ILEAS

AHU REPLACEMENT

CHAMPAIGN COUNTY
1701 E MAIN ST,
URBANA, IL 61802

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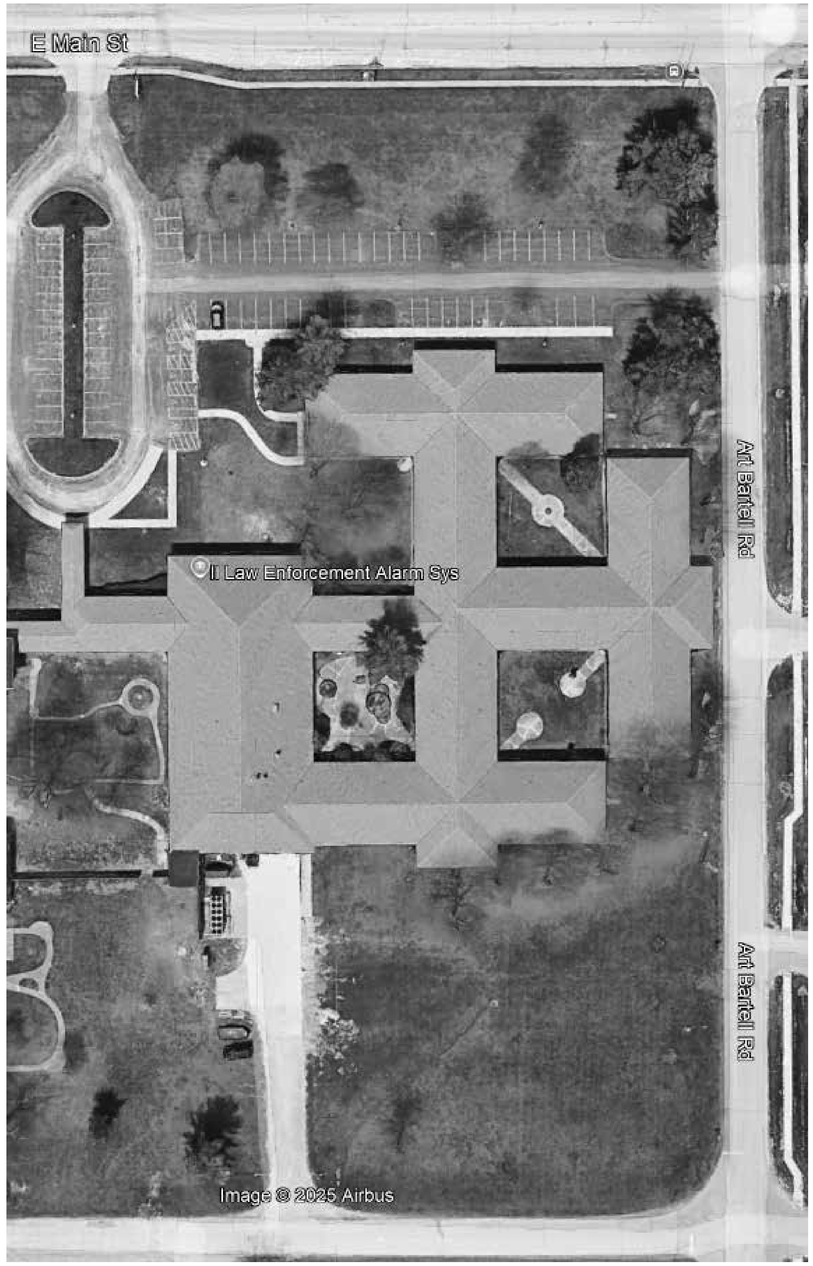


DATE	NO.	DESCRIPTION

ILEAS Illinois Law Enforcement Alarm System

GHR ENGINEERS AND ASSOCIATES, INC.
Mechanical & Electrical Consulting Engineers

COVER SHEET

ILEAS AHU REPLACEMENT

CHAMPAIGN COUNTY

1701 EAST MAIN ST, URBANA, IL 61802

SEAL

DRAWN: DMR | APPROVED: LEM

DATE: 01/06/2025

ISSUED FOR BID

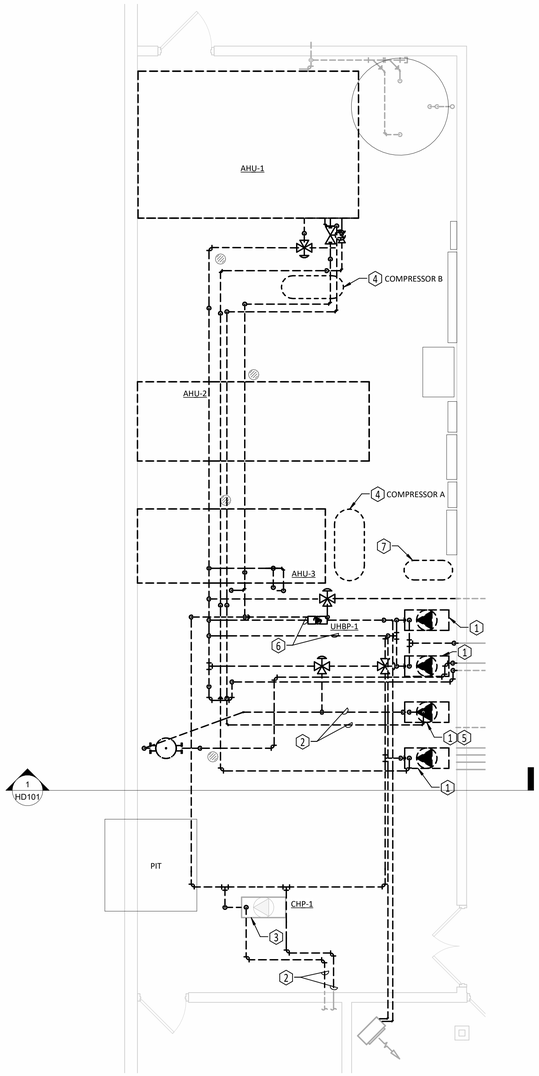
PROJECT: 7792

SHEET: C100

12/31/2025 8:01:23 AM
Bodok Docs://GHR # 7792 - ILEAS AHU Replacement/7792 - ILEAS AHU REPLACEMENT - MEP23 - Central.rvt
7792 - ILEAS AHU REPLACEMENT

KEYED NOTES - MECHANICAL

1. DISCONNECT AND REMOVE BASE-MOUNTED CENTRIFUGAL PUMP. CONCRETE HOUSEKEEPING PADS ARE EXISTING TO REMAIN. COORDINATE PUMP REMOVAL WITH OWNER AND OCCUPANTS.
2. REMOVE HW, CHW, H/CHW PIPING BACK TO WALL PENETRATIONS AS SHOWN. SEE SECTIONS AND ISOMETRIC VIEWS FOR ADDITIONAL DETAIL.
3. CHILLER PUMP CHP-1 IS EXISTING TO REMAIN.
4. DISCONNECT AND REMOVE PNEUMATIC CONTROLS COMPRESSOR AND CAP EXISTING PNEUMATIC LINES TO PREVENT WATER INFILTRATION. SALVAGE FOR RE-INSTALLATION. COORDINATE SALVAGE WITH OWNER.
5. EXISTING HW PUMP HAS A RECENTLY REPLACED MOTOR. SALVAGE NEW MOTOR AND TURN OVER TO OWNER.
6. EXISTING UNIT HEATER HW CIRCUIT WITH BOOSTER PUMP. DEMO PIPING AS SHOWN. SALVAGE EXISTING BOOSTER PUMP AND TURN OVER TO OWNER.
7. DISCONNECT AND REMOVE PNEUMATIC CONTROLS COMPRESSOR AND CAP EXISTING PNEUMATIC LINES TO PREVENT WATER INFILTRATION.

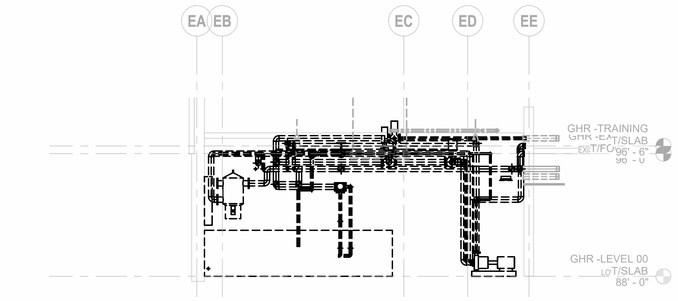


BASEMENT MECHANICAL ROOM - HEATING DEMOLITION
SCALE: 1/4" = 1'-0"

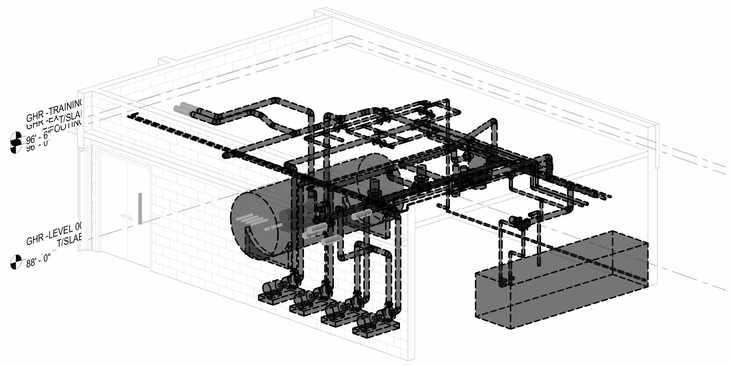
2' 4' 8' 16'

GENERAL NOTES - MECHANICAL

1. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE BUILDING CODES AND LOCAL ZONING CODES. WHERE THE CONSTRUCTION DOCUMENTS INDICATE MORE RESTRICTIVE REQUIREMENTS THE CONSTRUCTION DOCUMENTS SHALL GOVERN.
2. PERFORM WORK IN ACCORDANCE WITH OWNER'S SITE RULES AND REGULATIONS TO MINIMIZE DISRUPTIONS TO FACILITY OPERATIONS. EACH PHASE OF WORK SHALL BE DISCUSSED WITH OWNER TO DETERMINE POSSIBLE IMPACT TO FACILITY OPERATIONS.
3. PHASE WORK TO MINIMIZE DOWNTIME OF EXISTING SYSTEMS.
4. KEEP WORK AREAS CLEAN AT ALL TIMES, REMOVE TRASH AND DEBRIS DAILY.
5. THESE DRAWINGS HAVE BEEN PREPARED WITH CONSIDERATION GIVEN TO AVOID INTERFERENCES WITH ALL EXISTING AND NEW WORK OF ALL DISCIPLINES, HOWEVER INTERFERENCES MAY EXIST.
   - A. DRAWINGS ARE TO BE CONSIDERED SCHEMATIC ONLY, AND ARE NOT INTENDED TO INDICATE ALL CHANGES IN DIRECTIONS AND ELEVATIONS NEITHER DO THEY INDICATE ALL NECESSARY PIPE FITTINGS AND SPECIALTIES TO BE PROVIDED.
   - B. DUCTWORK, PIPING AND OTHER ELEMENTS MAY BE RELOCATED OR OFFSET FOR PROPER CLEARANCES. DEVIATIONS FROM DRAWINGS MUST BE INDICATED ON CONTRACTOR PREPARED SHOP DRAWINGS FOR ENGINEER'S APPROVAL.
   - C. IT IS THE RESPONSIBILITY OF ALL CONTRACTORS TO COORDINATE THEIR WORK AND ACTIVITIES WITH ALL WORK TO ELIMINATE ALL INTERFERENCES. THE COST OF ANY COORDINATION DEVIATIONS TO ELIMINATE INTERFERENCES AS MENTIONED ABOVE MUST BE PART OF THE ORIGINAL CONTRACT PRICE AND SHALL NOT BE AN EXTRA COST TO THE OWNER.
6. ALL SHEET METAL WORK SHALL BE CONSTRUCTED, INSTALLED AND SUPPORTED PER LATEST SMACNA STANDARDS AND SPECIFICATIONS.
7. SEE DETAIL SHEETS FOR ADDITIONAL INFORMATION. DETAILS APPLY TO ALL WORK.
8. SCHEDULE ALL SHUTDOWNS IN ADVANCE WITH OWNER. PROVIDE MINIMUM 72 HOURS ADVANCE NOTICE FOR ALL SHUTDOWNS.
9. ALL DUCT DIMENSIONS ARE INSIDE FREE AREA. INCREASE OVERALL DUCT SIZE TO ALLOW FOR DUCT LINER WHERE SPECIFIED.
10. INSTALL ALL NEW EQUIPMENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
11. CUT AND PATCH ALL OPENINGS IN EXISTING WALLS AND ROOF FOR NEW WORK. COORDINATE WITH GENERAL CONTRACTOR.
12. PROVIDE 1" ACOUSTICAL LINER FOR ALL RETURN AIR DUCTWORK.
13. EACH NEW AIR HANDLER IS TO BE PROVIDED WITH NEW DDC CONTROLS AND INTEGRATED INTO THE EXISTING ALPHA CONTROLS BAS. SEE TEMPERATURE CONTROL DRAWINGS AND SPECIFICATIONS FOR FURTHER DETAILS.



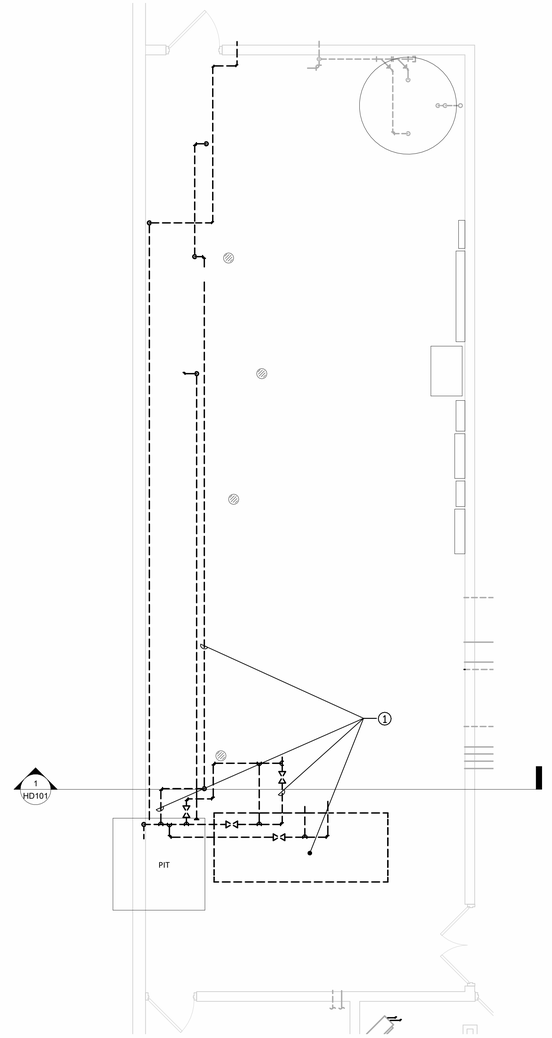
1 HD101 SECTION LOOKING NORTH - PIPING DEMOLITION
SCALE: 1/4" = 1'-0"



2 HD101 ISOMETRIC VIEW - PIPING DEMOLITION
NO SCALE

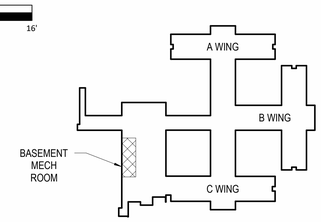
ALT BID #1 KEYED NOTES - MECHANICAL

1. AS PART OF ALT BID #1: REMOVE ALL ABANDONED STEAM PIPING AND ABANDONED HOT WATER STORAGE TANK. SALVAGE THREADED ROD/TRAPEZE HANGERS AND TURN OVER TO OWNER.



ALT BID #1 - HEATING DEMOLITION
SCALE: 1/4" = 1'-0"

2' 4' 8' 16'



KEY PLAN

DATE	NO.	DESCRIPTION

ILEAS Illinois Law Enforcement Alarm System

GHR ENGINEERS AND ASSOCIATES, INC. Mechanical & Electrical Consulting Engineers

LARGE SCALE HEATING DEMOLITION - BASEMENT MECHANICAL ROOM

ILEAS AHU REPLACEMENT

CHAMPAIGN COUNTY

1701 EAST MAIN ST, URBANA, IL 61802

SEAL

DRAWN:	APPROVED:
DMR	LEM
DATE: 01/06/2025	
ISSUED FOR BID	
PROJECT: 7792	

SHEET: HD101

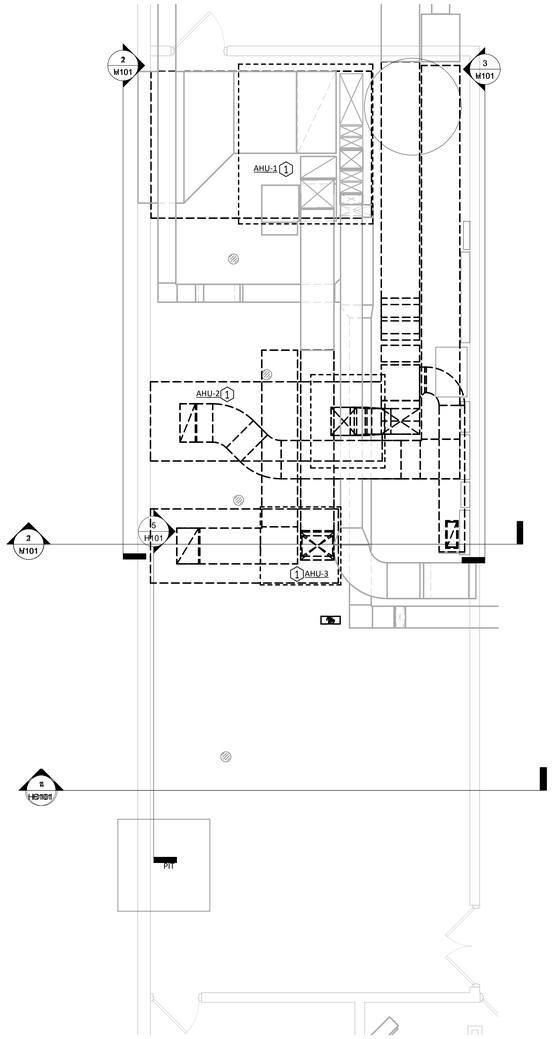
THE ORIGINAL OF THIS DRAWING IS 30"x42". IF THIS COPY IS ANY OTHER SIZE, IT HAS EITHER BEEN REDUCED OR ENLARGED. TAKE APPROPRIATE PRECAUTIONS ACCORDINGLY.

12/31/2025 8:01:51 AM
Autodesk Docs://GSHR # 7792 - ILEAS AHU Replacement/7792 - ILEAS AHU REPLACEMENT - MEP23 - Central.rvt
7792 - ILEAS AHU REPLACEMENT

KEYED NOTES - MECHANICAL

1. DISCONNECT AND REMOVE EXISTING AIR HANDLING UNIT. CUT DOWN AS REQUIRED TO REMOVE THROUGH EXISTING FREIGHT ELEVATOR. COORDINATE REMOVAL WITH OWNER AND OCCUPANTS.

2. REMOVE DUCTWORK LENGTHS WHERE SHOWN TO PREPARE FOR NEW ROUTING AND CONNECTIONS.



BASEMENT MECHANICAL ROOM - VENTILATION DEMOLITION
SCALE: 1/4" = 1'-0"

2' 4' 8' 16'

GENERAL NOTES - MECHANICAL

1. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE BUILDING CODES AND LOCAL ZONING CODES. WHERE THE CONSTRUCTION DOCUMENTS INDICATE MORE RESTRICTIVE REQUIREMENTS THE CONSTRUCTION DOCUMENTS SHALL GOVERN.
2. PERFORM WORK IN ACCORDANCE WITH OWNER'S SITE RULES AND REGULATIONS TO MINIMIZE DISRUPTIONS TO FACILITY OPERATIONS. EACH PHASE OF WORK SHALL BE DISCUSSED WITH OWNER TO DETERMINE POSSIBLE IMPACT TO FACILITY OPERATIONS.
3. PHASE WORK TO MINIMIZE DOWNTIME OF EXISTING SYSTEMS.
4. KEEP WORK AREAS CLEAN AT ALL TIMES, REMOVE TRASH AND DEBRIS DAILY.
5. THESE DRAWINGS HAVE BEEN PREPARED WITH CONSIDERATION GIVEN TO AVOID INTERFERENCES WITH ALL EXISTING AND NEW WORK OF ALL DISCIPLINES, HOWEVER INTERFERENCES MAY EXIST.
   A. DRAWINGS ARE TO BE CONSIDERED SCHEMATIC ONLY, AND ARE NOT INTENDED TO INDICATE ALL CHANGES IN DIRECTIONS AND ELEVATIONS NEITHER DO THEY INDICATE ALL NECESSARY PIPE FITTINGS AND SPECIALTIES TO BE PROVIDED.
   B. DUCTWORK, PIPING AND OTHER ELEMENTS MAY BE RELOCATED OR OFFSET FOR PROPER CLEARANCES. DEVIATIONS FROM DRAWINGS MUST BE INDICATED ON CONTRACTOR PREPARED SHOP DRAWINGS FOR ENGINEER'S APPROVAL.
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8. SCHEDULE ALL SHUTDOWNS IN ADVANCE WITH OWNER. PROVIDE MINIMUM 72 HOURS ADVANCE NOTICE FOR ALL SHUTDOWNS.
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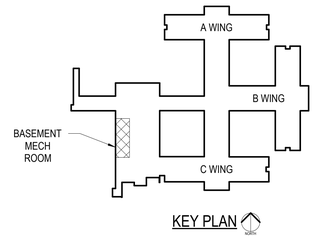


DATE	NO.	DESCRIPTION

ILEAS Illinois Law Enforcement Alarm System

GHR ENGINEERS AND ASSOCIATES, INC. Mechanical & Electrical Consulting Engineers

LARGE SCALE VENTILATION DEMOLITION - BASEMENT MECHANICAL ROOM

ILEAS AHU REPLACEMENT

CHAMPAIGN COUNTY

1701 EAST MAIN ST, URBANA, IL 61802

SEAL:

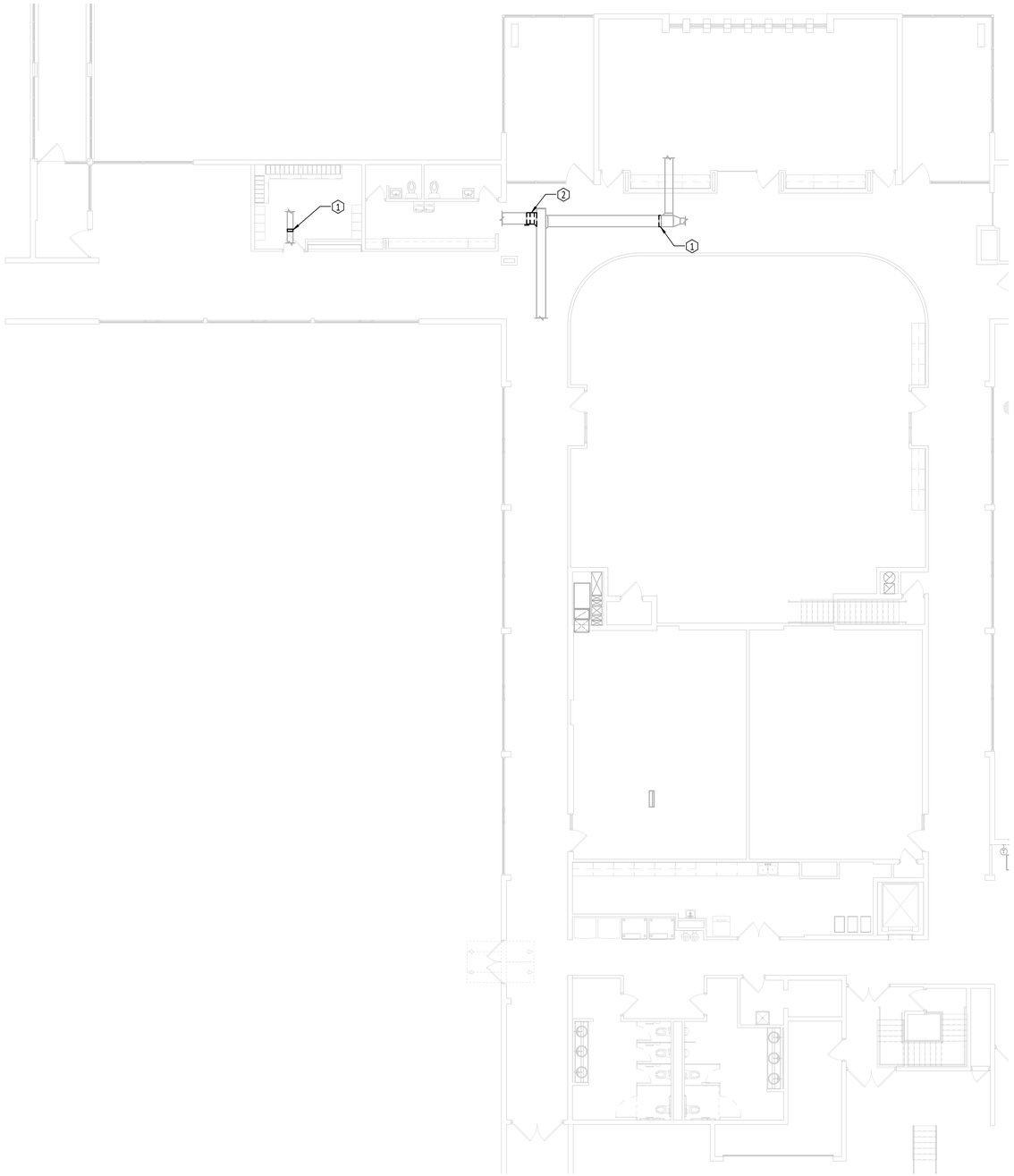
DRAWN: DMR APPROVED: LEM

DATE: 01/06/2025

ISSUED FOR BID

PROJECT: 7792

SHEET: VD101



KEYED NOTES - MECHANICAL

1. REMOVE EXISTING DUCTWORK WHERE SHOWN TO ALLOW FOR NEW REHEAT COIL INSTALLATION. SEE V102 & H102 FOR NEW INSTALLATIONS.
2. REMOVE EXISTING SEASONAL CHANGEOVER DAMPER.

GENERAL NOTES - MECHANICAL

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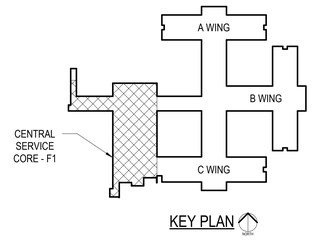
LEVEL 01 CORE - VENTILATION DEMOLITION
SCALE: 1/8" = 1'-0"

4' 8' 16' 32'



KEY PLAN

DATE	NO.	DESCRIPTION

ILEAS Illinois Law Enforcement Alarm System

GHR ENGINEERS AND ASSOCIATES, INC. Mechanical & Electrical Consulting Engineers

VENTILATION DEMOLITION - ILEAS CORE

ILEAS AHU REPLACEMENT

CHAMPAIGN COUNTY

1701 EAST MAIN ST, URBANA, IL 61802

SEAL:

DRAWN:	APPROVED:
DMR	LEM

DATE: 01/06/2025

ISSUED FOR BID

PROJECT: 7792

SHEET: VD102

GENERAL NOTES - MECHANICAL

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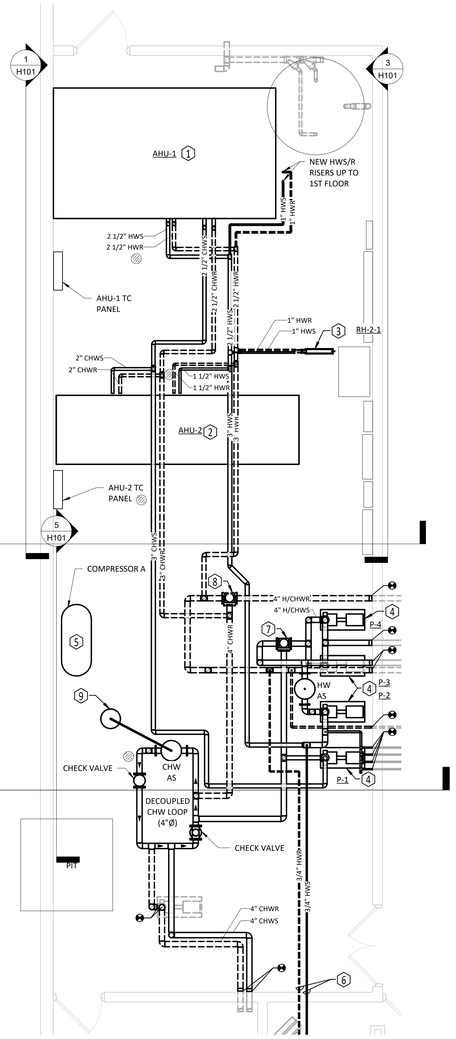
11. CUT AND PATCH ALL OPENINGS IN EXISTING WALLS AND ROOF FOR NEW WORK. COORDINATE WITH GENERAL CONTRACTOR.
12. PROVIDE 1" ACOUSTICAL LINER FOR ALL RETURN AIR DUCTWORK.
13. EACH NEW AIR HANDLER IS TO BE PROVIDED WITH NEW DDC CONTROLS AND INTEGRATED INTO THE EXISTING ALPHA CONTROLS BAS. SEE TEMPERATURE CONTROL DRAWINGS AND SPECIFICATIONS FOR FURTHER DETAILS.

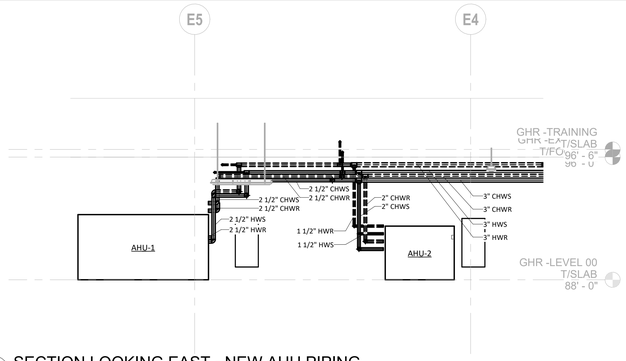
KEYED NOTES - MECHANICAL

1. PROVIDE AND INSTALL NEW MULTI-ZONE AIR HANDLING UNIT IN LOCATION SHOWN. FIELD VERIFY FINAL PIPE ROUTING. SEE DETAILS 2/HV200 AND 7/HV200 FOR COIL VALVING AND PIPING. SEE TC SHEETS FOR NEW DDC CONTROL WORK.
2. PROVIDE AND INSTALL NEW MODULAR AIR HANDLING UNIT IN LOCATION SHOWN. FIELD VERIFY FINAL PIPE ROUTING. SEE DETAILS 2/HV200 AND 7/HV200 FOR COIL VALVING AND PIPING. SEE TC SHEETS FOR NEW DDC CONTROL WORK.
3. PROVIDE AND INSTALL NEW HOT WATER REHEAT COIL. FIELD VERIFY FINAL PIPE ROUTING. SEE DETAIL 1/HV200 FOR COIL VALVING AND PIPING. SEE TC SHEETS FOR NEW DDC CONTROL WORK.
4. PROVIDE AND INSTALL NEW BASE MOUNTED CENTRIFUGAL PUMP. SEE SCHEDULES SHEET. SEE DETAILS 4/HV200 AND 5/HV200 FOR PUMP VALVING, SPECIALTIES, AND PIPING. PUMPS TO RETAIN EXISTING POWER AND CONTROL.
5. RELOCATE SALVAGED PNEUMATIC COMPRESSOR WHERE SHOWN. PROVIDE NEW AIR TUBING TO RECONNECT COMPRESSOR TO EXISTING PNEUMATIC SYSTEM.
6. PROVIDE NEW 3/4"Ø PIPING TO UNIT HEATER IN GENERATOR ROOM. PROVIDE NEW CONTROL VALVE AND DDC THERMOSTAT. PROVIDE ISOLATING BALL VALVES.
7. PROVIDE NEW SEASONAL CHANGEOVER VALVE FOR H/CHWS. INTEGRATE INTO EXISTING BAS VIA NEW DDC CONTROL EQUIPMENT. SEE TC SHEETS.
8. PROVIDE NEW SEASONAL CHANGEOVER VALVE FOR H/CHWR. INTEGRATE INTO EXISTING BAS VIA NEW DDC CONTROL EQUIPMENT. SEE TC SHEETS.
9. PROVIDE NEW FLOOR-MOUNTED CHW EXPANSION TANK IN LOCATION SHOWN. CONNECT TO AIR SEPARATOR AS SHOWN WITH COPPER PIPING. EXPANSION TANK TO BE WHEATLEY WPA-042 OR EQUIVALENT.

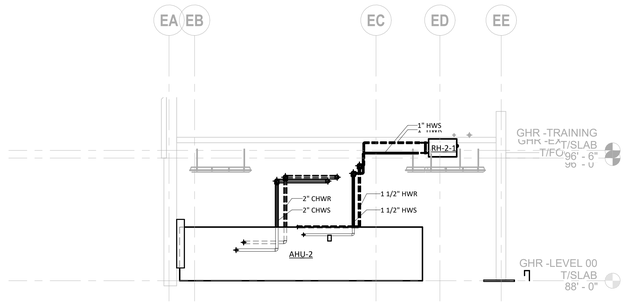


BASEMENT MECHANICAL ROOM - HEATING
SCALE: 1/4" = 1'-0"

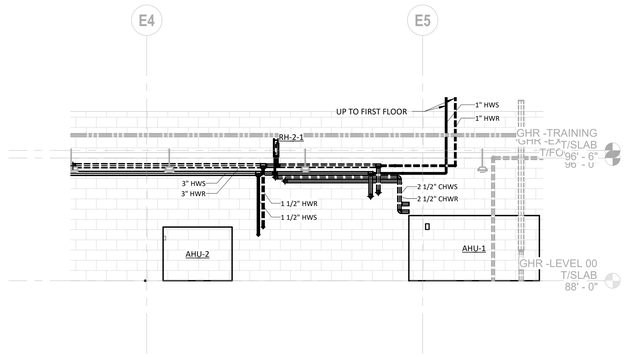
2' 4' 8' 16'



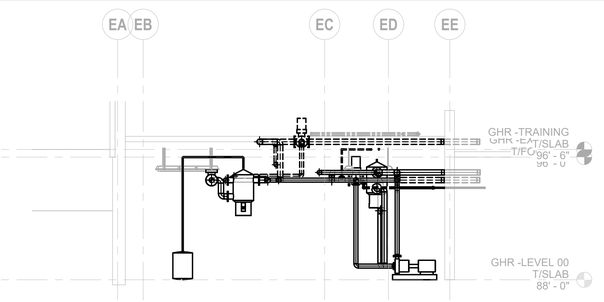
1 H101 SECTION LOOKING EAST - NEW AHU PIPING
SCALE: 1/4" = 1'-0"



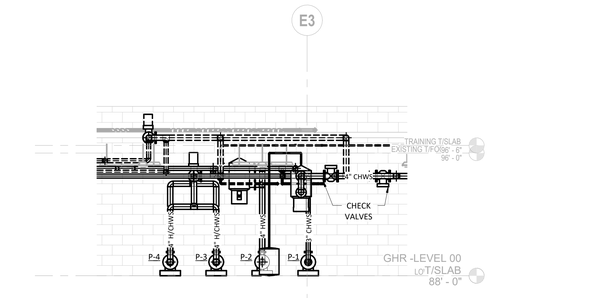
2 H101 SECTION LOOKING NORTH - NEW AHU PIPING
SCALE: 1/4" = 1'-0"



3 H101 SECTION LOOKING WEST - NEW AHU PIPING
SCALE: 1/4" = 1'-0"



4 H101 SECTION LOOKING NORTH - NEW HYRONIC PIPING
SCALE: 1/4" = 1'-0"



5 H101 SECTION LOOKING EAST - NEW HYRONIC PIPING
SCALE: 1/4" = 1'-0"

6 H101 MAINTENANCE OFFICE - PNEUMATIC COMPRESSOR
SCALE: 1/4" = 1'-0"

KEY PLAN

DATE	NO.	DESCRIPTION

ILEAS Illinois Law Enforcement Alarm System

GHR ENGINEERS AND ASSOCIATES, INC. Mechanical & Electrical Consulting Engineers

LARGE SCALE HEATING - BASEMENT MECHANICAL ROOM

ILEAS AHU REPLACEMENT

CHAMPAIGN COUNTY

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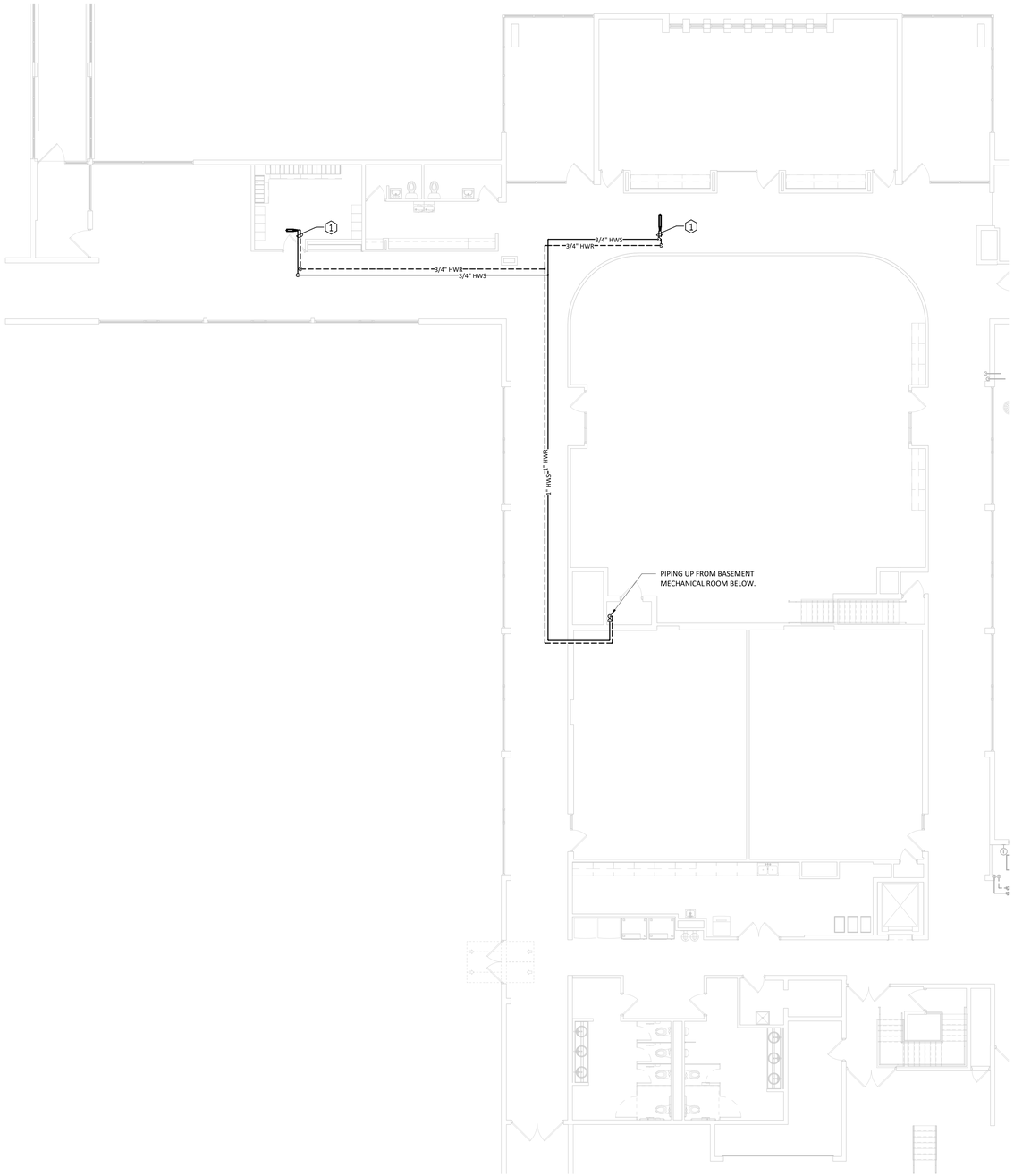
Autodesk Docs://GHR # 7792 - ILEAS AHU Replacement/7792 - ILEAS AHU REPLACEMENT - MEP23 - Central.rvt
7792 - ILEAS AHU REPLACEMENT



LEVEL 01 CORE - HEATING
SCALE: 1/8" = 1'-0"

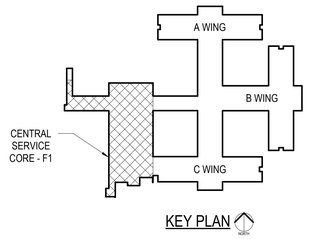
4' 8' 16' 32'

KEYED NOTES - MECHANICAL

1. PROVIDE NEW HOT WATER SUPPLY/RETURN PIPING TO SERVE NEW REHEAT COILS WHERE SHOWN. SEE DETAIL 1/HV200 FOR VALVING AND PIPING.

GENERAL NOTES - MECHANICAL

1. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE BUILDING CODES AND LOCAL ZONING CODES. WHERE THE CONSTRUCTION DOCUMENTS INDICATE MORE RESTRICTIVE REQUIREMENTS THE CONSTRUCTION DOCUMENTS SHALL GOVERN.
2. PERFORM WORK IN ACCORDANCE WITH OWNER'S SITE RULES AND REGULATIONS TO MINIMIZE DISRUPTIONS TO FACILITY OPERATIONS. EACH PHASE OF WORK SHALL BE DISCUSSED WITH OWNER TO DETERMINE POSSIBLE IMPACT TO FACILITY OPERATIONS.
3. PHASE WORK TO MINIMIZE DOWNTIME OF EXISTING SYSTEMS.
4. KEEP WORK AREAS CLEAN AT ALL TIMES, REMOVE TRASH AND DEBRIS DAILY.
5. THESE DRAWINGS HAVE BEEN PREPARED WITH CONSIDERATION GIVEN TO AVOID INTERFERENCES WITH ALL EXISTING AND NEW WORK OF ALL DISCIPLINES, HOWEVER INTERFERENCES MAY EXIST.
   - A. DRAWINGS ARE TO BE CONSIDERED SCHEMATIC ONLY, AND ARE NOT INTENDED TO INDICATE ALL CHANGES IN DIRECTIONS AND ELEVATIONS NEITHER DO THEY INDICATE ALL NECESSARY PIPE FITTINGS AND SPECIALTIES TO BE PROVIDED.
   - B. DUCTWORK, PIPING AND OTHER ELEMENTS MAY BE RELOCATED OR OFFSET FOR PROPER CLEARANCES. DEVIATIONS FROM DRAWINGS MUST BE INDICATED ON CONTRACTOR PREPARED SHOP DRAWINGS FOR ENGINEER'S APPROVAL.
   - C. IT IS THE RESPONSIBILITY OF ALL CONTRACTORS TO COORDINATE THEIR WORK AND ACTIVITIES WITH ALL WORK TO ELIMINATE ALL INTERFERENCES. THE COST OF ANY COORDINATION DEVIATIONS TO ELIMINATE INTERFERENCES AS MENTIONED ABOVE MUST BE PART OF THE ORIGINAL CONTRACT PRICE AND SHALL NOT BE AN EXTRA COST TO THE OWNER.
6. ALL SHEET METAL WORK SHALL BE CONSTRUCTED, INSTALLED AND SUPPORTED PER LATEST SMACNA STANDARDS AND SPECIFICATIONS.
7. SEE DETAIL SHEETS FOR ADDITIONAL INFORMATION. DETAILS APPLY TO ALL WORK.
8. SCHEDULE ALL SHUTDOWNS IN ADVANCE WITH OWNER. PROVIDE MINIMUM 72 HOURS ADVANCE NOTICE FOR ALL SHUTDOWNS.
9. ALL DUCT DIMENSIONS ARE INSIDE FREE AREA. INCREASE OVERALL DUCT SIZE TO ALLOW FOR DUCT LINER WHERE SPECIFIED.
10. INSTALL ALL NEW EQUIPMENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
11. CUT AND PATCH ALL OPENINGS IN EXISTING WALLS AND ROOF FOR NEW WORK. COORDINATE WITH GENERAL CONTRACTOR.
12. PROVIDE 1" ACOUSTICAL LINER FOR ALL RETURN AIR DUCTWORK.
13. EACH NEW AIR HANDLER IS TO BE PROVIDED WITH NEW DDC CONTROLS AND INTEGRATED INTO THE EXISTING ALPHA CONTROLS BAS. SEE TEMPERATURE CONTROL DRAWINGS AND SPECIFICATIONS FOR FURTHER DETAILS.



KEY PLAN

DATE	NO.	DESCRIPTION

ILEAS Illinois Law Enforcement Alarm System

GHR ENGINEERS AND ASSOCIATES, INC. Mechanical & Electrical Consulting Engineers

HEATING - ILEAS CORE

ILEAS AHU REPLACEMENT

CHAMPAIGN COUNTY

1701 EAST MAIN ST, URBANA, IL 61802

SEAL:

DRAWN:	APPROVED:
DMR	LEM

DATE: 01/06/2025

ISSUED FOR BID

PROJECT: 7792

SHEET: H102

GENERAL NOTES - MECHANICAL

1. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE BUILDING CODES AND LOCAL ZONING CODES. WHERE THE CONSTRUCTION DOCUMENTS INDICATE MORE RESTRICTIVE REQUIREMENTS THE CONSTRUCTION DOCUMENTS SHALL GOVERN.
2. PERFORM WORK IN ACCORDANCE WITH OWNER'S SITE RULES AND REGULATIONS TO MINIMIZE DISRUPTIONS TO FACILITY OPERATIONS. EACH PHASE OF WORK SHALL BE DISCUSSED WITH OWNER TO DETERMINE POSSIBLE IMPACT TO FACILITY OPERATIONS.
3. PHASE WORK TO MINIMIZE DOWNTIME OF EXISTING SYSTEMS.
4. KEEP WORK AREAS CLEAN AT ALL TIMES, REMOVE TRASH AND DEBRIS DAILY.
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   - B. DUCTWORK, PIPING AND OTHER ELEMENTS MAY BE RELOCATED OR OFFSET FOR PROPER CLEARANCES. DEVIATIONS FROM DRAWINGS MUST BE INDICATED ON CONTRACTOR PREPARED SHOP DRAWINGS FOR ENGINEER'S APPROVAL.
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9. ALL DUCT DIMENSIONS ARE INSIDE FREE AREA. INCREASE OVERALL DUCT SIZE TO ALLOW FOR DUCT LINER WHERE SPECIFIED.
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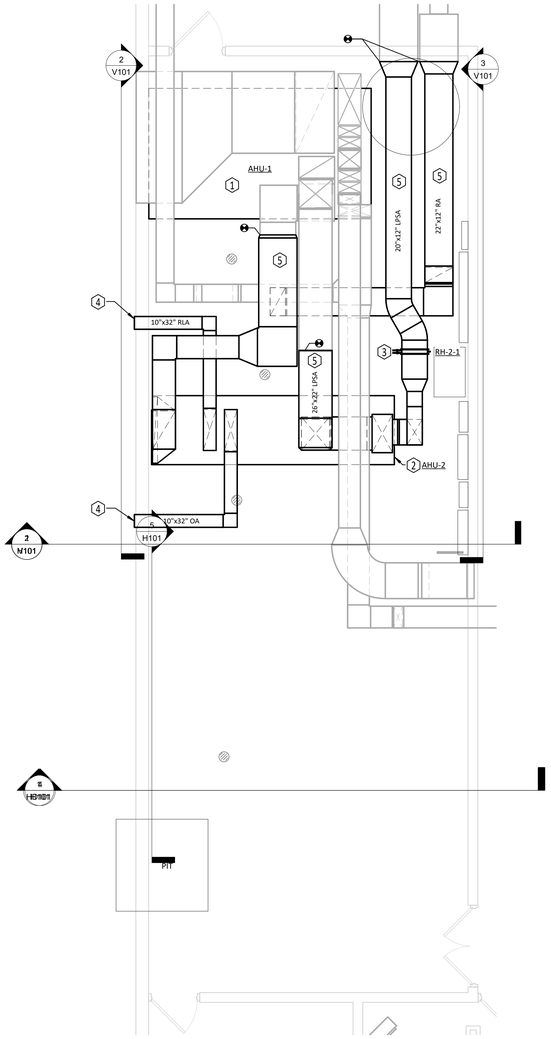
12. PROVIDE 1" ACOUSTICAL LINER FOR ALL RETURN AIR DUCTWORK.
13. EACH NEW AIR HANDLER IS TO BE PROVIDED WITH NEW DDC CONTROLS AND INTEGRATED INTO THE EXISTING ALPHA CONTROLS BAS. SEE TEMPERATURE CONTROL DRAWINGS AND SPECIFICATIONS FOR FURTHER DETAILS.

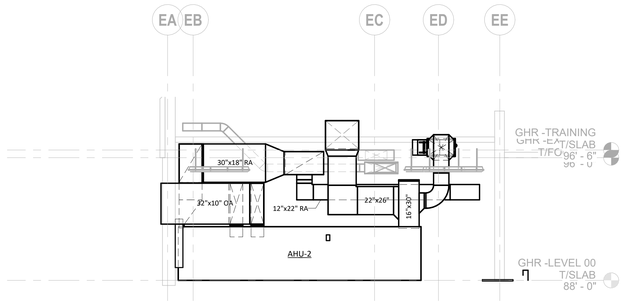
KEYED NOTES - MECHANICAL

1. PROVIDE AND INSTALL NEW MULTI-ZONE AIR HANDLING UNIT IN LOCATION SHOWN. PROVIDE SHEET METAL SIZE ADAPTERS BETWEEN EXISTING DUCT RISERS AND NEW MULTIZONE SUPPLY OUTLETS. FIELD VERIFY FINAL DUCTWORK CONNECTIONS AND PIPE ROUTING. SEE SECTION VIEWS, THIS SHEET.
2. PROVIDE AND INSTALL NEW MODULAR AIR HANDLING UNIT IN LOCATION SHOWN. FIELD VERIFY FINAL DUCTWORK CONNECTIONS AND PIPE ROUTING.
3. PROVIDE AND INSTALL NEW HOT WATER REHEAT COIL SIZED TO MATCH EXISTING DUCTWORK WHERE SHOWN. FIELD VERIFY FINAL INSTALLATION LOCATION.
4. CUT AND PATCH NEW OA/EA PENETRATIONS WHERE SHOWN. SEAL TO EXISTING LOUVER WATER TIGHT.
5. PROVIDE NEW DUCTWORK SIZED AS SHOWN TO CONNECT EXISTING ZONES TO NEW AHU-2. FIELD VERIFY FINAL ROUTING.

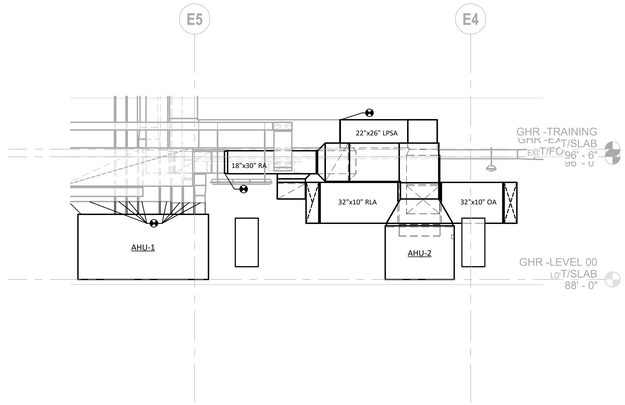


BASEMENT MECHANICAL ROOM - VENTILATION
SCALE: 1/4" = 1'-0"

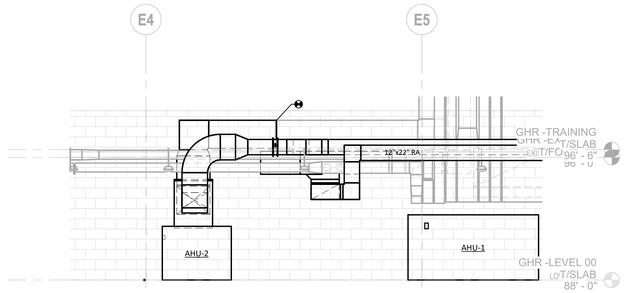
2' 4' 8' 16'



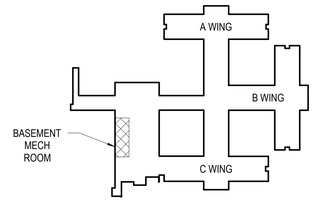
1 V101 SECTION LOOKING NORTH - NEW AHU DUCTWORK
SCALE: 1/4" = 1'-0"



2 V101 SECTION LOOKING EAST - NEW AHU DUCTWORK
SCALE: 1/4" = 1'-0"



3 V101 SECTION LOOKING WEST - NEW AHU DUCTWORK
SCALE: 1/4" = 1'-0"



KEY PLAN

DATE	NO.	DESCRIPTION

ILEAS Illinois Law Enforcement Alarm System

GHR ENGINEERS AND ASSOCIATES, INC. Mechanical & Electrical Consulting Engineers

LARGE SCALE VENTILATION - BASEMENT MECHANICAL ROOM

ILEAS AHU REPLACEMENT

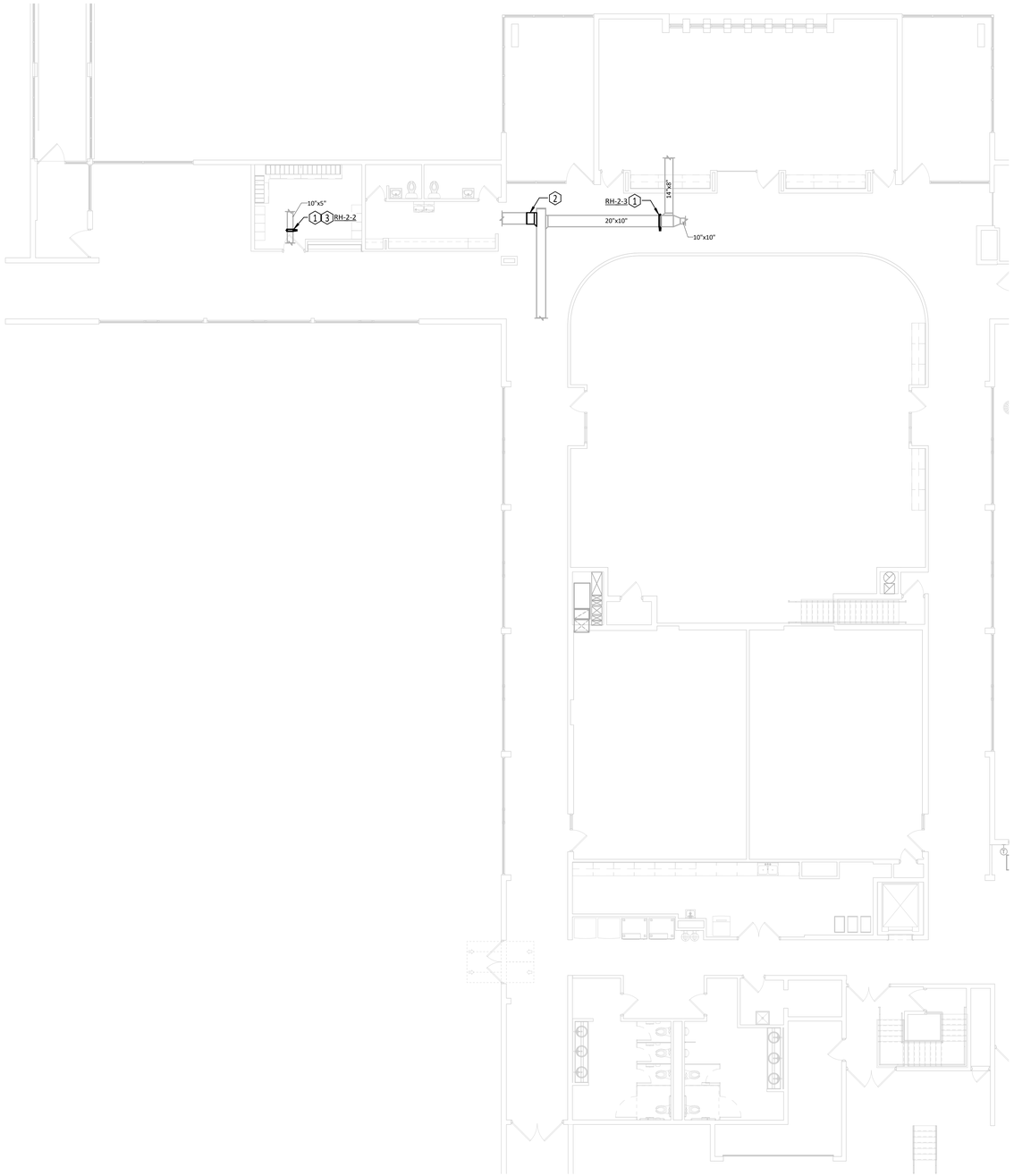
CHAMPAIGN COUNTY

1701 EAST MAIN ST, URBANA, IL 61802

SEAL

DRAWN:	APPROVED:
DMR	LEM
DATE: 01/06/2025	
ISSUED FOR BID	
PROJECT: 7792	

SHEET: V101



KEYED NOTES - MECHANICAL

1. PROVIDE AND INSTALL NEW HOT WATER REHEAT COIL SIZED TO MATCH EXISTING DUCTWORK WHERE SHOWN. FIELD VERIFY FINAL INSTALLATION LOCATION. SEE H102 FOR PIPING.
2. RECONNECT DUCTWORK BRANCH TO MAIN WHERE SHOWN.
3. DUCTWORK IN THIS AREA IS BETWEEN 2 EXISTING LAY-IN CEILINGS. COORDINATE DUCTWORK REMOVAL AND REHEAT COIL INSTALLATION WITH THIS 2ND LAY-IN CEILING, DEMOLISHING AS REQUIRED.

GENERAL NOTES - MECHANICAL

1. **ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE BUILDING CODES AND LOCAL ZONING CODES. WHERE THE CONSTRUCTION DOCUMENTS INDICATE MORE RESTRICTIVE REQUIREMENTS THE CONSTRUCTION DOCUMENTS SHALL GOVERN.**
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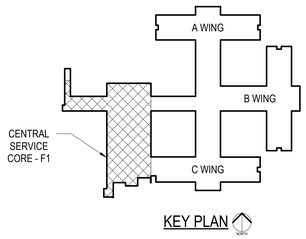
12. **PROVIDE 1" ACOUSTICAL LINER FOR ALL RETURN AIR DUCTWORK.**
13. **EACH NEW AIR HANDLER IS TO BE PROVIDED WITH NEW DDC CONTROLS AND INTEGRATED INTO THE EXISTING ALPHA CONTROLS BAS. SEE TEMPERATURE CONTROL DRAWINGS AND SPECIFICATIONS FOR FURTHER DETAILS.**

LEVEL 01 CORE - VENTILATION
SCALE: 1/8" = 1'-0"

4' 8' 16' 32'



DATE	NO.	DESCRIPTION

ILEAS Illinois Law Enforcement Alarm System

GHR ENGINEERS AND ASSOCIATES, INC. Mechanical & Electrical Consulting Engineers

VENTILATION - ILEAS CORE

ILEAS AHU REPLACEMENT

CHAMPAIGN COUNTY
1701 EAST MAIN ST, URBANA, IL 61802

SEAL:

DRAWN:	APPROVED:
DMR	LEM
DATE:	01/06/2025
	ISSUED FOR BID
PROJECT:	7792

SHEET: V102

12/31/2025 8:02:02 AM
Autodesk Docs://GHR # 7792 - ILEAS AHU Replacement/7792 - ILEAS AHU REPLACEMENT - MEP23 - Central.rvt
7792 - ILEAS AHU REPLACEMENT

0MECH - AIR HANDLING UNIT - MODULAR TYPE

MARK	MANUFACTURER	MODEL	LOCATION	UNIT TYPE	ARRANGEMENT	SERVING	SUPPLY FAN INFORMATION: CFM	E.S.P.	T.S.P.	OUTLET VELOCITY (FPM)	RPM	MOTOR HP / VOLTAGE / PHASE	MIN. OUTDOOR AIR (CFM)	COOLING COIL INFORMATION: MEDIA TYPE	FACE AREA (SQ. FT.)	ENTERING AIR (DB)F / (WB)F	LEAVING AIR (DB)F / (WB)F	AIR PRS DROP (IN. W.C.)	TOTAL COOLING (MBH)	MEDIA GPM	MEDIA ET / LT	PRS DROP (FT. WTR)	HEATING COIL INFORMATION: MEDIA TYPE	FACE AREA (SQ. FT.)	ENTERING AIR (DB)F	LEAVING AIR (DB)F	AIR PRS DROP (IN. W.C.)	TOTAL HEATING (MBH)	MEDIA GPM	MEDIA ET / LT	PRS DROP (FT. WTR)	FILTER INFORMATION: EFFICIENCY (MERV RATING)	QTY / TYPE / SIZE	AVG PRS DRP	REMARKS
AHU-1	YORK	XTI-51x90	MECH RM.	MULTIZONE HW/CHW	HORIZONTAL	LEVEL 1 CORE	9560	2	5.22	841	2589	15 / 460 / 3	2000	WATER	22.6	80°F / 67°F	54.5°F / 54°F	0.59	371	80	45°F / 55°F	14.5	WATER	11.36	48°F	113.4°F	0.71	687	70.6	180/160	8.3	30% (MERV 8)	1 / PLEATED / 24"x24"x2"	1.0	SEE NOTES.
AHU-2	YORK	XTI-36x54	MECH RM.	HW/CHW	HORIZONTAL	RADIO,CONF,OFFICE	3664	2	5.95	472	3475	7.5 / 460 / 3	1200	WATER	7.76	80°F / 67°F	54.9°F / 54.1°F	0.67	146	29.2	45°F / 55°F	9.2	WATER	7.76	48°F	95°F	0.15	186	19.2	180/160	1.4	30% (MERV 8)	2 / PLEATED /24"x24"x2"	1.5	SEE NOTES.

NOTES:
1. PROVIDE WITH FACTORY VIBRATION ISOLATION KIT.
2. PROVIDE WITH SUPPLY/RETURN FAN VFDs. SEE TEMPERATURE CONTROL DRAWINGS FOR CONFIGURATION.

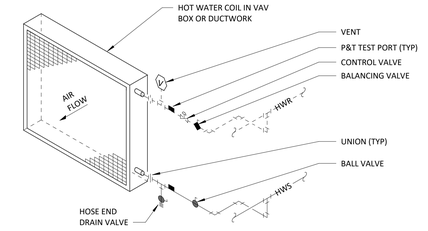
PUMP SCHEDULE

MARK	MANUFACTURER	MODEL	QTY	TYPE	LOCATION	SYSTEM	CONTROL	FLUID: TYPE	FLUID: DEGREES	FLOW GPM	PUMP SIZE: DISCH	PUMP SIZE: SUCT	HEAD, FT: OPER	HEAD, FT: CUTOFF	MOTOR: HP	MOTOR: RPM	MOTOR: VOLTS	MOTOR: PHASE	REMARKS
P-1	BELL & GOSSETT	e-1510 2.5BB	1	BASE-MOUNTED	AHU ROOM	CHW	STARTER	WATER	45°F	320.0	2.5	3	75	90	10	1800	480	3	SEE NOTES.
P-2	BELL & GOSSETT	e-1510 2AD-es	1	BASE-MOUNTED	AHU ROOM	HW	STARTER	WATER	180°F	140.0	2	2.5	40	49	3	1800	480	3	SEE NOTES.
P-3	BELL & GOSSETT	e-1510 2BD	1	BASE-MOUNTED	AHU ROOM	H/CHW	STARTER	WATER	45°F / 180°F	225.0	2	2.5	70	89.7	7.5	1800	480	3	SEE NOTES.
P-4	BELL & GOSSETT	e-1510 2BD	1	BASE-MOUNTED	AHU ROOM	H/CHW	STARTER	WATER	45°F / 180°F	225.0	2	2.5	70	89.7	7.5	1800	480	3	SEE NOTES.

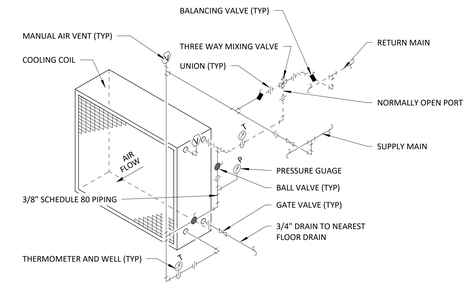
NOTES:
1. PROVIDE PUMP WITH INVERTER DUTY RATED MOTOR FOR FUTURE VFD PUMP CONTROL RETROFIT.
2. PUMPS ARE SIZED FOR LIKE-FOR-LIKE REPLACEMENT AND AS SUCH WILL RE-USE EXISTING ELECTRICAL CIRCUITS. SEE ELECTRICAL SHEETS FOR FURTHER DETAIL.

REHEAT COIL (WTR) SCHEDULE

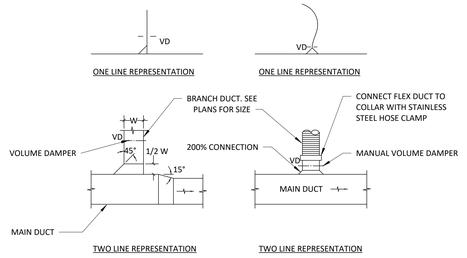
MARK	MANUFACTURER	MODEL	SERVING	CFM: MAX	CFM: MIN	MBH	COIL SIZE / DATA: W"	H"	SF	ROWS	FPF	AIR SIDE: EAT	LAT	APD	FPM	WATER SIDE: EWT	LWT	WPD	GPM	VALVE: 2-WAY	3-WAY	REMARKS
RH-2-1	PRECISIONCOILS	HWS8S01A10-21x12-RH	RADIO ROOM	1100	0	38.4	21	12	1.75	1	120	55	87.2	0.17	629	180	161.7	6.4	4.3	x		
RH-2-2	PRECISIONCOILS	HWS8S01A10-10.5x6-RH	S103 OFFICE	250	0	6.1	10.5	6	0.4375	1	120	55	92.4	0.06	343	180	167.6	0.3	1	x		
RH-2-3	PRECISIONCOILS	HWS8S01A10-21x10-RH	EXEC BOARD ROOM	1000	0	33.2	21	10	1.458333	1	120	55	85.6	0.2	686	180	161.6	4.6	3.7	x		



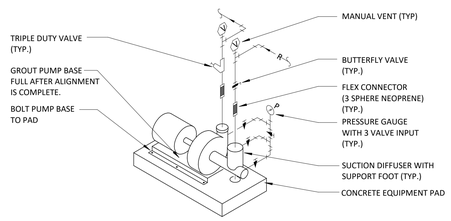
1 HV200 REHEAT COIL PIPING WITH 2-WAY VALVE
NO SCALE



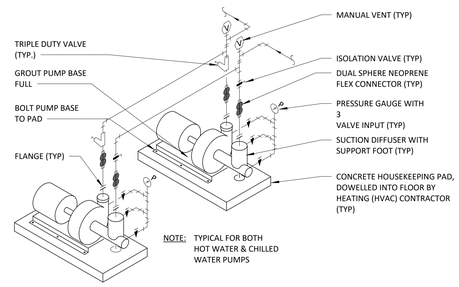
2 HV200 AHU CHILLED WATER COIL WITH 3-WAY VALVE
NO SCALE



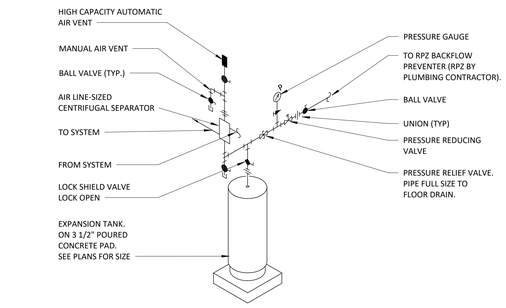
3 HV200 DUCT CONNECTION WITH VOLUME DAMPER
NO SCALE



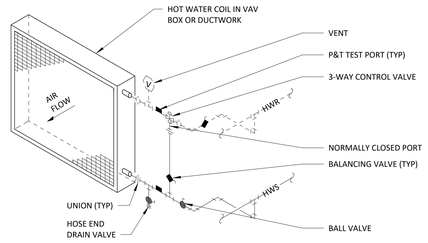
4 HV200 BASE MOUNTED PUMP
NO SCALE



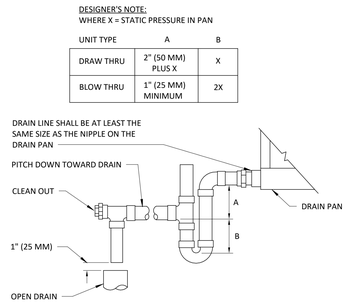
5 HV200 PARALLEL PUMP DETAIL (H/CHW)
NO SCALE



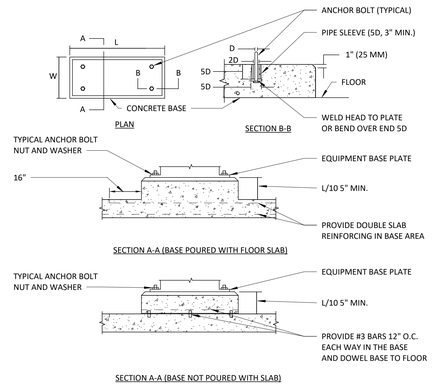
6 HV200 HYDRONIC VERTICAL DIAPHRAGM EXPANSION TANK DETAIL
NO SCALE



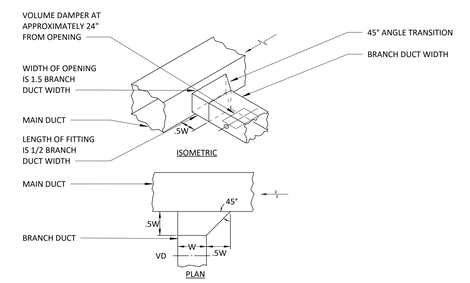
7 HV200 AHU HOT WATER COIL WITH 3-WAY VALVE
NO SCALE



8 HV200 AIR HANDLING DRAIN TRAP DETAIL
NO SCALE



9 HV200 CONCRETE EQUIPMENT BASES
NO SCALE



10 HV200 BRANCH TAKE-OFF FITTING WITH VOLUME DAMPER
NO SCALE

DATE	NO.	DESCRIPTION

ILEAS Illinois Law Enforcement Alarm System

GHR ENGINEERS AND ASSOCIATES, INC. Mechanical & Electrical Consulting Engineers

SCHEDULES & DETAILS - MECHANICAL

ILEAS AHU REPLACEMENT

CHAMPAIGN COUNTY

1701 EAST MAIN ST, URBANA, IL 61802

SEAL

DRAWN: DMR | APPROVED: LEM

DATE: 01/06/2025

ISSUED FOR BID

PROJECT: 7792

SHEET: HV200

12/31/2025 8:01:56 AM
Autodesk Docs://GSHR # 7792 - ILEAS AHU Replacement/7792 - ILEAS AHU REPLACEMENT - MEP23 - Central.rvt
7792 - ILEAS AHU REPLACEMENT

TEMPERATURE CONTROLS SYMBOL LIST

SYMBOL	DESCRIPTION
	FAN
	PUMP
	DAMPER
DprAct	CONTROL DAMPER ACTUATOR
	CONTROL VALVE (TWO-WAY)
	CONTROL VALVE (THREE-WAY)
T	TEMPERATURE SENSOR (DUCT MOUNTED)
T	TEMPERATURE SENSOR (AVERAGING)
TS	TEMPERATURE SENSOR (IMMERSION MOUNTED WITH WELL)
	THERMOSTAT (WALL MOUNTED)
RH	HUMIDITY SENSOR (DUCT MOUNTED)
CO2	CARBON DIOXIDE (CO2) SENSOR (DUCT MOUNTED)
	LOW LIMIT TEMPERATURE SWITCH (DUCT MOUNTED)
SMK	SMOKE DETECTOR (DUCT MOUNTED)
DPS	PRESSURE SAFETY SWITCH (DUCT MOUNTED)
DPT	PRESSURE TRANSMITTER (DUCT MOUNTED)
DPT	PRESSURE TRANSMITTER (FIILTER)
	PRESSURE TRANSMITTER (BUILDING)
	PRESSURE TRANSMITTER (IMMERSION MOUNTED)
	DIFFERENTIAL PRESSURE TRANSMITTER (IMMERSION MOUNTED)
BTU	BTU ENERGY METER
MP-C	BUILDING AUTOMATION SYSTEM (BAS) CONTROLLER
Thermal Buffer	FREEZER/COOLER TEMPERATURE SENSOR

TEMPERATURE CONTROLS ABBREVIATION KEY

ABBR:	DESCRIPTION
SA	SUPPLY AIR
RA	RETURN AIR
OA	OUTSIDE AIR
EA	EXHAUST/RELIEF AIR
EF	EXHAUST FAN
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
CHWS	CHILLED WATER SUPPLY
CHWR	CHILLED WATER RETURN
LPS	LOW PRESSURE STEAM
VFD	VARIABLE FREQUENCY DRIVE
CT	COOLING TOWER
BAS	BUILDING AUTOMATION SYSTEM
EX.	EXISTING

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AIR HANDLING UNIT CONTROL VALVE SCHEDULE

COUNT	TAG	SERVICE	SERVES	FLOW (GPM)	FLOW (LB/HR)	CONNECTION TYPE	LINE SIZE	NEW VALVE SIZE	NEW VALVE ACTION	EX. ACTUATOR TYPE	NEW ACTUATOR TYPE	NEW ACTUATOR SIGNAL	NOTES
1	AHU-1 CHW	CHILLED WATER	8 ZONE DAMPERS FLOOR 01	19.2	-	FLANGED	2.5"	2.5"	FAIL OPEN B TO AB	Pneumatice	ELECTRIC	MODULATING	x
2	AHU-1 HW	HOT WATER	8 ZONE DAMPERS FLOOR 01	70.6	-	SCREWED	2.5"	2.5"	FAIL LAST POSITION	Pneumatice	ELECTRIC	MODULATING	x
3	AHU-2 CHW	CHILLED WATER	3 REHEAT COILS BASEMENT & FLOOR 1	29.2	-	FLANGED	2"	2"	FAIL OPEN B TO AB	Pneumatice	ELECTRIC	MODULATING	x
4	AHU-2 HW	HOT WATER	3 REHEAT COILS BASEMENT & FLOOR 1	19.2	-	SCREWED	1.5"	1.5"	FAIL LAST POSITION	Pneumatice	ELECTRIC	MODULATING	x

Notes
1 - Field to verify line size
2 - Field to verify valve flow
3 -

AHU-2 REHEAT COILS CONTROL VALVE SCHEDULE

COUNT	TAG	SERVICE	SERVES	FLOW (GPM)	FLOW (LB/HR)	CONNECTION TYPE	LINE SIZE	NEW VALVE SIZE	NEW VALVE ACTION	EX. ACTUATOR TYPE	NEW ACTUATOR TYPE	NEW ACTUATOR SIGNAL	NOTES
1	RH-1	HOT WATER	RADIO ROOM - BASEMENT	4.3	523.0	SCREWED	3/4"	3/4"	FAIL LAST POSITION	Pneumatice	ELECTRIC	MODULATING	1, 2
2	RH-2	HOT WATER	MARK'S OFFICE - FIRST FLOOR	1	N/A	SCREWED	3/4"	3/4"	FAIL LAST POSITION	Pneumatice	ELECTRIC	MODULATING	1, 2
3	RH-3	HOT WATER	LARGE CONFERENCE ROOM - FIRST FLOOR	3.7	N/A	SCREWED	3/4"	3/4"	FAIL LAST POSITION	Pneumatice	ELECTRIC	MODULATING	1, 2

Notes
1 - Field to verify line size
2 - Field to verify valve flow
3 -

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AHU-1 ZONE DAMPER SCHEDULE

COUNT	TAG	SERVES	DAMPER LOCATION	FLOW (CFM)	DAMPER SIZE	NEW DAMPER ACTION	NEW ACTUATOR TYPE	NEW ACTUATOR SIGNAL	NOTES
1	ZONE-01	BASEMENT, WOMEN BATHROOM, NORTH WALL	ON UNIT	614	24" x 8"	FAIL LAST POSITION	ELECTRIC	MODULATING	xxx
2	ZONE-02	BASEMENT, DINING ROOM, NORTH DOOR	ON UNIT	880	18" x 8"	FAIL LAST POSITION	ELECTRIC	MODULATING	xxx
3	ZONE-03	FIRST FLOOR WEST WALL BY KITCHEN DOOR	ON UNIT	1739	18" x 8"	FAIL LAST POSITION	ELECTRIC	MODULATING	xxx
4	ZONE-04	KITCHEN BY DIETARY OFFICE	ON UNIT	1210	18" x 16"	FAIL LAST POSITION	ELECTRIC	MODULATING	xxx
5	ZONE-05	KITCHEN NORTH WALL BY NORTH KITCHEN DOOR	ON UNIT	916	18" x 8"	FAIL LAST POSITION	ELECTRIC	MODULATING	xxx
6	ZONE-06	FIRST FLOOR EAST HALL BY KITCHEN DOOR	ON UNIT	1324	18" x 8"	FAIL LAST POSITION	ELECTRIC	MODULATING	xxx
7	ZONE-07	RESIDENT DINNING ROOM ON SOUTH WALL SOUTH EAST CORNER	ON UNIT	1460	18" x 48"	FAIL LAST POSITION	ELECTRIC	MODULATING	xxx
8	ZONE-08	KITCHEN COFFEE	ON UNIT	760	18" x 8"	FAIL LAST POSITION	ELECTRIC	MODULATING	xxx
Notes	1 -								
	2 -								
	3 -								
	4 -								

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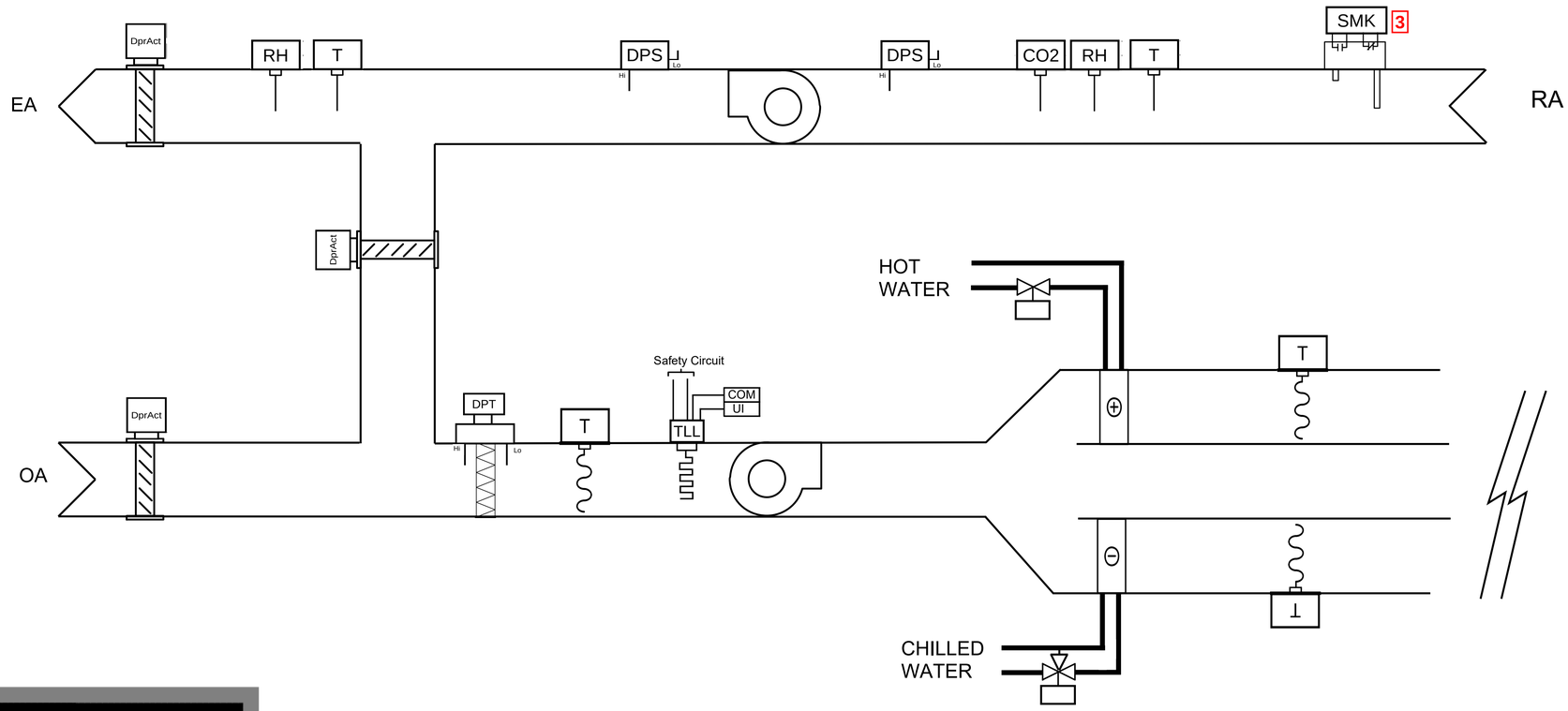
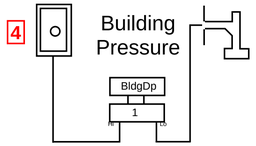
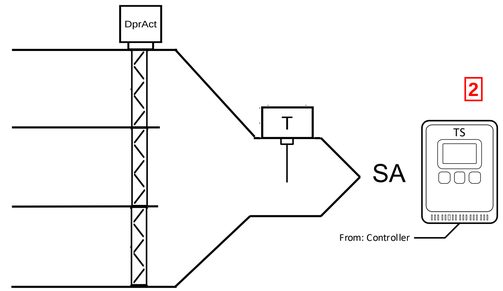




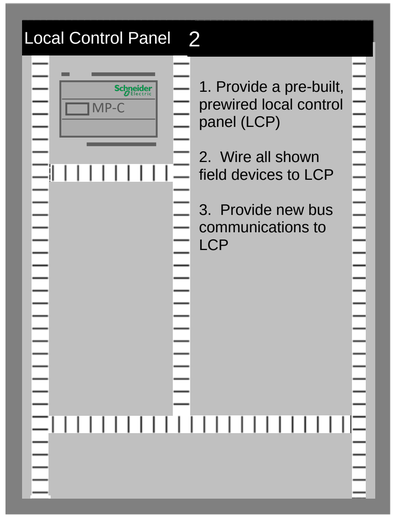
Zone Controls (Quantity 8)

See schedule for areas served



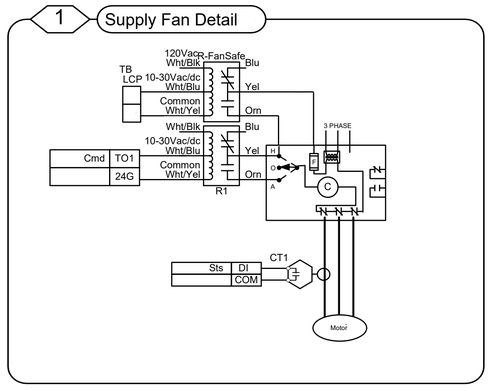
Dampers in mechanical room at unit

Local Control Panel 2

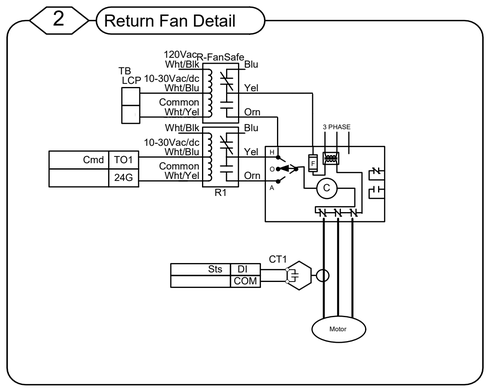


1. Provide a pre-built, prewired local control panel (LCP)
2. Wire all shown field devices to LCP
3. Provide new bus communications to LCP

1 Supply Fan Detail



2 Return Fan Detail



KEYED NOTES:

1. REPLACE EXISTING TEMPERATURE SENSOR WITH NEW COMMUNICATING DDC THERMOSTAT WIRED TO CONTROLLER. PROVIDE THERMOSTAT ROUGH IN.
2. REPLACE EXISTING TEMPERATURE SENSOR WITH NEW COMMUNICATING DDC THERMOSTAT WITH RELATIVE HUMIDITY AND CO2 OPTIONS WIRED TO CONTROLLER. PROVIDE THERMOSTAT ROUGH IN.
3. REUSE EXISTING SENSOR, RETERMINATE TO NEW BAS CONTROLS.
4. SEE FLOORPLANS FOR LOCATION OF PROBES
5.

GENERAL NOTES:

1. VERIFY EQUIPMENT SIZES AS NECESSARY PRIOR TO ORDERING OF NEW EQUIPMENT.
2. CUT AND CAP EXISTING PNUEMATIC CONTROL TUBING IN NON-MECHANICAL SPACES. DEMO EXISTING PNEUMATIC CONTROL TUBING TO ABOVE 8 FEET ABOVE FINISHED FLOOR WHEN EXPOSED IN MECHANICAL SPACES. DEMO EXISTING PNEUMATIC CONTROL PANELS AT PROJECT COMPLETION.
3. REMOVE EXISTING AND INSTALL NEW INSULATION FOR VALVES TO MATCH EXISTING.
4. REPLACE ALL SENSORS, VALVES, AND ACTUATORS WITH NEW UNLESS NOTED OTHERWISE.
5. REUSE EXISTING FAN STARTERS, PUMP STARTERS, FAN VFDS, PUMP VFDS, AND DAMPERS UNLESS NOTED OTHERWISE.

TC-04

AHU-1 Controls

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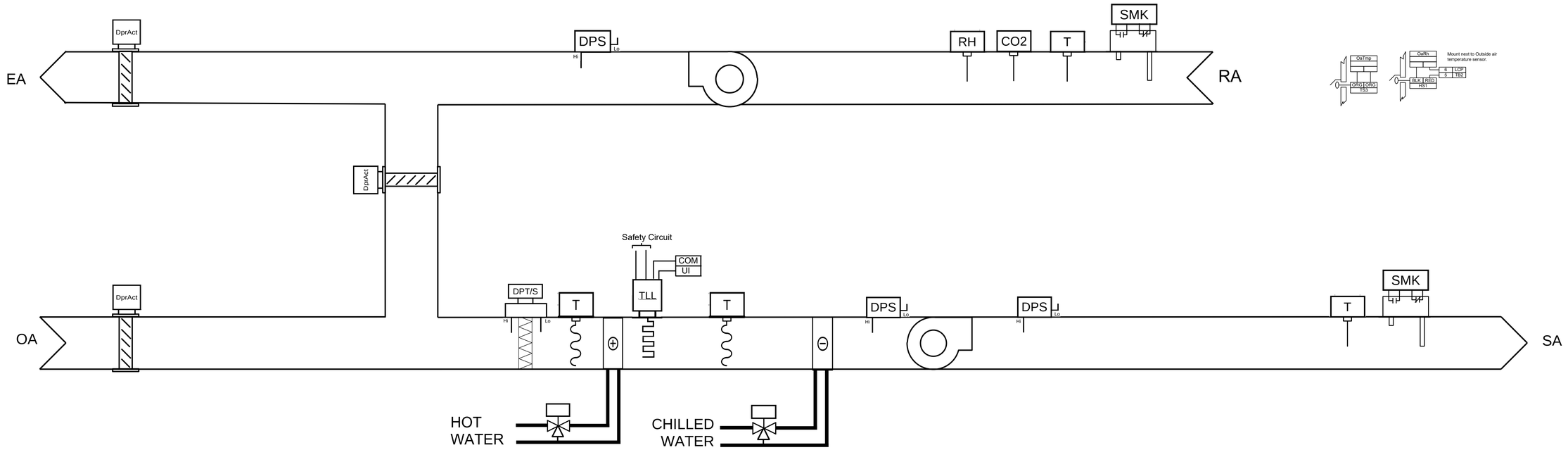

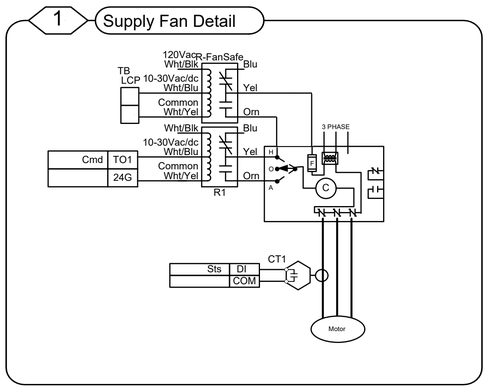

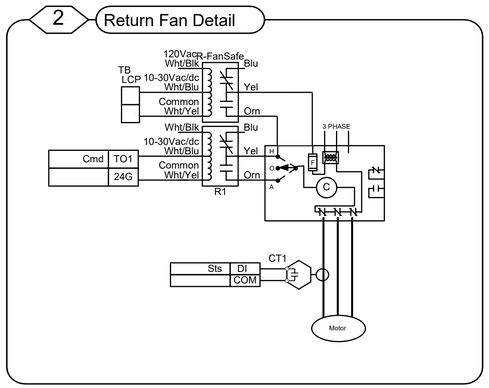

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3. REUSE EXISTING SENSOR, RETERMINATE TO NEW BAS CONTROLS.
4. FOR UNITARY EQUIPMENT, COMBINE MULTIPLE UNITS ONTO EACH CONTROLLER BASED ON LOCATION.
5. FINNED TUBES AND CONVECTORS TO BE CONTROLLED BY REHEAT COIL THERMOSTAT. SEE SCHEDULE.

GENERAL NOTES:

1. VERIFY EQUIPMENT SIZES AS NECESSARY PRIOR TO ORDERING OF NEW EQUIPMENT.
2. CUT AND CAP EXISTING PNUEMATIC CONTROL TUBING IN NON-MECHANICAL SPACES. DEMO EXISTING PNEUMATIC CONTROL TUBING TO ABOVE 8 FEET ABOVE FINISHED FLOOR WHEN EXPOSED IN MECHANICAL SPACES. DEMO EXISTING PNEUMATIC CONTROL PANELS AT PROJECT COMPLETION.
3. REMOVE EXISTING AND INSTALL NEW INSULATION FOR VALVES TO MATCH EXISTING.

TC-05

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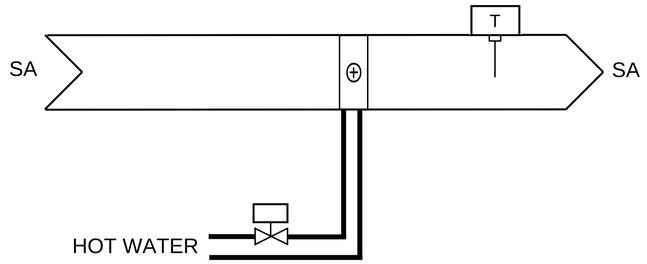
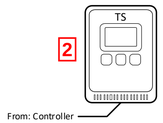
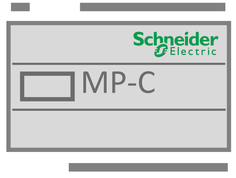




Reheat Coils (Qty 3) Serve:
- Basement – Radio Room
- First Floor – Mark's Office
- First Floor – Large Conference Room

Mount controller above drop ceiling near equipment controlled



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3. REUSE EXISTING SENSOR, RETERMINATE TO NEW BAS CONTROLS.
4. FOR UNITARY EQUIPMENT, COMBINE MULTIPLE UNITS ONTO EACH CONTROLLER BASED ON LOCATION.
5. FINNED TUBES AND CONVECTORS TO BE CONTROLLED BY REHEAT COIL THERMOSTAT. SEE SCHEDULE.

GENERAL NOTES:

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3. REMOVE EXISTING AND INSTALL NEW INSULATION FOR VALVES TO MATCH EXISTING.
4. REPLACE ALL SENSORS, VALVES, AND ACTUATORS WITH NEW UNLESS NOTED OTHERWISE.
5. REUSE EXISTING FAN STARTERS, PUMP STARTERS, FAN VFDS, PUMP VFDS, AND DAMPERS UNLESS NOTED OTHERWISE.

TC-06

AHU-2 Reheat Coil Controls

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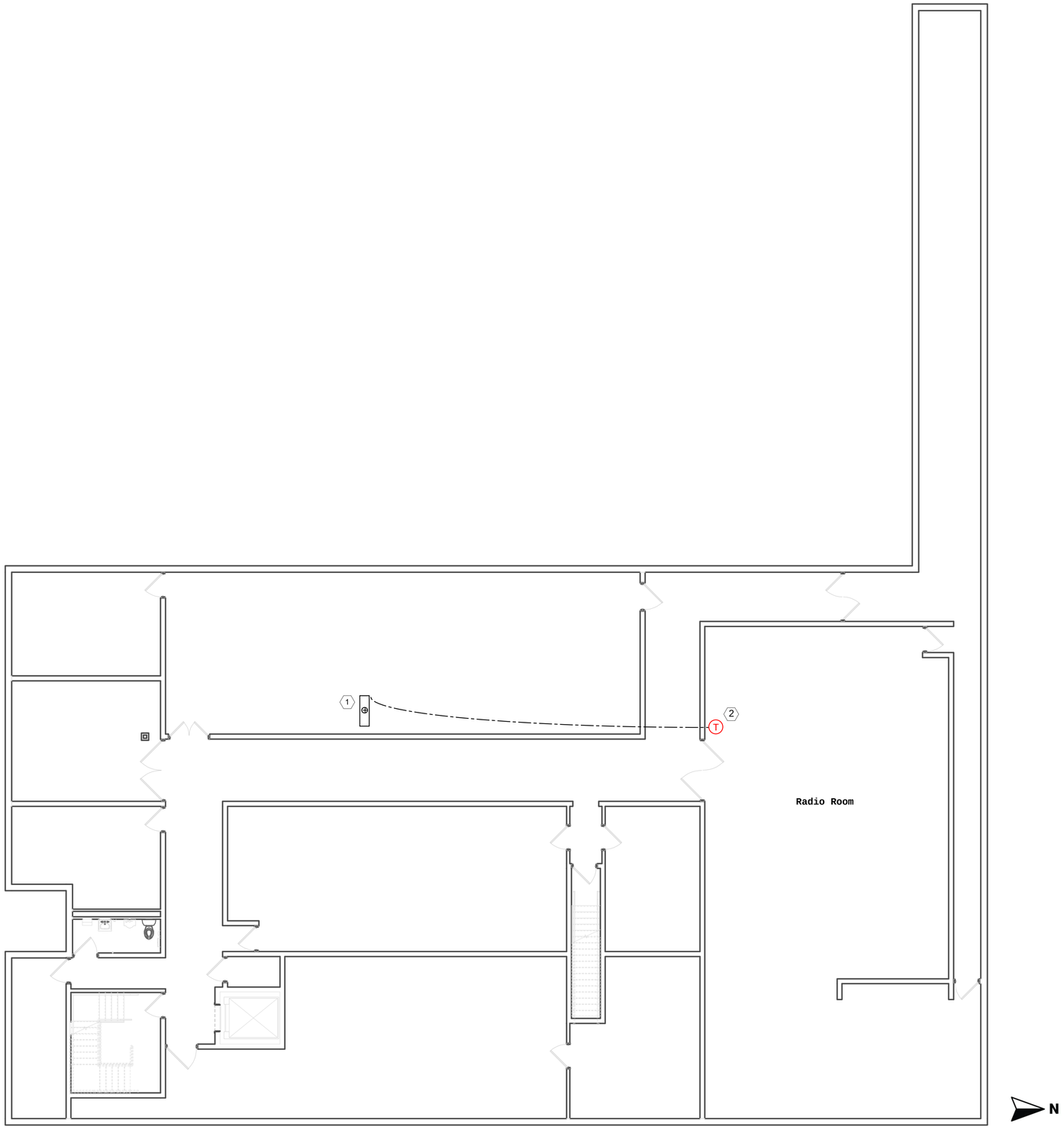

KEYED NOTES:

1. NEW REHEAT COIL LOCATION.
2. NEW THERMOSTAT LOCATION. THERMOSTAT TO HAVE SETPOINT ADJUSTMENT & .....

GENERAL NOTES:

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4. REPLACE ALL SENSORS, VALVES, AND ACTUATORS WITH NEW UNLESS NOTED OTHERWISE.
5. REUSE EXISTING FAN STARTERS, PUMP STARTERS, FAN VFDS, PUMP VFDS, AND DAMPERS UNLESS NOTED OTHERWISE.

TC-07

Basement Floor Plan

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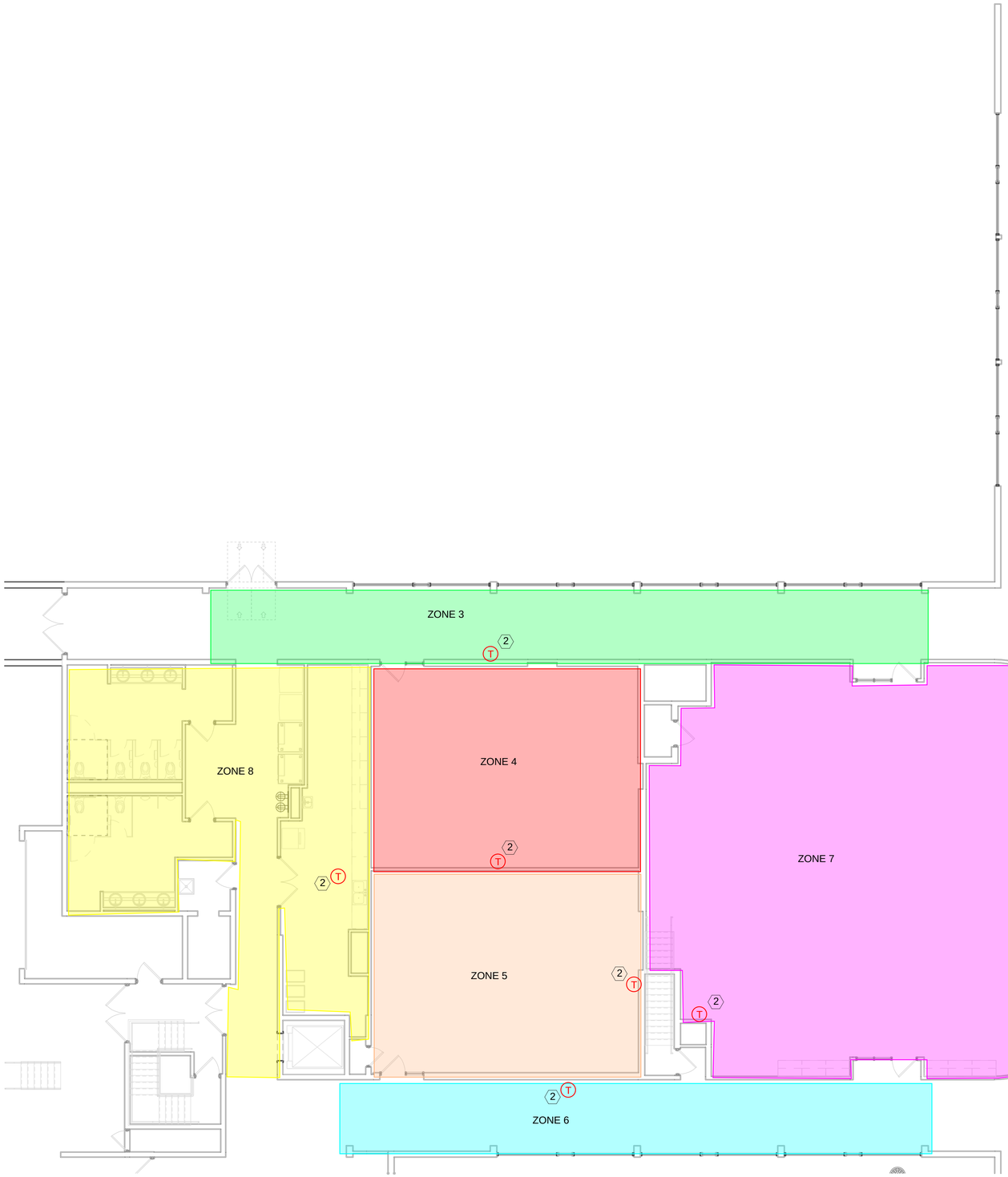

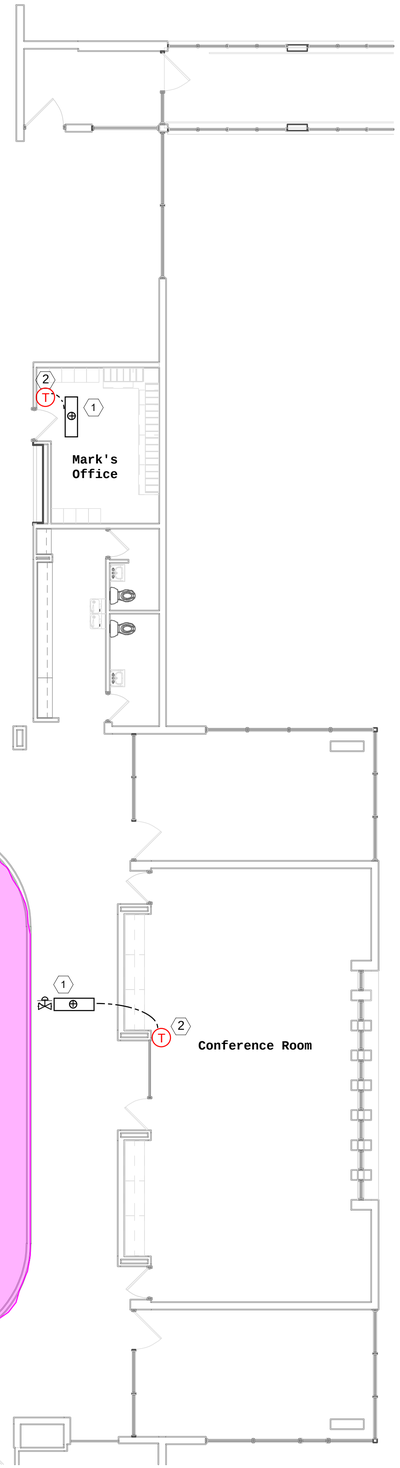

KEYED NOTES:

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2. NEW THERMOSTAT LOCATION. THERMOSTAT TO HAVE SETPOINT ADJUSTMENT & .....

GENERAL NOTES:

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5. REUSE EXISTING FAN STARTERS, PUMP STARTERS, FAN VFDS, PUMP VFDS, AND DAMPERS UNLESS NOTED OTHERWISE.

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TC-08

First Floor Plan

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LIGHTING

LIGHT FIXTURE. "L1" INDICATES LIGHT FIXTURE TYPE - SEE LIGHT FIXTURE SCHEDULE. PROVIDE UNSWITCHED HOT TO FIXTURE LOCATION - TYPICAL OF ALL LIGHT FIXTURES.

1'x4' SURFACE MOUNT LIGHT FIXTURE

PENDANT MOUNT LIGHT FIXTURE

TOGGLE LIGHT SWITCH

MISC.

TEMPERATURE CONTROL PANEL, FURNISH AND INSTALL 2 SHIELDED CAT6A FROM DATA RACK.

2" CONDUIT SLEEVE THROUGH WALL

J-HOOK MOUNTED FROM STRUCTURE ABOVE - SEE DETAIL

FIRE ALARM

ADDRESSABLE DUCT MOUNTED SMOKE DETECTOR

REMOTE PUSH BUTTON FOR DUCT MOUNTED SMOKE DETECTOR

POWER

RECEPTACLE (NEMA 5-20 AS SHOWN). INSTALL AT 24" UNLESS NOTED OTHERWISE. "XX" INDICATES SPECIAL INSTALLATION INSTRUCTION AS FOLLOWS:
A. +##": INSTALL RECEPTACLE ## INCHES AFF

DUPLEX RECEPTACLE

EQUIPMENT CONNECTION. "#" INDICATES LINE ITEM ON MOTOR STARTER & DISCONNECT SWITCH SCHEDULE - SEE SCHEDULE FOR ALL WIRING REQUIREMENTS.

DISCONNECT SWITCH

JUNCTION BOX OR CIRCUIT & EQUIPMENT CONNECTION AS NOTED ON PLAN.

ELECTRICAL PANELBOARD. "P-1" INDICATES PANEL NAME. SHADED PANEL INDICATES EMERGENCY POWER.

ELECTRICAL PANELBOARD - EMERGENCY POWER

CONDUIT HOMERUN TO PANELBOARD
NEUTRAL WIRE
PHASE WIRE

NETWORK OUTLET - FURNISH AND INSTALL 2 SHIELDED CAT6A FROM DATA RACK. SURFACE MOUNTED EMT CONDUIT AND BOX WITH 2 RJ-45 JACKS.

LIGHT FIXTURE SCHEDULE

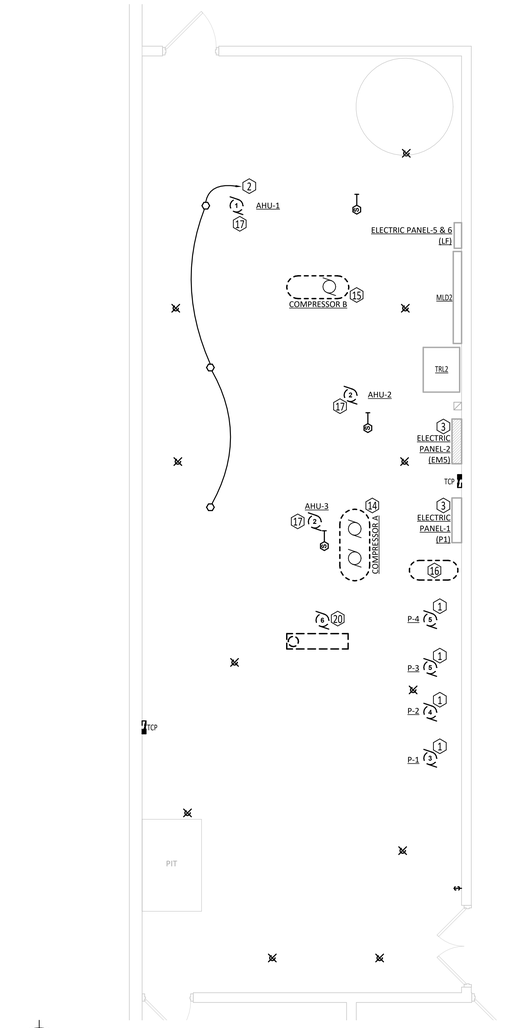
TAG	TAG NO.	MANUFACTURER	DESCRIPTION	LIGHT OUTPUT		INSTALLATION		FINISH	REMARKS
				COLOR	DELIVERED LUMENS	MOUNTING	LOCATION		
L	1	LITHONIA FEM SERIES, METALUX 4VT2 SERIES, COLUMBIA LXEM4 SERIES, DAY-BRITE VAPORLUME SERIES	4 FT. GASKETED & ENCLOSED LED INDUSTRIAL	3500 K	6000 LM	SUSPENDED	CEILING	WHITE FIBERGLASS HOUSING	4 FT. INDUSTRIAL FIXTURE WITH FIBERGLASS HOUSING, GASKETED & ENCLOSED ACRYLIC LINEAR RIBBED FROSTED LENS, WIDE LIGHT DISTRIBUTION, MULTI-VOLT OPERATION, ELECTRONIC, HIGH POWER FACTOR, LED DRIVER, 0-10V DIMMING DOWN TO 10%, 80 CRI MINIMUM, SUITABLE FOR SUSPENDED INSTALLATION.

GENERAL NOTES - ELECTRICAL

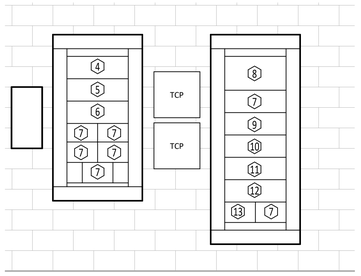
1. REMOVE ALL LIGHTING, LIGHTING CONTROL SWITCH WITH ASSOCIATED CONDUIT AND WIRE. NEW LIGHTS SHALL USE SAME LIGHTING CIRCUIT.
2. REMOVE ALL RECEPTACLES WITH ASSOCIATED CONDUIT AND WIRE. NEW RECEPTACLES SHALL USE SAME RECEPTACLE CIRCUIT.
3. AIR COMPRESSORS/AIR DRYER SHALL BE DISCONNECTED. REMOVE CONDUIT AND WIRE ASSOCIATED WITH COMPRESSORS/DRYER SHOWN UP TO CEILING, SET NEW JUNCTION BOXES. EXTEND CIRCUITS TO COMPRESSORS IN APPROXIMATE LOCATIONS SHOWN. FINAL LOCATION SHALL BE COORDINATED WITH HVAC INSTALLER AND OWNER.
4. ALL DATA IN MECHANICAL ROOM SHALL BE IN EMT CONDUIT.
5. DISCONNECT AND EXTEND PREVIOUS TEMPERATURE CONTROL PANEL CIRCUITS TO FEED NEW TEMPERATURE CONTROL PANELS.
6. EXTEND MECHANICAL ROOM LIGHTING CIRCUIT TO AHU-1 AND AHU-2 FOR INTERNAL LIGHTING CIRCUIT.
7. COORDINATE FINAL LIGHT FIXTURE LOCATIONS WITH EQUIPMENT AND PIPING. FINAL HEIGHTS MAY BE DIFFERENT FROM EACH OTHER.

KEYED NOTES - ELECTRICAL

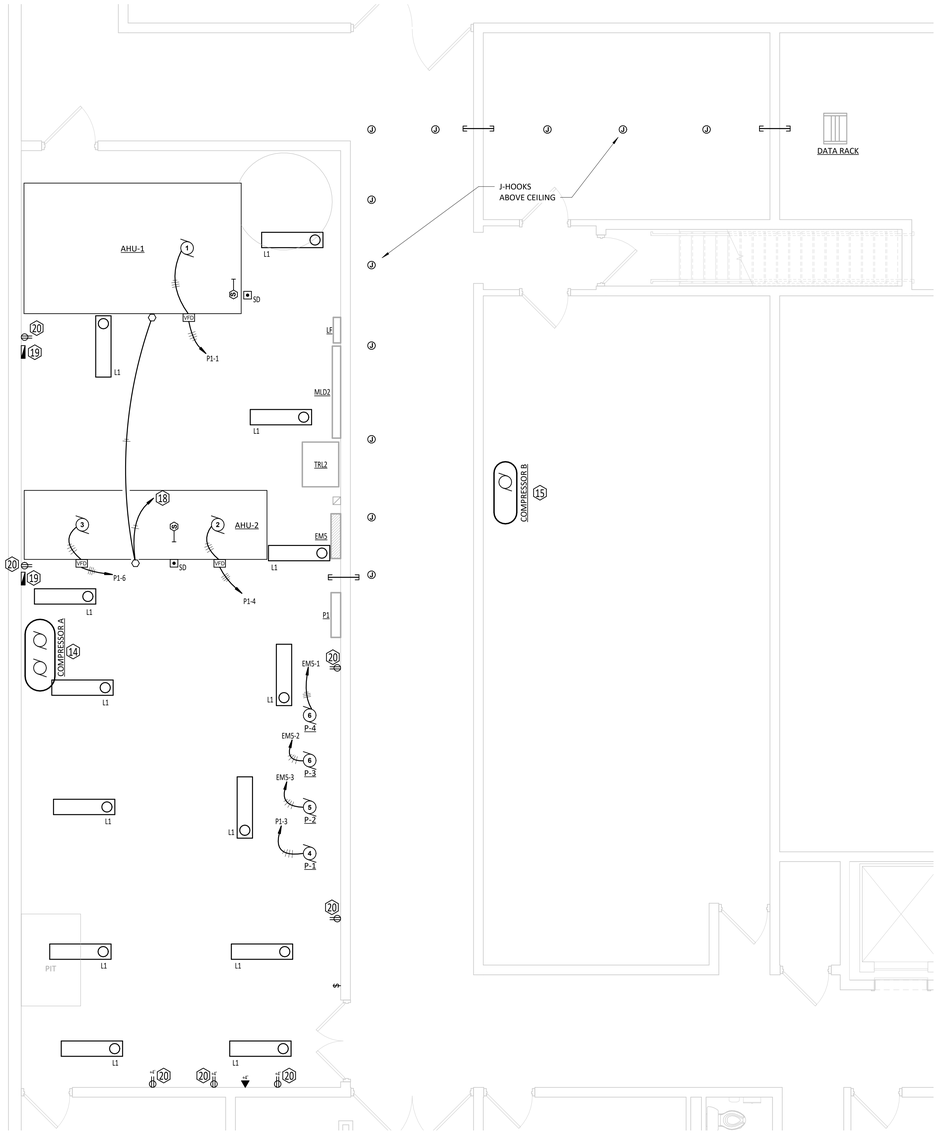
1. DISCONNECT CIRCUIT SERVING EXISTING PUMP MOTOR AND EXTEND AS NECESSARY TO NEW PUMP MOTOR AT SIMILAR LOCATION. SEE MOTOR STARTER & DISCONNECT SWITCH SCHEDULE FOR CIRCUIT DETAILS.
2. DISCONNECT AND REMOVE FILTER POWER PACKS CIRCUIT AND CONDUIT BACK TO SOURCE.
3. SEE EXISTING PANEL ELEVATION 4/E101 FOR MORE INFORMATION.
4. EXISTING TO REMAIN MOTOR CONTROL CIRCUIT FOR H/CHW PUMP P-4.
5. EXISTING TO REMAIN MOTOR CONTROL CIRCUIT FOR H/CHW PUMP P-3.
6. EXISTING TO REMAIN MOTOR CONTROL CIRCUIT FOR HW PUMP P-2.
7. EXISTING TO REMAIN SPARE FUSED DISCONNECT BOXES.
8. MOTOR STARTING BUCKET SHALL BE DISMANTLED IN SUCH A WAY THAT THE FUSED DISCONNECT IS THE ONLY REMAINING HARDWARE. WIRE REMAINING FUSED DISCONNECT TO NEW AHU-1. FURNISH AND INSTALL NEW WIRE AND CONDUIT FROM PANEL TO NEW AHU-1. FURNISH AND INSTALL NEW DUAL ELEMENT TIME DELAY RK1 FUSES. SEE MOTOR STARTER SCHEDULE FOR MORE DETAILS.
9. EXISTING TO REMAIN MOTOR CONTROL CIRCUIT FOR CHW PUMP CP-1.
10. MOTOR STARTING BUCKET SHALL BE DISMANTLED IN SUCH A WAY THAT THE FUSED DISCONNECT IS THE ONLY REMAINING HARDWARE. WIRE REMAINING FUSED DISCONNECT TO NEW AHU-2 SUPPLY FAN. FURNISH AND INSTALL NEW WIRE AND CONDUIT FROM PANEL TO NEW AHU-2 SUPPLY FAN. FURNISH AND INSTALL NEW DUAL ELEMENT TIME DELAY RK1 FUSES. SEE MOTOR STARTER SCHEDULE FOR MORE DETAILS.
11. EXISTING TO REMAIN MOTOR CONTROL CIRCUIT FOR CHILLER PUMP P-6.
12. MOTOR STARTING BUCKET SHALL BE DISMANTLED IN SUCH A WAY THAT THE FUSED DISCONNECT IS THE ONLY REMAINING HARDWARE. WIRE REMAINING FUSED DISCONNECT TO NEW AHU-2 RETURN FAN. FURNISH AND INSTALL NEW WIRE AND CONDUIT FROM PANEL TO NEW AHU-2 RETURN FAN. FURNISH AND INSTALL NEW DUAL ELEMENT TIME DELAY RK1 FUSES. SEE MOTOR STARTER SCHEDULE FOR MORE DETAILS.
13. EXISTING TO REMAIN FUSED DISCONNECT FOR RCM 1 & 2.
14. DISCONNECT CIRCUIT SERVING EXISTING COMPRESSOR "A" AND EXTEND TO NEW COMPRESSOR "A" LOCATION AS SHOWN ON NEW WORK PLAN. CIRCUIT TO BE 3#10 AND 1#8 GND. IN 1" CONDUIT AND 2#12AWG & 1#12 GND IN 3/4" CONDUIT FOR AIR DRYER.
15. DISCONNECT CIRCUIT SERVING EXISTING COMPRESSOR "B" AND EXTEND TO NEW COMPRESSOR "A" LOCATION AS SHOWN ON NEW WORK PLAN. CIRCUIT TO BE 3#12 AND 1#12 GND. IN 3/4" CONDUIT.
16. DISCONNECT CIRCUIT SERVING EXISTING COMPRESSOR AND CIRCUIT REMOVED IN ITS ENTIRETY.
17. DISCONNECT CIRCUIT SERVING EXISTING AHU AND REMOVE CIRCUIT BACK TO PANEL.
18. FEED INTERNAL AHU LIGHT CIRCUIT WITH EXISTING FILTER POWER PACK CIRCUIT PREVIOUSLY REMOVED. CIRCUIT TO BE 3#12 AND 1#12 GND. IN 3/4" CONDUIT.
19. FEED TEMPERATURE CONTROL PANEL CIRCUIT WITH EXISTING TEMPERATURE CONTROL PANEL CIRCUIT PREVIOUSLY REMOVED. CIRCUIT TO BE 3#12 AND 1# 12 GND. IN 3/4" CONDUIT.
20. DISCONNECT CIRCUIT SERVING EXISTING BOOSTER PUMP AND REMOVE BACK TO PANEL. EXTEND FROM PANEL TO NEW RECEPTACLES LOCATION AS SHOWN ON NEW WORK PLAN. CIRCUIT TO BE 1P 20A BREAKER WITH 3#12 AND 1#12 GND. IN 3/4" CONDUIT USING PREVIOUSLY USED BOOSTER PUMP CIRCUIT BREAKER SPACE. IF SPARE BREAKER IS AVAILABLE USE TWO CIRCUITS ALTERNATING THE CIRCUITS TO FEED THE NEW RECEPTACLES.



BASEMENT MECHANICAL ROOM - ELECTRICAL DEMO
SCALE: 1/4" = 1'-0"
2' 4' 8' 16'



4 / E101 Existing Panel Elevation
NO SCALE



BASEMENT MECHANICAL ROOM - ELECTRICAL
SCALE: 1/4" = 1'-0"
2' 4' 8' 16'

DATE	NO.	DESCRIPTION

ILEAS Illinois Law Enforcement Alarm System

GHR ENGINEERS AND ASSOCIATES, INC. Mechanical & Electrical Consulting Engineers

LARGE SCALE ELECTRIC - BASEMENT MECHANICAL ROOM

ILEAS AHU REPLACEMENT

CHAMPAIGN COUNTY
1701 EAST MAIN ST, URBANA, IL 61802

SEAL

DRAWN: KPW | APPROVED: LEM
DATE: 01/06/2025
ISSUED FOR BID
PROJECT: 7792

SHEET: E101

12/31/2025 8:01:28 AM
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7792 - ILEAS AHU REPLACEMENT

ELECTRICAL ABBREVIATIONS

A OR AMP	AMPERE OR AMPLIFIER	DO	DRAWOUT	G OR GRD	GROUND	MSWB	MAIN SWITCHBOARD	SPDT	SINGLE POLE DOUBLE THROW
AC	ALTERNATING CURRENT	DPDT	DOUBLE POLE DOUBLE THROW	GEN	GENERATOR	MTD	MOUNTED	SPST	SINGLE POLE SINGLE THROW
AC	ABOVE COUNTER	DPST	DOUBLE POLE SINGLE THROW	GFI	GROUND FAULT INTERRUPTER	MTR	MOTOR	SPK	SPEAKER
AFF	ABOVE FINISH FLOOR	DS	DISCONNECT SWITCH	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	MW	MICROWAVE	SPEC	SPECIFICATION
AFG	ABOVE FINISH GRADE	DW	DISHWASHER	GRC	GALVANIZED RIGID CONDUIT	N	NEUTRAL	SS	STAINLESS STEEL
AIC	AMPERES INTERRUPTING CAPACITY	ELEC	ELECTRIC	H	HANDICAP MOUNTED AT 48" AFF	NC	NORMALLY CLOSED	ST	SHUNT TRIP
AL	ALUMINUM	EM	EMERGENCY	HACR	HEATING, AIR CONDITIONING, REFRIGERATION RATED	NEC	NATIONAL ELECTRIC CODE	STCB	SHUNT TRIP CIRCUIT BREAKER
ANN	ANNUNCIATOR	EMS	ENERGY MANAGEMENT SYSTEM	HOA	HAND-OFF-AUTO SELECTOR	NFDS	NON-FUSED DISCONNECT SWITCH	SWBD	SWITCHBOARD
ATS	AUTOMATIC TRANSFER SWITCH	EMT	ELECTRIC METALLIC TUBING	HP	HORSEPOWER	NIC	NOT IN CONTRACT	SWGR	SWITCHGEAR
BAS	BUILDING AUTOMATION SYSTEM	EN	EXISTING LOCATION NEW DEVICE	HV	HIGH VOLTAGE	NO	NORMALLY OPENED	SYM	SYMMETRICAL
BDG	BUILDING DISTRIBUTION FRAME	EOL	END OF LINE DEVICE	HZ	HERTZ (CYCLES/SECOND)	NTS	NOT TO SCALE	TGB	TELECOM GROUND BAR
BFC	BELOW FINISH CEILING	EQ	EQUAL	IDF	INTERMEDIATE DISTRIBUTION FRAME	OCP	OVERCURRENT PROTECTION	TMGB	TELECOM MAIN GROUND BAR
BFG	BELOW FINISH GRADE	EQUIP	EQUIPMENT	IMC	INTERMEDIATE GRADE CONDUIT	P	POLE	TR	TELECOM ROOM
C	CONDUIT	ER	EXISTING TO BE REMOVED	JB	JUNCTION BOX	PA	PUBLIC ADDRESS	TTC	TELEPHONE TERMINAL CABINET
CATV	CABLE TELEVISION	ERL	EXISTING TO BE RELOCATED	KO	KNOCKOUT	PB	PULL BOX	TV	TELEVISION, CEILING OR WALL MOUNTED
CB	CIRCUIT BREAKER	ERN	EXISTING DEVICE TO REMAIN	KVA	KILO VOLT-AMPERE	PB	PUSH BUTTON	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
CCT	CIRCUIT	ESTS	ELEVATOR SHUNT TRIP SWITCH	KW	KILOWATT	PCU	PACKAGED CONTROL UNIT	TYP	TYPICAL
CCTV	CLOSED CIRCUIT TELEVISION CAMERA	EUH	ELECTRIC UNIT HEATER	KWH	KILOWATT-HOUR	PH	PHASE	UH	UNIT HEATER
CD	CANDELA	EWC	ELECTRIC WATER COOLER	LED	LIGHT EMITTING DIODE	PL	PILOT LIGHT	UNO	UNLESS NOTED OTHERWISE
CEC	CHICAGO ELECTRIC CODE	EWH	ELECTRIC WATER HEATER	LTG	LIGHTING	PRI	PRIMARY	VFD	VARIABLE FREQUENCY DRIVE
COAX	COAXIAL	EX	EXISTING	LV	LOW VOLTAGE	PT	POTENTIAL TRANSFORMER	V	VOLT
COF	COFFEE MAKER	FPB	FAN POWERED BOX	MAN	MANUAL	PVC	POLYVINYL CHLORIDE	VA	VOLT-AMPERE
CP	CONTROL PANEL	FA	FIRE ALARM	MAG	MAGNETIC	PWR	POWER	W	WALL MOUNTED AT INDICATED DIMENSION AFF
CPT	CONTROL POWER POTENTIAL TRANSFORMER	FACP	FIRE ALARM CONTROL PANEL	MAU	MAKE-UP AIR UNIT	REF	REFRIGERATOR	WAP	WIRELESS ACCESS POINT
CR	CARD READER	FAAP	FIRE ALARM ANNUNCIATOR PANEL	MCA	MINIMUM CIRCUIT AMPERES	RCPT	RECEPTACLE	WG	WIRE GUARD OR PROTECTIVE COVER
CSDS	COMBINATION STARTER/DISCONNECT SWITCH	FCCP	FIRE COMMAND CONTROL PANEL	MCC	MOTOR CONTROL CENTER	RVNR	REDUCED VOLTAGE NON-REVERSING	WP	INDICATES WEATHER OR WATERPROOF
CT	CURRENT TRANSFORMER	FDS	FUSED DISCONNECT SWITCH	MDF	MAIN DISTRIBUTION FRAME	RVR	REDUCED VOLTAGE REVERSING	WPFDS	WEATHERPROOF FUSED DISCONNECT SWITCH
CU	COPPER	FLA	FULL LOAD AMPS	MER	MAIN EQUIPMENT ROOM	SD	SMOKE DAMPER OR DETECTOR	WPNFDS	WEATHERPROOF NON-FUSED DISCONNECT SWITCH
CUH	CABINET UNIT HEATER	FLUOR	FLUORESCENT	MFR	MANUFACTURER	SEC	SECONDARY	XFMR	TRANSFORMER
D	INDICATES DIMMER SWITCH	FS	FUSED SWITCH	MH	MANHOLE	SFD	SMOKE / FIRE DAMPER		
DC	DIRECT CURRENT	FVNR	FULL VOLTAGE NON-REVERSING	MMS	MANUAL MOTOR STARTER	SPC	SINGLE POINT CONNECTION		
DH	MAGNETIC DOOR HOLD OPEN	FVR	FULL VOLTAGE REVERSING	MOCP	MAXIMUM OVERCURRENT PROTECTION	SP	SINGLE POLE		

ELECTRICAL DEMOLITION NOTES

1. DISCONNECT AND REMOVE ELECTRICAL ITEMS AND ASSOCIATED CONDUIT, WIRING, ETC AS SHOWN OR NOTED.
2. DISCONNECT AND REMOVE ALL DEVICES, CONDUIT, WIRING, ETC ASSOCIATED WITH LIGHTING AND POWER SYSTEMS BEING REMOVED.
3. DISCONNECT AND REMOVE ALL DEVICES, CONDUIT, WIRING, ETC ASSOCIATED WITH MECHANICAL EQUIPMENT BEING REMOVED.
4. DISCONNECT AND REMOVE ALL DEVICES, CONDUIT, WIRING, ETC IN OR ON THE WALLS, CEILING, ETC TO BE REMOVED. VERIFY ALL OCCURRENCES NOT SPECIFICALLY SHOWN OR NOTED ON PLANS.
5. BE RESPONSIBLE FOR CONTINUITY OF ALL EXISTING POWER AND LIGHTING CIRCUITS AND SYSTEMS OF ALL REMAINING DEVICES AND SYSTEMS WHICH MAY BE AFFECTED BY REMODELING.
6. FOR EACH ITEM DISCONNECTED AND REMOVED, DISCONNECT AND REMOVE DEFUNCT CIRCUIT WIRING BACK TO NEXT ACTIVE REMAINING DEVICE OR TO PANEL OR SWITCHBOARD FROM WHICH THE CIRCUIT ORIGINATES.
7. FOR EACH ITEM DISCONNECTED AND REMOVED, DISCONNECT AND REMOVE ABANDONED, EXPOSED CONDUITS, AND/OR CONDUITS MADE EXPOSED BY DEMOLITION, BACK TO NEXT ACTIVE REMAINING DEVICE OR TO PANEL OR SWITCHBOARD FROM WHICH THE CIRCUIT ORIGINATES.
8. EXCEPT WHERE OTHERWISE NOTED, ALL REMOVED ELECTRICAL EQUIPMENT, DEVICES, CONDUIT, CONDUCTORS, FIXTURES, AND ASSOCIATED ITEMS SHALL BECOME THE PROPERTY OF THE ELECTRICAL CONTRACTOR AND SHALL BE DISPOSED OF BY HIM.
9. CO-ORDINATE DISCONNECTION AND REMOVAL OF EXISTING DOOR ACCESS AND SECURITY DEVICES WITH THE GENERAL TRADE. REMOVE AND STORE ELECTRICAL DOOR DEVICES SUCH AS CARD READERS, POWER SUPPLIES, POSITION SWITCHES, SENSORS ETC, FOR REUSE AS SHOWN ON NEW WORK PLANS.

ELECTRICAL GENERAL NOTES

1. WORK, MATERIALS AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE AND FEDERAL CODES AND ORDINANCES.
2. DRAWINGS ARE DIAGRAMMATIC ONLY AND REPRESENT THE GENERAL SCOPE OF THE WORK. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND PLANS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY THE ARCHITECT OR ENGINEER OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
3. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS OF FINISHED CONSTRUCTION PRIOR TO FABRICATION AND INSTALLATION OF FIXTURES AND EQUIPMENT.
4. CONTRACTOR SHALL REVIEW ARCHITECTURAL, STRUCTURAL, MECHANICAL AND OTHER DRAWINGS PRIOR TO BID.
5. MAINTAIN ACCURATE RECORDS OF ALL CHANGES MADE DURING CONSTRUCTION. PROVIDE A NEATLY MARKED SET OF BLUEPRINTS TO THE ENGINEER/ARCHITECT AT COMPLETION OF THE PROJECT, INDICATING ALL FIELD CHANGES.
6. PROPOSED SUBSTITUTIONS OF ELECTRICAL EQUIPMENT OR REQUEST FOR "OR EQUAL" OR "APPROVED EQUAL" LISTING SHALL BE SUBMITTED TO ARCHITECT NOT LESS THAN TEN (10) WORKING DAYS PRIOR TO BID.
7. ALL WORK SHALL BE INSTALLED CONCEALED UNLESS OTHERWISE NOTED.
8. FINAL LOCATION OF CEILING MOUNTED EQUIPMENT SHALL BE IN ACCORDANCE WITH ARCHITECTURAL REFLECTED CEILING PLANS.
9. ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE TO MAKE HIMSELF AWARE OF EXISTING CONDITIONS BEFORE SUBMITTING HIS PRICE.
10. COORDINATE WITH OTHER TRADES TO DETERMINE THE EXACT LOCATION OF MOTORS, MOTOR TERMINAL BOXES, AND OTHER EQUIPMENT TO BE INSTALLED BY OTHER TRADES BEFORE CONDUIT WORK IS STARTED. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS OF ALL MECHANICAL EQUIPMENT.
11. NO LOW VOLTAGE WIRING SHALL BE PERMITTED IN THE SAME RACEWAY AS LINE VOLTAGE POWER WIRING.
12. AT ALL EMPTY CONDUITS PROVIDE BUSHINGS AT ENDS AND DRAG WIRES.
13. PROVIDE SEPARATE NEUTRALS FOR ALL 120 AND 277 VOLT BRANCH CIRCUITS. SHARED NEUTRALS IS NOT ALLOWED.
14. ALL BRANCH CIRCUIT WIRING SHALL BE ROUTED CONCEALED IN WALLS AND IN HUNG CEILING CAVITY, U.O.N. WHERE EXPOSED CONDUITS CANNOT BE AVOIDED, ROUTE ALL SUCH CONDUITS IN A NEAT MANNER FOLLOWING BUILDING STRUCTURAL LINES. COORDINATE ROUTING WITH OTHER TRADES. ALL PENETRATIONS INTO FIRE-RATED WALLS OR CORE HOLES BETWEEN FLOOR SLABS MUST BE PROPERLY FIRE-STOPPED IN ACCORDANCE WITH THE GUIDELINES OF THE NATIONAL ELECTRICAL CODE AND LOCAL BUILDING CODES.
15. COORDINATE INSTALLATION OF NEW SERVICES WITH LOCAL ELECTRICAL UTILITY COMPANY. PROVIDE ALL TRENCHING, CONDUIT, METER CENTERS, CONCRETE PADS, AND OTHER ITEMS AS REQUIRED.
16. RECEPTACLE OUTLETS IN A BACK TO BACK CONFIGURATION AS SHOWN ON PLANS SHALL BE OFFSET A MINIMUM OF 24 INCHES OC. THRU-WALL BOXES ARE PROHIBITED

MOTOR STARTER & DISCONNECT SWITCH SCHEDULE FOR EXISTING MOTORS

TAG NO.	EQUIPMENT DESCRIPTION	EQUIPMENT MARK	LOAD DESCRIPTION					LINE VOLTAGE	PHASE	COMBINATION MOTOR STARTER & DISCONNECT SWITCH			CONTROL LOCATION	SWITCH & FUSE OR BREAKER SIZE	CONDUCTOR SIZE AND QTY.	CONDUIT SIZE	DISCONNECT MEANS ADJACENT TO MOTOR	MOTOR LOCATION	MOUNT IN DOOR OF STARTER			AUX. CONTACT REQ'D	
			HP	W	FLA	MCA	MOCP			INTEGRAL FUSED DISCONNECT SWITCH	STARTER SIZE	STARTER TYPE							P.B.	H.O.A.	P.L.	N.O.	N.C.
1	EXISTING AIR HANDER UNIT 1	AHU-1	20 HP	-	27.0 A	-	-	480 V	3	3P-60A	2	FVNR	AT MOTOR	3P-60A	3#8 & 1#10 GND.	3/4"	3P-60A NFDS	AS SHOWN	*	*	*	1	1
2	EXISTING AIR HANDER UNIT 2 & 3	AHU-2, 3	5 HP	-	7.6 A	-	-	480 V	3	3P-30A	0	FVNR	AT MOTOR	3P-20A	3#12 & 1#12 GND.	3/4"	3P-30A NFDS	AS SHOWN	*	*	*	1	1
3	CHW PUMP	P-1	10 HP	-	14.0 A	-	-	480 V	3	3P-30A	1	FVNR	AT MOTOR	3P-30A	3#12 & 1#12 GND.	3/4"	3P-30A NFDS	AS SHOWN	*	*	*	1	1
4	HW PUMP	P-2	3 HP	-	4.8 A	-	-	480 V	3	3P-30A	0	FVNR	AT MOTOR	3P-20A	3#12 & 1#12 GND.	3/4"	3P-30A NFDS	AS SHOWN	*	*	*	1	1
5	H/CHW PUMP	P-3,4	7-1/2 HP	-	11.0 A	-	-	480 V	3	3P-30A	1	FVNR	AT MOTOR	3P-25A	3#12 & 1#12 GND.	3/4"	3P-30A NFDS	AS SHOWN	*	*	*	1	1
6	HOT WATER CIRC. PUMP	HWCP-1	FRAC.	-	2.0 A	-	-	120 V	1	-	-	MMS	AT MOTOR	1P-20A	2#12 & 1#12 GND.	3/4"	SEE STARTER	AS SHOWN	-	-	-	-	-

MOTOR STARTER & DISCONNECT SWITCH SCHEDULE

TAG NO.	EQUIPMENT DESCRIPTION	EQUIPMENT MARK	LOAD DESCRIPTION					LINE VOLTAGE	PHASE	COMBINATION MOTOR STARTER & DISCONNECT SWITCH			CONTROL LOCATION	SWITCH & FUSE OR BREAKER SIZE	CONDUCTOR SIZE AND QTY.	CONDUIT SIZE	DISCONNECT MEANS ADJACENT TO MOTOR	MOTOR LOCATION	MOUNT IN DOOR OF STARTER			AUX. CONTACT REQ'D	
			HP	W	FLA	MCA	MOCP			INTEGRAL FUSED DISCONNECT SWITCH	STARTER SIZE	STARTER TYPE							P.B.	H.O.A.	P.L.	N.O.	N.C.
1	AIR HANDLING UNIT 1	AHU-1		-	18.2 A	22.75 A	40A	480 V	3	SEE	NOTE	#3	AT MOTOR	3P-40A	3#10 & 1#10 GND.	3/4"	SEE NOTE #4	AS SHOWN	-	-	-	-	-
2	AIR HANDER UNIT 2, SUPPLY FAN	AHU-2 SF		-	8.7 A	10.88 A	15	480 V	3	SEE	NOTE	#3	AT MOTOR	3P-25A	3#12 & 1#12 GND.	3/4"	SEE NOTE #4	AS SHOWN	-	-	-	-	-
3	AIR HANDER UNIT 2, RETURN FAN	AHU-2 RF		-	4.2 A	5.25 A	15	480 V	3	SEE	NOTE	#3	AT MOTOR	3P-20A	3#12 & 1#12 GND.	3/4"	SEE NOTE #4	AS SHOWN	-	-	-	-	-
4	CHILLED WATER PUMP	P-1	10 HP	-	14.0 A	-	-	480 V	3	3P-30A	1	FVNR	AT MOTOR	3P-30A	3#12 & 1#12 GND.	3/4"	3P-30A NFDS	AS SHOWN	*	*	*	1	1
5	HOT WATER PUMP	P-2	3 HP	-	4.8 A	-	-	480 V	3	3P-30A	0	FVNR	AT MOTOR	3P-20A	3#12 & 1#12 GND.	3/4"	3P-30A NFDS	AS SHOWN	*	*	*	1	1
6	HOT/CHILLED WATER PUMP	P-3,4	7-1/2 HP	-	11.0 A	-	-	480 V	3	3P-30A	1	FVNR	AT MOTOR	3P-25A	3#12 & 1#12 GND.	3/4"	3P-30A NFDS	AS SHOWN	*	*	*	1	1

MOTOR STARTER NOTES - ELECTRICAL

1. MOTOR STARTER FURNISHED INTEGRAL WITH UNIT BY EQUIPMENT MANUFACTURER.
2. DISCONNECT SWITCH AT UNIT FURNISHED INTEGRAL WITH UNIT BY EQUIPMENT MANUFACTURER.
3. VFD FURNISHED BY EQUIPMENT MANUFACTURER, ELECTRICAL CONTRACTOR TO MOUNT ON WALL AND PROVIDE ALL LINE AND LOAD SIDE CONNECTIONS.
4. DISCONNECT SWITCH AT UNIT FURNISHED INTEGRAL WITH VFD.

DATE	NO.	DESCRIPTION

ILEAS Illinois Law Enforcement Alarm System

GHR ENGINEERS AND ASSOCIATES, INC. Mechanical & Electrical Consulting Engineers

SCHEDULES & DETAILS

ILEAS AHU REPLACEMENT

CHAMPAIGN COUNTY

1701 EAST MAIN ST, URBANA, IL 61802

SEAL:

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DATE: 01/06/2025

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