

EAST CAROLINA UNIVERSITY

Facility Condition Assessment

Family Medicine Center

Asset 255

Inspected May 11, 2021



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FACILITY CONDITION ASSESSMENT

SECTION 1

ASSET OVERVIEW

ASSET EXECUTIVE SUMMARY

All costs shown as Present Value

ASSET CODE 255	CURRENT REPLACEMENT VALUE \$61,765,000
ASSET NAME FAMILY MEDICINE CENTER	FACILITY CONDITION NEEDS INDEX 0.04
ASSET USE Medical / Clinic	FACILITY CONDITION INDEX 0.00
YEAR BUILT 2011	10-YEAR \$/SF 21.26
GSF 112,383	
INSPECTION DATE 05/11/2021	

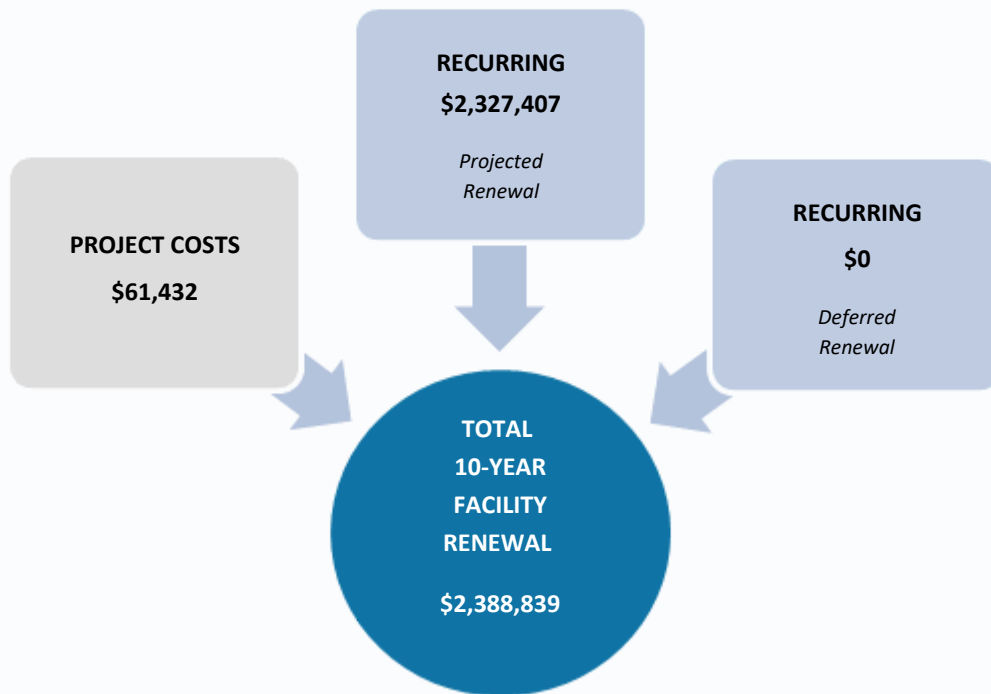
FCNI Scale

The FCNI for this asset is **0.04**

- Excellent Condition (typically new construction)
- Below Average Condition (major renovation required)
- Good Condition (maintained within lifecycle)
- Poor Condition (total renovation required)
- Fair Condition (normal renovations required)
- Replacement Indicated (unless historic)



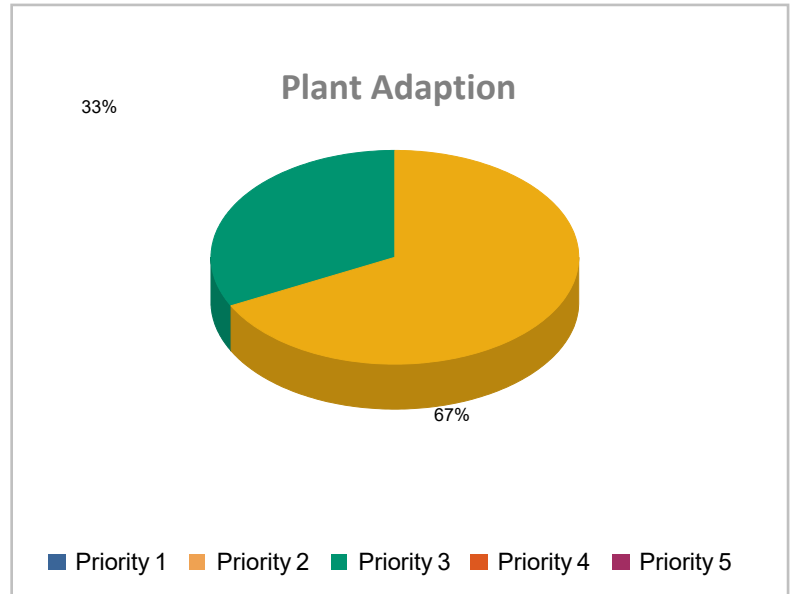
Total Facility Renewal Costs



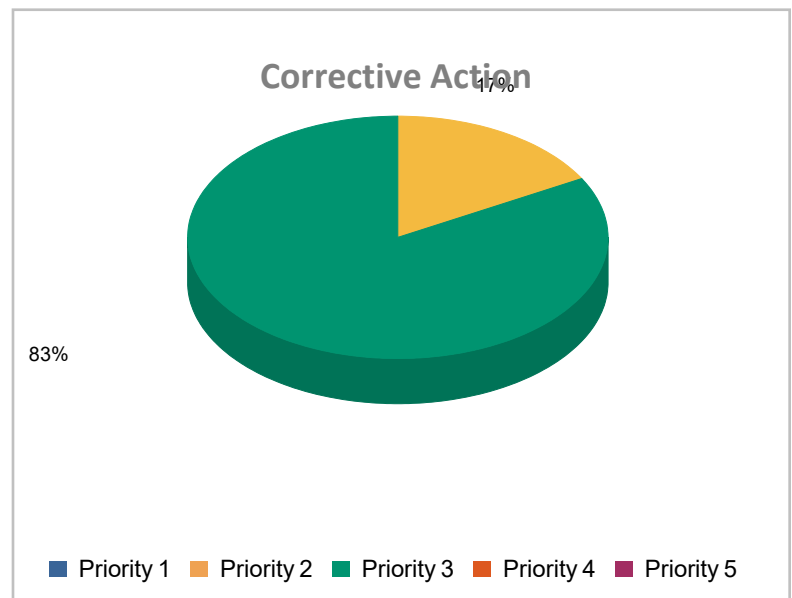
Project Costs

Project Cost by Priority

PLANT ADAPTION	
Priority 1	\$0
Priority 2	\$21,616
Priority 3	\$10,428
Priority 4	\$0
Priority 5	\$0

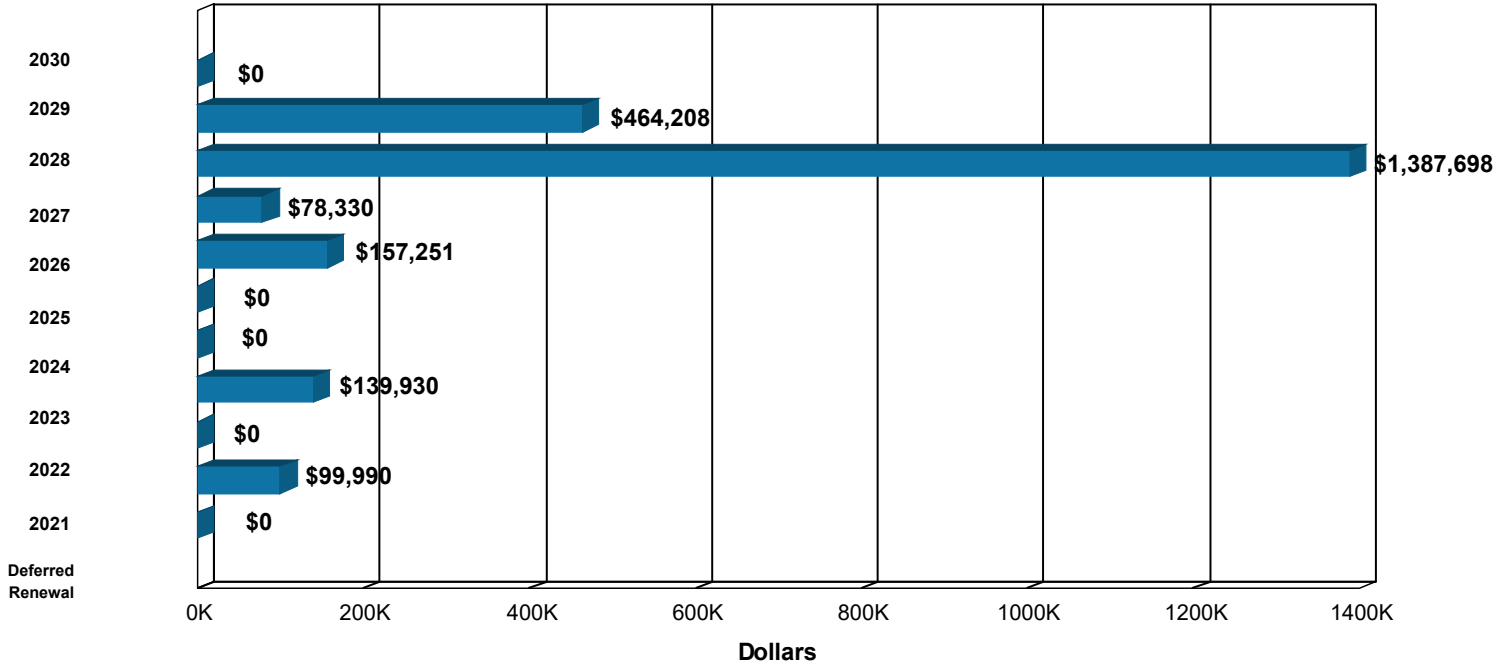


CORRECTIVE ACTION	
Priority 1	\$0
Priority 2	\$5,000
Priority 3	\$24,388
Priority 4	\$0
Priority 5	\$0

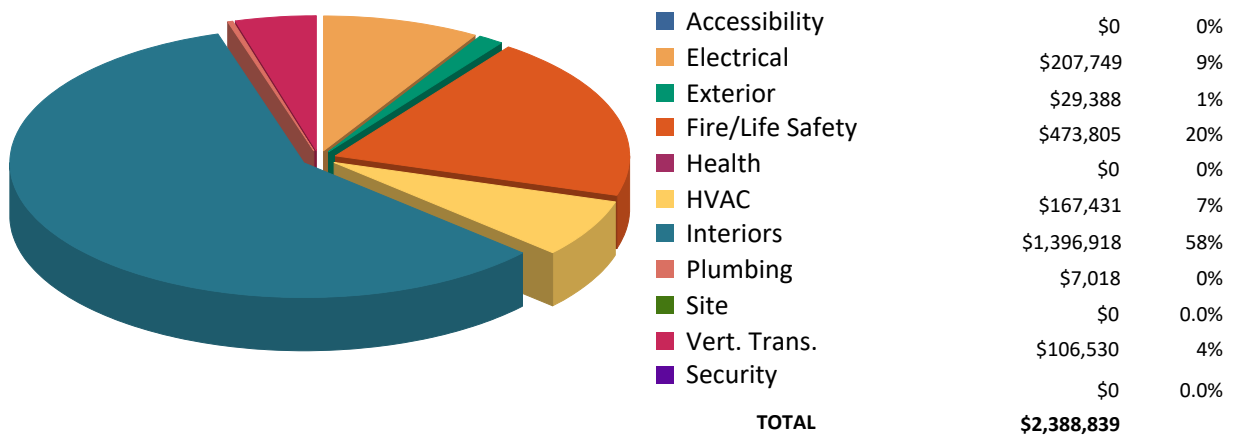


Recurring Costs

Component Replacement Cost by Year



Facilities Renewal Cost by System



ASSET SUMMARY

The Family Medicine Center is a 112,383 gross square foot, L-shaped, reinforced concrete and steel frame structure built in 2011 and located in the northwest section of the East Carolina University Health Sciences Campus. This three-story building has a brick masonry exterior veneer and flat membrane roof, and the lowest level is underground on the south (front) side and daylights to the north (rear). There are several main entrances on the south side, and numerous additional entrances throughout the first floor and lower level. This medical school facility contains administrative and departmental offices, teaching clinics and exam areas, classrooms, and support areas such as conference rooms, staff and student lounges, public multi-user and private single-user restrooms, and mechanical and electrical spaces, including a rooftop mechanical penthouse. The building is fully handicapped accessible.

The information for this report was collected during a site visit conducted on May 11, 2021.

Site

The site is well maintained and visually appealing. Landscaping is adequate and appropriate, and the concrete sidewalks and curbs/gutters are in good condition. There are several large asphalt parking lots to the north and south. Since these parking areas serve multiple facilities, they were not included in this assessment. No site upgrades are recommended at this time.

Exterior Structure

The brick veneer exterior walls are in good condition and require no repairs at this time. The EIFS accents, however, have become damaged due to exposure and cracking. Some of the EIFS mounting screws have corroded and stained the exterior. The EIFS will need some refinishing and resealing to restore a satisfactory aesthetic.

Exterior windows are dual-pane and in good condition. They should outlast the scope of this report. However, a small percentage have loose gasket seals and condensation build-up. The deficient seals should be repaired or replaced as part of routine maintenance. Entrance and service doors are aluminum and glass or hollow metal. They appear to be original and are in good condition with none expected to require renewal. It should be noted that the airlock entry doors do not work as well as desired, with occupants noting cold air intrusion from the operation. Investigate the airlock operation to determine if it is operating correctly or needs to be replaced, possibly with a revolving door assembly.

The building has a central pitched, green-colored standing seam metal roof and flat, white TPO single-ply membrane roofing around the perimeter housing mechanical equipment. The flat areas act as a large gutter to collect rainwater from the pitched roofing and divert it to internal drains. Both roofs are original and in good condition. They should outlast the scope of this report, though the membrane roof is expected to reach the end of its lifecycle shortly beyond the next ten years. The skylights over the entry canopies are also not expected to require replacement within the report scope. Vibrations from

stormwater runoff from the upper pitched metal roofs have loosened the downspouts from the penthouse exterior wall. Repair these as necessary to eliminate the potential damage that an exterior leak may cause.

Interior Finishes/Systems

Generally, finishes are original and in good condition. The primary floor finishes are carpeting in office suites, conference rooms, and classrooms, vinyl tile and a small amount of sheet vinyl in exam and clinic areas and single-user restrooms, ceramic tile in the first floor and lower level main lobbies and in the restrooms by the elevator lobbies, and wood laminate in the new lower level build-out. The carpeting and sheet vinyl are expected to require replacement within the next ten years, and the limited areas of painted and sealed concrete floors should be refinished.

Most of the walls are painted sheetrock. There are also cloth covered cork wall finishes in classrooms and ceramic wall tile in the main restrooms. The painted walls should be repainted within the next ten years. Most ceilings are acoustical tile, suspended grid drop systems. The areas under the balconies overlooking the atrium have painted sheetrock or suspended grid wood ceilings. No ceiling upgrades are recommended within the next ten years.

Interior doors are properly rated and in good condition, and they have ADA compliant lever hardware. Interior glazing is all properly fire and safety rated. Wood cabinetry in exam rooms and other support areas is in good condition and not expected to warrant replacement within the report scope.

Accessibility

The design of this 2011 clinic and teaching facility included all required ADA features. It is considered handicapped accessible, and no additional upgrades are recommended at this time.

Health

No health issues were observed or reported during the inspection.

Fire/Life Safety

Structural fire separations are maintained according to code requirements for new construction in all areas of this facility. The paths of egress are adequate with regard to fire rating, and there are no compromises involving doors, or partitions. However, the latest applicable International Building Code for interior stairwells no longer allows open risers between treads. Stairwell 1 has open risers that are recommended to be infilled.

This facility is protected by an original central fire alarm system. The Simplex model 4100U point addressable fire alarm control panel is in the corridor at the north lower level service entrance. Remote annunciator panels are located at the south first floor entrances. Fire devices include manual pull

stations, heat/smoke detectors, and audible/visible annunciators. The system will reach the end of its expected service life late in the next ten years and should be replaced at that time.

This facility is protected by an automatic, comprehensive, wet-pipe sprinkler system. Tamper switches were observed on the fire standpipes, and control valves were in locked rooms. With proper testing and maintenance, the fire suppression systems will outlast the scope of this report.

There are eyewash stations in the custodial closets and near the sterilization room (where corrosive materials might be located). These eyewash fixtures are in very good condition and should outlast the scope of this report.

HVAC

High pressure steam and chilled water enter the facility in mechanical room L914B. The chilled water is distributed to the air handling units (AHUs) and fan coil units (FCUs) throughout the building by two 25 hp chilled water pumps. Pressure reducing valves (PRVs) in room L914B reduce steam pressure so the steam can be used to produce heating and domestic hot water. Heat exchangers CV-1 and -2 convert the steam into heating hot water, which is distributed by two 15 hp pumps to AHUs, FCUs, cabinet unit heaters (CUH), and reheat coils throughout the facility. There is a smaller (0.5 hp) hot water pump at each AHU. The condensate receiver is located in room L914B.

Five York (Johnson Controls) AHUs distribute conditioned air throughout this facility. The AHUs and associated return fans are located in the mechanical penthouses. The supply fans are 40 to 50 hp, while the return fans are 15 to 25 hp. Ten FCUs provide heating and cooling to the mechanical spaces, and nine CUHs provide heating only, typically near entrances. Liebert computer room air conditioning units provide additional cooling to the two data/telecom rooms in the penthouses. AHU-8 provides about 4 tons of cooling and AHU-9 about 5 tons. Supplemental cooling in small electrical and data/telecom rooms is provided by five Carrier split DX systems. One condensing unit is located on the roof and the others (one single and a group of three) on the north exterior of the ground floor. The evaporator units are located inside the individual electrical and data/telecom rooms.

Ventilation is provided by a centrifugal roof exhauster, strobic air fans, and building exhaust fans. The centrifugal roof exhauster is located through the wall of the service elevator mechanical room. The strobic air fans are in the center of the roof. The building exhaust fans are inside the penthouses. The fans range in size from fractional horsepower for the centrifugal roof exhauster to 5 hp. The estimated replacement cost of the strobic air fans has been increased due to their HEPA filtration system. Steam equipment (heat exchangers and domestic water heater) in basement mechanical room L914B produce so much excess heat that FCU-L914B is not capable of keeping the room cool. It is recommended that a split system and ventilation be added to this room.

The HVAC distribution network includes piping for the steam, heating hot water, and chilled water, as well as ductwork. The Metasys HVAC controls were manufactured by Johnson Controls. Both pneumatic and electric actuators were observed. A Quincy air compressor system with two 5 hp motors provides the air for the pneumatic equipment. The HVAC controls are typically divided into three categories:

terminal assemblies, field panels/OPS software and major Instrumentation. However, the major instrumentation is not included in this report.

The HVAC equipment described above, including the terminal assembly portion of the controls, appears to be in good condition and should provide reliable service beyond the next ten years. Only the two Liebert CRAC units (AHU-8 and -9) and the field panels/OPS software portion of the HVAC controls are expected to require replacement in the next ten years.

Electrical

Power is fed through the 1,000 kVA, oil-filled transformer TX-14 located at the north exterior. It enters the transformer at 15 kV and exits at 277/480 V, then enters the main electrical room (L906B) and is distributed by the 2,000 amp (480 V) main Square D switchboard. The distribution network is a dual voltage configuration. Major equipment uses the 277/480 volt network. The 120/208 volt system is for receptacles and miscellaneous low voltage equipment. Electrical outlets in areas near water (restrooms, sinks) have GFCI protection. The secondary panels were manufactured by Square D. The primary equipment and distribution networks are in good condition and should outlast the scope of this report.

The interior spaces are illuminated by pendant, recessed, and lay-in fluorescent fixtures. Modern occupancy sensors were observed throughout the facility. The interior lighting system is expected to provide reliable service beyond the next ten years. The special light fixtures above the exam chairs were not included in this report.

Exterior areas adjacent to the buildings are illuminated by wall-mounted, ground-mounted, post, stanchion, string, recessed, and step light fixtures. Both CFL and LED lamps were observed. Several of the string LED fixtures at the south entrances appear to be nonfunctional and should be replaced in the near term. The other fixtures are in good condition but should be scheduled for lifecycle replacement in the next five years. Install energy-efficient fixtures, and place them on photocell activation. Also, the roof entrances to the east and southwest penthouses are not illuminated. Install LED lighting to ensure a safe environment for those who might need access to the roof.

ABB variable frequency drives (VFD) provide improved efficiency and control for the AHU supply and return fans, chilled water pumps, and heating hot water pumps. The VFDs are original, and some are reported to have maintenance issues. All should be scheduled for replacement as they approach the end of their expected service life over the next two to six years.

A 250 KW diesel-fired generator provides emergency power to this facility. The generator is placed atop a 700 gallon diesel tank at the north exterior. Two 600 amp Russelectric automatic transfer switches (G1 and G2) and the 400 amp (480 V) Eaton generator switchboard (G2-MDP) are located in room L907B. The voltage regulator was already replaced on ATS-G1. The life expectancy for both ATS units was reduced by a couple of years. No other upgrades are recommended at this time.

Plumbing

Potable water is distributed via copper piping, and sanitary waste and stormwater piping is cast-iron. No major piping leaks were reported or observed. These systems are in good condition and should provide reliable service well beyond the next ten years. The three backflow preventers on the water mains in mechanical room L914B are at the end of their expected service life and should be replaced to prevent cross-contamination between the building and the potable water supply. There is a domestic water heat exchanger in mechanical room L914B. This instantaneous water heater uses steam to produce domestic hot water. A 2 hp water pump (CWP-3) appears to aid in the delivery of domestic water throughout the building (via a Leonard mixing valve). No upgrade of this equipment is recommended at this time. Plumbing fixtures include stainless steel sinks in break rooms, exam rooms, and labs, tankless water closets, counter and wall-hung lavatories, and wall-hung urinals in restrooms, and various types of utility service sinks. These original fixtures are in good condition and should outlast the scope of this report.

Vertical Transportation

There are two hydraulic passenger elevators and one hydraulic service elevator, all manufactured by Schindler. The 2,500 pound capacity passenger elevators serve floors LL through 2. The 4,000 pound capacity service elevator serves LL through 2, along with penthouse level 3A. Each elevator has an accessible call button. The elevators are in good condition and the mechanical systems are expected to outlast the scope of this report. However, the passenger elevator cabs should be renovated within the next five years.

Note: The renewal needs outlined in this report were identified from the visual inspection and staff interviews. Our professional architectural and engineering inspectors examined the accessible equipment and various building components to determine what repairs or modifications may be necessary to restore the systems and asset to an acceptable condition, or to a level defined by the Client. The estimated costs represent correction of existing deficiencies and anticipated lifecycle failures within a ten-year period. These recommendations are to bring the facility to modern standards without any anticipation of change to facility space layout or function. The total costs include variable project delivery costs as determined by the Owner. The costs developed do not represent the cost of a complete facility renovation. Soft costs not represented in this report include telecommunications, security, furniture, window treatment, space change, program issues, relocation, swing space, contingency, or costs that could not be identified or determined from the visual inspection and available building information.

INSPECTION TEAM DATA

Report Development

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Project Manager

Doug Fredendall
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Date of Inspection

May 11, 2021

Inspection Team Personnel

NAME	POSITION	SPECIALTY
Richard Franck	Project Engineer	Mechanical, Electrical, Plumbing, Energy, Fire/Life Safety, Health
Carl Mason, PE, BSCP, M.ASCE	Senior Project Engineer	Interior Finishes, Exterior Structure, ADA Compliance, Site, Fire/Life Safety, Health

Client Contact

NAME	POSITION
Griffin L. Avin, CEFP	Director of Facilities Services, Health Sciences Campus Chief Sustainability Officer

DEFINITIONS

The following information is a clarification of the Facility Condition Assessment report using example definitions.

Overview

Recurring and Nonrecurring Facility Renewal Costs

Facility renewal costs are divided into two main categories – recurring and nonrecurring. Recurring costs are cyclical and consist primarily of major repairs to or replacement/rebuilding of facility systems and components (e.g., roof or HVAC system replacement at or past the end of its normal useful life). The tool for projecting the recurring renewal costs is the Renewable Component Inventory, which is explained in detail below. Nonrecurring costs typically consist of modifications or repairs necessary to comply with fire/life safety or accessibility code requirements or to address isolated, nonrecurring deficiencies that could negatively affect the structure of the facility or the systems and components within. For these nonrecurring costs, projects have been developed and include estimated material and labor costs.

Facility Condition Needs Index (FCNI)

The FCNI provides a lifecycle cost comparison. It is a ratio of the sum of the recurring and nonrecurring renewal costs over ten years to the current replacement value of the asset. The current replacement value is based on replacement with current construction standards for the facility use type, and not original design parameters. This index gives the university a comparison within all buildings for identifying worst case/best case building conditions.

$$\text{FCNI} = \frac{\text{Nonrecurring Projects} + \text{10-Year Recurring Component Renewal}}{\text{Current Replacement Value}}$$

Facility Condition Index (FCI)

The FCI is a ratio of the Deferred Renewal costs to the current replacement value.

$$\text{FCI} = \frac{\text{Deferred Renewal}}{\text{Current Replacement Value}}$$

Material and Labor Cost Factors and Additional Markups

The project costs are adjusted from the national averages to reflect conditions in Greenville using the R. S. Means City Cost Index for material and labor cost factors. The percentage adjustment of the national average is shown in the table below. Also included in the renewal costs are the construction markup (general contractor profit and overhead, construction management, permitting, accounting, site security, insurance, bonds, sales tax, institutional fees, site utilities, refuse fees, and insurance) and professional fees (architect or engineer design fees and in-house design costs).

GLOBAL MARKUP	%
Local Labor Index	71.3
Local Materials Index	100.7
Construction Markup	20.0
Professional Fees	16.0

Recurring Costs

Renewable Component Inventory and Cost Projections

The Renewable Component Inventory (starting on page 4.1.1) is based on industry standard lifecycle expectancies applied to an inventory of major systems and components within a facility. Each indicated component has the following associated information:

CATEGORY	DESCRIPTION
Component Code	A four-digit code assigned by AMS to the component
Component Description	Description of the individual component
Identifier	Identifying information can be entered as necessary.
Customer ID	Customer-provided equipment ID number
Location	The location of each component can be entered if applicable.
Quantity	The quantity of the listed component
Units	The unit of measure associated with the quantity
Complexity Factor	Adjusts the component replacement costs when it is anticipated that the actual cost will deviate from the average for that component
Total Cost	The unit cost multiplied by quantity, in today's dollars (note that this is a one-time renewal/replacement cost)
Install Date	This is the year that the component was or is estimated to have been installed. When this data is not available, the default is the year the asset was constructed.
Useful Life	Average life expectancy of the component
Useful Life Adjustment	An optional adjustment that lengthens or reduces the first lifecycle of the component
Replacement Year	Expresses when the next replacement should occur and is the sum of the install date, useful life, and any useful life adjustment

The component listing forms the basis of the Recurring Costs by Year report, which provides a year-by-year list of projected recurring renewal costs (in future year dollars) over the next ten years. Each individual component is assigned a replacement year based on lifecycles. For items already past the end of their lifecycle, the replacement year is shown as Deferred Renewal.

For a longer term perspective, the Recurring Component Expenditure Projections Graph presents recurring renewal cost projections over a 50-year period (starting from the date the report is run) based on each individual item's renewal cost and life span. Some components might require renewal several times within the 50-year model, while others might not occur at all. The vertical bars on the graph represent the accumulated total costs for each individual year. The average annual cost per gross square foot (\$/GSF) is shown at the bottom of the graph. In this calculation, costs are not escalated. This figure can be utilized to assess the adequacy of existing capital renewal and repair budgets.

Recurring Cost Classifications

- **Deferred Renewal**
Recurring repairs, generated by the Renewable Component Inventory, that are past due for completion and have not yet been accomplished as part of normal maintenance or capital repair efforts. Further deferral could impair the proper functioning of the facility. Deferred Renewal upgrades should include compliance with applicable codes, even if such compliance requires expenditures beyond those essential to effect the needed repairs.
- **Projected Renewal**
Recurring renewal efforts, generated by the Renewable Component Inventory, that will be due within the scope of the assessment. These are regular or normal facility maintenance, repair, or renovation efforts that should be planned in the near future.

Nonrecurring Costs

As previously mentioned, modifications or repairs necessary to comply with fire/life safety or accessibility code requirements and those that address isolated, nonrecurring deficiencies that could negatively affect the structure of the facility or the systems and components within are not included in the Renewable Component Inventory. For each such deficiency identified during the facility inspection, a project with an estimated cost to rectify said deficiency is recommended. These projects each have a unique identifier and are categorized by system type, priority, and classification, which are defined below. The costs in these projects are also indexed to local conditions and markups applied as the situation dictates.

Project Number

Each project has a unique number consisting of three elements, the asset identification number, system code, and a sequential number assigned by the FCA software. For example, the third fire/life safety project identified for asset 0001 would have a project number of 0001FS03 (0001 for the asset number, FS for fire/life safety, and 03 being the next sequential number for a fire/life safety project).

Project Classifications

- **Plant Adaption**
Nonrecurring expenditures, stored in the Projects module, required to adapt the physical plant to the evolving needs of the institution and to changing codes or standards. These are expenditures beyond normal maintenance. Examples include compliance with changing codes (e.g., accessibility), facility alterations required by changing teaching or research methods, and improvements occasioned by the adoption of modern technology (e.g., the use of personal computer networks).
- **Corrective Action**
Nonrecurring expenditures, stored in the Projects module, for repairs needed to correct random and unpredictable deficiencies. Such projects are not related to aligning a building with codes or standards. Deficiencies classified as Corrective Action could have an effect on building aesthetics, safety, or usability.

Priority Classes

Recurring renewal needs do not receive individual prioritization, as the entire data set of needs in this category is year-based. Each separate component has a distinct need year, rendering further prioritization unnecessary. Each nonrecurring renewal project, however, has a priority assigned to indicate the criticality of the recommended work. The prioritization utilized for this subset of the data is as follows.

- **Priority 1 – High**
Items in this category include:
 - a. correcting a cited safety hazard
 - b. stopping accelerated deterioration
 - c. returning a facility to normal operation
- **Priority 2 – Medium**
Items in this category include:
 - a. repairs to prevent further deterioration
 - b. improvements to facility approach/entry and access to goods and services (DOJ ADA title III, priorities 1 and 2)
 - c. correction of potential safety hazards

- **Priority 3 – Low**

Items in this category include:

- a. improving access to restrooms and other amenities (DOJ ADA title III, priorities 3 and 4)
- b. bringing a facility into compliance with current building codes as grandfather clauses expire
- c. increasing usability following an occupancy or use change
- d. actions that are recommended but not required by code

Project Subclass

Subclass ratings are assigned to accessibility upgrade activities based on the four Department of Justice priority rankings recommended by the Title III regulations for planning readily achievable barrier removal projects. These ratings are:

- DOJ1 Accessible approach and entrance
- DOJ2 Access to goods and services
- DOJ3 Access to restrooms
- DOJ4 Any other necessary measures

Category Codes

CATEGORY CODE*	SYSTEM DESCRIPTION
AC1A – AC4B	ACCESSIBILITY
EL1A – EL8A	ELECTRICAL
ES1A – ES6E	EXTERIOR STRUCTURE
FS1A – FS6A	FIRE/LIFE SAFETY
HE1A – HE7A	HEALTH
HV1A – HV8B	HVAC
IS1A – IS6D	INTERIOR FINISHES/SYSTEMS
PL1A – PL5A	PLUMBING
SI1A – SI4A	SITE
VT1A – VT7A	VERTICAL TRANSPORTATION

<i>Example:</i> Category Code = EL5A	
EL	System Description
5	Component Description
A	Element Description

Priority Sequence

A Priority Sequence number is automatically assigned to each project to rank the projects in order of relative criticality and show the recommended execution order. This number is calculated based on the Priority Class and identified system of each project.

<i>Example</i>			
Priority Class	Category Code	Project Number	Priority Sequence
1	HV2C	0001HV04	01
1	PL1D	0001PL02	02
2	IS1E	0001IS06	03
2	EL4C	0001EL03	04

Drawings

Floor plans for this facility are provided as a reference.

Photographs

A code shown on the Photo Log identifies the asset number, photo sequence, and a letter designation for architect (a) or engineer (e).

<i>Example:</i>	
Photo Number: 0001006e	
0001	Asset Number
006	Photo Sequence
e	Engineering Photo

Sustainability/Energy Analysis

Energy/resource conservation measures (ECMs) are recommendations that will reduce resource consumption or the rate of growth in consumption. Examples include improving the efficiency of an HVAC system (e.g., digital motor speed controls, exhaust energy recovery, retrocommissioning) or directly reducing the consumption of a resource (e.g., low flow plumbing fixtures, high-efficiency lighting, or structural insulation improvement). Where significant conservation opportunities are evident for this facility, ECMs are identified and tabulated in Section 7 as a basis for further viability investigation.

FACILITY CONDITION ASSESSMENT

SECTION 2

**COST SUMMARIES
AND TOTALS**

RENEWAL NEEDS MATRIX

All dollars shown as Present Value

CATEGORY	NONRECURRING PROJECT NEEDS			RECURRING COMPONENT REPLACEMENT NEEDS											
	Immediate	Critical	Noncritical	Deferred Renewal	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	TOTAL
ACCESSIBILITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0
EXTERIOR	0	5,000	24,388	0	0	0	0	0	0	0	0	0	0	0	\$29,388
INTERIOR	0	0	0	0	0	0	0	0	0	9,219	0	1,387,698	0	0	\$1,396,918
PLUMBING	0	0	0	0	7,018	0	0	0	0	0	0	0	0	0	\$7,018
HVAC	0	21,616	0	0	88,986	0	0	0	0	56,829	0	0	0	0	\$167,431
FIRE/LIFE SAFETY	0	0	9,598	0	0	0	0	0	0	0	0	0	464,208	0	\$473,805
ELECTRICAL	0	0	830	0	3,987	0	33,400	0	0	91,203	78,330	0	0	0	\$207,749
SITE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0
VERT. TRANS.	0	0	0	0	0	0	106,530	0	0	0	0	0	0	0	\$106,530
HEALTH/EQUIP.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0
SUBTOTAL	\$0	\$26,616	\$34,816	\$0	\$99,990	\$0	\$139,930	\$0	\$0	\$157,251	\$78,330	\$1,387,698	\$464,208	\$0	\$2,388,839
TOTAL NONRECURRING PROJECT NEEDS			\$61,432	TOTAL RECURRING COMPONENT REPLACEMENT NEEDS										\$2,327,407	

CURRENT REPLACEMENT VALUE	\$61,765,000
FACILITY CONDITION NEEDS INDEX	0.04
FACILITY CONDITION INDEX	0.00

GSF	TOTAL 10-YEAR FACILITY RENEWAL NEEDS	10-YEAR NEEDS/SF
112,383	\$2,388,839	\$21.26

RENEWAL NEEDS BY SYSTEM

All costs shown as Present Value

CATEGORY	NONRECURRING PROJECT COSTS	RECURRING COMPONENT REPLACEMENT COSTS	TOTAL 10-YEAR FACILITY RENEWAL COSTS
ACCESSIBILITY	\$0	\$0	\$0
EXTERIOR	\$29,388	\$0	\$29,388
INTERIOR	\$0	\$1,396,918	\$1,396,918
PLUMBING	\$0	\$7,018	\$7,018
HVAC	\$21,616	\$145,815	\$167,431
FIRE/LIFE SAFETY	\$9,598	\$464,208	\$473,805
ELECTRICAL	\$830	\$206,919	\$207,749
SITE	\$0	\$0	\$0
VERT. TRANS	\$0	\$106,530	\$106,530
HEALTH	\$0	\$0	\$0
TOTALS	\$61,432	\$2,327,407	\$2,388,839

FACILITIES RENEWAL PLAN
RECURRING COMPONENT REPLACEMENT COSTS

All costs shown as Present Value

ASSET CODE COMP CODE	COMPONENT	IDENTIFIER	CUSTOMER ID	LOCATION	UNI- FORMAT	REPLACEMENT YEAR	REPLACEMENT COST
255 BF02	BACKFLOW PREVENTER (1-2 INCHES)	BFP-1		L914B	D2020	2021	2,339
255 BF02	BACKFLOW PREVENTER (1-2 INCHES)	BFP-2		L914B	D2020	2021	2,339
255 BF02	BACKFLOW PREVENTER (1-2 INCHES)	BFP-3		L914B	D2020	2021	2,339
255 BA34	HVAC CONTROLS - FIELD PANELS/OPS SOFTWARE - MEDICAL CLINIC			THROUGHOUT	D3060	2021	88,986
255 LE03	LIGHTING - EXTERIOR, RECESSED (INC, CFL, LED)	STRING LED - OFF			D5020	2021	3,987
255 VT04	ELEVATOR CAB RENOVATION - PASSENGER	PASSENGER 1			D1010	2023	53,265
255 VT04	ELEVATOR CAB RENOVATION - PASSENGER	PASSENGER 2			D1010	2023	53,265
255 VF04	VARIABLE FREQUENCY DRIVE (10-15 HP)	RF-1		NORTHWEST PENTHOUSE	D5010	2023	6,133
255 VF04	VARIABLE FREQUENCY DRIVE (10-15 HP)	HWP-1		L914B	D5010	2023	6,133
255 VF04	VARIABLE FREQUENCY DRIVE (10-15 HP)	HWP-2		L914B	D5010	2023	6,133
255 VF05	VARIABLE FREQUENCY DRIVE (15-20 HP)	RF-2		SOUTHWEST PENTHOUSE	D5010	2023	7,501
255 VF05	VARIABLE FREQUENCY DRIVE (15-20 HP)	RF-3		EAST PENTHOUSE	D5010	2023	7,501
255 IF15	FLOORING - FLUID APPLIED, PAINT OR CLEAR SEAL			UTILITY AREAS	C3020	2026	9,219
255 AH39	COMPUTER ROOM AC UNIT - CHILLED WATER (<=5 TON)	AHU-8		DATA RM IN NW PH	D3050	2026	25,258
255 AH39	COMPUTER ROOM AC UNIT - CHILLED WATER (<=5 TON)	AHU-9		DATA RM IN EAST PH	D3050	2026	31,572
255 LE02	LIGHTING - EXTERIOR, POST LANTERN, (INC, CFL, LED) RES	POST LED			D5020	2026	1,992

FACILITIES RENEWAL PLAN
RECURRING COMPONENT REPLACEMENT COSTS

All costs shown as Present Value

ASSET CODE COMP CODE	COMPONENT	IDENTIFIER	CUSTOMER ID	LOCATION	UNI- FORMAT	REPLACEMENT YEAR	REPLACEMENT COST
255 LE03	LIGHTING - EXTERIOR, RECESSED (INC, CFL, LED)	STRING LED			D5020	2026	4,221
255 LE03	LIGHTING - EXTERIOR, RECESSED (INC, CFL, LED)	STEP LIGHT LED			D5020	2026	938
255 LE03	LIGHTING - EXTERIOR, RECESSED (INC, CFL, LED)	RECESSED LED			D5020	2026	2,580
255 LE03	LIGHTING - EXTERIOR, RECESSED (INC, CFL, LED)	GROUND LED			D5020	2026	2,814
255 LE04	LIGHTING - EXTERIOR, STANCHION LUMINAIRE, 12-FOOT	15 FT STANCHION			D5020	2026	72,018
255 LE08	LIGHTING - EXTERIOR, WALL LANTERN or FLOOD (INC, CFL, LED)	WALL-MOUNT CFL			D5020	2026	6,641
255 VF06	VARIABLE FREQUENCY DRIVE (20-25 HP)	RF-5		EAST PENTHOUSE	D5010	2027	8,870
255 VF06	VARIABLE FREQUENCY DRIVE (20-25 HP)	CWP-1		L914B	D5010	2027	8,870
255 VF06	VARIABLE FREQUENCY DRIVE (20-25 HP)	CWP-2		L914B	D5010	2027	8,870
255 VF08	VARIABLE FREQUENCY DRIVE (30-40 HP)	AHU-1		NORTHWEST PENTHOUSE	D5010	2027	11,607
255 VF09	VARIABLE FREQUENCY DRIVE (40-50 HP)	AHU-2		SOUTHWEST PENTHOUSE	D5010	2027	13,371
255 VF09	VARIABLE FREQUENCY DRIVE (40-50 HP)	AHU-3		EAST PENTHOUSE	D5010	2027	13,371
255 VF09	VARIABLE FREQUENCY DRIVE (40-50 HP)	AHU-5		EAST PENTHOUSE	D5010	2027	13,371
255 IW01	WALL FINISH - PAINT, STANDARD			BUILDING WIDE	C3010	2028	783,283
255 IF01	FLOORING - CARPET, TILE OR ROLL, STANDARD			FL 2 OFCS, CLASSES	C3020	2028	551,018
255 IF04	FLOORING - VINYL SHEET, STANDARD			FL 1 LABS	C3020	2028	53,397

FACILITIES RENEWAL PLAN
 RECURRING COMPONENT REPLACEMENT COSTS

All costs shown as Present Value

ASSET CODE COMP CODE	COMPONENT	IDENTIFIER	CUSTOMER ID	LOCATION	UNI- FORMAT	REPLACEMENT YEAR	REPLACEMENT COST
255 FA01	FIRE ALARM PANEL, DIALER, BATTERY, & CHARGER			LOWER LVL SVC ENTRY	D4030	2029	37,851
255 FA02	FIRE ALARM SYSTEM - DEVICES			THROUGHOUT	D4030	2029	426,357
TOTAL							\$2,327,407

FACILITIES RENEWAL PLAN
NONRECURRING PROJECT COSTS

All costs shown as Present Value

PROJECT NUMBER	PROJECT TITLE	UNI-FORMAT	PRIORITY CLASS	PROJECT CLASSIFICATION	PROJECT COST
255ES02	REPAIR METAL ROOF DOWNSPOUTS	B3010	2	Corrective Action	5,000
255HV01	INSTALL HVAC COOLING/VENTILATION TO MECHANICAL ROOM	D3040	2	Plant Adaption	21,616
255ES01	EIFS RESTORATION	B2010	3	Corrective Action	24,388
255FS01	INTERIOR STAIR RISER UPGRADES	C2020	3	Plant Adaption	9,598
255EL01	ADD EXTERIOR LIGHTING	D5020	3	Plant Adaption	830
TOTAL					\$61,432

FACILITY CONDITION ASSESSMENT

SECTION 3

NONRECURRING
PROJECT DETAILS

All costs shown as Present Value

REPAIR METAL ROOF DOWNSPOUTS			
Project Number:	255E502	Category Code:	
Priority Sequence:	1	ES4A	
Priority Class:	Critical	System:	EXTERIOR
Project Class:	Corrective Action	Component:	ROOF
Date Basis:	5/24/2021	Element:	REPAIR

Code Application:

Not Applicable

Subclass/Savings:

Not Applicable

Project Location:

Floor-wide: Floor(s) R

Description

Vibrations from stormwater runoff have loosened the downspouts from the penthouse level exterior wall. Repair these as necessary to eliminate the potential damage that an exterior leak may cause.

All costs shown as Present Value

Project Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Repair downspouts	EA	10	\$250	\$2,500	\$250	\$2,500	\$5,000
Base Material/Labor Costs				\$2,500		\$2,500	
Indexed Material/Labor Costs				\$2,500		\$2,500	\$5,000
No GCM Required							\$0
Original Construction Cost							\$5,000
Date of Original Estimate:	5/24/2021					Inflation	\$0
Current Year Construction Cost							\$5,000
No Professional Fees Required							\$0
TOTAL PROJECT COST							\$5,000

All costs shown as Present Value

INSTALL HVAC COOLING/VENTILATION TO MECHANICAL ROOM			
Project Number:	255HV01	Category Code:	
Priority Sequence:	2	HV3D	
Priority Class:	Critical	System:	HVAC
Project Class:	Plant Adaption	Component:	HEATING/COOLING
Date Basis:	5/28/2021	Element:	CONVENTIONAL SPLIT SYSTEM

Code Application:		Subclass/Savings:	Project Location:
ASHRAE	62-2004	Not Applicable	Room Only: Floor(s) LL

Description

The lower level mechanical room is consistently hot due to the use of steam as a heating medium in the building. Cooling and ventilation are required to return the room to a normal working environment.

All costs shown as Present Value

Project Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost	
Install ventilation fan in exterior wall of room L914B	HP	3	\$2,394	\$7,183	\$157	\$472	\$7,655	
Install split DX air conditioning system	TON	4	\$1,307	\$5,228	\$944	\$3,778	\$9,006	
Base Material/Labor Costs				\$12,411		\$4,250		
Indexed Material/Labor Costs				\$12,498		\$3,030	\$15,529	
Construction Mark Up at 20.0%								\$3,106
Original Construction Cost								\$18,634
Date of Original Estimate:	5/28/2021				Inflation		\$0	
Current Year Construction Cost								\$18,634
Professional Fees at 16.0%								\$2,981
TOTAL PROJECT COST								\$21,616

All costs shown as Present Value

INTERIOR STAIR RISER UPGRADES			
Project Number:	255FS01	Category Code:	
Priority Sequence:	3	FS5E	
Priority Class:	Noncritical	System:	FIRE/LIFE SAFETY
Project Class:	Plant Adaption	Component:	EGRESS PATH
Date Basis:	6/3/2021	Element:	STAIRS AND RAILING

Code Application:		Subclass/Savings:	Project Location:
IBC	1011, 1014	Not Applicable	Item Only: Floor(s) 1,LL

Description

The latest applicable International Building Code for interior stairwells no longer allows open risers between treads. Stairwell 1 has open risers that are recommended to be infilled.

All costs shown as Present Value

Project Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Infill open risers in stairwell 1	FLR	2	\$2,803	\$5,605	\$877	\$1,754	\$7,359
Base Material/Labor Costs				\$5,605		\$1,754	
Indexed Material/Labor Costs				\$5,644		\$1,251	\$6,895
Construction Mark Up at 20.0%							\$1,379
Original Construction Cost							\$8,274
Date of Original Estimate:	6/3/2021		Inflation			\$0	
Current Year Construction Cost							\$8,274
Professional Fees at 16.0%							\$1,324
TOTAL PROJECT COST							\$9,598

All costs shown as Present Value

EIFS RESTORATION			
Project Number:	255ES01	Category Code:	
Priority Sequence:	4	ES2B	
Priority Class:	Noncritical	System:	EXTERIOR
Project Class:	Corrective Action	Component:	COLUMNS/BEAMS/WALLS
Date Basis:	5/24/2021	Element:	FINISH

Code Application:

Not Applicable

Subclass/Savings:

Not Applicable

Project Location:

Building-wide: Floor(s) 1

Description

The EIFS exterior accents are screw mounted, and some of these screws have become exposed and are corroding and staining the exterior. Also, some areas of EIFS have become damaged and cracked and need repair.

All costs shown as Present Value

Project Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Restore EIFS, including 2% crack repair, surface prep, and refinishing	SF	1,000	\$1.38	\$1,380	\$5.00	\$5,000	\$6,380
Scaffolding or lift rental	LOT	1	\$10,000	\$10,000	\$3,500	\$3,500	\$13,500
Base Material/Labor Costs				\$11,380		\$8,500	
Indexed Material/Labor Costs				\$11,460		\$6,061	\$17,520
Construction Mark Up at 20.0%							\$3,504
Original Construction Cost							\$21,024
Date of Original Estimate:	5/24/2021		Inflation			\$0	
Current Year Construction Cost							\$21,024
Professional Fees at 16.0%							\$3,364
TOTAL PROJECT COST							\$24,388

All costs shown as Present Value

ADD EXTERIOR LIGHTING			
Project Number:	255EL01	Category Code:	
Priority Sequence:	5	EL4A	
Priority Class:	Noncritical	System:	ELECTRICAL
Project Class:	Plant Adaption	Component:	DEVICES AND FIXTURES
Date Basis:	5/28/2021	Element:	EXTERIOR LIGHTING

Code Application:	Subclass/Savings:	Project Location:
Not Applicable	Not Applicable	Item Only: Floor(s) R

Description

The roof entrances to the east and southwest penthouses are not illuminated. Install LED lighting to ensure a safe environment for those who might need access to the roof. Place all new exterior lighting on photocell activation.

All costs shown as Present Value

Project Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Wall-mounted exterior lantern or floodlight	EA	2	\$119	\$237	\$251	\$502	\$739
Base Material/Labor Costs				\$237		\$502	
Indexed Material/Labor Costs				\$239		\$358	\$596
Construction Mark Up at 20.0%							\$119
Original Construction Cost							\$716
Date of Original Estimate:	5/28/2021					Inflation	\$0
Current Year Construction Cost							\$716
Professional Fees at 16.0%							\$115
TOTAL PROJECT COST							\$830

FACILITY CONDITION ASSESSMENT

SECTION 4

LIFECYCLE COMPONENT
INVENTORY

RENEWABLE COMPONENT INVENTORY

COMP CODE	COMPONENT DESCRIPTION	IDENTIFIER	CUSTOMER ID	LOCATION	QTY	UNITS	CPLX FACTR	TOTAL COST	IN STL DATE	USEFUL LIFE	USEFUL LIFE ADJ	REPL YEAR
EW01	WALL, EXTERIOR, MASONRY POINTING			EXTERIOR	36,000	SF	1.12	\$309,693	2011	30		2041
EW11	WALL, EXTERIOR, EIFS	EXTERIOR ACCENTS		EXTERIOR	2,000	SF	1.12	\$59,304	2011	20		2031
WN01	GLASS, WINDOW, ALUMINUM OR WOOD, STANDARD	DUAL PANE		EXTERIOR	12,000	SF	1.12	\$2,057,254	2011	40		2051
WN03	GLASS, CURTAIN WALL, STANDARD			BLDG FRONT & CORNERS	1,250	SF	1.12	\$240,650	2011	60		2071
DR07	DOOR AND FRAME, EXTERIOR, SWINGING, SOLID GLASS	ENTRY		SECONDARY ENTRIES	4	LEAF	1.00	\$22,339	2011	40		2051
DR08	DOOR AND FRAME, EXTERIOR, SWINGING, HOLLOW METAL	SERVICE		ROOF & GROUND LEVEL	12	LEAF	1.00	\$24,370	2011	40		2051
DR12	DOOR AND STOREFRONT, EXTERIOR, SWINGING, ALUMINUM AND GLASS	ENTRY		GROUND LEVEL	10	LEAF	1.00	\$37,498	2011	25		2036
DR17	DOOR, EXTERIOR, SLIDING ENTRANCE SYSTEM, POWERED	CPX ADJUSTED FOR REVOLVING RETROFIT		MAIN SW ENTRIES	8	EA	1.80	\$270,935	2011	15	5	2031
DR28	DOOR OPERATOR, POWER-ASSIST	ENTRY		SECONDARY ENTRIES	4	EA	1.00	\$34,916	2011	20		2031
RR03	ROOF - 1-PLY, ADHERED (EPDM, PIB, CSPE, PVC)	FLAT, WHITE		ROOF LEVEL	27,000	SF	1.10	\$200,282	2011	20	2	2033
RR10	ROOF - PANEL, ALUMINUM OR GALVANIZED, STANDING SEAM	PITCHED, GREEN		PITCHED ROOF	22,000	SF	1.00	\$434,535	2011	40		2051
RR20	ROOF GUTTER AND LEADER - ALUMINUM OR GALVANIZED, COATED			PITCHED ROOF	500	LF	1.00	\$8,497	2011	20		2031
RR26	ROOF SKYLIGHT - GLASS WITH ALUMINUM FRAME			COVERED DROP-OFFS	640	SF	1.00	\$173,989	2011	35		2046
DR01	DOOR AND FRAME, INTERIOR, NON-RATED			BLDG INTERIOR	50	LEAF	1.00	\$108,231	2011	40		2051

RENEWABLE COMPONENT INVENTORY

COMP CODE	COMPONENT DESCRIPTION	IDENTIFIER	CUSTOMER ID	LOCATION	QTY	UNITS	CPLX FACTR	TOTAL COST	IN STL DATE	USEFUL LIFE	USEFUL LIFE ADJ	REPL YEAR
DR02	DOOR AND FRAME, INTERIOR, FIRE-RATED			BLDG INTERIOR	300	LEAF	1.00	\$1,121,593	2011	40		2051
DR02	DOOR AND FRAME, INTERIOR, FIRE-RATED			LOWER LEVEL	20	LEAF	1.00	\$74,773	2018	40		2058
DR04	DOOR, SLIDING SYSTEM, INTERIOR	GLASS		FLR 2 WAITING ROOMS	8	EA	1.00	\$150,520	2011	15	7	2033
DR24	DOOR LOCK, COMMERCIAL-GRADE			BLDG INTERIOR	50	EA	1.00	\$37,232	2011	20		2031
DR24	DOOR LOCK, COMMERCIAL-GRADE			BLDG INTERIOR	300	EA	1.00	\$223,391	2011	20		2031
DR24	DOOR LOCK, COMMERCIAL-GRADE			LOWER LEVEL	20	EA	1.00	\$14,893	2018	20		2038
DR24	DOOR LOCK, COMMERCIAL-GRADE	SERVICE		ROOF & GROUND LEVEL	12	EA	1.00	\$8,936	2011	20		2031
DR24	DOOR LOCK, COMMERCIAL-GRADE	SWINGING GLS DRS		FLRS 1 & 2	4	EA	1.00	\$2,979	2011	20		2031
DR24	DOOR LOCK, COMMERCIAL-GRADE	STOREFRONT DRS		STOREFRONT DRS	10	EA	1.00	\$7,446	2011	20		2031
CW01	CASEWORK - WOOD BASE AND WALL, TOP, STANDARD			SUPPORT AREAS	1,000	LF	1.00	\$539,260	2011	20	5	2036
CW04	CASEWORK - LABORATORY, INCLUDES REAGENT SHELF AND TOP			MED CLINIC	50,000	SF	0.50	\$3,750,857	2011	40		2051
IW01	WALL FINISH - PAINT, STANDARD			BUILDING WIDE	350,000	SF	1.00	\$783,283	2011	12	5	2028
IW03	WALL FINISH - TILE, CERAMIC / STONE, STANDARD			LARGE RRS	15,000	SF	1.00	\$575,627	2011	30		2041
IW07	WALL FINISH - WOOD PANEL, PREMIUM			LOBBY	7,800	SF	1.00	\$337,255	2011	70		2081

RENEWABLE COMPONENT INVENTORY

COMP CODE	COMPONENT DESCRIPTION	IDENTIFIER	CUSTOMER ID	LOCATION	QTY	UNITS	CPLX FACTR	TOTAL COST	IN STL DATE	USEFUL LIFE	USEFUL LIFE ADJ	REPL YEAR
IW11	WALL FINISH - CORK			FL 2 CLASS	7,000	SF	1.00	\$78,588	2011	5	15	2031
IF01	FLOORING - CARPET, TILE OR ROLL, STANDARD			FL 2 OFCS, CLASSES	45,000	SF	1.00	\$551,018	2011	12	5	2028
IF03	FLOORING - VINYL COMPOSITION TILE, STANDARD			FL 1 SUPPORT, CLINICS	35,000	SF	1.00	\$224,301	2011	20		2031
IF04	FLOORING - VINYL SHEET, STANDARD			FL 1 LABS	5,000	SF	1.00	\$53,397	2011	15	2	2028
IF07	FLOORING - TILE, CERAMIC / STONE / QUARRY PREMIUM			ENTRY LOB, MAIN RR	8,000	SF	1.00	\$555,375	2011	40		2051
IF13	FLOORING - LAMINATE PLANK, PREMIUM	NEW NURSE HUB		LOWER LVL	4,000	SF	1.00	\$44,601	2018	15		2033
IF15	FLOORING - FLUID APPLIED, PAINT OR CLEAR SEAL			UTILITY AREAS	3,000	SF	1.00	\$9,219	2011	10	5	2026
IC01	CEILING FINISH - SUSPENDED ACOUSTICAL TILE, STANDARD	24" X 24"		BUILDING WIDE	95,000	SF	1.00	\$958,698	2011	30		2041
IC01	CEILING FINISH - SUSPENDED ACOUSTICAL TILE, STANDARD	NEW NURSE HUB		LOWER LVL	4,000	SF	1.00	\$40,366	2018	30		2048
IC04	CEILING FINISH - PAINTED OR STAINED, STANDARD			ENTRY LOBBY	5,000	SF	1.00	\$11,190	2011	24		2035
IC07	CEILING FINISH - SUSPENDED ARCHITECTURAL			1ST FLR	3,000	SF	1.00	\$333,971	2011	60		2071
VT03	ELEVATOR MODERNIZATION - HYDRAULIC	PASSENGER 1		WEST	1	EA	1.00	\$302,064	2011	25		2036
VT03	ELEVATOR MODERNIZATION - HYDRAULIC	PASSENGER 2		WEST	1	EA	1.00	\$302,064	2011	25		2036
VT03	ELEVATOR MODERNIZATION - HYDRAULIC	SERVICE 1		CENTER	1	EA	1.00	\$302,064	2011	25		2036
VT04	ELEVATOR CAB RENOVATION - PASSENGER	PASSENGER 1			1	EA	1.00	\$53,265	2011	12		2023

RENEWABLE COMPONENT INVENTORY

COMP CODE	COMPONENT DESCRIPTION	IDENTIFIER	CUSTOMER ID	LOCATION	QTY	UNITS	CPLX FACTR	TOTAL COST	IN STL DATE	USEFUL LIFE	USEFUL LIFE ADJ	REPL YEAR
VT04	ELEVATOR CAB RENOVATION - PASSENGER	PASSENGER 2			1	EA	1.00	\$53,265	2011	12		2023
FX01	PLUMBING FIXTURE - LAVATORY, COUNTER			LARGE RRS	12	EA	1.00	\$15,816	2011	35		2046
FX01	PLUMBING FIXTURE - LAVATORY, COUNTER			PROCEDURE & EXAM RMS	82	EA	1.20	\$129,689	2011	35		2046
FX02	PLUMBING FIXTURE - LAVATORY, WALL HUNG			SINGLE USER RRS	27	EA	1.00	\$35,916	2011	35		2046
FX04	PLUMBING FIXTURE - SINK, KITCHEN			BREAK ROOMS	4	EA	1.00	\$8,638	2011	35		2046
FX06	PLUMBING FIXTURE - SINK, SERVICE/LAUNDRY/UTILITY	FLOOR & WALL HUNG		THROUGHOUT	20	EA	1.00	\$35,851	2011	35		2046
FX08	PLUMBING FIXTURE - SHOWER VALVE AND HEAD			LOWER LEVEL LOCKER RM	2	EA	1.00	\$3,449	2011	35		2046
FX10	PLUMBING FIXTURE - URINAL			MENS RR	3	EA	1.00	\$6,354	2011	35		2046
FX12	PLUMBING FIXTURE - WATER CLOSET, TANKLESS			RESTROOMS	35	EA	1.00	\$68,197	2011	35		2046
FX15	PLUMBING FIXTURE - EMERGENCY EYEWASH				4	EA	1.00	\$18,742	2011	35		2046
BF02	BACKFLOW PREVENTER (1-2 INCHES)	BFP-1		L914B	1	EA	1.00	\$2,339	2011	10		2021
BF02	BACKFLOW PREVENTER (1-2 INCHES)	BFP-2		L914B	1	EA	1.00	\$2,339	2011	10		2021
BF02	BACKFLOW PREVENTER (1-2 INCHES)	BFP-3		L914B	1	EA	1.00	\$2,339	2011	10		2021
PS11	SUPPLY PIPING SYSTEM - MEDICAL CLINIC			THROUGHOUT	112,383	SF	0.93	\$804,984	2011	35		2046
WH26	WATER HEATER - SHELL & TUBE (<=45 GPM)			L914B	16	GPM	1.00	\$28,593	2011	30		2041

RENEWABLE COMPONENT INVENTORY

COMP CODE	COMPONENT DESCRIPTION	IDENTIFIER	CUSTOMER ID	LOCATION	QTY	UNITS	CPLX FACTR	TOTAL COST	INSTR DATE	USEFUL LIFE	USEFUL LIFE ADJ	REPL YEAR
PD11	DRAIN PIPING SYSTEM - MEDICAL CLINIC			THROUGHOUT	112,383	SF	0.93	\$1,215,854	2011	40		2051
HU01	CONDENSER - REFRIGERANT, AIR-COOLED (<=10 TON)	CARRIER		ROOF	1.50	TON	1.00	\$3,217	2011	23		2034
HU01	CONDENSER - REFRIGERANT, AIR-COOLED (<=10 TON)	1 OF 3			2.50	TON	1.00	\$5,361	2011	23		2034
HU01	CONDENSER - REFRIGERANT, AIR-COOLED (<=10 TON)	2 OF 3			2.50	TON	1.00	\$5,361	2011	23		2034
HU01	CONDENSER - REFRIGERANT, AIR-COOLED (<=10 TON)	3 OF 3			2.50	TON	1.00	\$5,361	2011	23		2034
HU01	CONDENSER - REFRIGERANT, AIR-COOLED (<=10 TON)			GROUND FLR	1.50	TON	1.00	\$3,217	2011	23		2034
HU06	EVAPORATOR UNIT, NO HEAT (<=1.5 TON)	CARRIER		ROOF	1.50	TON	1.00	\$4,390	2011	20		2031
HU06	EVAPORATOR UNIT, NO HEAT (<=1.5 TON)			GROUND FLR	1.50	TON	1.00	\$4,390	2011	20		2031
HU08	EVAPORATOR UNIT, NO HEAT (2-3 TON)	1 OF 3			2.50	TON	1.00	\$4,596	2011	20		2031
HU08	EVAPORATOR UNIT, NO HEAT (2-3 TON)	2 OF 3			2.50	TON	1.00	\$4,596	2011	20		2031
HU08	EVAPORATOR UNIT, NO HEAT (2-3 TON)	3 OF 3			2.50	TON	1.00	\$4,596	2011	20		2031
AH01	AIR HANDLING UNIT - INDOOR (.5-1.25 HP)	GROUP OF 9 CUH			2.25	HP	1.00	\$20,268	2011	25		2036
AH01	AIR HANDLING UNIT - INDOOR (.5-1.25 HP)	FCU-L910A		L910A	0.50	HP	1.00	\$4,504	2011	25		2036
AH01	AIR HANDLING UNIT - INDOOR (.5-1.25 HP)	FCU-L906B		L906B	0.50	HP	1.00	\$4,504	2011	25		2036
AH01	AIR HANDLING UNIT - INDOOR (.5-1.25 HP)	FCU-L907B		L907B	0.50	HP	1.00	\$4,504	2011	25		2036

RENEWABLE COMPONENT INVENTORY

COMP CODE	COMPONENT DESCRIPTION	IDENTIFIER	CUSTOMER ID	LOCATION	QTY	UNITS	CPLX FACTR	TOTAL COST	IN STL DATE	USEFUL LIFE	USEFUL LIFE ADJ	REPL YEAR
AH01	AIR HANDLING UNIT - INDOOR (.5-1.25 HP)	FCU-L914B		L914B	0.50	HP	1.00	\$4,504	2011	25		2036
AH01	AIR HANDLING UNIT - INDOOR (.5-1.25 HP)	FCU-3921		ELEVATOR MECH ROOM	0.75	HP	1.00	\$6,756	2011	25		2036
AH01	AIR HANDLING UNIT - INDOOR (.5-1.25 HP)	FCU-P-1		NORTHWEST PENTHOUSE	0.50	HP	1.00	\$4,504	2011	25		2036
AH01	AIR HANDLING UNIT - INDOOR (.5-1.25 HP)	FCU-P-2		SOUTHWEST PENTHOUSE	0.50	HP	1.00	\$4,504	2011	25		2036
AH01	AIR HANDLING UNIT - INDOOR (.5-1.25 HP)	FCU-P-3		SOUTHWEST PENTHOUSE	1	HP	1.00	\$9,008	2011	25		2036
AH01	AIR HANDLING UNIT - INDOOR (.5-1.25 HP)	FCU-P-4		EAST PENTHOUSE	0.50	HP	1.00	\$4,504	2011	25		2036
AH01	AIR HANDLING UNIT - INDOOR (.5-1.25 HP)	FCU-P-5		EAST PENTHOUSE	1	HP	1.00	\$9,008	2011	25		2036
AH12	AIR HANDLING UNIT - INDOOR (35-45 HP)	AHU-1		NORTHWEST PENTHOUSE	40	HP	1.00	\$229,728	2011	25		2036
AH13	AIR HANDLING UNIT - INDOOR (45-63 HP)	AHU-2		SOUTHWEST PENTHOUSE	50	HP	1.00	\$239,278	2011	25		2036
AH13	AIR HANDLING UNIT - INDOOR (45-63 HP)	AHU-3		EAST PENTHOUSE	50	HP	1.00	\$239,278	2011	25		2036
AH13	AIR HANDLING UNIT - INDOOR (45-63 HP)	AHU-4		SOUTHWEST PENTHOUSE	50	HP	1.00	\$239,278	2011	25		2036
AH13	AIR HANDLING UNIT - INDOOR (45-63 HP)	AHU-5		EAST PENTHOUSE	50	HP	1.00	\$239,278	2011	25		2036
FN05	FAN - AXIAL, RETURN, 1.5" SP (10-15 HP) 27,000 CFM	RF-1		NORTHWEST PENTHOUSE	15	HP	1.00	\$30,501	2011	20		2031
FN06	FAN - AXIAL, RETURN, 1.5" SP (15-20 HP) 32,000 CFM	RF-2		SOUTHWEST PENTHOUSE	20	HP	1.00	\$35,973	2011	20		2031
FN06	FAN - AXIAL, RETURN, 1.5" SP (15-20 HP) 32,000 CFM	RF-3		EAST PENTHOUSE	20	HP	1.00	\$35,973	2011	20		2031

RENEWABLE COMPONENT INVENTORY

COMP CODE	COMPONENT DESCRIPTION	IDENTIFIER	CUSTOMER ID	LOCATION	QTY	UNITS	CPLX FACTR	TOTAL COST	IN STL DATE	USEFUL LIFE	USEFUL LIFE ADJ	REPL YEAR
FN07	FAN - AXIAL, RETURN, 1.5" SP (>20 HP) 38,500 CFM	RF-4		SOUTHWEST PENTHOUSE	25	HP	1.00	\$41,446	2011	20		2031
FN07	FAN - AXIAL, RETURN, 1.5" SP (>20 HP) 38,500 CFM	RF-5		EAST PENTHOUSE	25	HP	1.00	\$41,446	2011	20		2031
FN08	FAN - AXIAL, SUPPLY, 2.5" SP (<=3 HP) 3800 CFM	EF-3		SOUTHWEST PENTHOUSE	3	HP	1.00	\$10,796	2011	20		2031
FN08	FAN - AXIAL, SUPPLY, 2.5" SP (<=3 HP) 3800 CFM	EF-5		SOUTHWEST PENTHOUSE	2	HP	1.00	\$7,197	2011	20		2031
FN08	FAN - AXIAL, SUPPLY, 2.5" SP (<=3 HP) 3800 CFM	EF-6		EAST PENTHOUSE	0.75	HP	1.00	\$2,699	2011	20		2031
FN09	FAN - AXIAL, SUPPLY, 2.5" SP (3-5 HP) 6400 CFM	EF-2		NORTHWEST PENTHOUSE	5	HP	1.00	\$12,144	2011	20		2031
FN09	FAN - AXIAL, SUPPLY, 2.5" SP (3-5 HP) 6400 CFM	EF-4		EAST PENTHOUSE	5	HP	1.00	\$12,144	2011	20		2031
FN18	FAN - CENTRIFUGAL ROOF EXHAUST, 1/4" SP (10"-18" DIAMETER)	EF-3921 ELEV MECH (EF-7)		ELEVATOR MECH ROOM	1	EA	1.00	\$3,619	2011	20		2031
FN40	FAN - MIXED-FLOW, SHORT STACK, EXHAUST (<=30 HP)	EF-1A		CENTER ROOF	5	HP	1.20	\$26,800	2014	20		2034
FN40	FAN - MIXED-FLOW, SHORT STACK, EXHAUST (<=30 HP)	EF-1B		CENTER ROOF	5	HP	1.20	\$26,800	2014	20		2034
HV11	HVAC DISTRIBUTION NETWORKS - MEDICAL CLINIC			THROUGHOUT	112,383	SF	0.93	\$2,875,694	2011	40		2051
HX05	HEAT EXCHANGER - SHELL & TUBE STEAM TO WATER (>85 GPM)	CV-1		L914B	290	GPM	1.00	\$42,641	2011	35		2046
HX05	HEAT EXCHANGER - SHELL & TUBE STEAM TO WATER (>85 GPM)	CV-2		L914B	290	GPM	1.00	\$42,641	2011	35		2046
HX09	PRESSURE REDUCING VALVE, STEAM SYSTEM (2")	PRV-1-1		L914B	1	EA	1.00	\$4,466	2011	20		2031
HX09	PRESSURE REDUCING VALVE, STEAM SYSTEM (2")	PRV-1-2		L914B	1	EA	1.00	\$4,466	2011	20		2031

RENEWABLE COMPONENT INVENTORY

COMP CODE	COMPONENT DESCRIPTION	IDENTIFIER	CUSTOMER ID	LOCATION	QTY	UNITS	CPLX FACTR	TOTAL COST	IN STL DATE	USEFUL LIFE	USEFUL LIFE ADJ	REPL YEAR
PH01	PUMP - ELECTRIC (<=10 HP)	HWP-P1		NORTHWEST PENTHOUSE	0.50	HP	1.00	\$823	2011	25		2036
PH01	PUMP - ELECTRIC (<=10 HP)	HWP-P2		SOUTHWEST PENTHOUSE	0.50	HP	1.00	\$823	2011	25		2036
PH01	PUMP - ELECTRIC (<=10 HP)	HWP-P3		EAST PENTHOUSE	0.50	HP	1.00	\$823	2011	25		2036
PH01	PUMP - ELECTRIC (<=10 HP)	HWP-P4		SOUTHWEST PENTHOUSE	0.50	HP	1.00	\$823	2011	25		2036
PH01	PUMP - ELECTRIC (<=10 HP)	HWP-P5		EAST PENTHOUSE	0.50	HP	1.00	\$823	2011	25		2036
PH01	PUMP - ELECTRIC (<=10 HP)	CWP-3		L914B	2	HP	1.00	\$3,290	2011	25		2036
PH02	PUMP - ELECTRIC (10 - 15 HP)	HWP-1		L914B	15	HP	1.00	\$21,487	2011	25		2036
PH02	PUMP - ELECTRIC (10 - 15 HP)	HWP-2		L914B	15	HP	1.00	\$21,487	2011	25		2036
PH04	PUMP - ELECTRIC (20 - 25 HP)	CWP-1		L914B	25	HP	1.00	\$21,517	2011	25		2036
PH04	PUMP - ELECTRIC (20 - 25 HP)	CWP-2		L914B	25	HP	1.00	\$21,517	2011	25		2036
PH16	CONDENSATE RECEIVER, PNEUMATIC (<=30 GPM)			L914B	10	GPM	1.00	\$19,372	2011	20		2031
AH39	COMPUTER ROOM AC UNIT - CHILLED WATER (<=5 TON)	AHU-9		DATA RM IN EAST PH	5	TON	1.00	\$31,572	2011	15		2026
AH39	COMPUTER ROOM AC UNIT - CHILLED WATER (<=5 TON)	AHU-8		DATA RM IN NW PH	4	TON	1.00	\$25,258	2011	15		2026
AC02	AIR COMPRESSOR SYSTEM - HVAC CONTROLS (6-10 TOTAL HP)	QUINCY		L914B	10	HP	1.00	\$20,015	2011	20		2031
BA11	HVAC CONTROLS - TERMINAL ASSEMBLIES - MEDICAL CLINIC			THROUGHOUT	112,383	SF	0.93	\$313,378	2011	20		2031

RENEWABLE COMPONENT INVENTORY

COMP CODE	COMPONENT DESCRIPTION	IDENTIFIER	CUSTOMER ID	LOCATION	QTY	UNITS	CPLX FACTR	TOTAL COST	INSTR DATE	USEFUL LIFE	USEFUL LIFE ADJ	REPL YEAR
BA34	HVAC CONTROLS - FIELD PANELS/OPS SOFTWARE - MEDICAL CLINIC			THROUGHOUT	112,383	SF	0.93	\$88,986	2011	10		2021
FS01	FIRE SPRINKLER SYSTEM			THROUGHOUT	112,383	SF	0.93	\$1,312,092	2011	80		2091
FA01	FIRE ALARM PANEL, DIALER, BATTERY, & CHARGER			LOWER LVL SVC ENTRY	1	EA	1.00	\$37,851	2011	15	3	2029
FA02	FIRE ALARM SYSTEM - DEVICES			THROUGHOUT	112,383	SF	0.93	\$426,357	2011	18		2029
SE11	ELECTRICAL DISTRIBUTION NETWORK - MEDICAL CLINIC			THROUGHOUT	112,383	SF	0.93	\$2,104,386	2011	40		2051
SG01	MAIN SWITCHBOARD W/BREAKERS (<400 AMP)	G2-MDP		L907B	400	AMP	1.00	\$32,758	2011	20		2031
SG06	MAIN SWITCHBOARD W/BREAKERS (1600-2500 AMP)	MDS		L906B	2,000	AMP	1.00	\$166,076	2011	20		2031
TX19	TRANSFORMER - OIL-FILLED, 3PH, 5-15KV PRIMARY (750-1000 KVA)	TX-14		NORTH EXTERIOR	1,000	KVA	1.00	\$102,993	2011	35		2046
VF04	VARIABLE FREQUENCY DRIVE (10-15 HP)	RF-1		NORTHWEST PENTHOUSE	15	HP	1.00	\$6,133	2011	12		2023
VF04	VARIABLE FREQUENCY DRIVE (10-15 HP)	HWP-1		L914B	15	HP	1.00	\$6,133	2011	12		2023
VF04	VARIABLE FREQUENCY DRIVE (10-15 HP)	HWP-2		L914B	15	HP	1.00	\$6,133	2011	12		2023
VF05	VARIABLE FREQUENCY DRIVE (15-20 HP)	RF-2		SOUTHWEST PENTHOUSE	20	HP	1.00	\$7,501	2011	12		2023
VF05	VARIABLE FREQUENCY DRIVE (15-20 HP)	RF-3		EAST PENTHOUSE	20	HP	1.00	\$7,501	2011	12		2023
VF06	VARIABLE FREQUENCY DRIVE (20-25 HP)	RF-4		SOUTHWEST PENTHOUSE	25	HP	1.00	\$8,870	2021	16		2037
VF06	VARIABLE FREQUENCY DRIVE (20-25 HP)	RF-5		EAST PENTHOUSE	25	HP	1.00	\$8,870	2011	16		2027

RENEWABLE COMPONENT INVENTORY

COMP CODE	COMPONENT DESCRIPTION	IDENTIFIER	CUSTOMER ID	LOCATION	QTY	UNITS	CPLX FACTR	TOTAL COST	IN STL DATE	USEFUL LIFE	USEFUL LIFE ADJ	REPL YEAR
VF06	VARIABLE FREQUENCY DRIVE (20-25 HP)	CWP-1		L914B	25	HP	1.00	\$8,870	2011	16		2027
VF06	VARIABLE FREQUENCY DRIVE (20-25 HP)	CWP-2		L914B	25	HP	1.00	\$8,870	2011	16		2027
VF08	VARIABLE FREQUENCY DRIVE (30-40 HP)	AHU-1		NORTHWEST PENTHOUSE	40	HP	1.00	\$11,607	2011	16		2027
VF09	VARIABLE FREQUENCY DRIVE (40-50 HP)	AHU-2		SOUTHWEST PENTHOUSE	50	HP	1.00	\$13,371	2011	16		2027
VF09	VARIABLE FREQUENCY DRIVE (40-50 HP)	AHU-3		EAST PENTHOUSE	50	HP	1.00	\$13,371	2011	16		2027
VF09	VARIABLE FREQUENCY DRIVE (40-50 HP)	AHU-4		SOUTHWEST PENTHOUSE	50	HP	1.00	\$13,371	2021	16		2037
VF09	VARIABLE FREQUENCY DRIVE (40-50 HP)	AHU-5		EAST PENTHOUSE	50	HP	1.00	\$13,371	2011	16		2027
LE02	LIGHTING - EXTERIOR, POST LANTERN, (INC, CFL, LED) RES	POST LED			3	EA	1.00	\$1,992	2011	15		2026
LE03	LIGHTING - EXTERIOR, RECESSED (INC, CFL, LED)	RECESSED LED			11	EA	1.00	\$2,580	2011	15		2026
LE03	LIGHTING - EXTERIOR, RECESSED (INC, CFL, LED)	STRING LED			18	EA	1.00	\$4,221	2011	15		2026
LE03	LIGHTING - EXTERIOR, RECESSED (INC, CFL, LED)	STEP LIGHT LED			4	EA	1.00	\$938	2011	15		2026
LE03	LIGHTING - EXTERIOR, RECESSED (INC, CFL, LED)	GROUND LED			12	EA	1.00	\$2,814	2011	15		2026
LE03	LIGHTING - EXTERIOR, RECESSED (INC, CFL, LED)	STRING LED - OFF			17	EA	1.00	\$3,987	2011	15	-5	2021
LE04	LIGHTING - EXTERIOR, STANCHION LUMINAIRE, 12-FOOT	15 FT STANCHION			33	EA	1.00	\$72,018	2011	15		2026
LE08	LIGHTING - EXTERIOR, WALL LANTERN or FLOOD (INC, CFL, LED)	WALL-MOUNT CFL			16	EA	1.00	\$6,641	2011	15		2026

RENEWABLE COMPONENT INVENTORY

COMP CODE	COMPONENT DESCRIPTION	IDENTIFIER	CUSTOMER ID	LOCATION	QTY	UNITS	CPLX FACTR	TOTAL COST	INSTR DATE	USEFUL LIFE	USEFUL LIFE ADJ	REPL YEAR
LI11	LIGHTING SYSTEM, INTERIOR - MEDICAL CLINIC			THROUGHOUT	112,383	SF	0.93	\$596,288	2011	20		2031
GN04	GENERATOR - DIESEL (200-500 KW)	CATERPILLAR		NORTH EXTERIOR	250	KW	1.00	\$122,163	2011	25		2036
GN16	SWITCH - AUTO TRANSFER, 480 V (>400 AMP)	ATS-G1		L907B	600	AMP	1.00	\$17,387	2011	25	-2	2034
GN16	SWITCH - AUTO TRANSFER, 480 V (>400 AMP)	ATS-G2		L907B	600	AMP	1.00	\$17,387	2011	25	-2	2034
Grand Total:								\$28,185,913				

RECURRING NEEDS BY YEAR

All costs shown as Future Value using a 3% average inflation rate

No Projected Component Replacement Cost for Asset No. 255 for DR

2021									
COMP CODE	COMPONENT DESCRIPTION	IDENTIFIER	CUSTOMER ID	LOCATION	UNI-FORMAT	QTY	UNITS	REPLACEMENT COST	YEAR
BF02	BACKFLOW PREVENTER (1-2 INCHES)	BFP-1		L914B	D2020	1	EA	\$2,339	2021
BF02	BACKFLOW PREVENTER (1-2 INCHES)	BFP-2		L914B	D2020	1	EA	\$2,339	2021
BF02	BACKFLOW PREVENTER (1-2 INCHES)	BFP-3		L914B	D2020	1	EA	\$2,339	2021
BA34	HVAC CONTROLS - FIELD PANELS/OPS SOFTWARE - MEDICAL CLINIC			THROUGHOUT	D3060	112,383	SF	\$88,986	2021
LE03	LIGHTING - EXTERIOR, RECESSED (INC, CFL, LED)	STRING LED - OFF			D5020	17	EA	\$3,987	2021
2021 PROJECTED COMPONENT REPLACEMENT COST								\$99,989.95	

RECURRING NEEDS BY YEAR

All costs shown as Future Value using a 3% average inflation rate

No Projected Component Replacement Cost for Asset No. 255 for 2022

2023									
COMP CODE	COMPONENT DESCRIPTION	IDENTIFIER	CUSTOMER ID	LOCATION	UNI-FORMAT	QTY	UNITS	REPLACEMENT COST	YEAR
VT04	ELEVATOR CAB RENOVATION - PASSENGER	PASSENGER 1			D1010	1	EA	\$56,509	2023
VT04	ELEVATOR CAB RENOVATION - PASSENGER	PASSENGER 2			D1010	1	EA	\$56,509	2023
VF04	VARIABLE FREQUENCY DRIVE (10-15 HP)	RF-1		NORTHWEST PENTHOUSE	D5010	15	HP	\$6,506	2023
VF04	VARIABLE FREQUENCY DRIVE (10-15 HP)	HWP-1		L914B	D5010	15	HP	\$6,506	2023
VF04	VARIABLE FREQUENCY DRIVE (10-15 HP)	HWP-2		L914B	D5010	15	HP	\$6,506	2023
VF05	VARIABLE FREQUENCY DRIVE (15-20 HP)	RF-2		SOUTHWEST PENTHOUSE	D5010	20	HP	\$7,958	2023
VF05	VARIABLE FREQUENCY DRIVE (15-20 HP)	RF-3		EAST PENTHOUSE	D5010	20	HP	\$7,958	2023
2023 PROJECTED COMPONENT REPLACEMENT COST								\$148,452.03	

RECURRING NEEDS BY YEAR

All costs shown as Future Value using a 3% average inflation rate

No Projected Component Replacement Cost for Asset No. 255 for 2024

No Projected Component Replacement Cost for Asset No. 255 for 2025

2026									
COMP CODE	COMPONENT DESCRIPTION	IDENTIFIER	CUSTOMER ID	LOCATION	UNI-FORMAT	QTY	UNITS	REPLACEMENT COST	YEAR
IF15	FLOORING - FLUID APPLIED, PAINT OR CLEAR SEAL			UTILITY AREAS	C3020	3,000	SF	\$10,688	2026
AH39	COMPUTER ROOM AC UNIT - CHILLED WATER (<=5 TON)	AHU-9		DATA RM IN EAST PH	D3050	5	TON	\$36,600	2026
AH39	COMPUTER ROOM AC UNIT - CHILLED WATER (<=5 TON)	AHU-8		DATA RM IN NW PH	D3050	4	TON	\$29,280	2026
LE02	LIGHTING - EXTERIOR, POST LANTERN, (INC, CFL, LED) RES	POST LED			D5020	3	EA	\$2,309	2026

RECURRING NEEDS BY YEAR

All costs shown as Future Value using a 3% average inflation rate

LE03	LIGHTING - EXTERIOR, RECESSED (INC, CFL, LED)	RECESSED LED			D5020	11	EA	\$2,990	2026
LE03	LIGHTING - EXTERIOR, RECESSED (INC, CFL, LED)	STRING LED			D5020	18	EA	\$4,893	2026
LE03	LIGHTING - EXTERIOR, RECESSED (INC, CFL, LED)	STEP LIGHT LED			D5020	4	EA	\$1,087	2026
LE03	LIGHTING - EXTERIOR, RECESSED (INC, CFL, LED)	GROUND LED			D5020	12	EA	\$3,262	2026
LE04	LIGHTING - EXTERIOR, STANCHION LUMINAIRE, 12-FOOT	15 FT STANCHION			D5020	33	EA	\$83,488	2026
LE08	LIGHTING - EXTERIOR, WALL LANTERN or FLOOD (INC, CFL, LED)	WALL-MOUNT CFL			D5020	16	EA	\$7,698	2026
2026 PROJECTED COMPONENT REPLACEMENT COST								\$182,297.39	

2027

COMP CODE	COMPONENT DESCRIPTION	IDENTIFIER	CUSTOMER ID	LOCATION	UNI-FORMAT	QTY	UNITS	REPLACEMENT COST	YEAR
VF06	VARIABLE FREQUENCY DRIVE (20-25 HP)	RF-5		EAST PENTHOUSE	D5010	25	HP	\$10,591	2027
VF06	VARIABLE FREQUENCY DRIVE (20-25 HP)	CWP-1		L914B	D5010	25	HP	\$10,591	2027
VF06	VARIABLE FREQUENCY DRIVE (20-25 HP)	CWP-2		L914B	D5010	25	HP	\$10,591	2027

RECURRING NEEDS BY YEAR

All costs shown as Future Value using a 3% average inflation rate

VF08	VARIABLE FREQUENCY DRIVE (30-40 HP)	AHU-1		NORTHWEST PENTHOUSE	D5010	40	HP	\$13,859	2027
VF09	VARIABLE FREQUENCY DRIVE (40-50 HP)	AHU-2		SOUTHWEST PENTHOUSE	D5010	50	HP	\$15,966	2027
VF09	VARIABLE FREQUENCY DRIVE (40-50 HP)	AHU-3		EAST PENTHOUSE	D5010	50	HP	\$15,966	2027
VF09	VARIABLE FREQUENCY DRIVE (40-50 HP)	AHU-5		EAST PENTHOUSE	D5010	50	HP	\$15,966	2027
2027 PROJECTED COMPONENT REPLACEMENT COST								\$93,529.60	

2028									
COMP CODE	COMPONENT DESCRIPTION	IDENTIFIER	CUSTOMER ID	LOCATION	UNI-FORMAT	QTY	UNITS	REPLACEMENT COST	YEAR
IW01	WALL FINISH - PAINT, STANDARD			BUILDING WIDE	C3010	350,000	SF	\$963,339	2028
IF01	FLOORING - CARPET, TILE OR ROLL, STANDARD			FL 2 OFCS, CLASSES	C3020	45,000	SF	\$677,683	2028
IF04	FLOORING - VINYL SHEET, STANDARD			FL 1 LABS	C3020	5,000	SF	\$65,672	2028
2028 PROJECTED COMPONENT REPLACEMENT COST								\$1,706,694.07	

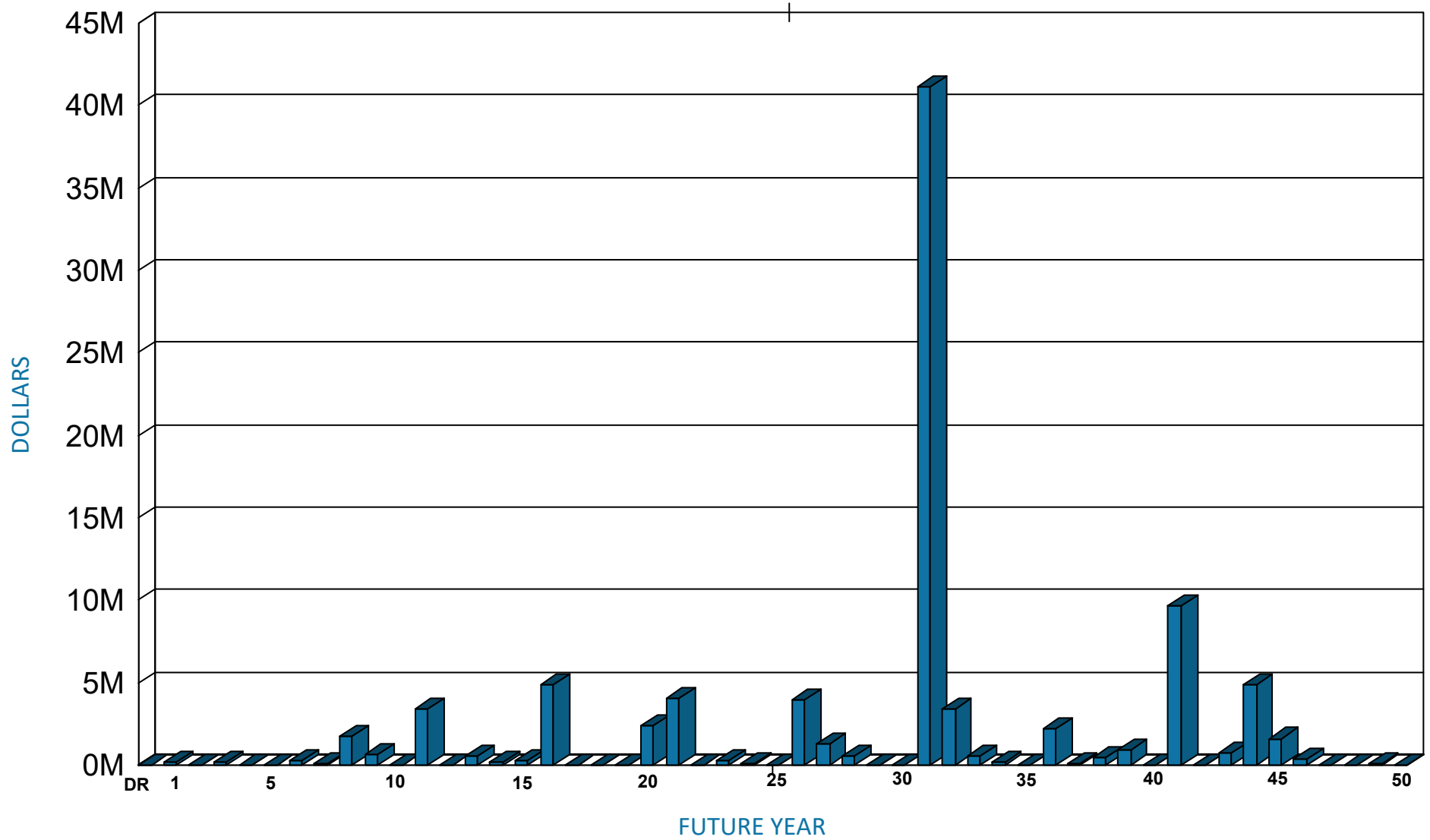
RECURRING NEEDS BY YEAR

All costs shown as Future Value using a 3% average inflation rate

2029									
COMP CODE	COMPONENT DESCRIPTION	IDENTIFIER	CUSTOMER ID	LOCATION	UNI-FORMAT	QTY	UNITS	REPLACEMENT COST	YEAR
FA01	FIRE ALARM PANEL, DIALER, BATTERY, & CHARGER			LOWER LVL SVC ENTRY	D4030	1	EA	\$47,948	2029
FA02	FIRE ALARM SYSTEM - DEVICES			THROUGHOUT	D4030	112,383	SF	\$540,096	2029
2029 PROJECTED COMPONENT REPLACEMENT COST								\$588,044.19	

No Projected Component Replacement Cost for Asset No. 255 for 2030

RECURRING COMPONENT EXPENDITURE PROJECTIONS

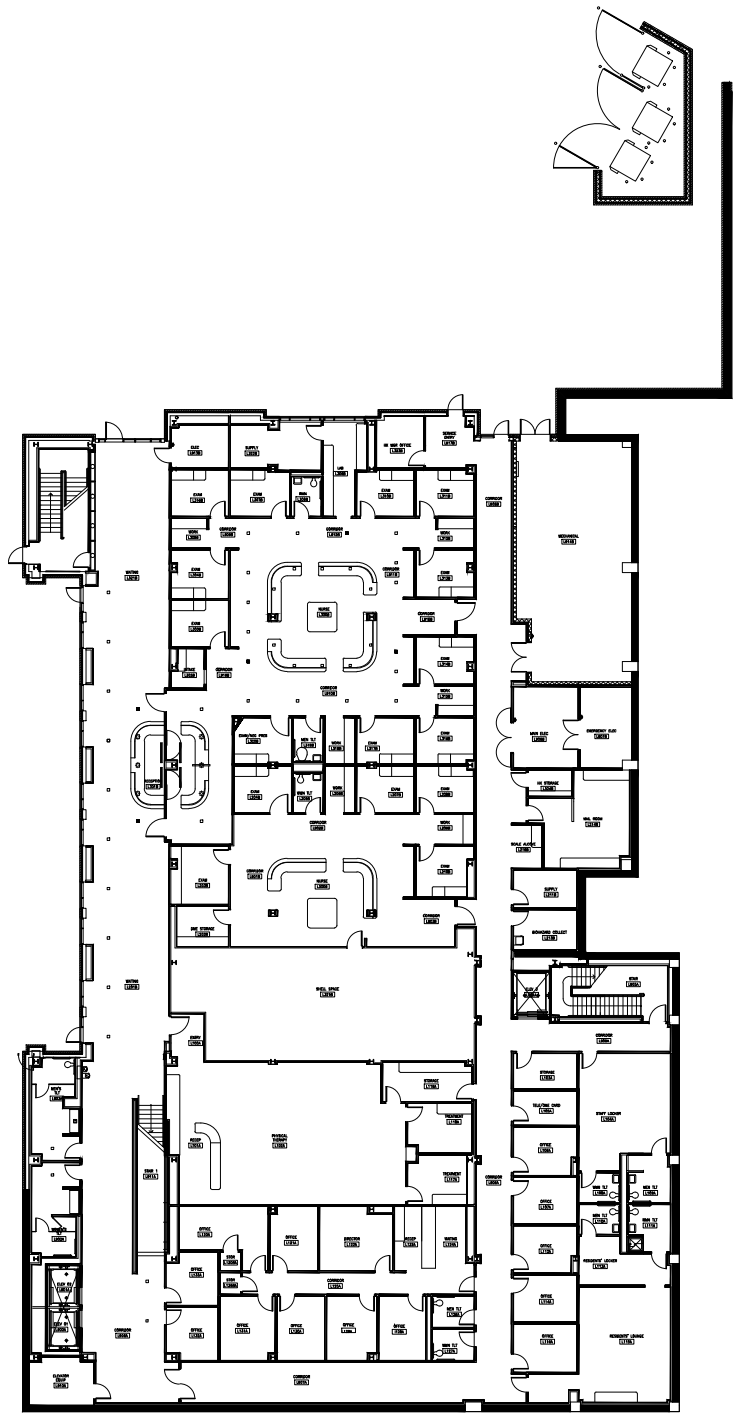


Average Annual Renewal Cost per SF \$6.86

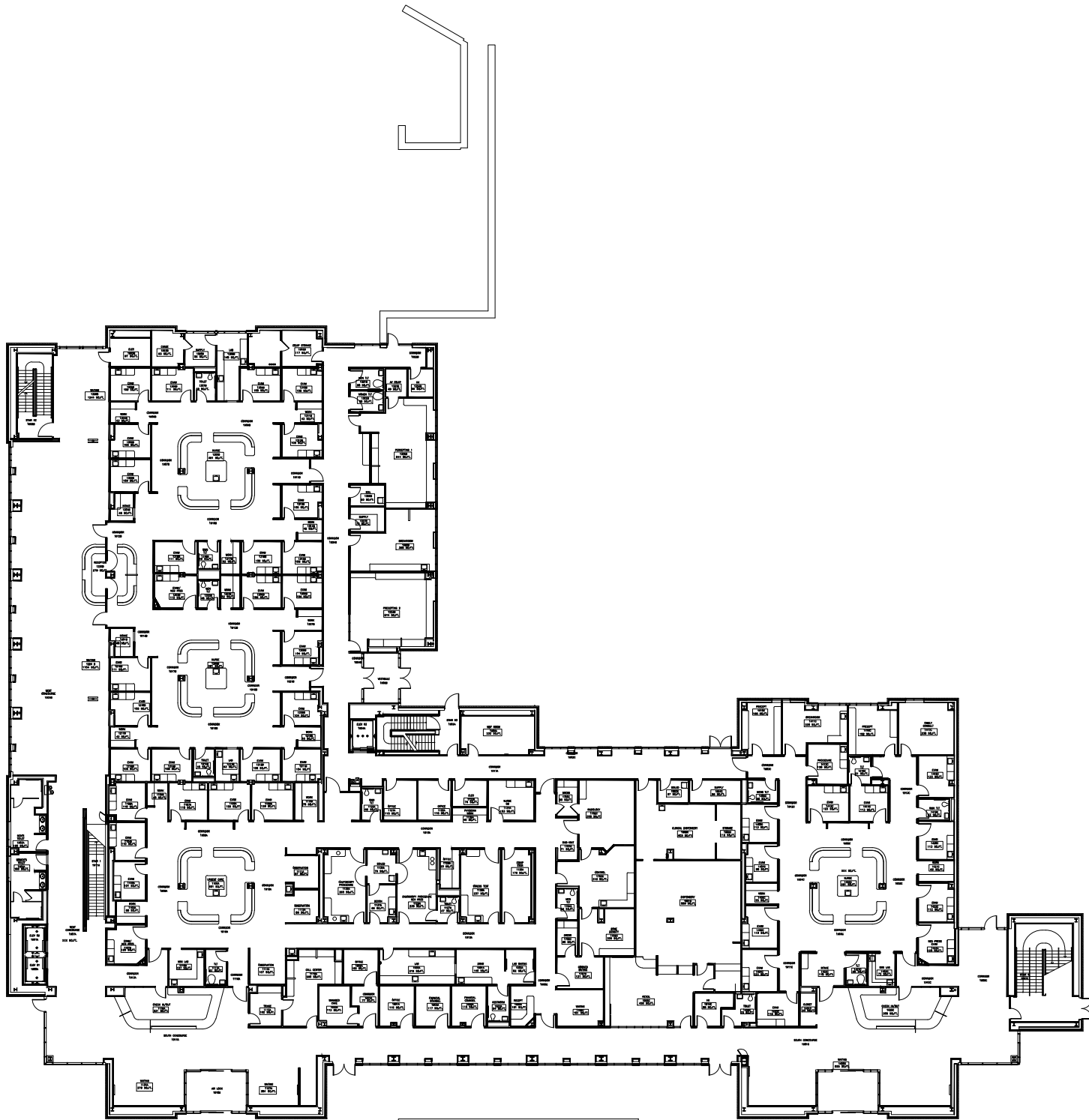
FACILITY CONDITION ASSESSMENT

SECTION 5

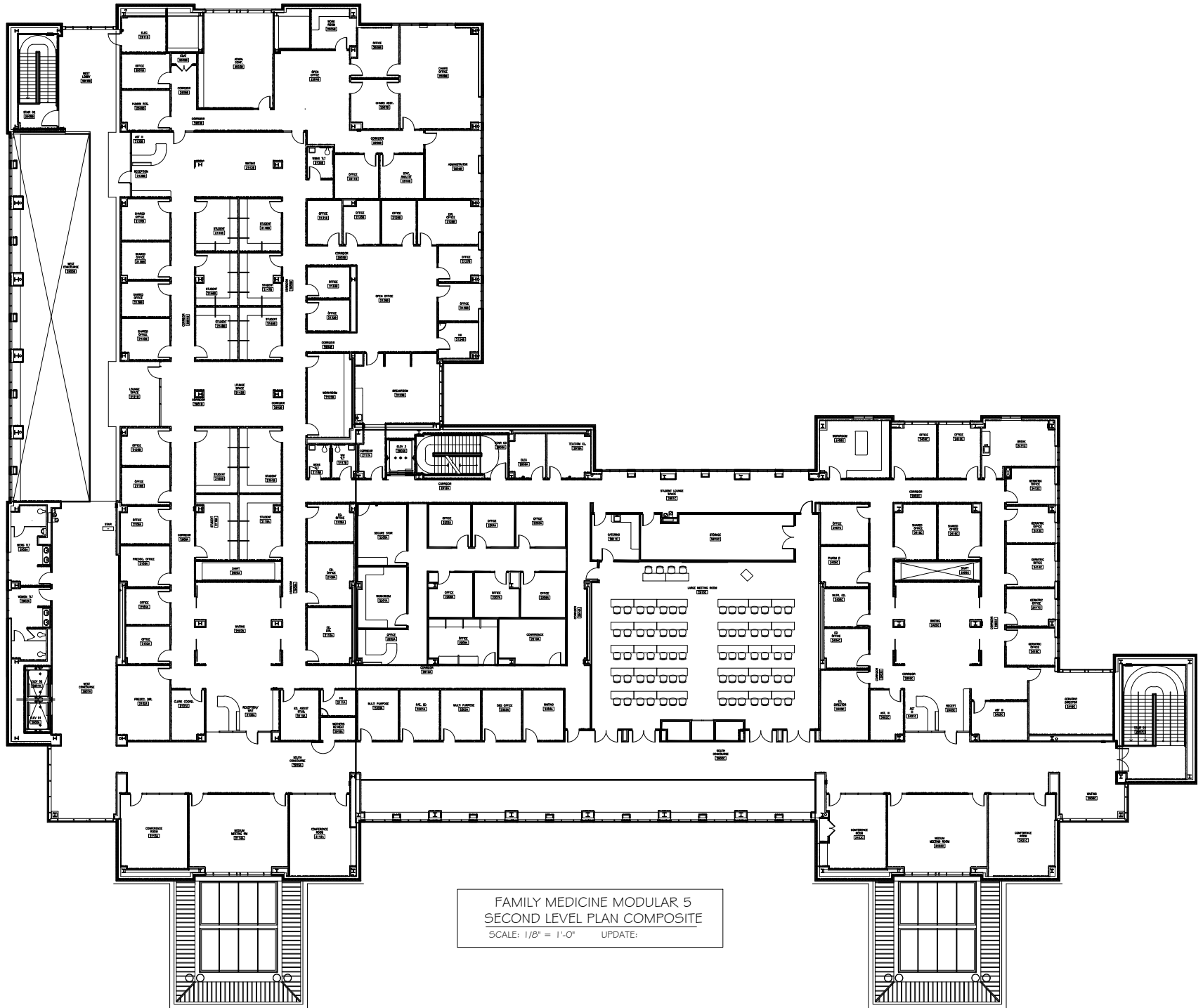
DRAWINGS



FAMILY MEDICINE MODULAR 5
LOWER LEVEL PLAN COMPOSITE
SCALE: 1/8" = 1'-0" UPDATE:



FAMILY MEDICINE MODULAR 5
GROUND FLOOR PLAN COMPOSITE
SCALE: 1/8" = 1'-0" UPDATE:



FAMILY MEDICINE MODULAR 5
 SECOND LEVEL PLAN COMPOSITE
 SCALE: 1/8" = 1'-0" UPDATE:

FACILITY CONDITION ASSESSMENT

SECTION 6

PHOTOGRAPHS



255001a 5/11/2021
Single-ply membrane roof
Center roof area



255001e 5/11/2021
Elevator control panel inside the service elevator
Service elevator cab



255002a 5/11/2021
Roof service door
Center roof area



255002e 5/11/2021
5 hp exhaust fans EF-1A and EF-1B
Center roof



255003a 5/11/2021
Single-ply membrane roof
Northeast roof



255003e 5/11/2021
HEPA filter connected to EF-1A and EF-1B ductwork
Center roof



255004a 5/11/2021
Standing seam metal roof
Pitched roof over mechanical penthouse



255004e 5/11/2021
1.5 ton Carrier condensing unit
Center roof



255005a 5/11/2021
Standing seam metal roof
Pitched roof over mechanical penthouse



255005e 5/11/2021
Wall-mounted exterior light fixture and audible/visible
fire device
Center roof



255006a 5/11/2021
Roof drains
Roof



255006e 5/11/2021
Sprinkler head
East penthouse



255007a 5/11/2021
Corrugated metal siding
Mechanical penthouse



255007e 5/11/2021
Insulated piping with chilled water and heating hot water
East penthouse



255008a 5/11/2021
Roof drains
Roof



255008e 5/11/2021
Air handling unit AHU-3 with chilled water piping
East penthouse



255009a 5/11/2021
Previous roof repair
Roof



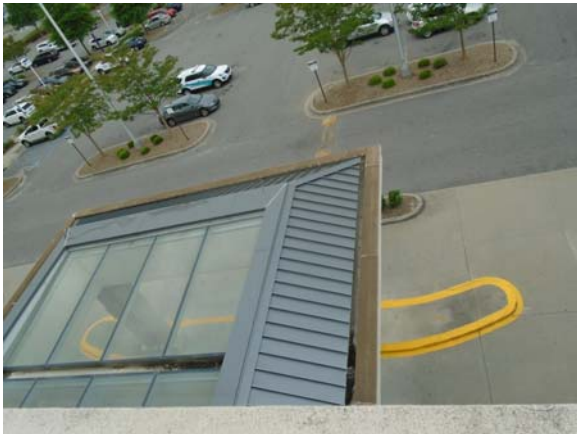
255009e 5/11/2021
Square D secondary electrical panel
East penthouse



255010a 5/11/2021
Parapet wall and downspouts and drains
Roof



255010e 5/11/2021
Pendant fluorescent light fixture
East penthouse



255011a 5/11/2021
Glassed skylights over entry canopies
Ground level entries



255011e 5/11/2021
Two variable frequency drives for AHU-3 supply and
return fans
East penthouse



255012a 5/11/2021
Brick masonry exterior, dual-pane windows
South exterior



255012e 5/11/2021
Fan coil unit FCU-P-5 provides cooling and heating to the
penthouse
East penthouse



255013a 5/11/2021
Prefab exterior panels
Mechanical penthouse



255013e 5/11/2021
5 hp exhaust fan EF-4
East penthouse



255014a 5/11/2021
Screws visible in panels
Mechanical penthouse



255014e 5/11/2021
Pneumatic actuator on the return air ductwork for AHU-5
East penthouse



255015a 5/11/2021
Caulked joint with adjacent screws
Mechanical penthouse



255015e 5/11/2021
Air handling unit AHU-5 with chilled water piping
East penthouse



255016a 5/11/2021
Brick masonry, dual-pane windows, and paneled
penthouse
Northeast exterior



255016e 5/11/2021
Liebert computer room AC unit AHU-9 provides cooling
for data/telecom room
East penthouse



255017a 5/11/2021
Brick masonry, dual-pane windows, and paneled
penthouse
Northeast exterior



255017e 5/11/2021
Hydraulic pump and controls for the Schindler service
elevator
Penthouse room 3921A



255018a 5/11/2021
Metal roof crown and fascia
Roof



255018e 5/11/2021
Metasys controls for HVAC (FCU-3921) in the service
elevator mechanical room
Penthouse room 3921A



255019a 5/11/2021
Parapet cap is stained EIFS
Roof



255019e 5/11/2021
Air handling unit AHU-2 with chilled water piping
Southwest penthouse



255020a 5/11/2021
Parapet cap is stained and damaged EIFS
Roof



255020e 5/11/2021
Small pump for heating hot water going into AHU-2
Southwest penthouse



255021a 5/11/2021
Single-ply membrane roof
Southeast roof



255021e 5/11/2021
5 hp exhaust fan EF-2
Southwest penthouse



255022a 5/11/2021
Parapet cap is stained and damaged EIFS
Roof



255022e 5/11/2021
112.5 kVA step-down Square D branch transformer
Electrical room 2906A



255023a 5/11/2021
Single-ply membrane roof
Center roof area



255023e 5/11/2021
Lutron lighting control panel
Electrical room 2906A



255024a 5/11/2021
Compliant stairwells with proper handrail
Stairwell 3



255024e 5/11/2021
Johnson Controls thermostat
Electrical room 2906A



255025a 5/11/2021
Carpeting, painted walls, and suspended grid ceiling
Second floor corridor



255025e 5/11/2021
2x4 lay-in fluorescent light fixtures
Second floor corridor



255026a 5/11/2021
Carpeting, painted walls, and suspended grid ceiling
Second floor corridor



255026e 5/11/2021
Edge-lit LED exit sign
Second floor corridor



255027a 5/11/2021
Accessible sink, vinyl tile floor
Kitchen 2611C



255027e 5/11/2021
Audible/visible fire device
Second floor corridor



255028a 5/11/2021
Wood base and overhead cabinetry
Kitchen 2611C



255028e 5/11/2021
Electrical outlet adjacent to sink has GFCI protection
Break room 2611C



255029a 5/11/2021
Carpeting, painted and fabric walls, suspended grid
ceiling, and accordion room divider
Large meeting room 2610C



255029e 5/11/2021
Supply and drain piping
Break room 2611C



255030a 5/11/2021
Carpeting, painted and fabric walls, suspended grid
ceiling, and accordion room divider
Large meeting room 2610C



255030e 5/11/2021
Lighting
Large meeting room 2610C



255031a 5/11/2021
Dual-level water fountain
Second floor student lounge



255031e 5/11/2021
Recessed square CFL light fixture
Room 2610C



255032a 5/11/2021
Stained carpet
Second floor student lounge



255032e 5/11/2021
Occupancy sensor
Large meeting room 2610C



255033a 5/11/2021
Wood base and overhead cabinetry, vinyl floor tile
Workroom 2408C



255033e 5/11/2021
2x4 lay-in fluorescent light fixtures
Counseling room 2302A



255034a 5/11/2021
Carpeting, painted walls, and suspended grid ceiling
Second floor corridor



255034e 5/11/2021
Hands-free lavatories
Men's restroom 2903A



255035a 5/11/2021
Carpeting, painted walls, and suspended grid ceiling
Office 2409C



255035e 5/11/2021
Hands-free water closet
Men's restroom 2903A



255036a 5/11/2021
Shared office space with modular furniture, carpeting
Office 2407C



255036e 5/11/2021
Hands-free urinal
Men's restroom 2903A



255037a 5/11/2021
Accessible base cabinetry with sink and overhead
cabinetry
Staff lounge 2411C



255037e 5/11/2021
Emergency eyewash station adjacent to service sink in
custodial closet
Room 2124B



255038a 5/11/2021
Shared office space with modular furniture, carpeting
Student office 2425B



255038e 5/11/2021
Water closet and lavatory
Single-user restroom 2116B



255039a 5/11/2021
Carpeting, painted walls, and suspended grid ceiling
Director's office 2419C



255039e 5/11/2021
Typical exam room bed and sink
Room 1412C



255040a 5/11/2021
Interior partition glazing
Suite 2400



255040e 5/11/2021
2x4 fluorescent light fixture in typical exam room
Room 1412C



255041a 5/11/2021
Compliant stairwells with proper handrailing
Stairwell 4



255041e 5/11/2021
Simplex remote annunciator for the FACP
Southeast first floor entrance



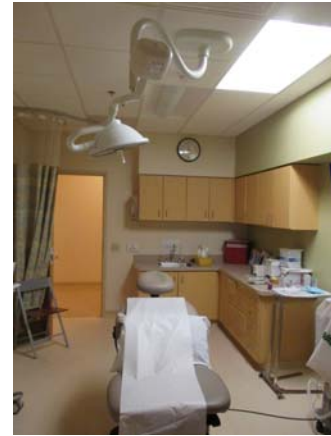
255042a 5/11/2021
Carpeting, painted walls, and suspended grid ceiling
Conference room 2421C



255042e 5/11/2021
Cabinet unit heater CUH-1922B
First floor, north entrance



255043a 5/11/2021
Carpeting, painted walls, and suspended grid ceiling
Classroom 2422C



255043e 5/11/2021
Typical examination chair with overhead lamp
Procedure room 1132A



255044a 5/11/2021
Adequate exit signage
Second floor classroom



255044e 5/11/2021
Sink with adjacent eyewash
Sterilization room 1131A



255045a 5/11/2021
Dual-pane windows
Second floor, atrium



255045e 5/11/2021
Hydraulic pump and controls for one of the Schindler
passenger elevators
Room L910A



255046a 5/11/2021
Ceramic tile floor
First floor



255046e 5/11/2021
Square D 2,000 amp main distribution panel
Room L906B



255047a 5/11/2021
Window condensation due to loss of seal
Second floor



255047e 5/11/2021
Russelectric 600 amp automatic transfer switch ATS-G1
Room L907B



255048a 5/11/2021
Window condensation due to loss of seal
Second floor



255048e 5/11/2021
Russelectric 600 amp automatic transfer switch ATS-G2
Room L907B



255049a 5/11/2021
Window condensation due to loss of seal
Second floor



255049e 5/11/2021
Square D 400 amp generator switchboard G2-MDP
Room L907B



255050a 5/11/2021
Carpeted balcony walkway in atrium area
Second floor



255050e 5/11/2021
Fire standpipe riser
Room L914B



255051a 5/11/2021
Glazing at corner waiting areas
Second floor



255051e 5/11/2021
Leonard mixing valve for domestic cold/hot water
Room L914B



255052a 5/11/2021
Carpeting, painted walls, and wood grid ceiling
Second floor



255052e 5/11/2021
2 hp pump CWP-3
Room L914B



255053a 5/11/2021
Ceramic floor and wall tile, grid ceiling
Restroom



255053e 5/11/2021
One of three 2 inch backflow preventers
Room L914B



255054a 5/11/2021
Hands-free accessible sinks
Restroom



255054e 5/11/2021
Insulated high pressure steam piping entering the building
Room L914B



255055a 5/11/2021
Urinal
Men's restroom



255055e 5/11/2021
Quincy air compressor for HVAC pneumatic controls
Room L914B



255056a 5/11/2021
Accessible toilet
Restroom



255056e 5/11/2021
Spirax Sarco steam pressure reducing valves
Room L914B



255057a 5/11/2021
Regular toilet stall
Women's restroom



255057e 5/11/2021
Four variable frequency drives controlling hot water and
chilled water pumps
Room L914B



255058a 5/11/2021
Dual-level water fountain
Second floor elevator lobby



255058e 5/11/2021
15 hp HWP-1 heating hot water pump
Room L914B



255059a 5/11/2021
Carpeting, painted walls, and suspended grid ceiling
Second floor



255059e 5/11/2021
25 hp chilled water pump
Room L914B



255060a 5/11/2021
Carpeting and ceramic floor tile
First floor



255060e 5/11/2021
CV-2 heat exchanger using steam to produce heating hot water
Room L914B



255061a 5/11/2021
Carpeting, painted walls, and suspended grid ceiling
Second floor suite



255061e 5/11/2021
Fan coil unit FCU-L-914B that cools and heats basement
mechanical room
Room L914B



255062a 5/11/2021
Accessible service counter
Second floor suite



255062e 5/11/2021
Pneumatic condensate receiver
Room L914B



255063a 5/11/2021
Wood base and overhead cabinetry, vinyl floor tile
Workroom 2505B



255063e 5/11/2021
Domestic hot water is produced by heat exchanger under
the insulating jacket
Room L914B



255064a 5/11/2021
Utility floor sink with emergency eyewash
Janitorial closet 2124B



255064e 5/11/2021
Simplex fire alarm control panel
Lower level service entry



255065a 5/11/2021
Accessible signage with Braille
Staff lounge 2411C



255065e 5/11/2021
250 kW diesel-fired generator sitting atop 750 gallon
diesel tank
North exterior



255066a 5/11/2021
Vinyl tile floor
Staff lounge 2411C



255066e 5/11/2021
1,000 amp oil-filled primary transformer
North exterior



255067a 5/11/2021
Accessible base cabinetry with sink and overhead
cabinetry
Staff lounge 2411C



255067e 5/11/2021
Wall-mounted CFL exterior light fixture
North exterior



255068a 5/11/2021
Accessible fixtures and vinyl floor tile
Single-user restroom



255068e 5/11/2021
15 foot stanchion LED light fixture
North exterior



255069a 5/11/2021
Accessible fixtures and vinyl floor tile
Single-user restroom



255069e 5/11/2021
String LED light fixture
North exterior



255070a 5/11/2021
Vinyl tile floor, painted walls, and suspended grid ceiling
First floor corridor



255070e 5/11/2021
Square recessed LED light fixture
West exterior



255071a 5/11/2021
Adequate exit signage
First floor corridor



255071e 5/11/2021
Several nonfunctional string LED light fixtures
South exterior



255072a 5/11/2021
Vinyl tile floor, painted walls, and suspended grid ceiling
First floor corridor



255072e 5/11/2021
Post-mounted LED light fixture
South exterior



255073a 5/11/2021
Ceramic pedestal floor basin
Biohazard room 1803C



255073e 5/11/2021
Ground-mounted LED light fixture
South exterior



255074a 5/11/2021
Durable laminate wood flooring
Clinic



255074e 5/11/2021
Group of three 2.5 ton Carrier condensing units
North exterior



255075a 5/11/2021
Wood base cabinetry with sink and overhead cabinetry
First floor exam room



255075e 5/11/2021
Recessed step light
North exterior



255076a 5/11/2021
Accessible base cabinetry with sink and overhead
cabinetry
Staff lounge



255077a 5/11/2021
Wood base cabinetry with sink and overhead cabinetry
First floor exam room



255078a 5/11/2021
Central nurses station
Clinic



255079a 5/11/2021
Suspended grid ceiling
Clinic



255080a 5/11/2021
Vinyl tile floor, painted walls, and suspended grid ceiling
First floor corridor



255081a 5/11/2021
Accessible fixtures and vinyl floor tile
Single-user restroom



255082a 5/11/2021
Ceramic tile floor
First floor



255083a 5/11/2021
Interior partition glazing
First floor



255084a 5/11/2021
Accessible service counter
First floor lobby



255085a 5/11/2021
Automatic double airlock glazed doorway system
First floor lobby



255086a 5/11/2021
Hidden fire door/curtain system around the atrium
First floor lobby



255087a 5/11/2021
Ceramic tile floor
Pharmacy



255088a 5/11/2021
Carpeting, painted walls, and suspended grid ceiling
First floor waiting area



255089a 5/11/2021
Accessible service counter
First floor lobby



255090a 5/11/2021
Ceramic tile floor and small areas of carpet
First floor



255091a 5/11/2021
Ceramic tile floor and small areas of carpet
First floor



255092a 5/11/2021
Central nurses station
Clinic



255093a 5/11/2021
Wood base cabinetry with sink and overhead cabinetry
First floor exam room



255094a 5/11/2021
Utility floor sink with emergency eyewash
First floor janitorial closet



255095a 5/11/2021
Accessible fixtures and vinyl floor tile
Single-user restroom



255096a 5/11/2021
Ceramic pedestal floor basin
First floor biohazard room



255097a 5/11/2021
Accessible base cabinetry with sink and overhead
cabinetry
Staff lounge



255098a 5/11/2021
Carpeting and grid ceiling
Room 1220B



255099a 5/11/2021
Powered dual double doors with airlock
First floor, north entrance



255100a 5/11/2021
Dual-level water fountain
First floor



255101a 5/11/2021
Wood base cabinetry with sink and overhead cabinetry
First floor procedure room



255102a 5/11/2021
Vinyl tile floor and grid ceiling
Staff locker room L104A



255103a 5/11/2021
Accessible fixtures and vinyl floor tile
Lower level single-user restroom



255104a 5/11/2021
Ceramic tiled accessible shower
Staff locker room L104A



255105a 5/11/2021
Vinyl tile floor, painted walls, and suspended grid ceiling
Lower level corridor



255106a 5/11/2021
Vinyl tile floor, painted walls, and suspended grid ceiling
Lower level corridor



255107a 5/11/2021
Carpeting, painted walls and suspended grid ceiling
Lower level office support area



255108a 5/11/2021
Power door operators on restrooms
Lower level



255109a 5/11/2021
Wood grid ceiling system
Lower level elevator lobby



255110a 5/11/2021
Compliant stairwells with proper handrailing
Stairwell 1



255111a 5/11/2021
Glazed storefront entry
Lower level



255112a 5/11/2021
Ceramic tile floor and small areas of carpet
Lower level



255113a 5/11/2021
Ceramic tile floor and small areas of carpet
Lower level



255114a 5/11/2021
Painted ceiling
Lower level, atrium



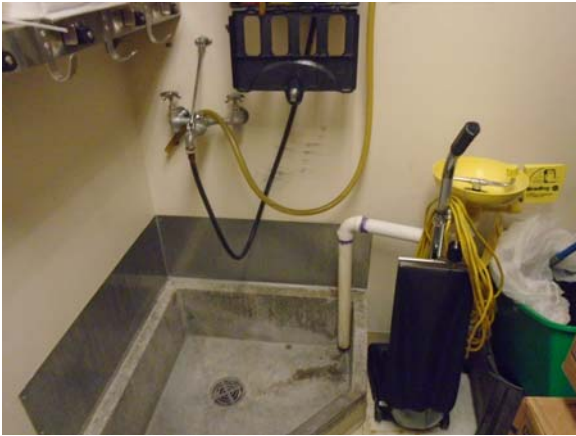
255115a 5/11/2021
Wood base and overhead cabinetry with sink
Lower level exam room



255116a 5/11/2021
Vinyl tile floor, painted walls, and suspended grid ceiling
Lower level clinic



255117a 5/11/2021
Carpeting, painted walls, and suspended grid ceiling
Lower level, physical therapy



255118a 5/11/2021
Utility floor sink with emergency eyewash
Lower level, housekeeping



255119a 5/11/2021
Brick masonry, EIFS accents, and hollow metal service
doors
North exterior



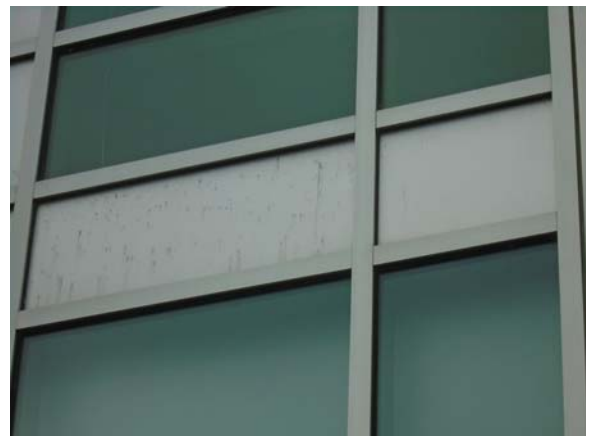
255120a 5/11/2021
Brick masonry, dual-pane windows, and EIFS accents
North exterior



255121a 5/11/2021
Brick masonry, dual-pane windows, and EIFS accents
North exterior



255122a 5/11/2021
Glass storefront entry
North exterior



255123a 5/11/2021
Stained exterior metal panel
North exterior



255124a 5/11/2021
Brick masonry, dual-pane windows, and EIFS accents
West exterior



255125a 5/11/2021
Brick masonry, dual-pane windows, and EIFS accents
West exterior



255126a 5/11/2021
Brick masonry, dual-pane windows, and EIFS accents
West exterior



255127a 5/11/2021
Metal fascia needing repair
West exterior



255128a 5/11/2021
Screws visible in EIFS panels
West exterior



255129a 5/11/2021
Brick masonry, dual-pane windows, and EIFS accents
Southwest corner



255130a 5/11/2021
Dual double glass airlock door system
Southwest entry



255131a 5/11/2021
Glassed skylights over entry canopies
Ground level entries



255132a 5/11/2021
Brick masonry, dual-pane windows, and EIFS accents
South exterior



255133a 5/11/2021
Brick masonry, dual-pane windows, and EIFS accents
South exterior



255134a 5/11/2021
Brick masonry, dual-pane windows, and EIFS accents
Southeast corner



255135a 5/11/2021
Dual double glass airlock door system
Southeast entry



255136a 5/11/2021
Hollow metal service doors
East exterior



255137a 5/11/2021
Brick masonry, dual-pane windows, and EIFS accents
East exterior



255138a 5/11/2021
Brick masonry, dual-pane windows, and EIFS accents
East exterior



255139a 5/11/2021
Brick masonry, dual-pane windows, and EIFS accents
East exterior



255140a 5/11/2021
Metal canopy
North entry



255141a 5/11/2021
Screws rusting in EIFS accents
Northeast exterior

FACILITY CONDITION ASSESSMENT

SECTION 7

PRELIMINARY ENERGY
ASSESSMENT

INTRODUCTION

A Preliminary Energy Assessment (PEA) was conducted to identify energy conservation opportunities. The PEA is intended to be a preliminary energy screening only. The goal is to identify potential energy savings opportunities in a building. It is not equivalent to an American Society of Heating, Refrigeration, or Air Conditioning Engineers (ASHRAE) Level 1, 2, or 3 audit. The PEA has two sections: 1) Benchmarking Data and 2) Energy Conservation Opportunities. Basic building information is provided in **Table 1**.

TABLE 1. BUILDING INFORMATION	
Client	EAST CAROLINA UNIVERSITY
Asset Number	255
Asset Name	FAMILY MEDICINE CENTER
Year Built or Last Energy Renovation	2011

BENCHMARKING DATA

The purpose of benchmarking building performance is to determine how well a building performs in comparison to other similar buildings. For this analysis, buildings were assessed based on their primary use (e.g., education, food sales, food service, etc.) and year constructed. Two metrics -- energy use intensity and energy end use -- are presented for the building manager to use to assess how efficiently the building performs compared to similar buildings.

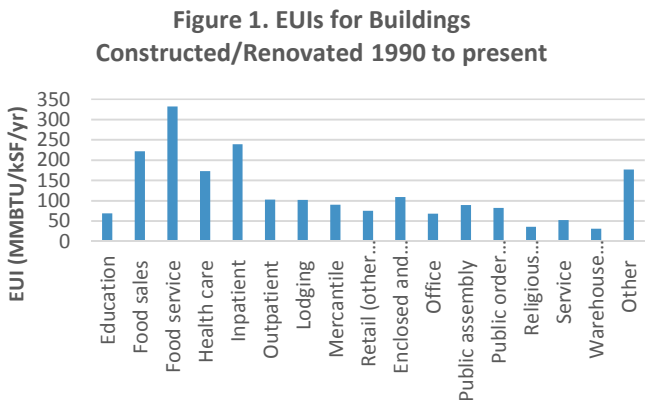
Metric #1: Energy Use Intensity (EUI)

EUI is a measure of energy consumption per square foot of building space per year. The units of measurement are million British thermal units per thousand square foot per year (MMBTU/kSF/yr). The US-DOE EUI can be compared to the actual EUI of the client building to determine how efficient the building is compared to other similar buildings. A building manager can calculate EUI by summing total energy consumption per year (in MMBTU/yr) and dividing it by the building area (in kSF). Benchmarking data from the U.S. Energy Information Administration (EIA) Commercial Building Energy Consumption Survey (CBECS) database was used for this analysis.

Basic information about the building use and the time of the most recent major HVAC or lighting upgrade is provided in **Table 2**. That information is used to determine the Benchmark EUI. The building manager can calculate the Building EUI and compare it to the Benchmark EUI to determine how building efficiency compares to similar buildings (see **Table 3**). In addition, **Figure 1** shows the EUIs of various building types for further comparison.

TABLE 2. BUILDING DETAILS	
FCA Building Type	Medical/Clinic
Range of Years Constructed/Last Major Energy Renovation	1990 to present
Benchmark EUI (MMBTU/kSF/yr) =	103
<i>Building EUI to be Calculated by Client (MMBTU/kSF/yr) =</i>	

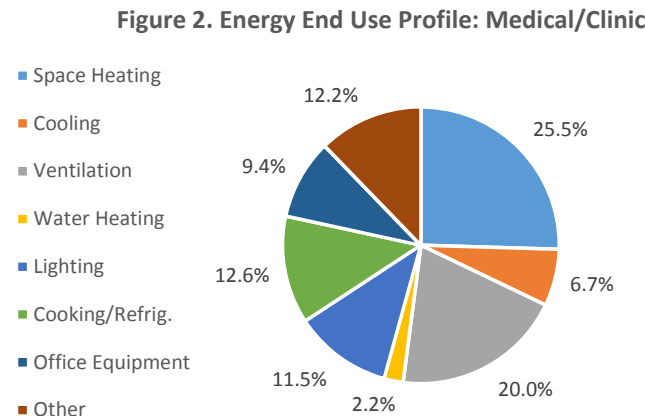
TABLE 3. EUI COMPARISON	
Very Energy Efficient (consumes more than 30% less energy)	EUI < 72.1
Energy Efficient (consumes 10% to 30% less energy)	72.1 <= EUI <= 92.7
Similar (consumes within 10% less or 10% more energy)	92.7 < EUI < 113.3
Energy Inefficient (consumes 10% to 30% more energy)	113.3 <= EUI <= 133.9
Very Energy Inefficient (consumes more than 30% more energy)	EUI > 133.9



Metric #2: Energy End Use

Energy end use data characterizes how energy is used by profiling energy consumption into end use categories such as space heating, cooling, ventilation, lighting, etc. When energy end use data is presented in a pie chart, high energy-consuming activities are readily identified. A building manager can determine the energy end use profile for a building by analyzing trend data from a Building Automation System and/or Energy Management Control System.

TABLE 4. ENERGY END USE PROFILE: MEDICAL/CLINIC	
Space Heating	25.5%
Cooling	6.7%
Ventilation	20.0%
Water Heating	2.2%
Lighting	11.5%
Cooking/Refrig.	12.6%
Office Equipment	9.4%
Other	12.2%
Total	100.0%



References:

1. U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy. "Technologies and Products by Category." Efficient Technologies and Products for Federal Facilities. DOE. <http://energy.gov/eere/femp/efficient-technologies-and-products-federal-facilities>. Accessed: June 2016.
2. U.S. Energy Information Administration [EIA]. "2012 CBECS Survey Data." Commercial Building Energy Consumption Survey. EIA. <http://www.eia.gov/consumption/commercial/data/2012/index.cfm?view=consumption#c1-c12>, Accessed: June 2016.

ENERGY CONSERVATION OPPORTUNITIES

This section presents energy conservation measures (ECMs) recommended for further investigation. Recommended ECMs are categorized into one or more cost categories to indicate an approximate level of resources required to implement the ECM. These cost categories are:

Operation and Maintenance Measures (O&M): O&M actions usually (a) can be completed by in-house maintenance personnel and (b) result in an immediate return on investment.

Low-Cost/No-Cost Measures (LC/NC): LC/NC measures typically (a) can be done by in-house personnel, (b) require little to no investment cost, and (c) result in significant energy savings. In other words, LC/NC measures typically have a quick payback period (less than one year).

Capital Improvement Measures (CAP): CAP measures are major capital investments that usually require significant time (i.e., approximately six months to three years) for planning, design, and implementation. Oftentimes, a request for proposal, design/bid/build (D/B/B), and/or design/build (D/B) package is required. The return on investment for CAP projects ranges significantly, varying from a payback period from one to twenty plus years.

ECM CATEGORY	ECM RECOMMENDED FOR FURTHER CONSIDERATION	COST CATEGORY
	There are no ECM recommendations	

