



Hudson City Administration Center

Space Utilization Study

January 4, 2018

Space Utilization Study
Hudson City Administration Building
1140 Terex Road, Hudson, Ohio

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- i. Phase 1: Maintenance/Repair items
- ii. Phase 2: Renovations
- iii. Phase 3: Future

C. PASCO Office Building Assessment, by Peninsula Architects and TBA

Hudson Administrative Center Space Utilization Study

Acknowledgements

City of Hudson

Jane Howington, City Manager
Thomas J. Sheridan, Assistant City Manager – City Engineer

Consultant Team

Brandstetter Carroll, Inc.

1220 W. Sixth Street, Suite 300
Cleveland, Ohio 44113
(216)241-4480

Nancy K. Nozik, AIA, Principal-in-Charge
Humberto J. Olivos, Architect

Thorson Baker + Associates, Consulting Engineers

3030 W. Streetsboro Road
Richfield, Ohio 44286
(330)659-6688

Jeffrey D. Miterko, Principal - Electrical
Guy R. Hicks, Principal - Mechanical
Laurie A. Borchert, LEED AP

Architect's Project Number: 17087
January 2018

SPACE UTILIZATION STUDY

INTRODUCTION

The City of Hudson, Ohio is considering the purchase of an existing building in which to move their Administrative Offices. The building is a three-story, 32,267 sf brick office building built in 1990, located at 1140 Terex Road in Hudson. Brandstetter Carroll, Inc. (BCI) was contracted to prepare a Space Utilization Study to determine how the existing building could be utilized for the City Administration offices.

The goal for the space utilization is to re-use as much of the existing interior layout as possible. The Ground Floor has at-grade access on the south side of the building, while the First Floor has access on the north side of the building with a formal staircase.

In May 2017 a Building Assessment was completed by Peninsula Architects and Thorson Baker + Associates Engineers for the existing office building being considered for purchase. Repair items identified in that report have been included in the opinions of probable cost in this study. Thorson Baker + Associates was also utilized in this study to provide an analysis of upgrades necessary for the building systems to support the new layout of spaces for the Hudson Administrative Offices.

RECOMMENDATIONS

The existing building is well suited to support the Administrative Offices for the City of Hudson. The recommendations and associated Opinions of Probable Cost are separated into two categories: Phase 1: Maintenance/Repair Items and Phase 2: Renovations.

Phase 1 is scheduled to be completed between January 2018 and June 1, 2018. These include maintenance/repair items as well as some code upgrades to be done prior to the City Administration Offices taking occupancy in June 2018. These include repairs to the exterior stairs and columns, a new ADA access ramp, roof repairs, upgrades for a unisex ADA restroom on the ground level, HVAC repairs, emergency lighting at egress doors, upgrades to make fire alarm system ADA compliant, and repairs to the parking lot and site drainage. Also included is the construction of a temporary partition wall to allow some City staff to work in the building while PASCO remains in residence. The opinion of probable cost for these items is \$216,000.

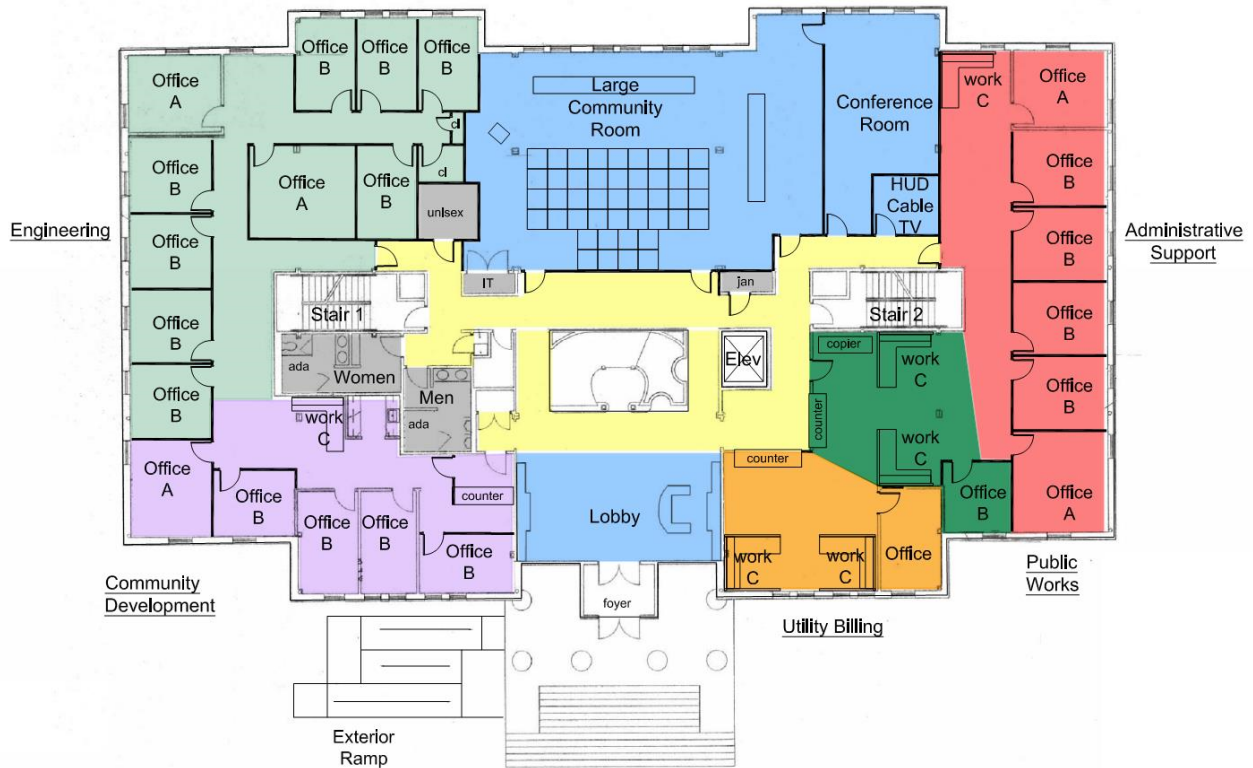
The Phase 2: Renovation items are specific to the City of Hudson moving their Administrative Offices into the building, and will commence once PASCO has fully vacated the building. These include reconfiguration of walls for appropriate offices and work areas, new carpet, new suspended ceiling, interior signage, upgrades to all building systems to accommodate the new space layout, and additional parking areas near the south entrance. The opinion of probable cost for these items is \$840,000.

Consideration is also given to the development of a solar array. Better Together Solar is located in Cleveland, Ohio and is the largest solar installer based in Northeast Ohio. They provided initial calculations for a solar array for either the rooftop areas of the building or covering a portion of the main parking lot. Due to obstructions from the surrounding trees and high roof areas, the installation of a solar carport would be the most effective solution. A single row carport would produce approximately 207,000 kW/h annually. That is enough electrical energy to offset 21 homes per year for 30 years. The anticipated cost to install the carport would be between \$400,000 - \$550,000. Tradition return-on-investment models place initial return in the 5 to 7 year mark. The carport would be designed to produce electricity for 30 years, minimum.

SPACE UTILIZATION DIAGRAMS

At the completion of the Phase 2 Renovation work, the space utilization within the building is anticipated to be as represented in the following diagrams.

First Floor

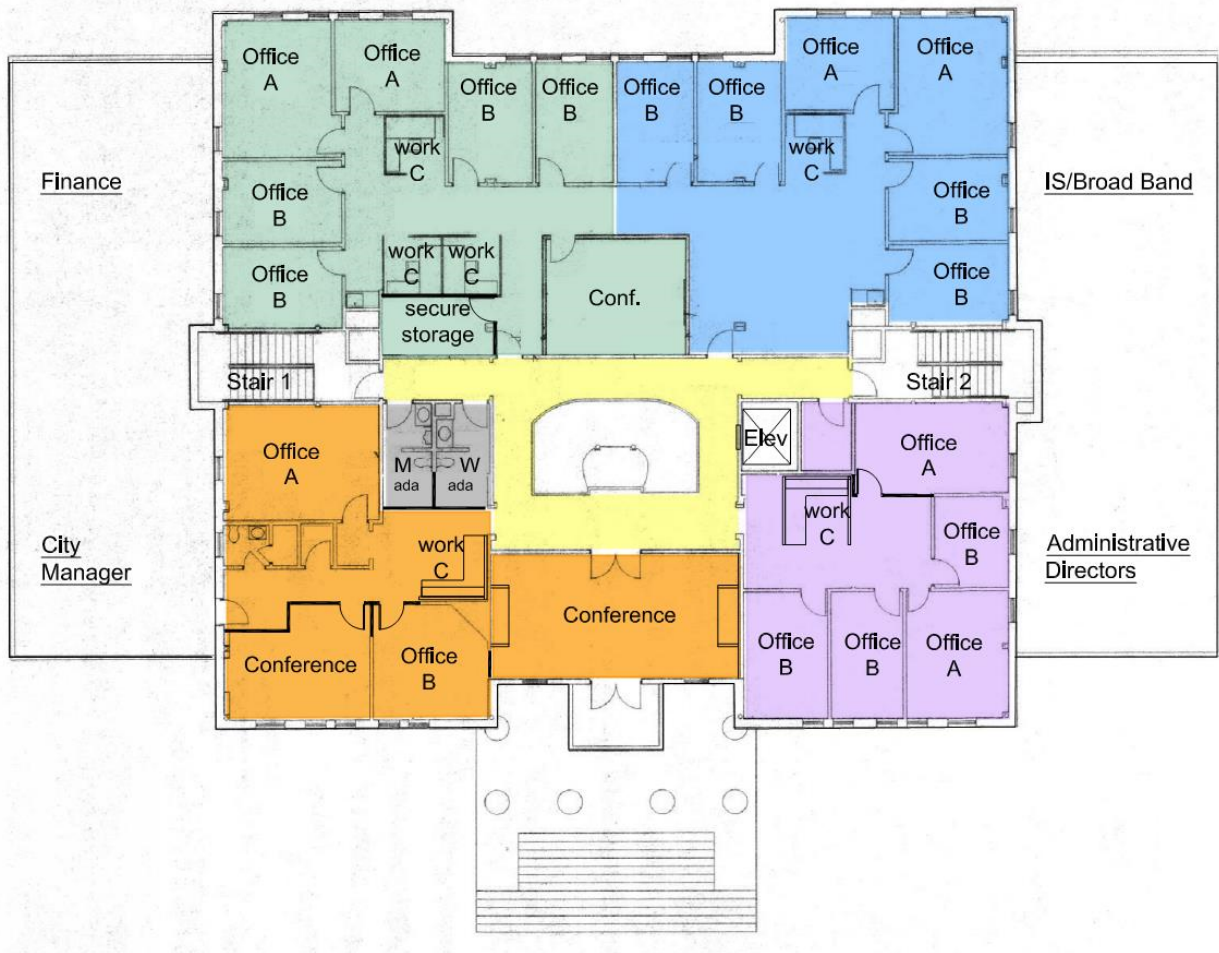


FIRST FLOOR SPACE DIAGRAM

The primary public entrance for City Administration Offices will be through the north entrance on the First Floor. An exterior ramp will be added and integrated into the landscape for wheelchair access. The two departments with the most public visitors, Utility Billing and Community Development, are located adjacent to the main lobby. Access to all other departments and a central Community Room is made via the public corridor surrounding the central stair.

- Public Lobby
- Utility Department
- Public Works Department
- Administrative Support
- Community Development Department
- Engineering Department
- Large Community Room
- Large Conference Room

Second Floor

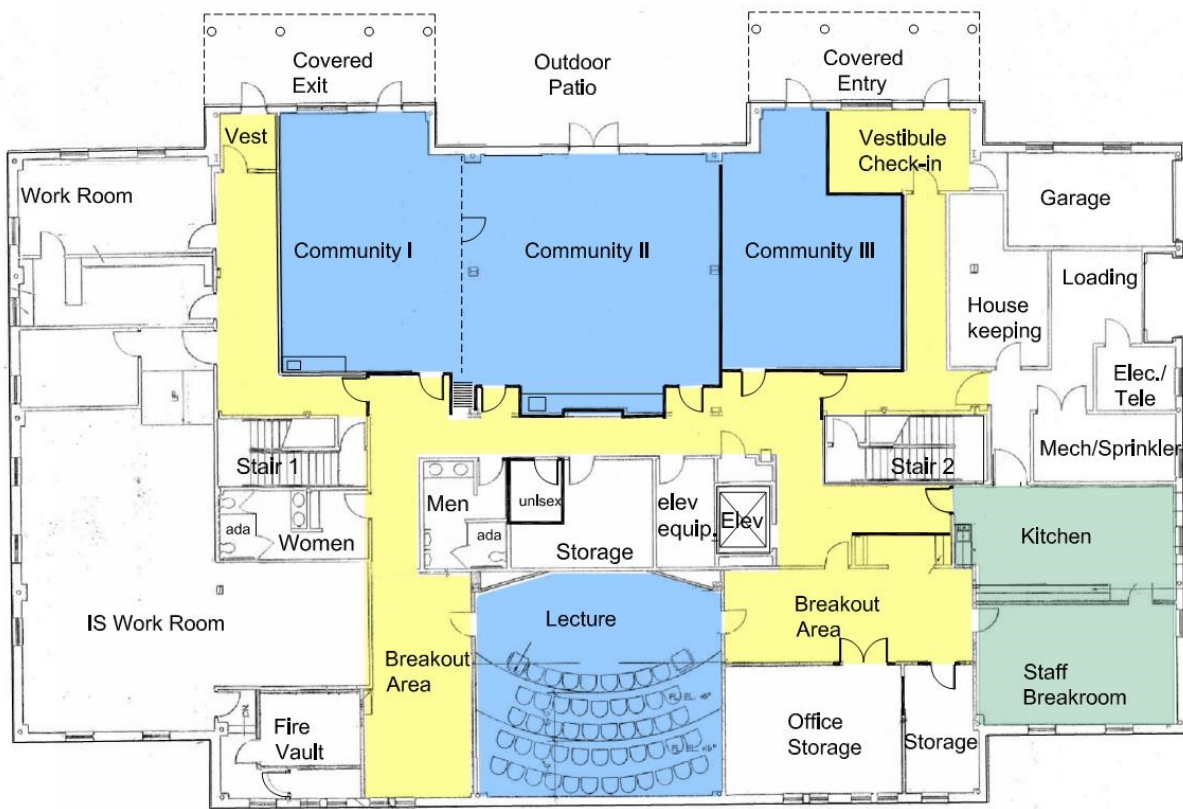


SECOND FLOOR SPACE DIAGRAM

The majority of the Second Floor contains private offices that can be utilized as is. Minor reconfiguration is needed to provide ADA restrooms and storage areas.

- City Manager Offices
- Administrative Support Offices
- Finance Department
- IS/Broad Band Department

Ground Floor



GROUND FLOOR SPACE DIAGRAM

Aside from the ADA and unisex restrooms being completed in Phase 1, all work on the Ground Floor is planned for a Future Phase. There is an opportunity on the Ground Floor to provide meeting and presentation spaces for the general community. There is a need for this type of space in Hudson that is not adequately being met. This floor is envisioned to be available for both day and evening use. Only authorized personnel will be able to access the upper floors from the Ground Level.

- Two large Community Rooms, with movable partition
- Tiered Lecture/Presentation Room with Breakout Areas
- Kitchen for use by staff as well as to support community events
- Staff Breakroom
- IS Work Room
- Mechanical/Service

BUILDING SYSTEMS ANALYSIS

Purpose:

Thorson • Baker + Associates, Inc. evaluated the modification that may be required for the proposed new building layout as shown on the fit plans. All comments and recommendations within this report are the professional opinion of Thorson • Baker + Associates, Inc.

Limitations:

1. Site observations were limited to visual observation only. Visual observation was limited to areas that were not covered by finishes or other obstructions. Access was not possible to all rooms and areas within the building.
2. No testing was performed on materials, equipment or systems. Equipment was not opened or taken apart for internal inspection. This Observation Report is no way a guarantee to the proper operation of equipment or systems.
3. As-built construction documents and shop drawings were not made available for reference prior to completion of this report.
4. This observation was not intended to be an inspection for health or environmental problems such as radon gas, asbestos, PCB's, lead, ants, termites, etc.
5. Refer the Report that TBA provided for this office building on 5/3/17 for existing building MEP system descriptions.

Mechanical Systems Summary

Kitchen

1. Hood needs fire protection system installed.
2. Need to see how to get the exhaust fan for the hood up to roof. It is now discharging too close to the mechanical intake air louver.

Boiler Room

1. Need to provide a heated make-up air unit for the mechanical room boilers combustion air to keep piping from freezing.

Elevator Pit

1. The city should check with their insurance company to see if they need a sprinkler head in the elevator pit. Existing code requires this sprinkler head.

HVAC System

1. Carrier moduline VAV diffusers – the city will need to make sure they have a maintenance contract to review these diffusers' intake air filters from the systems air supply to operate the controls at least twice a year at minimum.
2. The roof top condensing coils need their fin combed out.
3. First floor:
 - A. If they want individual control of the community rooms, they will need new VAV boxes with reheat.
 - B. The lecture room and fitness room will need new VAV boxes with reheat.
 - C. New restrooms need exhaust fans.
4. Second Floor:
 - A. Most of the area has low partitions for office areas and conference rooms. The existing system can remain. If these areas have new full height walls and ceilings - new VAV boxes with reheat will need to be installed.

- B. The large community room and conference room should have new VAV boxes with reheat.
- 5. Third Floor:
 - A. Five (5) new rooms need to have 2 new VAV boxes with reheat.
 - B. New restrooms need exhaust fans.
- 6. Depending on the amount of new ceiling modifications and if the building code will require the whole building to meet the new ventilation code, it may be best to remove all the existing Carrier moduline diffuser system and mixing boxes and replace with new VAV boxes with reheat and new DDC controls.

Plumbing Systems

- 1. Provide new plumbing systems for new restrooms.

Fire Protection

- 1. Modify existing fire protection sprinkler system for the new building layout.

Electrical Systems Summary

Electric Service and Metering

1. There are no changes necessary in regards to the existing electric service or metering.

Electrical Distribution

1. There are no changes necessary in regards to power distribution (i.e. panelboards, switchboards, etc.).
 - a. Emergency and Exit Lighting
2. There is no need to modify the existing site lighting at this time. Consideration should be given to converting to L.E.D. fixtures in the future to improve energy efficiency and uniformity of light levels.

Interior Lighting

1. Consideration should be given to replacing all existing light fixtures with L.E.D. fixtures based on the age of the fixtures, potential energy savings, and improvement in quality of light.
2. Occupancy sensors will be required throughout the building to comply with current energy code.

Emergency Lighting

1. Existing interior emergency and exit lighting will need to be reworked for the new fit plan.
2. Existing exit lights should be replaced with L.E.D. fixtures.
3. Emergency lighting must be added outside each egress door.

Fire Alarm System

1. Consideration should be given to replacing the existing fire alarm system with a fully addressable ADA compliant system.

Access Control System

1. A new access control system will be required with card readers at the exterior doors and at the access points from the lower level to the upper levels.

A/V Systems

1. Rough-in and power will be required for future A/V systems. The following allowances should be considered for future A/V equipment:
 - a. Ground Floor Community Room - \$25,000
 - b. Lecture Room - \$6,000
 - c. First Floor Community Room - \$15,000
 - d. First Floor Conference Room - \$4,000
 - e. Second Floor Conference Room - \$4,000

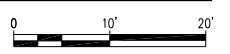
APPENDIX A
CONCEPT DIAGRAMS

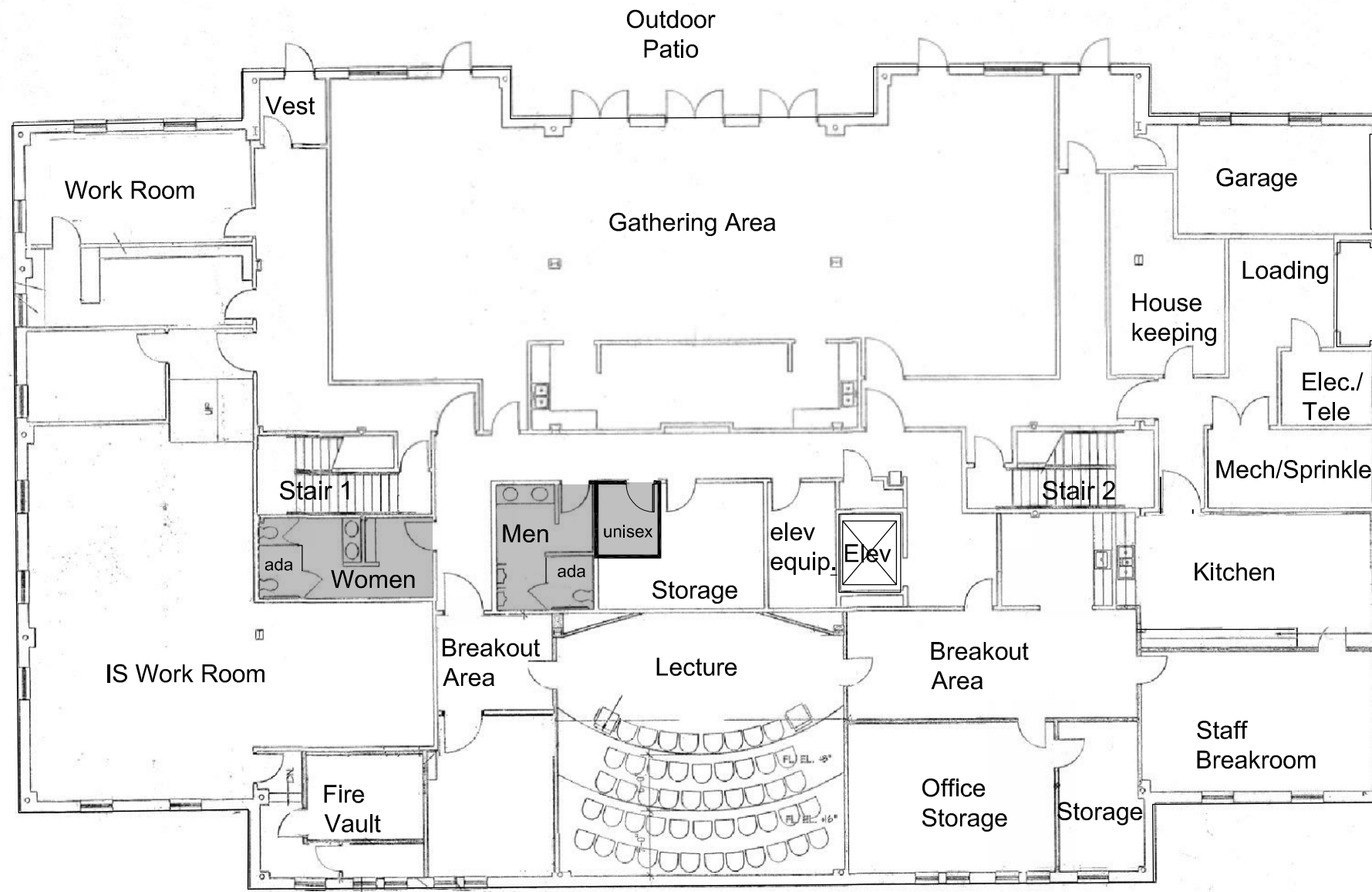


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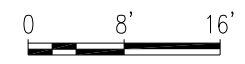
Site Plan

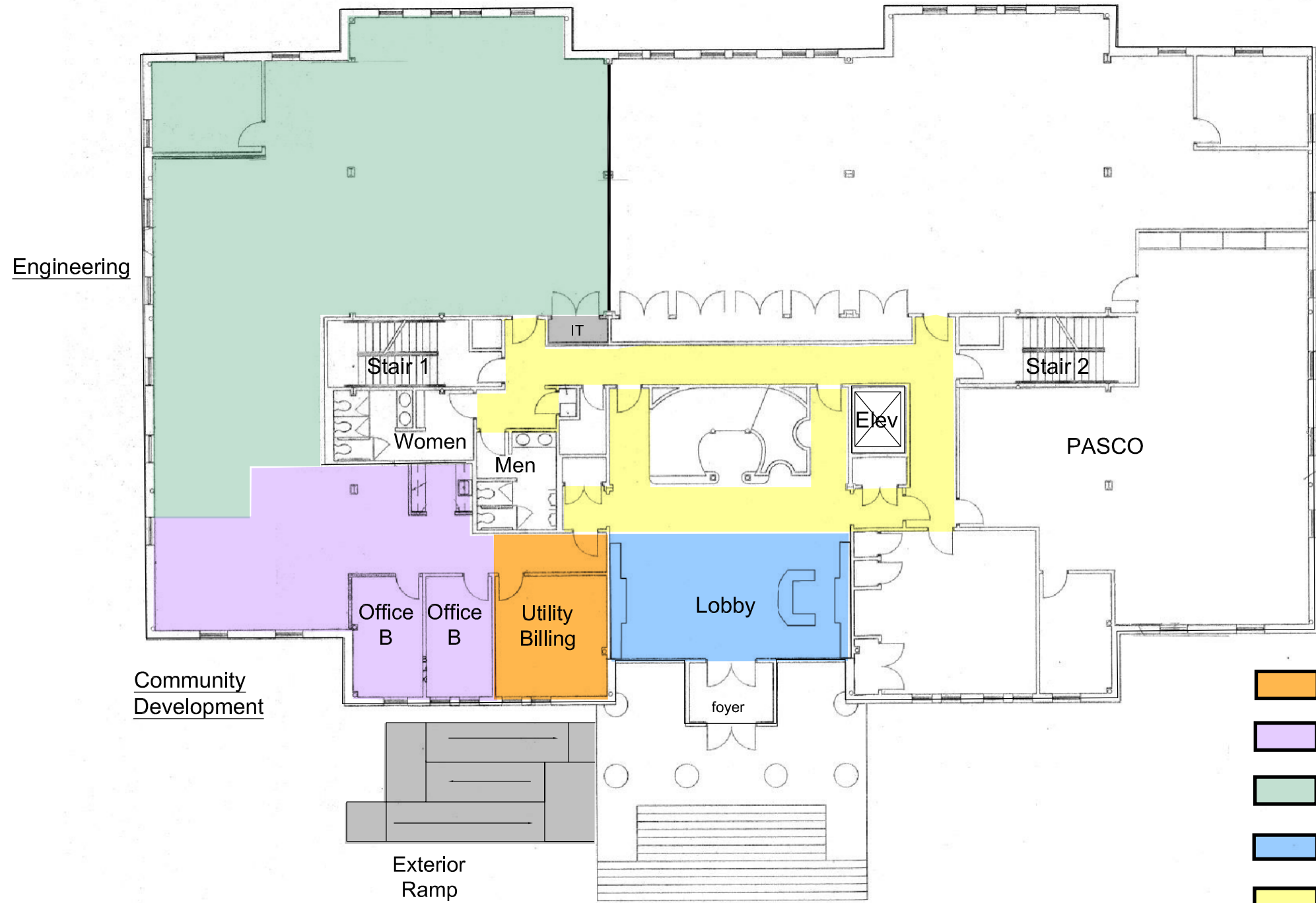
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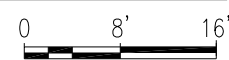
■ ADA RESTROOM





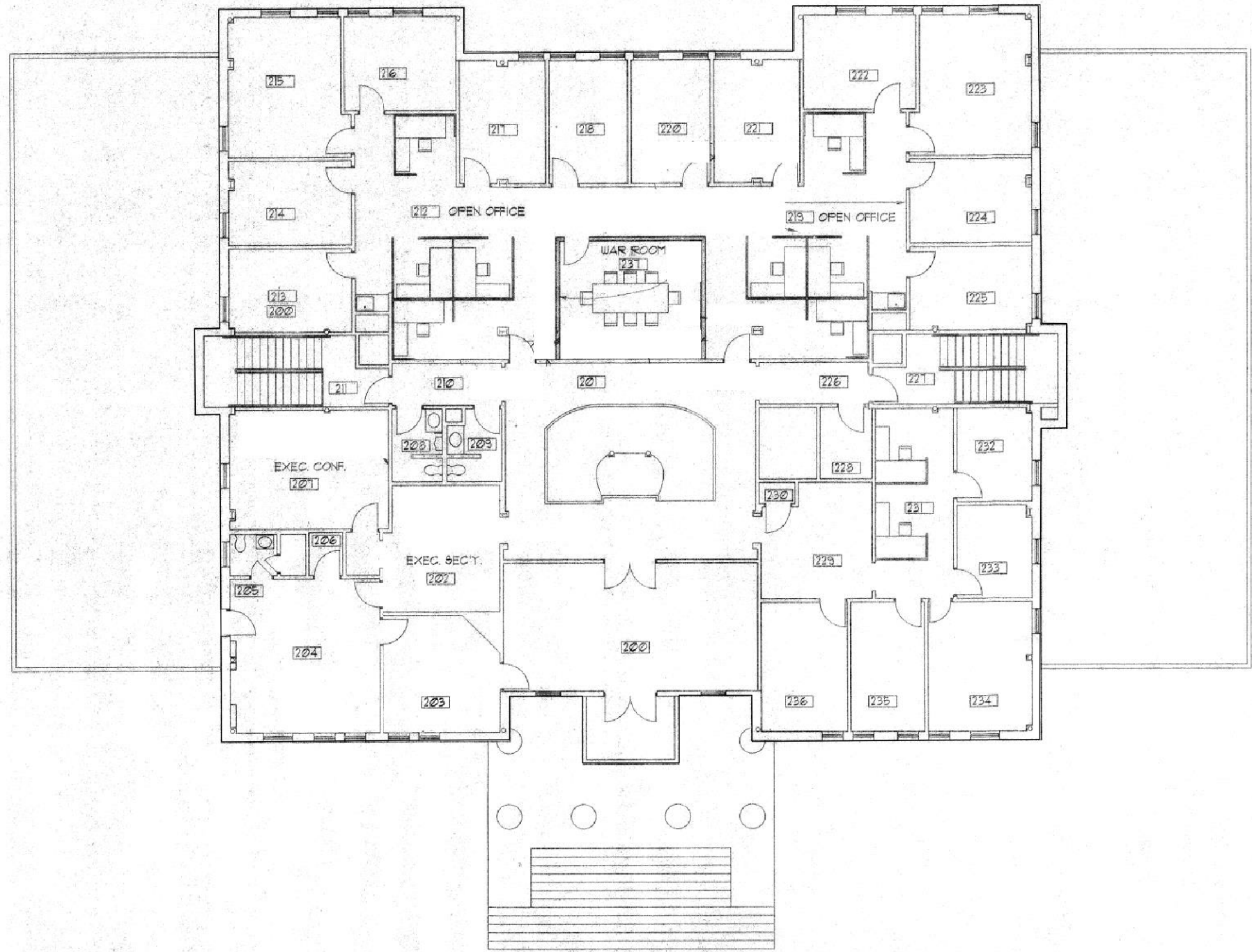
- UTILITY DEPARTMENT
- COMMUNITY DEVELOPMENT
- ENGINEERING
- PUBLIC AREAS
- CIRCULATION / BREAK-OUT
- ADA RESTROOMS / SUPPORT

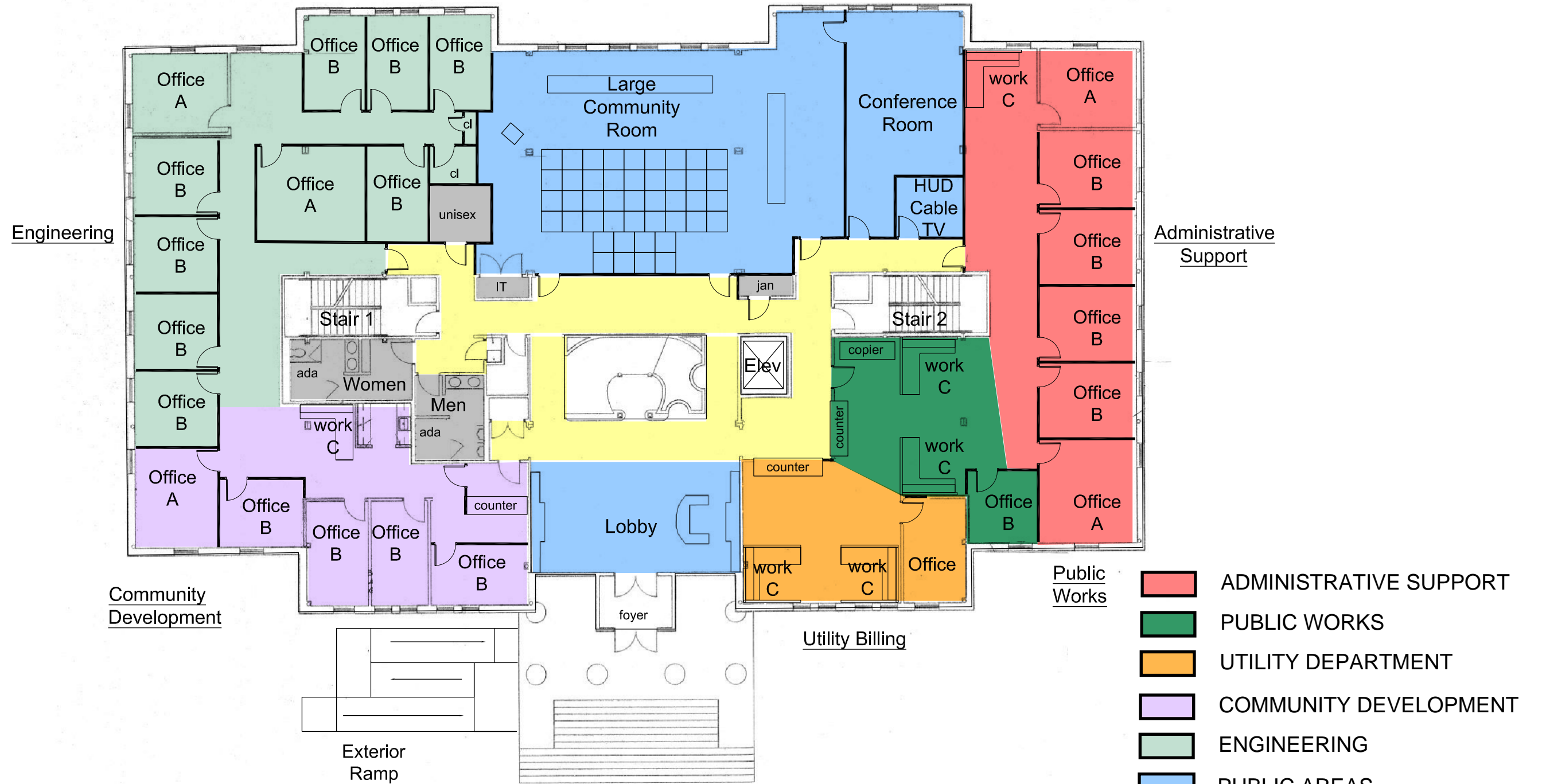
First Floor PHASE 1 Concept
 January - June 1, 2018



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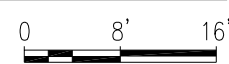
City of Hudson
 1140 Terex Road
 Hudson, OH





First Floor PHASE 2 Concept

June 1 - November, 2018



- ADMINISTRATIVE SUPPORT
- PUBLIC WORKS
- UTILITY DEPARTMENT
- COMMUNITY DEVELOPMENT
- ENGINEERING
- PUBLIC AREAS
- CIRCULATION / BREAK-OUT
- ADA RESTROOMS / SUPPORT

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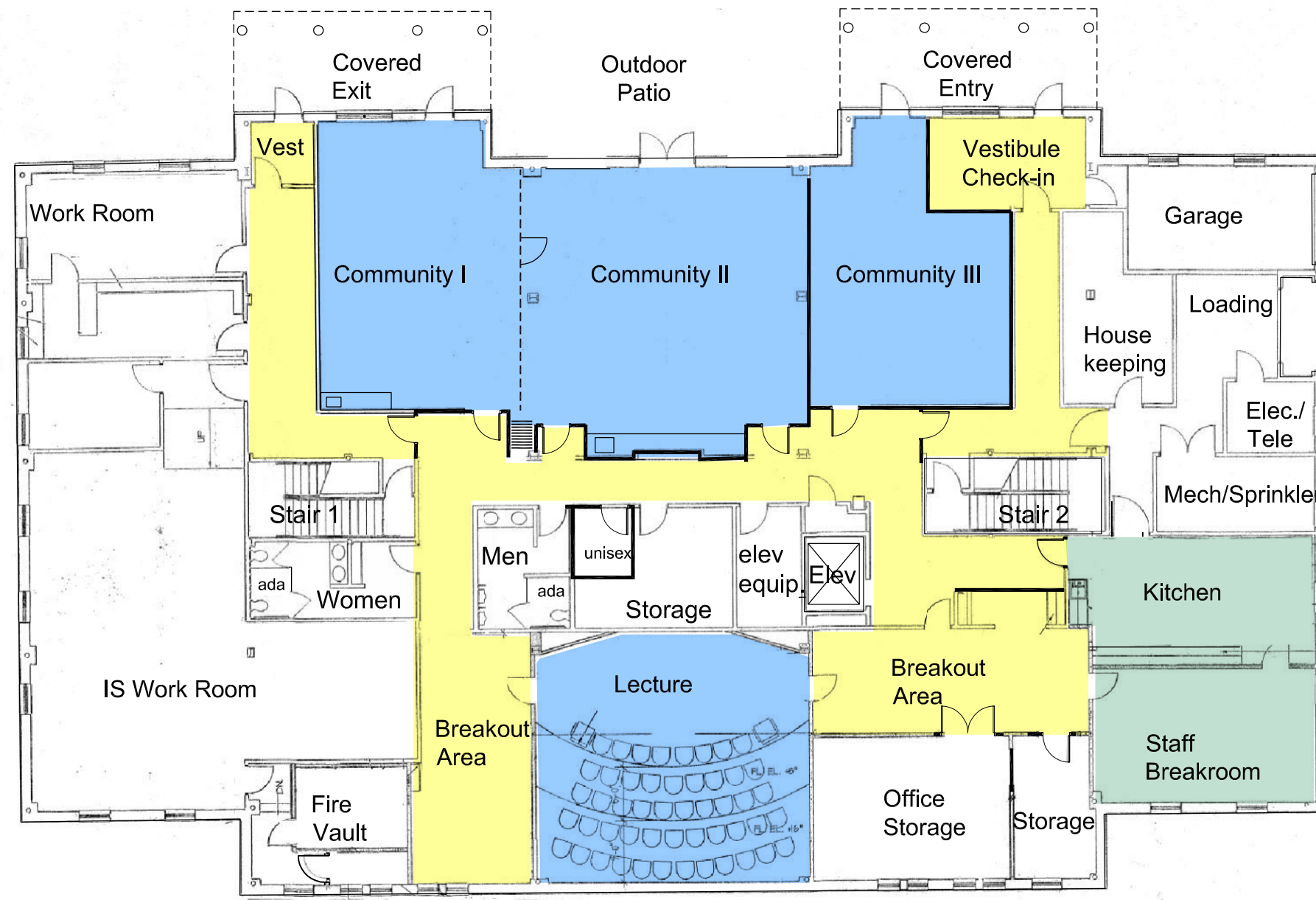
- CITY MANAGER
- ADMINISTRATIVE DIRECTORS
- FINANCE
- CIRCULATION / BREAK-OUT
- ADA RESTROOMS / SUPPORT

Second Floor PHASE 2 Concept

June 1 - November, 2018

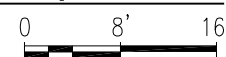
0 8' 16'





- STAFF AREAS
- PUBLIC AREAS
- CIRCULATION / BREAK-OUT

Ground Floor FUTURE Concept



APPENDIX B
OPINIONS OF PROBABLE COST

Hudson Administration Center - PASCO Building Renovation**OPINION OF PROBABLE COST**

PHASE 1: MAINTENANCE / REPAIR ITEMS	area/ qty	unit	unit cost	unit	area costs	totals
GENERAL CONDITIONS						
Contractor General Conditions - 5%		1 allow	\$ 8,479.55	allow	\$ 8,479.55	\$ 8,479.55
SITE DEVELOPMENT / EXTERIOR IMPROVEMENTS						
Repair/Replace front entry stair and railing						\$ 19,680.00
Concrete stairs	450 sf		20 sf	\$	9,000.00	
Railings	64 lf		120 lf	\$	7,680.00	
Repair column bases	6 ea		500 ea	\$	3,000.00	
ADA Access - exterior ramp						\$ 35,150.00
Concrete ramp w/face brick	415 sf		50 sf	\$	20,750.00	
Railings	120 lf		120 lf	\$	14,400.00	
Parking / Site Upgrades						\$ 29,000.00
Repair drainage along Hudson Drive access	1 ea		5000 sf	\$	5,000.00	
Repair asphalt parking (City)	8000 sf		3 sf	\$	24,000.00	
GROUND FLOOR						
ADA Unisex Restroom						\$ 17,221.00
Gyp bd over 3-5/8 mtl studs, batt insul	264 sf		10 sf	\$	2,640.00	
Interior Single WD Door with Frame	1 ea		1300 ea	\$	1,300.00	
Floor - ceramic tile	70 sf		15 sf	\$	1,050.00	
Walls- ceramic tile	136 sf		15 sf	\$	2,040.00	
Paint - interior doors and frames	1 ea		125 ea	\$	125.00	
Paint - Interior walls	136 sf		1 sf	\$	136.00	
2x2 acoustical ceiling	70 sf		5 sf	\$	350.00	
Toilet accessories	1 ea		1300 ea	\$	1,300.00	
New water closet - floor mount	1 ea		1500 ea	\$	1,500.00	
Lavatory - wall mount w/faucet	1 ea		1250 ea	\$	1,250.00	
Floor drain with trap primer	1		950 ea	\$	950.00	
Restroom exhaust fans	1 ea		1500 ea	\$	1,500.00	
Water: domestic piping & insulation	30 lf		26 lf	\$	780.00	
Sanitary & vent piping	50 lf		38 lf	\$	1,900.00	
Receptacles in new restrooms	2 ea		100 ea	\$	200.00	
Occupancy sensors	1 ea		200 ea	\$	200.00	
ADA Restrooms Upgrade						\$ 16,400.00
Interior Finishes	2 ea		5000 ea	\$	10,000.00	
Toilet partitions/accessories	2 ea		1500 ea	\$	3,000.00	
Remove existing water closet	4 ea		100 sf	\$	400.00	
New water closet - floor mount	2 ea		1500 ea	\$	3,000.00	
Replace domestic water heater						\$ 3,800.00
100 gal domestic natural gas HW heater	1 ea		3800 ea	\$	3,800.00	
Kitchen Hood						\$ 500.00
Remove	1 ea		500 ea	\$	500.00	
Boiler Room						\$ 5,200.00
Provide heated make-up air unit for boiler combustion air	1 ea		5200 ea	\$	5,200.00	
Carrier Rooftop Unit						\$ 500.00
Comb out the condensing coil fins	1 ea		500 ea	\$	500.00	
Rooftop receptacles						\$ 200.00
Replace existing rooftop receptacles with GFI	1 ea		200 ea	\$	200.00	
Elevator Sprinkler Head						\$ 2,800.00
Add a sprinkler head in the elevator pit, provide shunt-trip device	1 ea		2800 ea	\$	2,800.00	
Add emergency lighting at egress doors						\$ 4,800.00
LED egress wall pack	8 ea		600 ea	\$	4,800.00	
Update fire alarm system to comply with ADA						\$ 30,000.00
Replace with fully addressable system	1 ea		30,000 sf	\$	30,000.00	
FIRST FLOOR						

Hudson Administration Center - PASCO Building Renovation

OPINION OF PROBABLE COST

Provide temporary partition wall				\$	4,340.00
Gyp bd over 3-5/8 mtl studs, batt insul	434 sf	10 sf		\$	4,340.00
sub-total maintenance / repairs					\$178,070.55
Design Contingency (10%)		10%		\$	17,807.06
Construction Contingency (10%)		10%		\$	17,807.06
sub-total construction costs					\$213,684.66
SOFT COSTS					
Testing, Permits, Insurance, Expenses		1%		\$	2,136.85
sub-total soft costs					\$2,136.85
TOTAL MAINTENANCE/REPAIR ITEMS					\$215,821.51

Hudson Administration Center - PASCO Building Renovation**OPINION OF PROBABLE COST**

PHASE 2: RENOVATIONS	area/ qty	unit	unit cost	unit	area costs	totals
GENERAL CONDITIONS						\$ 35,982.17
Contractor General Conditions - 5%		1 allow	\$35,982.17	allow	\$ 35,982.17	
GENERAL BUILDING IMPROVEMENTS						\$ 147,420.00
Access Control System						
Card readers at exterior doors and stairwells		1 allow	20000	allow	\$ 20,000.00	
LED exit lights		24 ea	200	ea	\$ 4,800.00	
Modify existing Fire Suppression system for new layout						
1st floor office areas		2600 sf	3	sf	\$ 7,800.00	
2nd floor office areas		940 sf	3	sf	\$ 2,820.00	
Interior Signage		20000 sf	0.1	sf	\$ 2,000.00	
Replace Carrier Unit		1 ea	100,000	ea	\$ 100,000.00	
New Generator (50kva)		1 ea	10,000	ea	\$ 10,000.00	
FIRST FLOOR						
ADA Unisex Restroom						\$ 22,125.00
Demo: Interior Doors		1 ea	150	ea	\$ 150.00	
Gyp bd over 3-5/8 mtl studs, batt insul		308 sf	10	sf	\$ 3,080.00	
Interior Single WD Door with Frame		1 ea	1300	ea	\$ 1,300.00	
Floor - ceramic tile		70 sf	15	sf	\$ 1,050.00	
Walls- ceramic tile		136 sf	15	sf	\$ 2,040.00	
Paint - interior doors and frames		1 ea	125	ea	\$ 125.00	
Paint - Interior walls		170 sf	1	sf	\$ 170.00	
2x2 acoustical ceiling		70 sf	5	sf	\$ 350.00	
Toilet accessories		1 ea	1300	ea	\$ 1,300.00	
New water closet - floor mount		1 ea	1500	ea	\$ 1,500.00	
Lavatory - wall mount w/faucet		1 ea	1250	ea	\$ 1,250.00	
Floor drain with trap primer		1	950	ea	\$ 950.00	
Restroom exhaust fans		1 ea	1500	ea	\$ 1,500.00	
Water: domestic piping & insulation		100 lf	26	lf	\$ 2,600.00	
Sanitary & vent piping		100 lf	38	lf	\$ 3,800.00	
Receptacles in new restrooms		2 ea	100	ea	\$ 200.00	
Interior lighting - typical areas		70 sf	8	sf	\$ 560.00	
Occupancy sensors		1 ea	200	ea	\$ 200.00	
ADA Restrooms Upgrade						\$ 16,400.00
Interior Finishes		2 ea	5000	ea	\$ 10,000.00	
Toilet partitions/accessories		2 ea	1500	ea	\$ 3,000.00	
Remove existing water closet		4 ea	100	sf	\$ 400.00	
New water closet - floor mount		2 ea	1500	ea	\$ 3,000.00	
Common Hallway:- interior renovation						\$ 19,066.67
Carpet		133 sy	35	sy	\$ 4,666.67	
Paint - Interior walls		4800 sf	1	sf	\$ 4,800.00	
Interior lighting - typical areas		1200 sf	8	sf	\$ 9,600.00	
Engineering: interior renovation						\$ 87,310.00
Demo Flooring - carpet and vinyl		2160 sf	1.5	sf	\$ 3,240.00	
Demo Suspended Ceiling		2160 sf	1.5	sf	\$ 3,240.00	
Gyp bd over 3-5/8 mtl studs, batt insul		3000 sf	10	sf	\$ 30,000.00	
Interior Single WD Door with Frame		4 ea	1300	ea	\$ 5,200.00	
Carpet		240 sy	30	sy	\$ 7,200.00	
Paint - interior doors and frames		4 ea	125	ea	\$ 500.00	
Paint - Interior walls		8050 sf	1	sf	\$ 8,050.00	
2x2 acoustical ceiling		2160 sf	5	sf	\$ 10,800.00	
Interior lighting - typical areas		2160 sf	8	sf	\$ 17,280.00	
Occupancy sensors		9 ea	200	ea	\$ 1,800.00	

Hudson Administration Center - PASCO Building Renovation**OPINION OF PROBABLE COST**

Community Development: Interior Renovation					\$	36,426.00
Demo Flooring - carpet and vinyl	1140 sf	1.5 sf	\$	1,710.00		
Demo Suspended Ceiling	1140 sf	1.5 sf	\$	1,710.00		
Gyp bd over 3-5/8 mtl studs, batt insul	840 sf	10 sf	\$	8,400.00		
Interior Single WD Door with Frame	2 ea	1300 ea	\$	2,600.00		
Transaction counter - solid surface	18 sf	50 sf	\$	900.00		
Carpet	127 sy	30 sy	\$	3,800.00		
Paint - Interior walls	1486 sf	1 sf	\$	1,486.00		
2x2 acoustical ceiling	1140 sf	5 sf	\$	5,700.00		
Interior lighting - typical areas	1140 sf	8 sf	\$	9,120.00		
Occupancy sensors	5 ea	200 ea	\$	1,000.00		
Large Community Room: interior renovation					\$	109,822.67
Demo Flooring - carpet and vinyl	2270 sf	1.5 sf	\$	3,405.00		
Demo Suspended Ceiling	2270 sf	1.5 sf	\$	3,405.00		
Demo: Interior Partitions	448 sf	0.75 sf	\$	336.00		
Demo: Interior Doors	5 ea	150 ea	\$	750.00		
Gyp bd over 3-5/8 mtl studs, batt insul	1400 sf	10 sf	\$	14,000.00		
Interior Single WD Door with Frame	7 ea	1300 ea	\$	9,100.00		
Carpet	252 sy	30 sy	\$	7,566.67		
Paint - interior doors and frames	6 ea	125 ea	\$	750.00		
Paint - Interior walls	3800 sf	1 sf	\$	3,800.00		
2x2 acoustical ceiling	2270 sf	5 sf	\$	11,350.00		
AV: 1st Floor Community Room	1 allow	15000 allow	\$	15,000.00		
AV: 1st Floor Conference Room	1 allow	4000 allow	\$	4,000.00		
Interior lighting - typical areas	2270 sf	8 sf	\$	18,160.00		
Occupancy sensors	1 ea	200 ea	\$	200.00		
VAV boxes with reheat	4 ea	4500 ea	\$	18,000.00		
Administrative Support: interior renovation					\$	57,395.17
Demo Flooring - carpet and vinyl	1535 sf	1.5 sf	\$	2,302.50		
Demo Suspended Ceiling	1535 sf	1.5 sf	\$	2,302.50		
Demo: Interior Partitions	1078 sf	0.75 sf	\$	808.50		
Demo: Interior Doors	5 ea	150 ea	\$	750.00		
Gyp bd over 3-5/8 mtl studs, batt insul	1484 sf	10 sf	\$	14,840.00		
Interior Single WD Door with Frame	6 ea	1300 ea	\$	7,800.00		
Carpet	171 sy	30 sy	\$	5,116.67		
Paint - interior doors and frames	6 ea	125 ea	\$	750.00		
Paint - Interior walls	1570 sf	1 sf	\$	1,570.00		
2x2 acoustical ceiling	1535 sf	5 sf	\$	7,675.00		
Interior lighting - typical areas	1535 sf	8 sf	\$	12,280.00		
Occupancy sensors	6 ea	200 ea	\$	1,200.00		
Public Works: interior renovation					\$	18,649.00
Demo Flooring - carpet and vinyl	600 sf	1.5 sf	\$	900.00		
Demo Suspended Ceiling	600 sf	1.5 sf	\$	900.00		
Demo: Interior Partitions	252 sf	0.75 sf	\$	189.00		
Demo: Interior Doors	1 ea	150 ea	\$	150.00		
Gyp bd over 3-5/8 mtl studs, batt insul	196 sf	10 sf	\$	1,960.00		
Interior Single WD Door with Frame	2 ea	1300 ea	\$	2,600.00		
Transaction counter - solid surface	18 sf	50 sf	\$	900.00		
Carpet	67 sy	30 sy	\$	2,000.00		
Paint - interior doors and frames	2 ea	125 ea	\$	250.00		
Paint - Interior walls	800 sf	1 sf	\$	800.00		
2x2 acoustical ceiling	600 sf	5 sf	\$	3,000.00		
Interior lighting - typical areas	600 sf	8 sf	\$	4,800.00		
Occupancy sensors	1 ea	200 ea	\$	200.00		

Hudson Administration Center - PASCO Building Renovation**OPINION OF PROBABLE COST**

Utility Billing: interior renovation				\$	15,409.00
Demo Flooring - carpet and vinyl	600 sf	1.5 sf	\$	900.00	
Demo Suspended Ceiling	600 sf	1.5 sf	\$	900.00	
Demo: Interior Partitions	812 sf	0.75 sf	\$	609.00	
Demo: Interior Doors	6 ea	150 ea	\$	900.00	
Transaction counter - solid surface	18 sf	50 sf	\$	900.00	
Carpet	67 sy	30 sy	\$	2,000.00	
Paint - Interior walls	1200 sf	1 sf	\$	1,200.00	
2x2 acoustical ceiling	600 sf	5 sf	\$	3,000.00	
Interior lighting - typical areas	600 sf	8 sf	\$	4,800.00	
Occupancy sensors	1 ea	200 ea	\$	200.00	
SECOND FLOOR					
ADA Restrooms Upgrade				\$	18,780.00
Gyp bd over 3-5/8 mtl studs, batt insul	238 sf	10 sf	\$	2,380.00	
Interior Finishes	2 ea	5000 ea	\$	10,000.00	
Toilet partitions/accessories	2 ea	1500 ea	\$	3,000.00	
Remove existing water closet	4 ea	100 sf	\$	400.00	
New water closet - floor mount	2 ea	1500 ea	\$	3,000.00	
Common Hallway:- interior renovation				\$	9,576.89
Carpet	71 sy	35 sy	\$	2,488.89	
Paint - Interior walls	1968 sf	1 sf	\$	1,968.00	
Interior lighting - typical areas	640 sf	8 sf	\$	5,120.00	
Finance: Secure Storage				\$	11,681.33
Demo Flooring - carpet and vinyl	103 sf	1.5 sf	\$	154.50	
Demo Suspended Ceiling	103 sf	1.5 sf	\$	154.50	
Gyp bd over 3-5/8 mtl studs, batt insul	308 sf	10 sf	\$	3,080.00	
Interior Single WD Door with Frame	1 ea	1300 ea	\$	1,300.00	
Carpet	11 sy	30 sy	\$	343.33	
Paint - interior doors and frames	1 ea	125 ea	\$	125.00	
Paint - Interior walls	440 sf	1 sf	\$	440.00	
2x2 acoustical ceiling	112 sf	5 sf	\$	560.00	
Interior lighting - typical areas	103 sf	8 sf	\$	824.00	
Occupancy sensors	1 ea	200 ea	\$	200.00	
VAV boxes with reheat	1 ea	4500 ea	\$	4,500.00	
Finance: interior renovation				\$	41,813.33
Demo Flooring - carpet and vinyl	1780 sf	1.5 sf	\$	2,670.00	
Demo Suspended Ceiling	1780 sf	1.5 sf	\$	2,670.00	
Carpet	198 sy	30 sy	\$	5,933.33	
Paint - Interior walls	6000 sf	1 sf	\$	6,000.00	
2x2 acoustical ceiling	1780 sf	5 sf	\$	8,900.00	
Interior lighting - typical areas	1780 sf	8 sf	\$	14,240.00	
Occupancy sensors	7 ea	200 ea	\$	1,400.00	
IS/Broad Band: interior renovation				\$	38,549.33
Demo Flooring - carpet and vinyl	1660 sf	1.5 sf	\$	2,490.00	
Demo Suspended Ceiling	1660 sf	1.5 sf	\$	2,490.00	
Carpet	184 sy	30 sy	\$	5,533.33	
Paint - Interior walls	5256 sf	1 sf	\$	5,256.00	
2x2 acoustical ceiling	1660 sf	5 sf	\$	8,300.00	
Interior lighting - typical areas	1660 sf	8 sf	\$	13,280.00	
Occupancy sensors	6 ea	200 ea	\$	1,200.00	

Hudson Administration Center - PASCO Building Renovation**OPINION OF PROBABLE COST**

City Manager - interior renovation					\$	36,043.33
Demo Flooring - carpet and vinyl	1000 sf	1.5 sf	\$	1,500.00		
Demo Suspended Ceiling	1000 sf	1.5 sf	\$	1,500.00		
Gyp bd over 3-5/8 mtl studs, batt insul	504 sf	10 sf	\$	5,040.00		
Interior Single WD Door with Frame	2 ea	1300 ea	\$	2,600.00		
Carpet	111 sy	30 sy	\$	3,333.33		
Paint - interior doors and frames	2 ea	125 ea	\$	250.00		
Paint - Interior walls	3720 sf	1 sf	\$	3,720.00		
2x2 acoustical ceiling	1000 sf	5 sf	\$	5,000.00		
Interior lighting - typical areas	1000 sf	8 sf	\$	8,000.00		
Occupancy sensors	3 ea	200 ea	\$	600.00		
VAV boxes with reheat	1 ea	4500 ea	\$	4,500.00		
Administrative Directors: interior renovation					\$	29,175.67
Demo Flooring - carpet and vinyl	1124 sf	1.5 sf	\$	1,686.00		
Demo Suspended Ceiling	1124 sf	1.5 sf	\$	1,686.00		
Demo: Interior Partitions	280 sf	0.75 sf	\$	210.00		
Demo: Interior Doors	1 ea	150 ea	\$	150.00		
Gyp bd over 3-5/8 mtl studs, batt insul	120 sf	10 sf	\$	1,200.00		
Interior Single WD Door with Frame	1 ea	1300 ea	\$	1,300.00		
Carpet	125 sy	30 sy	\$	3,746.67		
Paint - interior doors and frames	1 ea	125 ea	\$	125.00		
Paint - Interior walls	3460 sf	1 sf	\$	3,460.00		
2x2 acoustical ceiling	1124 sf	5 sf	\$	5,620.00		
Interior lighting - typical areas	1124 sf	8 sf	\$	8,992.00		
Occupancy sensors	5 ea	200 ea	\$	1,000.00		
Conference Room: interior renovation					\$	4,000.00
AV: 2nd Floor Conference Room	1 allow	4000 allow	\$	4,000.00		
				sub-total building and site construction		\$755,625.56
	Design Contingency (5%)	5%	\$	37,781.28		
	Construction Contingency (5%)	5%	\$	37,781.28		
				sub-total construction costs		\$831,188.11
SOFT COSTS						
	Testing, Permits, Insurance, Expenses	1%	\$	8,311.88		
				sub-total soft costs		\$8,311.88
				TOTAL PHASE 1 PROJECT COSTS		\$839,500.00

Hudson Administration Center - PASCO Building Renovation**OPINION OF PROBABLE COST**

FUTURE PHASE: RENOVATIONS	area/ qty	unit	unit cost	unit	area costs	totals
GENERAL CONDITIONS						
Contractor General Conditions - 5%		1 allow	\$26,875.39	allow	\$ 26,875.39	\$ 26,875.39
EXTERIOR IMPROVEMENTS						
New Parking Area						\$ 93,943.75
SD asphalt paving	11625 sf		3 sf	\$	34,875.00	
concrete sidewalk, 4" thick w/4" stone	1880 sf		5 sf	\$	9,400.00	
concrete curb, integral	700 lf		12 lf	\$	8,400.00	
Strip and stockpile topsoil - avg 8"	9591 cy		4 cy	\$	38,362.50	
respread topsoil - 6"	581 cy		4 cy	\$	2,325.00	
lawn seeding and fertilizing	581 sy		1 sy	\$	581.25	
GENERAL BUILDING IMPROVEMENTS						
New covered porches at Lower Level						\$ 218,800.00
Roof trusses, asphalt shingles, trim, columns	700 sf		80 sf	\$	56,000.00	
Replace flat roof: Center Section						
Membrane roof over rigid insulation, tapered	2000 sf		17.6 sf	\$	35,200.00	
Replace flat roof: Side roofs						
Membrane roof over rigid insulation, tapered	3200 sf		16 sf	\$	51,200.00	
Replace asphalt shingles on sloped roofs						
Asphalt shingles on felt paper	7300 sf		10 sf	\$	73,000.00	
Interior Signage	34000 sf		0.1 sf	\$	3,400.00	
GROUND FLOOR						
Community Rooms:- interior renovation						\$ 224,764.00
Demo Flooring - carpet and vinyl	2600 sf		1.5 sf	\$	3,900.00	
Demo Suspended Ceiling	2600 sf		1.5 sf	\$	3,900.00	
Demo: Interior Partitions	1032 sf		0.75 sf	\$	774.00	
Demo: Interior Doors	6 ea		150 ea	\$	900.00	
Gyp bd over 3-5/8 mtl studs, batt insul	1344 sf		10 sf	\$	13,440.00	
Interior Single WD Door with Frame	6 ea		1300 ea	\$	7,800.00	
Carpet	2600 sy		30 sy	\$	78,000.00	
Paint - interior doors and frames	6 ea		125 ea	\$	750.00	
Paint - Interior walls	5000 sf		1 sf	\$	5,000.00	
2x2 acoustical ceiling	2600 sf		5 sf	\$	13,000.00	
Interior lighting - typical areas	2600 sf		8 sf	\$	20,800.00	
Community/Lecture room Lighting controls	5 ea		1900 ea	\$	9,500.00	
AV: Ground Floor Community Room	1 allow		25000 allow	\$	25,000.00	
AV: Ground Floor Lecture Room	1 allow		6000 allow	\$	6,000.00	
Operable Partition - manual (12'H x 43')	1 allow		18000 allow	\$	18,000.00	
VAV boxes with reheat	4 ea		4500 ea	\$	18,000.00	
sub-total building and site construction						\$564,383.14
Design Contingency (5%)						\$ 28,219.16
Construction Contingency (5%)						\$ 28,219.16
sub-total construction costs						\$620,821.45
SOFT COSTS						
Testing, Permits, Insurance, Expenses						\$ 6,208.21
sub-total soft costs						\$6,208.21
TOTAL FUTURE PHASE PROJECT COSTS						\$627,029.67
ALTERNATES:						
23 HVAC						\$ 774,408.00
Full system replacement with VAV	32267 sf		24 sf	\$	774,408.00	

APPENDIX C
PASCO Office Building Assessment

PASCO OFFICE BUILDING ASSESSMENT

1140 TEREX ROAD

HUDSON, OH



Prepared For:

The City of Hudson



by

PENINSULA
ARCHITECTS

TBA
Thorson · Baker + Associates
CONSULTING ENGINEERS

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Introduction

A. Purpose of Building Evaluation:

1. Peninsula Architects and Thorson • Baker + Associates, Inc. visited the Pasco Office Building, 1140 Terex Road, Hudson, OH on 4/27/2017 and 4/28/17. The purpose of these visits was to perform a visual observation of the current condition of the building, and to provide comments on the building envelope, window and door systems, plumbing, mechanical and electrical systems. All comments and recommendations within this report are the professional opinion of Peninsula Architects and Thorson • Baker + Associates, Inc.

B. Basic Building Description:

1. The existing structure is a three-story, 32,267 S.F. office building built in 1989/1990.
2. Use Group: B, Business
3. Construction Type: 3B
 exterior walls non-combustible, interior elements of any material
 primary structural frame, floor and roof structure not fire protected
4. Building is fully sprinkled

C. Limitations:

1. Site observations were limited to visual observation only. Visual observation was limited to areas that were not covered by finishes or other obstructions. Access was not possible to all rooms and areas within the building.
2. No testing was performed on materials, equipment or systems. Equipment was not opened or taken apart for internal inspection. This Observation Report is no way a guarantee to the proper operation of equipment or systems.
3. As-built construction documents and shop drawings were not made available for reference prior to completion of this report.
4. This observation was not intended to be an inspection for health or environmental problems such as radon gas, asbestos, PCB's, lead, ants, termites, etc.

D. Summary:

The building appears to have been well maintained and is in a good state of repair. As with any building, there will be ongoing maintenance issues, but nothing outside the scope of standard building care. There are a few items that should be addressed and include the following:

- Repair/replace north (front) entry stair and railing
- Replace flat roof membrane and sloped insulation over center of building
- Replace roof shingles in the near future
- Modify existing toilet rooms to comply with ADA
- Replace domestic water heater
- Add emergency lighting at egress doors
- Update the fire alarm system to comply with ADA

At your discretion, lighting controls and lamping could be updated to comply with current energy code and reduce overall electrical costs.

Additionally, there is currently no ADA access at the front of the building. As ramping to cover the 6' height differential would be extensive, this issue should be further studied in order to determine its necessity, feasibility, and the cost implications of various options.

Pasco Building Evaluation – Building Envelope

A. Window and Door systems

1. Windows are original aluminum clad wood double hung windows manufactured by Pella.
2. Windows have been well maintained. And show no sign of wear or deterioration
3. Windows on all four exposures were visually inspected and tested for operation and were all found to be functioning properly
4. Exterior doors were located primarily on the South side of the structure. These doors are steel insulated doors which were installed in 1991 to replace the original wood doors which were failing shortly after initial installation.
5. All exterior doors are painted within the last 2 years and appear to be well maintained

B. Exterior Trim systems

1. The building has extensive exterior wood work consisting of detailed wood soffits, wood panel trim between windows, panelized wood construction at the northern entry and wood columns at the same northern entrance
2. Wood panels on the southern exposure were replaced in 2014
3. All wood surfaces were painted in 2014/2015 and are on an 8 year paint schedule according to the owners representative
4. All exterior wood appears to be well maintained with no evidence of rot or excessive peeling
5. The exception to this are the columns at the north entry – the bases of these wood columns show evidence of decay and excessive caulking – the remedy for this issue is to replace the bottom of the columns with fiberglass or composite materials of like form

C. Roof Systems

The building consists of a mixture of sloped roofs with residential 30 year dimensional composite shingles and low slope/flat rubber membrane roofs with internal drainage systems

1. Sloped roof shingles appear to be in good shape but are at the end of their advertised 30 year life expectancy
2. Flat roofs located over the first floor on the east and west sides of the building were replaced in 2008 and appear to be well maintained
3. Multiple roof patches are evident with the owner stating that the roofs are inspected annually
4. The flat roof over the center of the building at the top of the roof is original and is showing signs of wear/leakage and poor slope – it is recommended that this portion of flat roof be replaced with a new roof membrane and new sloped insulation providing positive slope to drains

D. Wall Systems

Masonry systems on the vertical and horizontal surfaces

1. The building wall system consists primarily of a 4" brick veneer over a metal stud frame
2. The overall condition of the brick wall veneer is in excellent condition
3. Wall weep systems were observed and appear to be draining the wall properly
4. The only exceptions were found in the northwest corner of the building just above the flat roof area – this area has a 48" horizontal crack which appears to be from buckling – the remedy for this is to repoint the brick
5. Also observed were major cracks at the northern terrace entry – these appear to be from water intrusion and subsequent freezing and expansion – the remedy for this area is to remove the stone cap above the brick, remove the brick and replace both surfaces with new material that is properly drained with internal weeps structures
6. Horizontal masonry systems consisting of cast stone and limestone steps were observed at the northern entry
7. Horizontal masonry systems show evidence of cracking due to water intrusion and freezing
8. It was observed that the railing systems on the stairs were failing at the stair locations and there was a lack of railing systems to protect most areas on the upper entry platform
9. It is recommended that all horizontal masonry systems be removed and replaced, ensuring proper drainage and internal weep structures

10. Some floor slab cracks/buckles most likely from settling below the slab. Does not appear to be recent or ongoing. Remediation: grind down the high/crown of the slab and install new floor finish.

E. ADA Improvements

1. Existing bathrooms on all floors are non-compliant. Minimum work needed to comply:

- Provide ADA compliant drinking fountains on all floors

- At toilet rooms on all floors:

 - Provide compliant accessories (grab bars, dispensers, etc.)

 - Repair finishes as required by demolition/new work

-Ground Floor

Men: Partial wall demolition and reconstruction

- Remove one of two toilets to create an ADA compliant stall

- Reconfigure lavs to provide egress clearance at door

- Reverse door swing to provide egress clearance

Women: Partial wall demolition and reconstruction

- Relocate lavs to provide clearance to toilet compartments

- Remove one of three toilets to create an ADA compliant stall

-First Floor

Men: Partial wall demolition and reconstruction

- Remove one of two toilets to create an ADA compliant stall

- Reconfigure lavs to provide egress clearance at door

- Reverse door swing to provide egress clearance

Women: Partial wall demolition and reconstruction

- Relocate lavs to provide clearance to toilet compartments

- Remove one of three toilets to create an ADA compliant stall

-Second Floor

Men: Partial wall demolition and reconstruction (possibly expand footprint)

- Remove urinal to provide fixture clearance and clear floor space

- Replace/relocate lav to provide clear floor space for door swing

Women: Partial wall demolition and reconstruction (possibly expand footprint)

- Replace/relocate lav to provide clear floor space for door swing

Mechanical Systems

A. HVAC Systems

1. The building is cooled by two (2) variable air volume rooftop units and heated by two (2) hot water boilers.
2. The variable air volume rooftop units are cooling only with a cooling capacity of 40 tons at 13,000 cfm air quantity. One unit was replaced in 2006 with a Carrier model 50AK-040. The other unit was replaced with a Trane model TCD480 in 2013. Both units were set on the existing spring isolation Mason type RSC curb by a curb adaptor.
3. The rooftop units supply air to Carrier Moduline VAV diffusers and Titus fan powered VAV mixing boxes. The five (5) fan powered VAV mixing boxes have hot water reheat coils. The Carrier moduline VAV units conditions most of the building.
4. The basement and first floor areas have a return air ceiling plenum. The second floor has transfer return air grilles and boots for the smaller spaces transfer the return air to the larger open office areas.
5. The rooftop units have an energy management kit with a seven (7) day programmable clock and VAV control package. The Carrier moduline units have unit mounted thermostats using a level tag at the face of the diffuser. The fan powered VAV mixing boxes have wall mounted thermostats to an electronic DDC which controls the boxes air valve and three-way heating valve.
6. The technology data room in the basement is conditioned with one (1) Liebert Deluxe System, model FH16G with a cooling capacity of 10 tons with four (4) stages at 6,400 cfm and a heating capacity of 15 KW with three (3) stages and a 17.4 lbs/hr infrared humidifier. The dry cooler and duplex pump package is located on the roof. The construction drawings show two (2) systems, but one (1) system has been removed.
7. The two (2) Bryan boilers, model D-450 have a capacity of 450,000 BTUH. The boilers provide heat to the buildings perimeter fin tube radiation, cabinet heaters, unit heaters, fan powered VAV mixing boxes, and fan coil units. The hot water system has two (2) B&G series 60 2 1/2 F circulating pumps with a capacity of 90 gpm vs 50 ft HD. One pump is the main circulator and the other pump is a back-up.
8. The fin tube radiation does not have any control. The boilers have a hot water supply water setting rest to the outside air temperature.
9. The unit heaters have wall thermostat control.
10. The cabinet heater (CH-1) for the basement vestibules have return air unit mounted thermostats.
11. The cabinet heater (CH-2) for the first floor main vestibule has a wall mounted thermostat.
12. The fan coil units in the basement lunch room have a wall mounted thermostat.
13. The guard house has a G.E. zone line model AZC315D, 14,000 BTUH cooling at 290 cfm and 14,000 BTUH heating VTAC heat pump with 3.5 KW auxiliary resistance electric heating coil.

14. The electric room in the basement has a 1 KW electric baseboard with integrated thermostat. The first floor receptionist desk has two (2) 0.5 KW electric baseboards with integrated thermostat. The computer manager's office has a 1.25 KW electric baseboard with a remote wall thermostat.
15. There is one (1) main roof mounted exhaust fan (Greenheck model GB-18-3X-QD) for the restrooms with a capacity of 1650 cfm. The maintenance room in the basement has a ceiling exhaust fan at 410 cfm. The electrical room in the basement has a ceiling exhaust fan at 95 cfm.
16. In 1996, a renovation installed a caterer's serving area which has an range exhaust hood. The exhaust hood has an integral exhaust fan and it discharges through the outside wall through a wall cap. This exhaust is too close to the boiler room combustion air intake louver. Plus, the exhaust hood does not have an anslu fire suppression system. The owner needs to verify with the building department if this exhaust system was approved this way (maybe as a residential system). This system may need to be modified to meet building code requirements.
17. Overall, the HVAC system has been maintained well, which allowed the system to last past the expected life span of 25 years. Except for the boilers which have an expected life span of 35-40 years. Since the rooftop units have been replaced already, we do not see any equipment that needs to be replaced at this time.
18. The condensing coils fins need to be combed out for the Carrier rooftop unit.

B. Plumbing Systems

1. The building is fed with a 3" domestic cold water main with a reduced pressure backflow preventer.
2. The building is fed with a 1" medium pressure natural gas main service. The house line is a 2" low pressure gas service. Gas services the boilers, domestic water heater, kitchen range/oven, and two (2) fire places.
3. The building has an 8" storm sewer and a 6" sanitary sewer exiting the building.
4. The plumbing fixtures are original. The faucets have some pitting on the chrome finish.
5. The domestic hot water system has an A.O. Smith model BTP 139, 86 gallon tank water heater with 140,000 BTUH capacity which was installed in 2003. The system has a Symmons model and 5-200A mixing valve for 20 gpm, a recirculating pump at 4 gpm vs 10 ft HD with a 1.5 KW, 6 gallon, electric domestic water heater.
6. The plumbing system is in good shape for its age. The domestic water heater is approaching its useful life of 15-20 years.

C. Fire Protection Systems

1. The building is fed with a 6" fire water main. The building is completely sprinkled except for two (2) electrical rooms and the elevator shaft which has heat detectors and the computer room.
2. The 4" fire department connection is located in front of the building near the drive and the fire hydrant.
3. The stairways have a 4" stand pipe system with hose connection valves. The pressure at the top of the standpipe is 95 psig.
4. The kitchen hood does not have a fire suppression system.
5. The computer room has a Halon fire protection system.
6. The fire protection system is in good condition.
7. The sprinkler mains in the boiler room are insulated due to it being installed too close to the outside air intake for the boilers combustion air.
8. The owners will need to check with their insurance provider. The plumbing plans do not show a sprinkler head in the elevator pit. We could not verify it in the field. The plumbing and electrical drawings show a heat detector at the top of the elevator shaft. If the insurance provider requires the pit to be sprinkled, a shunt-trip device will need to be added to the electrical elevators power.

Electrical Systems

A. Electric Service

1. The existing electric originates at a pole line along Terex Road and extends underground to a 500 KVA utility company pad-mount transformer on the west site of the building. The electric meter (#41-029-680) is located at the transformer with the metering current transformers located within the transformer enclosure. The power company is the Village of Hudson Electric Company.
2. There are no changes necessary in regards to the existing electric service.

B. Power Distribution

1. The service voltage to the building is 120/208V-3P-4W.
2. Service extends underground from the utility transformer into the main distribution panel on the ground level. This distribution panel is fusible-type with a 2000 main bolted pressure switch.
3. The main distribution panel has fusible branch switches that distribute power to the large mechanical equipment in the building as well as panelboards.
4. There is a small electrical closet on each floor with separate panelboards for lighting and power loads.

5. The existing power distribution equipment was manufactured by General Electric.
6. The existing power distribution system appears to be in good condition and should be sufficient in capacity for the proposed building use. No changes are necessary in regards to power distribution.

C. Exterior Lighting

1. Parking lot lighting is provided by 400 watt metal halide light fixtures installed on 20'-0" high straight square steel poles. The poles and bases have been re-painted black.
2. The voltage to the parking lot light fixtures is 208 volts.
3. The site lighting also includes some pedestrian scale sidewalk light poles, lighted bollards, and flagpole lighting.
4. The exterior lighting is controlled by a photocell and time clock.
5. There is no need to modify the existing site lighting at this time, however, it should be noted that conventional design to today's standards would be based on the use of L.E.D. light sources. These light sources provide very even illumination while lowering operational and maintenance costs.

D. Interior Lighting

1. Most of the interior lighting is fluorescent with some incandescent fixtures in limited areas.
2. Most of the fluorescent lamp sources are 4'-0" long T12 lamps.
3. The lighting controls consist of manual light switches with dimmers in limited areas.
4. The quantity and quality of light are both fine. Energy efficiency could be improved by changing lamps and ballasts to T8 fluorescent technology or by replacing the fixtures with L.E.D. technology.
5. The existing lighting controls do not meet current energy code requirements. Consideration should be given to add occupancy sensors or similar automated controls for energy savings and code compliance.

E. Emergency and Exit Lighting

1. The building is not served by an emergency generator.

2. Emergency lighting is provided by battery-powered self-contained, emergency lighting units and by fluorescent light fixtures with integral emergency battery packs.
3. Exit lights utilize incandescent lamps have integral battery back-up.
4. There is no emergency lighting outside the egress doors to serve the exit discharge.
5. Existing incandescent exit signs should be replaced with new L.E.D. fixtures. Emergency lighting should be added outside each egress door.

F. Fire Alarm System

1. The building has a manual fire alarm system which also includes limited heat detection, smoke detection limited to elevator recall, flow switches, tamper switches, duct mounted smoke detectors, horns and strobes.
2. The fire alarm devices are non-addressable type. The devices are monitored in zones by a notifier #AFP-200 addressable fire alarm panel.
3. There is a remote annunciator located in the lobby on the first floor level.
4. The existing fire alarm system is not A.D.A. compliant.
5. Consideration should be given to replacing the existing fire alarm system with a fully addressable, A.D.A. compliant system. Our opinion for probable cost for this work is \$25,000. In lieu of full replacement upgrading the existing system for A.D.A. compliance would lower the opinion cost to \$12,500.

G. Miscellaneous Observations

1. The building has a security system with door contacts and motion sensors.
2. There is a CCTV system serving limited areas outside the building.
3. There is a lightning protection system on the roof.
4. An under carpet wiring system was used to provide power to some cubicles.
5. The light fixtures on the roof were not working, but it is assumed that the lamps were simply burnt out.
6. The receptacles on the roof were not G.F.I. type. Replace existing rooftop receptacles with G.F.I. protected devices.