

# **FACILITY AUDIT REPORT**

**33 WEST ELEVENTH AVENUE**

**#193**

**MAY 1998**



**33 WEST ELEVENTH AVENUE**

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Division of Resource Management

**33 WEST ELEVENTH AVENUE  
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## EXECUTIVE SUMMARY FOR 33 WEST ELEVENTH AVENUE

33 West Eleventh Avenue now houses The Office of Legal Affairs, The Office of Student Affairs and The Southeast Area Maintenance Shop. 33 West Eleventh Avenue was constructed in 1960 and occupied in 1961 by The Ohio Legal Center with a gross area of 24,411 SF. The three story building with basement was originally built for offices and meeting rooms.

The HVAC system in the building is aging and is well past the end of its expected life cycle, but continues to operate.

Several building components are approaching the end of their expected life and will need to be repaired or replaced over the next five to ten years. Within the next five to ten years the windows, caulking, parking lot, air handling unit and controls will need to be replaced.

### PROPOSED MAINTENANCE PROJECTS 33 WEST ELEVENTH AVENUE #193

<b>A. Corrective Maintenance Projects:</b>	<b>Control No</b>
1. <i>Clean and seal limestone then cut out sealant around limestone joints and recaulk app. 8100 LF.</i> ..... \$	60,000    3328
<b>Sub Total</b> .....	<b>60,000</b>
<b>B. Building Improvement/Addition Projects:</b>	
1. <i>Install a new ADA elevator in the building.</i> ..... \$	90,000    2820
2. <i>Replace the pneumatic controls with DDC controls.</i> ..... \$	51,000    3331
3. <i>Replace the windows with double glazed windows.</i> ..... \$	175,200    1719
4. <i>Install emergency lighting in halls and stairwells.</i> ..... \$	25,000    1475
5. <i>Install west concrete walks and dumpster pad.</i> ..... \$	7,500    3346
<b>Sub Total</b> .....	<b>348,700</b>
<b>C. Building Component Replacements expected within the next 5-10 years:</b>	
1. <i>Replace the DDHV air handling unit and the DDHV boxes. Size the units for present and future capacities.</i> .. \$	75,000    3332
2. <i>Replace the chain link fence.</i> ..... \$	5,000    3347
<b>Sub Total</b> .....	<b>80,000</b>
 <b>Total Cost for all Projects</b> ..... \$	 <b>488,200</b>

**GENERAL BUILDING INFORMATION**

**33 WEST ELEVENTH AVENUE #193**

BUILDING ADDRESS: *33 WEST ELEVENTH AVENUE*

GROSS SQ. FT.: *24,411*

NET ASSIGNABLE SQ. FT.: *23,205*

MECHANICAL/CUSTODIAL AREA SQ. FT.: *2,265*

YEAR OF CONSTRUCTION: *1960*

YEAR OF LAST RENOVATION: *none*

NUMBER OF STORIES/BASEMENT: *Three Stories plus Full Basement*

AIR CONDITIONING (Percentage): *100%*

CURRENT USE: *The Office of Legal Affairs, The Office of Student Affairs and  
The Southeast Area Shop*

TYPE OF CONSTRUCTION: *Reinforced Concrete Structure with Masonry Skin*

ESTIMATED REPLACEMENT COST: *\$ 2,799,000 \**

COST PER GROSS SQUARE FEET: *\$115.43*

WHEELCHAIR ACCESSIBILITY: *From the north and east side of the building to  
the door of the building.*

OVERALL BUILDING CONDITION: *Satisfactory \*\**

NUMBER OF EXIT STAIRWAYS: *One (1)*

NUMBER OF EXITS: *Three (3)*

AREA SHOP RESPONSIBILITY: *Southeast*

\* *Replacement Cost assigned June 1996 by The Office of University Resource Planning &  
Institutional Analysis.*

\*\* *The Office of University Resource Planning & Institutional Analysis C-1 Report Condition Code.*

## **BUILDING SYSTEMS INFORMATION**

### **33 WEST ELEVENTH AVENUE #193**

#### **HEATING:**

Source – *On Site Boiler, Weil McLain*

Type Heating System - *Hot Water*

Main Steam Feed (Line size, valve location) - *none*

Building Htg. Water (line size, valve location) - *3" in Room 001M*

**VENTILATION SYSTEM:** *Powered exhaust*

#### **COOLING:**

BLDG. % *100*, Chillers: *Trane 80 Ton R-22 Screw compressor, 1996*

Window Units: *none*, Thru-the-wall: *none*, Direct expansion units: *none*

**HVAC CONTROL SYSTEM:** *JC-80 Pneumatic*

#### **ELECTRIC:**

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

*AEP          230                      208/120                      001M*

#### **PLUMBING SERVICES:**

Water (size, valve location) – *2.5" room 001M*

Gas (size, valve location) - *3" room 001M*

Domestic Hot Water (size, valve location) - *1" DHWS, .5" DHWR room 001M*

Compressed Air (size, location) - *.5" in room 001M*

#### **SEWERS:**

Storm - *1@4, 2@6"*, Sanitary - *1@6"*, Combined Storm/San- *8" to the south*

#### **METERS:**

Gas (size, location) – *3" Southeast corner*

Water (size, location) – *2.5" room 001M*

Electric (size, location) – *225 KVA room 001M*

#### **ALARM SYSTEMS:**

Fire Alarm, Main Panel Room *001M* , Remote Panel Location Room

Fire Pump @      GPM,  Riser      , Pump Location, Room

Sprinkler, Valve Location Room      ,  100%,  Partial,  Limited

Horns/Strobes,  Bells in  Halls,  Rooms

Other Alarms - *none*

**ELEVATORS:**

Number-*One*, Type (passenger, freight)- *Passenger/Freight*  
Manufacturer – *Otis*, Size- *2,000#*, *51x66*

**EMERGENCY GENERATOR:**

Size- *None*, Location- *None*

**ASBESTOS SURVEY (DATE):** *no survey was done on this building.*

## **33 WEST ELEVENTH AVENUE NARRATIVE**

### **HISTORY**

33 West Eleventh Avenue now houses The Office of Legal Affairs, The Office of Student Affairs and The Southeast Area Maintenance. 33 West Eleventh Avenue was constructed in 1960 and occupied in 1961 by The Ohio Legal Center with a gross area of 24,411 SF. The three story building with basement was originally built for offices and meeting rooms.

The building is functioning as designed, at this time, and has held up well over the 36 years since built. However, several building components are approaching the end of their expected life and will need to be replaced over the next five to ten years. These items when completed will protect and enhance the building performance and create a satisfying visual environment for students, faculty, staff and visitors.

A review of the work orders indicated that more than normal routine maintenance problems are beginning to show up in the elevator, temperature control, and doors and door hardware.

In an interview with the building coordinator, it was learned that the occupants are basically satisfied with the overall condition and performance of the building systems.

Occupancy of the building, reported by the Office of University Resource Planning & Institutional Analysis in the C-1 Building Space Assignment Report dated June 1996 for a Net Assignable Area of 23,205 SF, is as follows; Student Services 21.2%, Administrative and Staff offices 18.1%, Area Shop 17.2%, Common Areas 15.2%, Research 10.6%, Mechanical 9.8% Custodial/Toilet 5.4%, and Inactive 2.5%.

### **PRIMARY SYSTEMS**

The structural components consist of reinforced concrete perimeter footers, walls and columns and interior concrete footings with columns that support the concrete plane floors and roof. These form the basic skeletal components of this three-story building with basement.

There are no major signs of settlement or movement in the building foundation or structural columns and supports. Some minor or local settlement cracks were noted in several areas of the building including the hall wall at room 311.

A brick veneer was installed on loadbearing concrete block to form the exterior walls. The concrete floors were poured on the loadbearing block or concrete columns between windows. The steel roof trusses over room 101 rest on a bond

beam poured on the concrete loadbearing block walls. Limestone panels and trim around the perimeter of the window walls and at the parapet complete the architectural elements that accent this building.

The exterior brick veneer is in good condition, some minor cracking at exterior corners due to settlement and/or expansion and contraction was noted. The limestone panels, trim and coping need to be cleaned and sealed. The caulking in the limestone joints needs to be removed and recaulked especially on the second and third floors.

Openings in the brick veneer for entrance doors, receiving doors and window walls are accented with cut limestone or brick that form wall headers, sills and jambs. Other openings in the various wall elevations include louvered air intakes and exhaust louvers.

The single glazed windows are an aluminum double hung type that forms a wall from floor to floor. Spaces between the head of the lower window and the sill of the window above are filled with insulated aluminum panels. The original caulking has dried and shrunk in head, sill and jamb joints of the windows and needs to be replaced.

The main entry doors are aluminum with vestibule glass to the side and are in good condition. Other entry doors are aluminum with side lites. The original steel doors remain at the ground floor receiving room and are in poor condition. These doors and frames need to be replaced.

The roof areas are of the concrete deck type, with light weight fill, insulation board, and a Roll roof installed with hot tar. The roof was replaced in 1993 with a modified roof system and is in good condition.

The gravel stop around the perimeter is in good condition. Some limestone coping joints near the top of the roof need to be recaulked.

## **INTERIOR SYSTEMS**

The reinforced concrete floors and columns of the building are enclosed with loadbearing concrete block or glazed block to form interior walls, halls, rooms and stairwells. Halls in the building have glazed block up to the ceiling. Other walls are demountable steel partitions, plaster on concrete block or wood paneling over block. Remodeled areas in the building are separated with studs and drywall.

The partitions and walls are all in good to fair condition depending on the area. Some walls are covered with vinyl wall paper. Some fine line cracking in concrete block or tile walls has occurred at settled columns and openings in the walls as

expected. Leaks have caused water damage to some of the wood paneling on the east wall of room 101. These walls need to be cleaned and refinished. The majority of the doors in this building are wood doors in metal frames and are in good condition. Steel doors in steel frames are used at mechanical rooms and stairwells. Some conference rooms and offices have wood doors and frames. The metal fire doors in this building are in good condition. Some door and/or door hardware problems are showing up in maintenance calls. Lock mechanisms and door adjustments are beginning to fail and will require continued maintenance.

The floors in the building are asbestos asphalt tiles, terrazzo or carpet in some offices and conference rooms. The equipment rooms, basement and area shop have exposed concrete floors that have been sealed. The floors throughout the building are in good condition and have been fairly well maintained. The stairs are metal framed with concrete fill and are in good condition.

The ceilings in the building consist of suspended steel 1x2 metal pan tiles, 2x2 mineral fiber tiles, plaster or are exposed. Metal pan ceilings need to be cleaned in room 311 and repaired in the conference room. The ceilings in remodeled areas of this building consist of a suspended aluminum 2x4 grid system with mineral fiber tiles. The hall ceilings are in fair condition. Some ceiling tiles need to be replaced where roof and/or duct condensation leaks have occurred. The light fixtures, registers, grills and diffusers need to be cleaned.

The partitions, doors, walls, and ceilings vary in their condition rating depending on the location in the building and what remodeling has been completed. The partitions, doors, hardware, walls, floors, and ceilings have held-up relatively well after 36 years of service.

## **SERVICE SYSTEMS**

The major service systems, domestic cold and hot water, natural gas, compressed air, sanitary waste and storm drainage all appeared to be in good condition and functioning at this time. The plumbing drainage system did not appear to have any problems. The domestic cold and hot water piping appears to have copper pipe and is in good condition. The Domestic Hot Water system is connected to a gas fired hot water heater and has a hot water return pump and piping. The piping for the domestic water systems did not appear to have any problems at this time. There was adequate water pressure at the faucets and fixtures on all of the floors. The restroom fixtures were functioning properly.

A gas fireplace located in conference room 101 has a power ventilator located on the roof above and appeared to be in good condition.

The passenger/freight elevator on the east side is in need of a complete renovation to improve its performance and appearance. There is a request to upgrade the

elevator. The elevator was operating and maintenance records did indicate minor control problems.

An 1180 MBH hot water boiler in room 001M supplies the 3" HHW supply lines that feed the building. Building heating water is pumped through the building from pumps located in mechanical room 001M. The Hot Water Heating system supplies radiant ceiling panels located on the outside walls above windows, fan coil units at entrances, unit heaters and a heating coil in the air handling unit. The heating system appears to be operating properly.

The 1996 Trane 80 Ton R-22 chiller, pumps and coil supplies chilled water to the DDCV unit located in room 001M. The Trane chilled water generator has two screw compressors, a water evaporator and an air cooled condenser located on the roof. The DDCV air handling unit is past the end of its useful life and will require replacement in the next five to ten years. Air is leaking from several access doors on the unit that need to be sealed at this time. In 1976 the unit was modified with night setback as part of the energy conservation program. Controls for the heating and cooling system are pneumatic and electric while the chiller has DDC controls.

Exhaust fans located on the roof remove air from restrooms, common areas and meeting rooms.

## **ELECTRIC**

The electrical service to 33 West Eleventh Ave. is supplied by AEP from a 208/120 volt pole mounted transformer located on the southeast corner of the building. Switchgear located in room 001M feeds the lighting and power distribution panels throughout the building. A MCC panel in room 001M distributes power to mechanical equipment. Panel sizes vary throughout the building depending on the load. At about 9.7 watts per square foot the building appears to have an adequate power supply in most circuits.

The building has 32 watt fluorescent tube and recessed light fixtures throughout most of the building. Some stairwells, conference room and halls are lighted with incandescent fixtures. A lighting upgrade project is in the process of being completed in the halls and stairwells of the building at this time. A program to replace the balance of the incandescent fixtures with fluorescent fixtures would save energy. There are an adequate number of convenience and lab outlets throughout the building.

## **SAFETY STANDARDS**

33 West Eleventh Ave. is equipped with a manual fire alarm system consisting of pull stations at exits that provide local fire annunciation from the panel to all floors.

Exit lighting is provided with battery backups on the individual fixtures. There are lighted exit signs at each exit. Emergency lights need to be installed in the corridors and in the stairwells.

Automatic door openers are installed at the north and east entrances of the building and a wheelchair lift gives access to the raised first floor in the lobby.

## **ASBESTOS**

The Ohio Board of Regents Facilities Asbestos Inspection and Risk Assessment Program's report: Inventory of Friable Asbestos Containing Material in Buildings of the Ohio State University (Main and Branch Campuses) and the Recommendations for Corrective Action by PEI Associates, Sept. 1986, was not completed in this building. All asbestos piping and asbestos containing materials including floor tiles and mastic within the limits of the building need to be removed during any renovation or repairs.

## **PERIMETER**

About 95 percent of the sidewalks around the building are in good condition. Some sidewalks have small sections of cracked, settled or raised concrete. Sections of the sidewalks on the north side of the building that have settled areas, cracked sections or tripping hazards need to be relevelled. The granite entrance landing needs to have the open joints caulked and sealed.

The lawn area on the north side has bare spots in the grass. All of the shrubbery and trees need to be trimmed and mulched. The storm drains in window wells around the building need to be cleaned.

Blacktop around drains has spalled or is too high. The east and south parking areas need to be repaved and proper slopes provided to drains.

Entrances to the building are well lighted and area, flood and street lighting appear to be distributed properly. The building signs are in good condition.

**Minor Maintenance Projects (Less Than \$5000) EXTERIOR**  
**33 WEST ELEVENTH AVENUE #193 SEPTEMBER 30, 1997**

- 1 Repair the cracked or settled sidewalk sections on the north side of the building.  
Workorder #01-5063-025659-51
- 2 Install weather-stripping at all entrance doors and replace the dock doors at room 118.  
Workorder #01-5061-002128-20
- 3 Remove the vines from the walls. Trim the trees and shrubs around the building.  
Workorder #01-5063-025660-55
- 4 Clean the roof drain over the south canopy and repair the roof drain over the lobby and under the chiller.  
Workorder #01-5064-282758-68
- 5 Clean the drains in the areawells and clean the pipe to the manhole.  
Workorder #01-5064-282758-68
- 6 Paint the block wall on the roof and the steel on the gate in the rear.  
Workorder #01-5064-282758-68
- 7 Grind the blacktop around the northeast drain in the parking lot.  
Workorder #01-5063-025659-51
- 8 The granite entrance landing needs to have the open joints caulked and sealed.  
Workorder #01-5061-002128-20

**Maintenance Projects (Less Than \$5000) INTERIOR**  
**33 WEST ELEVENTH AVENUE #193 SEPTEMBER 30, 1997**

- 1 Replace insulation removed from piping for repairs in the equipment room 1M.  
Workorder #01-5064-282758-68
  - 2 Clean the underground sanitary and storm piping, all laterals should also be cleaned.  
Workorder #01-5061-002128-20
  - 3 Repair the receptacle on the third and first floor at the elevator.  
Workorder #01-5064-282758-68
  - 4 Paint scratched door frames in the halls.  
Workorder #01-5064-282758-68
  - 5 Repair the loose metal pan ceilings in the conference room 101.  
Workorder #01-5064-282758-68
  - 6 Clean the ceiling in room 311.  
Workorder #01-5061-002128-20
  - 7 Seal the leaking air from the access doors on the air handling unit in room 001M.  
Workorder #01-5064-282758-68
- 
- 1 Install backflow preventors on the domestic water feeds to the building.  
Control #3333

## BUILDING EVALUATION SUMMARY

### BUILDING INFORMATION

Fac # **193**, Facility Name: **33 WEST ELEVENTH AVENUE**, Date: **09/30/97**  
 Inspector: JAO, Year Constructed: **1960**, Gross Sq. Ft: **24,411**  
 Net Sq. Ft: **23,205**, Replacement Cost: \$ **2,799,000** \*

### II. COMPONENT RATING

COMPONENT	BUILDING COMPONENT PERCENTAGE OF TOTAL COST **	BUILDING COMPONENT REPLACEMENT COST	BUILDING COMPONENT CONDITION VALUE MULTIPLIER	BUILDING COMPONENT CURRENT VALUE
Foundation	4.86	136,059	88	120,348
Columns and Beams	10.80	302,195	88	267,299
Exterior Walls	7.78	217,695	78	169,092
Ext. Windows & Doors	3.89	108,847	59	63,862
Roofing & Flashing	2.51	70,178	92	64,726
Partitions & Doors	8.14	227,720	78	176,879
Wall Finishes	5.05	141,311	57	80,080
Floor Finishes	7.30	204,327	65	133,503
Ceilings & Finishes	6.70	187,618	57	106,322
Conveying	3.48	97,390	62	60,386
Plumbing	10.75	300,762	62	186,486
Heating	8.19	229,152	71	163,475
Cooling and Vent.	6.31	176,638	52	92,250
Elect. Serv. & Dist.	1.25	34,850	69	23,932
Lighting and Power	10.03	280,712	71	200,257
Safety Standards	2.98	83,545	75	62,385
<b>TOTALS</b>	<b>100.00</b>	<b>2,799,000</b>	<b>70</b>	<b>1,971,282</b>

### III. BUILDING RATING SUMMARY

Overall Building Rating = **70%**

\* *Replacement Cost assigned June 1996 by The Office of University Resource Planning & Institutional Analysis 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 #: 193

DATE: 9/30/97

INSPECTOR: JAO

<b>COMPONENT RATING: (\$ <u>136,059</u>) x ( <u>88%</u>) = \$ <u>120,348</u></b>						
<table style="margin: auto; border: none;"> <tr> <td style="padding: 0 10px;">Possible</td> <td style="padding: 0 10px;">Condition</td> <td style="padding: 0 10px;">Component</td> </tr> <tr> <td style="padding: 0 10px;">Value</td> <td style="padding: 0 10px;">Value Multiplier</td> <td style="padding: 0 10px;">Value</td> </tr> </table>	Possible	Condition	Component	Value	Value Multiplier	Value
Possible	Condition	Component				
Value	Value Multiplier	Value				

**A. SYSTEM DESCRIPTION**

**Sat      Att**

**a. Footings:**

- Interior Footings/Piers .....
- Interior Footings/Bearing Walls.....
- Perimeter Footings.....
- Grade Beams.....
- Piles .....
- Caissons .....

**b. Foundation Wall Materials:**

- Concrete Cast-in-place.....
- Concrete Block.....
- Stone .....
- Brick.....
- Other .....

**c. Waterproofing and Underdrain:**

- Coating.....
- Membrane .....
- Board.....
- Drain Tile..... *in window wells and around footers*

**d. Slab on Grade:**

- Plain .....
- Reinforced.....

**e. Ground/Basement Floor Slab:**

- Plain .....
- Reinforced.....

**f. Special Substructures:**

- .....

**COMMENTS:** *none*

## COLUMNS AND BEAMS

FAC #: 193

DATE: 9/30/97

INSPECTOR: JAO

COMPONENT RATING: (\$ 302,195) x (88%) = \$ 267,299  
Possible Condition Component  
Value Value Multiplier Value

### A. SYSTEM DESCRIPTION

<u>Sat</u>	<u>Att</u>	
		<b>a. Columns and Beams:</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reinforced Concrete ..... <i>columns</i>
<input type="checkbox"/>	<input type="checkbox"/>	Precast Concrete .....
<input type="checkbox"/>	<input type="checkbox"/>	Steel .....
<input type="checkbox"/>	<input type="checkbox"/>	Fireproofing .....
<input type="checkbox"/>	<input type="checkbox"/>	Wood .....
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other ..... <i>bond beams to support steel trusses</i>
		<b>b. Floor Joists:</b>
<input type="checkbox"/>	<input type="checkbox"/>	Concrete.....
<input type="checkbox"/>	<input type="checkbox"/>	Steel Trusses.....
<input type="checkbox"/>	<input type="checkbox"/>	Wood .....
<input type="checkbox"/>	<input type="checkbox"/>	Other.....
		<b>d. Floor Decks:</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Concrete Slab..... <i>plane</i>
<input type="checkbox"/>	<input type="checkbox"/>	Precast Slab .....
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Metal Deck w/concrete fill ..... <i>over elevator</i>
<input type="checkbox"/>	<input type="checkbox"/>	Wood .....
		<b>e. Roof Joists:</b>
<input type="checkbox"/>	<input type="checkbox"/>	Concrete.....
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Steel Trusses..... <i>over meeting room</i>
<input type="checkbox"/>	<input type="checkbox"/>	Wood .....
		<b>f. Pitched Roof System:</b>
<input type="checkbox"/>	<input type="checkbox"/>	Pitch [ <input type="checkbox"/> 3/12, [ <input type="checkbox"/> 6/12, [ <input type="checkbox"/> 10/12 .....
<input type="checkbox"/>	<input type="checkbox"/>	Dormers .....
<input type="checkbox"/>	<input type="checkbox"/>	Steel Rafters.....
<input type="checkbox"/>	<input type="checkbox"/>	Wood Rafters.....
<input type="checkbox"/>	<input type="checkbox"/>	Fireproofing.....
<input type="checkbox"/>	<input type="checkbox"/>	Underlayment .....
<input type="checkbox"/>	<input type="checkbox"/>	Insulation .....
<input type="checkbox"/>	<input type="checkbox"/>	Ventilation .....
<input type="checkbox"/>	<input type="checkbox"/>	Other.....

**g. Flat Roof System:**

- Slope ..... *0.25" per foot*
- Concrete Deck..... *with lightweight fill*
- Precast Slab.....
- Metal Deck w/concrete fill.....*over meeting room*
- Metal Deck w/insulation.....
- Wood Deck .....
- Insulation..... *3" high density*
- Other .....

**COMMENTS:**

*Noted some settlement in some interior walls on the third floor.*

# EXTERIOR WALLS

FAC #: 193

DATE: 9/30/97

INSPECTOR: JAO

**COMPONENT RATING:** (\$ 217,695) x ( 78%) = \$ 169,092  
Possible Condition Component  
Value Value Multiplier Value

**A. SYSTEM DESCRIPTION**

**Sat**      **Att**

**a. Walls:**

- [ ]    [ ]    Concrete [ ]CIP [ ]PRECAST.....
- [ ]    [ ]    Concrete Block.....
- [X]    [ ]    Brick [ ]MASONRY [X]VENEER .....
- [ ]    [X]    Veneer ..... *limestone panels*
- [X]    [ ]    Window/Curtainwall ..... *aluminum insulated panels*
- [ ]    [ ]    Metal Siding .....
- [ ]    [ ]    Other.....

**b. Wall Lintels Over Openings:**

- [ ]    [ ]    Concrete [ ]PRECAST [ ]CIP.....
- [X]    [ ]    Limestone ..... *horizontal trim and coping*
- [ ]    [ ]    Brick Masonry .....
- [ ]    [ ]    Steel .....
- [ ]    [ ]    Wood .....
- [ ]    [ ]    Other.....

**c. Wall Trim:**

- [X]    [ ]    Limestone ..... *vertical between window wall*
- [ ]    [ ]    Brick.....
- [ ]    [ ]    Marble .....
- [ ]    [ ]    Wood .....
- [ ]    [ ]    Other.....

**d. Finishes:**

- [X]    [ ]    Plain.....
- [ ]    [ ]    Stucco .....
- [ ]    [ ]    Paint.....
- [ ]    [ ]    Parging.....
- [ ]    [ ]    Exposed Aggregate .....
- [ ]    [ ]    Drivrit .....
- [ ]    [ ]    Other.....

**e. Exterior Wall Backing System:**

- [X]    [ ]    Concrete..... *columns*
- [X]    [ ]    Concrete Block ..... *loadbearing at room 101*
- [ ]    [ ]    Brick Masonry .....
- [ ]    [ ]    Clay Tiles .....
- [ ]    [ ]    Metal Studs.....
- [ ]    [ ]    Wood Studs .....

**COMMENTS:**

*Open joints in the limestone need to be caulked to prevent water penetration.*

# EXTERIOR WINDOWS AND DOORS

FAC #: 193

DATE: 9/30/97

INSPECTOR: JAO

**COMPONENT RATING: (\$ 108,847) x (59%) = \$ 361,388**

Possible	Condition	Component
Value	Value Multiplier	Value

**A. SYSTEM DESCRIPTION**

Sat      Att

**a. Window materials:**

- Wood.....
- Steel.....
- Alum.....
- PVC.....
- Other.....

**b. Windows type & number:**

- Double Hung .....129
- Awning .....26
- Casement.....
- Pivoted.....
- Sliding.....
- Fixed.....26
- Other..... *11 hopper type on fixed units*

**c. Window glazing:**

- Single pane.....
- Double pane.....

**d. Window Wall and/or Store Front:**

- Store Front.....
- Vestibule.....
- Single pane.....
- Double pane.....
- Other.....

**e. Door Materials:**

- Wood.....
- Steel..... *rear double door at dock*
- Alum..... *entrance*

**f. Doors type & number:**

- Vestibule Double ..... *two at main entrance*
- Double ..... *one steel dock door*
- Exit.....
- Stair Exit..... *one aluminum*
- Garage.....
- Special.....

**g. Hardware:**

- Automatic opener ..... *at ramp door*
- Push Bar Openers wt Closures.....
- Key Cards.....

**COMMENTS:**

*The single glazed windows need to be replaced with more energy efficient double glazed windows.*

*The steel double doors need to be replaced.*

# ROOFING

FAC #: 193

DATE: 9/30/97

INSPECTOR: JAO

<b>COMPONENT RATING: (\$ <u>70,178</u>) x (<u>92%</u>) = \$ <u>64,726</u></b>		
Possible Value	Condition Value Multiplier	Component Value

## A. SYSTEM DESCRIPTION

**Sat Att**

### a. Roof Covering:

- [ ] Asphalt [ ] Coal Tar  Modified Roll ..... 7,604 SF
- Built-up w/gravel [ ] Asphalt [ ] Coal Tar .....
- Asphalt Roll .....
- Asphalt Shingle .....
- Copper .....
- EPDM .....
- Other .....

### b. Flashing:

- Materials:  Cu [ ] Galv  Al [ ] EPDM [ ] SS [ ] PVC .....
- Base & Counter ..... *modified 116 LF*
- Cap ..... *116 LF*
- Reglet ..... *in walls 116 LF*
- Valley & Ridge.....

### c. Gravel Stop & Edge Strips:

- Type [ ] SS [ ] Galv  Al [ ] Cu [ ] PVC ..... *594 LF*

### d. Drainage:

- Gutters w/ Exterior Downspouts .....
- Scuppers w/o Exterior Downspouts .....
- Drains w/ Interior Storm Drains .....
- Emergency Overflow..... *over the edge*

### e. Parapets:

- Concrete .....
- Brick .....
- Precast .....
- Other .....

### f. Parapet Caps:

- Metal [ ] SS [ ] Galv [ ] Al [ ] Cu [ ] PVC .....
- Tile .....
- Limestone ..... *copied at roof level*
- Precast .....
- Other .....

### h. Roof accessories:

- Lightning Protection.....
- Roof Curbs .....
- Equipment Frames.....
- Pitch Pockets .....
- Other .....

## COMMENTS:

*The roofs were replaced in 1993.*

*Some of the drains on the roof need to be cleaned and/or repaired.*

# PARTITIONS AND DOORS

FAC #: 193

DATE: 9/30/97

INSPECTOR: JAO

<b>COMPONENT RATING: (\$ <u>227,720</u>) x (<u>78%</u>) = \$ <u>178,879</u></b>
---

Possible	Condition	Component
Value	Value Multiplier	Value

## A. SYSTEM DESCRIPTION

**Sat**      **Att**

### a. Partition Framing:

- Concrete Block .....
- Clay Tile Block .....
- Glazed Block .....
- Masonry .....
- Wood Stud .....
- Metal Stud .....
- Other ..... *Demountable steel*

### b. Special partitions and Walls:

- Demountable ..... *steel walls and doors*
- Toilet .....
- Screen Walls .....
- Glass .....
- Gate .....
- Other .....

### c. Wall Material:

- Plaster .....
- Drywall .....
- Glass .....
- Wood Paneling .....
- Composite Paneling .....
- Steel Panels .....
- Tile/Glazed .....
- Other ..... *marble panels*

### d. Interior Doors & Frames:

- Met Door/Met Frame .....
- Wood Door/Wood Frame .....
- Wood Door/Metal Frame .....
- Glazing .....
- Roll-up .....
- Sliding .....
- Other ..... *fire doors*

### e. Hardware:

- Door Knobs Levers .....
- Door Closures .....
- Kick/Push Plates .....
- Security & Detection .....
- Automatic Openers .....
- Fire Door Magnets .....
- Other .....

## COMMENTS :

*Some door frames need to be repainted where scratched.  
Water leaks has caused some staining of the panels on the east side of room 101. The panels need to be cleaned and refinished.*

# WALL FINISHES

FAC #: 193

DATE: 9/30/97

INSPECTOR: JAO

<b>COMPONENT RATING: (\$ <u>141,311</u>) x (<u>57%</u>) = \$ <u>80,080</u></b>		
Possible Value	Condition Value Multiplier	Component Value

## A. SYSTEM DESCRIPTION

Sat      Att

### a. Wall Finishes:

- Paint .....
- Vinyl Wall Coverings .....
- Prefinished Paneling ..... *in the conference room*
- Cork .....
- Wallpaper.....
- Ceramic Tile .....
- Marble..... *in the lobby*
- Stone .....
- Trim & Wainscot ..... *in the conference room*
- Decoration.....
- Glass.....
- Other .....

## COMMENTS:

*Finishes are generally in good condition on all floors.*

*The wood paneling in the conference room needs to be refinished along the east wall where leaks have stained the wall.*

# FLOOR FINISHES

FAC #: 193

DATE: 9/30/97

INSPECTOR: JAO

**COMPONENT RATING: (\$ 204,327) ( 65%) = \$ 133,503**  
Possible Condition Component  
Value Value Multiplier Value

**A. SYSTEM DESCRIPTION**

- | <u>Sat</u>                          | <u>Att</u>               |   |
|-------------------------------------|--------------------------|---|
|                                     |                          | <b>a. Carpet:</b>   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Rolled .....  |
| <input type="checkbox"/>            | <input type="checkbox"/> | Tile.....   |
|                                     |                          | <b>b. Concrete Topping:</b>   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Clear Sealant..... <i>on basement floors</i>  |
| <input type="checkbox"/>            | <input type="checkbox"/> | Antislip .....  |
| <input type="checkbox"/>            | <input type="checkbox"/> | Epoxy.....  |
|                                     |                          | <b>c. Resilient:</b>  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Vinyl Composition Tile.....   |
| <input type="checkbox"/>            | <input type="checkbox"/> | Vinyl/Plastic Tile.....   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Asphalt Tile .....  |
| <input type="checkbox"/>            | <input type="checkbox"/> | Linoleum Tile .....   |
| <input type="checkbox"/>            | <input type="checkbox"/> | Vinyl Roll .....  |
| <input type="checkbox"/>            | <input type="checkbox"/> | Rubber .....  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <b>d. Ceramic Tile</b> <input checked="" type="checkbox"/> Mosaic <input type="checkbox"/> Quarry <input type="checkbox"/> Pavers .....                       |
| <input type="checkbox"/>            | <input type="checkbox"/> | <b>f. Masonry</b> <input type="checkbox"/> Marble <input type="checkbox"/> Granite <input type="checkbox"/> Slate <input type="checkbox"/> Brick.....         |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <b>g. Terrazzo</b> <input checked="" type="checkbox"/> Marble <input type="checkbox"/> Granite .....  |
| <input type="checkbox"/>            | <input type="checkbox"/> | <b>h. Wood</b> <input type="checkbox"/> Tiles <input type="checkbox"/> T&G Hardwood <input type="checkbox"/> Planking .....                                   |
| <input type="checkbox"/>            | <input type="checkbox"/> | <b>i. Pedestal</b> <input type="checkbox"/> Vinyl Tiles <input type="checkbox"/> Grills <input type="checkbox"/> Supply Air <input type="checkbox"/> Vent.... |
|                                     |                          | <b>j. Base Molding:</b>   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Vinyl.....  |
| <input type="checkbox"/>            | <input type="checkbox"/> | Wood .....  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Terrazzo..... <i>and marble</i>   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Ceramic Tile .....  |
| <input type="checkbox"/>            | <input type="checkbox"/> | Masonry.....  |

**COMMENTS:** *none*

## CEILINGS AND FINISHES

FAC #: 193

DATE: 9/30/97

INSPECTOR: JAO

**COMPONENT RATING:** (\$ 187,618) x (57%) = \$ 106,322

Possible	Condition	Component
Value	Value Multiplier	Value

**A. SYSTEM DESCRIPTION**

**Sat      Att**

**a. System Type:**

- [ ]     [ ]    Exposed ..... *in the basement*
- [ ]     [ ]    Applied to Structure .....
- [ ]     [ ]    Suspended Stud .....
- [ ]     [ ]    Suspended Steel Grid .....
- [ ]     [ ]    Suspended Aluminum Grid .....
- [ ]     [ ]    Suspended Sealed Grid.....
- [ ]     [ ]    Suspended Concealed Spline.....

**b. Materials:**

- [ ]     [ ]    Drywall .....
- [ ]     [ ]    Plaster ..... *in restrooms and stairwells*
- [ ]     [ ]    Mineral Fiber Board ..... *in remodeled areas*
- [ ]     [ ]    Fiberglas Board.....
- [ ]     [ ]    Cementitious Fiber Board.....
- [ ]     [X]    Metal Pan Tile ..... *original in all areas*
- [ ]     [ ]    Other .....

**c. Finishes:**

- [ ]     [ ]    Paint.....
- [ ]     [ ]    Prefinished [X]Paint [ ]vinyl [ ]Fabric
- [ ]     [ ]    Other .....

**d. Openings & Inserts:**

- [ ]     [ ]    Air Distribution .....
- [ ]     [ ]    Lighting Fixtures .....
- [ ]     [ ]    Access Panels .....
- [ ]     [ ]    Sprinklers.....
- [ ]     [ ]    Smoke Detectors.....
- [ ]     [ ]    Speakers.....
- [ ]     [ ]    Skylights .....
- [ ]     [ ]    Other .....

**C. COMMENTS**

*The metal pan ceiling tiles in some offices and the conference room need to be cleaned and reset.*

# CONVEYING

FAC #: 193

DATE: 9/30/97

INSPECTOR: JAO

<b>COMPONENT RATING:</b> (\$ <u>97,390</u> ) x ( <u>62%</u> ) = \$ <u>60,386</u> Possible Condition Component Value Value Multiplier Value
--

## A. SYSTEM DESCRIPTION

Sat      Att

### a. Elevators:

- Number ..... *One Westinghouse*  
        Type ..... *Passenger/Freight*  
        Speed ..... *100 FPM*  
        Capacity (lbs.) ..... *2,000 Lbs.*  
        Dimensions ..... *51"x66"*  
        Door Operation:.....  
        Center .....  
        To Side .....

### b. Lifts and Hoists:

- Number ..... *one*  
        Type ..... *750# lift*

### c. Moving Stairs and Walks:

- Number.....  
        Type.....

### d. Conveyors:

- Number.....  
        Type.....

## COMMENTS:

*The elevator is 37 years old and needs to be replaced within the next five to ten years.*

# MECHANICAL/PLUMBING DOMESTIC

FAC #: 193

DATE: 9/30/97

INSPECTOR: JAO

<b>COMPONENT RATING: (\$ <u>300,762</u>) x (<u>62%</u>) = \$ <u>186,486</u></b>						
<table style="margin: auto; border: none;"> <tr> <td style="text-align: center;">Possible</td> <td style="text-align: center;">Condition</td> <td style="text-align: center;">Component</td> </tr> <tr> <td style="text-align: center;">Value</td> <td style="text-align: center;">Value Multiplier</td> <td style="text-align: center;">Value</td> </tr> </table>	Possible	Condition	Component	Value	Value Multiplier	Value
Possible	Condition	Component				
Value	Value Multiplier	Value				

**A. SYSTEM DESCRIPTION**

**Sat      Att**

**a. Services Available:**

- [ ] Cold Water .....2.5"
- [  ] Backflow Valve .....
- [ ] Hot Water.....1"
- [ ] Natural Gas .....3"
- [ ] Compressed Air.....1/2"
- [ ] Other .....*gas fireplace in room 101*

**b. Piping & Fittings:**

- [ ] Cast Iron.....
- [ ] Ductile Iron .....
- [ ] Copper Pipe .....
- [ ] Copper Tubing .....
- [ ] Steel .....
- [ ] Galv. Steel .....
- [ ] Other .....

**c. Water Heaters:**

- [ ] Gas .....1" DHWS
- [ ] Steam Converter/Tank.....
- [ ] Steam Instantaneous.....
- [ ] Central Hot Water .....

**d. Drainage:**

- [ ] Storm Drains .....
- [ ] Sanitary Drainage.....
- [ ] Floor Drains .....

**e. Fixtures: Number**

- [ ] Water Closets .....10
- [ ] Urinals .....4
- [ ] Lavatory Sinks .....6
- [ ] Kitchen Sinks .....
- [ ] Service Sinks .....3
- [ ] Showers.....
- [ ] Electric Water Coolers .....4

**f. Sprinkler Systems:**

- [ ] Wet .....
- [ ] Dry .....
- [ ] Carbon Dioxide.....
- [ ] Halon.....

**g. Standpipe Systems:**

- [ ] [ ]Wet [ ]Dry .....
- [ ] Fire Hose Valves [ ]2.5" [ ]1.25" .....
- [ ] Hose Cabinets, Hoses [ ]Installed [ ]Removed .....

**COMMENTS:**

*A back flow valve needs to be installed in the domestic water line.*

# MECHANICAL/HEATING

FAC #: 193

DATE: 9/30/97

INSPECTOR: JAO

<b>COMPONENT RATING: (\$ <u>229,152</u>) x (<u>71%</u>) = \$ <u>163,475</u></b>						
<table style="margin: auto; border: none;"> <tr> <td style="text-align: center; padding: 0 10px;">Possible</td> <td style="text-align: center; padding: 0 10px;">Condition</td> <td style="text-align: center; padding: 0 10px;">Component</td> </tr> <tr> <td style="text-align: center; padding: 0 10px;">Value</td> <td style="text-align: center; padding: 0 10px;">Value Multiplier</td> <td style="text-align: center; padding: 0 10px;">Value</td> </tr> </table>	Possible	Condition	Component	Value	Value Multiplier	Value
Possible	Condition	Component				
Value	Value Multiplier	Value				

**A. SYSTEM DESCRIPTION**

**Sat      Att**

**a. Heat Source:**

- [ ]     [ ]    Central Plant Steam .....
- [ ]     [ ]    Central Plant Hot Water .....

**b. System Type:**

- [ ]     [ ]    Steam .....
- [X]     [ ]    Hot Water ..... *Weil McLean Boiler 1180 MBH*
- [ ]     [ ]    Warm Air.....

**c. Air Handling Units:**

- [ ]     [ ]    Multizone [ ]Preheat [ ]Heating [ ]Reheat.....
- [ ]     [X]    Dual Duct [ ]Preheat [X]Heating [ ]Reheat.....
- [ ]     [ ]    Make-up Air [ ]Preheat [ ]Heating [ ]Reheat.....
- [ ]     [ ]    Variable Volume Air [ ]Preheat [ ]Heating [ ]Reheat .....
- [ ]     [ ]    Constant Volume Air [ ]Preheat [ ]Heating [ ]Reheat.....
- [ ]     [ ]    Other .....

**d. Air Filters:**

- [X]     [ ]    Prefilter[ ]Multi [X]DDAHU [ ]MUAHU [ ]VAVAHU [ ]CAV
- [X]     [ ]    Bagfilter[ ]Multi [X]DDAHU [ ]MUAHU [ ]VAVAHU [ ]CAV
- [X]     [ ]    Other..... *electronic filter*

**e. Space Equipment:**

- [ ]     [ ]    Radiators.....
- [X]     [ ]    Convectors.....
- [X]     [ ]    Unit Heaters.....
- [ ]     [ ]    Reheat Coils .....
- [X]     [ ]    DD Boxes .....
- [ ]     [ ]    CAV Boxes.....
- [X]     [ ]    2-Pipe Fan Coil.....*at entrances*
- [X]     [ ]    Other..... *radiant ceiling panels*

**f. Control Type:**

- [X]     [ ]    [X]Pneu [X]Electric [ ]DDC [ ]DDC Upgrade .....

**COMMENTS:**

*The air handling unit is 37 years old and will need to be replaced within the next five to ten years.*

# COOLING/VENTILATING

FAC #: 193

DATE: 9/30/97

INSPECTOR: JAO

<b>COMPONENT RATING: (\$ <u>176,638</u>) x (<u>52%</u>) = \$ <u>92,250</u></b>						
<table style="margin: auto; border: none;"> <tr> <td style="padding: 0 10px;">Possible</td> <td style="padding: 0 10px;">Condition</td> <td style="padding: 0 10px;">Component</td> </tr> <tr> <td style="padding: 0 10px;">Value</td> <td style="padding: 0 10px;">Value Multiplier</td> <td style="padding: 0 10px;">Value</td> </tr> </table>	Possible	Condition	Component	Value	Value Multiplier	Value
Possible	Condition	Component				
Value	Value Multiplier	Value				

**A. SYSTEM DESCRIPTION**

<u>Sat</u>	<u>Att</u>	
		<b>a. System/Capacity:</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Water..... <i>80 Tons</i>
<input type="checkbox"/>	<input type="checkbox"/>	DX.....
		<b>b. Chillers Capacity/Year/Refrigerant/Manufacturer:</b>
<input type="checkbox"/>	<input type="checkbox"/>	Centrifugal .....
<input type="checkbox"/>	<input type="checkbox"/>	Reciprocating .....
<input type="checkbox"/>	<input type="checkbox"/>	Absorption .....
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Screw..... <i>80 Ton/1996/R-22/Trane</i>
		<b>c. Condenser Side:</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Type/Capacity [ ]CW [X]DX ..... <i>80 ton</i>
		<b>d. Air Handling Units:</b>
<input type="checkbox"/>	<input type="checkbox"/>	Multizone [ ]CW [ ]DX [ ]HUMD .....
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Dual Duct [X]CW [ ]DX [ ]HUMD .....
<input type="checkbox"/>	<input type="checkbox"/>	Make-up Air [ ]CW [ ]DX [ ]HUMD.....
<input type="checkbox"/>	<input type="checkbox"/>	Variable Volume [ ]CW [ ]DX [ ]HUMD .....
<input type="checkbox"/>	<input type="checkbox"/>	Constant Volume [ ]CW [ ]DX [ ]HUMD.....
<input type="checkbox"/>	<input type="checkbox"/>	Other .....
		<b>e. Additional Air Filters:</b>
<input type="checkbox"/>	<input type="checkbox"/>	Postfilter [ ]Multi [ ]DDAHU [ ]MUAHU [ ]VAVAHU [ ]CAV
<input type="checkbox"/>	<input type="checkbox"/>	Other [ ]HEPA [ ]BAG [ ]CARTRIDGE [ ]CHARCOAL
		<b>f. Direct Expansion: Number</b>
<input type="checkbox"/>	<input type="checkbox"/>	Window units .....
<input type="checkbox"/>	<input type="checkbox"/>	Thru-the-wall.....
<input type="checkbox"/>	<input type="checkbox"/>	Single zone .....
<input type="checkbox"/>	<input type="checkbox"/>	Other .....
		<b>g. Distribution Boxes:</b>
<input type="checkbox"/>	<input type="checkbox"/>	VAV [ ]FC [ ]REHEAT .....
<input type="checkbox"/>	<input type="checkbox"/>	CAV [ ]FC [ ]REHEAT .....
<input checked="" type="checkbox"/>	<input type="checkbox"/>	DUAL DUCT [ ]FC [ ]REHEAT .....
		<b>h. Special Systems:</b>
<input type="checkbox"/>	<input type="checkbox"/>	Type .....
<input type="checkbox"/>	<input type="checkbox"/>	Capacity .....
		<b>i. Control Systems:</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	[X]Pneu [X]Electric [ ]DDC [ ]DDC Upgrade.....
		<b>j. Fans:</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Exhaust equipment ..... <i>8 Exhaust Fans</i>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Recirculating .....

**COMMENTS:**

*The Dual Duct air handling unit is 37 years old and will need to be replaced within the next five years.*

# ELECTRICAL SERVICE AND DISTRIBUTION

FAC #: 193

DATE: 9/30/97

INSPECTOR: JAO

<b>COMPONENT RATING:</b> (\$ <u>34,850</u> ) x ( <u>69%</u> ) = \$ <u>23,932</u> Possible Condition Component Value Value Multiplier Value
--

## A. SYSTEM DESCRIPTION

### a. Service:

Substation: [ ] Buckeye, [ ] McCracken Power Plant [X] AEP

Primary Voltage: [ ] 13,200 Volts, [ ] Volts

Switch Gear Circuit No.:

Transformer: *none*

Manufacture                      Type              KVA              Secondary/Voltages              Room

### b. Distribution System:

1. Motor Control Center (MCC) Room 001 Room

Panelboard [X] Fused, [ ] Circuit Breakers

Voltage [ ] 480/3, [ ] 277/3, [X] 208/3, [ ] 240/1

Amperage [ ] 1200A, [ ] 800A, [X] 600A, [ ] 400A, [ ] 200A

2. Lighting Room 001M Room

Panelboard [X] Fused, [X] Circuit Breakers

Voltage [ ] 480/3, [ ] 277/3, [X] 208/3, [ ] 240/1

Amperage [ ] 800A, [X] 400A, [ ] 250A, [ ] 200A, [ ] 150A, [X] 100A

3. Building Power Room 001M Room

Panelboard [X] Fused, [X] Circuit Breakers

Voltage [ ] 480/3, [ ] 277/3, [X] 208/3, [ ] 240/1

Amperage [ ] 800A, [X] 400A, [ ] 250A, [ ] 200A, [ ] 150A, [ ] 100A

4. Isolated Ground Power Room

Panelboard [ ] Fused, [ ] Circuit Breakers

Voltage [ ] 480/3, [ ] 277/3, [ ] 208/3, [ ] 240/1

Amperage [ ] 400A, [ ] 250A, [ ] 200A, [ ] 150A, [ ] 100A

### c. Conduit and wire:

Conduit [X] Steel, [ ] Aluminum, [ ] PVC, [X] Flexible

Conductor [X] Copper, [ ] Aluminum, [ ] MIT

Wire: [ ] PVC Cover, [ ] Romex, [X] Armored Cable(BX)

### d. Emergency System:

[ ] Battery backup Room

[ ] Emergency Panel Room

[ ] UPS Room

### e. Emergency Generator:

Size \_\_\_\_ KVA, Location, Room #

COMMENTS: *none*

# ELECTRICAL LIGHTING AND POWER

FAC #: 193

DATE: 9/30/97

INSPECTOR: JAO

**COMPONENT RATING:** (\$ 280,712) x (71%) = \$ 200,257  
Possible Condition Component  
Value Value Multiplier Value

**A. SYSTEM DESCRIPTION**

Sat      Att

**a. Lighting (lamp type):**

- [ ]    [ ]    Fluor 40 watt.....
- [X]    [ ]    Fluor 32 watt.....
- [X]    [ ]    Fluor Can ..... *in lobby, office and conference room*
- [ ]    [X]    Incandescent *in halls and stairwells and conference room*
- [X]    [ ]    HID [X]Mercury [X]HPS [ ]Metal Halide .....
- [ ]    [ ]    Low Voltage (12V).....
- [ ]    [ ]    Other.....

**b. Lighting Levels**

- [X]    [ ]    Halls.....
- [X]    [ ]    Rooms.....
- [X]    [ ]    Mechanical Rooms .....

**c. Fixture Condition**

- [X]    [ ]    Fixtures.....
- [X]    [ ]    Bulbs.....
- [X]    [ ]    Fixture Lens.....

**d. Receptacles & Switches:**

- [ ]    [X]    Wall Outlet 20A .....
- [ ]    [ ]    GFIC Breakers .....
- [X]    [ ]    Switches.....
- [X]    [ ]    Cover Plates.....

**c. Special:**

- [ ]    [ ]    Lightning Protection.....
- [X]    [ ]    Communication [X]Clock [ ]Public Address [X]Bells ....
- [X]    [ ]    Alarm [X]Fire [ ]Security.....
- [X]    [ ]    Telecommunication [X] Phones [X]Data [ ]Cable TV ....
- [X]    [ ]    Data Systems .....
- [ ]    [ ]    Fiber Optics .....

**COMMENTS:**

*The remaining incandescent lighting needs to be replaced with 32 watt lighting in several areas.*

# SAFETY STANDARDS

FAC #: 193

DATE: 9/30/97

INSPECTOR: JAO

**COMPONENT RATING: (\$ 83,545) x (75%) = \$ 62,385**

Possible	Condition	Component
Value	Value Multiplier	Value

**A. SYSTEM DESCRIPTION**

Sat      Att

**a. Exits:**

Stair Construction:

- |                                     |                          |                             |                           |
|-------------------------------------|--------------------------|-----------------------------|---------------------------|
| <input type="checkbox"/>            | <input type="checkbox"/> | concrete .....              |                           |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | steel .....                 | <i>with concrete fill</i> |
| <input type="checkbox"/>            | <input type="checkbox"/> | wood .....                  |                           |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Number of Exit Stairs ..... | <i>two</i>                |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Number of Other Exits ..... | <i>two</i>                |

**b. Fire Rating:**

- |                          |                          |   |  |
|--------------------------|--------------------------|---|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Construction Type: I_ II <u>X</u> III_ IV_ V_ VI_ ..... |  |
|                          |                          | Building Height: <u>36</u> ft., <u>3</u> stories .....  |  |

**c. Extinguishing Systems:**

- |                                     |                          |                       |  |
|-------------------------------------|--------------------------|-----------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Portable .....        |  |
| <input type="checkbox"/>            | <input type="checkbox"/> | Standpipe .....       |  |
| <input type="checkbox"/>            | <input type="checkbox"/> | Hose Cabinets .....   |  |
| <input type="checkbox"/>            | <input type="checkbox"/> | Hoses .....           |  |
| <input type="checkbox"/>            | <input type="checkbox"/> | Sprinklers .....      |  |
| <input type="checkbox"/>            | <input type="checkbox"/> | Gas Suppression ..... |  |
| <input type="checkbox"/>            | <input type="checkbox"/> | Other .....           |  |

**d. Detection & Alarm Systems:**

- |                                     |                          |                         |             |
|-------------------------------------|--------------------------|-------------------------|-------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Pull Stations .....     |             |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Bells .....             |             |
| <input type="checkbox"/>            | <input type="checkbox"/> | Horns .....             |             |
| <input type="checkbox"/>            | <input type="checkbox"/> | Strobes .....           |             |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Annunciator Panel ..... | <i>001M</i> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Smoke Detectors .....   |             |
| <input type="checkbox"/>            | <input type="checkbox"/> | Halls .....             |             |
| <input type="checkbox"/>            | <input type="checkbox"/> | Elevators .....         |             |
| <input type="checkbox"/>            | <input type="checkbox"/> | Rooms .....             |             |
| <input type="checkbox"/>            | <input type="checkbox"/> | Equip Rooms .....       |             |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Ducts .....             |             |

**e. Lighting Systems:**

- |                                     |                          |  |  |
|-------------------------------------|--------------------------|--|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Exit Signs [X]BATTERY [ ]EMC .....         |  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Exit Lighting [X]BATTERY [ ]EMC .....      |  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Emergency Lighting [X]BATTERY [ ]EMC ..... |  |
| <input type="checkbox"/>            | <input type="checkbox"/> | Emergency Generator .....                  |  |

**f. Lightning Protection**

**COMMENTS:** *none*



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 172 OSU buildings that the Department of Physical Facilities is budgetary responsible. These audits will be used to establish repair and renovation projects, budget cost estimates for these projects, and overall levels of required maintenance funding.

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. This building replacement cost is allocated to each building component to provide an estimated value for each component. Project cost estimates will exceed the building component values in most situations because of tear-out, handling and site limitations that occur in building component replacement projects.

5. DATA USAGE

Repair and Renovation Projects: provided to assist in the budgeting process for the Department of Physical Facilities.

Building Evaluation: provided to give a numerical rating for each building on campus quantifying its percentage of deficiency.

## 6. 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 and redecorating, wholesale replacement of building and system components on-going maintenance, replacement and renovation projects are not included.

(b) Includes exterior building walls and attached items.

(c) Includes the first step up at all entries. Ramps outside the buildings are included; the steps and walks up to the ramps are not included.

(d) Blinds, drapes, light bulbs, and movable furniture are 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

A/C .....	AIR CONDITIONING
AHU .....	AIR HANDLING UNIT
ATT .....	ATTENTION
BLDG .....	BUILDING
BUR.....	BUILT UP ROOF
COND.....	CONDENSATE WATER
CAV .....	CONSTANT AIR VOLUME
DDAHU .....	DUAL DUCT AIR HANDLING UNIT
DDHV .....	DUAL DUCT HIGH VELOCITY
DHWH .....	DOMESTIC HOT WATER HEATER
DHWR.....	DOMESTIC HOT WATER RETURN
DHWS .....	DOMESTIC HOT WATER SUPPLY
DHWT.....	DOMESTIC HOT WATER TANK
DX .....	DIRECT EXPANSION AIR CONDITIONER
EWC .....	ELECTRIC WATER COOLER
FPM.....	FEET PER MINUTE
GPM .....	GALLONS PER MINUTE
HID .....	HIGH INTENSITY DISCHARGE LIGHT
HPS .....	HIGH PRESSURE STEAM (125 PSI)
HVAC.....	HEATING, VENTILATING AND AIR CONDITIONING
KV .....	KILOVOLTS
KVA .....	KILOVOLTS AMPS
KW .....	KILOWATTS
LC.....	LIQUID COOLED
LF .....	LINEAL FEET
LPS .....	LOW PRESSURE STEAM (15 PSI)
MCC .....	MOTOR CONTROL CENTER
MBH.....	THOUSAND BTU PER HOUR
MPS.....	MEDIUM PRESSURE STEAM (50 PSI)
MZCV .....	MULTIZONE CONSTANT VOLUME AIR HANDLING
N/A.....	NOT APPLICABLE
PSI.....	POUNDS PER SQUARE INCH
RM.....	ROOM
RTU.....	ROOF TOP UNIT (HEATING OR A/C)
SAT .....	SATISFACTORY
SF .....	SQUARE FEET
S/P .....	STAND PIPE
SR .....	STEAM RETURN LINE
SS .....	STEAM SUPPLY LINE
SY.....	SQUARE YARDS
TR.....	TERMINAL REHEAT
V .....	VOLTS
VAV .....	VARIABLE AIR VOLUME

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