

EAST CAROLINA UNIVERSITY

TODD DINING HALL

ASSET CODE: TODD

FACILITY CONDITION ANALYSIS

DECEMBER 18, 2009



EAST CAROLINA UNIVERSITY
Facility Condition Analysis

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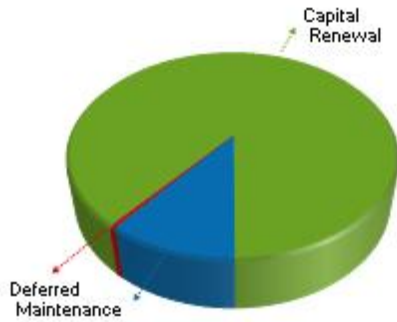
FACILITY CONDITION ANALYSIS

SECTION 1

GENERAL ASSET INFORMATION

EXECUTIVE SUMMARY - TODD DINING HALL

PROJECT COSTS BY CLASSIFICATION



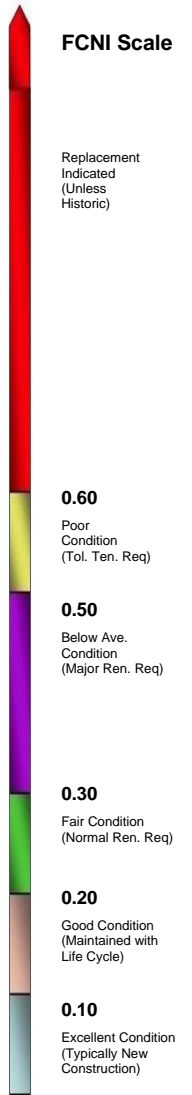
Building Code: TODD
Building Name: TODD DINING HALL
Year Built: 1994
Building Use: Food Service / Dining
Square Feet: 35,000

Project Costs by Priority

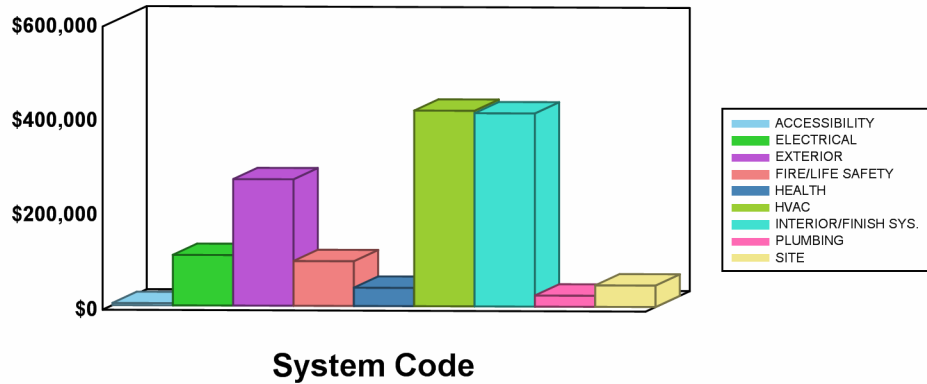
Priority 1: \$1,007
Priority 2: \$4,708
Priority 3: \$1,242,305
Priority 4: \$158,341
Total Project Costs: \$1,406,360

Facility Replacement Cost: \$10,773,000

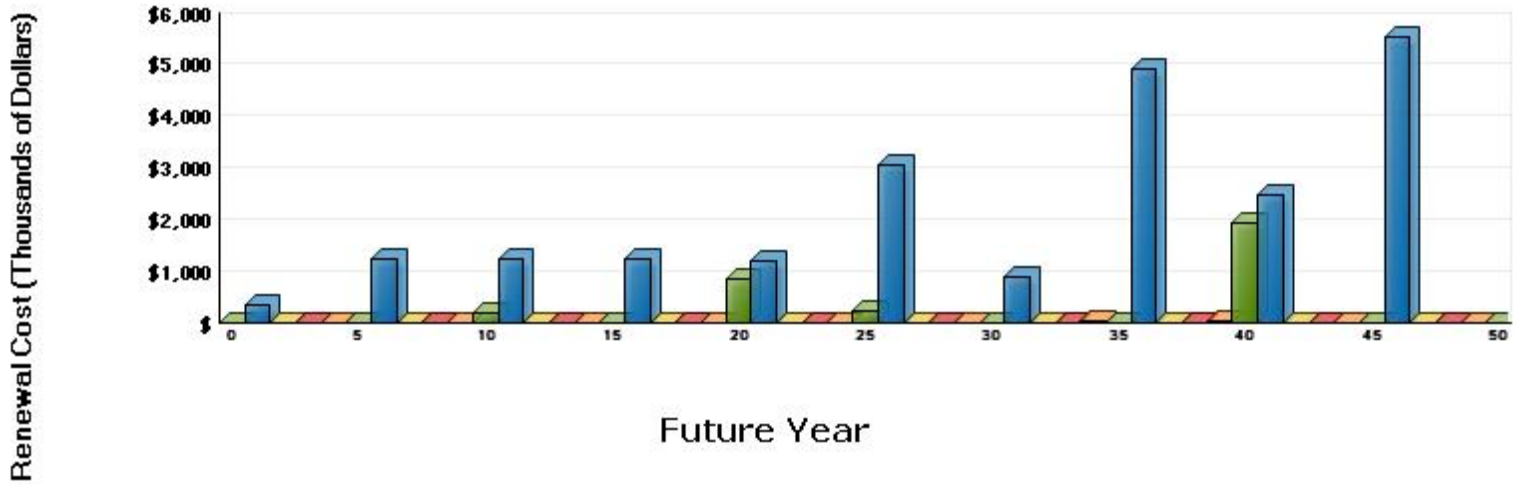
Facility Condition Needs Index (FCNI): 0.13
 (Project Costs / Replacement Cost)



PROJECT COSTS BY SYSTEM CODE



LIFE CYCLE MODEL EXPENDITURE PROJECTIONS



Average Annual Renewal Cost Per SqFt \$6.10

B. ASSET SUMMARY

The Todd Dining Hall building, located on the campus of East Carolina University in Greenville, North Carolina, was reportedly constructed in 1994 with some subsequent interior renovations, the most recently completed in 2008. This building is located in the central main campus area and supports six adjacent residential dormitory buildings. The modern styled building, with several raised cupolas providing clerestory daylighting, includes a facade with brick masonry and ornamental architectural concrete panels, quoins, and window header and sills. This single purpose building contains approximately 35,000 square feet of area on one floor level providing a main kitchen, multiple service lines, and dining rooms. The reinforced cast-in-place concrete foundation supports a structural steel superstructure. The primary floor systems are slab on grade concrete with minor mechanical penthouse areas with corrugated metal deck and cast-in-place concrete applications.

Information for this report was gathered during a site inspection that concluded on September 14, 2009.

SITE

The building sits on a sloped parcel of land in a wooded campus setting. The landscaping consists of ornamental planting beds, shrubbery, specimen trees, and areas of turf. Vehicular service access is from the south and leads to an outdoor service and utility court with concrete pavement at the rear of the building. The building has no designated parking areas other than for Accessibility and service personnel. The concrete sidewalks provide access to all primary building entries.

The site drainage system on the north side of the building is inadequate and has resulted in soil erosion and loss of landscape materials making repairs and replacements necessary. The existing in-ground irrigation system appears to be damaged and is not fully operational. Repairs and replacements are also recommended to assure a fully functioning site irrigation system.

The concrete vehicular paving systems at the service court are in overall good condition. However, they will need minor repairs and joint maintenance within the purview of this assessment to maintain full long term serviceability.

EXTERIOR STRUCTURE

Brick masonry veneer is the primary exterior finish, with additional architectural precast and stucco applications. While the exterior facades are fundamentally sound, exposure to the elements has stained most areas and 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.

Replacements are recommended for some of the exterior entry and service door systems that are showing signs of deterioration. This effort includes the primary and secondary entrance and service doors. The replacement units should maintain the architectural design aspects of this facility and be modern, energy-efficient applications that will protect the interior of the building from the elements.

It is recommended that the fixed, single-pane, aluminum-framed window applications be upgraded to thermal-pane systems. Such double-pane systems will reduce the energy required to operate the building. Repair or replacement of the windowsills and trim may also be necessary.

The pitched roofs at the cupolas include multiple levels covered in a ridged clay tile shingle system with copper flashings. This system is currently in relatively good condition and expected to perform consistent with its typical life cycle performance through the end of the current review period. However, the main roof level single-ply membrane 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. Interim inspections and routine maintenance of flashings, parapets, sealants and other components on all the roofs will be required to achieve the full effective useful life of these roofing systems.

INTERIOR FINISHES / SYSTEMS

The interior ceiling, wall, and floor finish applications vary in age, type, and condition. The predominant interior finish systems include suspended, acoustical tile ceilings, painted gypsum board ceilings, painted walls, exposed brick masonry walls, wood paneling, ceramic tile walls and wainscoting, vinyl flooring tiles, ceramic /porcelain floor tiles and carpeting. Ongoing finish renewals based on effective useful life cycles are necessary to maintain a quality institutional interior building environment. Finish upgrades to all these systems should be considered as part of any future cosmetic improvements or major comprehensive renovation efforts.

The main entry lobby / reception area public restroom fixtures and finishes are mostly original to the year of construction. The fixtures are sound but aged and inefficient, and the finishes are outdated. A comprehensive restroom renovation including new fixtures, finishes, partitions, accessories and the installation of an adjacent drinking fountain is recommended.

The interior doors in this building are typically solid core, stained / painted wood in painted, hollow metal frames and are equipped with upgraded hardware, including ADA-compliant lever action locksets that are in good working order and appearance. No upgrades are necessary to the interior doors.

ACCESSIBILITY

The primary building entrance provides compliant grade-level access into the building's main lobby area. The entry door hardware and power-assisted opening devices at the primary entrance provide suitable access to the building's main internal circulation lobby. The publicly accessible restroom facilities located on each floor are generally compliant with current ADA accessibility standards, providing adequate wheelchair maneuvering areas, room layout, and entry doors. However, finish upgrades will be required. The drinking fountains located throughout the building are also generally compliant with ADA accessibility standards, providing dual height fountains for public accommodation.

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

HEALTH

The walk-in coolers / freezers are in service to support the needs of the food service facilities in this building. The mechanical systems serving these facilities are currently in good condition. However, it should be anticipated that the compressors and evaporators will require replacement. The six compressors by the loading dock and the associated evaporator systems should be considered for replacement late in the period of this report.

FIRE / LIFE SAFETY

This facility appears to have adequate and reasonable egress paths consistent with its age and compliance with building codes at the time of construction / renovation. No apparent building egress deficiencies, obstructed egress pathways, or visible compromises to fire rated assemblies in the egress corridors were observed during the limited on-site review of the building with one exception. The south egress corridor from the main kitchen should be constantly monitored for obstructions and stored materials as the new interior service lane configurations have made this corridor a primary egress route from the building.

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

This facility is protected by a central fire alarm system. The point addressable panel was manufactured by Notifier and is located in Reception area 103. This panel has been discontinued by the manufacturer. The devices that serve this system include manual pull stations, audible / visible devices, and smoke detectors. There are no strobe devices mounted in the restrooms as required by present codes. Replacement and update of the system is recommended, and should include extension of present visible strobe coverage to include the restrooms.

This facility is protected by an automatic wet-pipe sprinkler system with a mix sprinkler heads. This system is adequate and in good condition. With proper testing and maintenance, the fire suppression system will outlast the scope of this report.

The exit signs in this facility are LED-illuminated and connected to the emergency power network. Emergency egress lighting is provided by standard interior light fixtures that are also connected to the emergency network. All the emergency lighting systems are adequate and in good condition. No upgrades are recommended within the timeframe covered by this report.

HVAC

The HVAC system for the building uses campus steam, locally generated chilled water, DX cooling, and electric resistance heating as energy sources for the air supply, delivery, and exhaust systems in the building. A local, air-cooled chiller generates chilled water for building cooling. This unit is of 227 tons capacity, and was manufactured in 2008 by York. It includes very recent technology for chillers, such as variable speed drives. This chiller is in new condition and, with normal maintenance, should provide good service beyond the term of this report.

There are six major air handlers, consisting of three Trane Climate Changers in the north mechanical room, two in the south, and a new 40 ton, Carrier unit on the roof just north of the upper portion of the private dining room. Additional conditioned air sources include an older 4 ton, Carrier, rooftop unit manufactured in 1999; a 36 ton, Desert Aire split system make-up air unit manufactured in 2003, and a 3 ton, ductless Mitsubishi air conditioner that serves data room 150. All of the air handlers are equipped with heating and cooling coils. They are supported with heating media from the steam-powered heat exchanger in the south mechanical room and cooling media from the York chiller located at the southwest corner of the loading dock apron area. Heating and cooling media consists of hot water and chilled water glycol solutions, respectively. The rooftop unit, the Desert Aire make-up air unit, and the Mitsubishi ductless unit all use DX cooling. Heat rejection for the Desert Air unit is provided by an air-cooled condenser located on the roof a few feet away.

In addition to these systems, there are ten kitchen exhaust and make-up air systems, eight of which are equipped with natural gas heating. Approximately ten roof-mounted centrifugal exhaust fans serve the restrooms and other areas.

The south mechanical room houses the steam-powered, shell-and-tube converter used to produce the heating hot water / glycol solution and the duplex condensate pump. These systems are original 1994 vintage equipment.

Most of the major HVAC equipment items discussed were installed in 2003 or later, and are not expected to require replacement during the period of this report. The remaining items are presently in good condition, with projected replacement needs based primarily on normal expected service lives tempered by judgment and any special conditions noted during the inspection. Upgrades proposed for the period of this report include replacement of the 4-ton, Carrier rooftop unit, the Mitsubishi, ductless unit, the shell-and-tube heat exchanger, and the duplex condensate pump system. The centrifugal exhaust fans and gas-fired make-up air units are expected to be sustained through most or all of the period through normal maintenance and component replacements, but are likely to become increasingly maintenance intensive in the later years. It would be prudent to include replacement of these units at that time in current budget projections.

ELECTRICAL

A 750 kVA, oil-filled transformer provides incoming power at 277/480 volts. The 277/480 volt power is supplied to switchgear that is rated for 1,200 amp service and was manufactured by General Electric. The distribution network in this facility is of a dual voltage configuration. The lighting and major mechanical systems are supported by the 277/480 volt circuit. The panels were manufactured predominantly by General Electric. A 300 kVA, GE transformer steps the power down to 120/208 volts. A 1,000 amp switchboard manufactured by General Electric distributes the 120/208 volt power. All of the main electrical distribution system components are serviceable, and will likely remain so throughout the scope of this report.

Normal wear and tear to electrical distribution network components will require comprehensive, minor repairs during the period of this report. Such remedies include, but are not limited to, installing additional circuits, replacing worn switches and receptacles, replacing circuit breakers, and updating panel directories.

The newly renovated areas of the building employ a variety of energy-efficient lighting fixtures, including recessed, compact fluorescent lights (CFLs) and a number of decorative types and chandeliers. Non-renovated spaces are typically illuminated by fixtures that use T8 and T12 fluorescent lamps. The fixtures are predominantly lay-in types with acrylic lenses. The lenses are generally aged and present a dim and

sometimes non-uniform appearance. Most fixtures will require new ballasts during the period of the report. In lieu of such replacements, however, it is recommended that the labor and material costs be applied to new fixtures. Specify energy-efficient light fixtures, and install occupancy sensors where possible.

The exterior areas adjacent to the building are illuminated by building-mounted HID fixtures. These exterior light fixtures are currently in good condition but are likely to need replacement during the period of this report due to predictable wear. However, because of the limited cost, accomplishment as necessary in conjunction with normal in-house maintenance is recommended. Therefore, no upgrade is proposed herein.

Emergency power for this facility is produced by a local diesel-fired, emergency generator. Manufactured by Kohler, this 180 kW unit supplies 277/480 volt power to the automatic transfer switch. This generator is currently adequate and, with regular testing and maintenance, should provide satisfactory service through the period of this report.

PLUMBING

Potable water is distributed throughout this facility via a copper piping network. Sanitary waste and storm water piping is of cast-iron, no-hub construction. The supply and drain piping networks are adequate and in good condition. They are expected to provide reliable service throughout the period of this analysis. The plumbing fixtures are in good working order, with no condition-related requirements anticipated during the term of this report.

Domestic water for this facility is produced and stored by a vertical tank equipped with a steam-tube bundle. The tank is located in the south mechanical room. Two commercial-grade, electric water heaters are located nearby to support continued operations as necessary in the event of a steam outage. These 80 gallon units are approaching the end of their normal service lives, and are recommended for replacement during the period of this report.

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 14, 2009

INSPECTION TEAM PERSONNEL:

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

FACILITY CONTACTS:

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

REPORT DEVELOPMENT:

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

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

D. FACILITY CONDITION ANALYSIS - DEFINITIONS

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

1. REPORT DESCRIPTION

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

Section 2: Detailed Project Summaries and Totals

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

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

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

Section 3: Specific Project Details Illustrating Description / Cost

Section 4: Drawings with Iconography

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

Section 5: Life Cycle Model Summary and Projections

Section 6: Photographic Log

2. PROJECT CLASSIFICATION

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

3. PROJECT SUBCLASS TYPE

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

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

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

Example:

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

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

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

PRIORITY 1 - Currently Critical (Immediate)

Projects in this category require immediate action to:

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

PRIORITY 2 - Potentially Critical (Year One)

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

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

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

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

PRIORITY 4 - Recommended (Years Six to Ten)

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

6. COST SUMMARIES AND TOTALS

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

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

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

Global Markup Percentages

R.S. MEANS

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

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

Example:

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

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

8. PHOTO NUMBER (Shown in Section 6)

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

Example: 0001006e

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

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

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

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

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

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

Refer to the following Category Code Report.

Example: Category Code = EL5A

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

CATEGORY CODE

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

SYSTEM DESCRIPTION

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

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

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

CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
ES6E	GENERAL	OTHER	Any exterior work not specifically categorized elsewhere including finish and structural work on freestanding boiler stacks.
SYSTEM DESCRIPTION: FIRE / LIFE SAFETY			
FS1A	LIGHTING	EGRESS LIGHTING/EXIT SIGNAGE	R & R work on exit signage and packaged AC/DC emergency lighting.
FS2A	DETECTION/ALARM	GENERAL	Repair or replacement of fire alarm/detection system/components including alarms, pull boxes, smoke/heat detectors, annunciator panels, central fire control stations, remote dialers, fire station communications, etc.
FS3A	SUPPRESSION	SPRINKLERS	Repair or installation of water sprinklers type automatic fire suppressions including wet pipe & dry pipe systems, heads, piping, deflectors, valves, monitors, associated fire pump, etc.
FS3B	SUPPRESSION	STANDPIPE/HOSE	Repair or installation of standpipe system or components including hardware, hoses, cabinets, nozzles, necessary fire pumping system, etc.
FS3C	SUPPRESSION	EXTINGUISHERS	Repairs or upgrades to F.E. cabinets/wall fastenings and handheld extinguisher testing/replacement.
FS3D	SUPPRESSION	OTHER	Other fire suppression items not specifically categorized elsewhere including fire blankets, carbon dioxide automatic systems, Halon systems, dry chemical systems, etc.
FS4A	HAZARDOUS MATERIALS	STORAGE ENVIRONMENT	Installation or repair of special storage environment for the safe holding of flammable or otherwise dangerous materials/supplies including vented flammables storage cabinets, holding pens/rooms, cages, fire safe chemical storage rooms, etc.
FS4B	HAZARDOUS MATERIALS	USER SAFETY	Improvements, repairs, installation, or testing of user safety equipment including emergency eyewashes, safety showers, emergency panic/shut-down system, etc.
FS5A	EGRESS PATH	DESIGNATION	Installation, relocation or repair of posted diagrammatic emergency evacuation routes.
FS5B	EGRESS PATH	DISTANCE/GEOMETRY	Work involving remediation of egress routing problems including elimination of dead end corridors, excessive egress distance modifications and egress routing inadequacies.
FS5C	EGRESS PATH	SEPARATION RATING	Restoration of required fire protective barriers including wall rating compromises, fire rated construction, structural fire proofing, wind/safety glazing, transom retrofitting, etc.
FS5D	EGRESS PATH	OBSTRUCTION	Clearance of items restricting the required egress routes.
FS5E	EGRESS PATH	STAIRS RAILING	Retrofit of stair/landing configurations/structure, railing heights/geometries, etc.
FS5F	EGRESS PATH	FIRE DOORS/HARDWARE	Installation/replacement/repair of fire doors and hardware including labeled fire doors, fire shutters, closers, magnetic holders, panic hardware, etc.
FS5G	EGRESS PATH	FINISH/FURNITURE RATINGS	Remediation of improper fire/smoke ratings of finishes and furniture along egress routes.
FS6A	GENERAL	OTHER	Life/fire safety items not specifically categorized elsewhere.
SYSTEM DESCRIPTION: HEALTH			
HE1A	ENVIRONMENTAL CONTROL	EQUIPMENT AND ENCLOSURES	Temperature control chambers (both hot and cold) for non-food storage. Includes both chamber and all associated mechanical equipment.
HE1B	ENVIRONMENTAL CONTROL	OTHER	General environmental control problems not catalogued elsewhere.
HE2A	PEST CONTROL	GENERAL	Includes all measures necessary to control and destroy insects, rodents and other pests.
HE3A	REFUSE	GENERAL	Issues related to the collection, handling and disposal of refuse.
HE4A	SANITATION EQUIPMENT	LABORATORY AND PROCESS	Includes autoclaves, cage washers, steam cleaners, etc.
HE5A	FOOD SERVICE	KITCHEN EQUIPMENT	Includes ranges, grilles, cookers, sculleries, etc.
HE5B	FOOD SERVICE	COLD STORAGE	Includes the cold storage room and all associated refrigeration equipment.
HE6A	HAZARDOUS MATERIAL	STRUCTURAL ASBESTOS	Testing, abatement and disposal of structural and building finish materials containing asbestos.

CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
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 UPGRADE	Replacement of HVAC control systems.

CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
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 covers, phone booths, interior light wells, etc.
SYSTEM DESCRIPTION: PLUMBING			
PL1A	DOMESTIC WATER	PIPING NETWORK	Repair or replacement of domestic water supply piping network, insulation, hangers, etc.

CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
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.
SS2A	SITE	FENCING	Perimeter campus fencing, individual building fencing, includes both pedestrian and vehicular control fences.

CATEGORY CODE REPORT			
CODE	COMPONENT DESCRIPTION	ELEMENT DESCRIPTION	DEFINITION
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
 TODD : TODD DINING HALL**

System Code	System Description	Priority Classes				Subtotal
		1	2	3	4	
AC	ACCESSIBILITY	0	4,708	0	0	4,708
EL	ELECTRICAL	0	0	71,673	35,361	107,034
ES	EXTERIOR	0	0	233,953	34,018	267,971
FS	FIRE/LIFE SAFETY	1,007	0	93,873	0	94,880
HE	HEALTH	0	0	0	38,801	38,801
HV	HVAC	0	0	387,935	26,556	414,490
IS	INTERIOR/FINISH SYS.	0	0	409,308	0	409,308
PL	PLUMBING	0	0	0	23,605	23,605
SI	SITE	0	0	45,564	0	45,564
	TOTALS	1,007	4,708	1,242,305	158,341	1,406,360

Facility Replacement Cost	\$10,773,000
Facility Condition Needs Index	0.13

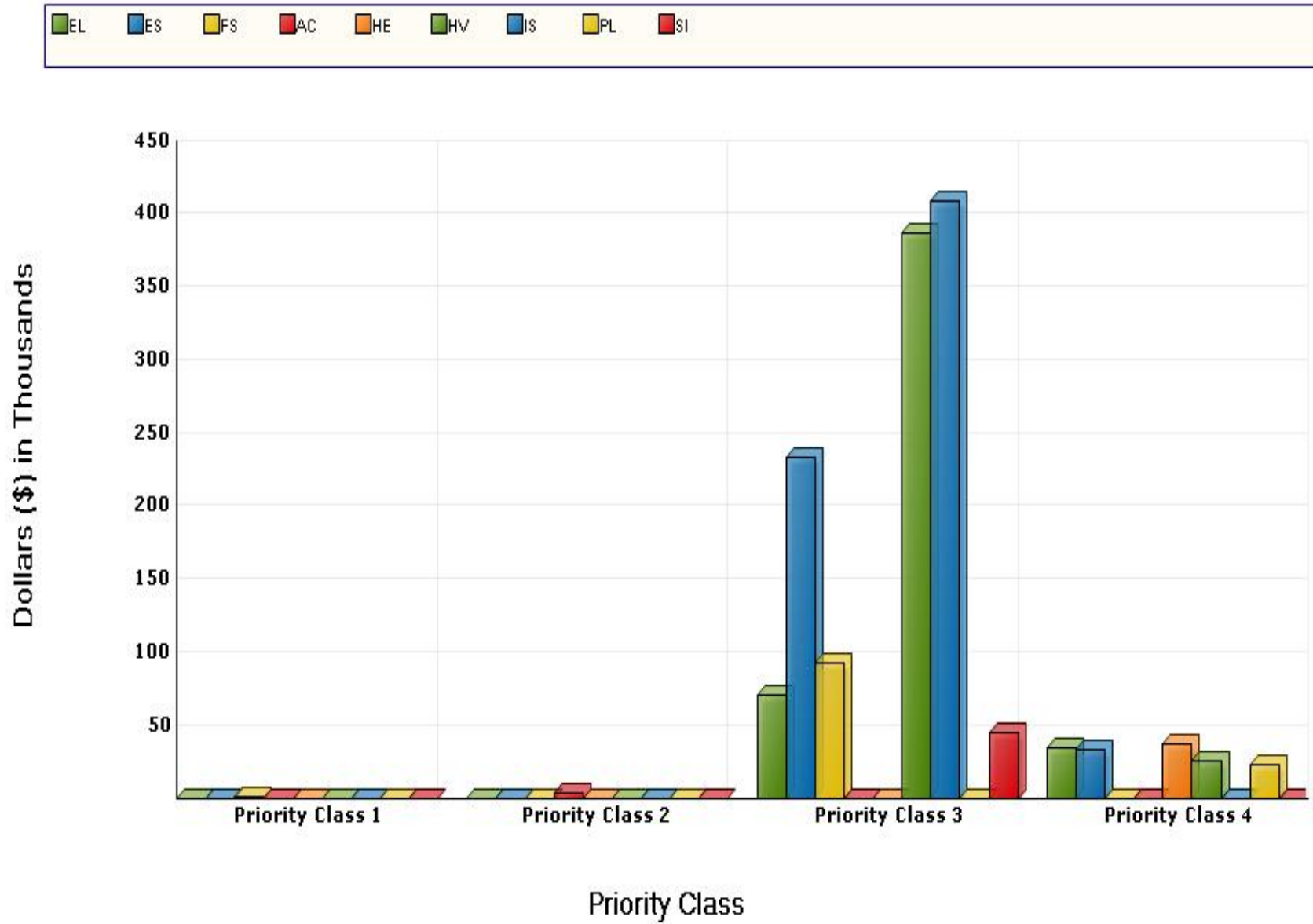
Gross Square Feet	35,000
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Total Cost Per Square Foot	\$40.18
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FACILITY CONDITION ANALYSIS

System Code by Priority Class

TODD : TODD DINING HALL



**Detailed Project Totals
Facility Condition Analysis
System Code by Project Class
TODD : TODD DINING HALL**

System Code	System Description	Project Classes			Subtotal
		Capital Renewal	Deferred Maintenance	Plant Adaption	
AC	ACCESSIBILITY	0	0	4,708	4,708
EL	ELECTRICAL	107,034	0	0	107,034
ES	EXTERIOR	237,341	30,629	0	267,971
FS	FIRE/LIFE SAFETY	93,873	0	1,007	94,880
HE	HEALTH	38,801	0	0	38,801
HV	HVAC	414,490	0	0	414,490
IS	INTERIOR/FINISH SYS.	333,441	75,867	0	409,308
PL	PLUMBING	23,605	0	0	23,605
SI	SITE	0	45,564	0	45,564
	TOTALS	1,248,586	152,060	5,715	1,406,360

Facility Replacement Cost	\$10,773,000
Facility Condition Needs Index	0.13

Gross Square Feet	35,000
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Total Cost Per Square Foot	\$40.18
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Detailed Project Summary
Facility Condition Analysis
Project Class by Priority Class
TODD : TODD DINING HALL

Project Class	Priority Classes				Subtotal
	1	2	3	4	
Capital Renewal	0	0	1,090,245	158,341	1,248,586
Deferred Maintenance	0	0	152,060	0	152,060
Plant Adaption	1,007	4,708	0	0	5,715
TOTALS	1,007	4,708	1,242,305	158,341	1,406,360

Facility Replacement Cost	\$10,773,000
Facility Condition Needs Index	0.13

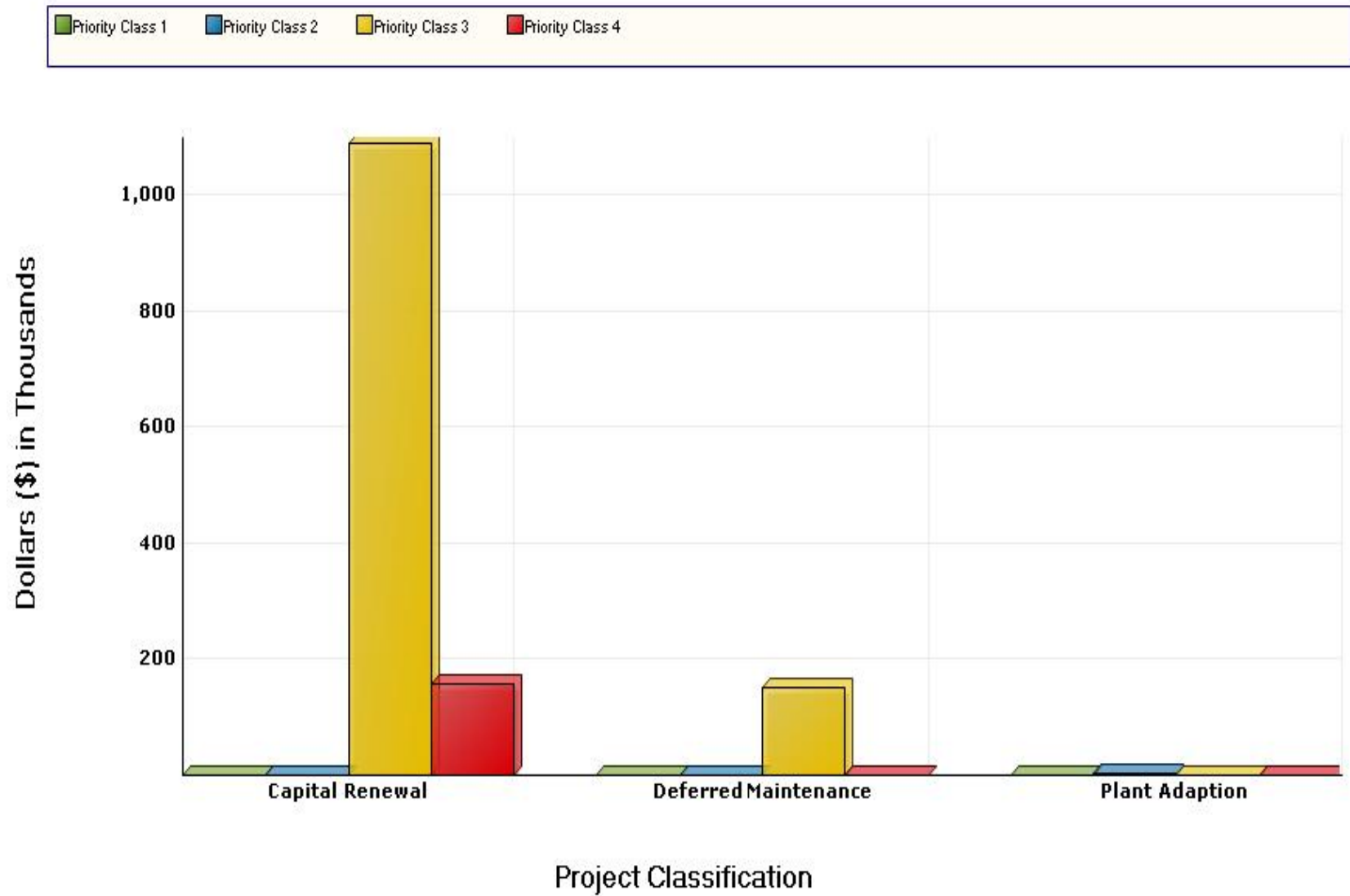
Gross Square Feet	35,000
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Total Cost Per Square Foot	\$40.18
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FACILITY CONDITION ANALYSIS

Project Class by Priority Class

TODD : TODD DINING HALL



Detailed Project Summary
Facility Condition Analysis
Priority Class - Priority Sequence
TODD : TODD DINING HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5C	TODDFS01	1	1	ELIMINATE FIRE RATING COMPROMISES	868	139	1,007
Totals for Priority Class 1					868	139	1,007
AC3D	TODDAC01	2	16	INTERIOR DIRECTORY SIGNAGE UPGRADES	4,059	649	4,708
Totals for Priority Class 2					4,059	649	4,708
FS2A	TODDFS02	3	2	FIRE ALARM SYSTEM REPLACEMENT	80,925	12,948	93,873
ES2B	TODDES01	3	3	RESTORE BRICK MASONRY AND STUCCO VENEER	26,405	4,225	30,629
ES4B	TODDES04	3	4	MEMBRANE ROOF REPLACEMENT	158,370	25,339	183,709
ES5A	TODDES02	3	5	EXTERIOR DOOR REPLACEMENT	16,908	2,705	19,614
HV3A	TODDHV01	3	6	REPLACE UNITARY HVAC SYSTEMS	14,610	2,338	16,948
HV4B	TODDHV03	3	7	KITCHEN VENTILATION SYSTEM REPLACEMENT	319,816	51,171	370,987
EL4B	TODDEL01	3	8	INTERIOR LIGHTING UPGRADE	61,787	9,886	71,673
IS2B	TODDIS02	3	9	REFINISH WALLS	65,402	10,464	75,867
IS1A	TODDIS01	3	10	REFINISH FLOORING	162,377	25,980	188,357
IS3B	TODDIS03	3	11	REFINISH CEILINGS	80,694	12,911	93,605
IS6D	TODDIS04	3	12	RESTROOM FINISHES RENOVATION	44,378	7,101	51,479
SI2A	TODDSI01	3	13	LANDSCAPE DRAINAGE AND IRRIGATION SYSTEM UPGRADE	36,126	5,780	41,906
SI4A	TODDSI02	3	14	SITE PAVING UPGRADES	3,153	505	3,658
Totals for Priority Class 3					1,070,952	171,352	1,242,305
HE1A	TODDHE01	4	15	FOOD SERVICE COLD BOX REFRIGERATION SYSTEM REPLACEMENT	33,449	5,352	38,801
ES5B	TODDES03	4	17	WINDOW REPLACEMENT	29,326	4,692	34,018
HV5A	TODDHV02	4	18	HEAT EXCHANGER REPLACEMENT	14,527	2,324	16,851
HV5B	TODDHV04	4	19	CONDENSATE RECEIVER REPLACEMENT	8,366	1,339	9,705
EL3B	TODDEL02	4	20	ELECTRICAL SYSTEM REPAIRS	30,484	4,877	35,361
PL1E	TODDPL01	4	21	DOMESTIC WATER HEATER REPLACEMENT	20,349	3,256	23,605
Totals for Priority Class 4					136,501	21,840	158,341
Grand Total:					1,212,380	193,981	1,406,360

Detailed Project Summary
Facility Condition Analysis
Project Cost Range
TODD : TODD DINING HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
FS5C	TODDFS01	1	1	ELIMINATE FIRE RATING COMPROMISES	868	139	1,007
Totals for Priority Class 1					868	139	1,007
AC3D	TODDAC01	2	16	INTERIOR DIRECTORY SIGNAGE UPGRADES	4,059	649	4,708
Totals for Priority Class 2					4,059	649	4,708
ES2B	TODDES01	3	3	RESTORE BRICK MASONRY AND STUCCO VENEER	26,405	4,225	30,629
ES5A	TODDES02	3	5	EXTERIOR DOOR REPLACEMENT	16,908	2,705	19,614
IS2B	TODDIS02	3	9	REFINISH WALLS	65,402	10,464	75,867
IS3B	TODDIS03	3	11	REFINISH CEILINGS	80,694	12,911	93,605
IS6D	TODDIS04	3	12	RESTROOM FINISHES RENOVATION	44,378	7,101	51,479
SI2A	TODDSI01	3	13	LANDSCAPE DRAINAGE AND IRRIGATION SYSTEM UPGRADE	36,126	5,780	41,906
SI4A	TODDSI02	3	14	SITE PAVING UPGRADES	3,153	505	3,658
FS2A	TODDFS02	3	2	FIRE ALARM SYSTEM REPLACEMENT	80,925	12,948	93,873
HV3A	TODDHV01	3	6	REPLACE UNITARY HVAC SYSTEMS	14,610	2,338	16,948
EL4B	TODDEL01	3	8	INTERIOR LIGHTING UPGRADE	61,787	9,886	71,673
Totals for Priority Class 3					430,389	68,862	499,252
ES5B	TODDES03	4	17	WINDOW REPLACEMENT	29,326	4,692	34,018
HE1A	TODDHE01	4	15	FOOD SERVICE COLD BOX REFRIGERATION SYSTEM REPLACEMENT	33,449	5,352	38,801
HV5A	TODDHV02	4	18	HEAT EXCHANGER REPLACEMENT	14,527	2,324	16,851
HV5B	TODDHV04	4	19	CONDENSATE RECEIVER REPLACEMENT	8,366	1,339	9,705
EL3B	TODDEL02	4	20	ELECTRICAL SYSTEM REPAIRS	30,484	4,877	35,361
PL1E	TODDPL01	4	21	DOMESTIC WATER HEATER REPLACEMENT	20,349	3,256	23,605
Totals for Priority Class 4					136,501	21,840	158,341
Grand Totals for Projects < 100,000					571,817	91,491	663,307

Detailed Project Summary
Facility Condition Analysis
Project Cost Range
 TODD : TODD DINING HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
ES4B	TODDES04	3	4	MEMBRANE ROOF REPLACEMENT	158,370	25,339	183,709
IS1A	TODDIS01	3	10	REFINISH FLOORING	162,377	25,980	188,357
HV4B	TODDHV03	3	7	KITCHEN VENTILATION SYSTEM REPLACEMENT	319,816	51,171	370,987
Totals for Priority Class 3					640,563	102,490	743,053
Grand Totals for Projects >= 100,000 and < 500,000					640,563	102,490	743,053
Grand Totals For All Projects:					1,212,380	193,981	1,406,360

Detailed Project Summary
Facility Condition Analysis
Project Classification
TODD : TODD DINING HALL

Cat Code	Project Number	Pri. Seq.	Project Classification	Pri. Cls	Project Title	Total Cost
FS2A	TODDFS02	2	Capital Renewal	3	FIRE ALARM SYSTEM REPLACEMENT	93,873
ES4B	TODDES04	4	Capital Renewal	3	MEMBRANE ROOF REPLACEMENT	183,709
ES5A	TODDES02	5	Capital Renewal	3	EXTERIOR DOOR REPLACEMENT	19,614
HV3A	TODDHV01	6	Capital Renewal	3	REPLACE UNITARY HVAC SYSTEMS	16,948
HV4B	TODDHV03	7	Capital Renewal	3	KITCHEN VENTILATION SYSTEM REPLACEMENT	370,987
EL4B	TODDEL01	8	Capital Renewal	3	INTERIOR LIGHTING UPGRADE	71,673
IS1A	TODDIS01	10	Capital Renewal	3	REFINISH FLOORING	188,357
IS3B	TODDIS03	11	Capital Renewal	3	REFINISH CEILINGS	93,605
IS6D	TODDIS04	12	Capital Renewal	3	RESTROOM FINISHES RENOVATION	51,479
HE1A	TODDHE01	15	Capital Renewal	4	FOOD SERVICE COLD BOX REFRIGERATION SYSTEM REPLACEMENT	38,801
ES5B	TODDES03	17	Capital Renewal	4	WINDOW REPLACEMENT	34,018
HV5A	TODDHV02	18	Capital Renewal	4	HEAT EXCHANGER REPLACEMENT	16,851
HV5B	TODDHV04	19	Capital Renewal	4	CONDENSATE RECEIVER REPLACEMENT	9,705
EL3B	TODDEL02	20	Capital Renewal	4	ELECTRICAL SYSTEM REPAIRS	35,361
PL1E	TODDPL01	21	Capital Renewal	4	DOMESTIC WATER HEATER REPLACEMENT	23,605
Totals for Capital Renewal						1,248,586
ES2B	TODDES01	3	Deferred Maintenance	3	RESTORE BRICK MASONRY AND STUCCO VENEER	30,629
IS2B	TODDIS02	9	Deferred Maintenance	3	REFINISH WALLS	75,867
SI2A	TODDSI01	13	Deferred Maintenance	3	LANDSCAPE DRAINAGE AND IRRIGATION SYSTEM UPGRADE	41,906
SI4A	TODDSI02	14	Deferred Maintenance	3	SITE PAVING UPGRADES	3,658
Totals for Deferred Maintenance						152,060
FS5C	TODDFS01	1	Plant Adaption	1	ELIMINATE FIRE RATING COMPROMISES	1,007
AC3D	TODDAC01	16	Plant Adaption	2	INTERIOR DIRECTORY SIGNAGE UPGRADES	4,708
Totals for Plant Adaption						5,715
Grand Total:						1,406,360

Detailed Project Summary
Facility Condition Analysis
Energy Conservation
 TODD : TODD DINING HALL

Cat Code	Project Number	Pri Cls	Pri Seq	Project Title	Total Cost	Annual Savings	Simple Payback
ES4B	TODDES04	3	4	MEMBRANE ROOF REPLACEMENT	183,709	2,300	79.87
EL4B	TODDEL01	3	8	INTERIOR LIGHTING UPGRADE	71,673	2,140	33.49
Totals for Priority Class 3					255,382	4,440	57.52
ES5B	TODDES03	4	17	WINDOW REPLACEMENT	34,018	100	340.18
Totals for Priority Class 4					34,018	100	340.18
Grand Total:					289,400	4,540	63.74

Detailed Project Summary
Facility Condition Analysis
Category/System Code
TODD : TODD DINING HALL

Cat. Code	Project Number	Pri Cls	Pri Seq	Project Title	Construction Cost	Professional Fee	Total Cost
AC3D	TODDAC01	2	16	INTERIOR DIRECTORY SIGNAGE UPGRADES	4,059	649	4,708
Totals for System Code: ACCESSIBILITY					4,059	649	4,708
EL4B	TODDEL01	3	8	INTERIOR LIGHTING UPGRADE	61,787	9,886	71,673
EL3B	TODDEL02	4	20	ELECTRICAL SYSTEM REPAIRS	30,484	4,877	35,361
Totals for System Code: ELECTRICAL					92,270	14,763	107,034
ES2B	TODDES01	3	3	RESTORE BRICK MASONRY AND STUCCO VENEER	26,405	4,225	30,629
ES4B	TODDES04	3	4	MEMBRANE ROOF REPLACEMENT	158,370	25,339	183,709
ES5A	TODDES02	3	5	EXTERIOR DOOR REPLACEMENT	16,908	2,705	19,614
ES5B	TODDES03	4	17	WINDOW REPLACEMENT	29,326	4,692	34,018
Totals for System Code: EXTERIOR					231,009	36,961	267,971
FS5C	TODDFS01	1	1	ELIMINATE FIRE RATING COMPROMISES	868	139	1,007
FS2A	TODDFS02	3	2	FIRE ALARM SYSTEM REPLACEMENT	80,925	12,948	93,873
Totals for System Code: FIRE/LIFE SAFETY					81,793	13,087	94,880
HE1A	TODDHE01	4	15	FOOD SERVICE COLD BOX REFRIGERATION SYSTEM REPLACEMENT	33,449	5,352	38,801
Totals for System Code: HEALTH					33,449	5,352	38,801
HV3A	TODDHV01	3	6	REPLACE UNITARY HVAC SYSTEMS	14,610	2,338	16,948
HV4B	TODDHV03	3	7	KITCHEN VENTILATION SYSTEM REPLACEMENT	319,816	51,171	370,987
HV5A	TODDHV02	4	18	HEAT EXCHANGER REPLACEMENT	14,527	2,324	16,851
HV5B	TODDHV04	4	19	CONDENSATE RECEIVER REPLACEMENT	8,366	1,339	9,705
Totals for System Code: HVAC					357,319	57,171	414,490
IS2B	TODDIS02	3	9	REFINISH WALLS	65,402	10,464	75,867
IS1A	TODDIS01	3	10	REFINISH FLOORING	162,377	25,980	188,357
IS3B	TODDIS03	3	11	REFINISH CEILINGS	80,694	12,911	93,605
IS6D	TODDIS04	3	12	RESTROOM FINISHES RENOVATION	44,378	7,101	51,479
Totals for System Code: INTERIOR/FINISH SYS.					352,851	56,456	409,308
PL1E	TODDPL01	4	21	DOMESTIC WATER HEATER REPLACEMENT	20,349	3,256	23,605
Totals for System Code: PLUMBING					20,349	3,256	23,605
SI2A	TODDSI01	3	13	LANDSCAPE DRAINAGE AND IRRIGATION SYSTEM UPGRADE	36,126	5,780	41,906
SI4A	TODDSI02	3	14	SITE PAVING UPGRADES	3,153	505	3,658
Totals for System Code: SITE					39,279	6,285	45,564
Grand Total:					1,212,380	193,981	1,406,360

FACILITY CONDITION ANALYSIS

SECTION 3

SPECIFIC PROJECT DETAILS
ILLUSTRATING DESCRIPTION / COST

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDFS01	Title:	ELIMINATE FIRE RATING COMPROMISES
Priority Sequence:	1		
Priority Class:	1		
Category Code:	FS5C	System:	FIRE/LIFE SAFETY
		Component:	EGRESS PATH
		Element:	SEPARATION RATING
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Not Applicable		
Code Application:	IBC	711.3	
Project Class:	Plant Adaption		
Project Date:	10/2/2009		
Project Location:	Floor-wide: Floor(s) 1		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Cost

Project Number: TODDFS01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Minor passive firestopping efforts	SF	10,150	\$0.03	\$305	\$0.08	\$812	\$1,117
Project Totals:				\$305		\$812	\$1,117

Material/Labor Cost		\$1,117
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$723</u>
General Contractor Mark Up at 20.0%	+	<u>\$145</u>
Construction Cost		<u>\$868</u>
Professional Fees at 16.0%	+	<u>\$139</u>
Total Project Cost		<u>\$1,007</u>

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDFS02	Title:	FIRE ALARM SYSTEM REPLACEMENT
Priority Sequence:	2		
Priority Class:	3		
Category Code:	FS2A	System:	FIRE/LIFE SAFETY
		Component:	DETECTION ALARM
		Element:	GENERAL
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG	702.1	
	NFPA	1, 101	
Project Class:	Capital Renewal		
Project Date:	10/23/2009		
Project Location:	Floor-wide: Floor(s) 1		

Project Description

Upgrade the existing fire alarm system with a modern application. Specify a point addressable, supervised, main fire alarm panel with an annunciator. Include pull stations, audible and visible alarms, smoke and heat detectors, and a wiring network. Extend present visible strobe alarm coverage to include all restroom areas. 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
TODD : TODD DINING HALL

Project Cost

Project Number: TODDFS02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Fire alarm control panel(s), annunciator, smoke and heat detectors, manual pull stations, audible and visual alarms, wiring, raceways, and cut and patching materials	SF	35,000	\$1.46	\$51,100	\$0.89	\$31,150	\$82,250
Project Totals:				\$51,100		\$31,150	\$82,250

Material/Labor Cost		\$82,250
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$67,438</u>
General Contractor Mark Up at 20.0%	+	<u>\$13,488</u>
Construction Cost		<u>\$80,925</u>
Professional Fees at 16.0%	+	<u>\$12,948</u>
Total Project Cost		<u>\$93,873</u>

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDES01	Title:	RESTORE BRICK MASONRY AND STUCCO VENEER
Priority Sequence:	3		
Priority Class:	3		
Category Code:	ES2B	System:	EXTERIOR
		Component:	COLUMNS/BEAMS/WALLS
		Element:	FINISH
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/2/2009		
Project Location:	Building-wide: Floor(s) 1		

Project Description

Brick masonry veneer is the primary exterior finish with additional architectural precast and stucco applications. While the exterior facades are fundamentally sound, exposure to the elements has stained most areas and caused some deterioration of the mortar joints and expansion joints. Cleaning, surface preparation, selective repairs, and applied finish or penetrating sealant upgrades are recommended to restore the aesthetics and integrity of the building envelope.

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Cost

Project Number: TODDES01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Cleaning and surface preparation	SF	13,780	\$0.11	\$1,516	\$0.22	\$3,032	\$4,547
Selective mortar and / or sealant repairs (assumes 10 linear feet for every 100 square feet of envelope)	LF	1,378	\$2.45	\$3,376	\$4.99	\$6,876	\$10,252
Applied finish or sealant	SF	13,780	\$0.22	\$3,032	\$0.82	\$11,300	\$14,331
Repair and reinforce damaged concrete loading dock slab edge	LOT	1	\$1,850	\$1,850	\$2,500	\$2,500	\$4,350
Project Totals:				\$9,774		\$23,707	\$33,481

Material/Labor Cost		\$33,481
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$22,004
General Contractor Mark Up at 20.0%	+	\$4,401
Construction Cost		\$26,405
Professional Fees at 16.0%	+	\$4,225
Total Project Cost		\$30,629

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDES04	Title:	MEMBRANE ROOF REPLACEMENT
Priority Sequence:	4		
Priority Class:	3		
Category Code:	ES4B	System:	EXTERIOR
		Component:	ROOF
		Element:	REPLACEMENT
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Energy Conservation	\$2,300	
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/2/2009		
Project Location:	Floor-wide: Floor(s) R		

Project Description

The single-ply membrane 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. Replace the downspouts, as well.

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Cost

Project Number: TODDES04

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Membrane roof	SF	26,780	\$3.79	\$101,496	\$1.73	\$46,329	\$147,826
Interim coping cap and flashing repairs	LOT	1	\$2,675	\$2,675	\$6,448	\$6,448	\$9,123
Project Totals:				\$104,171		\$52,777	\$156,949

Material/Labor Cost		\$156,949
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$131,975
General Contractor Mark Up at 20.0%	+	\$26,395
Construction Cost		\$158,370
Professional Fees at 16.0%	+	\$25,339
Total Project Cost		\$183,709

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDES02	Title:	EXTERIOR DOOR REPLACEMENT
Priority Sequence:	5		
Priority Class:	3		
Category Code:	ES5A	System:	EXTERIOR
		Component:	FENESTRATIONS
		Element:	DOORS
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/2/2009		
Project Location:	Building-wide: Floor(s) 1		

Project Description

Replacements are recommended for some of the exterior entry and service door systems that are showing signs of deterioration. This project includes the primary and secondary entrance and service doors. The replacement units should maintain the architectural design aspects of this facility and be modern, energy-efficient applications that will protect the interior of the building from the elements.

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Cost

Project Number: TODDES02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
High traffic door system	LEAF	3	\$1,978	\$5,934	\$1,999	\$5,997	\$11,931
Low traffic door system	LEAF	3	\$1,031	\$3,093	\$1,250	\$3,750	\$6,843
Project Totals:				\$9,027		\$9,747	\$18,774

Material/Labor Cost		\$18,774
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$14,090
General Contractor Mark Up at 20.0%	+	\$2,818
Construction Cost		\$16,908
Professional Fees at 16.0%	+	\$2,705
Total Project Cost		\$19,614

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDHV01	Title:	REPLACE UNITARY HVAC SYSTEMS
Priority Sequence:	6		
Priority Class:	3		
Category Code:	HV3A	System:	HVAC
		Component:	HEATING/COOLING
		Element:	SYSTEM RETROFIT/REPLACE
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Not Applicable		
Code Application:	ASHRAE	62-2004	
Project Class:	Capital Renewal		
Project Date:	10/23/2009		
Project Location:	Item Only: Floor(s) R		

Project Description

This facility is served by unitary HVAC systems that include split and packaged applications. These systems are recommended for replacement. Replace them with new systems that are of the latest energy-efficient design. The project cost includes controls, related ductwork, electrical connections, and testing and balancing of the downstream air distribution system for the package units. For the split systems, project cost includes condensing unit, evaporator fan unit, refrigeration piping, controls, and connections.

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Cost

Project Number: TODDHV01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Rooftop package unit, controls, all connections, and demolition of existing unit	TON	4	\$1,200	\$4,800	\$1,090	\$4,360	\$9,160
Air distribution system test and balance	SF	1,600	\$0.06	\$96	\$0.35	\$560	\$656
Replace split DX air-conditioning system	TON	3	\$1,196	\$3,588	\$720	\$2,160	\$5,748
Project Totals:				\$8,484		\$7,080	\$15,564

Material/Labor Cost		\$15,564
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$12,175
General Contractor Mark Up at 20.0%	+	\$2,435
Construction Cost		\$14,610
Professional Fees at 16.0%	+	\$2,338
Total Project Cost		\$16,948

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDHV03	Title:	KITCHEN VENTILATION SYSTEM REPLACEMENT
Priority Sequence:	7		
Priority Class:	3		
Category Code:	HV4B	System:	HVAC
		Component:	AIR MOVING/VENTILATION
		Element:	EXHAUST FANS
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Not Applicable		
Code Application:	ASHRAE	62-2004	
Project Class:	Capital Renewal		
Project Date:	10/23/2009		
Project Location:	Floor-wide: Floor(s) R		

Project Description

Replacement of the kitchen exhaust systems is recommended. Remove the existing equipment, and install new kitchen exhaust and make-up air systems. This work includes the exhaust fans, makeup air units, controls, ductwork, connections, and demolition of the existing equipment.

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Cost

Project Number: TODDHV03

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Commercial kitchen exhaust / make-up air system and demolition of existing equipment	SYS	10	\$19,962	\$199,622	\$12,767	\$127,669	\$327,291
Project Totals:				\$199,622		\$127,669	\$327,291

Material/Labor Cost		\$327,291
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$266,513
General Contractor Mark Up at 20.0%	+	\$53,303
Construction Cost		\$319,816
Professional Fees at 16.0%	+	\$51,171
Total Project Cost		\$370,987

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDEL01	Title:	INTERIOR LIGHTING UPGRADE
Priority Sequence:	8		
Priority Class:	3		
Category Code:	EL4B	System:	ELECTRICAL
		Component:	DEVICES AND FIXTURES
		Element:	INTERIOR LIGHTING
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Energy Conservation	\$2,140	
Code Application:	NEC	Articles 210, 410	
Project Class:	Capital Renewal		
Project Date:	10/23/2009		
Project Location:	Area Wide: Floor(s) 1		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Cost

Project Number: TODDEL01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
High efficiency fluorescent fixtures, occupancy sensors, and demolition of existing lighting	SF	10,500	\$3.00	\$31,500	\$3.67	\$38,535	\$70,035
Project Totals:				\$31,500		\$38,535	\$70,035

Material/Labor Cost		\$69,975
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$51,489
General Contractor Mark Up at 20.0%	+	\$10,298
Construction Cost		\$61,787
Professional Fees at 16.0%	+	\$9,886
Total Project Cost		\$71,673

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDIS02	Title:	REFINISH WALLS
Priority Sequence:	9		
Priority Class:	3		
Category Code:	IS2B	System:	INTERIOR/FINISH SYS.
		Component:	PARTITIONS
		Element:	FINISHES
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/2/2009		
Project Location:	Floor-wide: Floor(s) 1		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Cost

Project Number: TODDIS02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Standard wall finish (paint, wall covering, etc.)	SF	66,980	\$0.17	\$11,387	\$0.81	\$54,254	\$65,640
Premium wall finish (epoxy, tile, wood panel, etc.)	SF	3,530	\$2.28	\$8,048	\$3.92	\$13,838	\$21,886
Project Totals:				\$19,435		\$68,091	\$87,526

Material/Labor Cost		\$87,526
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$54,502
General Contractor Mark Up at 20.0%	+	\$10,900
Construction Cost		\$65,402
Professional Fees at 16.0%	+	\$10,464
Total Project Cost		\$75,867

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDIS01	Title:	REFINISH FLOORING
Priority Sequence:	10		
Priority Class:	3		
Category Code:	IS1A	System:	INTERIOR/FINISH SYS.
		Component:	FLOOR
		Element:	FINISHES-DRY
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/2/2009		
Project Location:	Floor-wide: Floor(s) 1		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Cost

Project Number: TODDIS01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Carpet	SF	7,980	\$5.36	\$42,773	\$2.00	\$15,960	\$58,733
Vinyl floor tile	SF	2,660	\$3.53	\$9,390	\$2.50	\$6,650	\$16,040
Ceramic tile	SF	5,586	\$7.24	\$40,443	\$10.63	\$59,379	\$99,822
Project Totals:				\$92,605		\$81,989	\$174,594

Material/Labor Cost		\$174,594
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$135,314</u>
General Contractor Mark Up at 20.0%	+	<u>\$27,063</u>
Construction Cost		<u>\$162,377</u>
Professional Fees at 16.0%	+	<u>\$25,980</u>
Total Project Cost		<u>\$188,357</u>

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDIS03	Title:	REFINISH CEILINGS
Priority Sequence:	11		
Priority Class:	3		
Category Code:	IS3B	System:	INTERIOR/FINISH SYS.
		Component:	CEILINGS
		Element:	REPLACEMENT
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/2/2009		
Project Location:	Floor-wide: Floor(s) 1		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Cost

Project Number: TODDIS03

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Acoustical tile ceiling system	SF	17,290	\$2.12	\$36,655	\$2.98	\$51,524	\$88,179
Painted ceiling finish application	SF	6,650	\$0.17	\$1,131	\$0.81	\$5,387	\$6,517
Project Totals:				\$37,785		\$56,911	\$94,696

Material/Labor Cost		\$94,696
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$67,245
General Contractor Mark Up at 20.0%	+	\$13,449
Construction Cost		\$80,694
Professional Fees at 16.0%	+	\$12,911
Total Project Cost		\$93,605

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDIS04	Title:	RESTROOM FINISHES RENOVATION
Priority Sequence:	12		
Priority Class:	3		
Category Code:	IS6D	System:	INTERIOR/FINISH SYS.
		Component:	GENERAL
		Element:	OTHER
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG	211, 602, 604, 605, 606	
Project Class:	Capital Renewal		
Project Date:	10/2/2009		
Project Location:	Floor-wide: Floor(s) 1		

Project Description

The reception area public restroom fixtures and finishes are mostly original to the year of construction. The fixtures are sound but aged and inefficient. The finishes are outdated. A comprehensive restroom renovation including new fixtures, finishes, partitions, accessories and the installation of an adjacent drinking fountain is recommended.

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Cost

Project Number: TODDIS04

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Major restroom renovation, including fixtures, finishes, partitions, accessories, and expansion if necessary (assumes 55 square feet of restroom area per fixture)	FIXT	10	\$1,969	\$19,690	\$1,699	\$16,990	\$36,680
Dual-level drinking fountain	EA	2	\$1,216	\$2,432	\$374	\$748	\$3,180
Alcove construction	EA	2	\$877	\$1,754	\$3,742	\$7,484	\$9,238
Project Totals:				\$23,876		\$25,222	\$49,098

Material/Labor Cost		\$49,098
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$36,982
General Contractor Mark Up at 20.0%	+	\$7,396
Construction Cost		\$44,378
Professional Fees at 16.0%	+	\$7,101
Total Project Cost		\$51,479

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDSI01	Title:	LANDSCAPE DRAINAGE AND IRRIGATION SYSTEM UPGRADE
Priority Sequence:	13		
Priority Class:	3		
Category Code:	SI2A	System:	SITE
		Component:	LANDSCAPE
		Element:	GRADE/FLORA
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/2/2009		
Project Location:	Undefined: Floor(s) 1		

Project Description

The site drainage system on the north side of the building is inadequate and has resulted in soil erosion and loss of landscape materials making repairs and replacements necessary. The existing in-ground irrigation system appears to be damaged and is not fully operational. Repairs and replacements are also recommended to assure a fully functioning site irrigation system.

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Cost

Project Number: TODDSI01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Trees, shrubs, planting soil, amendments, sand, fill, and sod	SF	8,000	\$1.04	\$8,320	\$1.56	\$12,480	\$20,800
Site drainage system repairs and upgrades	LOT	1	\$4,500	\$4,500	\$6,389	\$6,389	\$10,889
Site irrigation system repairs	LOT	1	\$3,465	\$3,465	\$7,848	\$7,848	\$11,313
Project Totals:				\$16,285		\$26,717	\$43,002

Material/Labor Cost		\$43,002
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$30,105</u>
General Contractor Mark Up at 20.0%	+	<u>\$6,021</u>
Construction Cost		<u>\$36,126</u>
Professional Fees at 16.0%	+	<u>\$5,780</u>
Total Project Cost		<u>\$41,906</u>

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDSI02	Title:	SITE PAVING UPGRADES
Priority Sequence:	14		
Priority Class:	3		
Category Code:	SI4A	System:	SITE
		Component:	GENERAL
		Element:	OTHER
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Deferred Maintenance		
Project Date:	10/2/2009		
Project Location:	Undefined: Floor(s) 1		

Project Description

The concrete vehicular paving systems at the service court are in overall good condition but will need minor repairs and joint maintenance to maintain full long term serviceability.

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Cost

Project Number: TODDSI02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Concrete vehicular pavement repairs and joint upgrades	SF	8,352	\$0.18	\$1,503	\$0.26	\$2,172	\$3,675
Project Totals:				\$1,503		\$2,172	\$3,675

Material/Labor Cost		\$3,675
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$2,628
General Contractor Mark Up at 20.0%	+	\$526
Construction Cost		\$3,153
Professional Fees at 16.0%	+	\$505
Total Project Cost		\$3,658

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDHE01	Title:	FOOD SERVICE COLD BOX REFRIGERATION SYSTEM REPLACEMENT
Priority Sequence:	15		
Priority Class:	4		
Category Code:	HE1A	System:	HEALTH
		Component:	ENVIRONMENTAL CONTROL
		Element:	EQUIPMENT AND ENCLOSURES
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Not Applicable		
Code Application:	ASHRAE	15-2004	
Project Class:	Capital Renewal		
Project Date:	10/23/2009		
Project Location:	Room Only: Floor(s) 1		

Project Description

Replacement of the food service walk-in cooler / freezer refrigeration systems is recommended. Remove the existing systems. Install new non-CFC / HCFC refrigerant based systems of the latest energy-efficient design.

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Cost

Project Number: TODDHE01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Refrigeration system, including compressor, evaporator unit, controls, refrigerant, and demolition of existing equipment	SYS	6	\$3,350	\$20,100	\$2,480	\$14,880	\$34,980
Project Totals:				\$20,100		\$14,880	\$34,980

Material/Labor Cost		\$34,980
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$27,874</u>
General Contractor Mark Up at 20.0%	+	<u>\$5,575</u>
Construction Cost		<u>\$33,449</u>
Professional Fees at 16.0%	+	<u>\$5,352</u>
Total Project Cost		<u>\$38,801</u>

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDAC01	Title:	INTERIOR DIRECTORY SIGNAGE UPGRADES
Priority Sequence:	16		
Priority Class:	2		
Category Code:	AC3D	System:	ACCESSIBILITY
		Component:	INTERIOR PATH OF TRAVEL
		Element:	SIGNAGE
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Not Applicable		
Code Application:	ADAAG	703.1	
Project Class:	Plant Adaption		
Project Date:	10/2/2009		
Project Location:	Floor-wide: Floor(s) 1		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Cost

Project Number: TODDAC01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
ADA-compliant signage	EA	55	\$53.11	\$2,921	\$15.62	\$859	\$3,780
Project Totals:				\$2,921		\$859	\$3,780

Material/Labor Cost		\$3,780
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$3,382</u>
General Contractor Mark Up at 20.0%	+	<u>\$676</u>
Construction Cost		<u>\$4,059</u>
Professional Fees at 16.0%	+	<u>\$649</u>
Total Project Cost		<u>\$4,708</u>

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDES03	Title:	WINDOW REPLACEMENT
Priority Sequence:	17		
Priority Class:	4		
Category Code:	ES5B	System:	EXTERIOR
		Component:	FENESTRATIONS
		Element:	WINDOWS
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Energy Conservation	\$100	
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/2/2009		
Project Location:	Building-wide: Floor(s) 1		

Project Description

It is recommended that the fixed, single-pane, aluminum-framed window applications be upgraded to thermal-pane 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
TODD : TODD DINING HALL

Project Cost

Project Number: TODDES03

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Typical standard glazing applications	SF	320	\$57.27	\$18,326	\$36.45	\$11,664	\$29,990
Project Totals:				\$18,326		\$11,664	\$29,990

Material/Labor Cost		\$29,990
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$24,438</u>
General Contractor Mark Up at 20.0%	+	<u>\$4,888</u>
Construction Cost		<u>\$29,326</u>
Professional Fees at 16.0%	+	<u>\$4,692</u>
Total Project Cost		<u>\$34,018</u>

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDHV02	Title:	HEAT EXCHANGER REPLACEMENT
Priority Sequence:	18		
Priority Class:	4		
Category Code:	HV5A	System:	HVAC
		Component:	STEAM/HYDRONIC DISTRIB.
		Element:	PIPING NETWORK
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/23/2009		
Project Location:	Room Only: Floor(s) 1		

Project Description

The heating hot water / glycol system is served by a shell-and-tube heat exchanger that is approaching the end of its expected life cycle. Such systems become increasingly maintenance intensive and problematic after twenty years of service. Scheduled replacement of this critical system is recommended.

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Cost

Project Number: TODDHV02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Replace shell and tube heat exchanger, including connections and insulation	GPM	180	\$60.74	\$10,933	\$11.87	\$2,137	\$13,070
Project Totals:				\$10,933		\$2,137	\$13,070

Material/Labor Cost		\$13,070
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		\$12,106
General Contractor Mark Up at 20.0%	+	\$2,421
Construction Cost		\$14,527
Professional Fees at 16.0%	+	\$2,324
Total Project Cost		\$16,851

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDHV04	Title:	CONDENSATE RECEIVER REPLACEMENT
Priority Sequence:	19		
Priority Class:	4		
Category Code:	HV5B	System:	HVAC
		Component:	STEAM/HYDRONIC DISTRIB.
		Element:	PUMPS
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Not Applicable		
Code Application:	Not Applicable		
Project Class:	Capital Renewal		
Project Date:	10/23/2009		
Project Location:	Item Only: Floor(s) 1		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Cost

Project Number: TODDHV04

Task Cost Estimate

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

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

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDEL02	Title:	ELECTRICAL SYSTEM REPAIRS
Priority Sequence:	20		
Priority Class:	4		
Category Code:	EL3B	System:	ELECTRICAL
		Component:	SECONDARY DISTRIBUTION
		Element:	DISTRIBUTION NETWORK
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Not Applicable		
Code Application:	NEC	Articles 100, 210, 410	
Project Class:	Capital Renewal		
Project Date:	10/23/2009		
Project Location:	Floor-wide: Floor(s) 1		

Project Description

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

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Cost

Project Number: TODDEL02

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Switches, receptacles, cover plates, breakers, and miscellaneous materials	SF	35,000	\$0.41	\$14,350	\$0.61	\$21,350	\$35,700
Project Totals:				\$14,350		\$21,350	\$35,700

Material/Labor Cost		\$35,700
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$25,403</u>
General Contractor Mark Up at 20.0%	+	<u>\$5,081</u>
Construction Cost		<u>\$30,484</u>
Professional Fees at 16.0%	+	<u>\$4,877</u>
Total Project Cost		<u>\$35,361</u>

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Description

Project Number:	TODDPL01	Title:	DOMESTIC WATER HEATER REPLACEMENT
Priority Sequence:	21		
Priority Class:	4		
Category Code:	PL1E	System:	PLUMBING
		Component:	DOMESTIC WATER
		Element:	HEATING
Building Code:	TODD		
Building Name:	TODD DINING HALL		
Subclass/Savings:	Not Applicable		
Code Application:	IPC	Chapters 5, 607	
Project Class:	Capital Renewal		
Project Date:	10/23/2009		
Project Location:	Item Only: Floor(s) 1		

Project Description

Replacement of the two 80 gallon, electric water heaters is recommended to maintain reliable production of domestic hot water during outages of the steam-based generation and storage system. Remove old water heaters and related piping. Install new units to meet the projected needs of this facility.

Specific Project Details
Facility Condition Analysis
Section Three
TODD : TODD DINING HALL

Project Cost

Project Number: TODDPL01

Task Cost Estimate

Task Description	Unit	Qty	Material Unit Cost	Total Material Cost	Labor Unit Cost	Total Labor Cost	Total Cost
Electric, commercial-grade water heater replacement, including demolition	GAL	160	\$100	\$16,069	\$9.46	\$1,514	\$17,582
Project Totals:				\$16,069		\$1,514	\$17,582

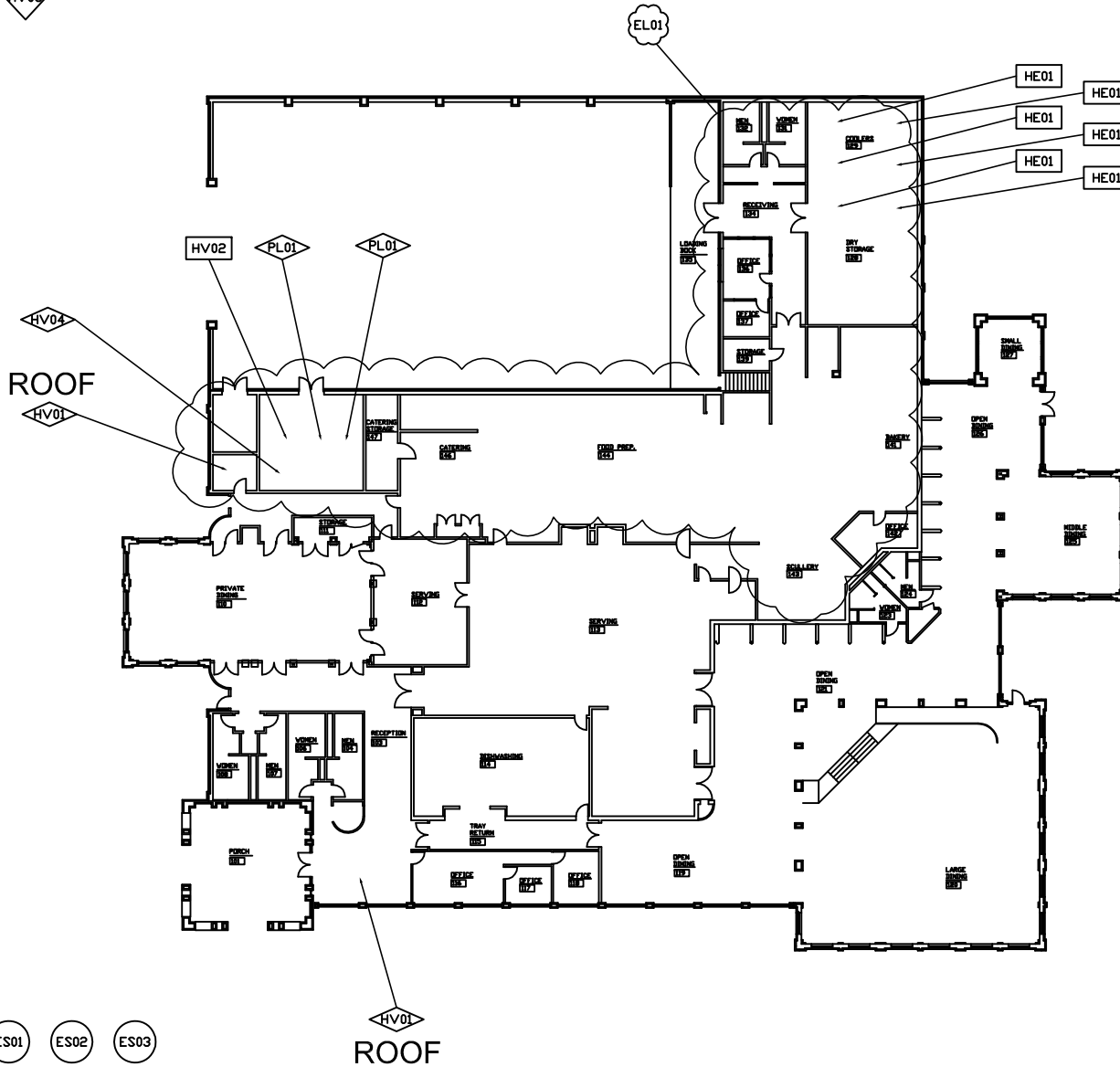
Material/Labor Cost		\$17,582
Material Index		100.7%
Labor Index		51.3%
Material/Labor Indexed Cost		<u>\$16,958</u>
General Contractor Mark Up at 20.0%	+	<u>\$3,392</u>
Construction Cost		<u>\$20,349</u>
Professional Fees at 16.0%	+	<u>\$3,256</u>
Total Project Cost		<u>\$23,605</u>

FACILITY CONDITION ANALYSIS

SECTION 4

**DRAWINGS
AND PROJECT LOCATIONS**

ROOF
ES04 HV03



TODD DINING HALL

BLDG NO. TODD



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

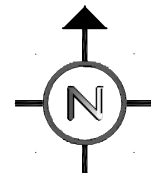
Date: 12/10/09

Drawn by: J.T.V.

Project No. 09-041

FIRST FLOOR PLAN

Sheet No. 1 of 1



FACILITY CONDITION ANALYSIS

SECTION 5

LIFE CYCLE MODEL SUMMARY
AND PROJECTIONS

Life Cycle Model
Building Component Summary
TODD : TODD DINING HALL

Unifomat Code	Component Description	Qty	Units	Unit Cost	Complex Adj	Total Cost	Install Date	Life Exp
B2010	EXTERIOR FINISH RENEWAL	11,710	SF	\$1.30	.31	\$4,732	1994	10
B2010	STUCCO FINISH RENEWAL	2,070	SF	\$3.33		\$6,893	1994	30
B2020	STANDARD GLAZING AND CURTAIN WALL	320	SF	\$104.04		\$33,292	1994	55
B2020	STANDARD GLAZING AND CURTAIN WALL	6,160	SF	\$104.04		\$640,865	1994	55
B2030	HIGH TRAFFIC EXTERIOR DOOR SYSTEM	3	LEAF	\$4,311.24		\$12,934	1994	20
B2030	HIGH TRAFFIC EXTERIOR DOOR SYSTEM	4	LEAF	\$4,311.24		\$17,245	2004	20
B2030	LOW TRAFFIC EXTERIOR DOOR SYSTEM	6	LEAF	\$2,863.29		\$17,180	1994	40
B2030	LOW TRAFFIC EXTERIOR DOOR SYSTEM	3	LEAF	\$2,863.29		\$8,590	1994	40
B3010	MEMBRANE ROOF	26,780	SF	\$6.41		\$171,574	1994	15
B3010	TILE ROOF	10,420	SF	\$19.15		\$199,504	1994	70
B3010	STANDARD METAL GUTTER SYSTEM	848	LF	\$9.80		\$8,310	1994	30
B3020	SKYLIGHT	80	SF	\$104.04		\$8,323	1994	30
C1020	STANDARD DOOR AND FRAME INCLUDING HARDWARE	12	LEAF	\$783.68		\$9,404	1994	35
C1020	RATED DOOR AND FRAME INCLUDING HARDWARE	33	LEAF	\$1,489.06		\$49,139	1994	35
C1020	RATED DOOR AND FRAME INCLUDING HARDWARE	10	LEAF	\$1,489.06		\$14,891	2004	35
C1020	INTERIOR DOOR HARDWARE	33	EA	\$423.04		\$13,960	1994	15
C1020	INTERIOR DOOR HARDWARE	10	EA	\$423.04		\$4,230	2004	15
C1020	INTERIOR DOOR HARDWARE	12	EA	\$423.04		\$5,077	1994	15
C3010	STANDARD WALL FINISH (PAINT, WALL COVERING, ETC.)	66,980	SF	\$0.80		\$53,654	1994	10
C3010	PREMIUM WALL FINISH (EPOXY, TILE, WOOD PANEL, ETC.)	3,530	SF	\$5.87		\$20,707	1994	20
C3020	CARPET	7,980	SF	\$8.75		\$69,797	2004	10
C3020	VINYL FLOOR TILE	2,660	SF	\$6.59		\$17,524	1994	15
C3020	CERAMIC FLOOR TILE	5,586	SF	\$17.36		\$96,986	1994	20
C3020	CERAMIC FLOOR TILE	10,374	SF	\$17.36		\$180,117	2004	20
C3030	ACOUSTICAL TILE CEILING SYSTEM	6,916	SF	\$4.99		\$34,532	1994	15
C3030	ACOUSTICAL TILE CEILING SYSTEM	10,374	SF	\$4.99		\$51,797	2004	15
C3030	PAINTED CEILING FINISH APPLICATION	4,655	SF	\$0.80		\$3,729	1994	15
C3030	PAINTED CEILING FINISH APPLICATION	1,995	SF	\$0.80		\$1,598	2004	15
D2010	PLUMBING FIXTURES - STUDENT UNION	35,000	SF	\$7.96		\$278,509	1994	35

Life Cycle Model
Building Component Summary
TODD : TODD DINING HALL

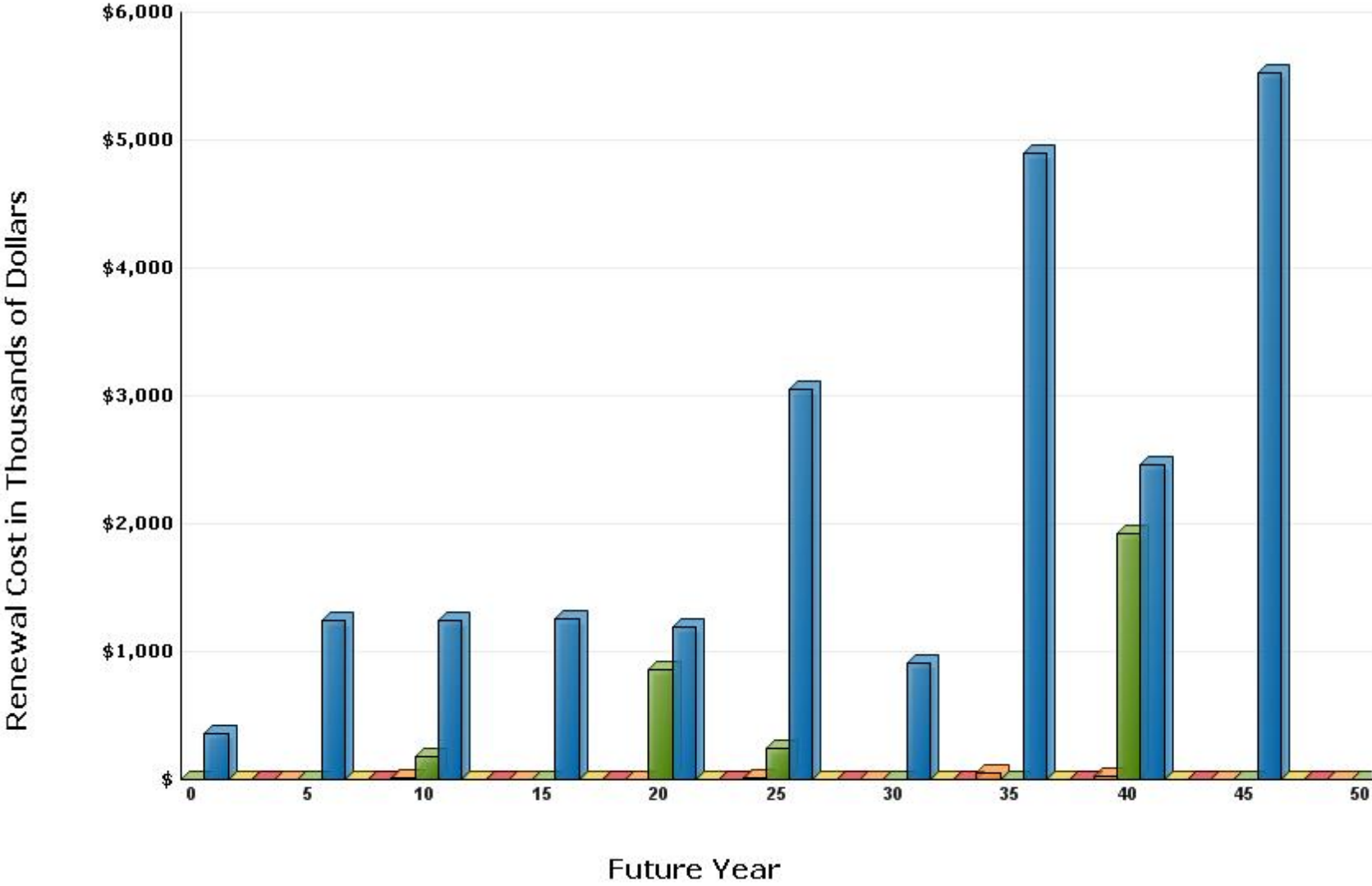
Unifomat Code	Component Description	Qty	Units	Unit Cost	Complex Adj	Total Cost	Install Date	Life Exp
D2020	WATER PIPING - STUDENT UNION	35,000	SF	\$5.66		\$198,197	1994	35
D2020	WATER HEATER (COMMERCIAL, ELECTRIC)	160	GAL	\$144.38		\$23,100	1994	20
D2020	WATER HEATER, SHELL AND TUBE HEAT EXCHANGER	48	GPM	\$355.69		\$17,073	1994	24
D2030	DRAIN PIPING - STUDENT UNION	35,000	SF	\$8.60		\$300,826	1994	40
D3030	COLD BOX REFRIGERATION SYSTEM	6	SYS	\$6,324.50		\$37,947	2003	15
D3030	CHILLER - AIR COOLED (OVER 100 TONS)	227	TON	\$1,173.39		\$266,360	2008	20
D3030	ROOFTOP HVAC UNIT	4	TON	\$2,415.23		\$9,661	1999	15
D3040	CONDENSATE RECEIVER	1	SYS	\$9,504.01		\$9,504	1994	15
D3040	EXHAUST FAN - CENTRIFUGAL ROOF EXHAUSTER OR SIMILAR	9	EA	\$2,768.62		\$24,918	1994	20
D3040	KITCHEN EXHAUST SYSTEM WITH MAKE-UP UNIT	10	SYS	\$54,113.61		\$541,136	1994	20
D3040	HVAC SYSTEM - STUDENT UNION	26,204	SF	\$28.79		\$754,367	1994	25
D3040	BASE MTD. PUMP - UP TO 15 HP	8	HP	\$3,175.77		\$25,406	2008	20
D3040	BASE MTD. PUMP - UP TO 15 HP	3	HP	\$3,175.77		\$9,527	1994	20
D3040	BASE MTD. PUMP - 15 HP TO 50 HP	15	HP	\$1,142.19		\$17,133	2008	20
D3050	SPLIT DX SYSTEM	3	TON	\$2,143.89		\$6,432	2002	15
D3050	SPLIT DX SYSTEM	36	TON	\$2,143.89		\$77,180	2003	15
D4010	FIRE SPRINKLER SYSTEM	35,000	SF	\$6.86		\$240,138	1994	80
D4010	FIRE SPRINKLER HEADS	35,000	SF	\$0.38		\$13,200	1994	20
D5010	ELECTRICAL SYSTEM - STUDENT UNION	35,000	SF	\$12.78		\$447,146	1994	50
D5010	ELECTRICAL SWITCHGEAR 120/208V	1,000	AMP	\$32.96		\$32,964	1994	20
D5010	ELECTRICAL SWITCHGEAR 277/480V	1,200	AMP	\$39.56		\$47,476	1994	20
D5010	TRANSFORMER, DRY, 480-208V (OVER 150 KVA)	300	KVA	\$61.11		\$18,334	1994	30
D5020	EXIT SIGNS (CENTRAL POWER)	18	EA	\$163.78		\$2,948	1994	20
D5020	EXIT SIGNS (CENTRAL POWER)	18	EA	\$163.78		\$2,948	2008	20
D5020	EXTERIOR LIGHT (HID)	8	EA	\$689.58		\$5,517	1994	20
D5020	LIGHTING - STUDENT UNION	10,500	SF	\$6.68		\$70,178	1994	20
D5020	LIGHTING - STUDENT UNION	24,500	SF	\$6.68		\$163,749	2008	20
D5030	FIRE ALARM SYSTEM, POINT ADDRESSABLE	35,000	SF	\$2.61		\$91,511	1994	15
D5040	GENERATOR, DIESEL (100-200 KW)	180	KW	\$493.93		\$88,907	1994	25

**Life Cycle Model
Building Component Summary
TODD : TODD DINING HALL**

Unifomat Code	Component Description	Qty	Units	Unit Cost	Complex Adj	Total Cost	Install Date	Life Exp
E2010	STANDARD BASE OR WALL CABINERY	240	LF	\$272.50		\$65,400	2004	20
F1020	ENVIRONMENTAL CHAMBER	672	SF	\$139.02		<u>\$93,419</u>	1994	35
						\$5,737,695		

Life Cycle Model Expenditure Projections

TODD : TODD DINING HALL



Average Annual Renewal Cost Per SqFt \$6.10

FACILITY CONDITION ANALYSIS

SECTION 6

PHOTOGRAPHIC LOG

**Photo Log - Facility Condition
Analysis**

TODD : TODD DINING HALL

Photo ID No	Description	Location	Date
TODD001a	Main building entrance canopy	Southeast building corner	9/14/2009
TODD001e	Kitchen hood exhaust system	Roof, over north part of food preparation area	9/14/2009
TODD002a	Building facade	South elevation	9/14/2009
TODD002e	Emergency generator	Southwest of loading dock	9/14/2009
TODD003a	Building facade	East elevation	9/14/2009
TODD003e	Air-cooled chiller	Southwest of loading dock	9/14/2009
TODD004a	Building facade	North elevation	9/14/2009
TODD004e	Desert Aire, air-cooled condenser	Roof, over mechanical room 140	9/14/2009
TODD005a	Building facade	West elevation	9/14/2009
TODD005e	Desert Aire dehumidifier make-up air handler	Roof, over mechanical room 140	9/14/2009
TODD006a	Building facade	North elevation	9/14/2009
TODD006e	Kitchen hood exhaust system	Roof, over north part of food preparation area	9/14/2009
TODD007a	Building facade	East elevation	9/14/2009
TODD007e	Four fan-powered ventilators	Roof, over mechanical room 140	9/14/2009
TODD008a	Building facade	North elevation	9/14/2009
TODD008e	General view of rooftop mechanical equipment	Looking southeast	9/14/2009
TODD009a	Building facade	North elevation	9/14/2009
TODD009e	General view of rooftop mechanical equipment	Looking south-southeast	9/14/2009
TODD010a	Utility court screen wall	West elevation	9/14/2009
TODD010e	General view of rooftop mechanical equipment	Looking south	9/14/2009
TODD011a	Service loading dock	South elevation	9/14/2009
TODD011e	Older Carrier, rooftop unit	Roof, southeast area	9/14/2009
TODD012a	Building facade	West elevation	9/14/2009
TODD012e	New Carrier, rooftop unit	Roof, south area	9/14/2009
TODD013a	Utility court screen wall	West elevation	9/14/2009
TODD013e	Ceiling-mounted horn strobe	Food preparation area 144	9/14/2009
TODD014a	Mechanical equipment penthouse	Main roof	9/14/2009
TODD014e	Recessed CFL downlights	Private dining room 110	9/14/2009
TODD015a	Damaged downspout leaders	Main building, entry	9/14/2009
TODD015e	General view of serving area 113	Looking north	9/14/2009

**Photo Log - Facility Condition
Analysis**

TODD : TODD DINING HALL

Photo ID No	Description	Location	Date
TODD016a	Typical roof overhang soffit	Main building, entry	9/14/2009
TODD016e	Trusses, chandeliers, and sprinklers	Large dining room 120	9/14/2009
TODD017a	Typical roof overhang soffit	Main roof, cupola	9/14/2009
TODD017e	Norifier AFP-200 fire alarm control panel	Reception area 103	9/14/2009
TODD018a	Deteriorating sealant joint	Main roof, at cupola masonry wall	9/14/2009
TODD019a	Deteriorating sealant joint	Exterior wall at glass block sidelight	9/14/2009
TODD020a	Deteriorating sealant joint	Exterior brick masonry wall	9/14/2009
TODD021a	Damaged loading dock slab edge	Service loading dock	9/14/2009
TODD022a	Damaged loading dock slab edge	Service loading dock	9/14/2009
TODD023a	Damaged trench drain grating	Service loading dock	9/14/2009
TODD024a	Deteriorating service door	Mechanical room, at service court	9/14/2009
TODD025a	Deteriorating service door louver	Mechanical room, at service court	9/14/2009
TODD026a	Membrane roofing system	Main roof	9/14/2009
TODD027a	Membrane roofing system	Main roof	9/14/2009
TODD028a	Clay tile roofing system	Small dining cupola	9/14/2009
TODD029a	Clay tile roofing system	Middle dining cupola	9/14/2009
TODD030a	Clay tile roofing system	Large dining cupola	9/14/2009
TODD031a	Copper clad vent	Typical roof cupola	9/14/2009
TODD032a	Typical copper guttering system	Typical roof cupola	9/14/2009
TODD033a	Roof tile and gutter details	Typical roof cupola	9/14/2009
TODD034a	Roof level mechanical and kitchen equipment	Main roof	9/14/2009
TODD035a	Pyramidal kalwall skylights	Main roof	9/14/2009
TODD036a	Poorly draining roof membrane at gutter discharge	Main roof	9/14/2009
TODD037a	Failing sealants at copper parapet wall coping cap	Main roof	9/14/2009
TODD038a	Deteriorating sealant joint	Main roof, at screen wall intersection	9/14/2009
TODD039a	Overview of service court	Service court, southwest	9/14/2009
TODD040a	Overview of service court	Service court, southwest	9/14/2009
TODD041a	Open structure ceiling	Large dining hall	9/14/2009
TODD042a	Overview of dining area	Large dining hall	9/14/2009
TODD043a	Accessible ramp to sunken dining hall	Large dining hall	9/14/2009

**Photo Log - Facility Condition
Analysis**

TODD : TODD DINING HALL

Photo ID No	Description	Location	Date
TODD044a	Overview of dining area	Large dining hall	9/14/2009
TODD045a	Overview of dining area	Middle dining hall	9/14/2009
TODD046a	Step handrailing to sunken dining hall	Large dining hall	9/14/2009
TODD047a	Inappropriate materials blocking egress corridor	Kitchen, egress corridor	9/14/2009
TODD048a	Typical kitchen equipment owned by contractor	Food Preparation 144	9/14/2009
TODD049a	Typical dishwashing area	Dishwashing 114	9/14/2009
TODD050a	Typical food service lines	Serving 113	9/14/2009
TODD051a	Typical food service lines	Serving 113	9/14/2009
TODD052a	Typical food service lines	Serving 113	9/14/2009
TODD053a	Poorly draining soils around building	North exterior	9/14/2009
TODD054a	Damaged and missing site lighting fixture	North site	9/14/2009
TODD055a	Poorly draining soils around building	North exterior	9/14/2009
TODD056a	Poorly draining soils around building	West exterior	9/14/2009
TODD057a	Damaged irrigation system	North exterior, at dry storage 128	9/14/2009
TODD058a	Temporary irrigation system power feed	West exterior, screen wall	9/14/2009

Facility Condition Analysis - Photo Log



TODD001A.jpg



TODD001E.jpg



TODD002A.jpg



TODD002E.jpg



TODD003A.jpg



TODD003E.jpg



TODD004A.jpg



TODD004E.jpg



TODD005A.jpg



TODD005E.jpg



TODD006A.jpg



TODD006E.jpg



TODD007A.jpg



TODD007E.jpg



TODD008A.jpg



TODD008E.jpg



TODD009A.jpg



TODD009E.jpg



TODD010A.jpg



TODD010E.jpg

Facility Condition Analysis - Photo Log



TODD011A.jpg



TODD011E.jpg



TODD012A.jpg



TODD012E.jpg



TODD013A.jpg



TODD013E.jpg



TODD014A.jpg



TODD014E.jpg



TODD015A.jpg



TODD015E.jpg



TODD016A.jpg



TODD016E.jpg



TODD017A.jpg



TODD017E.jpg



TODD018A.jpg



TODD019A.jpg



TODD020A.jpg



TODD021A.jpg



TODD022A.jpg



TODD023A.jpg

Facility Condition Analysis - Photo Log



TODD024A.jpg



TODD025A.jpg



TODD026A.jpg



TODD027A.jpg



TODD028A.jpg



TODD029A.jpg



TODD030A.jpg



TODD031A.jpg



TODD032A.jpg



TODD033A.jpg



TODD034A.jpg



TODD035A.jpg



TODD036A.jpg



TODD037A.jpg



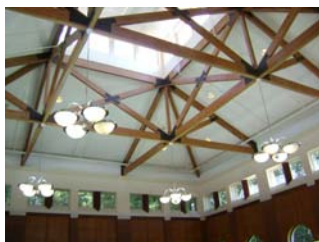
TODD038A.jpg



TODD039A.jpg



TODD040A.jpg



TODD041A.jpg



TODD042A.jpg



TODD043A.jpg

Facility Condition Analysis - Photo Log



TODD044A.jpg



TODD045A.jpg



TODD046A.jpg



TODD047A.jpg



TODD048A.jpg



TODD049A.jpg



TODD050A.jpg



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