

EAST CAROLINA UNIVERSITY

HAROLD H. BATE BUILDING

ASSET CODE: BATE

FACILITY CONDITION ANALYSIS

AUGUST 25, 2010



EAST CAROLINA UNIVERSITY
Facility Condition Analysis

TABLE OF CONTENTS

Section 1: GENERAL ASSET INFORMATION

A. Asset Executive Summary.....	1.1.1
B. Asset Summary.....	1.2.1
C. Inspection Team Data.....	1.3.1
D. Facility Condition Analysis - Definitions	1.4.1
1. Report Description	1.4.1
2. Project Classification.....	1.4.2
3. Project Subclass Type	1.4.2
4. Priority Class / Sequence	1.4.2
5. Priority Class	1.4.3
6. City Index Material / Labor Cost / Cost Summaries.....	1.4.3
7. Project Number	1.4.4
8. Photo Number	1.4.4
9. Life Cycle Cost Model Description and Definitions	1.4.4
10. Category Code	1.4.5
E. Category Code Report.....	1.5.1

Section 2: DETAILED PROJECT SUMMARIES AND TOTALS

A. Detailed Project Totals – Matrix with FCNI Data and Associated Charts	2.1.1
B. Detailed Projects by Priority Class / Priority Sequence	2.2.1
C. Detailed Projects by Cost within range [\$0 - < \$100,000]	2.3.1
D. Detailed Projects by Cost within range [≥ \$100,000 - < \$500,000].....	2.3.2
E. Detailed Projects by Cost within range [≥ \$500,000].....	2.3.3
F. Detailed Projects by Project Classification.....	2.4.1
G. Detailed Projects by Project Subclass - Energy Conservation.....	2.5.1
H. Detailed Projects by Category / System Code.....	2.6.1

Section 3: SPECIFIC PROJECT DETAILS ILLUSTRATING DESCRIPTION / COST 3.1.1

Section 4: DRAWINGS / PROJECT LOCATIONS

Section 5: LIFE CYCLE MODEL SUMMARY AND PROJECTIONS

A. Building Component Summary.....	5.1.1
B. Expenditure Projections.....	5.2.1

Section 6: PHOTOGRAPHIC LOG 6.1.1

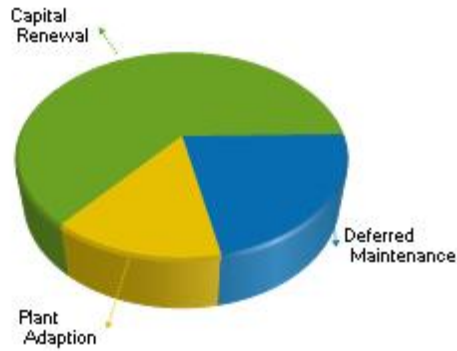
FACILITY CONDITION ANALYSIS

SECTION 1

GENERAL ASSET INFORMATION

EXECUTIVE SUMMARY - HAROLD H. BATE BUILDING

PROJECT COSTS BY CLASSIFICATION



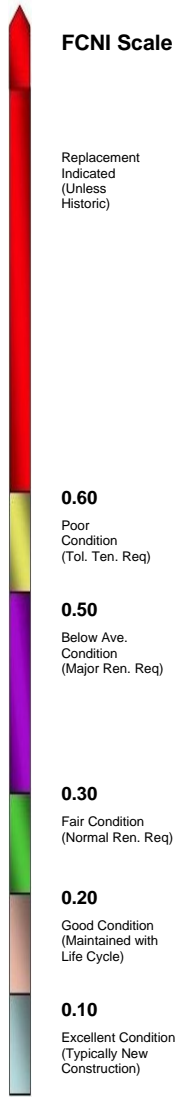
Building Code: BATE
Building Name: HAROLD H. BATE BUILDING
Year Built: 1988
Building Use: Classroom / Academic
Square Feet: 165,000

Project Costs by Priority

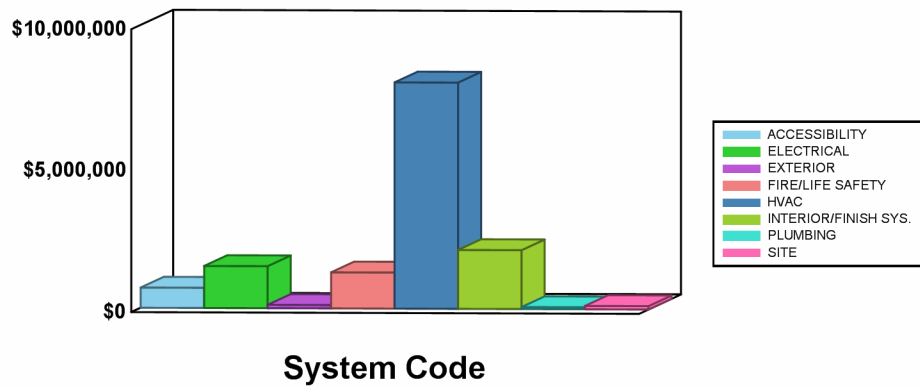
Priority 1: \$16,877
Priority 2: \$1,192,770
Priority 3: \$11,321,463
Priority 4: \$1,287,064
Total Project Costs: **\$13,818,174**

Facility Replacement Cost: **\$48,550,510**

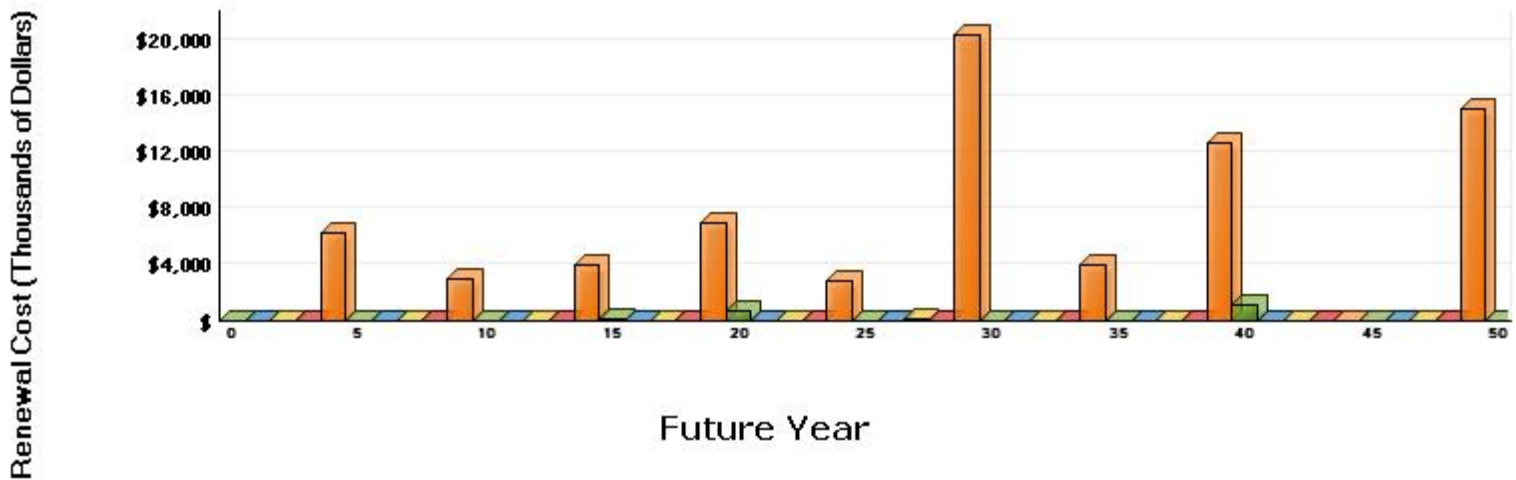
Facility Condition Needs Index (FCNI): **0.28**
 (Project Costs / Replacement Cost)



PROJECT COSTS BY SYSTEM CODE



LIFE CYCLE MODEL EXPENDITURE PROJECTIONS



Average Annual Renewal Cost Per SqFt \$4.15

B. ASSET SUMMARY

Built in 1988, the Harold H. Bate Building is a three-story classroom facility with a partial mechanical basement. The building has a concrete structure on a slab-on-grade foundation, with a concrete vault for the partial basement. The exterior is brick, with a modified bitumen roof. Each floor consists of several classrooms surrounded by office suites on the exterior walls. The first floor has several tiered lecture halls and classroom auditoriums. The Harold H. Bate Building totals 165,000 square feet and is located at the main campus of East Carolina University in Greenville, North Carolina.

The information in this report was gathered during a site visit that concluded on September 10, 2009.

SITE

Landscaping around the building consists of planting beds, ornamental shrubs, and some mature trees. It is in average condition but should outlast the ten-year scope of this report with routine maintenance. Pedestrian paving systems are in overall good condition but will need replacement in the next ten years. New systems, including excavation, grading, base compaction, and paving, are recommended. There is no vehicular parking associated with this building.

EXTERIOR STRUCTURE

The built-up roof was being replaced during the inspection. Accordingly, no roof replacement is expected in the next ten years. Brick veneer is the primary exterior finish. 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.

Windows are dual-pane units in metal frames. They are original, but should outlast the ten-year scope of this report. However, it is recommended that the aged and inefficient metal-framed primary entrance doors be replaced. The replacement units should maintain the architectural design aspects of this facility and be modern, energy-efficient applications.

INTERIOR FINISHES / SYSTEMS

Interior floor finishes include carpeting, vinyl tile, and concrete. Walls are painted plaster or concrete. Ceiling finishes consist of lay-in, acoustical tile or painted ceilings. The interior finishes vary in age and condition from area to area. Floor, wall, and ceiling finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

Interior doors are original, but they are in good condition and are equipped with lever hardware and Braille signage. Therefore, no interior door replacements should be needed in the next ten years. The fixed seating in the lecture halls, however, is aging and should be upgraded. Replace this seating with new fixed seats in a similar row configuration. Ensure that ADA requirements are followed with the new seating layout.

ACCESSIBILITY

Handicapped access to the building is provided by an at-grade entrance on the east facade and a ramp system on the west facade. Once inside, two elevators provide service to each floor. Interior doors are equipped with lever hardware and Braille signage throughout the building. Several recommendations are being made to enhance accessibility in this facility.

Current accessibility legislation requires that building entrances be wheelchair accessible. To comply with the intent of this legislation, it is recommended that ADA compliant, painted metal handrails be installed at all entrances as required.

Building amenities are required to be generally accessible to all persons. The configurations of select break room kitchenettes and drinking fountains are barriers to accessibility. The installation of wheelchair accessible kitchenette cabinetry and dual level, refrigerated drinking fountains is recommended where applicable.

Accessibility legislation requires that tiered classrooms be accessible to the handicapped. The steps in the classrooms lack supportive handrails. It is recommended that wall-mounted, ADA compliant, painted metal handrails be installed.

The restroom fixtures and finishes are mostly original to the year of construction or latest major renovation. The fixtures are sound but dated and are spaced such that clearances are not ADA compliant. A comprehensive restroom renovation, including new fixtures, finishes, partitions, and accessories, is recommended. Restroom expansion may be necessary in order to meet modern minimum fixture counts and accessibility legislation.

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

HEALTH

There were no reports or evidence of any asbestos-containing material or lead based paint. No other health related issues were noted during the inspection.

FIRE / LIFE SAFETY

Structural fire separations are not maintained according to code requirements for new construction in select areas of this facility. Primarily, data cabling has been routed with little regard for fire-rated separations. Intumescent passive firestopping and some minor structural separation repairs should be accomplished promptly.

This facility is protected by a central fire alarm system. The point addressable panel was manufactured by Notifier and is located in the main electrical room. The devices that serve this system include manual pull stations, audible / visible devices, and smoke detectors. However, there are no devices in the restrooms. The University reported that the fire alarm panel in Bate was scheduled for replacement during Spring Break 2010.

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

Computer server rooms are served by a Halon fire suppression system. Halon is no longer being produced in the United States due to environmental concerns. In the event of a discharge, the system would likely have to be retrofitted or replaced with a compatible extinguishing agent, such as Inergen or FM200. A budget for replacement with such a system is provided.

Exit signs are illuminated with fluorescent lamps and are connected to the emergency power network. Emergency lighting is available through standard interior light fixtures with battery backup ballasts. Replace the existing exit signage throughout the building, and 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.

HVAC

The facility is connected to the campus steam and chilled water loops. Steam is supplied to heat exchangers in the main mechanical room that produce heating hot water. The hot water and chilled water are then circulated throughout the building by pumps to the associated HVAC equipment to heat or cool the facility. The equipment is a combination of original and new installations.

The building is served by a single zone chilled water air handling unit with a steam preheat coil for low limit control that is located in the basement. The building is heated on the perimeter spaces by fan powered constant volume terminal units with no heating device installed in the terminal unit serving the interior space. Direct digital controls (DDCs) are installed only for the steam convertor and the air handling unit. The common, office, and classroom spaces are pneumatically controlled, which cannot control to new energy standards. It is recommended that the HVAC be upgraded with the replacement of the terminal equipment. Install a VAV type air distribution with DDCs.

Facility exhaust is provided by various fans, including a utility set unit, a mushroom style unit, and through-the-wall units. The equipment serves restroom, mechanical room, and general exhaust needs. The exhaust fans appear to be original and are showing signs of age. Replacement is recommended as part of the general HVAC upgrade.

Information technology network facilities in this building are served by computer room air conditioning units that incorporate DX cooling. These air conditioning systems are new and in good condition. With proper maintenance, they will serve beyond the outlook of this report.

ELECTRICAL

An oil-filled transformer rated for 1,500 kVA service steps the incoming power down to 277/480 volts, which is distributed by original General Electric switchgear rated for 2,500 amp service. The incoming service transformer and the 277/480 volt switchgear and distribution panel are recommended for replacement. This measure will effectively promote reliable electrical service to this facility.

The secondary electrical system consists of panelboards and dry-type transformers. Either power is distributed directly from the panelboards at 480/277 volts or stepped down to 120/208 volts. The electrical service provides power to mechanical, lighting, and general purpose loads. The secondary electrical system was manufactured by General Electric and installed in 1988. Overall, the system is in good condition, with properly enclosed and labeled panelboards. Wiring or conduit that could be observed appeared to be connected and insulated correctly. However, it is recommended that minor deficiencies in the electrical distribution network be rectified. Such remedies include, but are not limited to, installing additional circuits, installing GFCI receptacles, replacing worn switches and receptacles, replacing circuit breakers, and updating panel directories.

The interior spaces of this facility are illuminated primarily by fixtures that utilize compact and T8 fluorescent lamps. The fluorescent fixtures are predominantly lay-in applications with acrylic lenses. Energy-efficient ballasts and lamps were retrofitted into the light fixtures. There are still some T12 fluorescent lamps in service, and some fixtures are still fitted with inefficient incandescent lamps. The interior lighting has generally served beyond its expected life cycle and is recommended for replacement. Specify energy-efficient fixtures, and install occupancy sensors where possible.

The exterior entrances to the facility are illuminated by can-type fixtures that appear to be original. Additional lighting is provided by on-site pole-mounted fixtures that are in good condition. Overall, the exterior lighting scheme appears to provide adequate coverage, so no project is recommended.

Emergency power is produced by a local diesel-fired emergency generator located on-site. This unit has a capacity 125 kW and generates 480/277 volt power. It was manufactured by Caterpillar in 1988 and is currently adequate. However, to provide reliable emergency power to the critical systems in this facility, it is recommended that this generator be replaced.

PLUMBING

The main incoming domestic water enters the facility on the basement floor and includes a backflow preventer. Copper piping is utilized to distribute water throughout the facility. The system appears to be in good condition and is anticipated to provide adequate service over the next ten years. Life cycle for this piping is generally thirty-five years, so based on age, no recommendations are deemed necessary.

Sanitary waste and stormwater piping consists mainly of cast-iron, no-hub piping, with some plastic piping applications. The system appears to be in good condition, and no deterioration or leaks were observed or noted during the inspection. No projects are recommended for the sanitary waste and stormwater piping network within the scope of this report.

The plumbing fixtures are ceramic and stainless steel and utilize manual devices. The fixtures appear to be in fair condition and are not ADA compliant. Replacement is recommended as part of a general restroom accessibility renovation.

Domestic hot water is produced by an electric water heater with a capacity of 40 gallons. The equipment was manufactured by Ruud and installed in 2002. It appears to be in good condition and shows no major deterioration. The unit should continue to provide adequate service to the facility. No project is recommended. Additionally, there is an instantaneous water heater serving a break room. The unit appears to be in good condition, so no upgrade is recommended at this time.

Sump pumps are present in the main mechanical areas on the basement floor. These pumps are showing some signs of age and are recommended for replacement. The installation of similar systems is recommended.

VERTICAL TRANSPORTATION

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

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

C. INSPECTION TEAM DATA

DATE OF INSPECTION: September 10, 2009

INSPECTION TEAM PERSONNEL:

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

FACILITY CONTACTS:

<u>NAME</u>	<u>POSITION</u>
William Bagwell	Associate Vice Chancellor, Campus Operations

REPORT DEVELOPMENT:

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

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

D. FACILITY CONDITION ANALYSIS - DEFINITIONS

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

1. REPORT DESCRIPTION

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

Section 2: Detailed Project Summaries and Totals

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

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

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

Section 3: Specific Project Details Illustrating Description / Cost

Section 4: Drawings with Iconography

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

Section 5: Life Cycle Model Summary and Projections

Section 6: Photographic Log

2. PROJECT CLASSIFICATION

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

3. PROJECT SUBCLASS TYPE

- A. Energy Conservation: Projects with energy conservation opportunities, based on simple payback analysis.

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

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

Example:

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

	<u>PRIORITY CLASS 2</u>	
CODE	PROJECT NO.	PRIORITY SEQUENCE
IS1E	0001IS06	03
EL4C	0001EL03	04

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

PRIORITY 1 - Currently Critical (Immediate)

Projects in this category require immediate action to:

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

PRIORITY 2 - Potentially Critical (Year One)

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

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

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

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

PRIORITY 4 - Recommended (Years Six to Ten)

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

6. COST SUMMARIES AND TOTALS

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

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

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

Global Markup Percentages

R.S. MEANS

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



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

Example:

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

- 0001 - Building Identification Number
- EL - System Code, EL represents Electrical
- 04 - Sequential Assignment Project Number by Category / System

8. PHOTO NUMBER (Shown in Section 6)

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

Example: 0001006e

<u>Building Number</u>	<u>Photo Sequence</u>	<u>Arch / Eng / VT</u>
0001	006	e

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

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

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

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

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

Refer to the following Category Code Report.

Example: Category Code = EL5A

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

CATEGORY CODE

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

SYSTEM DESCRIPTION

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

CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
SYSTEM DESCRIPTION: ACCESSIBILITY			
AC1A	SITE	STAIR AND RAILINGS	Includes exterior stairs and railings which are not part of the building entrance points.
AC1B	SITE	RAMPS AND WALKS	Includes sidewalks, grade change ramps (except for a building entrance), curb ramps, etc.
AC1C	SITE	PARKING	Designated parking spaces including striping, signage, access aisles and ramps, etc.
AC1D	SITE	TACTILE WARNINGS	Raised tactile warnings located at traffic crossing and elevation changes.
AC2A	BUILDING ENTRY	GENERAL	Covers all aspects of entry into the building itself including ramps, lifts, doors and hardware, power operators, etc.
AC3A	INTERIOR PATH OF TRAVEL	LIFTS/RAMPS/ELEVATORS	Interior lifts, ramps and elevators designed to accommodate level changes inside a building. Includes both installation and retrofitting.
AC3B	INTERIOR PATH OF TRAVEL	STAIRS AND RAILINGS	Upgrades to interior stairs and handrails for accessibility reasons.
AC3C	INTERIOR PATH OF TRAVEL	DOORS AND HARDWARE	Accessibility upgrades to the interior doors including widening, replacing hardware power, assisted operators, etc.
AC3D	INTERIOR PATH OF TRAVEL	SIGNAGE	Interior building signage upgrades for compliance with ADA.
AC3E	INTERIOR PATH OF TRAVEL	RESTROOMS/BATHROOMS	Modifications to and installation of accessible public restrooms and bathrooms. Bathrooms, which are an integral part of residential suites, are catalogued under HC4A.
AC3F	INTERIOR PATH OF TRAVEL	DRINKING FOUNTAINS	Upgrading/replacing drinking fountains for reasons of accessibility.
AC3G	INTERIOR PATH OF TRAVEL	PHONES	Replacement/modification of public access telephones.
AC4A	GENERAL	FUNCTIONAL SPACE MODIFICATIONS	This category covers all necessary interior modifications necessary to make the services and functions of a building accessible. It includes installation of assistive listening systems, modification of living quarters, modifications to laboratory workstations, etc. Bathrooms, which are integral to efficiency suites, are catalogued here.
AC4B	GENERAL	OTHER	All accessibility issues not catalogued elsewhere.
SYSTEM DESCRIPTION: ELECTRICAL			
EL1A	INCOMING SERVICE	TRANSFORMER	Main building service transformer.
EL1B	INCOMING SERVICE	DISCONNECTS	Main building disconnect and switchgear.
EL1C	INCOMING SERVICE	FEEDERS	Incoming service feeders. Complete incoming service upgrades, including transformers, feeders, and main distribution panels are catalogued here.
EL1D	INCOMING SERVICE	METERING	Installation of meters to record consumption and/or demand.
EL2A	MAIN DISTRIBUTION PANELS	CONDITION UPGRADE	Main distribution upgrade due to deficiencies in condition.
EL2B	MAIN DISTRIBUTION PANELS	CAPACITY UPGRADE	Main distribution upgrades due to inadequate capacity.
EL3A	SECONDARY DISTRIBUTION	STEP DOWN TRANSFORMERS	Secondary distribution stepdown and isolation transformers.
EL3B	SECONDARY DISTRIBUTION	DISTRIBUTION NETWORK	Includes conduit, conductors, sub-distribution panels, switches, outlets, etc. Complete interior rewiring of a facility is catalogued here.
EL3C	SECONDARY DISTRIBUTION	MOTOR CONTROLLERS	Mechanical equipment motor starters and control centers.
EL4A	DEVICES AND FIXTURES	EXTERIOR LIGHTING	Exterior building lighting fixtures including supply conductors and conduit.
EL4B	DEVICES AND FIXTURES	INTERIOR LIGHTING	Interior lighting fixtures (also system wide emergency lighting) including supply conductors and conduits.
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	CABINETY	R & R work to interior casework systems including cabinets, countertops, wardrobes, lockers, mail boxes, built-in bookcases, lab/work benches, reagent shelving, etc. (except as required for access by the disabled).
IS6C	GENERAL	SCREENING	Work on temporary or partial height partitioning systems including toilet partitions, urinal/vanity screens, etc.
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
 BATE : HAROLD H. BATE BUILDING**

System Code	System Description	Priority Classes				Subtotal
		1	2	3	4	
AC	ACCESSIBILITY	0	0	0	715,385	715,385
EL	ELECTRICAL	0	0	1,389,813	96,033	1,485,846
ES	EXTERIOR	0	0	119,718	0	119,718
FS	FIRE/LIFE SAFETY	16,877	1,192,770	66,756	0	1,276,404
HV	HVAC	0	0	8,000,000	0	8,000,000
IS	INTERIOR/FINISH SYS.	0	0	1,727,743	355,036	2,082,779
PL	PLUMBING	0	0	17,433	0	17,433
SI	SITE	0	0	0	120,609	120,609
	TOTALS	16,877	1,192,770	11,321,463	1,287,064	13,818,174

Facility Replacement Cost	\$48,550,510
Facility Condition Needs Index	0.28

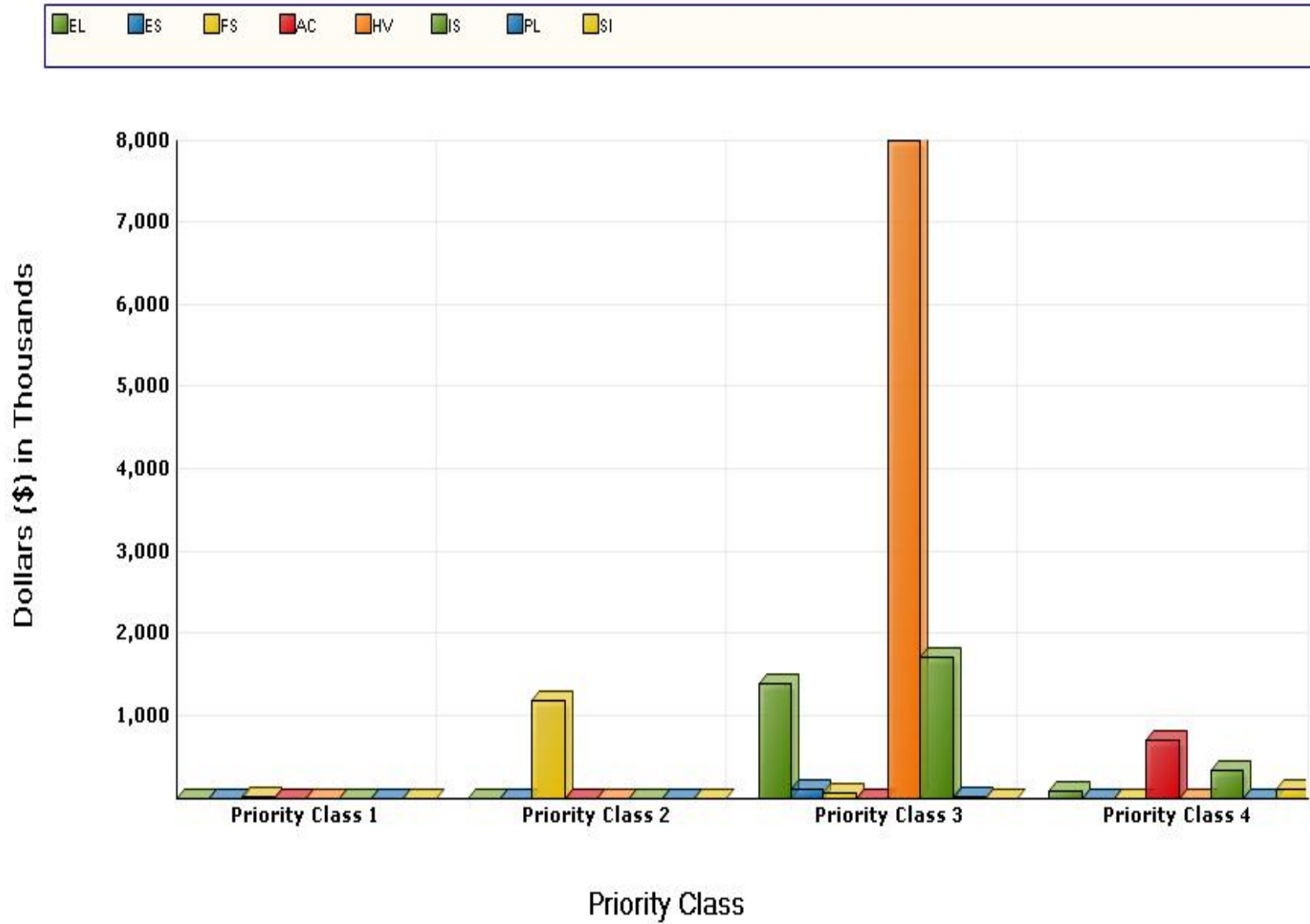
Gross Square Feet	165,000
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Total Cost Per Square Foot	\$83.75
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FACILITY CONDITION ANALYSIS

System Code by Priority Class

BATE : HAROLD H. BATE BUILDING



**Detailed Project Totals
 Facility Condition Analysis
 System Code by Project Class
 BATE : HAROLD H. BATE BUILDING**

System Code	System Description	Project Classes			Subtotal
		Capital Renewal	Deferred Maintenance	Plant Adaption	
AC	ACCESSIBILITY	0	0	715,385	715,385
EL	ELECTRICAL	187,179	1,298,667	0	1,485,846
ES	EXTERIOR	119,718	0	0	119,718
FS	FIRE/LIFE SAFETY	0	13,842	1,262,561	1,276,404
HV	HVAC	8,000,000	0	0	8,000,000
IS	INTERIOR/FINISH SYS.	355,036	1,727,743	0	2,082,779
PL	PLUMBING	0	17,433	0	17,433
SI	SITE	120,609	0	0	120,609
	TOTALS	8,782,542	3,057,685	1,977,947	13,818,174

Facility Replacement Cost	\$48,550,510
Facility Condition Needs Index	0.28

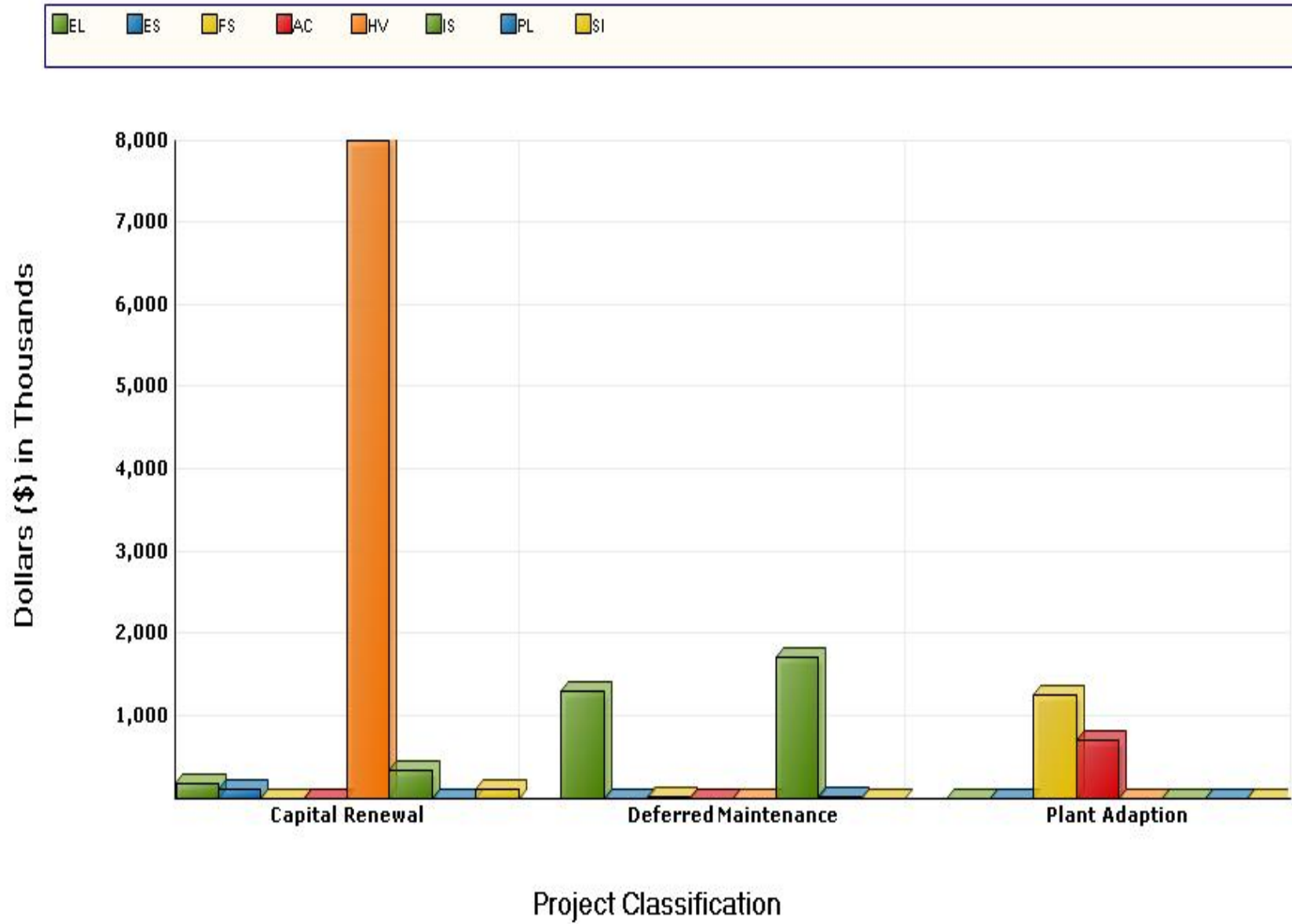
Gross Square Feet	165,000
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Total Cost Per Square Foot	\$83.75
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FACILITY CONDITION ANALYSIS

System Code by Project Class

BATE : HAROLD H. BATE BUILDING



Detailed Project Summary
Facility Condition Analysis
Project Class by Priority Class
BATE : HAROLD H. BATE BUILDING

Project Class	Priority Classes				Subtotal
	1	2	3	4	
Capital Renewal	0	0	8,210,863	571,679	8,782,542
Deferred Maintenance	0	0	3,057,685	0	3,057,685
Plant Adaption	16,877	1,192,770	52,914	715,385	1,977,947
TOTALS	16,877	1,192,770	11,321,463	1,287,064	13,818,174

Facility Replacement Cost	\$48,550,510
Facility Condition Needs Index	0.28

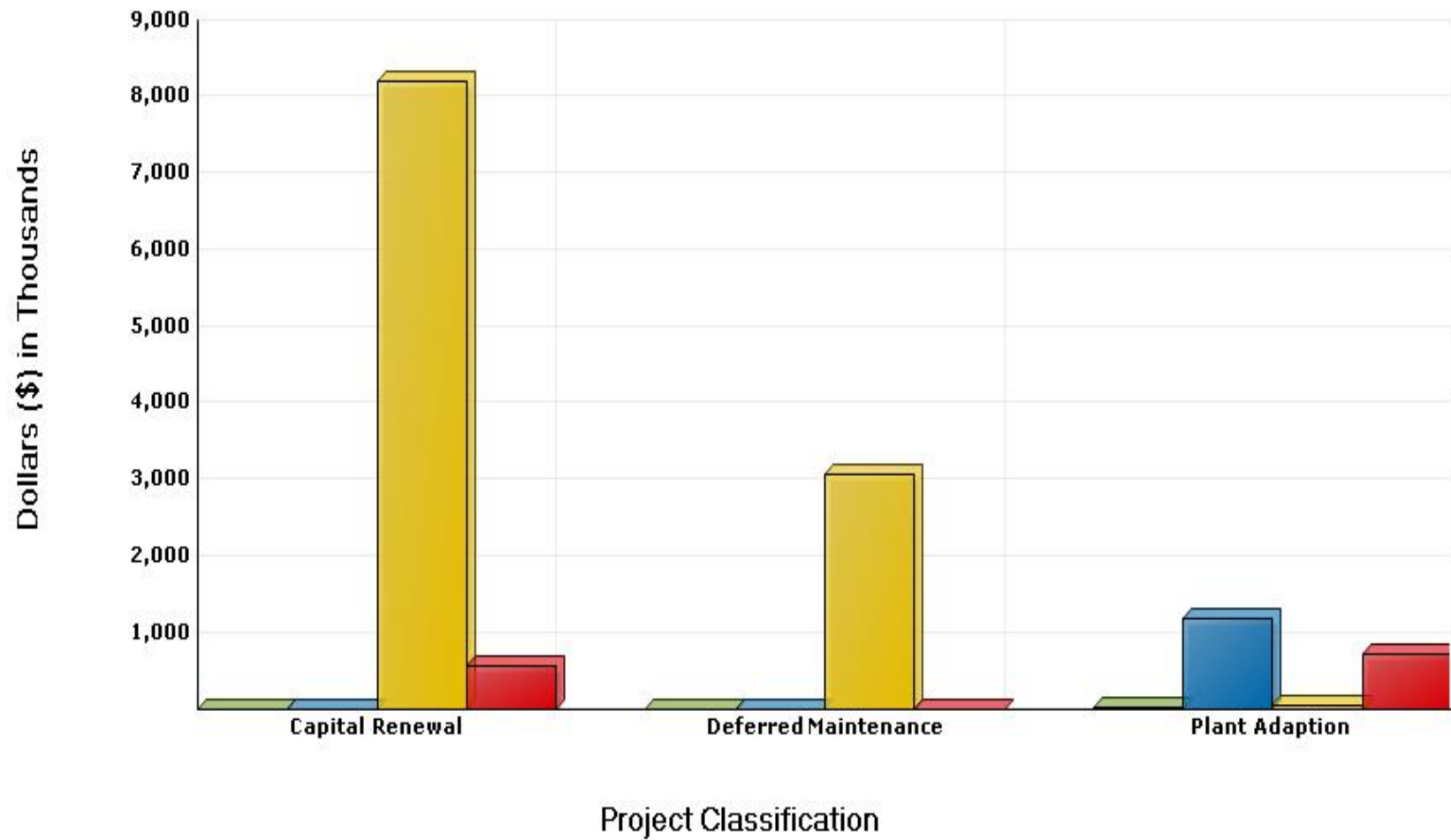
Gross Square Feet	165,000
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Total Cost Per Square Foot	\$83.75
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FACILITY CONDITION ANALYSIS

Project Class by Priority Class

BATE : HAROLD H. BATE BUILDING



Detailed Project Summary
Facility Condition Analysis
Priority Class - Priority Sequence
BATE : HAROLD H. BATE BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5C	BATEFS05	1	1	ELIMINATE FIRE RATING COMPROMISES	14,549	2,328	16,877
Totals for Priority Class 1					14,549	2,328	16,877
FS3A	BATEFS02	2	2	FIRE SPRINKLER SYSTEM INSTALLATION	1,028,250	164,520	1,192,770
Totals for Priority Class 2					1,028,250	164,520	1,192,770
FS3D	BATEFS04	3	3	HALON FIRE SUPPRESSION ALTERNATIVE	45,616	7,299	52,914
FS1A	BATEFS03	3	4	REPLACE AND ADD EXIT SIGNS	11,933	1,909	13,842
ES5A	BATEES02	3	5	EXTERIOR DOOR REPLACEMENT	59,746	9,559	69,305
ES2B	BATEES01	3	6	RESTORE BRICK VENEER	43,459	6,953	50,412
HV3A	BATEHV01	3	7	HVAC SYSTEM REPLACEMENT	8,000,000	0	8,000,000
EL3B	BATEEL04	3	8	ELECTRICAL SYSTEM REPAIRS	181,378	29,021	210,399
EL4B	BATEEL03	3	9	INTERIOR LIGHTING UPGRADE	938,162	150,106	1,088,268
EL5A	BATEEL01	3	10	REPLACE EMERGENCY GENERATOR	78,574	12,572	91,146
IS1A	BATEIS01	3	11	REFINISH FLOORING	827,278	132,364	959,642
IS2B	BATEIS02	3	12	REFINISH WALLS	153,324	24,532	177,855
IS3B	BATEIS03	3	13	REFINISH CEILINGS	508,833	81,413	590,246
PL2B	BATEPL02	3	14	REPLACE SUMP PUMPS	15,028	2,404	17,433
Totals for Priority Class 3					10,863,330	458,133	11,321,463
AC2A	BATEAC01	4	15	BUILDING ENTRY ACCESSIBILITY UPGRADES	10,439	1,670	12,109
AC4A	BATEAC02	4	16	INTERIOR AMENITY ACCESSIBILITY UPGRADES	154,788	24,766	179,554
AC3E	BATEAC04	4	17	RESTROOM RENOVATION	363,843	58,215	422,058
AC4B	BATEAC03	4	18	TIERED CLASSROOM ACCESSIBILITY UPGRADES	38,263	6,122	44,385
AC3B	BATEAC05	4	19	STAIR SAFETY UPGRADES	49,379	7,901	57,280
EL2A	BATEEL02	4	20	REPLACE 277/480 VOLT SWITCHGEAR	82,787	13,246	96,033
IS6D	BATEIS04	4	21	FIXED SEATING UPGRADE	306,066	48,971	355,036
SI4A	BATESI01	4	22	SITE PAVING UPGRADES	103,974	16,636	120,609
Totals for Priority Class 4					1,109,538	177,526	1,287,064
Grand Total:					13,015,667	802,507	13,818,174

Detailed Project Summary
Facility Condition Analysis
Project Cost Range
BATE : HAROLD H. BATE BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5C	BATEFS05	1	1	ELIMINATE FIRE RATING COMPROMISES	14,549	2,328	16,877
Totals for Priority Class 1					14,549	2,328	16,877
FS1A	BATEFS03	3	4	REPLACE AND ADD EXIT SIGNS	11,933	1,909	13,842
FS3D	BATEFS04	3	3	HALON FIRE SUPPRESSION ALTERNATIVE	45,616	7,299	52,914
EL5A	BATEEL01	3	10	REPLACE EMERGENCY GENERATOR	78,574	12,572	91,146
PL2B	BATEPL02	3	14	REPLACE SUMP PUMPS	15,028	2,404	17,433
ES2B	BATEES01	3	6	RESTORE BRICK VENEER	43,459	6,953	50,412
ES5A	BATEES02	3	5	EXTERIOR DOOR REPLACEMENT	59,746	9,559	69,305
Totals for Priority Class 3					254,355	40,697	295,052
EL2A	BATEEL02	4	20	REPLACE 277/480 VOLT SWITCHGEAR	82,787	13,246	96,033
AC2A	BATEAC01	4	15	BUILDING ENTRY ACCESSIBILITY UPGRADES	10,439	1,670	12,109
AC4B	BATEAC03	4	18	TIERED CLASSROOM ACCESSIBILITY UPGRADES	38,263	6,122	44,385
AC3B	BATEAC05	4	19	STAIR SAFETY UPGRADES	49,379	7,901	57,280
Totals for Priority Class 4					180,868	28,939	209,807
Grand Totals for Projects < 100,000					449,773	71,964	521,736

Detailed Project Summary
Facility Condition Analysis
Project Cost Range
 BATE : HAROLD H. BATE BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
EL3B	BATEEL04	3	8	ELECTRICAL SYSTEM REPAIRS	181,378	29,021	210,399
IS2B	BATEIS02	3	12	REFINISH WALLS	153,324	24,532	177,855
Totals for Priority Class 3					334,702	53,552	388,254
AC4A	BATEAC02	4	16	INTERIOR AMENITY ACCESSIBILITY UPGRADES	154,788	24,766	179,554
AC3E	BATEAC04	4	17	RESTROOM RENOVATION	363,843	58,215	422,058
IS6D	BATEIS04	4	21	FIXED SEATING UPGRADE	306,066	48,971	355,036
SI4A	BATESI01	4	22	SITE PAVING UPGRADES	103,974	16,636	120,609
Totals for Priority Class 4					928,670	148,587	1,077,257
Grand Totals for Projects >= 100,000 and < 500,000					1,263,371	202,139	1,465,511

Detailed Project Summary
Facility Condition Analysis
Project Cost Range
 BATE : HAROLD H. BATE BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS3A	BATEFS02	2	2	FIRE SPRINKLER SYSTEM INSTALLATION	1,028,250	164,520	1,192,770
Totals for Priority Class 2					1,028,250	164,520	1,192,770
HV3A	BATEHV01	3	7	HVAC SYSTEM REPLACEMENT	8,000,000	0	8,000,000
EL4B	BATEEL03	3	9	INTERIOR LIGHTING UPGRADE	938,162	150,106	1,088,268
IS1A	BATEIS01	3	11	REFINISH FLOORING	827,278	132,364	959,642
IS3B	BATEIS03	3	13	REFINISH CEILINGS	508,833	81,413	590,246
Totals for Priority Class 3					10,274,273	363,884	10,638,156
Grand Totals for Projects >= 500,000					11,302,523	528,404	11,830,927
Grand Totals For All Projects:					13,015,667	802,507	13,818,174

Detailed Project Summary
Facility Condition Analysis
Project Classification
BATE : HAROLD H. BATE BUILDING

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
ES5A	BATEES02	5	Capital Renewal	3	EXTERIOR DOOR REPLACEMENT	69,305
ES2B	BATEES01	6	Capital Renewal	3	RESTORE BRICK VENEER	50,412
HV3A	BATEHV01	7	Capital Renewal	3	HVAC SYSTEM REPLACEMENT	8,000,000
EL5A	BATEEL01	10	Capital Renewal	3	REPLACE EMERGENCY GENERATOR	91,146
EL2A	BATEEL02	20	Capital Renewal	4	REPLACE 277/480 VOLT SWITCHGEAR	96,033
IS6D	BATEIS04	21	Capital Renewal	4	FIXED SEATING UPGRADE	355,036
SI4A	BATESI01	22	Capital Renewal	4	SITE PAVING UPGRADES	120,609
Totals for Capital Renewal						8,782,542
FS1A	BATEFS03	4	Deferred Maintenance	3	REPLACE AND ADD EXIT SIGNS	13,842
EL3B	BATEEL04	8	Deferred Maintenance	3	ELECTRICAL SYSTEM REPAIRS	210,399
EL4B	BATEEL03	9	Deferred Maintenance	3	INTERIOR LIGHTING UPGRADE	1,088,268
IS1A	BATEIS01	11	Deferred Maintenance	3	REFINISH FLOORING	959,642
IS2B	BATEIS02	12	Deferred Maintenance	3	REFINISH WALLS	177,855
IS3B	BATEIS03	13	Deferred Maintenance	3	REFINISH CEILINGS	590,246
PL2B	BATEPL02	14	Deferred Maintenance	3	REPLACE SUMP PUMPS	17,433
Totals for Deferred Maintenance						3,057,685
FS5C	BATEFS05	1	Plant Adaption	1	ELIMINATE FIRE RATING COMPROMISES	16,877
FS3A	BATEFS02	2	Plant Adaption	2	FIRE SPRINKLER SYSTEM INSTALLATION	1,192,770
FS3D	BATEFS04	3	Plant Adaption	3	HALON FIRE SUPPRESSION ALTERNATIVE	52,914
AC2A	BATEAC01	15	Plant Adaption	4	BUILDING ENTRY ACCESSIBILITY UPGRADES	12,109
AC4A	BATEAC02	16	Plant Adaption	4	INTERIOR AMENITY ACCESSIBILITY UPGRADES	179,554
AC3E	BATEAC04	17	Plant Adaption	4	RESTROOM RENOVATION	422,058
AC4B	BATEAC03	18	Plant Adaption	4	TIERED CLASSROOM ACCESSIBILITY UPGRADES	44,385
AC3B	BATEAC05	19	Plant Adaption	4	STAIR SAFETY UPGRADES	57,280
Totals for Plant Adaption						1,977,947
Grand Total:						13,818,174

Detailed Project Summary
Facility Condition Analysis
Energy Conservation
 BATE : HAROLD H. BATE BUILDING

Cat Code	Project Number	Pri Cls	Pri Seq	Project Title	Total Cost	Annual Savings	Simple Payback
FS1A	BATEFS03	3	4	REPLACE AND ADD EXIT SIGNS	13,842	420	32.96
HV3A	BATEHV01	3	7	HVAC SYSTEM REPLACEMENT	8,000,000	93,410	85.64
EL4B	BATEEL03	3	9	INTERIOR LIGHTING UPGRADE	1,088,268	50,490	21.55
Totals for Priority Class 3					9,102,111	144,320	63.07
Grand Total:					9,102,111	144,320	63.07

Detailed Project Summary
Facility Condition Analysis
Category/System Code
BATE : HAROLD H. BATE BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC2A	BATEAC01	4	15	BUILDING ENTRY ACCESSIBILITY UPGRADES	10,439	1,670	12,109
AC4A	BATEAC02	4	16	INTERIOR AMENITY ACCESSIBILITY UPGRADES	154,788	24,766	179,554
AC3E	BATEAC04	4	17	RESTROOM RENOVATION	363,843	58,215	422,058
AC4B	BATEAC03	4	18	TIERED CLASSROOM ACCESSIBILITY UPGRADES	38,263	6,122	44,385
AC3B	BATEAC05	4	19	STAIR SAFETY UPGRADES	49,379	7,901	57,280
Totals for System Code: ACCESSIBILITY					616,711	98,674	715,385
EL3B	BATEEL04	3	8	ELECTRICAL SYSTEM REPAIRS	181,378	29,021	210,399
EL4B	BATEEL03	3	9	INTERIOR LIGHTING UPGRADE	938,162	150,106	1,088,268
EL5A	BATEEL01	3	10	REPLACE EMERGENCY GENERATOR	78,574	12,572	91,146
EL2A	BATEEL02	4	20	REPLACE 277/480 VOLT SWITCHGEAR	82,787	13,246	96,033
Totals for System Code: ELECTRICAL					1,280,902	204,944	1,485,846
ES5A	BATEES02	3	5	EXTERIOR DOOR REPLACEMENT	59,746	9,559	69,305
ES2B	BATEES01	3	6	RESTORE BRICK VENEER	43,459	6,953	50,412
Totals for System Code: EXTERIOR					103,205	16,513	119,718
FS5C	BATEFS05	1	1	ELIMINATE FIRE RATING COMPROMISES	14,549	2,328	16,877
FS3A	BATEFS02	2	2	FIRE SPRINKLER SYSTEM INSTALLATION	1,028,250	164,520	1,192,770
FS3D	BATEFS04	3	3	HALON FIRE SUPPRESSION ALTERNATIVE	45,616	7,299	52,914
FS1A	BATEFS03	3	4	REPLACE AND ADD EXIT SIGNS	11,933	1,909	13,842
Totals for System Code: FIRE/LIFE SAFETY					1,100,348	176,056	1,276,404
HV3A	BATEHV01	3	7	HVAC SYSTEM REPLACEMENT	8,000,000	0	8,000,000
Totals for System Code: HVAC					8,000,000		8,000,000
IS1A	BATEIS01	3	11	REFINISH FLOORING	827,278	132,364	959,642
IS2B	BATEIS02	3	12	REFINISH WALLS	153,324	24,532	177,855
IS3B	BATEIS03	3	13	REFINISH CEILINGS	508,833	81,413	590,246
IS6D	BATEIS04	4	21	FIXED SEATING UPGRADE	306,066	48,971	355,036
Totals for System Code: INTERIOR/FINISH SYS.					1,795,499	287,280	2,082,779
PL2B	BATEPL02	3	14	REPLACE SUMP PUMPS	15,028	2,404	17,433
Totals for System Code: PLUMBING					15,028	2,404	17,433
SI4A	BATESI01	4	22	SITE PAVING UPGRADES	103,974	16,636	120,609
Totals for System Code: SITE					103,974	16,636	120,609
Grand Total:					13,015,667	802,507	13,818,174

FACILITY CONDITION ANALYSIS

SECTION 3

SPECIFIC PROJECT DETAILS
ILLUSTRATING DESCRIPTION / COST

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEFS05	Title:	ELIMINATE FIRE RATING COMPROMISES
Priority Sequence:	1		
Priority Class:	1		
Category Code:	FS5C	System:	FIRE/LIFE SAFETY
		Component:	EGRESS PATH
		Element:	SEPARATION RATING
Building Code:	BATE		
Building Name:	HAROLD H. BATE BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	IBC	711.3	
Project Class:	Plant Adaption		
Project Date:	10/16/2009		
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 select areas of this facility. Primarily, data cabling has been routed with little regard for fire-rated separations. Intumescent passive firestopping and some minor structural separation repairs should be accomplished promptly.

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEFS05

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Minor passive firestopping efforts	SF	165,000	\$0.03	\$4,950	\$0.08	\$13,200	\$18,150
Project Totals:				\$4,950		\$13,200	\$18,150

Material/Labor Cost		\$18,150
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$11,756
General Contractor Mark Up at 20.0%	+	\$2,351
Inflation	+	\$442
Construction Cost		\$14,549
Professional Fees at 16.0%	+	\$2,328
Total Project Cost		\$16,877

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEFS02	Title:	FIRE SPRINKLER SYSTEM INSTALLATION
Priority Sequence:	2		
Priority Class:	2		
Category Code:	FS3A	System:	FIRE/LIFE SAFETY
		Component:	SUPPRESSION
		Element:	SPRINKLERS
Building Code:	BATE		
Building Name:	HAROLD H. BATE BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	NFPA	1, 13, 13R, 101	
Project Class:	Plant Adaption		
Project Date:	10/10/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, B		

Project Description

Install an automatic fire sprinkler system in unprotected areas throughout the facility. This includes piping, valves, sprinkler heads, and piping supports. Install flow switches and sensors to interface with the fire alarm system.

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEFS02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Install a wet-pipe sprinkler system, including valves, piping, sprinkler heads, piping supports, etc.	SF	165,000	\$3.08	\$508,200	\$3.77	\$622,050	\$1,130,250
Project Totals:				\$508,200		\$622,050	\$1,130,250

Material/Labor Cost		\$1,130,250
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$830,869
General Contractor Mark Up at 20.0%	+	\$166,174
Inflation	+	\$31,207
Construction Cost		\$1,028,250
Professional Fees at 16.0%	+	\$164,520
Total Project Cost		\$1,192,770

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEFS04	Title:	HALON FIRE SUPPRESSION ALTERNATIVE
Priority Sequence:	3		
Priority Class:	3		
Category Code:	FS3D	System:	FIRE/LIFE SAFETY
		Component:	SUPPRESSION
		Element:	OTHER
Building Code:	BATE		
Building Name:	HAROLD H. BATE BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	NFPA	2001	
Project Class:	Plant Adaption		
Project Date:	10/10/2009		
Project Location:	Room Only: Floor(s) 3		

Project Description

Computer server rooms are served by a Halon fire suppression system. Halon is no longer being produced in the United States due to environmental concerns. In the event of a discharge, the system would likely have to be retrofitted or replaced with a compatible extinguishing agent, such as Inergen or FM200. A budget for replacement with such a system is provided.

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEFS04

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
FM200 or Inergen fire suppression system upgrade	CF	14,400	\$1.90	\$27,360	\$1.26	\$18,144	\$45,504
Project Totals:				\$27,360		\$18,144	\$45,504

Material/Labor Cost		\$45,504
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$36,859
General Contractor Mark Up at 20.0%	+	\$7,372
Inflation	+	\$1,384
Construction Cost		\$45,616
Professional Fees at 16.0%	+	\$7,299
Total Project Cost		\$52,914

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEFS03	Title:	REPLACE AND ADD EXIT SIGNS
Priority Sequence:	4		
Priority Class:	3		
Category Code:	FS1A	System:	FIRE/LIFE SAFETY
		Component:	LIGHTING
		Element:	EGRESS LTG./EXIT SIGNAGE
Building Code:	BATE		
Building Name:	HAROLD H. BATE BUILDING		
Subclass/Savings:	Energy Conservation	\$420	
Code Application:	NFPA	101-47	
	IBC	1011	
Project Class:	Deferred Maintenance		
Project Date:	10/10/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, B		

Project Description

Replace the existing exit signage throughout the building, and 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
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEFS03

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Replacement of existing exit signs with LED units	EA	50	\$76.00	\$3,800	\$85.00	\$4,250	\$8,050
Installation of new LED exit signs, including all connections	EA	15	\$123	\$1,845	\$231	\$3,465	\$5,310
Project Totals:				\$5,645		\$7,715	\$13,360

Material/Labor Cost		\$13,360
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$9,642
General Contractor Mark Up at 20.0%	+	\$1,928
Inflation	+	\$362
Construction Cost		\$11,933
Professional Fees at 16.0%	+	\$1,909
Total Project Cost		\$13,842

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEES02	Title:	EXTERIOR DOOR REPLACEMENT
Priority Sequence:	5		
Priority Class:	3		
Category Code:	ES5A	System:	EXTERIOR
		Component:	FENESTRATIONS
		Element:	DOORS
Building Code:	BATE		
Building Name:	HAROLD H. BATE BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/16/2009		
Project Location:	Building-wide: Floor(s) 1		

Project Description

It is recommended that the aged and inefficient metal-framed primary entrance doors be replaced. The replacement units should maintain the architectural design aspects of this facility and be modern, energy-efficient applications.

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEES02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
High traffic door system	LEAF	16	\$1,978	\$31,648	\$1,999	\$31,984	\$63,632
Project Totals:				\$31,648		\$31,984	\$63,632

Material/Labor Cost		\$63,632
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$48,277
General Contractor Mark Up at 20.0%	+	\$9,655
Inflation	+	\$1,813
Construction Cost		\$59,746
Professional Fees at 16.0%	+	\$9,559
Total Project Cost		\$69,305

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEES01	Title:	RESTORE BRICK VENEER
Priority Sequence:	6		
Priority Class:	3		
Category Code:	ES2B	System:	EXTERIOR
		Component:	COLUMNS/BEAMS/WALLS
		Element:	FINISH
Building Code:	BATE		
Building Name:	HAROLD H. BATE BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/16/2009		
Project Location:	Building-wide: Floor(s) 1		

Project Description

Brick veneer is the primary exterior finish. 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.

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEES01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Cleaning and surface preparation	SF	25,660	\$0.11	\$2,823	\$0.22	\$5,645	\$8,468
Selective mortar and / or sealant repairs (assumes 10 linear feet for every 100 square feet of envelope)	LF	2,566	\$2.45	\$6,287	\$4.99	\$12,804	\$19,091
Applied finish or sealant	SF	25,660	\$0.22	\$5,645	\$0.82	\$21,041	\$26,686
Project Totals:				\$14,755		\$39,491	\$54,245

Material/Labor Cost		\$54,245
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$35,117
General Contractor Mark Up at 20.0%	+	\$7,023
Inflation	+	\$1,319
Construction Cost		\$43,459
Professional Fees at 16.0%	+	\$6,953
Total Project Cost		\$50,412

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEHV01	Title:	HVAC SYSTEM REPLACEMENT
Priority Sequence:	7		
Priority Class:	3		
Category Code:	HV3A	System:	HVAC
		Component:	HEATING/COOLING
		Element:	SYSTEM RETROFIT/REPLACE
Building Code:	BATE		
Building Name:	HAROLD H. BATE BUILDING		
Subclass/Savings:	Energy Conservation	\$93,410	
Code Application:	ASHRAE	62-2004	
Project Class:	Capital Renewal		
Project Date:	8/25/2010		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, B, R		

Project Description

The building is served by a single zone chilled water air handling unit with a steam preheat coil for low limit control that is located in the basement. The building is heated on the perimeter spaces by fan powered constant volume terminal units with no heating device installed in the terminal unit serving the interior space. DDCs are installed only for the steam convertor and the air handling unit. The common, office, and classroom spaces are pneumatically controlled, which cannot control to new energy standards. It is recommended that the HVAC be upgraded with the replacement of the terminal equipment. Install a VAV type air distribution with DDCs.

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEHV01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Air handlers, exhaust fans, ductwork, VAVs, VFDs, DDCs, heat exchangers, pumps, piping, electrical connections, and demolition of existing equipment (client provided costs)	LOT	1	\$3,000,000	\$3,000,000	\$5,000,000	\$5,000,000	\$8,000,000
Project Totals:				\$3,000,000		\$5,000,000	\$8,000,000

Material/Labor Cost	\$8,000,000
Material Index	100.7%
Labor Index	51.3%
Material/Labor Indexed Cost	\$8,000,000
No GCM Required	
Construction Cost	\$8,000,000
No Professional Fees Required	
Total Project Cost	\$8,000,000

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEEL04	Title:	ELECTRICAL SYSTEM REPAIRS
Priority Sequence:	8		
Priority Class:	3		
Category Code:	EL3B	System:	ELECTRICAL
		Component:	SECONDARY DISTRIBUTION
		Element:	DISTRIBUTION NETWORK
Building Code:	BATE		
Building Name:	HAROLD H. BATE BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	NEC	Articles 100, 210, 410	
Project Class:	Deferred Maintenance		
Project Date:	10/10/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, B		

Project Description

Aging devices, including wall switches and receptacles, are potential shock and fire hazards. Replace all worn or damaged switches, receptacles, and cover plates. Install GFCI receptacles where required by code. Test power panels for proper operation, replacing faulty breakers as needed. Update power panel directories for circuit identification.

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEEL04

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Switches, receptacles, cover plates, breakers, miscellaneous materials	SF	165,000	\$0.50	\$82,500	\$0.75	\$123,750	\$206,250
Project Totals:				\$82,500		\$123,750	\$206,250

Material/Labor Cost		\$206,250
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$146,561
General Contractor Mark Up at 20.0%	+	\$29,312
Inflation	+	\$5,505
Construction Cost		\$181,378
Professional Fees at 16.0%	+	\$29,021
Total Project Cost		\$210,399

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEEL03	Title:	INTERIOR LIGHTING UPGRADE
Priority Sequence:	9		
Priority Class:	3		
Category Code:	EL4B	System:	ELECTRICAL
		Component:	DEVICES AND FIXTURES
		Element:	INTERIOR LIGHTING
Building Code:	BATE		
Building Name:	HAROLD H. BATE BUILDING		
Subclass/Savings:	Energy Conservation	\$50,490	
Code Application:	NEC	Articles 210, 410	
Project Class:	Deferred Maintenance		
Project Date:	10/10/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, B		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEEL03

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
High efficiency fluorescent fixtures, occupancy sensors, and demolition of existing lighting	SF	165,000	\$2.81	\$463,650	\$3.44	\$567,600	\$1,031,250
Project Totals:				\$463,650		\$567,600	\$1,031,250

Material/Labor Cost		\$1,031,250
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$758,074</u>
General Contractor Mark Up at 20.0%	+	<u>\$151,615</u>
Inflation	+	<u>\$28,473</u>
Construction Cost		<u>\$938,162</u>
Professional Fees at 16.0%	+	<u>\$150,106</u>
Total Project Cost		<u>\$1,088,268</u>

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEEL01	Title:	REPLACE EMERGENCY GENERATOR
Priority Sequence:	10		
Priority Class:	3		
Category Code:	EL5A	System:	ELECTRICAL
		Component:	EMERGENCY POWER SYSTEM
		Element:	GENERATION/DISTRIBUTION
Building Code:	BATE		
Building Name:	HAROLD H. BATE BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	NEC	Article 700	
Project Class:	Capital Renewal		
Project Date:	10/10/2009		
Project Location:	Item Only: Floor(s) B		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEEL01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Diesel generator set, including fuel tank, battery, charger, exhaust, automatic transfer switches	KW	175	\$318	\$55,650	\$83.00	\$14,525	\$70,175
Project Totals:				\$55,650		\$14,525	\$70,175

Material/Labor Cost		\$70,175
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$63,491
General Contractor Mark Up at 20.0%	+	\$12,698
Inflation	+	\$2,385
Construction Cost		\$78,574
Professional Fees at 16.0%	+	\$12,572
Total Project Cost		\$91,146

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEIS01	Title:	REFINISH FLOORING
Priority Sequence:	11		
Priority Class:	3		
Category Code:	IS1A	System:	INTERIOR/FINISH SYS.
		Component:	FLOOR
		Element:	FINISHES-DRY

Building Code:	BATE
Building Name:	HAROLD H. BATE BUILDING
Subclass/Savings:	Not Applicable

Code Application: Not Applicable

Project Class:	Deferred Maintenance
Project Date:	10/16/2009

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

Interior floor finishes include carpeting, vinyl tile, and concrete. The applications vary in age and condition from room to room. 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
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEIS01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Carpet	SF	82,010	\$5.36	\$439,574	\$2.00	\$164,020	\$603,594
Vinyl floor tile	SF	29,290	\$3.53	\$103,394	\$2.50	\$73,225	\$176,619
Project Totals:				\$542,967		\$237,245	\$780,212

Material/Labor Cost		\$780,212
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$668,475
General Contractor Mark Up at 20.0%	+	\$133,695
Inflation	+	\$25,108
Construction Cost		\$827,278
Professional Fees at 16.0%	+	\$132,364
Total Project Cost		\$959,642

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEIS02	Title:	REFINISH WALLS
Priority Sequence:	12		
Priority Class:	3		
Category Code:	IS2B	System:	INTERIOR/FINISH SYS.
		Component:	PARTITIONS
		Element:	FINISHES

Building Code: BATE
Building Name: HAROLD H. BATE BUILDING
Subclass/Savings: Not Applicable

Code Application: Not Applicable

Project Class: Deferred Maintenance
Project Date: 10/16/2009

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

Project Description

Interior wall finishes are painted plaster or concrete. The applications vary in age and condition from area to area. 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
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEIS02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Standard wall finish (paint, wall covering, etc.)	SF	211,160	\$0.17	\$35,897	\$0.81	\$171,040	\$206,937
Project Totals:				\$35,897		\$171,040	\$206,937

Material/Labor Cost		\$206,937
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$123,892
General Contractor Mark Up at 20.0%	+	\$24,778
Inflation	+	\$4,653
Construction Cost		\$153,324
Professional Fees at 16.0%	+	\$24,532
Total Project Cost		\$177,855

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEIS03	Title:	REFINISH CEILINGS
Priority Sequence:	13		
Priority Class:	3		
Category Code:	IS3B	System:	INTERIOR/FINISH SYS.
		Component:	CEILINGS
		Element:	REPLACEMENT

Building Code:	BATE
Building Name:	HAROLD H. BATE BUILDING
Subclass/Savings:	Not Applicable

Code Application: Not Applicable

Project Class:	Deferred Maintenance
Project Date:	10/16/2009

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

Ceiling finishes consist of lay-in, acoustical tile or painted ceilings. The applications vary in age and condition from area to area. Ceiling finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEIS03

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Acoustical tile ceiling system	SF	111,290	\$2.12	\$235,935	\$2.98	\$331,644	\$567,579
Painted ceiling finish application	SF	5,860	\$0.17	\$996	\$0.81	\$4,747	\$5,743
Project Totals:				\$236,931		\$336,391	\$573,322

Material/Labor Cost		\$573,322
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$411,158
General Contractor Mark Up at 20.0%	+	\$82,232
Inflation	+	\$15,443
Construction Cost		\$508,833
Professional Fees at 16.0%	+	\$81,413
Total Project Cost		\$590,246

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEPL02	Title:	REPLACE SUMP PUMPS
Priority Sequence:	14		
Priority Class:	3		
Category Code:	PL2B	System:	PLUMBING
		Component:	WASTEWATER
		Element:	PUMPS
Building Code:	BATE		
Building Name:	HAROLD H. BATE BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	IPC	712	
Project Class:	Deferred Maintenance		
Project Date:	10/10/2009		
Project Location:	Item Only: Floor(s) B		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEPL02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Sump pump system, including pit, pumps, controls, connections, and demolition of existing system	SYS	2	\$4,440	\$8,880	\$3,120	\$6,240	\$15,120
Project Totals:				\$8,880		\$6,240	\$15,120

Material/Labor Cost		\$15,120
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$12,143
General Contractor Mark Up at 20.0%	+	\$2,429
Inflation	+	\$456
Construction Cost		\$15,028
Professional Fees at 16.0%	+	\$2,404
Total Project Cost		\$17,433

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEAC01	Title:	BUILDING ENTRY ACCESSIBILITY UPGRADES
Priority Sequence:	15		
Priority Class:	4		
Category Code:	AC2A	System:	ACCESSIBILITY
		Component:	BUILDING ENTRY
		Element:	GENERAL
Building Code:	BATE		
Building Name:	HAROLD H. BATE BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG	403.6, 505	
Project Class:	Plant Adaption		
Project Date:	10/16/2009		
Project Location:	Undefined: Floor(s) 1		

Project Description

Current accessibility legislation requires that building entrances be wheelchair accessible. To comply with the intent of this legislation, it is recommended that ADA compliant, painted metal handrails be installed at all entrances as required.

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEAC01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Freestanding handrail system, painted	LF	50	\$91.11	\$4,556	\$150	\$7,500	\$12,056
Project Totals:				\$4,556		\$7,500	\$12,056

Material/Labor Cost		\$12,056
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$8,435
General Contractor Mark Up at 20.0%	+	\$1,687
Inflation	+	\$317
Construction Cost		\$10,439
Professional Fees at 16.0%	+	\$1,670
Total Project Cost		\$12,109

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEAC02	Title:	INTERIOR AMENITY ACCESSIBILITY UPGRADES
Priority Sequence:	16		
Priority Class:	4		
Category Code:	AC4A	System:	ACCESSIBILITY
		Component:	GENERAL
		Element:	FUNCTIONAL SPACE MOD.
Building Code:	BATE		
Building Name:	HAROLD H. BATE BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG	211, 602, 804	
Project Class:	Plant Adaption		
Project Date:	10/16/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3		

Project Description

Building amenities are required to be generally accessible to all persons. The configurations of select break room kitchenettes and drinking fountains are barriers to accessibility. The installation of wheelchair accessible kitchenette cabinetry and dual level, refrigerated drinking fountains is recommended where applicable.

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEAC02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
ADA compliant kitchenette unit with base cabinetry, overhead cabinetry, and amenities	SYS	4	\$4,894	\$19,576	\$1,999	\$7,996	\$27,572
Dual level drinking fountain	EA	24	\$1,216	\$29,184	\$374	\$8,976	\$38,160
Alcove construction including finishes	EA	24	\$877	\$21,048	\$3,742	\$89,808	\$110,856
Project Totals:				\$69,808		\$106,780	\$176,588

Material/Labor Cost		\$176,588
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$125,075
General Contractor Mark Up at 20.0%	+	\$25,015
Inflation	+	\$4,698
Construction Cost		\$154,788
Professional Fees at 16.0%	+	\$24,766
Total Project Cost		\$179,554

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEAC04	Title:	RESTROOM RENOVATION
Priority Sequence:	17		
Priority Class:	4		
Category Code:	AC3E	System:	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	RESTROOMS/BATHROOMS
Building Code:	BATE		
Building Name:	HAROLD H. BATE BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG	604, 605, 606, 607, 608	
Project Class:	Plant Adaption		
Project Date:	10/16/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3		

Project Description

The restroom fixtures and finishes are mostly original to the year of construction or latest major renovation. The fixtures are sound but dated and are spaced such that clearances are not ADA compliant. A comprehensive restroom renovation, including new fixtures, finishes, partitions, and accessories, is recommended. Restroom expansion may be necessary in order to meet modern minimum fixture counts and accessibility legislation.

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEAC04

Task Cost Estimate

Task Description	Unit	Qty	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	103	\$1,969	\$202,807	\$1,699	\$174,997	\$377,804
Project Totals:				\$202,807		\$174,997	\$377,804

Material/Labor Cost		\$377,804
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$294,000
General Contractor Mark Up at 20.0%	+	\$58,800
Inflation	+	\$11,043
Construction Cost		\$363,843
Professional Fees at 16.0%	+	\$58,215
Total Project Cost		\$422,058

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEAC03	Title:	TIERED CLASSROOM ACCESSIBILITY UPGRADES
Priority Sequence:	18		
Priority Class:	4		
Category Code:	AC4B	System:	ACCESSIBILITY
		Component:	GENERAL
		Element:	OTHER
Building Code:	BATE		
Building Name:	HAROLD H. BATE BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG	505	
Project Class:	Plant Adaption		
Project Date:	10/16/2009		
Project Location:	Floor-wide: Floor(s) 1		

Project Description

Accessibility legislation requires that tiered classrooms be accessible to the handicapped. The steps in the classrooms lack supportive handrails. It is recommended that wall-mounted, ADA compliant, painted metal handrails be installed.

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEAC03

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Wall-mounted handrail system	LF	448	\$50.50	\$22,624	\$35.40	\$15,859	\$38,483
Project Totals:				\$22,624		\$15,859	\$38,483

Material/Labor Cost		\$38,483
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$30,918</u>
General Contractor Mark Up at 20.0%	+	<u>\$6,184</u>
Inflation	+	<u>\$1,161</u>
Construction Cost		<u>\$38,263</u>
Professional Fees at 16.0%	+	<u>\$6,122</u>
Total Project Cost		<u>\$44,385</u>

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEAC05	Title:	STAIR SAFETY UPGRADES
Priority Sequence:	19		
Priority Class:	4		
Category Code:	AC3B	System:	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	STAIRS AND RAILINGS
Building Code:	BATE		
Building Name:	HAROLD H. BATE BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	IBC	1003.3	
	ADAAG	505	
Project Class:	Plant Adaption		
Project Date:	10/16/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEAC05

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Wall-mounted handrail system per floor	FLR	9	\$573	\$5,157	\$521	\$4,689	\$9,846
Center handrail / guardrail system per floor	FLR	9	\$1,297	\$11,673	\$833	\$7,497	\$19,170
Stair tread and landing finish upgrades per floor	FLR	9	\$1,449	\$13,041	\$773	\$6,957	\$19,998
Project Totals:				\$29,871		\$19,143	\$49,014

Material/Labor Cost		\$49,014
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$39,900
General Contractor Mark Up at 20.0%	+	\$7,980
Inflation	+	\$1,499
Construction Cost		\$49,379
Professional Fees at 16.0%	+	\$7,901
Total Project Cost		\$57,280

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEEL02	Title:	REPLACE 277/480 VOLT SWITCHGEAR
Priority Sequence:	20		
Priority Class:	4		
Category Code:	EL2A	System:	ELECTRICAL
		Component:	MAIN DISTRIBUTION PANELS
		Element:	CONDITION UPGRADE
Building Code:	BATE		
Building Name:	HAROLD H. BATE BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	NEC	Article 230	
Project Class:	Capital Renewal		
Project Date:	10/10/2009		
Project Location:	Item Only: Floor(s) 1		

Project Description

The 277/480 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 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
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEEL02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
277/480 V switchgear, includes switchboard, circuit breakers, feeders, digital metering, transient surge protector, and demolition of existing equipment	AMP	2,500	\$18.62	\$46,550	\$15.61	\$39,025	\$85,575
Project Totals:				\$46,550		\$39,025	\$85,575

Material/Labor Cost		\$85,575
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$66,896
General Contractor Mark Up at 20.0%	+	\$13,379
Inflation	+	\$2,513
Construction Cost		\$82,787
Professional Fees at 16.0%	+	\$13,246
Total Project Cost		\$96,033

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATEIS04	Title:	FIXED SEATING UPGRADE
Priority Sequence:	21		
Priority Class:	4		
Category Code:	IS6D	System:	INTERIOR/FINISH SYS.
		Component:	GENERAL
		Element:	OTHER

Building Code:	BATE
Building Name:	HAROLD H. BATE BUILDING
Subclass/Savings:	Not Applicable

Code Application:	Not Applicable
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Project Class:	Capital Renewal
Project Date:	10/16/2009

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

The fixed seating in the lecture halls is showing signs of age and should be upgraded. Replace this seating with new fixed seats in a similar row configuration. Ensure that ADA requirements are followed with the new seating layout.

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATEIS04

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Basic, upholstered, folding, and fixed seating	EA	1,210	\$160	\$193,600	\$84.35	\$102,064	\$295,664
Project Totals:				\$193,600		\$102,064	\$295,664

Material/Labor Cost		\$295,664
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$247,314
General Contractor Mark Up at 20.0%	+	\$49,463
Inflation	+	\$9,289
Construction Cost		\$306,066
Professional Fees at 16.0%	+	\$48,971
Total Project Cost		\$355,036

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Description

Project Number:	BATESI01	Title:	SITE PAVING UPGRADES
Priority Sequence:	22		
Priority Class:	4		
Category Code:	SI4A	System:	SITE
		Component:	GENERAL
		Element:	OTHER
Building Code:	BATE		
Building Name:	HAROLD H. BATE BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/16/2009		
Project Location:	Undefined: Floor(s) 1		

Project Description

Pedestrian paving systems are in overall good condition but will need replacement in the next ten years. New systems, including excavation, grading, base compaction, and paving, are recommended.

Specific Project Details
Facility Condition Analysis
Section Three
BATE : HAROLD H. BATE BUILDING

Project Cost

Project Number: BATESI01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Brick pedestrian paving	SF	8,000	\$6.98	\$55,840	\$6.77	\$54,160	\$110,000
Project Totals:				\$55,840		\$54,160	\$110,000

Material/Labor Cost		\$110,000
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$84,015
General Contractor Mark Up at 20.0%	+	\$16,803
Inflation	+	\$3,156
Construction Cost		\$103,974
Professional Fees at 16.0%	+	\$16,636
Total Project Cost		\$120,609

FACILITY CONDITION ANALYSIS

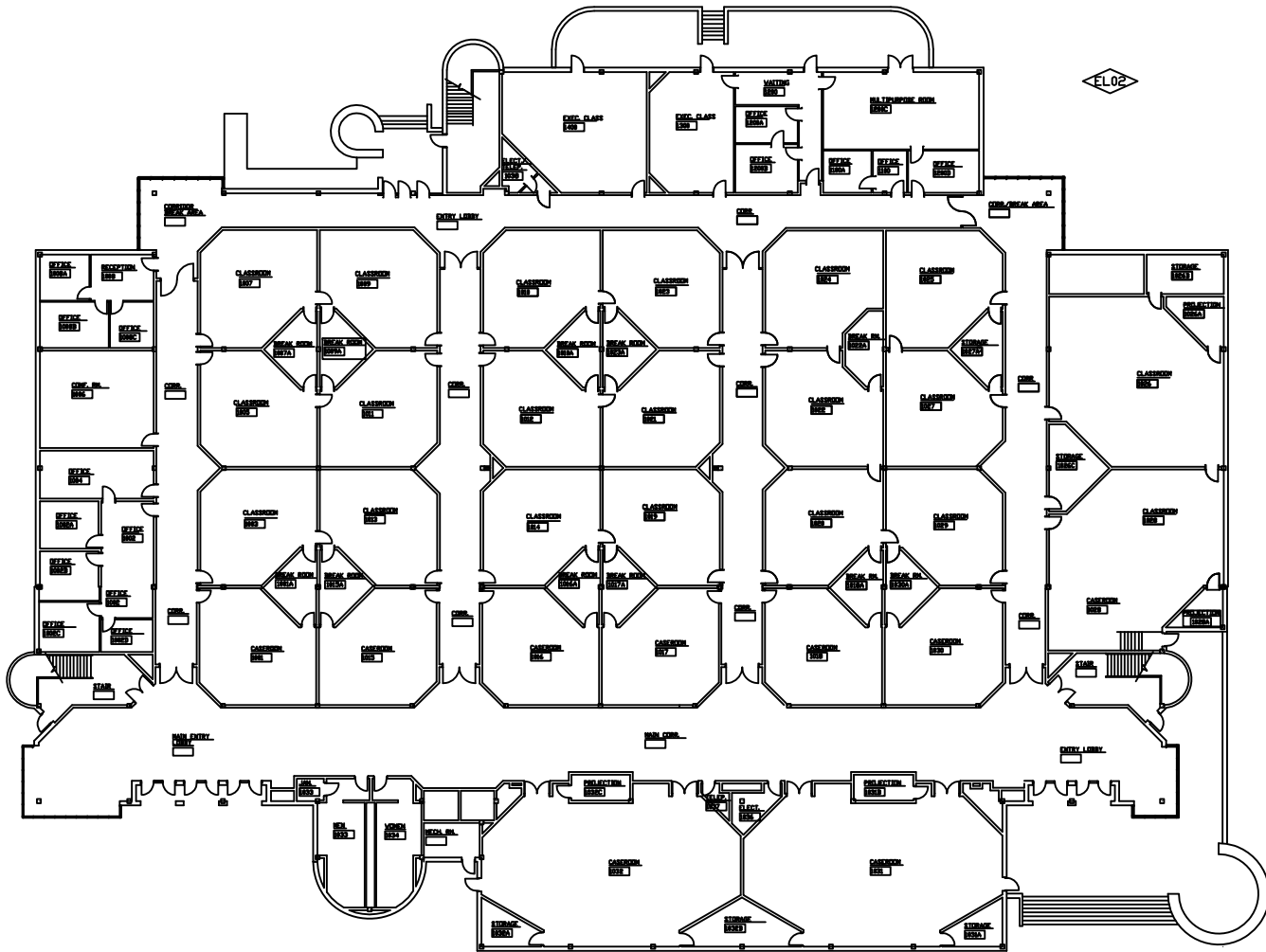
SECTION 4

**DRAWINGS
AND PROJECT LOCATIONS**



FACILITY
CONDITION
ANALYSIS

2165 West Park Court
Suite N
Stone Mountain GA 30087
770.879.7376



PROJECT NUMBER
APPLIES TO
ONE ROOM ONLY

PROJECT NUMBER
APPLIES TO
ONE ITEM ONLY

PROJECT NUMBER
APPLIES TO
ENTIRE BUILDING

PROJECT NUMBER
APPLIES TO
ENTIRE FLOOR

PROJECT NUMBER
APPLIES TO A SITUATION
OF UNDEFINED EXTENTS

PROJECT NUMBER
APPLIES TO AREA
AS NOTED

Date: 10/30/09

Drawn by: J.T.V.

Project No. 09-041

FIRST
FLOOR
PLAN

Sheet No.

1 of 3

AC01 SI01 ES01 ES02

AC02 AC03 AC04 AC05 EL03 EL04

FS02 FS03 FS05 HV01 IS01 IS02

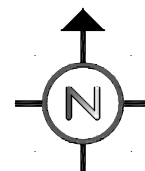
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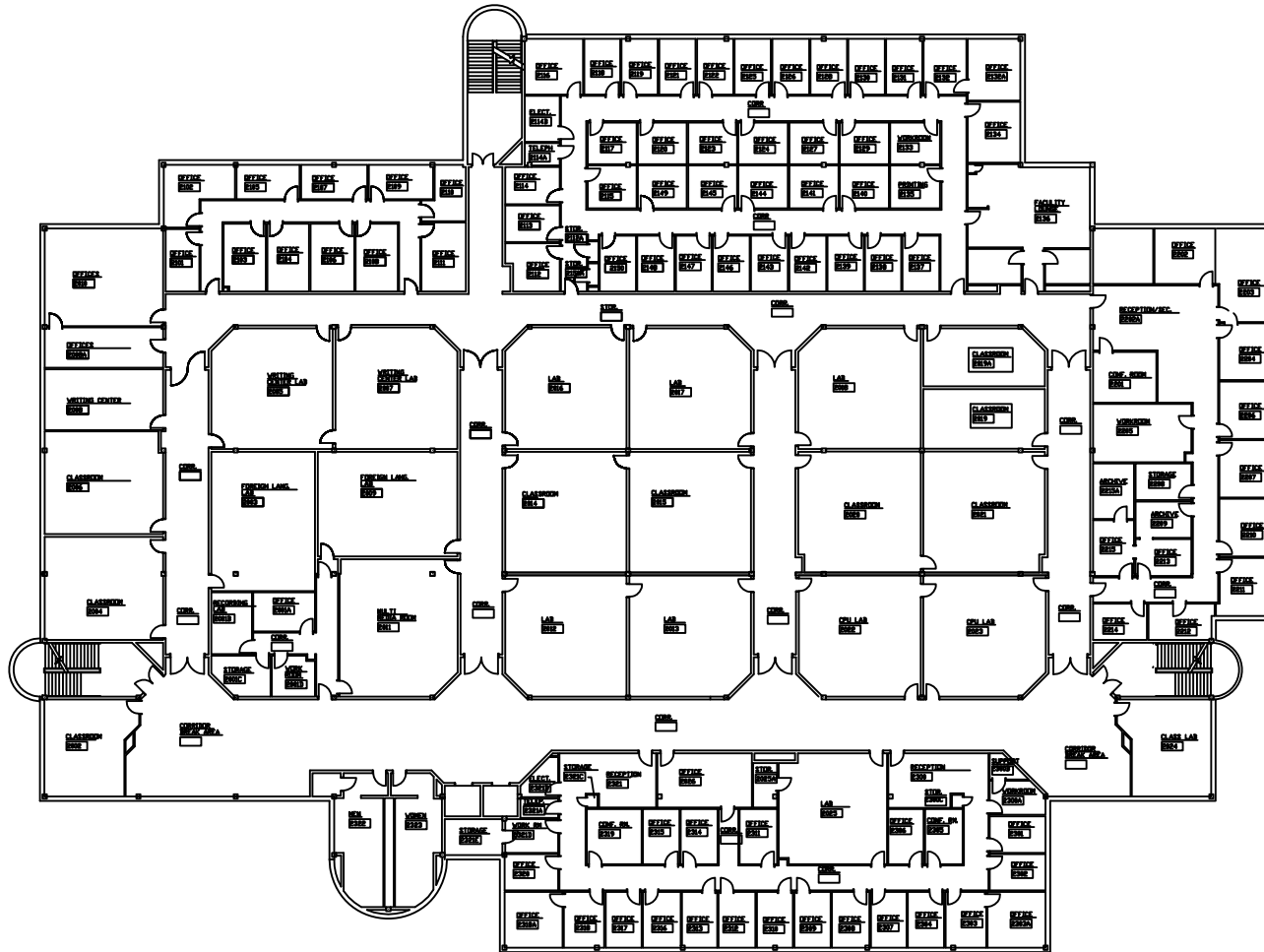
BASEMENT

EL03 EL04 FS02

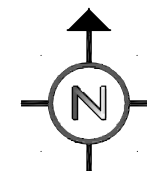
FS03 HV01

EL01 PL02 PL02





AC02	AC04	AC05	EL03	EL04	FS02
FS03	FS05	HV01	IS01	IS02	IS03



HAROLD H.
BATE BUILDING

BLDG NO. BATE



FACILITY
CONDITION
ANALYSIS

2165 West Park Court
Suite N
Stone Mountain GA 30087
770.879.7376

PROJECT NUMBER
APPLIES TO
ONE ROOM ONLY

PROJECT NUMBER
APPLIES TO
ONE ITEM ONLY

PROJECT NUMBER
APPLIES TO
ENTIRE BUILDING

PROJECT NUMBER
APPLIES TO
ENTIRE FLOOR

PROJECT NUMBER
APPLIES TO A SITUATION
OF UNDEFINED EXTENTS

PROJECT NUMBER
APPLIES TO AREA
AS NOTED

Date: 10/30/09

Drawn by: J.T.V.

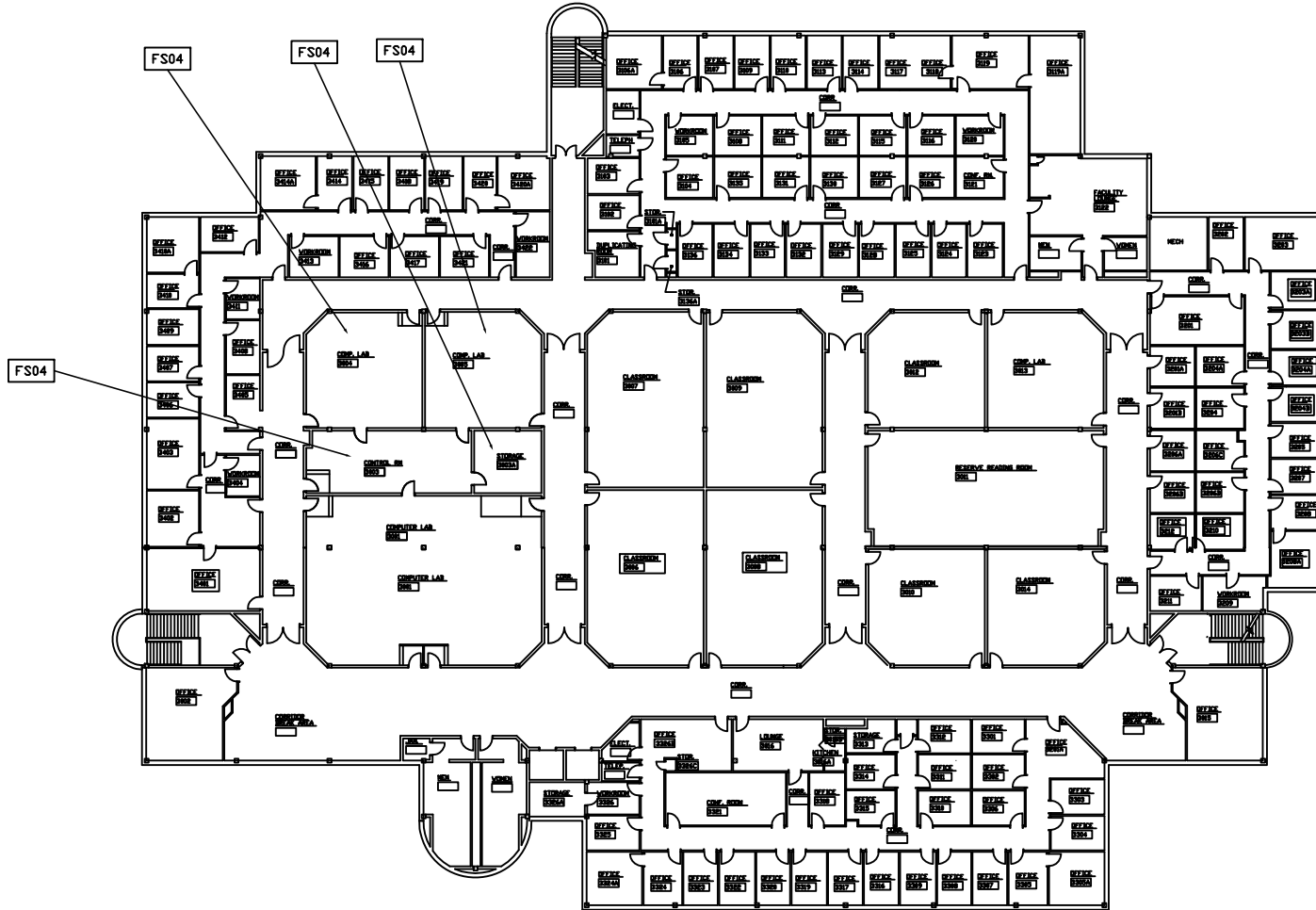
Project No. 09-041

SECOND
FLOOR
PLAN

Sheet No.

2 of 3

ROOF
HV01



AC02	AC04	AC05	EL03	EL04	FS02
FS03	FS05	HV01	IS01	IS02	IS03







HAROLD H.
BATE BUILDING

BLDG NO. BATE



FACILITY
CONDITION
ANALYSIS

2165 West Park Court
Suite N
Stone Mountain GA 30087
770.879.7376

-  PROJECT NUMBER APPLIES TO ONE ROOM ONLY
-  PROJECT NUMBER APPLIES TO ONE ITEM ONLY
-  PROJECT NUMBER APPLIES TO ENTIRE BUILDING
-  PROJECT NUMBER APPLIES TO ENTIRE FLOOR
-  PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS
-  PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 10/30/09
 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
BATE : HAROLD H. BATE BUILDING**

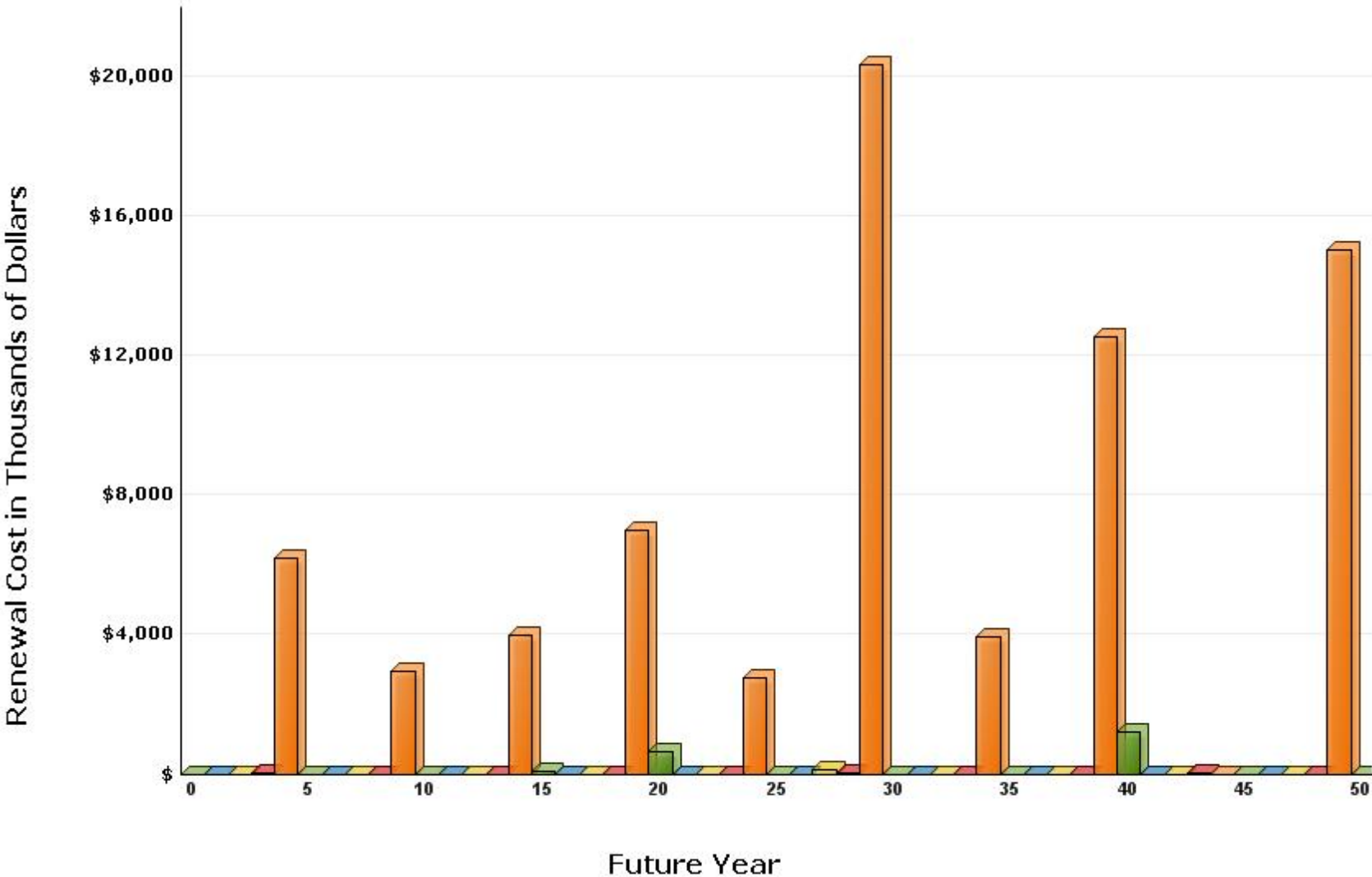
Unifomat Code	Component Description	Qty	Units	Unit Cost	Complex Adj	Total Cost	Install Date	Life Exp
B2010	EXTERIOR FINISH RENEWAL	25,660	SF	\$1.30	.31	\$10,370	1988	10
B2020	STANDARD GLAZING AND CURTAIN WALL	13,820	SF	\$104.04		\$1,437,786	1988	55
B2030	HIGH TRAFFIC EXTERIOR DOOR SYSTEM	16	LEAF	\$4,311.24		\$68,980	1988	20
B2030	LOW TRAFFIC EXTERIOR DOOR SYSTEM	8	LEAF	\$2,863.29		\$22,906	1988	40
B3010	BUILT-UP ROOF	55,000	SF	\$6.70		\$368,645	2009	20
C1020	STANDARD DOOR AND FRAME INCLUDING HARDWARE	300	LEAF	\$783.68		\$235,103	1988	35
C1020	RATED DOOR AND FRAME INCLUDING HARDWARE	100	LEAF	\$1,489.06		\$148,906	1988	35
C1020	INTERIOR DOOR HARDWARE	100	EA	\$423.04		\$42,304	1988	15
C1020	INTERIOR DOOR HARDWARE	300	EA	\$423.04		\$126,913	1988	15
C3010	STANDARD WALL FINISH (PAINT, WALL COVERING, ETC.)	211,160	SF	\$0.80		\$169,148	1988	10
C3020	CARPET	82,010	SF	\$8.75		\$717,297	1988	10
C3020	VINYL FLOOR TILE	29,290	SF	\$6.59		\$192,959	1988	15
C3020	RESURFACE AND SEAL CONCRETE OR TERRAZZO	5,860	SF	\$5.85		\$34,262	1988	50
C3030	ACOUSTICAL TILE CEILING SYSTEM	111,290	SF	\$4.99		\$555,672	1988	15
C3030	PAINTED CEILING FINISH APPLICATION	5,860	SF	\$0.80		\$4,694	1988	15
D1010	ELEVATOR MODERNIZATION - HYDRAULIC	2	EA	\$158,628.64		\$317,257	1988	25
D1010	ELEVATOR CAB RENOVATION - PASSENGER	2	EA	\$26,616.80		\$53,234	1988	12
D2010	PLUMBING FIXTURES - CLASSROOM / ACADEMIC	165,000	SF	\$7.96		\$1,312,969	1988	35
D2020	WATER PIPING - CLASSROOM / ACADEMIC	165,000	SF	\$5.66		\$934,355	1988	35
D2020	WATER HEATER (RES., ELEC.)	40	GAL	\$47.95		\$1,918	1988	10
D2020	WATER HEATER (ELECTRIC, INSTANTANEOUS)	1	EA	\$469.64		\$470	2005	10
D2030	DRAIN PIPING - CLASSROOM / ACADEMIC	165,000	SF	\$8.60		\$1,418,180	1988	40
D2030	SUMP PUMP SYS (2 PUMPS, CONTROLS)	2	SYS	\$8,276.49	.5	\$8,276	1988	20
D2050	AIR COMPRESSOR PACKAGE (AVERAGE SIZE)	1	SYS	\$6,456.49		\$6,456	1988	25
D3040	CONDENSATE RECEIVER	1	SYS	\$9,504.01		\$9,504	1988	15
D3040	CONDENSATE RECEIVER	1	SYS	\$9,504.01	.5	\$4,752	1988	15
D3040	EXHAUST FAN - CENTRIFUGAL ROOF EXHAUSTER OR SIMILAR	1	EA	\$2,768.62		\$2,769	1988	20
D3040	EXHAUST FAN - UTILITY SET OR SIMILAR	1	EA	\$3,660.81		\$3,661	1988	20
D3040	EXHAUST FAN - PROPELLER TYPE OR SIMILAR	10	EA	\$1,357.34		\$13,573	1988	20

Life Cycle Model
Building Component Summary
BATE : HAROLD H. BATE BUILDING

Unifomat Code	Component Description	Qty	Units	Unit Cost	Complex Adj	Total Cost	Install Date	Life Exp
D3040	ELECTRIC UNIT HEATER (10 KW)	3	EA	\$1,255.64		\$3,767	1988	22
D3040	HVAC SYSTEM - CLASSROOM / ACADEMIC	165,000	SF	\$30.67		\$5,060,486	1988	25
D3040	BASE MTD. PUMP - UP TO 15 HP	10	HP	\$3,175.77		\$31,758	1988	20
D3040	BASE MTD. PUMP - UP TO 15 HP	6	HP	\$3,175.77		\$19,055	1988	20
D3040	COMPUTER PACKAGE UNIT - CHILLED WATER	6	TON	\$2,263.63		\$13,582	2007	15
D4040	HALON - FM200 - INERGEN FIRE SUPPRESSION	14,400	CF	\$3.48		\$50,118	1988	25
D5010	ELECTRICAL SYSTEM - CLASSROOM / ACADEMIC	165,000	SF	\$13.35		\$2,202,620	1988	50
D5010	ELECTRICAL SWITCHGEAR 277/480V	2,500	AMP	\$39.56		\$98,909	1988	20
D5020	EXIT SIGNS (CENTRAL POWER)	50	EA	\$163.78		\$8,189	1988	20
D5020	LIGHTING - CLASSROOM / ACADEMIC	165,000	SF	\$6.26		\$1,032,512	1988	20
D5030	FIRE ALARM SYSTEM, POINT ADDRESSABLE	165,000	SF	\$2.61		\$431,407	1988	15
D5040	GENERATOR, DIESEL (100-200 KW)	125	KW	\$493.93		\$61,741	1988	25
E2010	KITCHENETTE UNIT WITH CABINETRY AND AMENITIES	4	LOT	\$5,940.22		\$23,761	1988	20
E2010	BASIC FOLDING FIXED SEATING	1,210	EA	\$278.95		<u>\$337,527</u>	1988	20
						\$17,598,749		

Life Cycle Model Expenditure Projections

BATE : HAROLD H. BATE BUILDING



Average Annual Renewal Cost Per SqFt \$4.15

FACILITY CONDITION ANALYSIS

SECTION 6

PHOTOGRAPHIC LOG

**Photo Log - Facility Condition
Analysis
BATE : HAROLD H. BATE BUILDING**

Photo ID No	Description	Location	Date
BATE001a	Roof detail	Roof	9/10/2009
BATE001e	Exhaust fan	Roof	9/10/2009
BATE002a	Roof detail	Roof	9/10/2009
BATE002e	Condensing unit	Roof	9/10/2009
BATE003a	Roof detail	Roof	9/10/2009
BATE003e	Exit signage and fire alarm devices	Third floor, corridor	9/10/2009
BATE004a	Stairwell design	Third floor	9/10/2009
BATE004e	Air conditioning unit	Third floor, room 3003	9/10/2009
BATE005a	Stairwell design	Third floor	9/10/2009
BATE005e	Ansul fire suppression system	Third floor, room 3003	9/10/2009
BATE006a	Door hardware and signage	Third floor	9/10/2009
BATE006e	Drain piping	Third floor, janitor's closet	9/10/2009
BATE007a	Interior corridor finishes	Third floor	9/10/2009
BATE007e	Service sink	Third floor, janitor's closet	9/10/2009
BATE008a	Dual level drinking fountain	Third floor	9/10/2009
BATE008e	Lavatories	Third floor, restroom	9/10/2009
BATE009a	Window detail	Third floor	9/10/2009
BATE009e	Urinals	Third floor, restroom	9/10/2009
BATE010a	Two single level drinking fountains	Third floor	9/10/2009
BATE010e	Water closet	Third floor, restroom	9/10/2009
BATE011a	Office suite finishes	Third floor	9/10/2009
BATE011e	Interior lighting	Third floor, restroom	9/10/2009
BATE012a	Stairwell design	Third floor	9/10/2009
BATE012e	Thermostat	Third floor, room 3326B	9/10/2009
BATE013a	Classroom finishes	Third floor	9/10/2009
BATE013e	Drain piping and water heater	Third floor, room 3119A	9/10/2009
BATE014a	Fire penetrations	Third floor	9/10/2009
BATE014e	Interior lighting	Second floor, classroom	9/10/2009
BATE015a	Break room sink design	Third floor	9/10/2009
BATE015e	Sump pump system	Basement, mechanical room	9/10/2009
BATE016a	Office suite finishes	Second floor	9/10/2009
BATE016e	Pump equipment	Basement, mechanical room	9/10/2009
BATE017a	Office suite finishes	Second floor	9/10/2009

**Photo Log - Facility Condition
Analysis
BATE : HAROLD H. BATE BUILDING**

Photo ID No	Description	Location	Date
BATE017e	Motor control center	Basement, mechanical room	9/10/2009
BATE018a	Interior corridor finishes	First floor	9/10/2009
BATE018e	Compressor	Basement, mechanical room	9/10/2009
BATE019a	Interior corridor finishes	First floor	9/10/2009
BATE019e	Fan	Basement, mechanical room	9/10/2009
BATE020a	Lecture hall finishes	First floor	9/10/2009
BATE020e	Air handling equipment	Basement, mechanical room	9/10/2009
BATE021a	Lecture hall finishes	First floor	9/10/2009
BATE021e	Steam equipment	Basement, mechanical room	9/10/2009
BATE022a	Lecture hall finishes	First floor	9/10/2009
BATE022e	Condensate return system	Basement, mechanical room	9/10/2009
BATE023a	Lecture hall finishes	First floor	9/10/2009
BATE023e	Heat exchanger	Basement, mechanical room	9/10/2009
BATE024a	Lecture hall finishes	First floor	9/10/2009
BATE024e	Exhaust fan	Basement, mechanical room	9/10/2009
BATE025a	Lecture hall finishes	First floor	9/10/2009
BATE025e	Unit heater	Basement, mechanical room	9/10/2009
BATE026a	North facade	Exterior elevation	9/10/2009
BATE026e	Pump equipment	Basement, mechanical room	9/10/2009
BATE027a	West facade	Exterior elevation	9/10/2009
BATE027e	HVAC controls	Basement, mechanical room	9/10/2009
BATE028a	West facade	Exterior elevation	9/10/2009
BATE028e	Water heater	Basement, mechanical room	9/10/2009
BATE029a	West facade	Exterior elevation	9/10/2009
BATE029e	Exhaust fan	Basement, mechanical room	9/10/2009
BATE030a	West entrance	Exterior elevation	9/10/2009
BATE030e	Emergency generator	Site	9/10/2009
BATE031a	South facade	Exterior elevation	9/10/2009
BATE031e	Fire alarm panel	Basement, electrical room	9/10/2009
BATE032a	East facade	Exterior elevation	9/10/2009
BATE032e	Electrical equipment	Basement, electrical room	9/10/2009
BATE033a	East entrance	Exterior elevation	9/10/2009
BATE033e	Transformer	Site	9/10/2009

**Photo Log - Facility Condition
Analysis
BATE : HAROLD H. BATE BUILDING**

Photo ID No	Description	Location	Date
BATE034a	East facade	Exterior elevation	9/10/2009
BATE034e	Exterior lighting	Site	9/10/2009
BATE035a	Northeast entrance	Exterior elevation	9/10/2009
BATE035e	Elevator machine	Basement, elevator machine room	9/10/2009
BATE036e	Exhaust fan	Basement, elevator machine room	9/10/2009
BATE037e	Exterior lighting	Exterior	9/10/2009

Facility Condition Analysis - Photo Log



BATE001A.jpg



BATE001E.jpg



BATE002A.jpg



BATE002E.jpg



BATE003A.jpg



BATE003E.jpg



BATE004A.jpg



BATE004E.jpg



BATE005A.jpg



BATE005E.jpg



BATE006A.jpg



BATE006E.jpg



BATE007A.jpg



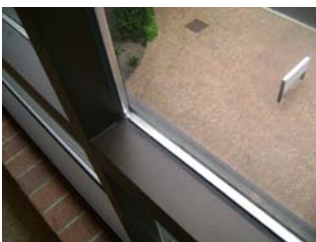
BATE007E.jpg



BATE008A.jpg



BATE008E.jpg



BATE009A.jpg



BATE009E.jpg



BATE010A.jpg



BATE010E.jpg

Facility Condition Analysis - Photo Log



BATE011A.jpg



BATE011E.jpg



BATE012A.jpg



BATE012E.jpg



BATE013A.jpg



BATE013E.jpg



BATE014A.jpg



BATE014E.jpg



BATE015A.jpg



BATE015E.jpg



BATE016A.jpg



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BATE017A.jpg



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BATE018A.jpg



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BATE019A.jpg



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BATE020A.jpg



BATE020E.jpg

Facility Condition Analysis - Photo Log



BATE021A.jpg



BATE021E.jpg



BATE022A.jpg



BATE022E.jpg



BATE023A.jpg



BATE023E.jpg



BATE024A.jpg



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BATE025A.jpg



BATE025E.jpg



BATE026A.jpg



BATE026E.jpg



BATE027A.jpg



BATE027E.jpg



BATE028A.jpg



BATE028E.jpg



BATE029A.jpg



BATE029E.jpg



BATE030A.jpg



BATE030E.jpg

Facility Condition Analysis - Photo Log



BATE031A.jpg



BATE031E.jpg



BATE032A.jpg



BATE032E.jpg



BATE033A.jpg



BATE033E.jpg



BATE034A.jpg



BATE034E.jpg



BATE035A.jpg



BATE035E.jpg



BATE036E.jpg



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