EAST CAROLINA UNIVERSITY

RIVERS BUILDING

ASSET CODE: RIVE

FACILITY CONDITION ANALYSIS

DECEMBER 17, 2009

ISES CORPORATION

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FACILITY CONDITION ANALYSIS

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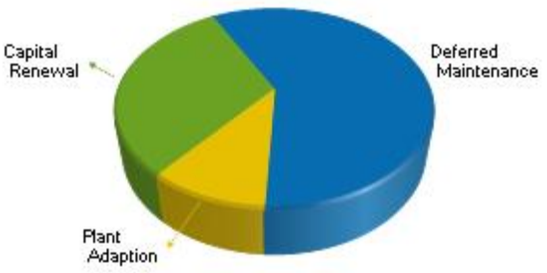
PROJECT COSTS BY CLASSIFICATION



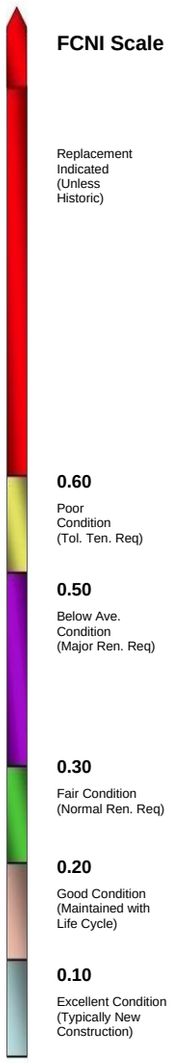
Building Code:	RIVE
Building Name:	RIVERS BUILDING
Year Built:	1968
Building Use:	Classroom / Academic
Square Feet:	73,997

Project Costs by Priority

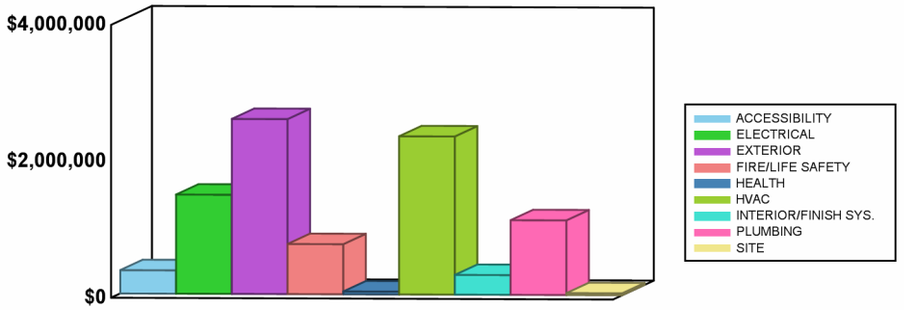
Priority 1:	$11,765	
Priority 2:	$2,845,868	
Priority 3:	$5,080,976	
Priority 4:	$906,315	
Total Project Costs:		**$8,844,923**
Facility Replacement Cost:		**$21,112,000**

Facility Condition Needs Index (FCNI): **0.42**

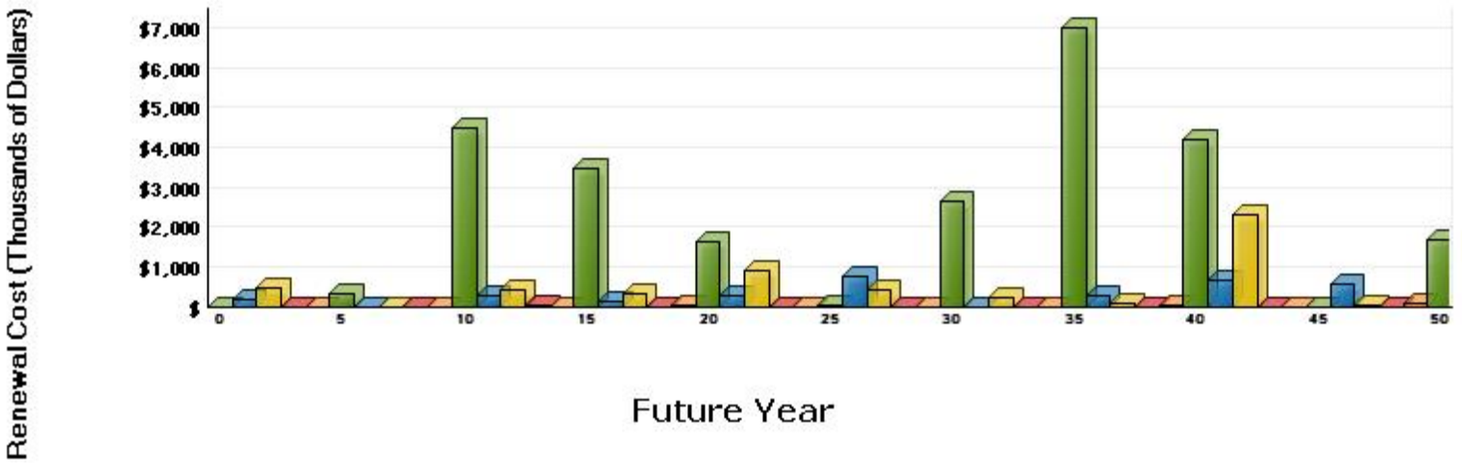
(Project Costs / Replacement Cost)



PROJECT COSTS BY SYSTEM CODE



LIFE CYCLE MODEL EXPENDITURE PROJECTIONS



Average Annual Renewal Cost Per SqFt $4.35

B. ASSET SUMMARY

Built in 1968, the Rivers Building is a two-story classroom and office building, which also has a daycare school located in the southern wing of the entry floor. This building has four distinct, two-story, rectangular wings that are parallel to each other, creating three separate areaways. From south to north, the southern wing is moderately-sized and the second and fourth (northern) wings are the largest. The third wing is the smallest and is mostly office space. The four wings are connected to each other by narrow, enclosed, glazed corridors at the top floor and a combination of both enclosed and open-air walkways at the entry floor level. This steel- and concrete-framed structure is essentially the older east wing to the adjacent Rivers Addition building, to which it is attached. Located at the eastern end of the northern portion of the East Carolina University campus in Greenville, North Carolina, the Rivers Building has a listed area of 73,997 gross square feet.

The information for this report was gathered during an inspection conducted on September 1, 2009.

SITE

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

EXTERIOR STRUCTURE

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

Brick veneer is the primary exterior finish, along with areas of artificial stucco. While the brick is fundamentally sound, exposure to the elements has caused some deterioration of the mortar joints and expansion joints. Cleaning, surface preparation, selective repairs, and applied finish or penetrating sealant upgrades are recommended to restore the aesthetics and integrity of the building envelope. Applied exterior finishes on walls and doors should also be renewed.

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

INTERIOR FINISHES / SYSTEMS

In addition to the double-loaded and single-loaded upper floor connecting corridors, the northern wing has a double-loaded, squared-circular corridor on both floors, with offices and classrooms on both sides. The other three wings have a double-loaded central corridor on both floors, with offices and classrooms on both sides. All of the walls are floor-to-ceiling and painted. Ceilings in most spaces are painted, with

many lay-in, acoustical-tiled rooms. Except for the ceramic tile floors in the restrooms, virtually the entire remainder of the building has vinyl floor tile, with many carpeted offices. Carpeting, wall finish, and ceiling upgrades are recommended within the next ten years. The interior doors are in overall good condition, and no upgrades are proposed.

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

Interior floor finish applications consist mostly of vinyl floor tile, with some carpeting. This carpeting varies in age, type, and condition. Carpeting upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

A portion of the fixed, molded plastic seating in the lecture hall can be expected to need to be upgraded within the next eight to ten years. Replace damaged seating with new molded plastic fixed seats in a similar row configuration. Ensure that ADA requirements are followed with the new seating layout.

Ceiling finish applications vary in age, type, and condition, but consist mostly of paint with large areas of lay-in tile. Ceiling finish upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

ACCESSIBILITY

There is some handicapped accessibility into and through this building. There are several entrances with wheelchair ramps, an ADA-compliant elevator, some lever door hardware, and some ADA-compliant signage. Several handicapped accessibility upgrades are recommended.

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

This 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.

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

The present accessibility legislation further requires that places of assembly be accessible to handicapped individuals. The auditorium does not obviously have an assistive listening system. Install transmitter and headphone receiver sets to accommodate those individuals that require audible assistance. Millwork is in overall fair condition, but lacks wheelchair accessibility. New, fully ADA compliant cabinetry should be considered as part of any future renovation efforts.

Restroom fixtures and finishes are mostly original to the year of construction or latest major renovation. The restrooms in this building have aging fixtures and finishes, and are not wheelchair accessible. A comprehensive renovation of the restrooms, including new fixtures, finishes, and accessories, is recommended. Restroom expansion may be necessary in order to meet modern minimum fixture counts and accessibility legislation.

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

Current 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.

There is a lack of required headroom beneath the outer stringer of all five interior exit stairs at the entry floor. The most cost-effective method of providing a warning of this overhead danger to the sight-impaired is to place a piece of furniture or planting at the outer edge of these stringers.

HEALTH

Suspected asbestos containing materials (ACM) are believed to be present in the facility, including the piping insulation, spray-on fireproofing, and multiple interior finish systems, especially the applied ceiling finishes. Future renovation efforts will need to include provisions to test and abate any and all ACM. There was no evidence of a presence of infestations by vermin or insects in this building.

FIRE / LIFE SAFETY

The 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 painted metal guardrails at the top of the fire exit stairs 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.

There is a steel grate-covered areaway with steps down to the small central basement. This covered areaway provides a secluded space that can present a danger to some students. A painted steel fence and lockable gate should be installed at the entrance to this potentially dangerous hideaway.

The present floor plan arrangement has the elevator lobby opening into an existing exit corridor. IBC 2000 states that elevators opening into a fire resistant corridor shall be provided with an elevator lobby at each floor containing such a corridor. This floor plan arrangement is no longer allowed. Because of the

corridor plan, there does not appear to be a practical solution to create rated lobbies at the elevator. This building appears to have been constructed in substantial compliance with building codes. The exits seem to be sufficient in number and location. No exit projects are proposed.

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

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

The exit signs in this facility are illuminated with fluorescent lamps and have battery backup. Emergency lighting is available through standard interior light fixtures that are connected to the emergency power network. Replace the existing exit signage throughout the building. Install new exit signs as needed. The new units should be connected to the emergency power network. LED-type exit signs are recommended because they are energy-efficient and require minimal maintenance.

HVAC

This facility is on the campus steam loop. Hot water is circulated as the heating medium. The cooling medium is supplied by the campus chilled water loop. This facility is served by a forced air HVAC system with multi-zone air handling units. The HVAC system serving the stairwell areas is a two-pipe fan coil unit network. Minimal fresh air is introduced to the interior spaces. The common and circulatory areas are served by forced air systems. The air handling units have hot water heating coils and chilled water cooling coils. The ventilation system delivers 100 percent outside air to specific interior spaces. The air distribution network furnishes constant volume air to the occupied spaces. Air is returned through open hallways. The controls for this system are pneumatic and were manufactured by Johnson Controls.

The components of the HVAC system have aged beyond their statistical life cycles. The system is inefficient compared to modern standards. It is recommended that the existing HVAC system be replaced.

Supplemental HVAC is provided by split systems. These units utilize DX cooling and electric heat. They are controlled with electronic thermostats. In conjunction with the proposed HVAC system upgrade, it is recommended that these systems are removed and that the areas they serve are included on the central HVAC system.

ELECTRICAL

The electrical service switchgear was upgraded with the construction of the Rivers Addition, which took place in 2004. This portion of the electrical equipment will be addressed in the Rivers Addition report. The electrical distribution network in this facility was installed in 1968 and is a dual voltage configuration. 277/480 volt power is distributed to branch transformers that step the power down to 120/208 volt power.

The lighting and major mechanical systems are supported by the 277/480 volt circuit. The panels were manufactured predominantly by General Electric. The electrical devices in this facility are aged and visibly worn. 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 is upgraded.

Approximately 80 percent of the interior spaces of this facility are illuminated by fluorescent fixtures that are predominantly surface-mounted applications, with acrylic lenses. Energy-efficient ballasts and lamps were retrofitted into existing light fixtures. There are still some T12 fluorescent lamps in service. Some fixtures are still fitted with inefficient, incandescent lamps. The lenses on the light fixtures are aged and present a dim aesthetic. Some lenses are worn or missing. The interior lighting has generally served beyond its expected life cycle and is recommended for replacement. Specify energy-efficient light fixtures for the new interior lighting systems, and install occupancy sensors where possible.

The remaining 20 percent of the interior spaces of this facility was upgraded in 2004 and are illuminated by fixtures that utilize compact and T8 fluorescent lamps. Most of the fluorescent lighting fixtures are recessed, compact applications. Occupancy sensors have been incorporated into the lighting systems. The interior lighting is in good condition. With proper care, it will outlast the purview of this report.

The exterior areas adjacent to the building are illuminated by building-mounted, high intensity discharge (HID), compact fluorescent, and stanchion-mounted fixtures. These exterior lighting systems are aged and weathered. It is recommended that they be replaced within the scope of this analysis. Install new, energy-efficient fixtures and place them on photocell activation.

Emergency power for this facility is produced by a local diesel-fired emergency generator. This unit is of 400 kW capacity, generates 277/480 volt power and was manufactured by Kohler. This generator is currently adequate and should remain a reliable source of stand-by power throughout the purview of this analysis.

PLUMBING

Potable water is distributed throughout this facility via a galvanized steel piping network. Sanitary waste and storm water piping is of cast-iron, bell-and-spigot construction, with 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 recommended for replacement. This action is detailed in the proposed restroom renovation.

Domestic water for this facility is heated by two electric water heaters. The commercial-grade, 100 gallon unit was installed in 2007 and will outlast the purview of this analysis. The 75 gallon, residential unit that was installed in 1999 is in good condition but will likely require replacement during the term of this analysis. However, no project has been prescribed due to insignificant cost.

Duplex sump pump systems facilitate the drainage of storm water from this facility. These systems have served beyond their statistical life cycles. It is recommended that they be replaced in order to preclude failure.

VERTICAL TRANSPORATIOIN

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

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

C. INSPECTION TEAM DATA

DATE OF INSPECTION: September 1, 2009

INSPECTION TEAM PERSONNEL:

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

FACILITY CONTACTS:

NAME	POSITION
William Bagwell	Associate Vice Chancellor, Campus Operations

REPORT DEVELOPMENT:

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

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

D. FACILITY CONDITION ANALYSIS - DEFINITIONS

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

1. REPORT DESCRIPTION

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

Section 2: Detailed Project Summaries and Totals

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

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

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

Section 3: Specific Project Details Illustrating Description / Cost

Section 4: Drawings with Iconography

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

Section 5: Life Cycle Model Summary and Projections

Section 6: Photographic Log

2. PROJECT CLASSIFICATION

A. Plant / Program Adaption: Expenditures required to adapt the physical plant to the evolving needs of the institution and to changing codes or standards. These are expenditures beyond normal maintenance. Examples include compliance with changing codes (e.g. accessibility), facility alterations required by changed teaching or research methods, and improvements occasioned by the adoption of modern technology (e.g., the use of personal computer networks).

B. Deferred Maintenance: Refers to expenditures for repairs which were not accomplished as a part of normal maintenance or capital repair which have accumulated to the point that facility deterioration is evident and could impair the proper functioning of the facility. Costs estimated for deferred maintenance projects should include compliance with applicable codes, even if such compliance requires expenditures beyond those essential to affect the needed repairs. Deferred maintenance projects represent catch up expenses.

C. Capital Renewal: A subset of regular or normal facility maintenance which refers to major repairs or the replacement / rebuilding of major facility components (e.g., roof replacement at the end of its normal useful life is capital repair; roof replacement several years after its normal useful life is deferred maintenance).

3. PROJECT SUBCLASS TYPE

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

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

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

Example:

PRIORITY CLASS 1

CODE	PROJECT NO.	PRIORITY SEQUENCE
HV2C	0001HV04	01
PL1D	0001PL02	02

PRIORITY CLASS 2

CODE	PROJECT NO.	PRIORITY SEQUENCE
IS1E	0001IS06	03
EL4C	0001EL03	04

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

PRIORITY 1 - Currently Critical (Immediate)

Projects in this category require immediate action to:
a. return a facility to normal operation
b. stop accelerated deterioration
c. correct a cited safety hazard

PRIORITY 2 - Potentially Critical (Year One)

Projects in this category, if not corrected expeditiously, will become critical within a year. Situations in this category include:
a. intermittent interruptions
b. rapid deterioration
c. potential safety hazards

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

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

PRIORITY 4 - Recommended (Years Six to Ten)

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

6. COST SUMMARIES AND TOTALS

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

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

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

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

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

Example:

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

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

8. PHOTO NUMBER (Shown in Section 6)

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

Example: 0001006e

Building Number	Photo Sequence	Arch / Eng / VT
0001	006	e

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

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

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

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

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

Refer to the following Category Code Report.

Example: Category Code = EL5A

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

CATEGORY CODE			SYSTEM DESCRIPTION
AC1A	-	AC4B	ACCESSIBILITY
EL1A	-	EL8A	ELECTRICAL
ES1A	-	ES6E	EXTERIOR STRUCTURE
FS1A	-	FS6A	FIRE / LIFE SAFETY
HE1A	-	HE7A	HEALTH
HV1A	-	HV8B	HVAC
IS1A	-	IS6D	INTERIOR FINISHES / SYSTEMS
PL1A	-	PL5A	PLUMBING
SI1A	-	SI4A	SITE
SS1A	-	SS7A	SECURITY SYSTEMS
VT1A	-	VT7A	VERTICAL TRANSPORTATION

CATEGORY CODE REPORT			
CODE	**COMPONENT DESCRIPTION**	**ELEMENT DESCRIPTION**	**DEFINITION**
SYSTEM DESCRIPTION: ACCESSIBILITY			
AC1A	SITE	STAIR AND RAILINGS	Includes exterior stairs and railings which are not part of the building entrance points.
AC1B	SITE	RAMPS AND WALKS	Includes sidewalks, grade change ramps (except for a building entrance), curb ramps, etc.
AC1C	SITE	PARKING	Designated parking spaces including striping, signage, access aisles and ramps, etc.
AC1D	SITE	TACTILE WARNINGS	Raised tactile warnings located at traffic crossing and elevation changes.
AC2A	BUILDING ENTRY	GENERAL	Covers all aspects of entry into the building itself including ramps, lifts, doors and hardware, power operators, etc.
AC3A	INTERIOR PATH OF TRAVEL	LIFTS/RAMPS/ ELEVATORS	Interior lifts, ramps and elevators designed to accommodate level changes inside a building. Includes both installation and retrofitting.
AC3B	INTERIOR PATH OF TRAVEL	STAIRS AND RAILINGS	Upgrades to interior stairs and handrails for accessibility reasons.
AC3C	INTERIOR PATH OF TRAVEL	DOORS AND HARDWARE	Accessibility upgrades to the interior doors including widening, replacing hardware power, assisted operators, etc.
AC3D	INTERIOR PATH OF TRAVEL	SIGNAGE	Interior building signage upgrades for compliance with ADA.
AC3E	INTERIOR PATH OF TRAVEL	RESTROOMS/ BATHROOMS	Modifications to and installation of accessible public restrooms and bathrooms. Bathrooms, which are an integral part of residential suites, are catalogued under HC4A.
AC3F	INTERIOR PATH OF TRAVEL	DRINKING FOUNTAINS	Upgrading/replacing drinking fountains for reasons of accessibility.
AC3G	INTERIOR PATH OF TRAVEL	PHONES	Replacement/modification of public access telephones.
AC4A	GENERAL	FUNCTIONAL SPACE MODIFICATIONS	This category covers all necessary interior modifications necessary to make the services and functions of a building accessible. It includes installation of assistive listening systems, modification of living quarters, modifications to laboratory workstations, etc. Bathrooms, which are integral to efficiency suites, are catalogued here.
AC4B	GENERAL	OTHER	All accessibility issues not catalogued elsewhere.
SYSTEM DESCRIPTION: ELECTRICAL			
EL1A	INCOMING SERVICE	TRANSFORMER	Main building service transformer.
EL1B	INCOMING SERVICE	DISCONNECTS	Main building disconnect and switchgear.
EL1C	INCOMING SERVICE	FEEDERS	Incoming service feeders. Complete incoming service upgrades, including transformers, feeders, and main distribution panels are catalogued here.
EL1D	INCOMING SERVICE	METERING	Installation of meters to record consumption and/or demand.
EL2A	MAIN DISTRIBUTION PANELS	CONDITION UPGRADE	Main distribution upgrade due to deficiencies in condition.
EL2B	MAIN DISTRIBUTION PANELS	CAPACITY UPGRADE	Main distribution upgrades due to inadequate capacity.
EL3A	SECONDARY DISTRIBUTION	STEP DOWN TRANSFORMERS	Secondary distribution stepdown and isolation transformers.
EL3B	SECONDARY DISTRIBUTION	DISTRIBUTION NETWORK	Includes conduit, conductors, sub-distribution panels, switches, outlets, etc. Complete interior rewiring of a facility is catalogued here.
EL3C	SECONDARY DISTRIBUTION	MOTOR CONTROLLERS	Mechanical equipment motor starters and control centers.
EL4A	DEVICES AND FIXTURES	EXTERIOR LIGHTING	Exterior building lighting fixtures including supply conductors and conduit.
EL4B	DEVICES AND FIXTURES	INTERIOR LIGHTING	Interior lighting fixtures (also system wide emergency lighting) including supply conductors and conduits.
EL4C	DEVICES AND FIXTURES	LIGHTING CONTROLLERS	Motion sensors, photocell controllers, lighting contactors, etc.

CATEGORY CODE REPORT			
CODE	**COMPONENT DESCRIPTION**	**ELEMENT DESCRIPTION**	**DEFINITION**
EL4D	DEVICES AND FIXTURES	GFCI PROTECTION	Ground fault protection including GFCI receptacles and breakers.
EL4E	DEVICES AND FIXTURES	LIGHTNING PROTECTION	Lightning arrestation systems including air terminals and grounding conductors.
EL5A	EMERGENCY POWER SYSTEM	GENERATION/ DISTRIBUTION	Includes generators, central battery banks, transfer switches, emergency power grid, etc.
EL6A	SYSTEMS	UPS/DC POWER SUPPLY	Uninterruptible power supply systems and DC motor-generator sets and distribution systems.
EL7A	INFRASTRUCTURE	ABOVE GROUND TRANSMISSION	Includes poles, towers, conductors, insulators, fuses, disconnects, etc.
EL7B	INFRASTRUCTURE	UNDERGROUND TRANSMISSION	Includes direct buried feeders, ductbanks, conduit, manholes, feeders, switches, disconnects, etc.
EL7C	INFRASTRUCTURE	SUBSTATIONS	Includes incoming feeders, breakers, buses, switchgear, meters, CTs, PTs, battery systems, capacitor banks, and all associated auxiliary equipment.
EL7D	INFRASTRUCTURE	DISTRIBUTION SWITCHGEAR	Stand-alone sectionalizing switches, distribution switchboards, etc.
EL7F	INFRASTRUCTURE	AREA AND STREET LIGHTING	Area and street lighting systems including stanchions, fixtures, feeders, etc.
EL8A	GENERAL	OTHER	Electrical system components not catalogued elsewhere.
SYSTEM DESCRIPTION: EXTERIOR			
ES1A	FOUNDATION/FOOTING	STRUCTURE	Structural foundation improvements involving structural work on foundation wall/footing, piers, caissons, piles including crack repairs, shoring & pointing
ES1B	FOUNDATION/FOOTING	DAMPPROOFING/ DEWATERING	Foundation/footing waterproofing work including, damp proofing, dewatering, insulation, etc.
ES2A	COLUMNS/BEAMS/ WALLS	STRUCTURE	Structural work to primary load-bearing structural components aside from floors including columns, beams, bearing walls, lintels, arches, etc.
ES2B	COLUMNS/BEAMS/ WALLS	FINISH	Work involving restoration of the appearance and weatherproof integrity of exterior wall/structural envelope components including masonry/pointing, expansion joints, efflorescence & stain removal, grouting, surfacing, chimney repairs, etc.
ES3A	FLOOR	STRUCTURE	Work concerning the structural integrity of the load supporting floors both exposed and unexposed including deformation, delamination, spalling, shoring, crack repair, etc.
ES4A	ROOF	REPAIR	Work on waterproof horizontal finish (roof) involving repair and/or limited replacement (<40% total) including membrane patching, flashing repair, coping caulk/resetting, PPT wall parging/coating, walkpad installation, skylight and roof hatch R&R, etc.
ES4B	ROOF	REPLACEMENT	Work involving total refurbishment of roofing system including related component rehab.
ES5A	FENESTRATIONS	DOORS	Work on exterior exit/access door including storefronts, airlocks, air curtains, vinyl slat doors, all power/manual operating hardware (except handicapped), etc.
ES5B	FENESTRATIONS	WINDOWS	Work on exterior fenestration closure & related components including glass/metal/wood curtain walls, fixed or operable window sashes, glazing, frames, sills, casings, stools, seats, coatings, treatments, screens, storm windows, etc.
ES6A	GENERAL	ATTACHED STRUCTURE	Work on attached exterior structure components not normally considered in above categories including porches, stoops, decks, monumental entrance stairs, cupolas, tower, etc.
ES6B	GENERAL	AREAWAYS	Work on attached grade level or below structural features including subterranean light wells, areaways, basement access stairs, etc.
ES6C	GENERAL	TRIM	Work on ornamental exterior (generally non-structural) elements including beltlines, quoins, porticos, soffits, cornices, moldings, trim, etc.
ES6D	GENERAL	SUPERSTRUCTURE	Finish and structural work on non-standard structures with exposed load-bearing elements such as stadiums, bag houses, bleachers, freestanding towers, etc.

CATEGORY CODE REPORT			
CODE	**COMPONENT DESCRIPTION**	**ELEMENT DESCRIPTION**	**DEFINITION**
ES6E	GENERAL	OTHER	Any exterior work not specifically categorized elsewhere including finish and structural work on freestanding boiler stacks.
SYSTEM DESCRIPTION: FIRE / LIFE SAFETY			
FS1A	LIGHTING	EGRESS LIGHTING/EXIT SIGNAGE	R & R work on exit signage and packaged AC/DC emergency lighting.
FS2A	DETECTION/ALARM	GENERAL	Repair or replacement of fire alarm/detection system/components including alarms, pull boxes, smoke/heat detectors, annunciator panels, central fire control stations, remote dialers, fire station communications, etc.
FS3A	SUPPRESSION	SPRINKLERS	Repair or installation of water sprinklers type automatic fire suppressions including wet pipe & dry pipe systems, heads, piping, deflectors, valves, monitors, associated fire pump, etc.
FS3B	SUPPRESSION	STANDPIPE/HOSE	Repair or installation of standpipe system or components including hardware, hoses, cabinets, nozzles, necessary fire pumping system, etc.
FS3C	SUPPRESSION	EXTINGUISHERS	Repairs or upgrades to F.E. cabinets/wall fastenings and handheld extinguisher testing/replacement.
FS3D	SUPPRESSION	OTHER	Other fire suppression items not specifically categorized elsewhere including fire blankets, carbon dioxide automatic systems, Halon systems, dry chemical systems, etc.
FS4A	HAZARDOUS MATERIALS	STORAGE ENVIRONMENT	Installation or repair of special storage environment for the safe holding of flammable or otherwise dangerous materials/supplies including vented flammables storage cabinets, holding pens/rooms, cages, fire safe chemical storage rooms, etc.
FS4B	HAZARDOUS MATERIALS	USER SAFETY	Improvements, repairs, installation, or testing of user safety equipment including emergency eyewashes, safety showers, emergency panic/shut-down system, etc.
FS5A	EGRESS PATH	DESIGNATION	Installation, relocation or repair of posted diagrammatic emergency evacuation routes.
FS5B	EGRESS PATH	DISTANCE/ GEOMETRY	Work involving remediation of egress routing problems including elimination of dead end corridors, excessive egress distance modifications and egress routing inadequacies.
FS5C	EGRESS PATH	SEPARATION RATING	Restoration of required fire protective barriers including wall rating compromises, fire rated construction, structural fire proofing, wind/safety glazing, transom retrofitting, etc.
FS5D	EGRESS PATH	OBSTRUCTION	Clearance of items restricting the required egress routes.
FS5E	EGRESS PATH	STAIRS RAILING	Retrofit of stair/landing configurations/structure, railing heights/geometries, etc.
FS5F	EGRESS PATH	FIRE DOORS/ HARDWARE	Installation/replacement/repair of fire doors and hardware including labeled fire doors, fire shutters, closers, magnetic holders, panic hardware, etc.
FS5G	EGRESS PATH	FINISH/FURNITURE RATINGS	Remediation of improper fire/smoke ratings of finishes and furniture along egress routes.
FS6A	GENERAL	OTHER	Life/fire safety items not specifically categorized elsewhere.
SYSTEM DESCRIPTION: HEALTH			
HE1A	ENVIRONMENTAL CONTROL	EQUIPMENT AND ENCLOSURES	Temperature control chambers (both hot and cold) for non-food storage. Includes both chamber and all associated mechanical equipment.
HE1B	ENVIRONMENTAL CONTROL	OTHER	General environmental control problems not catalogued elsewhere.
HE2A	PEST CONTROL	GENERAL	Includes all measures necessary to control and destroy insects, rodents and other pests.
HE3A	REFUSE	GENERAL	Issues related to the collection, handling and disposal of refuse.
HE4A	SANITATION EQUIPMENT	LABORATORY AND PROCESS	Includes autoclaves, cage washers, steam cleaners, etc.
HE5A	FOOD SERVICE	KITCHEN EQUIPMENT	Includes ranges, grilles, cookers, sculleries, etc.
HE5B	FOOD SERVICE	COLD STORAGE	Includes the cold storage room and all associated refrigeration equipment.

CATEGORY CODE REPORT			
CODE	**COMPONENT DESCRIPTION**	**ELEMENT DESCRIPTION**	**DEFINITION**
HE6A	HAZARDOUS MATERIAL	STRUCTURAL ASBESTOS	Testing, abatement and disposal of structural and building finish materials containing asbestos.
HE6B	HAZARDOUS MATERIAL	MECHANICAL ASBESTOS	Testing, abatement and disposal of mechanical insulation materials containing asbestos.
HE6C	HAZARDOUS MATERIAL	PCBs	Includes testing, demolition, disposal and cleanup of PCB contaminated substances.
HE6D	HAZARDOUS MATERIAL	FUEL STORAGE	Includes monitoring, removal and replacement of above and below ground fuel storage and distribution systems. Also includes testing and disposal of contaminated soils.
HE6E	HAZARDOUS MATERIAL	LEAD PAINT	Testing, removal and disposal of lead-based paint systems.
HE6F	HAZARDOUS MATERIAL	OTHER	Handling, storage, and disposal of other hazardous materials.
HE7A	GENERAL	OTHER	Health related issues not catalogued elsewhere.
SYSTEM DESCRIPTION: HVAC			
HV1A	HEATING	BOILERS/STACKS/ CONTROLS	Boilers for heating purposes including their related stacks, flues, and controls.
HV1B	HEATING	RADIATORS/ CONVECTORS	Including cast iron radiators, fin tube radiators, baseboard radiators, etc.
HV1C	HEATING	FURNACE	Furnaces and their related controls, flues, etc.
HV1D	HEATING	FUEL SUPPLY/STORAGE	Storage and/or distribution of fuel for heating purposes, including tanks and piping networks and related leak detection/monitoring.
HV2A	COOLING	CHILLERS/ CONTROLS	Chiller units for production of chilled water for cooling purposes, related controls (not including mods for CFC compliance).
HV2B	COOLING	HEAT REJECTION	Repair/replacement of cooling towers, dry coolers, air-cooling and heat rejection. (Includes connection of once-through system to cooling tower.)
HV3A	HEATING/COOLING	SYSTEM RETROFIT/ REPLACE	Replacement or major retrofit of HVAC systems.
HV3B	HEATING/COOLING	WATER TREATMENT	Treatment of hot water, chilled water, steam, condenser water, etc.
HV3C	HEATING/COOLING	PACKAGE/SELF-CONTAINED UNITS	Repair/replacement of self-contained/package type units including stand up units, rooftop units, window units, etc; both air conditioners and heat pumps.
HV3D	HEATING/COOLING	CONVENTIONAL SPLIT SYSTEMS	Repair, installation, or replacement of conventional split systems; both air conditioners and heat pumps including independent component replacements of compressors and condensers.
HV4A	AIR MOVING/ VENTILATION	AIR HANDLERS/ FAN UNITS	Includes air handlers & coils, fan coil units, unit ventilators, filtration upgrades, etc., not including package/self-contained units, split systems or other specifically categorized systems.
HV4B	AIR MOVING/ VENTILATION	EXHAUST FANS	Exhaust fan systems including fans, range and fume hoods, controls, and related ductwork.
HV4C	AIR MOVING/ VENTILATION	OTHER FANS	Supply, return, or any other fans not incorporated into a component categorized elsewhere.
HV4D	AIR MOVING/ VENTILATION	AIR DISTRIBUTION NETWORK	Repair, replacement, or cleaning of air distribution network including ductwork, terminal reheat/cool, VAV units, induction units, power induction units, insulation, dampers, linkages, etc.
HV5A	STEAM/HYDRONIC DISTRIBUTION	PIPING NETWORK	Repair/replacement of piping networks for heating and cooling systems including pipe, fittings, insulation, related components, etc.
HV5B	STEAM/HYDRONIC DISTRIBUTION	PUMPS	Repair or replacement of pumps used in heating and cooling systems, related control components, etc.
HV5C	STEAM/HYDRONIC DISTRIBUTION	HEAT EXCHANGERS	Including shell and tube heat exchangers and plate heat exchangers for heating and cooling.
HV6A	CONTROLS	COMPLETE SYSTEM	Replacement of HVAC control systems.

CATEGORY CODE REPORT			
CODE	**COMPONENT DESCRIPTION**	**ELEMENT DESCRIPTION**	**DEFINITION**
		UPGRADE	
HV6B	CONTROLS	MODIFICATIONS/ REPAIRS	Repair or modification of HVAC control system.
HV6C	CONTROLS	AIR COMPRESSORS/ DRYERS	Repair or modification of control air compressors and dryers.
HV7A	INFRASTRUCTURE	STEAM/HOT WATER GENERATION	Generation of central steam and/or hot water including boilers and related components.
HV7B	INFRASTRUCTURE	STEAM/HOT WATER DISTRIBUTION	Distribution system for central hot water and/or steam.
HV7C	INFRASTRUCTURE	CHILLED WATER GENERATION	Generation of central chilled water including chillers and related components.
HV7D	INFRASTRUCTURE	CHILLED WATER DISTRIBUTION	Distribution system for central chilled water.
HV7E	INFRASTRUCTURE	TUNNELS/ MANHOLES/ TRENCHES	Repairs, installation, replacement of utility system access chambers.
HV7F	INFRASTRUCTURE	OTHER	HVAC infrastructure issues not specifically categorized elsewhere.
HV8A	GENERAL	CFC COMPLIANCE	Chiller conversions/replacements for CFC regulatory compliance, monitoring, etc.
HV8B	GENERAL	OTHER	HVAC issues not catalogued elsewhere.
SYSTEM DESCRIPTION: INTERIOR FINISHES / SYSTEMS			
IS1A	FLOOR	FINISHES-DRY	R & R of carpet, hardwood strip flooring, concrete coating, vinyl linoleum & tile, marble, terrazzo, rubber flooring, underlayment in predominantly dry areas ("dry" includes non-commercial kitchens)
IS1B	FLOOR	FINISHES-WET	Flooring finish/underlayment work in predominantly "wet" areas including work with linoleum, rubber, terrazzo, concrete coating, quarry tile, ceramic tile, epoxy aggregate, etc.
IS2A	PARTITIONS	STRUCTURE	Structural work on full height permanent interior partitions including wood/metal stud & drywall systems, CMU systems, structural brick, tile, glass block, etc.
IS2B	PARTITIONS	FINISHES	Work on full height permanent interior partitions including R & R to gypsum board, plaster, lath, wood paneling, acoustical panels, wall coverings, column coverings, tile, paint, etc.
IS3A	CEILINGS	REPAIR	Repair of interior ceilings (<40% of total) including tiles, gypsum board, plaster, paint, etc.
IS3B	CEILINGS	REPLACEMENT	Major refurbishments (>40% of total) to interior ceiling systems including grid system replacements, structural framing, new suspended systems, paint, plastering, etc.
IS4A	DOORS	GENERAL	Any work on interior non-fire rated doors, roll-up counter doors, mechanical/plumbing access doors, and all door hardware (except for reasons of access improvement).
IS5A	STAIRS	FINISH	Any finish restorative work to stair tower walking surfaces including replacement of rubber treads, safety grips, nosings, etc. (except as required to accommodate disabled persons).
IS6A	GENERAL	MOLDING	R & R to interior trim/molding systems including rubber/vinyl/wood base, crown/chair/ornamental moldings, cased openings, etc.
IS6B	GENERAL	CABINETRY	R & R work to interior casework systems including cabinets, countertops, wardrobes, lockers, mail boxes, built-in bookcases, lab/work benches, reagent shelving, etc. (except as required for access by the disabled).
IS6C	GENERAL	SCREENING	Work on temporary or partial height partitioning systems including toilet partitions, urinal/vanity screens, etc.
IS6D	GENERAL	OTHER	Any work on interior elements not logically or specifically categorized elsewhere including light coves, phone booths, interior light wells, etc.
SYSTEM DESCRIPTION: PLUMBING			

CATEGORY CODE REPORT			
CODE	**COMPONENT DESCRIPTION**	**ELEMENT DESCRIPTION**	**DEFINITION**
PL1A	DOMESTIC WATER	PIPING NETWORK	Repair or replacement of domestic water supply piping network, insulation, hangers, etc.
PL1B	DOMESTIC WATER	PUMPS	Domestic water booster pumps, circulating pumps, related controls, etc.
PL1C	DOMESTIC WATER	STORAGE/ TREATMENT	Equipment or vessels for storage or treatment of domestic water.
PL1D	DOMESTIC WATER	METERING	Installation, repair, or replacement of water meters.
PL1E	DOMESTIC WATER	HEATING	Domestic water heaters including gas, oil, and electric water heaters, shell and tube heat exchangers, tank type and instantaneous.
PL1F	DOMESTIC WATER	COOLING	Central systems for cooling and distributing drinking water.
PL1G	DOMESTIC WATER	FIXTURES	Plumbing fixtures including sinks, drinking fountains, water closets, urinals, etc.
PL1H	DOMESTIC WATER	CONSERVATION	Alternations made to the water distribution system to conserve water.
PL1I	DOMESTIC WATER	BACKFLOW PROTECTION	Backflow protection devices including backflow preventers, vacuum breakers, etc.
PL2A	WASTEWATER	PIPING NETWORK	Repair or replacement of building wastewater piping network.
PL2B	WASTEWATER	PUMPS	Pump systems used to lift wastewater including sewage ejectors and other sump systems.
PL3A	SPECIAL SYSTEMS	PROCESS GAS/FLUIDS	Generation and/or distribution of process steam, compressed air, natural and LP gas, process water, vacuum, etc.
PL4A	INFRASTRUCTURE	POTABLE WATER STORAGE/ TREATMENT	Storage and treatment of potable water for distribution.
PL4B	INFRASTRUCTURE	INDUSTRIAL WATER DISTRIBUTION/ TREATMENT	Storage and treatment of industrial water for distribution.
PL4C	INFRASTRUCTURE	SANITARY WATER COLLECTION	Sanitary water collection systems, sanitary sewer systems; including combined systems.
PL4D	INFRASTRUCTURE	STORM WATER COLLECTION	Storm water collection systems, storm sewer systems; storm water only.
PL4E	INFRASTRUCTURE	POTABLE WATER DISTRIBUTION	Potable water distribution network.
PL4F	INFRASTRUCTURE	WASTEWATER TREATMENT	Wastewater treatment plants, associated equipment, etc.
PL5A	GENERAL	OTHER	Plumbing issues not categorized elsewhere.
SYSTEM DESCRIPTION: SITE			
SI1A	ACCESS	PEDESTRIAN	Paved pedestrian surfaces including walks, site stairs, step ramps, paths, pedestrian signage, sidewalk bridges/canopies, pedestrian plaza/mall areas, etc.
SI1B	ACCESS	VEHICULAR	Paved vehicular surfaces including roads, paths, curbs, guards, bollards, bridges, skyways, joints, shoulder work, culverts, ditches, vehicular signage, etc.
SI2A	LANDSCAPE	GRADE/FLORA	Landscape related work including new grass/turf refurbishment, grade improvements, catch basins, swales, berms, pruning, new ornamental flora, etc.
SI3A	HARDSCAPE	STRUCTURE	Permanent hard site features, predominantly ornamental, including terraces, fences, statues, freestanding signage, fountains, benches, etc.
SI4A	GENERAL	OTHER	Other site work not specifically categorized elsewhere.
SYSTEM DESCRIPTION: SECURITY SYSTEMS			
SS1A	LIGHTING	EXTERIOR	Fixtures, stanchions, foliage interference, cleanliness, locations, etc.

CATEGORY CODE REPORT			
CODE	**COMPONENT DESCRIPTION**	**ELEMENT DESCRIPTION**	**DEFINITION**
SS2A	SITE	FENCING	Perimeter campus fencing, individual building fencing, includes both pedestrian and vehicular control fences.
SS2B	SITE	GENERAL	Hidden areas due to foliage, fencing, parking, walls, etc.
SS3A	COMMUNICATIONS	EMERGENCY PHONES	Access, locations, visibility, function, reliability, etc.
SS4A	ACCESS CONTROL	DOORS	Access, locks, keys, two way speakers, reliability, redundancy, etc.
SS4B	ACCESS CONTROL	WINDOWS	Locks, screens, access, reliability, etc.
SS4C	ACCESS CONTROL	SYSTEMS	Card key, proximity devices, data control, data use, reliability, system design, etc.
SS5A	MONITORING	SYSTEMS	Cameras, audio communication, monitoring stations, locations, system design, etc.
SS6A	CIRCULATION	PEDESTRIAN	On campus as well as to and from off campus housing and class locations, etc.
SS6B	CIRCULATION	VEHICULAR	Guard gates, access, systems, data control and use, identification, etc.
SS7A	GENERAL	OTHER	General information/projects pertaining to security issues.
SYSTEM DESCRIPTION: VERTICAL TRANSPORTATION			
VT1A	MACHINE ROOM	GENERAL	Machine, worm gear, thrust bearing, brake, motors, sheaves, generator, controller, selector, governor, pump(s), valves, oil, access, lighting, ventilation, floor.
VT2A	CAR	GENERAL	Position indicator, lighting, floor, gate-doors, operation devices, safeties, safety shoe, light ray/detection, emergency light, fire fighter service, car top, door operator, stop switch, car frame, car guides, sheaves, phone, ventilation.
VT3A	HOISTWAY	GENERAL	Enclosure, fascia, interlock, doors, hangers, closers, sheaves, rails, hoistway switches, ropes, traveling cables, selector tape, weights, compensation.
VT4A	HALL FIXTURES	GENERAL	Operating panel, position indicator, hall buttons, lobby panel, hall lanterns, fire fighter service, audible signals, card/key access.
VT5A	PIT	GENERAL	Buffer(s), guards, sheaves, hydro packing, floor, lighting, safety controls.
VT6A	OPERATING CONDITIONS	GENERAL	Door open time, door close time, door thrust, acceleration, deceleration, leveling, dwell time, speed, OFR time, nudging.
VT7A	GENERAL	OTHER	General information/projects relating to vertical transportation system components.

FACILITY CONDITION ANALYSIS

SECTION 2

DETAILED PROJECT SUMMARIES AND TOTALS

Detailed Project Totals
Facility Condition Analysis
System Code by Priority Class
RIVE : RIVERS BUILDING

System Code	System Description	Priority Classes 1	2	3	4	Subtotal
AC	ACCESSIBILITY	0	0	0	342,941	342,941
EL	ELECTRICAL	0	0	1,452,916	0	1,452,916
ES	EXTERIOR	0	2,285,594	26,156	253,295	2,565,044
FS	FIRE/LIFE SAFETY	11,765	518,683	5,351	198,467	734,266
HE	HEALTH	0	41,591	0	0	41,591
HV	HVAC	0	0	2,319,170	0	2,319,170
IS	INTERIOR/FINISH SYS.	0	0	178,353	111,612	289,965
PL	PLUMBING	0	0	1,095,172	0	1,095,172
SI	SITE	0	0	3,858	0	3,858
	TOTALS	11,765	2,845,868	5,080,976	906,315	8,844,923

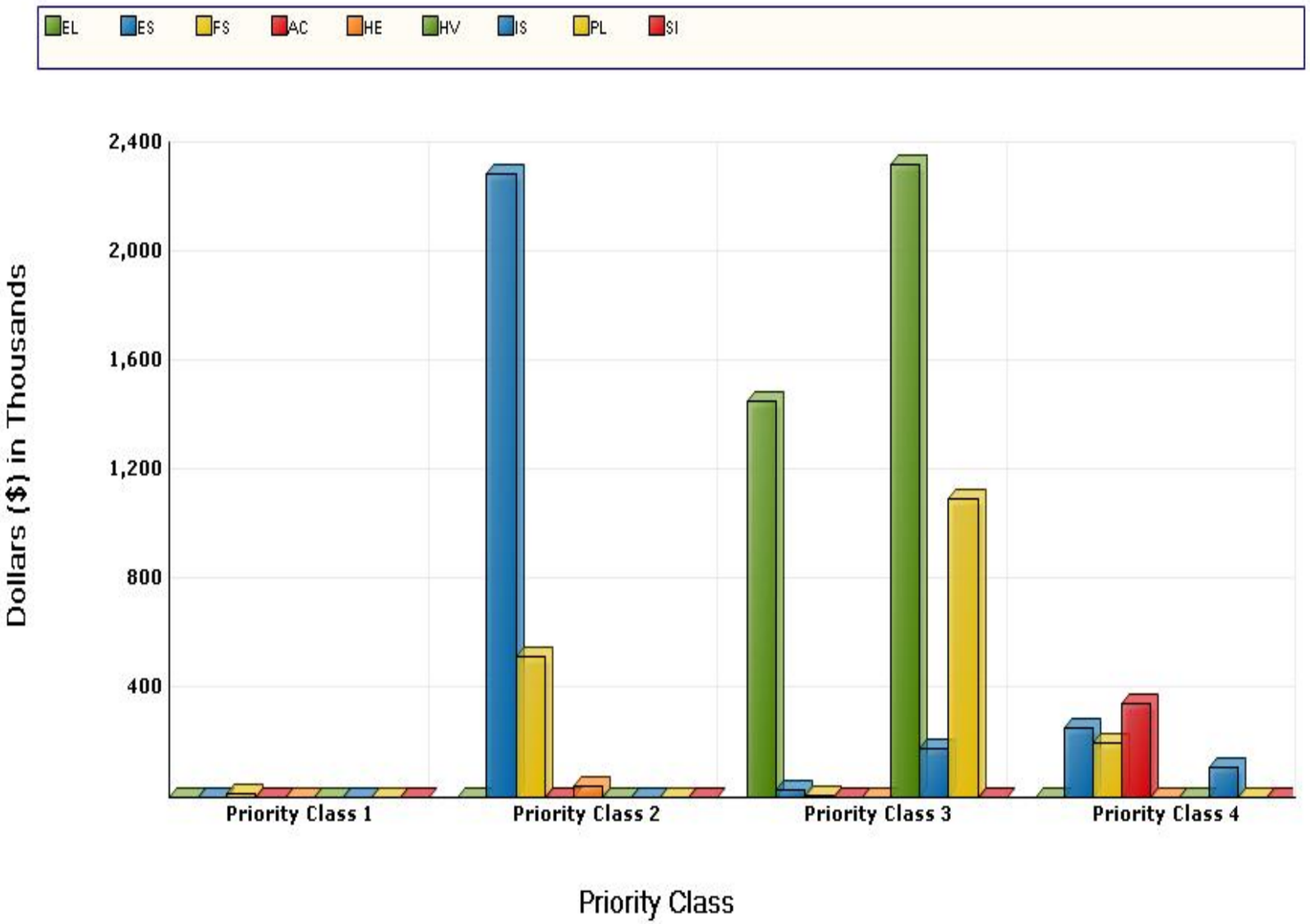
Facility Replacement Cost	$21,112,000
Facility Condition Needs Index	0.42

Gross Square Feet	73,997	**Total Cost Per Square Foot**	$119.53

FACILITY CONDITION ANALYSIS

System Code by Priority Class

RIVE : RIVERS BUILDING



Detailed Project Totals
Facility Condition Analysis
System Code by Project Class
RIVE : RIVERS BUILDING

System Code	System Description	Project Classes: Captial Renewal	Deferred Maintenance	Plant Adaption	Subtotal
AC	ACCESSIBILITY	0	0	342,941	342,941
EL	ELECTRICAL	0	1,452,916	0	1,452,916
ES	EXTERIOR	2,538,888	26,156	0	2,565,044
FS	FIRE/LIFE SAFETY	198,467	12,028	523,772	734,266
HE	HEALTH	0	0	41,591	41,591
HV	HVAC	0	2,319,170	0	2,319,170
IS	INTERIOR/FINISH SYS.	21,338	268,626	0	289,965
PL	PLUMBING	0	1,095,172	0	1,095,172
SI	SITE	3,858	0	0	3,858
	TOTALS	2,762,551	5,174,068	908,304	8,844,923

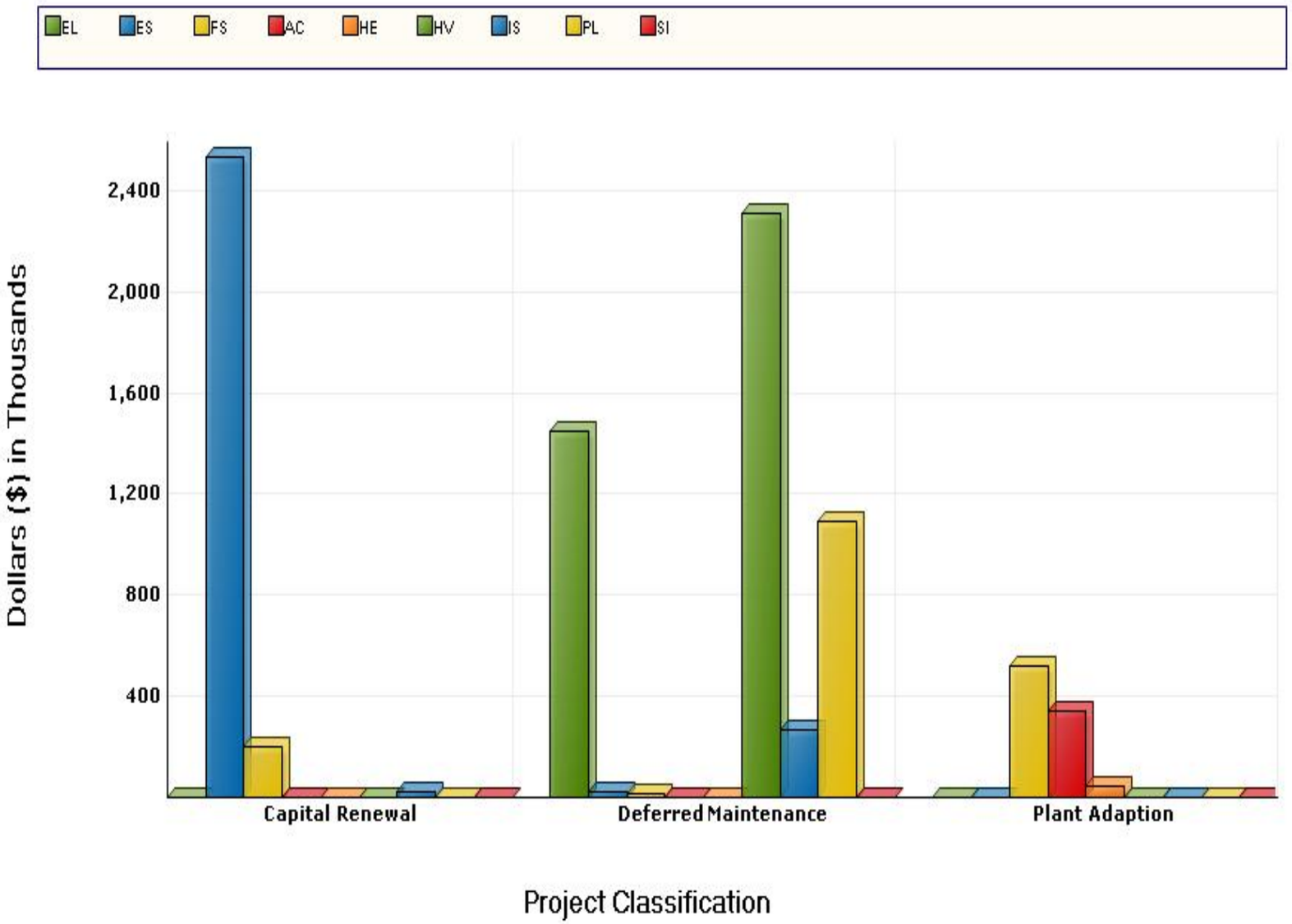
Facility Replacement Cost	$21,112,000
Facility Condition Needs Index	0.42

Gross Square Feet	73,997	**Total Cost Per Square Foot**	$119.53

FACILITY CONDITION ANALYSIS

System Code by Project Class

RIVE : RIVERS BUILDING



Detailed Project Summary
Facility Condition Analysis
Project Class by Priority Class
RIVE : RIVERS BUILDING

	Priority Classes				
Project Class	**1**	**2**	**3**	**4**	**Subtotal**
Capital Renewal	0	2,285,594	3,858	473,100	2,762,551
Deferred Maintenance	6,677	0	5,077,118	90,274	5,174,068
Plant Adaption	5,089	560,274	0	342,941	908,304
TOTALS	11,765	2,845,868	5,080,976	906,315	8,844,923

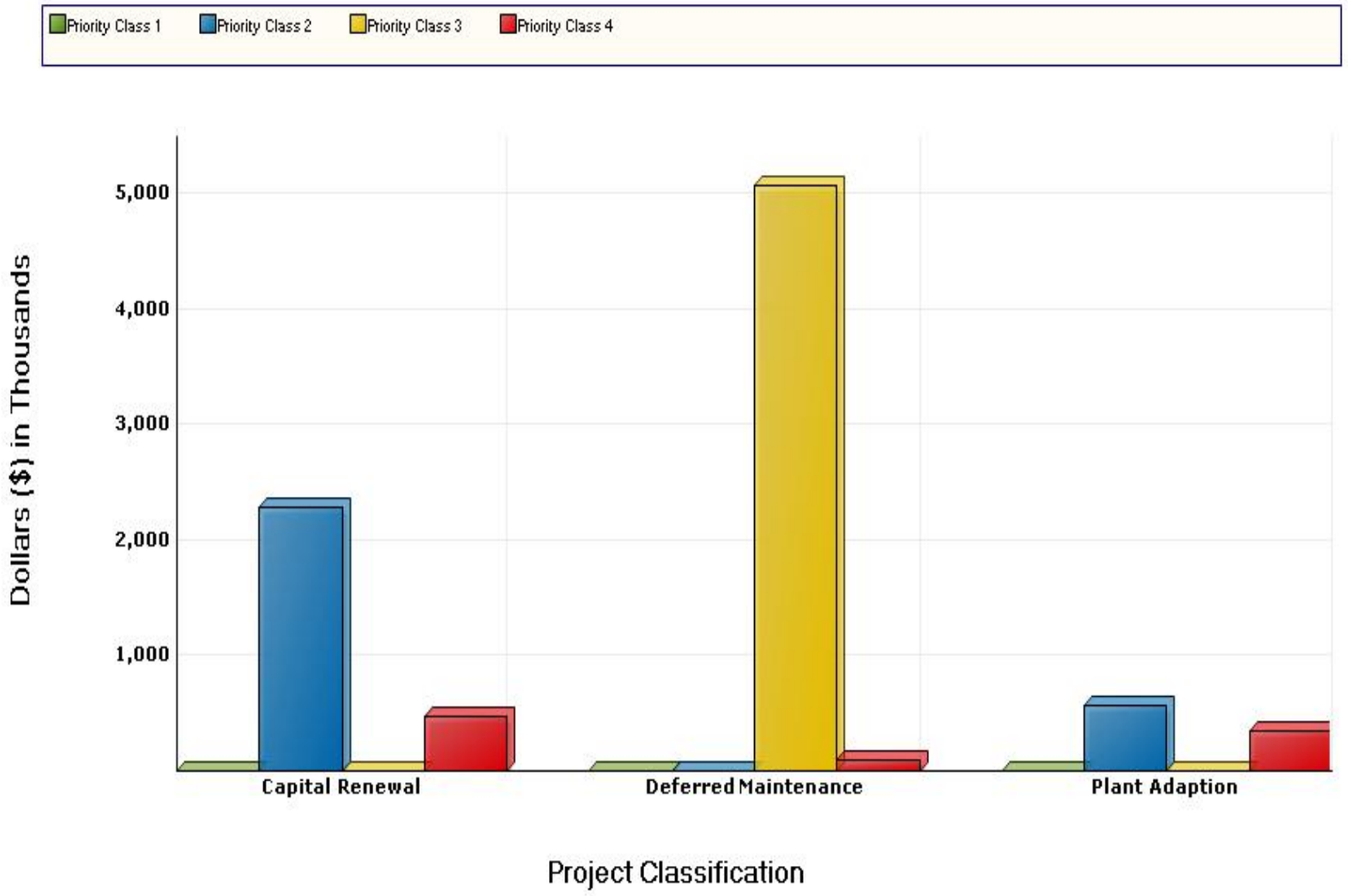
Facility Replacement Cost	$21,112,000
Facility Condition Needs Index	0.42

Gross Square Feet	73,997	**Total Cost Per Square Foot**	$119.53

FACILITY CONDITION ANALYSIS

Project Class by Priority Class

RIVE : RIVERS BUILDING



Detailed Project Summary

Facility Condition Analysis

Priority Class - Priority Sequence

RIVE : RIVERS BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5E	RIVEFS04	1	1	STAIR GUARDRAIL UPGRADES	4,387	702	5,089
FS6A	RIVEFS05	1	2	INSTALL SECURITY GATE AT COURTYARD AREAWAY ENTRANCE	6,677	0	6,677
				Totals for Priority Class 1	**11,063**	**702**	**11,765**
FS3A	RIVEFS02	2	3	FIRE SPRINKLER SYSTEM INSTALLATION	447,140	71,542	518,683
HE6F	RIVEHE01	2	4	INTERIOR ASBESTOS ABATEMENT	41,591	0	41,591
ES5B	RIVEES01	2	5	WINDOW REPLACEMENT	1,970,339	315,254	2,285,594
				Totals for Priority Class 2	**2,459,071**	**386,797**	**2,845,868**
FS1A	RIVEFS03	3	6	REPLACE EXIT SIGNS	4,613	738	5,351
ES2B	RIVEES02	3	7	RESTORE BRICK VENEER	22,548	3,608	26,156
HV3A	RIVEHV01	3	8	HVAC SYSTEM REPLACEMENT	1,999,285	319,886	2,319,170
EL3B	RIVEEL02	3	9	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	870,307	139,249	1,009,556
EL4B	RIVEEL01	3	10	INTERIOR LIGHTING UPGRADE	325,266	52,043	377,309
EL4A	RIVEEL03	3	11	EXTERIOR LIGHTING REPLACEMENT	56,941	9,111	66,051
IS2B	RIVEIS01	3	12	REFINISH WALLS	68,731	10,997	79,728
IS1A	RIVEIS02	3	13	CARPETING UPGRADES	85,022	13,603	98,625
PL1A	RIVEPL01	3	14	WATER SUPPLY PIPING REPLACEMENT	368,655	58,985	427,640
PL2A	RIVEPL02	3	15	DRAIN PIPING REPLACEMENT	560,887	89,742	650,629
PL2B	RIVEPL03	3	16	REPLACE SUMP PUMPS	14,572	2,332	16,903
SI2A	RIVESI01	3	17	LANDSCAPING UPGRADE	3,326	532	3,858
				Totals for Priority Class 3	**4,380,152**	**700,824**	**5,080,976**
FS2A	RIVEFS01	4	18	FIRE ALARM SYSTEM REPLACEMENT	171,092	27,375	198,467
AC2A	RIVEAC01	4	19	EXTERIOR STAIR HANDRAIL ACCESSIBILITY UPGRADES	4,991	799	5,789
AC3C	RIVEAC02	4	20	INSTALL LEVER-ACTION DOOR HARDWARE	95,448	15,272	110,720
AC3B	RIVEAC03	4	21	STAIR HANDRAIL UPGRADES	3,656	0	3,656
AC4B	RIVEAC04	4	22	AUDITORIUM ACCESSIBILITY UPGRADES	2,657	425	3,083
AC4A	RIVEAC05	4	23	UPGRADE MILLWORK ACCESSIBILITY	9,592	1,535	11,126
AC3E	RIVEAC06	4	24	RESTROOM RENOVATION	150,711	24,114	174,824
AC3F	RIVEAC07	4	25	DUAL-LEVEL DRINKING FOUNTAIN INSTALLATION	10,198	1,632	11,830
AC3D	RIVEAC08	4	26	BUILDING SIGNAGE PACKAGE UPGRADE	18,891	3,023	21,914

Detailed Project Summary

Facility Condition Analysis

Priority Class - Priority Sequence

RIVE : RIVERS BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
ES4B	RIVEES03	4	27	BUILT-UP ROOF REPLACEMENT	218,357	34,937	253,295
IS6D	RIVEIS03	4	28	FIXED SEATING UPGRADE	18,395	2,943	21,338
IS3B	RIVEIS04	4	29	REFINISH CEILINGS	77,822	12,452	90,274
				Totals for Priority Class 4	**781,810**	**124,505**	**906,315**
				Grand Total:	**7,632,096**	**1,212,828**	**8,844,923**

Detailed Project Summary

Facility Condition Analysis

Project Cost Range

RIVE : RIVERS BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5E	RIVEFS04	1	1	STAIR GUARDRAIL UPGRADES	4,387	702	5,089
FS6A	RIVEFS05	1	2	INSTALL SECURITY GATE AT COURTYARD AREAWAY ENTRANCE	6,677	0	6,677
				Totals for Priority Class 1	**11,063**	**702**	**11,765**
HE6F	RIVEHE01	2	4	INTERIOR ASBESTOS ABATEMENT	41,591	0	41,591
				Totals for Priority Class 2	**41,591**		**41,591**
FS1A	RIVEFS03	3	6	REPLACE EXIT SIGNS	4,613	738	5,351
EL4A	RIVEEL03	3	11	EXTERIOR LIGHTING REPLACEMENT	56,941	9,111	66,051
PL2B	RIVEPL03	3	16	REPLACE SUMP PUMPS	14,572	2,332	16,903
ES2B	RIVEES02	3	7	RESTORE BRICK VENEER	22,548	3,608	26,156
SI2A	RIVESI01	3	17	LANDSCAPING UPGRADE	3,326	532	3,858
IS2B	RIVEIS01	3	12	REFINISH WALLS	68,731	10,997	79,728
IS1A	RIVEIS02	3	13	CARPETING UPGRADES	85,022	13,603	98,625
				Totals for Priority Class 3	**255,752**	**40,920**	**296,672**
AC2A	RIVEAC01	4	19	EXTERIOR STAIR HANDRAIL ACCESSIBILITY UPGRADES	4,991	799	5,789
AC3B	RIVEAC03	4	21	STAIR HANDRAIL UPGRADES	3,656	0	3,656
AC4B	RIVEAC04	4	22	AUDITORIUM ACCESSIBILITY UPGRADES	2,657	425	3,083
AC4A	RIVEAC05	4	23	UPGRADE MILLWORK ACCESSIBILITY	9,592	1,535	11,126
AC3F	RIVEAC07	4	25	DUAL-LEVEL DRINKING FOUNTAIN INSTALLATION	10,198	1,632	11,830
AC3D	RIVEAC08	4	26	BUILDING SIGNAGE PACKAGE UPGRADE	18,891	3,023	21,914
IS6D	RIVEIS03	4	28	FIXED SEATING UPGRADE	18,395	2,943	21,338
IS3B	RIVEIS04	4	29	REFINISH CEILINGS	77,822	12,452	90,274
				Totals for Priority Class 4	**146,202**	**22,807**	**169,009**
				Grand Totals for Projects < 100,000	**454,608**	**64,430**	**519,038**

Detailed Project Summary

Facility Condition Analysis

Project Cost Range

RIVE : RIVERS BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
EL4B	RIVEEL01	3	10	INTERIOR LIGHTING UPGRADE	325,266	52,043	377,309
PL1A	RIVEPL01	3	14	WATER SUPPLY PIPING REPLACEMENT	368,655	58,985	427,640
				Totals for Priority Class 3	**693,921**	**111,027**	**804,949**
FS2A	RIVEFS01	4	18	FIRE ALARM SYSTEM REPLACEMENT	171,092	27,375	198,467
AC3C	RIVEAC02	4	20	INSTALL LEVER-ACTION DOOR HARDWARE	95,448	15,272	110,720
AC3E	RIVEAC06	4	24	RESTROOM RENOVATION	150,711	24,114	174,824
ES4B	RIVEES03	4	27	BUILT-UP ROOF REPLACEMENT	218,357	34,937	253,295
				Totals for Priority Class 4	**635,608**	**101,697**	**737,305**
				Grand Totals for Projects >= 100,000 and < 500,000	**1,329,530**	**212,725**	**1,542,254**

Detailed Project Summary

Facility Condition Analysis

Project Cost Range

RIVE : RIVERS BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS3A	RIVEFS02	2	3	FIRE SPRINKLER SYSTEM INSTALLATION	447,140	71,542	518,683
ES5B	RIVEES01	2	5	WINDOW REPLACEMENT	1,970,339	315,254	2,285,594
				Totals for Priority Class 2	**2,417,480**	**386,797**	**2,804,277**
HV3A	RIVEHV01	3	8	HVAC SYSTEM REPLACEMENT	1,999,285	319,886	2,319,170
EL3B	RIVEEL02	3	9	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	870,307	139,249	1,009,556
PL2A	RIVEPL02	3	15	DRAIN PIPING REPLACEMENT	560,887	89,742	650,629
				Totals for Priority Class 3	**3,430,478**	**548,877**	**3,979,355**
				Grand Totals for Projects >= 500,000	**5,847,958**	**935,673**	**6,783,632**
				Grand Totals For All Projects:	**7,632,096**	**1,212,828**	**8,844,923**

Detailed Project Summary

Facility Condition Analysis

Project Classification

RIVE : RIVERS BUILDING

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
ES5B	RIVEES01	5	Capital Renewal	2	WINDOW REPLACEMENT	2,285,594
SI2A	RIVESI01	17	Capital Renewal	3	LANDSCAPING UPGRADE	3,858
FS2A	RIVEFS01	18	Capital Renewal	4	FIRE ALARM SYSTEM REPLACEMENT	198,467
ES4B	RIVEES03	27	Capital Renewal	4	BUILT-UP ROOF REPLACEMENT	253,295
IS6D	RIVEIS03	28	Capital Renewal	4	FIXED SEATING UPGRADE	21,338
					Totals for Capital Renewal	**2,762,551**
FS6A	RIVEFS05	2	Deferred Maintenance	1	INSTALL SECURITY GATE AT COURTYARD AREAWAY ENTRANCE	6,677
FS1A	RIVEFS03	6	Deferred Maintenance	3	REPLACE EXIT SIGNS	5,351
ES2B	RIVEES02	7	Deferred Maintenance	3	RESTORE BRICK VENEER	26,156
HV3A	RIVEHV01	8	Deferred Maintenance	3	HVAC SYSTEM REPLACEMENT	2,319,170
EL3B	RIVEEL02	9	Deferred Maintenance	3	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	1,009,556
EL4B	RIVEEL01	10	Deferred Maintenance	3	INTERIOR LIGHTING UPGRADE	377,309
EL4A	RIVEEL03	11	Deferred Maintenance	3	EXTERIOR LIGHTING REPLACEMENT	66,051
IS2B	RIVEIS01	12	Deferred Maintenance	3	REFINISH WALLS	79,728
IS1A	RIVEIS02	13	Deferred Maintenance	3	CARPETING UPGRADES	98,625
PL1A	RIVEPL01	14	Deferred Maintenance	3	WATER SUPPLY PIPING REPLACEMENT	427,640
PL2A	RIVEPL02	15	Deferred Maintenance	3	DRAIN PIPING REPLACEMENT	650,629
PL2B	RIVEPL03	16	Deferred Maintenance	3	REPLACE SUMP PUMPS	16,903
IS3B	RIVEIS04	29	Deferred Maintenance	4	REFINISH CEILINGS	90,274
					Totals for Deferred Maintenance	**5,174,068**
FS5E	RIVEFS04	1	Plant Adaption	1	STAIR GUARDRAIL UPGRADES	5,089
FS3A	RIVEFS02	3	Plant Adaption	2	FIRE SPRINKLER SYSTEM INSTALLATION	518,683
HE6F	RIVEHE01	4	Plant Adaption	2	INTERIOR ASBESTOS ABATEMENT	41,591
AC2A	RIVEAC01	19	Plant Adaption	4	EXTERIOR STAIR HANDRAIL ACCESSIBILITY UPGRADES	5,789
AC3C	RIVEAC02	20	Plant Adaption	4	INSTALL LEVER-ACTION DOOR HARDWARE	110,720
AC3B	RIVEAC03	21	Plant Adaption	4	STAIR HANDRAIL UPGRADES	3,656
AC4B	RIVEAC04	22	Plant Adaption	4	AUDITORIUM ACCESSIBILITY UPGRADES	3,083
AC4A	RIVEAC05	23	Plant Adaption	4	UPGRADE MILLWORK ACCESSIBILITY	11,126
AC3E	RIVEAC06	24	Plant Adaption	4	RESTROOM RENOVATION	174,824

Detailed Project Summary

Facility Condition Analysis

Project Classification

RIVE : RIVERS BUILDING

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
AC3F	RIVEAC07	25	Plant Adaption	4	DUAL-LEVEL DRINKING FOUNTAIN INSTALLATION	11,830
AC3D	RIVEAC08	26	Plant Adaption	4	BUILDING SIGNAGE PACKAGE UPGRADE	21,914
					Totals for Plant Adaption	**908,304**
					Grand Total:	**8,844,923**

Detailed Project Summary

Facility Condition Analysis

Energy Conservation

RIVE : RIVERS BUILDING

Cat Code	Project Number	Pri Cls	Pri Seq	Project Title	Total Cost	Annual Savings	Simple Payback
ES5B	RIVEES01	2	5	WINDOW REPLACEMENT	2,285,594	4,600	496.87
				Totals for Priority Class 2	**2,285,594**	**4,600**	**496.87**
FS1A	RIVEFS03	3	6	REPLACE EXIT SIGNS	5,351	270	19.82
HV3A	RIVEHV01	3	8	HVAC SYSTEM REPLACEMENT	2,319,170	41,890	55.36
EL4B	RIVEEL01	3	10	INTERIOR LIGHTING UPGRADE	377,309	18,050	20.9
EL4A	RIVEEL03	3	11	EXTERIOR LIGHTING REPLACEMENT	66,051	650	101.62
				Totals for Priority Class 3	**2,767,882**	**60,860**	**45.48**
ES4B	RIVEES03	4	27	BUILT-UP ROOF REPLACEMENT	253,295	3,200	79.15
				Totals for Priority Class 4	**253,295**	**3,200**	**79.15**
				Grand Total:	**5,306,770**	**68,660**	**77.29**

Detailed Project Summary

Facility Condition Analysis

Category/System Code

RIVE : RIVERS BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC2A	RIVEAC01	4	19	EXTERIOR STAIR HANDRAIL ACCESSIBILITY UPGRADES	4,991	799	5,789
AC3C	RIVEAC02	4	20	INSTALL LEVER-ACTION DOOR HARDWARE	95,448	15,272	110,720
AC3B	RIVEAC03	4	21	STAIR HANDRAIL UPGRADES	3,656	0	3,656
AC4B	RIVEAC04	4	22	AUDITORIUM ACCESSIBILITY UPGRADES	2,657	425	3,083
AC4A	RIVEAC05	4	23	UPGRADE MILLWORK ACCESSIBILITY	9,592	1,535	11,126
AC3E	RIVEAC06	4	24	RESTROOM RENOVATION	150,711	24,114	174,824
AC3F	RIVEAC07	4	25	DUAL-LEVEL DRINKING FOUNTAIN INSTALLATION	10,198	1,632	11,830
AC3D	RIVEAC08	4	26	BUILDING SIGNAGE PACKAGE UPGRADE	18,891	3,023	21,914
				Totals for System Code: ACCESSIBILITY	**296,143**	**46,798**	**342,941**
EL3B	RIVEEL02	3	9	UPGRADE ELECTRICAL DISTRIBUTION NETWORK	870,307	139,249	1,009,556
EL4B	RIVEEL01	3	10	INTERIOR LIGHTING UPGRADE	325,266	52,043	377,309
EL4A	RIVEEL03	3	11	EXTERIOR LIGHTING REPLACEMENT	56,941	9,111	66,051
				Totals for System Code: ELECTRICAL	**1,252,514**	**200,402**	**1,452,916**
ES5B	RIVEES01	2	5	WINDOW REPLACEMENT	1,970,339	315,254	2,285,594
ES2B	RIVEES02	3	7	RESTORE BRICK VENEER	22,548	3,608	26,156
ES4B	RIVEES03	4	27	BUILT-UP ROOF REPLACEMENT	218,357	34,937	253,295
				Totals for System Code: EXTERIOR	**2,211,245**	**353,799**	**2,565,044**
FS5E	RIVEFS04	1	1	STAIR GUARDRAIL UPGRADES	4,387	702	5,089
FS6A	RIVEFS05	1	2	INSTALL SECURITY GATE AT COURTYARD AREAWAY ENTRANCE	6,677	0	6,677
FS3A	RIVEFS02	2	3	FIRE SPRINKLER SYSTEM INSTALLATION	447,140	71,542	518,683
FS1A	RIVEFS03	3	6	REPLACE EXIT SIGNS	4,613	738	5,351
FS2A	RIVEFS01	4	18	FIRE ALARM SYSTEM REPLACEMENT	171,092	27,375	198,467
				Totals for System Code: FIRE/LIFE SAFETY	**633,909**	**100,357**	**734,266**
HE6F	RIVEHE01	2	4	INTERIOR ASBESTOS ABATEMENT	41,591	0	41,591
				Totals for System Code: HEALTH	**41,591**		**41,591**
HV3A	RIVEHV01	3	8	HVAC SYSTEM REPLACEMENT	1,999,285	319,886	2,319,170
				Totals for System Code: HVAC	**1,999,285**	**319,886**	**2,319,170**
IS2B	RIVEIS01	3	12	REFINISH WALLS	68,731	10,997	79,728
IS1A	RIVEIS02	3	13	CARPETING UPGRADES	85,022	13,603	98,625
IS6D	RIVEIS03	4	28	FIXED SEATING UPGRADE	18,395	2,943	21,338

Detailed Project Summary

Facility Condition Analysis

Category/System Code

RIVE : RIVERS BUILDING

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
IS3B	RIVEIS04	4	29	REFINISH CEILINGS	77,822	12,452	90,274
				Totals for System Code: INTERIOR/FINISH SYS.	**249,970**	**39,995**	**289,965**
PL1A	RIVEPL01	3	14	WATER SUPPLY PIPING REPLACEMENT	368,655	58,985	427,640
PL2A	RIVEPL02	3	15	DRAIN PIPING REPLACEMENT	560,887	89,742	650,629
PL2B	RIVEPL03	3	16	REPLACE SUMP PUMPS	14,572	2,332	16,903
				Totals for System Code: PLUMBING	**944,114**	**151,058**	**1,095,172**
SI2A	RIVESI01	3	17	LANDSCAPING UPGRADE	3,326	532	3,858
				Totals for System Code: SITE	**3,326**	**532**	**3,858**
				Grand Total:	**7,632,096**	**1,212,828**	**8,844,923**

FACILITY CONDITION ANALYSIS

SECTION 3

SPECIFIC PROJECT DETAILS ILLUSTRATING DESCRIPTION / COST

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEFS04	**Title:**	STAIR GUARDRAIL UPGRADES
Priority Sequence:	1		
Priority Class:	1		
Category Code:	FS5E	**System:**	FIRE/LIFE SAFETY
		Component:	EGRESS PATH
		Element:	STAIRS AND RAILING
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		

Code Application:	IBC	1003.3
	ADAAG	505

Project Class:	Plant Adaption
Project Date:	12/8/2009
Project Location:	Item Only: Floor(s) 2

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 painted metal guardrails at the top of the fire exit stairs is too low and lacks 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
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEFS04

Task Cost Estimate

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

Material/Labor Cost		$5,200
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$3,656
General Contractor Mark Up at 20.0%	+	$731
Construction Cost		$4,387
Professional Fees at 16.0%	+	$702
Total Project Cost		**$5,089**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEFS05	**Title:**	INSTALL SECURITY GATE AT COURTYARD AREAWAY ENTRANCE
Priority Sequence:	2		
Priority Class:	1		
Category Code:	FS6A	**System:**	FIRE/LIFE SAFETY
		Component:	GENERAL
		Element:	OTHER
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	12/8/2009		
Project Location:	Item Only: Floor(s) 1		

Project Description

There is a steel grate-covered areaway with steps down to the small central basement. This covered areaway provides a secluded space that can present a danger to some students. A painted steel fence and lockable gate should be installed at the entrance to this potentially dangerous hideaway.

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEFS05

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Painted metal fence, lockable gate, equipment rental, tools, and supplies	LOT	1	$5,000	$5,000	$3,200	$3,200	$8,200
Project Totals:				**$5,000**		**$3,200**	**$8,200**

Material/Labor Cost	$8,200
Material Index	100.7%
Labor Index	51.3%
Material/Labor Indexed Cost	$6,677
No GCM Required	
Construction Cost	$6,677
No Professional Fees Required	
Total Project Cost	**$6,677**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEFS02	**Title:**	FIRE SPRINKLER SYSTEM INSTALLATION
Priority Sequence:	3		
Priority Class:	2		
Category Code:	FS3A	**System:**	FIRE/LIFE SAFETY
		Component:	SUPPRESSION
		Element:	SPRINKLERS
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	NFPA 1, 13, 13R, 101		
Project Class:	Plant Adaption		
Project Date:	11/2/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, B		

Project Description

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

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEFS02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Install a wet-pipe sprinkler system, including valves, piping, sprinkler heads, piping supports, etc.	SF	73,997	$3.08	$227,911	$3.77	$278,969	$506,879
Project Totals:				**$227,911**		**$278,969**	**$506,879**

Material/Labor Cost		$506,879
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$372,617
General Contractor Mark Up at 20.0%	+	$74,523
Construction Cost		$447,140
Professional Fees at 16.0%	+	$71,542
Total Project Cost		**$518,683**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEHE01	**Title:**	INTERIOR ASBESTOS ABATEMENT
Priority Sequence:	4		
Priority Class:	2		
Category Code:	HE6F	**System:**	HEALTH
		Component:	HAZARDOUS MATERIAL
		Element:	OTHER
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		

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

Project Class:	Plant Adaption
Project Date:	12/8/2009
Project Location:	Undefined: Floor(s) 1

Project Description

Suspected asbestos-containing materials (ACM) are believed to be present in the facility, including the piping insulation, spray-on fireproofing, and multiple interior finish systems, especially the applied ceiling finishes. Future renovation efforts will need to include provisions to test and abate any and all ACM.

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEHE01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Extensive asbestos remediation, including above-ceiling fireproofing, floor and wall mastic, and utility insulation	LOT	1	$25,000	$25,000	$32,000	$32,000	$57,000
Project Totals:				**$25,000**		**$32,000**	**$57,000**

Material/Labor Cost	$57,000
Material Index	100.7%
Labor Index	51.3%
Material/Labor Indexed Cost	$41,591
No GCM Required	
Construction Cost	$41,591
No Professional Fees Required	
Total Project Cost	**$41,591**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEES01	**Title:**	WINDOW REPLACEMENT
Priority Sequence:	5		
Priority Class:	2		
Category Code:	ES5B	**System:**	EXTERIOR
		Component:	FENESTRATIONS
		Element:	WINDOWS
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Energy Conservation $4,600		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	12/8/2009		
Project Location:	Building-wide: Floor(s) 1		

Project Description

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

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEES01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Typical standard glazing applications	SF	21,500	$57.27	$1,231,305	$36.45	$783,675	$2,014,980
Project Totals:				**$1,231,305**		**$783,675**	**$2,014,980**

Material/Labor Cost		$2,014,980
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$1,641,949
General Contractor Mark Up at 20.0%	+	$328,390
Construction Cost		$1,970,339
Professional Fees at 16.0%	+	$315,254
Total Project Cost		**$2,285,594**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEFS03	**Title:**	REPLACE EXIT SIGNS
Priority Sequence:	6		
Priority Class:	3		
Category Code:	FS1A	**System:**	FIRE/LIFE SAFETY
		Component:	LIGHTING
		Element:	EGRESS LTG./EXIT SIGNAGE

Building Code:	RIVE	
Building Name:	RIVERS BUILDING	
Subclass/Savings:	Energy Conservation	$270

Code Application:	NFPA	101-47
	IBC	1011

Project Class:	Deferred Maintenance
Project Date:	11/2/2009
Project Location:	Floor-wide: Floor(s) 1, 2, B

Project Description

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

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEFS03

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Replacement of existing exit signs with LED units	EA	32	$76.00	$2,432	$85.00	$2,720	$5,152
Project Totals:				**$2,432**		**$2,720**	**$5,152**

Material/Labor Cost		$5,152
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$3,844
General Contractor Mark Up at 20.0%	+	$769
Construction Cost		$4,613
Professional Fees at 16.0%	+	$738
Total Project Cost		**$5,351**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEES02	**Title:**	RESTORE BRICK VENEER
Priority Sequence:	7		
Priority Class:	3		
Category Code:	ES2B	**System:**	EXTERIOR
		Component:	COLUMNS/BEAMS/WALLS
		Element:	FINISH
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	12/8/2009		
Project Location:	Building-wide: Floor(s) 1		

Project Description

Brick veneer is the primary exterior finish, along with areas of artificial stucco. While the brick is fundamentally sound, exposure to the elements has caused some deterioration of the mortar joints and expansion joints. Cleaning, surface preparation, selective repairs, and applied finish or penetrating sealant upgrades are recommended to restore the aesthetics and integrity of the building envelope. Applied exterior finishes on walls and doors should also be renewed.

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEES02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Cleaning and surface preparation	SF	13,730	$0.11	$1,510	$0.22	$3,021	$4,531
Selective mortar and / or sealant repairs (assumes 10 linear feet for every 100 square feet of envelope)	LF	1,373	$2.45	$3,364	$4.99	$6,851	$10,215
Applied finish or sealant	SF	13,730	$0.22	$3,021	$0.82	$11,259	$14,279
Project Totals:				**$7,895**		**$21,130**	**$29,025**

Material/Labor Cost		$29,025
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$18,790
General Contractor Mark Up at 20.0%	+	$3,758
Construction Cost		$22,548
Professional Fees at 16.0%	+	$3,608
Total Project Cost		**$26,156**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEHV01	**Title:**	HVAC SYSTEM REPLACEMENT
Priority Sequence:	8		
Priority Class:	3		
Category Code:	HV3A	**System:**	HVAC
		Component:	HEATING/COOLING
		Element:	SYSTEM RETROFIT/REPLACE
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Energy Conservation $41,890		
Code Application:	ASHRAE 62-2004		
Project Class:	Deferred Maintenance		
Project Date:	11/2/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, B, 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 four-pipe fan coil units in the private spaces and air handling systems for the corridors and common areas. Outside air should also be delivered to the functional spaces, in accordance with ASHRAE ventilation standards. This work includes new fan coil units, air handlers, exhaust fans, ductwork, terminal units, heat exchangers, pumps, piping, controls, and related electrical components. Specify direct digital controls (DDC) for the new equipment.

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEHV01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Fan coil units, air handlers, exhaust fans, ductwork, piping, pumps, heat exchangers, controls, terminal units, and demolition, and disposal fees	SF	73,997	$13.78	$1,019,679	$16.84	$1,246,109	$2,265,788
Project Totals:				**$1,019,679**		**$1,246,109**	**$2,265,788**

Material/Labor Cost		$2,265,788
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$1,666,071
General Contractor Mark Up at 20.0%	+	$333,214
Construction Cost		$1,999,285
Professional Fees at 16.0%	+	$319,886
Total Project Cost		**$2,319,170**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEEL02	**Title:**	UPGRADE ELECTRICAL DISTRIBUTION NETWORK
Priority Sequence:	9		
Priority Class:	3		
Category Code:	EL3B	**System:**	ELECTRICAL
		Component:	SECONDARY DISTRIBUTION
		Element:	DISTRIBUTION NETWORK
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		

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

Project Class: Deferred Maintenance

Project Date: 11/2/2009

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

Project Description

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

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEEL02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Power panels, conductors, raceways, devices, demolition, and cut and patching materials	SF	73,997	$5.52	$408,463	$8.27	$611,955	$1,020,419
Project Totals:				**$408,463**		**$611,955**	**$1,020,419**

Material/Labor Cost		$1,020,419
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$725,256
General Contractor Mark Up at 20.0%	+	$145,051
Construction Cost		$870,307
Professional Fees at 16.0%	+	$139,249
Total Project Cost		**$1,009,556**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEEL01	**Title:**	INTERIOR LIGHTING UPGRADE
Priority Sequence:	10		
Priority Class:	3		
Category Code:	EL4B	**System:**	ELECTRICAL
		Component:	DEVICES AND FIXTURES
		Element:	INTERIOR LIGHTING
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Energy Conservation $18,050		
Code Application:	NEC Articles 210, 410		
Project Class:	Deferred Maintenance		
Project Date:	11/2/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, B		

Project Description

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

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEEL01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
High efficiency fluorescent fixtures, occupancy sensors, and demolition of existing lighting	SF	58,997	$2.81	$165,782	$3.44	$202,950	$368,731
Project Totals:				**$165,782**		**$202,950**	**$368,731**

Material/Labor Cost		$368,731
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$271,055
General Contractor Mark Up at 20.0%	+	$54,211
Construction Cost		$325,266
Professional Fees at 16.0%	+	$52,043
Total Project Cost		**$377,309**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEEL03	**Title:**	EXTERIOR LIGHTING REPLACEMENT
Priority Sequence:	11		
Priority Class:	3		
Category Code:	EL4A	**System:**	ELECTRICAL
		Component:	DEVICES AND FIXTURES
		Element:	EXTERIOR LIGHTING

Building Code:	RIVE	
Building Name:	RIVERS BUILDING	
Subclass/Savings:	Energy Conservation	$650

Code Application:	NEC	410

Project Class:	Deferred Maintenance
Project Date:	11/2/2009
Project Location:	Building-wide: Floor(s) B,1,2,R

Project Description

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

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEEL03

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
HID wall-mount fixture and demolition of existing fixture	EA	10	$406	$4,060	$190	$1,900	$5,960
Compact fluorescent, recessed exterior light and demolition of existing light	EA	10	$143	$1,430	$100	$1,000	$2,430
Compact fluorescent, wall-mount exterior light and demolition of existing light	EA	10	$131	$1,310	$137	$1,370	$2,680
Replace lighting stanchion, including fixture, 30 foot	EA	4	$2,662	$10,648	$1,996	$7,984	$18,632
Replace lighting stanchion, including fixture, 12 foot	EA	12	$1,331	$15,972	$1,220	$14,640	$30,612
Project Totals:				**$33,420**		**$26,894**	**$60,314**

Material/Labor Cost		$60,314
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$47,451
General Contractor Mark Up at 20.0%	+	$9,490
Construction Cost		$56,941
Professional Fees at 16.0%	+	$9,111
Total Project Cost		**$66,051**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEIS01	**Title:**	REFINISH WALLS
Priority Sequence:	12		
Priority Class:	3		
Category Code:	IS2B	**System:**	INTERIOR/FINISH SYS.
		Component:	PARTITIONS
		Element:	FINISHES
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	12/8/2009		
Project Location:	Floor-wide: Floor(s) 1, 2		

Project Description

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

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEIS01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Standard wall finish (paint, wall covering, etc.)	SF	97,620	$0.17	$16,595	$0.81	$79,072	$95,668
Project Totals:				**$16,595**		**$79,072**	**$95,668**

Material/Labor Cost		$95,668
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$57,276
General Contractor Mark Up at 20.0%	+	$11,455
Construction Cost		$68,731
Professional Fees at 16.0%	+	$10,997
Total Project Cost		**$79,728**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEIS02	**Title:**	CARPETING UPGRADES
Priority Sequence:	13		
Priority Class:	3		
Category Code:	IS1A	**System:**	INTERIOR/FINISH SYS.
		Component:	FLOOR
		Element:	FINISHES-DRY
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	12/8/2009		
Project Location:	Floor-wide: Floor(s) 1, 2		

Project Description

Interior floor finish applications consist mostly of vinyl floor tile, with some carpeting. This carpeting varies in age, type, and condition. Carpeting upgrades should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEIS02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Carpet	SF	11,030	$5.36	$59,121	$2.00	$22,060	$81,181
Project Totals:				**$59,121**		**$22,060**	**$81,181**

Material/Labor Cost		$81,181
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$70,851
General Contractor Mark Up at 20.0%	+	$14,170
Construction Cost		$85,022
Professional Fees at 16.0%	+	$13,603
Total Project Cost		**$98,625**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEPL01	**Title:**	WATER SUPPLY PIPING REPLACEMENT
Priority Sequence:	14		
Priority Class:	3		
Category Code:	PL1A	**System:**	PLUMBING
		Component:	DOMESTIC WATER
		Element:	PIPING NETWORK
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	IPC Chapter 6		
Project Class:	Deferred Maintenance		
Project Date:	11/2/2009		
Project Location:	Floor-wide: Floor(s) 1, 2, B		

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
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEPL01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Copper pipe and fittings, valves, backflow prevention devices, insulation, hangers, demolition, and cut and patching materials	SF	73,997	$1.81	$133,935	$4.54	$335,946	$469,881
Project Totals:				**$133,935**		**$335,946**	**$469,881**

Material/Labor Cost		$469,881
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$307,213
General Contractor Mark Up at 20.0%	+	$61,443
Construction Cost		$368,655
Professional Fees at 16.0%	+	$58,985
Total Project Cost		**$427,640**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEPL02	**Title:**	DRAIN PIPING REPLACEMENT
Priority Sequence:	15		
Priority Class:	3		
Category Code:	PL2A	**System:**	PLUMBING
		Component:	WASTEWATER
		Element:	PIPING NETWORK
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		

Code Application: IPC Chapters 7-11

Project Class: Deferred Maintenance

Project Date: 11/2/2009

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

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.

Project Cost

Project Number: RIVEPL02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Cast-iron drain piping and fittings, copper pipe and fittings, floor / roof drains, traps, hangers, demolition, and cut and patching materials	SF	73,997	$2.89	$213,851	$6.64	$491,340	$705,191
Project Totals:				**$213,851**		**$491,340**	**$705,191**

Material/Labor Cost		$705,191
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$467,406
General Contractor Mark Up at 20.0%	+	$93,481
Construction Cost		$560,887
Professional Fees at 16.0%	+	$89,742
Total Project Cost		**$650,629**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEPL03	**Title:**	REPLACE SUMP PUMPS
Priority Sequence:	16		
Priority Class:	3		
Category Code:	PL2B	**System:**	PLUMBING
		Component:	WASTEWATER
		Element:	PUMPS
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	IPC 712		
Project Class:	Deferred Maintenance		
Project Date:	11/2/2009		
Project Location:	Item Only: Floor(s) B		

Project Description

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

Project Cost

Project Number: RIVEPL03

Task Cost Estimate

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

Material/Labor Cost		$15,120
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$12,143
General Contractor Mark Up at 20.0%	+	$2,429
Construction Cost		$14,572
Professional Fees at 16.0%	+	$2,332
Total Project Cost		**$16,903**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVESI01	**Title:**	LANDSCAPING UPGRADE
Priority Sequence:	17		
Priority Class:	3		
Category Code:	SI2A	**System:**	SITE
		Component:	LANDSCAPE
		Element:	GRADE/FLORA
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	12/8/2009		
Project Location:	Undefined: Floor(s) 1		

Project Description

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

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVESI01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Trees, shrubs, planting soil, amendments, sand, fill, and sod	SF	1,500	$1.04	$1,560	$1.56	$2,340	$3,900
Project Totals:				**$1,560**		**$2,340**	**$3,900**

Material/Labor Cost		$3,900
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$2,771
General Contractor Mark Up at 20.0%	+	$554
Construction Cost		$3,326
Professional Fees at 16.0%	+	$532
Total Project Cost		**$3,858**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEFS01	**Title:**	FIRE ALARM SYSTEM REPLACEMENT
Priority Sequence:	18		
Priority Class:	4		
Category Code:	FS2A	**System:**	FIRE/LIFE SAFETY
		Component:	DETECTION ALARM
		Element:	GENERAL
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		

Code Application:	ADAAG	702.1
	NFPA	1, 101

Project Class:	Capital Renewal
Project Date:	11/2/2009
Project Location:	Floor-wide: Floor(s) 1, 2, B

Project Description

Upgrade the existing fire alarm system with a modern application. Specify a point addressable supervised main fire alarm panel with an annunciator. This work includes pull stations, audible and visible alarms, smoke and heat detectors, and 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
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEFS01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Fire alarm control panel(s), annunciator, smoke and heat detectors, manual pull stations, audible and visual alarms, wiring, raceways, cut and patching materials	SF	73,997	$1.46	$108,036	$0.89	$65,857	$173,893
Project Totals:				**$108,036**		**$65,857**	**$173,893**

Material/Labor Cost		$173,893
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$142,577
General Contractor Mark Up at 20.0%	+	$28,515
Construction Cost		$171,092
Professional Fees at 16.0%	+	$27,375
Total Project Cost		**$198,467**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEAC01	**Title:**	EXTERIOR STAIR HANDRAIL ACCESSIBILITY UPGRADES
Priority Sequence:	19		
Priority Class:	4		
Category Code:	AC2A	**System:**	ACCESSIBILITY
		Component:	BUILDING ENTRY
		Element:	GENERAL
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		

Code Application:	ADAAG	403.6, 505, 410

Project Class:	Plant Adaption
Project Date:	12/8/2009
Project Location:	Item Only: Floor(s) 1

Project Description

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

Project Cost

Project Number: RIVEAC01

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Metal rail extensions, equipment rental, supplies, and paint (2 coats)	LOT	1	$2,500	$2,500	$3,200	$3,200	$5,700
Project Totals:				**$2,500**		**$3,200**	**$5,700**

Material/Labor Cost		$5,700
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$4,159
General Contractor Mark Up at 20.0%	+	$832
Construction Cost		$4,991
Professional Fees at 16.0%	+	$799
Total Project Cost		**$5,789**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEAC02	**Title:**	INSTALL LEVER-ACTION DOOR HARDWARE
Priority Sequence:	20		
Priority Class:	4		
Category Code:	AC3C	**System:**	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	DOORS AND HARDWARE
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		

Code Application:	ADAAG	309.4, 703.1

Project Class:	Plant Adaption
Project Date:	12/8/2009
Project Location:	Floor-wide: Floor(s) 1, 2, B

Project Description

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

Project Cost

Project Number: RIVEAC02

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Lever actuated door hardware	EA	256	$273	$69,888	$69.77	$17,861	$87,749
Project Totals:				**$69,888**		**$17,861**	**$87,749**

Material/Labor Cost		$87,749
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$79,540
General Contractor Mark Up at 20.0%	+	$15,908
Construction Cost		$95,448
Professional Fees at 16.0%	+	$15,272
Total Project Cost		**$110,720**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEAC03	**Title:**	STAIR HANDRAIL UPGRADES
Priority Sequence:	21		
Priority Class:	4		
Category Code:	AC3B	**System:**	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	STAIRS AND RAILINGS
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		

Code Application:	IBC	1003.3
	ADAAG	505

Project Class:	Plant Adaption
Project Date:	12/8/2009
Project Location:	Item Only: Floor(s) 1, 2, B

Project Description

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

Project Cost

Project Number: RIVEAC03

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Metal rail extensions, equipment rental, supplies, paint (2 coats)	LOT	1	$2,000	$2,000	$3,200	$3,200	$5,200
Project Totals:				**$2,000**		**$3,200**	**$5,200**

Material/Labor Cost	$5,200
Material Index	100.7%
Labor Index	51.3%
Material/Labor Indexed Cost	$3,656
No GCM Required	
Construction Cost	$3,656
No Professional Fees Required	
Total Project Cost	**$3,656**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEAC04	**Title:**	AUDITORIUM ACCESSIBILITY UPGRADES
Priority Sequence:	22		
Priority Class:	4		
Category Code:	AC4B	**System:**	ACCESSIBILITY
		Component:	GENERAL
		Element:	OTHER
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		

Code Application: ADAAG 219.3, 706.1, 806

Project Class: Plant Adaption

Project Date: 12/8/2009

Project Location: Room Only: Floor(s) 1

Project Description

Current accessibility legislation requires that places of assembly be accessible to the handicapped. The auditorium does not obviously have an assistive listening system. Install transmitter and headphone receiver sets to accommodate those individuals that require audible assistance.

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEAC04

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Infrared transmitter and headphone receiver sets	SYS	1	$1,520	$1,520	$1,333	$1,333	$2,853
Project Totals:				**$1,520**		**$1,333**	**$2,853**

Material/Labor Cost		$2,853
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$2,214
General Contractor Mark Up at 20.0%	+	$443
Construction Cost		$2,657
Professional Fees at 16.0%	+	$425
Total Project Cost		**$3,083**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEAC05	**Title:**	UPGRADE MILLWORK ACCESSIBILITY
Priority Sequence:	23		
Priority Class:	4		
Category Code:	AC4A	**System:**	ACCESSIBILITY
		Component:	GENERAL
		Element:	FUNCTIONAL SPACE MOD.
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Plant Adaption		
Project Date:	12/8/2009		
Project Location:	Undefined: Floor(s) 1, 2		

Project Description

Cabinetry is in overall fair condition, but lack wheelchair accessibility. New, fully ADA compliant cabinetry should be considered as part of any future renovation efforts.

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEAC05

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Base or wall cabinetry	LF	40	$156	$6,240	$83.30	$3,332	$9,572
Project Totals:				**$6,240**		**$3,332**	**$9,572**

Material/Labor Cost		$9,572
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$7,993
General Contractor Mark Up at 20.0%	+	$1,599
Construction Cost		$9,592
Professional Fees at 16.0%	+	$1,535
Total Project Cost		**$11,126**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEAC06	**Title:**	RESTROOM RENOVATION
Priority Sequence:	24		
Priority Class:	4		
Category Code:	AC3E	**System:**	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	RESTROOMS/BATHROOMS
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		

Code Application:	ADAAG	211, 602, 604, 605, 606, 607, 608

Project Class:	Plant Adaption
Project Date:	12/8/2009
Project Location:	Room Only: Floor(s) 1, 2

Project Description

The restroom fixtures and finishes are mostly original to the year of construction or latest major renovation. The restrooms in this building have aging fixtures and finishes and are not wheelchair accessible. A comprehensive renovation of the 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.

Project Cost

Project Number: RIVEAC06

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Major restroom renovation, including fixtures, finishes, partitions, accessories, and expansion if necessary (assumes 55 square feet of restroom area per fixture)	FIXT	44	$1,969	$86,636	$1,699	$74,756	$161,392
Project Totals:				**$86,636**		**$74,756**	**$161,392**

Material/Labor Cost		$161,392
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$125,592
General Contractor Mark Up at 20.0%	+	$25,118
Construction Cost		$150,711
Professional Fees at 16.0%	+	$24,114
Total Project Cost		**$174,824**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEAC07	**Title:**	DUAL-LEVEL DRINKING FOUNTAIN INSTALLATION
Priority Sequence:	25		
Priority Class:	4		
Category Code:	AC3F	**System:**	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	DRINKING FOUNTAINS
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		

Code Application:	ADAAG	211, 602

Project Class:	Plant Adaption
Project Date:	12/8/2009
Project Location:	Item Only: Floor(s) 1, 2

Project Description

ADA legislation requires that building amenities such as the drinking fountains be generally accessible to all persons. The single-level configuration of most of the drinking fountains is a barrier to wheelchair accessibility. The installation of a dual- level, refrigerated drinking fountain is recommended to replace the existing single-level fountains that are not already dual-level installations.

Project Cost

Project Number: RIVEAC07

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Dual-level drinking fountain	EA	6	$1,216	$7,296	$374	$2,244	$9,540
Project Totals:				**$7,296**		**$2,244**	**$9,540**

Material/Labor Cost		$9,540
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$8,498
General Contractor Mark Up at 20.0%	+	$1,700
Construction Cost		$10,198
Professional Fees at 16.0%	+	$1,632
Total Project Cost		**$11,830**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEAC08	**Title:**	BUILDING SIGNAGE PACKAGE UPGRADE
Priority Sequence:	26		
Priority Class:	4		
Category Code:	AC3D	**System:**	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	SIGNAGE
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		

Code Application: ADAAG 309.4, 703.1

Project Class: Plant Adaption

Project Date: 12/8/2009

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

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
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEAC08

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
ADA compliant signage	EA	256	$53.11	$13,596	$15.62	$3,999	$17,595
Project Totals:				**$13,596**		**$3,999**	**$17,595**

Material/Labor Cost		$17,595
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$15,743
General Contractor Mark Up at 20.0%	+	$3,149
Construction Cost		$18,891
Professional Fees at 16.0%	+	$3,023
Total Project Cost		**$21,914**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEES03	**Title:**	BUILT-UP ROOF REPLACEMENT
Priority Sequence:	27		
Priority Class:	4		
Category Code:	ES4B	**System:**	EXTERIOR
		Component:	ROOF
		Element:	REPLACEMENT
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Energy Conservation $3,200		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	12/8/2009		
Project Location:	Floor-wide: Floor(s) R		

Project Description

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

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEES03

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Built-up roof	SF	37,000	$3.06	$113,220	$3.58	$132,460	$245,680
Project Totals:				**$113,220**		**$132,460**	**$245,680**

Material/Labor Cost		$245,680
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$181,965
General Contractor Mark Up at 20.0%	+	$36,393
Construction Cost		$218,357
Professional Fees at 16.0%	+	$34,937
Total Project Cost		**$253,295**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEIS03	**Title:**	FIXED SEATING UPGRADE
Priority Sequence:	28		
Priority Class:	4		
Category Code:	IS6D	**System:**	INTERIOR/FINISH SYS.
		Component:	GENERAL
		Element:	OTHER
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	12/8/2009		
Project Location:	Room Only: Floor(s) 1		

Project Description

A portion of the fixed, molded plastic seating in the lecture hall can be expected to need to be upgraded within the next eight to ten years. Replace damaged seating with new molded plastic, fixed seats in a similar row configuration. Ensure that ADA requirements are followed with the new seating layout.

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEIS03

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Basic, upholstered, folding, and fixed seating	EA	75	$160	$12,000	$84.35	$6,326	$18,326
Project Totals:				**$12,000**		**$6,326**	**$18,326**

Material/Labor Cost		$18,326
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$15,329
General Contractor Mark Up at 20.0%	+	$3,066
Construction Cost		$18,395
Professional Fees at 16.0%	+	$2,943
Total Project Cost		**$21,338**

Specific Project Details

Facility Condition Analysis
Section Three
RIVE : RIVERS BUILDING

Project Description

Project Number:	RIVEIS04	**Title:**	REFINISH CEILINGS
Priority Sequence:	29		
Priority Class:	4		
Category Code:	IS3B	**System:**	INTERIOR/FINISH SYS.
		Component:	CEILINGS
		Element:	REPLACEMENT
Building Code:	RIVE		
Building Name:	RIVERS BUILDING		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	12/8/2009		
Project Location:	Floor-wide: Floor(s) 1, 2		

Project Description

Ceiling finish applications vary in age, type, and condition, but consist mostly of paint with large areas of lay-in tile. 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
RIVE : RIVERS BUILDING

Project Cost

Project Number: RIVEIS04

Task Cost Estimate

Task Description	Unit	Qnty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Acoustical tile ceiling system	SF	11,560	$2.12	$24,507	$2.98	$34,449	$58,956
Painted ceiling finish application	SF	38,350	$0.17	$6,520	$0.81	$31,064	$37,583
Project Totals:				**$31,027**		**$65,512**	**$96,539**

Material/Labor Cost		$96,539
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		$64,852
General Contractor Mark Up at 20.0%	+	$12,970
Construction Cost		$77,822
Professional Fees at 16.0%	+	$12,452
Total Project Cost		**$90,274**

FACILITY CONDITION ANALYSIS

SECTION 4

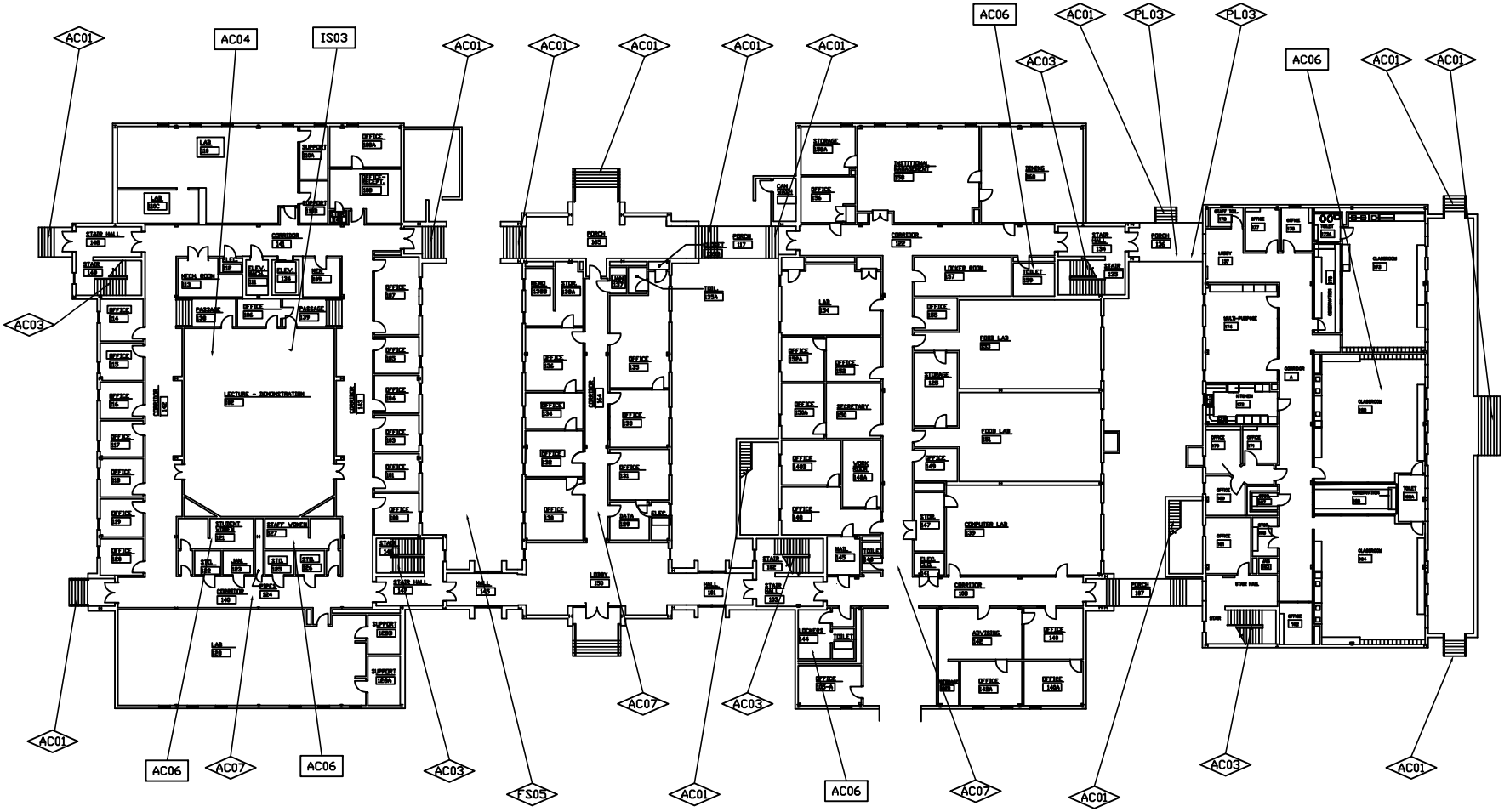
DRAWINGS AND PROJECT LOCATIONS

EAST CAROLINA UNIVERSITY

RIVERS
BUILDING

BLDG NO. RIVE

BASEMENT



AC05 HE01 SI01 EL03 ES01 ES02

AC02 AC08 EL01 EL02 FS01 FS02

FS03 HV01 IS01 IS02 IS04 PL01

PL02

BASEMENT

AC02 AC08 EL01 EL02 FS01 FS02

FS03 HV01 PL01 PL02

N

ISES CORPORATION

FACILITY
CONDITION
ANALYSIS

2165 West Park Court
Suite N
Stone Mountain GA 30087
770.879.7376

PROJECT NUMBER APPLIES TO ONE ROOM ONLY

PROJECT NUMBER APPLIES TO ONE ITEM ONLY

PROJECT NUMBER APPLIES TO ENTIRE BUILDING

PROJECT NUMBER APPLIES TO ENTIRE FLOOR

PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS

PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 12/17/09
Drawn by: J.T.V.
Project No. 09-041

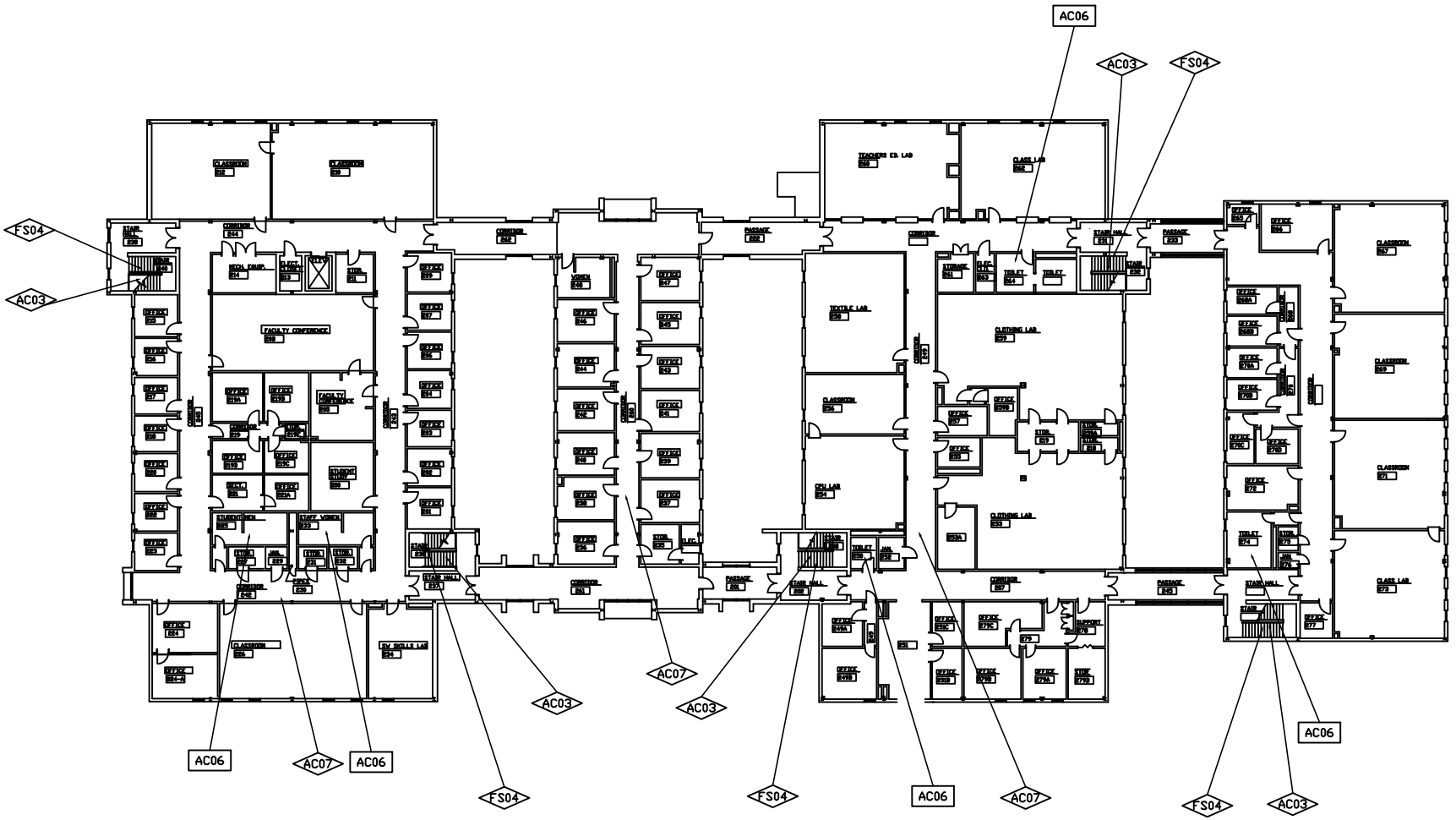
FIRST
FLOOR
PLAN

Sheet No.
1 of 2

EAST CAROLINA UNIVERSITY

ROOF

ES03 HV01



AC05

AC02 AC08 EL01 EL02 FS01 FS02

FS03 HV01 IS01 IS02 IS04 PL01

PL02

RIVERS
BUILDING

BLDG NO. RIVE

ISES CORPORATION

FACILITY
CONDITION
ANALYSIS

2165 West Park Court
Suite N
Stone Mountain GA 30087
770.879.7376

PROJECT NUMBER APPLIES TO ONE ROOM ONLY

PROJECT NUMBER APPLIES TO ONE ITEM ONLY

PROJECT NUMBER APPLIES TO ENTIRE BUILDING

PROJECT NUMBER APPLIES TO ENTIRE FLOOR

PROJECT NUMBER APPLIES TO A SITUATION OF UNDEFINED EXTENTS

PROJECT NUMBER APPLIES TO AREA AS NOTED

Date: 12/17/09
Drawn by: J.T.V.
Project No. 09-041

SECOND
FLOOR
PLAN

Sheet No.
2 of 2

FACILITY CONDITION ANALYSIS

SECTION 5

LIFE CYCLE MODEL SUMMARY AND PROJECTIONS

Life Cycle Model
Building Component Summary
RIVE : RIVERS BUILDING

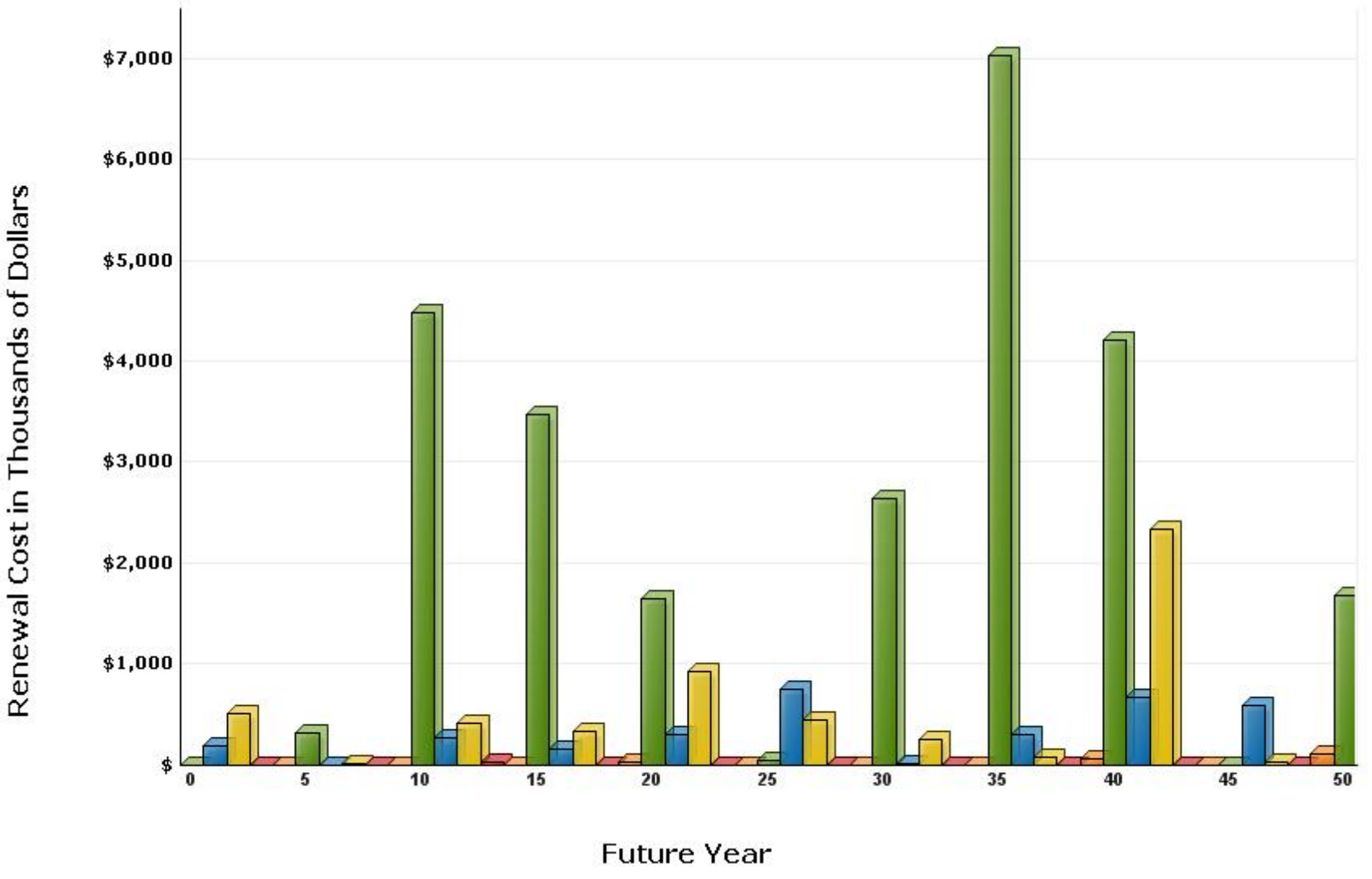
Uniformat Code	Component Description	Qty	Units	Unit Cost	Complx Adj	Total Cost	Install Date	Life Exp
B2010	EXTERIOR FINISH RENEWAL	920	SF	$1.30		$1,199	1968	10
B2010	EXTERIOR FINISH RENEWAL	13,730	SF	$1.30	.31	$5,548	1968	10
B2010	EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS)	3,660	SF	$12.01		$43,949	1968	45
B2020	STANDARD GLAZING AND CURTAIN WALL	21,500	SF	$104.04		$2,236,787	1968	55
B2020	STANDARD GLAZING AND CURTAIN WALL	3,790	SF	$104.04		$394,299	2004	55
B2030	HIGH TRAFFIC EXTERIOR DOOR SYSTEM	20	LEAF	$4,311.24		$86,225	1990	20
B2030	LOW TRAFFIC EXTERIOR DOOR SYSTEM	4	LEAF	$2,863.29		$11,453	1990	40
B3010	BUILT-UP ROOF	37,000	SF	$6.70		$247,997	1990	20
C1020	STANDARD DOOR AND FRAME INCLUDING HARDWARE	256	LEAF	$783.68		$200,622	1990	35
C1020	INTERIOR DOOR HARDWARE	256	EA	$423.04		$108,299	1990	15
C3010	STANDARD WALL FINISH (PAINT, WALL COVERING, ETC.)	97,620	SF	$0.80		$78,198	1968	10
C3020	CARPET	11,030	SF	$8.75		$96,473	1990	10
C3020	VINYL FLOOR TILE	33,620	SF	$6.59		$221,484	1968	15
C3020	CERAMIC FLOOR TILE	7,880	SF	$17.36		$136,816	1968	20
C3030	ACOUSTICAL TILE CEILING SYSTEM	11,560	SF	$4.99		$57,719	1990	15
C3030	PAINTED CEILING FINISH APPLICATION	38,350	SF	$0.80		$30,720	1990	15
D1010	ELEVATOR MODERNIZATION - HYDRAULIC	1	EA	$158,628.64		$158,629	2009	25
D1010	ELEVATOR CAB RENOVATION - PASSENGER	1	EA	$26,616.80		$26,617	2009	12
D2010	PLUMBING FIXTURES - CLASSROOM / ACADEMIC	73,997	SF	$7.96		$588,823	1968	35
D2020	WATER PIPING - CLASSROOM / ACADEMIC	73,997	SF	$5.66		$419,027	1968	35
D2020	WATER HEATER (RES., GAS)	75	GAL	$68.06		$5,105	1999	10
D2020	WATER HEATER (COMMERCIAL, ELECTRIC)	100	GAL	$144.38		$14,438	2007	20
D2030	DRAIN PIPING - CLASSROOM / ACADEMIC	73,997	SF	$8.60		$636,006	1968	40
D2030	SUMP PUMP SYS (2 PUMPS, CONTROLS)	2	SYS	$8,276.49		$16,553	1968	20
D3040	CONDENSATE RECEIVER	1	SYS	$9,504.01		$9,504	1968	15
D3040	EXHAUST FAN - CENTRIFUGAL ROOF EXHAUSTER OR SIMILAR	15	EA	$2,768.62		$41,529	1968	20
D3040	EXHAUST FAN - CENTRIFUGAL ROOF EXHAUSTER OR SIMILAR	3	EA	$2,768.62		$8,306	2008	20
D3040	EXHAUST FAN - UTILITY SET OR SIMILAR	1	EA	$3,660.81		$3,661	2007	20
D3040	HVAC SYSTEM - CLASSROOM / ACADEMIC	73,997	SF	$30.67		$2,269,459	1968	25

Life Cycle Model
Building Component Summary
RIVE : RIVERS BUILDING

Uniformat Code	Component Description	Qty	Units	Unit Cost	Complx Adj	Total Cost	Install Date	Life Exp
D3050	SPLIT DX SYSTEM	2	TON	$2,143.89		$4,288	1984	15
D5010	ELECTRICAL SYSTEM - CLASSROOM / ACADEMIC	73,997	SF	$13.35		$987,801	1968	50
D5010	TRANSFORMER, DRY, 480-208V (30-150 KVA)	262	KVA	$96.00		$25,151	1968	30
D5020	EXIT SIGNS (CENTRAL POWER)	32	EA	$163.78		$5,241	1984	20
D5020	EXTERIOR LIGHT (HID)	10	EA	$689.58		$6,896	1975	20
D5020	LIGHTING - CLASSROOM / ACADEMIC	58,997	SF	$6.26		$369,183	1968	20
D5020	LIGHTING - CLASSROOM / ACADEMIC	15,000	SF	$6.26		$93,865	2004	20
D5030	FIRE ALARM SYSTEM, POINT ADDRESSABLE	73,997	SF	$2.61		$193,472	2004	15
D5040	GENERATOR, DIESEL (200-500 KW)	400	KW	$377.78		$151,113	2004	25
E2010	STANDARD BASE OR WALL CABINETRY	40	LF	$272.50		$10,900	1990	20
E2010	BASIC FOLDING FIXED SEATING	130	EA	$278.95		$36,263	1990	20
						$10,039,616		

Life Cycle Model Expenditure Projections

RIVE : RIVERS BUILDING



Average Annual Renewal Cost Per SqFt $4.35

FACILITY CONDITION ANALYSIS

SECTION 6

PHOTOGRAPHIC LOG

Photo Log - Facility Condition Analysis

RIVE : RIVERS BUILDING

Photo ID No	Description	Location	Date
RIVE001a	Void	Void	9/1/2009
RIVE001e	Utility exhaust blower, centrifugal roof exhauster	Roof, northeast corner	9/1/2009
RIVE002a	Deteriorating section of fascia, south facade, wing 2	Exterior detail	9/1/2009
RIVE002e	Centrifugal roof exhauster	Roof, northwest corner	9/1/2009
RIVE003a	View looking northeast across east wing roof	Roof	9/1/2009
RIVE003e	Carrier package unit, hot / chill water coils, 100% outside air	Roof, southwest corner	9/1/2009
RIVE004a	View looking east into courtyard between sections 3 and 4 of east wing	Exterior elevation	9/1/2009
RIVE004e	Air-cooled condenser, 1 1/2 tons	Roof, southwest corner	9/1/2009
RIVE005a	View looking west between sections 3 and 4, east wing	Exterior elevation	9/1/2009
RIVE005e	General Electric distribution equipment	Second floor, southwest electrical closet	9/1/2009
RIVE006a	Painted metal handrail lacking recommended end geometry, painted metal guardrail that is too low and lacks sufficient infill	Second floor, southwest stair	9/1/2009
RIVE006e	Recessed, fluorescent fixtures, T-12 lamps	Second floor, hallway	9/1/2009
RIVE007a	Single-level drinking fountain	Second floor, section 2, central corridor	9/1/2009
RIVE007e	Battery backup emergency and exit lighting	Second floor, hallway	9/1/2009
RIVE008a	Lack of wheelchair access to sink	Second floor, break room 205	9/1/2009
RIVE008e	45 kVA, 480/277V pri, 120/208V volt sec, dry-type transformer	Second floor, southwest electrical closet	9/1/2009
RIVE009a	Lack of headroom beneath stair stringer	First floor, northwest stair, section 2	9/1/2009
RIVE009e	Wall mount janitor's sink	Second floor, janitor's closet	9/1/2009
RIVE010a	Typical cooking area, central island	First floor, kitchen 158	9/1/2009
RIVE010e	Two drinking fountains, high / low mounting	Second floor, hallway	9/1/2009
RIVE011a	Hobart dishwasher	First floor, kitchen 158	9/1/2009
RIVE011e	Air handler, multi-zone, chill / hot water coils	First floor, mechanical room, south	9/1/2009
RIVE012a	Painted metal guardrail system that is too low and lacks sufficient infill	East courtyard connector, section 1 and section 2	9/1/2009
RIVE012e	Cast-iron, bell-and-spigot, sanitary sewer piping	First floor, pipe chase	9/1/2009
RIVE013a	East facade, section 1	Exterior elevation	9/1/2009
RIVE013e	Air handler, multi-zone, chill / hot water coils	First floor, mechanical room, north	9/1/2009
RIVE014a	East facade, section 2	Exterior elevation	9/1/2009

Photo Log - Facility Condition Analysis

RIVE : RIVERS BUILDING

Photo ID No	Description	Location	Date
RIVE014e	Air handler, multi-zone, chill / hot water coils	First floor, mechanical room, east	9/1/2009
RIVE015a	East facade, section 3	Exterior elevation	9/1/2009
RIVE015e	Simplex fire alarm control panel	First floor lobby, Rivers Addition	9/1/2009
RIVE016a	View of southeast corner, section 4	Exterior elevation	9/1/2009
RIVE016e	Air handler, multi-zone, chill / hot water coils	Basement, mechanical room, north	9/1/2009
RIVE017a	Deteriorating joint sealant near northeast corner, section 3, south end of bridge to 4	Exterior detail	9/1/2009
RIVE017e	Domestic electric hot water heaters	Basement, mechanical room, north	9/1/2009
RIVE018a	Rusting painted metal guardrail that is too low and lacks sufficient infill, and painted metal handrail beyond lacking recommended end geometry, north courtyard, west end	Exterior detail	9/1/2009
RIVE018e	Duplex ground water sump pumps	Basement, mechanical room, south	9/1/2009
RIVE019a	View looking southwest along east facade	Exterior elevation	9/1/2009
RIVE019e	Air handler, multi-zone, chill / hot water coils	Basement, mechanical room, south	9/1/2009
RIVE020a	View looking southwest along north facade	Exterior elevation	9/1/2009
RIVE020e	Duplex ground water sump pumps	Basement, mechanical room, south	9/1/2009
RIVE021a	View of northwest corner, section 4	Exterior elevation	9/1/2009
RIVE021e	General Electric distribution panel	First floor, hallway	9/1/2009
RIVE022a	View looking southeast along west facade, west wing	Exterior elevation	9/1/2009
RIVE022e	Fluorescent T-12 light fixture	First floor, electric closet, north	9/1/2009
RIVE023a	View looking northeast along south facade, east wing	Exterior elevation	9/1/2009
RIVE023e	Fan coil unit	First, stairwell, northeast	9/1/2009
RIVE024e	Ventilation fan	First floor, telecommunication room	9/1/2009
RIVE025e	Fire alarm junction box	Basement, mechanical room, south	9/1/2009
RIVE026e	Electrical distribution panels, old / new	Basement, mechanical room, south	9/1/2009
RIVE027e	Air handler, multi-zone, chill / hot water coils	Basement, mechanical room, south	9/1/2009
RIVE028e	Incoming domestic water supply / manifold	Basement, mechanical room, south	9/1/2009
RIVE029e	Air handler, multi-zone, chill / hot water coils, AHU-1	Basement, mechanical room, south	9/1/2009

Photo Log - Facility Condition Analysis

RIVE : RIVERS BUILDING

Photo ID No	Description	Location	Date
RIVE030e	Air handler, multi-zone, chill / hot water coils, AHU-2	Basement, mechanical room, south	9/1/2009
RIVE031e	HID wall pack	Outside basement mechanical room	9/1/2009
RIVE032e	HVAC air louver	Outside basement mechanical room	9/1/2009
RIVE033e	30 foot HID pole lights	Southside of facility	9/1/2009
RIVE034e	12 foot HID pole lights	East side of facility	9/1/2009
RIVE035e	6 foot HID pole lights	Southside of facility	9/1/2009
RIVE036e	Duplex condensate receiver	Outside basement mechanical room	9/1/2009

RIVE001E.jpg

RIVE002A.jpg

RIVE002E.jpg

RIVE003A.jpg

RIVE003E.jpg

RIVE004A.jpg

RIVE004E.jpg

RIVE005A.jpg

RIVE005E.jpg

RIVE006A.jpg

RIVE006E.jpg

RIVE007A.jpg

RIVE007E.jpg

RIVE008A.jpg

RIVE008E.jpg

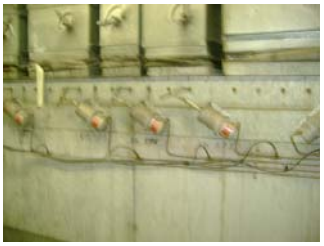
RIVE009A.jpg

RIVE009E.jpg

RIVE010A.jpg

RIVE010E.jpg

RIVE011A.jpg



RIVE011E.jpg

RIVE012A.jpg

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RIVE013A.jpg

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