## **EAST CAROLINA UNIVERSITY**

### **GREENE RESIDENCE HALL**

ASSET CODE: GREE

**FACILITY CONDITION ANALYSIS** 

**DECEMBER 3, 2009** 





## EAST CAROLINA UNIVERSITY Facility Condition Analysis

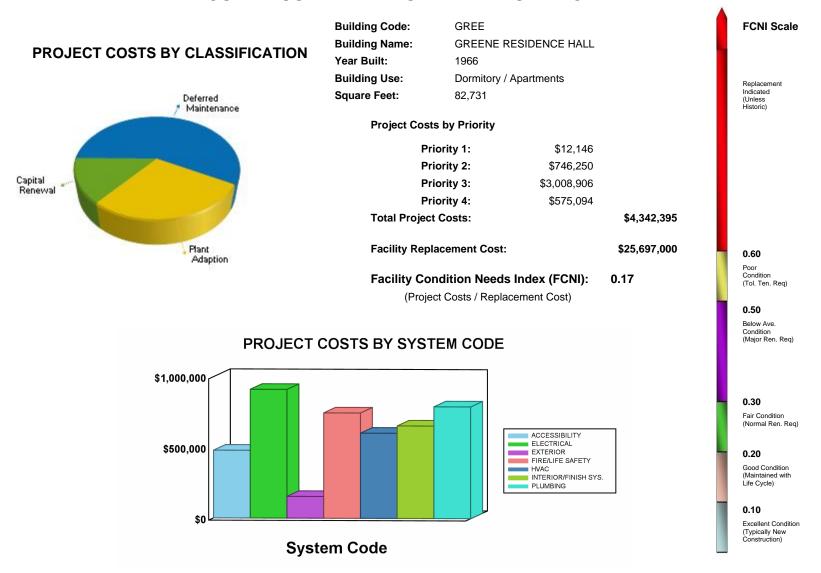
#### **TABLE OF CONTENTS**

Section 1:	GENERAL ASSET INFORMATION	
A.	Asset Executive Summary	1.1.1
	Asset Summary	
	Inspection Team Data	
D.	Facility Condition Analysis - Definitions	
	Report Description	
	2. Project Classification	
	3. Project Subclass Type	
	4. Priority Class / Sequence	
	5. Priority Class	
	6. City Index Material / Labor Cost / Cost Summaries	
	7. Project Number	
	8. Photo Number	
	9. Life Cycle Cost Model Description and Definitions	
_	10. Category Code	1.4.5
E.	Category Code Report	1.5.1
Section 2:	DETAILED PROJECT SUMMARIES AND TOTALS	
Α.	Detailed Project Totals – Matrix with FCNI Data and Associated Charts	2.1.1
	Detailed Projects by Priority Class / Priority Sequence	
	Detailed Projects by Cost within range [\$0 - < \$100,000]	
D.	Detailed Projects by Cost within range [ ≥ \$100,000 - < \$500,000 ]	2.3.2
E.	Detailed Projects by Cost within range [ > \$500,000 ]	2.3.3
	Detailed Projects by Project Classification	
G.	Detailed Projects by Project Subclass - Energy Conservation	2.5.1
H.	Detailed Projects by Category / System Code	2.6.1
Section 3:	SPECIFIC PROJECT DETAILS ILLUSTRATING DESCRIPTION / COST	3.1.1
Continu 4	DRAWINGS / PROJECT LOCATIONS	
Section 4:	DRAWINGS / PROJECT LOCATIONS	
Section 5:	LIFE CYCLE MODEL SUMMARY AND PROJECTIONS	
	Building Component Summary	
В.	Expenditure Projections	5.2.1
Section 6:	PHOTOGRAPHIC LOG	6.1.1

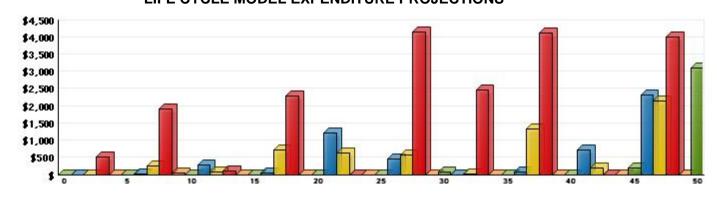


## **GENERAL ASSET INFORMATION**

#### **EXECUTIVE SUMMARY - GREENE RESIDENCE HALL**



#### LIFE CYCLE MODEL EXPENDITURE PROJECTIONS



**Future Year** 

Average Annual Renewal Cost Per SqFt \$3.31

Renewal Cost (Thousands of Dollars)



#### **B. ASSET SUMMARY**

Greene Residence Hall was constructed in 1966 and is located on the western edge of the main East Carolina University campus immediately adjacent to downtown Greenville. This building contains 82,731 square feet of area on ten levels of dormitory and communal space and is just east off of Cotanche Street between Reade Circle and Seventh Street. All ten levels are above grade. The cast-in-place concrete pier foundation supports a reinforced concrete and steel structure. There are approximately 200 dormitory rooms on floors two through ten, with a coordinator's suite and a visiting guest resident suite on the second floor. The first floor houses the coordinator's office, living room, recreation room, vending room, a handicapped unisex restroom, the dorm mail room, a former kitchen location, and housekeeping.

The building has a brick masonry facade and a flat built-up roof. All exterior windows on floors two through ten have been replaced with new dual pane, thermally insulated systems along with dripless window air conditioning units in each dorm room. The building is not generally considered to be handicapped accessible because it has sloped sidewalks and exterior steps without compliant handrails, and very few amenities within the facility have been improved for handicapped accessibility.

The information for this report was gathered during a site visit that concluded on September 16, 2009.

#### SITE

The building sits on a slightly sloped parcel of land in a small suburban campus setting. Landscaping consists of minimal ornamental planting beds, shrubbery, specimen trees, and areas of turf. Vehicular access is from the south from Seventh Street. Only service parking and several handicapped parking spaces are nearby the facility. The adjacent sidewalks lead to a sidewalk system that serves all entrances and the entire campus.

#### **EXTERIOR STRUCTURE**

It is recommended that aged and inefficient exterior glass storefront entry door systems be replaced. This project includes only the primary entrance doors. The replacement units should maintain the architectural design aspects of this facility and be modern, energy-efficient applications. The remaining secondary and service doors are satisfactory.

It is recommended that the single pane, aluminum-framed original window applications on the first floor be upgraded to thermal pane systems. Such double pane systems will reduce the energy required to operate the building. Repair or replacement of the windowsills and trim may also be necessary. As previously mentioned, the window systems on the second through tenth floors have been replaced with energy-efficient, dual pane systems.

The flat single ply membrane roofing system is not expected to outlast the scope of this analysis. Future budget modeling should include a provision for the replacement of the entire roofing system in the next ten years. Replace this roof with a similar application or the campus standard.

## EAST CAROLINA UNIVERSITY Facility Condition Analysis Section One



#### INTERIOR FINISHES / SYSTEMS

The common areas within the facility, such as the corridors, study lounges, social rooms, and the coordinator's office, are generally carpeted, with the exception of the first floor common areas, including the living, recreation, and vending rooms, which are primarily terrazzo. The individual dormitory rooms have vinyl floor tile, along with the laundries and housekeeping space. Carpet and vinyl tile floor finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts. The ceramic tile applications within the bathrooms appear to be sound and should provide satisfactory service over the next ten years.

The interior walls are all painted and constructed of either masonry block or sheetrock partitions. Most of the ceilings within the facility are painted, although there are some suspended grid acoustical tile systems in the first floor common areas. Wall and ceiling finishes should be repainted as part of future cosmetic improvements or major comprehensive renovation efforts. The interior doors are in satisfactory condition and should outlast the ten-year scope of this analysis.

#### **ACCESSIBILITY**

Current legislation related to accessibility requires that building entrances be wheelchair accessible. There are several sidewalk locations immediately adjacent to the building and leading to the building that have exterior steps that require handrails to be installed in accordance with handicapped accessibility guidelines. To comply with the intent of this legislation, it is recommended that compliant painted metal handrails be installed at the sidewalk steps leading to the facility from the northwest as required.

Current accessibility legislation requires that building amenities be generally accessible to all persons. The configurations of the first floor's common kitchenette and the drinking fountains located on each floor are barriers to accessibility. The installation of wheelchair-accessible kitchenette cabinetry is recommended where applicable. All single level drinking fountains throughout the building should be replaced with dual level, refrigerated units.

While the interior doors are suitable for ten future years of service, the knob actuated door hardware presents a barrier to accessibility. Accessibility legislation requires that door hardware be designed for operation by people with little or no ability to grasp objects with their hands. To comply with the intent of this legislation, it is recommended that lever handle door hardware be installed on all doors that currently still have knobs. In addition, the signage to the permanent spaces is non-compliant. It is recommended that all non-compliant signage be upgraded to conform to appropriate accessibility standards. Compliant signage should meet specific size, graphical, Braille, height, and location requirements. This scope includes all directional signage.

There are minimal handicapped accessible features within this residential facility primarily aimed at handicapped guests. A handicapped accessible unisex restroom is located on the first floor by the mailroom, and some minor modifications have been made within the bathrooms on each floor. Provisions for resident accessibility for this facility are recommended. These should include the installation of ADA compliant signage, a wheelchair accessible bathroom facility, accessible storage space, specialized alarms, lever door hardware, and the adaptation of a sleeping room. To comply with the intent of the current accessibility legislation, it is recommended that at least two residential units be converted within this facility.

## EAST CAROLINA UNIVERSITY Facility Condition Analysis Section One



The overall level of bathroom accessibility is good but short of full compliance with modern accessibility legislation. While the clearances and clear floor spaces are adequate, compliant mirrors and new accessible plumbing fixtures are recommended over the next ten years in the common bathrooms on floors two through ten.

Current legislation regarding building accessibility by the handicapped requires that stairs have graspable handrails on both sides, that the rails have specific cross-sectional geometry, and that the handrails continue horizontally at the landings with extensions. In addition, guardrails must prevent the passage of a 4 inch diameter sphere (6 inches in the triangle formed by the lower rail and tread / riser angle). Although the stairs are compliant with the code enforced at the time of construction until a major renovation occurs, they are deficient in handrail and guardrail design relative to current standards. Future renovation efforts should include comprehensive stair railing upgrades.

#### **HEALTH**

Based on the date of original construction and latest renovations, it is highly possible that lead paint or asbestos containing material (ACM) were used in the construction of this facility. However, no lead paint or suspected asbestos was observed during the inspection of the building. The lead paint and asbestos health risks are minimal, but workers present during any and all remodeling should be made aware of the potential hazards of working with such materials.

#### FIRE / LIFE SAFETY

The paths of egress in this building are adequate in regard to fire rating. There are no compromises involving doors, partitions, elevators lobbies, or stairs. No fire or life safety issues related to architectural features were observed during the inspection of this facility.

The building is protected by a central fire alarm system. The point addressable fire alarm control panel was manufactured by Simplex and is located on the ground floor. The devices that serve this system include manual pull stations, audible / visible devices, and smoke detectors. The fire alarm system is adequate and in good condition. With proper testing and maintenance, it will outlast the purview of this analysis.

This facility is not protected by any form of automatic fire suppression. Manual, dry chemical fire extinguishers are available. However, it is recommended that an automatic fire suppression system be retrofitted. Install an automatic fire sprinkler system in unprotected areas throughout the facility. This project will reduce overall liability and the potential for loss. The project outline includes a budget for the installation of a fire pump.

Exit signs in the facility are LED-illuminated and are connected to the emergency power network. Emergency lighting is available through standard interior light fixtures with battery backup ballasts. All egress lighting systems are adequate and in good condition. There are no related projects to recommend at this time.

## EAST CAROLINA UNIVERSITY Facility Condition Analysis Section One



#### **HVAC**

The facility is connected to the campus steam loop. Steam is supplied to a heat exchanger in the main mechanical room that produces heating hot water. The hot water is then circulated throughout the building by pumps to the associated HVAC equipment to heat the facility. The heat exchanger and pumps appear to be newer installations and should continue to provide heating hot water for the facility.

The facility incorporates a hydronic system that heats the individual student rooms. This system is original to the construction of the facility and is showing signs of age. It is recommended that the hydronic heating system be replaced.

Heating and cooling for the common areas of the facility are provided by multizone air handling equipment. The units are equipped with hot water coils for heating and DX refrigerant for cooling. The equipment is located on the roof and ground floor. The units were installed in 2004 and appear to be in good condition. No projects are recommended for the air handling equipment.

Cooling for the student rooms in this facility is provided by through-wall air conditioning units. These systems are currently in good working order. However, it should be anticipated that they will require replacement within the scope of this report.

#### **ELECTRICAL**

Power is supplied to the facility at a rate of 120/208 volts from an oil-filled transformer located onsite. The unit is rated at 750 kVA and was installed in 2004. It is then distributed by a switchgear device that is rated for 2,000 amp service and was manufactured by Square D. All of the main electrical distribution system components are serviceable and will likely remain so throughout the scope of this report.

The secondary electrical consists of panelboards located throughout the facility. Power is distributed from these panelboards in the form of mechanical, lighting, and general purpose loads. The secondary electrical system appears to be mostly original, with some upgrades where new circuits have been installed on each floor to handle the window air conditioning units in the student rooms. However, the electrical devices in this facility are aged and visibly worn. It should be anticipated that the electrical distribution network will no longer be able to support normal loads and expansion. Replace this network within the scope of this analysis.

The interior lighting is a combination of new and original fixtures. New lay-in fixtures or surface-mount fixtures that contain T8 bulbs are present in corridors and common spaces. These light fixtures are in good condition and require no recommendations. Student rooms contain overhead surface-mount fixtures that are possibly original with ballast upgrades. It is recommended that all original or aged student room lighting be replaced in a project representing approximately 60 percent of the facility. Specify energy-efficient light fixtures for the new interior lighting systems.

The exterior areas adjacent to the building are illuminated by building-mounted high intensity discharge (HID), compact fluorescent, and stanchion-mounted fixtures. These exterior lighting systems appear to be in good condition and provide adequate coverage. No projects are recommended for the exterior lighting.

## EAST CAROLINA UNIVERSITY Facility Condition Analysis Section One



Emergency power for this facility is produced by a local diesel-fired emergency generator. This unit has a 12 kW capacity, generates 120/208 volt power, and was manufactured by Onan. This generator has served beyond its intended life cycle. In order to provide reliable emergency power to the critical systems in this facility, it is recommended that the generator be replaced.

#### **PLUMBING**

The main incoming domestic water enters the facility in the main mechanical room on the ground floor. Copper piping is then utilized to distribute water throughout the facility. The system appears to be in average condition, with a combination of new and aged piping. An upgrade project is recommended to replace the original or aged domestic water piping. Additionally, no backflow preventer was observed on the system. Install backflow devices as needed to protect the water supply.

The drain piping network consists of cast-iron piping with bell-and-spigot and no-hub connections. The piping network appears to be a combination of new and aged piping where repairs have taken place, indicating that the older piping is starting to fail. Remove the existing sanitary and storm drain piping. Install new cast-iron drain piping networks with copper runouts to all fixtures. Install new floor drains, roof drains, and traps as needed.

The plumbing fixtures consist of ceramic and stainless steel construction and appear to be original. The units utilize hand operation control. It is recommended that the plumbing fixtures be upgraded. This action is detailed in the Accessibility section of this report.

Domestic water for this facility is heated by heat exchangers that utilize steam. The units have served beyond their expected life cycle, and the insulation is worn and showing signs of age. It is recommended that the units be replaced.

A booster pump pack aids in the pressurization of the domestic water system in this building. This system is currently adequate and appears to be a newer installation. No projects are recommended for the booster pump system at this time.

#### **VERTICAL TRANSPORTATION**

The University commissioned an outside contractor to perform an elevator condition study in 2009. The aforementioned study did not identify any deficiencies requiring capital funding.

## EAST CAROLINA UNIVERSITY Facility Condition Analysis Section One



Note: The deficiencies outlined in this report were noted from a visual inspection. ISES engineers and architects developed projects with related costs that are needed over the next ten-year period to bring the facility to "like-new" condition. The costs developed do not represent the cost of a complete facility renovation. Soft costs not represented in this report include telecommunications, 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. However, existing fixed building components and systems were thoroughly inspected. The developed costs represent correcting existing deficiencies and anticipated life cycle failures (within a ten-year period) to bring the facility to modern standards without any anticipation of change to facility space layout or function. Please refer to Section Three of this report for recommended Specific Project Details.



#### **C. INSPECTION TEAM DATA**

**DATE OF INSPECTION:** September 16, 2009

#### **INSPECTION TEAM PERSONNEL:**

<u>NAME</u>	<u>POSITION</u>	SPECIALTY
Thomas Ferguson, AIA, LEED <sup>®</sup> AP	Project Architect	Interior Finishes / Exterior / ADA- Handicapped Accessibility / Site / Fire Safety / Life Safety / Health
Rob Gasaway, Q.E.I.	Facility Analyst	Interior Finishes / Exterior / ADA- Handicapped Accessibility / Site / Fire Safety / Life Safety / Health
John Holder, Q.E.I.	Project Engineer	Mechanical / Electrical / Plumbing / Energy / Fire Safety / Life Safety / Health
Imelda Jordan	Project Engineer	Mechanical / Electrical / Plumbing / Energy / Fire Safety / Life Safety / Health
James Lewis	Project Engineer	Mechanical / Electrical / Plumbing / Energy / Fire Safety / Life Safety / Health
Carl Mason, PE, BSCP	Project Engineer	Interior Finishes / Exterior / ADA- Handicapped Accessibility / Site / Fire Safety / Life Safety / Health
Paul Southwell	Project Engineer	Mechanical / Electrical / Plumbing / Energy / Fire Safety / Life Safety / Health
Norm Teahan, RA, AIA, NCARB	Project Architect	Interior Finishes / Exterior / ADA- Handicapped Accessibility / Site / Fire Safety / Life Safety / Health

#### **FACILITY CONTACTS:**

NAME POSITION

William Bagwell Associate Vice Chancellor, Campus Operations

**REPORT DEVELOPMENT:** 

Report Development by: ISES Corporation

2165 West Park Court

Suite N

Stone Mountain, GA 30087

Contact: Kyle Thompson, Project Manager

770-879-7376



#### D. FACILITY CONDITION ANALYSIS - DEFINITIONS

The following information is a clarification of Asset Report Sections using example definitions.

#### 1. REPORT DESCRIPTION

Section 1: Asset Executive Summary, Asset Summary, and General Report Information

Section 2: Detailed Project Summaries and Totals

- A. Detailed Project Totals Matrix with FCNI Data and Associated Charts
- B. Detailed Projects by Priority Class / Priority Sequence
- C. Detailed Projects by Cost within range [\$0 < \$100,000]
- D. Detailed Projects by Cost within range [≥ \$100,000 < \$500,000 ]
- E. Detailed Projects by Cost within range [≥ \$500,000]
- F. Detailed Projects by Project Classification
- G. Detailed Projects by Project Rating Type Energy Conservation
- H. Detailed Projects by Category / System Code

FCNI = Facility Condition Needs Index, Total Cost vs. Replacement Cost. The FCNI provides a life cycle cost comparison. Facility replacement cost is based on replacement with current construction standards for 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.

FCNI = Deferred Maintenance / Modernization +

<u>Capital Renewal + Plant Adaption</u>

Plant / Facility Replacement Cost

Section 3: Specific Project Details Illustrating Description / Cost

Section 4: Drawings with Iconography

The drawings for this facility are marked with ICONS (see legend), denoting the specific location(s) for each project. Within each ICON is the last four characters of the respective project number (e.g., 0001IS01 is marked on plan by IS01). There is one set of drawings marked with ICONS representing all priority classes (1, 2, 3, and 4).

Section 5: Life Cycle Model Summary and Projections

Section 6: Photographic Log



#### 2. PROJECT CLASSIFICATION

- A. <u>Plant / Program Adaption</u>: Expenditures 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 changed teaching or research methods, and improvements occasioned by the adoption of modern technology (e.g., the use of personal computer networks).
- B. <u>Deferred Maintenance</u>: Refers to expenditures for repairs which were not accomplished as a part of normal maintenance or capital repair which have accumulated to the point that facility deterioration is evident and could impair the proper functioning of the facility. Costs estimated for deferred maintenance projects should include compliance with applicable codes, even if such compliance requires expenditures beyond those essential to affect the needed repairs. Deferred maintenance projects represent catch up expenses.
- C. <u>Capital Renewal:</u> A subset of regular or normal facility maintenance which refers to major repairs or the replacement / rebuilding of major facility components (e.g., roof replacement at the end of its normal useful life is capital repair; roof replacement several years after its normal useful life is deferred maintenance).

#### 3. PROJECT SUBCLASS TYPE

A. <u>Energy Conservation</u>: Projects with energy conservation opportunities, based on simple payback analysis.

#### 4. PRIORITY SEQUENCE BY PRIORITY CLASS (Shown in Sections 2 and 3)

All projects are assigned both a Priority Sequence number and Priority Class number for categorizing and sorting projects based on criticality and recommended execution order.

#### Example:

	PRIORITY CLA	SS 1
CODE	PROJECT NO.	PRIORITY SEQUENCE
HV2C	0001HV04	01
PL1D	0001PL02	02
	DDIODITY OL A	00.0
	PRIORITY CLA	<u>55 2</u>
CODE	PROJECT NO.	PRIORITY SEQUENCE
IS1E	0001IS06	03
EL4C	0001EL03	04



#### 5. PRIORITY CLASS (Shown in Sections 2 and 3)

#### PRIORITY 1 - Currently Critical (Immediate)

Projects in this category require immediate action to:

- a. return a facility to normal operation
- b. stop accelerated deterioration
- c. correct a cited safety hazard

#### PRIORITY 2 - Potentially Critical (Year One)

Projects in this category, if not corrected expeditiously, will become critical within a year. Situations in this category include:

- a. intermittent interruptions
- b. rapid deterioration
- c. potential safety hazards

#### PRIORITY 3 - Necessary - Not Yet Critical (Years Two to Five)

Projects in this category include conditions requiring appropriate attention to preclude predictable deterioration or potential downtime and the associated damage or higher costs if deferred further.

#### PRIORITY 4 - Recommended (Years Six to Ten)

Projects in this category include items that represent a sensible improvement to existing conditions. These items are not required for the most basic function of a facility; however, Priority 4 projects will either improve overall usability and / or reduce long-term maintenance.

#### 6. COST SUMMARIES AND TOTALS

The cost summaries and totals are illustrated by Detailed Projects sorted in multiple formats (shown in Sections 2 and 3).

City Index material / labor cost factors: (shown in Sections 2 and 3)

Cost factors are based on the Greenville City Index and are adjusted for material and labor cost factors (2009). Refer to the project related labor report found later in this section.

Global Markup Percentages		R.S. MEANS
Local Labor Index: Local Materials Index:	51.3 % 100.7 %	of National Average of National average
General Contractor Markup: Professional Fees:	20.0 % 16.0 %	Contractor profit & overhead, bonds & insurance Arch. / Eng. Firm design fees and in-house design cost



#### 7. PROJECT NUMBER (Shown in Sections 2 and 3)

#### Example:

Project Number = 0001-EL-04 (unique for each independent project)

0001 - Building Identification Number

EL - System Code, EL represents Electrical

- Sequential Assignment Project Number by Category / System

#### 8. PHOTO NUMBER (Shown in Section 6)

A code shown on the Photographic Log identifies the building number, photo sequence, and architect, engineer, or vertical transportation.

Example: 0001006e

Building Number Photo Sequence Arch / Eng / VT 0001 006 e

#### 9. LIFE CYCLE COST MODEL DESCRIPTION AND DEFINITIONS (Shown in Section 5)

Included in this report is a Life Cycle Cost Model. This model consists of two elements, one is the component listing (starting on page 5.1.1) and the other is the Life Cycle Cost Projections Graph (page 5.2.1). The component list is a summary of all major systems and components within the facility. Each indicated component has the following associated information:

Uniformat Code	This is the standard Uniformat Code that applies to the component
Component Description	This line item describes the individual component
Qty	The quantity of the listed component
Units	The unit of measure associated with the quantity
Unit Cost	The cost to replace each individual component unit (This cost is in
	today's dollars)
Total Cost	Unit cost multiplied by Quantity, also in today's dollars. Note that this is a
	one time renewal / replacement cost
Install Date	Year that the component was installed. Where this data is not available,
	it defaults to the year the asset was constructed
Life Exp	Average life expectancy for each individual component

The component listing forms the basis for the Life Cycle Cost Projections Graph shown on page 5.2.1. This graph represents a projection over a fifty-year period (starting from the date the report is run) of expected component renewals based on each individual item's renewal cost and life span. Some components might require renewal several times within the fifty-year model, while others might not occur at all. Each individual component is assigned a renewal year based on life cycles, and the costs for each item are inflated forward to the appropriate year. The vertical bars shown on the graph represent the accumulated (and inflated) total costs for each individual year. At the bottom of the graph, the average annual cost per gross square foot (\$/GSF) is shown for the facility. In this calculation, all costs are not inflated. This figure can be utilized to assess the adequacy of existing capital renewal and repair budgets.

## EAST CAROLINA UNIVERSITY

Facility Condition Analysis

Section One -



#### 10. CATEGORY CODE (Shown in Sections 2 and 3)

Refer to the following Category Code Report.

Example: Category Code = EL5A

EL = System Description
5 = Component Description
A = Element Description

CATEG	ORY	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
SS1A	-	SS7A	SECURITY SYSTEMS
VT1A	-	VT7A	VERTICAL TRANSPORTATION



	CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION	
SYSTEM DE	SCRIPTION: ACCESSIBILITY			
AC1A	SITE	STAIR AND RAILINGS	Includes exterior stairs and railings which are not part of the building entrance points.	
AC1B	SITE	RAMPS AND WALKS	Includes sidewalks, grade change ramps (except for a building entrance), curb ramps, etc.	
AC1C	SITE	PARKING	Designated parking spaces including striping, signage, access aisles and ramps, etc.	
AC1D	SITE	TACTILE WARNINGS	Raised tactile warnings located at traffic crossing and elevation changes.	
AC2A	BUILDING ENTRY	GENERAL	Covers all aspects of entry into the building itself including ramps, lifts, doors and hardware, power operators, etc.	
AC3A	INTERIOR PATH OF TRAVEL	LIFTS/RAMPS/ ELEVATORS	Interior lifts, ramps and elevators designed to accommodate level changes inside a building. Includes both installation and retrofitting.	
AC3B	INTERIOR PATH OF TRAVEL	STAIRS AND RAILINGS	Upgrades to interior stairs and handrails for accessibility reasons.	
AC3C	INTERIOR PATH OF TRAVEL	DOORS AND HARDWARE	Accessibility upgrades to the interior doors including widening, replacing hardware power, assisted operators, etc.	
AC3D	INTERIOR PATH OF TRAVEL	SIGNAGE	Interior building signage upgrades for compliance with ADA.	
AC3E	INTERIOR PATH OF TRAVEL	RESTROOMS/ BATHROOMS	Modifications to and installation of accessible public restrooms and bathrooms. Bathrooms, which are an integral part of residential suites, are catalogued under HC4A.	
AC3F	INTERIOR PATH OF TRAVEL	DRINKING FOUNTAINS	Upgrading/replacing drinking fountains for reasons of accessibility.	
AC3G	INTERIOR PATH OF TRAVEL	PHONES	Replacement/modification of public access telephones.	
AC4A	GENERAL	FUNCTIONAL SPACE MODIFICATIONS	This category covers all necessary interior modifications necessary to make the services and functions of a building accessible. It includes installation of assistive listening systems, modification of living quarters, modifications to laboratory workstations, etc. Bathrooms, which are integral to efficiency suites, are catalogued here.	
AC4B	GENERAL	OTHER	All accessibility issues not catalogued elsewhere.	
SYSTEM DE	SCRIPTION: ELECTRICAL			
EL1A	INCOMING SERVICE	TRANSFORMER	Main building service transformer.	
EL1B	INCOMING SERVICE	DISCONNECTS	Main building disconnect and switchgear.	
EL1C	INCOMING SERVICE	FEEDERS	Incoming service feeders. Complete incoming service upgrades, including transformers, feeders, and main distribution panels are catalogued here.	
EL1D	INCOMING SERVICE	METERING	Installation of meters to record consumption and/or demand.	
EL2A	MAIN DISTRIBUTION PANELS	CONDITION UPGRADE	Main distribution upgrade due to deficiencies in condition.	
EL2B	MAIN DISTRIBUTION PANELS	CAPACITY UPGRADE	Main distribution upgrades due to inadequate capacity.	
EL3A	SECONDARY DISTRIBUTION	STEP DOWN TRANSFORMERS	Secondary distribution stepdown and isolation transformers.	
EL3B	SECONDARY DISTRIBUTION	DISTRIBUTION NETWORK	Includes conduit, conductors, sub-distribution panels, switches, outlets, etc. Complete interior rewiring of a facility is catalogued here.	
EL3C	SECONDARY DISTRIBUTION	MOTOR CONTROLLERS	Mechanical equipment motor starters and control centers.	
EL4A	DEVICES AND FIXTURES	EXTERIOR LIGHTING	Exterior building lighting fixtures including supply conductors and conduit.	
EL4B	DEVICES AND FIXTURES	INTERIOR LIGHTING	Interior lighting fixtures (also system wide emergency lighting) including supply conductors and conduits.	
EL4C	DEVICES AND FIXTURES	LIGHTING CONTROLLERS	Motion sensors, photocell controllers, lighting contactors, etc.	



	CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION	
EL4D	DEVICES AND FIXTURES	GFCI PROTECTION	Ground fault protection including GFCI receptacles and breakers.	
EL4E	DEVICES AND FIXTURES	LIGHTNING PROTECTION	Lightning arrestation systems including air terminals and grounding conductors.	
EL5A	EMERGENCY POWER SYSTEM	GENERATION/ DISTRIBUTION	Includes generators, central battery banks, transfer switches, emergency power grid, etc.	
EL6A	SYSTEMS	UPS/DC POWER SUPPLY	Uninterruptible power supply systems and DC motor-generator sets and distribution systems.	
EL7A	INFRASTRUCTURE	ABOVE GROUND TRANSMISSION	Includes poles, towers, conductors, insulators, fuses, disconnects, etc.	
EL7B	INFRASTRUCTURE	UNDERGROUND TRANSMISSION	Includes direct buried feeders, ductbanks, conduit, manholes, feeders, switches, disconnects, etc.	
EL7C	INFRASTRUCTURE	SUBSTATIONS	Includes incoming feeders, breakers, buses, switchgear, meters, CTs, PTs, battery systems, capacitor banks, and all associated auxiliary equipment.	
EL7D	INFRASTRUCTURE	DISTRIBUTION SWITCHGEAR	Stand-alone sectionalizing switches, distribution switchboards, etc.	
EL7F	INFRASTRUCTURE	AREA AND STREET LIGHTING	Area and street lighting systems including stanchions, fixtures, feeders, etc.	
EL8A	GENERAL	OTHER	Electrical system components not catalogued elsewhere.	
SYSTEM DI	ESCRIPTION: EXTERIOR			
ES1A	FOUNDATION/FOOTING	STRUCTURE	Structural foundation improvements involving structural work on foundation wall/footing, piers, caissons, piles including crack repairs, shoring & pointing	
ES1B	FOUNDATION/FOOTING	DAMPPROOFING/ DEWATERING	Foundation/footing waterproofing work including, damp proofing, dewatering, insulation, etc.	
ES2A	COLUMNS/BEAMS/ WALLS	STRUCTURE	Structural work to primary load-bearing structural components aside from floors including columns, beams, bearing walls, lintels, arches, etc.	
ES2B	COLUMNS/BEAMS/ WALLS	FINISH	Work involving restoration of the appearance and weatherproof integrity of exterior wall/structural envelope components including masonry/pointing, expansion joints, efflorescence & stain removal, grouting, surfacing, chimney repairs, etc.	
ES3A	FLOOR	STRUCTURE	Work concerning the structural integrity of the load supporting floors both exposed and unexposed including deformation, delamination, spalling, shoring, crack repair, etc.	
ES4A	ROOF	REPAIR	Work on waterproof horizontal finish (roof) involving repair and/or limited replacement (<40% total) including membrane patching, flashing repair, coping caulk/resetting, PPT wall parging/coating, walkpad installation, skylight and roof hatch R&R, etc.	
ES4B	ROOF	REPLACEMENT	Work involving total refurbishment of roofing system including related component rehab.	
ES5A	FENESTRATIONS	DOORS	Work on exterior exit/access door including storefronts, airlocks, air curtains, vinyl slat doors, all power/manual operating hardware (except handicapped), etc.	
ES5B	FENESTRATIONS	WINDOWS	Work on exterior fenestration closure & related components including glass/metal/wood curtain walls, fixed or operable window sashes, glazing, frames, sills, casings, stools, seats, coatings, treatments, screens, storm windows, etc.	
ES6A	GENERAL	ATTACHED STRUCTURE	Work on attached exterior structure components not normally considered in above categories including porches, stoops, decks, monumental entrance stairs, cupolas, tower, etc.	
ES6B	GENERAL	AREAWAYS	Work on attached grade level or below structural features including subterranean light wells, areaways, basement access stairs, etc.	
ES6C	GENERAL	TRIM	Work on ornamental exterior (generally non-structural) elements including beltlines, quoins, porticos, soffits, cornices, moldings, trim, etc.	
ES6D	GENERAL	SUPERSTRUCTURE	Finish and structural work on non-standard structures with exposed load-bearing elements such as stadiums, bag houses, bleachers, freestanding towers, etc.	



	CATEGORY CODE REPORT					
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION			
ES6E	GENERAL	OTHER	Any exterior work not specifically categorized elsewhere including finish and structural work on			
LSGL	GLINEIVAL	OTTLER	freestanding boiler stacks.			
SYSTEM D	ESCRIPTION: FIRE / LIFE SAFE	TY				
FS1A	LIGHTING	EGRESS LIGHTING/EXIT SIGNAGE	R & R work on exit signage and packaged AC/DC emergency lighting.			
FS2A	DETECTION/ALARM	GENERAL	Repair or replacement of fire alarm/detection system/components including alarms, pull boxes, smoke/heat detectors, annunciator panels, central fire control stations, remote dialers, fire station communications, etc.			
FS3A	SUPPRESSION	SPRINKLERS	Repair or installation of water sprinklers type automatic fire suppressions including wet pipe & dry pipe systems, heads, piping, deflectors, valves, monitors, associated fire pump, etc.			
FS3B	SUPPRESSION	STANDPIPE/HOSE	Repair or installation of standpipe system or components including hardware, hoses, cabinets, nozzles, necessary fire pumping system, etc.			
FS3C	SUPPRESSION	EXTINGUISHERS	Repairs or upgrades to F.E. cabinets/wall fastenings and handheld extinguisher testing/replacement.			
FS3D	SUPPRESSION	OTHER	Other fire suppression items not specifically categorized elsewhere including fire blankets, carbon dioxide automatic systems, Halon systems, dry chemical systems, etc.			
FS4A	HAZARDOUS MATERIALS	STORAGE ENVIRONMENT	Installation or repair of special storage environment for the safe holding of flammable or otherwise dangerous materials/supplies including vented flammables storage cabinets, holding pens/rooms, cages, fire safe chemical storage rooms, etc.			
FS4B	HAZARDOUS MATERIALS	USER SAFETY	Improvements, repairs, installation, or testing of user safety equipment including emergency eyewashes, safety showers, emergency panic/shut-down system, etc.			
FS5A	EGRESS PATH	DESIGNATION	Installation, relocation or repair of posted diagrammatic emergency evacuation routes.			
FS5B	EGRESS PATH	DISTANCE/ GEOMETRY	Work involving remediation of egress routing problems including elimination of dead end corridors, excessive egress distance modifications and egress routing inadequacies.			
FS5C	EGRESS PATH	SEPARATION RATING	Restoration of required fire protective barriers including wall rating compromises, fire rated construction, structural fire proofing, wind/safety glazing, transom retrofitting, etc.			
FS5D	EGRESS PATH	OBSTRUCTION	Clearance of items restricting the required egress routes.			
FS5E	EGRESS PATH	STAIRS RAILING	Retrofit of stair/landing configurations/structure, railing heights/geometries, etc.			
FS5F	EGRESS PATH	FIRE DOORS/ HARDWARE	Installation/replacement/repair of fire doors and hardware including labeled fire doors, fire shutters, closers, magnetic holders, panic hardware, etc.			
FS5G	EGRESS PATH	FINISH/FURNITURE RATINGS	Remediation of improper fire/smoke ratings of finishes and furniture along egress routes.			
FS6A	GENERAL	OTHER	Life/fire safety items not specifically categorized elsewhere.			
SYSTEM D	ESCRIPTION: HEALTH					
HE1A	ENVIRONMENTAL CONTROL	EQUIPMENT AND ENCLOSURES	Temperature control chambers (both hot and cold) for non-food storage. Includes both chamber and all associated mechanical equipment.			
HE1B	ENVIRONMENTAL CONTROL	OTHER	General environmental control problems not catalogued elsewhere.			
HE2A	PEST CONTROL	GENERAL	Includes all measures necessary to control and destroy insects, rodents and other pests.			
HE3A	REFUSE	GENERAL	Issues related to the collection, handling and disposal of refuse.			
HE4A	SANITATION EQUIPMENT	LABORATORY AND PROCESS	Includes autoclaves, cage washers, steam cleaners, etc.			
HE5A	FOOD SERVICE	KITCHEN EQUIPMENT	Includes ranges, grilles, cookers, sculleries, etc.			
HE5B	FOOD SERVICE	COLD STORAGE	Includes the cold storage room and all associated refrigeration equipment.			
		•				



	CATEGORY CODE REPORT					
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION			
HE6A	HAZARDOUS MATERIAL	STRUCTURAL ASBESTOS	Testing, abatement and disposal of structural and building finish materials containing asbestos.			
HE6B	HAZARDOUS MATERIAL	MECHANICAL ASBESTOS	Testing, abatement and disposal of mechanical insulation materials containing asbestos.			
HE6C	HAZARDOUS MATERIAL	PCBs	Includes testing, demolition, disposal and cleanup of PCB contaminated substances.			
HE6D	HAZARDOUS MATERIAL	FUEL STORAGE	Includes monitoring, removal and replacement of above and below ground fuel storage and distribution systems. Also includes testing and disposal of contaminated soils.			
HE6E	HAZARDOUS MATERIAL	LEAD PAINT	Testing, removal and disposal of lead-based paint systems.			
HE6F	HAZARDOUS MATERIAL	OTHER	Handling, storage, and disposal of other hazardous materials.			
HE7A	GENERAL	OTHER	Health related issues not catalogued elsewhere.			
SYSTEM DE	ESCRIPTION: HVAC					
HV1A	HEATING	BOILERS/STACKS/ CONTROLS	Boilers for heating purposes including their related stacks, flues, and controls.			
HV1B	HEATING	RADIATORS/ CONVECTORS	Including cast iron radiators, fin tube radiators, baseboard radiators, etc.			
HV1C	HEATING	FURNACE	Furnaces and their related controls, flues, etc.			
HV1D	HEATING	FUEL SUPPLY/STORAGE	Storage and/or distribution of fuel for heating purposes, including tanks and piping networks and related leak detection/monitoring.			
HV2A	COOLING	CHILLERS/ CONTROLS	Chiller units for production of chilled water for cooling purposes, related controls (not including mods for CFC compliance).			
HV2B	COOLING	HEAT REJECTION	Repair/replacement of cooling towers, dry coolers, air-cooling and heat rejection. (Includes connection of once-through system to cooling tower.)			
HV3A	HEATING/COOLING	SYSTEM RETROFIT/ REPLACE	Replacement or major retrofit of HVAC systems.			
HV3B	HEATING/COOLING	WATER TREATMENT	Treatment of hot water, chilled water, steam, condenser water, etc.			
HV3C	HEATING/COOLING	PACKAGE/SELF-CONTAINED UNITS	Repair/replacement of self-contained/package type units including stand up units, rooftop units, window units, etc; both air conditioners and heat pumps.			
HV3D	HEATING/COOLING	CONVENTIONAL SPLIT SYSTEMS	Repair, installation, or replacement of conventional split systems; both air conditioners and heat pumps including independent component replacements of compressors and condensers.			
HV4A	AIR MOVING/ VENTILATION	AIR HANDLERS/ FAN UNITS	Includes air handlers & coils, fan coil units, unit ventilators, filtration upgrades, etc., not including package/self-contained units, split systems or other specifically categorized systems.			
HV4B	AIR MOVING/ VENTILATION	EXHAUST FANS	Exhaust fan systems including fans, range and fume hoods, controls, and related ductwork.			
HV4C	AIR MOVING/ VENTILATION	OTHER FANS	Supply, return, or any other fans not incorporated into a component categorized elsewhere.			
HV4D	AIR MOVING/ VENTILATION	AIR DISTRIBUTION NETWORK	Repair, replacement, or cleaning of air distribution network including ductwork, terminal reheat/cool, VAV units, induction units, power induction units, insulation, dampers, linkages, etc.			
HV5A	STEAM/HYDRONIC DISTRIBUTION	PIPING NETWORK	Repair/replacement of piping networks for heating and cooling systems including pipe, fittings, insulation, related components, etc.			
HV5B	STEAM/HYDRONIC DISTRIBUTION	PUMPS	Repair or replacement of pumps used in heating and cooling systems, related control components, etc.			
HV5C	STEAM/HYDRONIC DISTRIBUTION	HEAT EXCHANGERS	Including shell and tube heat exchangers and plate heat exchangers for heating and cooling.			
HV6A	CONTROLS	COMPLETE SYSTEM	Replacement of HVAC control systems.			



CATEGORY CODE REPORT						
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION			
		UPGRADE				
HV6B	CONTROLS	MODIFICATIONS/ REPAIRS	Repair or modification of HVAC control system.			
HV6C	CONTROLS	AIR COMPRESSORS/ DRYERS	Repair or modification of control air compressors and dryers.			
HV7A	INFRASTRUCTURE	STEAM/HOT WATER GENERATION	Generation of central steam and/or hot water including boilers and related components.			
HV7B	INFRASTRUCTURE	STEAM/HOT WATER DISTRIBUTION	Distribution system for central hot water and/or steam.			
HV7C	INFRASTRUCTURE	CHILLED WATER GENERATION	Generation of central chilled water including chillers and related components.			
HV7D	INFRASTRUCTURE	CHILLED WATER DISTRIBUTION	Distribution system for central chilled water.			
HV7E	INFRASTRUCTURE	TUNNELS/ MANHOLES/ TRENCHES	Repairs, installation, replacement of utility system access chambers.			
HV7F	INFRASTRUCTURE	OTHER	HVAC infrastructure issues not specifically categorized elsewhere.			
HV8A	GENERAL	CFC COMPLIANCE	Chiller conversions/replacements for CFC regulatory compliance, monitoring, etc.			
HV8B	GENERAL	OTHER	HVAC issues not catalogued elsewhere.			
SYSTEM D	ESCRIPTION: INTERIOR FIN	ISHES / SYSTEMS				
IS1A	FLOOR	FINISHES-DRY	R & R of carpet, hardwood strip flooring, concrete coating, vinyl linoleum & tile, marble, terrazzo, rubber flooring, underlayment in predominantly dry areas ("dry" includes non-commercial kitchens)			
IS1B	FLOOR	FINISHES-WET	Flooring finish/underlayment work in predominantly "wet" areas including work with linoleum, rubber, terrazzo, concrete coating, quarry tile, ceramic tile, epoxy aggregate, etc.			
IS2A	PARTITIONS	STRUCTURE	Structural work on full height permanent interior partitions including wood/metal stud & drywall systems, CMU systems, structural brick, tile, glass block, etc.			
IS2B	PARTITIONS	FINISHES	Work on full height permanent interior partitions including R & R to gypsum board, plaster, lath, wood paneling, acoustical panels, wall coverings, column coverings, tile, paint, etc.			
IS3A	CEILINGS	REPAIR	Repair of interior ceilings (<40% of total) including tiles, gypsum board, plaster, paint, etc.			
IS3B	CEILINGS	REPLACEMENT	Major refurbishments (>40% of total) to interior ceiling systems including grid system replacements, structural framing, new suspended systems, paint, plastering, etc.			
IS4A	DOORS	GENERAL	Any work on interior non-fire rated doors, roll-up counter doors, mechanical/plumbing access doors, and all door hardware (except for reasons of access improvement).			
IS5A	STAIRS	FINISH	Any finish restorative work to stair tower walking surfaces including replacement of rubber treads, safety grips, nosings, etc. (except as required to accommodate disabled persons).			
IS6A	GENERAL	MOLDING	R & R to interior trim/molding systems including rubber/vinyl/wood base, crown/chair/ornamental moldings, cased openings, etc.			
IS6B	GENERAL	CABINETRY	R & R work to interior casework systems including cabinets, countertops, wardrobes, lockers, mail boxes, built-in bookcases, lab/work benches, reagent shelving, etc. (except as required for access by the disabled).			
IS6C	GENERAL	SCREENING	Work on temporary or partial height partitioning systems including toilet partitions, urinal/vanity screens, etc.			
IS6D	GENERAL	OTHER	Any work on interior elements not logically or specifically categorized elsewhere including light coves, phone booths, interior light wells, etc.			
SYSTEM D	SYSTEM DESCRIPTION: PLUMBING					



	CATEGORY CODE REPORT					
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION			
PL1A	DOMESTIC WATER	PIPING NETWORK	Repair or replacement of domestic water supply piping network, insulation, hangers, etc.			
PL1B	DOMESTIC WATER	PUMPS	Domestic water booster pumps, circulating pumps, related controls, etc.			
PL1C	DOMESTIC WATER	STORAGE/ TREATMENT	Equipment or vessels for storage or treatment of domestic water.			
PL1D	DOMESTIC WATER	METERING	Installation, repair, or replacement of water meters.			
PL1E	DOMESTIC WATER	HEATING	Domestic water heaters including gas, oil, and electric water heaters, shell and tube heat exchangers, tank type and instantaneous.			
PL1F	DOMESTIC WATER	COOLING	Central systems for cooling and distributing drinking water.			
PL1G	DOMESTIC WATER	FIXTURES	Plumbing fixtures including sinks, drinking fountains, water closets, urinals, etc.			
PL1H	DOMESTIC WATER	CONSERVATION	Alternations made to the water distribution system to conserve water.			
PL1I	DOMESTIC WATER	BACKFLOW PROTECTION	Backflow protection devices including backflow preventers, vacuum breakers, etc.			
PL2A	WASTEWATER	PIPING NETWORK	Repair or replacement of building wastewater piping network.			
PL2B	WASTEWATER	PUMPS	Pump systems used to lift wastewater including sewage ejectors and other sump systems.			
PL3A	SPECIAL SYSTEMS	PROCESS GAS/FLUIDS	Generation and/or distribution of process steam, compressed air, natural and LP gas, process water, vacuum, etc.			
PL4A	INFRASTRUCTURE	POTABLE WATER STORAGE/ TREATMENT	Storage and treatment of potable water for distribution.			
PL4B	INFRASTRUCTURE	INDUSTRIAL WATER DISTRIBUTION/ TREATMENT	Storage and treatment of industrial water for distribution.			
PL4C	INFRASTRUCTURE	SANITARY WATER COLLECTION	Sanitary water collection systems, sanitary sewer systems; including combined systems.			
PL4D	INFRASTRUCTURE	STORM WATER COLLECTION	Storm water collection systems, storm sewer systems; storm water only.			
PL4E	INFRASTRUCTURE	POTABLE WATER DISTRIBUTION	Potable water distribution network.			
PL4F	INFRASTRUCTURE	WASTEWATER TREATMENT	Wastewater treatment plants, associated equipment, etc.			
PL5A	GENERAL	OTHER	Plumbing issues not categorized elsewhere.			
SYSTEM DE	ESCRIPTION: SITE					
SI1A	ACCESS	PEDESTRIAN	Paved pedestrian surfaces including walks, site stairs, step ramps, paths, pedestrian signage, sidewalk bridges/canopies, pedestrian plaza/mall areas, etc.			
SI1B	ACCESS	VEHICULAR	Paved vehicular surfaces including roads, paths, curbs, guards, bollards, bridges, skyways, joints, shoulder work, culverts, ditches, vehicular signage, etc.			
SI2A	LANDSCAPE	GRADE/FLORA	Landscape related work including new grass/turf refurbishment, grade improvements, catch be swales, berms, pruning, new ornamental flora, etc.			
SI3A	HARDSCAPE	STRUCTURE	Permanent hard site features, predominantly ornamental, including terraces, fences, statues, freestanding signage, fountains, benches, etc.			
SI4A	GENERAL	OTHER	Other site work not specifically categorized elsewhere.			
SYSTEM DE	ESCRIPTION: SECURITY SYSTE	EMS				
SS1A	LIGHTING	EXTERIOR	Fixtures, stanchions, foliage interference, cleanliness, locations, etc.			



	CATEGORY CODE REPORT					
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION			
SS2A	SITE	FENCING	Perimeter campus fencing, individual building fencing, includes both pedestrian and vehicular control fences.			
SS2B	SITE	GENERAL	Hidden areas due to foliage, fencing, parking, walls, etc.			
SS3A	COMMUNICATIONS	EMERGENCY PHONES	Access, locations, visibility, function, reliability, etc.			
SS4A	ACCESS CONTROL	DOORS	Access, locks, keys, two way speakers, reliability, redundancy, etc.			
SS4B	ACCESS CONTROL	WINDOWS	Locks, screens, access, reliability, etc.			
SS4C	ACCESS CONTROL	SYSTEMS	Card key, proximity devices, data control, data use, reliability, system design, etc.			
SS5A	MONITORING	SYSTEMS	Cameras, audio communication, monitoring stations, locations, system design, etc.			
SS6A	CIRCULATION	PEDESTRIAN	On campus as well as to and from off campus housing and class locations, etc.			
SS6B	CIRCULATION	VEHICULAR	Guard gates, access, systems, data control and use, identification, etc.			
SS7A	GENERAL	OTHER	General information/projects pertaining to security issues.			
SYSTEM DE	ESCRIPTION: VERTICAL TRANS	SPORTATION				
VT1A	MACHINE ROOM	GENERAL	Machine, worm gear, thrust bearing, brake, motors, sheaves, generator, controller, selector, governor, pump(s), valves, oil, access, lighting, ventilation, floor.			
VT2A	CAR	GENERAL	Position indicator, lighting, floor, gate-doors, operation devices, safeties, safety shoe, light ray/detection, emergency light, fire fighter service, car top, door operator, stop switch, car frame, car guides, sheaves, phone, ventilation.			
VT3A	HOISTWAY	GENERAL	Enclosure, fascia, interlock, doors, hangers, closers, sheaves, rails, hoistway switches, ropes, traveling cables, selector tape, weights, compensation.			
VT4A	HALL FIXTURES	GENERAL	Operating panel, position indicator, hall buttons, lobby panel, hall lanterns, fire fighter service, audible signals, card/key access.			
VT5A	PIT	GENERAL	Buffer(s), guards, sheaves, hydro packing, floor, lighting, safety controls.			
VT6A	OPERATING CONDITIONS	GENERAL	Door open time, door close time, door thrust, acceleration, deceleration, leveling, dwell time, speed, OFR time, nudging.			
VT7A	GENERAL	OTHER	General information/projects relating to vertical transportation system components.			



# DETAILED PROJECT SUMMARIES AND TOTALS

#### **Detailed Project Totals**

#### **Facility Condition Analysis**

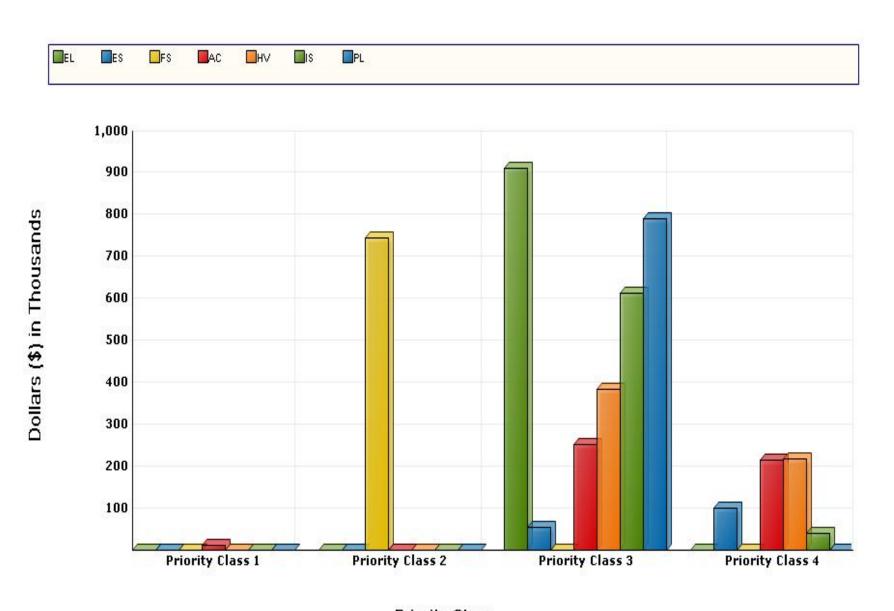
#### **System Code by Priority Class**

System	Priority Classes						
System Code	System Description	1	2	3	4	Subtotal	
AC	ACCESSIBILITY	12,146	0	252,759	214,914	479,819	
EL	ELECTRICAL	0	0	911,496	0	911,496	
ES	EXTERIOR	0	0	54,348	99,720	154,068	
FS	FIRE/LIFE SAFETY	0	746,250	0	0	746,250	
HV	HVAC	0	0	385,071	218,520	603,591	
IS	INTERIOR/FINISH SYS.	0	0	613,511	41,941	655,452	
PL	PLUMBING	0	0	791,721	0	791,721	
	TOTALS	12,146	746,250	3,008,906	575,094	4,342,395	

Facility Replacement Cost	\$25,697,000
Facility Condition Needs Index	0.17

Gross Square Feet 82,73	Total Cost Per Square Foot \$52.49
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**System Code by Priority Class** 



**Priority Class** 

## Detailed Project Totals Facility Condition Analysis

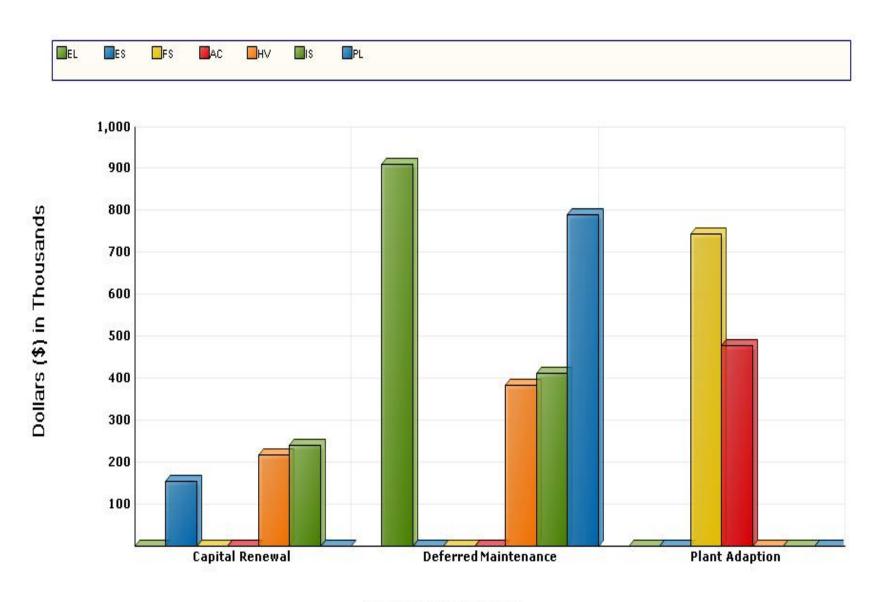
#### System Code by Project Class

System Code	System Description	Captial Renewal	Deferred Maintenance	Plant Adaption	Subtotal
AC	ACCESSIBILITY	0	0	479,819	479,819
EL	ELECTRICAL	0	911,496	0	911,496
ES	EXTERIOR	154,068	0	0	154,068
FS	FIRE/LIFE SAFETY	0	0	746,250	746,250
HV	HVAC	218,520	385,071	0	603,591
IS	INTERIOR/FINISH SYS.	240,536	414,916	0	655,452
PL	PLUMBING	0	791,721	0	791,721
	TOTALS	613,124	2,503,203	1,226,068	4,342,395

Facility Replacement Cost	\$25,697,000
Facility Condition Needs Index	0.17

Gross Square Feet	82,731	Total Cost Per Square Foot	\$52.49

## **System Code by Project Class**



**Project Classification** 

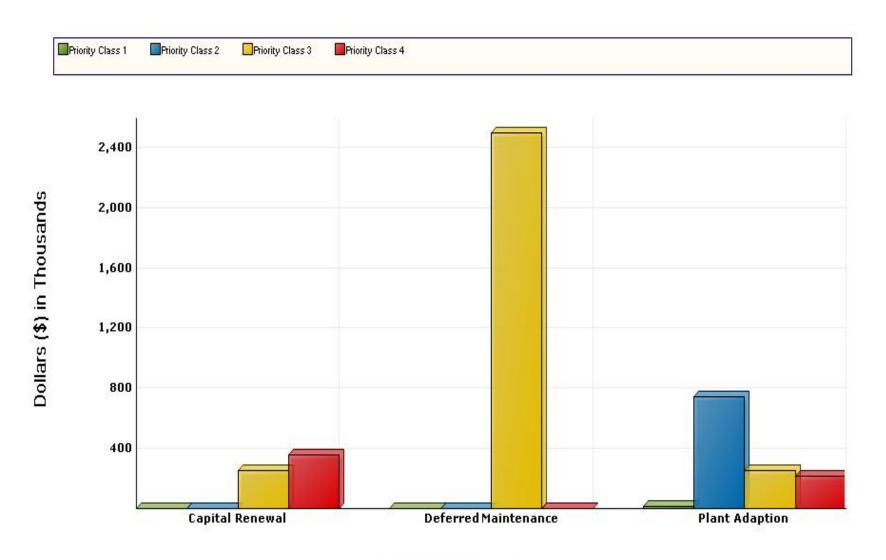
#### Detailed Project Summary Facility Condition Analysis Project Class by Priority Class

	Priority Classes							
Project Class	1	2	3	4	Subtotal			
Capital Renewal	0	0	252,944	360,181	613,124			
Deferred Maintenance	0	0	2,503,203	0	2,503,203			
Plant Adaption	12,146	746,250	252,759	214,914	1,226,068			
TOTALS	12,146	746,250	3,008,906	575,094	4,342,395			

Facility Replacement Cost	\$25,697,000
Facility Condition Needs Index	0.17

Gross Square Feet	82,731	Total Cost Per Square Foot	\$52.49
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## **Project Class by Priority Class**



**Project Classification** 

#### Detailed Project Summary Facility Condition Analysis

#### **Priority Class - Priority Sequence**

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC2A	GREEAC05	1	1	BUILDING ENTRY ACCESSIBILITY UPGRADES	12,146	0	12,146
				Totals for Priority Class 1	12,146		12,146
FS3A	GREEFS01	2	2	FIRE SPRINKLER SYSTEM INSTALLATION	643,319	102,931	746,250
				Totals for Priority Class 2	643,319	102,931	746,250
AC4A	GREEAC06	3	3	INTERIOR AMENITY ACCESSIBILITY UPGRADES	39,438	6,310	45,748
AC4A	GREEAC02	3	4	ACCESSIBILITY UPGRADES FOR RESIDENTIAL FACILITIES	39,324	6,292	45,616
AC3B	GREEAC04	3	5	STAIR AND RAILING SAFETY UPGRADES	139,134	22,261	161,395
ES4B	GREEES03	3	6	MEMBRANE ROOF REPLACEMENT	46,852	7,496	54,348
HV5A	GREEHV01	3	7	REPLACE HYDRONIC HEATING SYSTEM	331,958	53,113	385,071
EL5A	GREEEL01	3	8	REPLACE EMERGENCY GENERATOR	65,305	10,449	75,754
EL3B	GREEEL03	3	9	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	525,061	84,010	609,071
EL4B	GREEEL02	3	10	INTERIOR LIGHTING UPGRADE	195,406	31,265	226,671
IS1A	GREEIS01	3	11	REFINISH FLOORING	357,686	57,230	414,916
IS2B	GREEIS02	3	12	REFINISH WALLS	198,595	0	198,595
PL1A	GREEPL02	3	13	WATER SUPPLY PIPING REPLACEMENT	259,116	41,459	300,575
PL2A	GREEPL03	3	14	DRAIN PIPING REPLACEMENT	393,324	62,932	456,256
PL1E	GREEPL01	3	15	DOMESTIC HOT WATER HEAT EXCHANGER REPLACEMENT	30,077	4,812	34,889
				Totals for Priority Class 3	2,621,277	387,629	3,008,906
AC3E	GREEAC03	4	16	RESTROOM ACCESSIBILITY UPGRADES	42,346	6,775	49,122
AC4B	GREEAC01	4	17	INTERIOR SIGNAGE AND DOOR HARDWARE UPGRADES	142,924	22,868	165,792
ES5A	GREEES01	4	18	EXTERIOR DOOR REPLACEMENT	14,483	2,317	16,801
ES5B	GREEES02	4	19	WINDOW REPLACEMENT	71,482	11,437	82,919
HV2B	GREEHV02	4	20	MODULAR COOLING EQUIPMENT REPLACEMENT	188,379	30,141	218,520
IS3B	GREEIS03	4	21	REFINISH CEILINGS	41,941	0	41,941
				Totals for Priority Class 4	501,556	73,538	575,094
				Grand Total:	3,778,297	564,098	4,342,395

#### Detailed Project Summary Facility Condition Analysis Project Cost Range

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC2A	GREEAC05	1	1	BUILDING ENTRY ACCESSIBILITY UPGRADES	12,146	0	12,146
				Totals for Priority Class 1	12,146		12,146
EL5A	GREEEL01	3	8	REPLACE EMERGENCY GENERATOR	65,305	10,449	75,754
PL1E	GREEPL01	3	15	DOMESTIC HOT WATER HEAT EXCHANGER REPLACEMENT	30,077	4,812	34,889
AC4A	GREEAC02	3	4	ACCESSIBILITY UPGRADES FOR RESIDENTIAL FACILITIES	39,324	6,292	45,616
AC4A	GREEAC06	3	3	INTERIOR AMENITY ACCESSIBILITY UPGRADES	39,438	6,310	45,748
ES4B	GREEES03	3	6	MEMBRANE ROOF REPLACEMENT	46,852	7,496	54,348
				Totals for Priority Class 3	220,996	35,359	256,355
AC3E	GREEAC03	4	16	RESTROOM ACCESSIBILITY UPGRADES	42,346	6,775	49,122
ES5A	GREEES01	4	18	EXTERIOR DOOR REPLACEMENT	14,483	2,317	16,801
ES5B	GREEES02	4	19	WINDOW REPLACEMENT	71,482	11,437	82,919
IS3B	GREEIS03	4	21	REFINISH CEILINGS	41,941	0	41,941
				Totals for Priority Class 4	170,253	20,530	190,783
				Grand Totals for Projects < 100,000	403,395	55,889	459,284

#### **Detailed Project Summary Facility Condition Analysis Project Cost Range**

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
HV5A	GREEHV01	3	7	REPLACE HYDRONIC HEATING SYSTEM	331,958	53,113	385,071
EL4B	GREEEL02	3	10	INTERIOR LIGHTING UPGRADE	195,406	31,265	226,671
PL1A	GREEPL02	3	13	WATER SUPPLY PIPING REPLACEMENT	259,116	41,459	300,575
PL2A	GREEPL03	3	14	DRAIN PIPING REPLACEMENT	393,324	62,932	456,256
AC3B	GREEAC04	3	5	STAIR AND RAILING SAFETY UPGRADES	139,134	22,261	161,395
IS1A	GREEIS01	3	11	REFINISH FLOORING	357,686	57,230	414,916
IS2B	GREEIS02	3	12	REFINISH WALLS	198,595	0	198,595
				Totals for Priority Class 3	1,875,220	268,260	2,143,480
HV2B	GREEHV02	4	20	MODULAR COOLING EQUIPMENT REPLACEMENT	188,379	30,141	218,520
AC4B	GREEAC01	4	17	INTERIOR SIGNAGE AND DOOR HARDWARE UPGRADES	142,924	22,868	165,792
				Totals for Priority Class 4	331,303	53,008	384,312
				Grand Totals for Projects >= 100,000 and < 500,000	2,206,523	321,268	2,527,791

#### Detailed Project Summary Facility Condition Analysis

### Project Cost Range

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS3A	GREEFS01	2	2	FIRE SPRINKLER SYSTEM INSTALLATION	643,319	102,931	746,250
				Totals for Priority Class 2	643,319	102,931	746,250
EL3B	GREEEL03	3	9	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	525,061	84,010	609,071
				Totals for Priority Class 3	525,061	84,010	609,071
				Grand Totals for Projects >= 500,000	1,168,380	186,941	1,355,321
				Grand Totals For All Projects:	3,778,297	564,098	4,342,395

#### Detailed Project Summary Facility Condition Analysis Project Classification

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
ES4B	GREEES03	6	Capital Renewal	3	MEMBRANE ROOF REPLACEMENT	54,348
IS2B	GREEIS02	12	Capital Renewal	3	REFINISH WALLS	198,595
ES5A	GREEES01	18	Capital Renewal	4	EXTERIOR DOOR REPLACEMENT	16,801
ES5B	GREEES02	19	Capital Renewal	4	WINDOW REPLACEMENT	82,919
HV2B	GREEHV02	20	Capital Renewal	4	MODULAR COOLING EQUIPMENT REPLACEMENT	218,520
IS3B	GREEIS03	21	Capital Renewal	4	REFINISH CEILINGS	41,941
					Totals for Capital Renewal	613,124
HV5A	GREEHV01	7	Deferred Maintenance	3	REPLACE HYDRONIC HEATING SYSTEM	385,071
EL5A	GREEEL01	8	Deferred Maintenance	3	REPLACE EMERGENCY GENERATOR	75,754
EL3B	GREEEL03	9	Deferred Maintenance	3	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	609,071
EL4B	GREEEL02	10	Deferred Maintenance	3	INTERIOR LIGHTING UPGRADE	226,671
IS1A	GREEIS01	11	Deferred Maintenance	3	REFINISH FLOORING	414,916
PL1A	GREEPL02	13	Deferred Maintenance	3	WATER SUPPLY PIPING REPLACEMENT	300,575
PL2A	GREEPL03	14	Deferred Maintenance	3	DRAIN PIPING REPLACEMENT	456,256
PL1E	GREEPL01	15	Deferred Maintenance	3	DOMESTIC HOT WATER HEAT EXCHANGER REPLACEMENT	34,889
					Totals for Deferred Maintenance	2,503,203
AC2A	GREEAC05	1	Plant Adaption	1	BUILDING ENTRY ACCESSIBILITY UPGRADES	12,146
FS3A	GREEFS01	2	Plant Adaption	2	FIRE SPRINKLER SYSTEM INSTALLATION	746,250
AC4A	GREEAC06	3	Plant Adaption	3	INTERIOR AMENITY ACCESSIBILITY UPGRADES	45,748
AC4A	GREEAC02	4	Plant Adaption	3	ACCESSIBILITY UPGRADES FOR RESIDENTIAL FACILITIES	45,616
AC3B	GREEAC04	5	Plant Adaption	3	STAIR AND RAILING SAFETY UPGRADES	161,395
AC3E	GREEAC03	16	Plant Adaption	4	RESTROOM ACCESSIBILITY UPGRADES	49,122
AC4B	GREEAC01	17	Plant Adaption	4	INTERIOR SIGNAGE AND DOOR HARDWARE UPGRADES	165,792
					Totals for Plant Adaption	1,226,068
					Grand Total:	4,342,395

#### Detailed Project Summary Facility Condition Analysis

#### **Energy Conservation**

Cat Code	Project Number	Pri Cls	Pri Seq	Project Title	Total Cost	Annual Savings	Simple Payback
ES4B	GREEES03	3	6	MEMBRANE ROOF REPLACEMENT	54,348	700	77.64
EL4B	GREEEL02	3	10	INTERIOR LIGHTING UPGRADE	226,671	7,900	28.69
				Totals for Priority Class 3	281,019	8,600	32.68
ES5B	GREEES02	4	19	WINDOW REPLACEMENT	82,919	200	414.6
				Totals for Priority Class 4	82,919	200	414.6
				Grand Total:	363,938	8,800	41.36

#### Detailed Project Summary Facility Condition Analysis

#### Category/System Code

Cat. Code	Project Number		Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC2A	GREEAC05	1	1	BUILDING ENTRY ACCESSIBILITY UPGRADES	12,146	0	12,146
AC4A	GREEAC06	3	3	INTERIOR AMENITY ACCESSIBILITY UPGRADES	39,438	6,310	45,748
AC4A	GREEAC02	3	4	ACCESSIBILITY UPGRADES FOR RESIDENTIAL FACILITIES	39,324	6,292	45,616
AC3B	GREEAC04	3	5	STAIR AND RAILING SAFETY UPGRADES	139,134	22,261	161,395
AC3E	GREEAC03	4	16	RESTROOM ACCESSIBILITY UPGRADES	42,346	6,775	49,122
AC4B	GREEAC01	4	17	INTERIOR SIGNAGE AND DOOR HARDWARE UPGRADES	142,924	22,868	165,792
				Totals for System Code: ACCESSIBILITY	415,312	64,507	479,819
EL5A	GREEEL01	3	8	REPLACE EMERGENCY GENERATOR	65,305	10,449	75,754
EL3B	GREEEL03	3	9	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	525,061	84,010	609,071
EL4B	GREEEL02	3	10	INTERIOR LIGHTING UPGRADE	195,406	31,265	226,671
				Totals for System Code: ELECTRICAL	785,772	125,724	911,496
ES4B	GREEES03	3	6	MEMBRANE ROOF REPLACEMENT	46,852	7,496	54,348
ES5A	GREEES01	4	18	EXTERIOR DOOR REPLACEMENT	14,483	2,317	16,801
ES5B	GREEES02	4	19	WINDOW REPLACEMENT	71,482	11,437	82,919
				Totals for System Code: EXTERIOR	132,817	21,251	154,068
FS3A	GREEFS01	2	2	FIRE SPRINKLER SYSTEM INSTALLATION	643,319	102,931	746,250
				Totals for System Code: FIRE/LIFE SAFETY	643,319	102,931	746,250
HV5A	GREEHV01	3	7	REPLACE HYDRONIC HEATING SYSTEM	331,958	53,113	385,071
HV2B	GREEHV02	4	20	MODULAR COOLING EQUIPMENT REPLACEMENT	188,379	30,141	218,520
				Totals for System Code: HVAC	520,337	83,254	603,591
IS1A	GREEIS01	3	11	REFINISH FLOORING	357,686	57,230	414,916
IS2B	GREEIS02	3	12	REFINISH WALLS	198,595	0	198,595
IS3B	GREEIS03	4	21	REFINISH CEILINGS	41,941	0	41,941
				Totals for System Code: INTERIOR/FINISH SYS.	598,222	57,230	655,452
PL1A	GREEPL02	3	13	WATER SUPPLY PIPING REPLACEMENT	259,116	41,459	300,575
PL2A	GREEPL03	3	14	DRAIN PIPING REPLACEMENT	393,324	62,932	456,256
PL1E	GREEPL01	3	15	DOMESTIC HOT WATER HEAT EXCHANGER REPLACEMENT	30,077	4,812	34,889
				Totals for System Code: PLUMBING	682,518	109,203	791,721
				Grand Total:	3,778,297	564,098	4,342,395

### **FACILITY CONDITION ANALYSIS**



# SPECIFIC PROJECT DETAILS ILLUSTRATING DESCRIPTION / COST

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Description**

Project Number: GREEAC05 Title: BUILDING ENTRY ACCESSIBILITY

**UPGRADES** 

Priority Sequence: 1

Priority Class: 1

Category Code: AC2A System: ACCESSIBILITY

Component: BUILDING ENTRY

Element: GENERAL

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: ADAAG 403.6, 505

Project Class: Plant Adaption

**Project Date:** 10/21/2009

Project

Location: Undefined: Floor(s) 1

#### **Project Description**

Current legislation related to accessibility requires that building entrances be wheelchair accessible. There are several sidewalk locations immediately adjacent to the building and leading to the building that have exterior steps that require handrails to be installed in accordance with handicapped accessibility guidelines. To comply with the intent of this legislation, it is recommended that compliant painted metal handrails be installed at the sidewalk steps leading to the facility from the northwest as required.

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Cost**

Project Number: GREEAC05

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Freestanding handrail system, painted (15 feet minimum)	LF	60	\$91.11	\$5,467	\$150	\$9,000	\$14,467
Project Total	s:			\$5,467		\$9,000	\$14,467

Material/Labor Cost	\$14,467
Material Index	100.7%
Labor Index	51.3%
Material/Labor Indexed Cost	\$10,122
General Contractor Mark Up at 20.0%	+ \$2,024
Construction Cost	\$12,146
No Professional Fees Required	
Total Project Cost	\$12,146

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Description**

Project Number: GREEFS01 Title: FIRE SPRINKLER SYSTEM INSTALLATION

Priority Sequence: 2

Priority Class: 2

Category Code: FS3A System: FIRE/LIFE SAFETY

Component: SUPPRESSION

Element: SPRINKLERS

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: NFPA 1, 13, 13R, 101

Project Class: Plant Adaption
Project Date: 10/14/2009

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Project

**Location:** Floor-wide: Floor(s) 1, 10, 2, 3, 4, 5, 6, 7, 8, 9

#### **Project Description**

Install an automatic fire sprinkler system in unprotected areas throughout the facility. This includes piping, valves, sprinkler heads, and piping supports. Install flow switches and sensors to interface with the fire alarm system. Cost has been included in this project for the installation of a fire pump if necessary.

## Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Cost**

Project Number: GREEFS01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Install wet-pipe sprinkler system, including valves, piping, sprinkler heads, piping supports, etc.	SF	82,731	\$3.08	\$254,811	\$3.77	\$311,896	\$566,707
Fire pump, controls, piping, valves, and connections	GPM	1,000	\$115	\$115,410	\$6.40	\$6,400	\$121,810
Project Totals	:			\$370,221		\$318,296	\$688,517

Material/Labor Cost		\$688,517
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$536,099
General Contractor Mark Up at 20.0%	+	\$107,220
Construction Cost		\$643,319
Professional Fees at 16.0%	+	\$102,931
Total Project Cost		\$746,250

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Description**

Project Number: GREEAC06 Title: INTERIOR AMENITY ACCESSIBILITY

**UPGRADES** 

Priority Sequence: 3

Priority Class: 3

Category Code: AC4A System: ACCESSIBILITY

Component: GENERAL

Element: FUNCTIONAL SPACE MOD.

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: ADAAG 211, 602, 804

Project Class: Plant Adaption

**Project Date:** 10/21/2009

Project

**Location:** Floor-wide: Floor(s) 1, 10, 2, 3, 4, 5, 6, 7, 8, 9

#### **Project Description**

Current accessibility legislation requires that building amenities be generally accessible to all persons. The configurations of the first floor's common kitchenette and the drinking fountains located on each floor are barriers to accessibility. The installation of wheelchair-accessible kitchenette cabinetry is recommended where applicable. All single level drinking fountains throughout the building should be replaced with dual level, refrigerated units.

## Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Cost**

Project Number: GREEAC06

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
ADA compliant kitchenette unit with base cabinetry, overhead cabinetry, and amenities	SYS	1	\$4,894	\$4,894	\$1,999	\$1,999	\$6,893
Dual level drinking fountain	EA	19	\$1,216	\$23,104	\$374	\$7,106	\$30,210
Project Totals	:	1		\$27,998	'	\$9,105	\$37,103

Material/Labor Cost		\$37,103
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$32,865
General Contractor Mark Up at 20.0%	+	\$6,573
Construction Cost		\$39,438
Professional Fees at 16.0%	+	\$6,310
Total Project Cost		\$45,748

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Description**

Project Number: GREEAC02 Title: ACCESSIBILITY UPGRADES FOR

RESIDENTIAL FACILITIES

Priority Sequence: 4

Priority Class: 3

Category Code: AC4A System: ACCESSIBILITY

Component: GENERAL

Element: FUNCTIONAL SPACE MOD.

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Not Applicable

**Code Application:** ADAAG 224, 806.1, 603, 604, 605, 606, 607, 608

Project Class: Plant Adaption

Project Date: 10/20/2009

Project

Location: Undefined: Floor(s) 2

#### **Project Description**

There are minimal handicapped accessible features within this residential facility primarily aimed at handicapped guests. A handicapped accessible unisex restroom is located on the first floor by the mailroom, and some minor modifications have been made within the bathrooms on each floor. Provisions for resident accessibility for this facility are recommended. These should include the installation of ADA compliant signage, a wheelchair accessible bathroom facility, accessible storage space, specialized alarms, lever door hardware, and the adaptation of a sleeping room. To comply with the intent of the current accessibility legislation, it is recommended that at least two residential units be converted within this facility.

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Cost**

Project Number: GREEAC02

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Sleeping room specialty alarms, etc.	SYS	2	\$3,176	\$6,352	\$1,635	\$3,270	\$9,622
Bathroom accessibility upgrade	SYS	2	\$8,420	\$16,840	\$7,542	\$15,084	\$31,924
Project Total	als:			\$23,192		\$18,354	\$41,546

Material/Labor Cost		\$41,546
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$32,770
General Contractor Mark Up at 20.0%	+	\$6,554
Construction Cost		\$39,324
Professional Fees at 16.0%	+	\$6,292
Total Project Cost		\$45,616

### Facility Condition Analysis Section Three

**GREE: GREENE RESIDENCE HALL** 

#### **Project Description**

Project Number: GREEAC04 Title: STAIR AND RAILING SAFETY UPGRADES

Priority Sequence: 5
Priority Class: 3

Category Code: AC3B System: ACCESSIBILITY

Component: INTERIOR PATH OF TRAVEL

Element: STAIRS AND RAILINGS

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: IBC 1003.3

ADAAG 505

Project Class: Plant Adaption

**Project Date:** 10/20/2009

Project

**Location:** Floor-wide: Floor(s) 1, 10, 2, 3, 4, 5, 6, 7, 8, 9

#### **Project Description**

Current legislation regarding building accessibility by the handicapped requires that stairs have graspable handrails on both sides, that the rails have specific cross-sectional geometry, and that the handrails continue horizontally at the landings with extensions. In addition, guardrails must prevent the passage of a 4 inch diameter sphere (6 inches in the triangle formed by the lower rail and tread / riser angle). Although the stairs are compliant with the code enforced at the time of construction until a major renovation occurs, they are deficient in handrail and guardrail design relative to current standards. Future renovation efforts should include comprehensive stair railing upgrades.

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Cost**

Project Number: GREEAC04

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Wall-mounted handrail system per floor	FLR	18	\$573	\$10,314	\$521	\$9,378	\$19,692
Center handrail / guardrail system per floor	FLR	18	\$1,297	\$23,346	\$833	\$14,994	\$38,340
Railing system up to 42 inches high with pickets at 4-1/2 inches on center	LF	550	\$107	\$58,850	\$36.45	\$20,048	\$78,898
Project Totals	:			\$92,510		\$44,420	\$136,930

Material/Labor Cost		\$136,930
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$115,945
General Contractor Mark Up at 20.0%	+	\$23,189
Construction Cost		\$139,134
Professional Fees at 16.0%	+	\$22,261
Total Project Cost		\$161,395

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Description**

Project Number: GREES03 Title: MEMBRANE ROOF REPLACEMENT

Priority Sequence: 6

Priority Class: 3

Category Code: ES4B System: EXTERIOR

Component: ROOF

Element: REPLACEMENT

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Energy Conservation \$700

Code Application: Not Applicable

Project Class: Capital Renewal

**Project Date:** 10/21/2009

Project

Location: Floor-wide: Floor(s) R

#### **Project Description**

The flat single ply membrane roofing system is not expected to outlast the scope of this analysis. Future budget modeling should include a provision for the replacement of the entire roofing system in the next ten years. Replace this roof with a similar application or the campus standard.

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Cost**

Project Number: GREEES03

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Membrane roof	SF	8,300	\$3.79	\$31,457	\$1.73	\$14,359	\$45,816
F	Project Totals:			\$31,457		\$14,359	\$45,816

Total Project Cost		\$54,348
Professional Fees at 16.0%	+	\$7,496
Construction Cost		\$46,852
General Contractor Mark Up at 20.0%	+	\$7,809
Material/Labor Indexed Cost		\$39,043
Labor Index		51.3%
Material Index		100.7%
Material/Labor Cost		\$45,816

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Description**

Project Number: GREEHV01 Title: REPLACE HYDRONIC HEATING SYSTEM

Priority Sequence: 7

Priority Class: 3

Category Code: HV5A System: HVAC

Component: STEAM/HYDRONIC DISTRIB.

Element: PIPING NETWORK

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: Not Applicable

Project Class: Deferred Maintenance

**Project Date:** 10/14/2009

Project

**Location:** Floor-wide: Floor(s) 10, 2, 3, 4, 5, 6, 7, 8, 9

#### **Project Description**

Remove the existing hydronic heating system. Install a new hydronic heating system, including piping, insulation, valves, radiators, unit heaters, and controls.

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Cost**

Project Number: GREEHV01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Replace hydronic heating system including piping, radiators, unit heaters, and demolition	SF	51,626	\$3.10	\$160,041	\$4.36	\$225,089	\$385,130
Project Totals	 S:			\$160.041		\$225.089	\$385,130

Material/Labor Cost		\$385,130
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$276,632
General Contractor Mark Up at 20.0%	+	\$55,326
Construction Cost		\$331,958
Professional Fees at 16.0%	+	\$53,113
Total Project Cost		\$385,071

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Description**

Project Number: GREEL01 Title: REPLACE EMERGENCY GENERATOR

Priority Sequence: 8

Priority Class: 3

Category Code: EL5A System: ELECTRICAL

Component: EMERGENCY POWER SYSTEM

Element: GENERATION/DISTRIBUTION

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: NEC Article 700

Project Class: Deferred Maintenance

**Project Date:** 10/14/2009

Project

Location: Item Only: Floor(s) 1

#### **Project Description**

Replace the existing emergency generator set with an appropriately sized unit based on current facility requirements. Replacement costs include the demolition of existing equipment and installation a new generator, automatic transfer switches (ATS), diesel fuel tank, battery and charger, exhaust system, and necessary electrical connections. Specify a diesel-fired unit unless otherwise directed by local standards.

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Cost**

Project Number: GREEEL01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Diesel generator set, including fuel tank, battery, charger, exhaust, and automatic transfer switches	KW	150	\$318	\$47,700	\$83.00	\$12,450	\$60,150
Project Totals				\$47,700		\$12,450	\$60,150

Material/Labor Cost		\$60,150
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$54,421
General Contractor Mark Up at 20.0%	+	\$10,884
Construction Cost		\$65,305
Professional Fees at 16.0%	+	\$10,449
Total Project Cost		\$75,754

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Description**

Project Number: GREEL03 Title: UPGRADE ELECTRICAL DISTRIBUTION

**NETWORK** 

Priority Sequence: 9

Priority Class: 3

Category Code: EL3B System: ELECTRICAL

Component: SECONDARY DISTRIBUTION

Element: DISTRIBUTION NETWORK

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: NEC Articles 110, 210, 220, 230

Project Class: Deferred Maintenance

**Project Date:** 10/14/2009

Project

**Location:** Floor-wide: Floor(s) 1, 10, 2, 3, 4, 5, 6, 7, 8, 9

#### **Project Description**

An upgrade of the building electrical system is recommended. Aging components, such as the circuit breakers, could serve as fire hazards if they fail to open a circuit in an overload or short circuit condition. Remove existing aged electrical components and branch circuitry. Install new power panels, switches, raceways, conductors, and devices. Provide molded case thermal magnetic circuit breakers and HACR circuit breakers for HVAC equipment. Redistribute the electrical loads to the appropriate areas to ensure safe and reliable power to building occupants. Provide ground fault circuit interrupter (GFCI) protection where required, and clearly label all panels for circuit identification.

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Cost**

Project Number: GREEEL03

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Power panels, conductors, raceways, devices, demolition, and cut and patching materials	SF	82,731	\$2.98	\$246,538	\$4.46	\$368,980	\$615,519
Project Totals	:			\$246,538		\$368,980	\$615,519

Material/Labor Cost		\$615,519
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$437,551
General Contractor Mark Up at 20.0%	+	\$87,510
Construction Cost		\$525,061
Professional Fees at 16.0%	+	\$84,010
Total Project Cost		\$609,071

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Description**

Project Number: GREEL02 Title: INTERIOR LIGHTING UPGRADE

Priority Sequence: 10

Priority Class: 3

Category Code: EL4B System: ELECTRICAL

Component: DEVICES AND FIXTURES

Element: INTERIOR LIGHTING

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Energy Conservation \$7,900

Code Application: NEC Articles 210, 410

Project Class: Deferred Maintenance

**Project Date:** 10/14/2009

**Project** 

**Location:** Floor-wide: Floor(s) 10, 2, 3, 4, 5, 6, 7, 8, 9

#### **Project Description**

An interior lighting upgrade is recommended. Replace existing aged and / or inefficient light fixtures with modern fixtures of the latest energy-efficient design. Select lamps with the same color temperature and rendering index for lighting uniformity. Install occupancy sensors in select areas for additional energy conservation.

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Cost**

Project Number: GREEEL02

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
High efficiency fluorescent fixtures, occupancy sensors, and demolition of existing lighting	SF	51,626	\$1.93	\$99,638	\$2.36	\$121,837	\$221,476
Project Total	ls:			\$99.638	,	\$121.837	\$221,476

Material/Labor Cost		\$221,476
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$162,838
General Contractor Mark Up at 20.0%	+	\$32,568
Construction Cost		\$195,406
Professional Fees at 16.0%	+	\$31,265
Total Project Cost		\$226,671

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Description**

Project Number: GREEIS01 Title: REFINISH FLOORING

Priority Sequence: 11

Priority Class: 3

Category Code: IS1A System: INTERIOR/FINISH SYS.

Component: FLOOR

Element: FINISHES-DRY

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: Not Applicable

Project Class: Deferred Maintenance

**Project Date:** 10/20/2009

**Project** 

**Location:** Floor-wide: Floor(s) 1, 10, 2, 3, 4, 5, 6, 7, 8, 9

#### **Project Description**

The common areas within the facility, such as the corridors, study lounges, social rooms, and the coordinator's office, are generally carpeted, with the exception of the first floor common areas, including the living, recreation, and vending rooms, which are primarily terrazzo. The individual dormitory rooms have vinyl floor tile, along with the laundries and housekeeping space. Carpet and vinyl tile floor finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts. The ceramic tile applications within the bathrooms appear to be sound and should provide satisfactory service over the next ten years.

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Cost**

Project Number: GREEIS01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Carpet	SF	26,470	\$5.36	\$141,879	\$2.00	\$52,940	\$194,819
Vinyl floor tile	SF	26,470	\$3.53	\$93,439	\$2.50	\$66,175	\$159,614
	Project Totals:			\$235,318		\$119,115	\$354,433

Material/Labor Cost		\$354,433
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$298,072
General Contractor Mark Up at 20.0%	+	\$59,614
Construction Cost		\$357,686
Professional Fees at 16.0%	+	\$57,230
Total Project Cost		\$414,916

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Description**

Project Number: GREEIS02 Title: REFINISH WALLS

Priority Sequence: 12

Priority Class: 3

Category Code: IS2B System: INTERIOR/FINISH SYS.

Component: PARTITIONS

Element: FINISHES

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: Not Applicable

Project Class: Capital Renewal

**Project Date:** 10/20/2009

Project

**Location:** Floor-wide: Floor(s) 1, 10, 2, 3, 4, 5, 6, 7, 8, 9

#### **Project Description**

The interior walls are all painted and constructed of either masonry block or sheetrock partitions. Wall finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Cost**

Project Number: GREEIS02

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Standard wall finish (paint, wall covering, etc.)	SF	282,070	\$0.17	\$47,952	\$0.81	\$228,477	\$276,429
Project Totals	:			\$47,952		\$228,477	\$276,429

Material/Labor Cost		\$276,429
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$165,496
General Contractor Mark Up at 20.0%	+	\$33,099
Construction Cost		\$198,595
No Professional Fees Required		
Total Project Cost		\$198,595

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Description**

Project Number: GREEPL02 Title: WATER SUPPLY PIPING REPLACEMENT

Priority Sequence: 13

Priority Class: 3

Category Code: PL1A System: PLUMBING

Component: DOMESTIC WATER

Element: PIPING NETWORK

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: IPC Chapter 6

Project Class: Deferred Maintenance

**Project Date:** 10/14/2009

Project

**Location:** Floor-wide: Floor(s) 1, 10, 2, 3, 4, 5, 6, 7, 8, 9

#### **Project Description**

The replacement of the aging water piping network is recommended. Failure to replace the water piping will result in frequent leaks and escalating maintenance costs. Remove the existing water supply network. Install new copper water supply piping with fiberglass insulation. Install isolation valves, pressure regulators, shock absorbers, backflow preventers, and vacuum breakers as needed.

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Cost**

Project Number: GREEPL02

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Copper pipe and fittings, valves, backflow prevention devices, insulation, hangers, demolition, and cut and patching materials	SF	82,731	\$1.14	\$94,313	\$2.85	\$235,783	\$330,097
Project Totals:	:			\$94.313	-	\$235.783	\$330.097

Material/Labor Cost		\$330,097
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$215,930
General Contractor Mark Up at 20.0%	+	\$43,186
Construction Cost		\$259,116
Professional Fees at 16.0%	+	\$41,459
Total Project Cost		\$300,575

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Description**

Project Number: GREEPL03 Title: DRAIN PIPING REPLACEMENT

Priority Sequence: 14

Priority Class: 3

Category Code: PL2A System: PLUMBING

Component: WASTEWATER

Element: PIPING NETWORK

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: IPC Chapters 7-11

Project Class: Deferred Maintenance

**Project Date:** 10/14/2009

Project

**Location:** Floor-wide: Floor(s) 1, 10, 2, 3, 4, 5, 6, 7, 8, 9

#### **Project Description**

The replacement of the aging drain piping is recommended throughout the facility. Failure to replace the old piping will result in frequent leaks and escalating maintenance costs. Remove sanitary and storm drain piping as needed. Install new cast-iron drain piping networks with copper runouts to the fixtures. Install new floor drains, roof drains, and traps.

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Cost**

Project Number: GREEPL03

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Cast-iron drain piping and fittings, copper pipe and fittings, floor / roof drains, traps, hangers, demolition, and cut and patching materials	SF	82,731	\$1.81	\$149,743	\$4.17	\$344,988	\$494,731
Project Totals:	:			\$149,743		\$344.988	\$494.731

Material/Labor Cost		\$494,731
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$327,770
General Contractor Mark Up at 20.0%	+	\$65,554
Construction Cost		\$393,324
Professional Fees at 16.0%	+	\$62,932
Total Project Cost		\$456,256

### Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Description**

Project Number: GREEPL01 Title: DOMESTIC HOT WATER HEAT EXCHANGER

**REPLACEMENT** 

Priority Sequence: 15

Priority Class: 3

Category Code: PL1E System: PLUMBING

Component: DOMESTIC WATER

Element: HEATING

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: Not Applicable

Project Class: Deferred Maintenance

**Project Date:** 10/14/2009

Project

Location: Item Only: Floor(s) 1

#### **Project Description**

The replacement of the domestic hot water converters is recommended. With age, heat exchanger efficiency is reduced by internal tube scaling. Internal wear will eventually lead to failure, allowing contaminates to enter the water system. Remove the existing systems. Install new heat exchangers, pumps, piping, and controls as needed.

## Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

### **Project Cost**

Project Number: GREEPL01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Heat exchanger, pumps, piping, valves, controls, insulation, and demolition	GPM	96	\$183	\$17,578	\$150	\$14,354	\$31,932
Project Totals	 ::			\$17.578		\$14.354	\$31.932

Material/Labor Cost		\$31,932
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$25,064
General Contractor Mark Up at 20.0%	+	\$5,013
<b>Construction Cost</b>		\$30,077
Professional Fees at 16.0%	+	\$4,812
Total Project Cost		\$34,889

## Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Description**

Project Number: GREEAC03 Title: RESTROOM ACCESSIBILITY UPGRADES

Priority Sequence: 16

Priority Class: 4

Category Code: AC3E System: ACCESSIBILITY

Component: INTERIOR PATH OF TRAVEL

Element: RESTROOMS/BATHROOMS

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Not Applicable

**Code Application:** ADAAG 604, 605, 606, 607, 608

Project Class: Plant Adaption

**Project Date:** 10/20/2009

**Project** 

**Location:** Floor-wide: Floor(s) 10, 2, 3, 4, 5, 6, 7, 8, 9

### **Project Description**

The overall level of bathroom accessibility is good but short of full compliance with modern accessibility legislation. While the clearances and clear floor spaces are adequate, compliant mirrors and new accessible plumbing fixtures are recommended over the next ten years in the common bathrooms on floors two through ten.

## Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

### **Project Cost**

Project Number: GREEAC03

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Mirror	EA	9	\$292	\$2,628	\$224	\$2,016	\$4,644
ADA compliant plumbing fixture	EA	27	\$810	\$21,870	\$692	\$18,684	\$40,554
Project T	otals:			\$24,498		\$20,700	\$45,198

Material/Labor Cost		\$45,198
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$35,289
General Contractor Mark Up at 20.0%	+	\$7,058
Construction Cost		\$42,346
Professional Fees at 16.0%	+	\$6,775
Total Project Cost		\$49,122

## Facility Condition Analysis Section Three

**GREE: GREENE RESIDENCE HALL** 

#### **Project Description**

Project Number: GREEAC01 Title: INTERIOR SIGNAGE AND DOOR HARDWARE

**UPGRADES** 

Priority Sequence: 17

Priority Class: 4

Category Code: AC4B System: ACCESSIBILITY

Component: GENERAL

Element: OTHER

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: ADAAG 309.4, 703.1

Project Class: Plant Adaption

**Project Date:** 10/20/2009

Project

**Location:** Floor-wide: Floor(s) 1, 10, 2, 3, 4, 5, 6, 7, 8, 9, R

#### **Project Description**

While the interior doors are suitable for ten future years of service, the knob actuated door hardware presents a barrier to accessibility. Accessibility legislation requires that door hardware be designed for operation by people with little or no ability to grasp objects with their hands. To comply with the intent of this legislation, it is recommended that lever handle door hardware be installed on all doors that currently still have knobs. In addition, the signage to the permanent spaces is non-compliant. It is recommended that all non-compliant signage be upgraded to conform to appropriate accessibility standards. Compliant signage should meet specific size, graphical, Braille, height, and location requirements. This scope includes all directional signage.

## Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

### **Project Cost**

Project Number: GREEAC01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
ADA compliant signage	EA	320	\$53.11	\$16,995	\$15.62	\$4,998	\$21,994
Lever actuated door hardware	EA	320	\$273	\$87,360	\$69.77	\$22,326	\$109,686
Project 1	Γotals:			\$104,355		\$27,325	\$131,680

Material/Labor Cost		\$131,680
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$119,103
General Contractor Mark Up at 20.0%	+	\$23,821
Construction Cost		\$142,924
Professional Fees at 16.0%	+	\$22,868
Total Project Cost		\$165,792

## Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

### **Project Description**

Project Number: GREES01 Title: EXTERIOR DOOR REPLACEMENT

Priority Sequence: 18

Priority Class: 4

Category Code: ES5A System: EXTERIOR

Component: FENESTRATIONS

Element: DOORS

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: Not Applicable

Project Class: Capital Renewal

**Project Date:** 10/20/2009

**Project** 

**Location:** Building-wide: Floor(s) 1

### **Project Description**

It is recommended that aged and inefficient exterior glass storefront entry door systems be replaced. This project includes only the primary entrance doors. The replacement units should maintain the architectural design aspects of this facility and be modern, energy -efficient applications.

## Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

### **Project Cost**

Project Number: GREEES01

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
High traffic door system	LEAF	4	\$1,978	\$7,912	\$1,999	\$7,996	\$15,908
Proje	ct Totals:			\$7,912		\$7,996	\$15,908

Total Project Cost		\$16,801
Professional Fees at 16.0%	+	\$2,317
Construction Cost		\$14,483
General Contractor Mark Up at 20.0%	+	\$2,414
Material/Labor Indexed Cost		\$12,069
Labor Index		51.3%
Material Index		100.7%
Material/Labor Cost		\$15,908

## Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Description**

Project Number: GREES02 Title: WINDOW REPLACEMENT

Priority Sequence: 19

Priority Class: 4

Category Code: ES5B System: EXTERIOR

Component: FENESTRATIONS

Element: WINDOWS

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Energy Conservation \$200

Code Application: Not Applicable

Project Class: Capital Renewal

**Project Date:** 10/20/2009

**Project** 

**Location:** Building-wide: Floor(s) 1

### **Project Description**

It is recommended that the single pane, aluminum-framed original window applications on the first floor be upgraded to thermal pane systems. Such double pane systems will reduce the energy required to operate the building. Repair or replacement of the windowsills and trim may also be necessary.

## Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

### **Project Cost**

Project Number: GREEES02

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Typical standard glazing applications	SF	780	\$57.27	\$44,671	\$36.45	\$28,431	\$73,102
Project Tota	ls:			\$44,671		\$28,431	\$73,102

Total Project Cost		\$82,919
Professional Fees at 16.0%	+	\$11,437
Construction Cost		\$71,482
General Contractor Mark Up at 20.0%	+	\$11,914
Material/Labor Indexed Cost		\$59,568
Labor Index		51.3%
Material Index		100.7%
Material/Labor Cost		\$73,102

## Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Description**

Project Number: GREEHV02 Title: MODULAR COOLING EQUIPMENT

**REPLACEMENT** 

Priority Sequence: 20

Priority Class: 4

Category Code: HV2B System: HVAC

Component: COOLING

Element: HEAT REJECTION

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: Not Applicable

Project Class: Capital Renewal

**Project Date:** 10/14/2009

Project

**Location:** Floor-wide: Floor(s) 10, 2, 3, 4, 5, 6, 7, 8, 9

### **Project Description**

The replacement of the existing through-wall air conditioners is recommended. Remove the existing units, and install new units of the latest energy-efficient design.

## Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

### **Project Cost**

Project Number: GREEHV02

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Through-wall air conditioner, connections, and demolition	TON	140	\$843	\$118,020	\$531	\$74,340	\$192,360
Project Totals:			-	\$118.020		\$74.340	\$192,360

Material/Labor Cost		\$192,360
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$156,983
General Contractor Mark Up at 20.0%	+	\$31,397
Construction Cost		\$188,379
Professional Fees at 16.0%	+	\$30,141
Total Project Cost		\$218,520

## Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

#### **Project Description**

Project Number: GREEIS03 Title: REFINISH CEILINGS

Priority Sequence: 21

Priority Class: 4

Category Code: IS3B System: INTERIOR/FINISH SYS.

Component: CEILINGS

Element: REPLACEMENT

Building Code: GREE

Building Name: GREENE RESIDENCE HALL

Subclass/Savings: Not Applicable

Code Application: Not Applicable

Project Class: Capital Renewal

**Project Date:** 10/20/2009

**Project** 

**Location:** Floor-wide: Floor(s) 1, 10, 2, 3, 4, 5, 6, 7, 8, 9

### **Project Description**

Most of the ceilings within the facility are painted, although there are some suspended grid acoustical tile systems in the first floor common areas. Painted ceiling finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

## Facility Condition Analysis Section Three

GREE: GREENE RESIDENCE HALL

### **Project Cost**

Project Number: GREEIS03

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Painted ceiling finish application	SF	59,570	\$0.17	\$10,127	\$0.81	\$48,252	\$58,379
Project Totals:				\$10,127		\$48,252	\$58,379

Total Project Cost	\$41,941
No Professional Fees Required	
Construction Cost	\$41,941
General Contractor Mark Up at 20.0%	+ \$6,990
Material/Labor Indexed Cost	\$34,951
Labor Index	51.3%
Material Index	100.7%
Material/Labor Cost	\$58,379

## **FACILITY CONDITION ANALYSIS**

SECTION 4

DRAWINGS AND PROJECT LOCATIONS

**GREENE** RESIDENCE HALL

BLDG NO. GREE



#### CORPORATION

FACILITY CONDITION ANALYSIS

2165 West Park Court Suite N Stone Mountain GA 30087 770.879.7376

PROJECT NUMBER APPLIES TO

ONE ROOM ONLY

PROJECT NUMBER APPLIES TO ONE ITEM ONLY

PROJECT NUMBER ENTIRE BUILDING

PROJECT NUMBER APPLIES TO ENTIRE FLOOR

PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS



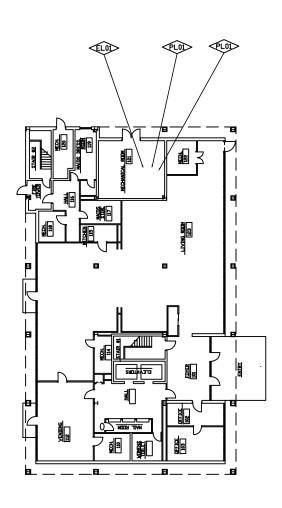
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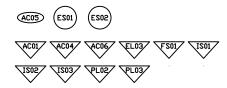
Date: 12/04/09 Drawn by: J.T.V.

Project No. 09-041

FIRST FLOOR PLAN

Sheet No.





218E 218 Bath Coordinator Apartment

219E Bath

**GREENE** RESIDENCE HALL

BLDG NO. GREE



CORPORATION

FACILITY CONDITION ANALYSIS

2165 West Park Court Suite N Stone Mountain GA 30087 770.879.7376



PROJECT NUMBER APPLIES TO ONE ROOM ONLY



PROJECT NUMBER APPLIES TO ONE ITEM ONLY



PROJECT NUMBER ENTIRE BUILDING



PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS



PROJECT NUMBER APPLIES TO AREA AS NOTED

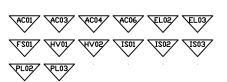
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Project No. 09-041

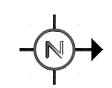
SECOND FLOOR PLAN

Sheet No.

2 of 10



AC02



**GREENE** RESIDENCE HALL

BLDG NO. GREE



CORPORATION

FACILITY CONDITION ANALYSIS

2165 West Park Court Suite N Stone Mountain GA 30087 770.879.7376

PROJECT NUMBER APPLIES TO

ONE ROOM ONLY

PROJECT NUMBER APPLIES TO ONE ITEM ONLY

PROJECT NUMBER ENTIRE BUILDING

PROJECT NUMBER APPLIES TO ENTIRE FLOOR

PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS



PROJECT NUMBER APPLIES TO AREA AS NOTED

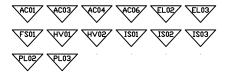
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Project No. 09-041

THIRD FLOOR PLAN

Sheet No.



GREENE RESIDENCE HALL

BLDG NO. GREE



CORPORATION

FACILITY CONDITION ANALYSIS

2165 West Park Court Suite N Stone Mountain GA 30087 770.879.7376

> PROJECT NUMBER APPLIES TO ONE ROOM ONLY

PROJECT NUMBER APPLIES TO ONE ITEM ONLY

PROJECT NUMBER APPLIES TO ENTIRE BUILDING

PROJECT NUMBER APPLIES TO ENTIRE FLOOR

PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS



APPLIES TO AREA AS NOTED

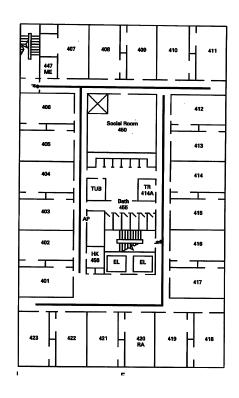
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Project No. 09-041

FOURTH FLOOR PLAN

Sheet No.





GREENE RESIDENCE HALL

BLDG NO. GREE



CORPORATION

FACILITY CONDITION ANALYSIS

2165 West Park Court Suite N Stone Mountain GA 30087 770.879.7376

PROJECT NUMBER APPLIES TO ONE ROOM ONLY

PROJECT NUMBER APPLIES TO ONE ITEM ONLY

PROJECT NUMBER ENTIRE BUILDING

PROJECT NUMBER APPLIES TO ENTIRE FLOOR

PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS



PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 12/04/09

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Project No. 09-041

FIFTH FLOOR PLAN

Sheet No.



BLDG NO. GREE CORPORATION

> FACILITY CONDITION ANALYSIS

GREENE RESIDENCE HALL

2165 West Park Court Suite N Stone Mountain GA 30087 770.879.7376

> PROJECT NUMBER APPLIES TO ONE ROOM ONLY

PROJECT NUMBER APPLIES TO ONE ITEM ONLY

PROJECT NUMBER ENTIRE BUILDING

PROJECT NUMBER APPLIES TO ENTIRE FLOOR

PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS

PROJECT NUMBER

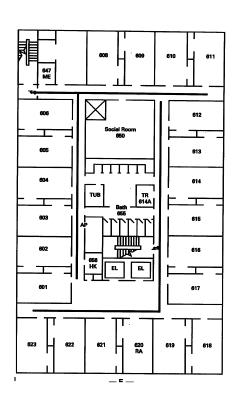
APPLIES TO AREA AS NOTED

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Project No. 09-041

SIXTH FLOOR PLAN

Sheet No.





**GREENE** RESIDENCE HALL

BLDG NO. GREE



CORPORATION

FACILITY CONDITION ANALYSIS

2165 West Park Court Suite N Stone Mountain GA 30087 770.879.7376

PROJECT NUMBER APPLIES TO

ONE ROOM ONLY

PROJECT NUMBER ONE ITEM ONLY

PROJECT NUMBER ENTIRE BUILDING

PROJECT NUMBER APPLIES TO ENTIRE FLOOR

PROJECT NUMBER

APPLIES TO A SITUATION OF UNDEFINED EXTENTS



APPLIES TO AREA AS NOTED

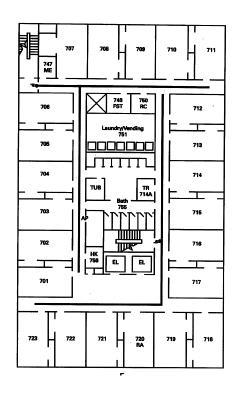
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Project No. 09-041

SEVENTH FLOOR PLAN

Sheet No.





GREENE RESIDENCE HALL

BLDG NO. GREE



CORPORATION

FACILITY CONDITION ANALYSIS

2165 West Park Court Suite N Stone Mountain GA 30087 770.879.7376

PROJECT NUMBER APPLIES TO ONE ROOM ONLY

PROJECT NUMBER APPLIES TO ONE ITEM ONLY

PROJECT NUMBER ENTIRE BUILDING

PROJECT NUMBER APPLIES TO ENTIRE FLOOR

PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS



PROJECT NUMBER APPLIES TO AREA AS NOTED

Date:

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Project No. 09-041

EIGHTH FLOOR PLAN

Sheet No.



**GREENE** RESIDENCE HALL

BLDG NO. GREE



CORPORATION

FACILITY CONDITION ANALYSIS

2165 West Park Court Suite N Stone Mountain GA 30087 770.879.7376

PROJECT NUMBER APPLIES TO

ONE ROOM ONLY

PROJECT NUMBER APPLIES TO ONE ITEM ONLY

PROJECT NUMBER

ENTIRE BUILDING

PROJECT NUMBER APPLIES TO ENTIRE FLOOR

PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS



PROJECT NUMBER APPLIES TO AREA AS NOTED

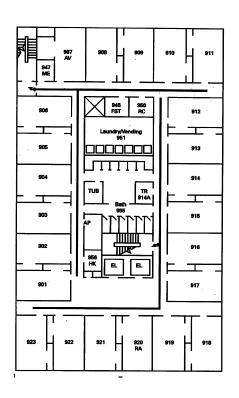
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Project No. 09-041

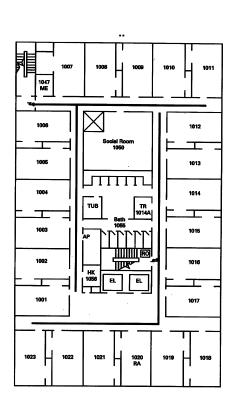
NINTH FLOOR PLAN

Sheet No.





ROOF AC01 ES03



GREENE RESIDENCE HALL

BLDG NO. GREE



CORPORATION

FACILITY CONDITION ANALYSIS

2165 West Park Court Suite N Stone Mountain GA 30087 770.879.7376

> PROJECT NUMBER APPLIES TO ONE ROOM ONLY

> PROJECT NUMBER APPLIES TO

APPLIES TO ONE ITEM ONLY

PROJECT NUMBER APPLIES TO ENTIRE BUILDING

PROJECT NUMBER APPLIES TO ENTIRE FLOOR

PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS



PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 12/04/09 Drawn by: J.T.V.

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Project No. 09-041

TENTH FLOOR PLAN

Sheet No.



**FACILITY CONDITION ANALYSIS** 

SECTION 5

LIFE CYCLE MODEL SUMMARY AND PROJECTIONS

## Life Cycle Model

## **Building Component Summary**

GREE : GREENE RESIDENCE HALL

Uniformat Code	Component Description	Qty	Units	Unit Cost	Complx Adj	Total Cost	Install Date	Life Exp
B2010	EXTERIOR FINISH RENEWAL	14,990	SF	\$1.30		\$19,541	1966	10
B2010	EXTERIOR FINISH RENEWAL	27,850	SF	\$1.30	.31	\$11,255	1966	10
B2020	STANDARD GLAZING AND CURTAIN WALL	760	SF	\$104.04		\$79,068	1966	55
B2020	STANDARD GLAZING AND CURTAIN WALL	6,800	SF	\$104.04		\$707,449	2003	55
B2030	HIGH TRAFFIC EXTERIOR DOOR SYSTEM	4	LEAF	\$4,311.24		\$17,245	1966	20
B2030	LOW TRAFFIC EXTERIOR DOOR SYSTEM	8	LEAF	\$2,863.29		\$22,906	1966	40
B3010	MEMBRANE ROOF	8,300	SF	\$6.41		\$53,176	1990	15
C1020	STANDARD DOOR AND FRAME INCLUDING HARDWARE	20	LEAF	\$783.68		\$15,674	1966	35
C1020	STANDARD DOOR AND FRAME INCLUDING HARDWARE	200	LEAF	\$783.68		\$156,736	1966	35
C1020	RATED DOOR AND FRAME INCLUDING HARDWARE	300	LEAF	\$1,489.06		\$446,718	1966	35
C1020	INTERIOR DOOR HARDWARE	300	EA	\$423.04		\$126,913	1966	15
C1020	INTERIOR DOOR HARDWARE	20	EA	\$423.04		\$8,461	1966	15
C1020	INTERIOR DOOR HARDWARE	200	EA	\$423.04		\$84,608	1966	15
C3010	STANDARD WALL FINISH (PAINT, WALL COVERING, ETC.)	282,070	SF	\$0.80		\$225,949	1966	10
C3020	CARPET	26,470	SF	\$8.75		\$231,519	1966	10
C3020	VINYL FLOOR TILE	26,470	SF	\$6.59		\$174,381	1966	15
C3020	CERAMIC FLOOR TILE	7,940	SF	\$17.36		\$137,857	1966	20
C3020	RESURFACE AND SEAL CONCRETE OR TERRAZZO	5,290	SF	\$5.85		\$30,929	1966	50
C3030	ACOUSTICAL TILE CEILING SYSTEM	6,620	SF	\$4.99		\$33,054	1966	15
C3030	PAINTED CEILING FINISH APPLICATION	59,570	SF	\$0.80		\$47,718	1966	15
D1010	ELEVATOR MODERNIZATION - TRACTION - HIGH RISE	2	EA	\$160,245.86		\$320,492	2005	25
D1010	ELEVATOR CAB RENOVATION - PASSENGER	2	EA	\$26,616.80		\$53,234	2005	12
D2010	PLUMBING FIXTURES - DORMITORY / APARTMENTS	82,731	SF	\$4.99		\$412,605	1966	35
D2020	WATER PIPING - DORMITORY / APARTMENTS	82,731	SF	\$3.55		\$293,802	1966	35
D2020	DOMESTIC WATER PRESSURE BOOSTER SYSTEM	1	SYS	\$8,868.58		\$8,869	1990	20
D2020	WATER HEATER, SHELL AND TUBE HEAT EXCHANGER	96	GPM	\$355.69		\$34,146	1966	24
D2030	DRAIN PIPING - DORMITORY / APARTMENTS	82,731	SF	\$5.40		\$446,841	1966	40
D2050	AIR COMPRESSOR PACKAGE (AVERAGE SIZE)	1	SYS	\$6,456.49		\$6,456	1990	25
D3020	HEATING SYSTEM, STEAM OR HYDRONIC	51,626 5.1.1	SF	\$7.30		\$376,967	1966	25

### Life Cycle Model

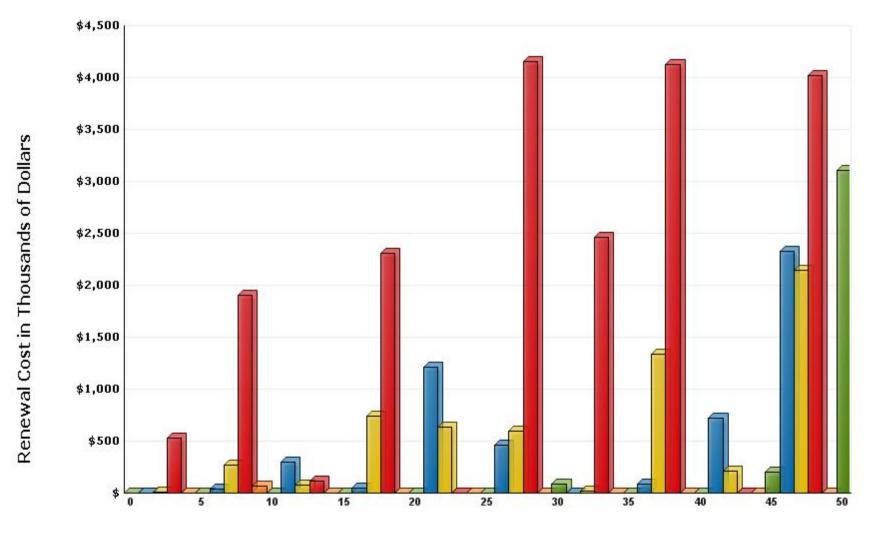
### **Building Component Summary**

**GREE: GREENE RESIDENCE HALL** 

Uniformat Code	Component Description	Qty	Units	Unit Cost	Complx Adj	Total Cost	Install Date	Life Exp
D3040	CONDENSATE RECEIVER	1	SYS	\$9,504.01		\$9,504	1966	15
D3040	EXHAUST FAN - CENTRIFUGAL ROOF EXHAUSTER OR SIMILAR	2	EA	\$2,768.62		\$5,537	2005	20
D3040	EXHAUST FAN - UTILITY SET OR SIMILAR	3	EA	\$3,660.81		\$10,982	2005	20
D3040	EXHAUST FAN - PROPELLER TYPE OR SIMILAR	1	EA	\$1,357.34		\$1,357	2005	20
D3040	HVAC SYSTEM - DORMITORY / APARTMENTS	31,105	SF	\$19.20		\$597,183	2004	25
D3040	BASE MTD. PUMP - UP TO 15 HP	9	HP	\$3,175.77		\$28,582	2004	20
D3050	THRU-WALL AC UNIT	140	TON	\$1,528.27		\$213,958	2005	10
D5010	ELECTRICAL SYSTEM - DORMITORY / APARTMENTS	82,731	SF	\$7.21		\$596,280	1966	50
D5010	ELECTRICAL SWITCHGEAR 120/208V	2,000	AMP	\$32.96		\$65,927	2005	20
D5020	EXIT SIGNS (CENTRAL POWER)	90	EA	\$163.78		\$14,740	2005	20
D5020	EXTERIOR LIGHT (HID)	2	EA	\$689.58		\$1,379	2000	20
D5020	LIGHTING - DORMITORY / APARTMENTS	51,626	SF	\$4.30		\$222,006	1966	20
D5020	LIGHTING - DORMITORY / APARTMENTS	31,105	SF	\$4.30		\$133,760	2005	20
D5030	FIRE ALARM SYSTEM, POINT ADDRESSABLE	82,731	SF	\$2.61		\$216,308	2004	15
D5040	GENERATOR, DIESEL (UP TO 50 KW)	12	KW	\$1,123.84		\$13,486	1966	25
E2010	KITCHENETTE UNIT WITH CABINETRY AND AMENITIES	1	LOT	\$5,940.22		\$5,940	1966	20
						\$6,721,498		

# **Life Cycle Model Expenditure Projections**

**GREE: GREENE RESIDENCE HALL** 



**Future Year** 

**Average Annual Renewal Cost Per SqFt \$3.31** 

## **FACILITY CONDITION ANALYSIS**

SECTION 6

# PHOTOGRAPHIC LOG

### Photo Log - Facility Condition Analysis

### **GREE: GREENE RESIDENCE HALL**

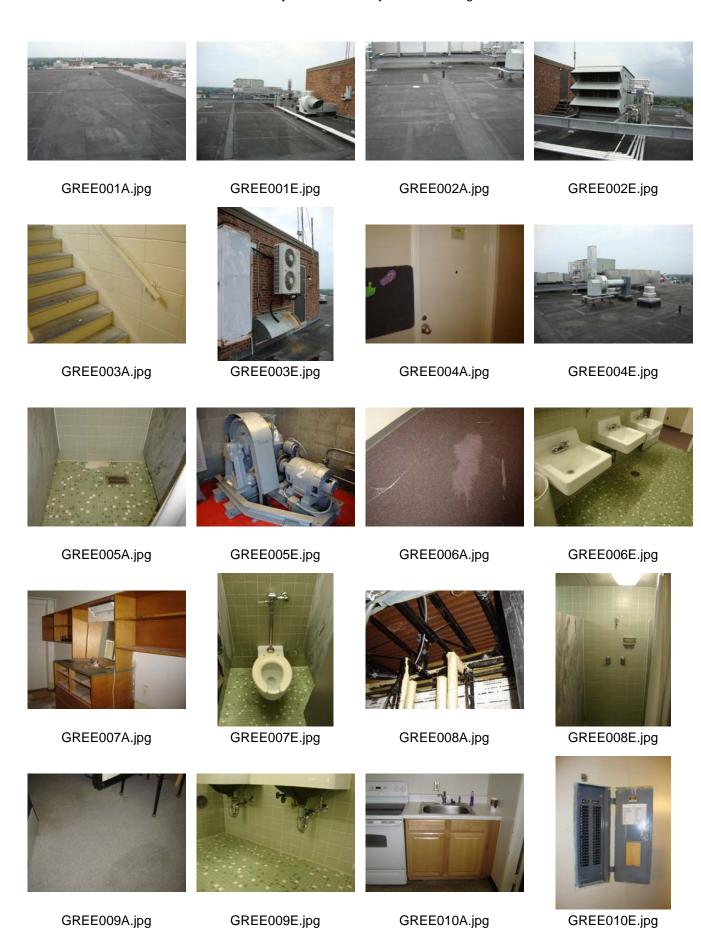
Photo ID No	Description	Location	Date
GREE001a	Single ply membrane roof application	Roof	9/16/2009
GREE001e	HVAC equipment	Roof	9/16/2009
GREE002a	Single ply membrane roof application	Roof	9/16/2009
GREE002e	Air handling equipment	Roof	9/16/2009
GREE003a	Non-accessible handrails	Stairwell	9/16/2009
GREE003e	Condensing unit	Roof	9/16/2009
GREE004a	Typical door hardware and room signage	Tenth floor	9/16/2009
GREE004e	HVAC equipment	Roof	9/16/2009
GREE005a	Previous ceramic tile repair	Tenth floor, showers	9/16/2009
GREE005e	Elevator machine	Roof, penthouse	9/16/2009
GREE006a	Stained carpet with tear	Tenth floor	9/16/2009
GREE006e	Lavatories	Tenth floor, restroom	9/16/2009
GREE007a	Standard dorm room cabinetry	Ninth floor, AV room	9/16/2009
GREE007e	Water closet	Tenth floor, restroom	9/16/2009
GREE008a	Metal pan floor structure and inter-wall pipes	Sixth floor, pipe chase	9/16/2009
GREE008e	Shower components	Tenth floor, restroom	9/16/2009
GREE009a	Stained carpet	First floor, coordinator's office	9/16/2009
GREE009e	Drain piping	Tenth floor, restroom	9/16/2009
GREE010a	Inaccessible sink and countertop stove	First floor, kitchen	9/16/2009
GREE010e	Secondary electrical panel	Tenth floor, corridor	9/16/2009
GREE011a	Brick masonry and concrete panel facade with dual pane windows	South side	9/16/2009
GREE011e	Radiator	Ninth floor, room 907	9/16/2009
GREE012a	Brick masonry and concrete panel facade with dual pane windows	South side	9/16/2009
GREE012e	Interior lighting	Ninth floor, room 907	9/16/2009
GREE013a	Brick masonry and concrete panel facade with dual pane windows	West side	9/16/2009
GREE013e	Interior lighting	Sixth floor, room 621	9/16/2009
GREE014a	Exterior steps needing handrails	Northwest corner	9/16/2009
GREE014e	Interior lighting	Sixth floor, room 621	9/16/2009
GREE015a	Brick masonry and concrete panel facade with dual pane windows	North side	9/16/2009
GREE015e	Radiator	Sixth floor, room 621	9/16/2009
GREE016a	Brick masonry and concrete panel facade with dual pane	North side	9/16/2009

### Photo Log - Facility Condition Analysis

### **GREE: GREENE RESIDENCE HALL**

GREE016e         Drain piping         Sixth floor, pipe chase         9/16/2009           GREE017a         Brick masonry and concrete panel facade with dual pane windows         East side         9/16/2009           GREE017e         Interior lighting and exit signage         First floor, room 123         9/16/2009           GREE018a         Original single pane, aluminum-framed windows         First floor, room 115         9/16/2009           GREE018e         Stainless steel sink         First floor, room 115         9/16/2009           GREE019e         Electrical receptacles         First floor, room 115         9/16/2009           GREE020e         Fire alarm panels         First floor, room 103         9/16/2009           GREE021e         Air handling equipment         First floor, room 122         9/16/2009           GREE022e         Main electrical distribution equipment         First floor, room 121-OS         9/16/2009           GREE023e         Electrical distribution equipment         First floor, room 121-OS         9/16/2009           GREE024e         Pump equipment         First floor, room 121-OS         9/16/2009           GREE025e         Pump equipment         First floor, room 121-OS         9/16/2009           GREE026e         Condensate return system         First floor, room 121-OS         9/16/2009      <	Photo ID No	Description	Location	Date
windows  GREE017e Interior lighting and exit signage First floor, room 123 9/16/2009  GREE018a Original single pane, aluminum-framed windows First floor 9/16/2009  GREE018e Stainless steel sink First floor, room 115 9/16/2009  GREE019e Electrical receptacles First floor, room 115 9/16/2009  GREE020e Fire alarm panels First floor, room 103 9/16/2009  GREE021e Air handling equipment First floor, room 122 9/16/2009  GREE022e Main electrical distribution equipment First floor, room 119-OS 9/16/2009  GREE023e Electrical distribution equipment First floor, room 121-OS 9/16/2009  GREE024e Pump equipment First floor, room 121-OS 9/16/2009  GREE025e Pump equipment First floor, room 121-OS 9/16/2009  GREE026e Condensate return system First floor, room 121-OS 9/16/2009  GREE027e Heat exchangers First floor, room 121-OS 9/16/2009  GREE028e Booster pump system First floor, room 121-OS 9/16/2009  GREE029e Compressor First floor, room 121-OS 9/16/2009  GREE030e Emergency generator First floor, room 121-OS 9/16/2009  GREE031e Condensing unit and tank Site 9/16/2009  GREE032e Backflow preventer Site 9/16/2009  GREE033e Exterior lighting Exterior 9/16/2009	GREE016e	Drain piping	Sixth floor, pipe chase	9/16/2009
GREE018a Original single pane, aluminum-framed windows GREE018e Stainless steel sink First floor, room 115 9/16/2009 GREE019e Electrical receptacles First floor, room 115 9/16/2009 GREE020e Fire alarm panels First floor, room 103 9/16/2009 GREE021e Air handling equipment First floor, room 122 9/16/2009 GREE022e Main electrical distribution equipment First floor, room 119-OS 9/16/2009 GREE023e Electrical distribution equipment First floor, room 121-OS 9/16/2009 GREE024e Pump equipment First floor, room 121-OS 9/16/2009 GREE025e Pump equipment First floor, room 121-OS 9/16/2009 GREE026e Condensate return system First floor, room 121-OS 9/16/2009 GREE027e Heat exchangers First floor, room 121-OS 9/16/2009 GREE028e Booster pump system First floor, room 121-OS 9/16/2009 GREE029e Compressor First floor, room 121-OS 9/16/2009 GREE030e Emergency generator First floor, room 121-OS 9/16/2009 GREE031e Condensing unit and tank Site 9/16/2009 GREE032e Backflow preventer Site 9/16/2009 GREE033e Exterior lighting Exterior 9/16/2009 GREE033e Condensing unit and exterior lighting Site 9/16/2009	GREE017a		East side	9/16/2009
GREE018e Stainless steel sink First floor, room 115 9/16/2009 GREE019e Electrical receptacles First floor, room 115 9/16/2009 GREE020e Fire alarm panels First floor, room 103 9/16/2009 GREE021e Air handling equipment First floor, room 122 9/16/2009 GREE022e Main electrical distribution equipment First floor, room 119-OS 9/16/2009 GREE023e Electrical distribution equipment First floor, room 121-OS 9/16/2009 GREE024e Pump equipment First floor, room 121-OS 9/16/2009 GREE025e Pump equipment First floor, room 121-OS 9/16/2009 GREE026e Condensate return system First floor, room 121-OS 9/16/2009 GREE027e Heat exchangers First floor, room 121-OS 9/16/2009 GREE028e Booster pump system First floor, room 121-OS 9/16/2009 GREE029e Compressor First floor, room 121-OS 9/16/2009 GREE030e Emergency generator First floor, room 121-OS 9/16/2009 GREE031e Condensing unit and tank Site 9/16/2009 GREE032e Backflow preventer Site 9/16/2009 GREE033e Exterior lighting Exterior 9/16/2009 GREE033e Condensing unit and exterior lighting Site 9/16/2009	GREE017e	Interior lighting and exit signage	First floor, room 123	9/16/2009
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GREE027e Heat exchangers First floor, room 121-OS 9/16/2009 GREE028e Booster pump system First floor, room 121-OS 9/16/2009 GREE029e Compressor First floor, room 121-OS 9/16/2009 GREE030e Emergency generator First floor, room 121-OS 9/16/2009 GREE031e Condensing unit and tank Site 9/16/2009 GREE032e Backflow preventer Site 9/16/2009 GREE033e Exterior lighting Exterior 9/16/2009 GREE034e Condensing unit and exterior lighting Site 9/16/2009	GREE025e	Pump equipment	First floor, room 121-OS	9/16/2009
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GREE030e Emergency generator First floor, room 121-OS 9/16/2009 GREE031e Condensing unit and tank Site 9/16/2009 GREE032e Backflow preventer Site 9/16/2009 GREE033e Exterior lighting Exterior GREE034e Condensing unit and exterior lighting Site 9/16/2009	GREE027e	Heat exchangers	First floor, room 121-OS	9/16/2009
GREE031e Condensing unit and tank Site 9/16/2009 GREE032e Backflow preventer Site 9/16/2009 GREE033e Exterior lighting Exterior GREE034e Condensing unit and exterior lighting Site 9/16/2009	GREE028e	Booster pump system	First floor, room 121-OS	9/16/2009
GREE031e Condensing unit and tank Site 9/16/2009 GREE032e Backflow preventer Site 9/16/2009 GREE033e Exterior lighting Exterior 9/16/2009 GREE034e Condensing unit and exterior lighting Site 9/16/2009	GREE029e	Compressor	First floor, room 121-OS	9/16/2009
GREE032e Backflow preventer Site 9/16/2009 GREE033e Exterior lighting Exterior 9/16/2009 GREE034e Condensing unit and exterior lighting Site 9/16/2009	GREE030e	Emergency generator	First floor, room 121-OS	9/16/2009
GREE033e Exterior lighting Exterior 9/16/2009 GREE034e Condensing unit and exterior lighting Site 9/16/2009	GREE031e	Condensing unit and tank	Site	9/16/2009
GREE034e Condensing unit and exterior lighting Site 9/16/2009	GREE032e	Backflow preventer	Site	9/16/2009
	GREE033e	Exterior lighting	Exterior	9/16/2009
GREE035e Exhaust fan Exterior 9/16/2009	GREE034e	Condensing unit and exterior lighting	Site	9/16/2009
	GREE035e	Exhaust fan	Exterior	9/16/2009

## Facility Condition Analysis - Photo Log



GREE009A.jpg GREE009E.jpg

### Facility Condition Analysis - Photo Log









GREE011A.jpg

GREE011E.jpg

GREE012A.jpg

GREE012E.jpg









GREE013A.jpg

GREE013E.jpg

GREE014A.jpg

GREE014E.jpg









GREE015A.jpg

GREE015E.jpg

GREE016A.jpg

GREE016E.jpg









GREE017A.jpg

GREE017E.jpg

GREE018A.jpg

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GREE019E.jpg

GREE020E.jpg

GREE021E.jpg

GREE022E.jpg

## Facility Condition Analysis - Photo Log



GREE023E.jpg



GREE024E.jpg



GREE025E.jpg



GREE026E.jpg



GREE027E.jpg



GREE028E.jpg



GREE029E.jpg



GREE030E.jpg



GREE031E.jpg



GREE032E.jpg



GREE033E.jpg



GREE034E.jpg



GREE035E.jpg