

EAST CAROLINA UNIVERSITY

BREWSTER BUILDING

ASSET CODE: BREW

FACILITY CONDITION ANALYSIS

AUGUST 25, 2010



EAST CAROLINA UNIVERSITY
Facility Condition Analysis

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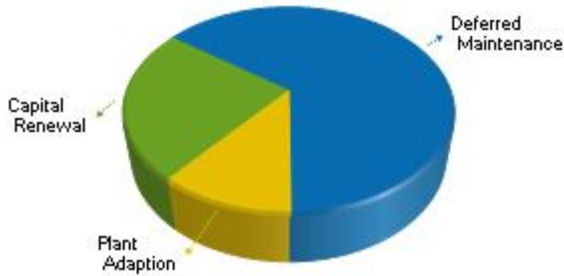
FACILITY CONDITION ANALYSIS

SECTION 1

GENERAL ASSET INFORMATION

EXECUTIVE SUMMARY - BREWSTER BUILDING

PROJECT COSTS BY CLASSIFICATION



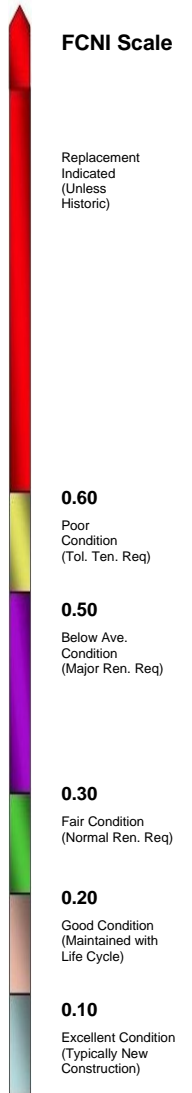
Building Code: BREW
Building Name: BREWSTER BUILDING
Year Built: 1970
Building Use: Classroom / Academic
Square Feet: 118,456

Project Costs by Priority

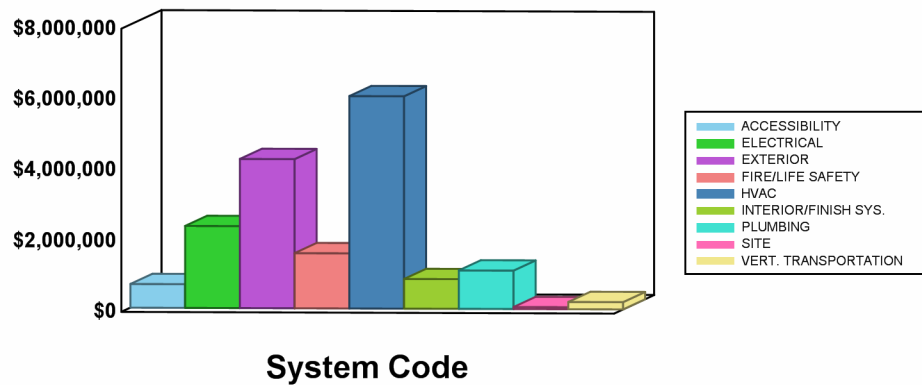
Priority 1: \$468,665
Priority 2: \$966,032
Priority 3: \$13,101,674
Priority 4: \$2,355,222
Total Project Costs: **\$16,891,593**

Facility Replacement Cost: **\$34,854,846**

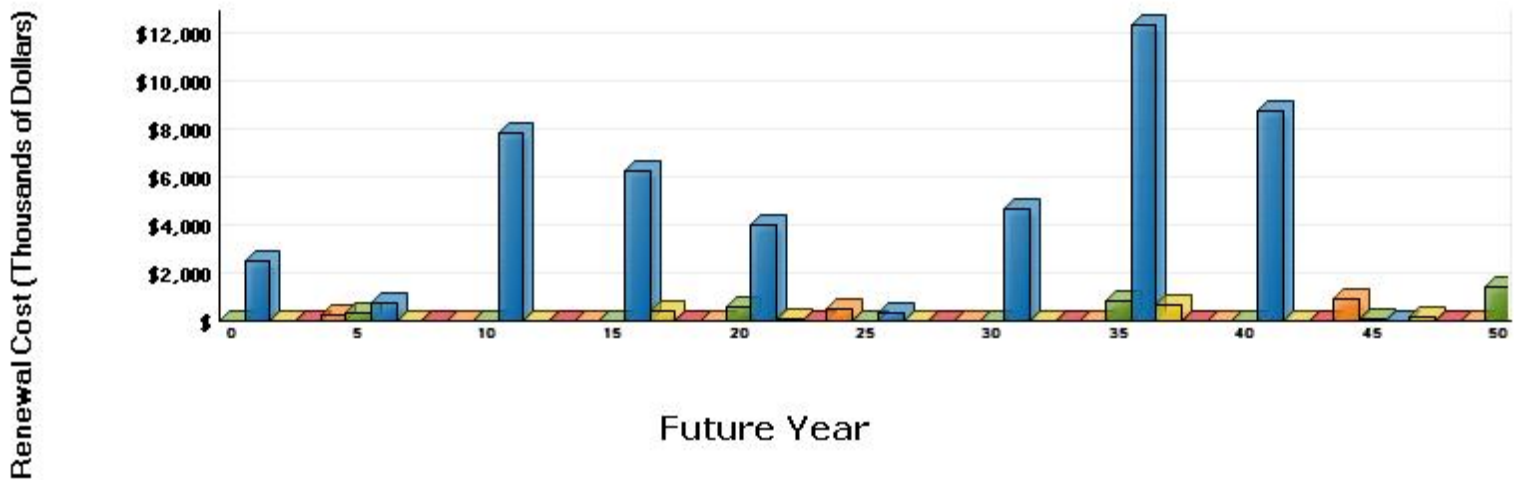
Facility Condition Needs Index (FCNI): **0.48**
 (Project Costs / Replacement Cost)



PROJECT COSTS BY SYSTEM CODE



LIFE CYCLE MODEL EXPENDITURE PROJECTIONS



Average Annual Renewal Cost Per SqFt \$4.46

B. ASSET SUMMARY

Constructed in 1970, the Brewster Building has four separate wings, each connected by breezeways. These four, rectangular-shaped wings are located around the four sides of a square-O-shaped courtyard. Deliberately designed like a fortress, all four wings are entered only from the courtyard. The four breezeway entrances into the courtyard have a coiling overhead gate, now deactivated in place, but subsequently supplanted by swinging steel gates. All of the windows have a projecting, precast concrete surround to minimize being able to see into as few windows at one time as possible. The small east and west wings, and the much larger north wing, have three floors each. The long, narrow office wing along the south side of the courtyard has four floors, all off-set vertically by half a floor height from the floor levels of the other three wings. The “extra floor” on the A wing is at the bottom of that wing and lower than the bottom floor of the other three wings, which allows the roof level of all four wings to be level with one another. This concrete-framed, classroom and office structure is located near the southeast corner of the northern portion of the East Carolina University campus in Greenville, North Carolina. It has a listed area of 118,456 gross square feet.

The information for this report was gathered during an inspection conducted on August 31, 2009.

SITE

The landscaping on this relatively large, slightly sloping site consists of turf, shrubs, specimen trees, and foundation planting. All are in overall good condition. However, the overall condition of the site is such that a moderate landscaping project is warranted.

EXTERIOR STRUCTURE

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. Several of the precast concrete guardrails at the exterior connecting steps appear to be rotating out of vertical. All of these guardrails should be checked for movement, steps taken to prevent further movement, and repairs made to return these guardrails to their designed positions. There is also spalling of the exterior communicating stair landing concrete at several locations, exposing the reinforcing steel. This spalling should be patched to protect this steel.

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

The existing window systems are operable, non-insulating units. It is recommended that these single pane, metal-framed window applications be upgraded with fixed thermal pane glazing systems. Such double pane systems will reduce the energy required to operate the building. Repair or replacement of the windowsills and trim may also be necessary. The exterior doors are in overall fair condition, with no proposed upgrades.

INTERIOR FINISHES / SYSTEMS

The interior of all four wings has a double-loaded central corridor with classrooms and offices on both sides. All of the walls are floor-to-ceiling and painted. The interior wall finish applications typically vary in age and condition. Wall finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

Ceilings in most spaces are lay-in, acoustical tile, with some painted ceilings. These applications are in overall fair condition and are also recommended for replacement or refinishing as part of future cosmetic improvements or major comprehensive renovation efforts.

Interior floor finish applications consist mostly of vinyl tile on the floors of the A wing and terrazzo on the corridor floors of the other three wings. Most of the remaining flooring is vinyl tile in the building, but there are numerous offices and a few classrooms that are carpeted. All of this flooring is in overall good condition. Experience indicates that all of the carpeting will be at or near the end of its useful service life within the next five to seven years and should be replaced, in kind, within the next five years.

The fixed seating in the tiered classrooms is worn and should be upgraded. Replace this seating with molded fixed seats in a similar row configuration. Ensure that ADA requirements are followed with the new seating layout. Interior doors are in overall fair condition, with no proposed upgrades to the finishes of the non-rated doors.

The entry floor men's restroom and women's restroom fixtures and finishes have been upgraded recently and are accessible to persons with disabilities. The fixtures and finishes in these two restrooms are sound, but the finishes in both restrooms will need to be renewed within the next ten years.

ACCESSIBILITY

There is some handicapped accessibility into and through this facility. Most entrances are at-grade, entry floor restrooms are wheelchair accessible, and there are two elevators, some lever door hardware, and some ADA compliant signage. Many accessibility upgrades are recommended.

ADA legislation pertaining to handicapped access into buildings requires that site steps be generally accessible to all persons. There is no apparent way for a wheelchair user to negotiate the series of steps in the courtyard. It is recommended that a wheelchair lift or stair climber be installed at various locations in the courtyard and that painted, galvanized metal handrails with the appropriate end geometry be installed at all of the courtyard steps.

Accessibility legislation also requires that door hardware be designed for operation by people with little or no ability to grasp objects with their hands. To comply with the intent of this legislation, it is recommended that lever handle door hardware be installed on all doors that currently still have knob hardware.

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. The end geometry of the existing interior stair handrails does not fully comply with the current legislation. Painted metal handrail extensions should be added to the ends of all of the interior handrails.

Current accessibility legislation requires that places of assembly be accessible to the handicapped. The tiered classrooms have multiple barriers to accessibility. Install transmitter and headphone receiver sets to accommodate those individuals that require audible assistance. There is also no access between tiers. In order to provide adequate access, it is recommended that a wheelchair lift be installed at the tiers.

Except for the entry floor men's restroom and women's restroom, the remaining restrooms in this building have aging fixtures and finishes and are not wheelchair accessible. The entry floor public restrooms are accessible to persons with disabilities. A comprehensive renovation of the upper floor restrooms, including new fixtures, finishes, and accessories, is recommended. Restroom expansion may be necessary in order to meet modern minimum fixture counts and accessibility legislation.

Legislation requires that building amenities such as the drinking fountains be generally accessible to all persons. The single level configuration of most of the drinking fountains is a barrier to wheelchair accessibility. Some pairs of fountains are mounted at the same height, invalidating the dual fountain concept. The installation of a dual level, refrigerated drinking fountain is recommended to replace the existing fountains that are not already dual level installations or that are not already pairs of fountains that are mounted at two different heights.

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

HEALTH

No information was provided by the University as to the presence of asbestos containing material (ACM) within this building. No ACM abatement is proposed. There was no evidence of a presence of infestations by vermin or insects in this building.

FIRE / LIFE SAFETY

Most of the exit access corridor doors in this facility do not have obvious fire ratings. The complete demolition of the existing corridor door systems and their replacement according to a code compliant plan to protect egress passages properly is recommended where it cannot be determined that the existing exit access doors and doorframes are rated.

The current floor plan arrangement has the elevator lobbies opening into the existing hall corridors. IBC 2000 states that elevators opening into a fire resistant corridor should be provided with an elevator lobby at each floor containing such a corridor. The lobby should completely separate the elevators from the corridor with rated partitions. Elevator lobbies also need to contain smoke detectors. The construction of fire resistant barriers with automatically closing fire doors is recommended between the elevator lobbies and corridors to provide the required separation and protection on all floors, except for the entry floor of the A wing, where it is not required.

This building appears to have been constructed in substantial compliance with building codes. The exits seem to be sufficient in number and location, as long as the courtyard gates are not padlocked while the building is still occupied. No exit projects are proposed.

This facility is protected by a central fire alarm system. The point addressable system was manufactured by Notifier, and a fire alarm control panel is located in each wing. The devices that serve this system include manual pull stations, audible / visible devices, and smoke detectors. The fire alarm system was installed in 1999 and is approaching the end of its intended life cycle. It should be anticipated that it will require replacement within the scope of this analysis.

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

Exit signs in this facility are illuminated with fluorescent lamps and are connected to the standard power network. The exit signs have battery backup as an alternate source of power during power outages. Emergency lighting is provided by standard light fixtures connected to emergency circuits powered by a diesel fired generator utilized during power outages. Replace the existing exit signage throughout the building. Install new exit signs as needed. The new units should be connected to the emergency power network. LED type exit signs are recommended because they are energy efficient and require minimal maintenance.

HVAC

This facility is on the campus steam loop. Hot water is circulated as the heating medium. The cooling medium is supplied by the campus chilled water loop. The A wing is served by a forced air HVAC system with multizone air handling units, and the B, C, and D wings are served by a dual duct, forced air HVAC system. The air handling units have hot water heating coils and chilled water cooling coils. The ventilation system delivers 100 percent outside air to specific interior spaces. The air distribution network furnishes constant volume air to the occupied spaces. Hot water reheat coils are mounted in the duct. Air is returned to the air handlers on each floor of the B, C, and D wings via the hallways. The controls for the system are pneumatic and were manufactured by Honeywell. The components of the HVAC system have aged beyond their statistical life cycles, and the system is inefficient compared to modern standards. It is recommended that the HVAC system be renovated.

ELECTRICAL

An oil-filled transformer that is rated for 1,000 kVA service steps the incoming power down to 277/480 volts. The 277/480 volt power is distributed by a switchgear that is rated for 2,000 amp service and was manufactured by General Electric. The incoming service transformer is relatively new, but the 277/480 volt switchgear and distribution panel is original equipment and recommended for replacement. This measure will effectively promote reliable electrical service to this facility.

The electrical distribution network in this facility is a dual voltage configuration. 277/480 volt power is distributed to branch transformers that step the power down to 120/208 volt power. The lighting and major mechanical systems are supported by the 277/480 volt circuit. The panels were manufactured

predominantly by General Electric. The electrical devices in this facility are aged and visibly worn, and the system is undersized to support the current needs of the occupants. It should be anticipated that the electrical distribution network will no longer be able to support normal loads and expansion. Replace this network within the scope of this analysis.

The interior spaces of the B, C, and D wings are illuminated by fixtures that utilize compact and T8 fluorescent lamps. Energy-efficient ballasts and lamps were retrofitted into the original light fixtures. There are still some T12 fluorescent lamps in service. The lenses on the light fixtures are aged and present a dim aesthetic. Some lenses are worn or missing. The interior lighting has generally served beyond its expected life cycle and is recommended for replacement. Specify energy-efficient light fixtures for the new interior lighting systems, and install occupancy sensors where possible.

The interior spaces of the A wing are illuminated by fixtures that utilize compact and T8 fluorescent lamps. Most of the fluorescent lighting fixtures are recessed, compact applications. Occupancy sensors have been incorporated into the classroom lighting systems. The interior lighting is in good condition. With proper care, it will outlast the purview of this report.

The exterior areas adjacent to the building are illuminated by building-mounted high intensity discharge (HID) and stanchion-mounted fixtures. These exterior light fixtures are currently in good condition. However, their replacement should be scheduled within the outlook of this report due to predictable wear. Install new energy-efficient fixtures, and place them on photocell activation.

Emergency power for this facility is produced by a local diesel-fired emergency generator. This unit has a 50 kW capacity, generates 120/208 volt power, and was manufactured by Cummins. The generator is currently adequate and should remain a reliable source of stand-by power throughout the purview of this analysis.

PLUMBING

Potable water is distributed throughout this facility via a copper piping network. This piping should adequately serve this facility throughout the ten-year purview of this report. However, it is recommended that a backflow preventer be installed to prevent cross-contamination of the potable water supply.

Sanitary waste and storm water piping is cast-iron, bell-and-spigot construction with galvanized steel runouts. No-hub piping has been utilized for patching and renovations. The drain piping network is aged and should be replaced. Failure to undertake such upgrades will likely lead to leaks, drainage issues, and other problems that will require costly maintenance. The plumbing fixtures are recommended for replacement. This action is detailed in the proposed restroom renovations. Domestic water for this facility is heated by an electric, commercial-grade water heater. This unit is adequate and in good condition. It will likely outlast the purview of this analysis.

VERTICAL TRANSPORTATION

The University commissioned an outside contractor to perform an elevator condition study in 2009. The capital project recommendations from this study have been included as projects in the ISES database.

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: August 31, 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	DAMP/PROOFING/DEWATERING	Foundation/footing waterproofing work including, damp proofing, dewatering, insulation, etc.
ES2A	COLUMNS/BEAMS/WALLS	STRUCTURE	Structural work to primary load-bearing structural components aside from floors including columns, beams, bearing walls, lintels, arches, etc.
ES2B	COLUMNS/BEAMS/WALLS	FINISH	Work involving restoration of the appearance and weatherproof integrity of exterior wall/structural envelope components including masonry/pointing, expansion joints, efflorescence & stain removal, grouting, surfacing, chimney repairs, etc.
ES3A	FLOOR	STRUCTURE	Work concerning the structural integrity of the load supporting floors both exposed and unexposed including deformation, delamination, spalling, shoring, crack repair, etc.
ES4A	ROOF	REPAIR	Work on waterproof horizontal finish (roof) involving repair and/or limited replacement (<40% total) including membrane patching, flashing repair, coping caulk/resetting, PPT wall parging/coating, walkpad installation, skylight and roof hatch R&R, etc.
ES4B	ROOF	REPLACEMENT	Work involving total refurbishment of roofing system including related component rehab.
ES5A	FENESTRATIONS	DOORS	Work on exterior exit/access door including storefronts, airlocks, air curtains, vinyl slat doors, all power/manual operating hardware (except handicapped), etc.
ES5B	FENESTRATIONS	WINDOWS	Work on exterior fenestration closure & related components including glass/metal/wood curtain walls, fixed or operable window sashes, glazing, frames, sills, casings, stools, seats, coatings, treatments, screens, storm windows, etc.
ES6A	GENERAL	ATTACHED STRUCTURE	Work on attached exterior structure components not normally considered in above categories including porches, stoops, decks, monumental entrance stairs, cupolas, tower, etc.
ES6B	GENERAL	AREAWAYS	Work on attached grade level or below structural features including subterranean light wells, areaways, basement access stairs, etc.
ES6C	GENERAL	TRIM	Work on ornamental exterior (generally non-structural) elements including beltlines, quoins, porticos, soffits, cornices, moldings, trim, etc.
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
 BREW : BREWSTER BUILDING**

System Code	System Description	Priority Classes				Subtotal
		1	2	3	4	
AC	ACCESSIBILITY	0	0	0	670,337	670,337
EL	ELECTRICAL	0	0	2,315,588	0	2,315,588
ES	EXTERIOR	0	97,347	4,116,247	0	4,213,594
FS	FIRE/LIFE SAFETY	365,535	856,308	327,654	8,623	1,558,120
HV	HVAC	0	0	6,000,000	0	6,000,000
IS	INTERIOR/FINISH SYS.	0	0	236,402	602,121	838,523
PL	PLUMBING	0	12,377	0	1,074,141	1,086,518
SI	SITE	0	0	2,652	0	2,652
VT	VERT. TRANSPORTATION	103,130	0	103,130	0	206,260
	TOTALS	468,665	966,032	13,101,674	2,355,222	16,891,593

Facility Replacement Cost	\$34,854,846
Facility Condition Needs Index	0.48

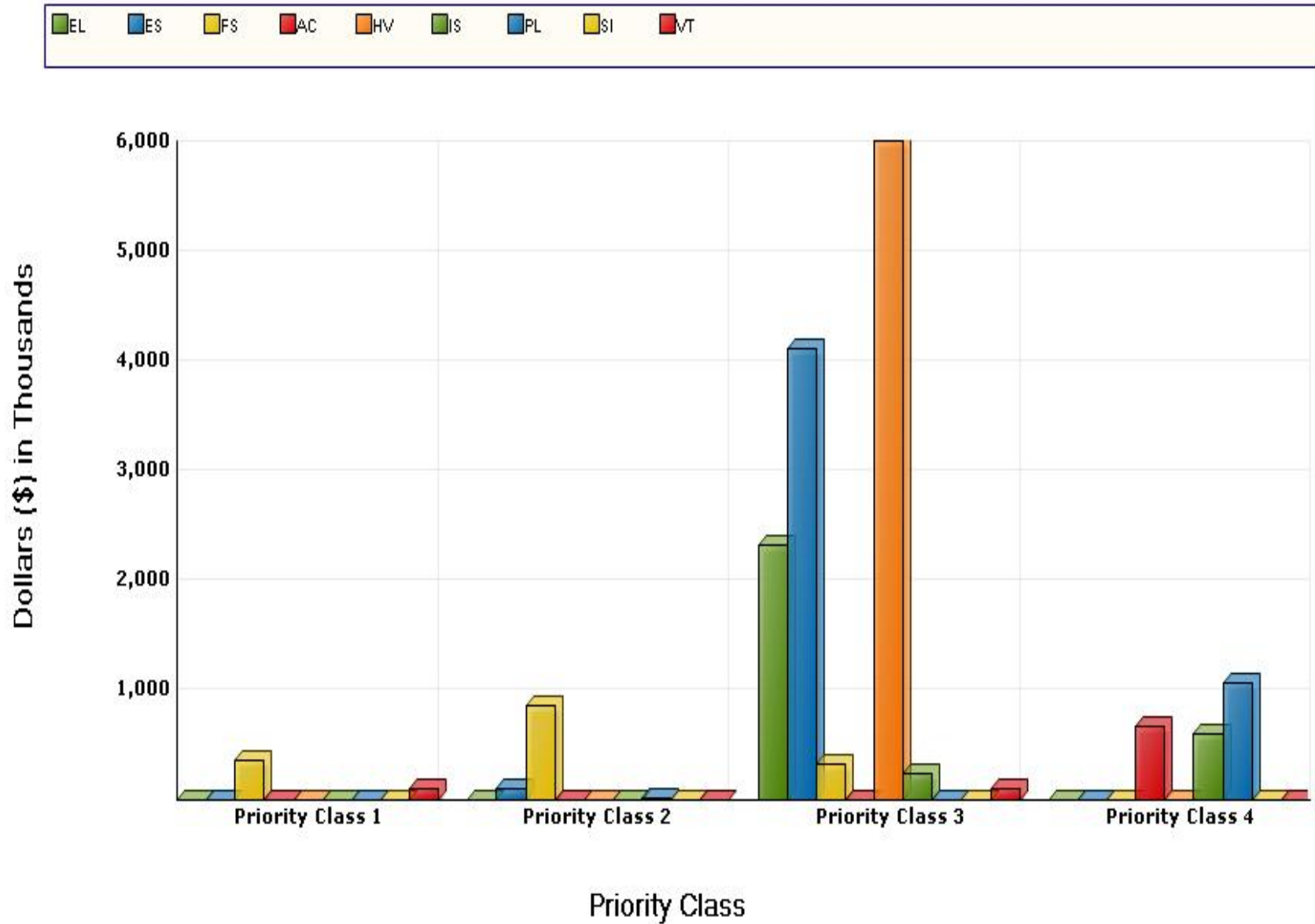
Gross Square Feet	118,456
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Total Cost Per Square Foot	\$142.60
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FACILITY CONDITION ANALYSIS

System Code by Priority Class

BREW : BREWSTER BUILDING



**Detailed Project Totals
 Facility Condition Analysis
 System Code by Project Class
 BREW : BREWSTER BUILDING**

System Code	System Description	Project Classes			Subtotal
		Capital Renewal	Deferred Maintenance	Plant Adaption	
AC	ACCESSIBILITY	0	0	670,337	670,337
EL	ELECTRICAL	1,700,563	615,025	0	2,315,588
ES	EXTERIOR	0	4,213,594	0	4,213,594
FS	FIRE/LIFE SAFETY	336,277	0	1,221,843	1,558,120
HV	HVAC	0	6,000,000	0	6,000,000
IS	INTERIOR/FINISH SYS.	838,523	0	0	838,523
PL	PLUMBING	1,074,141	0	12,377	1,086,518
SI	SITE	2,652	0	0	2,652
VT	VERT. TRANSPORTATION	103,130	103,130	0	206,260
	TOTALS	4,055,286	10,931,749	1,904,557	16,891,593

Facility Replacement Cost	\$34,854,846
Facility Condition Needs Index	0.48

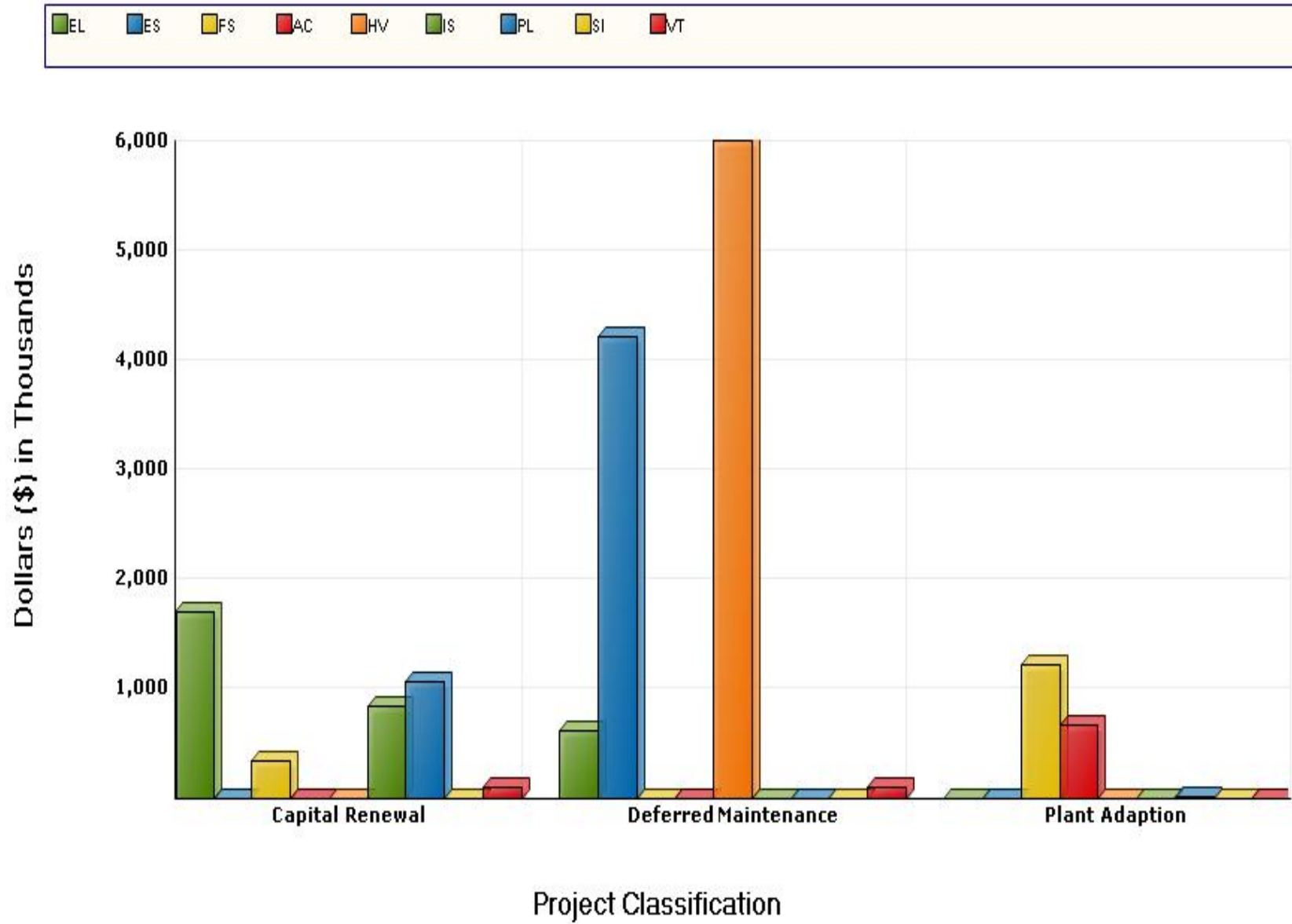
Gross Square Feet	118,456
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Total Cost Per Square Foot	\$142.60
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FACILITY CONDITION ANALYSIS

System Code by Project Class

BREW : BREWSTER BUILDING



Detailed Project Summary
Facility Condition Analysis
Project Class by Priority Class
BREW : BREWSTER BUILDING

Project Class	Priority Classes				Subtotal
	1	2	3	4	
Capital Renewal	103,130	0	2,267,272	1,684,885	4,055,286
Deferred Maintenance	0	97,347	10,834,402	0	10,931,749
Plant Adaption	365,535	868,685	0	670,337	1,904,557
TOTALS	468,665	966,032	13,101,674	2,355,222	16,891,593

Facility Replacement Cost	\$34,854,846
Facility Condition Needs Index	0.48

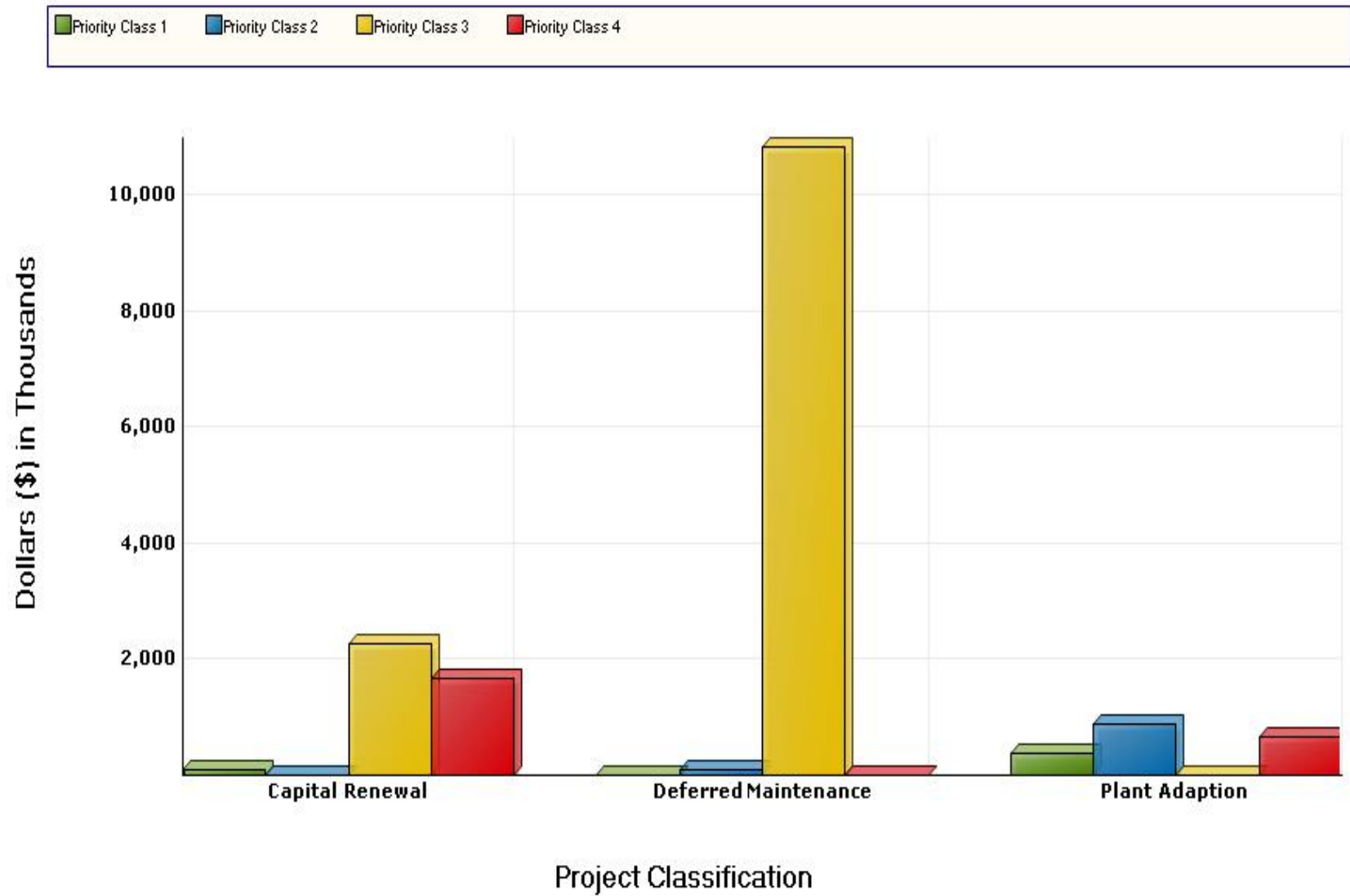
Gross Square Feet	118,456
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Total Cost Per Square Foot	\$142.60
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FACILITY CONDITION ANALYSIS

Project Class by Priority Class

BREW : BREWSTER BUILDING



Detailed Project Summary
Facility Condition Analysis
Priority Class - Priority Sequence
BREW : BREWSTER BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5F	BREWFS04	1	1	INSTALL RATED CORRIDOR DOORS	277,360	44,378	321,737
FS5C	BREWFS05	1	2	CONSTRUCT ELEVATOR LOBBIES	37,757	6,041	43,798
VT7A	BREWVT01	1	3	ELEVATOR NO. 2 A UPGRADE	103,130	0	103,130
Totals for Priority Class 1					418,246	50,419	468,665
FS3A	BREWFS02	2	4	FIRE SPRINKLER SYSTEM INSTALLATION	738,196	118,111	856,308
ES2B	BREWES01	2	5	EXTERIOR VENEER UPGRADES	83,920	13,427	97,347
PL1I	BREWPL03	2	6	INSTALL BACKFLOW PREVENTER	10,670	1,707	12,377
Totals for Priority Class 2					832,786	133,246	966,032
FS2A	BREWFS01	3	7	FIRE ALARM SYSTEM REPLACEMENT	282,461	45,194	327,654
ES4B	BREWES02	3	8	BUILT-UP ROOF REPLACEMENT	221,662	35,466	257,128
ES5B	BREWES03	3	9	WINDOW REPLACEMENT	3,326,827	532,292	3,859,120
HV3A	BREWHV01	3	10	HVAC SYSTEM REPLACEMENT	6,000,000	0	6,000,000
EL2A	BREWEL01	3	11	REPLACE 277/480 VOLT SWITCHGEAR	66,230	10,597	76,827
EL4B	BREWEL02	3	12	INTERIOR LIGHTING UPGRADE	463,964	74,234	538,198
EL3B	BREWEL03	3	13	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	1,436,813	229,890	1,666,704
EL4A	BREWEL04	3	14	EXTERIOR LIGHTING REPLACEMENT	29,189	4,670	33,859
IS2B	BREWIS01	3	15	INTERIOR WALL FINISH RENEWAL	110,229	17,637	127,866
IS1A	BREWIS02	3	16	CARPETING UPGRADES	93,566	14,970	108,536
SI2A	BREWSI01	3	17	LANDSCAPE UPGRADES	2,286	366	2,652
VT7A	BREWVT02	3	18	ELEVATOR NO. 1 B UPGRADE	103,130	0	103,130
Totals for Priority Class 3					12,136,357	965,316	13,101,674
FS1A	BREWFS03	4	19	REPLACE EXIT SIGNS	7,434	1,189	8,623
AC4B	BREWAC01	4	20	EXTERIOR WHEELCHAIR STAIR CLIMBER INSTALLATION	60,319	9,651	69,970
AC3C	BREWAC02	4	21	INSTALL LEVER ACTION DOOR HARDWARE	136,118	21,779	157,897
AC3B	BREWAC03	4	22	STAIR HANDRAIL UPGRADES	4,524	724	5,248
AC4B	BREWAC04	4	23	AUDITORIUM ACCESSIBILITY UPGRADES	23,424	3,748	27,172
AC3E	BREWAC05	4	24	UPPER FLOOR RESTROOM ACCESSIBILITY UPGRADES	300,259	48,041	348,300
AC3F	BREWAC06	4	25	DUAL LEVEL DRINKING FOUNTAIN INSTALLATION	26,293	4,207	30,500
AC3D	BREWAC07	4	26	BUILDING SIGNAGE PACKAGE UPGRADE	26,941	4,311	31,251

Detailed Project Summary
Facility Condition Analysis
Priority Class - Priority Sequence
 BREW : BREWSTER BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
IS6D	BREWIS03	4	27	UPGRADE FIXED SEATING	40,471	6,475	46,947
IS6D	BREWIS04	4	28	ENTRY FLOOR RESTROOM FINISH RENOVATIONS	148,363	23,738	172,101
IS3B	BREWIS05	4	29	REFINISH CEILINGS	330,235	52,838	383,073
PL2A	BREWPL02	4	30	DRAIN PIPING REPLACEMENT	925,984	148,157	1,074,141
Totals for Priority Class 4					2,030,364	324,858	2,355,222
Grand Total:					15,417,754	1,473,839	16,891,593

Detailed Project Summary
Facility Condition Analysis
Project Cost Range
 BREW : BREWSTER BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5C	BREWFS05	1	2	CONSTRUCT ELEVATOR LOBBIES	37,757	6,041	43,798
Totals for Priority Class 1					37,757	6,041	43,798
ES2B	BREWES01	2	5	EXTERIOR VENEER UPGRADES	83,920	13,427	97,347
PL1I	BREWPL03	2	6	INSTALL BACKFLOW PREVENTER	10,670	1,707	12,377
Totals for Priority Class 2					94,590	15,134	109,724
EL2A	BREWEL01	3	11	REPLACE 277/480 VOLT SWITCHGEAR	66,230	10,597	76,827
EL4A	BREWEL04	3	14	EXTERIOR LIGHTING REPLACEMENT	29,189	4,670	33,859
SI2A	BREWSI01	3	17	LANDSCAPE UPGRADES	2,286	366	2,652
Totals for Priority Class 3					97,706	15,633	113,338
FS1A	BREWFS03	4	19	REPLACE EXIT SIGNS	7,434	1,189	8,623
AC4B	BREWAC01	4	20	EXTERIOR WHEELCHAIR STAIR CLIMBER INSTALLATION	60,319	9,651	69,970
AC3B	BREWAC03	4	22	STAIR HANDRAIL UPGRADES	4,524	724	5,248
AC4B	BREWAC04	4	23	AUDITORIUM ACCESSIBILITY UPGRADES	23,424	3,748	27,172
AC3F	BREWAC06	4	25	DUAL LEVEL DRINKING FOUNTAIN INSTALLATION	26,293	4,207	30,500
AC3D	BREWAC07	4	26	BUILDING SIGNAGE PACKAGE UPGRADE	26,941	4,311	31,251
IS6D	BREWIS03	4	27	UPGRADE FIXED SEATING	40,471	6,475	46,947
Totals for Priority Class 4					189,406	30,305	219,711
Grand Totals for Projects < 100,000					419,458	67,113	486,571

Detailed Project Summary
Facility Condition Analysis
Project Cost Range
 BREW : BREWSTER BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
VT7A	BREWVT01	1	3	ELEVATOR NO. 2 A UPGRADE	103,130	0	103,130
FS5F	BREWFS04	1	1	INSTALL RATED CORRIDOR DOORS	277,360	44,378	321,737
Totals for Priority Class 1					380,490	44,378	424,867
VT7A	BREWVT02	3	18	ELEVATOR NO. 1 B UPGRADE	103,130	0	103,130
FS2A	BREWFS01	3	7	FIRE ALARM SYSTEM REPLACEMENT	282,461	45,194	327,654
ES4B	BREWES02	3	8	BUILT-UP ROOF REPLACEMENT	221,662	35,466	257,128
IS2B	BREWIS01	3	15	INTERIOR WALL FINISH RENEWAL	110,229	17,637	127,866
IS1A	BREWIS02	3	16	CARPETING UPGRADES	93,566	14,970	108,536
Totals for Priority Class 3					811,047	113,267	924,314
AC3C	BREWAC02	4	21	INSTALL LEVER ACTION DOOR HARDWARE	136,118	21,779	157,897
AC3E	BREWAC05	4	24	UPPER FLOOR RESTROOM ACCESSIBILITY UPGRADES	300,259	48,041	348,300
IS6D	BREWIS04	4	28	ENTRY FLOOR RESTROOM FINISH RENOVATIONS	148,363	23,738	172,101
IS3B	BREWIS05	4	29	REFINISH CEILINGS	330,235	52,838	383,073
Totals for Priority Class 4					914,975	146,396	1,061,370
Grand Totals for Projects >= 100,000 and < 500,000					2,106,512	304,040	2,410,552

Detailed Project Summary
Facility Condition Analysis
Project Cost Range
 BREW : BREWSTER BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS3A	BREWFS02	2	4	FIRE SPRINKLER SYSTEM INSTALLATION	738,196	118,111	856,308
Totals for Priority Class 2					738,196	118,111	856,308
HV3A	BREWHV01	3	10	HVAC SYSTEM REPLACEMENT	6,000,000	0	6,000,000
EL4B	BREWEL02	3	12	INTERIOR LIGHTING UPGRADE	463,964	74,234	538,198
EL3B	BREWEL03	3	13	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	1,436,813	229,890	1,666,704
ES5B	BREWES03	3	9	WINDOW REPLACEMENT	3,326,827	532,292	3,859,120
Totals for Priority Class 3					11,227,605	836,417	12,064,021
PL2A	BREWPL02	4	30	DRAIN PIPING REPLACEMENT	925,984	148,157	1,074,141
Totals for Priority Class 4					925,984	148,157	1,074,141
Grand Totals for Projects >= 500,000					12,891,785	1,102,686	13,994,470
Grand Totals For All Projects:					15,417,754	1,473,839	16,891,593

Detailed Project Summary
Facility Condition Analysis
Project Classification
 BREW : BREWSTER BUILDING

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
VT7A	BREWVT01	3	Capital Renewal	1	ELEVATOR NO. 2 A UPGRADE	103,130
FS2A	BREWFS01	7	Capital Renewal	3	FIRE ALARM SYSTEM REPLACEMENT	327,654
EL3B	BREWEL03	13	Capital Renewal	3	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	1,666,704
EL4A	BREWEL04	14	Capital Renewal	3	EXTERIOR LIGHTING REPLACEMENT	33,859
IS2B	BREWIS01	15	Capital Renewal	3	INTERIOR WALL FINISH RENEWAL	127,866
IS1A	BREWIS02	16	Capital Renewal	3	CARPETING UPGRADES	108,536
SI2A	BREWSI01	17	Capital Renewal	3	LANDSCAPE UPGRADES	2,652
FS1A	BREWFS03	19	Capital Renewal	4	REPLACE EXIT SIGNS	8,623
IS6D	BREWIS03	27	Capital Renewal	4	UPGRADE FIXED SEATING	46,947
IS6D	BREWIS04	28	Capital Renewal	4	ENTRY FLOOR RESTROOM FINISH RENOVATIONS	172,101
IS3B	BREWIS05	29	Capital Renewal	4	REFINISH CEILINGS	383,073
PL2A	BREWPL02	30	Capital Renewal	4	DRAIN PIPING REPLACEMENT	1,074,141
Totals for Capital Renewal						4,055,286
ES2B	BREWES01	5	Deferred Maintenance	2	EXTERIOR VENEER UPGRADES	97,347
ES4B	BREWES02	8	Deferred Maintenance	3	BUILT-UP ROOF REPLACEMENT	257,128
ES5B	BREWES03	9	Deferred Maintenance	3	WINDOW REPLACEMENT	3,859,120
HV3A	BREWHV01	10	Deferred Maintenance	3	HVAC SYSTEM REPLACEMENT	6,000,000
EL2A	BREWEL01	11	Deferred Maintenance	3	REPLACE 277/480 VOLT SWITCHGEAR	76,827
EL4B	BREWEL02	12	Deferred Maintenance	3	INTERIOR LIGHTING UPGRADE	538,198
VT7A	BREWVT02	18	Deferred Maintenance	3	ELEVATOR NO. 1 B UPGRADE	103,130
Totals for Deferred Maintenance						10,931,749
FS5F	BREWFS04	1	Plant Adaption	1	INSTALL RATED CORRIDOR DOORS	321,737
FS5C	BREWFS05	2	Plant Adaption	1	CONSTRUCT ELEVATOR LOBBIES	43,798
FS3A	BREWFS02	4	Plant Adaption	2	FIRE SPRINKLER SYSTEM INSTALLATION	856,308
PL1I	BREWPL03	6	Plant Adaption	2	INSTALL BACKFLOW PREVENTER	12,377
AC4B	BREWAC01	20	Plant Adaption	4	EXTERIOR WHEELCHAIR STAIR CLIMBER INSTALLATION	69,970
AC3C	BREWAC02	21	Plant Adaption	4	INSTALL LEVER ACTION DOOR HARDWARE	157,897
AC3B	BREWAC03	22	Plant Adaption	4	STAIR HANDRAIL UPGRADES	5,248
AC4B	BREWAC04	23	Plant Adaption	4	AUDITORIUM ACCESSIBILITY UPGRADES	27,172

Detailed Project Summary
Facility Condition Analysis
Project Classification
 BREW : BREWSTER BUILDING

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
AC3E	BREWAC05	24	Plant Adaption	4	UPPER FLOOR RESTROOM ACCESSIBILITY UPGRADES	348,300
AC3F	BREWAC06	25	Plant Adaption	4	DUAL LEVEL DRINKING FOUNTAIN INSTALLATION	30,500
AC3D	BREWAC07	26	Plant Adaption	4	BUILDING SIGNAGE PACKAGE UPGRADE	31,251
Totals for Plant Adaption						1,904,557
Grand Total:						16,891,593

Detailed Project Summary
Facility Condition Analysis
Energy Conservation
 BREW : BREWSTER BUILDING

Cat Code	Project Number	Pri Cls	Pri Seq	Project Title	Total Cost	Annual Savings	Simple Payback
ES4B	BREWES02	3	8	BUILT-UP ROOF REPLACEMENT	257,128	3,200	80.35
ES5B	BREWES03	3	9	WINDOW REPLACEMENT	3,859,120	7,500	514.55
HV3A	BREWHV01	3	10	HVAC SYSTEM REPLACEMENT	6,000,000	67,060	89.47
EL4B	BREWEL02	3	12	INTERIOR LIGHTING UPGRADE	538,198	24,970	21.55
EL4A	BREWEL04	3	14	EXTERIOR LIGHTING REPLACEMENT	33,859	650	52.09
Totals for Priority Class 3					10,688,305	103,380	103.39
FS1A	BREWFS03	4	19	REPLACE EXIT SIGNS	8,623	420	20.53
Totals for Priority Class 4					8,623	420	20.53
Grand Total:					10,696,928	103,800	103.05

Detailed Project Summary
Facility Condition Analysis
Category/System Code
BREW : BREWSTER BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC4B	BREWAC01	4	20	EXTERIOR WHEELCHAIR STAIR CLIMBER INSTALLATION	60,319	9,651	69,970
AC3C	BREWAC02	4	21	INSTALL LEVER ACTION DOOR HARDWARE	136,118	21,779	157,897
AC3B	BREWAC03	4	22	STAIR HANDRAIL UPGRADES	4,524	724	5,248
AC4B	BREWAC04	4	23	AUDITORIUM ACCESSIBILITY UPGRADES	23,424	3,748	27,172
AC3E	BREWAC05	4	24	UPPER FLOOR RESTROOM ACCESSIBILITY UPGRADES	300,259	48,041	348,300
AC3F	BREWAC06	4	25	DUAL LEVEL DRINKING FOUNTAIN INSTALLATION	26,293	4,207	30,500
AC3D	BREWAC07	4	26	BUILDING SIGNAGE PACKAGE UPGRADE	26,941	4,311	31,251
Totals for System Code: ACCESSIBILITY					577,877	92,460	670,337
EL2A	BREWEL01	3	11	REPLACE 277/480 VOLT SWITCHGEAR	66,230	10,597	76,827
EL4B	BREWEL02	3	12	INTERIOR LIGHTING UPGRADE	463,964	74,234	538,198
EL3B	BREWEL03	3	13	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	1,436,813	229,890	1,666,704
EL4A	BREWEL04	3	14	EXTERIOR LIGHTING REPLACEMENT	29,189	4,670	33,859
Totals for System Code: ELECTRICAL					1,996,196	319,391	2,315,588
ES2B	BREWES01	2	5	EXTERIOR VENEER UPGRADES	83,920	13,427	97,347
ES4B	BREWES02	3	8	BUILT-UP ROOF REPLACEMENT	221,662	35,466	257,128
ES5B	BREWES03	3	9	WINDOW REPLACEMENT	3,326,827	532,292	3,859,120
Totals for System Code: EXTERIOR					3,632,409	581,185	4,213,594
FS5F	BREWFS04	1	1	INSTALL RATED CORRIDOR DOORS	277,360	44,378	321,737
FS5C	BREWFS05	1	2	CONSTRUCT ELEVATOR LOBBIES	37,757	6,041	43,798
FS3A	BREWFS02	2	4	FIRE SPRINKLER SYSTEM INSTALLATION	738,196	118,111	856,308
FS2A	BREWFS01	3	7	FIRE ALARM SYSTEM REPLACEMENT	282,461	45,194	327,654
FS1A	BREWFS03	4	19	REPLACE EXIT SIGNS	7,434	1,189	8,623
Totals for System Code: FIRE/LIFE SAFETY					1,343,207	214,913	1,558,120
HV3A	BREWHV01	3	10	HVAC SYSTEM REPLACEMENT	6,000,000	0	6,000,000
Totals for System Code: HVAC					6,000,000		6,000,000
IS2B	BREWIS01	3	15	INTERIOR WALL FINISH RENEWAL	110,229	17,637	127,866
IS1A	BREWIS02	3	16	CARPETING UPGRADES	93,566	14,970	108,536
IS6D	BREWIS03	4	27	UPGRADE FIXED SEATING	40,471	6,475	46,947
IS6D	BREWIS04	4	28	ENTRY FLOOR RESTROOM FINISH RENOVATIONS	148,363	23,738	172,101
IS3B	BREWIS05	4	29	REFINISH CEILINGS	330,235	52,838	383,073
Totals for System Code: INTERIOR/FINISH SYS.					722,865	115,658	838,523
PL1I	BREWPL03	2	6	INSTALL BACKFLOW PREVENTER	10,670	1,707	12,377

Detailed Project Summary
Facility Condition Analysis
Category/System Code
 BREW : BREWSTER BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
PL2A	BREWPL02	4	30	DRAIN PIPING REPLACEMENT	925,984	148,157	1,074,141
Totals for System Code: PLUMBING					936,653	149,865	1,086,518
SI2A	BREWSI01	3	17	LANDSCAPE UPGRADES	2,286	366	2,652
Totals for System Code: SITE					2,286	366	2,652
VT7A	BREWVT01	1	3	ELEVATOR NO. 2 A UPGRADE	103,130	0	103,130
VT7A	BREWVT02	3	18	ELEVATOR NO. 1 B UPGRADE	103,130	0	103,130
Totals for System Code: VERT. TRANSPORTATION					206,260		206,260
Grand Total:					15,417,754	1,473,839	16,891,593

FACILITY CONDITION ANALYSIS

SECTION 3

SPECIFIC PROJECT DETAILS
ILLUSTRATING DESCRIPTION / COST

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWFS04	Title:	INSTALL RATED CORRIDOR DOORS
Priority Sequence:	1		
Priority Class:	1		
Category Code:	FS5F	System:	FIRE/LIFE SAFETY
		Component:	EGRESS PATH
		Element:	FIRE DOORS/HARDWARE
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	IBC	713	
Project Class:	Plant Adaption		
Project Date:	11/1/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4		

Project Description

Most of the exit access corridor doors in this facility do not have obvious fire ratings. The complete demolition of the existing corridor door systems and their replacement according to a code compliant plan to protect egress passages properly is recommended where it cannot be determined that the existing exit access doors and doorframes are rated.

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWFS04

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Rated door and rated metal frame, including all hardware and accessible signage	LEAF	205	\$672	\$137,760	\$812	\$166,460	\$304,220
Project Totals:				\$137,760		\$166,460	\$304,220

Material/Labor Cost		\$304,220
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$224,118
General Contractor Mark Up at 20.0%	+	\$44,824
Inflation	+	\$8,418
Construction Cost		\$277,360
Professional Fees at 16.0%	+	\$44,378
Total Project Cost		\$321,737

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWFS05	Title:	CONSTRUCT ELEVATOR LOBBIES
Priority Sequence:	2		
Priority Class:	1		
Category Code:	FS5C	System:	FIRE/LIFE SAFETY
		Component:	EGRESS PATH
		Element:	SEPARATION RATING
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	IBC	713	
Project Class:	Plant Adaption		
Project Date:	11/1/2009		
Project Location:	Area Wide: Floor(s) 1, 2, 3		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWFS05

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Rated partition, door assembly, panic hardware, holdbacks, closers, and smoke detector (assumes 120 square feet of rated partition per assembly)	SYS	6	\$3,269	\$19,614	\$3,495	\$20,970	\$40,584
Project Totals:				\$19,614		\$20,970	\$40,584

Material/Labor Cost		\$40,584
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$30,509
General Contractor Mark Up at 20.0%	+	\$6,102
Inflation	+	\$1,146
Construction Cost		\$37,757
Professional Fees at 16.0%	+	\$6,041
Total Project Cost		\$43,798

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWVT01	Title:	ELEVATOR NO. 2 A UPGRADE
Priority Sequence:	3		
Priority Class:	1		
Category Code:	VT7A	System:	VERT. TRANSPORTATION
		Component:	GENERAL
		Element:	OTHER
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Energy Conservation		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/2/2009		
Project Location:	Building-wide: Floor(s) 1, 2, 3, 4		

Project Description

The elevator does meet the accessibility requirements. We are recommending an Upgrade / Modernization of the elevator that will include compliance with the applicable accessibility requirements. The modernization / upgrade of the elevator to include the following, replace the existing single bottom cylinder with a new hydraulic jack assembly complete, including a PVC casing. Replace the hydraulic pumping unit complete with motor, pump and valve. Replace the Motion / Motor / Operation Controller, door operator, hoistway door hangers, rollers, closers, car operating panel, signal fixtures and refurbish the car interior. It is also recommended a telephone be provided as soon as possible in the car.

Double bottom hydraulic cylinders were required in the ASME A17.1 Safety Code for Elevators, 1970 Edition. We have verified with the manufacturer the cylinders have single bottom casings in both Brewster Building A & B Elevators.

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWVT01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Client-reported cost to upgrade elevator	EA	1	\$100,000	\$100,000	\$0.00	\$	\$100,000
Project Totals:				\$100,000		\$	\$100,000

Material/Labor Cost		\$100,000
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$100,000
No GCM Required		
Inflation	+	\$3,130
Construction Cost		\$103,130
No Professional Fees Required		
Total Project Cost		\$103,130

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWFS02	Title:	FIRE SPRINKLER SYSTEM INSTALLATION
Priority Sequence:	4		
Priority Class:	2		
Category Code:	FS3A	System:	FIRE/LIFE SAFETY
		Component:	SUPPRESSION
		Element:	SPRINKLERS
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	NFPA	1, 13, 13R, 101	
Project Class:	Plant Adaption		
Project Date:	10/16/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4		

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
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWFS02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Install wet-pipe sprinkler system, including valves, piping, sprinkler heads, piping supports, etc.	SF	118,456	\$3.08	\$364,844	\$3.77	\$446,579	\$811,424
Project Totals:				\$364,844		\$446,579	\$811,424

Material/Labor Cost		\$811,424
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$596,493
General Contractor Mark Up at 20.0%	+	\$119,299
Inflation	+	\$22,404
Construction Cost		\$738,196
Professional Fees at 16.0%	+	\$118,111
Total Project Cost		\$856,308

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWES01	Title:	EXTERIOR VENEER UPGRADES
Priority Sequence:	5		
Priority Class:	2		
Category Code:	ES2B	System:	EXTERIOR
		Component:	COLUMNS/BEAMS/WALLS
		Element:	FINISH
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	11/1/2009		
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. Several of the precast concrete guardrails at the exterior connecting steps appear to be rotating out of vertical. All of these guardrails should be checked for movement, steps taken to prevent further movement, and repairs made to return these guardrails to their designed positions. There is also spalling of the exterior communicating stair landing concrete at several locations, exposing the reinforcing steel. This spalling should be patched to protect this steel.

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWES01

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	49,550	\$0.11	\$5,451	\$0.22	\$10,901	\$16,352
Selective mortar and / or sealant repairs (assumes 10 linear feet for every 100 square feet of envelope)	LF	4,955	\$2.45	\$12,140	\$4.99	\$24,725	\$36,865
Applied finish or sealant	SF	49,550	\$0.22	\$10,901	\$0.82	\$40,631	\$51,532
Project Totals:				\$28,491		\$76,257	\$104,749

Material/Labor Cost		\$104,749
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$67,811
General Contractor Mark Up at 20.0%	+	\$13,562
Inflation	+	\$2,547
Construction Cost		\$83,920
Professional Fees at 16.0%	+	\$13,427
Total Project Cost		\$97,347

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWPL03	Title:	INSTALL BACKFLOW PREVENTER
Priority Sequence:	6		
Priority Class:	2		
Category Code:	PL11	System:	PLUMBING
		Component:	DOMESTIC WATER
		Element:	BACKFLOW PREVENTION
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	IPC	P608	
Project Class:	Plant Adaption		
Project Date:	8/10/2010		
Project Location:	Undefined: Floor(s) 1		

Project Description

There is no backflow preventer on the domestic water main. To prevent cross-contamination between the building and the potable water supply, install a backflow preventer assembly at the water main, including backflow preventer, isolation valves, and related piping.

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWPL03

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
3 inch backflow preventer, isolation valves, piping, and miscellaneous materials	EA	1	\$2,280	\$2,280	\$931	\$931	\$3,211
Landscape and hardscape restoration	LOT	1	\$2,000	\$2,000	\$8,000	\$8,000	\$10,000
Project Totals:				\$4,280		\$8,931	\$13,211

Material/Labor Cost		\$13,211
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$8,892
General Contractor Mark Up at 20.0%	+	\$1,778
Construction Cost		\$10,670
Professional Fees at 16.0%	+	\$1,707
Total Project Cost		\$12,377

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWFS01	Title:	FIRE ALARM SYSTEM REPLACEMENT
Priority Sequence:	7		
Priority Class:	3		
Category Code:	FS2A	System:	FIRE/LIFE SAFETY
		Component:	DETECTION ALARM
		Element:	GENERAL
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG	702.1	
	NFPA	1, 101	
Project Class:	Capital Renewal		
Project Date:	10/16/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWFS01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Fire alarm control panel(s), annunciator, smoke and heat detectors, manual pull stations, audible and visual alarms, wiring, raceways, and cut and patching materials	SF	118,456	\$1.46	\$172,946	\$0.89	\$105,426	\$278,372
Project Totals:				\$172,946		\$105,426	\$278,372

Material/Labor Cost		\$278,372
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$228,240
General Contractor Mark Up at 20.0%	+	\$45,648
Inflation	+	\$8,573
Construction Cost		\$282,461
Professional Fees at 16.0%	+	\$45,194
Total Project Cost		\$327,654

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWES02	Title:	BUILT-UP ROOF REPLACEMENT
Priority Sequence:	8		
Priority Class:	3		
Category Code:	ES4B	System:	EXTERIOR
		Component:	ROOF
		Element:	REPLACEMENT
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Energy Conservation	\$3,200	
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	11/1/2009		
Project Location:	Floor-wide: Floor(s) R		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWES02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Built-up roof	SF	36,420	\$3.06	\$111,445	\$3.58	\$130,384	\$241,829
Project Totals:				\$111,445		\$130,384	\$241,829

Material/Labor Cost		\$241,829
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$179,112
General Contractor Mark Up at 20.0%	+	\$35,822
Inflation	+	\$6,727
Construction Cost		\$221,662
Professional Fees at 16.0%	+	\$35,466
Total Project Cost		\$257,128

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWES03	Title:	WINDOW REPLACEMENT
Priority Sequence:	9		
Priority Class:	3		
Category Code:	ES5B	System:	EXTERIOR
		Component:	FENESTRATIONS
		Element:	WINDOWS
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Energy Conservation	\$7,500	
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	11/1/2009		
Project Location:	Building-wide: Floor(s) 1		

Project Description

The existing window systems are operable, non-insulating units. It is recommended that these single pane, metal-framed window applications be upgraded with fixed thermal pane glazing systems. Such double pane systems will reduce the energy required to operate the building. Repair or replacement of the windowsills and trim may also be necessary.

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWES03

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Typical standard glazing applications	SF	35,200	\$57.27	\$2,015,904	\$36.45	\$1,283,040	\$3,298,944
Project Totals:				\$2,015,904		\$1,283,040	\$3,298,944

Material/Labor Cost		\$3,298,944
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$2,688,215
General Contractor Mark Up at 20.0%	+	\$537,643
Inflation	+	\$100,969
Construction Cost		\$3,326,827
Professional Fees at 16.0%	+	\$532,292
Total Project Cost		\$3,859,120

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWHV01	Title:	HVAC SYSTEM REPLACEMENT
Priority Sequence:	10		
Priority Class:	3		
Category Code:	HV3A	System:	HVAC
		Component:	HEATING/COOLING
		Element:	SYSTEM RETROFIT/REPLACE
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Energy Conservation	\$67,060	
Code Application:	ASHRAE	62-2004	
Project Class:	Deferred Maintenance		
Project Date:	8/10/2010		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4, R		

Project Description

A complete redesign and replacement of the HVAC system is recommended. Demolish and dispose of existing equipment. Install a new modern HVAC system with variable air volume (VAV) and constant volume air distribution as needed. This includes new air handlers, exhaust fans, ductwork, terminal units, heat exchangers, pumps, piping, controls, and related electrical components. Specify direct digital controls (DDCs) for the new equipment. Incorporate variable frequency drives (VFDs) into the new HVAC design as applicable.

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWHV01

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	LOT	1	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$6,000,000
Project Totals:				\$3,000,000		\$3,000,000	\$6,000,000

Material/Labor Cost	\$6,000,000
Material Index	100.7%
Labor Index	51.3%
Material/Labor Indexed Cost	\$6,000,000
No GCM Required	
Construction Cost	\$6,000,000
No Professional Fees Required	
Total Project Cost	\$6,000,000

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWEL01	Title:	REPLACE 277/480 VOLT SWITCHGEAR
Priority Sequence:	11		
Priority Class:	3		
Category Code:	EL2A	System:	ELECTRICAL
		Component:	MAIN DISTRIBUTION PANELS
		Element:	CONDITION UPGRADE
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	NEC	Article 230	
Project Class:	Deferred Maintenance		
Project Date:	10/16/2009		
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 existing switchgear should be replaced in its entirety. New switchgear components should include a ground fault main circuit breaker, digital metering for remote control / monitoring, and transient surge protection.

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWEL01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
277/480 volt switchgear, including switchboard, circuit breakers, feeders, digital metering, transient surge protector, and demolition of existing equipment	AMP	2,000	\$18.62	\$37,240	\$15.61	\$31,220	\$68,460
Project Totals:				\$37,240		\$31,220	\$68,460

Material/Labor Cost		\$68,460
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$53,517
General Contractor Mark Up at 20.0%	+	\$10,703
Inflation	+	\$2,010
Construction Cost		\$66,230
Professional Fees at 16.0%	+	\$10,597
Total Project Cost		\$76,827

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWEL02	Title:	INTERIOR LIGHTING UPGRADE
Priority Sequence:	12		
Priority Class:	3		
Category Code:	EL4B	System:	ELECTRICAL
		Component:	DEVICES AND FIXTURES
		Element:	INTERIOR LIGHTING
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Energy Conservation	\$24,970	
Code Application:	NEC	Articles 210, 410	
Project Class:	Deferred Maintenance		
Project Date:	10/16/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4		

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
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWEL02

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	81,600	\$2.81	\$229,296	\$3.44	\$280,704	\$510,000
Project Totals:				\$229,296		\$280,704	\$510,000

Material/Labor Cost		\$510,000
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$374,902
General Contractor Mark Up at 20.0%	+	\$74,980
Inflation	+	\$14,081
Construction Cost		\$463,964
Professional Fees at 16.0%	+	\$74,234
Total Project Cost		\$538,198

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWEL03	Title:	UPGRADE ELECTRICAL DISTRIBUTION NETWORK
Priority Sequence:	13		
Priority Class:	3		
Category Code:	EL3B	System:	ELECTRICAL
		Component:	SECONDARY DISTRIBUTION
		Element:	DISTRIBUTION NETWORK
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	NEC	Articles 110, 210, 220, 230	
Project Class:	Capital Renewal		
Project Date:	10/16/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWEL03

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Power panels, conductors, raceways, devices, demolition, and cut and patching materials	SF	118,456	\$5.52	\$653,877	\$8.27	\$979,631	\$1,633,508
Project Totals:				\$653,877		\$979,631	\$1,633,508

Material/Labor Cost		\$1,633,508
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$1,161,005</u>
General Contractor Mark Up at 20.0%	+	<u>\$232,201</u>
Inflation	+	<u>\$43,607</u>
Construction Cost		<u>\$1,436,813</u>
Professional Fees at 16.0%	+	<u>\$229,890</u>
Total Project Cost		<u>\$1,666,704</u>

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWEL04	Title:	EXTERIOR LIGHTING REPLACEMENT
Priority Sequence:	14		
Priority Class:	3		
Category Code:	EL4A	System:	ELECTRICAL
		Component:	DEVICES AND FIXTURES
		Element:	EXTERIOR LIGHTING
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Energy Conservation	\$650	
Code Application:	NEC	410	
Project Class:	Capital Renewal		
Project Date:	10/16/2009		
Project Location:	Building-wide: Floor(s) 1, 2, 3, 4, R		

Project Description

Exterior lighting upgrades are recommended. Replace exterior light fixtures as needed. Specify high efficiency fixtures with photocells for lighting control.

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWEL04

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
HID wall-mount fixture and demolition of existing fixture	EA	10	\$406	\$4,060	\$190	\$1,900	\$5,960
Replace lighting stanchion, including fixture, 30 foot	EA	5	\$2,662	\$13,310	\$1,996	\$9,980	\$23,290
Project Totals:				\$17,370		\$11,880	\$29,250

Material/Labor Cost		\$29,250
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$23,586
General Contractor Mark Up at 20.0%	+	\$4,717
Inflation	+	\$886
Construction Cost		\$29,189
Professional Fees at 16.0%	+	\$4,670
Total Project Cost		\$33,859

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWIS01	Title:	INTERIOR WALL FINISH RENEWAL
Priority Sequence:	15		
Priority Class:	3		
Category Code:	IS2B	System:	INTERIOR/FINISH SYS.
		Component:	PARTITIONS
		Element:	FINISHES
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	11/1/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4		

Project Description

Interior wall finishes are typically painted and vary in age and condition. Wall finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWIS01

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	151,810	\$0.17	\$25,808	\$0.81	\$122,966	\$148,774
Project Totals:				\$25,808		\$122,966	\$148,774

Material/Labor Cost		\$148,774
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$89,070
General Contractor Mark Up at 20.0%	+	\$17,814
Inflation	+	\$3,345
Construction Cost		\$110,229
Professional Fees at 16.0%	+	\$17,637
Total Project Cost		\$127,866

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWIS02	Title:	CARPETING UPGRADES
Priority Sequence:	16		
Priority Class:	3		
Category Code:	IS1A	System:	INTERIOR/FINISH SYS.
		Component:	FLOOR
		Element:	FINISHES-DRY
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	11/1/2009		
Project Location:	Undefined: Floor(s) 1, 2, 3, 4		

Project Description

Interior floor finish applications consist mostly of vinyl tile on the floors of the A wing and terrazzo on the corridor floors of the other three wings. Most of the remaining flooring is vinyl tile in the building, but there are numerous offices and a few classrooms that are carpeted. All of this flooring is in overall good condition. Experience indicates that all of the carpeting will be at or near the end of its useful service life within the next five to seven years and should be replaced, in kind, within the next five years.

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWIS02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Carpet	SF	11,770	\$5.36	\$63,087	\$2.00	\$23,540	\$86,627
Project Totals:				\$63,087		\$23,540	\$86,627

Material/Labor Cost		\$86,627
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$75,605</u>
General Contractor Mark Up at 20.0%	+	<u>\$15,121</u>
Inflation	+	<u>\$2,840</u>
Construction Cost		<u>\$93,566</u>
Professional Fees at 16.0%	+	<u>\$14,970</u>
Total Project Cost		<u>\$108,536</u>

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWSI01	Title:	LANDSCAPE UPGRADES
Priority Sequence:	17		
Priority Class:	3		
Category Code:	SI2A	System:	SITE
		Component:	LANDSCAPE
		Element:	GRADE/FLORA
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	11/1/2009		
Project Location:	Undefined: Floor(s) 1		

Project Description

The landscaping on this relatively large, slightly sloping site consists of turf, shrubs, specimen trees, and foundation planting. All are in overall good condition. However, the overall condition of the site is such that a moderate landscaping project is warranted.

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWSI01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Trees, shrubs, planting soil, amendments, sand, fill, and sod	SF	1,000	\$1.04	\$1,040	\$1.56	\$1,560	\$2,600
Project Totals:				\$1,040		\$1,560	\$2,600

Material/Labor Cost		\$2,600
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$1,848
General Contractor Mark Up at 20.0%	+	\$370
Inflation	+	\$69
Construction Cost		\$2,286
Professional Fees at 16.0%	+	\$366
Total Project Cost		\$2,652

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWVT02	Title:	ELEVATOR NO. 1 B UPGRADE
Priority Sequence:	18		
Priority Class:	3		
Category Code:	VT7A	System:	VERT. TRANSPORTATION
		Component:	GENERAL
		Element:	OTHER
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/2/2009		
Project Location:	Building-wide: Floor(s) 1, 2, 3		

Project Description

The elevator does not meet the accessibility requirements. We are recommending an upgrade / modernization of the elevator that will include compliance with the applicable accessibility requirements. It is recommended to perform a complete modernization of the elevator to include the following, replace the existing single bottom cylinder with a new hydraulic jack assembly complete, including a PVC casing. Replace the hydraulic pumping unit complete with motor, pump and valve. Replace the Motion / Motor / Operation Controller, door operator, hoistway door hangers, rollers, closers, car operating panel, signal fixtures, and refurbish the car interior. It is also recommended a telephone be provided as soon as possible in the car. The controllers and pumping units are in same machine room the elevators are in separate locations in the building.

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWVT02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Client-reported cost to upgrade elevator	EA	1	\$100,000	\$100,000	\$0.00	\$	\$100,000
Project Totals:				\$100,000		\$	\$100,000

Material/Labor Cost		\$100,000
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$100,000
No GCM Required		
Inflation	+	\$3,130
Construction Cost		\$103,130
No Professional Fees Required		
Total Project Cost		\$103,130

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWFS03	Title:	REPLACE EXIT SIGNS
Priority Sequence:	19		
Priority Class:	4		
Category Code:	FS1A	System:	FIRE/LIFE SAFETY
		Component:	LIGHTING
		Element:	EGRESS LTG./EXIT SIGNAGE
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Energy Conservation	\$420	
Code Application:	NFPA	101-47	
	IBC	1011	
Project Class:	Capital Renewal		
Project Date:	10/16/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWFS03

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
Project Totals:				\$3,800		\$4,250	\$8,050

Material/Labor Cost		\$8,050
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$6,007
General Contractor Mark Up at 20.0%	+	\$1,201
Inflation	+	\$226
Construction Cost		\$7,434
Professional Fees at 16.0%	+	\$1,189
Total Project Cost		\$8,623

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWAC01	Title:	EXTERIOR WHEELCHAIR STAIR CLIMBER INSTALLATION
Priority Sequence:	20		
Priority Class:	4		
Category Code:	AC4B	System:	ACCESSIBILITY
		Component:	GENERAL
		Element:	OTHER
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG	403.6, 505, 410	
Project Class:	Plant Adaption		
Project Date:	11/1/2009		
Project Location:	Undefined: Floor(s) 1		

Project Description

ADA legislation pertaining to handicapped access into buildings requires that site steps be generally accessible to all persons. There is no apparent way for a wheelchair user to negotiate the series of steps in the courtyard. It is recommended that a wheelchair lift or stair climber be installed at various locations in the courtyard and that painted, galvanized metal handrails with the appropriate end geometry be installed at all of the courtyard steps.

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWAC01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Wheelchair lift / stair climber, conduit, wiring, tools, and supplies	EA	3	\$6,520	\$19,560	\$1,333	\$3,999	\$23,559
Freestanding handrail system, painted (2 coats), tools, and supplies	LF	160	\$91.11	\$14,578	\$150	\$24,000	\$38,578
Project Totals:				\$34,138		\$27,999	\$62,137

Material/Labor Cost		\$62,137
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$48,740
General Contractor Mark Up at 20.0%	+	\$9,748
Inflation	+	\$1,831
Construction Cost		\$60,319
Professional Fees at 16.0%	+	\$9,651
Total Project Cost		\$69,970

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWAC02	Title:	INSTALL LEVER ACTION DOOR HARDWARE
Priority Sequence:	21		
Priority Class:	4		
Category Code:	AC3C	System:	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	DOORS AND HARDWARE
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG	309.4	
Project Class:	Plant Adaption		
Project Date:	11/1/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4		

Project Description

ADA legislation requires that door hardware be designed for operation by people with little or no ability to grasp objects with their hands. To comply with the intent of this legislation, it is recommended that lever handle door hardware be installed on all doors that currently still have knob hardware.

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWAC02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Lever actuated door hardware	EA	354	\$273	\$96,642	\$69.77	\$24,699	\$121,341
Project Totals:				\$96,642		\$24,699	\$121,341

Material/Labor Cost		\$121,341
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$109,989
General Contractor Mark Up at 20.0%	+	\$21,998
Inflation	+	\$4,131
Construction Cost		\$136,118
Professional Fees at 16.0%	+	\$21,779
Total Project Cost		\$157,897

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWAC03	Title:	STAIR HANDRAIL UPGRADES
Priority Sequence:	22		
Priority Class:	4		
Category Code:	AC3B	System:	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	STAIRS AND RAILINGS
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	IBC	1003.3	
	ADAAG	505	
Project Class:	Plant Adaption		
Project Date:	11/1/2009		
Project Location:	Item Only: Floor(s) 1, 2, 3, 4		

Project Description

Legislation regarding building accessibility by the handicapped requires that stairs have graspable handrails on both sides, that the rails have a specific end geometry, and that the handrails continue horizontally at the landings. The end geometry of the existing interior stair handrails does not fully comply with current legislation. Painted metal handrail extensions should be added to the ends of all of the interior handrails.

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWAC03

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Metal rail, galvanized expanded metal grillage, equipment rental, supplies, and paint (2 coats)	LOT	1	\$2,000	\$2,000	\$3,200	\$3,200	\$5,200
Project Totals:				\$2,000		\$3,200	\$5,200

Material/Labor Cost		\$5,200
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$3,656
General Contractor Mark Up at 20.0%	+	\$731
Inflation	+	\$137
Construction Cost		\$4,524
Professional Fees at 16.0%	+	\$724
Total Project Cost		\$5,248

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWAC04	Title:	AUDITORIUM ACCESSIBILITY UPGRADES
Priority Sequence:	23		
Priority Class:	4		
Category Code:	AC4B	System:	ACCESSIBILITY
		Component:	GENERAL
		Element:	OTHER
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG	219.3, 706.1, 806	
Project Class:	Plant Adaption		
Project Date:	11/1/2009		
Project Location:	Room Only: Floor(s) 1		

Project Description

Current accessibility legislation requires that places of assembly be accessible to the handicapped. The tiered classrooms have multiple barriers to accessibility. Install transmitter and headphone receiver sets to accommodate those individuals that require audible assistance. There is also no access between tiers. In order to provide adequate access, it is recommended that a wheelchair lift be installed at the tiers.

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWAC04

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Wheelchair lift / stair climber, conduit, wiring, tools, and supplies	EA	2	\$6,520	\$13,040	\$1,333	\$2,666	\$15,706
Infrared transmitter and headphone receiver sets	SYS	2	\$1,520	\$3,040	\$1,333	\$2,666	\$5,706
Project Totals:				\$16,080		\$5,332	\$21,412

Material/Labor Cost		\$21,412
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$18,928
General Contractor Mark Up at 20.0%	+	\$3,786
Inflation	+	\$711
Construction Cost		\$23,424
Professional Fees at 16.0%	+	\$3,748
Total Project Cost		\$27,172

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWAC05	Title:	UPPER FLOOR RESTROOM ACCESSIBILITY UPGRADES
Priority Sequence:	24		
Priority Class:	4		
Category Code:	AC3E	System:	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	RESTROOMS/BATHROOMS
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG	604, 605, 606, 607, 608	
Project Class:	Plant Adaption		
Project Date:	11/1/2009		
Project Location:	Room Only: Floor(s) 2, 3, 4		

Project Description

Except for the entry floor men's restroom and women's restroom, the remaining restrooms in this building have aging fixtures and finishes and are not wheelchair accessible. The entry floor public restrooms are accessible to persons with disabilities. A comprehensive renovation of the upper floor restrooms, including new fixtures, finishes, 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
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWAC05

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	FIXT	85	\$1,969	\$167,365	\$1,699	\$144,415	\$311,780
Project Totals:				\$167,365		\$144,415	\$311,780

Material/Labor Cost		\$311,780
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$242,621
General Contractor Mark Up at 20.0%	+	\$48,524
Inflation	+	\$9,113
Construction Cost		\$300,259
Professional Fees at 16.0%	+	\$48,041
Total Project Cost		\$348,300

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWAC06	Title:	DUAL LEVEL DRINKING FOUNTAIN INSTALLATION
Priority Sequence:	25		
Priority Class:	4		
Category Code:	AC3F	System:	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	DRINKING FOUNTAINS
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG	211, 602	
Project Class:	Plant Adaption		
Project Date:	11/1/2009		
Project Location:	Item Only: Floor(s) 1, 2, 3, 4		

Project Description

ADA legislation requires that building amenities such as the drinking fountains be generally accessible to all persons. The single level configuration of most of the drinking fountains is a barrier to wheelchair accessibility. Some pairs of fountains are mounted at the same height, invalidating the dual fountain concept. The installation of a dual level, refrigerated drinking fountain is recommended to replace the existing fountains that are not already dual level installations or that are not already pairs of fountains that are mounted at two different heights.

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWAC06

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Dual level drinking fountain	EA	15	\$1,216	\$18,240	\$374	\$5,610	\$23,850
Project Totals:				\$18,240		\$5,610	\$23,850

Material/Labor Cost		\$23,850
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$21,246</u>
General Contractor Mark Up at 20.0%	+	\$4,249
Inflation	+	<u>\$798</u>
Construction Cost		\$26,293
Professional Fees at 16.0%	+	<u>\$4,207</u>
Total Project Cost		<u>\$30,500</u>

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWAC07	Title:	BUILDING SIGNAGE PACKAGE UPGRADE
Priority Sequence:	26		
Priority Class:	4		
Category Code:	AC3D	System:	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	SIGNAGE
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG	703.1	
Project Class:	Plant Adaption		
Project Date:	11/1/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWAC07

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
ADA compliant signage	EA	354	\$53.11	\$18,801	\$15.62	\$5,529	\$24,330
Project Totals:				\$18,801		\$5,529	\$24,330

Material/Labor Cost		\$24,330
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$21,769</u>
General Contractor Mark Up at 20.0%	+	\$4,354
Inflation	+	<u>\$818</u>
Construction Cost		\$26,941
Professional Fees at 16.0%	+	<u>\$4,311</u>
Total Project Cost		<u>\$31,251</u>

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWIS03	Title:	UPGRADE FIXED SEATING
Priority Sequence:	27		
Priority Class:	4		
Category Code:	IS6D	System:	INTERIOR/FINISH SYS.
		Component:	GENERAL
		Element:	OTHER
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	11/1/2009		
Project Location:	Room Only: Floor(s) 1		

Project Description

The fixed seating in the tiered classrooms is worn and should be upgraded. Replace this seating with moulded 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
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWIS03

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Moulded plastic fixed seating	EA	160	\$160	\$25,600	\$84.35	\$13,496	\$39,096
Project Totals:				\$25,600		\$13,496	\$39,096

Material/Labor Cost		\$39,096
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$32,703</u>
General Contractor Mark Up at 20.0%	+	<u>\$6,541</u>
Inflation	+	<u>\$1,228</u>
Construction Cost		<u>\$40,471</u>
Professional Fees at 16.0%	+	<u>\$6,475</u>
Total Project Cost		<u>\$46,947</u>

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWIS04	Title:	ENTRY FLOOR RESTROOM FINISH RENOVATIONS
Priority Sequence:	28		
Priority Class:	4		
Category Code:	IS6D	System:	INTERIOR/FINISH SYS.
		Component:	GENERAL
		Element:	OTHER
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	11/1/2009		
Project Location:	Room Only: Floor(s) 1		

Project Description

The entry floor men's restroom and women's restroom fixtures and finishes have been upgraded recently and are accessible to persons with disabilities. The fixtures and finishes in these two restrooms are sound, but the finishes in both restrooms will need to be renewed within the next ten years.

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWIS04

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 finishes, partitions, and accessories	FIXT	42	\$1,969	\$82,698	\$1,699	\$71,358	\$154,056
Project Totals:				\$82,698		\$71,358	\$154,056

Material/Labor Cost		\$154,056
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$119,884
General Contractor Mark Up at 20.0%	+	\$23,977
Inflation	+	\$4,503
Construction Cost		\$148,363
Professional Fees at 16.0%	+	\$23,738
Total Project Cost		\$172,101

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWIS05	Title:	REFINISH CEILINGS
Priority Sequence:	29		
Priority Class:	4		
Category Code:	IS3B	System:	INTERIOR/FINISH SYS.
		Component:	CEILINGS
		Element:	REPLACEMENT

Building Code: BREW
Building Name: BREWSTER BUILDING
Subclass/Savings: Not Applicable

Code Application: Not Applicable

Project Class: Capital Renewal
Project Date: 11/1/2009

Project Location: Floor-wide: Floor(s) 1, 2, 3, 4

Project Description

Ceiling finish applications vary in age, type, and condition and consist primarily of acoustical, lay-in tile that is in overall fair condition. Ceiling finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWIS05

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	71,490	\$2.12	\$151,559	\$2.98	\$213,040	\$364,599
Painted ceiling finish application	SF	8,410	\$0.17	\$1,430	\$0.81	\$6,812	\$8,242
Project Totals:				\$152,989		\$219,852	\$372,841

Material/Labor Cost		\$372,841
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$266,844
General Contractor Mark Up at 20.0%	+	\$53,369
Inflation	+	\$10,023
Construction Cost		\$330,235
Professional Fees at 16.0%	+	\$52,838
Total Project Cost		\$383,073

Specific Project Details
Facility Condition Analysis
Section Three
BREW : BREWSTER BUILDING

Project Description

Project Number:	BREWPL02	Title:	DRAIN PIPING REPLACEMENT
Priority Sequence:	30		
Priority Class:	4		
Category Code:	PL2A	System:	PLUMBING
		Component:	WASTEWATER
		Element:	PIPING NETWORK
Building Code:	BREW		
Building Name:	BREWSTER BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	IPC	Chapters 7-11	
Project Class:	Capital Renewal		
Project Date:	10/16/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, 3, 4		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
 BREW : BREWSTER BUILDING

Project Cost

Project Number: BREWPL02

Task Cost Estimate

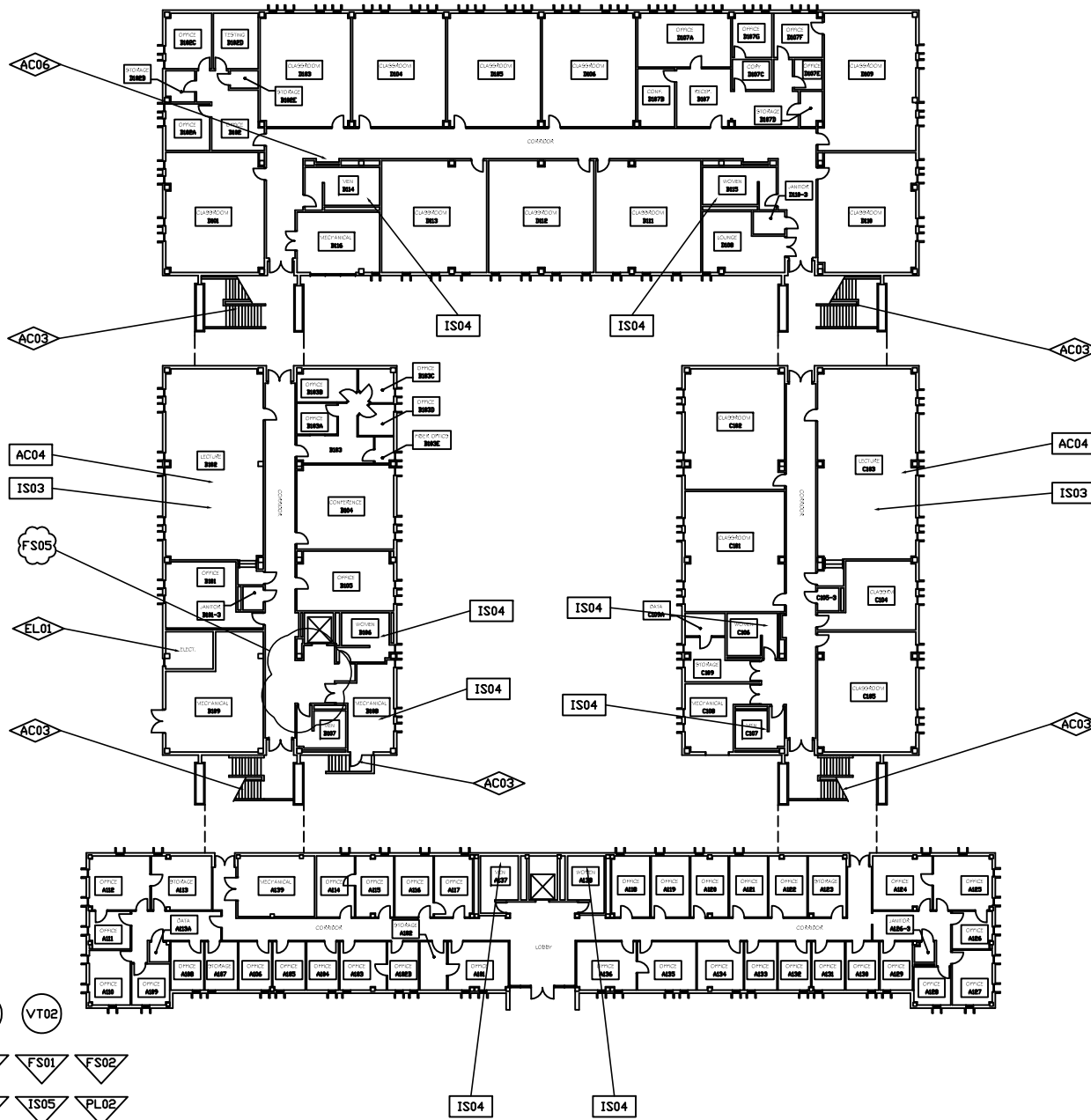
Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Cast-iron drain piping and fittings, copper pipe and fittings, floor / roof drains, traps, hangers, demolition, and cut and patching materials	SF	118,456	\$2.89	\$342,338	\$6.64	\$786,548	\$1,128,886
Project Totals:				\$342,338		\$786,548	\$1,128,886

Material/Labor Cost		\$1,128,886
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$748,233
General Contractor Mark Up at 20.0%	+	\$149,647
Inflation	+	\$28,104
Construction Cost		\$925,984
Professional Fees at 16.0%	+	\$148,157
Total Project Cost		\$1,074,141

FACILITY CONDITION ANALYSIS

SECTION 4

**DRAWINGS
AND PROJECT LOCATIONS**



- AC01 IS02 SI01
- EL04 ES01 ES03 VT01 VT02
- AC02 AC07 EL02 EL03 FS01 FS02
- FS03 FS04 HV01 IS01 IS05 PL02

BREWSTER BUILDING

BLDG NO. BREW



FACILITY
CONDITION
ANALYSIS

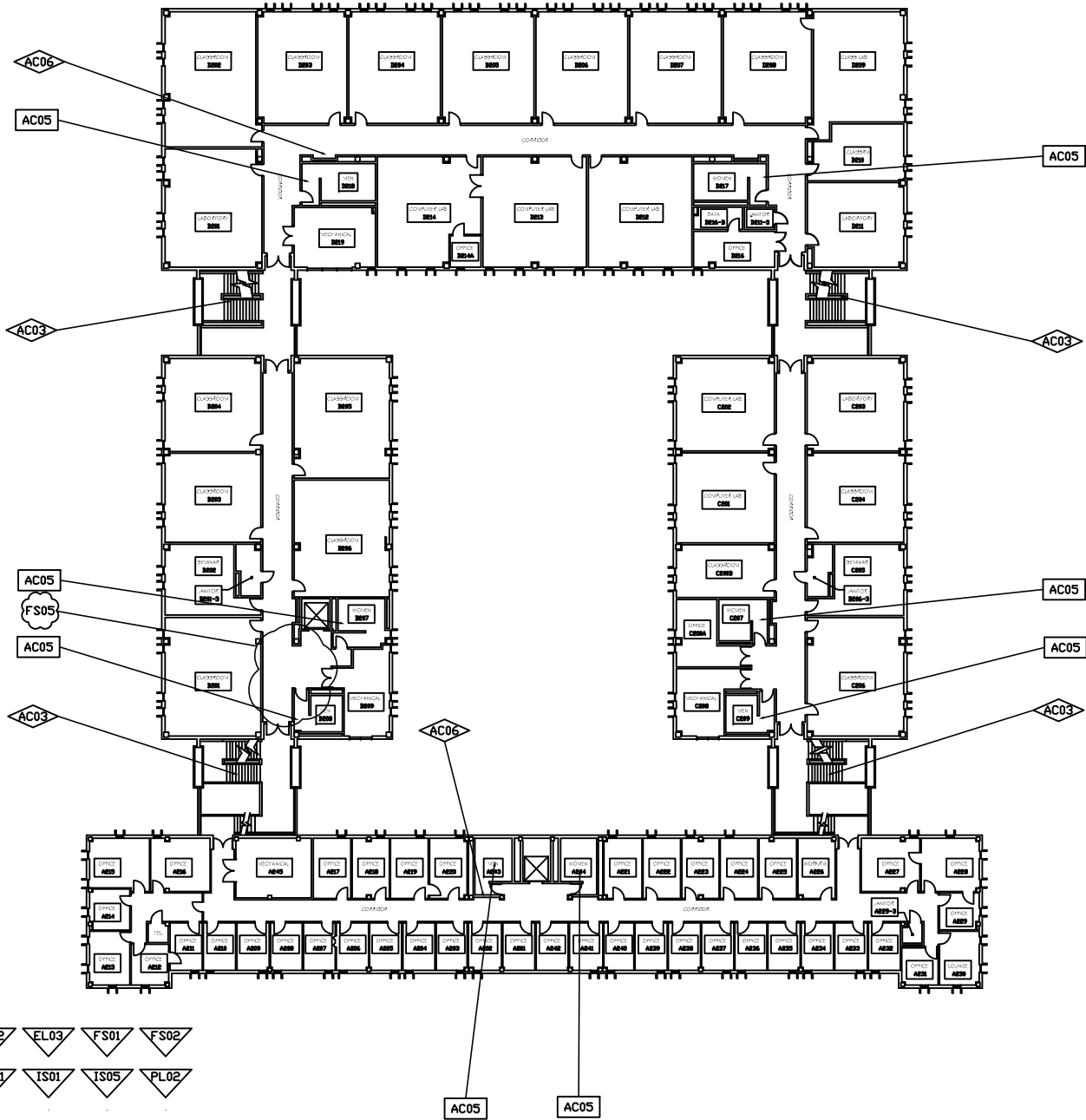
2165 West Park Court
Suite N
Stone Mountain GA 30087
770.879.7376

- 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: 11/10/09
 Drawn by: J.T.V.
 Project No. 09-041

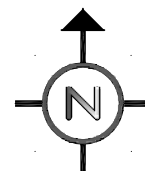
FIRST FLOOR PLAN

Sheet No. 1 of 4



IS02 PL03

AC02 AC07 EL02 EL03 FS01 FS02
 FS03 FS04 HV01 IS01 IS05 PL02









BREWSTER BUILDING

BLDG NO. BREW



FACILITY
CONDITION
ANALYSIS

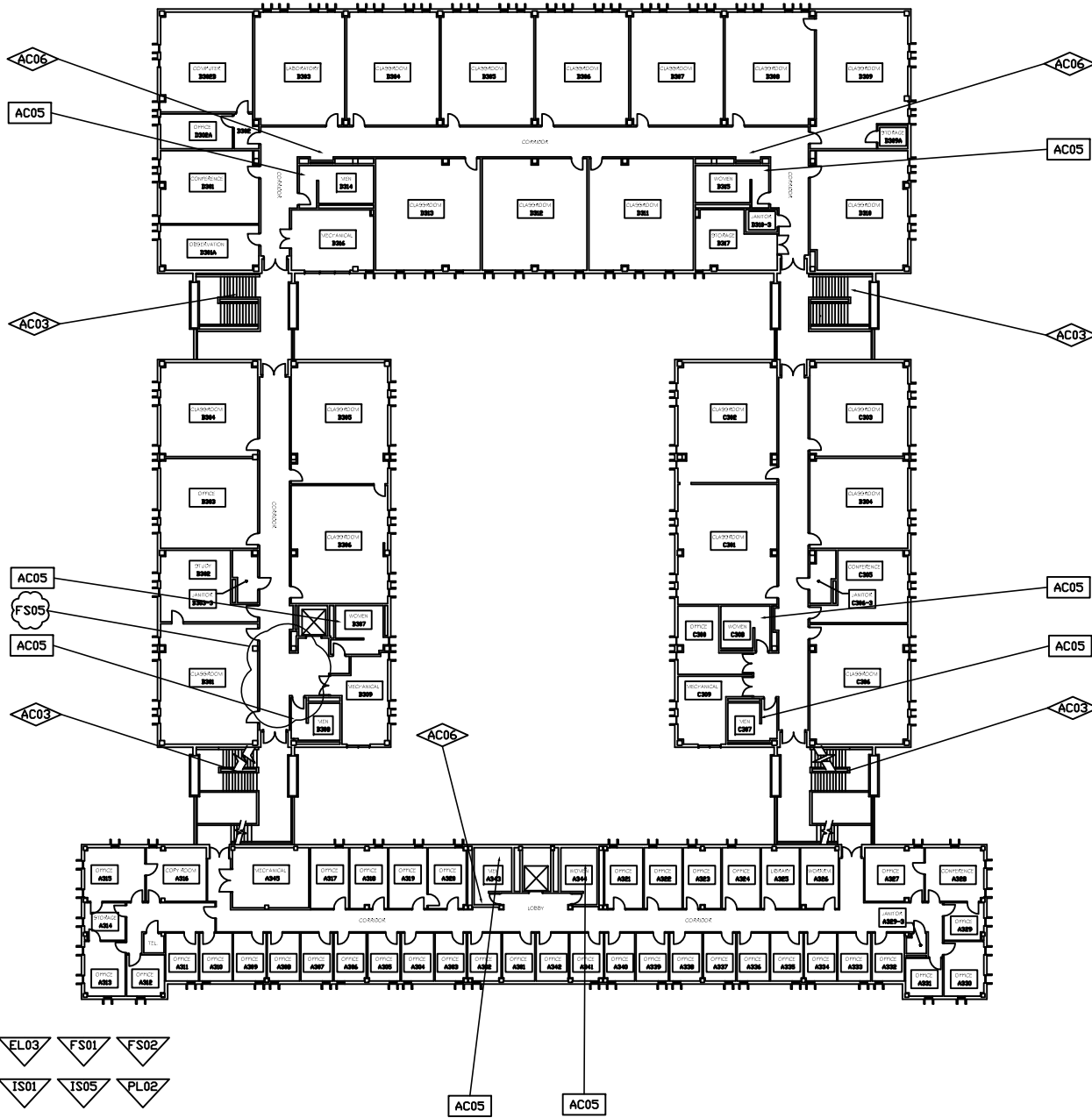
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-  PROJECT NUMBER APPLIES TO ONE ROOM ONLY
-  PROJECT NUMBER APPLIES TO ONE ITEM ONLY
-  PROJECT NUMBER APPLIES TO ENTIRE BUILDING
-  PROJECT NUMBER APPLIES TO ENTIRE FLOOR
-  PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS
-  PROJECT NUMBER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

Date: 11/10/09
 Drawn by: J.T.V.
 Project No. 09-041

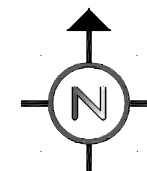
SECOND FLOOR PLAN

Sheet No. 2 of 4



IS02

- AC02
- AC07
- EL02
- EL03
- FS01
- FS02
- FS03
- FS04
- HV01
- IS01
- IS05
- PL02



BREWSTER BUILDING

BLDG NO. BREW



FACILITY CONDITION ANALYSIS

2165 West Park Court
Suite N
Stone Mountain GA 30087
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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: 11/10/09

Drawn by: J.T.V.

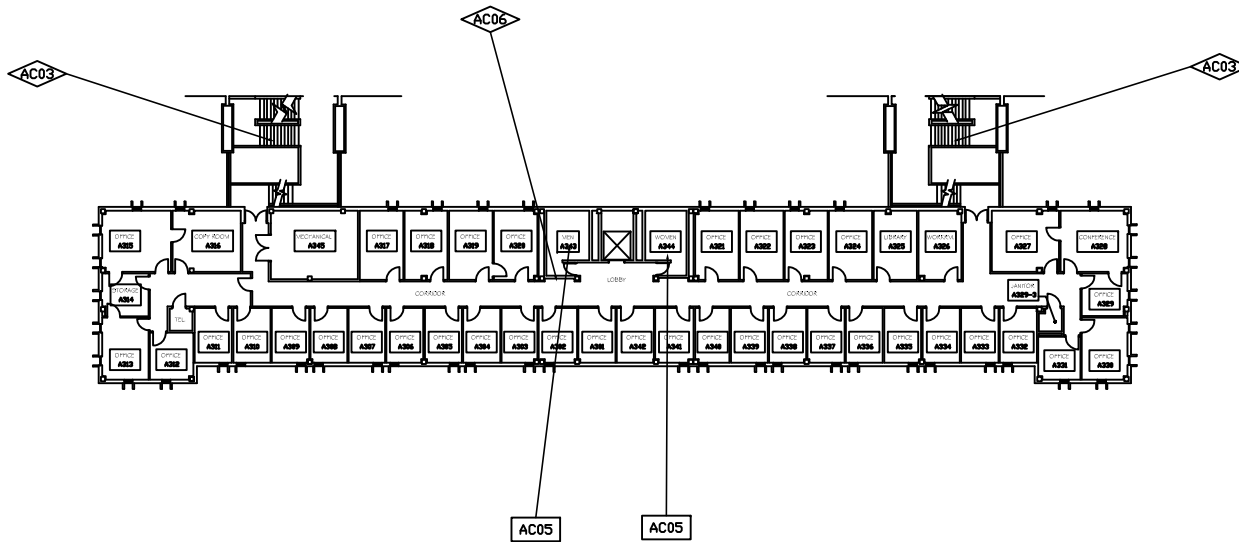
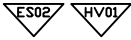
Project No. 09-041

THIRD FLOOR PLAN

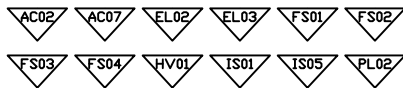
Sheet No.

3 of 4

ROOF



IS02



BREWSTER BUILDING

BLDG NO. BREW



FACILITY
CONDITION
ANALYSIS

2165 West Park Court
Suite N
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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

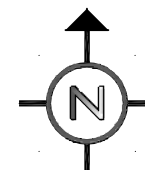
PROJECT NUMBER
APPLIES TO A SITUATION
OF UNDEFINED EXTENTS

PROJECT NUMBER
APPLIES TO AREA
AS NOTED

Date: 11/10/09

Drawn by: J.T.V.

Project No. 09-041



FOURTH
FLOOR
PLAN

Sheet No.

4 of 4

FACILITY CONDITION ANALYSIS

SECTION 5

LIFE CYCLE MODEL SUMMARY
AND PROJECTIONS

Life Cycle Model
Building Component Summary
BREW : BREWSTER BUILDING

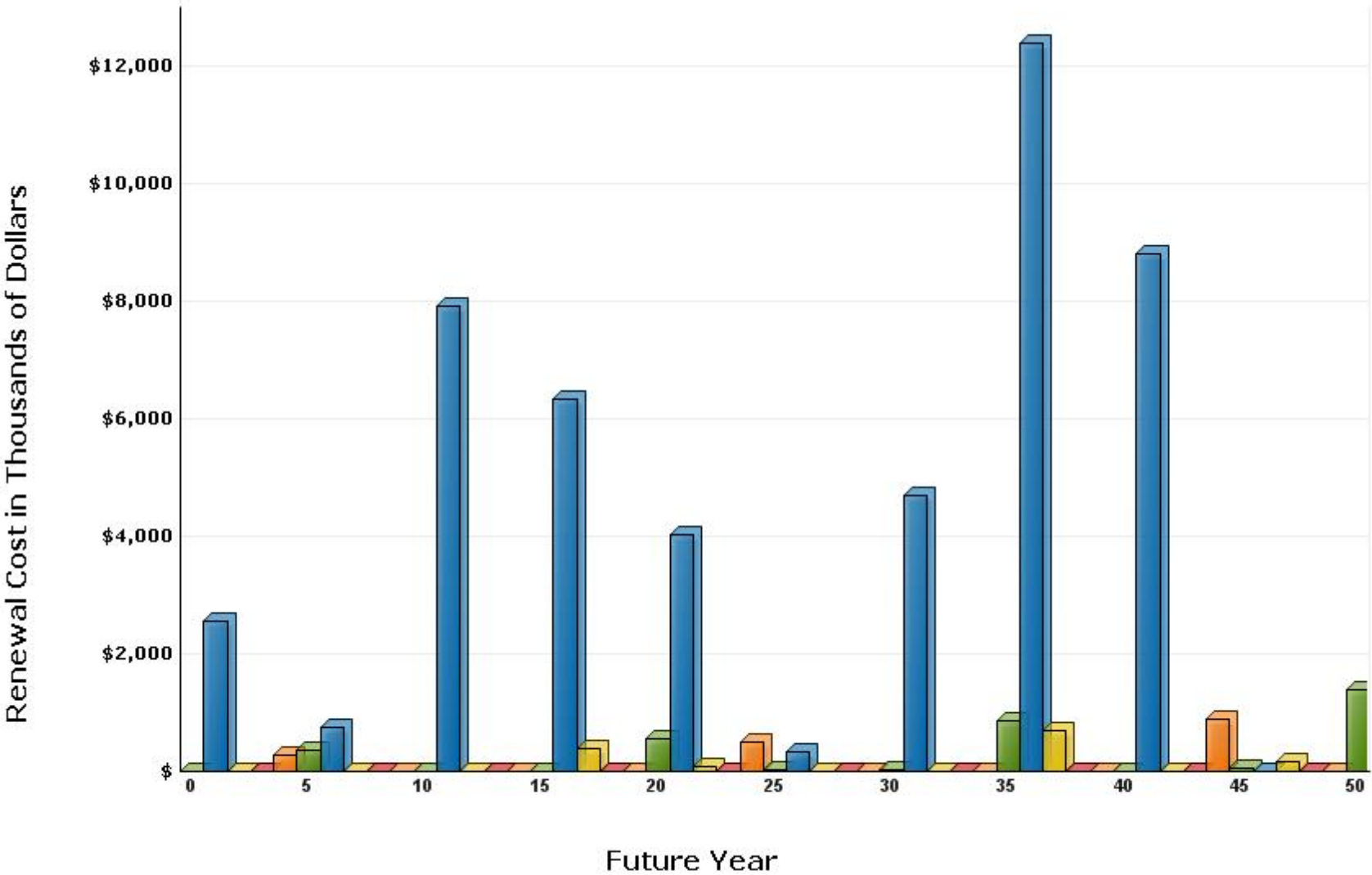
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B2010	EXTERIOR FINISH RENEWAL	5,510	SF	\$1.30		\$7,183	1970	10
B2010	EXTERIOR FINISH RENEWAL	49,550	SF	\$1.30	.31	\$20,024	1970	10
B2020	STANDARD GLAZING AND CURTAIN WALL	35,200	SF	\$104.04		\$3,662,088	1970	55
B2030	OVERHEAD GARAGE DOOR	4	EA	\$7,425.74		\$29,703	1970	30
B2030	HIGH TRAFFIC EXTERIOR DOOR SYSTEM	4	LEAF	\$4,311.24		\$17,245	1970	20
B2030	HIGH TRAFFIC EXTERIOR DOOR SYSTEM	52	LEAF	\$4,311.24		\$224,185	1970	20
B3010	BUILT-UP ROOF	36,420	SF	\$6.70		\$244,110	1993	20
C1020	STANDARD DOOR AND FRAME INCLUDING HARDWARE	149	LEAF	\$783.68		\$116,768	1990	35
C1020	STANDARD DOOR AND FRAME INCLUDING HARDWARE	205	LEAF	\$783.68		\$160,654	1990	35
C1020	INTERIOR DOOR HARDWARE	149	EA	\$423.04		\$63,033	1990	15
C1020	INTERIOR DOOR HARDWARE	205	EA	\$423.04		\$86,724	1990	15
C3010	STANDARD WALL FINISH (PAINT, WALL COVERING, ETC.)	151,810	SF	\$0.80		\$121,606	1970	10
C3020	CARPET	11,770	SF	\$8.75		\$102,946	1990	10
C3020	VINYL FLOOR TILE	40,370	SF	\$6.59		\$265,952	1970	15
C3020	CERAMIC FLOOR TILE	16,820	SF	\$17.36		\$292,035	1970	20
C3020	RESURFACE AND SEAL CONCRETE OR TERRAZZO	15,140	SF	\$5.85		\$88,519	1970	50
C3030	ACOUSTICAL TILE CEILING SYSTEM	71,490	SF	\$4.99		\$356,950	1970	15
C3030	PAINTED CEILING FINISH APPLICATION	8,410	SF	\$0.80		\$6,737	1970	15
D2010	PLUMBING FIXTURES - CLASSROOM / ACADEMIC	118,456	SF	\$7.96		\$942,601	1970	35
D2020	WATER PIPING - CLASSROOM / ACADEMIC	118,456	SF	\$5.66		\$670,788	1970	35
D2020	WATER HEATER (COMMERCIAL, ELECTRIC)	75	GAL	\$144.38		\$10,828	2000	20
D2030	DRAIN PIPING - CLASSROOM / ACADEMIC	118,456	SF	\$8.60		\$1,018,133	1970	40
D2050	AIR COMPRESSOR PACKAGE (AVERAGE SIZE)	1	SYS	\$6,456.49		\$6,456	2006	25
D3040	CONDENSATE RECEIVER	1	SYS	\$9,504.01		\$9,504	1970	15
D3040	EXHAUST FAN - CENTRIFUGAL ROOF EXHAUSTER OR SIMILAR	5	EA	\$2,768.62		\$13,843	1994	20
D3040	EXHAUST FAN - UTILITY SET OR SIMILAR	1	EA	\$3,660.81		\$3,661	2007	20
D3040	HVAC SYSTEM - CLASSROOM / ACADEMIC	79,600	SF	\$30.67		\$2,441,301	1970	25
D3040	HVAC SYSTEM - CLASSROOM / ACADEMIC	38,856	SF	\$30.67		\$1,191,698	1970	25
D3040	BASE MTD. PUMP - 15 HP TO 50 HP	20	HP	\$1,142.19		\$22,844	1970	20

**Life Cycle Model
Building Component Summary
BREW : BREWSTER BUILDING**

Unifomat Code	Component Description	Qty	Units	Unit Cost	Complex Adj	Total Cost	Install Date	Life Exp
D3040	BASE MTD. PUMP - 50 HP TO 150 HP	1	HP	\$782.99		\$783	2006	25
D5010	ELECTRICAL SYSTEM - CLASSROOM / ACADEMIC	118,456	SF	\$13.35		\$1,581,294	1970	50
D5010	ELECTRICAL SWITCHGEAR 277/480V	2,000	AMP	\$39.56		\$79,127	1970	20
D5010	TRANSFORMER, DRY, 480-208V (30-150 KVA)	525	KVA	\$96.00		\$50,398	1970	30
D5010	VARIABLE FREQUENCY DRIVE (OVER 50 HP)	1	HP	\$237.46		\$237	2006	12
D5020	EXIT SIGNS (CENTRAL POWER)	50	EA	\$163.78		\$8,189	1999	20
D5020	EXTERIOR LIGHT (HID)	10	EA	\$689.58		\$6,896	1990	20
D5020	LIGHTING - CLASSROOM / ACADEMIC	81,600	SF	\$6.26		\$510,624	1970	20
D5020	LIGHTING - CLASSROOM / ACADEMIC	36,856	SF	\$6.26		\$230,632	2006	20
D5030	FIRE ALARM SYSTEM, POINT ADDRESSABLE	118,456	SF	\$2.61		\$309,714	1999	15
D5040	GENERATOR, DIESEL (50-100KW)	50	KW	\$717.93		\$35,897	2006	25
E2010	BASIC FOLDING FIXED SEATING	80	EA	\$278.95		\$22,316	1970	20
E2010	BASIC FOLDING FIXED SEATING	80	EA	\$278.95		<u>\$22,316</u>	1970	20
						\$15,056,540		

Life Cycle Model Expenditure Projections

BREW : BREWSTER BUILDING



Average Annual Renewal Cost Per SqFt \$4.46

FACILITY CONDITION ANALYSIS

SECTION 6

PHOTOGRAPHIC LOG

**Photo Log - Facility Condition
Analysis
BREW : BREWSTER BUILDING**

Photo ID No	Description	Location	Date
BREW001a	View looking southwest along east facade, courtyard, B wing	Exterior elevation	8/31/2009
BREW001e	Notifier fire alarm panel	Typical for A, B, C, and D wings	8/31/2009
BREW002a	View looking southeast across west facade, courtyard, C wing	Exterior elevation	8/31/2009
BREW002e	Fluorescent T12 light fixtures	At building connector, A - B wings	8/31/2009
BREW003a	View looking northwest across south facade, courtyard, D wing	Exterior elevation	8/31/2009
BREW003e	Lighting with recessed fluorescent T8 fixtures	Hallway lighting, A wing	8/31/2009
BREW004a	View looking southwest across north facade, courtyard, south A wing	Exterior elevation	8/31/2009
BREW004e	Original electrical distribution and added transformer	Mechanical room B309	8/31/2009
BREW005a	Spalled concrete at stair landing between B wing and D wing	Third floor, northwest stair	8/31/2009
BREW005e	HID light fixture on 20 foot aluminum pole	Exterior of building	8/31/2009
BREW006a	Two single level drinking fountains mounted at same elevation	Third floor, D wing, west end	8/31/2009
BREW006e	Pad mount, oil-filled, 12,470/480 volt transformer	Exterior of building	8/31/2009
BREW007a	Typically aging sealant between stone guardrail and exterior brick wall at stair landing	Third floor, southeast stair	8/31/2009
BREW007e	HID light fixture on 30 foot aluminum pole	Exterior of building	8/31/2009
BREW008a	Metal handrail system that lacks recommended end geometry at stair landing between B wing and C wing	Second floor, southeast stair	8/31/2009
BREW008e	Fixtures upgraded to T8 lamps and electronic ballasts	Hallway lighting, B wing	8/31/2009
BREW009a	Lack of wall handrail at classroom steps	First floor, tiered classroom B102	8/31/2009
BREW009e	Centrifugal roof exhauster	A wing roof	8/31/2009
BREW010a	Courtyard steps lacking handrails	Site detail	8/31/2009
BREW010e	Static roof vent	A wing roof	8/31/2009
BREW011a	Painted metal guardrail that lacks sufficient infill and lack of wall handrail at steps beyond, southeast corner of courtyard	Site detail	8/31/2009
BREW011e	Utility set exhaust fan	B wing roof	8/31/2009
BREW012a	View looking southeast along west facade	Exterior elevation	8/31/2009
BREW012e	Original air handler with chill / hot water coils	Mechanical room D316	8/31/2009
BREW013a	View looking southeast across north facade, D wing	Exterior elevation	8/31/2009
BREW013e	Honeywell pneumatic controls for HVAC system	Mechanical room D316	8/31/2009
BREW014a	View looking southwest across east facade	Exterior elevation	8/31/2009

**Photo Log - Facility Condition
Analysis
BREW : BREWSTER BUILDING**

Photo ID No	Description	Location	Date
BREW014e	Original pneumatic control chill water valve	Mechanical room C300	8/31/2009
BREW015a	View looking northwest across south facade, A wing	Exterior elevation	8/31/2009
BREW015e	New pneumatic control chill water valve and coil	Mechanical room A445	8/31/2009
BREW016a	View looking northwest across east facade	Exterior elevation	8/31/2009
BREW016e	Reciprocating air compressor for HVAC controls	Mechanical room A139	8/31/2009
BREW017e	20 hp hot water circulation pump	Mechanical room A139	8/31/2009
BREW018e	Duplex condensate receiver	Mechanical room A139	8/31/2009
BREW019e	Cummins 50 kW emergency generator	Exterior of building	8/31/2009
BREW020e	Internal roof drain	Typical	8/31/2009
BREW021e	Janitor's mop sink	Typical	8/31/2009
BREW022e	Urinals in men's restrooms	Typical	8/31/2009
BREW023e	Wall hung lavatories	Typical	8/31/2009
BREW024e	Water closets	Typical	8/31/2009
BREW025e	Water fountains	Typical	8/31/2009
BREW026e	A.O. Smith electric water heater	Mechanical room A139	8/31/2009
BREW027e	Hydraulic passenger elevator equipment	Elevator equipment, B wing room	8/31/2009
BREW028e	Hydraulic passenger elevator equipment	Elevator equipment, A wing room	8/31/2009
BREW029e	Exit signage with battery backup	Typical	8/31/2009
BREW030e	Horn strobe and pull down device	Typical	8/31/2009

Facility Condition Analysis - Photo Log



BREW001A.jpg



BREW001E.jpg



BREW002A.jpg



BREW002E.jpg



BREW003A.jpg



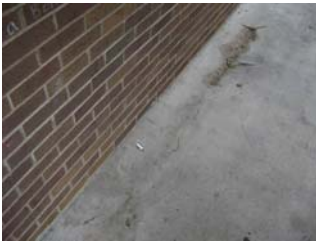
BREW003E.jpg



BREW004A.jpg



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BREW005A.jpg



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BREW006A.jpg



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BREW008A.jpg



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Facility Condition Analysis - Photo Log



BREW011A.jpg



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Facility Condition Analysis - Photo Log



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