EAST CAROLINA UNIVERSITY

COTTEN RESIDENCE HALL

ASSET CODE: COTT

FACILITY CONDITION ANALYSIS

DECEMBER 7, 2009

ISES CORPORATION

TABLE OF CONTENTS

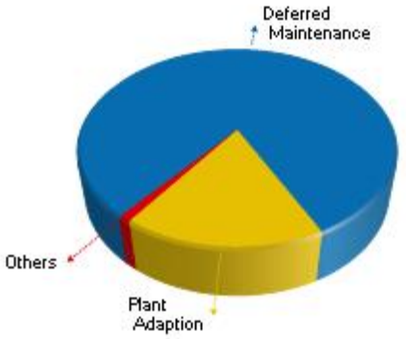
FACILITY CONDITION ANALYSIS

SECTION 1

GENERAL ASSET INFORMATION

EXECUTIVE SUMMARY - COTTEN RESIDENCE HALL

PROJECT COSTS BY CLASSIFICATION



Building Code: COTT
Building Name: COTTEN RESIDENCE HALL
Year Built: 1925
Building Use: Dormitory / Apartments
Square Feet: 47,088

Project Costs by Priority

Priority 1:	$0
Priority 2:	$493
Priority 3:	$1,340,987
Priority 4:	$66,226
Total Project Costs:	**$1,407,707**

Facility Replacement Cost: **$14,626,000**

Facility Condition Needs Index (FCNI): **0.10**
(Project Costs / Replacement Cost)

FCNI Scale

Replacement Indicated (Unless Historic)

0.60 Poor Condition (Tol. Ten. Req)

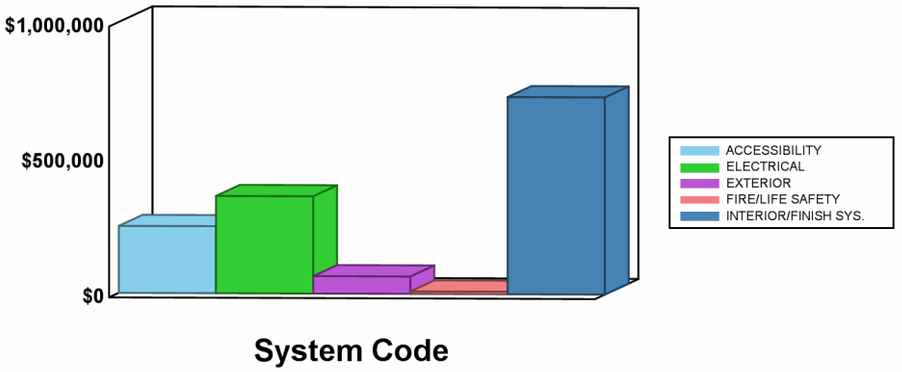
0.50 Below Ave. Condition (Major Ren. Req)

0.30 Fair Condition (Normal Ren. Req)

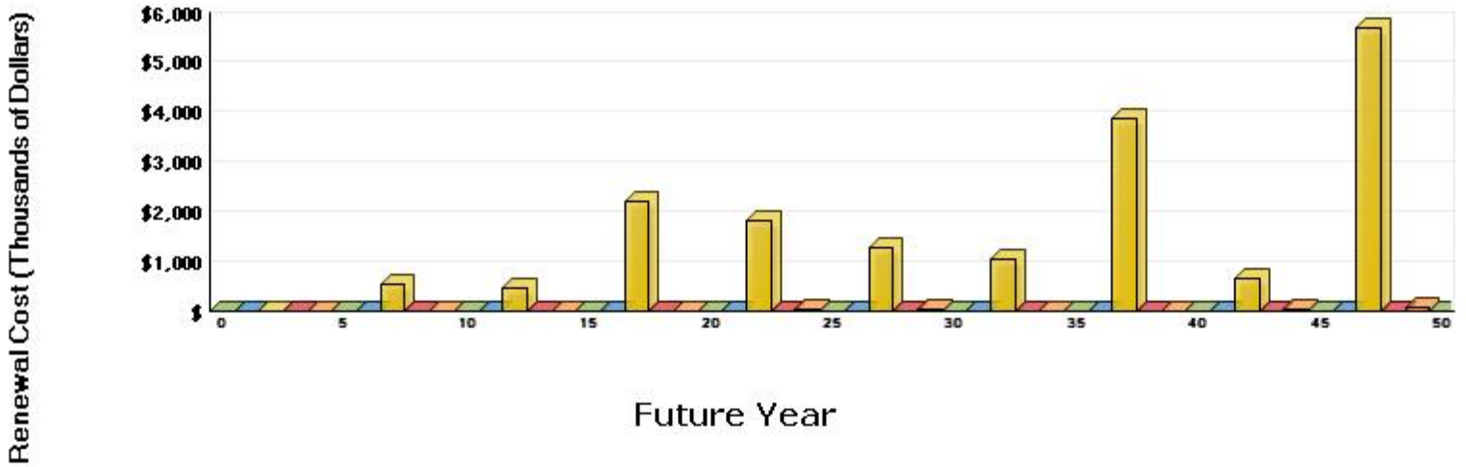
0.20 Good Condition (Maintained with Life Cycle)

0.10 Excellent Condition (Typically New Construction)

PROJECT COSTS BY SYSTEM CODE



LIFE CYCLE MODEL EXPENDITURE PROJECTIONS



Average Annual Renewal Cost Per SqFt $2.97

B. ASSET SUMMARY

Cotten Residence Hall, located on the main campus of East Carolina University in Greenville, North Carolina, was reported to have been originally constructed in 1925, with multiple subsequent additions and renovations over the ensuing years. The last major refurbishment / renovation was reportedly completed in 2005 and included building roofing, facade, and interior finish upgrades.

The majority of the floor area in this dormitory building is utilized for double occupancy dorm rooms with common area shared restrooms and showers on each floor. There are limited areas for common lobbies, shared kitchens, administrative offices, and a staff residence apartment. The historic, classically designed dormitory building includes three above-grade floor levels, a steeply pitched tile roof, and an accessible attic area. The current overall total area of the building is comprised of approximately 47,088 total gross square feet.

Information in this report was collected during an onsite review that concluded on September 15, 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 on-site review that appear to have negatively impacted the building.

The is no on-site vehicular parking located 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 southwest corner of the building and appears to be adequate for the service needs of the facility.

Pedestrian access to the building is supported by concrete sidewalk systems in the immediate area of the facility, providing compliant ADA access to and from adjacent buildings and parking areas. These pedestrian pavements are 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, wood timber roof framing, structural steel, and load bearing masonry. Numerous and distinctive architectural features, such as ornamental stone window casements, sills, lintels, quoins, plinths and

other wall features, make up the classically styled exterior building facade. Brick masonry is the primary exterior finish, with minor areas of natural and cast stone ornamentation. 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 been accomplished in recent renovations, but several areas of deterioration remain, and corrective action is required.

Stone ornamentation components make up a portion of the exterior finish. The architectural ornamental concrete and stone exterior has become visibly soiled, and the construction joints are failing. Cleaning, surface preparation, selective repairs, and applied finish upgrades are recommended to restore the aesthetics and integrity of the building envelope.

The building window fenestration and exterior doors include metal-framed, operable, double hung windows with insulated pane glazing units and painted composite fiberglass entry, egress, and service doors. These building fenestration components were reportedly upgraded in 2005 and are performing adequately, consistent with their in-place age and service use. No major signs of deterioration were evident. Periodic cleaning, finish renewal, and routine maintenance appropriate to the various components should assure continued life cycle performance through the end of the review period.

The steeply pitched roof includes a clay flat tile roofing system that was reportedly installed in 2005 and is currently in good condition. This roof is expected to perform consistently with its life cycle through the end of the current review period. Interim inspections and routine maintenance of flashings, parapets, sealants, and other components will be required to achieve the full effective useful life of the roofing system. The associated drainage inlets, custom copper guttering, and downspout systems appear to be adequately channeling rainwater from the pitched roof to ground level storm water collection systems and isolated grade level discharge.

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 in the building include suspended acoustical tiles and painted plaster in some service areas, restrooms, and the main lobby. While some of the existing ceiling 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 a quality institutional appearance as life cycle depletions occur.

Interior partitions are typically framed stud and trowel applied cementitious plaster wall assemblies with painted applied finishes. Some of the wall and partition finish systems in most areas of the building, particularly in recently renovated areas, are well maintained and acceptable in appearance, but routine and periodic refinishing and selective replacements are required to maintain a quality appearance. In other areas, the finishes 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 wall and partition finish system replacements should be undertaken.

The predominant floor finishes in the building include tiled pavers in portions of the public lobby areas, vinyl composition tile (VCT) in the kitchen and work areas, carpeting in circulation corridors, dorm rooms, offices, and administrative areas, and ceramic flooring primarily in public restrooms and shower room

areas, with other minor areas in service rooms. The back-of-house service areas, mechanical and electrical rooms, and unoccupied storage areas typically have either VCT or natural sealed concrete flooring surfaces. The flooring in most areas of the building, particularly in recently renovated areas, is well maintained and acceptable in appearance, but routine and periodic refinishing and selective replacements is recommended. There are other areas in the building where the flooring has exceeded its effective useful life cycle and is in poor condition. Near-term upgrades, repairs and renovations, and floor finish replacements are recommended as life cycle depletions occur. Within the time frame of this report, these replacements include the carpeting and ceramic tile in shared restrooms.

Interior doors in the building are typically solid core painted wood applications in painted hollow metal frames and are equipped with upgraded hardware, including ADA compliant lever action locksets. The doors and hardware are in good working order and have a good appearance.

The shared restrooms on each floor have fixtures and finishes that are mostly original to the year of construction and some subsequent partial 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

This older dormitory building does not include designated accessible rooms or shared restroom areas. The University has made other residential accommodations on the campus accessible and available to individuals requiring ADA compliance. However, 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 true cost of this project.

The primary building entrance provides compliant grade-level access to the main floor lobby area. Interior doors and associated operable hardware throughout the accessible route are generally compliant with ADA accessibility standards and provide adequate maneuvering space at door jambs and graspable lever action hardware. One exception is the raised curbs at the restroom entrances. The recommended Interior Finishes / Systems category restroom renovation would incorporate modifications at these entry doorways.

The building accessible routes generally do not have wall-mounted informational and directional signage designed for compliance with ADA accessibility standards. Current accessibility legislation has established signage requirements for all permanent spaces in a building. Compliant signage should meet specific size, graphical, Braille, height, and location requirements. To comply with the intent of this legislation, it is recommended that all non-compliant signage be upgraded to conform to appropriate accessibility standards. This scope includes directional signage.

The antiquated, single level drinking fountains located throughout the building are generally non-compliant with ADA accessibility standards. These older drinking fountains should be replaced with dual

height units to provide ADA compliant fountains. Adjacent corridor walls at the newly installed fountains may require new alcove construction to provide adequate floor area access. This work should be performed as part of the recommended Interior Finishes / Systems category restroom renovation.

The publicly accessible restroom facilities on each floor in the building are generally non-compliant with accessibility standards and provide inadequate wheelchair maneuvering areas, room layouts, and entry doors. The restroom lavatories, water closets, stalls and grab bars, toilet accessories, and other features are generally designed and installed in a manner that does not provide public accommodation for the disabled. A complimentary Interior Finishes / Systems category restroom renovation project would provide for ADA compliance. The main floor lobby does have an ADA compliant single occupancy restroom.

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

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 to improve user safety.

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 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 some 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.

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

The building is protected throughout by an automatic sprinkler system. The portion of the system serving the attic space is equipped with an air compressor in room 364 to provide for the dry-pipe installation in the attic space. The system is adequate and in good condition. With proper testing and maintenance, the service life for system components is expected to extend beyond the scope of this report.

The exit signs in this facility are connected to the emergency power network but are illuminated with incandescent or other styles of lamps that no longer maintain uniform intensity and legibility. It is recommended that the existing exit signage be replaced throughout the building using the modern LED type signs as used in more recent installations throughout the campus. These signs will provide high visibility, energy-efficient operation, and will require minimal maintenance.

HVAC

This facility uses heating hot water produced nearby using the campus steam loop as the energy source. A local, air-cooled chiller generates chilled water for building cooling. This unit, manufactured by York in 2005, has a capacity of 198.4 tons and is shared by Fleming Residence Hall next door. This chiller is in good condition and, with normal maintenance, has an expected life that extends beyond the purview of this analysis.

The HVAC system serving the functional spaces is a four-pipe fan coil unit network. Two makeup air units located in the attic and equipped with air-to-air energy recovery units introduce fresh air to the interior spaces. The Trane fan coil units provide factory-installed thermostat controls. The HVAC system is an efficient application with components that are in good working order. With normal maintenance, service life for the system should extend beyond the scope of this analysis. Limited numbers of special applications, such as communications and sprinkler system compressor spaces, employ small, 2-4 kW electric heaters and / or split system heat pumps. Maintenance and replacement of these items fall within normal maintenance cost thresholds.

ELECTRICAL

A 500 kVA, oil-filled transformer provides 120/208 volt power to the building. Local records list the transformer as supporting Cotten and Fleming “AC”. The outdoor enclosure that houses the transformer is located at the southwest corner of the building and also houses the 300 kVA transformer listed as supporting the (next door) Fleming Residence Hall. However, a 400 amp circuit breaker in the Fleming Residence Hall main distribution panel is marked to indicate it supplies Cotten and was noted to be in the “On” position. Although not of facility project scope, it is recommended that equipment markings and labels be updated to more clearly identify source and load data.

The aging main distribution panel, manufactured by Federal Pacific Electric, is rated 400 amps and is located in room 115. The room also houses the automatic transfer switch, emergency electrical panel, and network communications equipment. Each floor has four or more Federal Pacific Electric panels,

approximately half of which are rated 100 amps and the others 225 amps. Proposed projects address needed life cycle replacements and updates for these panels and other secondary distribution system components.

The interior spaces of this facility are illuminated by fluorescent fixtures that utilize compact and T8 fluorescent lamps. Hallway fixtures are modern lay-in types of a very attractive design. Overhead lights in occupant rooms are typically surface-mounted with wrap-around prismatic lenses in good condition. Two-foot square surface mounted fixtures in stairwells and decorative fixtures and downlights fitted with CFLs in lobby areas are in good condition.

The exterior areas adjacent to the building are illuminated by several building-mounted high intensity discharge (HID) fixtures. These fixtures are adequate and are expected to remain serviceable beyond the purview of this report.

Emergency power for this facility is produced by a local diesel-fired emergency generator. This unit has a 20 kW capacity, generates 120/208 volt power, and was manufactured by Generac. This generator is currently adequate and should remain a reliable source of standby power throughout the purview of this analysis.

PLUMBING

The potable water distribution piping for the building is copper with fiberglass insulation and appears to be of relatively recent vintage. Sanitary waste piping is predominantly bell-and-spigot cast-iron, with updated connections in mechanical spaces using no-hub cast-iron and plastic piping. The supply and drain piping networks are generally adequate and in good condition. Discrepancies were noted in attic piping support for which water hammer appears to be a root cause, leading to failed pipe supports and insulation damage. Because of the short time since installation and the need for urgent repairs, observations were reported directly to physical plant personnel for appropriate disposition but were documented in photos accompanying this report. Otherwise, piping appears to be in good condition and will likely provide reliable service beyond the scope of this analysis. Plumbing fixtures are in good working order but are recommended for replacement as part of restroom renovations addressed in the Interior Finishes / Systems section of this report. Potable water is heated by a district source.

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

C. INSPECTION TEAM DATA

DATE OF INSPECTION: September 15, 2009

INSPECTION TEAM PERSONNEL:

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

COTT : COTTEN RESIDENCE HALL

System Code	System Description	Priority Classes 1	2	3	4	Subtotal
AC	ACCESSIBILITY	0	0	196,406	50,908	247,314
EL	ELECTRICAL	0	0	359,083	0	359,083
ES	EXTERIOR	0	0	64,342	0	64,342
FS	FIRE/LIFE SAFETY	0	493	8,696	0	9,189
IS	INTERIOR/FINISH SYS.	0	0	712,460	15,318	727,778
	TOTALS	0	493	1,340,987	66,226	1,407,707

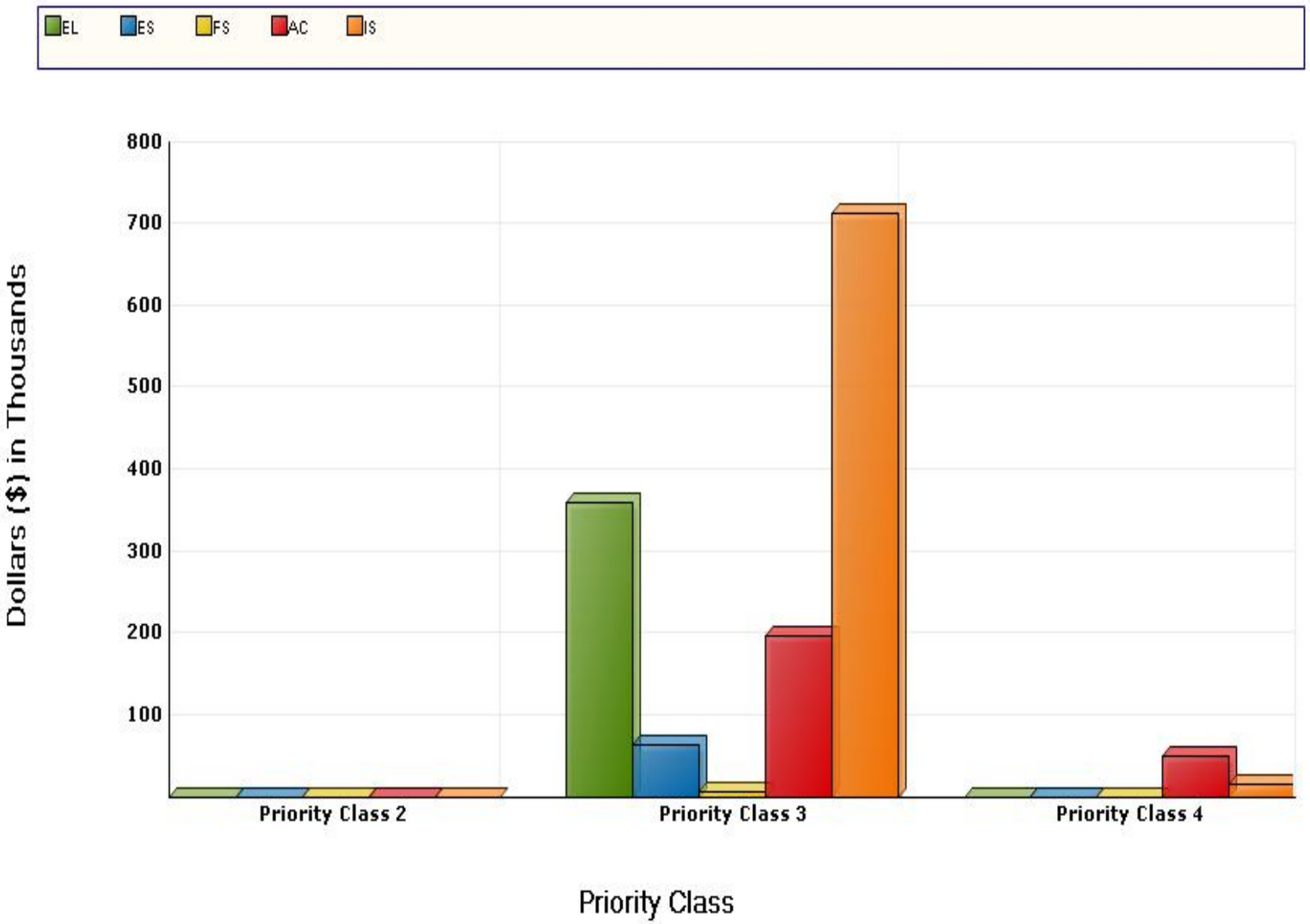
Facility Replacement Cost	$14,626,000
Facility Condition Needs Index	0.10

Gross Square Feet	47,088	**Total Cost Per Square Foot**	$29.90

FACILITY CONDITION ANALYSIS

System Code by Priority Class

COTT : COTTEN RESIDENCE HALL



Detailed Project Totals

Facility Condition Analysis

System Code by Project Class

COTT : COTTEN RESIDENCE HALL

System Code	System Description	Project Classes: Captial Renewal	Deferred Maintenance	Plant Adaption	Subtotal
AC	ACCESSIBILITY	0	0	247,314	247,314
EL	ELECTRICAL	0	359,083	0	359,083
ES	EXTERIOR	0	64,342	0	64,342
FS	FIRE/LIFE SAFETY	0	9,189	0	9,189
IS	INTERIOR/FINISH SYS.	15,318	712,460	0	727,778
	TOTALS	15,318	1,145,074	247,314	1,407,707

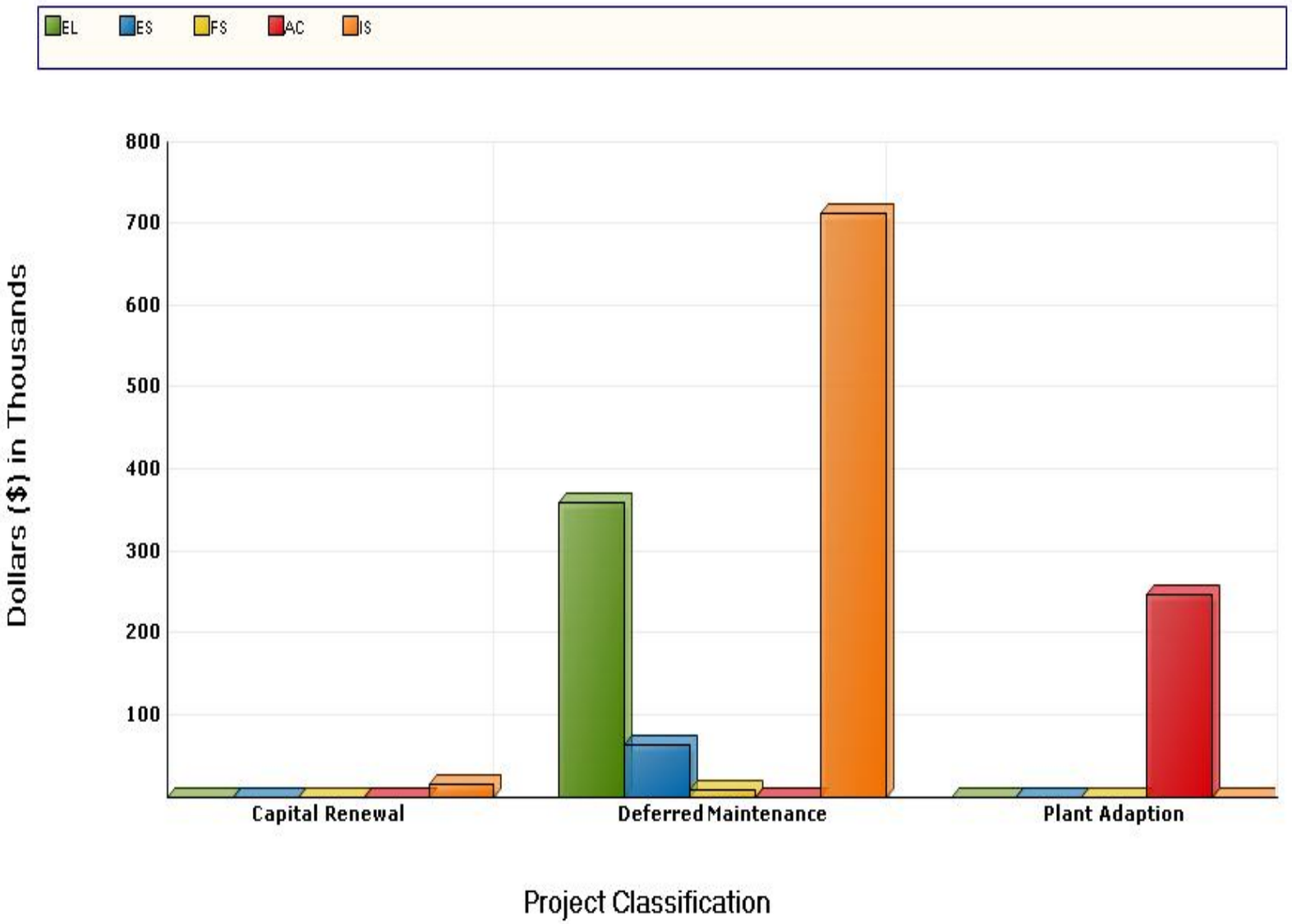
Facility Replacement Cost	$14,626,000
Facility Condition Needs Index	0.10

Gross Square Feet	47,088	**Total Cost Per Square Foot**	$29.90

FACILITY CONDITION ANALYSIS

System Code by Project Class

COTT : COTTEN RESIDENCE HALL



Detailed Project Summary
Facility Condition Analysis
Project Class by Priority Class
COTT : COTTEN RESIDENCE HALL

	Priority Classes				
Project Class	**1**	**2**	**3**	**4**	**Subtotal**
Capital Renewal	0	0	0	15,318	15,318
Deferred Maintenance	0	493	1,144,581	0	1,145,074
Plant Adaption	0	0	196,406	50,908	247,314
TOTALS	0	493	1,340,987	66,226	1,407,707

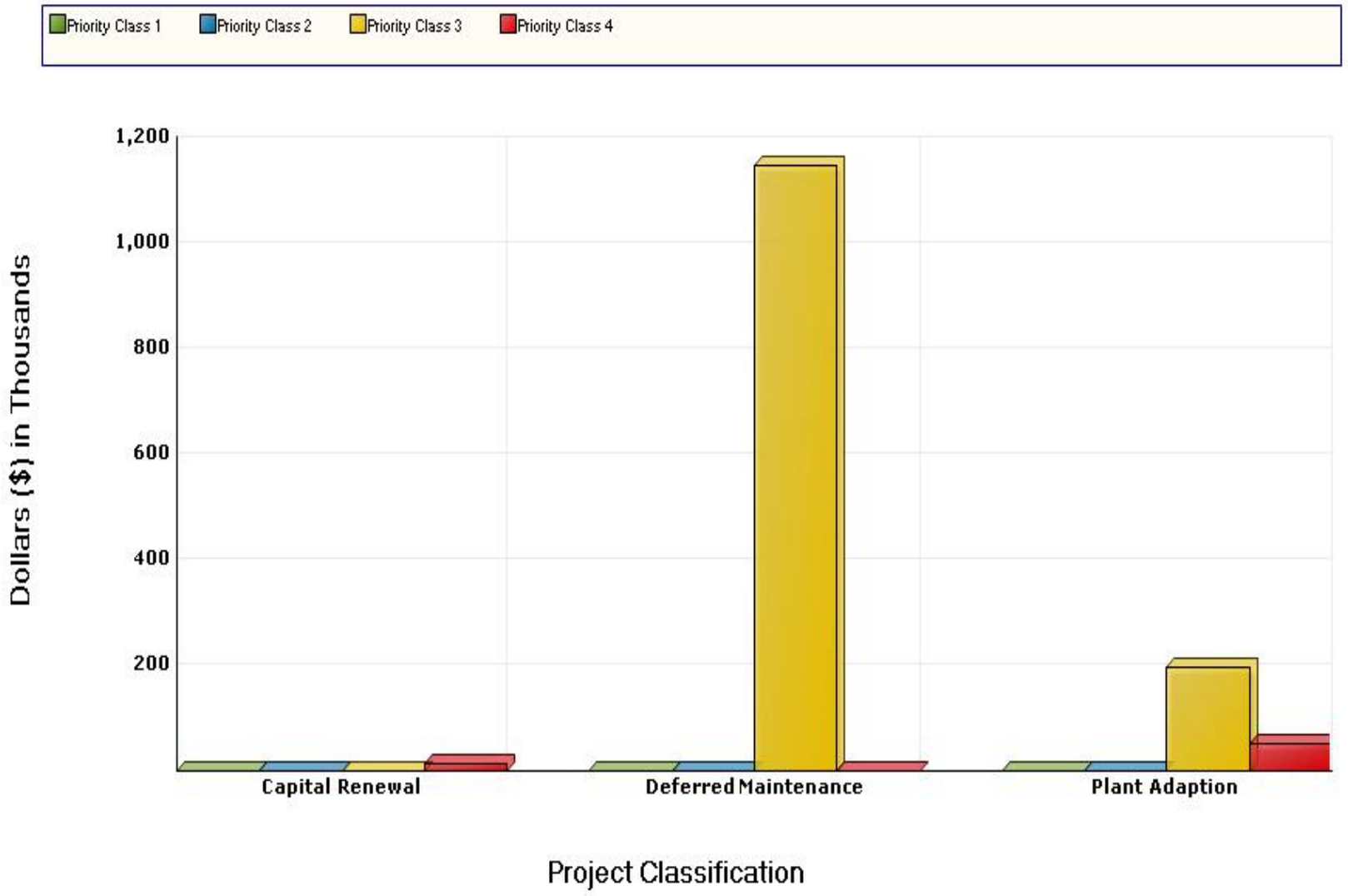
Facility Replacement Cost	$14,626,000
Facility Condition Needs Index	0.10

Gross Square Feet	47,088	**Total Cost Per Square Foot**	$29.90

FACILITY CONDITION ANALYSIS

Project Class by Priority Class

COTT : COTTEN RESIDENCE HALL



Detailed Project Summary

Facility Condition Analysis

Priority Class - Priority Sequence

COTT : COTTEN RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5C	COTTFS01	2	1	ELIMINATE FIRE RATING COMPROMISES	425	68	493
				Totals for Priority Class 2	**425**	**68**	**493**
FS1A	COTTFS02	3	2	REPLACE EXIT SIGNS	7,497	1,199	8,696
AC4A	COTTAC01	3	3	INTERIOR AMENITY ACCESSIBILITY UPGRADES	7,145	1,143	8,288
AC3A	COTTAC03	3	4	ELEVATOR INSTALLATION	162,171	25,947	188,118
ES2B	COTTES01	3	5	RESTORE BRICK MASONRY	53,250	8,520	61,770
ES2B	COTTES02	3	6	RESTORE ARCHITECTURAL ORNAMENTAL CONCRETE AND STONE	2,217	355	2,572
EL2A	COTTEL01	3	7	REPLACE 120/208 VOLT MAIN SWITCHGEAR	10,705	1,713	12,418
EL3B	COTTEL02	3	8	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	298,849	47,816	346,665
IS1A	COTTIS01	3	9	REFINISH FLOORING	243,857	39,017	282,874
IS2B	COTTIS02	3	10	REFINISH WALLS	93,338	14,934	108,272
IS6D	COTTIS04	3	11	MAJOR UPGRADE AND RESTROOM RENOVATIONS	276,996	44,319	321,315
				Totals for Priority Class 3	**1,156,023**	**184,964**	**1,340,987**
AC3D	COTTAC02	4	12	INTERIOR DIRECTIONAL SIGNAGE UPGRADES	8,486	1,358	9,844
AC3B	COTTAC04	4	13	STAIR SAFETY UPGRADES	35,400	5,664	41,064
IS3B	COTTIS03	4	14	REFINISH CEILINGS	13,205	2,113	15,318
				Totals for Priority Class 4	**57,092**	**9,135**	**66,226**
				Grand Total:	**1,213,540**	**194,166**	**1,407,707**

Detailed Project Summary

Facility Condition Analysis

Project Cost Range

COTT : COTTEN RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5C	COTTFS01	2	1	ELIMINATE FIRE RATING COMPROMISES	425	68	493
				Totals for Priority Class 2	**425**	**68**	**493**
AC4A	COTTAC01	3	3	INTERIOR AMENITY ACCESSIBILITY UPGRADES	7,145	1,143	8,288
ES2B	COTTES01	3	5	RESTORE BRICK MASONRY	53,250	8,520	61,770
ES2B	COTTES02	3	6	RESTORE ARCHITECTURAL ORNAMENTAL CONCRETE AND STONE	2,217	355	2,572
FS1A	COTTFS02	3	2	REPLACE EXIT SIGNS	7,497	1,199	8,696
EL2A	COTTEL01	3	7	REPLACE 120/208 VOLT MAIN SWITCHGEAR	10,705	1,713	12,418
				Totals for Priority Class 3	**80,814**	**12,930**	**93,744**
AC3D	COTTAC02	4	12	INTERIOR DIRECTIONAL SIGNAGE UPGRADES	8,486	1,358	9,844
AC3B	COTTAC04	4	13	STAIR SAFETY UPGRADES	35,400	5,664	41,064
IS3B	COTTIS03	4	14	REFINISH CEILINGS	13,205	2,113	15,318
				Totals for Priority Class 4	**57,092**	**9,135**	**66,226**
				Grand Totals for Projects < 100,000	**138,330**	**22,133**	**160,463**

Detailed Project Summary

Facility Condition Analysis

Project Cost Range

COTT : COTTEN RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC3A	COTTAC03	3	4	ELEVATOR INSTALLATION	162,171	25,947	188,118
IS1A	COTTIS01	3	9	REFINISH FLOORING	243,857	39,017	282,874
IS2B	COTTIS02	3	10	REFINISH WALLS	93,338	14,934	108,272
IS6D	COTTIS04	3	11	MAJOR UPGRADE AND RESTROOM RENOVATIONS	276,996	44,319	321,315
EL3B	COTTEL02	3	8	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	298,849	47,816	346,665
				Totals for Priority Class 3	**1,075,210**	**172,034**	**1,247,243**
				Grand Totals for Projects >= 100,000 and < 500,000	**1,075,210**	**172,034**	**1,247,243**
				Grand Totals For All Projects:	**1,213,540**	**194,166**	**1,407,707**

Detailed Project Summary

Facility Condition Analysis

Project Classification

COTT : COTTEN RESIDENCE HALL

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
IS3B	COTTIS03	14	Capital Renewal	4	REFINISH CEILINGS	15,318
					Totals for Capital Renewal	**15,318**
FS5C	COTTFS01	1	Deferred Maintenance	2	ELIMINATE FIRE RATING COMPROMISES	493
FS1A	COTTFS02	2	Deferred Maintenance	3	REPLACE EXIT SIGNS	8,696
ES2B	COTTES01	5	Deferred Maintenance	3	RESTORE BRICK MASONRY	61,770
ES2B	COTTES02	6	Deferred Maintenance	3	RESTORE ARCHITECTURAL ORNAMENTAL CONCRETE AND STONE	2,572
EL2A	COTTEL01	7	Deferred Maintenance	3	REPLACE 120/208 VOLT MAIN SWITCHGEAR	12,418
EL3B	COTTEL02	8	Deferred Maintenance	3	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	346,665
IS1A	COTTIS01	9	Deferred Maintenance	3	REFINISH FLOORING	282,874
IS2B	COTTIS02	10	Deferred Maintenance	3	REFINISH WALLS	108,272
IS6D	COTTIS04	11	Deferred Maintenance	3	MAJOR UPGRADE AND RESTROOM RENOVATIONS	321,315
					Totals for Deferred Maintenance	**1,145,074**
AC4A	COTTAC01	3	Plant Adaption	3	INTERIOR AMENITY ACCESSIBILITY UPGRADES	8,288
AC3A	COTTAC03	4	Plant Adaption	3	ELEVATOR INSTALLATION	188,118
AC3D	COTTAC02	12	Plant Adaption	4	INTERIOR DIRECTIONAL SIGNAGE UPGRADES	9,844
AC3B	COTTAC04	13	Plant Adaption	4	STAIR SAFETY UPGRADES	41,064
					Totals for Plant Adaption	**247,314**
					Grand Total:	**1,407,707**

Detailed Project Summary

Facility Condition Analysis

Energy Conservation

COTT : COTTEN RESIDENCE HALL

Cat Code	Project Number	Pri Cls	Pri Seq	Project Title	Total Cost	Annual Savings	Simple Payback
FS1A	COTTFS02	3	2	REPLACE EXIT SIGNS	8,696	1,340	6.49
				Totals for Priority Class 3	**8,696**	**1,340**	**6.49**
				Grand Total:	**8,696**	**1,340**	**6.49**

Detailed Project Summary

Facility Condition Analysis

Category/System Code

COTT : COTTEN RESIDENCE HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC4A	COTTAC01	3	3	INTERIOR AMENITY ACCESSIBILITY UPGRADES	7,145	1,143	8,288
AC3A	COTTAC03	3	4	ELEVATOR INSTALLATION	162,171	25,947	188,118
AC3D	COTTAC02	4	12	INTERIOR DIRECTIONAL SIGNAGE UPGRADES	8,486	1,358	9,844
AC3B	COTTAC04	4	13	STAIR SAFETY UPGRADES	35,400	5,664	41,064
				Totals for System Code: ACCESSIBILITY	**213,202**	**34,112**	**247,314**
EL2A	COTTEL01	3	7	REPLACE 120/208 VOLT MAIN SWITCHGEAR	10,705	1,713	12,418
EL3B	COTTEL02	3	8	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	298,849	47,816	346,665
				Totals for System Code: ELECTRICAL	**309,554**	**49,529**	**359,083**
ES2B	COTTES01	3	5	RESTORE BRICK MASONRY	53,250	8,520	61,770
ES2B	COTTES02	3	6	RESTORE ARCHITECTURAL ORNAMENTAL CONCRETE AND STONE	2,217	355	2,572
				Totals for System Code: EXTERIOR	**55,467**	**8,875**	**64,342**
FS5C	COTTFS01	2	1	ELIMINATE FIRE RATING COMPROMISES	425	68	493
FS1A	COTTFS02	3	2	REPLACE EXIT SIGNS	7,497	1,199	8,696
				Totals for System Code: FIRE/LIFE SAFETY	**7,922**	**1,267**	**9,189**
IS1A	COTTIS01	3	9	REFINISH FLOORING	243,857	39,017	282,874
IS2B	COTTIS02	3	10	REFINISH WALLS	93,338	14,934	108,272
IS6D	COTTIS04	3	11	MAJOR UPGRADE AND RESTROOM RENOVATIONS	276,996	44,319	321,315
IS3B	COTTIS03	4	14	REFINISH CEILINGS	13,205	2,113	15,318
				Totals for System Code: INTERIOR/FINISH SYS.	**627,395**	**100,383**	**727,778**
				Grand Total:	**1,213,540**	**194,166**	**1,407,707**

FACILITY CONDITION ANALYSIS

SECTION 3

SPECIFIC PROJECT DETAILS ILLUSTRATING DESCRIPTION / COST

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Description

Project Number:	COTTFS01	**Title:**	ELIMINATE FIRE RATING COMPROMISES
Priority Sequence:	1		
Priority Class:	2		
Category Code:	FS5C	**System:**	FIRE/LIFE SAFETY
		Component:	EGRESS PATH
		Element:	SEPARATION RATING
Building Code:	COTT		
Building Name:	COTTEN RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	IBC 711.3		
Project Class:	Deferred Maintenance		
Project Date:	10/9/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3		

Project Description

Structural fire separations are not maintained according to code requirements for new construction in some 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
COTT : COTTEN RESIDENCE HALL

Project Cost

Project Number: COTTFS01

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	2,400	$0.06	$144	$0.17	$408	$552
Project Totals:				**$144**		**$408**	**$552**

Material/Labor Cost		$552
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$354
General Contractor Mark Up at 20.0%	+	$71
Construction Cost		$425
Professional Fees at 16.0%	+	$68
Total Project Cost		**$493**

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Description

Project Number:	COTTFS02	**Title:**	REPLACE EXIT SIGNS
Priority Sequence:	2		
Priority Class:	3		
Category Code:	FS1A	**System:**	FIRE/LIFE SAFETY
		Component:	LIGHTING
		Element:	EGRESS LTG./EXIT SIGNAGE

Building Code:	COTT	
Building Name:	COTTEN RESIDENCE HALL	
Subclass/Savings:	Energy Conservation	$1,340

Code Application:	NFPA	101-47
	IBC	1011

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

Project Description

Replace the existing exit signage throughout the building. Install new exit signs as needed. The new units should be connected to the emergency power network. LED type exit signs are recommended because they are energy efficient and require minimal maintenance.

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Cost

Project Number: COTTFS02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Replacement of existing exit signs with LED units	EA	52	$76.00	$3,952	$85.00	$4,420	$8,372
Project Totals:				**$3,952**		**$4,420**	**$8,372**

Material/Labor Cost		$8,372
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$6,247
General Contractor Mark Up at 20.0%	+	$1,249
Construction Cost		$7,497
Professional Fees at 16.0%	+	$1,199
Total Project Cost		**$8,696**

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Description

Project Number:	COTTAC01	**Title:**	INTERIOR AMENITY ACCESSIBILITY UPGRADES
Priority Sequence:	3		
Priority Class:	3		
Category Code:	AC4A	**System:**	ACCESSIBILITY
		Component:	GENERAL
		Element:	FUNCTIONAL SPACE MOD.
Building Code:	COTT		
Building Name:	COTTEN RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG 804		
Project Class:	Plant Adaption		
Project Date:	10/9/2009		
Project Location:	Floor-wide: Floor(s) 1		

Project Description

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

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Cost

Project Number: COTTAC01

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
COTT : COTTEN RESIDENCE HALL

Project Description

Project Number:	COTTAC03	**Title:**	ELEVATOR INSTALLATION
Priority Sequence:	4		
Priority Class:	3		
Category Code:	AC3A	**System:**	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	LIFTS/RAMPS/ELEVATORS
Building Code:	COTT		
Building Name:	COTTEN 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 true cost of this project.

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Cost

Project Number: COTTAC03

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	1	$16,661	$16,661	$35,144	$35,144	$51,805
Project Totals:				**$88,927**		**$88,875**	**$177,802**

Material/Labor Cost		$177,802
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$135,142
General Contractor Mark Up at 20.0%	+	$27,028
Construction Cost		$162,171
Professional Fees at 16.0%	+	$25,947
Total Project Cost		**$188,118**

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Description

Project Number:	COTTES01	**Title:**	RESTORE BRICK MASONRY
Priority Sequence:	5		
Priority Class:	3		
Category Code:	ES2B	**System:**	EXTERIOR
		Component:	COLUMNS/BEAMS/WALLS
		Element:	FINISH
Building Code:	COTT		
Building Name:	COTTEN 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 finish, with minor areas of natural and cast stone ornamentation. 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 been accomplished in recent renovations, but several areas of deterioration remain, and corrective action is required.

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Cost

Project Number: COTTES01

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	25,560	$0.11	$2,812	$0.22	$5,623	$8,435
Selective mortar and / or sealant repairs (assumes 10 linear feet for every 100 square feet of envelope)	LF	2,556	$2.45	$6,262	$4.99	$12,754	$19,017
Applied finish or sealant	SF	25,560	$0.22	$5,623	$0.82	$20,959	$26,582
Masonry crack repairs and restorative structural tuck pointing	LOT	1	$5,000	$5,000	$8,500	$8,500	$13,500
Project Totals:				**$19,697**		**$47,837**	**$67,534**

Material/Labor Cost		$67,534
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$44,375
General Contractor Mark Up at 20.0%	+	$8,875
Construction Cost		$53,250
Professional Fees at 16.0%	+	$8,520
Total Project Cost		**$61,770**

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Description

Project Number:	COTTES02	**Title:**	RESTORE ARCHITECTURAL ORNAMENTAL CONCRETE AND STONE
Priority Sequence:	6		
Priority Class:	3		
Category Code:	ES2B	**System:**	EXTERIOR
		Component:	COLUMNS/BEAMS/WALLS
		Element:	FINISH
Building Code:	COTT		
Building Name:	COTTEN 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 and stone exterior has 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
COTT : COTTEN RESIDENCE HALL

Project Cost

Project Number: COTTES02

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	1,350	$0.11	$149	$0.22	$297	$446
Selective mortar and / or sealant repairs (assumes 10 linear feet for every 100 square feet of envelope)	LF	135	$2.45	$331	$4.99	$674	$1,004
Applied finish or sealant	SF	1,350	$0.22	$297	$0.82	$1,107	$1,404
Project Totals:				**$776**		**$2,078**	**$2,854**

Material/Labor Cost		$2,854
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$1,848
General Contractor Mark Up at 20.0%	+	$370
Construction Cost		$2,217
Professional Fees at 16.0%	+	$355
Total Project Cost		**$2,572**

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Description

Project Number:	COTTEL01	**Title:**	REPLACE 120/208 VOLT MAIN SWITCHGEAR
Priority Sequence:	7		
Priority Class:	3		
Category Code:	EL2A	**System:**	ELECTRICAL
		Component:	MAIN DISTRIBUTION PANELS
		Element:	CONDITION UPGRADE
Building Code:	COTT		
Building Name:	COTTEN RESIDENCE HALL		
Subclass/Savings:	Not Applicable		

Code Application: NEC Article 230

Project Class: Deferred Maintenance

Project Date: 10/12/2009

Project Location: Item Only: Floor(s) 1

Project Description

The 120/208 volt switchgear is recommended for replacement. The existing aged circuit breakers could serve as fire hazards should they fail to interrupt a circuit in an overload or short circuit condition. The existing switchgear should be replaced in its entirety. New switchgear components should include a ground fault main circuit breaker, digital metering for remote control / monitoring, and transient surge protection.

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Cost

Project Number: COTTEL01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
120/208 volt switchgear, including switchboard, circuit breakers, feeders, digital metering, transient surge protector, and demolition of existing equipment	AMP	400	$15.52	$6,208	$13.01	$5,204	$11,412
Project Totals:				**$6,208**		**$5,204**	**$11,412**

Material/Labor Cost		$11,412
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$8,921
General Contractor Mark Up at 20.0%	+	$1,784
Construction Cost		$10,705
Professional Fees at 16.0%	+	$1,713
Total Project Cost		**$12,418**

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Description

Project Number:	COTTEL02	**Title:**	UPGRADE ELECTRICAL DISTRIBUTION NETWORK
Priority Sequence:	8		
Priority Class:	3		
Category Code:	EL3B	**System:**	ELECTRICAL
		Component:	SECONDARY DISTRIBUTION
		Element:	DISTRIBUTION NETWORK
Building Code:	COTT		
Building Name:	COTTEN 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

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.

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Cost

Project Number: COTTEL02

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	47,088	$2.98	$140,322	$4.46	$210,012	$350,335
Project Totals:				**$140,322**		**$210,012**	**$350,335**

Material/Labor Cost		$350,335
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$249,041
General Contractor Mark Up at 20.0%	+	$49,808
Construction Cost		$298,849
Professional Fees at 16.0%	+	$47,816
Total Project Cost		**$346,665**

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Description

Project Number:	COTTIS01	**Title:**	REFINISH FLOORING
Priority Sequence:	9		
Priority Class:	3		
Category Code:	IS1A	**System:**	INTERIOR/FINISH SYS.
		Component:	FLOOR
		Element:	FINISHES-DRY
Building Code:	COTT		
Building Name:	COTTEN 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		

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
COTT : COTTEN RESIDENCE HALL

Project Cost

Project Number: COTTIS01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Carpet	SF	30,140	$5.36	$161,550	$2.00	$60,280	$221,830
Ceramic tile	SF	754	$7.24	$5,459	$10.63	$8,015	$13,474
Project Totals:				**$167,009**		**$68,295**	**$235,304**

Material/Labor Cost		$235,304
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$203,214
General Contractor Mark Up at 20.0%	+	$40,643
Construction Cost		$243,857
Professional Fees at 16.0%	+	$39,017
Total Project Cost		**$282,874**

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Description

Project Number:	COTTIS02	**Title:**	REFINISH WALLS
Priority Sequence:	10		
Priority Class:	3		
Category Code:	IS2B	**System:**	INTERIOR/FINISH SYS.
		Component:	PARTITIONS
		Element:	FINISHES
Building Code:	COTT		
Building Name:	COTTEN 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		

Project Description

Interior wall finish applications vary in age, type, and condition. Wall finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Cost

Project Number: COTTIS02

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	132,570	$0.17	$22,537	$0.81	$107,382	$129,919
Project Totals:				**$22,537**		**$107,382**	**$129,919**

Material/Labor Cost		$129,919
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$77,781
General Contractor Mark Up at 20.0%	+	$15,556
Construction Cost		$93,338
Professional Fees at 16.0%	+	$14,934
Total Project Cost		**$108,272**

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Description

Project Number:	COTTIS04	**Title:**	MAJOR UPGRADE AND RESTROOM RENOVATIONS
Priority Sequence:	11		
Priority Class:	3		
Category Code:	IS6D	**System:**	INTERIOR/FINISH SYS.
		Component:	GENERAL
		Element:	OTHER
Building Code:	COTT		
Building Name:	COTTEN 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		

Project Description

The shared restrooms on each floor have fixtures and finishes that are mostly original to the year of construction and some subsequent partial 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
COTT : COTTEN RESIDENCE HALL

Project Cost

Project Number: COTTIS04

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	72	$1,969	$141,768	$1,699	$122,328	$264,096
Dual level drinking fountain	EA	6	$1,216	$7,296	$374	$2,244	$9,540
Alcove construction	EA	6	$877	$5,262	$3,742	$22,452	$27,714
Project Totals:				**$154,326**		**$147,024**	**$301,350**

Material/Labor Cost		$301,350
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$230,830
General Contractor Mark Up at 20.0%	+	$46,166
Construction Cost		$276,996
Professional Fees at 16.0%	+	$44,319
Total Project Cost		**$321,315**

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Description

Project Number:	COTTAC02	**Title:**	INTERIOR DIRECTIONAL SIGNAGE UPGRADES
Priority Sequence:	12		
Priority Class:	4		
Category Code:	AC3D	**System:**	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	SIGNAGE
Building Code:	COTT		
Building Name:	COTTEN RESIDENCE HALL		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG 703.1		
Project Class:	Plant Adaption		
Project Date:	10/9/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3		

Project Description

Current accessibility legislation has established signage requirements for all permanent spaces in a building. Compliant signage should meet specific size, graphical, Braille, height, and location requirements. To comply with the intent of this legislation, it is recommended that all non-compliant signage be upgraded to conform to appropriate accessibility standards. This scope includes directional signage.

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Cost

Project Number: COTTAC02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
ADA compliant signage	EA	115	$53.11	$6,108	$15.62	$1,796	$7,904
Project Totals:				**$6,108**		**$1,796**	**$7,904**

Material/Labor Cost		$7,904
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$7,072
General Contractor Mark Up at 20.0%	+	$1,414
Construction Cost		$8,486
Professional Fees at 16.0%	+	$1,358
Total Project Cost		**$9,844**

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Description

Project Number:	COTTAC04	**Title:**	STAIR SAFETY UPGRADES
Priority Sequence:	13		
Priority Class:	4		
Category Code:	AC3B	**System:**	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	STAIRS AND RAILINGS
Building Code:	COTT		
Building Name:	COTTEN 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

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 to improve user safety.

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Cost

Project Number: COTTAC04

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	9	$573	$5,157	$521	$4,689	$9,846
Center handrail / guardrail system per floor	FLR	3	$1,297	$3,891	$833	$2,499	$6,390
Stair tread and landing finish upgrades per floor	FLR	9	$1,449	$13,041	$773	$6,957	$19,998
Project Totals:				**$22,089**		**$14,145**	**$36,234**

Material/Labor Cost		$36,234
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$29,500
General Contractor Mark Up at 20.0%	+	$5,900
Construction Cost		$35,400
Professional Fees at 16.0%	+	$5,664
Total Project Cost		**$41,064**

Specific Project Details

Facility Condition Analysis
Section Three
COTT : COTTEN RESIDENCE HALL

Project Description

Project Number:	COTTIS03	**Title:**	REFINISH CEILINGS
Priority Sequence:	14		
Priority Class:	4		
Category Code:	IS3B	**System:**	INTERIOR/FINISH SYS.
		Component:	CEILINGS
		Element:	REPLACEMENT
Building Code:	COTT		
Building Name:	COTTEN 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		

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: COTTIS03

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	2,400	$2.12	$5,088	$2.98	$7,152	$12,240
Painted ceiling finish application	SF	3,770	$0.17	$641	$0.81	$3,054	$3,695
Project Totals:				**$5,729**		**$10,206**	**$15,935**

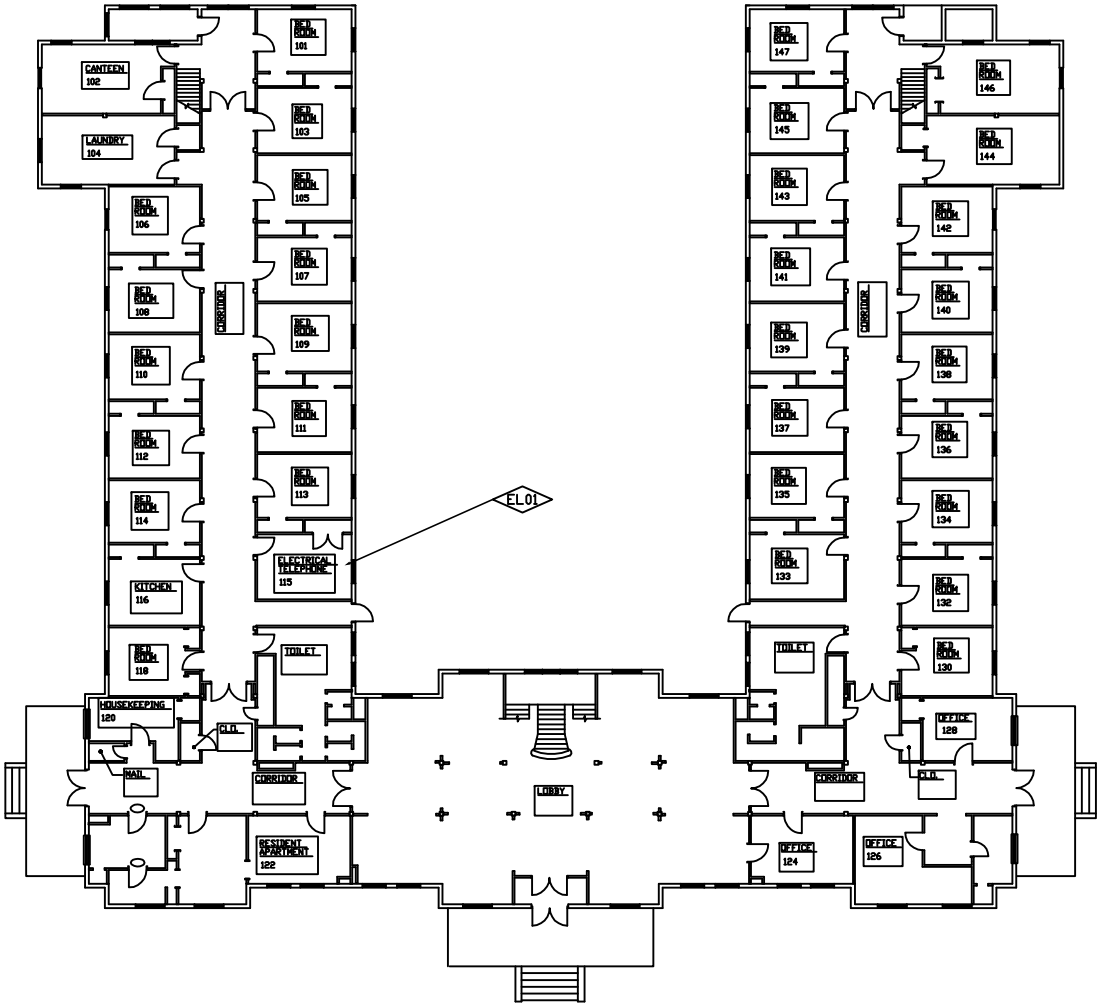
Material/Labor Cost		$15,935
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$11,005
General Contractor Mark Up at 20.0%	+	$2,201
Construction Cost		$13,205
Professional Fees at 16.0%	+	$2,113
Total Project Cost		**$15,318**

FACILITY CONDITION ANALYSIS

SECTION 4

DRAWINGS AND PROJECT LOCATIONS

EAST CAROLINA UNIVERSITY



AC03 ES01 ES02

AC01 AC02 AC04 EL02 FS01 FS02

IS01 IS02 IS03 IS04

N

COTTEN
RESIDENCE HALL

BLDG NO. COTT

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

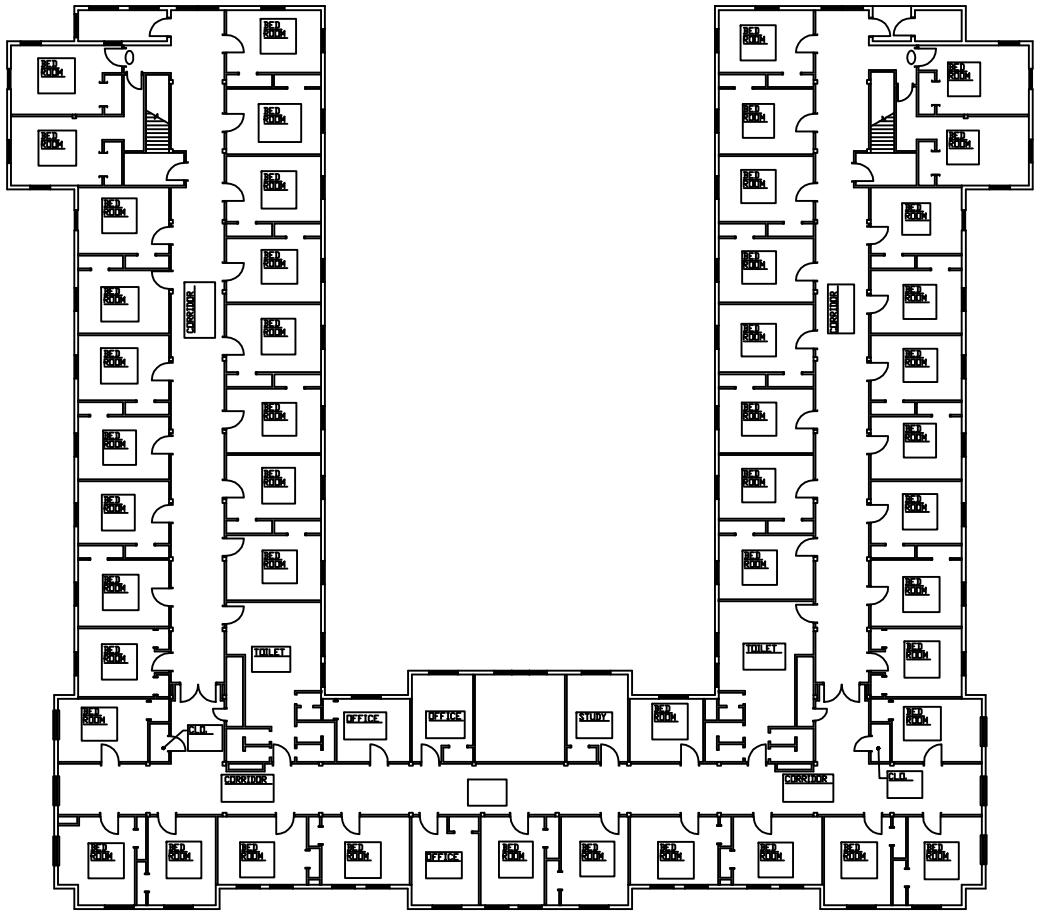
PROJECT NUMBER APPLIES TO AREA AS NOTED

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

FIRST FLOOR PLAN

Sheet No.
1 of 3

EAST CAROLINA UNIVERSITY



AC02 AC04 EL02 FS01 FS02 IS01
IS02 IS03 IS04

COTTEN
RESIDENCE HALL

BLDG NO. COTT

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

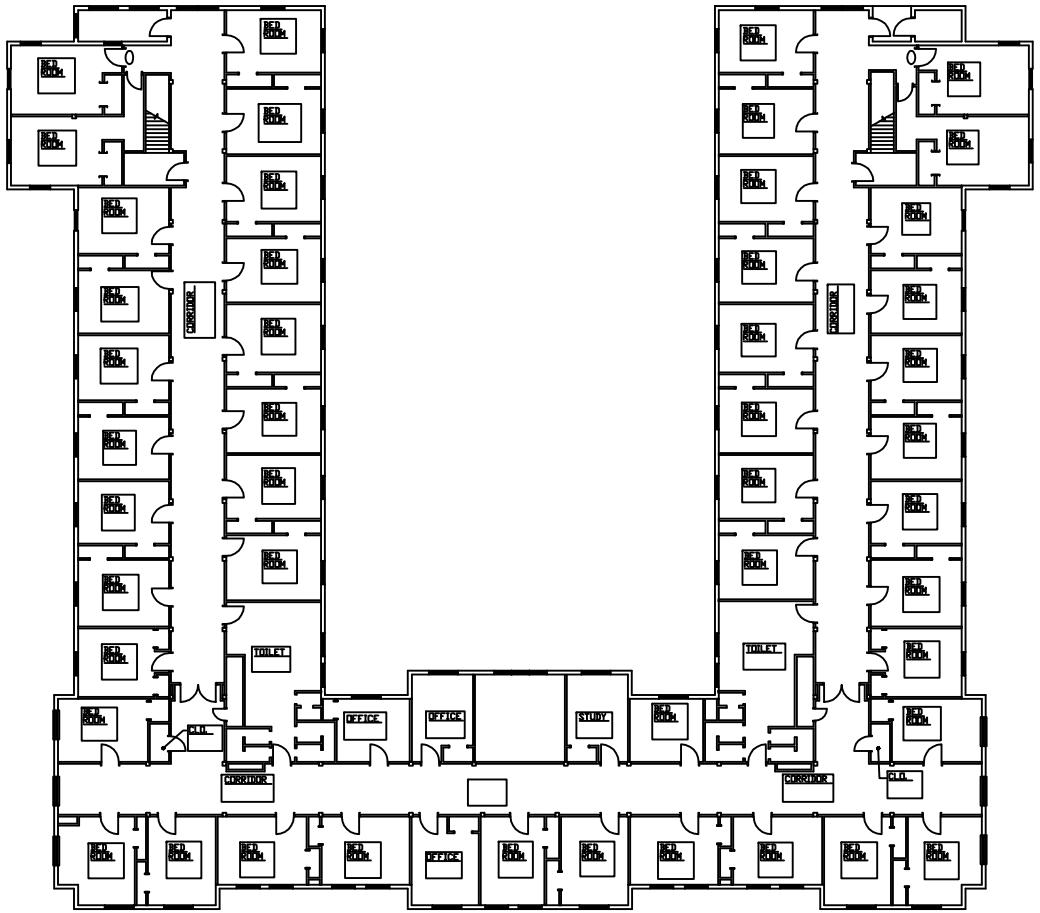
PROJECT NUMBER APPLIES TO AREA AS NOTED

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

SECOND FLOOR PLAN

Sheet No.
2 of 3

EAST CAROLINA UNIVERSITY



AC02 AC04 EL02 FS01 FS02 IS01
IS02 IS03 IS04

COTTEN
RESIDENCE HALL

BLDG NO. COTT

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.
3 of 3

FACILITY CONDITION ANALYSIS

SECTION 5

LIFE CYCLE MODEL SUMMARY AND PROJECTIONS

Life Cycle Model

Building Component Summary

COTT : COTTEN RESIDENCE HALL

Uniformat Code	Component Description	Qty	Units	Unit Cost	Complx Adj	Total Cost	Install Date	Life Exp
B2010	EXTERIOR FINISH RENEWAL	810	SF	$1.30		$1,056	1925	10
B2010	EXTERIOR FINISH RENEWAL	540	SF	$1.30		$704	1925	10
B2010	EXTERIOR FINISH RENEWAL	25,560	SF	$1.30	.31	$10,329	1925	10
B2020	STANDARD GLAZING AND CURTAIN WALL	8,040	SF	$104.04		$836,454	2005	55
B2030	HIGH TRAFFIC EXTERIOR DOOR SYSTEM	10	LEAF	$4,311.24		$43,112	2005	20
B3010	MEMBRANE ROOF	1,200	SF	$6.41		$7,688	2007	15
B3010	TILE ROOF	20,000	SF	$19.15		$382,926	2007	70
B3010	STANDARD METAL GUTTER SYSTEM	950	LF	$9.80		$9,310	2007	30
C1020	STANDARD DOOR AND FRAME INCLUDING HARDWARE	25	LEAF	$783.68		$19,592	1985	35
C1020	RATED DOOR AND FRAME INCLUDING HARDWARE	75	LEAF	$1,489.06		$111,679	1985	35
C1020	INTERIOR DOOR HARDWARE	75	EA	$423.04		$31,728	1985	15
C1020	INTERIOR DOOR HARDWARE	25	EA	$423.04		$10,576	1985	15
C3010	STANDARD WALL FINISH (PAINT, WALL COVERING, ETC.)	132,570	SF	$0.80		$106,194	1925	10
C3020	CARPET	30,140	SF	$8.75		$263,618	2005	10
C3020	VINYL FLOOR TILE	3,770	SF	$6.59		$24,836	2005	15
C3020	CERAMIC FLOOR TILE	3,770	SF	$17.36		$65,456	1965	20
C3030	ACOUSTICAL TILE CEILING SYSTEM	33,900	SF	$4.99		$169,263	2005	15
C3030	PAINTED CEILING FINISH APPLICATION	3,770	SF	$0.80		$3,020	2000	15
D2010	PLUMBING FIXTURES - DORMITORY / APARTMENTS	47,088	SF	$4.99		$234,842	2005	35
D2020	WATER PIPING - DORMITORY / APARTMENTS	47,088	SF	$3.55		$167,223	2005	35
D2030	DRAIN PIPING - DORMITORY / APARTMENTS	47,088	SF	$5.40		$254,328	2005	40
D3030	CHILLER - AIR COOLED (OVER 100 TONS)	198	TON	$1,173.39		$232,331	2005	20
D3040	EXHAUST FAN - CENTRIFUGAL ROOF EXHAUSTER OR SIMILAR	2	EA	$2,768.62		$5,537	2005	20
D3040	EXHAUST FAN - UTILITY SET OR SIMILAR	4	EA	$3,660.81		$14,643	2005	20
D3040	HVAC SYSTEM - DORMITORY / APARTMENTS	47,088	SF	$19.20		$904,039	2005	25
D3050	SPLIT DX SYSTEM	1	TON	$2,143.89		$2,144	2004	15
D4010	FIRE SPRINKLER SYSTEM	35,320	SF	$6.86		$242,334	2005	80
D4010	FIRE SPRINKLER SYSTEM	11,770	SF	$6.86		$80,755	2005	80
D4010	FIRE SPRINKLER HEADS	35,320	SF	$0.38		$13,321	2005	20

Life Cycle Model

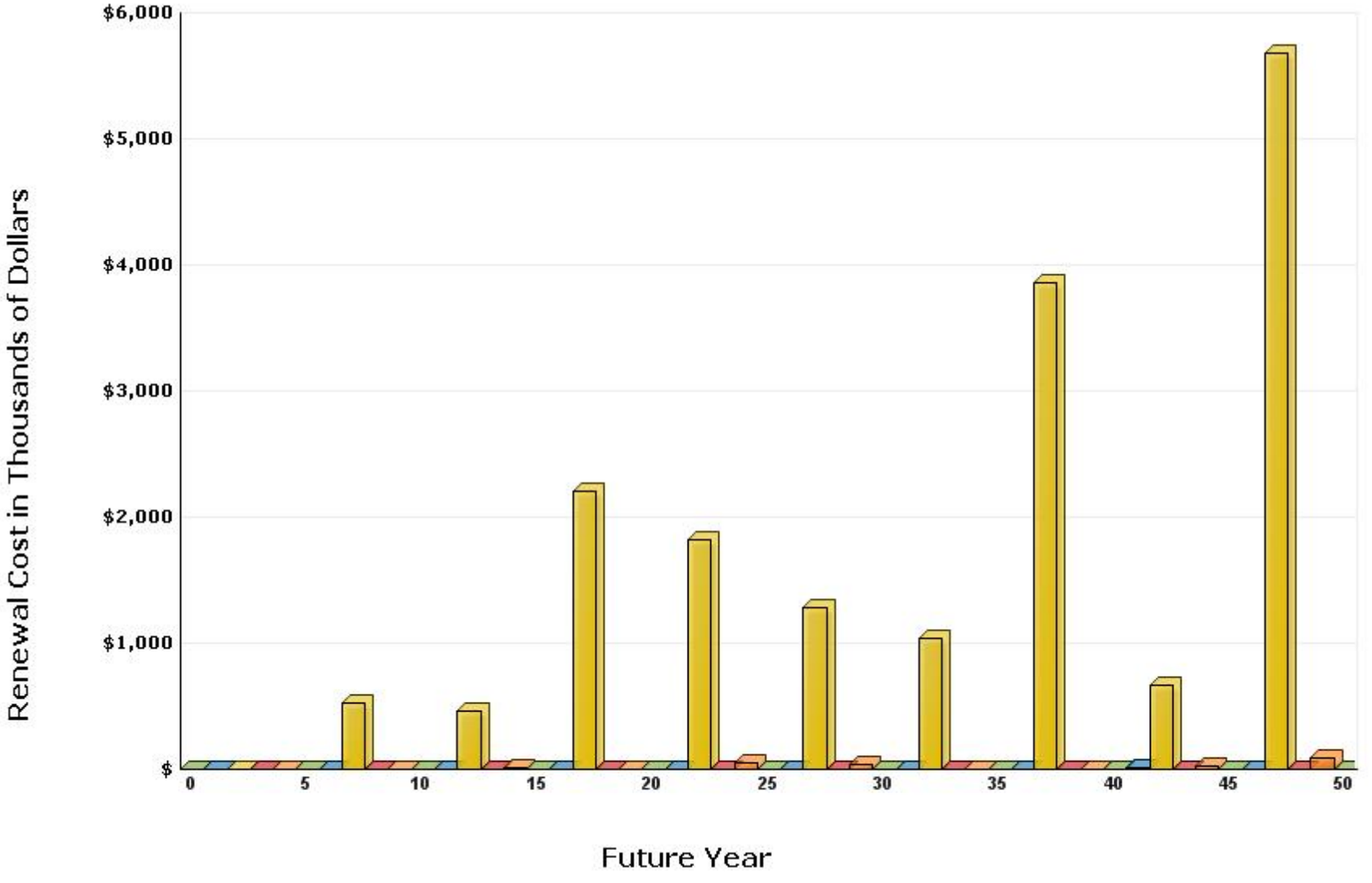
Building Component Summary

COTT : COTTEN RESIDENCE HALL

Uniformat Code	Component Description	Qty	Units	Unit Cost	Complx Adj	Total Cost	Install Date	Life Exp
D4010	FIRE SPRINKLER HEADS	11,770	SF	$0.38		$4,439	2005	20
D5010	ELECTRICAL SYSTEM - DORMITORY / APARTMENTS	47,088	SF	$7.21		$339,385	1925	50
D5010	ELECTRICAL SWITCHGEAR 120/208V	400	AMP	$32.96		$13,185	1925	20
D5020	EXIT SIGNS (CENTRAL POWER)	52	EA	$163.78		$8,516	1925	20
D5020	EXTERIOR LIGHT (HID)	5	EA	$689.58		$3,448	2005	20
D5020	LIGHTING - DORMITORY / APARTMENTS	47,088	SF	$4.30		$202,491	1925	20
D5040	GENERATOR, DIESEL (UP TO 50 KW)	20	KW	$1,123.84		$22,477	2007	25
E2010	KITCHENETTE UNIT WITH CABINETRY AND AMENITIES	1	LOT	$5,940.22		$5,940	1985	20
						$4,848,923		

Life Cycle Model Expenditure Projections

COTT : COTTEN RESIDENCE HALL



Average Annual Renewal Cost Per SqFt $2.97

FACILITY CONDITION ANALYSIS

SECTION 6

PHOTOGRAPHIC LOG

Photo Log - Facility Condition Analysis

COTT : COTTEN RESIDENCE HALL

Photo ID No	Description	Location	Date
COTT001a	Main building entrance	East elevation	9/15/2009
COTT001e	Sprinkler system riser and compressor for attic portion	Third floor, northwest corner, room 364	9/15/2009
COTT002a	Building facade	East elevation	9/15/2009
COTT002e	New fan coil unit	Third floor, north wing hallway, west end	9/15/2009
COTT003a	Main entry doors	East elevation	9/15/2009
COTT003e	Typical recessed fluorescent light fixture	Third floor, north wing hallway, west end	9/15/2009
COTT004a	Building facade	East elevation	9/15/2009
COTT004e	Bell-and-spigot cast-iron drain piping	Third floor, mechanical room 343	9/15/2009
COTT005a	Secondary entry door porch	South elevation	9/15/2009
COTT005e	Replacement plastic drain piping	Third floor, mechanical room 343	9/15/2009
COTT006a	Building facade	South elevation	9/15/2009
COTT006e	Well-marked water piping	Third floor, mechanical room 343	9/15/2009
COTT007a	Secondary entry door porch	South elevation	9/15/2009
COTT007e	Typical shower stall with stainless steel fixture piping	Third floor, bath 337	9/15/2009
COTT008a	Building facade	West elevation	9/15/2009
COTT008e	Failed piping supports causing damage to insulation	Attic, south wing	9/15/2009
COTT009a	Courtyard and building facade	West elevation	9/15/2009
COTT009e	Failed piping supports causing damage to insulation	Attic, south wing	9/15/2009
COTT010a	Building facade	West elevation	9/15/2009
COTT010e	Domestic and HVAC water piping	Attic, south wing	9/15/2009
COTT011a	South wing building facade	North elevation	9/15/2009
COTT011e	Makeup air unit 2 with electric valve controls	Attic, south wing	9/15/2009
COTT012a	North wing building facade	South elevation	9/15/2009
COTT012e	Air-to-air heat exchanger HH1	Attic, south wing	9/15/2009
COTT013a	North wing building facade	South elevation	9/15/2009
COTT013e	Utility set exhaust fan	Attic, south wing, west end	9/15/2009
COTT014a	Building facade	North elevation	9/15/2009
COTT014e	Failed piping supports and damage to insulation on domestic cold water lines	Attic, south wing	9/15/2009
COTT015a	Building facade	North elevation	9/15/2009

Photo Log - Facility Condition Analysis

COTT : COTTEN RESIDENCE HALL

Photo ID No	Description	Location	Date
COTT015e	Failed piping supports and damage on cold water line insulation	Attic, south wing	9/15/2009
COTT016a	Secondary entry door porch	North elevation	9/15/2009
COTT016e	Domestic cold water line insulation damage	Attic, south wing	9/15/2009
COTT017a	Deterioration and cracks in brick masonry at second floor porch	Southwest building corner	9/15/2009
COTT017e	Failed piping support and damage	Attic, south wing	9/15/2009
COTT018a	Unprotected step at egress doorway	First floor, southwest building corner	9/15/2009
COTT018e	Unsupported water line resting against sprinkler piping	Attic, south wing	9/15/2009
COTT019a	Poorly draining sidewalk at egress doorway	First floor, southwest building corner	9/15/2009
COTT019e	Unsupported water line resting against sprinkler piping causing damage to insulation	Attic, south wing	9/15/2009
COTT020a	Severe deterioration in brick mortar	North wing, south elevation	9/15/2009
COTT020e	Repaired water hammer damage to pipe	Attic, south wing	9/15/2009
COTT021a	Severe deterioration in brick mortar	North wing, south elevation	9/15/2009
COTT021e	Typical exit sign in need of replacement	Second floor, south wing, west end	9/15/2009
COTT022a	Typical double hung window units	Typical building facade	9/15/2009
COTT022e	FPE panelboard, panel X, and Generac automatic transfer switch	First floor, AV room 115	9/15/2009
COTT023a	Typical double hung window units, interior view	Typical building facade	9/15/2009
COTT023e	Typical exit sign in need of replacement	First floor, south wing, west end	9/15/2009
COTT024a	Typical exterior door	South wing, courtyard egress	9/15/2009
COTT025a	Pitched tile roof and guttering system	North wing	9/15/2009
COTT026a	Pitched tile roof and guttering system	Lobby wing	9/15/2009
COTT027a	Detail view of tile roofing system	North wing	9/15/2009
COTT028a	Detail view of tile roofing system	South wing	9/15/2009
COTT029a	Detail view of tile roofing system	North wing	9/15/2009
COTT030a	Typical main corridor	Third floor	9/15/2009
COTT031a	Typical main corridor	Second floor	9/15/2009
COTT032a	Typical main corridor	First floor	9/15/2009
COTT033a	Stained and damaged ceiling tiles	Main corridor	9/15/2009
COTT034a	Poor paint substrate and flaking	Restroom	9/15/2009
COTT035a	Interim wall finish patching	Main corridor	9/15/2009

Photo Log - Facility Condition Analysis

COTT : COTTEN RESIDENCE HALL

Photo ID No	Description	Location	Date
COTT036a	Poor paint substrate and flaking	Main corridor	9/15/2009
COTT037a	Attic area	Main attic	9/15/2009
COTT038a	Attic area walkway	Main attic	9/15/2009
COTT039a	Missing warning label at roof hatch	Main attic, north wing	9/15/2009
COTT040a	Poorly supported piping	Main attic	9/15/2009
COTT041a	Missing and non-compliant railings	Egress stairway, 150	9/15/2009
COTT042a	Missing and non-compliant railings	Egress stairway, 123	9/15/2009
COTT043a	Missing and non-compliant railings	Egress stairway, 123	9/15/2009
COTT044a	Non-compliant railings	Egress stairway, 123	9/15/2009
COTT045a	Aging and non-accessible shower areas	Restroom	9/15/2009
COTT046a	Aging and non-accessible lavatories	Restroom	9/15/2009
COTT047a	Upgraded partition doors	Restroom	9/15/2009
COTT048a	Aging and non-accessible lavatories	Restroom	9/15/2009
COTT049a	Non-accessible kitchenette cabinetry	Kitchenette	9/15/2009
COTT050a	Wheelchair accessible, single level drinking fountain	Main corridor	9/15/2009
COTT051a	Non-compliant drinking fountain	Main corridor	9/15/2009
COTT052a	Non-accessible kitchenette cabinetry	Kitchenette	9/15/2009

Facility Condition Analysis - Photo Log

COTT001A.jpg

COTT001E.jpg

COTT002A.jpg

COTT002E.jpg

COTT003A.jpg

COTT003E.jpg

COTT004A.jpg

COTT004E.jpg

COTT005A.jpg

COTT005E.jpg

COTT006A.jpg

COTT006E.jpg

COTT007A.jpg

COTT007E.jpg

COTT008A.jpg

COTT008E.jpg

COTT009A.jpg

COTT009E.jpg

COTT010A.jpg

COTT010E.jpg

COTT011A.jpg

COTT011E.jpg

COTT012A.jpg

COTT012E.jpg

COTT013A.jpg

COTT013E.jpg

COTT014A.jpg

COTT014E.jpg

COTT015A.jpg

COTT015E.jpg

COTT016A.jpg

COTT016E.jpg

COTT017A.jpg

COTT017E.jpg

COTT018A.jpg

COTT018E.jpg

COTT019A.jpg

COTT019E.jpg

COTT020A.jpg

COTT020E.jpg

COTT021A.jpg

COTT021E.jpg

COTT022A.jpg

COTT022E.jpg

COTT023A.jpg

COTT023E.jpg

COTT024A.jpg

COTT025A.jpg

COTT026A.jpg

COTT027A.jpg

COTT028A.jpg

COTT029A.jpg

COTT030A.jpg

COTT031A.jpg

COTT032A.jpg

COTT033A.jpg

COTT034A.jpg

COTT035A.jpg

COTT036A.jpg

COTT037A.jpg

COTT038A.jpg

COTT039A.jpg

COTT040A.jpg

COTT041A.jpg

COTT042A.jpg

COTT043A.jpg

COTT044A.jpg

COTT045A.jpg

COTT046A.jpg

COTT047A.jpg

COTT048A.jpg

COTT049A.jpg

COTT050A.jpg

COTT051A.jpg

COTT052A.jpg