

# **EAST CAROLINA UNIVERSITY**

## **ERWIN HALL**

**ASSET CODE: ERWI**

**FACILITY CONDITION ANALYSIS**

**NOVEMBER 4, 2009**





EAST CAROLINA UNIVERSITY  
Facility Condition Analysis

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# FACILITY CONDITION ANALYSIS

## SECTION 1

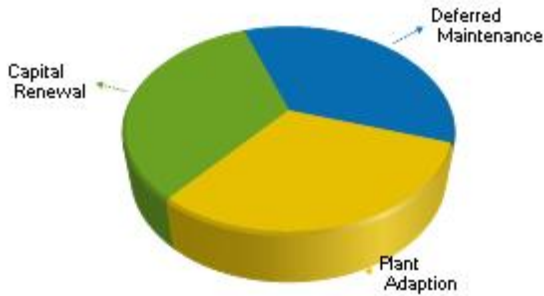
### GENERAL ASSET INFORMATION



### EXECUTIVE SUMMARY - ERWIN HALL

**Building Code:** ERWI  
**Building Name:** ERWIN HALL  
**Year Built:** 1952  
**Building Use:** Office / Administrative  
**Square Feet:** 14,652

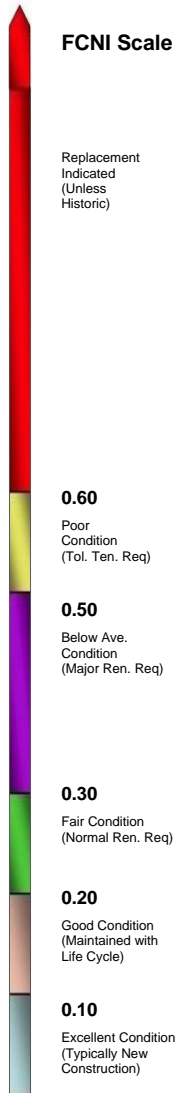
#### PROJECT COSTS BY CLASSIFICATION



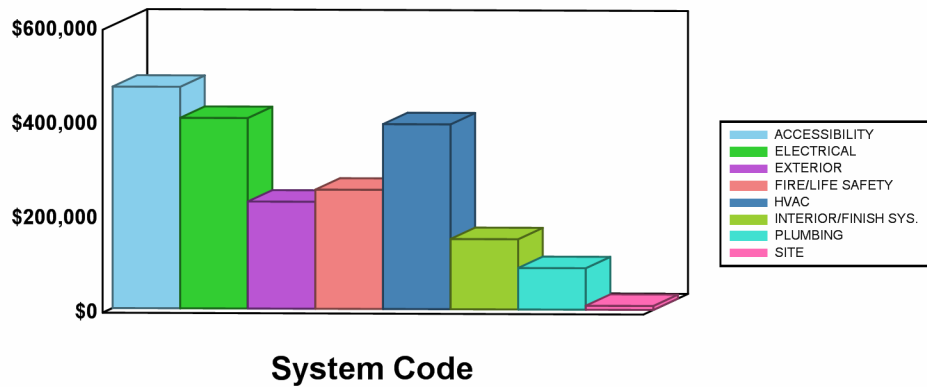
#### Project Costs by Priority

Priority 1:	\$110,799
Priority 2:	\$39,298
Priority 3:	\$1,269,359
Priority 4:	\$571,796
<b>Total Project Costs:</b>	<b>\$1,991,252</b>
<b>Facility Replacement Cost:</b>	<b>\$3,892,000</b>

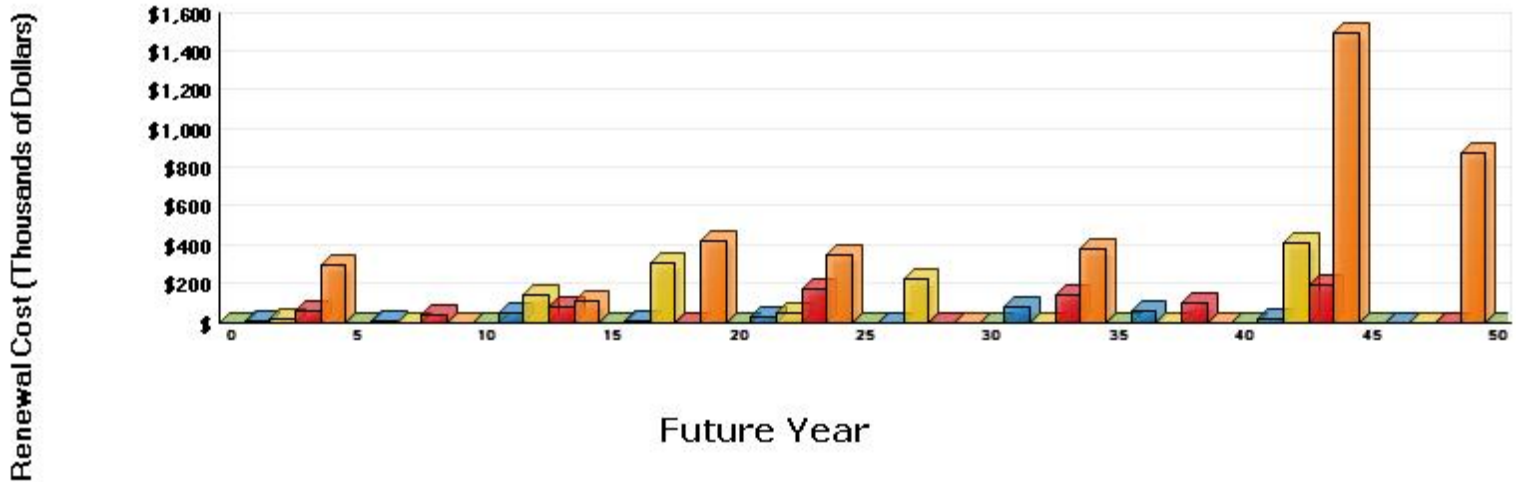
**Facility Condition Needs Index (FCNI): 0.51**  
 (Project Costs / Replacement Cost)



#### PROJECT COSTS BY SYSTEM CODE



#### LIFE CYCLE MODEL EXPENDITURE PROJECTIONS



Average Annual Renewal Cost Per SqFt \$3.52





## B. ASSET SUMMARY

Built in 1952 as a three-story faculty dormitory, Erwin Hall is now a three-story, rectangular-shaped office structure. This wood and masonry-framed structure is located near the middle of the west end of the northern portion of the East Carolina University campus in Greenville, North Carolina. It has a listed area of 14,652 gross square feet.

The information for this report was gathered during an inspection conducted on September 3, 2009.

### SITE

The landscaping on this moderate-sized, flat site consists of turf, shrubs, specimen trees, and foundation planting, all in overall fair condition. The overall condition of the site is such that a moderate landscaping upgrade is warranted. There is a concrete paver sidewalk at the north facade that is a potential hazard. The installation of a concrete sidewalk is recommended to replace these pavers. Also, there is a plastic condensate drain line across the east facade entry steps. This line is a potential trip hazard that was pointed out during the site visit. It is recommended that this line be rerouted or removed.

### EXTERIOR STRUCTURE

This wood and masonry-framed building has a brick veneer with stone trim. The majority of this masonry is fundamentally sound, but exposure to the elements has caused some deterioration of the mortar joints and expansion joints. There is some stair-step and vertical cracking, primarily at the south facade exit steps. Cleaning, surface preparation, selective repairs, and applied finish or penetrating sealant upgrades are recommended to restore the aesthetics and integrity of the building envelope.

The punched windows are operable, non-insulating units. It is recommended that these single-pane, metal-framed windows be upgraded to fixed thermal-pane glazing systems, which will reduce the energy required to operate the building. Repair or replacement of the windowsills and trim may also be necessary. The painted wood and glass entry doors are in overall good condition. No exterior door upgrades are proposed, beyond repainting.

The flat, unballasted single-ply membrane roofing is in overall good condition. However, experience indicates that this roofing will need to be replaced within the next ten years. Replace this roof with a similar application.

### INTERIOR FINISHES / SYSTEMS

Except for the east facade-to-west facade main entry lobby, the interior of all three floors has a double-loaded central corridor with offices and a few meeting rooms on both sides. All of the walls are floor-to-ceiling and painted, but with a ceramic tile wainscot in the restrooms. Ceilings in most spaces are acoustical tile, with some painted ceilings. Many offices, meeting rooms, and the main entry spaces are carpeted, but most spaces have vinyl tile flooring. Restrooms have ceramic tile flooring. Carpeting, some vinyl floor tile, wall finish, and ceiling upgrades are recommended within the next ten years.

The entry floor public men's restroom and women's restroom fixtures and finishes were upgraded recently and are accessible to persons with disabilities. The fixtures and finishes in these two restrooms are sound, but the finishes should be renewed within the next five years.

## ACCESSIBILITY

There is some handicapped accessibility into this building. There is a wheelchair ramp at the west entrance and two wheelchair accessible restrooms at the entry floor. Numerous accessibility upgrades are recommended.

Current accessibility 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.

This legislation also requires that stairs have graspable handrails on both sides, that the rails have a specific end geometry, and that they continue horizontally at the landings. The end geometry of the existing exit stair side handrails does not comply with current accessibility legislation. Painted wood and metal handrail extensions need to be added to the end of all of the handrails.

Present accessibility legislation requires wheelchair access to all floors in a building over two stories in height. There is no wheelchair access to the upper floors of this building. The installation of an interior hydraulic elevator is proposed.

Building amenities are required to be generally accessible to all persons. The configuration of the kitchen cabinets is a barrier to accessibility, as is the kitchenette unit in room 104A. The installation of wheelchair accessible cabinetry in the kitchen and the room 104A kitchenette unit is recommended.

The restroom fixtures and finishes are mostly original to the year of construction or latest major renovation. Except for the entry floor public men's and women's restrooms, the remaining restrooms are "jack-and-jill" style left over from when this facility was a dormitory. The entry floor public restroom fixtures and finishes were upgraded recently and are accessible to persons with disabilities. The "jack-and-jill" restrooms on the entry floor and the upper floors have fixtures and finishes that are sound but dated, and fixtures are spaced such that clearances are not ADA compliant. A comprehensive renovation of all of the "jack-and-jill" 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.

ADA 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 materials (ACMs) within this building. No ACM abatement is proposed, beyond the ACM abatement allowance in the Interior category project to upgrade the floor finishes. There was no evidence of a presence of infestations by vermin or insects in this building.

## FIRE / LIFE SAFETY

Code requires that there be a guardrail where there is a change in floor level in excess of 36 inches and that these guardrails be a minimum of 42 inches high. The guardrails must also prevent the passage of a specific diameter sphere. The wood and metal guardrails at the top of the north fire exit stair are too low and lack sufficient infill. A painted metal rail should be added above and parallel to the existing guardrail. The application of a galvanized, expanded metal lath to the existing guardrails is the most cost-effective method of complying with the sphere test.

This building appears to have been constructed in substantial compliance with building codes. The exits seem to be sufficient in number and location. Therefore, no exit projects are proposed. However, most of the exit access corridor doors do not have obvious fire ratings. Complete demolition of the door systems and their replacement according to a code compliant plan to properly protect egress passages is recommended where it cannot be determined that the existing exit access doors and door frames are rated.

This facility is not currently protected by any form of fire detection or notification. To conform to modern construction standards, it is recommended that a modern fire alarm system be installed. This measure will help to provide a safe environment for building occupants and protect assets.

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

Exit signs are illuminated with fluorescent lamps and have battery backup power. Emergency lighting is available through unitary fixtures with battery backup power. All egress lighting systems are adequate and in good condition.

## HVAC

This facility is on the campus steam loop. Steam is circulated as the heating medium. The steam heating system is served by a pressure reducing valve that is approaching the end of its expected life cycle. Such systems become increasingly maintenance intensive and problematic after twenty years of service. Scheduled replacement of this critical system is recommended.

This facility is served by a hydronic heating system. There is no central cooling available, and minimal fresh air is introduced to the interior spaces. Three small split heat pump systems provide heating and air conditioning to a minimal area of this facility. In addition, window air conditioner units are used on an office-by-office basis.

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 and constant volume air distribution as needed. This includes new air handlers, exhaust fans, ductwork, terminal units, pressure reducing valves, pumps, piping, controls, and related electrical components. Specify direct digital controls for the new equipment. Incorporate variable frequency drives into the new HVAC design as applicable.

## ELECTRICAL

An oil-type transformer rated for 150 kVA service steps the incoming 12,470 volt power down to 120/208 volts for building distribution. It is then distributed by Square D switchgear rated for 400 amp service. The aging and under-sized incoming electrical service and main distribution components will require replacement within the scope of this analysis. An upgrade of this equipment is recommended. Remove the existing transformer, main distribution panel, and switchgear. Install new and modern equipment that will distribute 277/480 volt power to lighting and HVAC equipment and 120/208 volt power to devices. Perform this work in conjunction with the proposed HVAC system and electrical distribution network upgrades.

The electrical distribution network supplies 120/208 volt power throughout. The panels were manufactured predominantly by Square D. The electrical devices are aged and visibly worn, and the system is undersized to support the current needs of the occupants. In order to maintain reliable service throughout the facility, it is recommended that the electrical distribution network be upgraded.

The majority of the interior spaces are illuminated by T12 fluorescent fixtures, with some lighting upgraded in the last ten years to fixtures with compact and T8 fluorescent lamps. The fluorescent fixtures are predominantly surface-mounted applications with open-cell parabolic diffusers. Some fixtures are still fitted with inefficient incandescent lamps. The lenses on the light fixtures are aged and present a dim aesthetic, and 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, and install occupancy sensors where possible.

The exterior areas adjacent to the building are illuminated by building-mounted HID fixtures, which 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.

## PLUMBING

Potable water is distributed throughout this facility via a galvanized steel piping network. Sanitary waste and stormwater piping is of cast-iron, bell-and-spigot construction with copper or galvanized steel run-outs. The supply and drain piping networks are 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 also recommended for replacement. This action is detailed in the proposed restroom accessibility renovation.

Domestic water is heated by an electric, residential-grade water heater. This unit is approaching the end of its expected life cycle. It should be anticipated that it will require replacement within the scope of this analysis.

Currently, a sump pump facilitates the drainage of stormwater from this facility. This installation is considered temporary. It should be anticipated that the system will require replacement with a more permanent installation within the purview of this analysis.

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

### C. INSPECTION TEAM DATA

**DATE OF INSPECTION:** September 3, 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
<b>SYSTEM DESCRIPTION: ACCESSIBILITY</b>			
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.
<b>SYSTEM DESCRIPTION: ELECTRICAL</b>			
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.
<b>SYSTEM DESCRIPTION: EXTERIOR</b>			
ES1A	FOUNDATION/FOOTING	STRUCTURE	Structural foundation improvements involving structural work on foundation wall/footing, piers, caissons, piles including crack repairs, shoring & pointing
ES1B	FOUNDATION/FOOTING	DAMPPROOFING/DEWATERING	Foundation/footing waterproofing work including, damp proofing, dewatering, insulation, etc.
ES2A	COLUMNS/BEAMS/WALLS	STRUCTURE	Structural work to primary load-bearing structural components aside from floors including columns, beams, bearing walls, lintels, arches, etc.
ES2B	COLUMNS/BEAMS/WALLS	FINISH	Work involving restoration of the appearance and weatherproof integrity of exterior wall/structural envelope components including masonry/pointing, expansion joints, efflorescence & stain removal, grouting, surfacing, chimney repairs, etc.
ES3A	FLOOR	STRUCTURE	Work concerning the structural integrity of the load supporting floors both exposed and unexposed including deformation, delamination, spalling, shoring, crack repair, etc.
ES4A	ROOF	REPAIR	Work on waterproof horizontal finish (roof) involving repair and/or limited replacement (<40% total) including membrane patching, flashing repair, coping caulk/resetting, PPT wall parging/coating, walkpad installation, skylight and roof hatch R&R, etc.
ES4B	ROOF	REPLACEMENT	Work involving total refurbishment of roofing system including related component rehab.
ES5A	FENESTRATIONS	DOORS	Work on exterior exit/access door including storefronts, airlocks, air curtains, vinyl slat doors, all power/manual operating hardware (except handicapped), etc.
ES5B	FENESTRATIONS	WINDOWS	Work on exterior fenestration closure & related components including glass/metal/wood curtain walls, fixed or operable window sashes, glazing, frames, sills, casings, stools, seats, coatings, treatments, screens, storm windows, etc.
ES6A	GENERAL	ATTACHED STRUCTURE	Work on attached exterior structure components not normally considered in above categories including porches, stoops, decks, monumental entrance stairs, cupolas, tower, etc.
ES6B	GENERAL	AREAWAYS	Work on attached grade level or below structural features including subterranean light wells, areaways, basement access stairs, etc.
ES6C	GENERAL	TRIM	Work on ornamental exterior (generally non-structural) elements including beltlines, quoins, porticos, soffits, cornices, moldings, trim, etc.
ES6D	GENERAL	SUPERSTRUCTURE	Finish and structural work on non-standard structures with exposed load-bearing elements such as stadiums, bag houses, bleachers, freestanding towers, etc.

CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
ES6E	GENERAL	OTHER	Any exterior work not specifically categorized elsewhere including finish and structural work on freestanding boiler stacks.
<b>SYSTEM DESCRIPTION: FIRE / LIFE SAFETY</b>			
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.
<b>SYSTEM DESCRIPTION: HEALTH</b>			
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.
<b>SYSTEM DESCRIPTION: HVAC</b>			
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.
<b>SYSTEM DESCRIPTION: INTERIOR FINISHES / SYSTEMS</b>			
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.
<b>SYSTEM DESCRIPTION: PLUMBING</b>			



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.
<b>SYSTEM DESCRIPTION: SITE</b>			
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.
<b>SYSTEM DESCRIPTION: SECURITY SYSTEMS</b>			
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.
<b>SYSTEM DESCRIPTION: VERTICAL TRANSPORTATION</b>			
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  
 ERWI : ERWIN HALL**

System Code	System Description	Priority Classes				Subtotal
		1	2	3	4	
AC	ACCESSIBILITY	0	0	0	469,778	469,778
EL	ELECTRICAL	0	0	404,056	0	404,056
ES	EXTERIOR	0	0	195,029	31,954	226,983
FS	FIRE/LIFE SAFETY	110,799	39,298	102,703	0	252,800
HV	HVAC	0	0	392,168	0	392,168
IS	INTERIOR/FINISH SYS.	0	0	87,404	61,612	149,015
PL	PLUMBING	0	0	79,540	8,452	87,992
SI	SITE	0	0	8,458	0	8,458
	<b>TOTALS</b>	110,799	39,298	1,269,359	571,796	1,991,252

<b>Facility Replacement Cost</b>	<b>\$3,892,000</b>
<b>Facility Condition Needs Index</b>	<b>0.51</b>

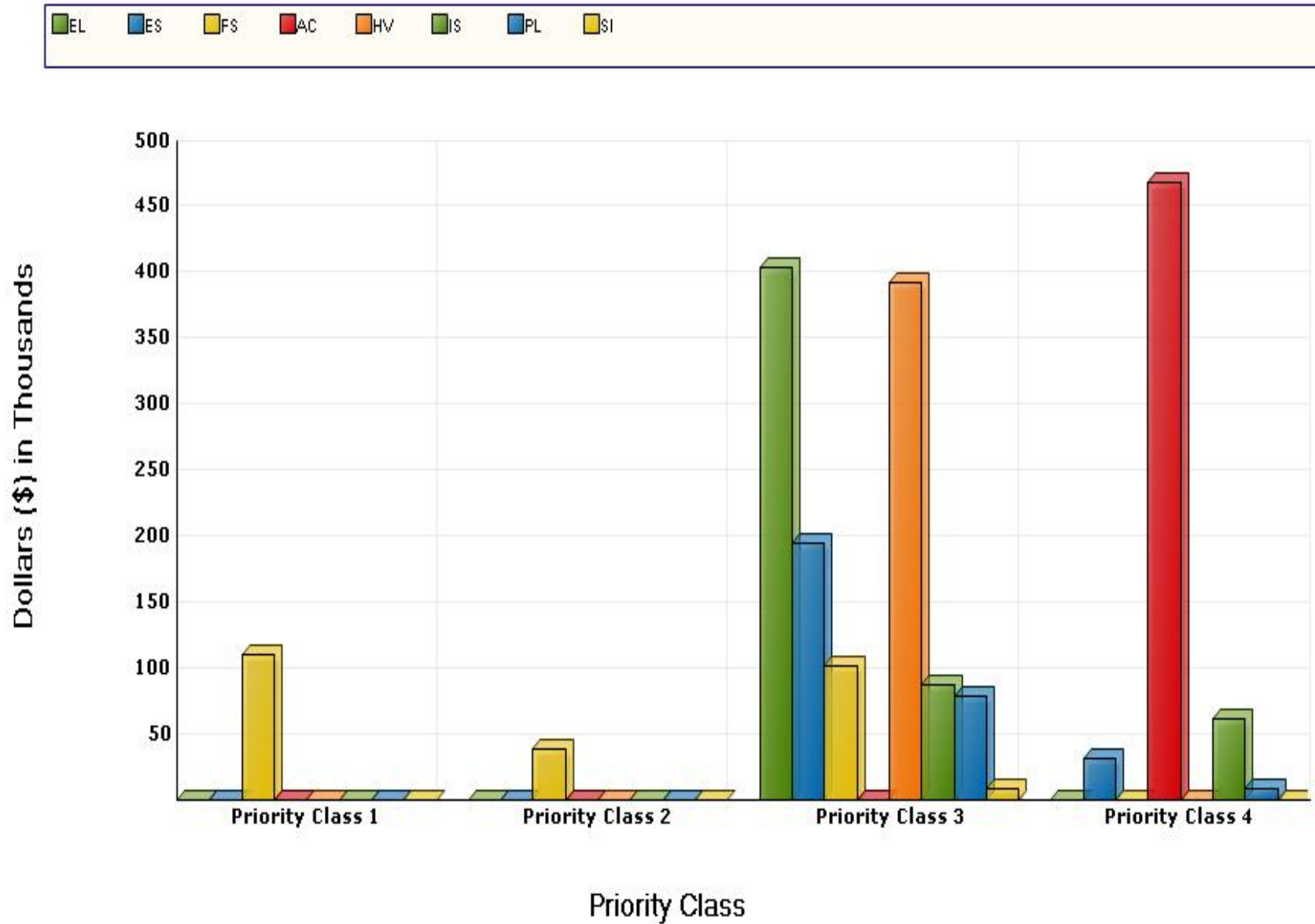
<b>Gross Square Feet</b>	<b>14,652</b>
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<b>Total Cost Per Square Foot</b>	<b>\$135.90</b>
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# FACILITY CONDITION ANALYSIS

## System Code by Priority Class

ERWI : ERWIN HALL



**Detailed Project Totals  
Facility Condition Analysis  
System Code by Project Class  
ERWI : ERWIN HALL**

System Code	System Description	Project Classes				Subtotal
		Capital Renewal	Deferred Maintenance	FCAP	Plant Adaption	
AC	ACCESSIBILITY	0	0	0	469,778	469,778
EL	ELECTRICAL	118,952	285,103	0	0	404,056
ES	EXTERIOR	31,954	195,029	0	0	226,983
FS	FIRE/LIFE SAFETY	102,703	0	0	150,097	252,800
HV	HVAC	371,302	20,866	0	0	392,168
IS	INTERIOR/FINISH SYS.	31,713	117,302	0	0	149,015
PL	PLUMBING	11,636	76,356	0	0	87,992
SI	SITE	0	8,458	0	0	8,458
	<b>TOTALS</b>	668,261	703,115	0	619,875	1,991,252

<b>Facility Replacement Cost</b>	<b>\$3,892,000</b>
<b>Facility Condition Needs Index</b>	<b>0.51</b>

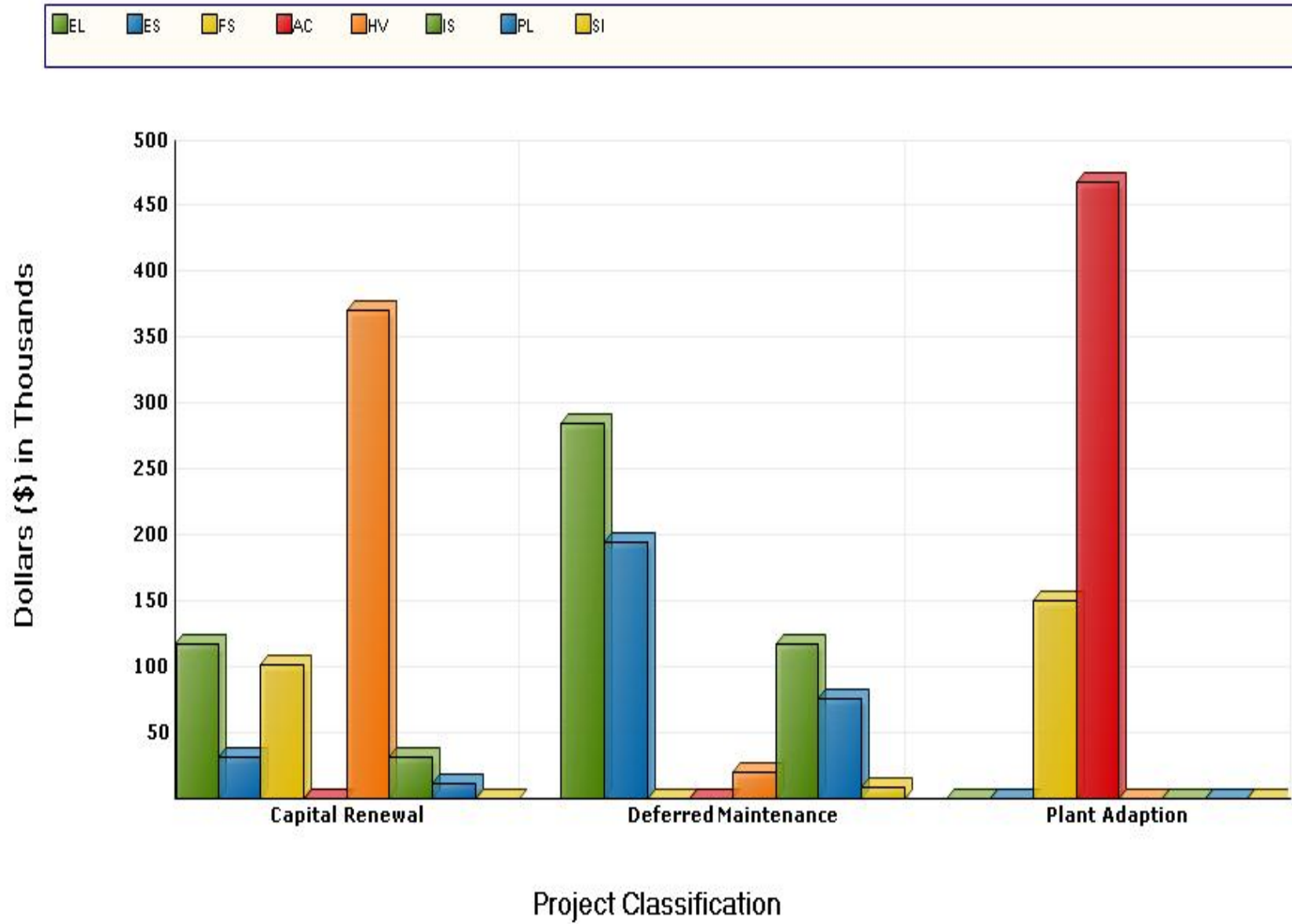
<b>Gross Square Feet</b>	<b>14,652</b>
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<b>Total Cost Per Square Foot</b>	<b>\$135.90</b>
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# FACILITY CONDITION ANALYSIS

## System Code by Project Class

ERWI : ERWIN HALL



**Detailed Project Summary**  
**Facility Condition Analysis**  
**Project Class by Priority Class**  
**ERWI : ERWIN HALL**

Project Class	Priority Classes				Subtotal
	1	2	3	4	
Capital Renewal	0	0	627,855	40,406	668,261
Deferred Maintenance	0	0	641,503	61,612	703,115
Plant Adaption	110,799	39,298	0	469,778	619,875
<b>TOTALS</b>	110,799	39,298	1,269,359	571,796	1,991,252

Facility Replacement Cost	\$3,892,000
Facility Condition Needs Index	0.51

Gross Square Feet	14,652
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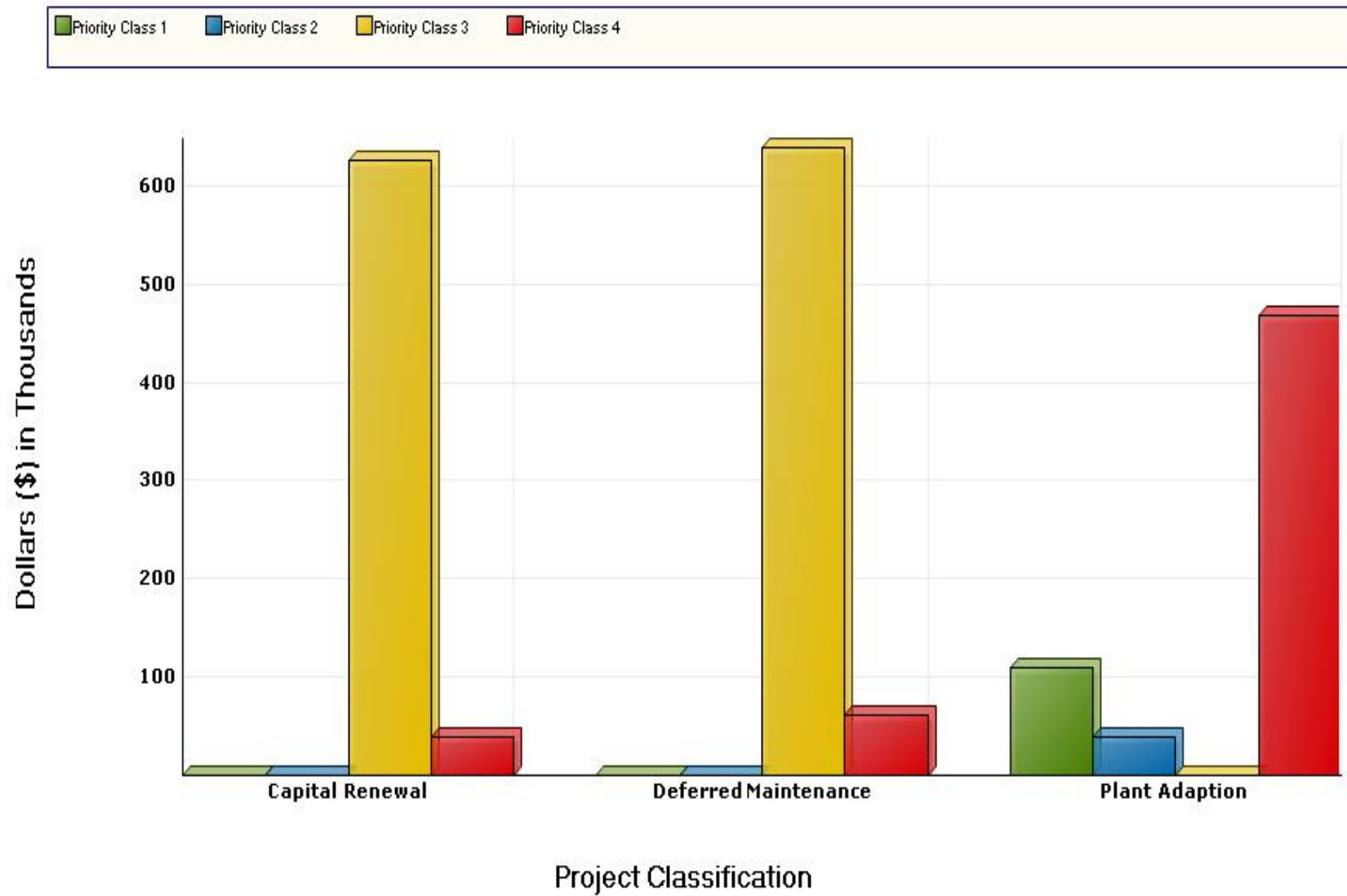
Total Cost Per Square Foot	\$135.90
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# FACILITY CONDITION ANALYSIS

## Project Class by Priority Class

ERWI : ERWIN HALL



Detailed Project Summary  
Facility Condition Analysis  
**Priority Class - Priority Sequence**  
ERWI : ERWIN HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5E	ERWIFS01	1	1	STAIR GUARDRAIL UPGRADES	1,059	169	1,228
FS5F	ERWIFS02	1	2	INTERIOR DOOR UPGRADES	94,458	15,113	109,571
<b>Totals for Priority Class 1</b>					<b>95,516</b>	<b>15,283</b>	<b>110,799</b>
FS2A	ERWIFS03	2	3	FIRE ALARM SYSTEM INSTALLATION	33,878	5,420	39,298
<b>Totals for Priority Class 2</b>					<b>33,878</b>	<b>5,420</b>	<b>39,298</b>
FS3A	ERWIFS04	3	4	FIRE SPRINKLER SYSTEM REPLACEMENT	88,537	14,166	102,703
ES2B	ERWIES01	3	5	RESTORE BRICK VENEER	18,749	3,000	21,749
ES5B	ERWIES02	3	6	WINDOW REPLACEMENT	149,379	23,901	173,280
HV5A	ERWIHV02	3	7	PRESSURE REDUCING VALVE REPLACEMENT	4,151	664	4,816
HV4B	ERWIHV03	3	8	EXHAUST FAN REPLACEMENT	5,470	875	6,346
HV5B	ERWIHV04	3	9	CONDENSATE RECEIVER REPLACEMENT	8,366	1,339	9,705
HV3A	ERWIHV01	3	10	HVAC SYSTEM UPGRADE	320,088	51,214	371,302
EL3B	ERWIEL03	3	11	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	152,427	24,388	176,816
EL4B	ERWIEL02	3	12	INTERIOR LIGHTING UPGRADE	93,351	14,936	108,288
EL1A	ERWIEL01	3	13	UPGRADE ELECTRICAL SERVICE	100,115	16,018	116,133
EL4A	ERWIEL04	3	14	EXTERIOR LIGHTING REPLACEMENT	2,430	389	2,819
IS2B	ERWIIS01	3	15	REFINISH WALLS	27,339	4,374	31,713
IS1A	ERWIIS02	3	16	FLOOR FINISH UPGRADES	41,232	6,597	47,829
IS6D	ERWIIS04	3	17	RESTROOM FINISH UPGRADES	6,777	1,084	7,861
PL1A	ERWIPL02	3	18	WATER SUPPLY PIPING REPLACEMENT	26,121	4,179	30,300
PL2A	ERWIPL03	3	19	DRAIN PIPING REPLACEMENT	39,704	6,353	46,056
PL1E	ERWIPL01	3	20	DOMESTIC WATER HEATER REPLACEMENT	2,745	439	3,184
SI2A	ERWISI01	3	21	UPGRADE SITEWORK	7,292	1,167	8,458
<b>Totals for Priority Class 3</b>					<b>1,094,275</b>	<b>175,084</b>	<b>1,269,359</b>
AC3C	ERWIAC01	4	22	INSTALL LEVER ACTION DOOR HARDWARE	89,855	14,377	104,232
AC3B	ERWIAC02	4	23	STAIR HANDRAIL UPGRADES	4,969	795	5,764
AC3A	ERWIAC03	4	24	ELEVATOR INSTALLATION	162,171	25,947	188,118
AC4A	ERWIAC04	4	25	KITCHEN CABINETRY UPGRADES	20,594	3,295	23,889
AC3E	ERWIAC05	4	26	RESTROOM RENOVATION	109,608	17,537	127,145

**Detailed Project Summary**  
**Facility Condition Analysis**  
**Priority Class - Priority Sequence**  
 ERWI : ERWIN HALL

<b>Cat. Code</b>	<b>Project Number</b>	<b>Pri Cls</b>	<b>Pri Seq</b>	<b>Project Title</b>	<b>Construction Cost</b>	<b>Professional Fee</b>	<b>Total Cost</b>
AC3D	ERWIAC06	4	27	SIGNAGE PACKAGE UPGRADE	17,784	2,845	20,630
ES4B	ERWIES03	4	28	MEMBRANE ROOF REPLACEMENT	27,547	4,407	31,954
IS3B	ERWIIS03	4	29	REFINISH CEILINGS	53,113	8,498	61,612
PL2B	ERWIPL04	4	30	REPLACE SUMP PUMPS	7,286	1,166	8,452
<b>Totals for Priority Class 4</b>					<b>492,928</b>	<b>78,868</b>	<b>571,796</b>
<b>Grand Total:</b>					<b>1,716,596</b>	<b>274,655</b>	<b>1,991,252</b>

**Detailed Project Summary**  
**Facility Condition Analysis**  
**Project Cost Range**  
ERWI : ERWIN HALL

<b>Cat. Code</b>	<b>Project Number</b>	<b>Pri Cls</b>	<b>Pri Seq</b>	<b>Project Title</b>	<b>Construction Cost</b>	<b>Professional Fee</b>	<b>Total Cost</b>
FS5E	ERWIFS01	1	1	STAIR GUARDRAIL UPGRADES	1,059	169	1,228
<b>Totals for Priority Class 1</b>					<b>1,059</b>	<b>169</b>	<b>1,228</b>
FS2A	ERWIFS03	2	3	FIRE ALARM SYSTEM INSTALLATION	33,878	5,420	39,298
<b>Totals for Priority Class 2</b>					<b>33,878</b>	<b>5,420</b>	<b>39,298</b>
ES2B	ERWIES01	3	5	RESTORE BRICK VENEER	18,749	3,000	21,749
SI2A	ERWISI01	3	21	UPGRADE SITEWORK	7,292	1,167	8,458
IS2B	ERWIIS01	3	15	REFINISH WALLS	27,339	4,374	31,713
IS1A	ERWIIS02	3	16	FLOOR FINISH UPGRADES	41,232	6,597	47,829
IS6D	ERWIIS04	3	17	RESTROOM FINISH UPGRADES	6,777	1,084	7,861
HV5A	ERWIHV02	3	7	PRESSURE REDUCING VALVE REPLACEMENT	4,151	664	4,816
HV4B	ERWIHV03	3	8	EXHAUST FAN REPLACEMENT	5,470	875	6,346
HV5B	ERWIHV04	3	9	CONDENSATE RECEIVER REPLACEMENT	8,366	1,339	9,705
EL4A	ERWIEL04	3	14	EXTERIOR LIGHTING REPLACEMENT	2,430	389	2,819
PL1E	ERWIPL01	3	20	DOMESTIC WATER HEATER REPLACEMENT	2,745	439	3,184
PL1A	ERWIPL02	3	18	WATER SUPPLY PIPING REPLACEMENT	26,121	4,179	30,300
PL2A	ERWIPL03	3	19	DRAIN PIPING REPLACEMENT	39,704	6,353	46,056
<b>Totals for Priority Class 3</b>					<b>190,376</b>	<b>30,460</b>	<b>220,837</b>
AC3B	ERWIAC02	4	23	STAIR HANDRAIL UPGRADES	4,969	795	5,764
AC4A	ERWIAC04	4	25	KITCHEN CABINETRY UPGRADES	20,594	3,295	23,889
AC3D	ERWIAC06	4	27	SIGNAGE PACKAGE UPGRADE	17,784	2,845	20,630
IS3B	ERWIIS03	4	29	REFINISH CEILINGS	53,113	8,498	61,612
ES4B	ERWIES03	4	28	MEMBRANE ROOF REPLACEMENT	27,547	4,407	31,954
PL2B	ERWIPL04	4	30	REPLACE SUMP PUMPS	7,286	1,166	8,452
<b>Totals for Priority Class 4</b>					<b>131,294</b>	<b>21,007</b>	<b>152,301</b>
<b>Grand Totals for Projects &lt; 100,000</b>					<b>356,606</b>	<b>57,057</b>	<b>413,663</b>

**Detailed Project Summary**  
**Facility Condition Analysis**  
**Project Cost Range**  
 ERWI : ERWIN HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5F	ERWIFS02	1	2	INTERIOR DOOR UPGRADES	94,458	15,113	109,571
<b>Totals for Priority Class 1</b>					<b>94,458</b>	<b>15,113</b>	<b>109,571</b>
ES5B	ERWIES02	3	6	WINDOW REPLACEMENT	149,379	23,901	173,280
FS3A	ERWIFS04	3	4	FIRE SPRINKLER SYSTEM REPLACEMENT	88,537	14,166	102,703
HV3A	ERWIHV01	3	10	HVAC SYSTEM UPGRADE	320,088	51,214	371,302
EL1A	ERWIEL01	3	13	UPGRADE ELECTRICAL SERVICE	100,115	16,018	116,133
EL4B	ERWIEL02	3	12	INTERIOR LIGHTING UPGRADE	93,351	14,936	108,288
EL3B	ERWIEL03	3	11	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	152,427	24,388	176,816
<b>Totals for Priority Class 3</b>					<b>903,898</b>	<b>144,624</b>	<b>1,048,522</b>
AC3C	ERWIAC01	4	22	INSTALL LEVER ACTION DOOR HARDWARE	89,855	14,377	104,232
AC3A	ERWIAC03	4	24	ELEVATOR INSTALLATION	162,171	25,947	188,118
AC3E	ERWIAC05	4	26	RESTROOM RENOVATION	109,608	17,537	127,145
<b>Totals for Priority Class 4</b>					<b>361,634</b>	<b>57,861</b>	<b>419,495</b>
<b>Grand Totals for Projects &gt;= 100,000 and &lt; 500,000</b>					<b>1,359,990</b>	<b>217,598</b>	<b>1,577,588</b>
<b>Grand Totals For All Projects:</b>					<b>1,716,596</b>	<b>274,655</b>	<b>1,991,252</b>

**Detailed Project Summary**  
**Facility Condition Analysis**  
**Project Classification**  
ERWI : ERWIN HALL

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
FS3A	ERWIFS04	4	Capital Renewal	3	FIRE SPRINKLER SYSTEM REPLACEMENT	102,703
HV3A	ERWIHV01	10	Capital Renewal	3	HVAC SYSTEM UPGRADE	371,302
EL1A	ERWIEL01	13	Capital Renewal	3	UPGRADE ELECTRICAL SERVICE	116,133
EL4A	ERWIEL04	14	Capital Renewal	3	EXTERIOR LIGHTING REPLACEMENT	2,819
IS2B	ERWIS01	15	Capital Renewal	3	REFINISH WALLS	31,713
PL1E	ERWIPL01	20	Capital Renewal	3	DOMESTIC WATER HEATER REPLACEMENT	3,184
ES4B	ERWIES03	28	Capital Renewal	4	MEMBRANE ROOF REPLACEMENT	31,954
PL2B	ERWIPL04	30	Capital Renewal	4	REPLACE SUMP PUMPS	8,452
<b>Totals for Capital Renewal</b>						<b>668,261</b>
ES2B	ERWIES01	5	Deferred Maintenance	3	RESTORE BRICK VENEER	21,749
ES5B	ERWIES02	6	Deferred Maintenance	3	WINDOW REPLACEMENT	173,280
HV5A	ERWIHV02	7	Deferred Maintenance	3	PRESSURE REDUCING VALVE REPLACEMENT	4,816
HV4B	ERWIHV03	8	Deferred Maintenance	3	EXHAUST FAN REPLACEMENT	6,346
HV5B	ERWIHV04	9	Deferred Maintenance	3	CONDENSATE RECEIVER REPLACEMENT	9,705
EL3B	ERWIEL03	11	Deferred Maintenance	3	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	176,816
EL4B	ERWIEL02	12	Deferred Maintenance	3	INTERIOR LIGHTING UPGRADE	108,288
IS1A	ERWIS02	16	Deferred Maintenance	3	FLOOR FINISH UPGRADES	47,829
IS6D	ERWIS04	17	Deferred Maintenance	3	RESTROOM FINISH UPGRADES	7,861
PL1A	ERWIPL02	18	Deferred Maintenance	3	WATER SUPPLY PIPING REPLACEMENT	30,300
PL2A	ERWIPL03	19	Deferred Maintenance	3	DRAIN PIPING REPLACEMENT	46,056
SI2A	ERWISI01	21	Deferred Maintenance	3	UPGRADE SITEWORK	8,458
IS3B	ERWIS03	29	Deferred Maintenance	4	REFINISH CEILINGS	61,612
<b>Totals for Deferred Maintenance</b>						<b>703,115</b>
FS5E	ERWIFS01	1	Plant Adaption	1	STAIR GUARDRAIL UPGRADES	1,228
FS5F	ERWIFS02	2	Plant Adaption	1	INTERIOR DOOR UPGRADES	109,571
FS2A	ERWIFS03	3	Plant Adaption	2	FIRE ALARM SYSTEM INSTALLATION	39,298
AC3C	ERWIAC01	22	Plant Adaption	4	INSTALL LEVER ACTION DOOR HARDWARE	104,232
AC3B	ERWIAC02	23	Plant Adaption	4	STAIR HANDRAIL UPGRADES	5,764
AC3A	ERWIAC03	24	Plant Adaption	4	ELEVATOR INSTALLATION	188,118

**Detailed Project Summary**  
**Facility Condition Analysis**  
**Project Classification**  
 ERWI : ERWIN HALL

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
AC4A	ERWIAC04	25	Plant Adaption	4	KITCHEN CABINetry UPGRADES	23,889
AC3E	ERWIAC05	26	Plant Adaption	4	RESTROOM RENOVATION	127,145
AC3D	ERWIAC06	27	Plant Adaption	4	SIGNAGE PACKAGE UPGRADE	20,630
<b>Totals for Plant Adaption</b>						<b>619,875</b>
<b>Grand Total:</b>						<b>1,991,252</b>

**Detailed Project Summary**  
**Facility Condition Analysis**  
**Energy Conservation**  
 ERWI : ERWIN HALL

<b>Cat Code</b>	<b>Project Number</b>	<b>Pri Cls</b>	<b>Pri Seq</b>	<b>Project Title</b>	<b>Total Cost</b>	<b>Annual Savings</b>	<b>Simple Payback</b>
ES5B	ERWIES02	3	6	WINDOW REPLACEMENT	173,280	300	577.6
HV3A	ERWIHV01	3	10	HVAC SYSTEM UPGRADE	371,302	8,290	44.79
EL4B	ERWIEL02	3	12	INTERIOR LIGHTING UPGRADE	108,288	4,480	24.17
EL4A	ERWIEL04	3	14	EXTERIOR LIGHTING REPLACEMENT	2,819	260	10.84
<b>Totals for Priority Class 3</b>					<b>655,689</b>	<b>13,330</b>	<b>49.19</b>
ES4B	ERWIES03	4	28	MEMBRANE ROOF REPLACEMENT	31,954	400	79.89
<b>Totals for Priority Class 4</b>					<b>31,954</b>	<b>400</b>	<b>79.89</b>
<b>Grand Total:</b>					<b>687,643</b>	<b>13,730</b>	<b>50.08</b>



Detailed Project Summary  
Facility Condition Analysis  
Category/System Code  
ERWI : ERWIN HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC3C	ERWIAC01	4	22	INSTALL LEVER ACTION DOOR HARDWARE	89,855	14,377	104,232
AC3B	ERWIAC02	4	23	STAIR HANDRAIL UPGRADES	4,969	795	5,764
AC3A	ERWIAC03	4	24	ELEVATOR INSTALLATION	162,171	25,947	188,118
AC4A	ERWIAC04	4	25	KITCHEN CABINETRY UPGRADES	20,594	3,295	23,889
AC3E	ERWIAC05	4	26	RESTROOM RENOVATION	109,608	17,537	127,145
AC3D	ERWIAC06	4	27	SIGNAGE PACKAGE UPGRADE	17,784	2,845	20,630
<b>Totals for System Code: ACCESSIBILITY</b>					<b>404,981</b>	<b>64,797</b>	<b>469,778</b>
EL3B	ERWIEL03	3	11	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	152,427	24,388	176,816
EL4B	ERWIEL02	3	12	INTERIOR LIGHTING UPGRADE	93,351	14,936	108,288
EL1A	ERWIEL01	3	13	UPGRADE ELECTRICAL SERVICE	100,115	16,018	116,133
EL4A	ERWIEL04	3	14	EXTERIOR LIGHTING REPLACEMENT	2,430	389	2,819
<b>Totals for System Code: ELECTRICAL</b>					<b>348,324</b>	<b>55,732</b>	<b>404,056</b>
ES2B	ERWIES01	3	5	RESTORE BRICK VENEER	18,749	3,000	21,749
ES5B	ERWIES02	3	6	WINDOW REPLACEMENT	149,379	23,901	173,280
ES4B	ERWIES03	4	28	MEMBRANE ROOF REPLACEMENT	27,547	4,407	31,954
<b>Totals for System Code: EXTERIOR</b>					<b>195,675</b>	<b>31,308</b>	<b>226,983</b>
FS5E	ERWIFS01	1	1	STAIR GUARDRAIL UPGRADES	1,059	169	1,228
FS5F	ERWIFS02	1	2	INTERIOR DOOR UPGRADES	94,458	15,113	109,571
FS2A	ERWIFS03	2	3	FIRE ALARM SYSTEM INSTALLATION	33,878	5,420	39,298
FS3A	ERWIFS04	3	4	FIRE SPRINKLER SYSTEM REPLACEMENT	88,537	14,166	102,703
<b>Totals for System Code: FIRE/LIFE SAFETY</b>					<b>217,931</b>	<b>34,869</b>	<b>252,800</b>
HV5A	ERWIHV02	3	7	PRESSURE REDUCING VALVE REPLACEMENT	4,151	664	4,816
HV4B	ERWIHV03	3	8	EXHAUST FAN REPLACEMENT	5,470	875	6,346
HV5B	ERWIHV04	3	9	CONDENSATE RECEIVER REPLACEMENT	8,366	1,339	9,705
HV3A	ERWIHV01	3	10	HVAC SYSTEM UPGRADE	320,088	51,214	371,302
<b>Totals for System Code: HVAC</b>					<b>338,076</b>	<b>54,092</b>	<b>392,168</b>
IS2B	ERWIIS01	3	15	REFINISH WALLS	27,339	4,374	31,713
IS1A	ERWIIS02	3	16	FLOOR FINISH UPGRADES	41,232	6,597	47,829
IS6D	ERWIIS04	3	17	RESTROOM FINISH UPGRADES	6,777	1,084	7,861
IS3B	ERWIIS03	4	29	REFINISH CEILINGS	53,113	8,498	61,612
<b>Totals for System Code: INTERIOR/FINISH SYS.</b>					<b>128,462</b>	<b>20,554</b>	<b>149,015</b>
PL1A	ERWIPL02	3	18	WATER SUPPLY PIPING REPLACEMENT	26,121	4,179	30,300

**Detailed Project Summary**  
**Facility Condition Analysis**  
**Category/System Code**  
 ERWI : ERWIN HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
PL2A	ERWIPL03	3	19	DRAIN PIPING REPLACEMENT	39,704	6,353	46,056
PL1E	ERWIPL01	3	20	DOMESTIC WATER HEATER REPLACEMENT	2,745	439	3,184
PL2B	ERWIPL04	4	30	REPLACE SUMP PUMPS	7,286	1,166	8,452
<b>Totals for System Code: PLUMBING</b>					<b>75,855</b>	<b>12,137</b>	<b>87,992</b>
SI2A	ERWISI01	3	21	UPGRADE SITEWORK	7,292	1,167	8,458
<b>Totals for System Code: SITE</b>					<b>7,292</b>	<b>1,167</b>	<b>8,458</b>
<b>Grand Total:</b>					<b>1,716,596</b>	<b>274,655</b>	<b>1,991,252</b>

FACILITY CONDITION ANALYSIS

**SECTION 3**

SPECIFIC PROJECT DETAILS  
ILLUSTRATING DESCRIPTION / COST

**Specific Project Details**

**Facility Condition Analysis  
Section Three**

ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWIFS01	<b>Title:</b>	STAIR GUARDRAIL UPGRADES
<b>Priority Sequence:</b>	1		
<b>Priority Class:</b>	1		
<b>Category Code:</b>	FS5E	<b>System:</b>	FIRE/LIFE SAFETY
		<b>Component:</b>	EGRESS PATH
		<b>Element:</b>	STAIRS AND RAILING
<b>Building Code:</b>	ERWI		
<b>Building Name:</b>	ERWIN HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	IBC	1003.3	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Item Only: Floor(s) 3		

**Project Description**

Code requires that there be a guardrail where there is a change in floor level in excess of 36 inches and that these guardrails be a minimum of 42 inches high. The guardrails must also prevent the passage of a specific diameter sphere. The wood and metal guardrails at the top of the north fire exit stair are too low and lack sufficient infill. A painted metal rail should be added above and parallel to the existing guardrail. The application of a galvanized, expanded metal lath to the existing guardrails is the most cost-effective method of complying with the sphere test.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIFS01

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Rail, galvanized expanded metal grillage, equipment rental, supplies, paint (2 coats)	LOT	1	\$550	\$550	\$640	\$640	\$1,190
<b>Project Totals:</b>				<b>\$550</b>		<b>\$640</b>	<b>\$1,190</b>

<b>Material/Labor Cost</b>		<b>\$1,190</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$882</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$176</b>
<b>Construction Cost</b>		<b>\$1,059</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$169</b>
<b>Total Project Cost</b>		<b>\$1,228</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWIFS02	<b>Title:</b>	INTERIOR DOOR UPGRADES
<b>Priority Sequence:</b>	2		
<b>Priority Class:</b>	1		
<b>Category Code:</b>	FS5F	<b>System:</b>	FIRE/LIFE SAFETY
		<b>Component:</b>	EGRESS PATH
		<b>Element:</b>	FIRE DOORS/HARDWARE
<b>Building Code:</b>	ERWI		
<b>Building Name:</b>	ERWIN HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	IBC	713	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1, 2, 3		

**Project Description**

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

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIFS02

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Rated door and rated metal frame, including all hardware and accessible signage	LEAF	72	\$672	\$48,384	\$812	\$58,464	\$106,848
<b>Project Totals:</b>				<b>\$48,384</b>		<b>\$58,464</b>	<b>\$106,848</b>

<b>Material/Labor Cost</b>		<b>\$106,848</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$78,715</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$15,743</b>
<b>Construction Cost</b>		<b>\$94,458</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$15,113</b>
<b>Total Project Cost</b>		<b>\$109,571</b>

**Specific Project Details**

**Facility Condition Analysis  
Section Three**

ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWIFS03	<b>Title:</b>	FIRE ALARM SYSTEM INSTALLATION
<b>Priority Sequence:</b>	3		
<b>Priority Class:</b>	2		
<b>Category Code:</b>	FS2A	<b>System:</b>	FIRE/LIFE SAFETY
		<b>Component:</b>	DETECTION ALARM
		<b>Element:</b>	GENERAL
<b>Building Code:</b>	ERWI		
<b>Building Name:</b>	ERWIN HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ADAAG	702.1	
	NFPA	1, 101	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1, 2, 3		

**Project Description**

Install a modern fire alarm system to serve this facility. 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**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIFS03

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Fire alarm control panel(s), annunciator, smoke and heat detectors, manual pull stations, audible and visual alarms, wiring, raceways, cut and patching materials	SF	14,652	\$1.46	\$21,392	\$0.89	\$13,040	\$34,432
<b>Project Totals:</b>				<b>\$21,392</b>		<b>\$13,040</b>	<b>\$34,432</b>

<b>Material/Labor Cost</b>		\$34,432
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<u>\$28,231</u>
<b>General Contractor Mark Up at 20.0%</b>	+	<u>\$5,646</u>
<b>Construction Cost</b>		<u>\$33,878</u>
<b>Professional Fees at 16.0%</b>	+	<u>\$5,420</u>
<b>Total Project Cost</b>		<u><b>\$39,298</b></u>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWIFS04	<b>Title:</b>	FIRE SPRINKLER SYSTEM REPLACEMENT
<b>Priority Sequence:</b>	4		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	FS3A	<b>System:</b>	FIRE/LIFE SAFETY
		<b>Component:</b>	SUPPRESSION
		<b>Element:</b>	SPRINKLERS
<b>Building Code:</b>	ERWI		
<b>Building Name:</b>	ERWIN HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	NFPA	1, 13, 13R, 101	
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1, 2, 3		

**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**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIFS04

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Install a wet-pipe sprinkler system, including valves, piping, sprinkler heads, piping supports, etc.	SF	14,652	\$3.08	\$45,128	\$3.77	\$55,238	\$100,366
<b>Project Totals:</b>				<b>\$45,128</b>		<b>\$55,238</b>	<b>\$100,366</b>

<b>Material/Labor Cost</b>		<b>\$100,366</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$73,781</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$14,756</b>
<b>Construction Cost</b>		<b>\$88,537</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$14,166</b>
<b>Total Project Cost</b>		<b>\$102,703</b>

**Specific Project Details**

**Facility Condition Analysis  
Section Three**

ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWIES01	<b>Title:</b>	RESTORE BRICK VENEER
<b>Priority Sequence:</b>	5		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	ES2B	<b>System:</b>	EXTERIOR
		<b>Component:</b>	COLUMNS/BEAMS/WALLS
		<b>Element:</b>	FINISH
<b>Building Code:</b>	ERWI		
<b>Building Name:</b>	ERWIN HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	Not Applicable		
<b>Project Class:</b>	Deferred Maintenance		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Building-wide: Floor(s) 1		

**Project Description**

Brick veneer is the primary exterior finish, with some stone trim. The majority of this masonry is fundamentally sound, but exposure to the elements has caused some deterioration of the mortar joints and expansion joints. There is some stair-step and vertical cracking, primarily at the south facade exit steps. Cleaning, surface preparation, selective repairs, and applied finish or penetrating sealant upgrades are recommended to restore the aesthetics and integrity of the building envelope.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIES01

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Cleaning and surface preparation	SF	11,980	\$0.11	\$1,318	\$0.22	\$2,636	\$3,953
Selective mortar and / or sealant repairs (assumes 10 linear feet for every 100 square feet of envelope)	LF	1,198	\$2.45	\$2,935	\$4.99	\$5,978	\$8,913
Applied finish or sealant	SF	10,780	\$0.22	\$2,372	\$0.82	\$8,840	\$11,211
<b>Project Totals:</b>				<b>\$6,625</b>		<b>\$17,453</b>	<b>\$24,078</b>

<b>Material/Labor Cost</b>		<b>\$24,078</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$15,624</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$3,125</b>
<b>Construction Cost</b>		<b>\$18,749</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$3,000</b>
<b>Total Project Cost</b>		<b>\$21,749</b>

**Specific Project Details**

**Facility Condition Analysis  
Section Three**

ERWI : ERWIN HALL

**Project Description**

**Project Number:** ERWIES02 **Title:** WINDOW REPLACEMENT

**Priority Sequence:** 6

**Priority Class:** 3

**Category Code:** ES5B

**System:** EXTERIOR

**Component:** FENESTRATIONS

**Element:** WINDOWS

**Building Code:** ERWI

**Building Name:** ERWIN HALL

**Subclass/Savings:** Energy Conservation \$300

**Code Application:** Not Applicable

**Project Class:** Deferred Maintenance

**Project Date:** 10/14/2009

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

**Project Description**

The punched windows are operable, non-insulating units. It is recommended that these single-pane, metal-framed windows be upgraded to fixed thermal-pane glazing systems, which 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**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIES02

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Typical standard glazing applications	SF	1,630	\$57.27	\$93,350	\$36.45	\$59,414	\$152,764
<b>Project Totals:</b>				<b>\$93,350</b>		<b>\$59,414</b>	<b>\$152,764</b>

<b>Material/Labor Cost</b>		<b>\$152,764</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$124,483</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$24,897</b>
<b>Construction Cost</b>		<b>\$149,379</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$23,901</b>
<b>Total Project Cost</b>		<b>\$173,280</b>

**Specific Project Details**

**Facility Condition Analysis  
Section Three**

ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWIHV02	<b>Title:</b>	PRESSURE REDUCING VALVE REPLACEMENT
<b>Priority Sequence:</b>	7		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	HV5A	<b>System:</b>	HVAC
		<b>Component:</b>	STEAM/HYDRONIC DISTRIB.
		<b>Element:</b>	PIPING NETWORK
<b>Building Code:</b>	ERWI		
<b>Building Name:</b>	ERWIN HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	Not Applicable		
<b>Project Class:</b>	Deferred Maintenance		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Room Only: Floor(s) 1		

**Project Description**

The steam heating system is served by a pressure reducing valve that is approaching the end of its expected life cycle. Such systems become increasingly maintenance intensive and problematic after twenty years of service. Scheduled replacement of this critical system is recommended.



**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIHV02

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Redundant steam pressure reducing station installation including all fittings and insulation (two to four inch size)	SYS	1	\$2,417	\$2,417	\$1,999	\$1,999	\$4,416
<b>Project Totals:</b>				<b>\$2,417</b>		<b>\$1,999</b>	<b>\$4,416</b>

<b>Material/Labor Cost</b>		<b>\$4,416</b>
<b>Material Index</b>		<b>100.7%</b>
<b>Labor Index</b>		<b>51.3%</b>
<b>Material/Labor Indexed Cost</b>		<b>\$3,459</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$692</b>
<b>Construction Cost</b>		<b>\$4,151</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$664</b>
<b>Total Project Cost</b>		<b>\$4,816</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWIHV03	<b>Title:</b>	EXHAUST FAN REPLACEMENT
<b>Priority Sequence:</b>	8		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	HV4B	<b>System:</b>	HVAC
		<b>Component:</b>	AIR MOVING/VENTILATION
		<b>Element:</b>	EXHAUST FANS
<b>Building Code:</b>	ERWI		
<b>Building Name:</b>	ERWIN HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ASHRAE	62-2004	
<b>Project Class:</b>	Deferred Maintenance		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) R		

**Project Description**

The exhaust fans are recommended for replacement. The statistical life cycle for an exhaust fan is approximately twenty years. At or beyond this time, exhaust fans can incur high maintenance costs that justify replacement. Replace the existing fans with new units, to include all electrical connections. Modify existing ductwork, as necessary, to accommodate the new fans.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIHV03

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Replace centrifugal roof exhauster (medium size, belt-driven)	EA	1	\$1,350	\$1,350	\$1,300	\$1,300	\$2,650
Replace exhaust system ductwork	CFM	1,000	\$2.26	\$2,260	\$0.50	\$500	\$2,760
<b>Project Totals:</b>				<b>\$3,610</b>		<b>\$1,800</b>	<b>\$5,410</b>

<b>Material/Labor Cost</b>		<b>\$5,410</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<u>\$4,559</u>
<b>General Contractor Mark Up at 20.0%</b>	+	<u>\$912</u>
<b>Construction Cost</b>		<u>\$5,470</u>
<b>Professional Fees at 16.0%</b>	+	<u>\$875</u>
<b>Total Project Cost</b>		<u><b>\$6,346</b></u>

**Specific Project Details**

**Facility Condition Analysis  
Section Three**

ERWI : ERWIN HALL

**Project Description**

**Project Number:** ERWIHV04 **Title:** CONDENSATE RECEIVER REPLACEMENT

**Priority Sequence:** 9

**Priority Class:** 3

**Category Code:** HV5B

**System:** HVAC

**Component:** STEAM/HYDRONIC DISTRIB.

**Element:** PUMPS

**Building Code:** ERWI

**Building Name:** ERWIN HALL

**Subclass/Savings:** Not Applicable

**Code Application:** Not Applicable

**Project Class:** Deferred Maintenance

**Project Date:** 10/16/2009

**Project Location:** Item Only: Floor(s) 1

**Project Description**

The condensate receiver serving the heating systems is at or approaching the end of its intended life cycle. It is recommended that this unit be replaced in order to preclude failure. Project cost includes replacement of the pumps, receiver, and all connections.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIHV04

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Replace the duplex condensate return application	SYS	1	\$6,480	\$6,480	\$870	\$870	\$7,350
<b>Project Totals:</b>				<b>\$6,480</b>		<b>\$870</b>	<b>\$7,350</b>

<b>Material/Labor Cost</b>		<b>\$7,350</b>
<b>Material Index</b>		<b>100.7%</b>
<b>Labor Index</b>		<b>51.3%</b>
<b>Material/Labor Indexed Cost</b>		<b>\$6,972</b>
<b>General Contractor Mark Up at 20.0%</b>	<b>+</b>	<b>\$1,394</b>
<b>Construction Cost</b>		<b>\$8,366</b>
<b>Professional Fees at 16.0%</b>	<b>+</b>	<b>\$1,339</b>
<b>Total Project Cost</b>		<b>\$9,705</b>

**Specific Project Details**

**Facility Condition Analysis  
Section Three**

ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWIHV01	<b>Title:</b>	HVAC SYSTEM UPGRADE
<b>Priority Sequence:</b>	10		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	HV3A	<b>System:</b>	HVAC
		<b>Component:</b>	HEATING/COOLING
		<b>Element:</b>	SYSTEM RETROFIT/REPLACE
<b>Building Code:</b>	ERWI		
<b>Building Name:</b>	ERWIN HALL		
<b>Subclass/Savings:</b>	Energy Conservation	\$8,290	
<b>Code Application:</b>	ASHRAE	62-2004	
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1, 2, 3, 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 and constant volume air distribution as needed. This includes new air handlers, ductwork, terminal units, pressure reducing valves, pumps, piping, controls, and related electrical components. Specify direct digital controls for the new equipment. Incorporate variable frequency drives into the new HVAC design as applicable.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIHV01

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Air handlers, exhaust fans, ductwork, VAVs, VFDs, DDCs, pressure reducing valves, pumps, piping, electrical connections, and demolition of existing equipment	SF	14,652	\$11.14	\$163,223	\$13.62	\$199,560	\$362,784
<b>Project Totals:</b>				<b>\$163,223</b>		<b>\$199,560</b>	<b>\$362,784</b>

<b>Material/Labor Cost</b>		<b>\$362,784</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$266,740</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$53,348</b>
<b>Construction Cost</b>		<b>\$320,088</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$51,214</b>
<b>Total Project Cost</b>		<b>\$371,302</b>





**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIEL03

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Power panels, conductors, raceways, devices, demolition, and cut and patching materials	SF	14,652	\$4.88	\$71,502	\$7.32	\$107,253	\$178,754
<b>Project Totals:</b>				<b>\$71,502</b>		<b>\$107,253</b>	<b>\$178,754</b>

<b>Material/Labor Cost</b>		<b>\$178,754</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$127,023</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$25,405</b>
<b>Construction Cost</b>		<b>\$152,427</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$24,388</b>
<b>Total Project Cost</b>		<b>\$176,816</b>

**Specific Project Details**

**Facility Condition Analysis  
Section Three**

ERWI : ERWIN HALL

**Project Description**

**Project Number:** ERWIEL02 **Title:** INTERIOR LIGHTING UPGRADE

**Priority Sequence:** 12

**Priority Class:** 3

**Category Code:** EL4B

**System:** ELECTRICAL

**Component:** DEVICES AND FIXTURES

**Element:** INTERIOR LIGHTING

**Building Code:** ERWI

**Building Name:** ERWIN HALL

**Subclass/Savings:** Energy Conservation \$4,480

**Code Application:** NEC Articles 210, 410

**Project Class:** Deferred Maintenance

**Project Date:** 10/16/2009

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

**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**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIEL02

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
High efficiency fluorescent fixtures, occupancy sensors, and demolition of existing lighting	SF	14,652	\$3.25	\$47,619	\$3.97	\$58,168	\$105,787
<b>Project Totals:</b>				<b>\$47,619</b>		<b>\$58,168</b>	<b>\$105,787</b>

<b>Material/Labor Cost</b>		<b>\$105,787</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$77,793</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$15,559</b>
<b>Construction Cost</b>		<b>\$93,351</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$14,936</b>
<b>Total Project Cost</b>		<b>\$108,288</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWIEL01	<b>Title:</b>	UPGRADE ELECTRICAL SERVICE
<b>Priority Sequence:</b>	13		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	EL1A	<b>System:</b>	ELECTRICAL
		<b>Component:</b>	INCOMING SERVICE
		<b>Element:</b>	TRANSFORMER
<b>Building Code:</b>	ERWI		
<b>Building Name:</b>	ERWIN HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	NEC	Articles 230 and 450	
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Room Only: Floor(s) 1		

**Project Description**

An upgrade to the electrical service is recommended. Remove existing electric service equipment. Install new transformers, switchgear, conductors, connections, and terminations. The new service should provide 277/480 volt power for lighting and mechanical equipment and 120/208 volt power for receptacles and other power needs. Main 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**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIEL01

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
480 V service transformer, switchgear, all connections and terminations	AMP	1,000	\$50.00	\$50,000	\$29.00	\$29,000	\$79,000
120/208 V step-down transformer, main distribution, all connections and terminations	AMP	400	\$35.00	\$14,000	\$20.00	\$8,000	\$22,000
<b>Project Totals:</b>				<b>\$64,000</b>		<b>\$37,000</b>	<b>\$101,000</b>

<b>Material/Labor Cost</b>		<b>\$101,000</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$83,429</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$16,686</b>
<b>Construction Cost</b>		<b>\$100,115</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$16,018</b>
<b>Total Project Cost</b>		<b>\$116,133</b>

**Specific Project Details**

**Facility Condition Analysis  
Section Three**

ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWIEL04	<b>Title:</b>	EXTERIOR LIGHTING REPLACEMENT
<b>Priority Sequence:</b>	14		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	EL4A	<b>System:</b>	ELECTRICAL
		<b>Component:</b>	DEVICES AND FIXTURES
		<b>Element:</b>	EXTERIOR LIGHTING
<b>Building Code:</b>	ERWI		
<b>Building Name:</b>	ERWIN HALL		
<b>Subclass/Savings:</b>	Energy Conservation	\$260	
<b>Code Application:</b>	NEC	410	
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Building-wide: Floor(s) 1, 2, 3, R		

**Project Description**

The exterior areas adjacent to the building are illuminated by building-mounted HID fixtures, which 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.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIEL04

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
HID wall-mount fixture and demolition of existing fixture	EA	4	\$406	\$1,624	\$190	\$760	\$2,384
<b>Project Totals:</b>				<b>\$1,624</b>		<b>\$760</b>	<b>\$2,384</b>

<b>Material/Labor Cost</b>		<b>\$2,384</b>
<b>Material Index</b>		<b>100.7%</b>
<b>Labor Index</b>		<b>51.3%</b>
<b>Material/Labor Indexed Cost</b>		<b>\$2,025</b>
<b>General Contractor Mark Up at 20.0%</b>	<b>+</b>	<b>\$405</b>
<b>Construction Cost</b>		<b>\$2,430</b>
<b>Professional Fees at 16.0%</b>	<b>+</b>	<b>\$389</b>
<b>Total Project Cost</b>		<b>\$2,819</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWIS01	<b>Title:</b>	REFINISH WALLS
<b>Priority Sequence:</b>	15		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	IS2B	<b>System:</b>	INTERIOR/FINISH SYS.
		<b>Component:</b>	PARTITIONS
		<b>Element:</b>	FINISHES
<b>Building Code:</b>	ERWI		
<b>Building Name:</b>	ERWIN HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	Not Applicable		
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1, 2, 3		

**Project Description**

Interior wall finish applications consist mostly of paint, with some ceramic tile wainscots in the restrooms. 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**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIS01

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Standard wall finish (paint, wall covering, etc.)	SF	38,830	\$0.17	\$6,601	\$0.81	\$31,452	\$38,053
<b>Project Totals:</b>				<b>\$6,601</b>		<b>\$31,452</b>	<b>\$38,053</b>

<b>Material/Labor Cost</b>		<b>\$38,053</b>
<b>Material Index</b>		<b>100.7%</b>
<b>Labor Index</b>		<b>51.3%</b>
<b>Material/Labor Indexed Cost</b>		<b>\$22,782</b>
<b>General Contractor Mark Up at 20.0%</b>	<b>+</b>	<b>\$4,556</b>
<b>Construction Cost</b>		<b>\$27,339</b>
<b>Professional Fees at 16.0%</b>	<b>+</b>	<b>\$4,374</b>
<b>Total Project Cost</b>		<b>\$31,713</b>

**Specific Project Details**

**Facility Condition Analysis  
Section Three**

ERWI : ERWIN HALL

**Project Description**

**Project Number:** ERWIS02 **Title:** FLOOR FINISH UPGRADES

**Priority Sequence:** 16

**Priority Class:** 3

**Category Code:** IS1A

**System:** INTERIOR/FINISH SYS.

**Component:** FLOOR

**Element:** FINISHES-DRY

**Building Code:** ERWI

**Building Name:** ERWIN HALL

**Subclass/Savings:** Not Applicable

**Code Application:** EPA 40 CFR 61.M, 763  
OSHA 29 CFR 1910.1001, 1926.1101

**Project Class:** Deferred Maintenance

**Project Date:** 10/14/2009

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

**Project Description**

Interior floor finish applications vary in age, type, and condition. Most of the flooring is vinyl tile in the corridors and most offices, ceramic tile in the restrooms, and carpeting in a few office, meeting, and main entry spaces. Some of the vinyl floor tile is deteriorating, especially on the top floor, and should be replaced, and all of the carpeting is recommended for replacement within the next five years.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIIS02

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Carpet	SF	2,640	\$5.36	\$14,150	\$2.00	\$5,280	\$19,430
Vinyl floor tile, mastic, asbestos-containing material abatement and disposal allowance	LOT	1	\$7,500	\$7,500	\$19,200	\$19,200	\$26,700
<b>Project Totals:</b>				<b>\$21,650</b>		<b>\$24,480</b>	<b>\$46,130</b>

<b>Material/Labor Cost</b>		<b>\$46,130</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$34,360</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$6,872</b>
<b>Construction Cost</b>		<b>\$41,232</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$6,597</b>
<b>Total Project Cost</b>		<b>\$47,829</b>

**Specific Project Details**

**Facility Condition Analysis  
Section Three**

ERWI : ERWIN HALL

**Project Description**

**Project Number:** ERWIS04 **Title:** RESTROOM FINISH UPGRADES

**Priority Sequence:** 17

**Priority Class:** 3

**Category Code:** IS6D

**System:** INTERIOR/FINISH SYS.

**Component:** GENERAL

**Element:** OTHER

**Building Code:** ERWI

**Building Name:** ERWIN HALL

**Subclass/Savings:** Not Applicable

**Code Application:** Not Applicable

**Project Class:** Deferred Maintenance

**Project Date:** 10/14/2009

**Project Location:** Room Only: Floor(s) 1

**Project Description**

The entry floor public men's restroom and women's restroom fixtures and finishes were upgraded recently and are accessible to persons with disabilities. The fixtures and finishes in these two restrooms are sound, but the finishes should be renewed within the next five years.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIS04

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Restroom finish renovation allowance	FIXT	4	\$750	\$3,000	\$1,280	\$5,120	\$8,120
<b>Project Totals:</b>				<b>\$3,000</b>		<b>\$5,120</b>	<b>\$8,120</b>

<b>Material/Labor Cost</b>		<b>\$8,120</b>
<b>Material Index</b>		<b>100.7%</b>
<b>Labor Index</b>		<b>51.3%</b>
<b>Material/Labor Indexed Cost</b>		<b>\$5,648</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$1,130</b>
<b>Construction Cost</b>		<b>\$6,777</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$1,084</b>
<b>Total Project Cost</b>		<b>\$7,861</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWIPL02	<b>Title:</b>	WATER SUPPLY PIPING REPLACEMENT
<b>Priority Sequence:</b>	18		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	PL1A	<b>System:</b>	PLUMBING
		<b>Component:</b>	DOMESTIC WATER
		<b>Element:</b>	PIPING NETWORK
<b>Building Code:</b>	ERWI		
<b>Building Name:</b>	ERWIN HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	IPC	Chapter 6	
<b>Project Class:</b>	Deferred Maintenance		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1, 2, 3		

**Project Description**

Replacement of the aging water piping network is recommended. Failure to replace the water piping will result in frequent leaks and escalating maintenance costs. Remove the existing water supply network. Install new copper water supply piping with fiberglass insulation. Install isolation valves, pressure regulators, shock absorbers, backflow preventers, and vacuum breakers as needed.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIPL02

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Copper pipe and fittings, valves, backflow prevention devices, insulation, hangers, demolition, and cut and patching materials	SF	14,652	\$0.65	\$9,524	\$1.62	\$23,736	\$33,260
<b>Project Totals:</b>				<b>\$9,524</b>		<b>\$23,736</b>	<b>\$33,260</b>

<b>Material/Labor Cost</b>		<b>\$33,260</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$21,767</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$4,353</b>
<b>Construction Cost</b>		<b>\$26,121</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$4,179</b>
<b>Total Project Cost</b>		<b>\$30,300</b>

**Specific Project Details**

**Facility Condition Analysis  
Section Three**

ERWI : ERWIN HALL

**Project Description**

**Project Number:** ERWIPL03 **Title:** DRAIN PIPING REPLACEMENT

**Priority Sequence:** 19

**Priority Class:** 3

**Category Code:** PL2A

**System:** PLUMBING

**Component:** WASTEWATER

**Element:** PIPING NETWORK

**Building Code:** ERWI

**Building Name:** ERWIN HALL

**Subclass/Savings:** Not Applicable

**Code Application:** IPC Chapters 7-11

**Project Class:** Deferred Maintenance

**Project Date:** 10/16/2009

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

**Project Description**

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 run-outs to the fixtures. Install new floor drains, roof drains, and traps.



**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIPL03

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Cast-iron drain piping and fittings, copper pipe and fittings, floor / roof drains, traps, hangers, demolition, and cut and patching materials	SF	14,652	\$1.03	\$15,092	\$2.38	\$34,872	\$49,963
<b>Project Totals:</b>				<b>\$15,092</b>		<b>\$34,872</b>	<b>\$49,963</b>

<b>Material/Labor Cost</b>		<b>\$49,963</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$33,086</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$6,617</b>
<b>Construction Cost</b>		<b>\$39,704</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$6,353</b>
<b>Total Project Cost</b>		<b>\$46,056</b>

**Specific Project Details**

**Facility Condition Analysis  
Section Three**

ERWI : ERWIN HALL

**Project Description**

**Project Number:** ERWIPL01 **Title:** DOMESTIC WATER HEATER REPLACEMENT

**Priority Sequence:** 20

**Priority Class:** 3

**Category Code:** PL1E

**System:** PLUMBING

**Component:** DOMESTIC WATER

**Element:** HEATING

**Building Code:** ERWI

**Building Name:** ERWIN HALL

**Subclass/Savings:** Not Applicable

**Code Application:** IPC Chapters 5, 607

**Project Class:** Capital Renewal

**Project Date:** 10/16/2009

**Project Location:** Item Only: Floor(s) 1

**Project Description**

Replacement of the domestic water heating equipment is recommended to maintain a reliable supply of domestic hot water. Remove old water heating equipment and related piping. Install new water heating equipment to meet the present needs of this facility.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIPL01

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Electric, residential-grade water heater replacement, including demolition	GAL	65	\$22.87	\$1,487	\$23.71	\$1,541	\$3,028
<b>Project Totals:</b>				<b>\$1,487</b>		<b>\$1,541</b>	<b>\$3,028</b>

<b>Material/Labor Cost</b>		<b>\$3,028</b>
<b>Material Index</b>		<b>100.7%</b>
<b>Labor Index</b>		<b>51.3%</b>
<b>Material/Labor Indexed Cost</b>		<b>\$2,288</b>
<b>General Contractor Mark Up at 20.0%</b>	<b>+</b>	<b>\$458</b>
<b>Construction Cost</b>		<b>\$2,745</b>
<b>Professional Fees at 16.0%</b>	<b>+</b>	<b>\$439</b>
<b>Total Project Cost</b>		<b>\$3,184</b>

**Specific Project Details**

**Facility Condition Analysis  
Section Three**

ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWISI01	<b>Title:</b>	UPGRADE SITEWORK
<b>Priority Sequence:</b>	21		
<b>Priority Class:</b>	3		
<b>Category Code:</b>	SI2A	<b>System:</b>	SITE
		<b>Component:</b>	LANDSCAPE
		<b>Element:</b>	GRADE/FLORA
<b>Building Code:</b>	ERWI		
<b>Building Name:</b>	ERWIN HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	Not Applicable		

<b>Project Class:</b>	Deferred Maintenance
<b>Project Date:</b>	10/14/2009
<b>Project Location:</b>	Undefined: Floor(s) 1

**Project Description**

The landscaping on this moderate-sized, flat site consists of turf, shrubs, specimen trees, and foundation planting, all in overall fair condition. The overall condition of the site is such that a moderate landscaping upgrade is warranted. There is a concrete paver sidewalk at the north facade that is a potential hazard. The installation of a concrete sidewalk is recommended to replace these pavers.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWISI01

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Trees, shrubs, planting soil, amendments, sand, fill, and sod	SF	2,500	\$1.04	\$2,600	\$1.56	\$3,900	\$6,500
Concrete pedestrian paving, formwork, tools, supplies	SF	300	\$2.97	\$891	\$3.64	\$1,092	\$1,983
<b>Project Totals:</b>				<b>\$3,491</b>		<b>\$4,992</b>	<b>\$8,483</b>

<b>Material/Labor Cost</b>		\$8,483
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		\$6,076
<b>General Contractor Mark Up at 20.0%</b>	+	\$1,215
<b>Construction Cost</b>		\$7,292
<b>Professional Fees at 16.0%</b>	+	\$1,167
<b>Total Project Cost</b>		<b>\$8,458</b>



**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIAC01

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Lever actuated door hardware	EA	241	\$273	\$65,793	\$69.77	\$16,815	\$82,608
<b>Project Totals:</b>				<b>\$65,793</b>		<b>\$16,815</b>	<b>\$82,608</b>

<b>Material/Labor Cost</b>		<b>\$82,608</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$74,879</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$14,976</b>
<b>Construction Cost</b>		<b>\$89,855</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$14,377</b>
<b>Total Project Cost</b>		<b>\$104,232</b>

**Specific Project Details**

**Facility Condition Analysis  
Section Three**

ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWIAC02	<b>Title:</b>	STAIR HANDRAIL UPGRADES
<b>Priority Sequence:</b>	23		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	AC3B	<b>System:</b>	ACCESSIBILITY
		<b>Component:</b>	INTERIOR PATH OF TRAVEL
		<b>Element:</b>	STAIRS AND RAILINGS
<b>Building Code:</b>	ERWI		
<b>Building Name:</b>	ERWIN HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ADAAG	505	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Item Only: Floor(s) 1, 2, 3		

**Project Description**

ADA legislation requires that stairs have graspable handrails on both sides, that the rails have a specific end geometry, and that they continue horizontally at the landings. The end geometry of the existing exit stair side handrails does not comply with current accessibility legislation. Painted wood and metal handrail extensions need to be added to the end of all of the handrails.



**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIAC02

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Handrail extensions, equipment rental, paint (2 coats), supplies, tools	LF	60	\$50.50	\$3,030	\$35.40	\$2,124	\$5,154
<b>Project Totals:</b>				<b>\$3,030</b>		<b>\$2,124</b>	<b>\$5,154</b>

<b>Material/Labor Cost</b>		\$5,154
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		\$4,141
<b>General Contractor Mark Up at 20.0%</b>	+	\$828
<b>Construction Cost</b>		\$4,969
<b>Professional Fees at 16.0%</b>	+	\$795
<b>Total Project Cost</b>		<b>\$5,764</b>

**Specific Project Details**

**Facility Condition Analysis**

**Section Three**

ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWIAC03	<b>Title:</b>	ELEVATOR INSTALLATION
<b>Priority Sequence:</b>	24		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	AC3A	<b>System:</b>	ACCESSIBILITY
		<b>Component:</b>	INTERIOR PATH OF TRAVEL
		<b>Element:</b>	LIFTS/RAMPS/ELEVATORS
<b>Building Code:</b>	ERWI		
<b>Building Name:</b>	ERWIN HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ASME	A17.1	
	ADAAG	407	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Undefined: Floor(s) 1		

**Project Description**

Present accessibility legislation requires wheelchair access to all floors in a building over two stories in height. There is no wheelchair access to the upper floors of this building. The installation of an interior hydraulic elevator is proposed.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIAC03

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Elevator installation within the current building footprint (two stops)	SYS	1	\$72,266	\$72,266	\$53,731	\$53,731	\$125,997
Each additional stop	FLR	1	\$16,661	\$16,661	\$35,144	\$35,144	\$51,805
<b>Project Totals:</b>				<b>\$88,927</b>		<b>\$88,875</b>	<b>\$177,802</b>

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

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWIAC04	<b>Title:</b>	KITCHEN CABINETRY UPGRADES
<b>Priority Sequence:</b>	25		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	AC4A	<b>System:</b>	ACCESSIBILITY
		<b>Component:</b>	GENERAL
		<b>Element:</b>	FUNCTIONAL SPACE MOD.
<b>Building Code:</b>	ERWI		
<b>Building Name:</b>	ERWIN HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ADAAG	804	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Room Only: Floor(s) 1		

**Project Description**

Building amenities are required to be generally accessible to all persons. The configuration of the kitchen cabinets is a barrier to accessibility, as is the kitchenette unit in room 104A. The installation of wheelchair accessible cabinetry in the kitchen and the room 104A kitchenette unit is recommended.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIAC04

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
ADA compliant kitchen cabinetry and appliance allowance	LOT	1	\$9,500	\$9,500	\$3,200	\$3,200	\$12,700
ADA compliant kitchenette unit with base cabinetry, overhead cabinetry, and amenities	SYS	1	\$4,894	\$4,894	\$1,999	\$1,999	\$6,893
<b>Project Totals:</b>				<b>\$14,394</b>		<b>\$5,199</b>	<b>\$19,593</b>

<b>Material/Labor Cost</b>		<b>\$19,593</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$17,162</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$3,432</b>
<b>Construction Cost</b>		<b>\$20,594</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$3,295</b>
<b>Total Project Cost</b>		<b>\$23,889</b>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWIAC05	<b>Title:</b>	RESTROOM RENOVATION
<b>Priority Sequence:</b>	26		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	AC3E	<b>System:</b>	ACCESSIBILITY
		<b>Component:</b>	INTERIOR PATH OF TRAVEL
		<b>Element:</b>	RESTROOMS/BATHROOMS
<b>Building Code:</b>	ERWI		
<b>Building Name:</b>	ERWIN HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ADAAG	604, 605, 606, 607, 608	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1, 2, 3		

**Project Description**

The restroom fixtures and finishes are mostly original to the year of construction or latest major renovation. Except for the entry floor public men's and women's restrooms, the remaining restrooms are "jack-and-jill" style left over from when this facility was a dormitory. The entry floor public restroom fixtures and finishes were upgraded recently and are accessible to persons with disabilities. The "jack-and-jill" restrooms on the entry floor and the upper floors have fixtures and finishes that are sound but dated, and fixtures are spaced such that clearances are not ADA compliant. A comprehensive renovation of all of the "jack-and-jill" 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**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIAC05

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Major restroom renovation, including fixtures, finishes, partitions, accessories, and expansion if necessary (assumes 55 square feet of restroom area per fixture)	FIXT	32	\$1,969	\$63,008	\$1,699	\$54,368	\$117,376
<b>Project Totals:</b>				<b>\$63,008</b>		<b>\$54,368</b>	<b>\$117,376</b>

<b>Material/Labor Cost</b>		<b>\$117,376</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$91,340</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$18,268</b>
<b>Construction Cost</b>		<b>\$109,608</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$17,537</b>
<b>Total Project Cost</b>		<b>\$127,145</b>

**Specific Project Details**

**Facility Condition Analysis  
Section Three**

ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWIAC06	<b>Title:</b>	SIGNAGE PACKAGE UPGRADE
<b>Priority Sequence:</b>	27		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	AC3D	<b>System:</b>	ACCESSIBILITY
		<b>Component:</b>	INTERIOR PATH OF TRAVEL
		<b>Element:</b>	SIGNAGE
<b>Building Code:</b>	ERWI		
<b>Building Name:</b>	ERWIN HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	ADAAG	703.1	
<b>Project Class:</b>	Plant Adaption		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) 1, 2, 3		

**Project Description**

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**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIAC06

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
ADA compliant signage	EA	241	\$53.11	\$12,800	\$15.62	\$3,764	\$16,564
<b>Project Totals:</b>				<b>\$12,800</b>		<b>\$3,764</b>	<b>\$16,564</b>

<b>Material/Labor Cost</b>		<b>\$16,564</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<u>\$14,820</u>
<b>General Contractor Mark Up at 20.0%</b>	+	<u>\$2,964</u>
<b>Construction Cost</b>		<u>\$17,784</u>
<b>Professional Fees at 16.0%</b>	+	<u>\$2,845</u>
<b>Total Project Cost</b>		<u><b>\$20,630</b></u>

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWIES03	<b>Title:</b>	MEMBRANE ROOF REPLACEMENT
<b>Priority Sequence:</b>	28		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	ES4B	<b>System:</b>	EXTERIOR
		<b>Component:</b>	ROOF
		<b>Element:</b>	REPLACEMENT
<b>Building Code:</b>	ERWI		
<b>Building Name:</b>	ERWIN HALL		
<b>Subclass/Savings:</b>	Energy Conservation	\$400	
<b>Code Application:</b>	Not Applicable		
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/14/2009		
<b>Project Location:</b>	Floor-wide: Floor(s) R		

**Project Description**

The flat, unballasted single-ply membrane roofing is in overall good condition. However, experience indicates that this roofing will need to be replaced within the next ten years. Replace this roof with a similar application.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIES03

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Membrane roof	SF	4,880	\$3.79	\$18,495	\$1.73	\$8,442	\$26,938
<b>Project Totals:</b>				<b>\$18,495</b>		<b>\$8,442</b>	<b>\$26,938</b>

<b>Material/Labor Cost</b>		\$26,938
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<u>\$22,956</u>
<b>General Contractor Mark Up at 20.0%</b>	+	<u>\$4,591</u>
<b>Construction Cost</b>		<u>\$27,547</u>
<b>Professional Fees at 16.0%</b>	+	<u>\$4,407</u>
<b>Total Project Cost</b>		<u><b>\$31,954</b></u>

**Specific Project Details**

**Facility Condition Analysis  
Section Three**

ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWIS03	<b>Title:</b>	REFINISH CEILINGS
<b>Priority Sequence:</b>	29		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	IS3B	<b>System:</b>	INTERIOR/FINISH SYS.
		<b>Component:</b>	CEILINGS
		<b>Element:</b>	REPLACEMENT

<b>Building Code:</b>	ERWI
<b>Building Name:</b>	ERWIN HALL
<b>Subclass/Savings:</b>	Not Applicable

<b>Code Application:</b>	Not Applicable
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<b>Project Class:</b>	Deferred Maintenance
<b>Project Date:</b>	10/14/2009

<b>Project Location:</b>	Floor-wide: Floor(s) 1, 2, 3
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**Project Description**

Ceiling finish applications vary in age, type, and condition and consist mostly of ceiling tile and some paint. 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**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIS03

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Acoustical tile ceiling system	SF	11,870	\$2.12	\$25,164	\$2.98	\$35,373	\$60,537
Painted ceiling finish application	SF	1,320	\$0.17	\$224	\$0.81	\$1,069	\$1,294
<b>Project Totals:</b>				<b>\$25,389</b>		<b>\$36,442</b>	<b>\$61,831</b>

<b>Material/Labor Cost</b>		<b>\$61,831</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$44,261</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$8,852</b>
<b>Construction Cost</b>		<b>\$53,113</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$8,498</b>
<b>Total Project Cost</b>		<b>\$61,612</b>

**Specific Project Details**

**Facility Condition Analysis  
Section Three**

ERWI : ERWIN HALL

**Project Description**

<b>Project Number:</b>	ERWIPL04	<b>Title:</b>	REPLACE SUMP PUMPS
<b>Priority Sequence:</b>	30		
<b>Priority Class:</b>	4		
<b>Category Code:</b>	PL2B	<b>System:</b>	PLUMBING
		<b>Component:</b>	WASTEWATER
		<b>Element:</b>	PUMPS
<b>Building Code:</b>	ERWI		
<b>Building Name:</b>	ERWIN HALL		
<b>Subclass/Savings:</b>	Not Applicable		
<b>Code Application:</b>	IPC	712	
<b>Project Class:</b>	Capital Renewal		
<b>Project Date:</b>	10/16/2009		
<b>Project Location:</b>	Item Only: Floor(s) 1		

**Project Description**

Currently, a sump pump facilitates the drainage of stormwater from this facility. This installation is considered temporary. It should be anticipated that the system will require replacement with a more permanent installation within the purview of this analysis. Install a new duplex sump pump system, including pit, pumps, alternating controls, alarms, piping, and electrical connections.

**Specific Project Details**  
**Facility Condition Analysis**  
**Section Three**  
ERWI : ERWIN HALL

**Project Cost**

**Project Number:** ERWIPL04

**Task Cost Estimate**

<b>Task Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Material Unit Cost</b>	<b>Total Material Cost</b>	<b>Labor Unit Cost</b>	<b>Total Labor Cost</b>	<b>Total Cost</b>
Sump pump system, including pit, pumps, controls, connections, and demolition of existing system	SYS	1	\$4,440	\$4,440	\$3,120	\$3,120	\$7,560
<b>Project Totals:</b>				<b>\$4,440</b>		<b>\$3,120</b>	<b>\$7,560</b>

<b>Material/Labor Cost</b>		<b>\$7,560</b>
<b>Material Index</b>		100.7%
<b>Labor Index</b>		51.3%
<b>Material/Labor Indexed Cost</b>		<b>\$6,072</b>
<b>General Contractor Mark Up at 20.0%</b>	+	<b>\$1,214</b>
<b>Construction Cost</b>		<b>\$7,286</b>
<b>Professional Fees at 16.0%</b>	+	<b>\$1,166</b>
<b>Total Project Cost</b>		<b>\$8,452</b>





FACILITY CONDITION ANALYSIS

**SECTION 4**

**DRAWINGS  
AND PROJECT LOCATIONS**





FACILITY  
CONDITION  
ANALYSIS

2165 West Park Court  
Suite N  
Stone Mountain GA 30087  
770.879.7376

PROJECT NUMBER  
APPLIES TO  
ONE ROOM ONLY

PROJECT NUMBER  
APPLIES TO  
ONE ITEM ONLY

PROJECT NUMBER  
APPLIES TO  
ENTIRE BUILDING

PROJECT NUMBER  
APPLIES TO  
ENTIRE FLOOR

PROJECT NUMBER  
APPLIES TO A SITUATION  
OF UNDEFINED EXTENTS

PROJECT NUMBER  
APPLIES TO AREA  
AS NOTED

Date: 10/22/09

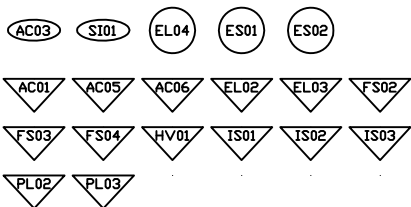
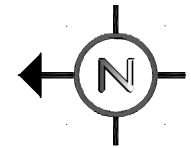
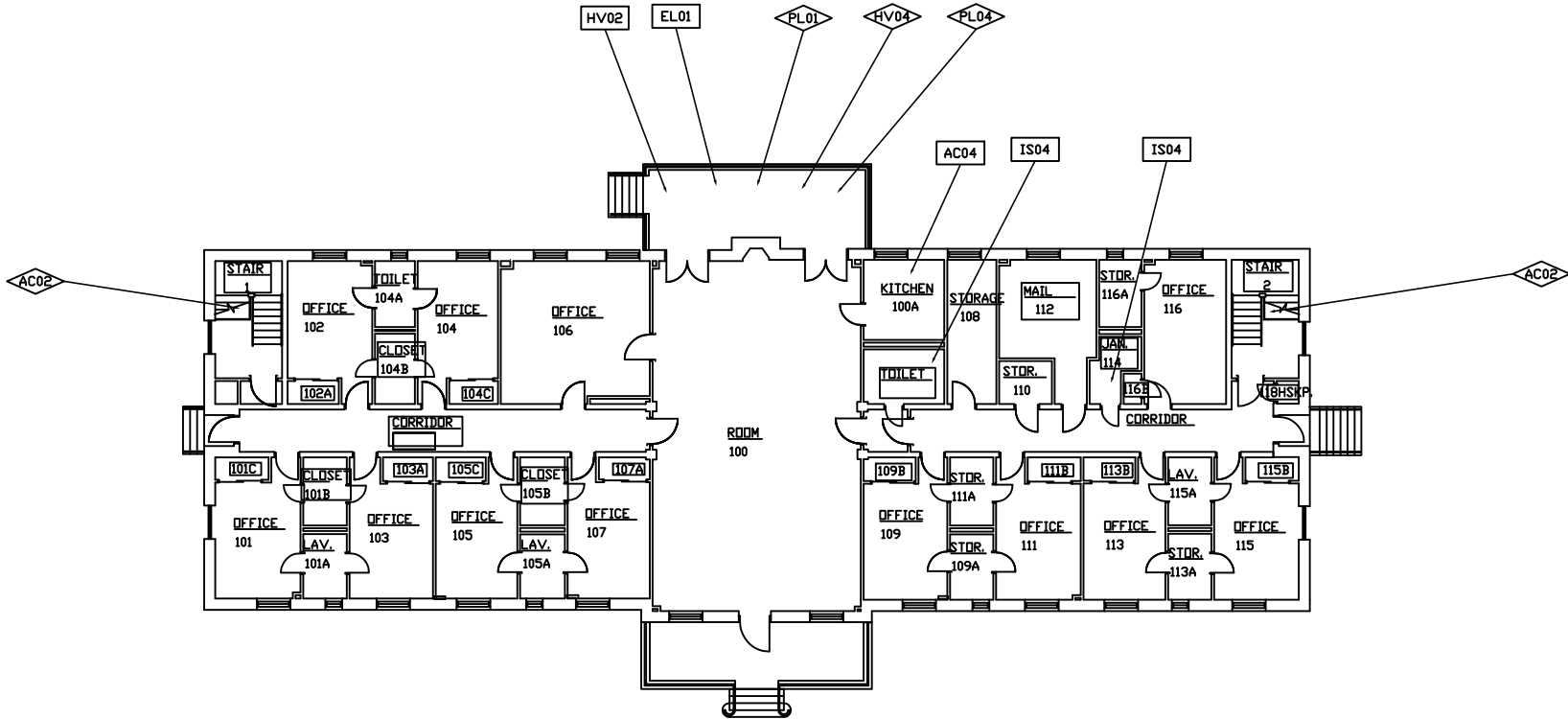
Drawn by: J.T.V.

Project No. 09-041

FIRST  
FLOOR  
PLAN

Sheet No.

1 of 3





FACILITY  
CONDITION  
ANALYSIS

2165 West Park Court  
Suite N  
Stone Mountain GA 30087  
770.879.7376

PROJECT NUMBER  
APPLIES TO  
ONE ROOM ONLY

PROJECT NUMBER  
APPLIES TO  
ONE ITEM ONLY

PROJECT NUMBER  
APPLIES TO  
ENTIRE BUILDING

PROJECT NUMBER  
APPLIES TO  
ENTIRE FLOOR

PROJECT NUMBER  
APPLIES TO A SITUATION  
OF UNDEFINED EXTENTS

PROJECT NUMBER  
APPLIES TO AREA  
AS NOTED

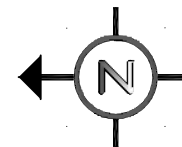
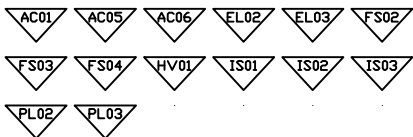
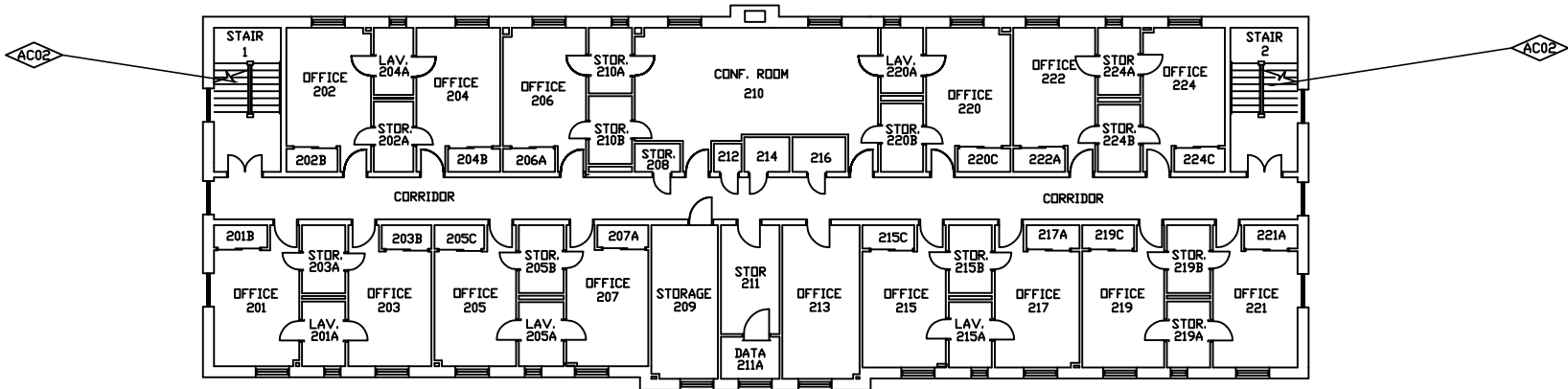
Date: 10/22/09

Drawn by: J.T.V.

Project No. 09-041

SECOND  
FLOOR  
PLAN

Sheet No.  
2 of 3





ERWIN HALL

BLDG NO. ERWI



FACILITY  
CONDITION  
ANALYSIS

2165 West Park Court  
Suite N  
Stone Mountain GA 30087  
770.879.7376

PROJECT NUMBER  
APPLIES TO  
ONE ROOM ONLY

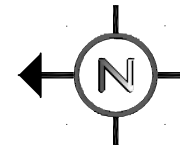
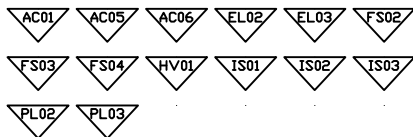
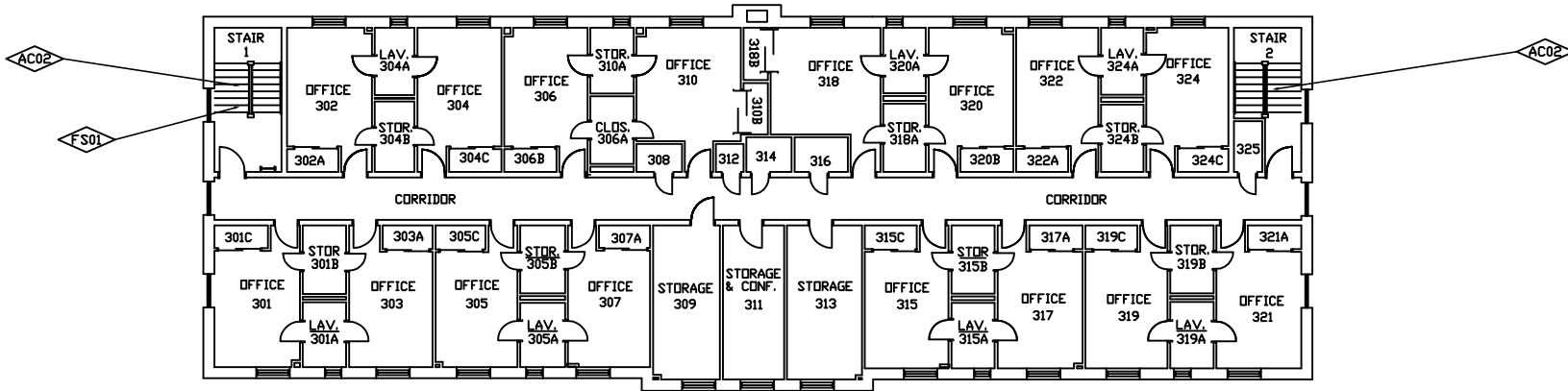
PROJECT NUMBER  
APPLIES TO  
ONE ITEM ONLY

PROJECT NUMBER  
APPLIES TO  
ENTIRE BUILDING

PROJECT NUMBER  
APPLIES TO  
ENTIRE FLOOR

PROJECT NUMBER  
APPLIES TO A SITUATION  
OF UNDEFINED EXTENTS

PROJECT NUMBER  
APPLIES TO AREA  
AS NOTED



Date: 10/22/09

Drawn by: J.T.V.

Project No. 09-041

THIRD  
FLOOR  
PLAN

Sheet No.  
3 of 3



FACILITY CONDITION ANALYSIS

**SECTION 5**

LIFE CYCLE MODEL SUMMARY  
AND PROJECTIONS





**Life Cycle Model**  
**Building Component Summary**  
**ERWI : ERWIN HALL**

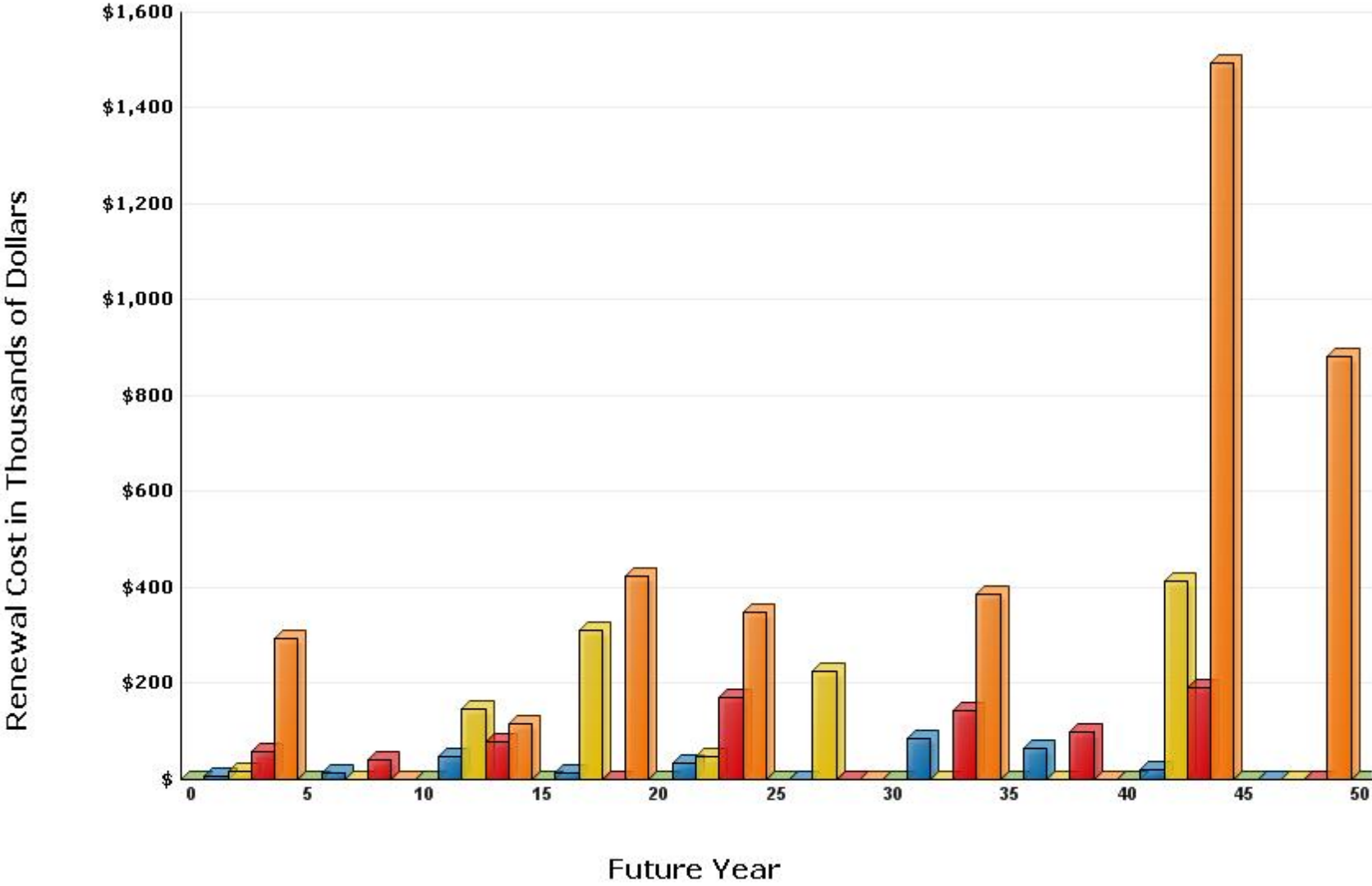
<b>Unifomat Code</b>	<b>Component Description</b>	<b>Qty</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Complex Adj</b>	<b>Total Cost</b>	<b>Install Date</b>	<b>Life Exp</b>
B2010	EXTERIOR FINISH RENEWAL	1,200	SF	\$1.30		\$1,564	1952	10
B2010	EXTERIOR FINISH RENEWAL	10,780	SF	\$1.30	.31	\$4,356	1952	10
B2020	STANDARD GLAZING AND CURTAIN WALL	1,630	SF	\$104.04		\$169,580	1952	55
B2030	HIGH TRAFFIC EXTERIOR DOOR SYSTEM	4	LEAF	\$4,311.24		\$17,245	1990	20
B2030	LOW TRAFFIC EXTERIOR DOOR SYSTEM	3	LEAF	\$2,863.29		\$8,590	1990	40
B3010	MEMBRANE ROOF	4,880	SF	\$6.41		\$31,265	2001	15
C1020	STANDARD DOOR AND FRAME INCLUDING HARDWARE	169	LEAF	\$783.68		\$132,442	1990	35
C1020	STANDARD DOOR AND FRAME INCLUDING HARDWARE	72	LEAF	\$783.68		\$56,425	1990	35
C1020	INTERIOR DOOR HARDWARE	169	EA	\$423.04		\$71,494	1990	15
C1020	INTERIOR DOOR HARDWARE	72	EA	\$423.04		\$30,459	1990	15
C3010	STANDARD WALL FINISH (PAINT, WALL COVERING, ETC.)	38,830	SF	\$0.80		\$31,104	2001	10
C3020	CARPET	2,640	SF	\$8.75		\$23,091	2001	10
C3020	VINYL FLOOR TILE	10,150	SF	\$6.59		\$66,867	1952	15
C3020	CERAMIC FLOOR TILE	400	SF	\$17.36		\$6,945	1952	20
C3030	ACOUSTICAL TILE CEILING SYSTEM	11,870	SF	\$4.99		\$59,267	1952	15
C3030	PAINTED CEILING FINISH APPLICATION	1,320	SF	\$0.80		\$1,057	2001	15
D2010	PLUMBING FIXTURES - OFFICE / ADMINISTRATION	14,652	SF	\$2.85		\$41,808	1952	35
D2020	WATER PIPING - OFFICE / ADMINISTRATION	14,652	SF	\$2.03		\$29,743	1952	35
D2020	DOMESTIC WATER PRESSURE BOOSTER SYSTEM	1	SYS	\$8,868.58		\$8,869	1999	20
D2020	WATER HEATER (RES., ELEC.)	65	GAL	\$47.95		\$3,117	1999	10
D2030	DRAIN PIPING - OFFICE / ADMINISTRATION	14,652	SF	\$3.08		\$45,157	1952	40
D2030	SUMP PUMP SYS (2 PUMPS, CONTROLS)	1	SYS	\$8,276.49		\$8,276	1999	20
D3020	HEATING SYSTEM, STEAM OR HYDRONIC	14,652	SF	\$7.30		\$106,987	1952	25
D3040	CONDENSATE RECEIVER	1	SYS	\$9,504.01		\$9,504	1952	15
D3040	EXHAUST FAN - CENTRIFUGAL ROOF EXHAUSTER OR SIMILAR	1	EA	\$2,768.62		\$2,769	1952	20
D3050	SPLIT DX SYSTEM	2	TON	\$2,143.89		\$4,288	1999	15
D3050	SPLIT DX SYSTEM	2	TON	\$2,143.89		\$4,288	1999	15
D3050	SPLIT DX SYSTEM	2	TON	\$2,143.89		\$4,288	1999	15
D5010	ELECTRICAL SYSTEM - OFFICE / ADMINISTRATION	14,652	SF	\$11.82		\$173,132	1952	50

**Life Cycle Model  
Building Component Summary  
ERWI : ERWIN HALL**

<b>Unifomat Code</b>	<b>Component Description</b>	<b>Qty</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Complex Adj</b>	<b>Total Cost</b>	<b>Install Date</b>	<b>Life Exp</b>
D5010	ELECTRICAL SWITCHGEAR 120/208V	400	AMP	\$32.96		\$13,185	1952	20
D5020	EMERGENCY LIGHT (BATTERY)	14	EA	\$283.62		\$3,971	2004	20
D5020	EXIT SIGNS (BATTERY)	18	EA	\$280.76		\$5,054	2004	20
D5020	EXTERIOR LIGHT (HID)	4	EA	\$689.58		\$2,758	1989	20
D5020	LIGHTING - OFFICE / ADMINISTRATION	12,652	SF	\$7.24		\$91,554	1952	20
D5020	LIGHTING - OFFICE / ADMINISTRATION	2,000	SF	\$7.24		\$14,473	1999	20
E2010	KITCHENETTE UNIT WITH CABINETRY AND AMENITIES	1	LOT	\$5,940.22		<u>\$5,940</u>	1952	20
						<b>\$1,290,912</b>		

# Life Cycle Model Expenditure Projections

ERWI : ERWIN HALL



Average Annual Renewal Cost Per SqFt \$3.52



FACILITY CONDITION ANALYSIS

**SECTION 6**

PHOTOGRAPHIC LOG



**Photo Log - Facility Condition  
Analysis**

**ERWI : ERWIN HALL**

<b>Photo ID No</b>	<b>Description</b>	<b>Location</b>	<b>Date</b>
ERWI001a	Dangerous drain pipe location at east facade porch steps recommended for removal	Site detail	9/3/2009
ERWI001e	Wall hung lavatory and floor mounted water closet	Located between offices, each floor	9/3/2009
ERWI002a	Aging kitchenette unit	First floor, room 104A	9/3/2009
ERWI002e	Square D electric distribution panel	Located in hallways, each floor	9/3/2009
ERWI003a	Lack of wheelchair access to sink	First floor, kitchen 100A	9/3/2009
ERWI003e	Break area sink	First floor, off lobby	9/3/2009
ERWI004a	View looking south across roof	Roof	9/3/2009
ERWI004e	Mitsubishi 1 1/2 ton split system air handler	First floor, off lobby	9/3/2009
ERWI005a	Painted metal guardrail that is too low and lacks sufficient infill and painted metal handrails lacking recommended end geometry beyond	Third floor, north stair	9/3/2009
ERWI005e	Low pressure steam radiant heater	First floor, off lobby	9/3/2009
ERWI006a	View of southeast corner showing south exit step handrails lacking recommended end geometry	Exterior elevation	9/3/2009
ERWI006e	T12 fluorescent light fixtures	Hallway lighting, floors 1,2,3	9/3/2009
ERWI007a	Vertical cracking of brick veneer to the east of south steps	Exterior detail	9/3/2009
ERWI007e	Roof ventilation fan (inoperative)	West end of roof	9/3/2009
ERWI008a	View of southwest corner	Exterior elevation	9/3/2009
ERWI008e	#1 Mitsubishi 1 1/2 ton split system heat pump	Exterior of building	9/3/2009
ERWI009a	View looking southeast at west facade entry steps with painted metal guardrails that are too low Exterior detail	Exterior detail	9/3/2009
ERWI009e	#2, #3 Mitsubishi 1 1/2 ton split system heat pump	Exterior of building	9/3/2009
ERWI010a	North facade entry step handrails lacking recommended end geometry and concrete paver walkway recommended for replacement with poured concrete sidewalk at northeast corner	Exterior detail	9/3/2009
ERWI010e	400 amp, 120/208 volt, 3 phase main distribution panel	Exterior of building, south side	9/3/2009
ERWI011a	View looking southwest across north facade	Exterior elevation	9/3/2009
ERWI011e	200 amp, 120/208 volt, 3 phase distribution panel	Exterior of building, south side	9/3/2009
ERWI012a	Void	Void	9/3/2009
ERWI012e	60 gallon electric water heater/circulation pump	Basement of building	9/3/2009
ERWI013a	East facade	Exterior elevation	9/3/2009
ERWI013e	Steam driven condensate return system	Basement of building	9/3/2009
ERWI014e	Domestic water service and meter	Basement of building	9/3/2009

**Photo Log - Facility Condition  
Analysis**

**ERWI : ERWIN HALL**

<b>Photo ID No</b>	<b>Description</b>	<b>Location</b>	<b>Date</b>
ERWI015e	Temporary sump pump (inadequate drainage)	Basement of building	9/3/2009



Facility Condition Analysis - Photo Log



ERWI001A.jpg



ERWI001E.jpg



ERWI002A.jpg



ERWI002E.jpg



ERWI003A.jpg



ERWI003E.jpg



ERWI004A.jpg



ERWI004E.jpg



ERWI005A.jpg



ERWI005E.jpg



ERWI006A.jpg



ERWI006E.jpg



ERWI007A.jpg



ERWI007E.jpg



ERWI008A.jpg



ERWI008E.jpg



ERWI009A.jpg



ERWI009E.jpg



ERWI010A.jpg



ERWI010E.jpg

Facility Condition Analysis - Photo Log



ERWI011A.jpg



ERWI011E.jpg



ERWI012A.jpg



ERWI012E.jpg



ERWI013A.jpg



ERWI013E.jpg



ERWI014E.jpg



ERWI015E.jpg