EAST CAROLINA UNIVERSITY

FLETCHER RESIDENCE HALL

ASSET CODE: FLET

FACILITY CONDITION ANALYSIS

DECEMBER 4, 2009

ISES CORPORATION

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FACILITY CONDITION ANALYSIS

SECTION 1

GENERAL ASSET INFORMATION

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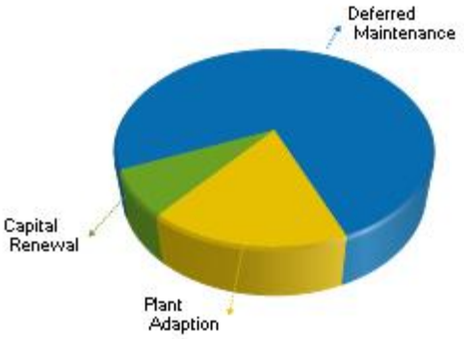
PROJECT COSTS BY CLASSIFICATION



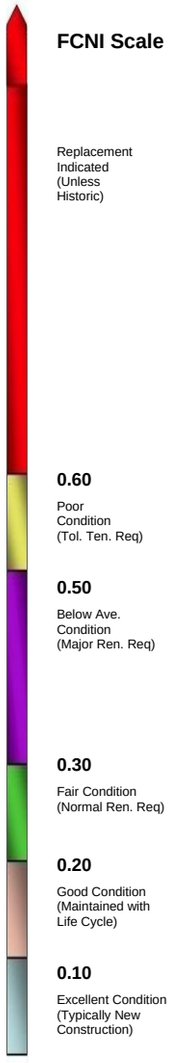
Building Code: FLET
Building Name: FLETCHER RESIDENCE HALL
Year Built: 1964
Building Use: Dormitory / Apartments
Square Feet: 80,649

Project Costs by Priority

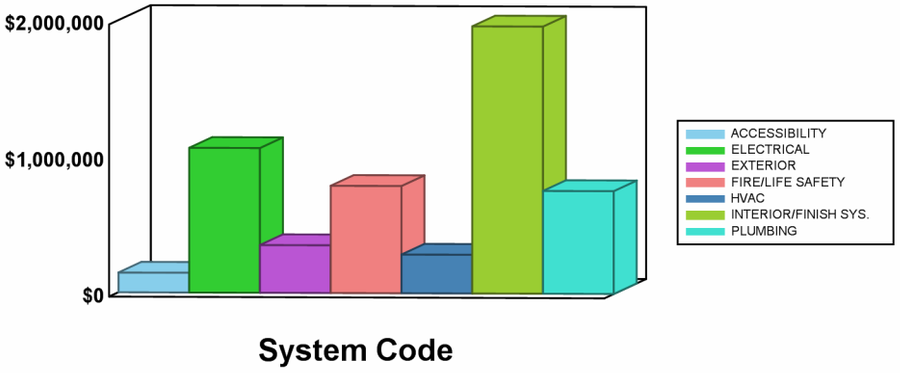
Priority 1:	$0
Priority 2:	$1,957,518
Priority 3:	$2,787,397
Priority 4:	$607,563
Total Project Costs:	**$5,352,478**

Facility Replacement Cost: **$25,050,000**

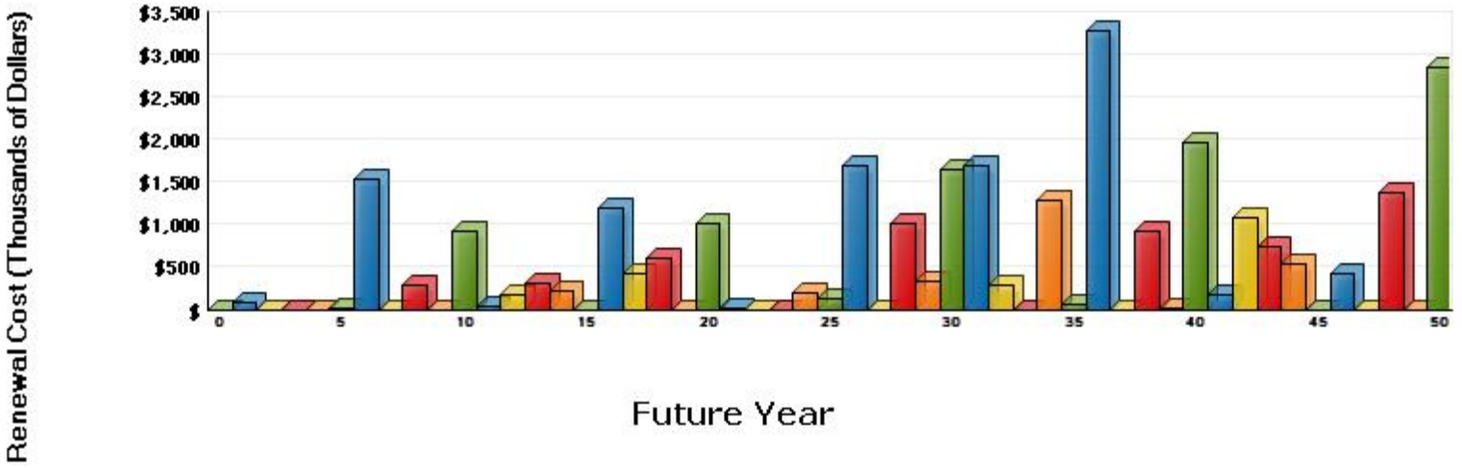
Facility Condition Needs Index (FCNI): **0.21**
(Project Costs / Replacement Cost)



PROJECT COSTS BY SYSTEM CODE



LIFE CYCLE MODEL EXPENDITURE PROJECTIONS



Average Annual Renewal Cost Per SqFt $3.01

B. ASSET SUMMARY

Fletcher Residence Hall, located on the main campus of East Carolina University in Greenville, North Carolina, was reported to have been constructed in 1964, with multiple renovations and refurbishments over the ensuing years. The last major renovation was reportedly completed more than five years ago. Facility staff report that the building is scheduled for additional significant upgrades over the next two years. This building contains 80,649 square feet of area and eight levels of dormitory and communal space. There are seven levels above grade with a partial basement utilized primarily for common area lounge, kitchen, storage, and mechanical equipment. The reinforced cast-in-place concrete foundation supports a partially exposed cast-in-place concrete floor slab with brick masonry facade insets.

The information for this report was gathered during a site visit that concluded on September 17, 2009.

SITE

The residential building is sited on a sloped parcel of land in the main campus area adjacent to the West End Dining Hall and other residential buildings. Portions of the general site around the building are reasonably well landscaped. They appear to be adequately maintained and are in overall good condition. The site is predominantly planted with turf grasses, ornamental shrubbery, accent planting beds, and a few specimen and mature native trees. Irrigation systems were noted to serve the landscaped areas, and due to the overall good condition of the landscaping, the systems appear to be operating effectively.

Pedestrian access to the facility is supported by concrete sidewalk systems in the immediate area of the facility providing ADA compliant access to and from adjacent buildings and parking areas. These pedestrian pavements are generally in good condition, with no immediate repairs necessary.

Storm water drainage systems around the building include graded swales, diversion curbs, underground collection and piping systems, and controlled surface runoff that appear to divert water away from the structure adequately. No significant storm water issues were observed to have negatively impacted the building. There are minor areas along the north wing that require swale adjustments to mitigate basement wall leaks. The correction of this issue is addressed in an Exterior Structure category project.

Vehicular parking for this building is accommodated through a limited adjacent curbside area located to the east of the building. The quantity of parking spaces associated with this facility appears to be adequate, and no vehicular parking issues have been reported by onsite facility personnel. A designated service vehicle and loading area is located on the west side of the south wing in the rear of the building, which appears to be adequate for the service needs of the facility.

EXTERIOR STRUCTURE

The building structure is apparently supported by soil-bearing spread and deep foundation footings that show no visible evidence of displacement or structural distress. The primary building structural frame is reinforced concrete.

Brick masonry is the primary facade finish, with minor areas of exposed concrete frame elements. While the brick is fundamentally sound, exposure to the elements has caused some deterioration of the mortar joints and expansion joints. Cleaning, surface preparation, selective repairs, and applied finish or penetrating sealant upgrades are recommended to restore the aesthetics and integrity of the building envelope. Upgrades have been accomplished in recent renovations, but several areas of deterioration remain, and corrective action is required.

The architectural exposed concrete frame exterior components have become visibly soiled, and the construction joints are failing. Cleaning, surface preparation, selective repairs, and applied finish upgrades are recommended to restore the aesthetics and integrity of the building envelope.

The window fenestration and exterior doors include metal-framed, fixed and operable windows with both single and insulated pane glazing units, integrated metal-framed and glass storefront, prefinished metal and glazed entrance doors, and finished metal service doors. While the newer door and window systems are expected to perform adequately throughout the review period, it is recommended that aged and inefficient exterior door systems be replaced. This project includes the primary and secondary entrance and service doors. The replacement units should maintain the architectural design aspects of this facility and should be modern, energy-efficient applications.

The main roof is a flat roof with an in-place, multi-ply, built-up membrane roofing system that 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.

There is evidence of water infiltration through the basement foundation wall. Excavation and waterproofing system upgrades are recommended. Improve the slope of grade away from the foundation prior to restoring the landscaping.

INTERIOR FINISHES / SYSTEMS

The predominant interior finishes in this building range in condition from poor to fair to relatively new. Ceilings include painted concrete soffits in the main dormitory corridors and rooms. There are limited areas of suspended acoustical tile ceilings in the main and basement floor common areas. The back-of-house service areas, mechanical and electrical rooms, and unoccupied storage areas have exposed open structure ceilings and painted gypsum board or plaster ceilings. Interior partitions are typically painted concrete masonry unit (CMU) and framed stud and trowel applied cementitious plaster wall assemblies with a painted or tiled applied finish.

The predominant flooring finishes include carpeting in the corridors, dormitory rooms, and common lobby areas. Much of the carpeting was installed over older vinyl composition tile (VCT) finishes. There is VCT in service areas and some storage areas and ceramic floor tile in restrooms and showers. The back-of house-service areas, mechanical and electrical rooms, and unoccupied storage areas typically have either VCT or natural sealed concrete flooring surfaces.

While some areas of the existing ceiling, wall, and flooring systems in the building, particularly in recently renovated areas, are well maintained and acceptable in appearance, routine and periodic refinishing and selective replacements are required. There are other areas in the building where the systems have

exceeded their effective useful life cycles and are in poor condition. Near-term upgrades, repairs, and ceiling, wall, and floor system replacements should be undertaken to maintain quality institutional appearances.

The condition of the interior doors that were not replaced in earlier refurbishments is such that door system replacements are recommended as part of a comprehensive renovation effort. Complete demolition of existing door systems and replacement according to a code compliant plan to protect egress passages properly is recommended.

The shared restrooms on each floor have fixtures and finishes that are mostly original to the year of construction and some partial subsequent renovations. The fixtures are sound but aged and inefficient. The finishes are outdated and deteriorating in some areas. A comprehensive restroom renovation, including new fixtures, finishes, partitions, accessories, and associated dual level drinking fountains, is recommended. All future renovations should be upgraded to provide full compliance with ADA accessibility guidelines. The older drinking fountains should be replaced with dual height units to provide ADA compliant fountains.

ACCESSIBILITY

The primary building entrance provides compliant grade-level access to the main lobby. There is suitable handicapped access to the main internal circulation lobby. Current accessibility legislation requires that building amenities be generally accessible to all persons. The configuration of the kitchen on the basement floor presents a barrier to accessibility. The installation of wheelchair-accessible kitchenette cabinetry and associated amenities is recommended where applicable.

Current legislation also 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 4 inch diameter sphere (6 inches in the triangle formed by the lower rail and tread / riser angle). Although the stairs are compliant with the code enforced at the time of construction until a major renovation occurs, they are deficient in handrail and guardrail design relative to current standards. The finishes on the stairs have also deteriorated or are otherwise unsafe. Future renovation efforts should include comprehensive stair railing and finish upgrades.

The interior accessible routes generally have wall-mounted informational and directional signage designed for compliance with ADA standards. However, the antiquated drinking fountains located throughout the building are generally non-compliant with accessibility standards and provide only a single height for public use. As part of recommended restrooms renovations, these older drinking fountains should be replaced with dual height units to provide compliant fountains. The adjacent corridor walls at the newly installed fountains may require new alcove construction to provide adequate floor area access.

HEALTH

Based on the availability of construction materials at the time the building structure was erected, it is possible that asbestos containing material (ACM), lead based paints, and other environmentally negative components may have been used in the original construction of the building. It is recommended that

suspect items be tested and, if found to contain asbestos, abated and disposed of according to all applicable national, state, and local regulations. Based on the lack of reliable data provided by the University, any prior or future abatement projects are not included in the scope of this report.

FIRE / LIFE SAFETY

The current floor plan has the elevator lobbies opening into the existing hall corridors. IBC 2000 states that elevators opening into a fire-resistant corridor should be provided with an elevator lobby at each floor containing such a corridor. The lobby should completely separate the elevators from the corridor with rated partitions. Elevator lobbies need to have at least one means of egress and contain smoke detectors. The construction of fire-resistant barriers with automatically closing fire doors between the elevator lobbies and the corridors is recommended to provide the required separation and protection.

The facility appears to have adequate and reasonable egress paths consistent with the age and compliance with building codes at the time of construction or pertinent renovation. No apparent building egress deficiencies or obstructed egress pathways in the corridors were observed during the limited onsite review of the building.

Fletcher Hall is protected by a central fire alarm system. The point addressable fire alarm control panel was manufactured by Notifier and is located in basement room 011, which serves as the fire command center. The devices that serve this system include manual pull stations, audible / visible devices, and smoke detectors. The system was updated in 2006 and is in good condition. With proper testing and maintenance, it will remain serviceable through the life of this analysis.

The building is not protected by any form of automatic fire suppression. However, renovations scheduled for completion over the next two years include the installation of an automatic fire sprinkler system. The system is to be equipped with a fire pump that will also serve the system to be installed in Garrett Residence Hall.

The exit signs in this facility are LED-illuminated and are connected to the emergency power network. Emergency lighting is available through unitary fixtures with battery backup power. The renovation mentioned above is scheduled to include a new emergency generator. Fire alarm, emergency lighting, and elevators are among the loads to be served by the new 250-300 kW unit. There are no additional projects to recommend at this time.

HVAC

This facility is on the campus steam loop. Hot water produced using steam and a shell-and-tube heat exchanger serves the radiant heating system. Lobby, basement, and elevator penthouse areas also include several small split systems of recent manufacture. These units utilize DX cooling and are controlled with electronic thermostats or local controllers, depending upon the application. These systems are currently in good working order. However, it should be anticipated that they will require replacement within the scope of this report.

Occupant rooms are cooled by window air conditioners installed in 2006. The units in this building are rated 8400 BTUH, or 0.7 tons, each. The expected service life for window units has typically averaged approximately ten years. It would be prudent to plan for replacement of the units within the life of this report.

ELECTRICAL

Before installation of the window air conditioners, the main distribution panel for the electrical distribution system was an 800 amp panel manufactured by GE. The service was recently upgraded to 2,000 amps using a new Square D panel, providing adequate power for the cooling loads and relief for the previously marginal capacity provided by the 800 amp service. The 800 amp panel remains in service and is now supplied by the new Square D panel. The panel is aging and should be considered for elimination in conjunction with the proposed secondary distribution system upgrades. Remaining older sub-distribution panels and circuit devices were manufactured predominantly by General Electric and are aged and visibly worn. Upgrades are recommended in order to maintain reliable service throughout the facility.

The interior spaces of this facility are illuminated by fixtures that utilize compact and T12 fluorescent lamps in most cases. The fluorescent fixtures are predominantly surface-mounted U-tube types with acrylic lenses. The interior lighting has generally served beyond its expected life cycle and is scheduled for replacement as part of the upcoming renovations. It is recommended that the existing unitary emergency lighting fixtures be removed and that their function be incorporated into the new interior lighting systems and emergency power network. Exterior lighting is provided by fixtures that are located in the surrounding site. These applications are sufficient. There are no exterior lighting projects to recommend at this time.

Emergency power for this facility is produced by a local diesel-fired emergency generator. This unit has a 12 kW capacity, generates 120/208 volt power, and was manufactured by Onan. The generator has served beyond its intended life cycle. As mentioned in the Fire / Life Safety section, upcoming renovations are scheduled to replace the generator and transfer panel with a new unit of approximately 250-300 kW.

PLUMBING

A copper piping network provides potable water distribution. Drain piping is of bell-and-spigot cast-iron construction. The supply and drain piping networks are aged and are set to be updated as part of the upcoming renovations. The fourteen restrooms on occupant floors are to be completely renovated during the next two years.

Domestic water for this facility is heated by recently installed Aerco heat exchangers that use steam as the energy source. These units are adequate and in good condition. With proper maintenance, they will outlast the purview of this analysis. Two 15 HP booster pump packs aid in the pressurization of the domestic water system in this building. These systems are scheduled to be replaced as part of the renovations scheduled for the next two years.

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 17, 2009

INSPECTION TEAM PERSONNEL:

NAME	POSITION	SPECIALTY
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:

NAME	POSITION
William Bagwell	Associate Vice Chancellor, Campus Operations

REPORT DEVELOPMENT:

Report Development by: ISES Corporation
2165 West Park Court
Suite N
Stone Mountain, GA 30087

Contact: Kyle Thompson, Project Manager
770-879-7376

D. FACILITY CONDITION ANALYSIS - DEFINITIONS

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

1. REPORT DESCRIPTION

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

Section 2: Detailed Project Summaries and Totals

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

FCNI = Facility Condition Needs Index, Total Cost vs. Replacement Cost. The FCNI provides a life cycle cost comparison. Facility replacement cost is based on replacement with current construction standards for facility use type, and not original design parameters. This index gives the University a comparison within all buildings for identifying worst case / best case building conditions.

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

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:

PRIORITY CLASS 1

CODE	PROJECT NO.	PRIORITY SEQUENCE
HV2C	0001HV04	01
PL1D	0001PL02	02

PRIORITY CLASS 2

CODE	PROJECT NO.	PRIORITY SEQUENCE
IS1E	0001IS06	03
EL4C	0001EL03	04

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

PRIORITY 1 - Currently Critical (Immediate)

Projects in this category require immediate action to:
a. return a facility to normal operation
b. stop accelerated deterioration
c. correct a cited safety hazard

PRIORITY 2 - Potentially Critical (Year One)

Projects in this category, if not corrected expeditiously, will become critical within a year. Situations in this category include:
a. intermittent interruptions
b. rapid deterioration
c. potential safety hazards

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

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

PRIORITY 4 - Recommended (Years Six to Ten)

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

6. COST SUMMARIES AND TOTALS

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

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

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

Global Markup Percentages		R.S. MEANS
Local Labor Index:	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

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

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

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

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

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

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			SYSTEM DESCRIPTION
AC1A	-	AC4B	ACCESSIBILITY
EL1A	-	EL8A	ELECTRICAL
ES1A	-	ES6E	EXTERIOR STRUCTURE
FS1A	-	FS6A	FIRE / LIFE SAFETY
HE1A	-	HE7A	HEALTH
HV1A	-	HV8B	HVAC
IS1A	-	IS6D	INTERIOR FINISHES / SYSTEMS
PL1A	-	PL5A	PLUMBING
SI1A	-	SI4A	SITE
SS1A	-	SS7A	SECURITY SYSTEMS
VT1A	-	VT7A	VERTICAL TRANSPORTATION

CATEGORY CODE REPORT			
CODE	**COMPONENT DESCRIPTION**	**ELEMENT DESCRIPTION**	**DEFINITION**
SYSTEM 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.
EL4C	DEVICES AND FIXTURES	LIGHTING CONTROLLERS	Motion sensors, photocell controllers, lighting contactors, etc.

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

CATEGORY CODE REPORT			
CODE	**COMPONENT DESCRIPTION**	**ELEMENT DESCRIPTION**	**DEFINITION**
ES6E	GENERAL	OTHER	Any exterior work not specifically categorized elsewhere including finish and structural work on 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.
HE5B	FOOD SERVICE	COLD STORAGE	Includes the cold storage room and all associated refrigeration equipment.

CATEGORY CODE REPORT			
CODE	**COMPONENT DESCRIPTION**	**ELEMENT DESCRIPTION**	**DEFINITION**
HE6A	HAZARDOUS MATERIAL	STRUCTURAL ASBESTOS	Testing, abatement and disposal of structural and building finish materials containing asbestos.
HE6B	HAZARDOUS MATERIAL	MECHANICAL ASBESTOS	Testing, abatement and disposal of mechanical insulation materials containing asbestos.
HE6C	HAZARDOUS MATERIAL	PCBs	Includes testing, demolition, disposal and cleanup of PCB contaminated substances.
HE6D	HAZARDOUS MATERIAL	FUEL STORAGE	Includes monitoring, removal and replacement of above and below ground fuel storage and distribution systems. Also includes testing and disposal of contaminated soils.
HE6E	HAZARDOUS MATERIAL	LEAD PAINT	Testing, removal and disposal of lead-based paint systems.
HE6F	HAZARDOUS MATERIAL	OTHER	Handling, storage, and disposal of other hazardous materials.
HE7A	GENERAL	OTHER	Health related issues not catalogued elsewhere.
SYSTEM 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.
HV5C	STEAM/HYDRONIC DISTRIBUTION	HEAT EXCHANGERS	Including shell and tube heat exchangers and plate heat exchangers for heating and cooling.
HV6A	CONTROLS	COMPLETE SYSTEM	Replacement of HVAC control systems.

CATEGORY CODE REPORT			
CODE	**COMPONENT DESCRIPTION**	**ELEMENT DESCRIPTION**	**DEFINITION**
		UPGRADE	
HV6B	CONTROLS	MODIFICATIONS/ REPAIRS	Repair or modification of HVAC control system.
HV6C	CONTROLS	AIR COMPRESSORS/ DRYERS	Repair or modification of control air compressors and dryers.
HV7A	INFRASTRUCTURE	STEAM/HOT WATER GENERATION	Generation of central steam and/or hot water including boilers and related components.
HV7B	INFRASTRUCTURE	STEAM/HOT WATER DISTRIBUTION	Distribution system for central hot water and/or steam.
HV7C	INFRASTRUCTURE	CHILLED WATER GENERATION	Generation of central chilled water including chillers and related components.
HV7D	INFRASTRUCTURE	CHILLED WATER DISTRIBUTION	Distribution system for central chilled water.
HV7E	INFRASTRUCTURE	TUNNELS/ MANHOLES/ TRENCHES	Repairs, installation, replacement of utility system access chambers.
HV7F	INFRASTRUCTURE	OTHER	HVAC infrastructure issues not specifically categorized elsewhere.
HV8A	GENERAL	CFC COMPLIANCE	Chiller conversions/replacements for CFC regulatory compliance, monitoring, etc.
HV8B	GENERAL	OTHER	HVAC issues not catalogued elsewhere.
SYSTEM 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	CABINETRY	R & R work to interior casework systems including cabinets, countertops, wardrobes, lockers, mail boxes, built-in bookcases, lab/work benches, reagent shelving, etc. (except as required for access by the disabled).
IS6C	GENERAL	SCREENING	Work on temporary or partial height partitioning systems including toilet partitions, urinal/vanity screens, etc.
IS6D	GENERAL	OTHER	Any work on interior elements not logically or specifically categorized elsewhere including light coves, phone booths, interior light wells, etc.
SYSTEM DESCRIPTION: PLUMBING			

CATEGORY CODE REPORT			
CODE	**COMPONENT DESCRIPTION**	**ELEMENT DESCRIPTION**	**DEFINITION**
PL1A	DOMESTIC WATER	PIPING NETWORK	Repair or replacement of domestic water supply piping network, insulation, hangers, etc.
PL1B	DOMESTIC WATER	PUMPS	Domestic water booster pumps, circulating pumps, related controls, etc.
PL1C	DOMESTIC WATER	STORAGE/ TREATMENT	Equipment or vessels for storage or treatment of domestic water.
PL1D	DOMESTIC WATER	METERING	Installation, repair, or replacement of water meters.
PL1E	DOMESTIC WATER	HEATING	Domestic water heaters including gas, oil, and electric water heaters, shell and tube heat exchangers, tank type and instantaneous.
PL1F	DOMESTIC WATER	COOLING	Central systems for cooling and distributing drinking water.
PL1G	DOMESTIC WATER	FIXTURES	Plumbing fixtures including sinks, drinking fountains, water closets, urinals, etc.
PL1H	DOMESTIC WATER	CONSERVATION	Alternations made to the water distribution system to conserve water.
PL1I	DOMESTIC WATER	BACKFLOW PROTECTION	Backflow protection devices including backflow preventers, vacuum breakers, etc.
PL2A	WASTEWATER	PIPING NETWORK	Repair or replacement of building wastewater piping network.
PL2B	WASTEWATER	PUMPS	Pump systems used to lift wastewater including sewage ejectors and other sump systems.
PL3A	SPECIAL SYSTEMS	PROCESS GAS/FLUIDS	Generation and/or distribution of process steam, compressed air, natural and LP gas, process water, vacuum, etc.
PL4A	INFRASTRUCTURE	POTABLE WATER STORAGE/ TREATMENT	Storage and treatment of potable water for distribution.
PL4B	INFRASTRUCTURE	INDUSTRIAL WATER DISTRIBUTION/ TREATMENT	Storage and treatment of industrial water for distribution.
PL4C	INFRASTRUCTURE	SANITARY WATER COLLECTION	Sanitary water collection systems, sanitary sewer systems; including combined systems.
PL4D	INFRASTRUCTURE	STORM WATER COLLECTION	Storm water collection systems, storm sewer systems; storm water only.
PL4E	INFRASTRUCTURE	POTABLE WATER DISTRIBUTION	Potable water distribution network.
PL4F	INFRASTRUCTURE	WASTEWATER TREATMENT	Wastewater treatment plants, associated equipment, etc.
PL5A	GENERAL	OTHER	Plumbing issues not categorized elsewhere.
SYSTEM 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.
SYSTEM DESCRIPTION: SECURITY SYSTEMS			
SS1A	LIGHTING	EXTERIOR	Fixtures, stanchions, foliage interference, cleanliness, locations, etc.

CATEGORY CODE REPORT			
CODE	**COMPONENT DESCRIPTION**	**ELEMENT DESCRIPTION**	**DEFINITION**
SS2A	SITE	FENCING	Perimeter campus fencing, individual building fencing, includes both pedestrian and vehicular control fences.
SS2B	SITE	GENERAL	Hidden areas due to foliage, fencing, parking, walls, etc.
SS3A	COMMUNICATIONS	EMERGENCY PHONES	Access, locations, visibility, function, reliability, etc.
SS4A	ACCESS CONTROL	DOORS	Access, locks, keys, two way speakers, reliability, redundancy, etc.
SS4B	ACCESS CONTROL	WINDOWS	Locks, screens, access, reliability, etc.
SS4C	ACCESS CONTROL	SYSTEMS	Card key, proximity devices, data control, data use, reliability, system design, etc.
SS5A	MONITORING	SYSTEMS	Cameras, audio communication, monitoring stations, locations, system design, etc.
SS6A	CIRCULATION	PEDESTRIAN	On campus as well as to and from off campus housing and class locations, etc.
SS6B	CIRCULATION	VEHICULAR	Guard gates, access, systems, data control and use, identification, etc.
SS7A	GENERAL	OTHER	General information/projects pertaining to security issues.
SYSTEM 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

FLET : FLETCHER RESIDENCE HALL

System Code	System Description	Priority Classes 1	2	3	4	Subtotal
AC	ACCESSIBILITY	0	0	0	145,298	145,298
EL	ELECTRICAL	0	469,942	593,743	0	1,063,686
ES	EXTERIOR	0	0	230,227	120,828	351,055
FS	FIRE/LIFE SAFETY	0	731,656	0	56,625	788,280
HV	HVAC	0	0	0	284,812	284,812
IS	INTERIOR/FINISH SYS.	0	0	1,963,427	0	1,963,427
PL	PLUMBING	0	755,920	0	0	755,920
	TOTALS	0	1,957,518	2,787,397	607,563	5,352,478

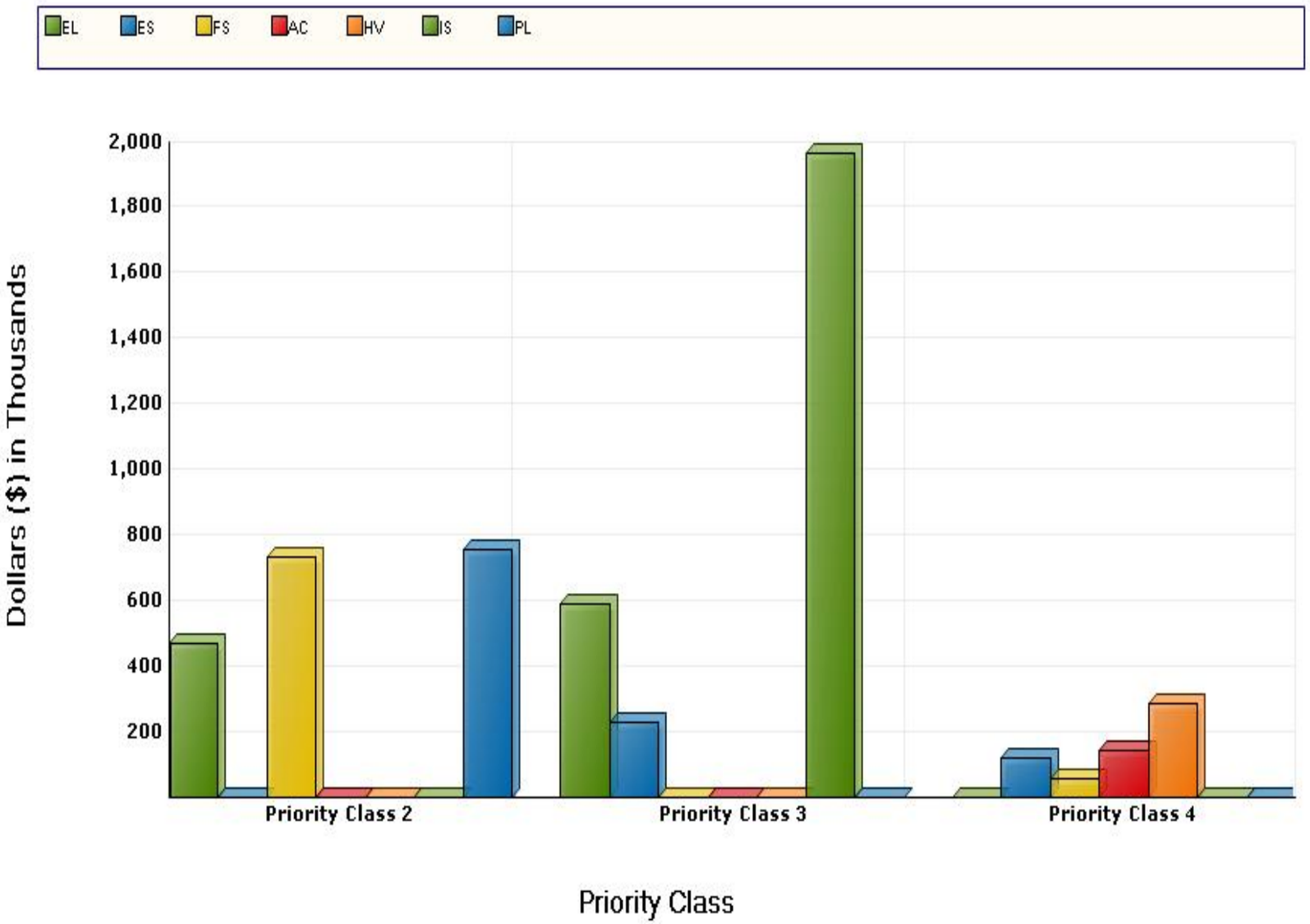
Facility Replacement Cost	$25,050,000
Facility Condition Needs Index	0.21

Gross Square Feet	80,649	**Total Cost Per Square Foot**	$66.37

FACILITY CONDITION ANALYSIS

System Code by Priority Class

FLET : FLETCHER RESIDENCE HALL



Detailed Project Totals

Facility Condition Analysis

System Code by Project Class

FLET : FLETCHER RESIDENCE HALL

System Code	System Description	Project Classes: Captial Renewal	Deferred Maintenance	Plant Adaption	Subtotal
AC	ACCESSIBILITY	0	0	145,298	145,298
EL	ELECTRICAL	0	1,063,686	0	1,063,686
ES	EXTERIOR	120,828	230,227	0	351,055
FS	FIRE/LIFE SAFETY	0	0	788,280	788,280
HV	HVAC	284,812	0	0	284,812
IS	INTERIOR/FINISH SYS.	0	1,963,427	0	1,963,427
PL	PLUMBING	0	755,920	0	755,920
	TOTALS	405,641	4,013,259	933,578	5,352,478

Facility Replacement Cost	$25,050,000
Facility Condition Needs Index	0.21

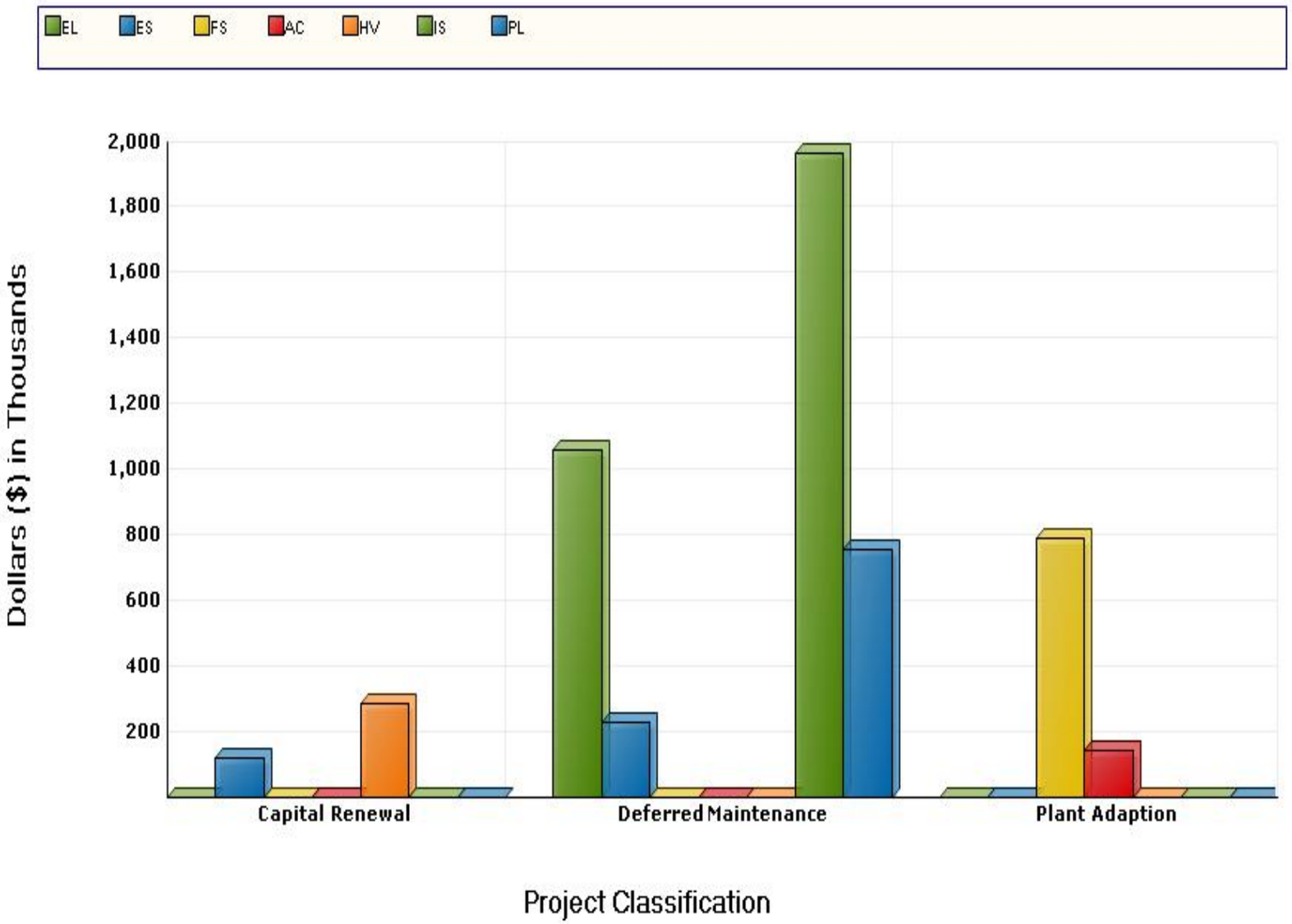
Gross Square Feet	80,649

Total Cost Per Square Foot	$66.37

FACILITY CONDITION ANALYSIS

System Code by Project Class

FLET : FLETCHER RESIDENCE HALL



Detailed Project Summary
Facility Condition Analysis
Project Class by Priority Class
FLET : FLETCHER RESIDENCE HALL

	Priority Classes				
Project Class	**1**	**2**	**3**	**4**	**Subtotal**
Capital Renewal	0	0	0	405,641	405,641
Deferred Maintenance	0	1,225,862	2,787,397	0	4,013,259
Plant Adaption	0	731,656	0	201,922	933,578
TOTALS	0	1,957,518	2,787,397	607,563	5,352,478

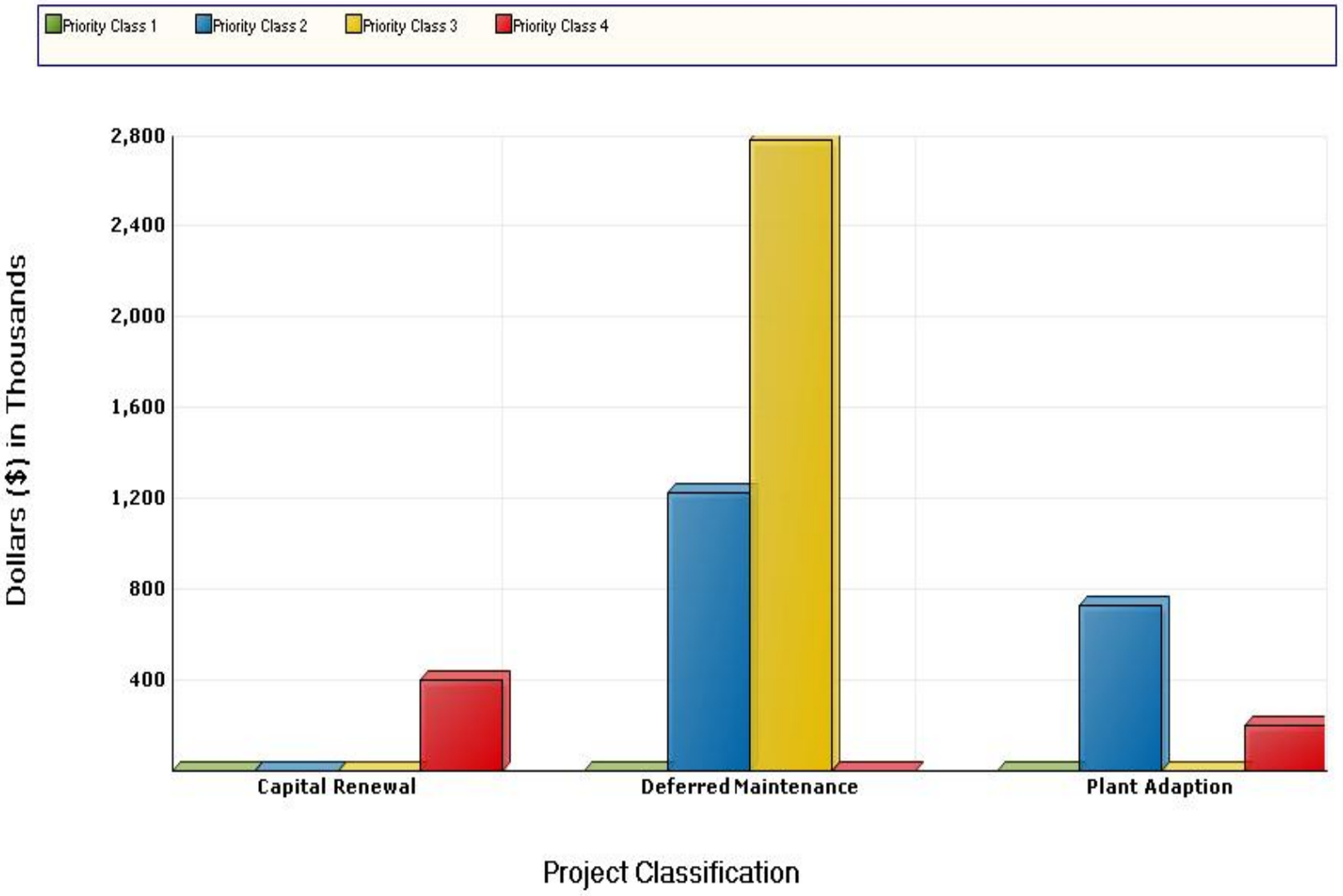
Facility Replacement Cost	$25,050,000
Facility Condition Needs Index	0.21

Gross Square Feet	80,649	**Total Cost Per Square Foot**	$66.37

FACILITY CONDITION ANALYSIS

Project Class by Priority Class

FLET : FLETCHER RESIDENCE HALL



Detailed Project Summary

Facility Condition Analysis

Priority Class - Priority Sequence

FLET : FLETCHER RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS3A	FLETFS01	2	1	FIRE SPRINKLER SYSTEM INSTALLATION	630,738	100,918	731,656
EL5A	FLETEL01	2	2	REPLACE EMERGENCY GENERATOR	99,864	15,978	115,842
EL4B	FLETEL02	2	3	INTERIOR LIGHTING UPGRADE	305,259	48,841	354,100
PL1A	FLETPL01	2	4	WATER SUPPLY PIPING REPLACEMENT	252,596	40,415	293,011
PL2A	FLETPL02	2	5	DRAIN PIPING REPLACEMENT	383,426	61,348	444,774
PL1B	FLETPL03	2	6	DOMESTIC WATER BOOSTER PUMP REPLACEMENT	15,634	2,501	18,135
				Totals for Priority Class 2	**1,687,515**	**270,002**	**1,957,518**
ES1B	FLETES03	3	7	WATERPROOFING OF EXTERIOR FOUNDATION WALL	18,073	2,892	20,964
ES5A	FLETES04	3	8	EXTERIOR DOOR REPLACEMENT	35,832	5,733	41,565
ES2B	FLETES01	3	9	RESTORE BRICK MASONRY	133,005	21,281	154,286
ES2B	FLETES02	3	10	RESTORE EXPOSED CONCRETE FINISH	11,561	1,850	13,411
EL3B	FLETEL03	3	11	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	511,848	81,896	593,743
IS1A	FLETIS01	3	12	REFINISH FLOORING	576,747	92,280	669,027
IS2B	FLETIS02	3	13	REFINISH WALLS	204,599	32,736	237,335
IS3B	FLETIS03	3	14	REFINISH CEILINGS	64,478	10,317	74,795
IS4A	FLETIS04	3	15	REPLACE OLDER SERVICE AREA INTERIOR DOORS	15,199	2,432	17,631
IS6D	FLETIS05	3	16	MAJOR UPGRADE AND RESTROOM RENOVATIONS	831,586	133,054	964,639
				Totals for Priority Class 3	**2,402,928**	**384,469**	**2,787,397**
FS5C	FLETFS02	4	17	ELEVATOR LOBBY CORRECTIONS	48,814	7,810	56,625
AC4A	FLETAC01	4	18	INTERIOR AMENITY ACCESSIBILITY UPGRADES	8,216	1,314	9,530
AC3B	FLETAC02	4	19	STAIR SAFETY UPGRADES	117,041	18,727	135,768
ES4B	FLETES05	4	20	BUILT-UP ROOF REPLACEMENT	104,162	16,666	120,828
HV2B	FLETHV01	4	21	MODULAR COOLING EQUIPMENT REPLACEMENT	205,871	32,939	238,811
HV3D	FLETHV02	4	22	REPLACE SPLIT DX SYSTEMS	39,656	6,345	46,001
				Totals for Priority Class 4	**523,761**	**83,802**	**607,563**
				Grand Total:	**4,614,205**	**738,273**	**5,352,478**

Detailed Project Summary

Facility Condition Analysis

Project Cost Range

FLET : FLETCHER RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
PL1B	FLETPL03	2	6	DOMESTIC WATER BOOSTER PUMP REPLACEMENT	15,634	2,501	18,135
				Totals for Priority Class 2	**15,634**	**2,501**	**18,135**
ES2B	FLETES02	3	10	RESTORE EXPOSED CONCRETE FINISH	11,561	1,850	13,411
ES1B	FLETES03	3	7	WATERPROOFING OF EXTERIOR FOUNDATION WALL	18,073	2,892	20,964
ES5A	FLETES04	3	8	EXTERIOR DOOR REPLACEMENT	35,832	5,733	41,565
IS3B	FLETIS03	3	14	REFINISH CEILINGS	64,478	10,317	74,795
IS4A	FLETIS04	3	15	REPLACE OLDER SERVICE AREA INTERIOR DOORS	15,199	2,432	17,631
				Totals for Priority Class 3	**145,144**	**23,223**	**168,367**
AC4A	FLETAC01	4	18	INTERIOR AMENITY ACCESSIBILITY UPGRADES	8,216	1,314	9,530
FS5C	FLETFS02	4	17	ELEVATOR LOBBY CORRECTIONS	48,814	7,810	56,625
HV3D	FLETHV02	4	22	REPLACE SPLIT DX SYSTEMS	39,656	6,345	46,001
				Totals for Priority Class 4	**96,686**	**15,470**	**112,156**
				Grand Totals for Projects < 100,000	**257,464**	**41,194**	**298,658**

Detailed Project Summary

Facility Condition Analysis

Project Cost Range

FLET : FLETCHER RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
EL5A	FLETEL01	2	2	REPLACE EMERGENCY GENERATOR	99,864	15,978	115,842
EL4B	FLETEL02	2	3	INTERIOR LIGHTING UPGRADE	305,259	48,841	354,100
PL1A	FLETPL01	2	4	WATER SUPPLY PIPING REPLACEMENT	252,596	40,415	293,011
PL2A	FLETPL02	2	5	DRAIN PIPING REPLACEMENT	383,426	61,348	444,774
				Totals for Priority Class 2	**1,041,144**	**166,583**	**1,207,727**
ES2B	FLETES01	3	9	RESTORE BRICK MASONRY	133,005	21,281	154,286
IS2B	FLETIS02	3	13	REFINISH WALLS	204,599	32,736	237,335
				Totals for Priority Class 3	**337,604**	**54,017**	**391,621**
ES4B	FLETES05	4	20	BUILT-UP ROOF REPLACEMENT	104,162	16,666	120,828
AC3B	FLETAC02	4	19	STAIR SAFETY UPGRADES	117,041	18,727	135,768
HV2B	FLETHV01	4	21	MODULAR COOLING EQUIPMENT REPLACEMENT	205,871	32,939	238,811
				Totals for Priority Class 4	**427,075**	**68,332**	**495,407**
				Grand Totals for Projects >= 100,000 and < 500,000	**1,805,824**	**288,932**	**2,094,755**

Detailed Project Summary

Facility Condition Analysis

Project Cost Range

FLET : FLETCHER RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS3A	FLETFS01	2	1	FIRE SPRINKLER SYSTEM INSTALLATION	630,738	100,918	731,656
				Totals for Priority Class 2	**630,738**	**100,918**	**731,656**
IS1A	FLETIS01	3	12	REFINISH FLOORING	576,747	92,280	669,027
IS6D	FLETIS05	3	16	MAJOR UPGRADE AND RESTROOM RENOVATIONS	831,586	133,054	964,639
EL3B	FLETEL03	3	11	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	511,848	81,896	593,743
				Totals for Priority Class 3	**1,920,180**	**307,229**	**2,227,409**
				Grand Totals for Projects >= 500,000	**2,550,918**	**408,147**	**2,959,065**
				Grand Totals For All Projects:	**4,614,205**	**738,273**	**5,352,478**

Detailed Project Summary

Facility Condition Analysis

Project Classification

FLET : FLETCHER RESIDENCE HALL

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
ES4B	FLETES05	20	Capital Renewal	4	BUILT-UP ROOF REPLACEMENT	120,828
HV2B	FLETHV01	21	Capital Renewal	4	MODULAR COOLING EQUIPMENT REPLACEMENT	238,811
HV3D	FLETHV02	22	Capital Renewal	4	REPLACE SPLIT DX SYSTEMS	46,001
					Totals for Capital Renewal	**405,641**
EL5A	FLETEL01	2	Deferred Maintenance	2	REPLACE EMERGENCY GENERATOR	115,842
EL4B	FLETEL02	3	Deferred Maintenance	2	INTERIOR LIGHTING UPGRADE	354,100
PL1A	FLETPL01	4	Deferred Maintenance	2	WATER SUPPLY PIPING REPLACEMENT	293,011
PL2A	FLETPL02	5	Deferred Maintenance	2	DRAIN PIPING REPLACEMENT	444,774
PL1B	FLETPL03	6	Deferred Maintenance	2	DOMESTIC WATER BOOSTER PUMP REPLACEMENT	18,135
ES1B	FLETES03	7	Deferred Maintenance	3	WATERPROOFING OF EXTERIOR FOUNDATION WALL	20,964
ES5A	FLETES04	8	Deferred Maintenance	3	EXTERIOR DOOR REPLACEMENT	41,565
ES2B	FLETES01	9	Deferred Maintenance	3	RESTORE BRICK MASONRY	154,286
ES2B	FLETES02	10	Deferred Maintenance	3	RESTORE EXPOSED CONCRETE FINISH	13,411
EL3B	FLETEL03	11	Deferred Maintenance	3	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	593,743
IS1A	FLETIS01	12	Deferred Maintenance	3	REFINISH FLOORING	669,027
IS2B	FLETIS02	13	Deferred Maintenance	3	REFINISH WALLS	237,335
IS3B	FLETIS03	14	Deferred Maintenance	3	REFINISH CEILINGS	74,795
IS4A	FLETIS04	15	Deferred Maintenance	3	REPLACE OLDER SERVICE AREA INTERIOR DOORS	17,631
IS6D	FLETIS05	16	Deferred Maintenance	3	MAJOR UPGRADE AND RESTROOM RENOVATIONS	964,639
					Totals for Deferred Maintenance	**4,013,259**
FS3A	FLETFS01	1	Plant Adaption	2	FIRE SPRINKLER SYSTEM INSTALLATION	731,656
FS5C	FLETFS02	17	Plant Adaption	4	ELEVATOR LOBBY CORRECTIONS	56,625
AC4A	FLETAC01	18	Plant Adaption	4	INTERIOR AMENITY ACCESSIBILITY UPGRADES	9,530
AC3B	FLETAC02	19	Plant Adaption	4	STAIR SAFETY UPGRADES	135,768
					Totals for Plant Adaption	**933,578**
					Grand Total:	**5,352,478**

Detailed Project Summary

Facility Condition Analysis

Energy Conservation

FLET : FLETCHER RESIDENCE HALL

Cat Code	Project Number	Pri Cls	Pri Seq	Project Title	Total Cost	Annual Savings	Simple Payback
EL4B	FLETEL02	2	3	INTERIOR LIGHTING UPGRADE	354,100	12,340	28.7
				Totals for Priority Class 2	**354,100**	**12,340**	**28.7**
ES4B	FLETES05	4	20	BUILT-UP ROOF REPLACEMENT	120,828	1,500	80.55
				Totals for Priority Class 4	**120,828**	**1,500**	**80.55**
				Grand Total:	**474,928**	**13,840**	**34.32**

Detailed Project Summary

Facility Condition Analysis

Category/System Code

FLET : FLETCHER RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC4A	FLETAC01	4	18	INTERIOR AMENITY ACCESSIBILITY UPGRADES	8,216	1,314	9,530
AC3B	FLETAC02	4	19	STAIR SAFETY UPGRADES	117,041	18,727	135,768
				Totals for System Code: ACCESSIBILITY	**125,257**	**20,041**	**145,298**
EL5A	FLETEL01	2	2	REPLACE EMERGENCY GENERATOR	99,864	15,978	115,842
EL4B	FLETEL02	2	3	INTERIOR LIGHTING UPGRADE	305,259	48,841	354,100
EL3B	FLETEL03	3	11	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	511,848	81,896	593,743
				Totals for System Code: ELECTRICAL	**916,970**	**146,715**	**1,063,686**
ES1B	FLETES03	3	7	WATERPROOFING OF EXTERIOR FOUNDATION WALL	18,073	2,892	20,964
ES5A	FLETES04	3	8	EXTERIOR DOOR REPLACEMENT	35,832	5,733	41,565
ES2B	FLETES01	3	9	RESTORE BRICK MASONRY	133,005	21,281	154,286
ES2B	FLETES02	3	10	RESTORE EXPOSED CONCRETE FINISH	11,561	1,850	13,411
ES4B	FLETES05	4	20	BUILT-UP ROOF REPLACEMENT	104,162	16,666	120,828
				Totals for System Code: EXTERIOR	**302,634**	**48,421**	**351,055**
FS3A	FLETFS01	2	1	FIRE SPRINKLER SYSTEM INSTALLATION	630,738	100,918	731,656
FS5C	FLETFS02	4	17	ELEVATOR LOBBY CORRECTIONS	48,814	7,810	56,625
				Totals for System Code: FIRE/LIFE SAFETY	**679,552**	**108,728**	**788,280**
HV2B	FLETHV01	4	21	MODULAR COOLING EQUIPMENT REPLACEMENT	205,871	32,939	238,811
HV3D	FLETHV02	4	22	REPLACE SPLIT DX SYSTEMS	39,656	6,345	46,001
				Totals for System Code: HVAC	**245,528**	**39,284**	**284,812**
IS1A	FLETIS01	3	12	REFINISH FLOORING	576,747	92,280	669,027
IS2B	FLETIS02	3	13	REFINISH WALLS	204,599	32,736	237,335
IS3B	FLETIS03	3	14	REFINISH CEILINGS	64,478	10,317	74,795
IS4A	FLETIS04	3	15	REPLACE OLDER SERVICE AREA INTERIOR DOORS	15,199	2,432	17,631
IS6D	FLETIS05	3	16	MAJOR UPGRADE AND RESTROOM RENOVATIONS	831,586	133,054	964,639
				Totals for System Code: INTERIOR/FINISH SYS.	**1,692,610**	**270,818**	**1,963,427**
PL1A	FLETPL01	2	4	WATER SUPPLY PIPING REPLACEMENT	252,596	40,415	293,011
PL2A	FLETPL02	2	5	DRAIN PIPING REPLACEMENT	383,426	61,348	444,774
PL1B	FLETPL03	2	6	DOMESTIC WATER BOOSTER PUMP REPLACEMENT	15,634	2,501	18,135
				Totals for System Code: PLUMBING	**651,655**	**104,265**	**755,920**
				Grand Total:	**4,614,205**	**738,273**	**5,352,478**

FACILITY CONDITION ANALYSIS

SECTION 3

SPECIFIC PROJECT DETAILS ILLUSTRATING DESCRIPTION / COST

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETFS01	**Title:**	FIRE SPRINKLER SYSTEM INSTALLATION
Priority Sequence:	1		
Priority Class:	2		
Category Code:	FS3A	**System:**	FIRE/LIFE SAFETY
		Component:	SUPPRESSION
		Element:	SPRINKLERS
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	NFPA 1, 13, 13R, 101		
Project Class:	Plant Adaption		
Project Date:	10/16/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4, 5, 6, 7, B		

Project Description

Install an automatic fire sprinkler system throughout the facility, including 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.

Project Cost

Project Number: FLETFS01

Task Cost Estimate

Task Description	Unit	Qnty	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	80,649	$3.08	$248,399	$3.77	$304,047	$552,446
Fire pump, controls, piping, valves, and connections	GPM	1,000	$115	$115,410	$6.40	$6,400	$121,810
Project Totals:				**$363,809**		**$310,447**	**$674,256**

Material/Labor Cost		$674,256
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$525,615
General Contractor Mark Up at 20.0%	+	$105,123
Construction Cost		$630,738
Professional Fees at 16.0%	+	$100,918
Total Project Cost		**$731,656**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETEL01	**Title:**	REPLACE EMERGENCY GENERATOR
Priority Sequence:	2		
Priority Class:	2		
Category Code:	EL5A	**System:**	ELECTRICAL
		Component:	EMERGENCY POWER SYSTEM
		Element:	GENERATION/DISTRIBUTION
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	NEC Article 700		
Project Class:	Deferred Maintenance		
Project Date:	10/16/2009		
Project Location:	Item Only: Floor(s) B		

Project Description

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

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Cost

Project Number: FLETEL01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Diesel generator set, including fuel tank, battery, charger, exhaust, and automatic transfer switches	KW	300	$250	$75,000	$50.00	$15,000	$90,000
Project Totals:				**$75,000**		**$15,000**	**$90,000**

Material/Labor Cost		$90,000
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$83,220
General Contractor Mark Up at 20.0%	+	$16,644
Construction Cost		$99,864
Professional Fees at 16.0%	+	$15,978
Total Project Cost		**$115,842**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETEL02	**Title:**	INTERIOR LIGHTING UPGRADE
Priority Sequence:	3		
Priority Class:	2		
Category Code:	EL4B	**System:**	ELECTRICAL
		Component:	DEVICES AND FIXTURES
		Element:	INTERIOR LIGHTING

Building Code:	FLET	
Building Name:	FLETCHER RESIDENCE HALL	
Subclass/Savings:	Energy Conservation	$12,340

Code Application:	NEC	Articles 210, 410

Project Class:	Deferred Maintenance
Project Date:	10/16/2009
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4, 5, 6, 7, B

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
FLET : FLETCHER RESIDENCE HALL

Project Cost

Project Number: FLETEL02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
High efficiency fluorescent fixtures, occupancy sensors, and demolition of existing lighting	SF	80,649	$1.93	$155,653	$2.36	$190,332	$345,984
Project Totals:				**$155,653**		**$190,332**	**$345,984**

Material/Labor Cost		$345,984
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$254,382
General Contractor Mark Up at 20.0%	+	$50,876
Construction Cost		$305,259
Professional Fees at 16.0%	+	$48,841
Total Project Cost		**$354,100**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETPL01	**Title:**	WATER SUPPLY PIPING REPLACEMENT
Priority Sequence:	4		
Priority Class:	2		
Category Code:	PL1A	**System:**	PLUMBING
		Component:	DOMESTIC WATER
		Element:	PIPING NETWORK
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Not Applicable		

Code Application: IPC Chapter 6

Project Class:	Deferred Maintenance
Project Date:	10/16/2009
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4, 5, 6, 7, B

Project Description

The replacement of the aging water piping network in conjunction with plumbing renovations is recommended. 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.

Project Cost

Project Number: FLETPL01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Copper pipe and fittings, valves, backflow prevention devices, insulation, hangers, demolition, and cut and patching materials	SF	80,649	$1.14	$91,940	$2.85	$229,850	$321,790
Project Totals:				**$91,940**		**$229,850**	**$321,790**

Material/Labor Cost		$321,790
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$210,496
General Contractor Mark Up at 20.0%	+	$42,099
Construction Cost		$252,596
Professional Fees at 16.0%	+	$40,415
Total Project Cost		**$293,011**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETPL02	**Title:**	DRAIN PIPING REPLACEMENT
Priority Sequence:	5		
Priority Class:	2		
Category Code:	PL2A	**System:**	PLUMBING
		Component:	WASTEWATER
		Element:	PIPING NETWORK
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Not Applicable		

Code Application: IPC Chapters 7-11

Project Class: Deferred Maintenance

Project Date: 10/16/2009

Project Location: Floor-wide: Floor(s) 1, 2, 3, 4, 5, 6, 7, B

Project Description

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

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Cost

Project Number: FLETPL02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Cast-iron drain piping and fittings, copper pipe and fittings, floor / roof drains, traps, hangers, demolition, and cut and patching materials	SF	80,649	$1.81	$145,975	$4.17	$336,306	$482,281
Project Totals:				**$145,975**		**$336,306**	**$482,281**

Material/Labor Cost		$482,281
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$319,522
General Contractor Mark Up at 20.0%	+	$63,904
Construction Cost		$383,426
Professional Fees at 16.0%	+	$61,348
Total Project Cost		**$444,774**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETPL03	**Title:**	DOMESTIC WATER BOOSTER PUMP REPLACEMENT
Priority Sequence:	6		
Priority Class:	2		
Category Code:	PL1B	**System:**	PLUMBING
		Component:	DOMESTIC WATER
		Element:	PUMPS
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/16/2009		
Project Location:	Item Only: Floor(s) B		

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
FLET : FLETCHER RESIDENCE HALL

Project Cost

Project Number: FLETPL03

Task Cost Estimate

Task Description	Unit	Qnty	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	2	$5,730	$11,460	$1,450	$2,900	$14,360
Project Totals:				**$11,460**		**$2,900**	**$14,360**

Material/Labor Cost		$14,360
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$13,028
General Contractor Mark Up at 20.0%	+	$2,606
Construction Cost		$15,634
Professional Fees at 16.0%	+	$2,501
Total Project Cost		**$18,135**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETES03	**Title:**	WATERPROOFING OF EXTERIOR FOUNDATION WALL
Priority Sequence:	7		
Priority Class:	3		
Category Code:	ES1B	**System:**	EXTERIOR
		Component:	FOUNDATION/FOOTING
		Element:	DAMPPROOFING/DEWATERING
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/12/2009		
Project Location:	Floor-wide: Floor(s) B		

Project Description

There is evidence of water infiltration through the basement foundation wall. Excavation and waterproofing system upgrades are recommended. Improve the slope of grade away from the foundation prior to restoring the landscaping.

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Cost

Project Number: FLETES03

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Excavation and backfill to a depth of 10 feet	LF	48	$121	$5,808	$257	$12,336	$18,144
Landscape restoration 20 feet from building and stormwater collection improvements	LF	48	$16.66	$800	$12.50	$600	$1,400
Dampproofing application to a height of 10 feet	LF	48	$21.35	$1,025	$29.99	$1,440	$2,464
Project Totals:				**$7,632**		**$14,376**	**$22,008**

Material/Labor Cost		$22,008
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$15,061
General Contractor Mark Up at 20.0%	+	$3,012
Construction Cost		$18,073
Professional Fees at 16.0%	+	$2,892
Total Project Cost		**$20,964**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETES04	**Title:**	EXTERIOR DOOR REPLACEMENT
Priority Sequence:	8		
Priority Class:	3		
Category Code:	ES5A	**System:**	EXTERIOR
		Component:	FENESTRATIONS
		Element:	DOORS
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/12/2009		
Project Location:	Building-wide: Floor(s) 1		

Project Description

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

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Cost

Project Number: FLETES04

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
High traffic door system	LEAF	6	$1,978	$11,868	$1,999	$11,994	$23,862
Low traffic door system	LEAF	7	$1,031	$7,217	$1,250	$8,750	$15,967
Project Totals:				**$19,085**		**$20,744**	**$39,829**

Material/Labor Cost		$39,829
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$29,860
General Contractor Mark Up at 20.0%	+	$5,972
Construction Cost		$35,832
Professional Fees at 16.0%	+	$5,733
Total Project Cost		**$41,565**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETES01	**Title:**	RESTORE BRICK MASONRY
Priority Sequence:	9		
Priority Class:	3		
Category Code:	ES2B	**System:**	EXTERIOR
		Component:	COLUMNS/BEAMS/WALLS
		Element:	FINISH
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/12/2009		
Project Location:	Building-wide: Floor(s) 1		

Project Description

Brick masonry is the primary facade finish, with minor areas of exposed concrete frame elements. While the brick is fundamentally sound, exposure to the elements has caused some deterioration of the mortar joints and expansion joints. Cleaning, surface preparation, selective repairs, and applied finish or penetrating sealant upgrades are recommended to restore the aesthetics and integrity of the building envelope. Upgrades have been accomplished in recent renovations, but several areas of deterioration remain, and corrective action is required.

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Cost

Project Number: FLETES01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Cleaning and surface preparation	SF	80,990	$0.11	$8,909	$0.22	$17,818	$26,727
Selective mortar and / or sealant repairs (assumes 10 linear feet for every 100 square feet of envelope)	LF	8,099	$2.45	$19,843	$4.99	$40,414	$60,257
Applied finish or sealant	SF	80,990	$0.22	$17,818	$0.82	$66,412	$84,230
Project Totals:				**$46,569**		**$124,644**	**$171,213**

Material/Labor Cost		$171,213
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$110,837
General Contractor Mark Up at 20.0%	+	$22,167
Construction Cost		$133,005
Professional Fees at 16.0%	+	$21,281
Total Project Cost		**$154,286**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETES02	**Title:**	RESTORE EXPOSED CONCRETE FINISH
Priority Sequence:	10		
Priority Class:	3		
Category Code:	ES2B	**System:**	EXTERIOR
		Component:	COLUMNS/BEAMS/WALLS
		Element:	FINISH
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/12/2009		
Project Location:	Building-wide: Floor(s) 1		

Project Description

The architectural exposed concrete frame exterior components have become visibly soiled, and the construction joints are failing. Cleaning, surface preparation, selective repairs, and applied finish upgrades are recommended to restore the aesthetics and integrity of the building envelope.

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Cost

Project Number: FLETES02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Cleaning and surface preparation	SF	7,040	$0.11	$774	$0.22	$1,549	$2,323
Selective mortar and / or sealant repairs (assumes 10 linear feet for every 100 square feet of envelope)	LF	704	$2.45	$1,725	$4.99	$3,513	$5,238
Applied finish or sealant	SF	7,040	$0.22	$1,549	$0.82	$5,773	$7,322
Project Totals:				**$4,048**		**$10,835**	**$14,883**

Material/Labor Cost		$14,883
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$9,634
General Contractor Mark Up at 20.0%	+	$1,927
Construction Cost		$11,561
Professional Fees at 16.0%	+	$1,850
Total Project Cost		**$13,411**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETEL03	**Title:**	UPGRADE ELECTRICAL DISTRIBUTION NETWORK
Priority Sequence:	11		
Priority Class:	3		
Category Code:	EL3B	**System:**	ELECTRICAL
		Component:	SECONDARY DISTRIBUTION
		Element:	DISTRIBUTION NETWORK
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Not Applicable		

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

Project Class: Deferred Maintenance

Project Date: 10/16/2009

Project Location: Floor-wide: Floor(s) 1, 2, 3, 4, 5, 6, 7, B

Project Description

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

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Cost

Project Number: FLETEL03

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Power panels, conductors, raceways, devices, demolition, and cut and patching materials	SF	80,649	$2.98	$240,334	$4.46	$359,695	$600,029
Project Totals:				**$240,334**		**$359,695**	**$600,029**

Material/Labor Cost		$600,029
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$426,540
General Contractor Mark Up at 20.0%	+	$85,308
Construction Cost		$511,848
Professional Fees at 16.0%	+	$81,896
Total Project Cost		**$593,743**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETIS01	**Title:**	REFINISH FLOORING
Priority Sequence:	12		
Priority Class:	3		
Category Code:	IS1A	**System:**	INTERIOR/FINISH SYS.
		Component:	FLOOR
		Element:	FINISHES-DRY
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/12/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4, 5, 6, 7, B		

Project Description

Interior floor finish applications vary in age, type, and condition. Floor 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
FLET : FLETCHER RESIDENCE HALL

Project Cost

Project Number: FLETIS01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Carpet	SF	41,940	$5.36	$224,798	$2.00	$83,880	$308,678
Vinyl floor tile	SF	9,680	$3.53	$34,170	$2.50	$24,200	$58,370
Ceramic tile	SF	12,900	$7.24	$93,396	$10.63	$137,127	$230,523
Project Totals:				**$352,365**		**$245,207**	**$597,572**

Material/Labor Cost		$597,572
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$480,623
General Contractor Mark Up at 20.0%	+	$96,125
Construction Cost		$576,747
Professional Fees at 16.0%	+	$92,280
Total Project Cost		**$669,027**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETIS02	**Title:**	REFINISH WALLS
Priority Sequence:	13		
Priority Class:	3		
Category Code:	IS2B	**System:**	INTERIOR/FINISH SYS.
		Component:	PARTITIONS
		Element:	FINISHES
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/12/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4, 5, 6, 7, B		

Project Description

Interior wall finish applications vary in age, type, and condition. 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
FLET : FLETCHER RESIDENCE HALL

Project Cost

Project Number: FLETIS02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Standard wall finish (paint, wall covering, etc.)	SF	209,630	$0.17	$35,637	$0.81	$169,800	$205,437
Premium wall finish (epoxy, tile, wood panel, etc.)	SF	11,030	$2.28	$25,148	$3.92	$43,238	$68,386
Project Totals:				**$60,786**		**$213,038**	**$273,823**

Material/Labor Cost		$273,823
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$170,499
General Contractor Mark Up at 20.0%	+	$34,100
Construction Cost		$204,599
Professional Fees at 16.0%	+	$32,736
Total Project Cost		**$237,335**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETIS03	**Title:**	REFINISH CEILINGS
Priority Sequence:	14		
Priority Class:	3		
Category Code:	IS3B	**System:**	INTERIOR/FINISH SYS.
		Component:	CEILINGS
		Element:	REPLACEMENT
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/12/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4, 5, 6, 7, B		

Project Description

Ceiling finish applications vary in age, type, and condition. 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
FLET : FLETCHER RESIDENCE HALL

Project Cost

Project Number: FLETIS03

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Acoustical tile ceiling system	SF	5,160	$2.12	$10,939	$2.98	$15,377	$26,316
Painted ceiling finish application	SF	59,360	$0.17	$10,091	$0.81	$48,082	$58,173
Project Totals:				**$21,030**		**$63,458**	**$84,489**

Material/Labor Cost		$84,489
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$53,732
General Contractor Mark Up at 20.0%	+	$10,746
Construction Cost		$64,478
Professional Fees at 16.0%	+	$10,317
Total Project Cost		**$74,795**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETIS04	**Title:**	REPLACE OLDER SERVICE AREA INTERIOR DOORS
Priority Sequence:	15		
Priority Class:	3		
Category Code:	IS4A	**System:**	INTERIOR/FINISH SYS.
		Component:	DOORS
		Element:	GENERAL
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/12/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4, 5, 6, 7, B		

Project Description

The condition of the interior doors that were not replaced in earlier refurbishments is such that door system replacements are recommended as part of a comprehensive renovation effort. Complete demolition of existing door systems and replacement according to a code compliant plan to protect egress passages properly is recommended.

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Cost

Project Number: FLETIS04

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Interior door and frame installation with all hardware and accessible signage	EA	22	$370	$8,140	$396	$8,712	$16,852
Project Totals:				**$8,140**		**$8,712**	**$16,852**

Material/Labor Cost		$16,852
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$12,666
General Contractor Mark Up at 20.0%	+	$2,533
Construction Cost		$15,199
Professional Fees at 16.0%	+	$2,432
Total Project Cost		**$17,631**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETIS05	**Title:**	MAJOR UPGRADE AND RESTROOM RENOVATIONS
Priority Sequence:	16		
Priority Class:	3		
Category Code:	IS6D	**System:**	INTERIOR/FINISH SYS.
		Component:	GENERAL
		Element:	OTHER
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/12/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4, 5, 6, 7, B		

Project Description

The shared restrooms on each floor have fixtures and finishes that are mostly original to the year of construction and some partial subsequent renovations. The fixtures are sound but aged and inefficient. The finishes are outdated and deteriorating in some areas. A comprehensive restroom renovation, including new fixtures, finishes, partitions, accessories, and associated dual level drinking fountains, is recommended. All future renovations should be upgraded to provide full compliance with ADA accessibility guidelines. The older drinking fountains should be replaced with dual height units to provide ADA compliant fountains.

Project Cost

Project Number: FLETIS05

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Major restroom renovation, including fixtures, finishes, partitions, accessories, and expansion if necessary (assumes 55 square feet of restroom area per fixture)	FIXT	228	$1,969	$448,932	$1,699	$387,372	$836,304
Dual level drinking fountain	EA	10	$1,216	$12,160	$374	$3,740	$15,900
Alcove construction	EA	10	$877	$8,770	$3,742	$37,420	$46,190
Project Totals:				**$469,862**		**$428,532**	**$898,394**

Material/Labor Cost		$898,394
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$692,988
General Contractor Mark Up at 20.0%	+	$138,598
Construction Cost		$831,586
Professional Fees at 16.0%	+	$133,054
Total Project Cost		**$964,639**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETFS02	**Title:**	ELEVATOR LOBBY CORRECTIONS
Priority Sequence:	17		
Priority Class:	4		
Category Code:	FS5C	**System:**	FIRE/LIFE SAFETY
		Component:	EGRESS PATH
		Element:	SEPARATION RATING
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	IBC 713		
Project Class:	Plant Adaption		
Project Date:	9/17/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4, 5, 6, 7, B		

Project Description

The current floor plan has the elevator lobbies opening into the existing hall corridors. IBC 2000 states that elevators opening into a fire-resistant corridor should be provided with an elevator lobby at each floor containing such a corridor. The lobby should completely separate the elevators from the corridor with rated partitions. Elevator lobbies need to have at least one means of egress and contain smoke detectors. The construction of fire-resistant barriers with automatically closing fire doors between the elevator lobbies and the corridors is recommended to provide the required separation and protection.

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Cost

Project Number: FLETFS02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Rated partition, door assemblies, panic hardware, holdbacks, closers, and smoke detector (assumes 120 square feet of rated partition per assembly)	SYS	8	$3,269	$26,152	$3,495	$27,960	$54,112
Project Totals:				**$26,152**		**$27,960**	**$54,112**

Material/Labor Cost		$54,112
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$40,679
General Contractor Mark Up at 20.0%	+	$8,136
Construction Cost		$48,814
Professional Fees at 16.0%	+	$7,810
Total Project Cost		**$56,625**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETAC01	**Title:**	INTERIOR AMENITY ACCESSIBILITY UPGRADES
Priority Sequence:	18		
Priority Class:	4		
Category Code:	AC4A	**System:**	ACCESSIBILITY
		Component:	GENERAL
		Element:	FUNCTIONAL SPACE MOD.
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG 804		
Project Class:	Plant Adaption		
Project Date:	10/12/2009		
Project Location:	Floor-wide: Floor(s) B		

Project Description

Current accessibility legislation requires that building amenities be generally accessible to all persons. The configuration of the kitchen on the basement floor presents a barrier to accessibility. The installation of wheelchair-accessible kitchenette cabinetry and associated amenities is recommended where applicable.

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Cost

Project Number: FLETAC01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
ADA compliant kitchenette unit with base cabinetry, overhead cabinetry, and amenities	SYS	1	$5,628	$5,628	$2,298	$2,298	$7,926
Project Totals:				**$5,628**		**$2,298**	**$7,926**

Material/Labor Cost		$7,926
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$6,846
General Contractor Mark Up at 20.0%	+	$1,369
Construction Cost		$8,216
Professional Fees at 16.0%	+	$1,314
Total Project Cost		**$9,530**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETAC02	**Title:**	STAIR SAFETY UPGRADES
Priority Sequence:	19		
Priority Class:	4		
Category Code:	AC3B	**System:**	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	STAIRS AND RAILINGS
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Not Applicable		

Code Application:	IBC	1003.3
	ADAAG	505

Project Class:	Plant Adaption
Project Date:	10/12/2009
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4, 5, 6, 7, B

Project Description

Current legislation also 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 4 inch diameter sphere (6 inches in the triangle formed by the lower rail and tread / riser angle). Although the stairs are compliant with the code enforced at the time of construction until a major renovation occurs, they are deficient in handrail and guardrail design relative to current standards. The finishes on the stairs have also deteriorated or are otherwise unsafe. Future renovation efforts should include comprehensive stair railing and finish upgrades.

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Cost

Project Number: FLETAC02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Wall-mounted handrail system per floor	FLR	22	$573	$12,606	$521	$11,462	$24,068
Center handrail / guardrail system per floor	FLR	22	$1,297	$28,534	$833	$18,326	$46,860
Stair tread and landing finish upgrades per floor	FLR	22	$1,449	$31,878	$773	$17,006	$48,884
Project Totals:				**$73,018**		**$46,794**	**$119,812**

Material/Labor Cost		$119,812
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$97,534
General Contractor Mark Up at 20.0%	+	$19,507
Construction Cost		$117,041
Professional Fees at 16.0%	+	$18,727
Total Project Cost		**$135,768**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETES05	**Title:**	BUILT-UP ROOF REPLACEMENT
Priority Sequence:	20		
Priority Class:	4		
Category Code:	ES4B	**System:**	EXTERIOR
		Component:	ROOF
		Element:	REPLACEMENT
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Energy Conservation $1,500		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/12/2009		
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
FLET : FLETCHER RESIDENCE HALL

Project Cost

Project Number: FLETES05

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Built-up roof	SF	17,650	$3.06	$54,009	$3.58	$63,187	$117,196
Project Totals:				**$54,009**		**$63,187**	**$117,196**

Material/Labor Cost		$117,196
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$86,802
General Contractor Mark Up at 20.0%	+	$17,360
Construction Cost		$104,162
Professional Fees at 16.0%	+	$16,666
Total Project Cost		**$120,828**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETHV01	**Title:**	MODULAR COOLING EQUIPMENT REPLACEMENT
Priority Sequence:	21		
Priority Class:	4		
Category Code:	HV2B	**System:**	HVAC
		Component:	COOLING
		Element:	HEAT REJECTION
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/16/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4, 5, 6, 7		

Project Description

Life cycle replacement of the existing 8400 BTUH window air conditioners is recommended. Remove the existing units. Install new units of the latest energy-efficient design.

Project Cost

Project Number: FLETHV01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Through-wall air conditioner, connections, and demolition (approximately 218 units at 8400 BTUH)	TON	153	$843	$128,979	$531	$81,243	$210,222
Project Totals:				**$128,979**		**$81,243**	**$210,222**

Material/Labor Cost		$210,222
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$171,560
General Contractor Mark Up at 20.0%	+	$34,312
Construction Cost		$205,871
Professional Fees at 16.0%	+	$32,939
Total Project Cost		**$238,811**

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Description

Project Number:	FLETHV02	**Title:**	REPLACE SPLIT DX SYSTEMS
Priority Sequence:	22		
Priority Class:	4		
Category Code:	HV3D	**System:**	HVAC
		Component:	HEATING/COOLING
		Element:	CONVENTIONAL SPLIT SYSTEM
Building Code:	FLET		
Building Name:	FLETCHER RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	ASHRAE 62-2004		
Project Class:	Capital Renewal		
Project Date:	12/3/2009		
Project Location:	Floor-wide: Floor(s) 1,B,R		

Project Description

Remove the existing split DX air conditioning systems, including condensing units, evaporator fan units, refrigeration piping, controls, and connections. Install new split DX systems of the latest energy-efficient design.

Specific Project Details

Facility Condition Analysis
Section Three
FLET : FLETCHER RESIDENCE HALL

Project Cost

Project Number: FLETHV02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Replace split DX air conditioning system	TON	21	$1,196	$25,114	$720	$15,122	$40,236
Project Totals:				**$25,114**		**$15,122**	**$40,236**

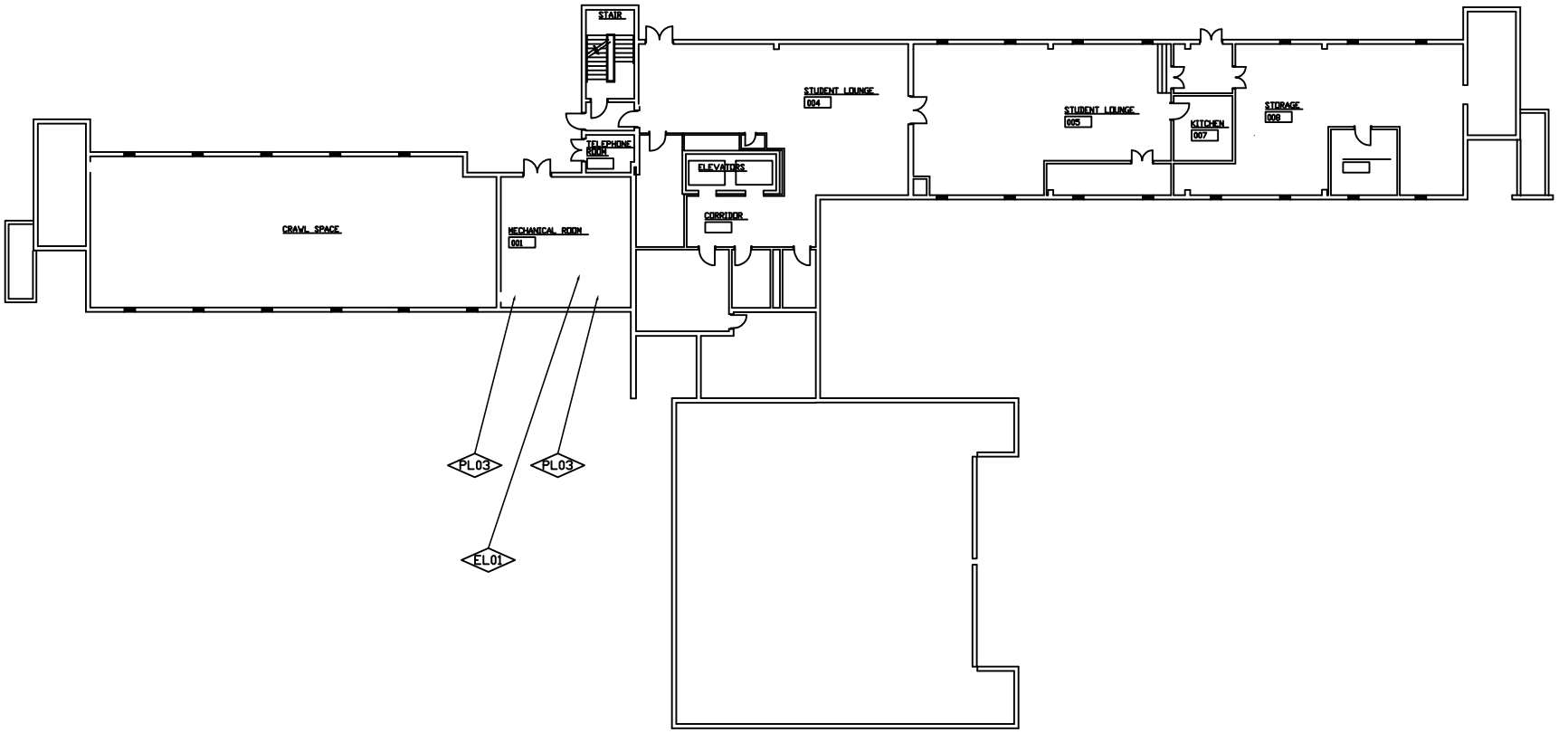
Material/Labor Cost		$40,236
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$33,047
General Contractor Mark Up at 20.0%	+	$6,609
Construction Cost		$39,656
Professional Fees at 16.0%	+	$6,345
Total Project Cost		**$46,001**

FACILITY CONDITION ANALYSIS

SECTION 4

DRAWINGS AND PROJECT LOCATIONS

EAST CAROLINA UNIVERSITY



AC01 AC02 EL02 EL03 ES03 FS01
FS02 HV02 IS01 IS02 IS03 IS04
IS05 PL01 PL02

FLETCHER
RESIDENCE HALL

BLDG NO. FLET

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

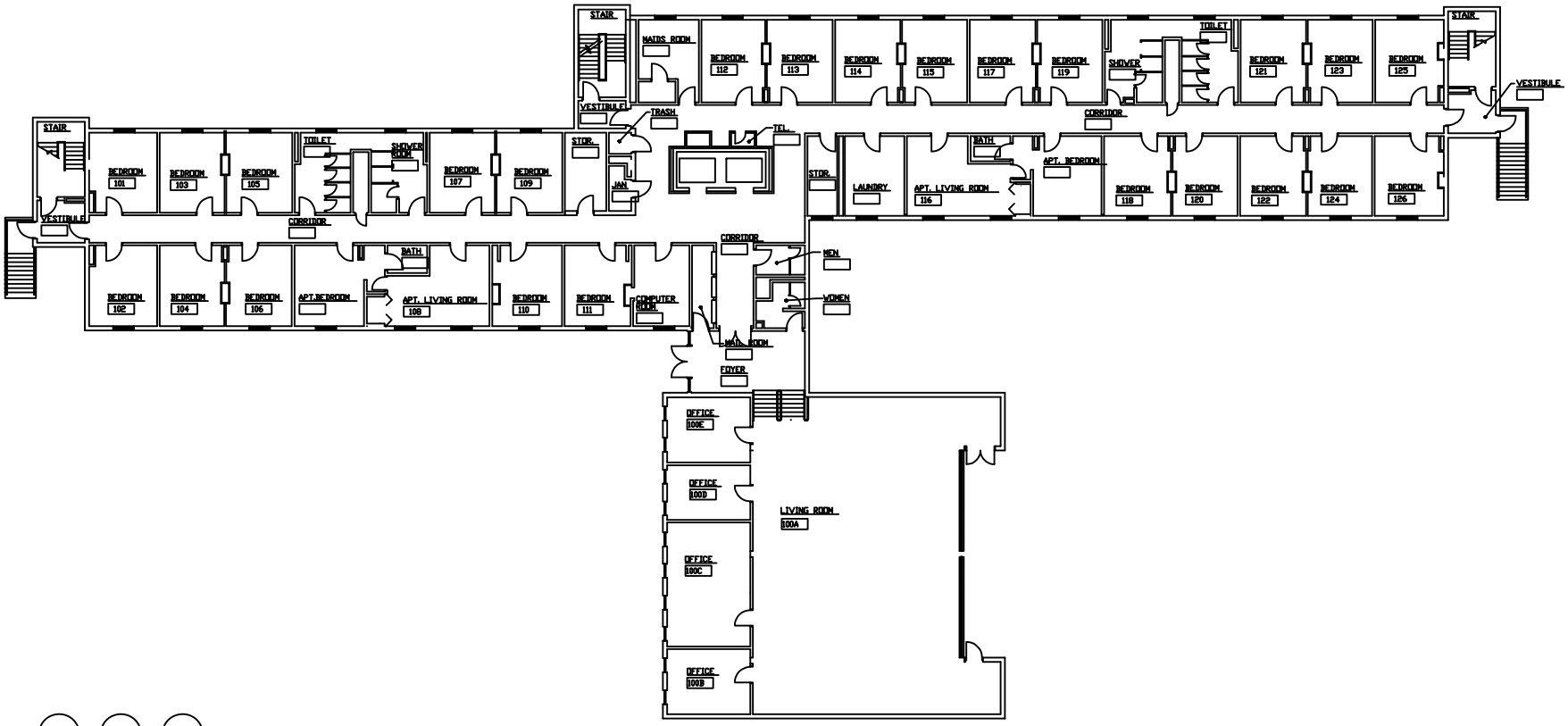
PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 12/07/09
Drawn by: J.T.V.
Project No. 09-041

BASEMENT
FLOOR
PLAN

Sheet No.
1 of 8

EAST CAROLINA UNIVERSITY



ES01 ES02 ES04

AC02 EL02 EL03 FS01 FS02 HV01

HV02 IS01 IS02 IS03 IS04 IS05

PL01 PL02

FLETCHER
RESIDENCE HALL

BLDG NO. FLET

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

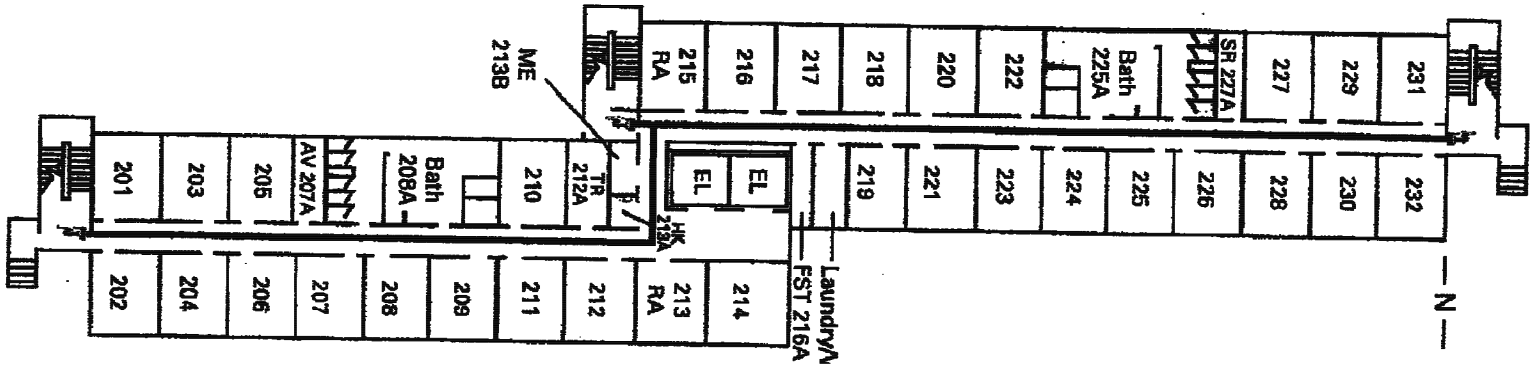
PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 12/07/09
Drawn by: J.T.V.
Project No. 09-041

FIRST FLOOR PLAN

Sheet No.
2 of 8

EAST CAROLINA UNIVERSITY



AC02 EL02 EL03 FS01 FS02 HV01
IS01 IS02 IS03 IS04 IS05 PL01
PL02

FLETCHER
RESIDENCE HALL

BLDG NO. FLET

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

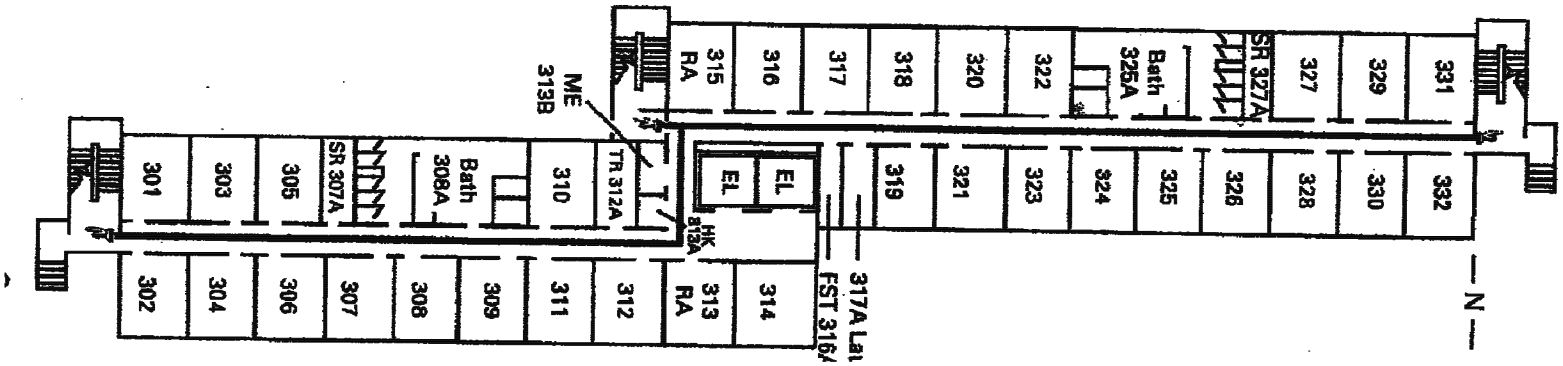
PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 12/07/09
Drawn by: J.T.V.
Project No. 09-041

SECOND
FLOOR
PLAN

Sheet No.
3 of 8

EAST CAROLINA UNIVERSITY



AC02 EL02 EL03 FS01 FS02 HV01
IS01 IS02 IS03 IS04 IS05 PL01
PL02

FLETCHER
RESIDENCE HALL

BLDG NO. FLET

ISES CORPORATION

FACILITY
CONDITION
ANALYSIS

2165 West Park Court
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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

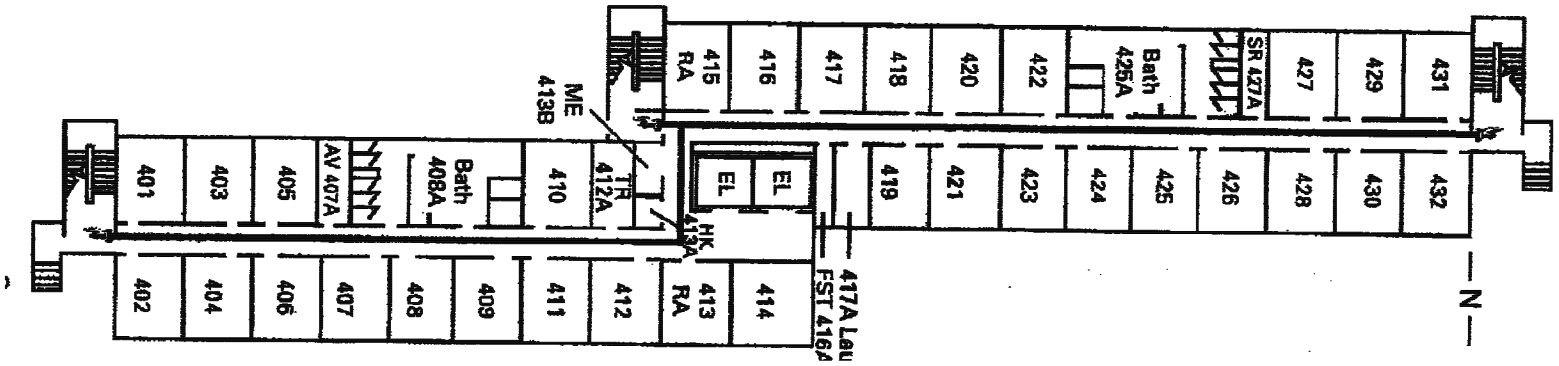
PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 12/07/09
Drawn by: J.T.V.
Project No. 09-041

THIRD FLOOR PLAN

Sheet No.
4 of 8

EAST CAROLINA UNIVERSITY



AC02 EL02 EL03 FS01 FS02 HV01
IS01 IS02 IS03 IS04 IS05 PL01
PL02

FLETCHER
RESIDENCE HALL

BLDG NO. FLET

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

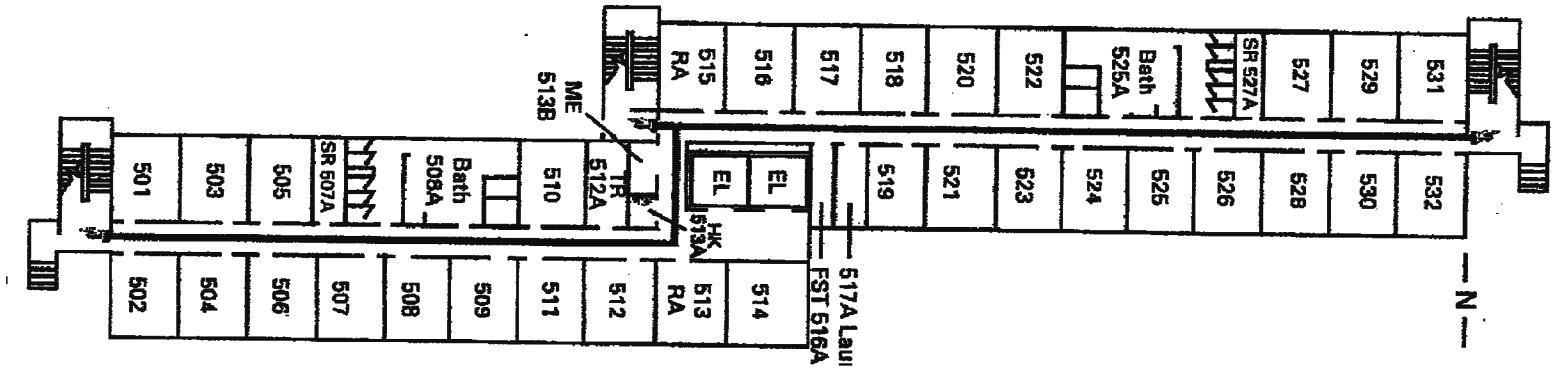
PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 12/07/09
Drawn by: J.T.V.
Project No. 09-041

FOURTH FLOOR PLAN

Sheet No.
5 of 8

EAST CAROLINA UNIVERSITY



AC02 EL02 EL03 FS01 FS02 HV01
IS01 IS02 IS03 IS04 IS05 PL01
PL02

FLETCHER
RESIDENCE HALL

BLDG NO. FLET

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

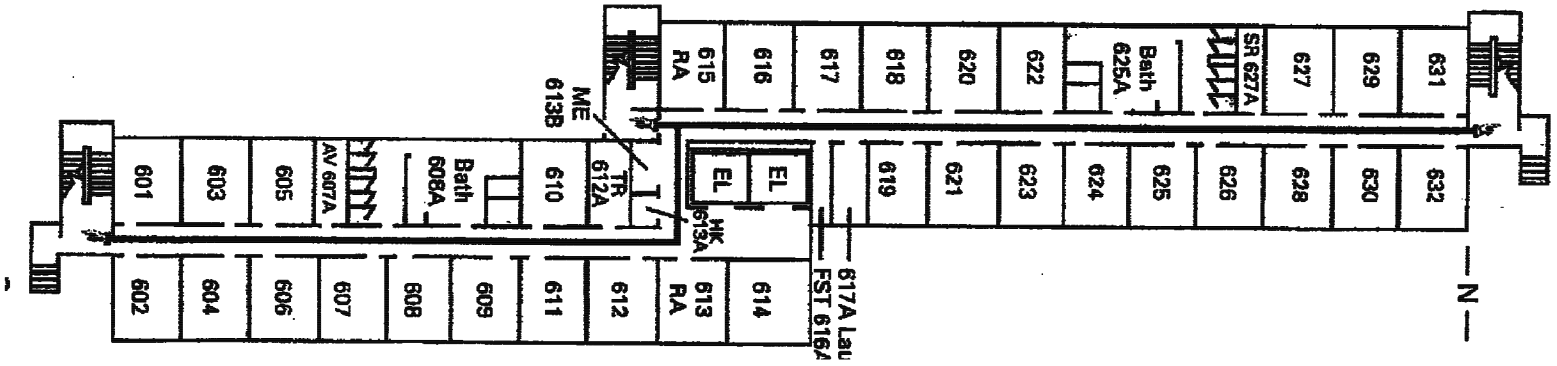
PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 12/07/09
Drawn by: J.T.V.
Project No. 09-041

FIFTH
FLOOR
PLAN

Sheet No.
6 of 8

EAST CAROLINA UNIVERSITY



AC02 EL02 EL03 FS01 FS02 HV01
IS01 IS02 IS03 IS04 IS05 PL01
PL02

FLETCHER
RESIDENCE HALL

BLDG NO. FLET

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: 12/07/09
Drawn by: J.T.V.
Project No. 09-041

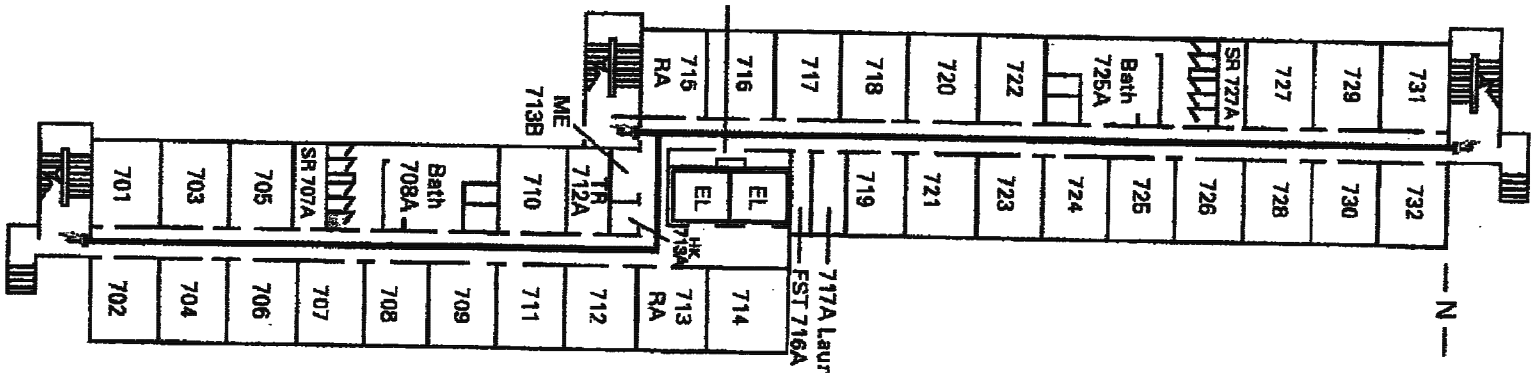
SIXTH
FLOOR
PLAN

Sheet No.
7 of 8

EAST CAROLINA UNIVERSITY

ROOF

ES05 HV02



AC02 EL02 EL03 FS01 FS02 HV01

IS01 IS02 IS03 IS04 IS05 PL01

PL02

FLETCHER
RESIDENCE HALL

BLDG NO. FLET

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: 12/07/09
Drawn by: J.T.V.
Project No. 09-041

SEVENTH FLOOR PLAN

Sheet No.
8 of 8

FACILITY CONDITION ANALYSIS

SECTION 5

LIFE CYCLE MODEL SUMMARY AND PROJECTIONS

Life Cycle Model

Building Component Summary

FLET : FLETCHER RESIDENCE HALL

Uniformat Code	Component Description	Qty	Units	Unit Cost	Complx Adj	Total Cost	Install Date	Life Exp
B2010	EXTERIOR FINISH RENEWAL	7,040	SF	$1.30		$9,177	1964	10
B2010	EXTERIOR FINISH RENEWAL	80,990	SF	$1.30	.31	$32,729	1964	10
B2020	STANDARD GLAZING AND CURTAIN WALL	660	SF	$104.04		$68,664	2006	55
B2020	STANDARD GLAZING AND CURTAIN WALL	21,350	SF	$104.04		$2,221,181	2006	55
B2030	HIGH TRAFFIC EXTERIOR DOOR SYSTEM	6	LEAF	$4,311.24		$25,867	1998	20
B2030	LOW TRAFFIC EXTERIOR DOOR SYSTEM	7	LEAF	$2,863.29		$20,043	1964	40
B3010	BUILT-UP ROOF	17,650	SF	$6.70		$118,301	2000	20
C1020	STANDARD DOOR AND FRAME INCLUDING HARDWARE	22	LEAF	$783.68		$17,241	1964	35
C1020	STANDARD DOOR AND FRAME INCLUDING HARDWARE	70	LEAF	$783.68		$54,857	2007	35
C1020	RATED DOOR AND FRAME INCLUDING HARDWARE	277	LEAF	$1,489.06		$412,470	2007	35
C1020	INTERIOR DOOR HARDWARE	277	EA	$423.04		$117,183	2007	15
C1020	INTERIOR DOOR HARDWARE	22	EA	$423.04		$9,307	1964	15
C1020	INTERIOR DOOR HARDWARE	70	EA	$423.04		$29,613	2007	15
C3010	STANDARD WALL FINISH (PAINT, WALL COVERING, ETC.)	209,630	SF	$0.80		$167,922	1998	10
C3010	PREMIUM WALL FINISH (EPOXY, TILE, WOOD PANEL, ETC.)	11,030	SF	$5.87		$64,703	1998	20
C3020	CARPET	41,940	SF	$8.75		$366,827	1998	10
C3020	VINYL FLOOR TILE	9,680	SF	$6.59		$63,771	1988	15
C3020	CERAMIC FLOOR TILE	12,900	SF	$17.36		$223,975	1964	20
C3030	ACOUSTICAL TILE CEILING SYSTEM	5,160	SF	$4.99		$25,764	1998	15
C3030	PAINTED CEILING FINISH APPLICATION	59,360	SF	$0.80		$47,550	1964	15
D1010	ELEVATOR MODERNIZATION - TRACTION - LOW RISE	2	EA	$127,577.89		$255,156	2000	25
D1010	ELEVATOR CAB RENOVATION - PASSENGER	2	EA	$26,616.80		$53,234	2002	12
D2010	PLUMBING FIXTURES - DORMITORY / APARTMENTS	80,649	SF	$4.99		$402,222	1964	35
D2020	WATER PIPING - DORMITORY / APARTMENTS	80,649	SF	$3.55		$286,408	1964	35
D2020	DOMESTIC WATER PRESSURE BOOSTER SYSTEM	2	SYS	$8,868.58		$17,737	1964	20
D2020	WATER HEATER, SHELL AND TUBE HEAT EXCHANGER	280	GPM	$355.69		$99,593	2008	24
D2030	DRAIN PIPING - DORMITORY / APARTMENTS	80,649	SF	$5.40		$435,596	1964	40
D2050	AIR COMPRESSOR PACKAGE (AVERAGE SIZE)	1	SYS	$6,456.49		$6,456	1964	25

Life Cycle Model

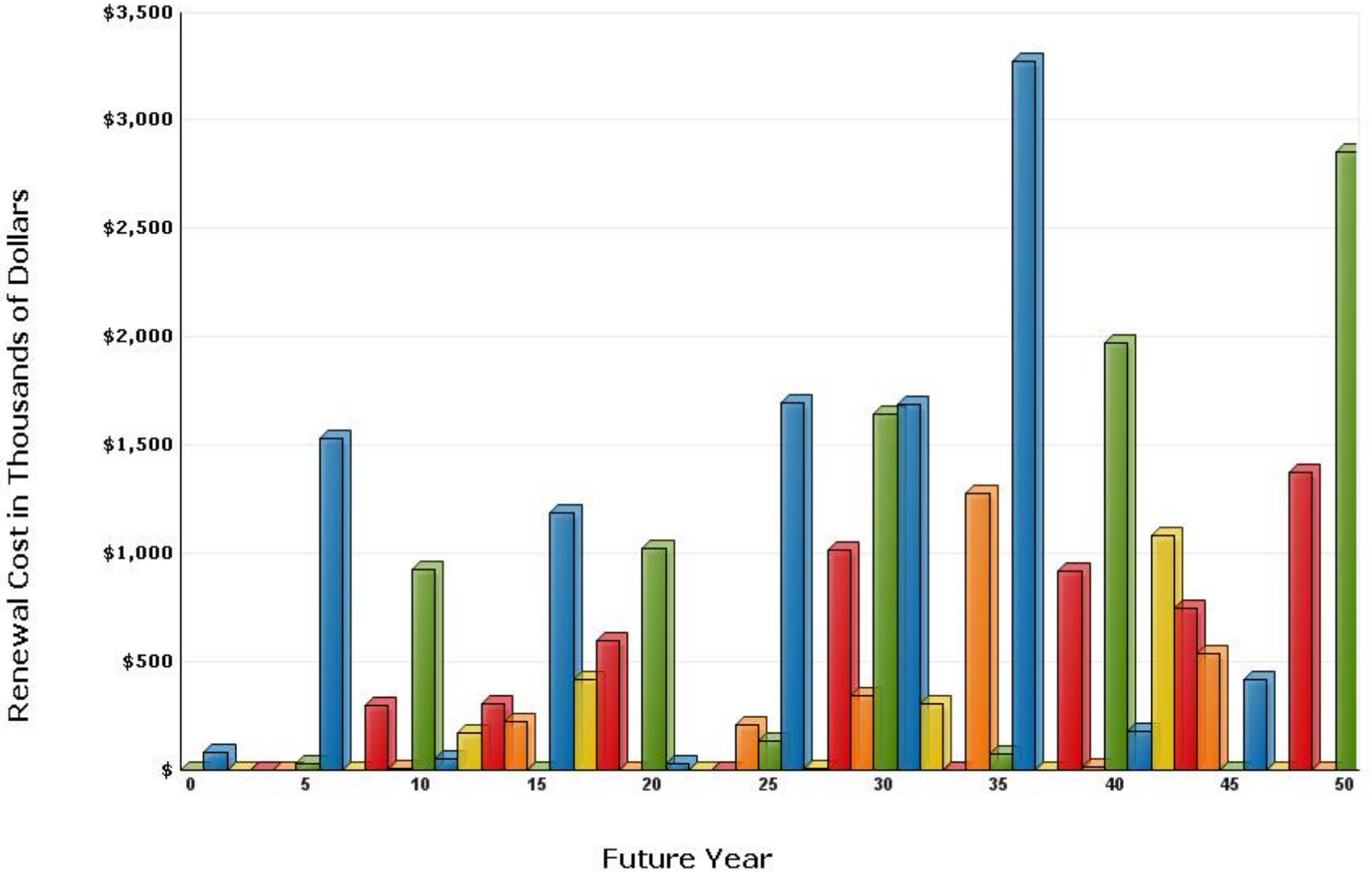
Building Component Summary

FLET : FLETCHER RESIDENCE HALL

Uniformat Code	Component Description	Qty	Units	Unit Cost	Complx Adj	Total Cost	Install Date	Life Exp
D3020	HEATING SYSTEM, STEAM OR HYDRONIC	80,649	SF	$7.30		$588,890	1964	25
D3040	CONDENSATE RECEIVER	1	SYS	$9,504.01		$9,504	1964	15
D3040	EXHAUST FAN - CENTRIFUGAL ROOF EXHAUSTER OR SIMILAR	4	EA	$2,768.62		$11,074	1964	20
D3040	BASE MTD. PUMP - UP TO 15 HP	5	HP	$3,175.77		$15,879	2009	20
D3050	SPLIT DX SYSTEM	2	TON	$2,143.89		$4,288	2005	15
D3050	SPLIT DX SYSTEM	15	TON	$2,143.89		$32,158	2004	15
D3050	SPLIT DX SYSTEM	2	TON	$2,143.89		$4,288	2002	15
D3050	SPLIT DX SYSTEM	3	TON	$2,143.89		$6,432	2004	15
D3050	THRU-WALL AC UNIT	153	TON	$1,528.27		$233,826	2006	10
D5010	ELECTRICAL SYSTEM - DORMITORY / APARTMENTS	80,649	SF	$7.21		$581,274	1964	50
D5010	ELECTRICAL SWITCHGEAR 120/208V	2,000	AMP	$32.96		$65,927	2006	20
D5020	EMERGENCY LIGHT (BATTERY)	70	EA	$283.62		$19,853	1964	20
D5020	EXIT SIGNS (CENTRAL POWER)	88	EA	$163.78		$14,412	1964	20
D5020	LIGHTING - DORMITORY / APARTMENTS	80,649	SF	$4.30		$346,812	1964	20
D5030	FIRE ALARM SYSTEM, POINT ADDRESSABLE	80,649	SF	$2.61		$210,864	2006	15
D5040	GENERATOR, DIESEL (UP TO 50 KW)	12	KW	$1,123.84		$13,486	1964	25
E2010	KITCHENETTE UNIT WITH CABINETRY AND AMENITIES	1	LOT	$5,940.22		$5,940	1988	20
						$7,818,455		

Life Cycle Model Expenditure Projections

FLET : FLETCHER RESIDENCE HALL



Average Annual Renewal Cost Per SqFt $3.01

FACILITY CONDITION ANALYSIS

SECTION 6

PHOTOGRAPHIC LOG

Photo Log - Facility Condition Analysis

FLET : FLETCHER RESIDENCE HALL

Photo ID No	Description	Location	Date
FLET001a	Building facade	East elevation	9/17/2009
FLET001e	General view showing window air conditioning units	East exterior	9/17/2009
FLET002a	Building facade	North wing, east elevation	9/17/2009
FLET002e	Elevator 1 control cabinet	Elevator machine room	9/17/2009
FLET003a	Building facade	North wing, west elevation	9/17/2009
FLET003e	Elevator 1 motor	Elevator machine room	9/17/2009
FLET004a	Service drive to basement	South wing, west side	9/17/2009
FLET004e	Elevator 1 gear	Elevator machine room	9/17/2009
FLET005a	Building facade	South wing, south elevation	9/17/2009
FLET005e	Elevator 2 motor	Elevator machine room	9/17/2009
FLET006a	Stairwell discharge and steps	South wing, south elevation	9/17/2009
FLET006e	In foreground, two fan-powered ventilators and in background, ductless air conditioner serving elevator tower	Roof, north wing	9/17/2009
FLET007a	Building facade	South wing, east elevation	9/17/2009
FLET007e	Two fan-powered ventilators	Roof, south wing	9/17/2009
FLET008a	Building facade	North wing, east elevation	9/17/2009
FLET008e	Wall-mount radiator unit	Laundry room 717A	9/17/2009
FLET009a	Building facade	North wing, east elevation	9/17/2009
FLET009e	Surface-mount fluorescent light fixtures	Seventh floor, north wing, hallway	9/17/2009
FLET010a	Window wall at common area living room	North elevation	9/17/2009
FLET010e	Notifier fire alarm control system and command center	Basement, room 011	9/17/2009
FLET011a	Failing exterior service door	Main roof level access door	9/17/2009
FLET011e	ASCO 7000 Series automatic transfer switch	Basement, room 011	9/17/2009
FLET012a	Typical dorm room window unit	Dorm window, interior view	9/17/2009
FLET012e	Original 800 amp main distribution panel	Basement, electrical room 001A	9/17/2009
FLET013a	Typical restroom window unit	Restroom, interior view	9/17/2009
FLET013e	Existing 12 kW Onan emergency generator	Basement, mechanical room 001-OS	9/17/2009
FLET014a	Typical window wall modular units	North wing, east elevation	9/17/2009
FLET014e	Old GE 100 amp electrical panel	Basement, mechanical room 001-OS	9/17/2009
FLET015a	Built-up roofing membrane	Main roof, north wing	9/17/2009
FLET015e	Two AERCO steam-powered domestic water heaters	Basement, mechanical room 00	9/17/2009

Photo Log - Facility Condition Analysis

FLET : FLETCHER RESIDENCE HALL

Photo ID No	Description	Location	Date
FLET016a	Built-up roofing membrane	Main roof, elevator penthouse	9/17/2009
FLET016e	Domestic water booster pumps	Basement, mechanical room 001-OS	9/17/2009
FLET017a	Built-up roofing membrane	Low roof, east common area	9/17/2009
FLET017e	Duplex condensate receiver and pressure reducing station	Basement, mechanical room 001-OS	9/17/2009
FLET018a	Built-up roofing membrane	Main roof, south wing	9/17/2009
FLET018e	Left to right: original main distribution panel, Onan generator, and simplex air compressor	Basement, mechanical room 001-OS	9/17/2009
FLET019a	Built-up roofing membrane	Main roof, elevator penthouse	9/17/2009
FLET019e	Heating hot water circulating pump	Basement, mechanical room 001-OS	9/17/2009
FLET020a	Damaged parapet edge and stained brick	Brick masonry wall at main roof	9/17/2009
FLET020e	New 2,000 amp main distribution panel	Basement, mechanical room 001-OS	9/17/2009
FLET021a	Main corridor, north wing	Seventh floor	9/17/2009
FLET021e	General view of electrical and control equipment	Basement, mechanical room 001-OS	9/17/2009
FLET022a	Typical dorm room door and transom unit	Seventh floor	9/17/2009
FLET023a	Typical dorm room painted ceiling	Dorm room	9/17/2009
FLET024a	Common area trash room	First floor	9/17/2009
FLET025a	Common area living room	First floor	9/17/2009
FLET026a	Common area living room	First floor	9/17/2009
FLET027a	Typical elevator lobby	Basement	9/17/2009
FLET028a	Common area lounge	Basement	9/17/2009
FLET029a	Common area lounge	Basement	9/17/2009
FLET030a	Crack in CMU wall	Basement	9/17/2009
FLET031a	Non-compliant railing systems	Center west egress stairwell	9/17/2009
FLET032a	Non-compliant railing systems	Center west egress stairwell	9/17/2009
FLET033a	Non-compliant drinking fountain	Common corridor	9/17/2009
FLET034a	Non-compliant drinking fountain	Basement, elevator lobby	9/17/2009
FLET035a	Site drainage issues along basement wall	North wing, east elevation	9/17/2009

Facility Condition Analysis - Photo Log

FLET001A.jpg

FLET001E.jpg

FLET002A.jpg

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FLET003A.jpg

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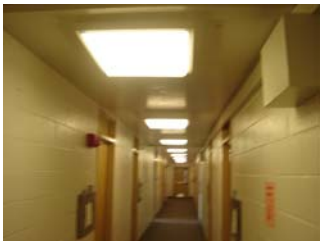

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