

EAST CAROLINA UNIVERSITY

WHITE RESIDENCE HALL

ASSET CODE: WHIT

FACILITY CONDITION ANALYSIS

DECEMBER 18, 2009



EAST CAROLINA UNIVERSITY
Facility Condition Analysis

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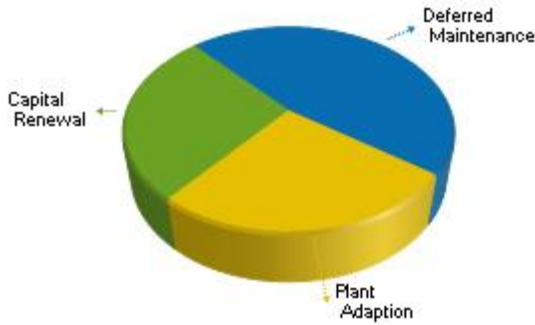
FACILITY CONDITION ANALYSIS

SECTION 1

GENERAL ASSET INFORMATION

EXECUTIVE SUMMARY - WHITE RESIDENCE HALL

PROJECT COSTS BY CLASSIFICATION



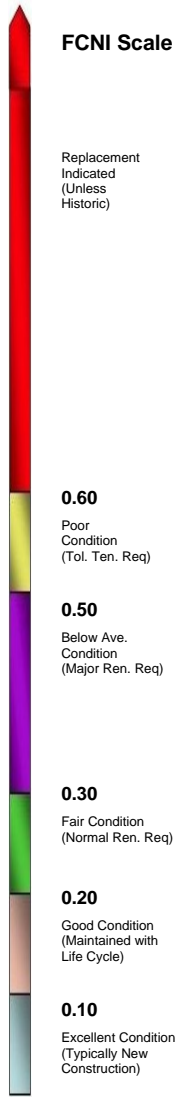
Building Code: WHIT
Building Name: WHITE RESIDENCE HALL
Year Built: 1968
Building Use: Dormitory / Apartments
Square Feet: 82,731

Project Costs by Priority

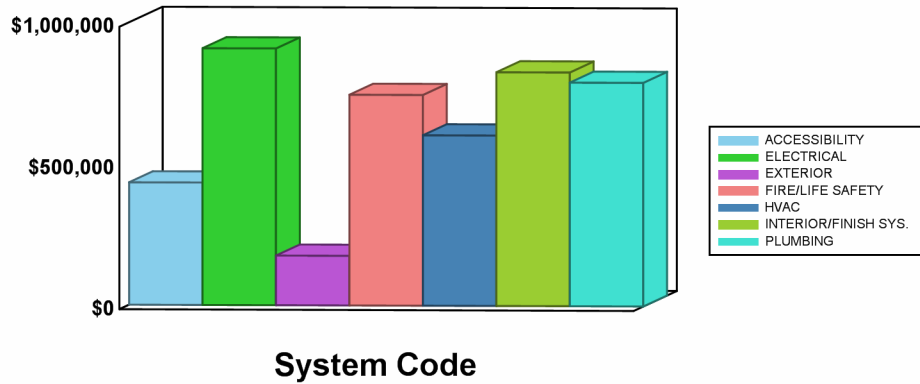
Priority 1:	\$0
Priority 2:	\$746,250
Priority 3:	\$3,208,474
Priority 4:	\$533,034
Total Project Costs:	\$4,487,758

Facility Replacement Cost: \$25,697,000

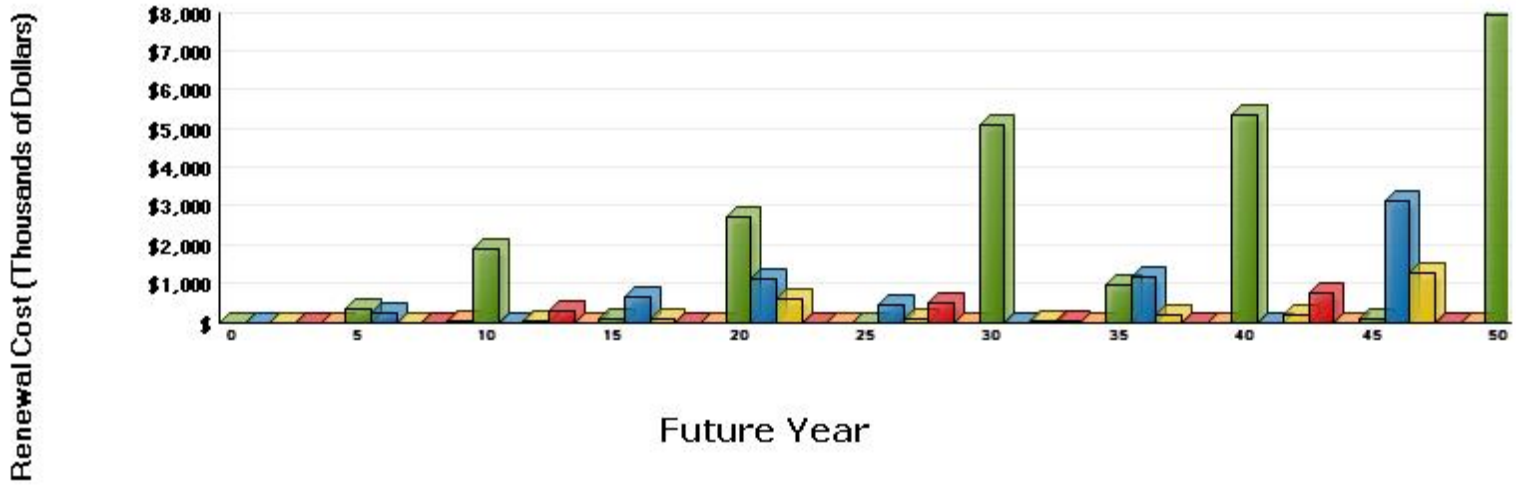
Facility Condition Needs Index (FCNI): 0.17
 (Project Costs / Replacement Cost)



PROJECT COSTS BY SYSTEM CODE



LIFE CYCLE MODEL EXPENDITURE PROJECTIONS



Average Annual Renewal Cost Per SqFt \$3.28

B. ASSET SUMMARY

White Residence Hall, on the western edge of the main East Carolina University campus adjacent to downtown Greenville, was constructed in 1968. The facility is just east of Clement Hall and the intersection of Reade Circle and Cotanche Street. It contains ten levels of dormitory and communal space for a total area of 82,731 square feet. All ten levels are above grade. The cast-in-place concrete pier foundation supports a cast-in-place concrete structure. There are approximately 200 dormitory rooms on floors two through ten with a coordinator's suite on the second floor. The first floor houses the coordinator's office, the living room, the recreation room, the vending room, a handicapped unisex restroom, the dorm mail room, a former kitchen location, and housekeeping.

The building has a brick masonry facade with a flat built-up roof. All exterior windows on floors two through ten have been replaced with new, dual-pane, thermally insulated systems and dripless window air condition units in each dorm room. The building is generally considered not to be handicapped accessible because it provides no nearby accessible parking and has very few amenities within the facility that have been modified or improved for handicapped accessibility.

The information for this report was gathered during a site visit that concluded on September 15, 2009.

SITE

The building sits on a 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 Seventh Street to the south. Service parking only is near the facility. The adjacent sidewalks lead to a sidewalk system that serves all entrances and the entire campus.

EXTERIOR STRUCTURE

It is recommended that the aged and inefficient exterior glass storefront door systems be replaced. This work includes only the primary entrance doors. The replacement units should maintain the architectural design aspects of this facility. They should be modern, energy-efficient applications that will protect the interior of the building from the elements. The remaining 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, all the window systems on the second through the tenth floors have been replaced relatively recently with energy-efficient, dual-pane systems.

The rolled asphalt built-up 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 campus standard.

INTERIOR FINISHES / SYSTEMS

The common areas within the facility are generally carpeted, with the exception of several areas in the first floor, including the kitchen and vending room, which are primarily terrazzo. The laundries and housekeeping space have vinyl floor tile. In the dormitory rooms, carpet has been installed over vinyl floor tile. 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 in the bathrooms and the first floor terrazzo appear 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. Wall finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

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

ACCESSIBILITY

Present legislation regarding 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 four inch diameter sphere (six 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.

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 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 not ADA 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 of this work includes all directional signage.

Accessibility legislation also requires that building amenities be generally available to all persons. The configuration of the first floor common kitchenette and the drinking water fountains located on each floor are a barrier to accessibility. The installation of wheelchair-accessible kitchenette cabinetry is recommended where applicable. All single-level refrigerated drinking fountains throughout the entire building should be replaced with dual-level units.

There are minimal accessibility features within this residential facility, which are primarily aimed at serving handicapped guests. Handicapped accessible unisex restrooms are located on the second and third floors and some minor modifications have been made within the bathrooms on each floor.

However, since the first floor public restroom is used by the computer lab and others coming in and out of the facility, the restroom at this location is recommended to be upgraded to be fully wheelchair accessible.

The overall level of dormitory resident bathroom accessibility is minimal, and short of full compliance with modern accessibility legislation. While the clearances and clear floor spaces are adequate and some modifications such as grab bars have been added, compliant mirrors and new accessible plumbing fixtures are recommended for installation over the next ten years.

HEALTH

Based on the dates of original construction and latest renovations, it is highly possible that lead paint or asbestos containing materials were used in the construction of this facility. However, no lead paint or suspected asbestos was observed during the inspection of this building. The lead paint and asbestos health risks are minimal, but workers 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 with regard to fire rating. There are no compromises involving doors, partitions, elevator lobbies, or stairs. No fire or life safety issues related to architectural features were observed during the inspection of this facility.

This facility is protected by a central fire alarm system. The point addressable fire alarm control panel was manufactured by Notifier 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 system. Although manual, dry chemical fire extinguishers are available, 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 potential for loss. This recommendation includes a budget for the installation of a fire pump.

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

HVAC

White Residence Hall is connected to the campus steam loop. Steam is supplied to a heat exchanger in the main mechanical room, which produce 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 a newer installation and should continue to provide satisfactory 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 is provided by multi-zone 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 upgrade 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 ten-year scope of this report.

ELECTRICAL

Power is supplied to the facility at a rate of 120 / 208 volts from an oil-filled transformer located on site. The unit is rated at 750 kVA and was installed in 2004. Power is distributed by a switchgear device rated for 2000 amp service that was manufactured by Cutler Hammer. All of the main electrical distribution system components are serviceable, and will likely remain so throughout the scope of this report.

The secondary electrical system 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 conditioner 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 or surface-mount fixtures that contain T8 bulbs are present in corridors and common spaces. These light fixtures are in good condition. Student rooms contain overhead surface-mount fixtures that are perhaps original with ballast upgrades. It is recommended that all original or aged student room lighting be replaced, and an upgrade project representing approximately 60 percent of the facility is included. 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. The exterior lighting systems are adequate and in good condition. It is probable that they will outlast the purview of this report. There are no exterior lighting upgrades to recommend at this time.

Emergency power for this facility is produced by a local diesel-fired emergency generator. This unit is of 12 kW capacity, generates 120/208 volt power, and was manufactured by Onan. It has served beyond its intended life cycle. To provide reliable emergency power to the critical systems in this facility, it is recommended that this 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 that contains both bell-and-spigot and no-hub connections. The piping network appears to be a combination of aged and new 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 run-outs 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 a heat exchanger that utilizes steam. This unit has served beyond its expected life cycle. The insulation is worn and showing signs of age. It is recommended that this unit be replaced.

A sump pump system facilitates the drainage of storm water from this facility. This system has also served beyond its statistical life cycle. Replace it to preclude failure.

A booster pump pack aids in the pressurization of the domestic water system in this building. This system is aged and its continued reliability is a concern. Replace this unit to reduce the potential for high ongoing maintenance costs.

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.

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 15, 2009

INSPECTION TEAM PERSONNEL:

<u>NAME</u>	<u>POSITION</u>	<u>SPECIALTY</u>
Thomas Ferguson, AIA, LEED® 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:

<u>NAME</u>	<u>POSITION</u>
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.

$$\text{FCNI} = \frac{\text{Deferred Maintenance / Modernization} + \text{Capital Renewal} + \text{Plant Adaption}}{\text{Plant / Facility Replacement Cost}}$$

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. Plant / Program Adaption: 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. Deferred Maintenance: 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. Capital Renewal: 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. Energy Conservation: 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:

	<u>PRIORITY CLASS 1</u>	
<u>CODE</u>	<u>PROJECT NO.</u>	<u>PRIORITY SEQUENCE</u>
HV2C	0001HV04	01
PL1D	0001PL02	02

	<u>PRIORITY CLASS 2</u>	
<u>CODE</u>	<u>PROJECT NO.</u>	<u>PRIORITY SEQUENCE</u>
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:	51.3 %	of National Average
Local Materials Index:	100.7 %	of National average
General Contractor Markup:	20.0 %	Contractor profit & overhead, bonds & insurance
Professional Fees:	16.0 %	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
- 04 - 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

<u>Building Number</u>	<u>Photo Sequence</u>	<u>Arch / Eng / VT</u>
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.

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

CATEGORY CODE

AC1A - AC4B
EL1A - EL8A
ES1A - ES6E
FS1A - FS6A
HE1A - HE7A
HV1A - HV8B
IS1A - IS6D
PL1A - PL5A
SI1A - SI4A
SS1A - SS7A
VT1A - VT7A

SYSTEM DESCRIPTION

ACCESSIBILITY
ELECTRICAL
EXTERIOR STRUCTURE
FIRE / LIFE SAFETY
HEALTH
HVAC
INTERIOR FINISHES / SYSTEMS
PLUMBING
SITE
SECURITY SYSTEMS
VERTICAL TRANSPORTATION

CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
SYSTEM DESCRIPTION: 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 DESCRIPTION: 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.

CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
EL4C	DEVICES AND FIXTURES	LIGHTING CONTROLLERS	Motion sensors, photocell controllers, lighting contactors, etc.
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 DESCRIPTION: 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	DAMP/PROOFING/ 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.

CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
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.
ES6E	GENERAL	OTHER	Any exterior work not specifically categorized elsewhere including finish and structural work on freestanding boiler stacks.
SYSTEM DESCRIPTION: FIRE / LIFE SAFETY			
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 DESCRIPTION: 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.

CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
HE5B	FOOD SERVICE	COLD STORAGE	Includes the cold storage room and all associated refrigeration equipment.
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 DESCRIPTION: 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.

CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
HV5C	STEAM/HYDRONIC DISTRIBUTION	HEAT EXCHANGERS	Including shell and tube heat exchangers and plate heat exchangers for heating and cooling.
HV6A	CONTROLS	COMPLETE SYSTEM UPGRADE	Replacement of HVAC control systems.
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 DESCRIPTION: INTERIOR FINISHES / 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	CABINETY	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.

CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
IS6D	GENERAL	OTHER	Any work on interior elements not logically or specifically categorized elsewhere including light coves, phone booths, interior light wells, etc.
SYSTEM DESCRIPTION: PLUMBING			
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	Alterations 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 DESCRIPTION: 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 basins, 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.



CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
SYSTEM DESCRIPTION: SECURITY SYSTEMS			
SS1A	LIGHTING	EXTERIOR	Fixtures, stanchions, foliage interference, cleanliness, locations, etc.
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 DESCRIPTION: VERTICAL TRANSPORTATION			
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.

FACILITY CONDITION ANALYSIS

SECTION 2

**DETAILED PROJECT SUMMARIES
AND TOTALS**

**Detailed Project Totals
 Facility Condition Analysis
 System Code by Priority Class
 WHIT : WHITE RESIDENCE HALL**

System Code	System Description	Priority Classes				Subtotal
		1	2	3	4	
AC	ACCESSIBILITY	0	0	267,726	165,792	433,518
EL	ELECTRICAL	0	0	909,069	0	909,069
ES	EXTERIOR	0	0	76,173	99,720	175,893
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	778,639	49,003	827,642
PL	PLUMBING	0	0	791,795	0	791,795
	TOTALS	0	746,250	3,208,474	533,034	4,487,758

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

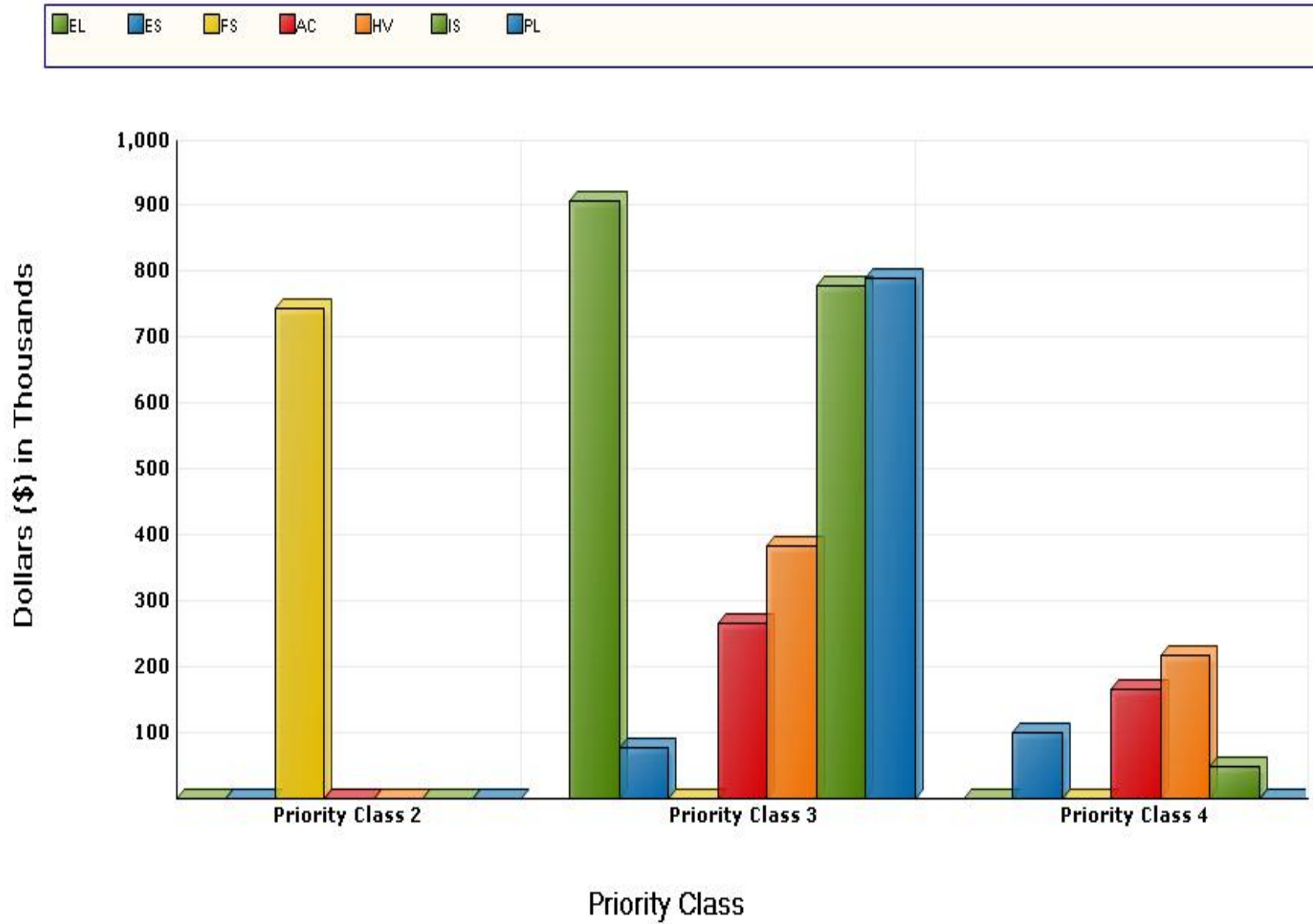
Gross Square Feet	82,731
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Total Cost Per Square Foot	\$54.25
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FACILITY CONDITION ANALYSIS

System Code by Priority Class

WHIT : WHITE RESIDENCE HALL



**Detailed Project Totals
 Facility Condition Analysis
 System Code by Project Class
 WHIT : WHITE RESIDENCE HALL**

System Code	System Description	Project Classes			Subtotal
		Capitla Renewal	Deferred Maintenance	Plant Adaption	
AC	ACCESSIBILITY	0	0	433,518	433,518
EL	ELECTRICAL	0	909,069	0	909,069
ES	EXTERIOR	175,893	0	0	175,893
FS	FIRE/LIFE SAFETY	0	0	746,250	746,250
HV	HVAC	218,520	385,071	0	603,591
IS	INTERIOR/FINISH SYS.	827,642	0	0	827,642
PL	PLUMBING	0	791,795	0	791,795
	TOTALS	1,222,054	2,085,935	1,179,768	4,487,758

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

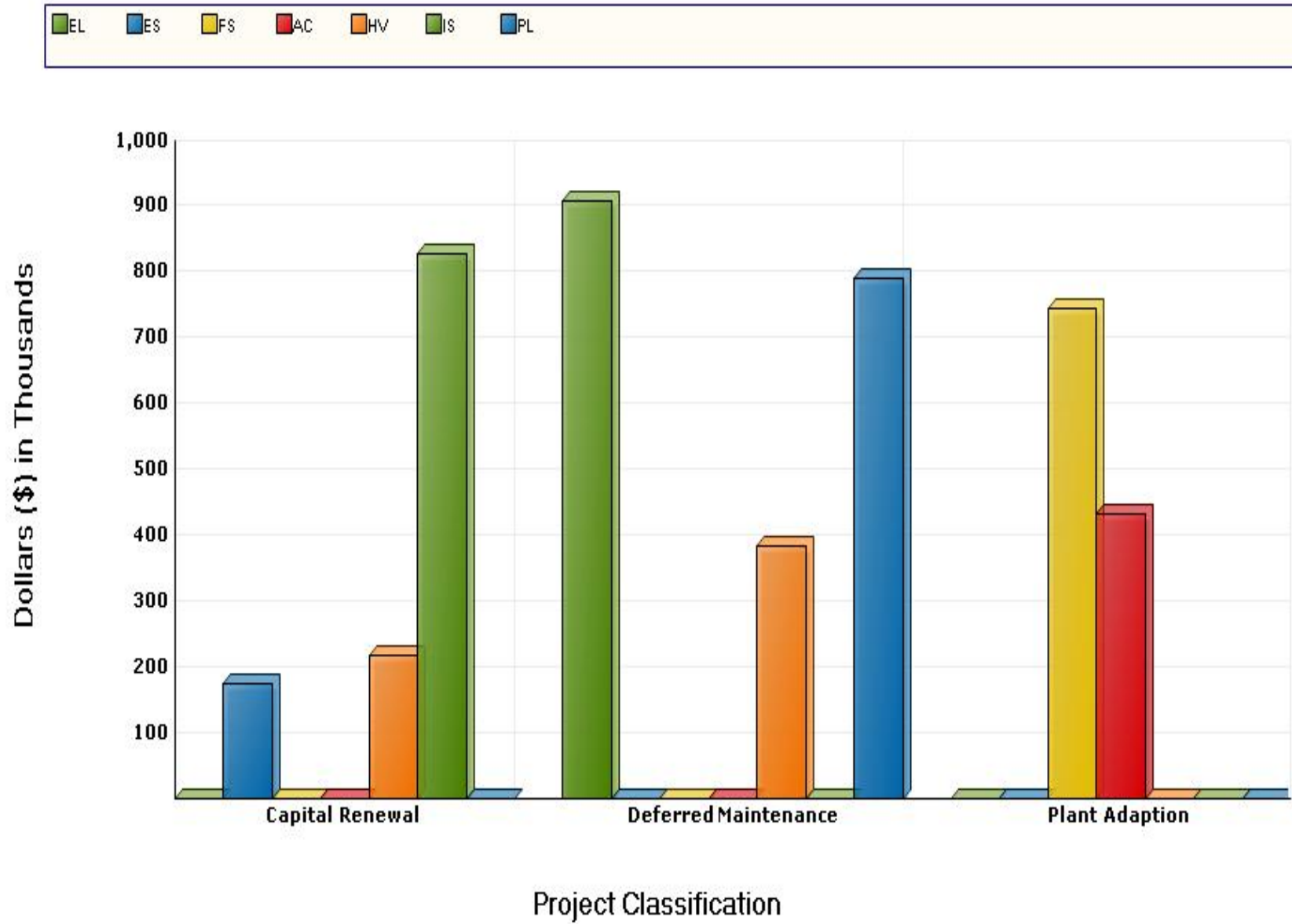
Gross Square Feet	82,731
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Total Cost Per Square Foot	\$54.25
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FACILITY CONDITION ANALYSIS

System Code by Project Class

WHIT : WHITE RESIDENCE HALL



Detailed Project Summary
Facility Condition Analysis
Project Class by Priority Class
WHIT : WHITE RESIDENCE HALL

Project Class	Priority Classes				Subtotal
	1	2	3	4	
Capital Renewal	0	0	854,812	367,242	1,222,054
Deferred Maintenance	0	0	2,085,935	0	2,085,935
Plant Adaption	0	746,250	267,726	165,792	1,179,768
TOTALS	0	746,250	3,208,474	533,034	4,487,758

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

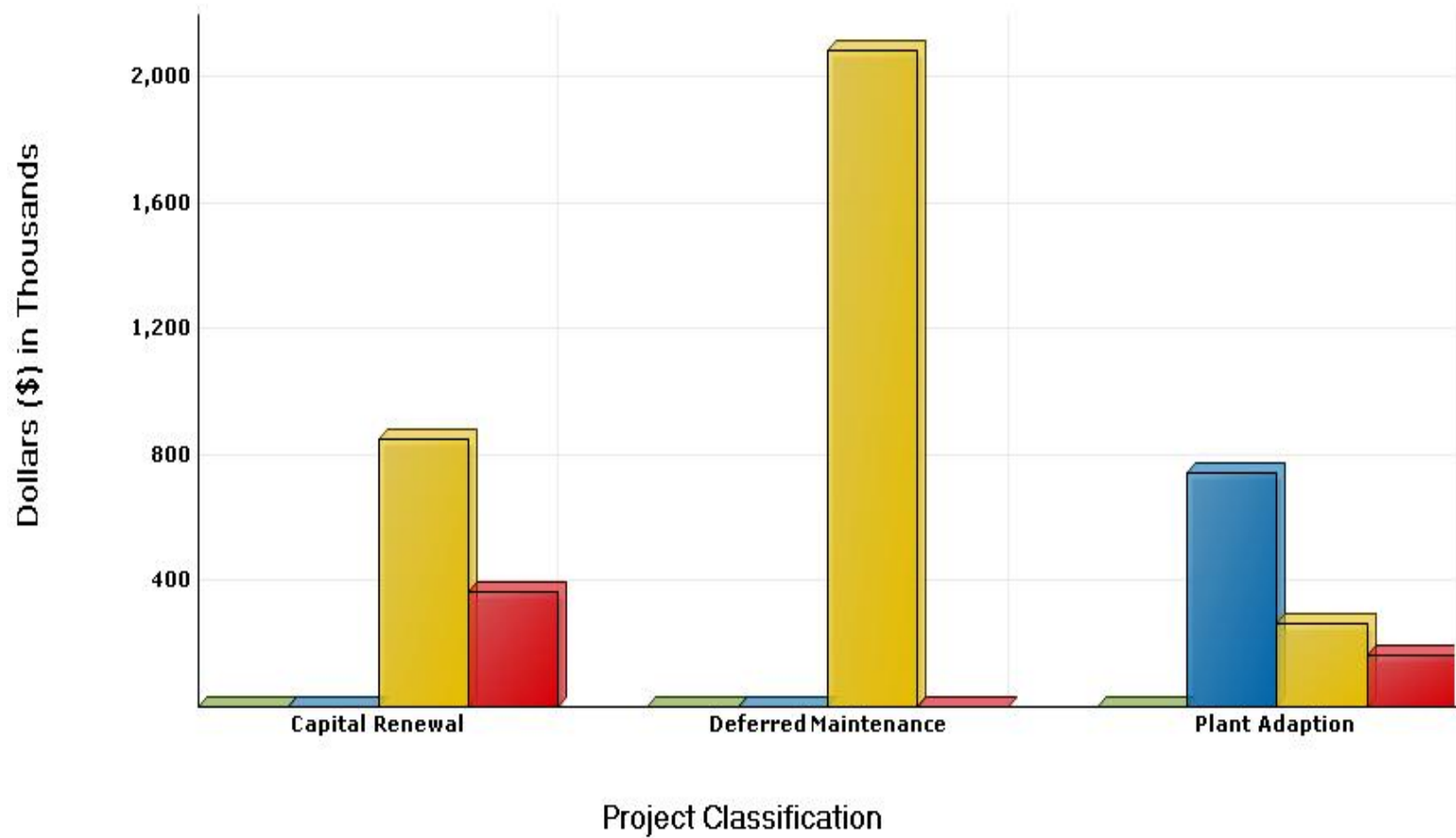
Gross Square Feet	82,731
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Total Cost Per Square Foot	\$54.25
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FACILITY CONDITION ANALYSIS

Project Class by Priority Class

WHIT : WHITE RESIDENCE HALL



Detailed Project Summary
Facility Condition Analysis
Priority Class - Priority Sequence
WHIT : WHITE RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS3A	WHITFS01	2	1	FIRE SPRINKLER SYSTEM INSTALLATION	643,319	102,931	746,250
Totals for Priority Class 2					643,319	102,931	746,250
AC4A	WHITAC03	3	2	INTERIOR AMENITY ACCESSIBILITY UPGRADES	39,438	6,310	45,748
AC3E	WHITAC02	3	3	RESTROOM ACCESSIBILITY UPGRADES	52,227	8,356	60,583
AC3B	WHITAC04	3	4	STAIR AND RAILING SAFETY UPGRADES	139,134	22,261	161,395
ES4B	WHITES03	3	5	BUILT-UP ROOF REPLACEMENT	65,666	10,507	76,173
HV5A	WHITHV01	3	6	REPLACE HYDRONIC HEATING SYSTEM	331,958	53,113	385,071
EL5A	WHITEL01	3	7	REPLACE EMERGENCY GENERATOR	63,213	10,114	73,327
EL3B	WHITEL03	3	8	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	525,061	84,010	609,071
EL4B	WHITEL02	3	9	INTERIOR LIGHTING UPGRADE	195,406	31,265	226,671
IS1A	WHITIS01	3	10	REFINISH FLOORING	474,103	75,856	549,959
IS2B	WHITIS02	3	11	REFINISH WALLS	197,138	31,542	228,680
PL1A	WHITPL02	3	12	WATER SUPPLY PIPING REPLACEMENT	259,116	41,459	300,575
PL2A	WHITPL03	3	13	DRAIN PIPING REPLACEMENT	393,324	62,932	456,256
PL1E	WHITPL01	3	14	DOMESTIC HOT WATER HEAT EXCHANGER REPLACEMENT	15,039	2,406	17,445
PL1B	WHITPL04	3	15	DOMESTIC WATER BOOSTER PUMP REPLACEMENT	7,817	1,251	9,067
PL2B	WHITPL05	3	16	REPLACE SUMP PUMPS	7,286	1,166	8,452
Totals for Priority Class 3					2,765,926	442,548	3,208,474
AC4B	WHITAC01	4	17	INTERIOR SIGNAGE AND DOOR HARDWARE UPGRADES	142,924	22,868	165,792
ES5A	WHITES01	4	18	EXTERIOR DOOR REPLACEMENT	14,483	2,317	16,801
ES5B	WHITES02	4	19	WINDOW REPLACEMENT	71,482	11,437	82,919
HV2B	WHITHV02	4	20	MODULAR COOLING EQUIPMENT REPLACEMENT	188,379	30,141	218,520
IS3B	WHITIS03	4	21	REFINISH CEILINGS	42,244	6,759	49,003
Totals for Priority Class 4					459,512	73,522	533,034
Grand Total:					3,868,756	619,001	4,487,758

Detailed Project Summary
Facility Condition Analysis
Project Cost Range
WHIT : WHITE RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
EL5A	WHITEL01	3	7	REPLACE EMERGENCY GENERATOR	63,213	10,114	73,327
PL1E	WHITPL01	3	14	DOMESTIC HOT WATER HEAT EXCHANGER REPLACEMENT	15,039	2,406	17,445
PL1B	WHITPL04	3	15	DOMESTIC WATER BOOSTER PUMP REPLACEMENT	7,817	1,251	9,067
PL2B	WHITPL05	3	16	REPLACE SUMP PUMPS	7,286	1,166	8,452
AC3E	WHITAC02	3	3	RESTROOM ACCESSIBILITY UPGRADES	52,227	8,356	60,583
ES4B	WHITES03	3	5	BUILT-UP ROOF REPLACEMENT	65,666	10,507	76,173
AC4A	WHITAC03	3	2	INTERIOR AMENITY ACCESSIBILITY UPGRADES	39,438	6,310	45,748
Totals for Priority Class 3					250,685	40,110	290,795
ES5A	WHITES01	4	18	EXTERIOR DOOR REPLACEMENT	14,483	2,317	16,801
ES5B	WHITES02	4	19	WINDOW REPLACEMENT	71,482	11,437	82,919
IS3B	WHITIS03	4	21	REFINISH CEILINGS	42,244	6,759	49,003
Totals for Priority Class 4					128,209	20,513	148,723
Grand Totals for Projects < 100,000					378,895	60,623	439,518

Detailed Project Summary
Facility Condition Analysis
Project Cost Range
 WHIT : WHITE RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
HV5A	WHITHV01	3	6	REPLACE HYDRONIC HEATING SYSTEM	331,958	53,113	385,071
EL4B	WHITEL02	3	9	INTERIOR LIGHTING UPGRADE	195,406	31,265	226,671
PL1A	WHITPL02	3	12	WATER SUPPLY PIPING REPLACEMENT	259,116	41,459	300,575
PL2A	WHITPL03	3	13	DRAIN PIPING REPLACEMENT	393,324	62,932	456,256
IS2B	WHITIS02	3	11	REFINISH WALLS	197,138	31,542	228,680
AC3B	WHITAC04	3	4	STAIR AND RAILING SAFETY UPGRADES	139,134	22,261	161,395
Totals for Priority Class 3					1,516,076	242,572	1,758,649
HV2B	WHITHV02	4	20	MODULAR COOLING EQUIPMENT REPLACEMENT	188,379	30,141	218,520
AC4B	WHITAC01	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					1,847,379	295,581	2,142,960

Detailed Project Summary
Facility Condition Analysis
Project Cost Range
 WHIT : WHITE RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS3A	WHITFS01	2	1	FIRE SPRINKLER SYSTEM INSTALLATION	643,319	102,931	746,250
Totals for Priority Class 2					643,319	102,931	746,250
EL3B	WHITEL03	3	8	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	525,061	84,010	609,071
IS1A	WHITIS01	3	10	REFINISH FLOORING	474,103	75,856	549,959
Totals for Priority Class 3					999,164	159,866	1,159,030
Grand Totals for Projects >= 500,000					1,642,483	262,797	1,905,280
Grand Totals For All Projects:					3,868,756	619,001	4,487,758

Detailed Project Summary
Facility Condition Analysis
Project Classification
WHIT : WHITE RESIDENCE HALL

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
ES4B	WHITES03	5	Capital Renewal	3	BUILT-UP ROOF REPLACEMENT	76,173
IS1A	WHITIS01	10	Capital Renewal	3	REFINISH FLOORING	549,959
IS2B	WHITIS02	11	Capital Renewal	3	REFINISH WALLS	228,680
ES5A	WHITES01	18	Capital Renewal	4	EXTERIOR DOOR REPLACEMENT	16,801
ES5B	WHITES02	19	Capital Renewal	4	WINDOW REPLACEMENT	82,919
HV2B	WHITHV02	20	Capital Renewal	4	MODULAR COOLING EQUIPMENT REPLACEMENT	218,520
IS3B	WHITIS03	21	Capital Renewal	4	REFINISH CEILINGS	49,003
Totals for Capital Renewal						1,222,054
HV5A	WHITHV01	6	Deferred Maintenance	3	REPLACE HYDRONIC HEATING SYSTEM	385,071
EL5A	WHITEL01	7	Deferred Maintenance	3	REPLACE EMERGENCY GENERATOR	73,327
EL3B	WHITEL03	8	Deferred Maintenance	3	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	609,071
EL4B	WHITEL02	9	Deferred Maintenance	3	INTERIOR LIGHTING UPGRADE	226,671
PL1A	WHITPL02	12	Deferred Maintenance	3	WATER SUPPLY PIPING REPLACEMENT	300,575
PL2A	WHITPL03	13	Deferred Maintenance	3	DRAIN PIPING REPLACEMENT	456,256
PL1E	WHITPL01	14	Deferred Maintenance	3	DOMESTIC HOT WATER HEAT EXCHANGER REPLACEMENT	17,445
PL1B	WHITPL04	15	Deferred Maintenance	3	DOMESTIC WATER BOOSTER PUMP REPLACEMENT	9,067
PL2B	WHITPL05	16	Deferred Maintenance	3	REPLACE SUMP PUMPS	8,452
Totals for Deferred Maintenance						2,085,935
FS3A	WHITFS01	1	Plant Adaption	2	FIRE SPRINKLER SYSTEM INSTALLATION	746,250
AC4A	WHITAC03	2	Plant Adaption	3	INTERIOR AMENITY ACCESSIBILITY UPGRADES	45,748
AC3E	WHITAC02	3	Plant Adaption	3	RESTROOM ACCESSIBILITY UPGRADES	60,583
AC3B	WHITAC04	4	Plant Adaption	3	STAIR AND RAILING SAFETY UPGRADES	161,395
AC4B	WHITAC01	17	Plant Adaption	4	INTERIOR SIGNAGE AND DOOR HARDWARE UPGRADES	165,792
Totals for Plant Adaption						1,179,768
Grand Total:						4,487,758

Detailed Project Summary
Facility Condition Analysis
Energy Conservation
 WHIT : WHITE RESIDENCE HALL

Cat Code	Project Number	Pri Cls	Pri Seq	Project Title	Total Cost	Annual Savings	Simple Payback
ES4B	WHITES03	3	5	BUILT-UP ROOF REPLACEMENT	76,173	800	95.22
EL4B	WHITEL02	3	9	INTERIOR LIGHTING UPGRADE	226,671	7,900	28.69
Totals for Priority Class 3					302,844	8,700	34.81
ES5B	WHITES02	4	19	WINDOW REPLACEMENT	82,919	200	414.6
Totals for Priority Class 4					82,919	200	414.6
Grand Total:					385,763	8,900	43.34

Detailed Project Summary
Facility Condition Analysis
Category/System Code
WHIT : WHITE RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC4A	WHITAC03	3	2	INTERIOR AMENITY ACCESSIBILITY UPGRADES	39,438	6,310	45,748
AC3E	WHITAC02	3	3	RESTROOM ACCESSIBILITY UPGRADES	52,227	8,356	60,583
AC3B	WHITAC04	3	4	STAIR AND RAILING SAFETY UPGRADES	139,134	22,261	161,395
AC4B	WHITAC01	4	17	INTERIOR SIGNAGE AND DOOR HARDWARE UPGRADES	142,924	22,868	165,792
Totals for System Code: ACCESSIBILITY					373,723	59,796	433,518
EL5A	WHITEL01	3	7	REPLACE EMERGENCY GENERATOR	63,213	10,114	73,327
EL3B	WHITEL03	3	8	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	525,061	84,010	609,071
EL4B	WHITEL02	3	9	INTERIOR LIGHTING UPGRADE	195,406	31,265	226,671
Totals for System Code: ELECTRICAL					783,680	125,389	909,069
ES4B	WHITES03	3	5	BUILT-UP ROOF REPLACEMENT	65,666	10,507	76,173
ES5A	WHITES01	4	18	EXTERIOR DOOR REPLACEMENT	14,483	2,317	16,801
ES5B	WHITES02	4	19	WINDOW REPLACEMENT	71,482	11,437	82,919
Totals for System Code: EXTERIOR					151,632	24,261	175,893
FS3A	WHITFS01	2	1	FIRE SPRINKLER SYSTEM INSTALLATION	643,319	102,931	746,250
Totals for System Code: FIRE/LIFE SAFETY					643,319	102,931	746,250
HV5A	WHITHV01	3	6	REPLACE HYDRONIC HEATING SYSTEM	331,958	53,113	385,071
HV2B	WHITHV02	4	20	MODULAR COOLING EQUIPMENT REPLACEMENT	188,379	30,141	218,520
Totals for System Code: HVAC					520,337	83,254	603,591
IS1A	WHITIS01	3	10	REFINISH FLOORING	474,103	75,856	549,959
IS2B	WHITIS02	3	11	REFINISH WALLS	197,138	31,542	228,680
IS3B	WHITIS03	4	21	REFINISH CEILINGS	42,244	6,759	49,003
Totals for System Code: INTERIOR/FINISH SYS.					713,485	114,158	827,642
PL1A	WHITPL02	3	12	WATER SUPPLY PIPING REPLACEMENT	259,116	41,459	300,575
PL2A	WHITPL03	3	13	DRAIN PIPING REPLACEMENT	393,324	62,932	456,256
PL1E	WHITPL01	3	14	DOMESTIC HOT WATER HEAT EXCHANGER REPLACEMENT	15,039	2,406	17,445
PL1B	WHITPL04	3	15	DOMESTIC WATER BOOSTER PUMP REPLACEMENT	7,817	1,251	9,067
PL2B	WHITPL05	3	16	REPLACE SUMP PUMPS	7,286	1,166	8,452
Totals for System Code: PLUMBING					682,582	109,213	791,795
Grand Total:					3,868,756	619,001	4,487,758

FACILITY CONDITION ANALYSIS

SECTION 3

SPECIFIC PROJECT DETAILS
ILLUSTRATING DESCRIPTION / COST

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITFS01	Title:	FIRE SPRINKLER SYSTEM INSTALLATION
Priority Sequence:	1		
Priority Class:	2		
Category Code:	FS3A	System:	FIRE/LIFE SAFETY
		Component:	SUPPRESSION
		Element:	SPRINKLERS
Building Code:	WHIT		
Building Name:	WHITE RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	NFPA	1, 13, 13R, 101	
Project Class:	Plant Adaption		
Project Date:	10/14/2009		
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.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITFS01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Install a 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

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITAC03	Title:	INTERIOR AMENITY ACCESSIBILITY UPGRADES
Priority Sequence:	2		
Priority Class:	3		
Category Code:	AC4A	System:	ACCESSIBILITY
		Component:	GENERAL
		Element:	FUNCTIONAL SPACE MOD.
Building Code:	WHIT		
Building Name:	WHITE 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

Present accessibility legislation requires that building amenities be generally available to all persons. The configuration of the shared first floor kitchenette and the drinking water fountains located on each floor is a barrier to accessibility. The installation of wheelchair accessible kitchenette cabinetry is recommended where applicable. All single-level refrigerated drinking fountains throughout the entire building should be replaced with dual-level units.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITAC03

Task Cost Estimate

Task Description	Unit	Qty	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:				\$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

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITAC02	Title:	RESTROOM ACCESSIBILITY UPGRADES
Priority Sequence:	3		
Priority Class:	3		
Category Code:	AC3E	System:	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	RESTROOMS/BATHROOMS
Building Code:	WHIT		
Building Name:	WHITE 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) 1, 10, 2, 3, 4, 5, 6, 7, 8, 9		

Project Description

The overall level of bathroom accessibility is fair to good, but falls short of full compliance with modern accessibility legislation. While the clearances and clear floor spaces are adequate and some modifications such as grab bars have been added, the addition of compliant mirrors and new accessible plumbing fixtures is recommended over the next ten years. Furthermore, the public restroom on the first floor is not accessible. While there is an accessible restroom on the second floor, this first floor restroom is recommended to be upgraded to full wheelchair accessibility.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITAC02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Mirror	EA	10	\$292	\$2,920	\$224	\$2,240	\$5,160
ADA compliant plumbing fixture	EA	30	\$810	\$24,300	\$692	\$20,760	\$45,060
Modifications for first floor restroom	LOT	1	\$2,500	\$2,500	\$3,500	\$3,500	\$6,000
Project Totals:				\$29,720		\$26,500	\$56,220

Material/Labor Cost		\$56,220
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$43,523</u>
General Contractor Mark Up at 20.0%	+	<u>\$8,705</u>
Construction Cost		<u>\$52,227</u>
Professional Fees at 16.0%	+	<u>\$8,356</u>
Total Project Cost		<u>\$60,583</u>

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITAC04	Title:	STAIR AND RAILING SAFETY UPGRADES
Priority Sequence:	4		
Priority Class:	3		
Category Code:	AC3B	System:	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	STAIRS AND RAILINGS
Building Code:	WHIT		
Building Name:	WHITE RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	IBC	1003.3	
	ADAAG	505	
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

Present legislation requires that stairs have graspable handrails on both sides, that the rails have a specific end geometry, and that the handrails continue horizontally at the landings. In addition, guardrails must prevent the passage of a four inch diameter sphere (six 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.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITAC04

Task Cost Estimate

Task Description	Unit	Qty	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

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITES03	Title:	BUILT-UP ROOF REPLACEMENT
Priority Sequence:	5		
Priority Class:	3		
Category Code:	ES4B	System:	EXTERIOR
		Component:	ROOF
		Element:	REPLACEMENT
Building Code:	WHIT		
Building Name:	WHITE RESIDENCE HALL		
Subclass/Savings:	Energy Conservation	\$800	
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/20/2009		
Project Location:	Floor-wide: Floor(s) R		

Project Description

The built-up roofing system is not expected to outlast the scope of this analysis. Future budget modeling should include a provision for the replacement of all failing roofing systems. Replace this roof with a similar application.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITES03

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Built-up roof	SF	8,300	\$4.00	\$33,200	\$5.00	\$41,500	\$74,700
Project Totals:				\$33,200		\$41,500	\$74,700

Material/Labor Cost		\$74,700
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$54,722</u>
General Contractor Mark Up at 20.0%	+	<u>\$10,944</u>
Construction Cost		<u>\$65,666</u>
Professional Fees at 16.0%	+	<u>\$10,507</u>
Total Project Cost		<u>\$76,173</u>

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITHV01	Title:	REPLACE HYDRONIC HEATING SYSTEM
Priority Sequence:	6		
Priority Class:	3		
Category Code:	HV5A	System:	HVAC
		Component:	STEAM/HYDRONIC DISTRIB.
		Element:	PIPING NETWORK
Building Code:	WHIT		
Building Name:	WHITE 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.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITHV01

Task Cost Estimate

Task Description	Unit	Qty	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:				\$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

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITEL01	Title:	REPLACE EMERGENCY GENERATOR
Priority Sequence:	7		
Priority Class:	3		
Category Code:	EL5A	System:	ELECTRICAL
		Component:	EMERGENCY POWER SYSTEM
		Element:	GENERATION/DISTRIBUTION
Building Code:	WHIT		
Building Name:	WHITE 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 of 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.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITEL01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Diesel generator set, including fuel tank, battery, charger, exhaust, automatic transfer switches	KW	100	\$463	\$46,300	\$118	\$11,800	\$58,100
Project Totals:				\$46,300		\$11,800	\$58,100

Material/Labor Cost		\$58,100
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$52,678
General Contractor Mark Up at 20.0%	+	\$10,536
Construction Cost		\$63,213
Professional Fees at 16.0%	+	\$10,114
Total Project Cost		\$73,327

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITEL03	Title:	UPGRADE ELECTRICAL DISTRIBUTION NETWORK
Priority Sequence:	8		
Priority Class:	3		
Category Code:	EL3B	System:	ELECTRICAL
		Component:	SECONDARY DISTRIBUTION
		Element:	DISTRIBUTION NETWORK
Building Code:	WHIT		
Building Name:	WHITE 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, serve as fire hazards should 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 GFCI protection where required, and clearly label all panels for circuit identification.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITEL03

Task Cost Estimate

Task Description	Unit	Qty	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

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITEL02	Title:	INTERIOR LIGHTING UPGRADE
Priority Sequence:	9		
Priority Class:	3		
Category Code:	EL4B	System:	ELECTRICAL
		Component:	DEVICES AND FIXTURES
		Element:	INTERIOR LIGHTING
Building Code:	WHIT		
Building Name:	WHITE 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.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITEL02

Task Cost Estimate

Task Description	Unit	Qty	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 Totals:				\$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

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITIS01	Title:	REFINISH FLOORING
Priority Sequence:	10		
Priority Class:	3		
Category Code:	IS1A	System:	INTERIOR/FINISH SYS.
		Component:	FLOOR
		Element:	FINISHES-DRY
Building Code:	WHIT		
Building Name:	WHITE 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 common areas within the facility are generally carpeted, with the exception of several areas in the first floor, including the kitchen and vending room, which are primarily terrazzo. The laundries and housekeeping space have vinyl floor tile. In the dormitory rooms, carpet has been installed over vinyl floor tile. 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 in the bathrooms and the first floor terrazzo appear sound and should provide satisfactory service over the next ten years.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITIS01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Carpet	SF	60,000	\$5.36	\$321,600	\$2.00	\$120,000	\$441,600
Vinyl floor tile	SF	2,000	\$3.53	\$7,060	\$2.50	\$5,000	\$12,060
Project Totals:				\$328,660		\$125,000	\$453,660

Material/Labor Cost		\$453,660
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$395,086
General Contractor Mark Up at 20.0%	+	\$79,017
Construction Cost		\$474,103
Professional Fees at 16.0%	+	\$75,856
Total Project Cost		\$549,959

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITIS02	Title:	REFINISH WALLS
Priority Sequence:	11		
Priority Class:	3		
Category Code:	IS2B	System:	INTERIOR/FINISH SYS.
		Component:	PARTITIONS
		Element:	FINISHES
Building Code:	WHIT		
Building Name:	WHITE 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.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITIS02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Standard wall finish (paint, wall covering, etc.)	SF	280,000	\$0.17	\$47,600	\$0.81	\$226,800	\$274,400
Project Totals:				\$47,600		\$226,800	\$274,400

Material/Labor Cost		\$274,400
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$164,282</u>
General Contractor Mark Up at 20.0%	+	<u>\$32,856</u>
Construction Cost		<u>\$197,138</u>
Professional Fees at 16.0%	+	<u>\$31,542</u>
Total Project Cost		<u>\$228,680</u>

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITPL02	Title:	WATER SUPPLY PIPING REPLACEMENT
Priority Sequence:	12		
Priority Class:	3		
Category Code:	PL1A	System:	PLUMBING
		Component:	DOMESTIC WATER
		Element:	PIPING NETWORK
Building Code:	WHIT		
Building Name:	WHITE 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

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.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITPL02

Task Cost Estimate

Task Description	Unit	Qty	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

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITPL03	Title:	DRAIN PIPING REPLACEMENT
Priority Sequence:	13		
Priority Class:	3		
Category Code:	PL2A	System:	PLUMBING
		Component:	WASTEWATER
		Element:	PIPING NETWORK
Building Code:	WHIT		
Building Name:	WHITE 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

Replacement of the aging drain piping throughout the facility is recommended. 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 run-outs to the fixtures. Install new floor drains, roof drains, and traps.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITPL03

Task Cost Estimate

Task Description	Unit	Qty	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

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITPL01	Title:	DOMESTIC HOT WATER HEAT EXCHANGER REPLACEMENT
Priority Sequence:	14		
Priority Class:	3		
Category Code:	PL1E	System:	PLUMBING
		Component:	DOMESTIC WATER
		Element:	HEATING
Building Code:	WHIT		
Building Name:	WHITE 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

Replacement of the domestic hot water converter is recommended. With age, heat exchanger efficiency is reduced by internal tube scaling. Internal wear will eventually lead to failure, allowing contaminants to enter the water system. Remove the existing system. Install a new heat exchanger, pumps, piping, and controls as needed.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITPL01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Heat exchanger, pumps, piping, valves, controls, insulation, and demolition	GPM	48	\$183	\$8,789	\$150	\$7,177	\$15,966
Project Totals:				\$8,789		\$7,177	\$15,966

Material/Labor Cost		\$15,966
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$12,532
General Contractor Mark Up at 20.0%	+	\$2,506
Construction Cost		\$15,039
Professional Fees at 16.0%	+	\$2,406
Total Project Cost		\$17,445

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITPL04	Title:	DOMESTIC WATER BOOSTER PUMP REPLACEMENT
Priority Sequence:	15		
Priority Class:	3		
Category Code:	PL1B	System:	PLUMBING
		Component:	DOMESTIC WATER
		Element:	PUMPS
Building Code:	WHIT		
Building Name:	WHITE 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 domestic water booster pump system will require replacement within the scope of this analysis. This work includes all pumps, motors, controllers, and connections. Specify a high efficiency system and incorporate variable frequency drives, if possible.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITPL04

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Domestic water booster pump system, including demolition of existing equipment	SYS	1	\$5,730	\$5,730	\$1,450	\$1,450	\$7,180
Project Totals:				\$5,730		\$1,450	\$7,180

Material/Labor Cost		\$7,180
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$6,514
General Contractor Mark Up at 20.0%	+	\$1,303
Construction Cost		\$7,817
Professional Fees at 16.0%	+	\$1,251
Total Project Cost		\$9,067

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITPL05	Title:	REPLACE SUMP PUMPS
Priority Sequence:	16		
Priority Class:	3		
Category Code:	PL2B	System:	PLUMBING
		Component:	WASTEWATER
		Element:	PUMPS
Building Code:	WHIT		
Building Name:	WHITE RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	IPC	712	
Project Class:	Deferred Maintenance		
Project Date:	10/14/2009		
Project Location:	Item Only: Floor(s) 1		

Project Description

Replacement of the sump pump system is recommended. Remove the existing pump assembly. Install a new duplex sump pump system, including pit, pumps, alternating controls, alarms, piping, and electrical connections.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITPL05

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Sump pump system, including pit, pumps, controls, connections, and demolition of existing system	SYS	1	\$4,440	\$4,440	\$3,120	\$3,120	\$7,560
Project Totals:				\$4,440		\$3,120	\$7,560

Material/Labor Cost		\$7,560
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$6,072
General Contractor Mark Up at 20.0%	+	\$1,214
Construction Cost		\$7,286
Professional Fees at 16.0%	+	\$1,166
Total Project Cost		\$8,452

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITAC01	Title:	INTERIOR SIGNAGE AND DOOR HARDWARE UPGRADES
Priority Sequence:	17		
Priority Class:	4		
Category Code:	AC4B	System:	ACCESSIBILITY
		Component:	GENERAL
		Element:	OTHER
Building Code:	WHIT		
Building Name:	WHITE 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		

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 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. The scope of this project includes all directional signage.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITAC01

Task Cost Estimate

Task Description	Unit	Qty	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 Totals:				\$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

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITES01	Title:	EXTERIOR DOOR REPLACEMENT
Priority Sequence:	18		
Priority Class:	4		
Category Code:	ES5A	System:	EXTERIOR
		Component:	FENESTRATIONS
		Element:	DOORS
Building Code:	WHIT		
Building Name:	WHITE RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/20/2009		
Project Location:	Item Only: Floor(s) 1		

Project Description

It is recommended that aged and inefficient exterior door systems be replaced. This project includes only the primary entrance doors. The replacement units should maintain the architectural design aspects of this facility. They should be modern, energy efficient applications that will protect the interior of the building from the elements.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITES01

Task Cost Estimate

Task Description	Unit	Qty	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
Project Totals:				\$7,912		\$7,996	\$15,908

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

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITES02	Title:	WINDOW REPLACEMENT
Priority Sequence:	19		
Priority Class:	4		
Category Code:	ES5B	System:	EXTERIOR
		Component:	FENESTRATIONS
		Element:	WINDOWS
Building Code:	WHIT		
Building Name:	WHITE 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.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITES02

Task Cost Estimate

Task Description	Unit	Qty	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 Totals:				\$44,671		\$28,431	\$73,102

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

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITHV02	Title:	MODULAR COOLING EQUIPMENT REPLACEMENT
Priority Sequence:	20		
Priority Class:	4		
Category Code:	HV2B	System:	HVAC
		Component:	COOLING
		Element:	HEAT REJECTION
Building Code:	WHIT		
Building Name:	WHITE 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

Replacement of the existing through-wall air conditioners is recommended. Remove the existing units. Install new units of the latest energy efficient design.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITHV02

Task Cost Estimate

Task Description	Unit	Qty	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		<u>\$156,983</u>
General Contractor Mark Up at 20.0%	+	<u>\$31,397</u>
Construction Cost		<u>\$188,379</u>
Professional Fees at 16.0%	+	<u>\$30,141</u>
Total Project Cost		<u>\$218,520</u>

Specific Project Details
Facility Condition Analysis
Section Three
WHIT : WHITE RESIDENCE HALL

Project Description

Project Number:	WHITIS03	Title:	REFINISH CEILINGS
Priority Sequence:	21		
Priority Class:	4		
Category Code:	IS3B	System:	INTERIOR/FINISH SYS.
		Component:	CEILINGS
		Element:	REPLACEMENT
Building Code:	WHIT		
Building Name:	WHITE 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 have painted finishes. 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.

Specific Project Details
Facility Condition Analysis
Section Three
 WHIT : WHITE RESIDENCE HALL

Project Cost

Project Number: WHITIS03

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Painted ceiling finish application	SF	60,000	\$0.17	\$10,200	\$0.81	\$48,600	\$58,800
Project Totals:				\$10,200		\$48,600	\$58,800

Material/Labor Cost		\$58,800
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$35,203</u>
General Contractor Mark Up at 20.0%	+	<u>\$7,041</u>
Construction Cost		<u>\$42,244</u>
Professional Fees at 16.0%	+	<u>\$6,759</u>
Total Project Cost		<u>\$49,003</u>

FACILITY CONDITION ANALYSIS

SECTION 4

**DRAWINGS
AND PROJECT LOCATIONS**



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

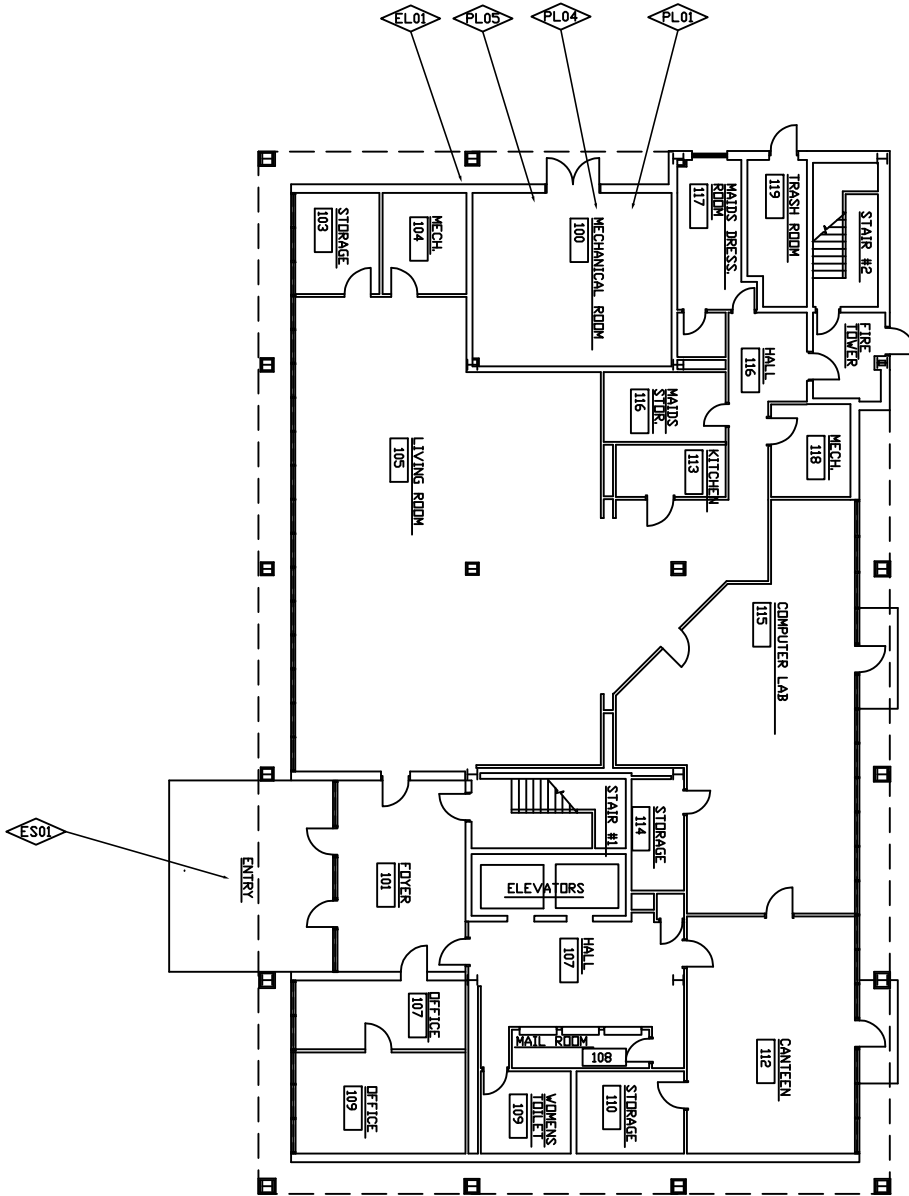
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PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS

PROJECT NUMBER APPLIES TO AREA AS NOTED

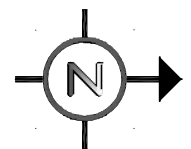
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Drawn by: J.T.V.
Project No. 09-041

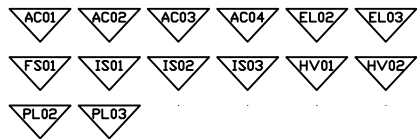
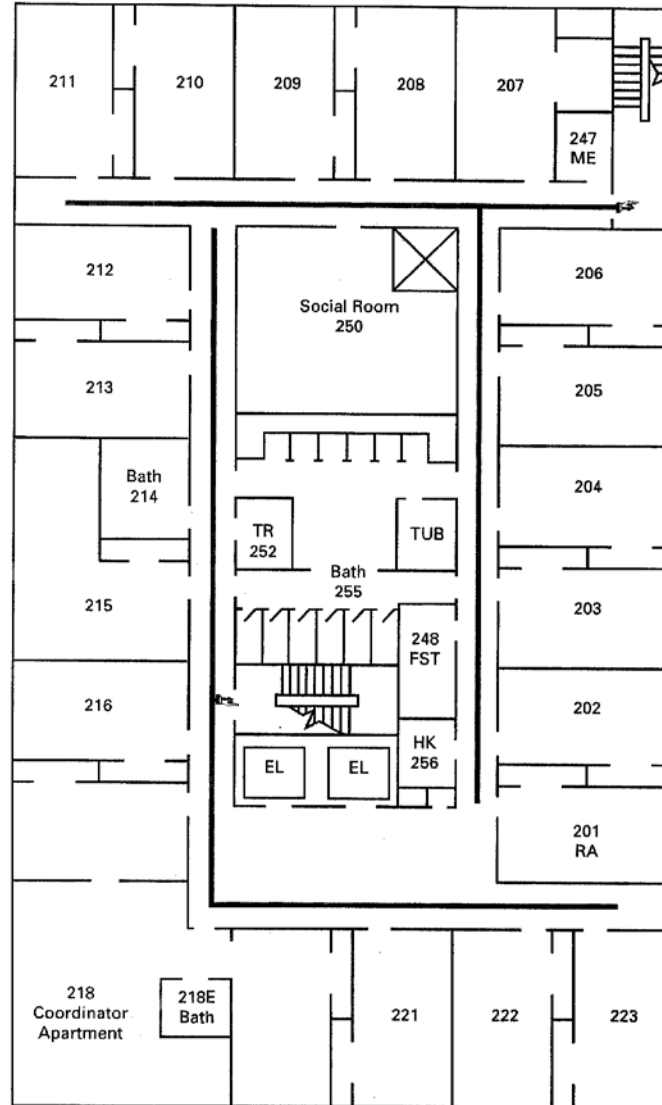
FIRST FLOOR PLAN



ES02

- AC01
- AC02
- AC03
- AC04
- EL03
- FS01
- IS01
- IS02
- IS03
- HV01
- HV02
- PL02
- PL03





WHITE RESIDENCE HALL

BLDG NO. WHIT



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

 PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 10/26/09

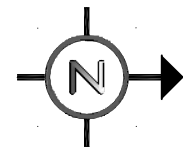
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Project No. 09-041

SECOND
FLOOR
PLAN

Sheet No.

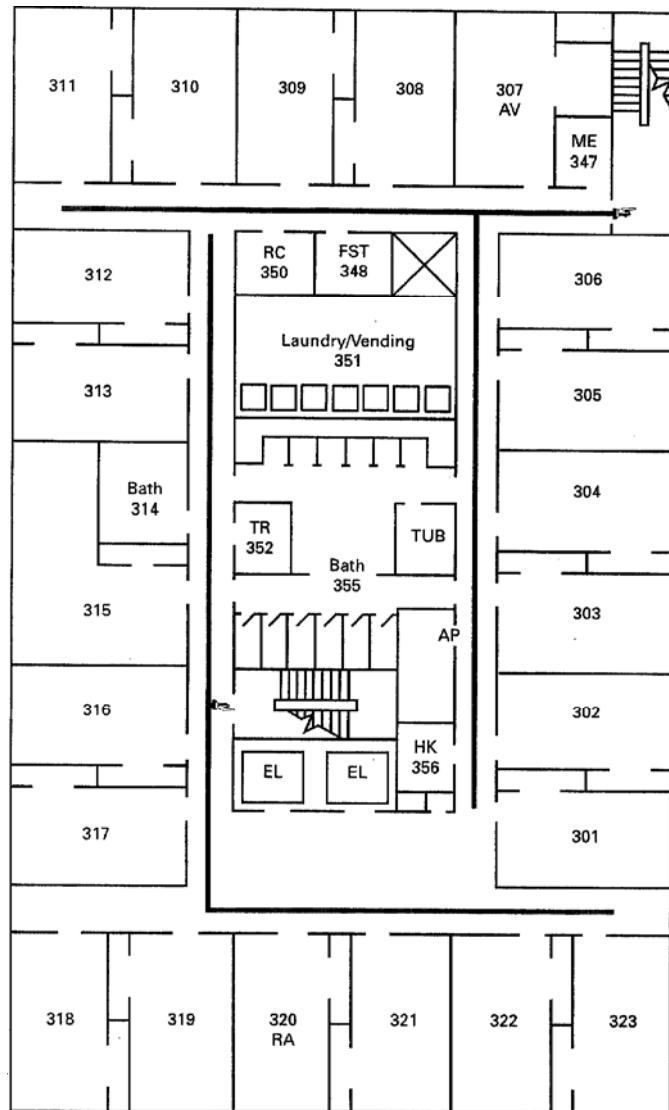
2 of 10





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

PROJECT NUMBER
APPLIES TO AREA
AS NOTED

Date: 10/26/09

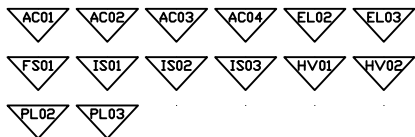
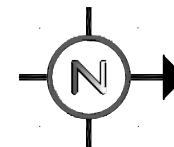
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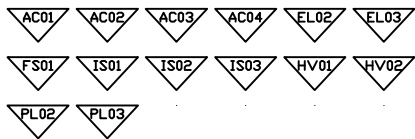
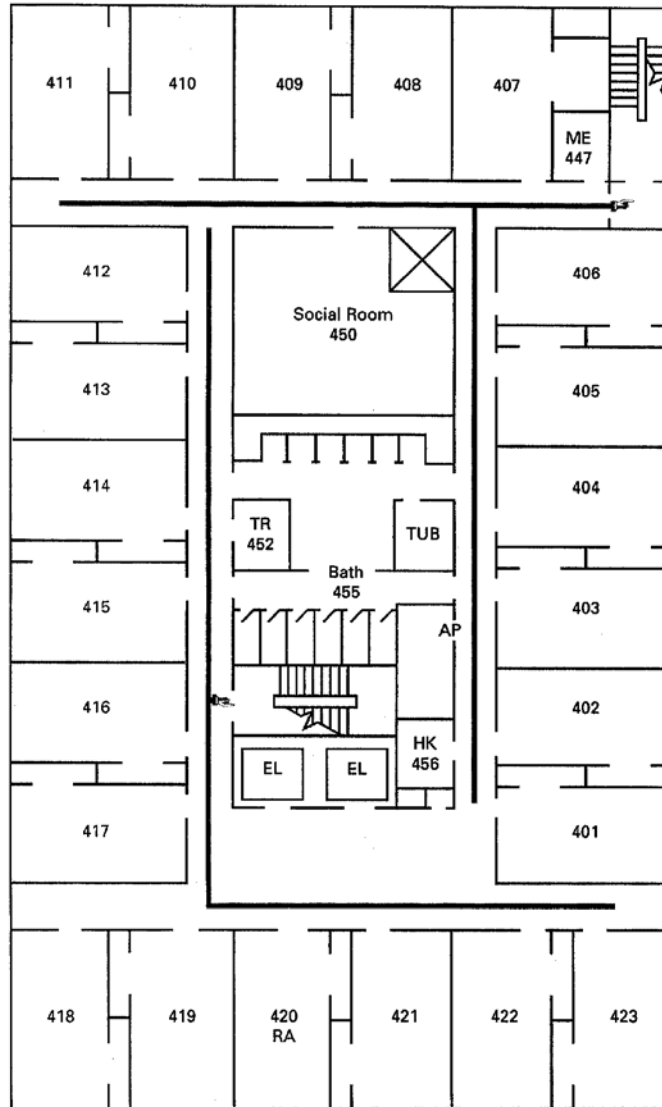
Project No. 09-041

THIRD
FLOOR
PLAN

Sheet No.

3 of 10





WHITE RESIDENCE HALL

BLDG NO. WHIT



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

PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 10/26/09

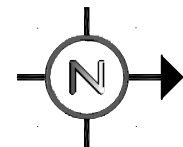
Drawn by: J.T.V.

Project No. 09-041

FOURTH FLOOR PLAN

Sheet No.

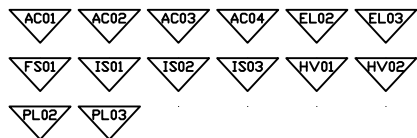
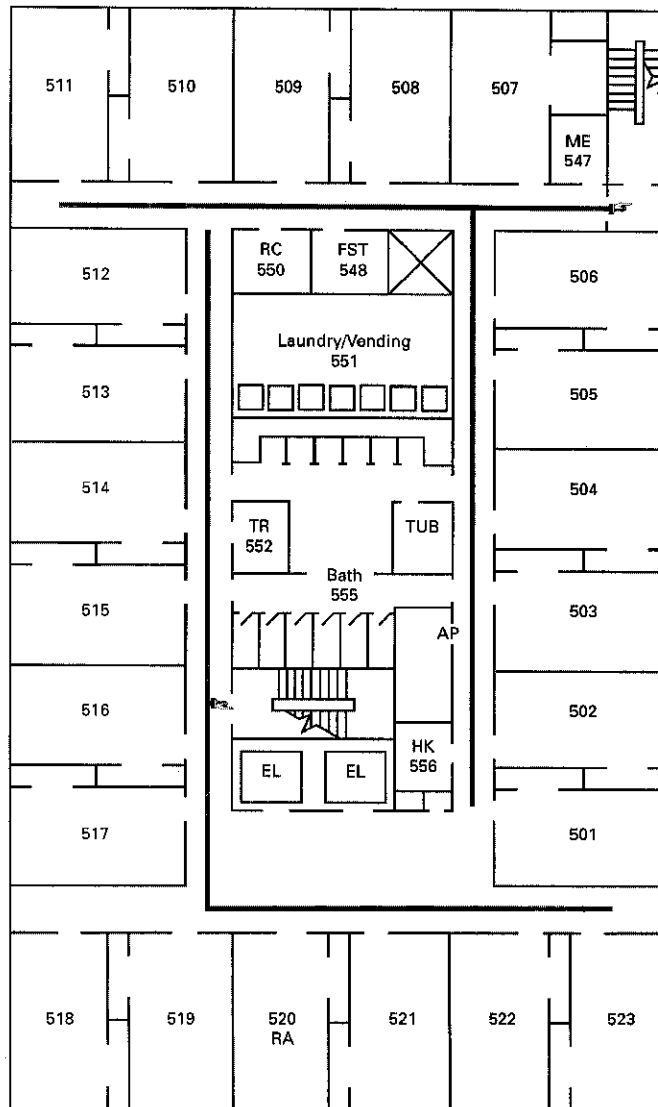
4 of 10





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

PROJECT NUMBER
APPLIES TO AREA
AS NOTED

Date: 10/26/09

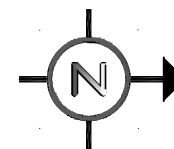
Drawn by: J.T.V.

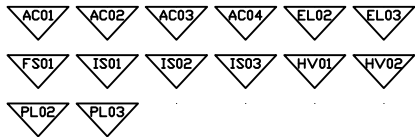
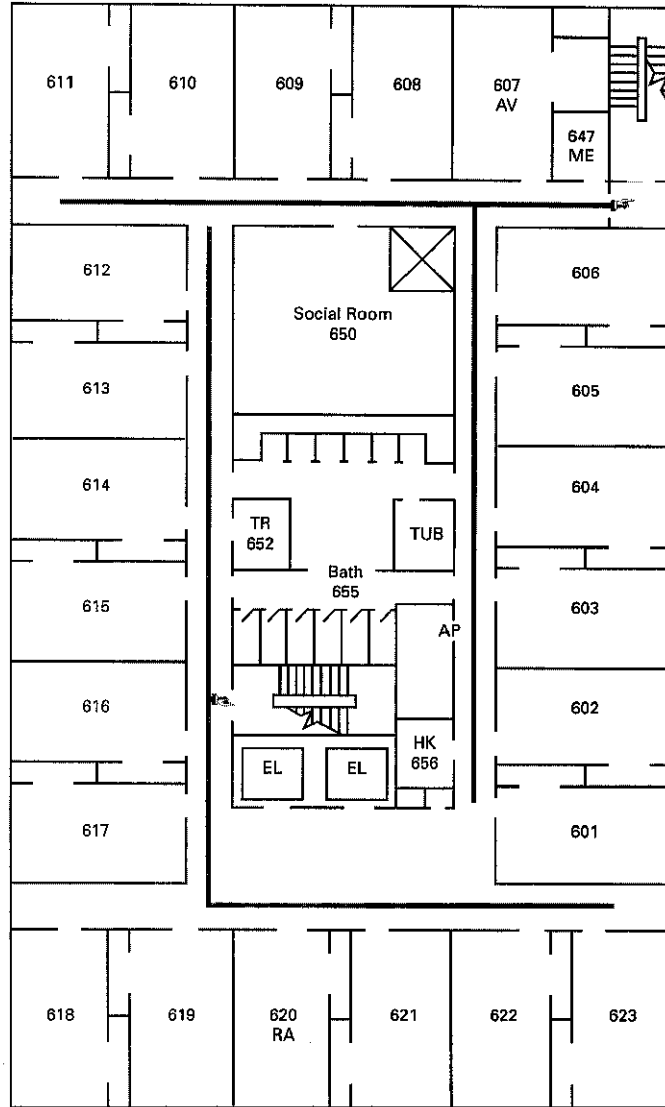
Project No. 09-041

FIFTH
FLOOR
PLAN

Sheet No.

5 of 10





WHITE RESIDENCE HALL

BLDG NO. WHIT



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

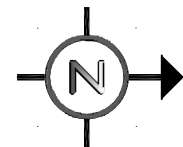
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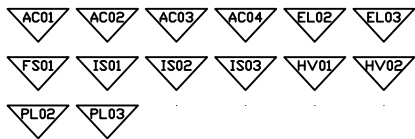
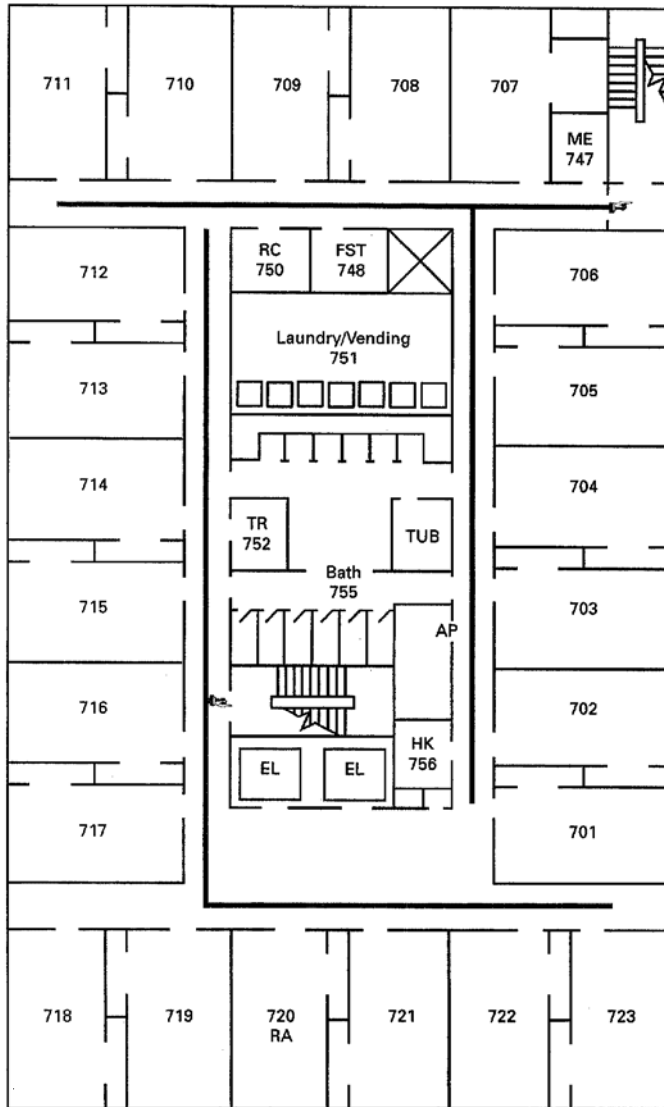
PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 10/26/09
Drawn by: J.T.V.
Project No. 09-041

SIXTH FLOOR PLAN

Sheet No.
6 of 10





WHITE RESIDENCE HALL

BLDG NO. WHIT



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

PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 10/26/09

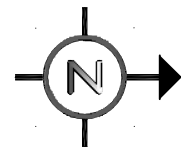
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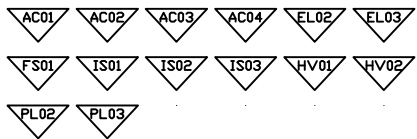
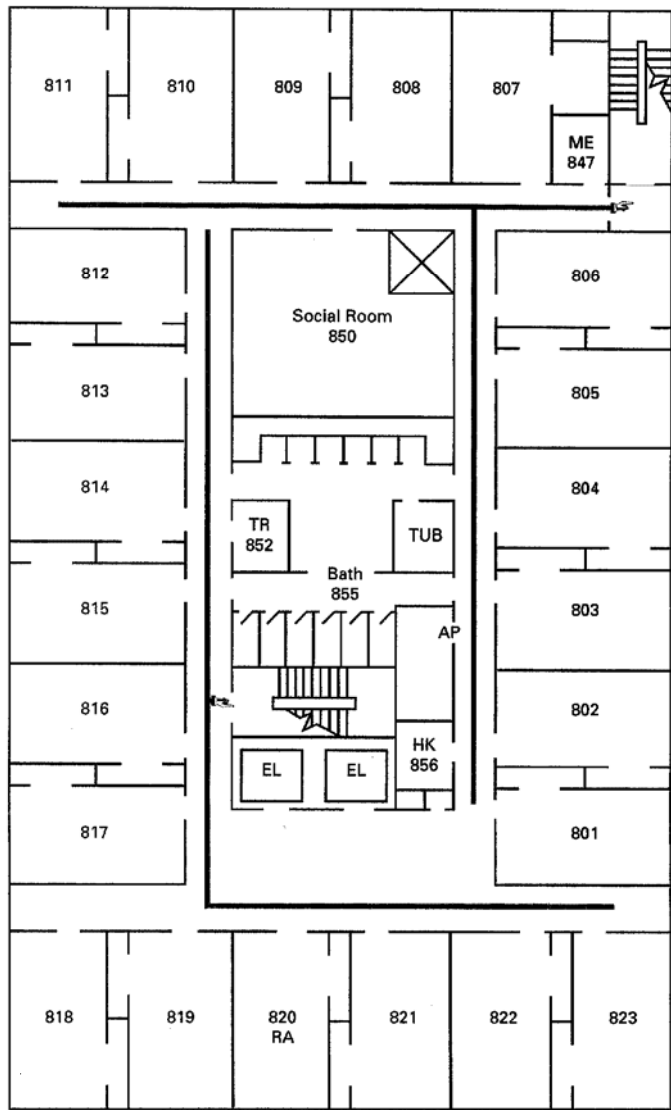
Project No. 09-041

SEVENTH FLOOR PLAN

Sheet No.

7 of 10





WHITE RESIDENCE HALL

BLDG NO. WHIT



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

PROJECT NUMBER
APPLIES TO AREA
AS NOTED

Date: 10/26/09

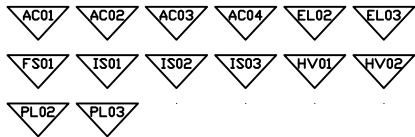
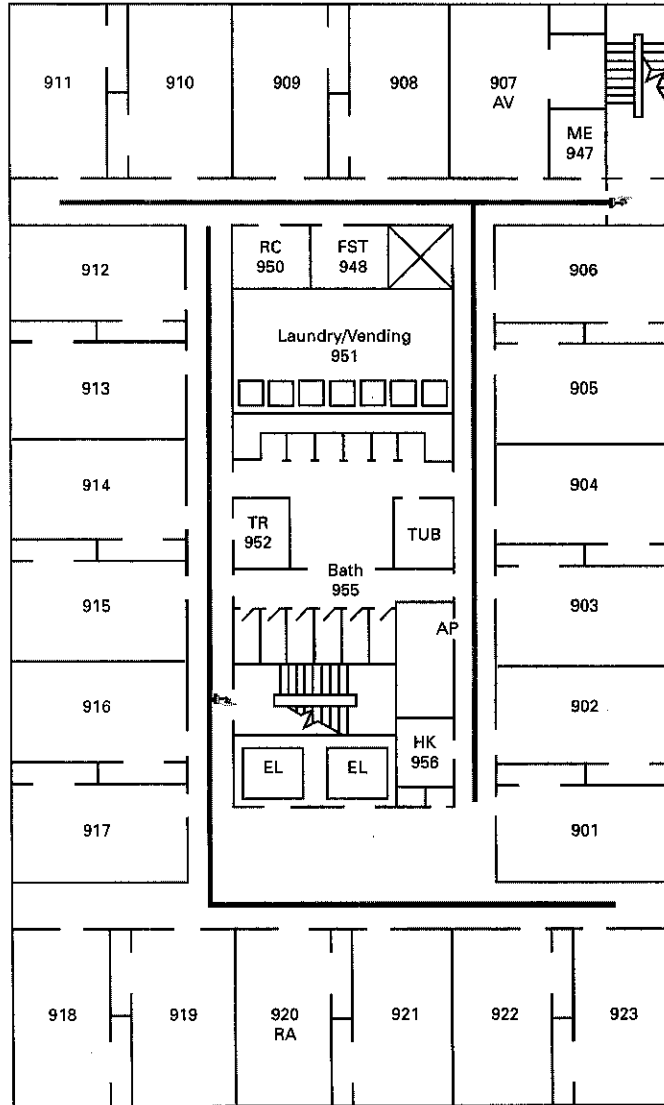
Drawn by: J.T.V.

Project No. 09-041

EIGHTH
FLOOR
PLAN

Sheet No.

8 of 10



WHITE RESIDENCE HALL

BLDG NO. WHIT



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

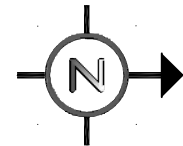
PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS

PROJECT NUMBER APPLIES TO AREA AS NOTED

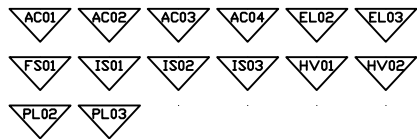
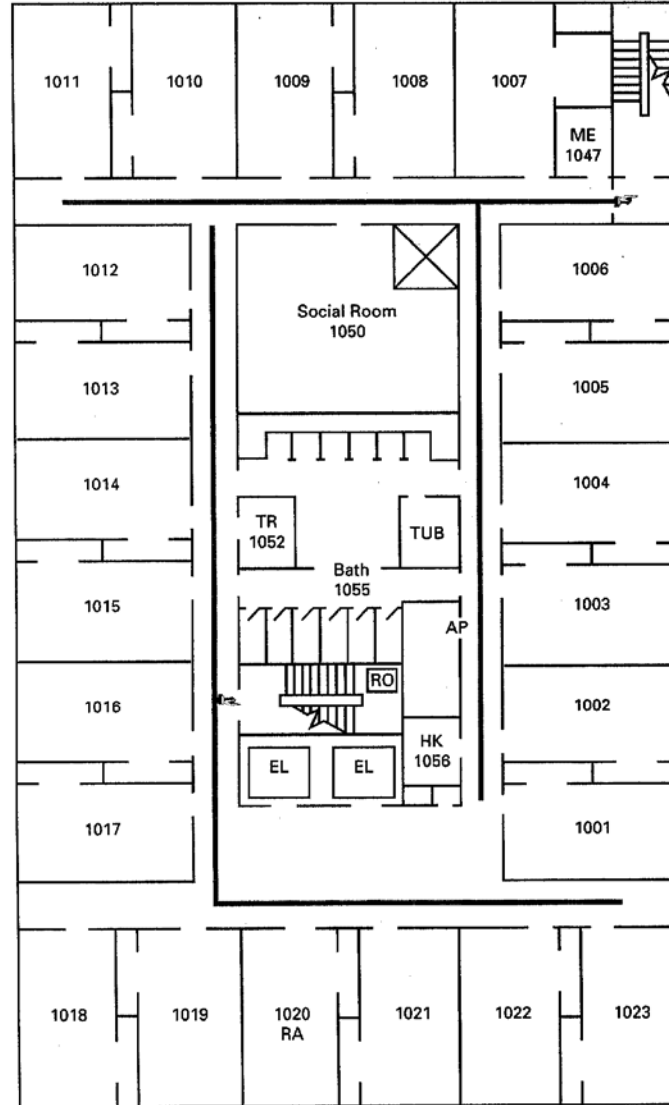
Date: 10/26/09
Drawn by: J.T.V.
Project No. 09-041

NINTH FLOOR PLAN

Sheet No. 9 of 10



ROOF
ES03



WHITE RESIDENCE HALL

BLDG NO. WHIT

ISES 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

PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 10/26/09

Drawn by: J.T.V.

Project No. 09-041

TENTH FLOOR PLAN

Sheet No.

10 of 10

FACILITY CONDITION ANALYSIS

SECTION 5

LIFE CYCLE MODEL SUMMARY
AND PROJECTIONS

**Life Cycle Model
Building Component Summary
WHIT : WHITE RESIDENCE HALL**

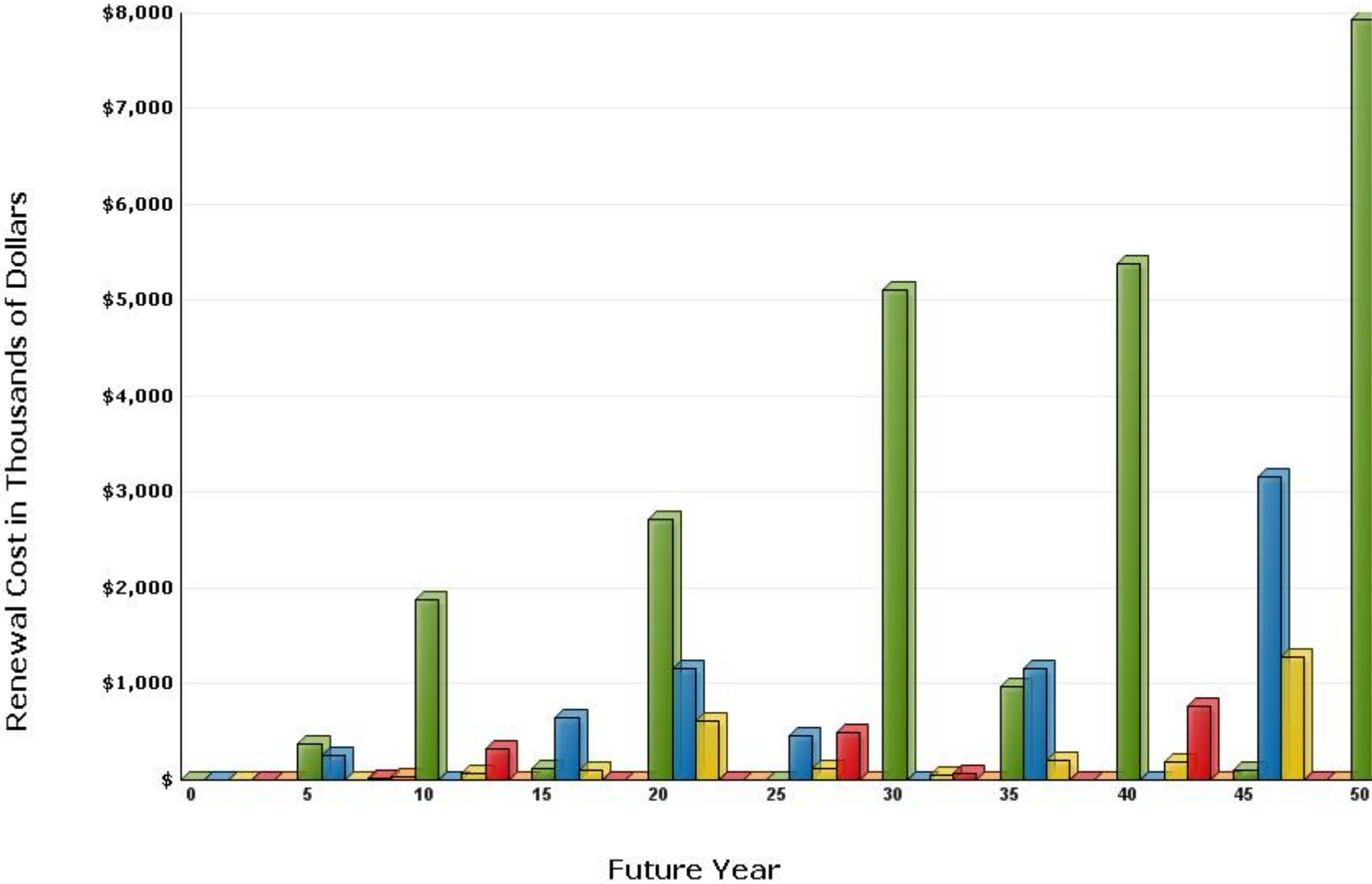
Unifomat Code	Component Description	Qty	Units	Unit Cost	Complex Adj	Total Cost	Install Date	Life Exp
B2010	EXTERIOR FINISH RENEWAL	14,990	SF	\$1.30		\$19,541	1968	10
B2010	EXTERIOR FINISH RENEWAL	27,850	SF	\$1.30	.31	\$11,255	1968	10
B2020	STANDARD GLAZING AND CURTAIN WALL	760	SF	\$104.04		\$79,068	1968	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	1968	20
B2030	LOW TRAFFIC EXTERIOR DOOR SYSTEM	8	LEAF	\$2,863.29		\$22,906	1968	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	1968	35
C1020	STANDARD DOOR AND FRAME INCLUDING HARDWARE	200	LEAF	\$783.68		\$156,736	1968	35
C1020	RATED DOOR AND FRAME INCLUDING HARDWARE	300	LEAF	\$1,489.06		\$446,718	1968	35
C1020	INTERIOR DOOR HARDWARE	300	EA	\$423.04		\$126,913	1968	15
C1020	INTERIOR DOOR HARDWARE	20	EA	\$423.04		\$8,461	1968	15
C1020	INTERIOR DOOR HARDWARE	200	EA	\$423.04		\$84,608	1968	15
C3010	STANDARD WALL FINISH (PAINT, WALL COVERING, ETC.)	280,000	SF	\$0.80		\$224,291	1968	10
C3020	CARPET	60,000	SF	\$8.75		\$524,788	1968	10
C3020	VINYL FLOOR TILE	2,000	SF	\$6.59		\$13,176	1968	15
C3020	CERAMIC FLOOR TILE	7,940	SF	\$17.36		\$137,857	1968	20
C3020	RESURFACE AND SEAL CONCRETE OR TERRAZZO	1,000	SF	\$5.85		\$5,847	1968	50
C3030	ACOUSTICAL TILE CEILING SYSTEM	6,620	SF	\$4.99		\$33,054	1968	15
C3030	PAINTED CEILING FINISH APPLICATION	59,570	SF	\$0.80		\$47,718	1968	15
D1010	ELEVATOR MODERNIZATION - TRACTION - HIGH RISE	2	EA	\$160,245.86		\$320,492	2005	25
D1010	ELEVATOR CAB RENOVATION - PASSENGER	1	EA	\$26,616.80		\$26,617	2005	12
D2010	PLUMBING FIXTURES - DORMITORY / APARTMENTS	82,731	SF	\$4.99		\$412,605	1968	35
D2020	WATER PIPING - DORMITORY / APARTMENTS	82,731	SF	\$3.55		\$293,802	1968	35
D2020	DOMESTIC WATER PRESSURE BOOSTER SYSTEM	1	SYS	\$8,868.58		\$8,869	1968	20
D2020	WATER HEATER, SHELL AND TUBE HEAT EXCHANGER	48	GPM	\$355.69		\$17,073	1968	24
D2030	DRAIN PIPING - DORMITORY / APARTMENTS	82,731	SF	\$5.40		\$446,841	1968	40
D2030	SUMP PUMP SYS (2 PUMPS, CONTROLS)	1	SYS	\$8,276.49		\$8,276	1968	20
D2050	AIR COMPRESSOR PACKAGE (AVERAGE SIZE)	1	SYS	\$6,456.49		\$6,456	1968	25

**Life Cycle Model
Building Component Summary
WHIT : WHITE RESIDENCE HALL**

Unifomat Code	Component Description	Qty	Units	Unit Cost	Complex Adj	Total Cost	Install Date	Life Exp
D3040	CONDENSATE RECEIVER	1	SYS	\$9,504.01		\$9,504	1968	15
D3040	EXHAUST FAN - CENTRIFUGAL ROOF EXHAUSTER OR SIMILAR	4	EA	\$2,768.62		\$11,074	2004	20
D3040	EXHAUST FAN - UTILITY SET OR SIMILAR	2	EA	\$3,660.81		\$7,322	2004	20
D3040	EXHAUST FAN - PROPELLER TYPE OR SIMILAR	1	EA	\$1,357.34		\$1,357	1968	20
D3040	HVAC SYSTEM - DORMITORY / APARTMENTS	31,105	SF	\$19.20		\$597,183	2004	25
D3040	BASE MTD. PUMP - UP TO 15 HP	6	HP	\$3,175.77		\$19,055	2004	20
D3050	THRU-WALL AC UNIT	140	TON	\$1,528.27		\$213,958	2004	10
D5010	ELECTRICAL SYSTEM - DORMITORY / APARTMENTS	82,731	SF	\$7.21		\$596,280	1968	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	2004	20
D5020	EXTERIOR LIGHT (HID)	4	EA	\$689.58		\$2,758	2004	20
D5020	LIGHTING - DORMITORY / APARTMENTS	51,626	SF	\$4.30		\$222,006	1968	20
D5020	LIGHTING - DORMITORY / APARTMENTS	31,106	SF	\$4.30		\$133,764	2004	20
D5030	FIRE ALARM SYSTEM, POINT ADDRESSABLE	82,731	SF	\$2.61		\$216,308	2006	15
D5040	GENERATOR, DIESEL (UP TO 50 KW)	12	KW	\$1,123.84		\$13,486	1968	25
E2010	KITCHENETTE UNIT WITH CABINETS AND AMENITIES	1	LOT	\$5,940.22		<u>\$5,940</u>	1968	20
						\$6,408,173		

Life Cycle Model Expenditure Projections

WHIT : WHITE RESIDENCE HALL



Average Annual Renewal Cost Per SqFt \$3.28

FACILITY CONDITION ANALYSIS

SECTION 6

PHOTOGRAPHIC LOG

**Photo Log - Facility Condition
Analysis
WHIT : WHITE RESIDENCE HALL**

Photo ID No	Description	Location	Date
WHIT001a	Non-accessible handrails and little guardrail protection	Stairwell	9/16/2009
WHIT001e	Air handling equipment	Roof	9/16/2009
WHIT002a	Single-level water fountains in alcoves	Tenth floor	9/16/2009
WHIT002e	HVAC equipment	Roof	9/16/2009
WHIT003a	Stained carpet	Tenth floor	9/16/2009
WHIT003e	HVAC equipment	Roof	9/16/2009
WHIT004a	Single-level water fountains in alcoves	Second floor	9/16/2009
WHIT004e	Elevator machine	Roof, penthouse	9/16/2009
WHIT005a	Typical wooden cabinetry in dorm rooms	Third floor, AV room	9/16/2009
WHIT005e	Elevator controllers	Roof, penthouse	9/16/2009
WHIT006a	Bleach stained carpet	Second floor	9/16/2009
WHIT006e	Exhaust fans	Roof	9/16/2009
WHIT007a	Typical door hardware and room signage	Ninth floor	9/16/2009
WHIT007e	Piping	Tenth floor, pipe chase	9/16/2009
WHIT008a	Original single-pane windows	First floor	9/16/2009
WHIT008e	Water closet	Ninth floor, restroom	9/16/2009
WHIT009a	Non-accessible sink and counter top	First floor	9/16/2009
WHIT009e	Lavatories	Ninth floor, restroom	9/16/2009
WHIT010a	Non-accessible sink hardware	Ninth floor, bathrooms	9/16/2009
WHIT010e	Drain piping	Ninth floor, restroom	9/16/2009
WHIT011a	Marble partitions and new doors	Ninth floor, bathrooms	9/16/2009
WHIT011e	Interior lighting	Ninth floor, restroom	9/16/2009
WHIT012a	Crack in terrazzo flooring	First floor	9/16/2009
WHIT012e	Shower components	Ninth floor, restroom	9/16/2009
WHIT013a	Brick masonry and concrete panel exterior facade	Southern side	9/16/2009
WHIT013e	Interior lighting	Ninth floor, restroom	9/16/2009
WHIT014a	Brick masonry and concrete panel exterior facade	Western side	9/16/2009
WHIT014e	Bathtub	Ninth floor, restroom	9/16/2009
WHIT015a	Brick masonry and concrete panel exterior facade	Northern side	9/16/2009
WHIT015e	Electrical receptacles	Ninth floor, room 951	9/16/2009
WHIT016a	Original glass storefront doors	Northern side	9/16/2009
WHIT016e	Interior lighting	Ninth floor, room 951	9/16/2009
WHIT017a	Brick masonry and concrete panel exterior facade	Northern side	9/16/2009

**Photo Log - Facility Condition
Analysis
WHIT : WHITE RESIDENCE HALL**

Photo ID No	Description	Location	Date
WHIT017e	Secondary electrical panel	Ninth floor, room 947	9/16/2009
WHIT018a	Brick masonry and concrete panel exterior facade	Western side	9/16/2009
WHIT018e	Window air conditioning unit	Ninth floor, room 907	9/16/2009
WHIT019e	Fire alarm devices	Ninth floor, room 907	9/16/2009
WHIT020e	Radiator	Ninth floor, corridor	9/16/2009
WHIT021e	Secondary electrical panel	Ninth floor, corridor	9/16/2009
WHIT022e	Service sink	Ninth floor, room 956	9/16/2009
WHIT023e	Interior lighting	Ninth floor, room 956	9/16/2009
WHIT024e	Water closet and lavatory	Second floor, room 214	9/16/2009
WHIT025e	Drain piping	Second floor, pipe chase	9/16/2009
WHIT026e	Drain piping	Second floor, pipe chase	9/16/2009
WHIT027e	Fire alarm panel	First floor, room 109	9/16/2009
WHIT028e	Stainless steel sink and stove	First floor, room 113	9/16/2009
WHIT029e	Fire alarm devices	First floor, room 113	9/16/2009
WHIT030e	Exit signage and interior lighting	First floor, room 105	9/16/2009
WHIT031e	Air handling equipment	First floor, room 114	9/16/2009
WHIT032e	Exit signage	First floor, room 112	9/16/2009
WHIT033e	Condensing unit	Site	9/16/2009
WHIT034e	Transformer	Site	9/16/2009
WHIT035e	Main electrical distribution equipment	Ground floor, room 117-OS	9/16/2009
WHIT036e	Pump equipment	First floor, room 100	9/16/2009
WHIT037e	Compressor	First floor, room 100	9/16/2009
WHIT038e	Emergency generator	First floor, room 100	9/16/2009
WHIT039e	Booster pump system	First floor, room 100	9/16/2009
WHIT040e	Condensate return system	First floor, room 100	9/16/2009
WHIT041e	Pump equipment	First floor, room 100	9/16/2009
WHIT042e	Condensing unit and tank	Exterior	9/16/2009
WHIT043e	Exterior lighting	Exterior	9/16/2009
WHIT044e	Exterior lighting	Exterior	9/16/2009
WHIT045e	Exterior lighting	Exterior	9/16/2009

Facility Condition Analysis - Photo Log



WHIT001A.jpg



WHIT001E.jpg



WHIT002A.jpg



WHIT002E.jpg



WHIT003A.jpg



WHIT003E.jpg



WHIT004A.jpg



WHIT004E.jpg



WHIT005A.jpg



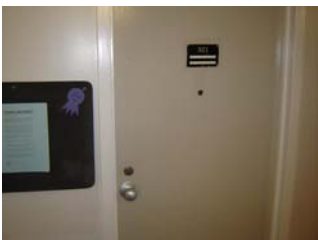
WHIT005E.jpg



WHIT006A.jpg



WHIT006E.jpg



WHIT007A.jpg



WHIT007E.jpg



WHIT008A.jpg



WHIT008E.jpg

Facility Condition Analysis - Photo Log



WHIT009A.jpg



WHIT009E.jpg



WHIT010A.jpg



WHIT010E.jpg



WHIT011A.jpg



WHIT011E.jpg



WHIT012A.jpg



WHIT012E.jpg



WHIT013A.jpg



WHIT013E.jpg



WHIT014A.jpg



WHIT014E.jpg



WHIT015A.jpg



WHIT015E.jpg



WHIT016A.jpg



WHIT016E.jpg

Facility Condition Analysis - Photo Log



WHIT017A.jpg



WHIT017E.jpg



WHIT018A.jpg



WHIT018E.jpg



WHIT019E.jpg



WHIT020E.jpg



WHIT021E.jpg



WHIT022E.jpg



WHIT023E.jpg



WHIT024E.jpg



WHIT025E.jpg



WHIT026E.jpg



WHIT027E.jpg



WHIT028E.jpg



WHIT029E.jpg



WHIT030E.jpg

Facility Condition Analysis - Photo Log



WHIT031E.jpg



WHIT032E.jpg



WHIT033E.jpg



WHIT034E.jpg



WHIT035E.jpg



WHIT036E.jpg



WHIT037E.jpg



WHIT038E.jpg



WHIT039E.jpg



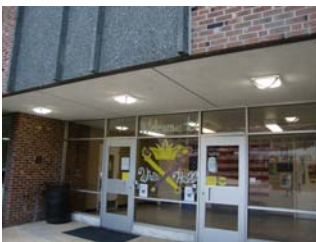
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WHIT043E.jpg



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WHIT045E.jpg