EAST CAROLINA UNIVERSITY

GARRETT RESIDENCE HALL

ASSET CODE: GARR

FACILITY CONDITION ANALYSIS

DECEMBER 3, 2009

ISES CORPORATION

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FACILITY CONDITION ANALYSIS

SECTION 1

GENERAL ASSET INFORMATION

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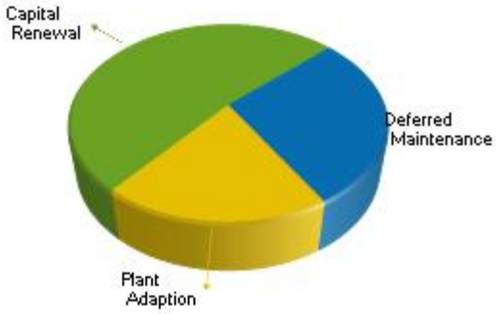
PROJECT COSTS BY CLASSIFICATION

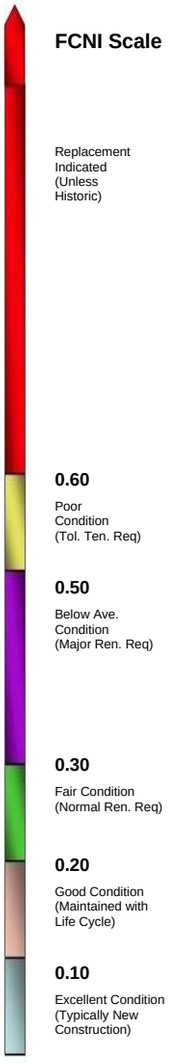


Building Code:	GARR
Building Name:	GARRETT RESIDENCE HALL
Year Built:	1956
Building Use:	Dormitory / Apartments
Square Feet:	53,344

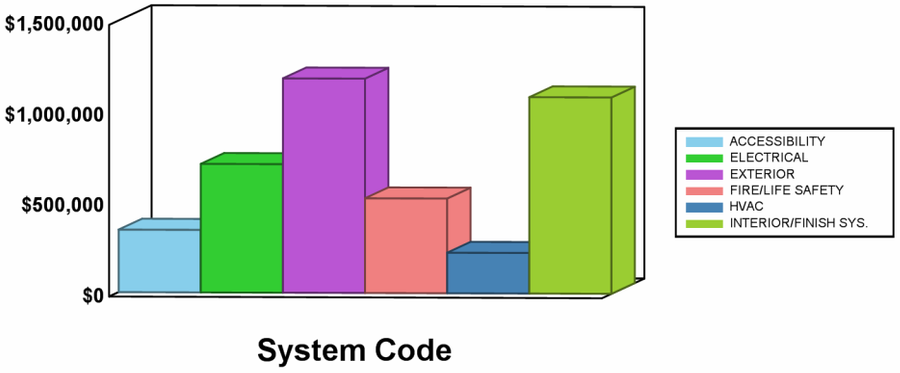
Project Costs by Priority

Priority 1:	$3,837	
Priority 2:	$597,205	
Priority 3:	$2,752,278	
Priority 4:	$717,457	
Total Project Costs:		**$4,070,777**
Facility Replacement Cost:		**$16,569,000**
Facility Condition Needs Index (FCNI):		**0.25**

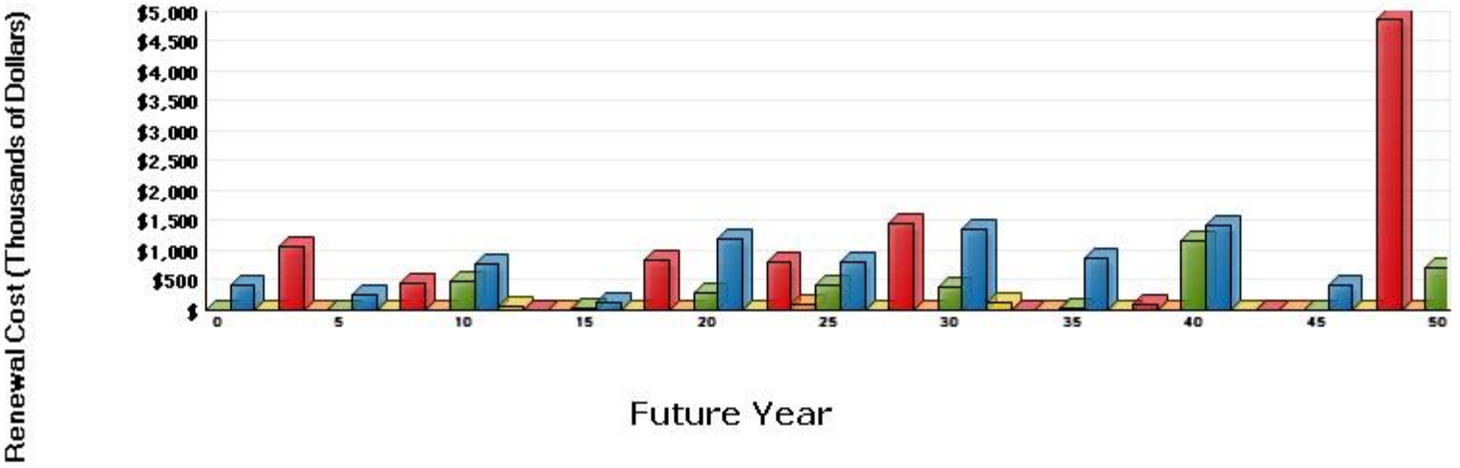
(Project Costs / Replacement Cost)



PROJECT COSTS BY SYSTEM CODE



LIFE CYCLE MODEL EXPENDITURE PROJECTIONS



Average Annual Renewal Cost Per SqFt $3.49

B. ASSET SUMMARY

Garrett Residence Hall, located on the main campus of East Carolina University in Greenville, North Carolina, was reported to have been originally constructed in 1956, with multiple renovations over the ensuing years. The last major refurbishment / renovation was reportedly completed approximately five years ago. This building contains 53,344 square feet of area and four levels of dormitory and communal space. There are three levels above grade, with a partial area basement level utilized primarily for storage and mechanical equipment. The reinforced cast-in-place concrete foundation supports a cast-in-place concrete structure that is clad in brick masonry.

Information for this report was gathered during an onsite review conducted on September 16, 2009.

SITE

The building is sited on a flat parcel of land in the central campus area adjacent to the open commons. Portions of the general site around this building are reasonably well landscaped, 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 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.

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 during the onsite review that appear to have negatively impacted the building.

The is no onsite vehicular parking at the building site other than a limited number of curb side parking spaces along the adjacent streets. A small designated service vehicle and loading area is located in the rear at the northeast corner of the building and appears to be adequate for the service needs of the facility.

Pedestrian access to the facility is supported by concrete sidewalk systems in the immediate area of the building that provide compliant ADA access to and from adjacent buildings and parking areas. This pedestrian pavement is generally in good condition, with no immediate repairs necessary.

EXTERIOR STRUCTURE

The building structure is apparently supported by soil bearing spread footings that show no visible evidence of displacement or structural distress. The primary building structural frame includes reinforced concrete and load bearing masonry. Brick masonry is the primary exterior facade finish, and horizontal floor slab extensions combined with a continuously expressed windowsill provide the primary ornamental facade features on the building. 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.

The architectural ornamental concrete 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.

Replacements are recommended for a portion of the older the exterior door systems. This project includes only the secondary entrance and service doors. The replacement units should maintain the architectural design aspects of this facility and be modern, energy-efficient applications.

The operable window and fixed window wall systems on this building date from the original construction, are exhibiting deterioration, and do not meet current energy compliance standards. It is recommended that the single pane, aluminum-framed operable window and window wall applications be upgraded to thermal pane systems. Such double pane systems will reduce the energy required to operate the building. Repair or replacement of the windowsills and trim may also be necessary.

The flat multi-ply membrane roofing system is currently in fair to poor condition, with failed seams in numerous areas. The roof is not expected to provide an effective roof assembly through another year. Roofing system replacement and / or major repairs are necessary to prevent water damage to the building interior. Replacement and repairs to flashings, parapets, sealants, and other associated roofing system components should be included with the primary roofing system replacement to achieve the full effective useful life of the new roofing system.

The associated roof drainage inlets and exposed wall-mounted downspout systems are showing signs of ineffective channeling of rainwater from the flat membrane roof to the ground level storm water collection systems. Replacement of these drainage systems is recommended to prevent water damage to the building interior.

INTERIOR FINISHES / SYSTEMS

The predominant interior finishes in this building are generally in a variety of conditions ranging from poor to fair to relatively new. Ceiling systems include painted plaster in the main corridors, dormitory rooms, and 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 framed stud and trowel applied cementitious plaster wall assemblies with a painted applied finish. Floor finishes consist primarily of carpeting in the corridors, dormitory rooms, and common lobby areas and vinyl composition tile (VCT) in service areas and some storage areas. There is ceramic flooring in shared common restrooms and showers, and 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 ceiling, wall, and floor 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 to maintain quality institutional appearances. There are other areas in the building, particularly in the basement level storerooms, where these systems are either damaged or have exceeded their effective useful life cycles and are in poor condition, with appearances that detract from the overall quality of the facility. Near-term upgrades, repairs and renovations, and ceiling, wall, and floor system replacements should be undertaken to maintain quality institutional appearances.

Interior doors in the newly renovated portions of the building, mostly dorm rooms, are typically solid core, stained wood applications in painted hollow metal frames. They are equipped with upgraded hardware, including ADA compliant lever action locksets that are in good working order and have a good appearance. The condition of the interior door systems in the basement back-of-house storage areas and some of the stairway entry doors are such that door system replacements are recommended as part of a comprehensive renovation effort. Complete demolition of these 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 common corridor dual level drinking fountains, is recommended. All future renovations should provide for full compliance with ADA accessibility guidelines.

ACCESSIBILITY

The primary building entrance provides compliant grade-level access to the main floor lobby area. However, some of the secondary entrances incorporate ramps and steps. Current legislation related to accessibility requires that building entrances and egress routes be accessible. To comply with the intent of this legislation, it is recommended that compliant painted metal handrails be installed at all entrances as required. Remove and replace existing non-compliant railings, and add railings at site steps as required to meet guidelines. In addition, add an automatic door operator at the main entrance to facilitate building entry by the disabled.

Current accessibility legislation requires that building amenities be generally accessible to all persons. The addition of and configuration of a common use kitchen area complying with accessibility guidelines is recommended. The installation of wheelchair-accessible kitchen cabinetry and appliances is recommended in this dormitory building.

Accessibility legislation requires wheelchair access to all floors in a building over two stories in height. While a single wheelchair lift has been installed between the main lobby area and the primary first floor level, there is no wheelchair access to the upper floors of this building. The installation of an interior hydraulic elevator is proposed. The elevator installation may entail using a resident room / resident rooms for the shaft and / or lobby. The loss of revenue from this room / these rooms on each floor will need to be calculated to determine the final cost of this project.

Current legislation regarding building accessibility by the handicapped 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. The antiquated, single level drinking fountains throughout

the building are generally non-compliant with accessibility standards. These older drinking fountains should be replaced with dual height units to provide ADA compliant fountains. The adjacent corridor walls at the newly installed fountains may require new alcove construction to provide adequate floor area access. Drinking fountain replacements are included in the previously recommended restroom renovations addressed in the Interior Finishes / Systems section of this report.

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 completed or future abatement projects are not included in the scope of this report.

FIRE / LIFE SAFETY

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

Structural fire separations are not maintained according to code requirements for new construction in many areas of this facility. Little or no regard has been given to the passive and active firestopping systems in this building. Moderate structural separation repairs and intumescent passive firestopping should be accomplished promptly.

The vertical roof access ladder lacks OSHA compliant safety features for construction and clearances that provide safe passage by service personnel. Install a new ladder assembly and roof transfer extension device to promote user safety and limit liability.

This facility is protected by a central fire alarm system. The point addressable panel was manufactured by Notifier and is located in the basement. The devices that serve this system include manual pull stations, audible / visible devices, and smoke detectors. The fire alarm system is approaching the end of its intended life cycle. It should be anticipated that it will require replacement within the scope of this analysis.

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

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

HVAC

This facility is on the campus steam loop. Steam is circulated as the heating medium. This facility is served by a hydronic heating system. There is no central cooling available, and minimal fresh air is introduced to the interior spaces.

Split heat pump systems provide heating and air conditioning to this facility. They are controlled with centrally controlled thermostats. The split systems are currently in good condition. However, their scheduled replacement is recommended within the scope of this analysis.

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

ELECTRICAL

Power is supplied to this facility at 120/208 volts from a 500 kVA oil-filled transformer located outside of the building. It is then distributed by two main distribution panels. Panel MDP, located in basement room ME004, is of recent manufacture by Square D and is rated 1,600 amps. This panel serves most air conditioning loads. Distribution panel SDP has a GE 800 amp main switch and eight circuit breakers ranging from 125 to 200 amps each. These are unlabeled but appear to serve sub-distribution panels located on the first, second, and third floors.

The distribution panels are of recent manufacture and should provide satisfactory service through the period of this report. The subpanels, however, are very old and are padlocked shut. The very old subpanel in the basement was manufactured by Westinghouse. All of these subpanels need to be replaced as part of the proposed general update to the secondary distribution system.

The interior spaces of this facility are illuminated by fixtures that use compact and T12 fluorescent lamps. The fluorescent fixtures are predominantly surface-mounted types with acrylic lenses. The interior lighting has generally served beyond its expected life cycle and is recommended for replacement. Specify energy-efficient light fixtures for the new interior lighting systems, and install occupancy sensors where possible. Exterior lighting is provided by fixtures that are located in the surrounding site. These applications are sufficient. There are no proposed exterior lighting projects at this time.

There is no central emergency power available in this facility. The installation of an appropriately sized emergency diesel-fired generator and associated emergency distribution network is recommended. This system should be sized to support all life safety and specific non-essential loads.

PLUMBING

Potable water is distributed throughout this facility via a copper piping network. Sanitary waste piping is of cast-iron, bell-and-spigot construction. The supply and drain piping networks appear to be sound and adequate for continued service through the life of this report. Domestic hot water for this facility is generated by a pair of Aerco steam powered shell-and-tube water heaters installed in 2008. With normal maintenance, these units can be expected to remain serviceable beyond the life of this report.

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

C. INSPECTION TEAM DATA

DATE OF INSPECTION: September 16, 2009

INSPECTION TEAM PERSONNEL:

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

GARR : GARRETT RESIDENCE HALL

System Code	System Description	Priority Classes 1	2	3	4	Subtotal
AC	ACCESSIBILITY	0	0	0	345,499	345,499
EL	ELECTRICAL	0	82,874	626,936	0	709,809
ES	EXTERIOR	0	137,971	1,040,967	4,676	1,183,613
FS	FIRE/LIFE SAFETY	3,837	376,360	0	143,074	523,270
HV	HVAC	0	0	0	224,209	224,209
IS	INTERIOR/FINISH SYS.	0	0	1,084,376	0	1,084,376
	TOTALS	3,837	597,205	2,752,278	717,457	4,070,777

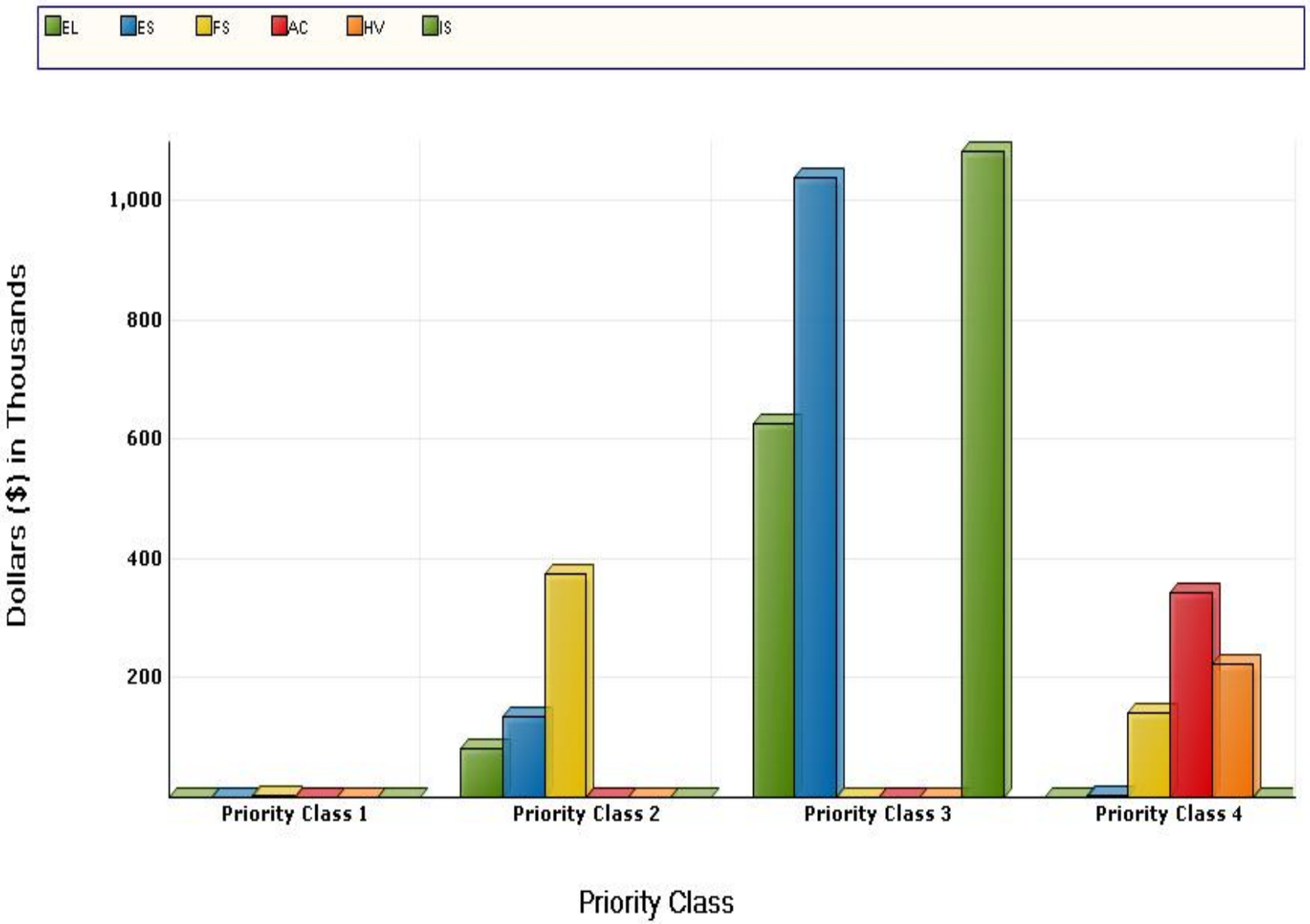
Facility Replacement Cost	$16,569,000
Facility Condition Needs Index	0.25

Gross Square Feet	53,344	**Total Cost Per Square Foot**	$76.31

FACILITY CONDITION ANALYSIS

System Code by Priority Class

GARR : GARRETT RESIDENCE HALL



Detailed Project Totals

Facility Condition Analysis

System Code by Project Class

GARR : GARRETT RESIDENCE HALL

System Code	System Description	Project Classes: Captial Renewal	Deferred Maintenance	Plant Adaption	Subtotal
AC	ACCESSIBILITY	0	0	345,499	345,499
EL	ELECTRICAL	0	626,936	82,874	709,809
ES	EXTERIOR	1,124,920	58,693	0	1,183,613
FS	FIRE/LIFE SAFETY	143,074	0	380,197	523,270
HV	HVAC	224,209	0	0	224,209
IS	INTERIOR/FINISH SYS.	626,909	457,466	0	1,084,376
	TOTALS	2,119,112	1,143,095	808,569	4,070,777

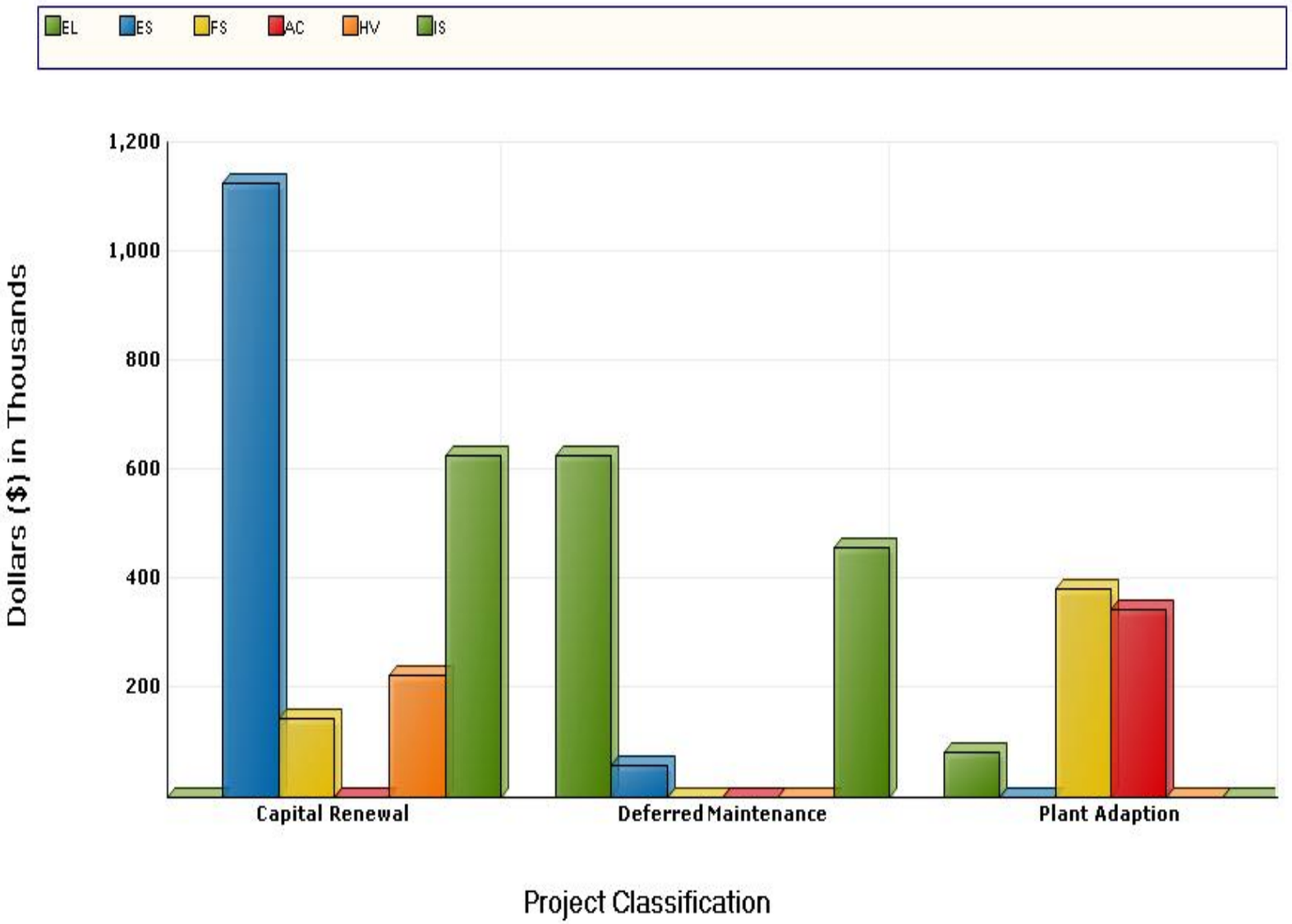
Facility Replacement Cost	$16,569,000
Facility Condition Needs Index	0.25

Gross Square Feet	53,344	**Total Cost Per Square Foot**	$76.31

FACILITY CONDITION ANALYSIS

System Code by Project Class

GARR : GARRETT RESIDENCE HALL



Detailed Project Summary
Facility Condition Analysis
Project Class by Priority Class
GARR : GARRETT RESIDENCE HALL

	Priority Classes				
Project Class	**1**	**2**	**3**	**4**	**Subtotal**
Capital Renewal	0	137,971	1,609,183	371,959	2,119,112
Deferred Maintenance	0	0	1,143,095	0	1,143,095
Plant Adaption	3,837	459,234	0	345,499	808,569
TOTALS	3,837	597,205	2,752,278	717,457	4,070,777

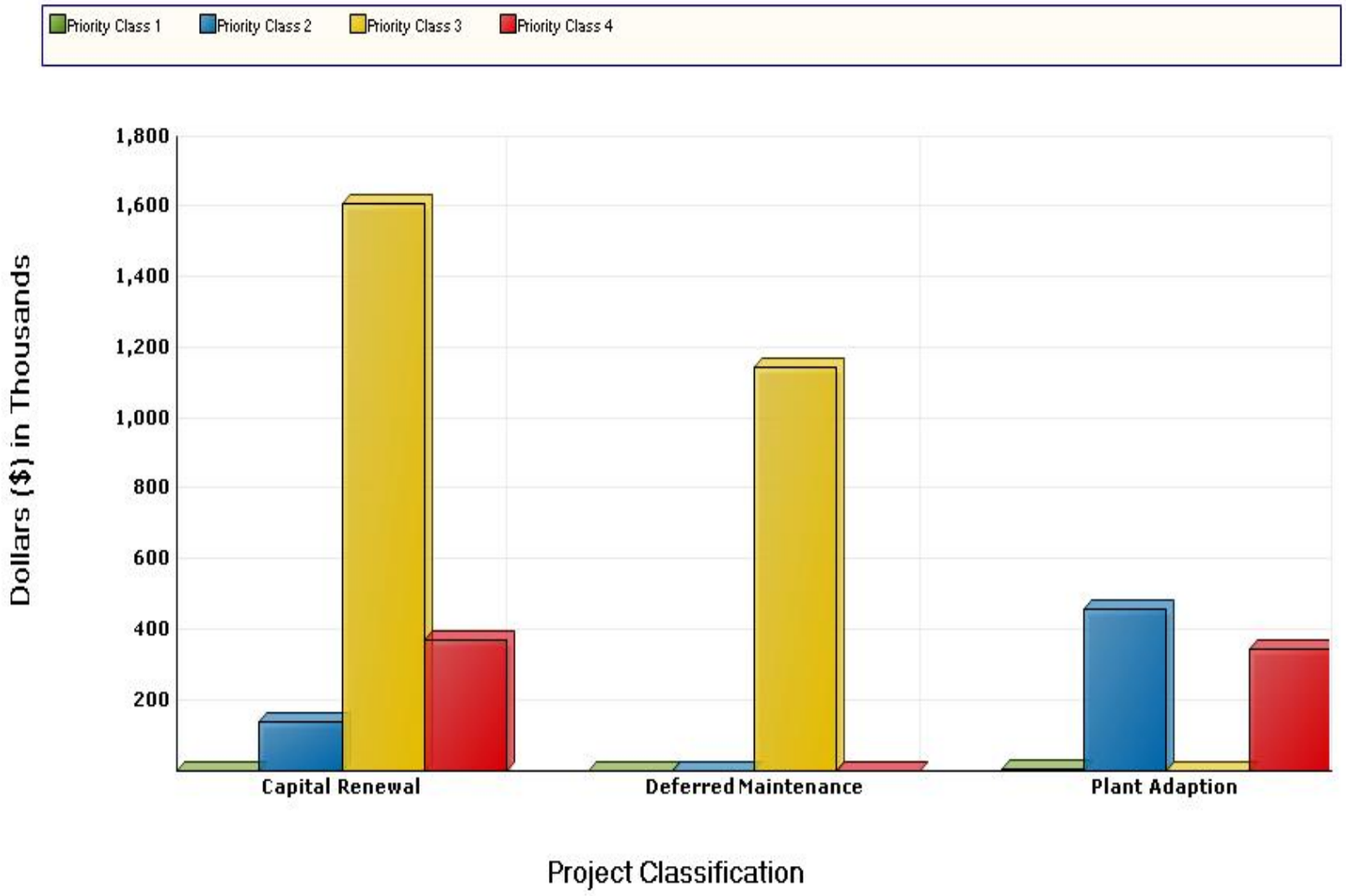
Facility Replacement Cost	$16,569,000
Facility Condition Needs Index	0.25

Gross Square Feet	53,344	**Total Cost Per Square Foot**	$76.31

FACILITY CONDITION ANALYSIS

Project Class by Priority Class

GARR : GARRETT RESIDENCE HALL



Detailed Project Summary

Facility Condition Analysis

Priority Class - Priority Sequence

GARR : GARRETT RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5C	GARRFS01	1	1	ELIMINATE FIRE RATING COMPROMISES	3,308	529	3,837
				Totals for Priority Class 1	**3,308**	**529**	**3,837**
FS3A	GARRFS04	2	2	FIRE SPRINKLER SYSTEM INSTALLATION	322,341	51,575	373,915
FS5A	GARRFS02	2	3	SAFETY IMPROVEMENTS TO INTERIOR ACCESS LADDER TO ROOF	2,108	337	2,445
ES4B	GARRES05	2	4	BUILT-UP ROOF REPLACEMENT	118,941	19,031	137,971
EL5A	GARREL01	2	5	INSTALL EMERGENCY GENERATOR AND POWER NETWORK	71,443	11,431	82,874
				Totals for Priority Class 2	**514,832**	**82,373**	**597,205**
ES2B	GARRES01	3	6	RESTORE BRICK MASONRY	47,050	7,528	54,578
ES2B	GARRES02	3	7	RESTORE EXPOSED CONCRETE FINISH	3,547	568	4,115
ES5B	GARRES04	3	8	WINDOW REPLACEMENT	846,788	135,486	982,274
EL3B	GARREL03	3	9	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	338,553	54,169	392,722
EL4B	GARREL02	3	10	INTERIOR LIGHTING UPGRADE	201,909	32,305	234,214
IS4A	GARRIS04	3	11	PARTIAL REPLACEMENT OF INTERIOR DOORS	13,127	2,100	15,227
IS6D	GARRIS05	3	12	MAJOR UPGRADE AND RESTROOM RENOVATIONS	381,241	60,999	442,239
IS1A	GARRIS01	3	13	REFINISH FLOORING	353,244	56,519	409,763
IS2B	GARRIS02	3	14	REFINISH WALLS	104,687	16,750	121,437
IS3B	GARRIS03	3	15	REFINISH CEILINGS	82,507	13,201	95,709
				Totals for Priority Class 3	**2,372,654**	**379,625**	**2,752,278**
FS2A	GARRFS03	4	16	FIRE ALARM SYSTEM REPLACEMENT	123,339	19,734	143,074
AC2A	GARRAC01	4	17	BUILDING ENTRY / EGRESS ACCESSIBILITY UPGRADES	22,920	3,667	26,587
AC4A	GARRAC02	4	18	INTERIOR AMENITY ACCESSIBILITY UPGRADES	7,144	1,143	8,288
AC3A	GARRAC03	4	19	ELEVATOR INSTALLATION	203,939	32,630	236,569
AC3B	GARRAC04	4	20	STAIR SAFETY UPGRADES	63,841	10,215	74,055
ES5A	GARRES03	4	21	EXTERIOR SERVICE DOOR REPLACEMENT	4,031	645	4,676
HV3A	GARRHV01	4	22	REPLACE SPLIT DX SYSTEMS	49,309	7,889	57,198
HV2B	GARRHV02	4	23	MODULAR COOLING EQUIPMENT REPLACEMENT	143,975	23,036	167,012
				Totals for Priority Class 4	**618,498**	**98,960**	**717,457**
				Grand Total:	**3,509,291**	**561,487**	**4,070,777**

Detailed Project Summary

Facility Condition Analysis

Project Cost Range

GARR : GARRETT RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5C	GARRFS01	1	1	ELIMINATE FIRE RATING COMPROMISES	3,308	529	3,837
				Totals for Priority Class 1	**3,308**	**529**	**3,837**
FS5A	GARRFS02	2	3	SAFETY IMPROVEMENTS TO INTERIOR ACCESS LADDER TO ROOF	2,108	337	2,445
EL5A	GARREL01	2	5	INSTALL EMERGENCY GENERATOR AND POWER NETWORK	71,443	11,431	82,874
				Totals for Priority Class 2	**73,550**	**11,768**	**85,318**
ES2B	GARRES01	3	6	RESTORE BRICK MASONRY	47,050	7,528	54,578
ES2B	GARRES02	3	7	RESTORE EXPOSED CONCRETE FINISH	3,547	568	4,115
IS3B	GARRIS03	3	15	REFINISH CEILINGS	82,507	13,201	95,709
IS4A	GARRIS04	3	11	PARTIAL REPLACEMENT OF INTERIOR DOORS	13,127	2,100	15,227
				Totals for Priority Class 3	**146,232**	**23,397**	**169,629**
AC2A	GARRAC01	4	17	BUILDING ENTRY / EGRESS ACCESSIBILITY UPGRADES	22,920	3,667	26,587
AC4A	GARRAC02	4	18	INTERIOR AMENITY ACCESSIBILITY UPGRADES	7,144	1,143	8,288
ES5A	GARRES03	4	21	EXTERIOR SERVICE DOOR REPLACEMENT	4,031	645	4,676
AC3B	GARRAC04	4	20	STAIR SAFETY UPGRADES	63,841	10,215	74,055
HV3A	GARRHV01	4	22	REPLACE SPLIT DX SYSTEMS	49,309	7,889	57,198
				Totals for Priority Class 4	**147,244**	**23,559**	**170,803**
				Grand Totals for Projects < 100,000	**370,334**	**59,253**	**429,587**

Detailed Project Summary

Facility Condition Analysis

Project Cost Range

GARR : GARRETT RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
ES4B	GARRES05	2	4	BUILT-UP ROOF REPLACEMENT	118,941	19,031	137,971
FS3A	GARRFS04	2	2	FIRE SPRINKLER SYSTEM INSTALLATION	322,341	51,575	373,915
				Totals for Priority Class 2	**441,282**	**70,605**	**511,887**
IS1A	GARRIS01	3	13	REFINISH FLOORING	353,244	56,519	409,763
IS2B	GARRIS02	3	14	REFINISH WALLS	104,687	16,750	121,437
IS6D	GARRIS05	3	12	MAJOR UPGRADE AND RESTROOM RENOVATIONS	381,241	60,999	442,239
EL4B	GARREL02	3	10	INTERIOR LIGHTING UPGRADE	201,909	32,305	234,214
EL3B	GARREL03	3	9	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	338,553	54,169	392,722
				Totals for Priority Class 3	**1,379,634**	**220,741**	**1,600,376**
AC3A	GARRAC03	4	19	ELEVATOR INSTALLATION	203,939	32,630	236,569
FS2A	GARRFS03	4	16	FIRE ALARM SYSTEM REPLACEMENT	123,339	19,734	143,074
HV2B	GARRHV02	4	23	MODULAR COOLING EQUIPMENT REPLACEMENT	143,975	23,036	167,012
				Totals for Priority Class 4	**471,253**	**75,401**	**546,654**
				Grand Totals for Projects >= 100,000 and < 500,000	**2,292,169**	**366,747**	**2,658,916**

Detailed Project Summary

Facility Condition Analysis

Project Cost Range

GARR : GARRETT RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
ES5B	GARRES04	3	8	WINDOW REPLACEMENT	846,788	135,486	982,274
				Totals for Priority Class 3	**846,788**	**135,486**	**982,274**
				Grand Totals for Projects >= 500,000	**846,788**	**135,486**	**982,274**
				Grand Totals For All Projects:	**3,509,291**	**561,487**	**4,070,777**

Detailed Project Summary

Facility Condition Analysis

Project Classification

GARR : GARRETT RESIDENCE HALL

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
ES4B	GARRES05	4	Capital Renewal	2	BUILT-UP ROOF REPLACEMENT	137,971
ES5B	GARRES04	8	Capital Renewal	3	WINDOW REPLACEMENT	982,274
IS1A	GARRIS01	13	Capital Renewal	3	REFINISH FLOORING	409,763
IS2B	GARRIS02	14	Capital Renewal	3	REFINISH WALLS	121,437
IS3B	GARRIS03	15	Capital Renewal	3	REFINISH CEILINGS	95,709
FS2A	GARRFS03	16	Capital Renewal	4	FIRE ALARM SYSTEM REPLACEMENT	143,074
ES5A	GARRES03	21	Capital Renewal	4	EXTERIOR SERVICE DOOR REPLACEMENT	4,676
HV3A	GARRHV01	22	Capital Renewal	4	REPLACE SPLIT DX SYSTEMS	57,198
HV2B	GARRHV02	23	Capital Renewal	4	MODULAR COOLING EQUIPMENT REPLACEMENT	167,012
					Totals for Capital Renewal	**2,119,112**
ES2B	GARRES01	6	Deferred Maintenance	3	RESTORE BRICK MASONRY	54,578
ES2B	GARRES02	7	Deferred Maintenance	3	RESTORE EXPOSED CONCRETE FINISH	4,115
EL3B	GARREL03	9	Deferred Maintenance	3	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	392,722
EL4B	GARREL02	10	Deferred Maintenance	3	INTERIOR LIGHTING UPGRADE	234,214
IS4A	GARRIS04	11	Deferred Maintenance	3	PARTIAL REPLACEMENT OF INTERIOR DOORS	15,227
IS6D	GARRIS05	12	Deferred Maintenance	3	MAJOR UPGRADE AND RESTROOM RENOVATIONS	442,239
					Totals for Deferred Maintenance	**1,143,095**
FS5C	GARRFS01	1	Plant Adaption	1	ELIMINATE FIRE RATING COMPROMISES	3,837
FS3A	GARRFS04	2	Plant Adaption	2	FIRE SPRINKLER SYSTEM INSTALLATION	373,915
FS5A	GARRFS02	3	Plant Adaption	2	SAFETY IMPROVEMENTS TO INTERIOR ACCESS LADDER TO ROOF	2,445
EL5A	GARREL01	5	Plant Adaption	2	INSTALL EMERGENCY GENERATOR AND POWER NETWORK	82,874
AC2A	GARRAC01	17	Plant Adaption	4	BUILDING ENTRY / EGRESS ACCESSIBILITY UPGRADES	26,587
AC4A	GARRAC02	18	Plant Adaption	4	INTERIOR AMENITY ACCESSIBILITY UPGRADES	8,288
AC3A	GARRAC03	19	Plant Adaption	4	ELEVATOR INSTALLATION	236,569
AC3B	GARRAC04	20	Plant Adaption	4	STAIR SAFETY UPGRADES	74,055
					Totals for Plant Adaption	**808,569**
					Grand Total:	**4,070,777**

Detailed Project Summary

Facility Condition Analysis

Energy Conservation

GARR : GARRETT RESIDENCE HALL

Cat Code	Project Number	Pri Cls	Pri Seq	Project Title	Total Cost	Annual Savings	Simple Payback
ES4B	GARRES05	2	4	BUILT-UP ROOF REPLACEMENT	137,971	1,700	81.16
				Totals for Priority Class 2	**137,971**	**1,700**	**81.16**
ES5B	GARRES04	3	8	WINDOW REPLACEMENT	982,274	2,000	491.14
EL4B	GARREL02	3	10	INTERIOR LIGHTING UPGRADE	234,214	8,160	28.7
				Totals for Priority Class 3	**1,216,488**	**10,160**	**119.73**
				Grand Total:	**1,354,459**	**11,860**	**114.2**

Detailed Project Summary

Facility Condition Analysis

Category/System Code

GARR : GARRETT RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC2A	GARRAC01	4	17	BUILDING ENTRY / EGRESS ACCESSIBILITY UPGRADES	22,920	3,667	26,587
AC4A	GARRAC02	4	18	INTERIOR AMENITY ACCESSIBILITY UPGRADES	7,144	1,143	8,288
AC3A	GARRAC03	4	19	ELEVATOR INSTALLATION	203,939	32,630	236,569
AC3B	GARRAC04	4	20	STAIR SAFETY UPGRADES	63,841	10,215	74,055
				Totals for System Code: ACCESSIBILITY	**297,844**	**47,655**	**345,499**
EL5A	GARREL01	2	5	INSTALL EMERGENCY GENERATOR AND POWER NETWORK	71,443	11,431	82,874
EL3B	GARREL03	3	9	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	338,553	54,169	392,722
EL4B	GARREL02	3	10	INTERIOR LIGHTING UPGRADE	201,909	32,305	234,214
				Totals for System Code: ELECTRICAL	**611,905**	**97,905**	**709,809**
ES4B	GARRES05	2	4	BUILT-UP ROOF REPLACEMENT	118,941	19,031	137,971
ES2B	GARRES01	3	6	RESTORE BRICK MASONRY	47,050	7,528	54,578
ES2B	GARRES02	3	7	RESTORE EXPOSED CONCRETE FINISH	3,547	568	4,115
ES5B	GARRES04	3	8	WINDOW REPLACEMENT	846,788	135,486	982,274
ES5A	GARRES03	4	21	EXTERIOR SERVICE DOOR REPLACEMENT	4,031	645	4,676
				Totals for System Code: EXTERIOR	**1,020,356**	**163,257**	**1,183,613**
FS5C	GARRFS01	1	1	ELIMINATE FIRE RATING COMPROMISES	3,308	529	3,837
FS3A	GARRFS04	2	2	FIRE SPRINKLER SYSTEM INSTALLATION	322,341	51,575	373,915
FS5A	GARRFS02	2	3	SAFETY IMPROVEMENTS TO INTERIOR ACCESS LADDER TO ROOF	2,108	337	2,445
FS2A	GARRFS03	4	16	FIRE ALARM SYSTEM REPLACEMENT	123,339	19,734	143,074
				Totals for System Code: FIRE/LIFE SAFETY	**451,095**	**72,175**	**523,270**
HV3A	GARRHV01	4	22	REPLACE SPLIT DX SYSTEMS	49,309	7,889	57,198
HV2B	GARRHV02	4	23	MODULAR COOLING EQUIPMENT REPLACEMENT	143,975	23,036	167,012
				Totals for System Code: HVAC	**193,284**	**30,925**	**224,209**
IS4A	GARRIS04	3	11	PARTIAL REPLACEMENT OF INTERIOR DOORS	13,127	2,100	15,227
IS6D	GARRIS05	3	12	MAJOR UPGRADE AND RESTROOM RENOVATIONS	381,241	60,999	442,239
IS1A	GARRIS01	3	13	REFINISH FLOORING	353,244	56,519	409,763
IS2B	GARRIS02	3	14	REFINISH WALLS	104,687	16,750	121,437
IS3B	GARRIS03	3	15	REFINISH CEILINGS	82,507	13,201	95,709
				Totals for System Code: INTERIOR/FINISH SYS.	**934,807**	**149,569**	**1,084,376**
				Grand Total:	**3,509,291**	**561,487**	**4,070,777**

FACILITY CONDITION ANALYSIS

SECTION 3

SPECIFIC PROJECT DETAILS ILLUSTRATING DESCRIPTION / COST

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARRFS01	**Title:**	ELIMINATE FIRE RATING COMPROMISES
Priority Sequence:	1		
Priority Class:	1		
Category Code:	FS5C	**System:**	FIRE/LIFE SAFETY
		Component:	EGRESS PATH
		Element:	SEPARATION RATING
Building Code:	GARR		
Building Name:	GARRETT RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	IBC 711.3		
Project Class:	Plant Adaption		
Project Date:	10/9/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, B		

Project Description

Structural fire separations are not maintained according to code requirements for new construction in many areas of this facility. Little or no regard has been given to the passive and active firestopping systems in this building. Moderate structural separation repairs and intumescent passive firestopping should be accomplished promptly.

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Cost

Project Number: GARRFS01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Moderate passive firestopping and structural separation repairs	SF	18,670	$0.06	$1,120	$0.17	$3,174	$4,294
Project Totals:				**$1,120**		**$3,174**	**$4,294**

Material/Labor Cost		$4,294
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$2,756
General Contractor Mark Up at 20.0%	+	$551
Construction Cost		$3,308
Professional Fees at 16.0%	+	$529
Total Project Cost		**$3,837**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARRFS04	**Title:**	FIRE SPRINKLER SYSTEM INSTALLATION
Priority Sequence:	2		
Priority Class:	2		
Category Code:	FS3A	**System:**	FIRE/LIFE SAFETY
		Component:	SUPPRESSION
		Element:	SPRINKLERS
Building Code:	GARR		
Building Name:	GARRETT RESIDENCE HALL		
Subclass/Savings:	Not Applicable		

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

Project Class: Plant Adaption

Project Date: 10/12/2009

Project Location: Floor-wide: Floor(s) 1, 2, 3, B

Project Description

Install an automatic fire sprinkler system throughout the facility. Include piping, valves, sprinkler heads, and piping supports. Install flow switches and sensors to interface with the fire alarm system.

Project Cost

Project Number: GARRFS04

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Install wet-pipe sprinkler system, including valves, piping, sprinkler heads, piping supports, etc.	SF	53,344	$3.08	$164,300	$3.77	$201,107	$365,406
Project Totals:				**$164,300**		**$201,107**	**$365,406**

Material/Labor Cost		$365,406
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$268,617
General Contractor Mark Up at 20.0%	+	$53,723
Construction Cost		$322,341
Professional Fees at 16.0%	+	$51,575
Total Project Cost		**$373,915**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARRFS02	**Title:**	SAFETY IMPROVEMENTS TO INTERIOR ACCESS LADDER TO ROOF
Priority Sequence:	3		
Priority Class:	2		
Category Code:	FS5A	**System:**	FIRE/LIFE SAFETY
		Component:	EGRESS PATH
		Element:	DESIGNATION
Building Code:	GARR		
Building Name:	GARRETT RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	OSHA 1910.27		
Project Class:	Plant Adaption		
Project Date:	10/9/2009		
Project Location:	Floor-wide: Floor(s) 1		

Project Description

The vertical roof access ladder lacks OSHA compliant safety features for construction and clearances that provide safe passage by service personnel. Install a new ladder assembly and roof transfer extension device to promote user safety and limit liability.

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Cost

Project Number: GARRFS02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Vertical roof access ladder	LF	14	$62.48	$875	$29.16	$408	$1,283
Roof ladder safety extension transfer device	EA	1	$585	$585	$150	$150	$735
Project Totals:				**$1,460**		**$558**	**$2,018**

Material/Labor Cost		$2,018
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$1,756
General Contractor Mark Up at 20.0%	+	$351
Construction Cost		$2,108
Professional Fees at 16.0%	+	$337
Total Project Cost		**$2,445**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARRES05	**Title:**	BUILT-UP ROOF REPLACEMENT
Priority Sequence:	4		
Priority Class:	2		
Category Code:	ES4B	**System:**	EXTERIOR
		Component:	ROOF
		Element:	REPLACEMENT
Building Code:	GARR		
Building Name:	GARRETT RESIDENCE HALL		
Subclass/Savings:	Energy Conservation $1,700		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/9/2009		
Project Location:	Floor-wide: Floor(s) R		

Project Description

The built-up roofing system has failed and places the building interior at risk. Future budget modeling should include a provision for the replacement of all failing roofing systems. Replace this roof with a similar application. The in-place roof drain downspout leaders are showing signs of deterioration and should be replaced in conjunction with the membrane replacement.

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Cost

Project Number: GARRES05

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	19,480	$3.06	$59,609	$3.58	$69,738	$129,347
Standard metal roof drainage downspout systems based on total linear feet of downspouts	LF	480	$2.60	$1,248	$8.36	$4,013	$5,261
Project Totals:				**$60,857**		**$73,751**	**$134,608**

Material/Labor Cost		$134,608
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$99,117
General Contractor Mark Up at 20.0%	+	$19,823
Construction Cost		$118,941
Professional Fees at 16.0%	+	$19,031
Total Project Cost		**$137,971**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARREL01	**Title:**	INSTALL EMERGENCY GENERATOR AND POWER NETWORK
Priority Sequence:	5		
Priority Class:	2		
Category Code:	EL5A	**System:**	ELECTRICAL
		Component:	EMERGENCY POWER SYSTEM
		Element:	GENERATION/DISTRIBUTION
Building Code:	GARR		
Building Name:	GARRETT RESIDENCE HALL		
Subclass/Savings:	Not Applicable		

Code Application: NEC 700, 701, 702

Project Class: Plant Adaption

Project Date: 10/12/2009

Project Location: Floor-wide: Floor(s) 1, 2, 3, B

Project Description

The installation of an appropriately sized emergency diesel-fired generator, associated automatic transfer switches (ATS), and an emergency distribution network is recommended in order to provide emergency power for the life safety and specific non-essential loads. Loads considered to be life safety include egress lighting, exit signs, elevators, and fire alarm systems. Non-essential loads include HVAC equipment, refrigeration equipment, computer equipment, etc.

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Cost

Project Number: GARREL01

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	75	$463	$34,725	$118	$8,850	$43,575
Emergency power network, including power panels, raceways, all connections, and terminations	SF	53,344	$0.22	$11,736	$0.30	$16,003	$27,739
Project Totals:				**$46,461**		**$24,853**	**$71,314**

Material/Labor Cost		$71,314
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$59,536
General Contractor Mark Up at 20.0%	+	$11,907
Construction Cost		$71,443
Professional Fees at 16.0%	+	$11,431
Total Project Cost		**$82,874**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARRES01	**Title:**	RESTORE BRICK MASONRY
Priority Sequence:	6		
Priority Class:	3		
Category Code:	ES2B	**System:**	EXTERIOR
		Component:	COLUMNS/BEAMS/WALLS
		Element:	FINISH
Building Code:	GARR		
Building Name:	GARRETT RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/9/2009		
Project Location:	Building-wide: Floor(s) 1		

Project Description

Brick masonry is the primary exterior 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
GARR : GARRETT RESIDENCE HALL

Project Cost

Project Number: GARRES01

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	28,650	$0.11	$3,152	$0.22	$6,303	$9,455
Selective mortar and / or sealant repairs (assumes 10 linear feet for every 100 square feet of envelope)	LF	2,865	$2.45	$7,019	$4.99	$14,296	$21,316
Applied finish or sealant	SF	28,650	$0.22	$6,303	$0.82	$23,493	$29,796
Project Totals:				**$16,474**		**$44,092**	**$60,566**

Material/Labor Cost		$60,566
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$39,208
General Contractor Mark Up at 20.0%	+	$7,842
Construction Cost		$47,050
Professional Fees at 16.0%	+	$7,528
Total Project Cost		**$54,578**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARRES02	**Title:**	RESTORE EXPOSED CONCRETE FINISH
Priority Sequence:	7		
Priority Class:	3		
Category Code:	ES2B	**System:**	EXTERIOR
		Component:	COLUMNS/BEAMS/WALLS
		Element:	FINISH
Building Code:	GARR		
Building Name:	GARRETT RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/9/2009		
Project Location:	Building-wide: Floor(s) 1		

Project Description

The architectural ornamental concrete 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
GARR : GARRETT RESIDENCE HALL

Project Cost

Project Number: GARRES02

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	2,160	$0.11	$238	$0.22	$475	$713
Selective mortar and / or sealant repairs (assumes 10 linear feet for every 100 square feet of envelope)	LF	216	$2.45	$529	$4.99	$1,078	$1,607
Applied finish or sealant	SF	2,160	$0.22	$475	$0.82	$1,771	$2,246
Project Totals:				**$1,242**		**$3,324**	**$4,566**

Material/Labor Cost		$4,566
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$2,956
General Contractor Mark Up at 20.0%	+	$591
Construction Cost		$3,547
Professional Fees at 16.0%	+	$568
Total Project Cost		**$4,115**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARRES04	**Title:**	WINDOW REPLACEMENT
Priority Sequence:	8		
Priority Class:	3		
Category Code:	ES5B	**System:**	EXTERIOR
		Component:	FENESTRATIONS
		Element:	WINDOWS

Building Code:	GARR	
Building Name:	GARRETT RESIDENCE HALL	
Subclass/Savings:	Energy Conservation	$2,000

Code Application: Not Applicable

Project Class: Capital Renewal

Project Date: 10/9/2009

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

Project Description

The operable window and fixed window wall systems on this building date from the original construction, are exhibiting deterioration, and do not meet current energy compliance standards. It is recommended that the single pane, aluminum-framed operable window and window wall applications be upgraded to thermal pane systems. Such double pane systems will reduce the energy required to operate the building. Repair or replacement of the windowsills and trim may also be necessary.

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Cost

Project Number: GARRES04

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Typical standard glazing applications	SF	9,240	$57.27	$529,175	$36.45	$336,798	$865,973
Project Totals:				**$529,175**		**$336,798**	**$865,973**

Material/Labor Cost		$865,973
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$705,656
General Contractor Mark Up at 20.0%	+	$141,131
Construction Cost		$846,788
Professional Fees at 16.0%	+	$135,486
Total Project Cost		**$982,274**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARREL03	**Title:**	UPGRADE ELECTRICAL DISTRIBUTION NETWORK
Priority Sequence:	9		
Priority Class:	3		
Category Code:	EL3B	**System:**	ELECTRICAL
		Component:	SECONDARY DISTRIBUTION
		Element:	DISTRIBUTION NETWORK
Building Code:	GARR		
Building Name:	GARRETT RESIDENCE HALL		
Subclass/Savings:	Not Applicable		

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

Project Class: Deferred Maintenance

Project Date: 10/12/2009

Project Location: Floor-wide: Floor(s) 1, 2, 3, B

Project Description

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

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Cost

Project Number: GARREL03

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	53,344	$2.98	$158,965	$4.46	$237,914	$396,879
Project Totals:				**$158,965**		**$237,914**	**$396,879**

Material/Labor Cost		$396,879
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$282,128
General Contractor Mark Up at 20.0%	+	$56,426
Construction Cost		$338,553
Professional Fees at 16.0%	+	$54,169
Total Project Cost		**$392,722**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARREL02	**Title:**	INTERIOR LIGHTING UPGRADE
Priority Sequence:	10		
Priority Class:	3		
Category Code:	EL4B	**System:**	ELECTRICAL
		Component:	DEVICES AND FIXTURES
		Element:	INTERIOR LIGHTING

Building Code:	GARR	
Building Name:	GARRETT RESIDENCE HALL	
Subclass/Savings:	Energy Conservation	$8,160

Code Application:	NEC	Articles 210, 410

Project Class:	Deferred Maintenance
Project Date:	10/12/2009
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 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
GARR : GARRETT RESIDENCE HALL

Project Cost

Project Number: GARREL02

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	53,344	$1.93	$102,954	$2.36	$125,892	$228,846
Project Totals:				**$102,954**		**$125,892**	**$228,846**

Material/Labor Cost		$228,846
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$168,257
General Contractor Mark Up at 20.0%	+	$33,651
Construction Cost		$201,909
Professional Fees at 16.0%	+	$32,305
Total Project Cost		**$234,214**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARRIS04	**Title:**	PARTIAL REPLACEMENT OF INTERIOR DOORS
Priority Sequence:	11		
Priority Class:	3		
Category Code:	IS4A	**System:**	INTERIOR/FINISH SYS.
		Component:	DOORS
		Element:	GENERAL
Building Code:	GARR		
Building Name:	GARRETT RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/9/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, B		

Project Description

The condition of the interior door systems in the basement back-of-house storage areas and some of the stairway entry doors are such that door system replacements are recommended as part of a comprehensive renovation effort. Complete demolition of these 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
GARR : GARRETT RESIDENCE HALL

Project Cost

Project Number: GARRIS04

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	19	$370	$7,030	$396	$7,524	$14,554
Project Totals:				**$7,030**		**$7,524**	**$14,554**

Material/Labor Cost		$14,554
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$10,939
General Contractor Mark Up at 20.0%	+	$2,188
Construction Cost		$13,127
Professional Fees at 16.0%	+	$2,100
Total Project Cost		**$15,227**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARRIS05	**Title:**	MAJOR UPGRADE AND RESTROOM RENOVATIONS
Priority Sequence:	12		
Priority Class:	3		
Category Code:	IS6D	**System:**	INTERIOR/FINISH SYS.
		Component:	GENERAL
		Element:	OTHER
Building Code:	GARR		
Building Name:	GARRETT RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/9/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 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 common corridor dual level drinking fountains, is recommended. All future renovations should provide for full compliance with ADA accessibility guidelines.

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Cost

Project Number: GARRIS05

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	98	$1,969	$192,962	$1,699	$166,502	$359,464
Dual level drinking fountain	EA	9	$1,216	$10,944	$374	$3,366	$14,310
Alcove construction	EA	9	$877	$7,893	$3,742	$33,678	$41,571
Project Totals:				**$211,799**		**$203,546**	**$415,345**

Material/Labor Cost		$415,345
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$317,701
General Contractor Mark Up at 20.0%	+	$63,540
Construction Cost		$381,241
Professional Fees at 16.0%	+	$60,999
Total Project Cost		**$442,239**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARRIS01	**Title:**	REFINISH FLOORING
Priority Sequence:	13		
Priority Class:	3		
Category Code:	IS1A	**System:**	INTERIOR/FINISH SYS.
		Component:	FLOOR
		Element:	FINISHES-DRY
Building Code:	GARR		
Building Name:	GARRETT RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/9/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 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
GARR : GARRETT RESIDENCE HALL

Project Cost

Project Number: GARRIS01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Carpet	SF	34,140	$5.36	$182,990	$2.00	$68,280	$251,270
Vinyl floor tile	SF	4,270	$3.53	$15,073	$2.50	$10,675	$25,748
Ceramic tile	SF	4,270	$7.24	$30,915	$10.63	$45,390	$76,305
Project Totals:				**$228,978**		**$124,345**	**$353,323**

Material/Labor Cost		$353,323
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$294,370
General Contractor Mark Up at 20.0%	+	$58,874
Construction Cost		$353,244
Professional Fees at 16.0%	+	$56,519
Total Project Cost		**$409,763**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARRIS02	**Title:**	REFINISH WALLS
Priority Sequence:	14		
Priority Class:	3		
Category Code:	IS2B	**System:**	INTERIOR/FINISH SYS.
		Component:	PARTITIONS
		Element:	FINISHES
Building Code:	GARR		
Building Name:	GARRETT RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/9/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 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.

Project Cost

Project Number: GARRIS02

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	148,690	$0.17	$25,277	$0.81	$120,439	$145,716
Project Totals:				**$25,277**		**$120,439**	**$145,716**

Material/Labor Cost		$145,716
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$87,239
General Contractor Mark Up at 20.0%	+	$17,448
Construction Cost		$104,687
Professional Fees at 16.0%	+	$16,750
Total Project Cost		**$121,437**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARRIS03	**Title:**	REFINISH CEILINGS
Priority Sequence:	15		
Priority Class:	3		
Category Code:	IS3B	**System:**	INTERIOR/FINISH SYS.
		Component:	CEILINGS
		Element:	REPLACEMENT
Building Code:	GARR		
Building Name:	GARRETT RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/9/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 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.

Project Cost

Project Number: GARRIS03

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	10,670	$2.12	$22,620	$2.98	$31,797	$54,417
Painted ceiling finish application	SF	32,010	$0.17	$5,442	$0.81	$25,928	$31,370
Remove and replace damaged plaster ceilings in basement	SF	1,800	$3.84	$6,912	$4.25	$7,650	$14,562
Project Totals:				**$34,974**		**$65,375**	**$100,349**

Material/Labor Cost		$100,349
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$68,756
General Contractor Mark Up at 20.0%	+	$13,751
Construction Cost		$82,507
Professional Fees at 16.0%	+	$13,201
Total Project Cost		**$95,709**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARRFS03	**Title:**	FIRE ALARM SYSTEM REPLACEMENT
Priority Sequence:	16		
Priority Class:	4		
Category Code:	FS2A	**System:**	FIRE/LIFE SAFETY
		Component:	DETECTION ALARM
		Element:	GENERAL

Building Code:	GARR	
Building Name:	GARRETT RESIDENCE HALL	
Subclass/Savings:	Not Applicable	
Code Application:	ADAAG	702.1
	NFPA	1, 101
Project Class:	Capital Renewal	
Project Date:	10/12/2009	
Project Location:	Floor-wide: Floor(s) 1, 2, 3, B	

Project Description

Provide life cycle updates to the existing fire alarm system. Specify a point addressable supervised main fire alarm panel with an annunciator. This work includes pull stations, audible and visible alarms, smoke and heat detectors, and a wiring network. Install all devices in accordance with current NFPA and ADA requirements. The system should be monitored to report activation or trouble to an applicable receiving station.

Project Cost

Project Number: GARRFS03

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Fire alarm control panel(s), annunciator, smoke and heat detectors, manual pull stations, audible and visual alarms, wiring, raceways, and cut and patching materials	SF	53,344	$1.46	$77,882	$0.89	$47,476	$125,358
Project Totals:				**$77,882**		**$47,476**	**$125,358**

Material/Labor Cost		$125,358
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$102,783
General Contractor Mark Up at 20.0%	+	$20,557
Construction Cost		$123,339
Professional Fees at 16.0%	+	$19,734
Total Project Cost		**$143,074**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARRAC01	**Title:**	BUILDING ENTRY / EGRESS ACCESSIBILITY UPGRADES
Priority Sequence:	17		
Priority Class:	4		
Category Code:	AC2A	**System:**	ACCESSIBILITY
		Component:	BUILDING ENTRY
		Element:	GENERAL
Building Code:	GARR		
Building Name:	GARRETT RESIDENCE HALL		
Subclass/Savings:	Not Applicable		

Code Application: ADAAG 703.1, 309, 403.6, 505

Project Class: Plant Adaption

Project Date: 10/9/2009

Project Location: Undefined: Floor(s) 1

Project Description

Current legislation related to accessibility requires that building entrances and egress routes be accessible. To comply with the intent of this legislation, it is recommended that compliant painted metal handrails be installed at all entrances as required. Remove and replace existing non-compliant railings, and add railings at site steps as required to meet guidelines. In addition, add an automatic door operator at the main entrance to facilitate building entry by the disabled.

Project Cost

Project Number: GARRAC01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Door operator, signage, and controls	SYS	1	$2,830	$2,830	$1,333	$1,333	$4,163
Freestanding handrail system, painted (15 feet minimum)	LF	80	$91.11	$7,289	$150	$12,000	$19,289
Wall-mounted handrail system, painted (15 feet minimum)	LF	30	$50.50	$1,515	$35.40	$1,062	$2,577
Project Totals:				**$11,634**		**$14,395**	**$26,029**

Material/Labor Cost		$26,029
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$19,100
General Contractor Mark Up at 20.0%	+	$3,820
Construction Cost		$22,920
Professional Fees at 16.0%	+	$3,667
Total Project Cost		**$26,587**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARRAC02	**Title:**	INTERIOR AMENITY ACCESSIBILITY UPGRADES
Priority Sequence:	18		
Priority Class:	4		
Category Code:	AC4A	**System:**	ACCESSIBILITY
		Component:	GENERAL
		Element:	FUNCTIONAL SPACE MOD.
Building Code:	GARR		
Building Name:	GARRETT RESIDENCE HALL		
Subclass/Savings:	Not Applicable		

Code Application: ADAAG 804

Project Class: Plant Adaption

Project Date: 10/9/2009

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

Project Description

Current accessibility legislation requires that building amenities be generally accessible to all persons. The addition of and configuration of a common use kitchen area complying with accessibility guidelines is recommended. The installation of wheelchair-accessible kitchen cabinetry and appliances is recommended in this dormitory building.

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Cost

Project Number: GARRAC02

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	$4,894	$4,894	$1,999	$1,999	$6,893
Project Totals:				**$4,894**		**$1,999**	**$6,893**

Material/Labor Cost		$6,893
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$5,954
General Contractor Mark Up at 20.0%	+	$1,191
Construction Cost		$7,145
Professional Fees at 16.0%	+	$1,143
Total Project Cost		**$8,288**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARRAC03	**Title:**	ELEVATOR INSTALLATION
Priority Sequence:	19		
Priority Class:	4		
Category Code:	AC3A	**System:**	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	LIFTS/RAMPS/ELEVATORS
Building Code:	GARR		
Building Name:	GARRETT RESIDENCE HALL		
Subclass/Savings:	Not Applicable		

Code Application:	ASME	A17.1
	ADAAG	407

Project Class:	Plant Adaption
Project Date:	10/9/2009
Project Location:	Undefined: Floor(s) 1

Project Description

Current accessibility legislation requires wheelchair access to all floors in a building over two stories in height. There is no wheelchair access to the upper floors of this building. The installation of an interior hydraulic elevator is proposed within the purview of this analysis. The elevator installation may entail using a resident room / resident rooms for the shaft and / or lobby. The loss of revenue from this room / these rooms on each floor will need to be calculated to determine the final cost of this project.

Project Cost

Project Number: GARRAC03

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Elevator installation within current building footprint (two stops)	SYS	1	$72,266	$72,266	$53,731	$53,731	$125,997
Each additional stop	FLR	2	$16,661	$33,322	$35,144	$70,288	$103,610
Project Totals:				**$105,588**		**$124,019**	**$229,607**

Material/Labor Cost		$229,607
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$169,949
General Contractor Mark Up at 20.0%	+	$33,990
Construction Cost		$203,939
Professional Fees at 16.0%	+	$32,630
Total Project Cost		**$236,569**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARRAC04	**Title:**	STAIR SAFETY UPGRADES
Priority Sequence:	20		
Priority Class:	4		
Category Code:	AC3B	**System:**	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	STAIRS AND RAILINGS

Building Code:	GARR	
Building Name:	GARRETT RESIDENCE HALL	
Subclass/Savings:	Not Applicable	
Code Application:	IBC	1003.3
	ADAAG	505
Project Class:	Plant Adaption	
Project Date:	10/9/2009	
Project Location:	Floor-wide: Floor(s) 1, 2, 3, B	

Project Description

Current legislation regarding building accessibility by the handicapped 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
GARR : GARRETT RESIDENCE HALL

Project Cost

Project Number: GARRAC04

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	12	$573	$6,876	$521	$6,252	$13,128
Center handrail / guardrail system per floor	FLR	12	$1,297	$15,564	$833	$9,996	$25,560
Stair tread and landing finish upgrades per floor	FLR	12	$1,449	$17,388	$773	$9,276	$26,664
Project Totals:				**$39,828**		**$25,524**	**$65,352**

Material/Labor Cost		$65,352
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$53,201
General Contractor Mark Up at 20.0%	+	$10,640
Construction Cost		$63,841
Professional Fees at 16.0%	+	$10,215
Total Project Cost		**$74,055**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARRES03	**Title:**	EXTERIOR SERVICE DOOR REPLACEMENT
Priority Sequence:	21		
Priority Class:	4		
Category Code:	ES5A	**System:**	EXTERIOR
		Component:	FENESTRATIONS
		Element:	DOORS
Building Code:	GARR		
Building Name:	GARRETT RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/9/2009		
Project Location:	Building-wide: Floor(s) 1		

Project Description

Replacements are recommended for a portion of the older the exterior door systems. This project includes only the secondary entrance and service doors. The replacement units should maintain the architectural design aspects of this facility and be modern, energy-efficient applications.

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Cost

Project Number: GARRES03

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Low traffic door system	LEAF	2	$1,031	$2,062	$1,250	$2,500	$4,562
Project Totals:				**$2,062**		**$2,500**	**$4,562**

Material/Labor Cost		$4,562
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$3,359
General Contractor Mark Up at 20.0%	+	$672
Construction Cost		$4,031
Professional Fees at 16.0%	+	$645
Total Project Cost		**$4,676**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARRHV01	**Title:**	REPLACE SPLIT DX SYSTEMS
Priority Sequence:	22		
Priority Class:	4		
Category Code:	HV3A	**System:**	HVAC
		Component:	HEATING/COOLING
		Element:	SYSTEM RETROFIT/REPLACE
Building Code:	GARR		
Building Name:	GARRETT RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	ASHRAE 62-2004		
Project Class:	Capital Renewal		
Project Date:	10/12/2009		
Project Location:	Item Only: Floor(s) 1, B		

Project Description

Remove the existing split DX systems, including condensing and heat pump 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
GARR : GARRETT RESIDENCE HALL

Project Cost

Project Number: GARRHV01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Replace split DX systems	TON	26	$1,201	$31,228	$723	$18,800	$50,027
Project Totals:				**$31,228**		**$18,800**	**$50,027**

Material/Labor Cost		$50,027
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$41,090
General Contractor Mark Up at 20.0%	+	$8,218
Construction Cost		$49,309
Professional Fees at 16.0%	+	$7,889
Total Project Cost		**$57,198**

Specific Project Details

Facility Condition Analysis
Section Three
GARR : GARRETT RESIDENCE HALL

Project Description

Project Number:	GARRHV02	**Title:**	MODULAR COOLING EQUIPMENT REPLACEMENT
Priority Sequence:	23		
Priority Class:	4		
Category Code:	HV2B	**System:**	HVAC
		Component:	COOLING
		Element:	HEAT REJECTION
Building Code:	GARR		
Building Name:	GARRETT RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/12/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3		

Project Description

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

Project Cost

Project Number: GARRHV02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Slide-in window air conditioners (approximately 160 units rated 8000 BTUH), connections, and demolition	TON	107	$843	$90,201	$531	$56,817	$147,018
Project Totals:				**$90,201**		**$56,817**	**$147,018**

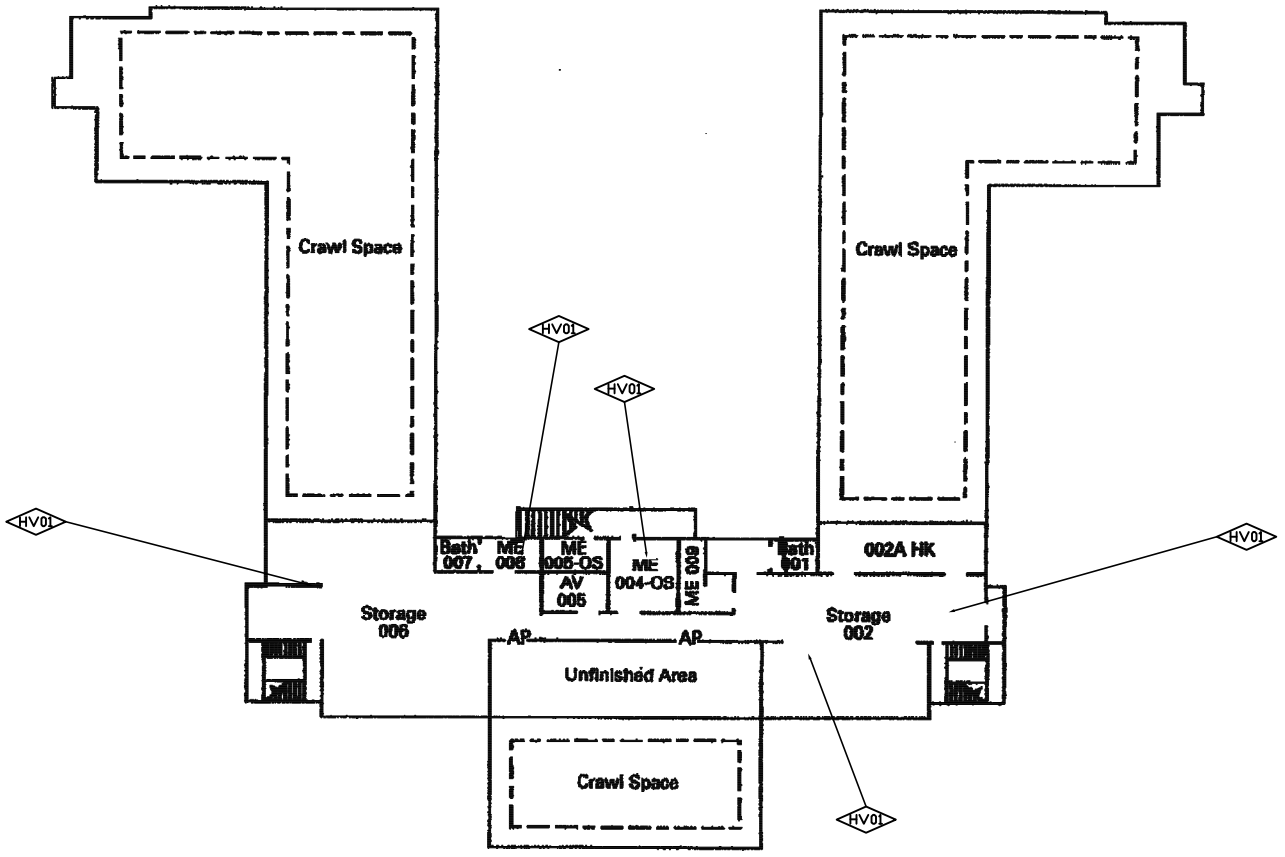
Material/Labor Cost		$147,018
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$119,980
General Contractor Mark Up at 20.0%	+	$23,996
Construction Cost		$143,975
Professional Fees at 16.0%	+	$23,036
Total Project Cost		**$167,012**

FACILITY CONDITION ANALYSIS

SECTION 4

DRAWINGS AND PROJECT LOCATIONS

EAST CAROLINA UNIVERSITY



AC04 EL01 EL02 EL03 FS01 FS03
FS04 IS01 IS02 IS03 IS04 IS05

GARRETT
RESIDENCE HALL

BLDG NO. GARR

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

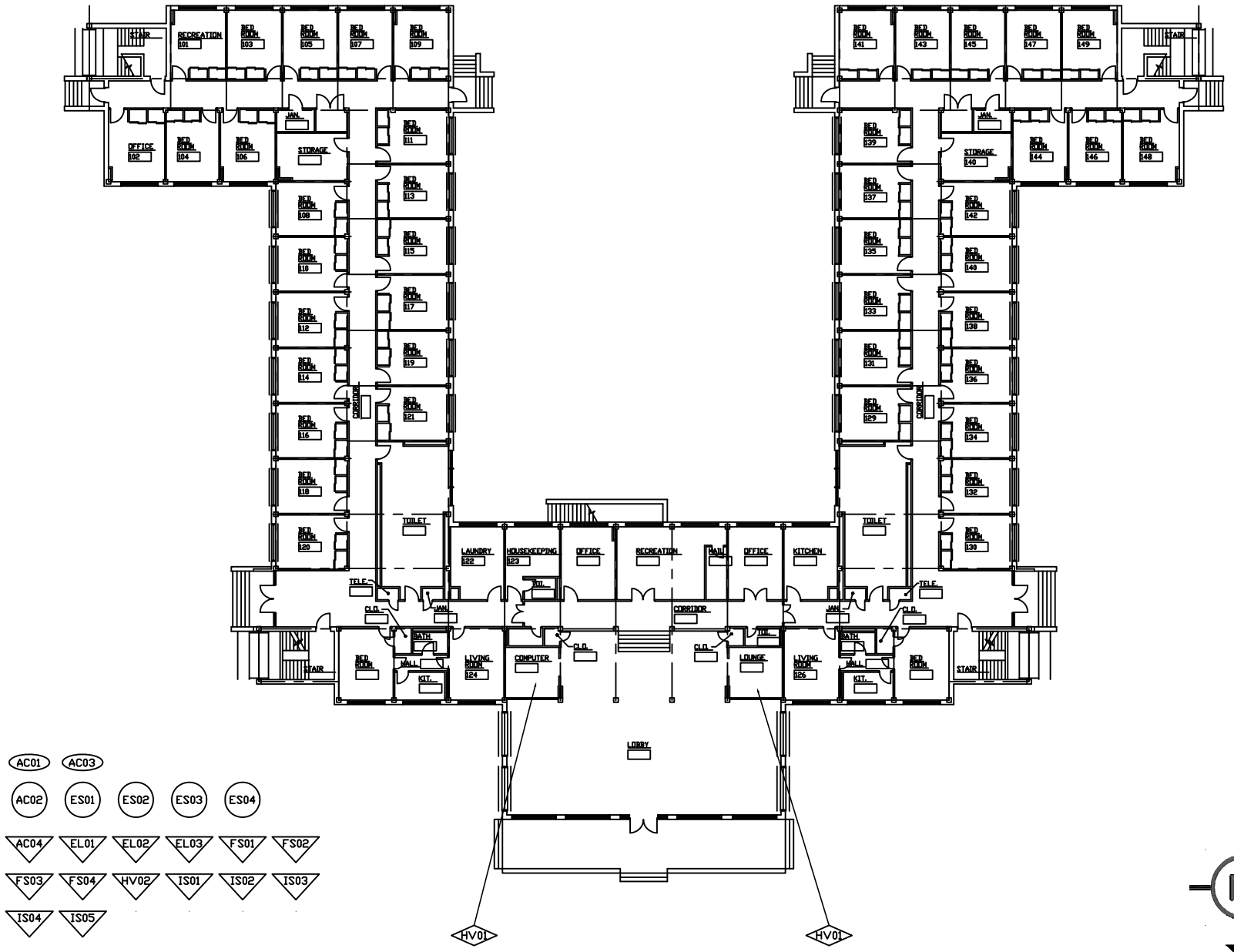
PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 12/04/09
Drawn by: J.T.V.
Project No. 09-041

BASEMENT FLOOR PLAN

Sheet No.
1 of 4

EAST CAROLINA UNIVERSITY



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GARRETT
RESIDENCE HALL

BLDG NO. GARR

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

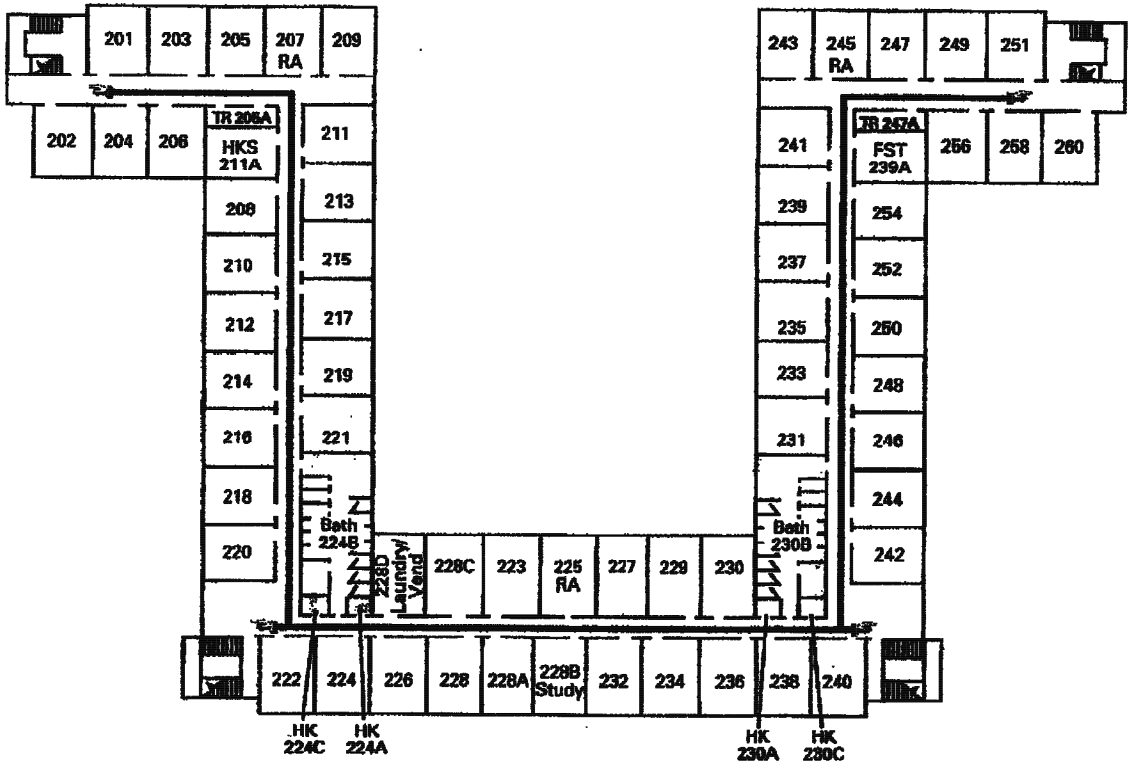
PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 12/04/09
Drawn by: J.T.V.
Project No. 09-041

FIRST FLOOR PLAN

Sheet No.
2 of 4

EAST CAROLINA UNIVERSITY



AC04 EL01 EL02 EL03 FS01 FS03
FS04 HV02 IS01 IS02 IS03 IS04
IS05

GARRETT
RESIDENCE HALL

BLDG NO. GARR

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: 12/04/09
Drawn by: J.T.V.
Project No. 09-041

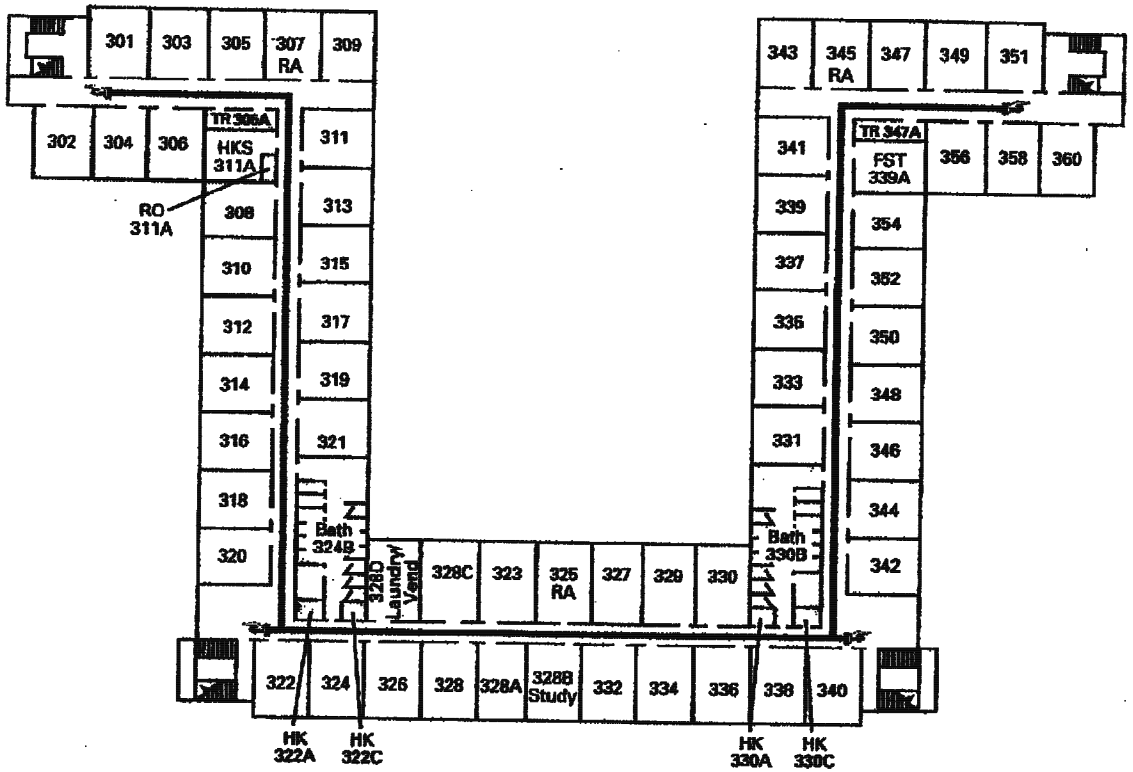
SECOND FLOOR PLAN

Sheet No.
3 of 4

EAST CAROLINA UNIVERSITY

ROOF

ES05



AC04 EL01 EL02 EL03 FS01 FS03

FS04 HV02 IS01 IS02 IS03 IS04

IS05

GARRETT
RESIDENCE HALL

BLDG NO. GARR

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: 12/04/09
Drawn by: J.T.V.
Project No. 09-041

THIRD FLOOR PLAN

Sheet No.
4 of 4

FACILITY CONDITION ANALYSIS

SECTION 5

LIFE CYCLE MODEL SUMMARY AND PROJECTIONS

Life Cycle Model

Building Component Summary

GARR : GARRETT RESIDENCE HALL

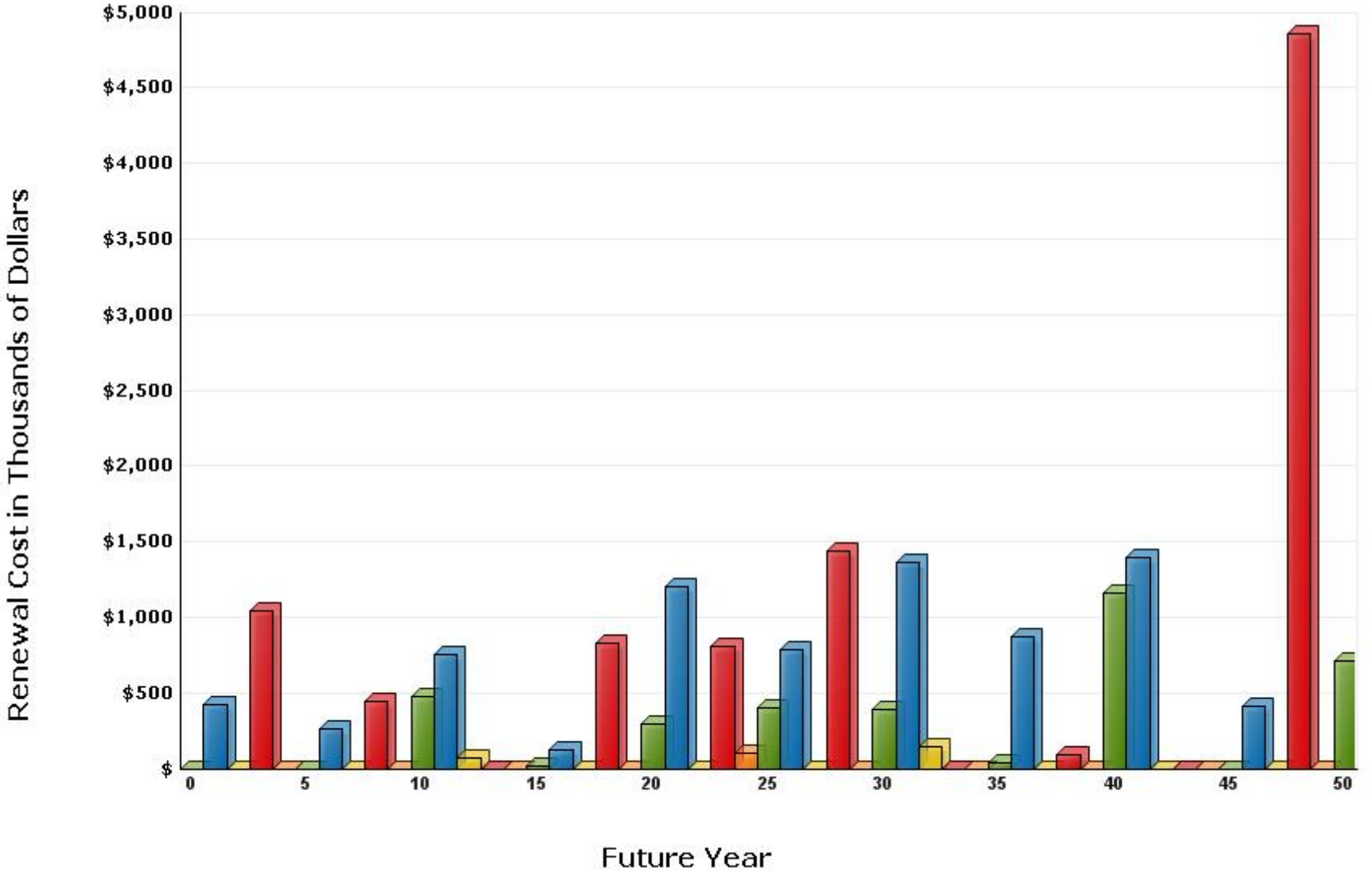
Uniformat Code	Component Description	Qty	Units	Unit Cost	Complx Adj	Total Cost	Install Date	Life Exp
B2010	EXTERIOR FINISH RENEWAL	2,160	SF	$1.30		$2,816	1956	10
B2010	EXTERIOR FINISH RENEWAL	28,650	SF	$1.30	.31	$11,578	1956	10
B2020	STANDARD GLAZING AND CURTAIN WALL	9,240	SF	$104.04		$961,298	1956	55
B2020	STANDARD GLAZING AND CURTAIN WALL	1,030	SF	$104.04		$107,158	1999	55
B2030	HIGH TRAFFIC EXTERIOR DOOR SYSTEM	13	LEAF	$4,311.24		$56,046	2000	20
B2030	LOW TRAFFIC EXTERIOR DOOR SYSTEM	2	LEAF	$2,863.29		$5,727	1986	40
B3010	BUILT-UP ROOF	19,480	SF	$6.70		$130,567	1999	20
B3010	STANDARD METAL GUTTER SYSTEM	860	LF	$9.80		$8,428	1999	30
C1020	STANDARD DOOR AND FRAME INCLUDING HARDWARE	54	LEAF	$783.68		$42,319	1999	35
C1020	STANDARD DOOR AND FRAME INCLUDING HARDWARE	19	LEAF	$783.68		$14,890	1956	35
C1020	RATED DOOR AND FRAME INCLUDING HARDWARE	219	LEAF	$1,489.06		$326,104	1999	35
C1020	INTERIOR DOOR HARDWARE	219	EA	$423.04		$92,646	1999	15
C1020	INTERIOR DOOR HARDWARE	54	EA	$423.04		$22,844	1999	15
C1020	INTERIOR DOOR HARDWARE	19	EA	$423.04		$8,038	1956	15
C3010	STANDARD WALL FINISH (PAINT, WALL COVERING, ETC.)	148,690	SF	$0.80		$119,107	1999	10
C3020	CARPET	34,140	SF	$8.75		$298,604	1999	10
C3020	VINYL FLOOR TILE	4,270	SF	$6.59		$28,130	1999	15
C3020	CERAMIC FLOOR TILE	4,270	SF	$17.36		$74,137	1956	20
C3030	ACOUSTICAL TILE CEILING SYSTEM	10,670	SF	$4.99		$53,275	1999	15
C3030	PAINTED CEILING FINISH APPLICATION	32,010	SF	$0.80		$25,641	1999	15
D2010	PLUMBING FIXTURES - DORMITORY / APARTMENTS	53,344	SF	$4.99		$266,043	1956	35
D2020	WATER PIPING - DORMITORY / APARTMENTS	53,344	SF	$3.55		$189,440	1956	35
D2020	WATER HEATER, SHELL AND TUBE HEAT EXCHANGER	154	GPM	$355.69		$54,776	2008	24
D2030	DRAIN PIPING - DORMITORY / APARTMENTS	53,344	SF	$5.40		$288,118	1956	40
D2050	AIR COMPRESSOR PACKAGE (AVERAGE SIZE)	1	SYS	$6,456.49		$6,456	1956	25
D3020	HEATING SYSTEM, STEAM OR HYDRONIC	53,344	SF	$7.30		$389,512	1956	25
D3040	CONDENSATE RECEIVER	1	SYS	$9,504.01		$9,504	1956	15
D3040	EXHAUST FAN - CENTRIFUGAL ROOF EXHAUSTER OR SIMILAR	6	EA	$2,768.62		$16,612	2003	20

Life Cycle Model
Building Component Summary
GARR : GARRETT RESIDENCE HALL

Uniformat Code	Component Description	Qty	Units	Unit Cost	Complx Adj	Total Cost	Install Date	Life Exp
D3050	SPLIT DX SYSTEM	3	TON	$2,143.89		$6,432	2003	15
D3050	SPLIT DX SYSTEM	3	TON	$2,143.89		$6,432	2003	15
D3050	SPLIT DX SYSTEM	5	TON	$2,143.89		$10,719	2003	15
D3050	SPLIT DX SYSTEM	5	TON	$2,143.89		$10,719	2003	15
D3050	SPLIT DX SYSTEM	3	TON	$2,143.89		$6,432	2003	15
D3050	SPLIT DX SYSTEM	3	TON	$2,143.89		$6,432	2003	15
D3050	SPLIT DX SYSTEM	4	TON	$2,143.89		$8,576	1988	15
D3050	THRU-WALL AC UNIT	107	TON	$1,528.27		$163,525	2008	10
D5010	ELECTRICAL SYSTEM - DORMITORY / APARTMENTS	53,344	SF	$7.21		$384,475	1956	50
D5010	ELECTRICAL SWITCHGEAR 120/208V	800	AMP	$32.96		$26,371	2004	20
D5010	ELECTRICAL SWITCHGEAR 120/208V	1,600	AMP	$32.96		$52,742	2004	20
D5020	EXIT SIGNS (BATTERY)	58	EA	$280.76		$16,284	1956	20
D5020	LIGHTING - DORMITORY / APARTMENTS	53,344	SF	$4.30		$229,394	1956	20
D5030	FIRE ALARM SYSTEM, POINT ADDRESSABLE	53,344	SF	$2.61		$139,473	2003	15
E2010	KITCHENETTE UNIT WITH CABINETRY AND AMENITIES	1	LOT	$5,940.22		$5,940	1956	20
						$4,683,759		

Life Cycle Model Expenditure Projections

GARR : GARRETT RESIDENCE HALL



Average Annual Renewal Cost Per SqFt $3.49

FACILITY CONDITION ANALYSIS

SECTION 6

PHOTOGRAPHIC LOG

Photo Log - Facility Condition Analysis

GARR : GARRETT RESIDENCE HALL

Photo ID No	Description	Location	Date
GARR001a	Main building entrance	North elevation	9/16/2009
GARR001e	Fan-powered ventilators and static vents	Roof, looking northeast	9/16/2009
GARR002a	Building egress doorway	Southwest corner, east wing	9/16/2009
GARR002e	Fan-powered ventilators and static vents	Roof, looking east	9/16/2009
GARR003a	Building facade	East wing, south elevation	9/16/2009
GARR003e	Two condenser units	Courtyard area, northwest corner	9/16/2009
GARR004a	Building facade	West wing, south elevation	9/16/2009
GARR004e	Two condenser units	Courtyard area, northeast corner	9/16/2009
GARR005a	Building egress doorway	Southwest corner, west wing	9/16/2009
GARR005e	MagicAire air handling unit	Basement, storage area 006	9/16/2009
GARR006a	Building facade	West elevation	9/16/2009
GARR006e	Two steam-powered domestic water heaters	Basement, mechanical room 009	9/16/2009
GARR007a	Building facade	East wing, east elevation	9/16/2009
GARR007e	Notifier fire alarm control panel	Basement, storage area 002	9/16/2009
GARR008a	Building facade	East wing, east elevation	9/16/2009
GARR008e	General view of window air conditioning units	East exterior	9/16/2009
GARR009a	Building facade	East wing, east elevation	9/16/2009
GARR010a	Building facade	East wing, east elevation	9/16/2009
GARR011a	Building facade	North elevation	9/16/2009
GARR012a	Building facade	West wing, north elevation	9/16/2009
GARR013a	Building facade	East wing, west elevation	9/16/2009
GARR014a	Missing handrails at site steps	Secondary entry, northwest corner	9/16/2009
GARR015a	Building egress doorway	Southeast corner, west wing	9/16/2009
GARR016a	Building facade	West wing, east elevation	9/16/2009
GARR017a	Building facade	Central wing, south elevation	9/16/2009
GARR018a	Typical windows	Building facade	9/16/2009
GARR019a	Roof drain down leader	West wing, west elevation	9/16/2009
GARR020a	Tree encroachment	Main roof level, west wing	9/16/2009
GARR021a	Curtainwall system at stair tower	West wing	9/16/2009
GARR022a	Typical windows	Building facade	9/16/2009
GARR023a	Typical window interior	Building facade	9/16/2009

Photo Log - Facility Condition Analysis

GARR : GARRETT RESIDENCE HALL

Photo ID No	Description	Location	Date
GARR024a	Secondary entry doors	West wing, east elevation	9/16/2009
GARR025a	Secondary entry doors	East wing, east elevation	9/16/2009
GARR026a	Non-compliant hardware at egress door	East wing, west elevation	9/16/2009
GARR027a	Built-up membrane roofing system	West wing	9/16/2009
GARR028a	Built-up membrane roofing system	East wing	9/16/2009
GARR029a	Built-up membrane roofing system	West wing	9/16/2009
GARR030a	Failed roof membrane with blisters	East wing	9/16/2009
GARR031a	Tree limbs on roof surface	East wing	9/16/2009
GARR032a	Failed roof membrane with blisters	West wing	9/16/2009
GARR033a	Failed roof membrane with blisters	Main roof	9/16/2009
GARR034a	Failed roof membrane with blisters	Main roof	9/16/2009
GARR035a	Failed roof membrane with blisters	Main roof	9/16/2009
GARR036a	Failed roof membrane with blisters	Main roof	9/16/2009
GARR037a	Failed roof membrane with blisters	Main roof	9/16/2009
GARR038a	Unsafe roof ladder access	Roof hatch, main roof	9/16/2009
GARR039a	Typical corridor	Third floor	9/16/2009
GARR040a	Typical corridor	Third floor	9/16/2009
GARR041a	Typical corridor	Second floor	9/16/2009
GARR042a	Retrofitted door transom panel	Typical dorm room entrance	9/16/2009
GARR043a	Aging non-compliant drinking fountain	Third floor	9/16/2009
GARR044a	Student mail boxes	First floor, main lobby	9/16/2009
GARR045a	Main entrance lobby	First floor	9/16/2009
GARR046a	Seating area	First floor, main lobby	9/16/2009
GARR047a	Typical dorm room	Second floor	9/16/2009
GARR048a	Damaged ceiling in unoccupied basement area	Basement	9/16/2009
GARR049a	Failing ceiling paint in storeroom	Basement	9/16/2009
GARR050a	Missing firesafing and breached wall	Basement, electrical room	9/16/2009
GARR051a	Missing firesafing and breached floor assembly	Basement, storeroom	9/16/2009
GARR052a	Aging non-compliant drinking fountain	First floor	9/16/2009
GARR053a	Compliant dual level drinking fountain	First floor	9/16/2009
GARR054a	Accessible building entry ramp	West wing	9/16/2009
GARR055a	Non-compliant railing systems	Typical egress stairway	9/16/2009
GARR056a	Accessible building entry ramp	East wing	9/16/2009

Photo Log - Facility Condition Analysis

GARR : GARRETT RESIDENCE HALL

Photo ID No	Description	Location	Date
GARR057a	Slippery tile surfaces at main lobby patio	Main entry patio, north	9/16/2009
GARR058a	Non-compliant handrails at entry steps	Exterior entry steps, north	9/16/2009
GARR059a	Non-compliant handrails at entry steps	Exterior entry steps, northwest	9/16/2009

Facility Condition Analysis - Photo Log

GARR001A.jpg

GARR001E.jpg

GARR002A.jpg

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GARR003A.jpg

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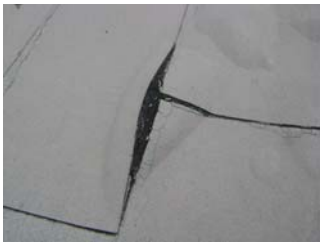

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