

FACILITY AUDIT REPORT
BEVIS HALL, Bldg 307
October 4, 1993

Prepared by:
James P. Hertenstein
Division of Resource Management
Department of Physical Facilities
The Ohio State University

Table of Contents

EXECUTIVE SUMMARY AND PROJECT LIST FOR BEVIS HALL 3
GENERAL BUILDING INFORMATION 4
BUILDING SYSTEMS INFORMATION 5
BEVIS HALL NARRATIVE 6
BUILDING EVALUATION SUMMARY 10
 FOUNDATIONS 11
 COLUMNS AND BEAMS 12
 EXTERIOR WALLS 13
 EXTERIOR WINDOWS & DOORS 14
 ROOFING..... 15
 PARTITIONS & DOORS 16
 WALL FINISHES 17
 FLOOR FINISHES 18
 CEILINGS AND FINISHES 19
 CONVEYING 20
 MECHANICAL/PLUMBING..... 21
 MECHANICAL/HEATING 22
 COOLING & VENTILATING..... 23
 ELECTRICAL/SERVICE & DISTRIBUTION 24
 ELECTRICAL/LIGHTING & POWER 25
 SAFETY STANDARDS 26
 BUILDING PERIMETER EVALUATION 27
BUILDING AUDIT METHODOLOGY 28
ABBREVIATIONS 30
APPENDIX 31
 Reduced-Scale Building Floor Plans
 C-1 Building Space Assignments

EXECUTIVE SUMMARY AND PROJECT LIST FOR BEVIS HALL

Located on West Campus, Bevis Hall is a twenty-four year old concrete structure with a brick veneer. The building and its mechanical systems are still in good condition. The roof, one of the two 300-ton chillers, and both cooling towers have been replaced within the last six years. Existing maintenance requirements include an exterior maintenance project, a building improvement project to replace the remaining absorption chiller and several small projects. The upper floors of the building have a great deal of water damage from past roof and cooling tower plumbing problems.

PROPOSED MAINTENANCE PROJECTS:

A. Corrective Maintenance Projects:		Control #
1. Repair water damage in lecture hall rm 344 and repaint ceiling.....	\$6,400	2165
2. Seal exterior and replace caulking...	<u>\$154,900</u>	2137

Sub Total \$161,300

B. Building Improvement/Addition Project:		
1. Replace oil burners in boiler with gas burner.....	\$8,850	2138
1. Replace absorption chiller.....	<u>\$260,000</u>	2139

Sub Total \$268,850

C. Projected (over the next 5 yrs) Component Replacement Projects:
NO PROJECTS ARE PROJECTED AT THIS TIME

Total cost for estimated projects = \$430,150

4 OCT 93

GENERAL BUILDING INFORMATION

BEVIS HALL #307

BUILDING ADDRESS: 1050 CARMACK ROAD

GROSS SQ. FT.: 82,224

NET ASSIGNABLE SQ. FT.: 46,551

MECHANICAL/CUSTODIAL AREA SQ. FT.: 8,525

YEAR OF CONSTRUCTION: 1969

YEAR OF LAST RENOVATION: N/A

NUMBER OF STORIES/BASEMENT: 4 STORIES AND A BASEMENT

AIR CONDITIONING (Percentage): 95

CURRENT USE: DIVISION OF TRAFFIC & PARKING AND NATIONAL REGULATORY RESEARCH
INSTITUTE OFFICES; BIOMEDICAL ENGINEERING OFFICES AND LABS

TYPE OF CONSTRUCTION: CAST-IN-PLACE CONCRETE STRUCTURE WITH MASONRY VENEER

ESTIMATED REPLACEMENT COST: \$10,248,000 *

WHEELCHAIR ACCESSIBILITY: NORTH DOOR ON THE WEST SIDE OF THE BUILDING IS
EQUIPPED WITH AN AUTOMATIC DOOR OPENER. THE DOOR IS AT GRADE LEVEL. ALL
FLOORS ARE ACCESSIBLE VIA AN ELEVATOR.

OVERALL BUILDING CONDITION: SATISFACTORY**

NUMBER OF EXIT STAIRWAYS: FOUR

* Replacement Cost assigned June 1993 by The Office of Campus Planning and Space Utilization.

** Office of Campus Planning and Space Utilization C-1 Report Condition Code.

BUILDING SYSTEMS INFORMATION

BEVIS HALL #307

HEATING:

Source LOCAL BOILERS (3 @ 5.021 MBTU/HR) (ONE IS INOPERABLE)
Type Heating System HOT WATER
Steam (Line size, valve location) NONE
Building Htg Water (line size, valve location) LOCAL BOILERS - RM 045M

VENTILATION SYSTEM:

2-VAV SYSTEMS, 2-LIQUID CHILLED SYSTEMS AND ONE DX SYSTEM

COOLING:

Bldg % 95 Chillers 1-300 TON CENTRIFUGAL, 1-350 TON ABSORBER
Window Units 0 Thru-the-wall 0 Direct exp. units 1

HVAC CONTROL SYSTEM:

DIRECT DIGITAL CONTROL - POWERS 600

ELECTRIC: Source Size(KVA) Primary/Secondary Switchgear & Main Disc. (Rm)

1. BUCKEYE 105/205 750 13,200/(480Y/277) RM 011M
2. BUCKEYE 105/205 750 13,200/(208Y/120) RM 011M

PLUMBING:

Water (size, valve location) 4", RM 088M
Gas (size, valve location) 8", RM 088M
Domestic Hot Water (size, valve location) HOT WATER CONVERTER, RM 045M
Compressed Air (size, location) LOCAL COMPRESSOR FOR CONTROLS

SEWERS:

Storm 1 @ 10" Sanitary 1 @ 6"

METERS:

Gas (location) 8", RM 088M
Water (location) 3", RM 088M
Electric (location) RM 011M

ALARM SYSTEMS:

Fire Alarm YES Panel Location RM 011M
Fire Pump NO Pump Location N/A
Sprinklers PARTIAL Panel Location N/A
Other Alarms

ELEVATORS:

Number 1 Type (passenger, freight) PASSENGER
Manufacturer HAUGHTON Size 64" X 80"

EMERGENCY GENERATOR: Size N/A Location N/A

KEY BOX LOCATION: INSIDE IN HALL AT NORTH DOOR OFF LOADING DOCK

ASBESTOS SURVEY (1986): PIPE INSULATION LOCATED IN THE BASEMENT

BEVIS HALL NARRATIVE

HISTORY

Bevis Hall construction was completed in 1969. Principal occupants include the Biomedical Engineering Department, the National Regulatory Research Institute and some Traffic and Parking offices. The building has two lecture halls. The lower lecture hall is now inactive space and the upper hall is only used occasionally. There is an abandoned kitchen on the first floor next to a cafeteria. The Department of Physical Facilities West Campus Shop is located in the basement. The building is connected to the rest of the West Campus buildings by a system of pedestrian tunnels. Facility use by category is: 46% office and office-related use, 19% mechanical/custodial/toilet and shop services, 15% food services and inactive storage space, 11% data processing and laboratory, and 9% classroom, meeting or independent studies area.

PRIMARY SYSTEMS

The four-story structure is supported by concrete footers. Cast-in-place concrete columns support concrete floors throughout. The exterior consists of concrete blocks with a brick veneer. The roof deck is structural concrete with a layer of tapered light-weight insulating concrete on it. There has been a history of rain-related flooding in the basement in the southwest corner of the building. Maintenance personnel were notified and are currently investigating the storm sewer lines in the vicinity for a clog.

The building roof cover was replaced in 1986 with a single-ply vulcanized elastomer. The membrane is covered with a layer of rigid insulation and gravel ballast. Maintenance personnel did not report any problems with the cover and no evidence of recent leaks was observed.

The type of brick veneer on the exterior walls of Bevis was used on several buildings on West Campus and is very porous according to maintenance personnel. The sealants are beginning to dry out and crack at the windows. As a result, there has been a history of leaks at the windows in the stairways. The exterior should be sealed and the caulking should be replaced.

The building has fixed glass single-pane windows throughout. The total exterior glass area comprises less than 4% of the surface area and energy loss is minimal. The windows are fixed and there have been no maintenance problems reported with them other than some leaking at the caulking around them. Exterior doors are in good condition throughout the building.

SECONDARY SYSTEMS

Interior partition walls are composed of concrete block with a brick veneer, cast-in-place concrete, or metal stud and drywall walls. Surface finishes are generally in good condition and consist primarily of paint on the concrete block and drywall. The interior of the stairwells are veneered with brick. The restroom walls are covered with ceramic tile and should be scrubbed clean. The restrooms are located in the stairways at the end of short halls and can be difficult to locate. We noticed that several make-shift signs have been installed in the stairways pointing towards the restrooms. Signs should be installed in the stairways to locate the restrooms. The elevator is located in one of the building stairwells. The doors to this stairwell are equipped with electric openers for wheelchair accessibility. The doors at the second and third floor landings adjacent to the elevator are

scratched and gouged requiring replacement.

The primary floor covering in the building is vinyl tile. Carpeting is found in the third and fourth floor hallways. The restroom tile floors require cleaning but floors are generally in good condition otherwise.

Ceilings are predominantly suspended acoustical tile. The acoustic ceilings immediately below the roof have sustained heavy water damage and are stained in many locations. The tiles appear to have been painted but the stains have bled through in a number of the panels. The damage occurred before the roof and the cooling towers were replaced. The ceiling tiles should be replaced. There are water stains on the drywall below the stairways in several of the stairwells. The drywall ceilings and wall surfaces should be repainted after the exterior sealants are replaced.

SERVICE SYSTEMS

The building has one passenger elevator. The interior is slightly worn but does not require refurbishment. There is an emergency phone and handicapped-accessible controls in the elevator. The elevator ceiling should be cleaned and painted.

Most of the building is heated and cooled by dual duct systems that have been converted to variable air volume. Chilled water is supplied primarily from a 300-ton centrifugal chiller that was installed in 1989 to replace one of the two absorption chillers. The remaining absorption chiller has not been used in several years. The cooling towers were recently replaced. There is additional chilled water supply capacity via an 8" supply line which connects the chilled water supply from three other buildings in the west campus area. Building HVAC systems are controlled by a Direct Digital Control system.

Maintenance personnel reported that the demand for chilled water throughout the west campus loop has been increasing as occupancy on west campus increases. The absorption chiller has not been used since the new centrifugal chiller was installed. Additional chilled water supply capacity could be made available by replacing the remaining absorption machine with an electric centrifugal chiller.

Heating hot water is supplied by one of two gas-fired boilers to the hot decks and several unit heaters located throughout the building. Hot water is also supplied to the terminal reheats located in Rightmire Hall from these boilers. There is a third boiler in the building that is not being used. The boiler is equipped with fuel oil burners and fuel oil is no longer used at Bevis Hall. Maintenance personnel commented that the boiler would be useful if burners were replaced with natural gas burners.

Domestic hot water is provided by a hot water converter. Domestic hot water supply is adequate. There were no major plumbing problems in the maintenance workorder system when we surveyed it. Plumbing fixtures are still serviceable throughout the facility although the surface finish on most of the faucets are worn.

ELECTRICITY

The building is equipped with two 750 KVA transformers. Each has a primary voltage of 13,200. One has a secondary voltage of 480/277. The Physical Facilities Department's Utilities Division did not have recent maximum demand meter records. The Peak demand reading at the meter for this transformer indicated that the

transformer had been utilized at approximately 70% of capacity at some point. The other transformer has a secondary voltage of 208Y/120. Peak demand reading at the meter for this transformer indicated that the transformer is utilized at approximately 20% of capacity. There is an abundant supply of electrical power available. There is adequate electrical capacity and ample spare circuit space in all panels.

The building lighting system is predominantly 4-tube fluorescent fixtures which are clean and in good condition throughout. There is an adequate supply and distribution of convenience outlets throughout the building.

SAFETY STANDARDS

The building is equipped with portable fire extinguishers and standpipes in all four stairways. There are sprinklers in two rooms in the basement. Smoke detectors are located in the HVAC ductwork. The building has lighted exit signs and an emergency lighting system.

The entrance on the north west side of the building is at grade level and has a door that is equipped with an electric opener for the handicapped. The building is also accessible from the pedestrian tunnel linking the west campus buildings together. The door from the tunnel is equipped with an automatic opener. All floors are handicapped accessible from the elevator.

ASBESTOS

The Ohio Board of Regents Facilities Asbestos Inspection and Risk Assessment Program's report: Inventory of Friable Asbestos-Containing Materials in Buildings of the Ohio State University (Main and Branch Campuses) and Recommendations for Corrective Action by PEI Associates, September 1986, identifies asbestos containing materials in the pipe insulation in the basement of the building.

BUILDING PERIMETER

The sidewalks around the building are asphalt covered and generally need to be sealed and patched. There is a funded project to repair the walk above the tunnel connecting Rightmire and Bevis Halls, which has been leaking for a number of years. The shrubs on the north side of the building are obscuring the building sign and should be trimmed. The entrances to the facility are well lighted and secure. The building is serviced by a loading dock on the east side of the basement. No exterior drainage problems were observed. The plant bed along the south side of the building requires more bedding material.

Maintenance Projects (LESS THAN \$5000)

1. Replace double doors at elevators on the second, third floors.
Work order # 01-5064-080118-71
2. Install signs at restrooms in stairways.
Work order # 01-5064-080118-71
3. Replace stained ceiling tile on fourth floor hallways.
Work order # 01-5064-080119-69
4. Scrub tile surfaces in restrooms and paint ceilings.
Work order # 01-5063-005971-49/01-5064-080119-69
5. Trim shrubbery.
Work order # 01-5063-005969-55
6. Paint elevator ceiling.
Work order # 01-5064-080119-69
7. Repair and seal asphalt walks.
Work order # 01-5063-005970-51
8. Add bedding material at south.
Work order # 01-5063-005969-55

BUILDING EVALUATION SUMMARY

I. BUILDING INFORMATION

FAC # 307 FACILITY NAME: BEVIS HALL
 DATE: 9/09/93 INSPECTOR: JAMES P. HERTENSTEIN
 YEAR CONSTRUCTED: 1969
 GROSS SQ FT: 82,224 NET SQ FT: 46,551
 REPLACEMENT COST \$ 10,248,000 *

II. COMPONENT RATING

COMPONENT	BUILDING COMPONENT PERCENTAGE OF TOTAL COST **	BUILDING COMPONENT REPLACEMENT COST	CONDITION VALUE MULTIPLIER FOR BLDG. COMPONENT	BUILDING COMPONENT CURRENT VALUE
Foundation	4.9	502,152	.85	426,829
Columns and Beams	14.4	1,475,712	.92	1,357,655
Exterior Walls	10.3	1,055,544	.66	696,659
Windows & Doors	2.9	297,192	.83	246,669
Roofing	1.6	163,968	.89	145,932
Partitions & Drs.	8.5	871,080	.87	757,840
Wall Finishes	3.3	338,184	.88	297,602
Floor Finishes	6.3	645,624	.83	535,868
Ceilings & Finish	8.9	912,072	.73	665,813
Conveying	2.1	215,208	.76	163,558
Plumbing	2.7	276,696	.80	221,357
Heating	10.8	1,106,784	.84	929,699
Cooling & Vent.	8.4	860,832	.87	748,924
Elec. Ser. & Dist	1.7	174,216	.98	170,732
Lighting & Power	12.5	1,281,000	.79	1,011,990
Safety Standards	.7	71,736	.70	50,215
TOTALS	100.00	10,248,000		8,427,342

III. BUILDING RATING SUMMARY

Overall Building Rating = 82%

* Replacement Cost assigned June 1993 by The Office of Campus Planning and Space Utilization without the furnishings and fixed equipment allocation.

** Percent allocation of each building component is calculated from The Means Standard Construction Cost data for College Classroom Buildings.

FOUNDATIONS

FAC # 307 DATE 9/10/93 INSPECTOR: JPH

A. SYSTEM DESCRIPTION

a. Footings:	<u>N/A</u>	<u>Sat</u>	<u>Att</u>
Individual Footings & Piers <u>UNDER COLUMNS</u>	[]	[X]	[]
Continuous Footings <u>PERIMETER AND INTERIOR WALLS</u>	[]	[X]	[]
Grade Beams _____	[X]	[]	[]
Piles _____	[X]	[]	[]
Caissons _____	[X]	[]	[]
b. Foundation Wall Materials:			
Steel _____	[X]	[]	[]
Concrete Cast-in-place <u>8", 10" & 12" WALLS</u>	[]	[X]	[]
Concrete Block _____	[X]	[]	[]
Other _____	[X]	[]	[]
c. Waterproofing and Underdrain:			
Coating _____	[]	[]	[]
Membrane <u>VAPOR BARRIER UNDER BASEMENT SLAB</u>	[]	[X]	[]
Board <u>1" INSULATING</u>	[]	[X]	[]
Drain Tile <u>4" PERIMETER TILE</u>	[]	[X]	[]
d. Slab on Grade (floor):			
Plain _____	[X]	[]	[]
Reinforced <u>4" SLAB</u>	[]	[X]	[]
e. Special Substructures:			
_____	[X]	[]	[]

B. COMMENTS:

MAINTENANCE PERSONNEL REPORTED THAT THE SOUTHWEST BASEMENT STAIRWAY AREA HAS BEEN FLOODING FOR YEARS AFTER PERIODS OF HEAVY RAIN. THERE WAS A NOTICEABLE WATER LINE ON THE WALL IN THE AREA AND THE BOTTOMS OF SEVERAL METAL DOOR FRAMES WERE RUSTING IN THIS AREA. THE WATER APPEARS TO SEEP UP BETWEEN THE SLAB AND THE EXTERIOR WALL. MAINTENANCE PERSONNEL SUSPECT A CLOGGED STORM SEWER AND ARE ATTEMPTING TO LOCATE THE PROBLEM.

C. COMPONENT RATING: (\$ 505,200) X (85 %) = \$ 426,800
 Possible Condition Component
 Value Value Multiplier Value

COLUMNS AND BEAMS

FAC # 307 DATE 9/10/93 INSPECTOR: JPH

A. SYSTEM DESCRIPTION

a. Columns and Beams:

	N/A	Sat	Att
Concrete-in-place <u>USED THROUGHOUT</u>	[]	[X]	[]
Precast Concrete _____	[X]	[]	[]
Steel _____	[X]	[]	[]
Steel Fireproofing _____	[X]	[]	[]
Wood _____	[X]	[]	[]

b. Floors:

Concrete Slab <u>INTEGRAL SLAB AND JOIST SYSTEM THROUGHOUT</u>	[]	[X]	[]
Precast Slab _____	[X]	[]	[]
Metal Deck _____	[X]	[]	[]
Metal Deck w/concrete fill _____	[X]	[]	[]
Wood _____	[X]	[]	[]
Other _____	[X]	[]	[]

c. Roof System:

Flat <u>PREDOMINANT</u>	[]	[X]	[]
Pitched <u>LIMITED TO SMALL ROOFS ABOVE ENTRANCES</u>	[]	[X]	[]
Concrete <u>STRUCTURAL CONCRETE SLAB & INSULATING CONCRETE</u>	[]	[X]	[]
Steel _____	[]	[]	[]
Wood _____	[X]	[]	[]
Other <u>EXTRUDED ALUMINUM AWNING ROOFS OVER ENTRANCES</u>	[]	[X]	[]

B. COMMENTS:

NO STRUCTURAL PROBLEMS OBSERVED.

C. COMPONENT RATING: (\$1,476,000) x (92 %) = \$ 1,358,000

Possible	Condition	Component
Value	Value Multiplier	Value

EXTERIOR WALLS

FAC # 307 DATE 9/10/93 INSPECTOR: JPH

A. SYSTEM DESCRIPTION

a. Walls:

	<u>N/A</u>	<u>Sat</u>	<u>Att</u>
Concrete _____	[X]	[]	[]
Masonry <u>PREDOMINANTLY BRICK, CONCRETE AT DOCK</u>	[]	[]	[X]
Metal Siding _____	[X]	[]	[]
Wood Siding _____	[X]	[]	[]
Other _____	[X]	[]	[]

b. Finishes:

Stucco _____	[X]	[]	[]
Paint _____	[X]	[]	[]
Other _____	[X]	[]	[]

B. COMMENTS:

MAINTENANCE PERSONNEL REPORTED THAT THE WINDOWS IN THE STAIRWAYS HAVE BEEN LEAKING DURING HEAVY RAINS AT THE JOINTS. THEY SPECULATED THAT THE CAULKING IS FAILING. THE CAULKING THROUGHOUT THE EXTERIOR OF THE BUILDING IS IN POOR CONDITION - CRACKING, SHRINKING AND DISPLACED. MAINTENANCE PERSONNEL ALSO COMMENTED THAT THE BRICK USED THROUGHOUT WEST CAMPUS WAS PARTICULARLY POROUS AND SUBJECT TO MOISTURE INFILTRATION. THEY COMMENTED THAT THE CAULKING SHOULD BE REPLACED AND THAT THE BRICK SHOULD BE SEALED. THIS MAY BE ACCOMPLISHED WITH EXCESS FUNDS FROM A TUNNEL REPAIR PROJECT IN THE AREA, BUT MAINTENANCE PERSONNEL WERE NOT OPTIMISTIC ABOUT EXCESS FUNDS. WE ARE PROPOSING A PROJECT TO SEAL AND REPLACE THE CAULKING THROUGHOUT.

C. COMPONENT RATING: (\$1,056,000) x (66 %) = \$696,700
 Possible Condition Component
 Value Value Multiplier Value

EXTERIOR WINDOWS & DOORS

FAC # 307 DATE 9/10/93 INSPECTOR: JPH

A. SYSTEM DESCRIPTION

a. Windows type & number:	<u>N/A</u>	<u>Sat</u>	<u>Att</u>
Wood _____	[X]	[]	[]
Steel _____	[X]	[]	[]
Alum <u>194 FIXED UNITS AND 56 FIXED SPANDREL GLASS PANELS</u>	[]	[X]	[]
Other _____	[X]	[]	[]
b. Window glazing:			
Single pane <u>1/4 " TEMPERED AT STAIR LANDINGS</u>	[]	[X]	[]
Double pane _____	[X]	[]	[]
Other _____	[X]	[]	[]
c. Doors type & number:			
Wood _____	[X]	[]	[]
Steel <u>1 DOUBLE UNIT AND 2 SINGLE UNITS</u>	[]	[X]	[]
Alum <u>2 DOUBLE</u>	[]	[X]	[]
Other _____	[X]	[]	[]
d. Shading Devices:			
Types <u>VENETIAN BLINDS, SHADES AND CURTAINS.</u>	[]	[X]	[]

B. COMMENTS:

WINDOWS ARE IN GOOD CONDITION. THERE HAS BEEN A HISTORY OF LEAKS DUE TO DETERIORATING CAULKING AT THE STAIRWAY WINDOWS AND SPANDREL UNITS.

C. COMPONENT RATING: (\$297,200) X (83 %) = \$246,700

Possible	Condition	Component
Value	Value Multiplier	Value

ROOFING

FAC # 307 DATE 9/10/93 INSPECTOR: JPH

A. SYSTEM DESCRIPTION

a. Roof Covering:	N/A	Sat	Att
Built-up _____	[X]	[]	[]
Built-up w/gravel _____	[x]	[]	[]
Asphalt Shingle _____	[X]	[]	[]
Copper _____	[X]	[]	[]
Glass (Skylight) _____	[X]	[]	[]
Slate _____	[X]	[]	[]
Spanish Tile _____	[X]	[]	[]
Metal <u>138 SF, INSTALLED 1969, ALUMINUM</u>	[]	[X]	[]
Other <u>EPDM WITH GRAVEL INSTALLED IN 1986, 19,758 SF</u>	[]	[X]	[]

c. Flashing:

Base & Counter <u>EPDM BASE, METAL COUNTER FLASHING</u>	[]	[X]	[]
Cap <u>ALUMINUM ON PARAPETS</u>	[]	[X]	[]
Through Wall _____	[X]	[]	[]
Valley & Ridge _____	[X]	[]	[]

d. Gravel Stop & Edge Strips:

Type <u>ALUMINUM</u>	[]	[X]	[]
----------------------	-----	-----	-----

e. Drainage:

Gutters w/Exterior Downspouts _____	[X]	[]	[]
Scuppers w/Exterior Downspouts <u>LIMITED USE</u>	[]	[X]	[]
Drains w/Interior Storm Drains <u>PREDOMINANT</u>	[]	[X]	[]

f. Parapets:

Concrete <u>STRUCTURE FOR SCREEN WALL AT COOLING TOWERS</u>	[]	[X]	[]
Brick <u>VENEER ON SCREEN WALLS AND LOW PARAPETS</u>	[]	[X]	[]
Block _____	[X]	[]	[]
Precast _____	[X]	[]	[]
Other _____	[X]	[]	[]

g. Insulation:

Type <u>1" RIGID ABOVE EPDM, INSULATING CONCRETE BELOW</u>	[]	[X]	[]
--	-----	-----	-----

B. COMMENTS

THE ROOF WAS REPLACED IN 1986. THERE WAS A HISTORY OF PROBLEMS WITH EQUIPMENT CURBS WHICH HAVE BEEN CORRECTED. THE CEILINGS ON THE THIRD AND FOURTH FLOORS BELOW THE ROOF HAVE MANY STAINS BUT NO RECENT LEAKS WERE IDENTIFIED BY OCCUPANTS OR MAINTENANCE PERSONNEL.

C. COMPONENT RATING: (\$164,000) x (89 %) = \$145,900
 Possible Condition Component
 Value Value Multiplier Value

PARTITIONS & DOORS

FAC # 307 DATE 9/10/93 INSPECTOR: JPH

A. SYSTEM DESCRIPTION

a. Partition Framing:	N/A	Sat	Att
Concrete Block <u>AT STAIR WAYS WITH BRICK VENEER</u>	[]	[X]	[]
Glazed Block _____	[X]	[]	[]
Wood Stud _____	[X]	[]	[]
Metal Stud <u>MOST OF THE UPPER FLOOR PARTITIONS</u>	[]	[X]	[]
Structural Tile _____	[X]	[]	[]
Rated _____	[X]	[]	[]
Other <u>CAST-IN-PLACE CONCRETE IN BASEMENT AND AUDITORIUMS</u>	[]	[X]	[]
b. Special partitions and Walls:			
Toilet <u>METAL</u>	[]	[X]	[]
Screen Walls _____	[X]	[]	[]
Gate _____	[X]	[]	[]
Other _____	[X]	[]	[]
c. Wall Material:			
Plaster _____	[X]	[]	[]
Plaster Board <u>DRYWALL WITH METAL STUDS THROUGHOUT</u>	[]	[X]	[]
Glass <u>LIMITED USE OF GLASS BLOCK</u>	[]	[X]	[]
Plywood _____	[X]	[]	[]
Paneling _____	[X]	[]	[]
Trim & Wainscot _____	[X]	[]	[]
Tile/Glazed <u>RESTROOMS TILE/GROUT SHOULD BE SCRUBBED</u>	[]	[]	[X]
Other <u>BRICK AT STAIRWELLS AND SOME OF THE CORRIDOR WALLS</u>	[]	[X]	[]
d. Interior Doors & Frames:			
Met Door/Met Frame <u>MAINTENANCE ROOMS</u>	[]	[X]	[]
Wood Door/Wood Frame _____	[X]	[]	[]
Wood Door/Metal Frame <u>USED THROUGHOUT</u>	[]	[]	[X]
Glazing _____	[X]	[]	[]
Rollup _____	[X]	[]	[]
Sliding _____	[X]	[]	[]
Other _____	[X]	[]	[]
e. Hardware:			
Door Closers _____	[]	[X]	[]
Lock Sets _____	[]	[X]	[]
Kick/Push Plates _____	[]	[X]	[]
Thresholds _____	[]	[X]	[]
Panic Devices _____	[]	[X]	[]
Security & Detection _____	[X]	[]	[]
Automatic Openers <u>HANDICAPPED ACCESS DOORS</u>	[]	[X]	[]
Other _____	[X]	[]	[]

B. COMMENTS:

PARTITIONS ARE IN GOOD CONDITION THROUGHOUT. DOORS AND HARDWARE ARE GENERALLY IN GOOD CONDITION WITH EXCEPTION TO THE DOORS LEADING TO THE STAIRWAY WITH THE ELEVATOR. THE DOORS AT THE 2ND AND 3RD FLOORS SHOULD BE REPLACED

C. COMPONENT RATING: (\$871,100) x (87 %) = \$757,800
 Possible Condition Component
 Value Value Multiplier Value

WALL FINISHES

FAC # 307 DATE 9/10/93 INSPECTOR: JPH

A. SYSTEM DESCRIPTION	<u>N/A</u>	<u>Sat</u>	<u>Att</u>
a. Paint <u>DRYWALL AND CONCRETE WALLS THROUGHOUT</u>	[]	[]	[X]
b. Wall Coating _____	[X]	[]	[]
c. Wall Coverings _____	[X]	[]	[]
d. Paneling			
Prefinished _____	[X]	[]	[]
Plank _____	[X]	[]	[]
e. Cork _____	[X]	[]	[]
f. Wallpaper _____	[X]	[]	[]
g. Ceramic Tile <u>RESTROOMS</u>	[]	[]	[X]
h. Trim & Wainscot _____	[X]	[]	[]
i. Decoration _____	[X]	[]	[]
j. Glass _____	[]	[X]	[]
k. Other <u>BRICK VENEER IN STAIRWAYS</u>	[]	[X]	[]

B. COMMENTS

MOST OF THE WALL FINISHES ARE IN GOOD CONDITION. THE STAIRWAYS HAVE WATER STAINS FROM THE LEAKING WINDOW CAULKING AND SHOULD BE REPAINTED AFTER THE LEAKS ARE SEALED. THE RESTROOM TILE WALLS ARE DIRTY AND WOULD BENEFIT SIGNIFICANTLY FROM A ONE-TIME SCRUBBING. THE METAL PARTITIONS IN THE RESTROOMS SHOULD BE REPAINTED THROUGHOUT MOST OF THE BUILDING. ROOM 344 (LECTURE HALL) HAS SUSTAINED A SIGNIFICANT AMOUNT OF DAMAGE FROM PAST ROOF LEAKS AND THE WALLS SHOULD BE REPAIRED AND REPAINTED AS NEEDED.

C. COMPONENT RATING: (\$338,200) x (88 %) = \$297,600

Possible	Condition	Component
Value	Value Multiplier	Value

FLOOR FINISHES

FAC # 307 DATE 9/10/93 INSPECTOR: JPH

A. SYSTEM DESCRIPTION

	<u>N/A</u>	<u>Sat</u>	<u>Att</u>
a. Carpet:			
Rolled _____	[X]	[]	[]
Tile <u>DEPARTMENT OFFICES & PART OF 3RD & 4TH FLOOR HALLS</u>	[]	[X]	[]
b. Composition:			
Epoxy _____	[X]	[]	[]
Synthetic _____	[X]	[]	[]
Other _____	[X]	[]	[]
c. Concrete Topping:			
Clear Sealant <u>MAINTENANCE ROOMS</u>	[]	[X]	[]
Abrasive _____	[X]	[]	[]
Epoxy _____	[X]	[]	[]
Aggregate _____	[X]	[]	[]
d. Resilient:			
Vinyl Tile <u>THROUGHOUT THE BUILDING</u>	[]	[X]	[]
Linoleum _____	[X]	[]	[]
Vinyl _____	[X]	[]	[]
Rubber <u>SOME STAIRWAY TREADS AND LANDINGS</u>	[]	[X]	[]
Cork _____	[X]	[]	[]
e. Ceramic Tile <u>RESTROOMS & QUARRY TILE IN ENTRANCES</u>	[]	[]	[X]
f. Masonry _____	[X]	[]	[]
g. Terrazzo _____	[X]	[]	[]
h. Wood _____	[X]	[]	[]
i. Metal _____	[X]	[]	[]

B. COMMENTS

FLOOR COVERINGS ARE IN GOOD CONDITION THROUGHOUT MOST OF BUILDING. THE TILE ON THE RESTROOM FLOORS WOULD BENEFIT FROM A ONE-TIME SCRUBBING.

C. COMPONENT RATING: (\$645,600) X (83 %) = \$535,900
 Possible Condition Component
 Value Value Multiplier Value

CEILING AND FINISHES

FAC # 307 DATE 9/10/93 INSPECTOR: JPH

A. SYSTEM DESCRIPTION

a. System Type:	N/A	Sat	Att
Exposed <u>MAINTENANCE ROOMS</u>	[]	[X]	[]
Applied to Structure _____	[X]	[]	[]
Suspended <u>PREDOMINANT - MINERAL FIBER AND DRYWALL</u>	[]	[]	[X]

b. Materials:

Drywall _____ <u>RESTROOMS</u>	[]	[X]	[]
Plaster _____	[X]	[]	[]
Mineral Fiber Board <u>MOST OF THE BUILDING</u>	[]	[]	[X]
Metal Pan _____	[X]	[]	[]
Luminous Panels _____	[X]	[]	[]
Other _____	[X]	[]	[]

c. Finishes:

Paint <u>DRYWALL AND EXPOSED STRUCTURE</u>	[]	[]	[X]
Fabric _____	[X]	[]	[]
Prefinished <u>SUSPENDED MINERAL FIBER BOARD</u>	[]	[]	[X]
Other _____	[X]	[]	[]

d. Openings & Inserts:

Air Distribution _____	[]	[X]	[]
Lighting Fixtures _____	[]	[X]	[]
Access Panels _____	[]	[X]	[]
Skylights _____	[X]	[]	[]
Fire Protection _____	[X]	[]	[]
Other _____	[X]	[]	[]

B. COMMENTS:

CEILING IN THE 1ST AND 2ND FLOOR RESTROOMS SHOULD BE REPAINTED. THE WATER DAMAGED CEILING TILES ON THE THIRD AND FOURTH FLOORS HAVE BEEN PAINTED IN THE HALLWAYS BUT THE STAINS HAVE BLED THROUGH IN A NUMBER OF LOCATIONS. THEY SHOULD BE REPLACED NOW THAT THE ROOF LEAKS HAVE BEEN REPAIRED.

C. COMPONENT RATING: (\$912,100) x (73 %) = \$665,800

Possible	Condition	Component
Value	Value Multiplier	Value

CONVEYING

FAC # 307 DATE 9/10/93 INSPECTOR: JPH

A. SYSTEM DESCRIPTION

a. Elevators:

	N/A	Sat	Att
Number <u>ONE</u>	[]	[X]	[]
Type <u>HAUGHTON - PASSENGER - ELECTRIC</u>	[]	[X]	[]
Speed <u>250 FPM</u>	[]	[X]	[]
Capacity (lbs) <u>3500</u>	[]	[X]	[]
Dimensions <u>64" X 80"</u>	[]	[X]	[]
Door Operation:			
Center _____	[]	[X]	[]
To Side _____	[X]	[]	[]

b. Lifts and Hoists:

Number _____	[X]	[]	[]
Type _____	[X]	[]	[]

c. Moving Stairs and Walks:

Number _____	[X]	[]	[]
Type _____	[X]	[]	[]

d. Conveyors:

Number _____	[X]	[]	[]
Type _____	[X]	[]	[]

e. Pneumatic Tubes:

Number _____	[X]	[]	[]
Type _____	[X]	[]	[]

B. COMMENTS:

ELEVATOR IS IN GOOD CONDITION AND IS EQUIPPED WITH AN EMERGENCY TELEPHONE, HANDICAPPED-ACCESSIBLE CONTROLS, HANDRAILS, AND TACTILE/BRAILLE CONTROLS. THE CEILING SHOULD BE CLEANED AND PAINTED.

C. COMPONENT RATING: (\$215,200) X (76 %) = \$163,600
 Possible Condition Component
 Value Value Multiplier Value

MECHANICAL/PLUMBING

FAC # 307 DATE 9/10/93 INSPECTOR: JPH

A. SYSTEM DESCRIPTION

a. Services Available:	N/A	Sat	Att
Cold Water <u>4" - VALVE IN RM 088M</u>	[]	[X]	[]
Hot Water <u>HOT WATER CONVERTER RM 045M</u>	[]	[X]	[]
Acid Waste _____	[X]	[]	[]
Oxygen _____	[X]	[]	[]
Natural Gas <u>8" - LINE ENTERS BUILDING IN RM 088M</u>	[]	[X]	[]
Vacuum _____	[X]	[]	[]
Distilled Water _____	[X]	[]	[]
Compressed Air <u>LOCAL COMPRESSOR FOR CONTROL AIR ONLY</u>	[]	[X]	[]
Other _____	[X]	[]	[]
b. Piping & Fittings:			
Cast Iron <u>WASTE AND VENTS</u>	[]	[X]	[]
Copper Tubing <u>DOMESTIC WATER LINES</u>	[]	[X]	[]
Plastic _____	[X]	[]	[]
Steel <u>HEATING HOT WATER & CHILLED WATER - SUPPLY & RETURN</u>	[]	[X]	[]
Glass _____	[X]	[]	[]
Other _____	[X]	[]	[]
c. Water Heaters:			
Electric _____	[X]	[]	[]
Gas _____	[X]	[]	[]
Oil _____	[X]	[]	[]
Steam Converter <u>HOT WATER CONVERTER RM 045M</u>	[]	[X]	[]
Other _____	[X]	[]	[]
d. Drainage:			
Storm Drains <u>1 @ 10" - POSSIBLE CLOG</u>	[]	[]	[X]
Sanitary Drainage <u>1 @ 6"</u>	[]	[X]	[]
Combined Storm/San. _____	[X]	[]	[]
Floor Drains <u>BASEMENT MAINTENANCE ROOMS, RESTROOMS</u>	[]	[X]	[]
e. Fixtures:			
Water Closets <u>31</u>	[]	[X]	[]
Urinals <u>21</u>	[]	[X]	[]
Lavatories <u>26</u>	[]	[X]	[]
Showers _____	[X]	[]	[]
Kitchen Sinks <u>LOCATED IN INACTIVE SPACE WHICH WAS KITCHEN</u>	[]	[X]	[]
Service Sinks <u>5</u>	[]	[X]	[]
Drinking Fountains _____	[X]	[]	[]
Electric Water Coolers _____	[]	[X]	[]
f. Sprinkler Systems:			
Wet <u>ROOMS 076 AND 070A (TRASH ROOM)</u>	[]	[X]	[]
Dry _____	[X]	[]	[]
g. Standpipe Systems:			
Wet <u>4 - 4" LINES SUPPLY HOSE CABINETS</u>	[]	[X]	[]
Dry _____	[X]	[]	[]
Valves _____	[X]	[]	[]
Hose Cabinets <u>20</u>	[]	[X]	[]

B. COMMENTS:

PLUMBING SYSTEM IS IN GOOD CONDITION. THE FAUCETS IN THE RESTROOMS ARE WORN AND SHOULD BE REPLACED.

C. COMPONENT RATING: (\$276,700) X (80 %) = \$221,400
 Possible Condition Component
 Value Value Multiplier Value

MECHANICAL/HEATING

FAC # 307 DATE 9/10/93 INSPECTOR: JPH

A. SYSTEM DESCRIPTION

a. Heat Source:	N/A	Sat	Att
Central Plant Steam _____	[X]	[]	[]
Central Plant Hot Water _____	[X]	[]	[]
Boilers: Type <u>2 GAS-FIRED, HOT WATER, KEWANEE *</u>	[]	[X]	[]
Size <u>5,022 MBTU/HR EACH</u>	[]	[X]	[]
Furnace: Type _____	[X]	[]	[]
Size _____	[X]	[]	[]
Heat Pump: Type _____	[X]	[]	[]
Size _____	[X]	[]	[]

b. System Type:			
Steam _____	[X]	[]	[]
Hot Water <u>COILS FOR HOT DECKS, UNIT HEATERS</u>	[]	[X]	[]
Air _____	[]	[X]	[]
Multizone _____	[X]	[]	[]
Dual Duct <u>AIR VOLUME WAS REDUCED</u>	[]	[X]	[]
Terminal Reheat _____	[X]	[]	[]
Variable Volume <u>MIXING BOXES CONVERTED</u>	[]	[X]	[]
Other _____	[X]	[]	[]

c. Space Equipment:			
Radiators _____	[X]	[]	[]
Convectors _____	[X]	[]	[]
2-Pipe Fan Coil _____	[X]	[]	[]
Unit Heaters <u>10 LOCATED IN MAINTENANCE & JANITOR ROOMS</u>	[]	[X]	[]
Other <u>CABINET HEATERS LOCATED IN RESTROOMS</u>	[]	[X]	[]

d. Control Type:			
Pneu <u>ACTUATORS</u>	[]	[X]	[]
Electric <u>ELECTRIC HEATERS AND UNIT HEATERS</u>	[]	[X]	[]
DDC _____	[]	[X]	[]
Manual Valves _____	[X]	[]	[]

B. COMMENTS:

* ONE HEATING HOT WATER BOILER IS NOT OPERABLE BECAUSE IT IS EQUIPPED WITH OIL BURNERS. THE OTHER TWO ARE GAS-FIRED AND ARE IN GOOD CONDITION. MAINTENANCE PERSONNEL SUGGESTED THAT THE BURNERS FOR THE OIL FIRED BOILER SHOULD BE CONVERTED TO GAS FOR ADDITIONAL CAPACITY. THE BOILERS SUPPLY HEATING HOT WATER FOR BOTH BEVIS AND RIGHTMIRE HALLS.

C. COMPONENT RATING: (\$1,107,000) X (84 %) = \$929,700

Possible	Condition	Component
Value	Value	Multiplier
		Value

COOLING & VENTILATING

FAC # 307 DATE 9/10/93 INSPECTOR: JPH

A. SYSTEM DESCRIPTION

	N/A	Sat	Att
a. System:			
Type <u>2-VAV SYSTEMS, 2 LIQUID COOLED, 1- DX SINGLE ZONE</u>	[]	[X]	[]
Capacity <u>660 TONS WITH ADDITIONAL CAPACITY FROM LOOP</u>	[]	[X]	[]
b. Chillers:			
Centrifugal <u>CARRIER, 300 TONS, INSTALLED 1989</u>	[]	[X]	[]
Reciprocating _____	[X]	[]	[]
Absorption <u>CARRIER, 350 TONS - INSTALLED 1969, INACTIVE</u>	[]	[]	[X]
c. Cooling Towers:			
Type <u>MARLEY COMPACT II (2)</u>	[]	[X]	[]
Capacity <u>300 TON NOMINAL EACH</u>	[]	[X]	[]
d. Condensers: _____	[X]	[]	[]
e. Space Equipment:			
Direct Expansion -			
Window units _____	[X]	[]	[]
Thru-the-wall _____	[X]	[]	[]
Single zone <u>10 TON LEIBERT SYSTEM FOR COMPUTER ROOM</u>	[]	[X]	[]
Single zone con. vol. _____	[X]	[]	[]
Other _____	[X]	[]	[]
Air/Water -			
2-pipe fan coil _____	[X]	[]	[]
Unit ventilators _____	[X]	[]	[]
Terminal reheat _____	[X]	[]	[]
Variable volume <u>MOST OF BUILDING WAS CONVERTED</u>	[]	[X]	[]
Dual Duct <u>ORIGINAL SYSTEM</u>	[]	[X]	[]
Multizone _____	[X]	[]	[]
f. Special Systems:			
Type _____	[X]	[]	[]
Capacity _____	[X]	[]	[]
g. Control Systems:			
Pneu <u>ACTUATORS</u>	[]	[X]	[]
Electric _____	[X]	[]	[]
DDC _____	[]	[X]	[]
h. Fans:			
Exhaust <u>16 EXHAUST FANS</u>	[]	[X]	[]
Recirculating <u>3 AIR HANDLERS, 2 RETURN AIR FANS</u>	[]	[X]	[]

B. COMMENTS:

DIRECT DIGITAL CONTROL SYSTEM WAS INSTALLED TWO YEARS AGO AND IS FUNCTIONING WELL. SCOTT, BEVIS, RIGHTMIRE, AND MOUNT HALLS ARE ALL LINKED TOGETHER IN A CHILLED WATER LOOP WITH CHILLERS IN EACH BUILDING. PRESSEY HALL IS ALSO CHILLED FROM THIS LOOP. THE COOLING TOWERS ARE NEW AND THE CENTRIFUGAL CHILLER IS IN GOOD CONDITION. MAINTENANCE PERSONNEL SAID THE ABSORPTION UNIT HAS NOT BEEN USED SINCE THE CENTRIFUGAL UNIT WAS INSTALLED.

C. COMPONENT RATING: (\$860,800) x (87 %) = \$748,900
 Possible Condition Component
 Value Value Multiplier Value

ELECTRICAL/SERVICE & DISTRIBUTION

FAC # 307 DATE 9/10/93 INSPECTOR: JPH

A. SYSTEM DESCRIPTION

(a) Service:

Substation BUCKEYE - FEEDER CIRCUITS(105/205)

Primary Voltage 13,200 VOLTS

Transformer:

Manufacture	Type	KVA	Secondary Voltages
<u>SORGEL</u>	<u>DRY</u>	<u>750</u>	<u>480Y/277</u>
<u>SORGEL</u>	<u>DRY</u>	<u>750</u>	<u>208Y/120</u>

(b) Distribution System:

Panelboard (type) CIRCUIT BREAKERS

Voltage 480/277 AND 208/120 VOLT DISTRIBUTION SYSTEMS

Amperage 3300 AMPS

Conduit STEEL AND ALUMINUM

Conductor COPPER

Wire (type) VARIES

Armored Cable LIMITED USE

Other

(c) Emergency System:

General or (type & capacity) NO GENERATOR

B. COMMENTS:

THE PEAK DEMAND METER READING FOR THE 480 VOLT TRANSFORMER INDICATES THAT PEAK DEMAND UTILIZATION IS APPROXIMATELY 70% OF CAPACITY. THE PEAK DEMAND READING FOR THE 208 VOLT TRANSFORMER IMPLIED A PEAK UTILIZATION OF APPROXIMATELY 20%. THE TRANSFORMERS WERE REPLACED IN 1990 AS A PART OF THE PCB REPLACEMENT PROJECT.

C. COMPONENT RATING: (\$174,200) x (98 %) = \$170,700

Possible	Condition	Component
Value	Value Multiplier	Value

ELECTRICAL/LIGHTING & POWER

FAC # 307 DATE 9/10/93 INSPECTOR: JPH

A. SYSTEM DESCRIPTION

a. Lighting (lamp type):	N/A	Sat	Att
Fluor <u>PREDOMINANT</u>	[]	[X]	[]
Incand <u>MAINTENANCE ROOMS AND LECTURE HALLS</u>	[]	[X]	[]
HID <u>EXTERIOR SECURITY LIGHTS</u>	[]	[X]	[]
Other _____	[X]	[]	[]
b. Receptacles & Switches:			
Type & Capacity <u>GROUNDING DUPLEX, 120 VOLT</u>	[X]	[]	[]
c. Special:			
Baseboard Heat _____	[X]	[]	[]
Lightning Protection _____	[]	[X]	[]
Communication & Alarm _____	[X]	[]	[]
Data Systems <u>SONNET NETWORK</u>	[]	[X]	[]

B. COMMENTS:

THERE IS AMPLE SPARE PANEL CAPACITY THROUGHOUT THE BUILDING AND THERE WERE NO SIGNS OF OVERLOAD CONDITIONS.

C. COMPONENT RATING: (\$1,281,000) x (79 %) = \$1,012,000
 Possible Condition Component
 Value Value Multiplier Value

SAFETY STANDARDS

FAC # 307 DATE 9/10/93 INSPECTOR: JPH

A. SYSTEM DESCRIPTION

	<u>N/A</u>	<u>Sat</u>	<u>Att</u>
(a) Exits:			
Stair Construction:			
concrete _____	[X]	[]	[]
steel _____	[]	[X]	[]
wood _____	[X]	[]	[]
Number of exits <u>4</u>	[]	[X]	[]
(b) Fire Rating:			
Construction Type: <u>I X</u> II _____ III _____ IV _____ V _____ VI _____			
Building Height: <u>65</u> ft., <u>4</u> STORIES & BASEMENT			
(c) Extinguishing Systems:			
Portable <u>CARBON DIOXIDE, WATER AND HALON TYPES</u>	[]	[X]	[]
Standpipe <u>4 - 4" STANDPIPES</u>	[]	[X]	[]
Hose Cabinets <u>4 PER FLOOR</u>	[X]	[]	[]
Sprinklers <u>ROOMS 007 AND 034J</u>	[]	[X]	[]
Suppression _____	[X]	[]	[]
Other _____	[X]	[]	[]
(d) Detection & Alarm Systems:			
Manual Alarm _____	[]	[X]	[]
Annunciator <u>LOCATED IN RM 011M</u>	[]	[X]	[]
Smoke Detectors <u>LOCATED IN AIR HANDLERS</u>	[]	[X]	[]
(e) Lighting Systems:			
Exit Signs _____	[]	[X]	[]
Exit Lighting <u>EXIT SIGNS ARE LIGHTED</u>	[]	[X]	[]
Emergency Lighting <u>HALLWAYS AND STAIR LANDINGS</u>	[]	[X]	[]
Emergency Generator _____	[X]	[]	[]

B. COMMENTS:

C. COMPONENT RATING: (\$71,700) X (70 %) = \$ 50,200
 Possible Condition Component
 Value Value Multiplier Value

BUILDING PERIMETER EVALUATION

FAC # 307 DATE 9/10/93 INSPECTOR: JPH

A. SYSTEM DESCRIPTION

	N/A	Sat	Att
1. Building Access:			
Driveway <u>ON EAST SIDE OF BUILDING</u>	[]	[X]	[]
Loading Dock <u>EAST SIDE OF BUILDING AT BASEMENT</u>	[]	[X]	[]
Sidewalks			
Front <u>EAST TO BE REPLACED OVER TUNNEL AREA-LEAKS</u>	[]	[]	[X]
Side <u>SOUTH AND NORTH WALKS REQUIRE SEALING</u>	[]	[]	[X]
Rear _____	[X]	[]	[]
Steps			
Front _____	[X]	[]	[]
Side <u>AT EAST BUILDING ENTRANCES AND DOCK</u>	[]	[X]	[]
Rear _____	[X]	[]	[]
Handicap Ramp <u>HANDICAPPED ENTRANCE AT GRADE LEVEL</u>	[X]	[]	[]
2. Lawn and Landscaping:			
Lawn _____	[]	[X]	[]
Shrubs <u>OVERGROWN - REQUIRE TRIMMING- OBSCURES SIGN</u>	[]	[]	[X]
Trees _____	[]	[X]	[]
Undesirable Insect _____	[X]	[]	[]
Bedding Material <u>MORE MULCH IS REQUIRED ON SOUTH SIDE</u>	[]	[]	[X]
Watering System _____	[X]	[]	[]
3. General Site Information:			
Signage <u>NORTH AND SOUTH SIDES OF THE BUILDING</u>	[]	[X]	[]
Address Identification <u>NORTH & SOUTH SIDES OF BUILDING</u>	[]	[X]	[]
Security Lights <u>MOUNTED ON EXTERIOR OF BUILDING</u>	[]	[X]	[]
Street Lights <u>LOCATED ALONG NORTH & WEST WALKS</u>	[]	[X]	[]
Drainage _____	[]	[X]	[]
Storm Drains _____	[]	[X]	[]

B. COMMENTS:

THE WALK ALONG THE EAST SIDE OF THE BUILDING IS ALLOWING A SIGNIFICANT AMOUNT OF WATER TO LEACH THROUGH TO THE TUNNEL AND THE LOADING DOCK AREA IN THE BASEMENT. A PROJECT HAS BEEN FUNDED AND DESIGN HAS BEGUN TO REPAIR THE WALK IN THIS AREA.

**The Ohio State University
Department of Physical Facilities**

BUILDING AUDIT METHODOLOGY

1. BUILDING AUDIT PROGRAM OBJECTIVE

To provide a building-by-building inventory, including maintenance deficiencies that currently exist, for the OSU buildings that the Department of Physical Facilities has budgetary responsibility for. These audits will be used to establish corrective maintenance projects and budget cost estimates.

2. BUILDING AUDIT APPROACH

A five-step procedure is used to meet the program objectives:

1. Collect Historical and Inventory Data on each building.
2. Interview Building Occupants.
3. Perform a Building Inspection.
4. Complete Building Evaluation Forms.
5. Issue Written Report.

3. DATA ORGANIZATION

The data collected is stored by hard copy with field notes in a building file established for each building. The report data is being stored in a database program that allows retrieval of specific data as it is needed. The "Building Evaluation" forms contain ratings for the condition of each building component and a description of any deficiencies for those components. The "Building Information" sheets provide data on the utilities to the buildings and the type of systems in each building.

4. COST ESTIMATES

Costs are for budgeting purposes only and are based on The Means Standard Construction Cost data, auditor experience, industry sources and OSU project cost data. Costs are reported current to the year of the audit. The building component values assigned in the "Building Evaluation" forms are not cost estimates. These values are calculated from the replacement cost provided by The Office of Campus Planning and Space Utilization for each OSU building.

5. LIMITATIONS

(1) All inspections are visual and do not include physical tests, instrumentation or metering measurements, sampling, or monitoring.

(2) Only random typical offices or laboratories are entered. Typical spaces are deemed to be representative of average conditions throughout each building.

(3) The scope of the analysis does not include complete OSHA, energy, or physical impaired access study. Buildings and components are inspected for condition and general safety requirements rather than specialized code conformance.

(4) It is assumed that the buildings inspected were approved by the State of Ohio Division of Factory and Building Inspection at the time of construction. The recommendations listed in the reports are not an attempt to bring these

existing buildings up to present day code standards. Rather, the intent is to eliminate obvious problems and to upgrade the buildings in a reasonable manner in regard to occupant safety.

(5) Cost estimates are in current year dollars and include contractor mark-ups, construction administration costs, and architectural/engineering costs where applicable. Escalation factors must be applied for future work. Combining of projects should serve to decrease costs. These estimates are strictly for purposes of budgeting, and final pricing will be required when the specific scope of work for the project is defined.

(6) The building inspections are defined to include the following:

- (a) Includes general repainting, redecorating and wholesale replacement of building and system components. Ongoing maintenance, replacement and renovation projects are included.
- (b) Includes exterior building walls and attached items.
- (c) Includes the entrance steps at all entries. Ramps outside the buildings are included. Plantings around the building exterior are included.
- (d) Movable furniture is not included.
- (e) Fixed equipment inside the buildings that is installed and maintained by a specific academic department or using agency is not included.
- (f) Utility lines supplying the buildings are not included.
- (g) The program needs of the using department are assumed to be satisfied. No consideration has been given to anticipate any changes in current occupant space needs.

ABBREVIATIONS

ATT.....	ATTENTION
BLDG.....	BUILDING
BUR.....	BUILT UP ROOF
COND.....	CONDENSATE WATER
DD.....	DUAL DUCT AIR HANDLING SYSTEM
DDHV.....	DUAL DUCT HIGH VELOCITY
DHWR.....	DOMESTIC HOT WATER RETURN
DHWS.....	DOMESTIC HOT WATER SUPPLY
DX.....	DIRECT EXPANSION AIR CONDITIONER
FPM.....	FEET PER MINUTE
HID.....	HIGH INTENSITY DISCHARGE LIGHT
HPS.....	HIGH PRESSURE STEAM (125 PSI)
HVAC.....	HEATING, VENTILATING AND AIR CONDITIONING SYSTEM
KV.....	KILOVOLTS
KVA.....	KILOVOLTS AMPS
KW.....	KILOWATTS
LC.....	LIQUID COOLED
LPS.....	LOW PRESSURE STEAM (15 PSI)
MPS.....	MEDIUM PRESSURE STEAM (50 PSI)
MZ.....	MULTIZONE AIR HANDLING SYSTEM
N/A.....	NOT APPLICABLE
PSI.....	POUNDS PER SQUARE INCH
RM.....	ROOM
SAT.....	SATISFACTORY
SR.....	STEAM RETURN LINE
SS.....	STEAM SUPPLY LINE
TR.....	TERMINAL REHEAT AIR HANDLING SYSTEM
V.....	VOLTS
VAV.....	VARIABLE AIR VOLUME SYSTEM

APPENDIX
Reduced Scale Building Floor Plans
C-1 Building Space Assignments