and could continue to be used, if desired.

Mechanical

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

Within the building there is a combination of drinking fountains and vertical floor standing self-contained electric drinking fountains. The replacement of all drinking fountains and electric water coolers is recommended as the equipment is approximately 60 years old and beyond its service life.

Wall hung service sinks are original and are available within the building for use by the janitorial staff. The sinks appear have exceeded their service life, and should be replaced.

Domestic Water Distribution – There are three water meters which serve the school property from Ryan Avenue; one for the school and two which serve the fieldhouse and the pool. It appears that the domestic water service piping is mostly soldered copper. A double check backflow preventer (RPZA – reduced pressure zone assembly) was not located in the field, it is recommended that one be added. 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.

There are two natural gas fired water heaters. One is a Bradford White vertical tank type, model MI40T6FBN, 40 gallon tank capacity, 40,000 BTUH input, with a date of manufacture of 2013 - 2014 while the other is an instantaneous type Paloma model 24M-DN, , 178,500 BTUH maximum input, 37,700 minimum input. The instantaneous heater appears to be beyond its service life and should be replaced. Both are located in the boiler mechanical equipment room. The hot water system is equipped with a common recirculation pump to serve the water heaters as well. An expansion tank is also installed on the system. The previous hot water generator tank has been abandoned in place.

Sanitary Waste - The sanitary waste piping system in the original building is galvanized piping with threaded joints 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 a duplex sewage ejector in the boiler mechanical equipment room.

Rain Water Drainage - The rain water drains from the roof are routed through the building and connect to the underground site drainage system. There is no roof parapet; overflow scuppers are not required for this building.

Energy Supply - A 4" natural gas service enters the building at the main boiler mechanical equipment room. The natural gas main is threaded, black steel piping as well as the branches.

Heat Generating Systems – The steam heating boiler serves the heating needs for the building. Heating water is generated by one 3,550 MBH Weil McLain, model 1488, with a gas burner. The boiler is equipped with Webster natural gas burner, The boiler appears to be approximately 7 – 10 years in age and has most recently had its trim accessories replaced. There is draft control on the boiler flue. Combustion air louvers serve the boiler room to provide combustion air for the boiler operation. The gas train serving the boiler appears to have code required venting of the regulators and dual solenoid valves with venting of the chamber between.

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

Condensate return is collected by gravity into a condensate receiver. The condensate receiver then pumps the condensate via a duplex pump system to the boiler. In general the building engineer reports that there have been no steam trap problems, however, it is recommended that the District conduct a steam trap survey to determine the quantity and condition of all steam taps.

The building is heated by cast iron, manifold, steam radiators and horizontal unit heaters. Operable windows provide ventilation as well as exhaust fans. During our survey most of the steam radiators did not have any guard protection to prevent contact with the hot surface of the manifold. These units should have guards or enclosures added to protect students from exposure to the hot surfaces.

Terminal & Package Units - There are inline exhaust fans which serve the restrooms and locker room area. The ductwork and associated fans are beyond their service life and should be replaced.

Controls & Instrumentation - The original pneumatic systems still provide basic control functions for heating systems. Pneumatic room thermostats drive the steam radiation control valves as well as self-contained valves. Any remaining pneumatic controls have potential problems with oil, moisture or dirt in the pneumatic copper tubing may exist. 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. Any of the original controls valves, dampers and pneumatic actuators are over 60 years old and should be replaced. These controls should be converted to DDC or electric stand-alone controls.

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

Electrical

The Electrical service for the Field House is fed by a 400A, 240/120Volt panel board, located in the Boiler Room. This distribution panel board, which feeds the electrical loads in field house and the pool, is fed from a pole mounted utility transformer located on Rowland Avenue. The door was locked at the time of the field investigation; however it is assumed that the service entrance distribution panel board would require replacement like other power systems in this building.

There is a mix of grounding type and non-grounding type receptacles in the building. The majority of the receptacles are damaged. All should be replaced with grounding-type receptacles.

The majority of lighting fixtures are surface mounted incandescent lighting fixtures. Some of the lamps have been replaced with energy saver CFL (compact fluorescent lamp) type bulbs. Lighting fixtures are obsolete and lighting levels do not meet IES (Illuminating Engineering Society) recommended levels. They all need replacement.

The Fire Alarm System is old and outdated. This building is equipped with a 120V manual fire alarm system which does not meet current fire alarm codes.

Telephone and LAN equipment/devices are connected to the main building Telephone/LAN system and are working properly.

An Emergency lighting system and exit lighting is only provided in the in pool area. Exit lights are on not on emergency power and are not working properly.

Security Systems-access control, is not provided.

Lightning Protection System is not provided and is not required.

Grounding system is present and appears to be adequate.

Site Lighting System is not adequate. There are not enough exterior lighting fixtures to provide a reasonable level of security around the building.

Site Video Surveillance system is not provided in this building. There are no cameras providing surveillance around the building exterior.

Grounds

Parking for the Locker Facility and Pool House is in fair condition with some cracks requiring filling. Concrete sidewalks around the west and north sides is spalling and needs to be replaced. All concrete stairs are in need of replacement - the double stair from the locker room level down to grade near the football field, the single stair from grade down to the football field, and the wood steps down the mechanical room under the locker rooms all need replacement with new concrete stairs and handrails/guards. The asphalt parking area outside the entrance to the Lockers and Pool has some cracks that need filling.

RECOMMENDATIONS

Architectural

- Three concrete beams and masonry supports are failing – reconstruct reinforced beams and supports (300sf)
- Repair cracked exterior masonry - west corners and end wall (300sf)
- Replace exterior windows - (72) 4x3 aluminum frame and glass
- Repaint roll up door (120sf)
- Repaint all interior walls (36,000sf)
- Repaint all ceilings (18,529sf)
- New interior doors and hardware (20)
- Refinish all interior concrete floor slabs (18,529sf)
- Replace carpet in apartment (300sf)
- Replace VCT in apartment (229sf)
- Replace toilet partitions (12 toilet, 4 urinal)
- Replace toilet room accessories (12 toilet paper, 8 soap, 4 paper towel, 4 waste cans)
- New lockers (100 full height)
- New exterior doors (10 - 3x7)
- Repair exterior concrete stairs (40 risers x 5ft wide and railings) + (25 risers x 5ft) + (24 risers x 3ft)

Mechanical

- Replace all lavatories in the building with lower flow fixtures, as the fixtures are original.
- Replace all water closets in the building with lower flow fixtures, as the fixtures are original.
- Replace all urinals in the building with lower flow fixtures, as the fixtures are original.
- Replace the integral refrigerated vertical water coolers and the drinking fountains. These units are well beyond their service life and most are NOT accessible type.
- Replace service sinks (janitor sinks) in the building.
- Hire a qualified contractor to perform a detailed examination of the sanitary waste piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.
- Replace the gas fire instantaneous water heater.
- Inspect and replace the original as needed the domestic water piping in the building.
- Conduct a steam trap survey to identify and replace failed traps passing live steam into the condensate piping system.
- Hire a qualified contractor to examine the steam and condensate piping in service for 85 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
- Replace the steam original radiant heating (manifold) terminals fashioned from welded piping still present in the building with finned tube elements to protect students from exposure to the hot surfaces.
- Replace the steam condensate return system.
- Replace exhaust fans and ductwork.
- Replace the pneumatic controls for the HVAC systems with modern DDC modules or electric, valves and actuators to improve reliability and energy efficiency.
- Install a fire protection sprinkler system with quick response type heads to reduce insurance costs by providing protection for the property. A fire pump may be required depending on the available city water pressure.
- Install a new sprinkler system throughout the building

Electrical

- Upgrade the existing electrical service with a new service. Replace the existing distribution panel board with new 1200A, 120/208V, 3PH, 4 wire distribution panel.
- Replace the entire distribution system with new panels and new wiring/conduits. Estimated 5 panel boards.
- Replace existing receptacles with duplex receptacles throughout the building.
- Replace all lighting fixtures with new fluorescent lighting fixtures with T-5 lamps throughout the buildings.
- Provide emergency battery pack lights in corridors and at the egress ways.

- 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 locker rooms, corridors, toilets, and other areas as recommended by codes.
- Provide master clock system including wireless master clock controller and new clock in the building.
- Replace all exit signs with battery pack type exit signs. Estimated 6 each.
- Provide adequate video surveillance cameras on the exterior walls around the building and connected to the building CCTV system. Estimated 4 each

Grounds

- Fill cracks in asphalt parking lot (200ft)
- Replace concrete walkways (2000sf)

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B801902
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S801001		

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	40.00 %	0.00 %	$0.00
A20 - Basement Construction	40.00 %	0.00 %	$0.00
B10 - Superstructure	40.00 %	1.22 %	$24,325.62
B20 - Exterior Enclosure	52.17 %	18.72 %	$544,781.41
B30 - Roofing	110.00 %	0.00 %	$0.00
C10 - Interior Construction	77.20 %	71.26 %	$207,032.38
C20 - Stairs	40.00 %	11.57 %	$36,525.82
C30 - Interior Finishes	112.25 %	45.59 %	$298,866.54
D20 - Plumbing	116.00 %	122.43 %	$847,724.84
D30 - HVAC	142.73 %	228.30 %	$2,558,399.66
D40 - Fire Protection	105.71 %	372.08 %	$858,326.79
D50 - Electrical	109.90 %	126.75 %	$1,205,737.23
E10 - Equipment	14.29 %	0.00 %	$0.00
E20 - Furnishings	100.00 %	0.00 %	$0.00
Totals:	**76.28 %**	**55.67 %**	**$6,581,720.29**

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.

Site Assessment Report - B801902;Lincoln Field - Locker Facility

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	$10.75	S.F.	18,529	100	1955	2055		40.00 %	0.00 %	40			$199,187
A1030	Slab on Grade	$17.93	S.F.	18,529	100	1955	2055		40.00 %	0.00 %	40			$332,225
A2010	Basement Excavation	$0.62	S.F.	18,529	100	1955	2055		40.00 %	0.00 %	40			$11,488
A2020	Basement Walls	$8.99	S.F.	18,529	100	1955	2055		40.00 %	0.00 %	40			$166,576
B1010	Floor Construction	$107.59	S.F.	18,529	100	1955	2055		40.00 %	1.22 %	40		$24,325.62	$1,993,535
B2010	Exterior Walls	$125.87	S.F.	18,529	100	1955	2055		40.00 %	0.42 %	40		$9,686.84	$2,332,245
B2020	Exterior Windows	$23.61	S.F.	18,259	40	2015	2055		100.00 %	106.04 %	40		$457,138.40	$431,095
B2030	Exterior Doors	$7.92	S.F.	18,529	40	1955	1995	2057	105.00 %	53.12 %	42		$77,956.17	$146,750
B3010105	Built-Up	$37.76	S.F.	18,529	20	1955	1975	2037	110.00 %	0.00 %	22			$699,655
C1010	Partitions	$6.87	S.F.	18,529	100	1955	2055		40.00 %	0.00 %	40			$127,294
C1020	Interior Doors	$2.42	S.F.	18,529	40	1955	1995	2057	105.00 %	226.49 %	42		$101,559.74	$44,840
C1030	Fittings	$6.39	S.F.	18,529	30	1955	1985	2047	106.67 %	89.08 %	32		$105,472.64	$118,400
C2010	Stair Construction	$17.04	S.F.	18,529	100	1955	2055		40.00 %	11.57 %	40		$36,525.82	$315,734
C3010230	Paint & Covering	$12.84	S.F.	18,529	10	1955	1965	2027	120.00 %	77.89 %	12		$185,306.83	$237,912
C3010231	Vinyl Wall Covering	$0.97	S.F.		15				0.00 %	0.00 %				$0
C3010232	Wall Tile	$2.19	S.F.		30				0.00 %	0.00 %				$0
C3020411	Carpet	$7.30	S.F.	300	10	1955	1965	2027	120.00 %	153.30 %	12		$3,357.23	$2,190
C3020412	Terrazzo & Tile	$75.52	S.F.		50				0.00 %	0.00 %				$0
C3020413	Vinyl Flooring	$9.68	S.F.	229	20	1955	1975	2037	110.00 %	124.13 %	22		$2,752.02	$2,217
C3020414	Wood Flooring	$22.27	S.F.		25				0.00 %	0.00 %				$0
C3020415	Concrete Floor Finishes	$1.43	S.F.	18,000	50	1955	2005	2067	104.00 %	417.45 %	52		$107,450.46	$25,740
C3030	Ceiling Finishes	$20.91	S.F.	18,529	25	1955	1980	2042	108.00 %	0.00 %	27			$387,441
D2010	Plumbing Fixtures	$26.14	S.F.	18,529	35	1955	1990	2055	114.29 %	30.58 %	40		$148,118.47	$484,348
D2020	Domestic Water Distribution	$6.39	S.F.	18,529	25	1955	1980	2045	120.00 %	341.66 %	30		$404,525.52	$118,400
D2030	Sanitary Waste	$4.84	S.F.	18,529	25	1955	1980	2045	120.00 %	329.04 %	30		$295,080.85	$89,680
D3020	Heat Generating Systems	$5.81	S.F.	18,529	35	1955	1990	2055	114.29 %	0.00 %	40			$107,653
D3030	Cooling Generating Systems	$30.02	S.F.		0				0.00 %	0.00 %				$0
D3040	Distribution Systems	$23.24	S.F.	18,529	25	1955	1980	2050	140.00 %	220.50 %	35		$949,492.81	$430,614
D3050	Terminal & Package Units	$12.68	S.F.	18,529	20	1955	1975	2045	150.00 %	0.00 %	30			$234,948
D3060	Controls & Instrumentation	$18.75	S.F.	18,529	20	1955	1975	2045	150.00 %	463.10 %	30		$1,608,906.85	$347,419
D4010	Sprinklers	$10.75	S.F.	18,529	35			2052	105.71 %	430.92 %	37		$858,326.79	$199,187
D4020	Standpipes	$1.70	S.F.	18,529	35			2052	105.71 %	0.00 %	37			$31,499
D5010	Electrical Service/Distribution	$8.93	S.F.	18,529	30	1955	1985	2047	106.67 %	365.85 %	32		$605,350.34	$165,464
D5020	Lighting and Branch Wiring	$30.21	S.F.	18,529	20	1955	1975	2037	110.00 %	66.71 %	22		$373,413.36	$559,761
D5030	Communications and Security	$7.36	S.F.	18,529	15	1955	1970	2032	113.33 %	166.44 %	17		$226,973.53	$136,373
D5090	Other Electrical Systems	$4.84	S.F.	18,529	20	1955	1975	2037	110.00 %	0.00 %	22			$89,680
E1020	Institutional Equipment	$12.78	S.F.	18,529	35	1955	1990	2020	14.29 %	0.00 %	5			$236,801
E1090	Other Equipment	$11.23	S.F.	18,529	35	1955	1990	2020	14.29 %	0.00 %	5			$208,081
E2010	Fixed Furnishings	$43.57	S.F.	18,529	20	2015	2035		100.00 %	0.00 %	20			$807,309
								Total	**76.28 %**	**55.67 %**			**$6,581,720.29**	**$11,821,741**

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: C3010230 - Paint & Covering — This system contains no images

Note:
painted block or brick 98%
glazed block 2%

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

Note:
concrete: 18000sf 97%
carpet: 300sf 1.5%
VCT: 229sf 1.5%

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:	**$6,581,720**	**$0**	**$0**	**$0**	**$0**	**$567,314**	**$0**	**$0**	**$0**	**$0**	**$0**	**$7,149,034**
*** 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	$24,326	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$24,326**
B20 - Exterior Enclosure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2010 - Exterior Walls	$9,687	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$9,687**
B2020 - Exterior Windows	$457,138	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$457,138**
B2030 - Exterior Doors	$77,956	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$77,956**
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**
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	$101,560	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$101,560**
C1030 - Fittings	$105,473	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$105,473**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$36,526	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$36,526**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

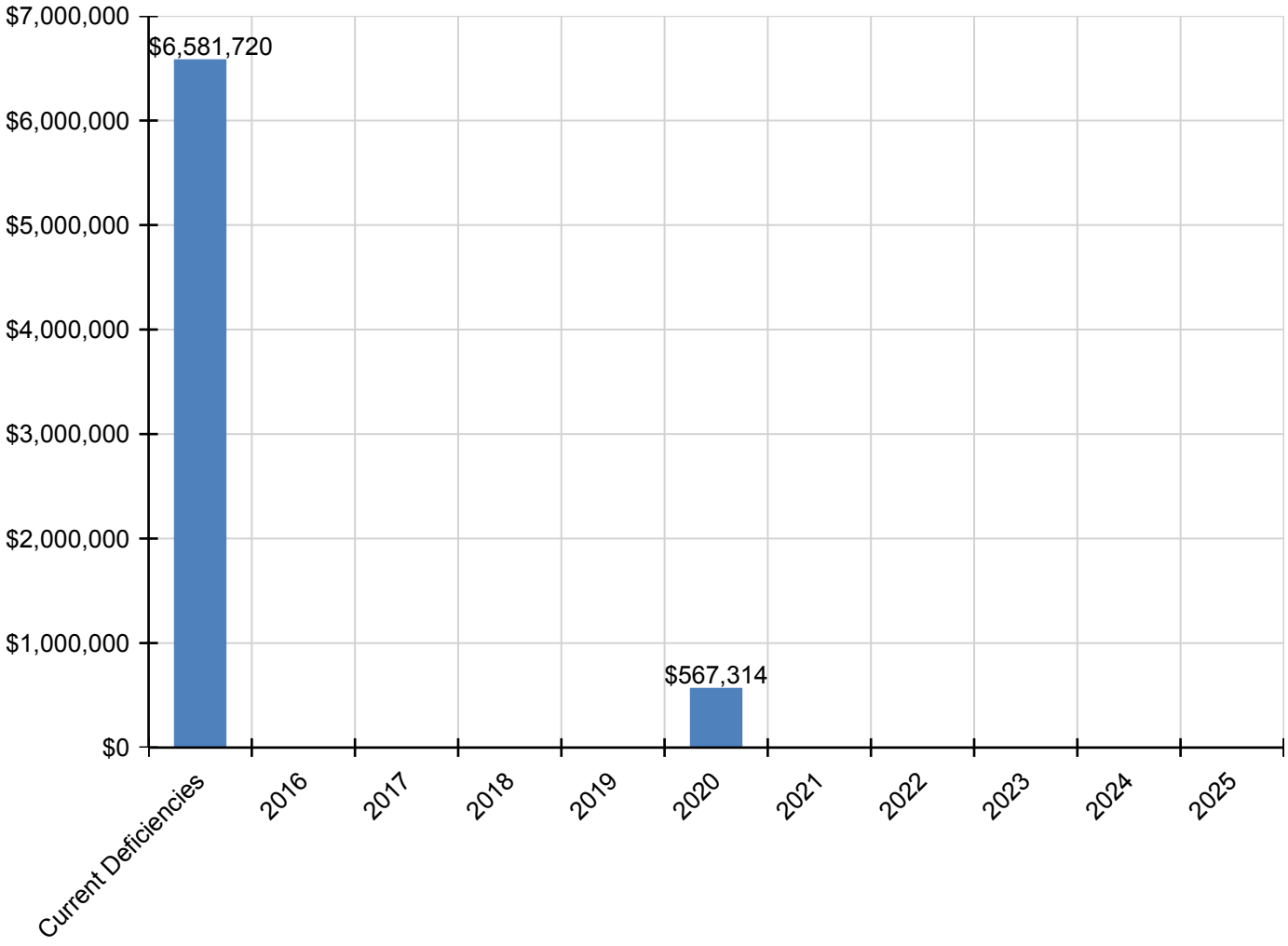
C3010 - Wall Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010230 - Paint & Covering	$185,307	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$185,307**
C3010231 - Vinyl Wall Covering	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010232 - Wall Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020411 - Carpet	$3,357	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$3,357**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020413 - Vinyl Flooring	$2,752	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,752**
C3020414 - Wood Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020415 - Concrete Floor Finishes	$107,450	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$107,450**
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	$148,118	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$148,118**
D2020 - Domestic Water Distribution	$404,526	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$404,526**
D2030 - Sanitary Waste	$295,081	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$295,081**
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	$949,493	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$949,493**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$1,608,907	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,608,907**
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	$605,350	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$605,350**
D5020 - Lighting and Branch Wiring	$373,413	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$373,413**
D5030 - Communications and Security	$226,974	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$226,974**
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	$301,969	$0	$0	$0	$0	$0	**$301,969**

E1090 - Other Equipment	$0	$0	$0	$0	$0	$265,345	$0	$0	$0	$0	$0	**$265,345**
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

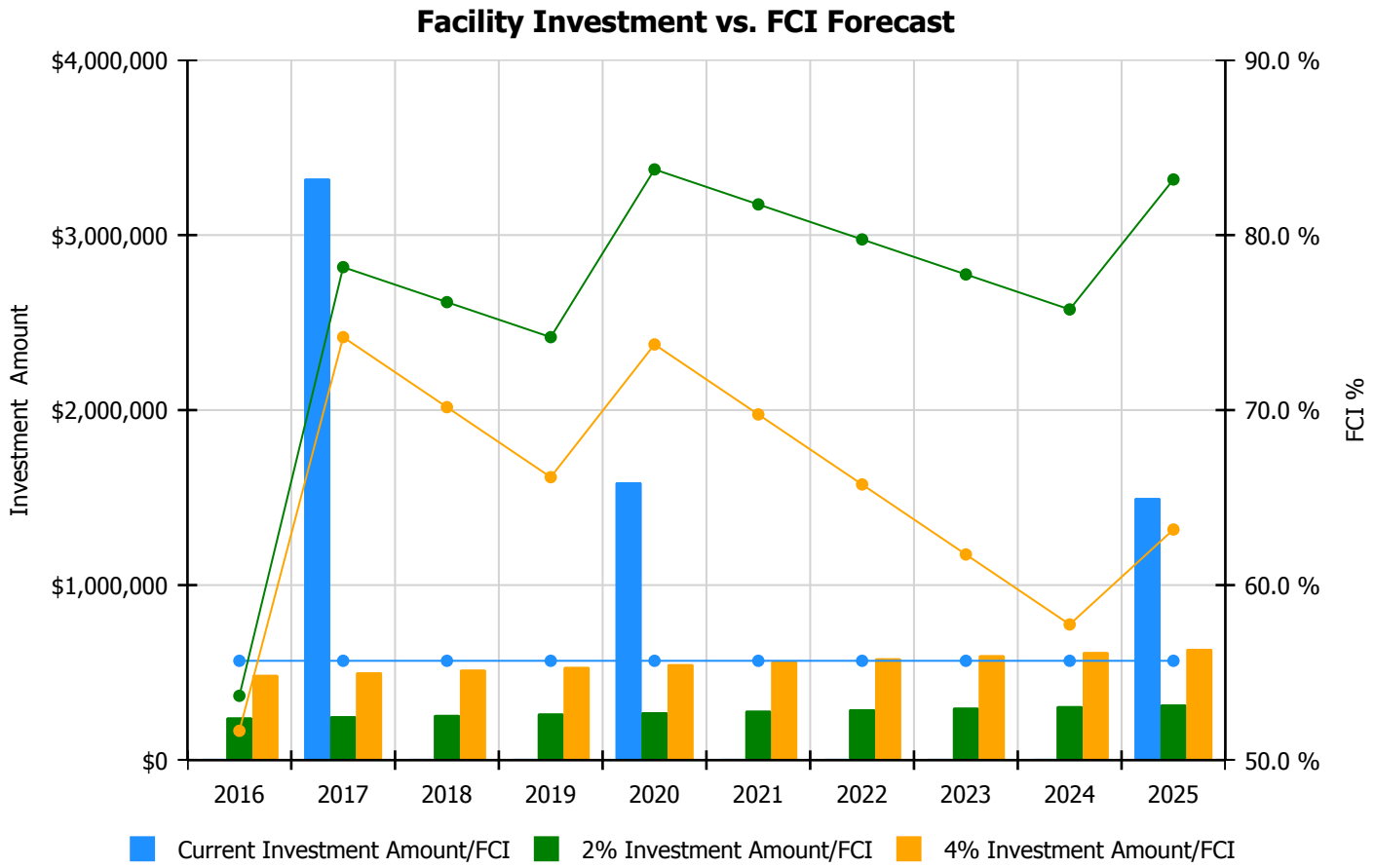
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

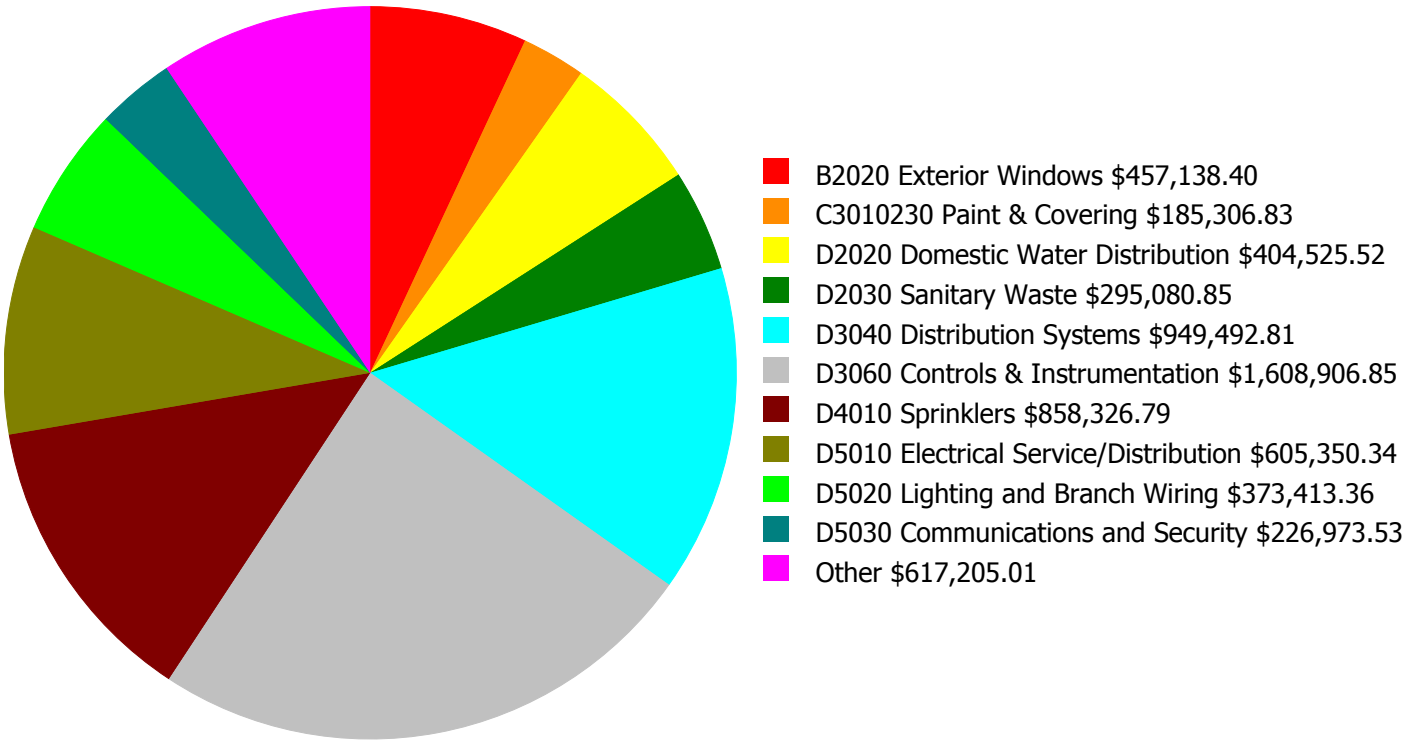
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 55.67%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$243,528.00	53.67 %	$487,056.00	51.67 %
2017	$3,322,549	$250,834.00	78.17 %	$501,667.00	74.17 %
2018	$0	$258,359.00	76.17 %	$516,717.00	70.17 %
2019	$0	$266,109.00	74.17 %	$532,219.00	66.17 %
2020	$1,587,579	$274,093.00	83.75 %	$548,186.00	73.75 %
2021	$0	$282,316.00	81.75 %	$564,631.00	69.75 %
2022	$0	$290,785.00	79.75 %	$581,570.00	65.75 %
2023	$0	$299,509.00	77.75 %	$599,017.00	61.75 %
2024	$0	$308,494.00	75.75 %	$616,988.00	57.75 %
2025	$1,497,496	$317,749.00	83.18 %	$635,497.00	63.18 %
Total:	**$6,407,625**	**$2,791,776.00**		**$5,583,548.00**	

Deficiency Summary by System

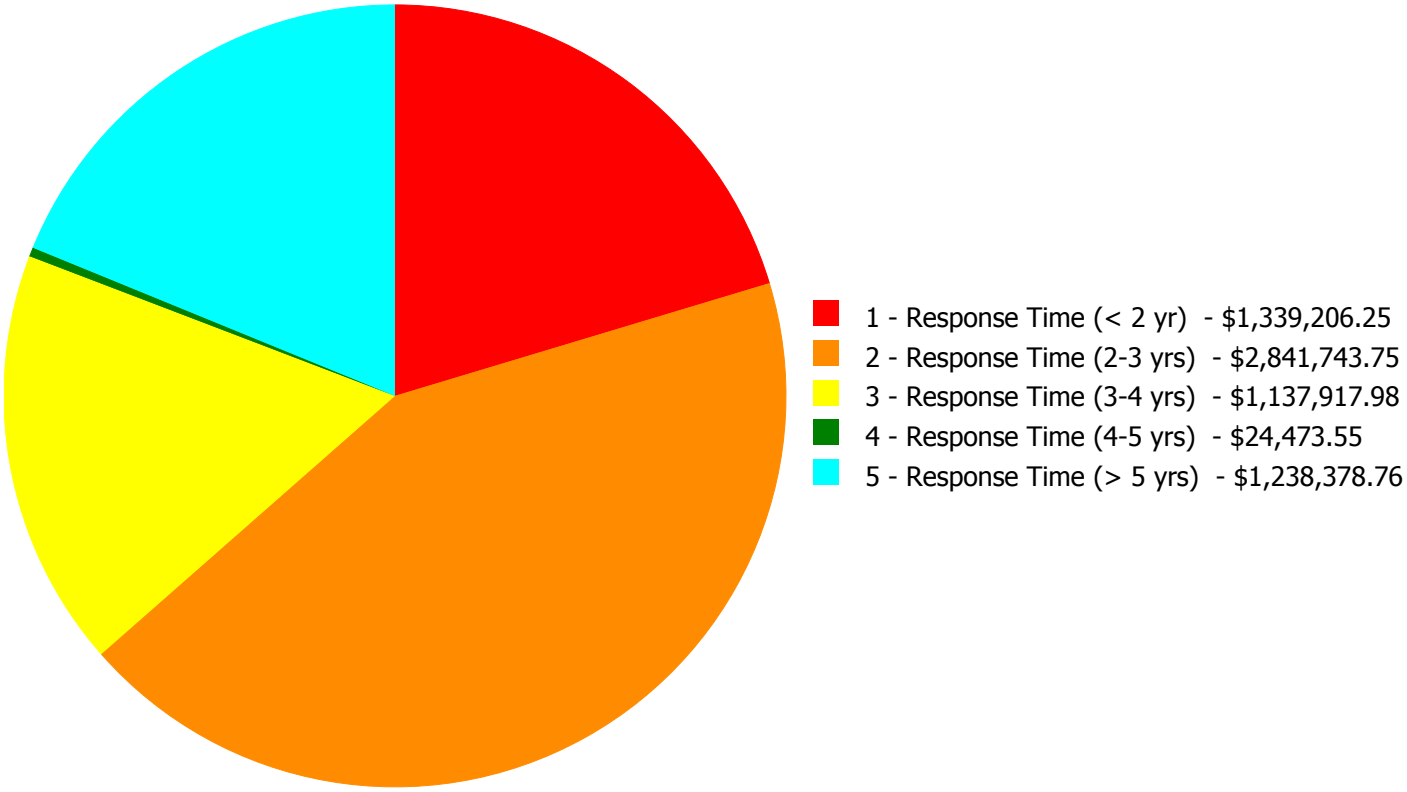
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $6,581,720.29

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: $6,581,720.29

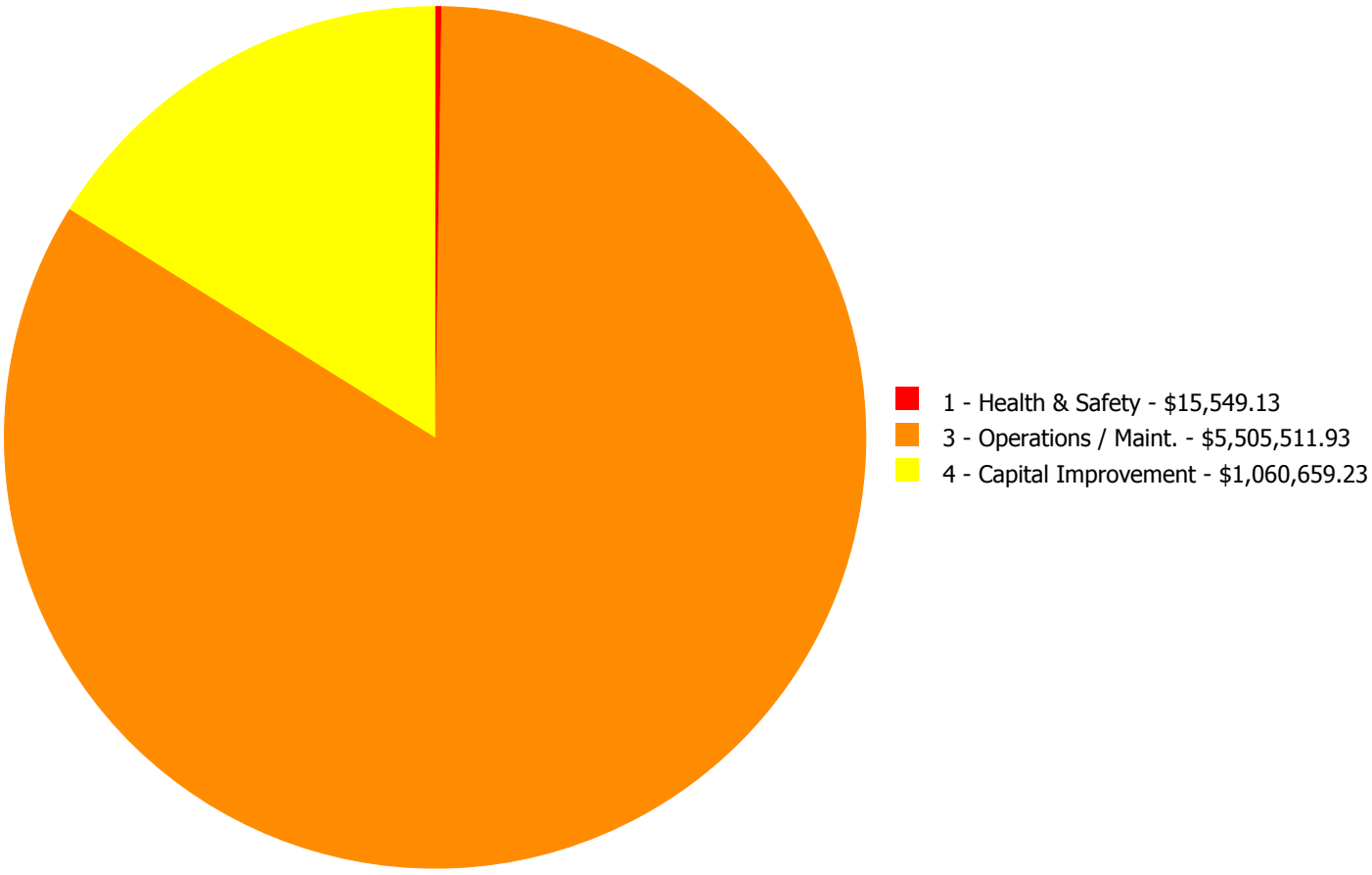
Deficiency By Priority Investment Table

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
B1010	Floor Construction	$0.00	$24,325.62	$0.00	$0.00	$0.00	$24,325.62
B2010	Exterior Walls	$0.00	$9,686.84	$0.00	$0.00	$0.00	$9,686.84
B2020	Exterior Windows	$0.00	$457,138.40	$0.00	$0.00	$0.00	$457,138.40
B2030	Exterior Doors	$0.00	$77,956.17	$0.00	$0.00	$0.00	$77,956.17
C1020	Interior Doors	$0.00	$101,559.74	$0.00	$0.00	$0.00	$101,559.74
C1030	Fittings	$0.00	$105,472.64	$0.00	$0.00	$0.00	$105,472.64
C2010	Stair Construction	$36,525.82	$0.00	$0.00	$0.00	$0.00	$36,525.82
C3010230	Paint & Covering	$0.00	$185,306.83	$0.00	$0.00	$0.00	$185,306.83
C3020411	Carpet	$0.00	$3,357.23	$0.00	$0.00	$0.00	$3,357.23
C3020413	Vinyl Flooring	$0.00	$2,752.02	$0.00	$0.00	$0.00	$2,752.02
C3020415	Concrete Floor Finishes	$0.00	$107,450.46	$0.00	$0.00	$0.00	$107,450.46
D2010	Plumbing Fixtures	$0.00	$148,118.47	$0.00	$0.00	$0.00	$148,118.47
D2020	Domestic Water Distribution	$0.00	$0.00	$0.00	$24,473.55	$380,051.97	$404,525.52
D2030	Sanitary Waste	$0.00	$0.00	$295,080.85	$0.00	$0.00	$295,080.85
D3040	Distribution Systems	$196,866.60	$9,712.48	$742,913.73	$0.00	$0.00	$949,492.81
D3060	Controls & Instrumentation	$0.00	$1,608,906.85	$0.00	$0.00	$0.00	$1,608,906.85
D4010	Sprinklers	$0.00	$0.00	$0.00	$0.00	$858,326.79	$858,326.79
D5010	Electrical Service/Distribution	$605,350.34	$0.00	$0.00	$0.00	$0.00	$605,350.34
D5020	Lighting and Branch Wiring	$273,489.96	$0.00	$99,923.40	$0.00	$0.00	$373,413.36
D5030	Communications and Security	$226,973.53	$0.00	$0.00	$0.00	$0.00	$226,973.53
	Total:	$1,339,206.25	$2,841,743.75	$1,137,917.98	$24,473.55	$1,238,378.76	$6,581,720.29

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: $6,581,720.29

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: Lincoln - Locker Facility - exterior stairs

Distress: Failing

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Repair exterior stairs

Qty: 89.00

Unit of Measure: Riser

Estimate: $36,525.82

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Repair exterior concrete stairs (40 risers x 5ft wide and railings) + (25 risers x 5ft) + (24 risers x 3ft)

System: D3040 - Distribution Systems

Location: Lincoln - Locker Facility - 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: Craig Anding

Date Created: 12/28/2015

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

System: D5010 - Electrical Service/Distribution

Location: Basement

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Add Electrical Switchgear and Distribution System

Qty: 0.00

Unit of Measure: Ea.

Estimate: $358,747.33

Assessor Name: Craig Anding

Date Created: 09/15/2015

Notes: Upgrade the existing electrical service with a new service. Replace the existing distribution panel board with new 1200A, 120/208V, 3PH, 4 wire Switchboard..

System: D5010 - Electrical Service/Distribution

Location: Entier Building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Add Electrical Switchgear and Distribution System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $246,603.01

Assessor Name: Craig Anding

Date Created: 09/15/2015

Notes: Replace the entire distribution system with new panels and new wiring/conduits. Estimated 4panel boards.

System: D5020 - Lighting and Branch Wiring

Location: Entire Building
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Replace lighting fixtures
Qty: 1.00
Unit of Measure: Ea.
Estimate: $226,684.75
Assessor Name: Craig Anding
Date Created: 09/15/2015

Notes: Replace all lighting fixtures with new LED high bay lighting fixtures in the pool area and fluorescent lighting fixtures with T-5 lamp in other areas.

System: D5020 - Lighting and Branch Wiring

Location: Exterior Building
Distress: Inadequate
Category: 4 - Capital Improvement
Priority: 1 - Response Time (< 2 yr)
Correction: Add Exterior Lighting
Qty: 1.00
Unit of Measure: Ea.
Estimate: $31,256.08
Assessor Name: Craig Anding
Date Created: 09/16/2015

Notes: Provide additional wall mounted flood lights on exterior walls to secure the building. Estimated 10 each.

System: D5020 - Lighting and Branch Wiring

Location: Entire Building
Distress: Health Hazard / Risk
Category: 1 - Health & Safety
Priority: 1 - Response Time (< 2 yr)
Correction: Add Lighting Fixtures
Qty: 1.00
Unit of Measure: Ea.
Estimate: $15,549.13
Assessor Name: Craig Anding
Date Created: 09/15/2015

Notes: Replace all exit signs with battery pack type exit signs. Estimated 10 each.

System: D5030 - Communications and Security

Location: Entire Building
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Replace fire alarm system
Qty: 1.00
Unit of Measure: S.F.
Estimate: $155,820.57
Assessor Name: Craig Anding
Date Created: 09/15/2015

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: Exterior Building
Distress: Inadequate
Category: 4 - Capital Improvement
Priority: 1 - Response Time (< 2 yr)
Correction: Add/Replace Video Surveillance System
Qty: 1.00
Unit of Measure: Ea.
Estimate: $59,743.45
Assessor Name: Craig Anding
Date Created: 09/15/2015

Notes: Provide adequate video surveillance cameras on the exterior walls around the building and connected to the building CCTV system. Estimated 5 each.

System: D5030 - Communications and Security

Location: Entire Building
Distress: Inadequate
Category: 4 - Capital Improvement
Priority: 1 - Response Time (< 2 yr)
Correction: Add/Replace Clock System or Components
Qty: 1.00
Unit of Measure: Ea.
Estimate: $11,409.51
Assessor Name: Craig Anding
Date Created: 09/15/2015

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

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

System: B1010 - Floor Construction

Location: Lincoln - Locker Facility - concrete beams

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Repair rebar and epoxy grout exposed rebar on the underside of floors and floor beams

Qty: 300.00

Unit of Measure: S.F.

Estimate: $24,325.62

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Three concrete beams and masonry supports are failing – reconstruct reinforced beams and supports (300sf)

System: B2010 - Exterior Walls

Location: Lincoln - Locker Facility - outside wall

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: 300.00

Unit of Measure: S.F.

Estimate: $9,686.84

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Repair cracked exterior masonry - west corners and end wall (300sf)

System: B2020 - Exterior Windows

Location: Lincoln - Locker Facility - windows

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 72.00

Unit of Measure: Ea.

Estimate: $457,138.40

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Replace exterior windows - (72) 4x3 aluminum frame and glass

System: B2030 - Exterior Doors

Location: Lincoln - Locker Facility - exterior doors

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Remove and replace exterior doors - per leaf

Qty: 10.00

Unit of Measure: Ea.

Estimate: $77,358.91

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: New exterior doors (10 - 3x7)

System: B2030 - Exterior Doors

Location: Lincoln - Locker Facility - rollup door

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Refinish and repaint exterior doors - per leaf

Qty: 1.00

Unit of Measure: Ea.

Estimate: $597.26

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Repaint roll up door (120sf)

System: C1020 - Interior Doors

Location: Lincoln - Locker Facility - interior doors

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace hollow metal frames and doors

Qty: 20.00

Unit of Measure: Ea.

Estimate: $101,559.74

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: New interior doors and hardware (20)

System: C1030 - Fittings

Location: Lincoln - Locker Facility - locker room
Distress: Damaged
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and replace lockers - select size
Qty: 100.00
Unit of Measure: Ea.
Estimate: $65,868.11
Assessor Name: Craig Anding
Date Created: 11/18/2015

Notes: New lockers (100 full height)

System: C1030 - Fittings

Location: Lincoln - Locker Facility - toilets
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and replace toilet partitions
Qty: 12.00
Unit of Measure: Ea.
Estimate: $30,796.86
Assessor Name: Craig Anding
Date Created: 11/18/2015

Notes: Replace toilet partitions (12 toilet, 4 urinal)

System: C1030 - Fittings

Location: Lincoln - Locker Facility - toilets

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace toilet accessories - select accessories and quantity

Qty: 1.00

Unit of Measure: Ea.

Estimate: $5,910.59

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Replace toilet room accessories (12 toilet paper, 8 soap, 4 paper towel, 4 waste cans)

System: C1030 - Fittings

Location: Lincoln - Locker Facility - toilets

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Remove and replace urinal screens

Qty: 4.00

Unit of Measure: Ea.

Estimate: $2,897.08

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Replace toilet partitions (12 toilet, 4 urinal)

System: C3010230 - Paint & Covering

Location: Lincoln - Locker Facility - interiors

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: 36,000.00

Unit of Measure: S.F.

Estimate: $131,341.18

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Repaint all interior walls (36,000sf)

System: C3010230 - Paint & Covering

Location: Lincoln - Locker Facility - ceilings

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 18,529.00

Unit of Measure: S.F.

Estimate: $53,965.65

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Repaint all ceilings (18,529sf)

System: C3020411 - Carpet

Location: Lincoln - Locker Facility - apartment
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and replace carpet
Qty: 300.00
Unit of Measure: S.F.
Estimate: $3,357.23
Assessor Name: Craig Anding
Date Created: 11/18/2015

Notes: Replace carpet in apartment (300sf)

System: C3020413 - Vinyl Flooring

Location: Lincoln - Locker Facility - apartment
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and replace VCT
Qty: 229.00
Unit of Measure: S.F.
Estimate: $2,752.02
Assessor Name: Craig Anding
Date Created: 11/18/2015

Notes: Replace VCT in apartment (229sf)

System: C3020415 - Concrete Floor Finishes

Location: Lincoln - Locker Facility - conc floors

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Prepare and repaint concrete floor

Qty: 18,529.00

Unit of Measure: S.F.

Estimate: $107,450.46

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Refinish all interior concrete floor slabs (18,529sf)

System: D2010 - Plumbing Fixtures

Location: Lincoln - Locker Facility - 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: 14.00

Unit of Measure: Ea.

Estimate: $104,470.07

Assessor Name: Craig Anding

Date Created: 12/28/2015

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

System: D2010 - Plumbing Fixtures

Location: Lincoln - Locker Facility - 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: 2.00

Unit of Measure: Ea.

Estimate: $31,385.79

Assessor Name: Craig Anding

Date Created: 12/28/2015

Notes: Replace the integral refrigerated vertical water coolers and the drinking fountains. These units are well beyond their service life and most are NOT accessible type.

System: D2010 - Plumbing Fixtures

Location: Lincoln - Locker Facility - 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: 12/28/2015

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

System: D2010 - Plumbing Fixtures

Location: Lincoln - Locker Facility - Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or replace wall hung urinals

Qty: 6.00

Unit of Measure: Ea.

Estimate: $3,396.93

Assessor Name: Craig Anding

Date Created: 12/28/2015

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

System: D2010 - Plumbing Fixtures

Location: Lincoln - Locker Facility - 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: 12.00

Unit of Measure: Ea.

Estimate: $2,049.59

Assessor Name: Craig Anding

Date Created: 12/28/2015

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

System: D3040 - Distribution Systems

Location: Lincoln - Locker Facility -Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Provide inline ceiling exhaust fan and wall outlet louver

Qty: 1.00

Unit of Measure: Ea.

Estimate: $9,712.48

Assessor Name: Craig Anding

Date Created: 12/28/2015

Notes: Replace exhaust fans and ductwork.

System: D3060 - Controls & Instrumentation

Location: Lincoln - Locker Facility - 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: 75,000.00

Unit of Measure: S.F.

Estimate: $1,608,906.85

Assessor Name: Craig Anding

Date Created: 12/28/2015

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

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

System: D2030 - Sanitary Waste

Location: Lincoln - Locker Facility - 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: 60,150.00

Unit of Measure: S.F.

Estimate: $295,080.85

Assessor Name: Craig Anding

Date Created: 12/28/2015

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

System: D3040 - Distribution Systems

Location: Lincoln - Locker Facility - 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: Craig Anding

Date Created: 12/28/2015

Notes: Hire a qualified contractor to examine the steam and condensate piping in service for 85 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: Lincoln - Locker Facility - 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: 18,529.00

Unit of Measure: S.F.

Estimate: $175,291.38

Assessor Name: Craig Anding

Date Created: 12/28/2015

Notes: Replace the steam condensate return system.

System: D5020 - Lighting and Branch Wiring

Location: Entier Building

Distress: Inadequate

Category: 4 - Capital Improvement

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

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

Qty: 0.00

Unit of Measure: S.F.

Estimate: $99,923.40

Assessor Name: Craig Anding

Date Created: 09/15/2015

Notes: Replace existing receptacles with duplex receptacles throughout the building. Estimated 40

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

System: D2020 - Domestic Water Distribution

Location: Lincoln - Locker Facility - Main boiler mechanical equipment room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace instantaneous water heater

Qty: 1.00

Unit of Measure: Ea.

Estimate: $24,473.55

Assessor Name: Craig Anding

Date Created: 12/28/2015

Notes: Replace the gas fire instantaneous water heater.

Priority 5 - Response Time (> 5 yrs):

System: D2020 - Domestic Water Distribution

Location: Lincoln - Locker Facility - 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: 75,000.00

Unit of Measure: S.F.

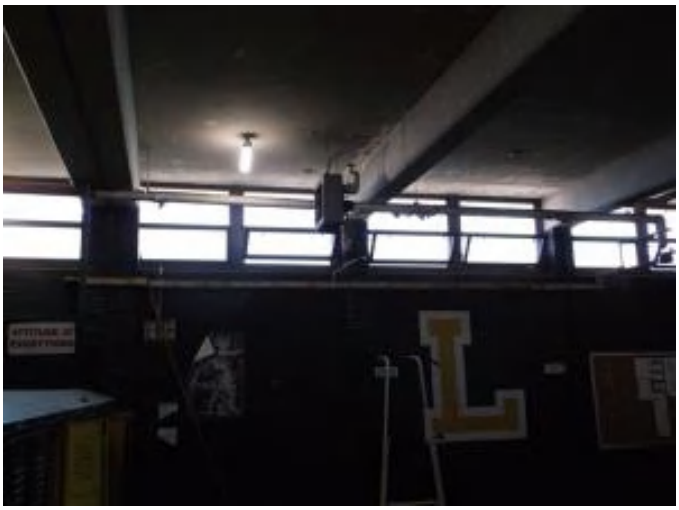
Estimate: $380,051.97

Assessor Name: Craig Anding

Date Created: 12/28/2015

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

System: D4010 - Sprinklers



Location: Lincoln - Locker Facility -Throughout the building

Distress: Inadequate

Category: 4 - Capital Improvement

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: Craig Anding

Date Created: 12/28/2015

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

Equipment Inventory

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

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D5010 Electrical Service/Distribution	Load centers, 1 phase, 3 wire, main lugs, rainproof, 120/240 V, 400 amp, 42 circuits, incl 20 A 1 pole plug-in breakers	1.00	Ea.	Basement					30	1955	2017	$3,663.90	$4,030.29
												Total:	**$4,030.29**

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:	Stands
Gross Area (SF):	10,000
Year Built:	1974
Last Renovation:	
Replacement Value:	$9,299,380
Repair Cost:	$8,099,601.82
Total FCI:	87.10 %
Total RSLI:	54.61 %

Description:

Facility Condition Assessment

August 2015

School District of Philadelphia

Abraham Lincoln Pool House

3201 Ryan Avenue

Philadelphia, PA 19136

10,000sf; LN 08

General

Abraham Lincoln High School is located at 3201 Ryan Avenue. The Locker Facility was built a few years after the original high school building in 1956 and still remain in use. The Pool House was constructed as an addition to the Locker Facility in 1974. It is used by the high school and by the community. Joe the Assistant Engineer led the team through the Locker Facility, Pool House and Stands.

Jack Nelson principal met with the team during the time of inspection. Even though parking is adequate for school days, parking for events is not adequate requiring off-site street parking for event attendees. There is no lighting on the football field which has led to vandalism on the Stands, Field House and the AstroTurf (fires have been set on the AstroTurf).

Architectural/Structural

Since there is no basement, the foundations could not be seen. With little cracking of walls except for an upper section under a concrete beam, the foundations are probably in good condition. A full and detailed survey of all cracked and failing areas needs to be implemented to determine the extent of failure and viability of repairing this structure.

Floor slabs on grade are in fair condition with no major cracking or spalling. Edges of the slab at the parking lot entrance doors is somewhat eroded; this should be repaired when doors are replaced. Isolated minor cracking was seen in the pool deck, with no major gaps or settlement seen.

The Pool House roof deck consists of concrete T sections, spanning approximately 60 feet from exterior wall to wall. The physical condition of the T's appeared to be good with no cracking or spalling observed. There is one location where the concrete block is cracking under the T's above the side door; otherwise, bearing points appear to be solid. Some staining from previous roof leaks were observed, but we were told that leaks have been absent with the installation of the new roof 2 years ago.

Exterior walls are constructed of brick masonry with concrete masonry units (block) on the interior. Most wall surfaces near grade and between columns are in fair condition with no major defects visible. Walls at 3 beam bearing points and both western outside corners in the Locker Facility have large cracks and missing sections of grout, structural degredation and crumbling of the masonry and concrete beams in progress. Bearing points under three concrete beams have large visible areas of cracking and seriously weakened points of support. Stepped cracks are visible at the two western wall upper building corners indicating the possibility of through the wall masonry failure. These failing masonry walls and masonry beam supports should be reconstructed as soon as possible as they support long beams carrying concrete roofs and equipment on the roofs. The walls of the Pool House are in better condition, being 20 years younger; efflorescence is visible on the inside of the block in a few locations, due to past roof leaks. Only one wall in the Pool House had stepped cracking, which should be repaired.

Windows are constructed of a fixed/operable hopper-type, clear anodized aluminum frame system with single pane plexiglass vision panels. This system is worn with the plexiglass so scratched that it is no longer transparent. Efflorescence is and staining is visible under some windows from excessive room humidity, leaks around frames, or possibly from being left open when raining. Regardless, all windows are failing and should be replaced.

This building takes exceptional abuse due to the sports related activities that occur there and from the moist, harsh environments of the pool and toilet rooms. All exterior doors and frames are damaged, have faded paint and many are rusted. All doors, frames, and hardware need to be replaced with rugged FRP doors that the District has started using in new facilities, like the main high school building.

Roofing over this building consists of light gray granule impregnated asphalt rolled roofing with metal asphalt backed flashing. It is said to be 2 years old and is in good condition. There are internal roof drains and a gravel stop edge (no parapet). There is a low area between the Locker Facility and the Pool House that was also replaced with the main roof; this area also does not appear to have any problem areas.

Interior partitions are concrete masonry units (block). Locker room interior walls are structurally sound and in good physical condition. Exterior walls over the south end wall and the west entrance doors are spalled due to past roof leaks and the high humidity of the space. One area of wall near the Locker Facility has stepped cracking under a large duct penetration. Other interior block partitions are in good physical condition.

Interior doors are hollow metal with steel frames. All doors and frames are damaged, rusted and beyond repair. To better withstand the harsh pool environment, the District might consider using FRP (fiberglass reinforced plastic) doors, utilized now on many exterior doors. All doors and frames require replacement.

Toilet partitions are in poor and failing condition, missing doors, partition dividers, and toilet room accessories. All new partitions and toilet room accessories are required.

There are no stairs in the Pool House.

Due to the high moisture and condensation from the pool, toilet rooms, and lack of good ventilation and space conditioning, walls are in poor condition. The south wall has efflorescence under and around the windows from past roof leaks or window leaks. Wall should be repaired and repainted after installation of new windows.

Floors are exposed concrete that is stained, dirty, and in need of refinishing. Non-slip coatings must be used throughout the building due to the constantly wet environment.

Ceilings are exposed concrete T's which are in good condition. Some of the joints between T's have water marks from previous roof leaks; these marks are cosmetic and should be cleaned to improve the appearance, then all concrete T's and roof decks should be painted white which would brighten the spaces.

Furnishings consist of boys and girls lockers. These units are old, damaged, abused, and in poor condition needing replacement. Benches in the pool area are the original wood and recently replaced aluminum benches. There are two rows (one wood, one aluminum) on one side of the pool and one wood row on the opposite side. The wood benches are old, damaged, splitting and need to be replaced. The aluminum benches need to be cleaned and graffiti removed.

Mechanical

Plumbing Fixtures –The building is equipped with wall hung urinals (flush valve type), wall hung water closets (flush valve type), and wall hung lavatories with wheel handle faucets. The lockers are also equipped with a combination of gang and individual shower stalls with shower floor drains. The plumbing fixtures are original and 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 were equipped with floor drains.

The water coolers in the pool facility are rusted and corroded and should be replaced. It is recommended to use a fixture with a stainless steel finish due to the chlorine and moisture within the pool area.

Domestic Water Distribution – There are three water meters which serve the school property; one for the school and two which serve the fieldhouse and the pool. A double check backflow preventer (RPZA – reduced pressure zone assembly) was not located in the field, it is recommended that one be added. 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.

Domestic water is generated by the two heating water boilers which transfers heat through a tube and bundle heat exchanger which then store the hot water in a vertically insulated storage tank for use, There is circulating heating pump for the heat exchanger as well as the domestic hot water system. The vertical Lonchinvar, 650 gallon, glass lined, domestic hot water storage tank is a model GVG060JR, located in the boiler mechanical equipment room. It appears that the circulating pumps have been replaced recently, however the majority of the system appears to be original, has reached the end of its service life and should be replaced. The hot water system is equipped with a common recirculation pump to serve the water.

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

Rain Water Drainage - The rain water drains from the roof are routed through building and connect to the underground site drainage system. There is no roof parapet so there are no overflow scuppers for the building. Rust is apparent on the cast iron roof drainage piping which has been exposed to the high humidity levels in the pool and locker room areas.

Energy Supply – A 6000 underground fuel oil storage tank provides the required fuel to the boilers.

Heat Generating Systems – The two heating water boilers serve the heating needs for the building and produce heating for the domestic water system as well. Heating water is generated by two heating water boilers with number 2 fuel oi burners manufactured by Industrial Combustion. Burner oil pumps are driven by independent motors. The boilers show significant signs of wear and corrosion and should be replaced. There is no draft control on either of the boiler flues. Combustion air louvers serve the boiler room to provide combustion air for the boiler operation through a roof air intake. Burner oil pumps are driven by independent motors. The oil supply to the burner is equipped with dual solenoid valves and strainer/disposable media filter.

Cooling Generating Systems – Any areas which have cooling are provided via window air condition units and are typically office small areas.

Distribution Systems – The building heating water distribution piping is black steel with welded fittings and is original piping, is beyond its service life and should be replaced. The District should hire a qualified contractor to examine the distribution piping and perform additional testing to locate and replace any damaged piping requiring immediate replacement and to further quantify the extent of potential failures. The District should budget for replacing this piping over the next 5 years.

The pool and the locker areas are served by a ducted supply and duct low returns which are connected to two roof mounted heating hot water and ventilation units. Additional heat in the lockers is provide by horizontal suspended fan coil units with heating coils or unit heaters. Supply air is distributed through sidewall duct registers into the pool area. Outside air for ventilation is provided to these area via the outside air intakes on the roof mounted heating and ventilation units. It is recommended to replace these systems with a similar air handling unit and duct distribution but to utilize state of the art dehumidification systems, specifically used for natatoriums. For which the supply ductwork being in a chlorine and moisture laden environment the supply duct work is in good condition.

Terminal & Package Units - There are roof mounted exhaust fans which serve the restrooms and locker room areas. The fans are beyond their service life and should be replaced.

Controls & Instrumentation - The original pneumatic systems still provide basic control functions for the systems. The pneumatic controls have potential problems with oil, moisture or dirt in the pneumatic copper tubing may exists due to their age. 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. Any of the original control valves, dampers and pneumatic actuators are over 60 years old and should be replaced. These controls should be replaced and converted to DDC.

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

Electrical

The Electrical service for the Field House is fed by a 400A, 240/120Volt panel board, located in the Boiler Room. This distribution panel board, which feeds the electrical loads in field house and the pool, is fed from a pole mounted utility transformer located on Rowland Avenue. This service entrance distribution panel board has exceeded its useful life and should be replaced.

There is a mix of grounding type and non-grounding type receptacles in the building. The majority of the receptacles are damaged. All should be replaced with grounding-type receptacles.

The majority of lighting fixtures are surface mounted incandescent lighting fixtures. Some of the lamps have been replaced with energy saver CFL (compact fluorescent lamp) type bulbs. Lighting fixtures are obsolete and lighting levels do not meet IES (Illuminating Engineering Society) recommended levels. They all need replacement.

The Fire Alarm System is old and outdated. This building is equipped with a 120V manual fire alarm system which does not meet current fire alarm codes.

Telephone and LAN equipment/devices are connected to the main building Telephone/LAN system and are working properly.

An Emergency lighting system and exit lighting is only provided in the in pool area of this building. Exit lights are on not on emergency power and are not working properly.

Security Systems-access control, is not provided in the pool area.

Lightning Protection System is not provided and is not required.

Grounding system is present and appears to be adequate.

Site Lighting System is not adequate. There are not enough exterior lighting fixtures to provide a reasonable level of security around the building.

Site Video Surveillance system is not provided in this building. There are no cameras providing surveillance around the building exterior.

Grounds

The entrance to the pool house consists of a brick paver plaza, in good condition. The inspection team was told that the playground area outside the plaza is maintained by the City of Philadelphia.

RECOMMENDATIONS

Architectural

- One concrete beam and masonry support is failing – reconstruct reinforced beam and support (100sf)
- Replace exterior windows - (18) 6x12 aluminum frame and glass skylights + (8) 3x8 windows
- Repaint all interior walls (20,000sf)
- Repaint all ceilings (10,000sf)
- New interior doors and hardware (12)3x7
- New exterior doors (15) 3x7
- Refinish all interior concrete floor slabs (6,000sf)
- Replace toilet partitions (12 toilet, 4 urinal)
- Replace toilet room accessories (12 toilet paper, 8 soap, 4 paper towel, 4 waste cans)
- Replace 2 rows of wood bleaches with aluminum bleachers (60ft long each = 120ft)
- New lockers (100 half height 50 full height)

Mechanical

- Replace all lavatories in the building with lower flow fixtures, as the fixtures are original.
- Replace all water closets in the building with lower flow fixtures, as the fixtures are original.
- Replace all urinals in the building with lower flow fixtures, as the fixtures are original.
- Replace the integral refrigerated vertical water coolers and the drinking fountains. These units are well beyond their service life and most are NOT accessible type.
- Replace service sinks (janitor sinks) in the building.
- Replace domestic hot water system.
- 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.
- Inspect and replace the original as needed the domestic water piping in the building
- Hire a qualified contractor to examine the heating hot water piping in service for 60 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.
- Replace heating water boilers and pumps
- Replace the existing rooftop units, ductwork, fan coil units and unit heaters. The new units shall be designed to provide adequate ventilation per ASHRAE Std 62. The new units shall be equipped with hot water, DX coils selected for a pool environment.
- Replace the pneumatic controls for the HVAC systems with modern DDC modules, valves and actuators to improve reliability and energy efficiency.
- Install a fire protection sprinkler system with quick response type heads to reduce insurance costs by providing protection for the property. A fire pump may be required depending on the available city water pressure.
- Install a new sprinkler system throughout the building

Electrical

- Upgrade the existing electrical service with a new service. Replace the existing distribution panel board with new 100A, 120/208V, 3PH, 4 wire distribution panel.
- Replace the entire distribution system with new panels and new wiring/conduits. Estimated 5 panel boards.
- Replace existing receptacles with duplex receptacles throughout the building.
- Replace all lighting fixtures with new LED high bay lighting fixtures in the pool area and fluorescent lighting fixtures with T-5 lamps in other areas.
- 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 locker rooms, corridors, toilets, and other areas as recommended by codes.
- Provide master clock system including wireless master clock controller and new clock in the building.
- Replace all exit signs with battery pack type exit signs. Estimated 5 each.
- Provide additional wall mounted flood lights on exterior walls to secure the building. Estimated 10 each.
- Provide adequate video surveillance cameras on the exterior walls around the building and connected to the building CCTV system.

Grounds

- Deficiencies indicated in Locker Facility Report.

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B801903
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S801001		

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	40.00 %	0.00 %	$0.00
A20 - Basement Construction	40.00 %	0.00 %	$0.00
A30 - Pool Construction	24.90 %	0.00 %	$0.00
B10 - Superstructure	40.00 %	0.75 %	$8,108.53
B20 - Exterior Enclosure	48.95 %	19.14 %	$283,218.97
B30 - Roofing	25.00 %	0.00 %	$0.00
C10 - Interior Construction	39.75 %	123.13 %	$193,070.92
C20 - Stairs	40.00 %	0.00 %	$0.00
C30 - Interior Finishes	28.46 %	34.69 %	$204,044.36
D20 - Plumbing	116.56 %	205.09 %	$891,507.78
D30 - HVAC	120.37 %	384.93 %	$4,474,424.48
D40 - Fire Protection	105.71 %	451.51 %	$858,326.79
D50 - Electrical	109.66 %	209.99 %	$1,163,772.14
E10 - Equipment	22.86 %	0.00 %	$0.00
E20 - Furnishings	25.00 %	5.31 %	$23,127.85
Totals:	**54.61 %**	**87.10 %**	**$8,099,601.82**

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	$10.75	S.F.	10,000	100	1955	2055		40.00 %	0.00 %	40			$107,500
A1030	Slab on Grade	$17.93	S.F.	10,000	100	1955	2055		40.00 %	0.00 %	40			$179,300
A2010	Basement Excavation	$0.62	S.F.	10,000	100	1955	2055		40.00 %	0.00 %	40			$6,200
A2020	Basement Walls	$8.99	S.F.	10,000	100	1955	2055		40.00 %	0.00 %	40			$89,900
A3010	Pool Excavation	$38.73	S.F.	10,000	100	1974	2074		59.00 %	0.00 %	59			$387,300
A3020	Pool Shell	$106.51	S.F.	10,000	40	1974	2014	2020	12.50 %	0.00 %	5			$1,065,100
B1010	Floor Construction	$107.59	S.F.	10,000	100	1955	2055		40.00 %	0.75 %	40		$8,108.53	$1,075,900
B2010	Exterior Walls	$125.87	S.F.	10,000	100	1955	2055		40.00 %	0.00 %	40			$1,258,700
B2020	Exterior Windows	$14.16	S.F.	10,000	40	2015	2055		100.00 %	118.07 %	40		$167,180.60	$141,600
B2030	Exterior Doors	$7.92	S.F.	10,000	40	2015	2055		100.00 %	146.51 %	40		$116,038.37	$79,200
B3010105	Built-Up	$43.61	S.F.	10,000	20	2000	2020		25.00 %	0.00 %	5			$436,100
B3010120	Single Ply Membrane	$24.21	S.F.	0	20				0.00 %	0.00 %				$0
C1010	Partitions	$6.87	S.F.	10,000	100	1955	2055		40.00 %	0.00 %	40			$68,700
C1020	Interior Doors	$2.42	S.F.	10,000	40	2015	2055		100.00 %	251.80 %	40		$60,935.85	$24,200
C1030	Fittings	$6.39	S.F.	10,000	30	1955	1985	2020	16.67 %	206.78 %	5		$132,135.07	$63,900
C2010	Stair Construction	$17.04	S.F.	10,000	100	1955	2055		40.00 %	0.00 %	40			$170,400
C3010230	Paint & Covering	$12.84	S.F.	10,000	10	1955	1965	2020	50.00 %	131.81 %	5		$169,250.10	$128,400
C3010231	Vinyl Wall Covering	$0.97	S.F.		15				0.00 %	0.00 %				$0

Site Assessment Report - B801903;Lincoln Field - Pool House

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 $
C3010232	Wall Tile	$2.19	S.F.		30				0.00 %	0.00 %				$0
C3020411	Carpet	$7.30	S.F.		10				0.00 %	0.00 %				$0
C3020412	Terrazzo & Tile	$75.52	S.F.		50				0.00 %	0.00 %				$0
C3020413	Vinyl Flooring	$9.68	S.F.		20				0.00 %	0.00 %				$0
C3020414	Wood Flooring	$22.27	S.F.		25				0.00 %	0.00 %				$0
C3020415	Concrete Floor Finishes	$1.43	S.F.	6,000	50	1955	2005	2020	10.00 %	405.53 %	5		$34,794.26	$8,580
C3030	Ceiling Finishes	$20.91	S.F.	10,000	25	1955	1980	2020	20.00 %	0.00 %	5			$209,100
C3040	Pool Finishes	$24.21	S.F.	10,000	20	1974	1994	2020	25.00 %	0.00 %	5			$242,100
D2010	Plumbing Fixtures	$26.14	S.F.	10,000	35	1955	1990	2055	114.29 %	56.66 %	40		$148,118.47	$261,400
D2020	Domestic Water Distribution	$9.22	S.F.	10,000	25	1955	1980	2045	120.00 %	486.23 %	30		$448,308.46	$92,200
D2030	Sanitary Waste	$8.11	S.F.	10,000	25	1955	1980	2045	120.00 %	363.85 %	30		$295,080.85	$81,100
D3020	Heat Generating Systems	$12.82	S.F.	10,000	35	1955	1990	2055	114.29 %	486.57 %	40		$623,778.68	$128,200
D3030	Cooling Generating Systems	$30.02	S.F.		0				0.00 %	0.00 %				$0
D3040	Distribution Systems	$80.09	S.F.	10,000	25	1955	1980	2045	120.00 %	454.01 %	30		$3,636,127.36	$800,900
D3050	Terminal & Package Units	$12.68	S.F.	10,000	20	1955	1975	2040	125.00 %	0.00 %	25			$126,800
D3060	Controls & Instrumentation	$10.65	S.F.	10,000	20	1955	1975	2040	125.00 %	201.43 %	25		$214,518.44	$106,500
D4010	Sprinklers	$17.31	S.F.	10,000	35			2052	105.71 %	495.86 %	37		$858,326.79	$173,100
D4020	Standpipes	$1.70	S.F.	10,000	35			2052	105.71 %	0.00 %	37			$17,000
D5010	Electrical Service/Distribution	$13.01	S.F.	10,000	30	1955	1985	2047	106.67 %	496.19 %	32		$645,544.53	$130,100
D5020	Lighting and Branch Wiring	$30.21	S.F.	10,000	20	1955	1975	2037	110.00 %	94.01 %	22		$283,999.43	$302,100
D5030	Communications and Security	$7.36	S.F.	10,000	15	1955	1970	2032	113.33 %	318.24 %	17		$234,228.18	$73,600
D5090	Other Electrical Systems	$4.84	S.F.	10,000	20	1955	1975	2037	110.00 %	0.00 %	22			$48,400
E1020	Institutional Equipment	$42.18	S.F.	10,000	35	1955	1990	2023	22.86 %	0.00 %	8			$421,800
E1090	Other Equipment	$35.83	S.F.	10,000	35	1955	1990	2023	22.86 %	0.00 %	8			$358,300
E2010	Fixed Furnishings	$43.57	S.F.	10,000	20	1955	1975	2020	25.00 %	5.31 %	5		$23,127.85	$435,700
								Total	**54.61 %**	**87.10 %**			**$8,099,601.82**	**$9,299,380**

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 100%

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

Note: concrete: 100% (6000sf concrete, 4000sf pool)

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:	**$8,099,602**	**$0**	**$0**	**$0**	**$0**	**$3,301,471**	**$0**	**$0**	**$1,087,028**	**$0**	**$0**	**$12,488,101**
*** 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**
A30 - Pool Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A3010 - Pool Excavation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A3020 - Pool Shell	$0	$0	$0	$0	$0	$1,358,217	$0	$0	$0	$0	$0	**$1,358,217**
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	$8,109	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$8,109**
B20 - Exterior Enclosure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2010 - Exterior Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2020 - Exterior Windows	$167,181	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$167,181**
B2030 - Exterior Doors	$116,038	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$116,038**
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	$556,115	$0	$0	$0	$0	$0	**$556,115**
B3010120 - Single Ply Membrane	$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	$60,936	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$60,936**

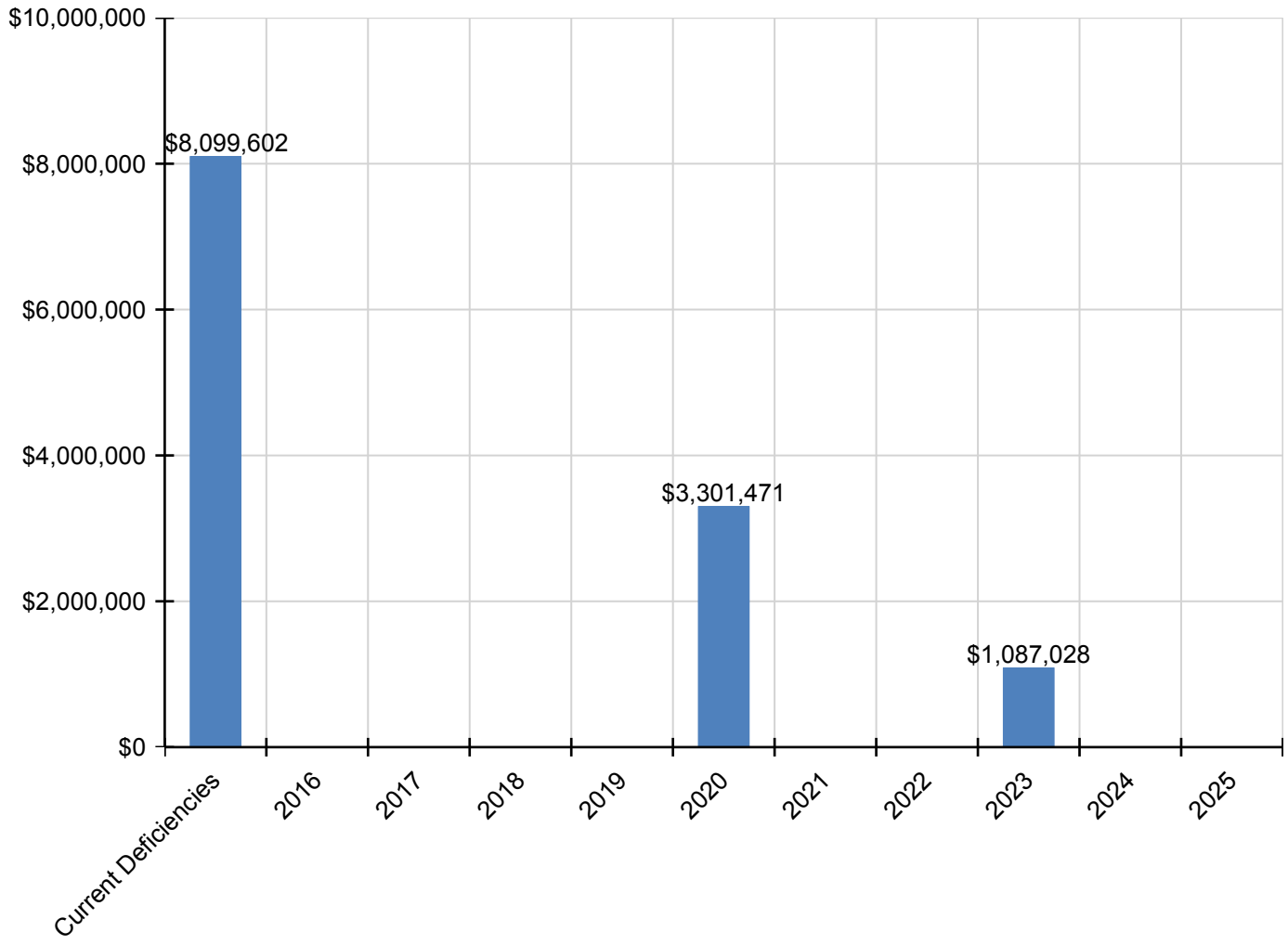
C1030 - Fittings	$132,135	$0	$0	$0	$0	$81,485	$0	$0	$0	$0	$0	**$213,620**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010 - Wall Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010230 - Paint & Covering	$169,250	$0	$0	$0	$0	$163,736	$0	$0	$0	$0	$0	**$332,986**
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	$0	**$0**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$34,794	$0	$0	$0	$0	$10,941	$0	$0	$0	$0	$0	**$45,735**
C3030 - Ceiling Finishes	$0	$0	$0	$0	$0	$266,645	$0	$0	$0	$0	$0	**$266,645**
C3040 - Pool Finishes	$0	$0	$0	$0	$0	$308,726	$0	$0	$0	$0	$0	**$308,726**
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	$148,118	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$148,118**
D2020 - Domestic Water Distribution	$448,308	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$448,308**
D2030 - Sanitary Waste	$295,081	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$295,081**
D30 - HVAC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3020 - Heat Generating Systems	$623,779	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$623,779**
D3030 - Cooling Generating Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3040 - Distribution Systems	$3,636,127	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$3,636,127**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$214,518	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$214,518**
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	$645,545	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$645,545**
D5020 - Lighting and Branch Wiring	$283,999	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$283,999**

D5030 - Communications and Security	$234,228	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$234,228**
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	$0	$0	$0	$587,756	$0	$0	**$587,756**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$499,272	$0	$0	**$499,272**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$23,128	$0	$0	$0	$0	$555,605	$0	$0	$0	$0	$0	**$578,733**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

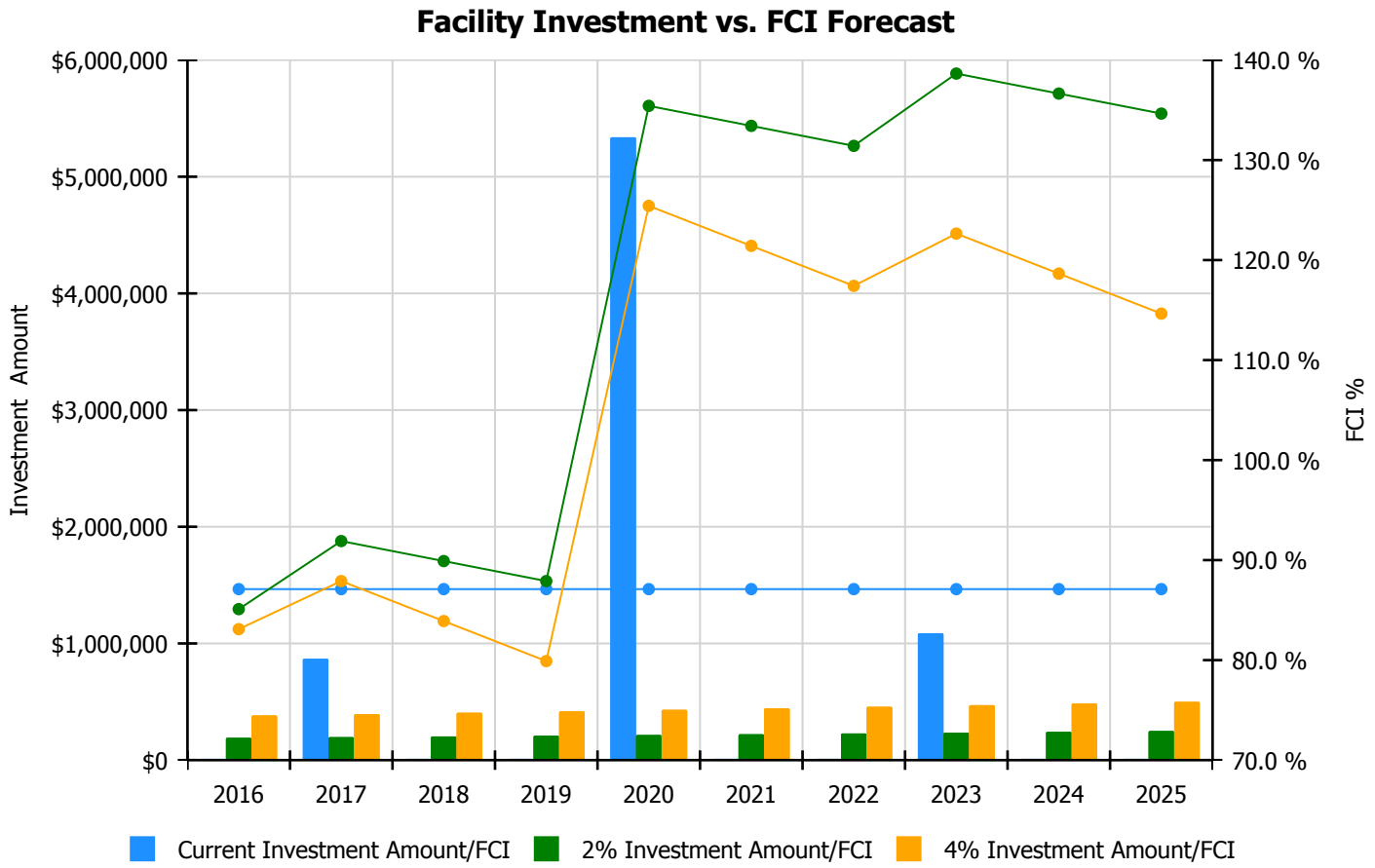
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

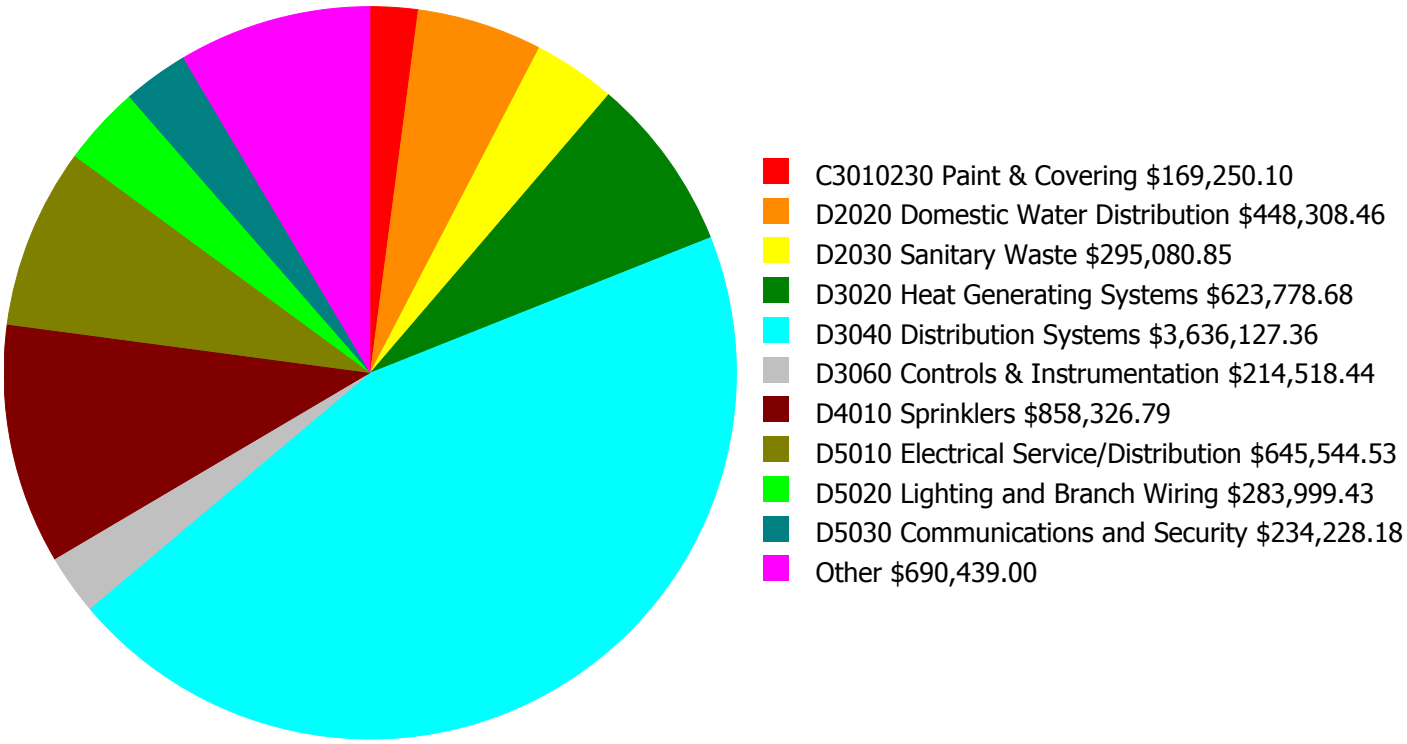
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 87.1%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$191,567.00	85.10 %	$383,134.00	83.10 %
2017	$868,591	$197,314.00	91.90 %	$394,628.00	87.90 %
2018	$0	$203,234.00	89.90 %	$406,467.00	83.90 %
2019	$0	$209,331.00	87.90 %	$418,661.00	79.90 %
2020	$5,338,095	$215,611.00	135.42 %	$431,221.00	125.42 %
2021	$0	$222,079.00	133.42 %	$444,158.00	121.42 %
2022	$0	$228,741.00	131.42 %	$457,483.00	117.42 %
2023	$1,087,028	$235,604.00	138.65 %	$471,207.00	122.65 %
2024	$0	$242,672.00	136.65 %	$485,343.00	118.65 %
2025	$0	$249,952.00	134.65 %	$499,904.00	114.65 %
Total:	**$7,293,714**	**$2,196,105.00**		**$4,392,206.00**	

Deficiency Summary by System

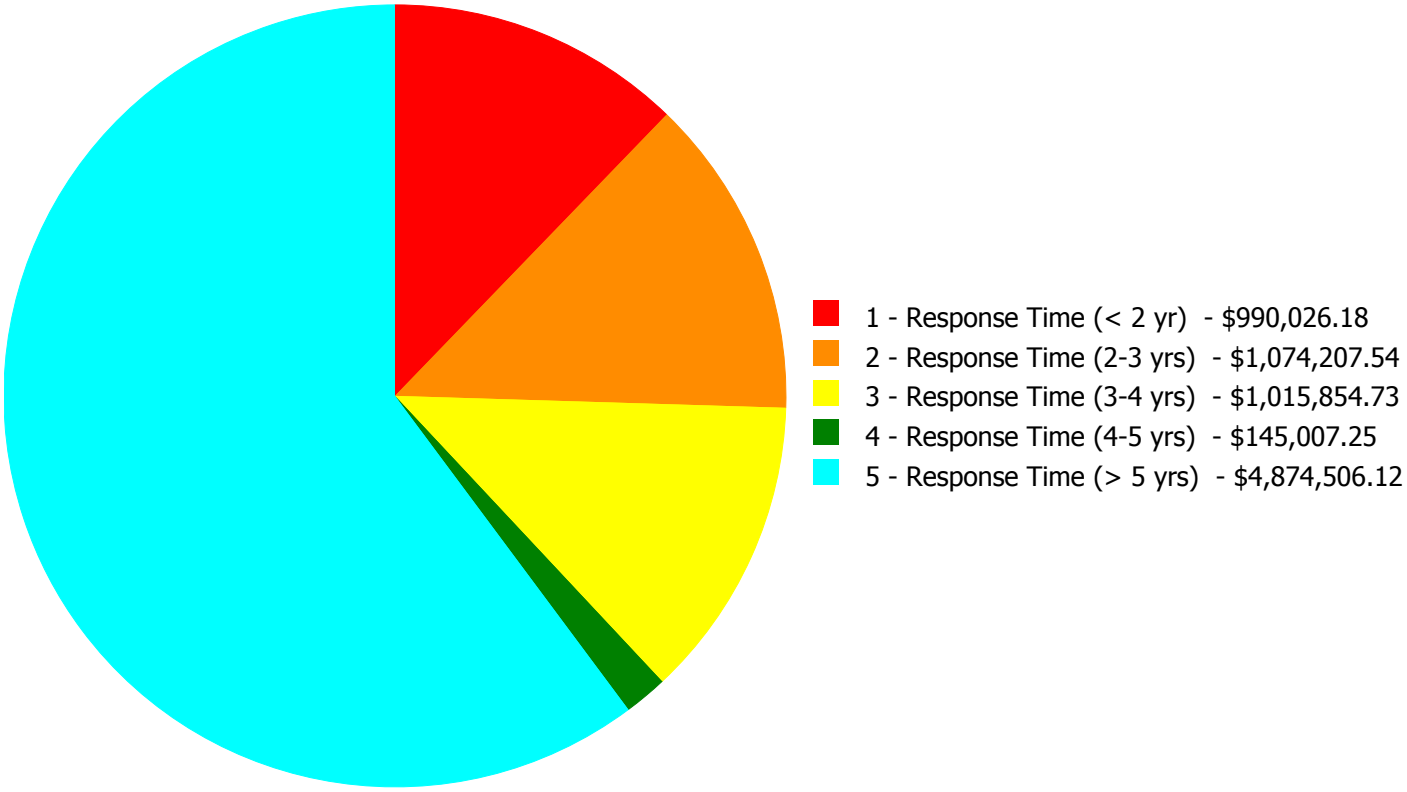
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $8,099,601.82

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: $8,099,601.82

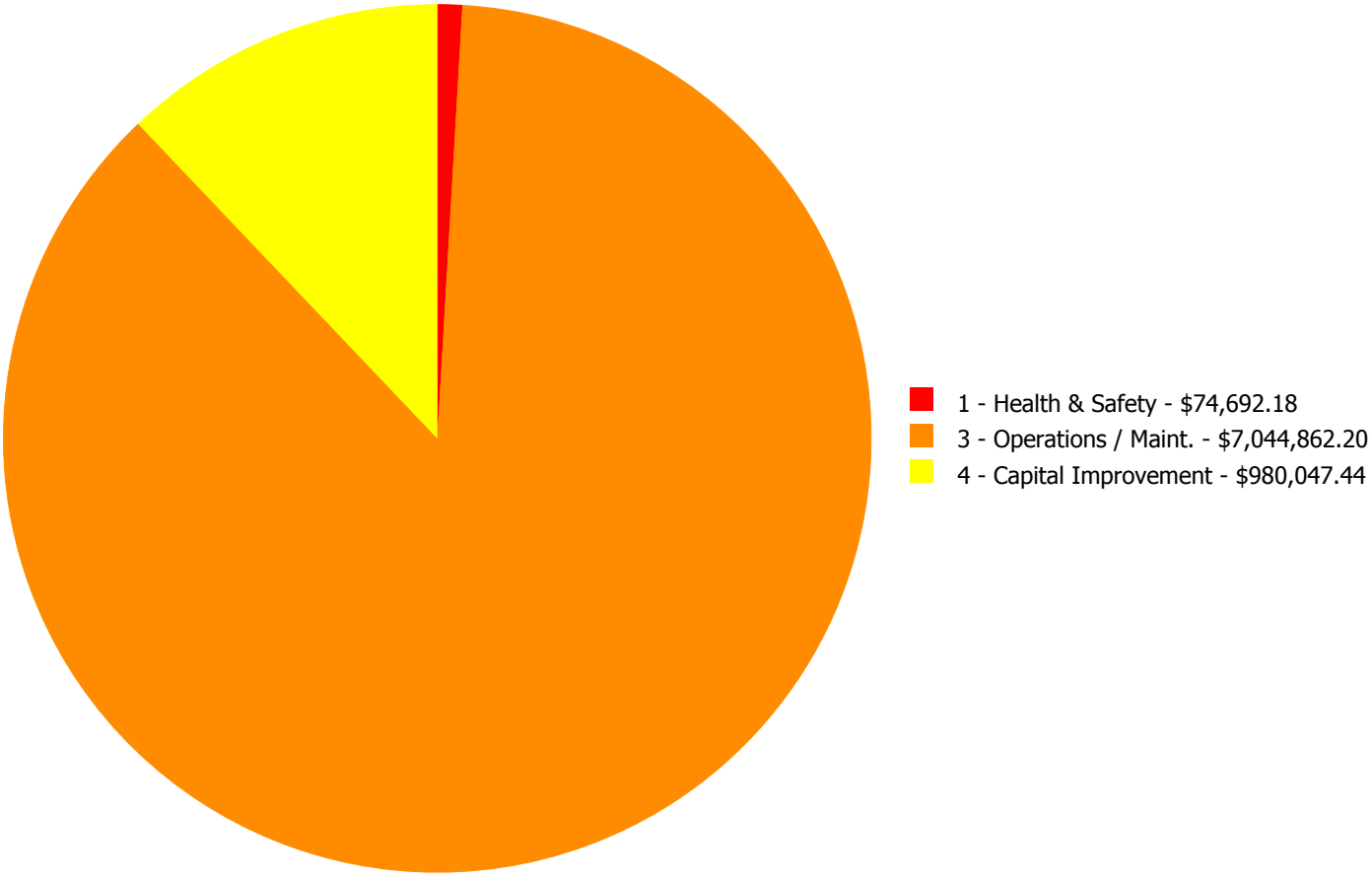
Deficiency By Priority Investment Table

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
B1010	Floor Construction	$0.00	$8,108.53	$0.00	$0.00	$0.00	$8,108.53
B2020	Exterior Windows	$0.00	$167,180.60	$0.00	$0.00	$0.00	$167,180.60
B2030	Exterior Doors	$0.00	$116,038.37	$0.00	$0.00	$0.00	$116,038.37
C1020	Interior Doors	$0.00	$60,935.85	$0.00	$0.00	$0.00	$60,935.85
C1030	Fittings	$0.00	$132,135.07	$0.00	$0.00	$0.00	$132,135.07
C3010230	Paint & Covering	$0.00	$169,250.10	$0.00	$0.00	$0.00	$169,250.10
C3020415	Concrete Floor Finishes	$0.00	$34,794.26	$0.00	$0.00	$0.00	$34,794.26
D2010	Plumbing Fixtures	$0.00	$148,118.47	$0.00	$0.00	$0.00	$148,118.47
D2020	Domestic Water Distribution	$0.00	$0.00	$68,256.49	$0.00	$380,051.97	$448,308.46
D2030	Sanitary Waste	$0.00	$0.00	$295,080.85	$0.00	$0.00	$295,080.85
D3020	Heat Generating Systems	$0.00	$0.00	$491,110.11	$132,668.57	$0.00	$623,778.68
D3040	Distribution Systems	$0.00	$0.00	$0.00	$0.00	$3,636,127.36	$3,636,127.36
D3060	Controls & Instrumentation	$0.00	$214,518.44	$0.00	$0.00	$0.00	$214,518.44
D4010	Sprinklers	$0.00	$0.00	$0.00	$0.00	$858,326.79	$858,326.79
D5010	Electrical Service/Distribution	$645,544.53	$0.00	$0.00	$0.00	$0.00	$645,544.53
D5020	Lighting and Branch Wiring	$110,253.47	$0.00	$161,407.28	$12,338.68	$0.00	$283,999.43
D5030	Communications and Security	$234,228.18	$0.00	$0.00	$0.00	$0.00	$234,228.18
E2010	Fixed Furnishings	$0.00	$23,127.85	$0.00	$0.00	$0.00	$23,127.85
	Total:	$990,026.18	$1,074,207.54	$1,015,854.73	$145,007.25	$4,874,506.12	$8,099,601.82

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: $8,099,601.82

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: D5010 - Electrical Service/Distribution

This deficiency has no image.

Location: Basement
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Add Electrical Switchgear and Distribution System
Qty: 1.00
Unit of Measure: Ea.
Estimate: $358,747.33
Assessor Name: Craig Anding
Date Created: 09/16/2015

Notes: Upgrade the existing electrical service with a new service. Replace the existing distribution panel board with new 1200A, 120/208V, 3PH, 4 wire distribution panel.

System: D5010 - Electrical Service/Distribution

Location: Entire Building
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Add Electrical Switchgear and Distribution System
Qty: 1.00
Unit of Measure: Ea.
Estimate: $286,797.20
Assessor Name: Craig Anding
Date Created: 09/16/2015

Notes: Replace the entire distribution system with new panels and new wiring/conduits. Estimated 6 panel boards.

System: D5020 - Lighting and Branch Wiring

Location: Entire Building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 1 - Response Time (< 2 yr)

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

Qty: 1.00

Unit of Measure: S.F.

Estimate: $71,650.50

Assessor Name: Craig Anding

Date Created: 09/16/2015

Notes: Replace existing receptacles with duplex receptacles throughout the building.

System: D5020 - Lighting and Branch Wiring

Location: Entire Building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 1 - Response Time (< 2 yr)

Correction: Add Lighting Fixtures

Qty: 1.00

Unit of Measure: Ea.

Estimate: $38,602.97

Assessor Name: Craig Anding

Date Created: 09/16/2015

Notes: Provide emergency battery pack lights in corridors and at the egress ways. Estimated 15 each.

System: D5030 - Communications and Security

Location: Entire Building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Replace fire alarm system

Qty: 1.00

Unit of Measure: S.F.

Estimate: $160,407.50

Assessor Name: Craig Anding

Date Created: 09/16/2015

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: Exterior Buillding

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: $62,353.50

Assessor Name: Craig Anding

Date Created: 09/16/2015

Notes: Provide adequate video surveillance cameras on the exterior walls around the building and connected to the building CCTV system. Estimated 4each. Estimated 6

System: D5030 - Communications and Security

This deficiency has no image.

Location: Entire Building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 1 - Response Time (< 2 yr)

Correction: Add/Replace Clock System or Components

Qty: 1.00

Unit of Measure: Ea.

Estimate: $11,467.18

Assessor Name: Craig Anding

Date Created: 09/16/2015

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

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

System: B1010 - Floor Construction

Location: Lincoln - Pool House - roof beam

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Repair rebar and epoxy grout exposed rebar on the underside of floors and floor beams

Qty: 100.00

Unit of Measure: S.F.

Estimate: $8,108.53

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: One concrete beam and masonry support is failing – reconstruct reinforced beam and support (100sf)

System: B2020 - Exterior Windows

Location: Lincoln - Pool House - exterior windows

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 26.00

Unit of Measure: Ea.

Estimate: $167,180.60

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Replace exterior windows - (18) 6x12 aluminum frame and glass skylights + (8) 3x8 windows

System: B2030 - Exterior Doors

Location: Lincoln - Pool House - exterior doors

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Remove and replace exterior doors - per leaf

Qty: 15.00

Unit of Measure: Ea.

Estimate: $116,038.37

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: New exterior doors (15) 3x7

System: C1020 - Interior Doors

Location: Lincoln - Pool House - interior doors

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Remove and replace hollow metal frames and doors

Qty: 12.00

Unit of Measure: Ea.

Estimate: $60,935.85

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: New interior doors and hardware (12)3x7

System: C1030 - Fittings

Location: Lincoln - Pool House - lockers
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and replace lockers - select size
Qty: 100.00
Unit of Measure: Ea.
Estimate: $93,714.98
Assessor Name: Craig Anding
Date Created: 11/18/2015

Notes: New lockers (100 half height, 50 full height)

System: C1030 - Fittings

Location: Lincoln - Pool House - toilets
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and replace toilet partitions
Qty: 12.00
Unit of Measure: Ea.
Estimate: $30,796.86
Assessor Name: Craig Anding
Date Created: 11/18/2015

Notes: Replace toilet partitions (12 toilet, 4 urinal)

System: C1030 - Fittings

Location: Lincoln - Pool House - toilets

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace toilet accessories - select accessories and quantity

Qty: 12.00

Unit of Measure: Ea.

Estimate: $7,623.23

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Replace toilet room accessories (12 toilet paper, 8 soap, 4 paper towel, 4 waste cans)

System: C3010230 - Paint & Covering

Location: Lincoln - Pool House - interiors

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: 20,000.00

Unit of Measure: S.F.

Estimate: $122,929.02

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Repaint all interior walls (20,000sf)

System: C3010230 - Paint & Covering

Location: Lincoln - Pool House - ceilings

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: 10,000.00

Unit of Measure: S.F.

Estimate: $46,321.08

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Repaint all ceilings (10,000sf)

System: C3020415 - Concrete Floor Finishes

Location: Lincoln - Pool House - floors

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Prepare and repaint concrete floor

Qty: 6,000.00

Unit of Measure: S.F.

Estimate: $34,794.26

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Refinish all interior concrete floor slabs (6,000sf)

System: D2010 - Plumbing Fixtures

Location: Lincoln - Pool House - 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: 14.00

Unit of Measure: Ea.

Estimate: $104,470.07

Assessor Name: Craig Anding

Date Created: 12/28/2015

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

System: D2010 - Plumbing Fixtures

Location: Lincoln - Pool House - 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: 2.00

Unit of Measure: Ea.

Estimate: $31,385.79

Assessor Name: Craig Anding

Date Created: 12/28/2015

Notes: Replace the integral refrigerated vertical water coolers and the drinking fountains. These units are well beyond their service life and most are NOT accessible type.

System: D2010 - Plumbing Fixtures

This deficiency has no image.

Location: Lincoln - Pool House - 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: 12/28/2015

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

System: D2010 - Plumbing Fixtures

Location: Lincoln - Pool House - Throughout the building
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and replace or replace wall hung urinals
Qty: 6.00
Unit of Measure: Ea.
Estimate: $3,396.93
Assessor Name: Craig Anding
Date Created: 12/28/2015

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

System: D2010 - Plumbing Fixtures

Location: Lincoln - Pool House - 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: 12.00

Unit of Measure: Ea.

Estimate: $2,049.59

Assessor Name: Craig Anding

Date Created: 12/28/2015

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

System: D3060 - Controls & Instrumentation

Location: Lincoln - Pool House - 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: 10,000.00

Unit of Measure: S.F.

Estimate: $214,518.44

Assessor Name: Craig Anding

Date Created: 12/28/2015

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

System: E2010 - Fixed Furnishings

Location: Lincoln - Pool House - pool

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Replace broken or non-functional bleachers - select number of tiers and power if applicable

Qty: 1.00

Unit of Measure: Seat

Estimate: $23,127.85

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Replace 2 rows of wood bleaches with aluminum bleachers (60ft long)

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

System: D2020 - Domestic Water Distribution

Location: Lincoln - Pool House - Main boiler mechanical room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace vertical tank type gas-fired water heater (120 gal)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $68,256.49

Assessor Name: Craig Anding

Date Created: 12/28/2015

Notes: Replace domestic hot water system.

System: D2030 - Sanitary Waste

Location: Lincoln - Pool House - 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: 60,150.00

Unit of Measure: S.F.

Estimate: $295,080.85

Assessor Name: Craig Anding

Date Created: 12/28/2015

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

System: D3020 - Heat Generating Systems

Location: Lincoln - Pool House - Main boiler mechanical equipment room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace boiler, cast iron sectional (50 HP)

Qty: 2.00

Unit of Measure: Ea.

Estimate: $491,110.11

Assessor Name: Craig Anding

Date Created: 12/28/2015

Notes: Replace heating water boilers and pumps

System: D5020 - Lighting and Branch Wiring

This deficiency has no image.

Location: Entire Building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace Lighting Fixtures (SF)

Qty: 0.00

Unit of Measure: S.F.

Estimate: $161,407.28

Assessor Name: Craig Anding

Date Created: 09/16/2015

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

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

System: D3020 - Heat Generating Systems

Location: Lincoln - Pool House - Main boiler mechanical equipment room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace pump, base-mounted, end suction HHW (3" size, 5 HP, to 225 GPM)

Qty: 2.00

Unit of Measure: Ea.

Estimate: $132,668.57

Assessor Name: Craig Anding

Date Created: 12/28/2015

Notes: Replace pumps

System: D5020 - Lighting and Branch Wiring

This deficiency has no image.

Location: Entier Building

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

Correction: Add Lighting Fixtures

Qty: 1.00

Unit of Measure: Ea.

Estimate: $12,338.68

Assessor Name: Craig Anding

Date Created: 09/16/2015

Notes: Replace all exit signs with battery pack type exit signs. Estimated 6 each.

Priority 5 - Response Time (> 5 yrs):

System: D2020 - Domestic Water Distribution

Location: Lincoln - Pool House - 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: 75,000.00

Unit of Measure: S.F.

Estimate: $380,051.97

Assessor Name: Craig Anding

Date Created: 12/28/2015

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

System: D3040 - Distribution Systems

Location: Lincoln - Pool House - Roof

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Install pool environmental unit with Dx condenser and pool heater

Qty: 14,400.00

Unit of Measure: S.F.

Estimate: $3,537,683.33

Assessor Name: Craig Anding

Date Created: 12/28/2015

Notes: Replace the existing rooftop units, ductwork, fan coil units and unit heaters. The new units shall be designed to provide adequate ventilation per ASHRAE Std 62. The new units shall be equipped with hot water, DX coils selected for a pool environment.

System: D3040 - Distribution Systems

Location: Lincoln - Pool House - Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace hydronic heating piping (75KSF)

Qty: 10,000.00

Unit of Measure: S.F.

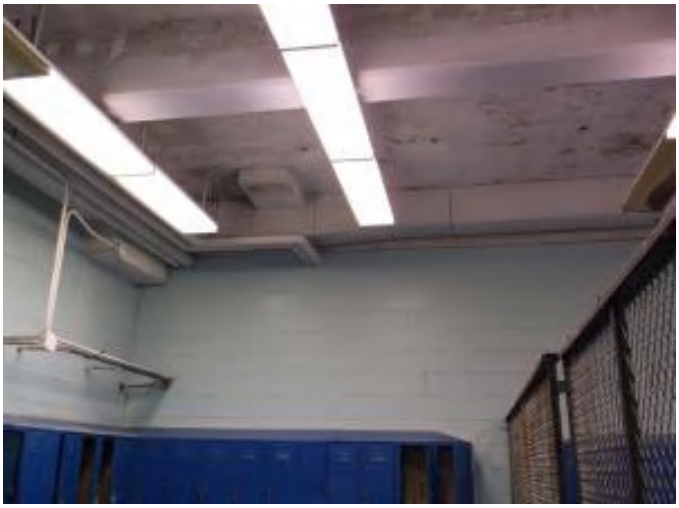
Estimate: $98,444.03

Assessor Name: Craig Anding

Date Created: 12/28/2015

Notes: Hire a qualified contractor to examine the heating hot water piping in service for 60 years and perform additional testing to locate and replace any damaged piping and to further quantify the extent of potential failures. The District should budget for replacing this piping over the next 10 years.

System: D4010 - Sprinklers



Location: Lincoln - Pool House - Throughout the building

Distress: Inadequate

Category: 4 - Capital Improvement

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: Craig Anding

Date Created: 12/28/2015

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

Equipment Inventory

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

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:	Stands
Gross Area (SF):	16,700
Year Built:	1955
Last Renovation:	
Replacement Value:	$4,463,846
Repair Cost:	$1,582,746.31
Total FCI:	35.46 %
Total RSLI:	54.10 %

Description:

Facility Condition Assessment

August 2015

School District of Philadelphia

Abraham Lincoln Stands, Toilet Facility, Track and Football Field

3201 Ryan Avenue

Philadelphia, PA 19136

1,700sf (Toilet Facilities, building) + 15,000sf (Stands – bleachers); LN 08

General

Abraham Lincoln High School is located at 3201 Ryan Avenue. The Stands (Field House) and the Locker Facility structures were built a few years after the original high school building in 1956 and still remain in use. The Pool House was constructed as an addition to the Locker Facility in 1974. With the construction of the new school building in 2009, the football field received a make-over receiving AstroTurf in the field and the track surrounding the field. Joe the Assistant Engineer led the team through the Locker Facility, Pool House and Stands.

Jack Nelson principal met with the team during the time of inspection. He had concerns relating to security. The site (in particular, the Ryan Street parking lot) cannot be closed to outsiders; cars travel through the parking lot to avoid the traffic light at Sackett Street. Even though parking is adequate for school days, parking for events is not adequate requiring off-site street parking for event attendees. There is no lighting on the football field which has led to vandalism on the Stands, Field House and the AstroTurf (fires have been set on the AstroTurf).

Architectural/Structural

Foundation of the Stands could not be seen. In the grounds around the stands, no significant settlement was observed.

Floor Slabs / Stairs (stepped slab) on which bleacher seating is mounted is in a serious state of failure. In many locations seen from the seating area on top and from the sides, concrete has cracked, spalled, and fallen away, exposing rusted reinforcing rods which are now clearly visible and rusted. Toilet rooms are located behind the stands attached to the rear wall; floor slabs are not significantly cracked or failing. There are many cracked and failing areas in the bleacher areas. A full and detailed survey of all cracked and failing areas needs to be implemented to determine the extent of failure and viability of repairing this structure.

Roof System over the toilet rooms is constructed of concrete supporting a dead level roof, constructed of concrete beams and deck which appeared to be relatively free of major defects. Intersections of the roof deck and wall seemed to have a large gap, but there was no significant spalling along those intersections. There is no roof over the bleacher stands. There are many locations of serious cracking, spalling and crumbling where concrete beams bridging passageways at the top of the stands and connect to each other and the walls below. This beam structure gives the top of the stands rigidity and it appears to be failing in many locations. A full and detailed survey of all cracked and failing areas needs to be implemented to determine the extent of failure and viability of repairing this structure.

The exterior masonry walls of the toilet rooms are in fair condition being protected by large flat roof overhangs. As mentioned above, the concrete beams that tie the upper-most adjacent sections of concrete bleacher stands together are cracking and spalling at spans and wall supports. Since people who use the toilets must pass under these beams, there is danger from falling concrete pieces or the possibility of collapse of these sections of wall. Cracks are visible along the upward sloping sides of bleacher stands. There is also excessive movement at expansion joint locations between adjacent sections of stands, creating 1”-2” differences in height between adjacent bleacher sections. A full and detailed survey of all cracked and failing areas needs to be implemented to determine the extent of failure and viability of repairing this structure.

There are no windows in the Stands and toilet facilities

The exterior doors and frames of the toilet rooms are damaged, have faded paint and rusted. All doors, frames, and hardware need to be replaced with rugged FRP doors that the District has started using in new facilities, like the main building.

Roof coverings over the toilet rooms consist of dead level flood coated asphalt (or possibly coal tar pitch) surfaces with internal roof drains and gravel stop edges. Like the Locker Facility, the surface over each of the toilet room sections is probably more than 20 years old, has been partially resurfaced, and probably past its normal service life. These roofs might be leaking, but due to the poor condition of the toilet rooms and dirty walls, it is difficult to tell if ceiling and wall stains are due to roof leaks or other causes. If the toilet facilities are to be repaired, the roofs should be replaced.

Interior partitions in the toilet rooms are concrete masonry units (block). Walls in the toilet rooms are a combination of block walls which enclose and separate men’s, women’s and storage room spaces and gypsum board, utilized to hide plumbing. Masonry is in fair condition needing some patching, repairing and repainting; gypsum board plumbing walls are in poor condition and in need of replacement.

Interior doors and frames are hollow metal, which are damaged, rusted and beyond repair. All doors and frames require replacement.

Interior fittings consist of toilet partitions, which are in poor and failing condition, missing doors, partition dividers, and toilet room accessories. All new partitions and accessories are required in all toilet rooms.

There are no “stairs” in the stands. The stepped concrete structures (“stairs”) are discussed under floor slabs, in the paragraph above.

Wall Finishes in the toilet rooms are in poor condition with stains on walls. All interiors need to be cleaned and repainted.

Floors finishes in toilet rooms are exposed concrete that is stained, dirty, and in need of refinishing with new sealer or non-slip paint. The Stands are exposed concrete. The surface has been so eroded by weather that the surface is has more exposed gravel aggregate than cement finish. Surface cracks are forming everywhere under and between seating; reinforcing rods are becoming exposed in many locations. A full assessment of the condition of the concrete is required before repairs are made to cracked areas.

Ceilings in the toilet rooms are exposed concrete that has spalled in some locations, exposing reinforcing rods. These areas need to be patched to prevent structural failure.

Furnishings consist of 25 rows of aluminum bleacher seats approximately 300ft long, secured to the concrete stepped structure. The bleacher seating has a substantial amount of graffiti and needs to be cleaned. Seating is separated by aisles. Guard rails are provided between aisles and at bottoms and other areas but they are, damaged, rusting, and not the correct height (not code compliant); railings need to be replaced.

There is no elevator.

Mechanical

Plumbing Fixtures –The building is equipped with four restrooms, two men's, two women's. Each restroom consists of wall hung water closets (flush valve type) and wall hung lavatories with wheel handle faucets. 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 were also equipped with floor drains.

Domestic Water Distribution – The domestic water service to the restrooms is fed from one of the two water services which serves the pool and the fieldhouse. The piping is mostly soldered copper. The water meters are located at the property line of the school.

The domestic water heating source could not be verified for the fieldhouse fixtures.

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

Rain Water Drainage - The rain water drains from the roof are routed through the building and connect to the underground site drainage system. There is no roof parapet so there are no overflow scuppers for the building.

Heat Generating Systems – The building is not heated. The existing exhaust fans remain in place, however the common roof discharge for the fans has been closed and sealed. The equipment appears to be original and should be replaced and the system is beyond its service life and is severely corroded and rusted.

Sprinklers - The building is NOT covered by an automatic sprinkler system.

Electrical

The Electrical service panel is located in a storage room underneath the field bleachers. The source of the feeder for this service is unknown. The existing electrical system including the service entrance, distribution system, lighting system, and receptacles have exceeded their useful life. Full replacement of these systems is recommended. The parking area and the football field have no lighting, which is a cause for concern with respect to security. The field score board is outdated and should be replaced.

Grounds (Football Field)

There is no dedicated off-street parking for the football stadium. Football game attendees must park in the Locker Pool House parking lot, high school parking lot, or use street parking.

The football field is constructed of AstroTurf. There are two new burned areas and at least 16 older patched areas on the football field. The running track constructed of a rubberized composition, surrounds the football field. There are areas of graffiti on the track, requiring cleaning if possible; if graffiti cannot be removed, the sections of track need to be replaced. The 4ft high fence around the track needs to be repainted. Poor visibility from the street and lack of site lighting has contributed to allowing vandalism to occur at night on this high-cost field and track.

A site fence with gates and full closure is not provided around the school and football field property. A 10ft high chain link fence constructed of rusted galvanized steel is located around parts of the property, however sections are missing at street entrances and other areas hidden in dense vegetation and full closure is not provided. It is possible that the fence was installed during the time of the old building 60 years ago with new sections possibly added with the construction of the new high school in 2009, but this could not be confirmed. If a full site fence is desired, it would be over 7000 feet long and would require gates to close off driveway access to the site.

RECOMMENDATIONS

Architectural

- Inspect concrete stands and document the areas where reinforcing rods are exposed and concrete is spalling. Repair spalled concrete steps, sides and top beams where cracks have formed. Estimated half of concrete structure needs repairs (8000sf)
- Clean aluminum bleachers secured to concrete stands (25 rows, 300ft long, including 7 aisles)
- Replace handrails/guards between aisles and along football field (1000lf)
- Remove existing roofs and provide new roofs (1700sf)
- Repair stucco and repaint exterior walls (7000sf)
- Repair and repaint toilet room walls - interior (2000sf)
- Repair and repaint toilet room ceilings (1700sf)
- Strip clean and paint concrete floors (1700sf)
- New toilet room and storage room doors and hardware (6 doors)
- Provide new toilet partitions and accessories – all toilet facilities (estimated 16 toilets and lavatories)

Mechanical

- Replace all lavatories in the building with lower flow fixtures, as the fixtures are original.
- Replace all water closets in the building with lower flow fixtures, as the fixtures are original.
- Replace all urinals in the building with lower flow fixtures, as the fixtures are original.
- Install exhaust fans.

Electrical

- Upgrade the existing electrical service with a new service. Provide 400A, 120/208V distribution switchboard.
- Provide 15 pole mounted LED lighting fixtures around the football field and 10 in the parking area.

Grounds (Football Field)

- Repair damaged sections of Football Field AstroTurf. (100sf)
- Clean and repair sections of track surrounding football field (500sf)

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B801909
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S801001		

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	40.00 %	0.00 %	$0.00
A20 - Basement Construction	40.00 %	0.00 %	$0.00
B10 - Superstructure	40.00 %	36.10 %	$648,682.88
B20 - Exterior Enclosure	43.55 %	22.77 %	$51,782.01
B30 - Roofing	110.00 %	89.73 %	$57,599.43
C10 - Interior Construction	48.38 %	286.26 %	$84,042.13
C30 - Interior Finishes	40.32 %	95.22 %	$28,213.29
D20 - Plumbing	116.51 %	90.88 %	$66,112.28
D30 - HVAC	122.50 %	12.27 %	$9,712.48
D40 - Fire Protection	0.00 %	0.00 %	$0.00
D50 - Electrical	115.67 %	68.45 %	$517,934.06
E10 - Equipment	14.29 %	0.00 %	$0.00
E20 - Furnishings	25.00 %	16.31 %	$118,667.75
Totals:	**54.10 %**	**35.46 %**	**$1,582,746.31**

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.

Site Assessment Report - B801909;Lincoln Field - Stands, Toilet Facilities, Track, and Field

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	$10.75	S.F.	16,700	100	1955	2055		40.00 %	0.00 %	40			$179,525
A1030	Slab on Grade	$17.93	S.F.	16,700	100	1955	2055		40.00 %	0.00 %	40			$299,431
A2010	Basement Excavation	$0.62	S.F.	16,700	100	1955	2055		40.00 %	0.00 %	40			$10,354
A2020	Basement Walls	$8.99	S.F.	16,700	100	1955	2055		40.00 %	0.00 %	40			$150,133
B1010	Floor Construction	$107.59	S.F.	16,700	100	1955	2055		40.00 %	36.10 %	40		$648,682.88	$1,796,753
B2010	Exterior Walls	$125.87	S.F.	1,700	100	1955	2055		40.00 %	24.20 %	40		$51,782.01	$213,979
B2030	Exterior Doors	$7.92	S.F.	1,700	40	2015	2055		100.00 %	0.00 %	40			$13,464
B3010105	Built-Up	$37.76	S.F.	1,700	20	2000	2020	2037	110.00 %	89.73 %	22		$57,599.43	$64,192
C1010	Partitions	$6.87	S.F.	1,700	50	1955	2005	2035	40.00 %	0.00 %	20			$11,679
C1020	Interior Doors	$4.01	S.F.	1,700	20	2015	2035		100.00 %	446.94 %	20		$30,467.92	$6,817
C1030	Fittings	$6.39	S.F.	1,700	20	1955	1975	2020	25.00 %	493.18 %	5		$53,574.21	$10,863
C3010230	Paint & Covering	$13.21	S.F.	1,700	10	1955	1965	2020	50.00 %	45.50 %	5		$10,216.97	$22,457
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.		10				0.00 %	0.00 %				$0
C3020412	Terrazzo & Tile	$75.52	S.F.		30				0.00 %	0.00 %				$0
C3020413	Vinyl Flooring	$9.68	S.F.		20				0.00 %	0.00 %				$0
C3020414	Wood Flooring	$22.27	S.F.		25				0.00 %	0.00 %				$0
C3020415	Concrete Floor Finishes	$1.43	S.F.	1,700	50	1955	2005	2020	10.00 %	405.53 %	5		$9,858.37	$2,431
C3030	Ceiling Finishes	$2.79	S.F.	1,700	50	1955	2005	2020	10.00 %	171.58 %	5		$8,137.95	$4,743
D2010	Plumbing Fixtures	$26.14	S.F.	1,700	35	1955	1990	2055	114.29 %	148.77 %	40		$66,112.28	$44,438
D2020	Domestic Water Distribution	$6.39	S.F.	1,700	25	1955	1980	2045	120.00 %	0.00 %	30			$10,863
D2030	Sanitary Waste	$4.84	S.F.	1,700	25	1955	1980	2045	120.00 %	0.00 %	30			$8,228
D2040	Rain Water Drainage	$5.42	S.F.	1,700	25	1955	1980	2045	120.00 %	0.00 %	30			$9,214
D3020	Heat Generating Systems	$5.81	S.F.		0				0.00 %	0.00 %				$0
D3030	Cooling Generating Systems	$30.02	S.F.		0				0.00 %	0.00 %				$0
D3040	Distribution Systems	$23.24	S.F.	1,700	25	1955	1980	2045	120.00 %	24.58 %	30		$9,712.48	$39,508
D3050	Terminal & Package Units	$12.68	S.F.	1,700	20	1955	1975	2040	125.00 %	0.00 %	25			$21,556
D3060	Controls & Instrumentation	$10.65	S.F.	1,700	20	1955	1975	2040	125.00 %	0.00 %	25			$18,105
D4010	Sprinklers	$0.00	S.F.		0				0.00 %	0.00 %				$0
D4020	Standpipes	$0.00	S.F.		0				0.00 %	0.00 %				$0
D5010	Electrical Service/Distribution	$2.90	S.F.	16,700	30	1955	1985	2047	106.67 %	202.00 %	32		$97,828.78	$48,430
D5020	Lighting and Branch Wiring	$30.21	S.F.	16,700	20	1955	1975	2037	110.00 %	83.27 %	22		$420,105.28	$504,507
D5030	Communications and Security	$7.36	S.F.	16,700	15	1955	1970	2032	113.33 %	0.00 %	17			$122,912
D5090	Other Electrical Systems	$4.84	S.F.	16,700	20	1955	1975	2047	160.00 %	0.00 %	32			$80,828
E1020	Institutional Equipment	$12.78	S.F.	1,700	35	1955	1990	2020	14.29 %	0.00 %	5			$21,726
E1090	Other Equipment	$11.23	S.F.	1,700	35	1955	1990	2020	14.29 %	0.00 %	5			$19,091
E2010	Fixed Furnishings	$43.57	S.F.	16,700	20	1955	1975	2020	25.00 %	16.31 %	5		$118,667.75	$727,619
								Total	**54.10 %**	**35.46 %**			**$1,582,746.31**	**$4,463,846**

System Notes

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

System: B3010 - Roof Coverings — This system contains no images

Note: roofing covers only 1700sf, over toilet facilities

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

Note: painted block 100%

System: E2010 - Fixed Furnishings — This system contains no images

Note: aluminum bleachers

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:	**$1,582,746**	**$0**	**$0**	**$0**	**$0**	**$1,031,549**	**$0**	**$0**	**$0**	**$0**	**$0**	**$2,614,295**
*** 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	$648,683	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$648,683**
B20 - Exterior Enclosure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2010 - Exterior Walls	$51,782	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$51,782**
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	$57,599	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$57,599**
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	$30,468	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$30,468**
C1030 - Fittings	$53,574	$0	$0	$0	$0	$13,852	$0	$0	$0	$0	$0	**$67,426**
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	$28,638	$0	$0	$0	$0	$0	**$38,855**
C3010231 - Vinyl Wall Covering	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

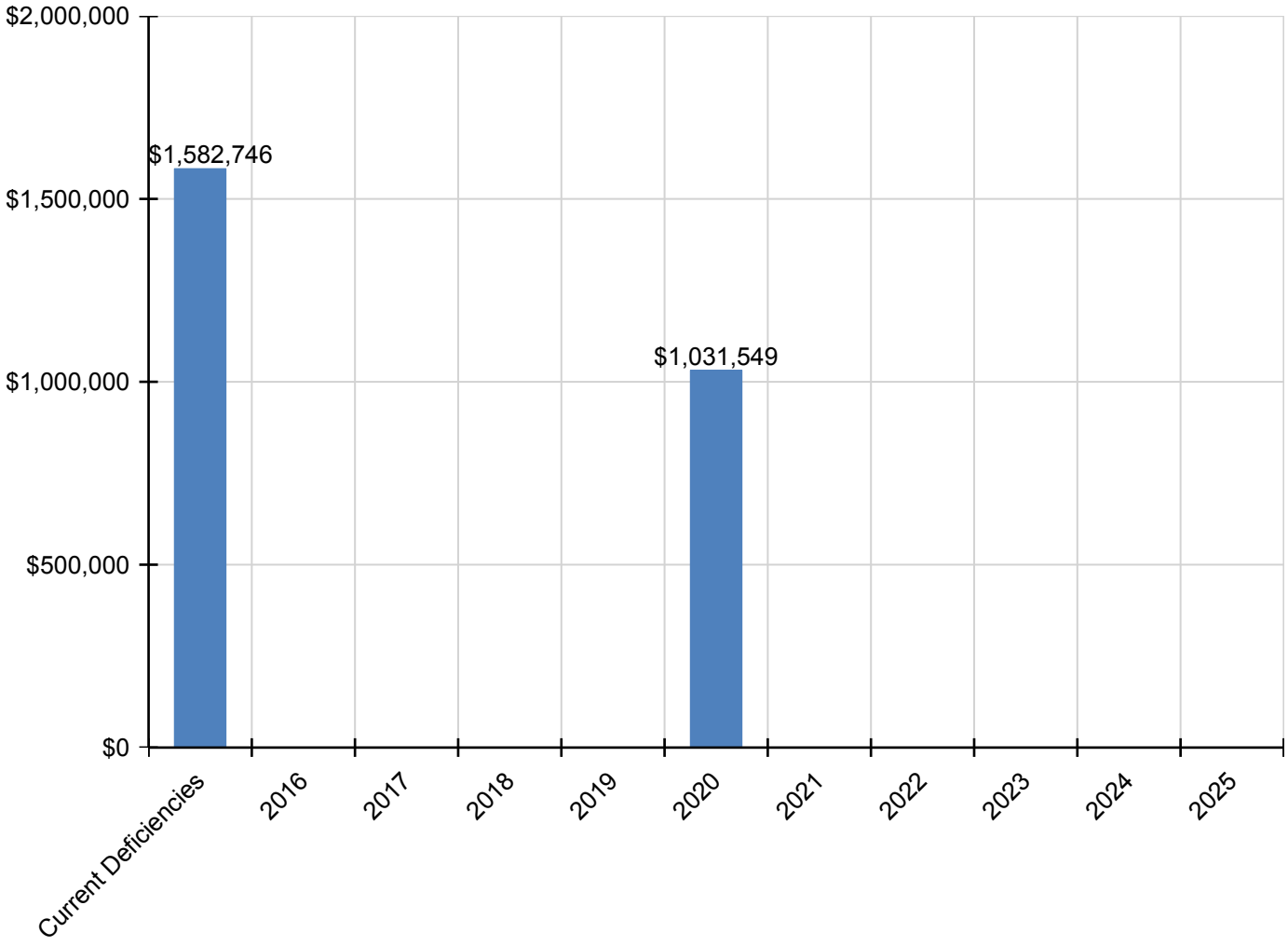
C3010232 - Wall Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020411 - Carpet	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020413 - Vinyl Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020414 - Wood Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020415 - Concrete Floor Finishes	$9,858	$0	$0	$0	$0	$3,100	$0	$0	$0	$0	$0	**$12,958**
C3030 - Ceiling Finishes	$8,138	$0	$0	$0	$0	$6,048	$0	$0	$0	$0	$0	**$14,186**
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	$66,112	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$66,112**
D2020 - Domestic Water Distribution	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2030 - Sanitary Waste	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$9,712	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$9,712**
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	$97,829	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$97,829**
D5020 - Lighting and Branch Wiring	$420,105	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$420,105**
D5030 - Communications and Security	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$27,705	$0	$0	$0	$0	$0	**$27,705**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$24,345	$0	$0	$0	$0	$0	**$24,345**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

E2010 - Fixed Furnishings	$118,668	$0	$0	$0	$0	$927,861	$0	$0	$0	$0	$0	**$1,046,529**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

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

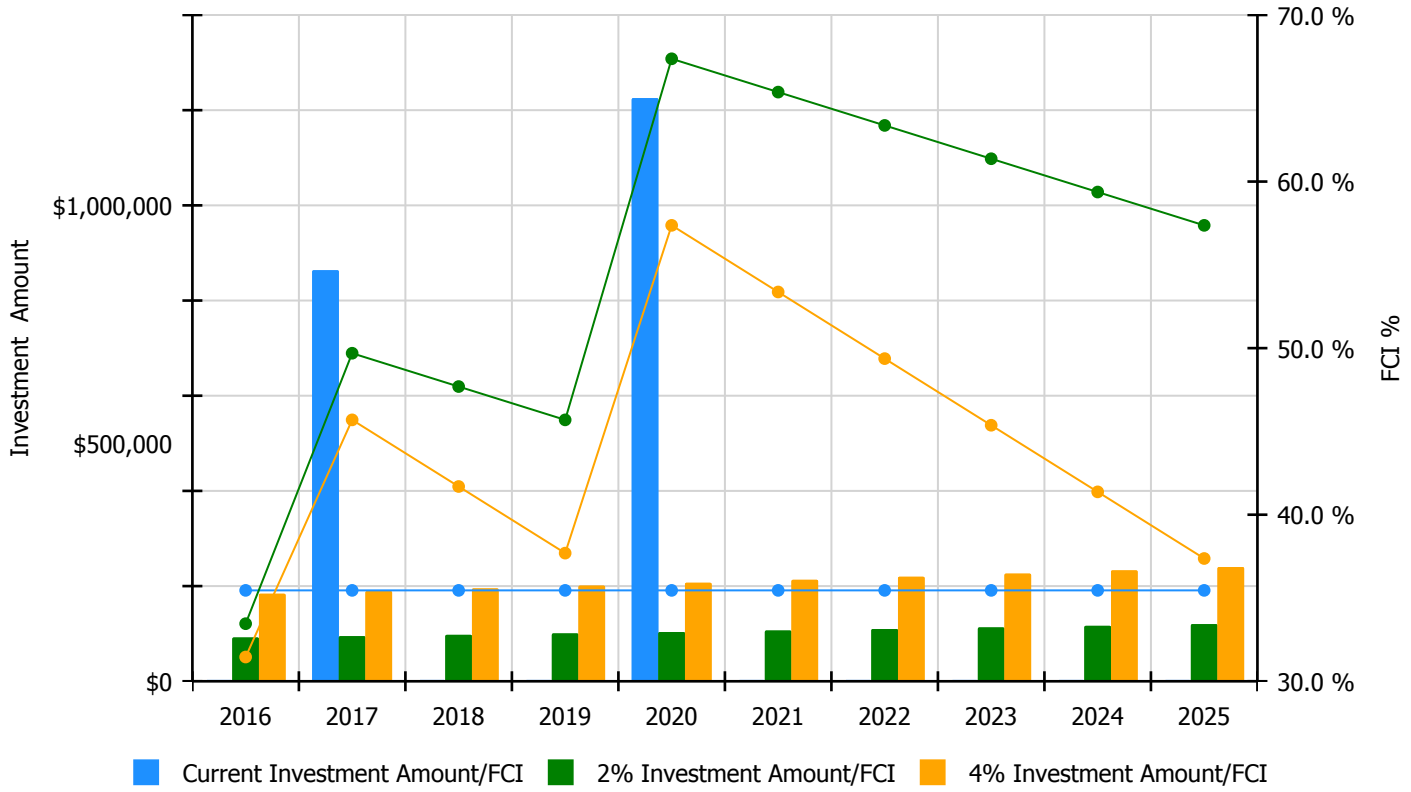


10 Year FCI Forecast by Investment Scenario

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

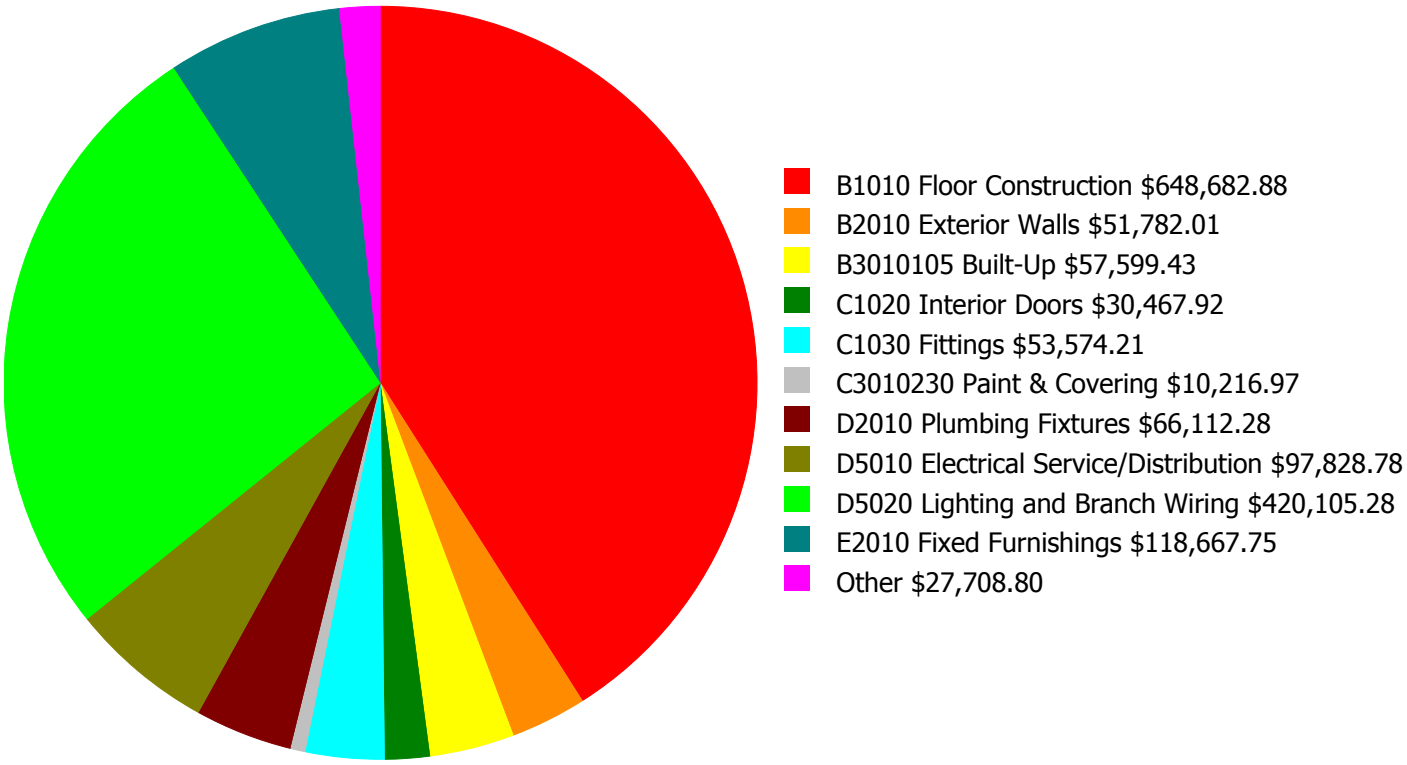
Facility Investment vs. FCI Forecast



Year	Investment Amount Current FCI - 35.46%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$91,955.00	33.46 %	$183,910.00	31.46 %
2017	$863,620	$94,714.00	49.69 %	$189,428.00	45.69 %
2018	$0	$97,555.00	47.69 %	$195,111.00	41.69 %
2019	$0	$100,482.00	45.69 %	$200,964.00	37.69 %
2020	$1,225,268	$103,496.00	67.37 %	$206,993.00	57.37 %
2021	$0	$106,601.00	65.37 %	$213,203.00	53.37 %
2022	$0	$109,799.00	63.37 %	$219,599.00	49.37 %
2023	$0	$113,093.00	61.37 %	$226,187.00	45.37 %
2024	$0	$116,486.00	59.37 %	$232,972.00	41.37 %
2025	$0	$119,981.00	57.37 %	$239,961.00	37.37 %
Total:	**$2,088,888**	**$1,054,162.00**		**$2,108,328.00**	

Deficiency Summary by System

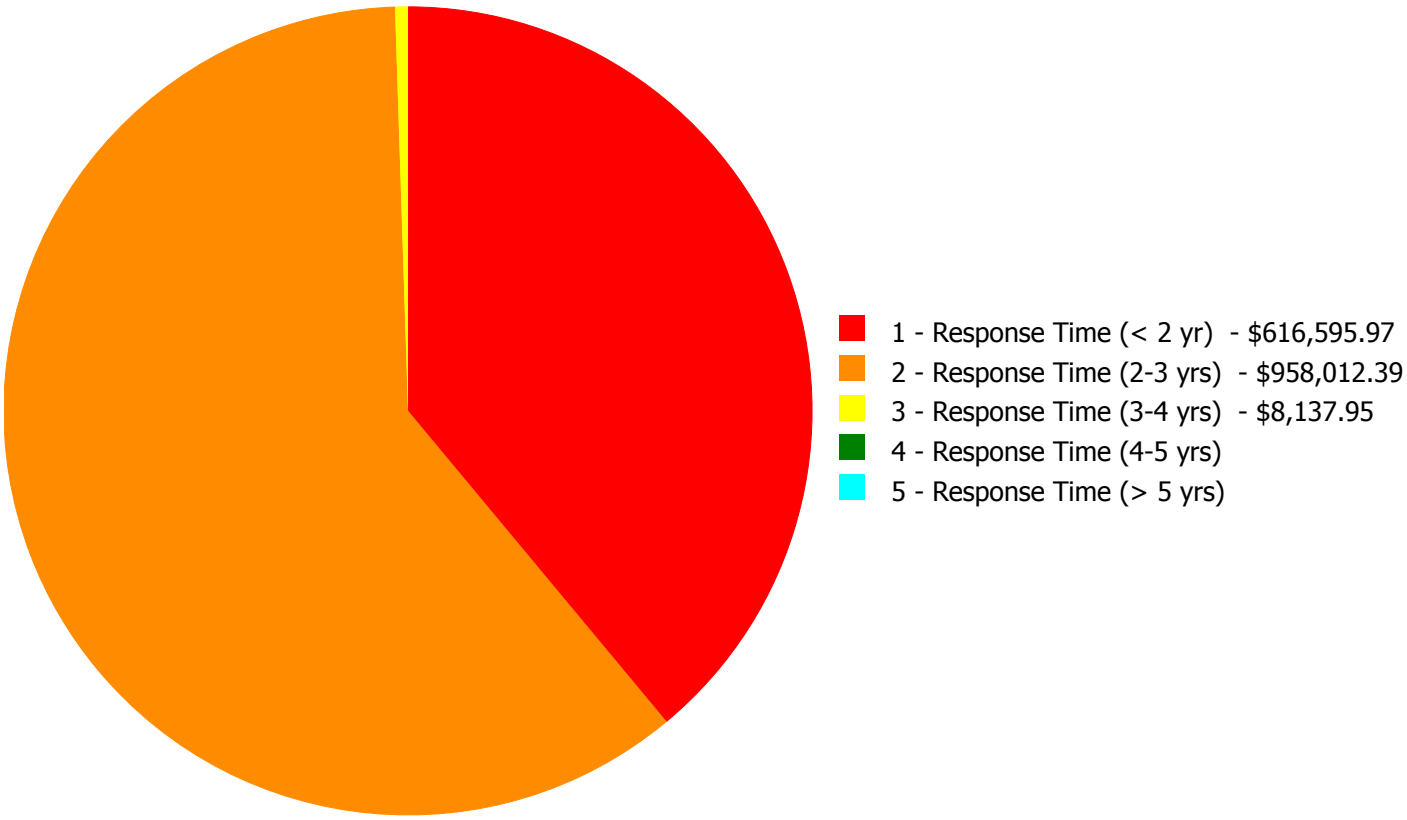
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $1,582,746.31

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: $1,582,746.31

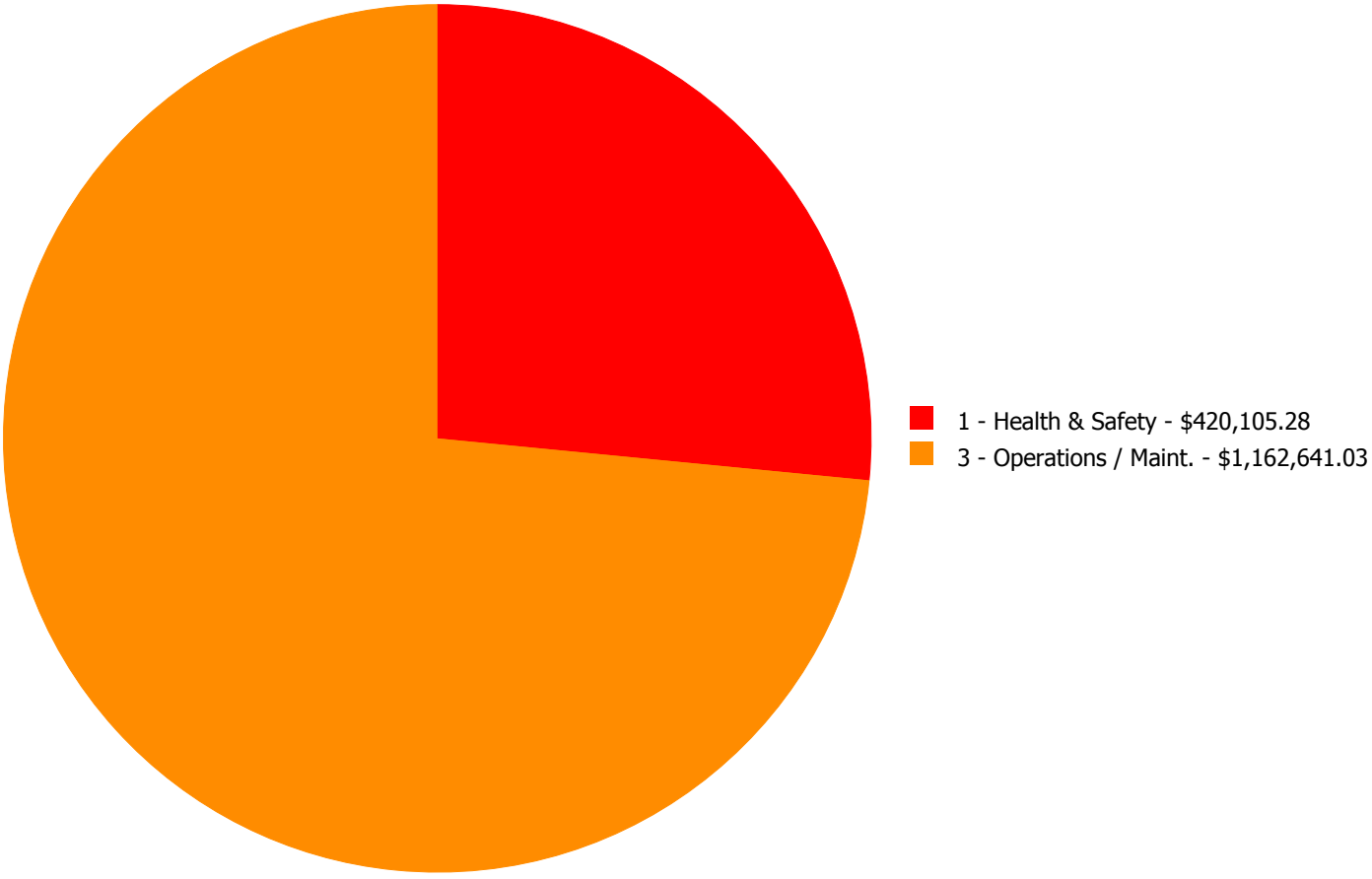
Deficiency By Priority Investment Table

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
B1010	Floor Construction	$0.00	$648,682.88	$0.00	$0.00	$0.00	$648,682.88
B2010	Exterior Walls	$0.00	$51,782.01	$0.00	$0.00	$0.00	$51,782.01
B3010105	Built-Up	$57,599.43	$0.00	$0.00	$0.00	$0.00	$57,599.43
C1020	Interior Doors	$0.00	$30,467.92	$0.00	$0.00	$0.00	$30,467.92
C1030	Fittings	$41,062.48	$12,511.73	$0.00	$0.00	$0.00	$53,574.21
C3010230	Paint & Covering	$0.00	$10,216.97	$0.00	$0.00	$0.00	$10,216.97
C3020415	Concrete Floor Finishes	$0.00	$9,858.37	$0.00	$0.00	$0.00	$9,858.37
C3030	Ceiling Finishes	$0.00	$0.00	$8,137.95	$0.00	$0.00	$8,137.95
D2010	Plumbing Fixtures	$0.00	$66,112.28	$0.00	$0.00	$0.00	$66,112.28
D3040	Distribution Systems	$0.00	$9,712.48	$0.00	$0.00	$0.00	$9,712.48
D5010	Electrical Service/Distribution	$97,828.78	$0.00	$0.00	$0.00	$0.00	$97,828.78
D5020	Lighting and Branch Wiring	$420,105.28	$0.00	$0.00	$0.00	$0.00	$420,105.28
E2010	Fixed Furnishings	$0.00	$118,667.75	$0.00	$0.00	$0.00	$118,667.75
	Total:	$616,595.97	$958,012.39	$8,137.95	$0.00	$0.00	$1,582,746.31

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: $1,582,746.31

Deficiency Details by Priority

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

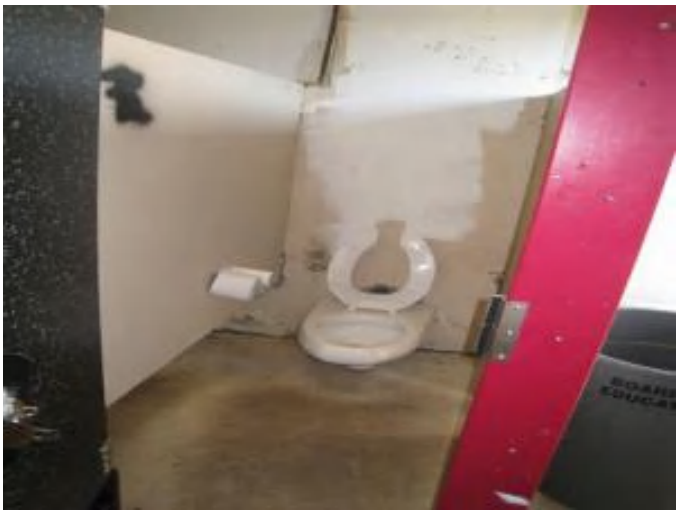
Priority 1 - Response Time (< 2 yr):

System: B3010105 - Built-Up

Location: Lincoln - Stands and Toilet Facilities
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Remove and Replace Built Up Roof
Qty: 1,700.00
Unit of Measure: S.F.
Estimate: $57,599.43
Assessor Name: Craig Anding
Date Created: 11/19/2015

Notes: Remove existing roofs and provide new roofs (1700sf)

System: C1030 - Fittings



Location: Lincoln - Stands and Toilet Facilities
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Remove and replace toilet partitions
Qty: 16.00
Unit of Measure: Ea.
Estimate: $41,062.48
Assessor Name: Craig Anding
Date Created: 11/19/2015

Notes: Provide new toilet partitions and accessories – all toilet facilities (estimated 16 toilets and lavatories)

System: D5010 - Electrical Service/Distribution

Location: Lincoln - Football field

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Add Electrical Switchgear and Distribution System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $97,828.78

Assessor Name: Craig Anding

Date Created: 09/15/2015

Notes: Upgrade the existing electrical service with a new service. Provide 400A, 120/208V distribution switchboard.

System: D5020 - Lighting and Branch Wiring

Location: LIncoln - Football field

Distress: Security Issue

Category: 1 - Health & Safety

Priority: 1 - Response Time (< 2 yr)

Correction: Add Exterior Lighting

Qty: 1.00

Unit of Measure: Ea.

Estimate: $420,105.28

Assessor Name: Craig Anding

Date Created: 09/15/2015

Notes: Provide 15 pole mounted LED lighting fixtures around the football field and 10 in the parking area.

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

System: B1010 - Floor Construction

Location: Lincoln - Stands and Toilet Facilities

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Repair rebar and epoxy grout exposed rebar on the underside of floors and floor beams

Qty: 8,000.00

Unit of Measure: S.F.

Estimate: $648,682.88

Assessor Name: Craig Anding

Date Created: 11/18/2015

Notes: Inspect concrete stands and document the areas where reinforcing rods are exposed and concrete is spalling. Repair spalled concrete steps, sides and top beams where cracks have formed. Estimated half of concrete structure needs repairs (8000sf)

System: B2010 - Exterior Walls

Location: Lincoln - Stands and Toilet Facilities

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Repaint exterior walls - concrete or stucco

Qty: 7,000.00

Unit of Measure: S.F.

Estimate: $51,782.01

Assessor Name: Craig Anding

Date Created: 11/19/2015

Notes: Repair stucco and repaint exterior walls (7000sf)

System: C1020 - Interior Doors

This deficiency has no image.

Location: Lincoln - Stands and Toilet Facilities

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace hollow metal frames and doors

Qty: 6.00

Unit of Measure: Ea.

Estimate: $30,467.92

Assessor Name: Craig Anding

Date Created: 11/19/2015

Notes: New toilet room and storage room doors and hardware (6 doors)

System: C1030 - Fittings

Location: Lincoln - Stands and Toilet Facilities

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace toilet accessories - select accessories and quantity

Qty: 16.00

Unit of Measure: Ea.

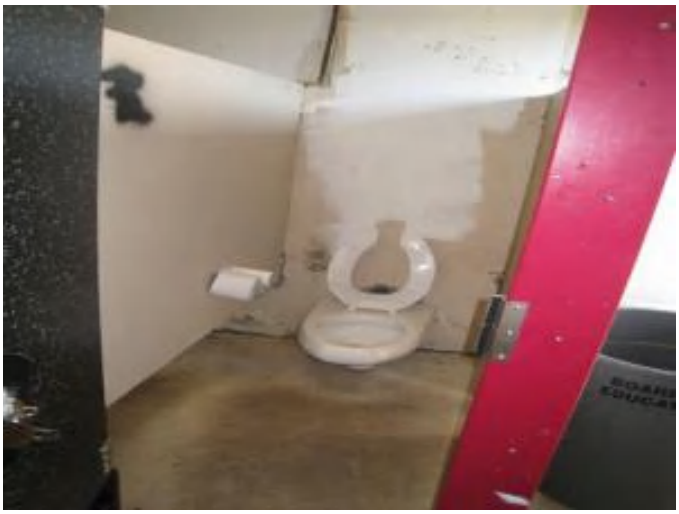
Estimate: $12,511.73

Assessor Name: Craig Anding

Date Created: 11/19/2015

Notes: Provide new toilet partitions and accessories – all toilet facilities (estimated 16 toilets and lavatories)

System: C3010230 - Paint & Covering



Location: Lincoln - Stands and Toilet Facilities

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 2,000.00

Unit of Measure: S.F.

Estimate: $10,216.97

Assessor Name: Craig Anding

Date Created: 11/19/2015

Notes: Repair and repaint toilet room walls - interior (2000sf)

System: C3020415 - Concrete Floor Finishes

Location: Lincoln - Stands and Toilet Facilities

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Prepare and repaint concrete floor

Qty: 1,700.00

Unit of Measure: S.F.

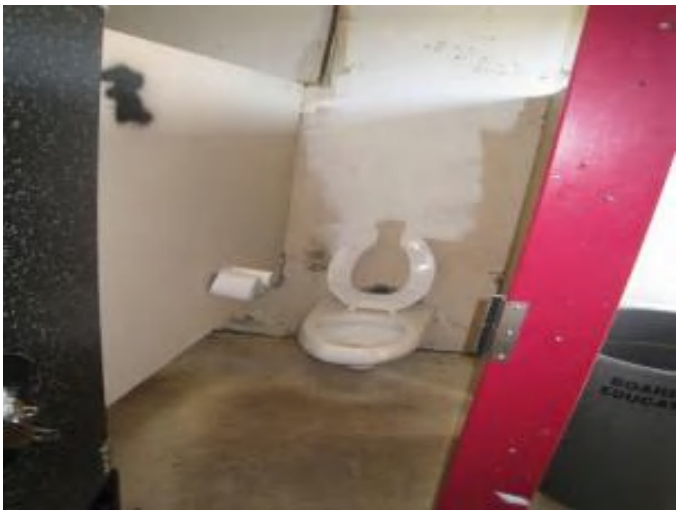
Estimate: $9,858.37

Assessor Name: Craig Anding

Date Created: 11/19/2015

Notes: Strip clean and paint concrete floors (1700sf)

System: D2010 - Plumbing Fixtures



Location: Lincoln - Stands and Toilet Facilities- Restroom

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 8.00

Unit of Measure: Ea.

Estimate: $59,697.18

Assessor Name: Craig Anding

Date Created: 12/28/2015

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

System: D2010 - Plumbing Fixtures

Location: Lincoln - Stands and Toilet Facilities- Restrooms

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or replace wall hung urinals

Qty: 6.00

Unit of Measure: Ea.

Estimate: $5,048.71

Assessor Name: Craig Anding

Date Created: 12/28/2015

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

System: D2010 - Plumbing Fixtures

Location: Lincoln - Stands and Toilet Facilities- Restroom

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: 8.00

Unit of Measure: Ea.

Estimate: $1,366.39

Assessor Name: Craig Anding

Date Created: 12/28/2015

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

System: D3040 - Distribution Systems

Location: Lincoln - Stands and Toilet Facilities- Restrooms

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Provide inline ceiling exhaust fan and wall outlet louver

Qty: 1.00

Unit of Measure: Ea.

Estimate: $9,712.48

Assessor Name: Craig Anding

Date Created: 12/28/2015

Notes: Install exhaust fans.

System: E2010 - Fixed Furnishings

Location: Lincoln - Stands and Toilet Facilities

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Clean and rehabilitate aluminum bleacher seating

Qty: 15,000.00

Unit of Measure: S.F.

Estimate: $118,667.75

Assessor Name: Craig Anding

Date Created: 11/19/2015

Notes: Clean aluminum bleachers secured to concrete stands (25 rows, 300ft long, including 7 aisles)

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

System: C3030 - Ceiling Finishes

Location: Lincoln - Stands and Toilet Facilities

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Re-paint ceilings - SF of ceilings

Qty: 1,700.00

Unit of Measure: S.F.

Estimate: $8,137.95

Assessor Name: Craig Anding

Date Created: 11/19/2015

Notes: Repair and repaint toilet room ceilings (1700sf)

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:	Middle School
Gross Area (SF):	204,093
Year Built:	1970
Last Renovation:	
Replacement Value:	$90,641,722
Repair Cost:	$22,080,781.87
Total FCI:	24.36 %
Total RSLI:	81.09 %

Description:

Facility Condition Assessment
August 2015

School District of Philadelphia
Austin Meehan Middle School
3001 Ryan Avenue
Philadelphia, PA 19152

204,093sf / 550 students / LN 08

General

Austin Meehan Middle School is located at 3001 Ryan Avenue. The main entrance faces Ryan Avenue. The building was constructed in 1970, has 204,093 square feet, and is 3 stories tall. There is a partial basement under the rear section of the building. The building is laid out in 4 circular "pods" located around a central circular core; there is a rectangular section containing the gymnasium and mechanical rooms, behind the pods. The exterior of the building and the structural system, exposed on the inside and the outside under overhangs is massive slabs and beams of concrete, also known as "brutalism" popular in the 1960's and 1970's. The building has a massive, imposing, and strong appearance. Mark Ovington, the Building Engineer and Susan Montro, the engineer's assistant accompanied the team during the building inspection.

At the time of inspection, the team met with Ms. Mary Jackson, the Principal. She indicated that a major deficiency in the design of

this school is its circular corridors and room orientation which inhibit security by creating many hiding places, preventing good visibility inside the corridors. The heating system does not work properly, there are many leaks in throughout the building, cafeteria ventilation is poor, electrical supply is inadequate in computer labs, and the asphalt paving is worn out in all areas around the site.

Architectural/Structural

Foundations are constructed of concrete. Most of the foundation and basement walls are in good condition but there are some areas of concern. The wall that faces the central circular courtyard has cracks and leaks. There are cracks in the basement at the wall and column near the entrance stairway support at the basement wall; concrete is spalling in this area. There is also a wet area in the basement near the entrance stair support. There are cracks in the circular wall near the ramp into the building, also near the main entrance. There is also spalling of some basement walls, due to moisture build-up on the other side of the wall. A possible cause for water entering the foundation wall and basement could be the poor grading outside the building. The grade and concrete walkways adjacent to the building are dead level and have not positive drainage away from the building. This would allow water to collect and drain down the foundation wall, eroding the wall below grade and eventually entering the basement through cracks. To make matters more difficult, there are several depressed window well areas, always a concern when it comes to drainage and maintenance of a dry basement. Drainage of the window well spaces could not be tested or completely inspected due to overgrown vegetation in some areas. All grading around the building needs to be studied and adjusted to allow for natural drainage away from the building foundation wall. Footings at the bottom of the foundations were not seen and their construction type or condition could not be ascertained.

Floor slabs in the basement mechanical room are in good condition, covered with some dirt; slabs should be stripped, cleaned and resealed. The floor slab in the room that faces the ground level circular garden is damp. Floor tiles have lost adhesion due to moisture below the slab, possibly due to water that is seeping up from underneath. Upper floor slabs are also constructed of cast-in -place concrete with cast-in-place concrete beams, exposed to view in many locations, which is a characteristic of this type of architecture. Cracking and spalling of the concrete structure was observed in a few locations inside and many locations outside, as will be noted in a subsequent section, below. Minor cracks were observed inside occur near stairways in floor slabs and walls where concrete was exposed without any finishes.

Roof construction is composed of a metal deck on fireproofed steel beams, bearing on concrete exterior walls and concrete encased steel columns on the upper (third) floor. Lower floor slabs (lower and ground floors) are supported by cast-in-place concrete beams on what appears to be solid cast-in-place concrete columns ("sonotubes"). The entire roof deck is flat with minimum overall slope and gradual pitch to roof drains which have small "dished" areas for improved drainage at the roof drain grating. Since there is a minimal height gravel stop (no parapet), there is no need for overflow drains or pipes; if all roof drains are clogged, roof water simple runs over the edge of the roof with little accumulation. Roof access to the main roof is somewhat dangerous and not easily accomplished. Since a permanent ladder was never installed in the building, an extension ladder must be leaned up against the internal fascia of the roof opening to permit people to climb up to the roof. This requires at least one other person to hold the ladder while another climbs up a steeply positioned ladder through the roof hatch. No large equipment or maintenance tools can be brought onto the roof through this opening. Once on this main roof, it is possible to access most of the roofs, although a second ladder would be required to access the higher roof (#7) over the gym. Most level changes were low enough for a maintenance person to jump or climb up to reach the adjacent lower or higher roof area. Most roof drains were not clogged and except for the lower roof over the entrance, the roof was relatively clear of debris and graffiti.

Exterior walls and are constructed of cast-in-place concrete and steeply sloped corrugated metal siding. The flat areas of the walls are exposed concrete and in good condition over most building wall surfaces. As is typical for the "brutalism" style, concrete tie recesses at regular locations, bold reveals simulating joints, and some variation in aggregate is visible over all wall surfaces. Walls are cantilevered approximately 8 ft. beyond the Lower Floor walls by use of large, exposed concrete beams. There are a number of areas of concern relating to the condition and structural integrity of the exterior concrete walls and bold cantilevered supports of the Upper Floor:

Sizeable cracks in the intersections of beams and walls and along the bottoms of some of the beams supporting cantilevered walls

Spalled areas of concrete walls and spalled cantilever support beams where exposed rusted steel reinforcement is visible

Horizontal cracking and spalling of concrete walls above the base of the cantilevered walls

Linear cracking of perimeter concrete beams supporting Upper Floor walls

Joint exposure where caulking and grout has fallen out of joints where concrete panels sit on top of concrete beams at the edges of the cantilevers

Spalling and peeling of the plaster finished surface on the exposed surface of the concrete Upper Floor slab on the bottom exterior side of the cantilever

Rust stains where wall panel reinforcing has become exposed

Fading and peeling paint on corrugated metal siding above concrete panels

Peeling paint and mismatched paint patches on the walls under the classrooms (4 pod sections of the building) and also on the walls of the gymnasium and mechanical building on the back sides. There had been a fire in the area of the rear (southeast) exit door near the boiler room which has left charring on the building.

Spalling and cracking of loading dock wall

Dirt and mildew stains on most exterior walls.

A thorough inspection of all walls and cantilever beams is required to determine where all cracking is located and if there is a common cause for groups of cracks, such as subsurface settlement. After repairs have been made, the exterior of the building should be powerwashed.

Exterior windows appear to be the original anodized aluminum frame units with side-hinged operable single thickness clear plexiglass acrylic glazing. Windows are narrow and do not let in much natural light. They are positioned at the fronts of most classrooms and cause distractions to students who can easily look out windows instead of looking at teacher and are also a source of glare. They are now in poor condition with oxidized frames and severely scratched single-pane plexiglass vision panels. Most windows do not have screens and if opened would provide an easy way for students to fall out; thus, wood boards have been attached to the inside of the windows to make it more difficult for students to accidentally fall out of windows whether opened or closed. Lower floor windows are small, do not let in much natural light and look like basement windows when viewed from the inside spaces; they all have security screens and many have graffiti. The Library has clerestory windows which have been covered with graffiti. There is also a band of windows at floor level which have a view across the lower roof. These windows have numerous leaks which have damaged gypsum board walls, dampened the carpet, and caused a musty smell to persist near the windows. Units do not seal tightly and have corroded and stained frames. Single pane plexiglass units do not meet today's energy code requirements and are large sources of heat loss – they should be replaced with new insulated glazing units.

Exterior doors are painted steel frames and flush hollow metal door units. They have been repainted by the maintenance staff but have dents, chips, rust, and re in poor condition. Some have broken or non-functioning panic hardware and are not ADA compliant. Entrance doors are half "glass" (plexiglass) with transoms above to let in natural light. Stairway exit doors are either flush or have narrow vision panels. Exit doors from Lower Floor rooms have large side lights and transoms, to let in some natural light; many of these doors have graffiti. All doors are in poor condition and need to be replaced.

Roof coverings is a fully adhered rolled asphalt sheet system with impregnated light gray granules in the surface. The system is thought to be approximately 20 years old; much of the granular coating has worn away exposing the black asphalt membrane to the sun, wind, and natural elements. There are some soft areas indicating moisture in the insulation underneath. The roof membrane is in poor condition dried cracked asphalt seen along membrane joints and flashing. Some areas are stained with dirty marks and mildew indicating poor or no drainage; water can only evaporate from these areas. The back side of some stair towers have been re-roofed with a fully adhered rubber membrane which covers over an area that had built-up asphalt and a clerestory window into the stairway. The overall condition of the roofing membrane and flashing is "weathered" and is past its normal service life of 20 years and needs to be completely replaced. Roof openings include toilet room vents, ventilation ductwork, and roof drains. Flashing of the penetrations appears to be failing and past its normal service life, although no leaks were reported at this time.

Much of the classroom spaces were large, open rooms designed to be flexible subdividable spaces when the building was new. Since that time, gypsum board and metal stud partitions had been added to subdivide oversized rooms into individual classrooms. These subdivisions have created pie-shaped classrooms and some odd-shaped, windowless, interior offices and storage rooms in the areas towards the center of the circular pods. The Upper Floor (3rd floor) has classrooms towards the center areas of the pods which have walls constructed of either metal prefab partitions, gypsum board, or Masonite which do not go up to the ceiling, allowing for air circulation into what would otherwise be closed-off spaces. Since this building is not sprinklered, the corridor walls need to be reconstructed as fire-rated. All stairways and the original circular corridor walls towards the center of each pod are concrete. Toilet room partitions and mechanical room partitions are concrete masonry (block). There are some small offices and storage rooms in the middle of Lower Floor circulation areas, constructed of gypsum board partitions. Because of the 4 pod circular design of this school, there seems to be a large amount of open circulation space in the building. The odd-sized rooms located in some of these circular spaces creates a somewhat confusing pathway through the building.

Interior classroom and office doors are either wood or hollow metal. Some have narrow lite vision panels. Some classrooms have panic bar hardware and others have round knob hardware, but none have locksets with security feature which allows for locking by a key from inside classrooms – this is required to provide the best security today. Stairway doors are mostly flush steel doors with push/pull hardware that does not positively latch as required of fire rated doors; some stair doors have panic hardware, but not all of those doors have working/latching hardware sets. Interior doors in mechanical rooms are hollow metal in hollow metal frames, rusted where coming in contact with floors. All metal doors and the scratched, damaged original wood doors on upper floors need to be replaced. Doors into the auditorium and most Ground Floor spaces are newer wood doors with panic bars and narrow vision panels, which are in good condition.

Interior fittings/hardware in upper floor classrooms include black slate chalkboards in center of the front walls (exterior wall of the building) of the pie-shaped classrooms with cork bulletin boards on walls flanking the blackboards. Classrooms in Ground Floors of pods tend to be larger, semi-circular lecture halls with blackboards on the central (smaller) walls of the classrooms. Most classrooms have plastic laminate counters or built-ins for storage. Toilet room partitions are solid plastic partitions; some toilet compartment doors were broken or missing and need replacement, however most are in good condition. Toilet room accessories (toilet paper dispensers, soap, paper towel or dryers, grab bars, door latches) seem to be mostly in place and operating. There some partially compliant toilet rooms near the auditorium that have some grab bars and open space around toilets, although sinks and urinals are not exactly ADA compliant. Fully compliant ADA toilet and bathing facilities are provided in the special needs instructional area with fully compliant sinks, toilet rooms, wheel-in shower facilities, kitchenettes, and laundries; these are excellent examples of fully accessible ADA plumbing facilities.

Stair construction consists of concrete treads, risers, stringers, and guards between stair runs and at the top of stair runs. Concrete is dirty and should be stripped and resealed. Wood handrails are mounted to the concrete walls on both sides of stairs. The handrails and guards should be repainted to refresh their appearance. Painted concrete stairway walls and guard walls are painted an in good condition.

Wall finishes in classrooms are painted gypsum board interior walls and painted concrete exterior walls. There are many exterior wall locations with window leaks causing damage to concrete walls and electric baseboard heating units (which are removed when damaged). Interior gypsum board walls have damages and areas repaired with spackled but not repainted. Interior circulation area walls constructed of painted concrete are in good condition; many interior walls provide the locations for student lockers. Toilet room walls are painted block in poor condition. Ground Floor entry areas and school offices are either painted gypsum board or painted concrete and have been kept in better condition than the classrooms. The auditorium has painted concrete with some wood trim and the stage area is painted block.

Floor finish in most of the school is 12” x 12” VCT (vinyl composition tile) glued to the concrete slab. Many Upper and Lower floor spaces have tiles have been patched and replaced with mismatching tiles – all are in poor condition; other floors have tiles that are aging and cupping on the edges also in poor condition. Some Lower Floor rooms have newer tiles in good condition. The auditorium has worn and dirty carpet circulation pathways and exposed concrete under the seating; the stage is finished with wood, in need of refinishing. There are stepped music rooms surrounding the auditorium that are either carpet which needs to be replaced or VCT which seems to be in good condition. The gymnasium has wood floors which should be refinished. Gym locker rooms are VCT which is newer and in good condition. The cafeteria area and the kitchen prep (located down the ramp in the mechanical area behind the cafeteria) is finished with VCT. Stair walking surfaces are exposed concrete which is dirty and needs to be stripped, cleaned and resealed. Most toilet rooms have ceramic mosaic floors which are dirty and in need of cleaning except for those in the special needs instructional area which are new.

Ceiling finishes are exposed, unpainted concrete beams and deck; some spaces have acoustical tiles glued to the areas between the concrete beams. Areas with ceiling mounted HVAC units have gypsum board ceilings such as offices and some corridor areas. Classrooms on the Upper Level have gypsum board ceilings where the roof structure above is fireproofed steel and metal deck.

Furnishings include the original folding wood seating in the auditorium, still in use and in very good condition; it appears to have been refinished recently, although this was not substantiated. There are 3 “lecture halls” with semi-circular rows of fixed fiberglass seating (48 seats per room) and work surfaces; 2 of the rooms are mostly useable but 1 seems to be the room that was used as the “spare parts reserve” for the other 2 rooms, and is basically not useable as a classroom. Casework and storage cabinets in classrooms and the office are plastic laminate or metal and appear to be the type that is purchased from an office supply store like Staples or Office Max and assembled by the user. Book cases in the Library are plastic laminate which appear to be in good condition. Steel lockers for students are located in central circulation areas throughout the building.

There is an elevator in the building, 2500 lb. capacity, serving all 3 levels (Lower, Ground, Upper). There is level entrance into the main building entrance, which allows wheelchair bound people to easily enter the grade level Ground Floor of the building. ADA accessible route signage is needed to help direct personnel to this accessible entrance.

Mechanical

Plumbing Fixtures – The building is equipped with wall hung urinals (flush valve type), wall hung water closets (flush valve type), and wall hung lavatories with wheel handle faucets. Many of the original plumbing fixtures remain in service, however, these fixtures have reached the end of their service life and should be replaced. New fixtures will provide lower water consumption and provide savings on water heating costs. The bathrooms are also equipped with floor drains. The one exception is that an ADA bathroom suite has been constructed within the building on the ground floor level which consists of a water closet, lavatory, shower, washer and dryer.

Electric self-contained refrigerated wall hung drinking fountains are generally located near restroom groups in the corridors. The exception to this condition is the gymnasium and locker areas which have a combination recessed wall type electric water coolers and original drinking fountain fixtures. Most are not ADA compliant. It appears that the some of the drinking fountains have been replaced, however these fixtures have taken heavy abuse, so the replacement of all drinking fountains is recommended. .

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

In the science classrooms the demonstration table sink water service is active, however the gas turrets are not, as the gas service has been shut off to these.

The boys and girls lockers were equipped with showers. Floor drains were in the showers as well as the locker area. The showers are no longer in use and the area is being used for storage.

Domestic Water Distribution – It appears that the 4" domestic water service piping is mostly soldered copper. Water service enters the building at the ground level in the boiler mechanical equipment room. An RPZA – (reduced pressure zone assembly) on the chilled water, condenser water and heating water systems is present. There is a 4" water meter on the main line upon entering the building. 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 domestic hot water system consist of a vertical 98 gallon vertical storage tank (Bradford White, Model D100T1993N, Input Btuh 199,999) natural gas fired water heater with an inline recirculation pump. The heater appears to have been manufactured in 2008. There does not appear to be an expansion tank installed on the domestic water system. The water heater appears to be in satisfactory condition at this time but will need to be replaced in the next 3 – 5 years. It appears that there were two water to water heat exchangers that produced domestic hot water from the boiler heating system at one time, but now that piping has been disconnected while the heat exchangers remain in place. The vertical gas fired water heater was installed to replace the converter system.

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

Rain Water Drainage - The rain water drains from the roof are routed through mechanical chases in the building and connect to the underground site drainage system. There are no overflow scuppers for the building.

Energy Supply - The 4" natural gas enters the building into the boiler mechanical equipment room. The natural gas main is welded, black steel piping while the branches are threaded, black steel.

Heat Generating Systems – Heating water is generated by three 3,791 MBH Weil McLain 94 series, Model PG-1694W, hot water boilers with natural gas burners. All boilers are equipped with Weil McLain natural gas burners, Model WR12-G-30-712004. As per the building engineer, typically one boiler is able to meet the heating demands on an average winter day, on occasions however when the weather is colder, two boilers must be run to meet the building's heating demand. The boilers appear to have been installed in the 1970's and are at the end of their service life and should be replaced. There is no draft control any of the boiler flues. Combustion air louvers serve the boiler room to provide combustion air for the boiler operation. Burner controls provide full modulation with electronic ignition. 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.

Cooling Generating Systems – Prior to a chilled water pump explosion, the chiller plant consisted of one, water cooled, screw chiller, 350 nominal tonnage, two pass condenser and evaporator, 480V-3PH-60HZ, Dunham Bush Model WCFX36. The Chiller was paired with a cooling tower which is no longer in operation as well since the chiller was damaged. The chiller was manufactured in 1994 and uses R22 as the refrigerant, which is currently being phased out of use. A permanent new chiller and cooling tower is recommended to be installed.

Distribution Systems – The building heating water and chilled water distribution piping is black steel with welded fittings. The piping system is a dual temperature system, utilizing either heating or cooling to serve the unit ventilators, fan coils, convectors or convective heaters of which the convective heaters and convectors only function during when heating water is being supplied. The District should hire a qualified contractor to examine the distribution piping and perform 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.

There is one condenser water pump with the following characteristics; horizontal split case, 1050 GPM, 55 feet head. There are two dual temperature distribution pumps of which one exploded and was damaged beyond repair (one was to operate as stand by). The pump motor horsepower is 40 and is a horizontal split case type. There are two boiler circulating pumps (one operates as stand by); end suction, 135 GPM, 30 feet head. Lastly, there is a domestic water system pump which was an end suction type with a 3 HP motor.

Fresh air is admitted into the building through the horizontal, two-piped, heating/cooling unit ventilators with ventilation provided by roof intakes and through air handling unit systems. In general the building engineer states that the mechanical systems do not operate properly and it is common for areas to be hot (overheated) and cold during the winter and warm and cold (over ventilated) in the summer. It is recommended to provide a four pipe system as the space usage and building exposure and orientation may require some spaces to be cooled while others require heating.

The building uses horizontal ceiling hung unit ventilators with heating water/chilled water dual temperature coils in the classrooms hallways. In classrooms by the exterior window baseboard, there are electric convector heaters of which, some heaters have been removed, and some have been damaged, while others remain intact.

The gymnasium, library, auditorium and cafeteria are served by air handling units with dual temperature heating/cooling coils with circulating pumps and outside air for ventilation. The units are original equipment and should be replaced as they have exceeded their useful life. These systems consist of ducted supply and return to and from the space which they serve with outside air admitted through louvers or intake hoods at the building exterior. The building engineer mentioned that the air handler for the auditorium was functioning, however the cafeteria unit had ventilation issues. The library also had electric baseboard convection heat at the baseboard by the windows. It is recommended to replace these systems with newer modular air handling units to serve these spaces.

For the cafeteria the new modular air handler unit could be provided with heating and cooling coils as well as ventilation to meet the outside air ventilation requirements for the cafeteria seating area. The kitchen is provided with heating and ventilation as well as a hood exhaust system for cooking equipment. A dedicated makeup air system with tempering should be provided for the kitchen hood. This system should be coupled with a heating and ventilating supply air system. Proper air flow pressurization and balancing should be performed for the seating area with respect to the kitchen to maintain the kitchen under negative pressurization.

Terminal & Package Units - There are roof mounted exhaust fans which serve restrooms and other areas throughout the building. Most of the fans have been vandalized and are damaged and do not appear to be functioning. It appears that at one point in time that parts from damage fans were salvaged in an attempt to repair other fans. There is an exhaust fan which serves the hood from the kitchen.

The LAN room is served by a split system cooling only air conditioning unit. The split system condenser is mounted on the roof.

Controls & Instrumentation - The original pneumatic systems still provide basic control functions. Pneumatic room thermostats drive the unit ventilators, the damper actuators and control valves. Wall mounted pneumatic thermostats on the corridor walls control the hot water convectors. A refrigerated air dryer, Deltech, serves the duplex air compressor. The maintenance staff reports temperature control is generally lacking throughout the facility. Potential problems with oil, moisture or dirt in the pneumatic copper tubing can be one source of problems. The small rubber gaskets and tubing connections at control devices can become brittle over time and fail to compound control problems. The pneumatic systems are beyond their service life and require too much attention from the maintenance staff. The original control valves, dampers and pneumatic actuators are over 45 years old and should be replaced. These controls should be converted to DDC.

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

Sprinklers - The school building is NOT covered by an automatic sprinkler system with the exception of the area in which the trade shops are located. This area is served by a 4" sprinkler service. For the remainder of the building which is not sprinklered, installing a sprinkler system with quick response type heads should be considered, which will reduce insurance costs by providing protection for the property investment. A fire pump may be required depending on the available city water pressure.

Electrical

Site Electrical Service is from medium voltage overhead lines on wooden poles along Ryan St. An underground medium voltage cable drop from the utility power pole feeds the main service switchgear located in the main electrical room in the basement.

Main service switchgear consists of a 600A medium voltage load interrupter, metering transformer section, 2000KVA, 13200V to 480/277V transformer, and 3000A 408/277V power distribution switchboard. One 480 volt capacitor bank (estimated 150KVAR) is connected to the switchboard for power factor correction. Service switchgear is 47 years old and has far exceeded its useful service life.

Power distribution is achieved through corridor located lighting/receptacle panel boards, two on each floor. There are five more power panels also provided in roof access closets for feeding mechanical loads. It appears that panel boards and branch circuit breakers have out-lived their useful lives and are ready for upgrade/replacement.

There are sufficient numbers of receptacles in classrooms, offices, corridors and other areas throughout the building. Some receptacles have been damaged and should be repaired or replaced.

Most lighting fixtures in the building are 1x4 surface mounted fluorescent fixtures with T-8 lamps or recessed down lights with incandescent lamps. Mercury vapor lighting fixtures are also used in some classrooms. Mechanical and electrical rooms have industrial pendent fluorescent or incandescent lighting fixtures. The fixtures are old and have lost roughly 50% of their light efficiency. The lighting level throughout the building especially in corridors and most of the classrooms is low and does not meet the IES (Illuminating Engineering Society) recommended levels.

Fire Alarm system is new and installed less than a year ago. The system is working properly. Monitoring is by duct detectors, smoke detectors in corridors, and pulls stations at building egress points. There are a sufficient number of horn/strobes installed in the classrooms, offices, and other areas in the school.

Telephone / LAN system in the building is working adequately.

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

Clock and program system is working properly. The school has a wireless master clock system. Some clock batteries require replacement. Clock batteries should be replaced on recommended intervals to make the system fully operational as designed.

Television System is not provided in the school.

Security System, access control, and video surveillance with an intrusion alarm are provided in the school. There are nine cameras installed in the corridors. System is working adequately.

Emergency Power System (backup power generator) is provided in the school. A 50KW, 208/120V, 1PH, 3W, 4W diesel generator including transfer switch, manufactured by Onan is located in Boiler Room. It feeds life safety and other critical emergency loads. The system is old and has exceeded its useful service life.

Uninterruptible Power System (UPS) is provided for Local Area Network in the main IT room.

Emergency lighting, including exit lights is provided in the building. There is a sufficient number of lighting fixtures in corridors, library, and egress ways, fed by emergency back-up power. Some of the exit signs have been damaged and need to be repaired or replaced.

Lightning Protection System is not provided on the building and is not required.

Grounding is present and is adequate.

An estimated 40hp rated hydraulic type elevator is in operation at the school. The elevator was installed in 1970 and has exceeded its useful service life, although it is said to be operating normally.

Theater Lighting and dimming controls are old and should be replaced.

Public address and music systems are provided in the dining area and auditorium. Both systems are old and should be replaced.

Site Lighting System is not adequate. The Existing lighting fixtures are not in good condition and the not sufficient to provide lighting to secure the building.

Site Video Surveillance system is not provided in the school.

Site paging system is not adequate. Existing speakers on exterior walls are not in good condition and do not provide adequate site coverage.

Grounds

Paving for parking areas and roadways consists of asphalt paving. There is a meandering roadway up from Ryan Avenue leading to 2 parking areas behind the school, forming a sort of continuous loop behind the school. All asphalt is in poor condition with broken and missing pavement, cracks, settlement, weeds and vegetation growing along curbs and in paved areas. Curbing has disintegrated along much of the pavement. Parking area striping is worn and almost invisible in most locations. The number of required parking spaces for school staff is unknown, but there seems to be ample parking available. There is accessibility to the main entrance, although there is no signage. Handicap parking spaces may have been provided, but striping is worn and signage is missing. Other handrails and guards are mostly compliant at other stairs. Handrails and guards are provided but are in need of repainting. Storm drains in the parking lot are sunken and appear to be partially clogged; an inspection of the storm drain system is required.

The areaways around the building are overgrown with vegetation and not draining properly, as evident from water problems inside the building. All vegetation surround the building is overgrown and in need of regular maintenance. Retaining walls in areaways have graffiti which has been painted over with white paint, which is not an unobtrusive solution.

A site fence could not found due to heavy vegetation, but due to the very open nature of the site and entrance roadway on the corner of Ryan Avenue and Sandyford Avenue, complete closure of the site would be very difficult without giving the impression of a prison.

RECOMMENDATIONS

Architectural

- Repair cracking and spalling concrete foundation walls in basement level (500sf)
- Strip, clean and reseal concrete floors mechanical room, shops, and stairways (20,000sf)
- Replace all exterior windows with insulated units, fixed aluminum units unless noted:
- (56) @ 1.5x6 classrooms, upper level - operable casement units
    - (28) @ 4x4 classrooms, lower level
    - (28) @ 4x4 classrooms ground level
    - (8) @ 2.5x5 library windows
    - (15) @ 4x6 library clerestory windows
- Replace all exterior doors and hardware with code compliant, latching, exit hardware (30 doors)
- Remove and replace existing flat roof and insulation; 8 levels (92,000sf)
- Repair outside walls – structural concrete cracks and damages exposing reinforcing rods - 15 locations @ 100sf each (1500sf)
- Remove non-rated gypsum board and metal panel walls between classrooms and corridors on Upper Level; replace with fire rated gyp bd sys. (4000sf each)
- Remove and replace all wood interior doors, frames and hardware in classrooms and offices on Upper and Ground Levels (80)
- Provide security hardware for classrooms & offices, locking from inside classroom all 3 floors. (100)
- Replace all basement steel doors, frames, and hardware in mechanical rooms (20)
- Repair water damage, cracks, and damages in gypsum board walls and ceilings in corridors and classroom walls (2,000sf)
- Replace damaged 12”x12” acoustical tile ceilings glued to concrete deck between concrete beams (3000sf)
- Repair water damage, cracks, and damages in concrete walls in corridors and classroom walls (1,500sf)
- Repaint all remaining interior walls Upper and Ground Floor; half of walls on Lower Level (50,000sf)
- Cracks (small, cosmetic) in slabs in stairways and throughout building (500 lf)

- Remove and replace damaged, old 12”x12” VCT floors in approximately half of classrooms, corridors, and offices with VCT (40,000sf)
- Replace carpet in Library and Auditorium (8,000sf)
- Powerwash exterior walls (20,000sf)

Mechanical

- Replace all lavatories in the building with lower flow fixtures, as the fixtures are original.
- Replace all water closets in the building with lower flow fixtures, as the fixtures are original.
- Replace all urinals in the building with lower flow fixtures, as the fixtures are original.
- Replace the wall hung drinking fountains and integral refrigerated coolers in the corridors and at the restrooms. These units are well beyond their service life and most are NOT accessible type.
- Replace service sinks (janitor sinks) in the building.
- Add automatic sanitizing chemicals to the stainless steel sink in the cafeteria.
- Replace natural gas fired water heater.
- Inspect and replace the original as needed the domestic water piping in the building.
- Hire a qualified contractor to perform a detailed examination of the sanitary waste piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.
- Hire a qualified contractor to examine the dual temperature 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 10 years.
- Replace the three 3,791 MBH Weil McLain 94 series hot water boilers estimated to have been in service since the 1970s.
- Replace chiller.
- Replace the hot water convection.
- 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.
- Provide ventilation, heating and cooling for the gymnasium by replacing the existing air handling unit.
- Provide ventilation, heating and cooling for the Cafeteria by removing the existing air handler and installing a new modular constant volume air handling unit with heating, cooling, distribution ductwork and registers.
- Provide ventilation, heating and cooling for the Auditorium by removing the existing air handler and installing a new modular constant volume air handling unit with heating and cooling.
- Replace the pneumatic controls for the HVAC systems with modern DDC modules, valves and actuators to improve reliability and energy efficiency.
- Provide a new building automation system (BAS) with communication interface to the preferred system in use throughout the District.
- Install a fire protection sprinkler system with quick response type heads to reduce insurance costs by providing protection for the property. A fire pump may be required depending on the available city water pressure.
- Install a new sprinkler system throughout the building

Electrical

- Upgrade the existing electrical service with a new service. Replace the existing substation with a new 3000A, 480/277V, 3PH, 4 wire substation.
- Replace the entire distribution system with new panels and new wiring/conduits. Provide arc flash label on the electrical equipment. Estimated 20 panel boards.
- Replace all damaged receptacles. Estimated 40 each
- Replace all lighting fixtures with new fluorescent lighting fixtures with T-5 lamps throughout all buildings.
- Add extra video surveillance camera in corridors and other critical areas for securing the building. Estimated 7 each.
- Replace existing backup power generator with new 100KW generator.
- Provide new stage lighting and lighting controller in the Auditorium.
- Replace sound system including a freestanding 19” rack backstage area with a mixer, amplifiers, CD player, cassette player, AM-FM radio, graphic or parametric equalizer, and receivers in auditorium and dining area.
- Replace damaged exit signs with new exit signs. Estimated 15 each.
- Provide or replace wall mounted flood lights on exterior walls to secure the building. Estimated 30 each.
- Provide outdoor speakers to cover the school yard. Estimated 10 each.
- Provide adequate video surveillance cameras on the exterior walls around the building and connected to the building CCTV system.

Grounds

- Repave parking lot and roadways (60,000sf)
- Replace concrete curbing (3000ft)
- Repair concrete walkways (1000sf)
- Regrade exterior to provide slope away from building (8000sf)
- Reconstruct loading dock (30sf vertical slab, 100sf slab, 6 R)

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B814001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S801001		

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	55.00 %	0.00 %	$0.00
A20 - Basement Construction	55.00 %	4.78 %	$120,497.75
B10 - Superstructure	55.00 %	0.06 %	$9,818.06
B20 - Exterior Enclosure	72.21 %	8.02 %	$950,702.40
B30 - Roofing	109.67 %	92.01 %	$2,844,634.84
C10 - Interior Construction	56.74 %	13.10 %	$561,124.12
C20 - Stairs	55.00 %	0.00 %	$0.00
C30 - Interior Finishes	64.30 %	10.48 %	$830,428.68
D10 - Conveying	14.29 %	0.00 %	$0.00
D20 - Plumbing	109.56 %	71.25 %	$2,579,863.24
D30 - HVAC	118.00 %	40.12 %	$8,068,364.31
D40 - Fire Protection	105.71 %	51.86 %	$754,603.70
D50 - Electrical	110.11 %	52.58 %	$5,077,618.79
E10 - Equipment	14.29 %	8.90 %	$283,125.98
E20 - Furnishings	12.50 %	0.00 %	$0.00
Totals:	**81.09 %**	**24.36 %**	**$22,080,781.87**

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	$19.83	S.F.	204,093	100	1970	2070		55.00 %	0.00 %	55			$4,047,164
A1030	Slab on Grade	$4.43	S.F.	204,093	100	1970	2070		55.00 %	0.00 %	55			$904,132
A2010	Basement Excavation	$3.74	S.F.	204,093	100	1970	2070		55.00 %	0.00 %	55			$763,308
A2020	Basement Walls	$8.60	S.F.	204,093	100	1970	2070		55.00 %	6.87 %	55		$120,497.75	$1,755,200
B1010	Floor Construction	$75.33	S.F.	204,093	100	1970	2070		55.00 %	0.06 %	55		$9,818.06	$15,374,326
B1020	Roof Construction	$8.11	S.F.	204,093	100	1970	2070		55.00 %	0.00 %	55			$1,655,194
B2010	Exterior Walls	$38.17	S.F.	204,093	100	1970	2070		55.00 %	0.93 %	55		$72,328.28	$7,790,230
B2020	Exterior Windows	$18.65	S.F.	204,093	40	1970	2010	2057	105.00 %	17.76 %	42		$676,000.19	$3,806,334
B2030	Exterior Doors	$1.26	S.F.	204,093	25	1970	1995	2042	108.00 %	78.70 %	27		$202,373.93	$257,157
B3010105	Built-Up	$32.69	S.F.	94,000	20	2000	2020	2037	110.00 %	92.57 %	22		$2,844,634.84	$3,072,860
B3010120	Single Ply Membrane	$33.54	S.F.	200	20	2000	2020		25.00 %	0.00 %	5			$6,708
B3010130	Preformed Metal Roofing	$46.94	S.F.		30				0.00 %	0.00 %				$0
B3010140	Shingle & Tile	$33.54	S.F.		20				0.00 %	0.00 %				$0
B3020	Roof Openings	$0.06	S.F.	204,093	30	1970	2000	2037	73.33 %	0.00 %	22			$12,246
C1010	Partitions	$15.32	S.F.	204,093	100	1970	2070		55.00 %	3.32 %	55		$103,780.91	$3,126,705
C1020	Interior Doors	$3.00	S.F.	204,093	40	1970	2010	2057	105.00 %	74.70 %	42		$457,343.21	$612,279
C1030	Fittings	$2.67	S.F.	204,093	40	1970	2010	2020	12.50 %	0.00 %	5			$544,928
C2010	Stair Construction	$1.20	S.F.	204,093	100	1970	2070		55.00 %	0.00 %	55			$244,912

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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	$11.29	S.F.	204,093	10	1970	1980	2027	120.00 %	9.37 %	12		$215,900.39	$2,304,210
C3010231	Vinyl Wall Covering	$0.83	S.F.		15				0.00 %	0.00 %				$0
C3010232	Wall Tile	$2.25	S.F.		30				0.00 %	0.00 %				$0
C3020411	Carpet	$6.24	S.F.	8,000	10	1970	1980	2027	120.00 %	162.44 %	12		$81,092.25	$49,920
C3020412	Terrazzo & Tile	$64.54	S.F.	5,400	50	1970	2020	2020	10.00 %	0.00 %	5			$348,516
C3020413	Vinyl Flooring	$8.27	S.F.	160,023	20	1970	1990	2037	110.00 %	32.76 %	22		$433,512.64	$1,323,390
C3020414	Wood Flooring	$19.04	S.F.	11,500	25	1970	1995	2020	20.00 %	0.00 %	5			$218,960
C3020415	Concrete Floor Finishes	$0.83	S.F.	20,000	50	1970	2020	2020	10.00 %	416.46 %	5		$69,133.05	$16,600
C3030	Ceiling Finishes	$17.93	S.F.	204,093	25	1970	1995	2020	20.00 %	0.84 %	5		$30,790.35	$3,659,387
D1010	Elevators and Lifts	$1.45	S.F.	204,093	35	1970	2005	2020	14.29 %	0.00 %	5			$295,935
D2010	Plumbing Fixtures	$11.97	S.F.	204,093	35	1970	2005	2052	105.71 %	30.10 %	37		$735,344.45	$2,442,993
D2020	Domestic Water Distribution	$1.49	S.F.	204,093	25	1970	1995	2045	120.00 %	310.20 %	30		$943,309.51	$304,099
D2030	Sanitary Waste	$2.23	S.F.	204,093	30	1970	2000	2050	116.67 %	198.01 %	35		$901,209.28	$455,127
D2040	Rain Water Drainage	$2.05	S.F.	204,093	30	1970	2000	2050	116.67 %	0.00 %	35			$418,391
D3020	Heat Generating Systems	$16.54	S.F.	204,093	35	1970	2005	2052	105.71 %	25.78 %	37		$870,234.05	$3,375,698
D3030	Cooling Generating Systems	$21.69	S.F.	204,093	30	1994	2024	2050	116.67 %	17.85 %	35		$790,008.73	$4,426,777
D3040	Distribution Systems	$38.07	S.F.	204,093	25	1970	1995	2045	120.00 %	31.46 %	30		$2,444,457.70	$7,769,821
D3050	Terminal & Package Units	$10.28	S.F.	204,093	20	1970	1990	2040	125.00 %	0.00 %	25			$2,098,076
D3060	Controls & Instrumentation	$11.95	S.F.	204,093	20	1970	1990	2040	125.00 %	162.52 %	25		$3,963,663.83	$2,438,911
D4010	Sprinklers	$6.24	S.F.	204,093	35	1970	2005	2052	105.71 %	59.25 %	37		$754,603.70	$1,273,540
D4020	Standpipes	$0.89	S.F.	204,093	35	1970	2005	2052	105.71 %	0.00 %	37			$181,643
D5010	Electrical Service/Distribution	$7.80	S.F.	204,093	30	1970	2000	2047	106.67 %	113.67 %	32		$1,809,610.84	$1,591,925
D5020	Lighting and Branch Wiring	$27.92	S.F.	204,093	20	1970	1990	2037	110.00 %	49.74 %	22		$2,834,544.61	$5,698,277
D5030	Communications and Security	$10.46	S.F.	204,093	15	1970	1985	2032	113.33 %	11.27 %	17		$240,518.23	$2,134,813
D5090	Other Electrical Systems	$1.14	S.F.	204,093	30	1970	2000	2047	106.67 %	82.93 %	32		$192,945.11	$232,666
E1020	Institutional Equipment	$4.73	S.F.	204,093	35	1970	2005	2020	14.29 %	29.33 %	5		$283,125.98	$965,360
E1090	Other Equipment	$10.86	S.F.	204,093	35	1970	2005	2020	14.29 %	0.00 %	5			$2,216,450
E2010	Fixed Furnishings	$2.09	S.F.	204,093	40	1970	2010	2020	12.50 %	0.00 %	5			$426,554
								Total	**81.09 %**	**24.36 %**			**$22,080,781.87**	**$90,641,722**

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: C3010230 - Paint & Covering — This system contains no images

Note: painted block with some painted concrete and limited painted gypsum board 100%

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

Note:
Concrete = 20,000 10%
Wood = 11,500 5%
VCT = 160,023 78%
CT = 5,400 3%
Carpet = 8,000 4%

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

Note:
exposed concrete 55%
gypsum board 30%
suspended acoustical tile or concealed spline acoustical glued to deck 15%

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

Note: 1- 225KVA, 480V to120/208V step down 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:	**$22,080,782**	**$0**	**$0**	**$0**	**$0**	**$11,093,487**	**$0**	**$0**	**$0**	**$0**	**$0**	**$33,174,268**
*** 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	$120,498	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$120,498**
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	$9,818	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$9,818**
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	$72,328	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$72,328**
B2020 - Exterior Windows	$676,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$676,000**
B2030 - Exterior Doors	$202,374	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$202,374**
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	$2,844,635	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,844,635**
B3010120 - Single Ply Membrane	$0	$0	$0	$0	$0	$8,554	$0	$0	$0	$0	$0	**$8,554**
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	$103,781	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$103,781**

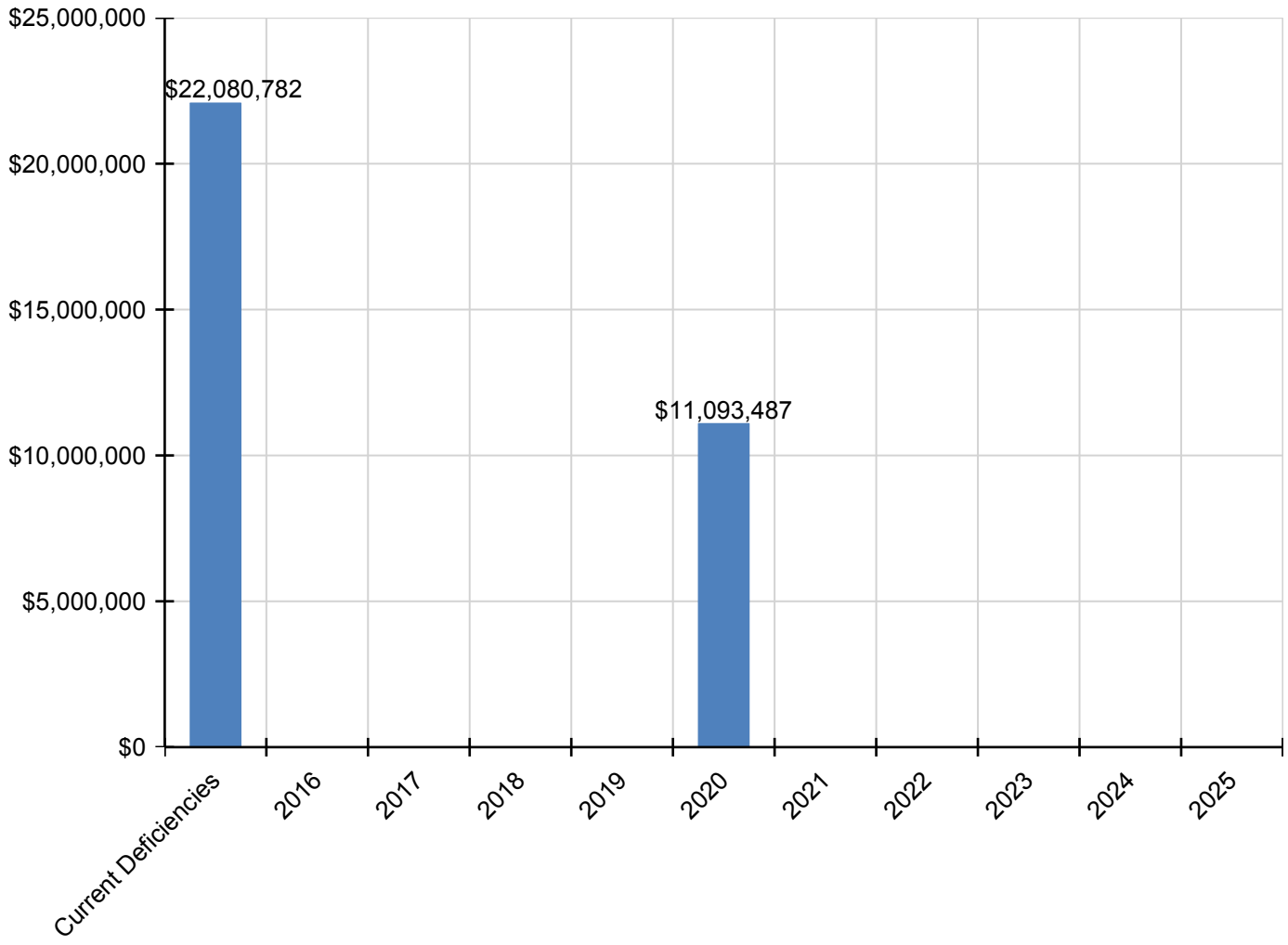
C1020 - Interior Doors	$457,343	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$457,343**
C1030 - Fittings	$0	$0	$0	$0	$0	$694,893	$0	$0	$0	$0	$0	**$694,893**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$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	$215,900	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$215,900**
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	$81,092	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$81,092**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$444,429	$0	$0	$0	$0	$0	**$444,429**
C3020413 - Vinyl Flooring	$433,513	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$433,513**
C3020414 - Wood Flooring	$0	$0	$0	$0	$0	$279,218	$0	$0	$0	$0	$0	**$279,218**
C3020415 - Concrete Floor Finishes	$69,133	$0	$0	$0	$0	$21,168	$0	$0	$0	$0	$0	**$90,301**
C3030 - Ceiling Finishes	$30,790	$0	$0	$0	$0	$4,666,456	$0	$0	$0	$0	$0	**$4,697,246**
D - Services	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D10 - Conveying	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D1010 - Elevators and Lifts	$0	$0	$0	$0	$0	$377,376	$0	$0	$0	$0	$0	**$377,376**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$735,344	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$735,344**
D2020 - Domestic Water Distribution	$943,310	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$943,310**
D2030 - Sanitary Waste	$901,209	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$901,209**
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	$870,234	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$870,234**
D3030 - Cooling Generating Systems	$790,009	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$790,009**
D3040 - Distribution Systems	$2,444,458	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,444,458**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$3,963,664	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$3,963,664**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$754,604	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$754,604**
D4020 - Standpipes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

D50 - Electrical	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5010 - Electrical Service/Distribution	$1,809,611	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,809,611**
D5020 - Lighting and Branch Wiring	$2,834,545	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,834,545**
D5030 - Communications and Security	$240,518	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$240,518**
D5090 - Other Electrical Systems	$192,945	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$192,945**
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	$283,126	$0	$0	$0	$0	$1,231,029	$0	$0	$0	$0	$0	**$1,514,154**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$2,826,420	$0	$0	$0	$0	$0	**$2,826,420**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$0	$0	$0	$0	$0	$543,943	$0	$0	$0	$0	$0	**$543,943**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

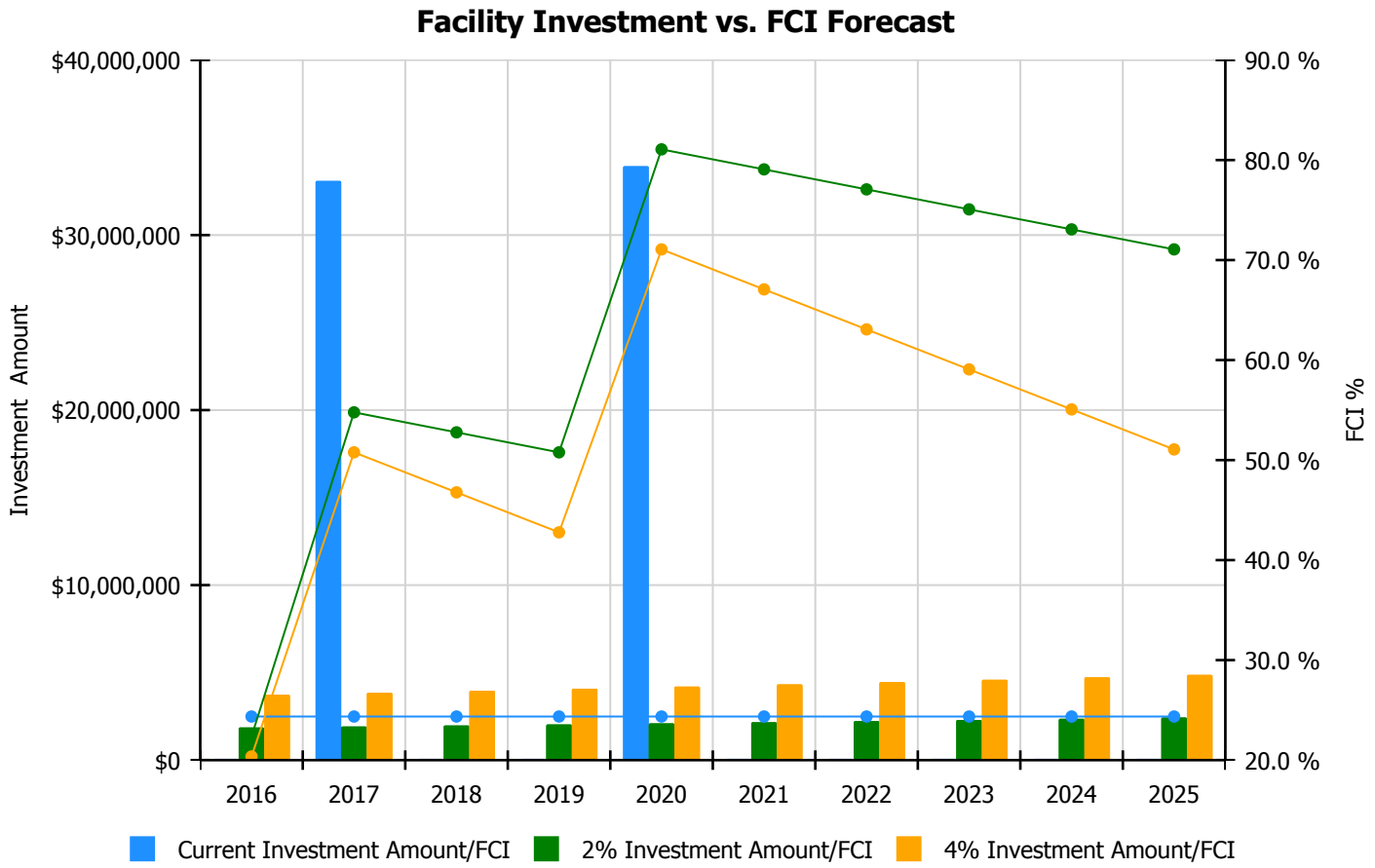
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

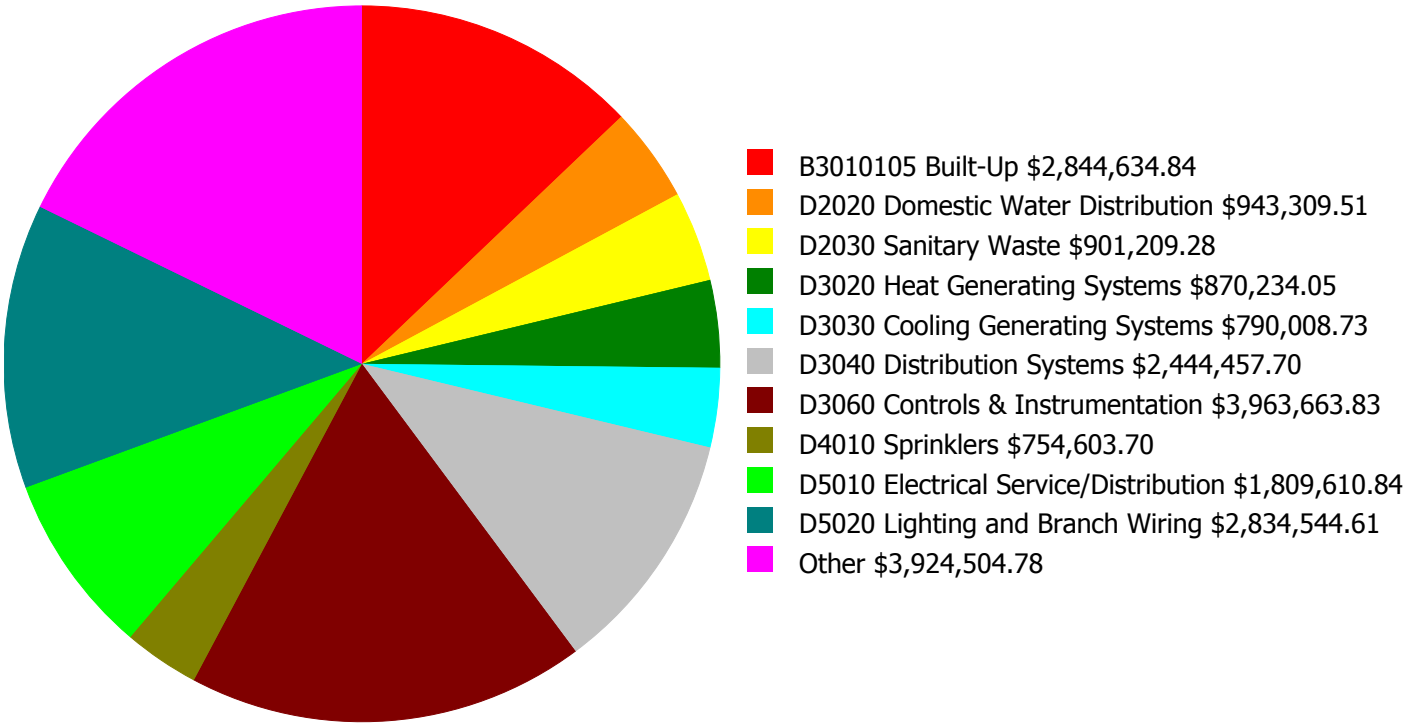
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 24.36%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$1,867,219.00	22.36 %	$3,734,439.00	20.36 %
2017	$33,093,160	$1,923,236.00	54.77 %	$3,846,472.00	50.77 %
2018	$0	$1,980,933.00	52.77 %	$3,961,866.00	46.77 %
2019	$0	$2,040,361.00	50.77 %	$4,080,722.00	42.77 %
2020	$33,933,878	$2,101,572.00	81.07 %	$4,203,144.00	71.07 %
2021	$0	$2,164,619.00	79.07 %	$4,329,238.00	67.07 %
2022	$0	$2,229,558.00	77.07 %	$4,459,115.00	63.07 %
2023	$0	$2,296,444.00	75.07 %	$4,592,889.00	59.07 %
2024	$0	$2,365,338.00	73.07 %	$4,730,676.00	55.07 %
2025	$0	$2,436,298.00	71.07 %	$4,872,596.00	51.07 %
Total:	**$67,027,037**	**$21,405,578.00**		**$42,811,157.00**	

Deficiency Summary by System

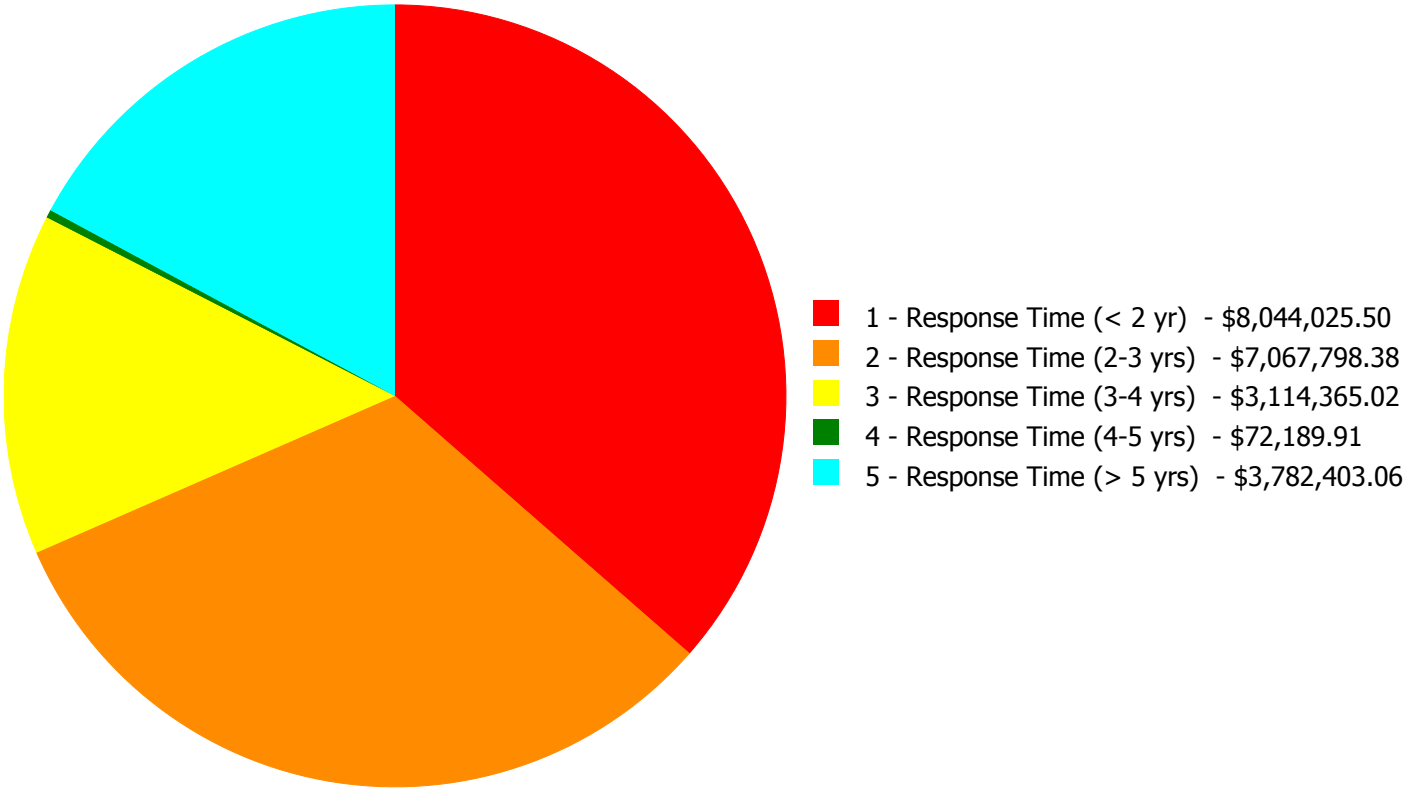
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $22,080,781.87

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: $22,080,781.87

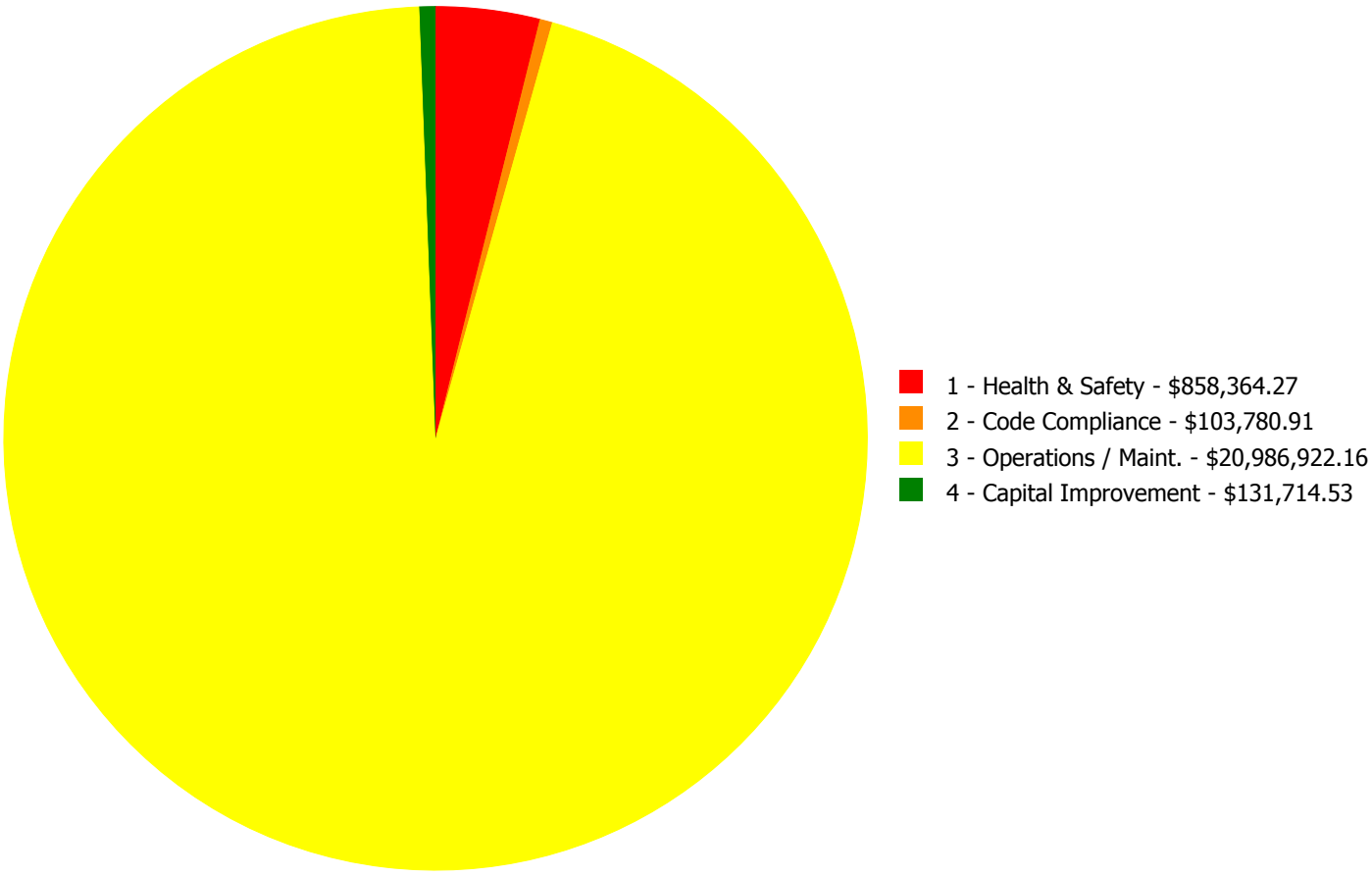
Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
A2020	Basement Walls	$0.00	$120,497.75	$0.00	$0.00	$0.00	$120,497.75
B1010	Floor Construction	$0.00	$9,818.06	$0.00	$0.00	$0.00	$9,818.06
B2010	Exterior Walls	$0.00	$72,328.28	$0.00	$0.00	$0.00	$72,328.28
B2020	Exterior Windows	$0.00	$676,000.19	$0.00	$0.00	$0.00	$676,000.19
B2030	Exterior Doors	$0.00	$202,373.93	$0.00	$0.00	$0.00	$202,373.93
B3010105	Built-Up	$2,844,634.84	$0.00	$0.00	$0.00	$0.00	$2,844,634.84
C1010	Partitions	$103,780.91	$0.00	$0.00	$0.00	$0.00	$103,780.91
C1020	Interior Doors	$0.00	$457,343.21	$0.00	$0.00	$0.00	$457,343.21
C3010230	Paint & Covering	$0.00	$215,900.39	$0.00	$0.00	$0.00	$215,900.39
C3020411	Carpet	$0.00	$81,092.25	$0.00	$0.00	$0.00	$81,092.25
C3020413	Vinyl Flooring	$0.00	$433,512.64	$0.00	$0.00	$0.00	$433,512.64
C3020415	Concrete Floor Finishes	$0.00	$69,133.05	$0.00	$0.00	$0.00	$69,133.05
C3030	Ceiling Finishes	$0.00	$30,790.35	$0.00	$0.00	$0.00	$30,790.35
D2010	Plumbing Fixtures	$0.00	$735,344.45	$0.00	$0.00	$0.00	$735,344.45
D2020	Domestic Water Distribution	$0.00	$0.00	$60,041.96	$0.00	$883,267.55	$943,309.51
D2030	Sanitary Waste	$0.00	$0.00	$901,209.28	$0.00	$0.00	$901,209.28
D3020	Heat Generating Systems	$0.00	$0.00	$870,234.05	$0.00	$0.00	$870,234.05
D3030	Cooling Generating Systems	$0.00	$0.00	$790,008.73	$0.00	$0.00	$790,008.73
D3040	Distribution Systems	$0.00	$0.00	$299,925.89	$0.00	$2,144,531.81	$2,444,457.70
D3060	Controls & Instrumentation	$0.00	$3,963,663.83	$0.00	$0.00	$0.00	$3,963,663.83
D4010	Sprinklers	$0.00	$0.00	$0.00	$0.00	$754,603.70	$754,603.70
D5010	Electrical Service/Distribution	$1,809,610.84	$0.00	$0.00	$0.00	$0.00	$1,809,610.84
D5020	Lighting and Branch Wiring	$2,834,544.61	$0.00	$0.00	$0.00	$0.00	$2,834,544.61
D5030	Communications and Security	$168,328.32	$0.00	$0.00	$72,189.91	$0.00	$240,518.23
D5090	Other Electrical Systems	$0.00	$0.00	$192,945.11	$0.00	$0.00	$192,945.11
E1020	Institutional Equipment	$283,125.98	$0.00	$0.00	$0.00	$0.00	$283,125.98
	Total:	$8,044,025.50	$7,067,798.38	$3,114,365.02	$72,189.91	$3,782,403.06	$22,080,781.87

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: $22,080,781.87

Deficiency Details by Priority

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

Priority 1 - Response Time (< 2 yr):

System: B3010105 - Built-Up

Location: Meehan - roof

Distress: Failing

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Remove and Replace Built Up Roof

Qty: 94,000.00

Unit of Measure: S.F.

Estimate: $2,844,634.84

Assessor Name: Carlton Ross

Date Created: 10/22/2015

Notes: Remove and replace existing flat roof and insulation; 8 levels (94,000sf)

System: C1010 - Partitions

Location: Meehan - upper floor corridor walls

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 1 - Response Time (< 2 yr)

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

Qty: 4,000.00

Unit of Measure: S.F.

Estimate: $103,780.91

Assessor Name: Carlton Ross

Date Created: 10/22/2015

Notes: Remove non-rated gypsum board and metal panel walls between classrooms and corridors on Upper Level; replace with fire rated gyp bd sys. (4000sf each)

System: D5010 - Electrical Service/Distribution

Location: Meehan-Entire Building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Add Electrical Switchgear and Distribution System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $746,278.69

Assessor Name: Carlton Ross

Date Created: 09/11/2015

Notes: Replace the entire distribution system with new panels and new wiring/conduits. Provide arc flush label on the electrical equipment. Estimated 20 panel boards.

System: D5010 - Electrical Service/Distribution

Location: Meehan- Electrical Room Basement

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Add Electrical Switchgear and Distribution System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $626,999.97

Assessor Name: Carlton Ross

Date Created: 09/11/2015

Notes: Upgrade the existing electrical service with a new service. Replace the existing substation with a new 3000A, 480/277V, 3PH, 4 wire substation.

System: D5010 - Electrical Service/Distribution

Location: Meehan - 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: $436,332.18
Assessor Name: Carlton Ross
Date Created: 11/12/2015

Notes: Replace the entire distribution system with new panels and new wiring/conduits. Provide arc flash label on the electrical equipment. Estimated 20 panel boards.

System: D5020 - Lighting and Branch Wiring

Location: Meehan-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: $2,762,161.63
Assessor Name: Carlton Ross
Date Created: 09/11/2015

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

System: D5020 - Lighting and Branch Wiring

Location: Meehan- Exterior Building
Distress: Inadequate
Category: 4 - Capital Improvement
Priority: 1 - Response Time (< 2 yr)
Correction: Add Exterior Lighting
Qty: 1.00
Unit of Measure: Ea.
Estimate: $39,230.10
Assessor Name: Carlton Ross
Date Created: 09/11/2015

Notes: Provide/replace wall mounted flood lights on exterior walls to secure the building. Estimated 30 each.

System: D5020 - Lighting and Branch Wiring

Location: Meehan-Entire Building
Distress: Damaged
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Add wiring device
Qty: 1.00
Unit of Measure: Ea.
Estimate: $20,952.93
Assessor Name: Carlton Ross
Date Created: 09/11/2015

Notes: Replace all damaged receptacles. Estimated 40each

System: D5020 - Lighting and Branch Wiring

Location: Meehan- Entire Building
Distress: Damaged
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Add Lighting Fixtures
Qty: 1.00
Unit of Measure: Ea.
Estimate: $12,199.95
Assessor Name: Carlton Ross
Date Created: 09/11/2015

Notes: Replace damaged exit signs with new exit signs. Estimated 15 each.

System: D5030 - Communications and Security

Location: Meehan- Exterior 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: $78,663.53
Assessor Name: Carlton Ross
Date Created: 09/11/2015

Notes: Provide adequate video surveillance cameras on the exterior walls around the building and connected to the building CCTV system.

System: D5030 - Communications and Security

Location: Meehan - Backstage
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Add/Replace Sound System
Qty: 2.00
Unit of Measure: LS
Estimate: $69,370.27
Assessor Name: Carlton Ross
Date Created: 09/11/2015

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

System: D5030 - Communications and Security

Location: Meehan- Exterior Building
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: $20,294.52
Assessor Name: Carlton Ross
Date Created: 09/11/2015

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

System: E1020 - Institutional Equipment

Location: Meehan- Auditorium

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Add/Replace Stage Theatrical Lighting System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $283,125.98

Assessor Name: Carlton Ross

Date Created: 09/11/2015

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

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

System: A2020 - Basement Walls

Location: Meehan - exterior wall around windows

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Repair spalled concrete - pick the appropriate repair and insert the SF of wall area

Qty: 1,500.00

Unit of Measure: S.F.

Estimate: $79,880.63

Assessor Name: Carlton Ross

Date Created: 10/22/2015

Notes: Repair water damage, cracks, and damages in concrete walls in corridors and classroom walls (1,500sf)

System: A2020 - Basement Walls

Location: Meehan - basement/foundation

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Repair concrete wall in poor condition including rebar dowelling - insert the SF of wall area

Qty: 200.00

Unit of Measure: S.F.

Estimate: $40,617.12

Assessor Name: Carlton Ross

Date Created: 10/21/2015

Notes: Repair cracking and spalling concrete foundation walls in basement level (200sf)

System: B1010 - Floor Construction

Location: Meehan - conc floors

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 500.00

Unit of Measure: S.F.

Estimate: $9,818.06

Assessor Name: Carlton Ross

Date Created: 10/22/2015

Notes: Cracks (small, cosmetic) in slabs in stairways and throughout building (500 lf)

System: B2010 - Exterior Walls

Location: Meehan - concrete walls

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Repair spalled concrete wall structure

Qty: 1,500.00

Unit of Measure: S.F.

Estimate: $72,328.28

Assessor Name: Carlton Ross

Date Created: 10/22/2015

Notes: Repair outside walls – structural concrete cracks and damages exposing reinforcing rods - 15 locations @ 100sf each (1500sf)

System: B2020 - Exterior Windows

Location: Meehan - 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: 112.00

Unit of Measure: Ea.

Estimate: $550,483.43

Assessor Name: Carlton Ross

Date Created: 10/22/2015

Notes: Replace all exterior windows with insulated units, fixed aluminum units unless noted:
(56) @ 1.5x6 classrooms, upper level - operable casement units
(28) @ 4x4 classrooms, lower level
(28) @ 4x4 classrooms ground level

System: B2020 - Exterior Windows

Location: Meehan - 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: 23.00

Unit of Measure: Ea.

Estimate: $125,516.76

Assessor Name: Carlton Ross

Date Created: 10/22/2015

Notes: Replace all exterior windows with insulated units, fixed aluminum units unless noted:
(8) @ 2.5x5 library windows
(15) @ 4x6 library clerestory windows

System: B2030 - Exterior Doors

Location: Meehan - exterior doors

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace exterior doors - per leaf

Qty: 30.00

Unit of Measure: Ea.

Estimate: $202,373.93

Assessor Name: Carlton Ross

Date Created: 10/22/2015

Notes: Replace all exterior doors and hardware with code compliant, latching, exit hardware (30 doors)

System: C1020 - Interior Doors

Location: Meehan - interior doors

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 80.00

Unit of Measure: Ea.

Estimate: $341,598.60

Assessor Name: Carlton Ross

Date Created: 10/22/2015

Notes: Remove and replace all wood interior doors, frames and hardware in classrooms and offices on Upper and Ground Levels (80)

System: C1020 - Interior Doors

Location: Meehan - mechanical area and ground level doors

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Remove and replace hollow metal frames and doors

Qty: 20.00

Unit of Measure: Ea.

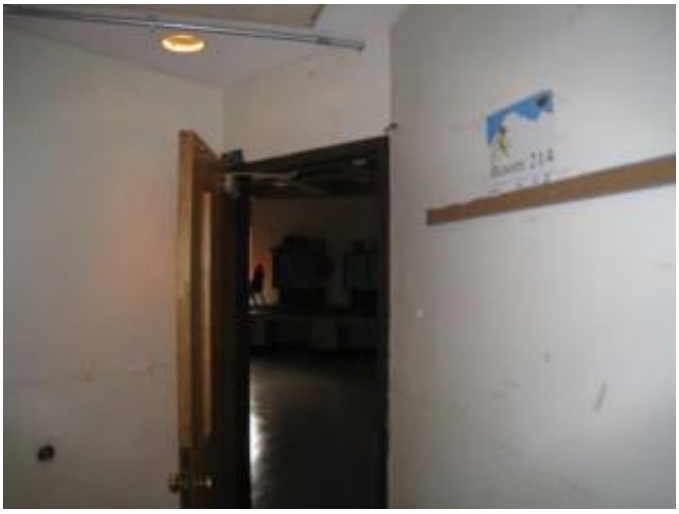
Estimate: $90,647.57

Assessor Name: Carlton Ross

Date Created: 10/22/2015

Notes: Replace all basement steel doors, frames, and hardware in mechanical rooms (20)

System: C1020 - Interior Doors



Location: Meehan - interior 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: 120.00

Unit of Measure: Ea.

Estimate: $25,097.04

Assessor Name: Carlton Ross

Date Created: 10/22/2015

Notes: Provide security hardware for classrooms offices, locking from inside classroom (all 3 floors). (100)

System: C3010230 - Paint & Covering

Location: Meehan - interior walls

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 50,000.00

Unit of Measure: S.F.

Estimate: $201,880.13

Assessor Name: Carlton Ross

Date Created: 10/22/2015

Notes: Repaint all remaining interior walls Upper and Ground Floor; half of walls on Lower Level (50,000sf)

System: C3010230 - Paint & Covering

Location: Meehan - gyp bd walls and clgs

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 2,000.00

Unit of Measure: S.F.

Estimate: $14,020.26

Assessor Name: Carlton Ross

Date Created: 10/22/2015

Notes: Repair water damage, cracks, and damages in gypsum board walls and ceilings in corridors and classroom walls (2,000sf)

System: C3020411 - Carpet

Location: Meehan - library and auditorium
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and replace carpet
Qty: 8,000.00
Unit of Measure: S.F.
Estimate: $81,092.25
Assessor Name: Carlton Ross
Date Created: 10/22/2015

Notes: Replace carpet in Library and Auditorium (8,000sf)

System: C3020413 - Vinyl Flooring

Location: Meehan - classrooms, corridors, offices
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and replace VCT
Qty: 40,000.00
Unit of Measure: S.F.
Estimate: $433,512.64
Assessor Name: Carlton Ross
Date Created: 10/22/2015

Notes: Remove and replace damaged, old 12”x12” VCT floors in approximately half of classrooms, corridors, and offices with VCT (40,000sf)

System: C3020415 - Concrete Floor Finishes

Location: Meehan - mechanical rooms, stairs

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Clean and reseal concrete floors

Qty: 20,000.00

Unit of Measure: S.F.

Estimate: $69,133.05

Assessor Name: Carlton Ross

Date Created: 10/22/2015

Notes: Strip, clean and reseal concrete floors mechanical room, shops, and stairways (20,000sf)

System: C3030 - Ceiling Finishes

Location: Meehan - acoustical ceilings

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: 3,000.00

Unit of Measure: S.F.

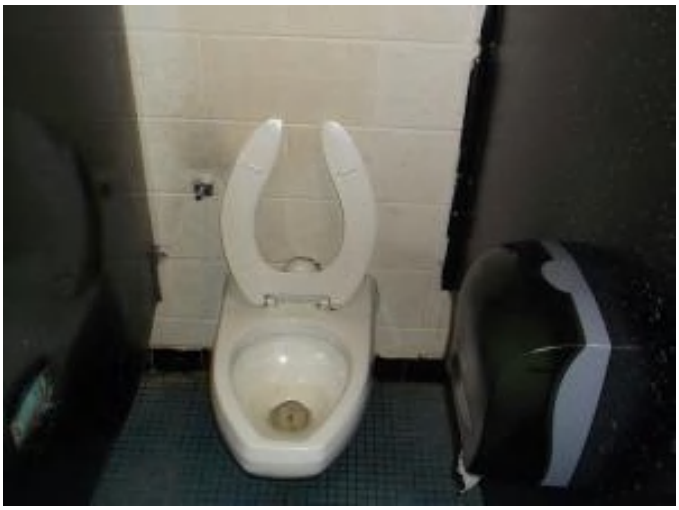
Estimate: $30,790.35

Assessor Name: Carlton Ross

Date Created: 10/22/2015

Notes: Replace damaged 12”x12” acoustical tile ceilings glued to concrete deck between concrete beams (3000sf)

System: D2010 - Plumbing Fixtures



Location: Meehan - Throughout the school

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: 46.00

Unit of Measure: Ea.

Estimate: $304,115.71

Assessor Name: Carlton Ross

Date Created: 11/18/2015

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

System: D2010 - Plumbing Fixtures

Location: Meehan - Throughout the school

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: 20.00

Unit of Measure: Ea.

Estimate: $269,742.06

Assessor Name: Carlton Ross

Date Created: 11/18/2015

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

System: D2010 - Plumbing Fixtures

Location: Meehan - Throughout the school

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or replace wall hung urinals

Qty: 31.00

Unit of Measure: Ea.

Estimate: $91,187.85

Assessor Name: Carlton Ross

Date Created: 11/18/2015

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

System: D2010 - Plumbing Fixtures

Location: Meehan - Throughout the school

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: 10.00

Unit of Measure: Ea.

Estimate: $59,895.95

Assessor Name: Carlton Ross

Date Created: 11/18/2015

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

System: D2010 - Plumbing Fixtures

Location: Meehan - Throughout the school

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: 68.00

Unit of Measure: Ea.

Estimate: $10,402.88

Assessor Name: Carlton Ross

Date Created: 11/18/2015

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

System: D3060 - Controls & Instrumentation

Location: Meehan - Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace pneumatic controls with DDC (250KSF)

Qty: 250,000.00

Unit of Measure: S.F.

Estimate: $3,963,663.83

Assessor Name: Carlton Ross

Date Created: 11/18/2015

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

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

System: D2020 - Domestic Water Distribution

Location: Meehan - Boiler Mechanical Equipment Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace vertical tank type gas-fired water heater (120 gal)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $60,041.96

Assessor Name: Carlton Ross

Date Created: 11/18/2015

Notes: Replace natural gas fired water heater.

System: D2030 - Sanitary Waste

Location: Meehan - 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. (+200KSF)

Qty: 235,100.00

Unit of Measure: S.F.

Estimate: $901,209.28

Assessor Name: Carlton Ross

Date Created: 11/18/2015

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

System: D3020 - Heat Generating Systems

Location: Meehan - Boiler Mechanical Equipment Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 3.00

Unit of Measure: Ea.

Estimate: $870,234.05

Assessor Name: Carlton Ross

Date Created: 11/18/2015

Notes: Replace the three 3,791 MBH Weil McLain 94 series hot water boilers estimated to have been in service since the 1970s.

System: D3030 - Cooling Generating Systems

This deficiency has no image.

Location: Meehan - main boiler mechanical equipment room

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Replace chiller, water-cooled (500 tons)

Qty: 1.00

Unit of Measure: Ea.

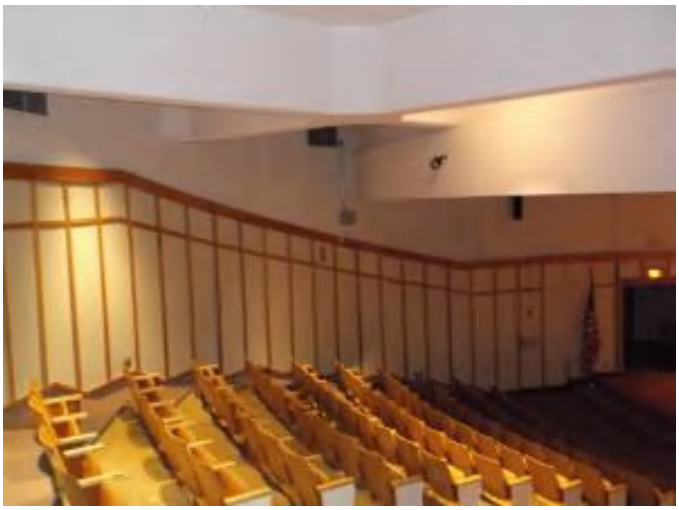
Estimate: $790,008.73

Assessor Name: Carlton Ross

Date Created: 02/08/2016

Notes: Replace chiller.

System: D3040 - Distribution Systems



Location: Meehan - Auditorium
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace HVAC unit for Auditorium (200 seat).
Qty: 200.00
Unit of Measure: Seat
Estimate: $299,925.89
Assessor Name: Carlton Ross
Date Created: 11/18/2015

Notes: Provide ventilation, heating and cooling for the Auditorium by removing the existing air handler and installing a new modular constant volume air handling unit with heating and cooling.

System: D5090 - Other Electrical Systems

Location: Meehan- Boiler Room
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace standby generator system
Qty: 1.00
Unit of Measure: Ea.
Estimate: $192,945.11
Assessor Name: Carlton Ross
Date Created: 09/11/2015

Notes: Replace existing generator with new 100KW generator

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

System: D5030 - Communications and Security

This deficiency has no image.

Location: Meehan- Entire Building

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add/Replace Video Surveillance System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $72,189.91

Assessor Name: Carlton Ross

Date Created: 09/11/2015

Notes: Add extra video surveillance camera in the corridor and other critical areas for securing the building. Estimated 7 each.

Priority 5 - Response Time (> 5 yrs):

System: D2020 - Domestic Water Distribution

Location: Meehan - Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace domestic water piping (250 KSF)

Qty: 250,000.00

Unit of Measure: S.F.

Estimate: $883,267.55

Assessor Name: Carlton Ross

Date Created: 11/18/2015

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

System: D3040 - Distribution Systems

Location: Meehan - Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 20.00

Unit of Measure: C

Estimate: $1,485,805.19

Assessor Name: Carlton Ross

Date Created: 11/18/2015

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

System: D3040 - Distribution Systems

Location: Meehan - Cafeteria

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: Pr.

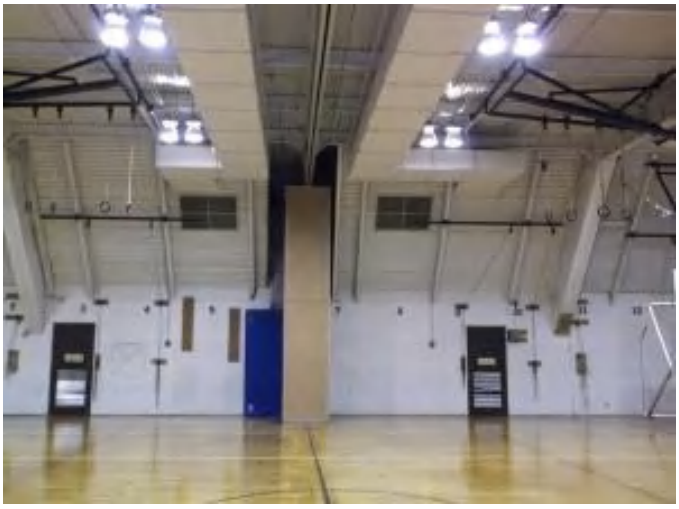
Estimate: $370,269.45

Assessor Name: Carlton Ross

Date Created: 11/18/2015

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

System: D3040 - Distribution Systems



Location: Meehan - Gym

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: Ea.

Estimate: $288,457.17

Assessor Name: Carlton Ross

Date Created: 11/18/2015

Notes: Provide ventilation, heating and cooling for the gymnasium by replacing the existing air handling unit.

System: D4010 - Sprinklers

Location: Meehan - Throughout the building

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

Priority: 5 - Response Time (> 5 yrs)

Correction: Install a fire protection sprinkler system

Qty: 60,000.00

Unit of Measure: S.F.

Estimate: $754,603.70

Assessor Name: Carlton Ross

Date Created: 11/18/2015

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

Equipment Inventory

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

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D5010 Electrical Service/Distribution	Load interrupter switch, 2 position, 300 kVA & below, 13.8 kV, 600 amp w/CLF fuses, NEMA 1	2.00	Ea.	Electrical Room					30	1970	2017	$34,300.00	$75,460.00
D5010 Electrical Service/Distribution	Switchboards, distribution section, aluminum bus bars, 4 W, 120/208 or 277/480 V, 3000 amp, excl breakers	1.00	Ea.	Electrical Room in the Basement					30	1970	2017	$8,650.00	$9,515.00
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 in the Basement.					30	1970	2017	$57,500.00	$63,250.00
												Total:	**$148,225.00**

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):	3,785,800
Year Built:	2009
Last Renovation:	
Replacement Value:	$24,844,316
Repair Cost:	$1,845,596.49
Total FCI:	7.43 %
Total RSLI:	49.65 %

Description:

Attributes:

General Attributes:

Bldg ID:	S801001	Site ID:	S801001

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	38.69 %	10.11 %	$1,845,596.49
G40 - Site Electrical Utilities	80.00 %	0.00 %	$0.00
Totals:	**49.65 %**	**7.43 %**	**$1,845,596.49**

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.	144,000	30	2009	2039		80.00 %	0.00 %	24			$1,658,880
G2020	Parking Lots	$7.65	S.F.	144,600	30	2009	2039		80.00 %	93.44 %	24		$1,033,662.57	$1,106,190
G2030	Pedestrian Paving	$11.52	S.F.	153,000	40	2009	2049		85.00 %	2.91 %	34		$51,310.84	$1,762,560
G2040	Site Development	$2.15	S.F.	3,785,800	60				0.00 %	8.57 %			$697,379.02	$8,139,470
G2050	Landscaping & Irrigation	$1.74	S.F.	3,212,600	15	2009	2024		60.00 %	1.13 %	9		$63,244.06	$5,589,924
G4020	Site Lighting	$1.55	S.F.	3,785,800	30	2009	2039		80.00 %	0.00 %	24			$5,867,990
G4030	Site Communications & Security	$0.19	S.F.	3,785,800	30	2009	2039		80.00 %	0.00 %	24			$719,302
								Total	**49.65 %**	**7.43 %**			**$1,845,596.49**	**$24,844,316**

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.

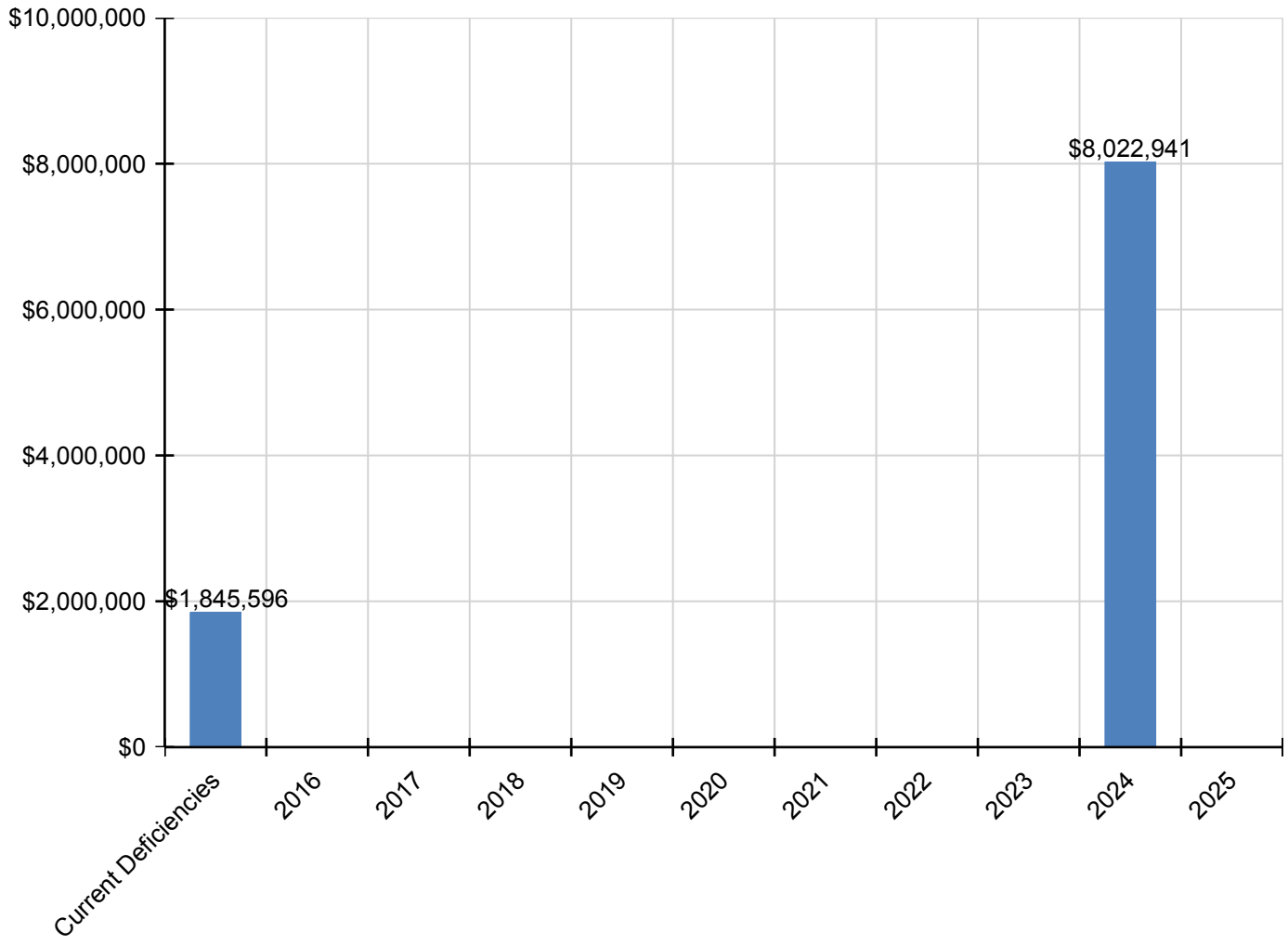
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$1,845,596**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$8,022,941**	**$0**	**$9,868,537**
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	$1,033,663	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,033,663**
G2030 - Pedestrian Paving	$51,311	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$51,311**
G2040 - Site Development	$697,379	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$697,379**
G2050 - Landscaping & Irrigation	$63,244	$0	$0	$0	$0	$0	$0	$0	$0	$8,022,941	$0	**$8,086,185**
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

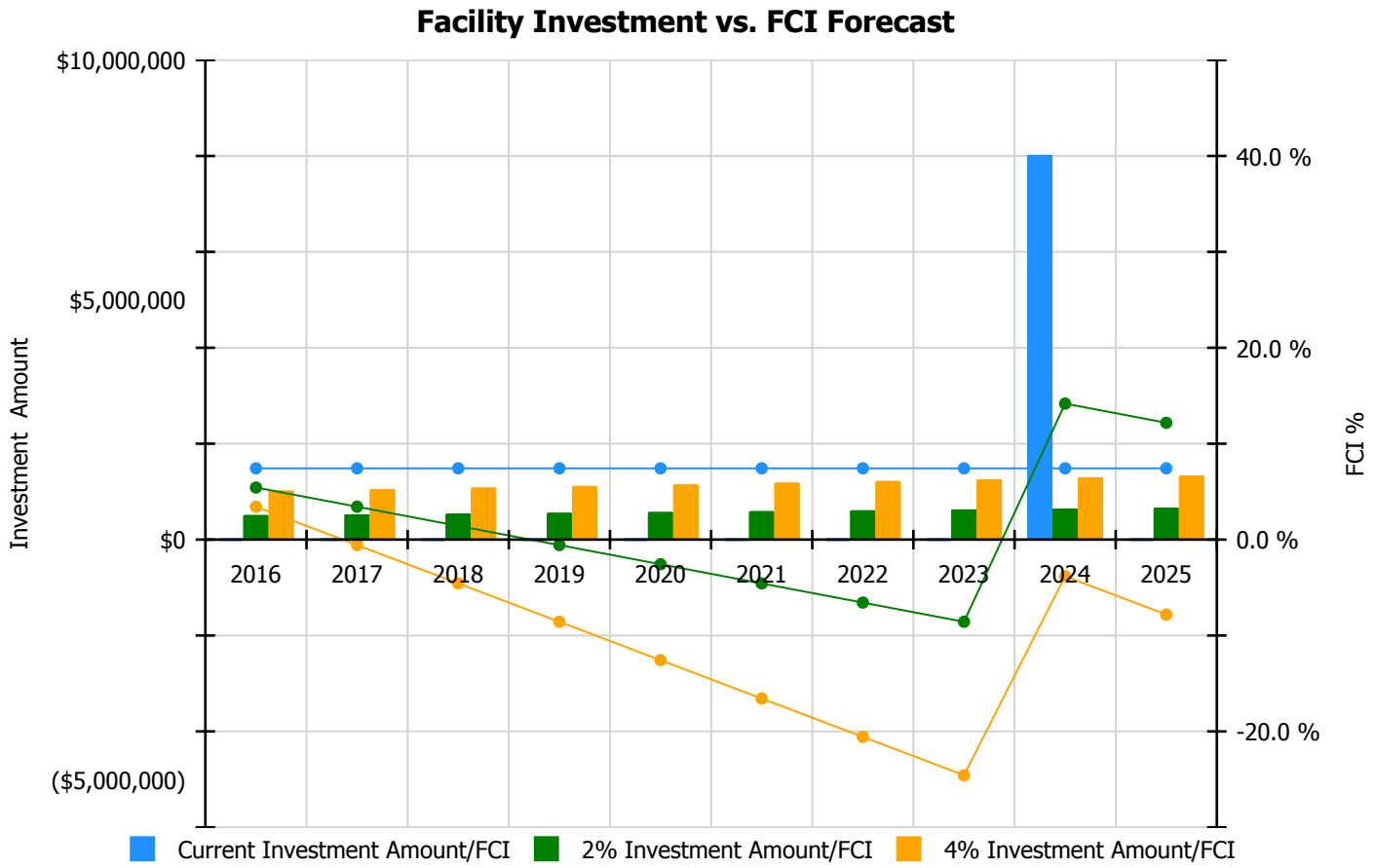
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

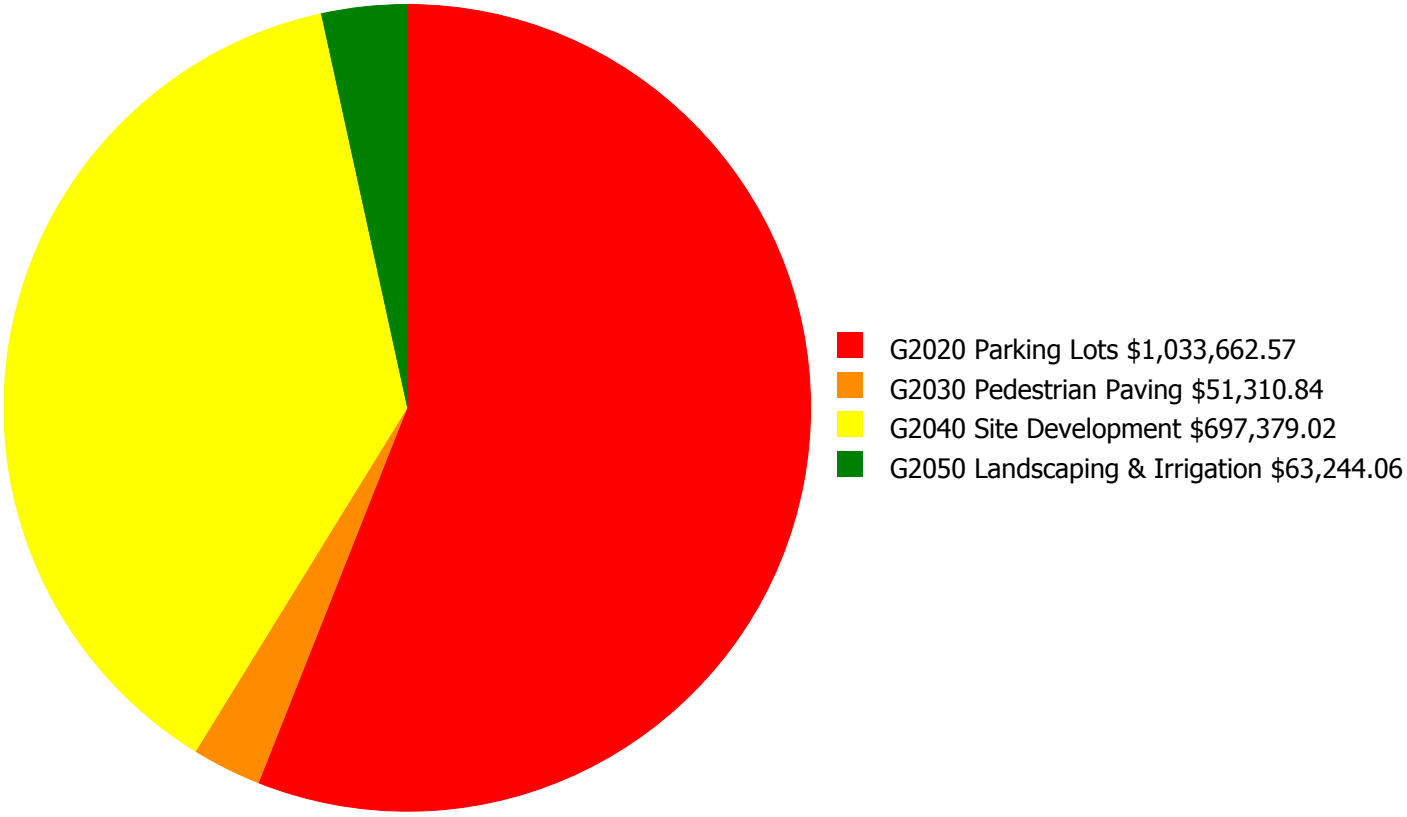
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 7.43%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$511,793.00	5.43 %	$1,023,586.00	3.43 %
2017	$0	$527,147.00	3.43 %	$1,054,293.00	-0.57 %
2018	$0	$542,961.00	1.43 %	$1,085,922.00	-4.57 %
2019	$0	$559,250.00	-0.57 %	$1,118,500.00	-8.57 %
2020	$0	$576,027.00	-2.57 %	$1,152,055.00	-12.57 %
2021	$0	$593,308.00	-4.57 %	$1,186,617.00	-16.57 %
2022	$0	$611,107.00	-6.57 %	$1,222,215.00	-20.57 %
2023	$0	$629,441.00	-8.57 %	$1,258,881.00	-24.57 %
2024	$8,022,941	$648,324.00	14.18 %	$1,296,648.00	-3.82 %
2025	$0	$667,774.00	12.18 %	$1,335,547.00	-7.82 %
Total:	**$8,022,941**	**$5,867,132.00**		**$11,734,264.00**	

Deficiency Summary by System

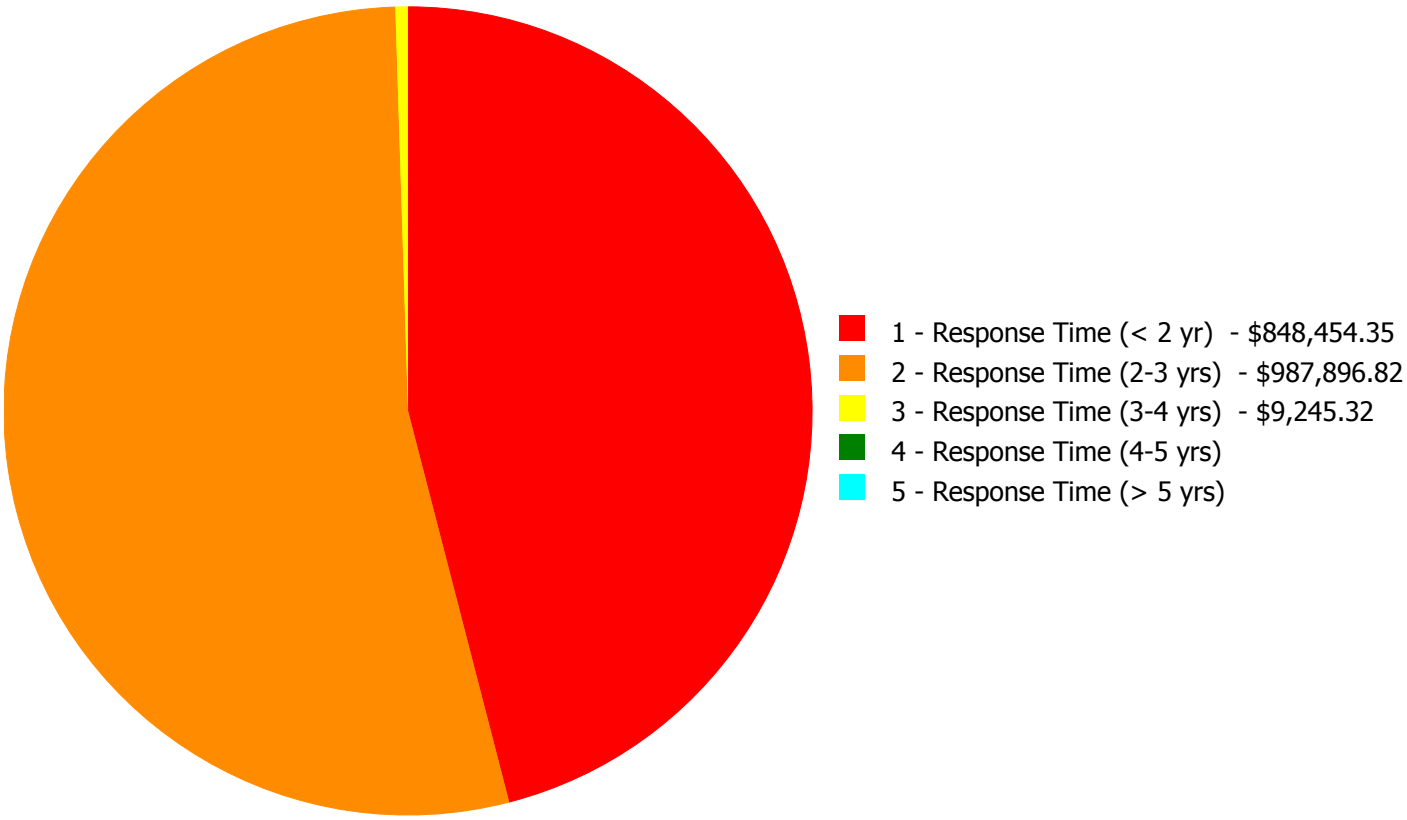
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $1,845,596.49

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: $1,845,596.49

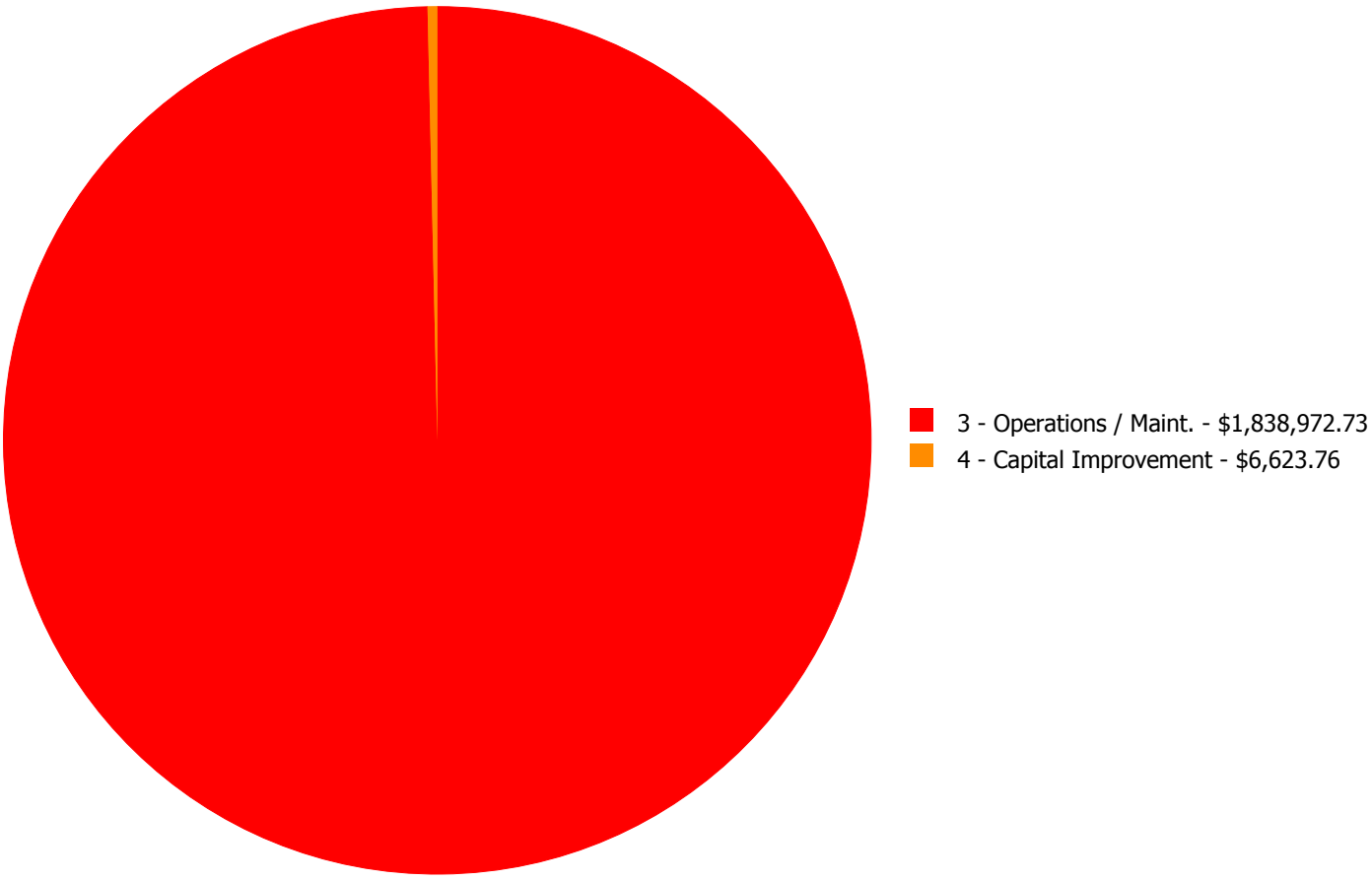
Deficiency By Priority Investment Table

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	$848,454.35	$175,962.90	$9,245.32	$0.00	$0.00	$1,033,662.57
G2030	Pedestrian Paving	$0.00	$51,310.84	$0.00	$0.00	$0.00	$51,310.84
G2040	Site Development	$0.00	$697,379.02	$0.00	$0.00	$0.00	$697,379.02
G2050	Landscaping & Irrigation	$0.00	$63,244.06	$0.00	$0.00	$0.00	$63,244.06
	Total:	$848,454.35	$987,896.82	$9,245.32	$0.00	$0.00	$1,845,596.49

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: $1,845,596.49

Deficiency Details by Priority

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

Priority 1 - Response Time (< 2 yr):

System: G2020 - Parking Lots

Location: Meehan - parking lots and roadways

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Remove and replace AC paving parking lot

Qty: 60,000.00

Unit of Measure: S.F.

Estimate: $848,454.35

Assessor Name: Tom Moe

Date Created: 10/22/2015

Notes: Repave parking lot and roadways (60,000sf)

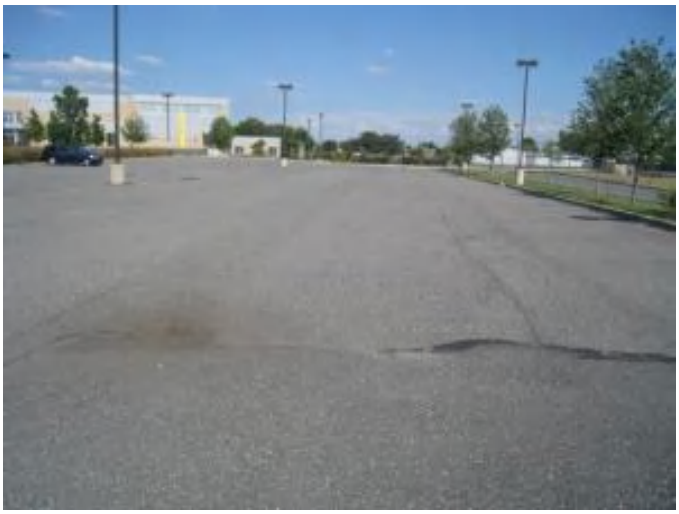
Priority 2 - Response Time (2-3 yrs):

System: G2020 - Parking Lots

Location: Meehan - parking lots and roadways
Distress: Damaged
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Remove and replace curbing
Qty: 3,000.00
Unit of Measure: L.F.
Estimate: $163,842.42
Assessor Name: Tom Moe
Date Created: 10/22/2015

Notes: Replace concrete curbing (3000ft)

System: G2020 - Parking Lots



Location: Lincoln - Main Building - paving
Distress: Damaged
Category: 3 - Operations / Maint.
Priority: 2 - Response Time (2-3 yrs)
Correction: Fill cracks in AC paving - by the LF - average size and depth of crack
Qty: 1,000.00
Unit of Measure: L.F.
Estimate: $10,100.40
Assessor Name: Tom Moe
Date Created: 11/19/2015

Notes: Fill cracks in asphalt parking lot (1000ft)

System: G2020 - Parking Lots

Location: Lincoln - Locker Facility

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Fill cracks in AC paving - by the LF - average size and depth of crack

Qty: 200.00

Unit of Measure: L.F.

Estimate: $2,020.08

Assessor Name: Tom Moe

Date Created: 11/19/2015

Notes: Fill cracks in asphalt parking lot (200ft)

System: G2030 - Pedestrian Paving

Location: Lincoln - Locker Facility

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 2,000.00

Unit of Measure: S.F.

Estimate: $28,765.70

Assessor Name: Tom Moe

Date Created: 11/19/2015

Notes: Replace concrete walkways (2000sf)

System: G2030 - Pedestrian Paving

Location: Meehan - concrete walkways

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 1,000.00

Unit of Measure: S.F.

Estimate: $14,382.85

Assessor Name: Tom Moe

Date Created: 10/22/2015

Notes: Repair concrete walkways (1000sf)

System: G2030 - Pedestrian Paving

Location: Lincoln - track

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace resilient playground surface

Qty: 200.00

Unit of Measure: S.F.

Estimate: $5,285.72

Assessor Name: Tom Moe

Date Created: 11/19/2015

Notes: Clean and repair sections of track surrounding football field (200sf)

System: G2030 - Pedestrian Paving

Location: Lincoln - Main Building front

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 200.00

Unit of Measure: S.F.

Estimate: $2,876.57

Assessor Name: Tom Moe

Date Created: 11/19/2015

Notes: Repave damaged sections of concrete walkway in front of building (200sf)

System: G2040 - Site Development

Location: Lincoln - entire site

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace chain link fence - 6' high

Qty: 7,600.00

Unit of Measure: L.F.

Estimate: $681,857.14

Assessor Name: Tom Moe

Date Created: 11/19/2015

Notes: Replace/provide site fence around entire property(7600ft) total

System: G2040 - Site Development

Location: Meehan - loading dock

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Repair concrete retaining wall in poor condition including rebar doweling - insert the SF of wall area

Qty: 30.00

Unit of Measure: S.F.

Estimate: $8,898.12

Assessor Name: Tom Moe

Date Created: 10/22/2015

Notes: Reconstruct loading dock (30sf vert, 100sf slab, 6 R)

System: G2040 - Site Development

Location: Lincoln - Main Building - parking lots

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Remove and replace chain link gate - 6' high

Qty: 2.00

Unit of Measure: Ea.

Estimate: $6,623.76

Assessor Name: Tom Moe

Date Created: 11/19/2015

Notes: Provide gates for parking lot entrance facing Sackett Street (2) 20ft gates

System: G2050 - Landscaping & Irrigation

Location: Meehan - grading around building

Distress: Maintenance Required

Category: 3 - Operations / Maint.

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

Correction: Replace landscape beds - including irrigation - small areas

Qty: 8,000.00

Unit of Measure: S.F.

Estimate: $50,454.81

Assessor Name: Tom Moe

Date Created: 10/22/2015

Notes: Regrade exterior to provide slope away from building (8000sf)

System: G2050 - Landscaping & Irrigation

Location: Meehan - trim landscaping

Distress: Maintenance Required

Category: 3 - Operations / Maint.

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

Correction: Replace landscape beds - including irrigation - small areas

Qty: 1,000.00

Unit of Measure: S.F.

Estimate: $11,304.28

Assessor Name: Tom Moe

Date Created: 10/22/2015

Notes: Trim overgrown landscaping

System: G2050 - Landscaping & Irrigation

Location: Lincoln - football field

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or replace sod

Qty: 100.00

Unit of Measure: S.F.

Estimate: $1,484.97

Assessor Name: Tom Moe

Date Created: 11/18/2015

Notes: Repair damaged sections of Football Field AstroTurf. (100sf)

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

System: G2020 - Parking Lots

Location: Lincoln - Main Building - parking lots

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Resurface parking lot - grind and resurface including striping

Qty: 1.00

Unit of Measure: S.F.

Estimate: $5,675.77

Assessor Name: Tom Moe

Date Created: 11/19/2015

Notes: Restripe parking lots (280 spaces + 9 HC)

System: G2020 - Parking Lots

Location: Lincoln - Main Building - paving

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Resurface parking lot - grind and resurface including striping

Qty: 1,000.00

Unit of Measure: S.F.

Estimate: $3,569.55

Assessor Name: Tom Moe

Date Created: 11/19/2015

Notes: Patch asphalt paving (1000sf)

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