

Date: December 20, 2019
To: Plan Holders
Subject: Addendum No. 1 to the Bidding Documents for: ITB No. 2020-001

METCAD Mechanical System Replacement Project
1905 East Main Street
Urbana, Illinois 61802

Addendum No. 1 becomes a part of the bidding and contract documents and modifies the original bidding documents, dated December 4, 2019. Acknowledge receipt of Addendum No. 1 in the space provided on Bid Form. **FAILURE TO DO SO MAY SUBJECT BIDDER TO DISQUALIFICATION.**

Specifications

1. Section 00 0100 - Table of Contents
 - a. Index of Drawings - Add the following Sheets:
 - i. AD-1 LOWER LEVEL FLOOR PLAN - ARCHITECTURAL DEMOLITION
 - ii. A-1 LOWER LEVEL FLOOR PLAN - ARCHITECTURAL
2. Section 23 0993 - DDC Input / Output Summary Table
 - a. Delete in its entirety and replace with the attached DDC Input / Output Summary Table.
3. Section 23 3500 - Variable Refrigerant Volume Air Conditioning
 - a. Page 2 - Paragraph 1.6-B.4. and 5.: Add as follows:
 4. Trane.
 5. Mitsubishi.
4. Section 23 7500 - Heat Transfer
 - a. Page 1 - Paragraph 1.1-A.1.c.: Delete in its entirety.
 - b. Page 3 - Paragraph 2.4 - Delete in its entirety.
5. Section 23 8500 - Air Handling
 - a. Page 2 - Paragraph 2.1-A.6.: Delete in its entirety.

Drawings

1. Sheet C-1 - Cover Sheet
 - a. Add note: "Coordinate all demolition with Owners of equipment in Lower Level (METCAD and EMA). Each will move their equipment to center of respective rooms and cover with tarps before any demolition work. METCAD will organize cables above ceilings before any ceiling demolition."
 - b. Add "AD-1 LOWER LEVEL FLOOR PLAN - ARCHITECTURAL DEMOLITION" and "A-1 LOWER LEVEL FLOOR PLAN - ARCHITECTURAL" to sheet list.
2. Sheet AD-1 - Lower Level Floor Plan - Architectural Demolition
 - a. See attached new Sheet AD-1.
3. Sheet A-1 - Lower Level Floor Plan - Architectural
 - a. See attached new Sheet A-1.
4. Sheet HD-1 - Lower Level Floor Plan - Heating Demolition
 - a. Add Keyed Note 5: "Existing supplemental drain pan to remain."
5. Sheet HD-2 - First Floor Plan - Heating Demolition - See Attached Revised Sheet HD-2
 - a. Mechanical 114 - Existing gas piping to remain as shown on attached drawing, HD-2.
 - b. Delete Note 15. Replace note 15 with the following: "Disconnect gas piping to existing boilers. Prepare existing gas piping for new connection to new boilers. See new work plan."
6. Sheet H-1 - Lower Level Floor Plan - Heating - See Attached Revised Sheet H-1
 - a. Modified location of refrigerant risers from level 00 to level 01 within room 117 CONFERENCE ROOM.
 - b. Removed Keyed Note 1 from CRCU-5 and CRCU-4 thermostats.
 - c. Added Keyed Note 16 to thermostats for CRCU-4, 5 and VRF6-1 and 2: "Unit controls. Integrate with BAS for space temperature adjustment and unit alarm."
7. Sheet H-2 - First Floor Plan - Heating New Work - See Attached Revised Sheet H-2
 - a. Mechanical 114 - Delete new gas piping as shown on attached drawing, H-2.
 - b. Existing gas piping shown to remain as shown on attached drawing, H-2.
 - c. Delete Note 11. Replace Note 11 with the following: "Connect new 1-1/4" gas piping to existing gas piping drops. Existing piping to new boilers. Provide and install shut-off and 6" drip leg."
 - d. Delete note 12. Replace note 12 with the following: "Not used."
 - e. Modified location of refrigerant risers from level 00 to level 01 within Room 125 MECHANICAL.

- f. Added Keyed Note: "TC to add new DDC controls to AHU-2 and integrate with BAS."
 - g. Revised location of new boilers B-1 and B-2 as shown.
- 8. Sheet H-3 - Roof Plan - See Attached Revised Sheet H-3
 - a. Revised location of roof mounted condensing units and added structural detail.
- 9. Sheet H-4 - Heating Abbreviations, Details and Schedules - See Attached Revised Sheet H-4
 - a. Revised VRF Cassette Schedule.
 - b. Revised ACCU-6 entry on Schedule of Air Cooled Condensing Units.
- 10. Sheet V-1 - Lower Level Floor Plan - Ventilation New Work
 - a. General Notes - Add Note 9 and the following: "Protect sprinkler heads during ceiling removal and ceiling reinstallation. Provide new escutcheon plate as required for sprinkler head for ceiling re-installation. Approximately 150 sprinklers. Field verify exact amount of sprinkler heads."
 - b. Corrected sheet title to "LOWER LEVEL FLOOR PLAN - VENTILATION".
 - c. Clarified double wall vs. single ductwork.
 - d. Clarified rectangular vs. oval ductwork.
 - e. Added notes calling out available space above ceilings.
 - f. Revised OA intake ductwork for AHU-3.
- 11. Sheet V-2 - First Level Floor Plan - Ventilation - See Attached Revised Sheet V-2
 - a. Corrected sheet title to "FIRST FLOOR PLAN - VENTILATION".
 - b. Revised OA intake ductwork for AHU-3.
 - c. Revised closed combustion ductwork for new boilers B-1 and B-2.
- 12. Sheet V-3 - Ventilation Details and Schedules
 - a. Replace AHU-3 Manufacturer with "Trane".
 - b. Add "2" MERV 8 angled filters" to AHU-3 schedule entry filter section.
 - c. Modify AHU-3 return fan schedule entry: direct drive, 1.25 ESP, 5590 CFM.
 - d. Add a note "New ceiling tiles should be fissured Armstrong 756A 2x2 tiles."
- 13. Sheet ED-1 - Lower Level Floor Plan - Electrical Demolition
 - a. Support all existing lay-in fixtures independently of the gird for ceiling removal. Ceilings to be reinstalled at same elevation and orientation as previous. Field verify and coordinate exact requirements during ceiling demolition.

14. Sheet E-2 - First Level Floor Plan - Electrical

- a. Coordinate exact locations of boilers and pumps with Mechanical Trade. See Sheet H-2 for exact locations.

Bids are due Friday, January 3, 2020 at 2:00 p.m. central time at the Lyle Shields Conference Room, Brookens Administrative Center, 1776 East Washington, Urbana, Illinois.

Respectfully submitted,

GHR Engineers and Associates, Inc.

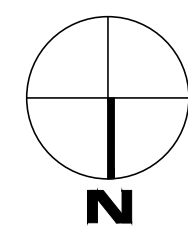
Sophie Hall, EIT
Project Manager
Phone: 217-356-0536
Fax: 217-356-1092

MSH/smh

Addendum No. 1 - METCAD Mechanical System Replacement Project.wpd

DDC INPUT/OUTPUT SUMMARY TABLE

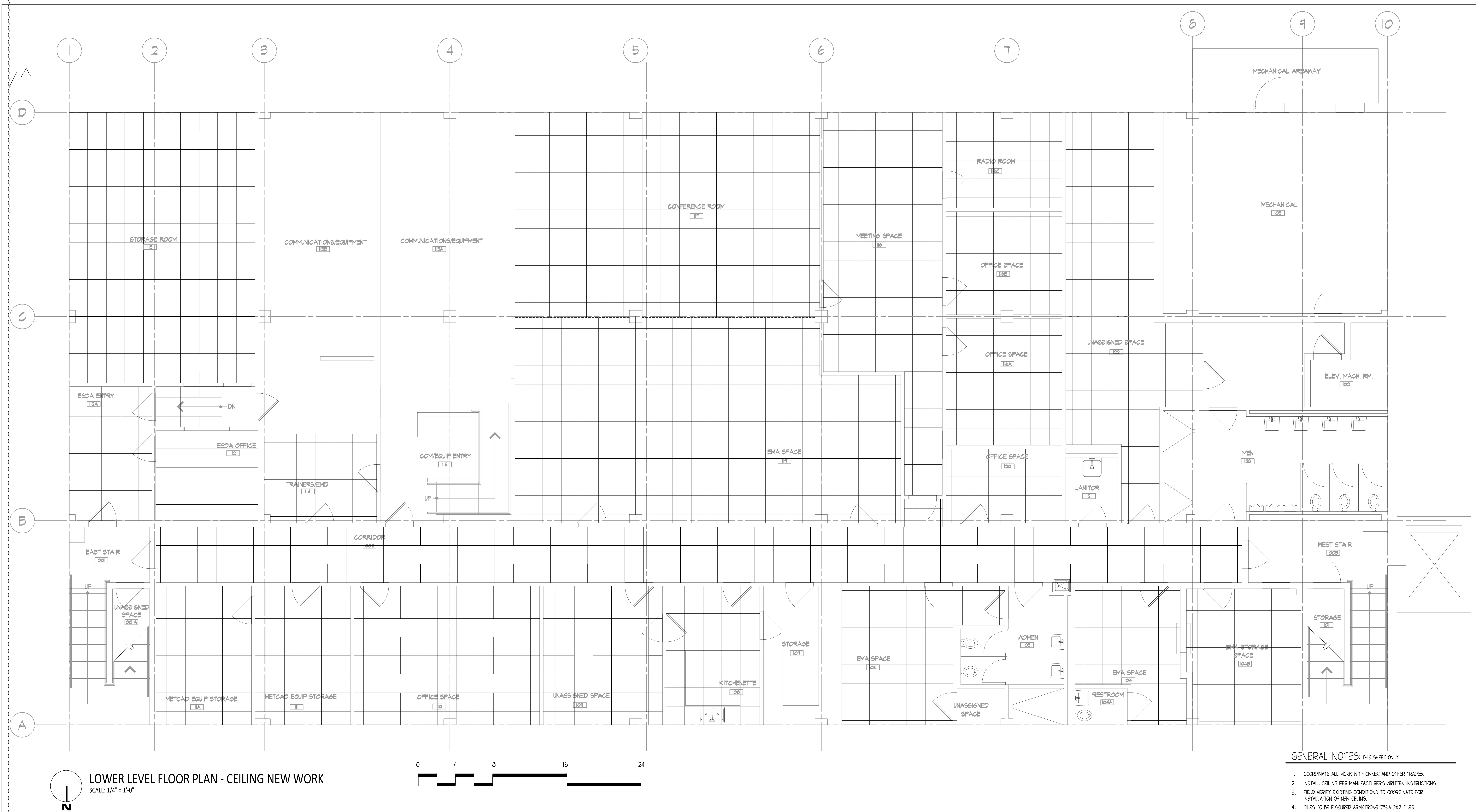
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1. EXISTING CEILING AND GRID TO BE REMOVED IN ITS ENTIRETY.
2. COORDINATE ALL DEMO WORK WITH OWNER AND ALL OTHER TRADES.
3. METCAD TO ORGANIZE AND HANG CABLES ABOVE CEILING BEFORE ANY CEILING DEMOLITION.
4. FIELD VERIFY EXACT GRID LOCATIONS BEFORE DEMOLITION. NEW GRID TO MATCH EXISTING AS MUCH AS POSSIBLE.

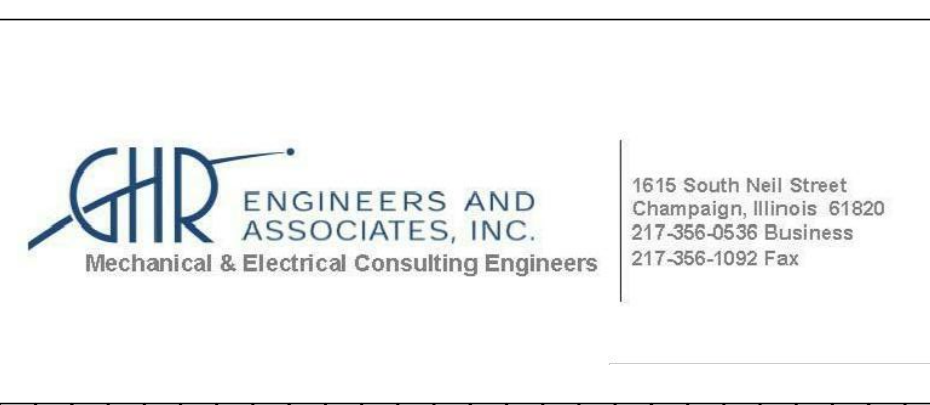
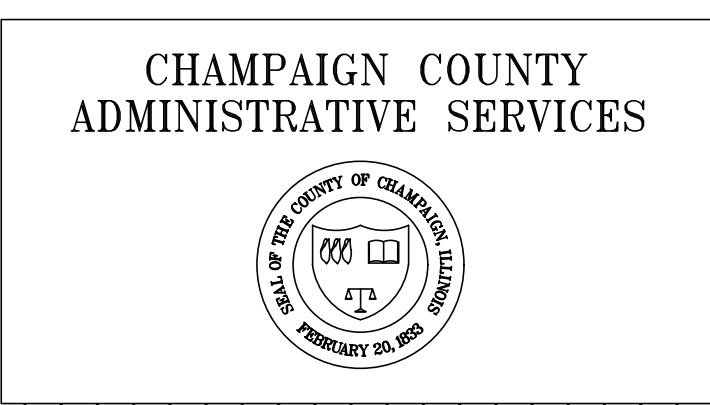
SEAL	DESIGN:	MSH	JNG	SHEET:
	DATE:	DEC 4, 2019		
	BID DOCUMENTS			
	PROJECT:	7205		

AD-1



- GENERAL NOTES:** THIS SHEET ONLY
-
1. COORDINATE ALL WORK WITH OWNER AND OTHER TRADES.
 2. INSTALL CEILING PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
 3. FIELD VERIFY EXISTING CONDITIONS TO COORDINATE FOR INSTALLATION OF NEW CEILING.
 4. TILES TO BE FIGURED ARMSTRONG 756A 2X2 TILES
 5. NEW CEILING GRID TO MATCH EXISTING LAYOUT AS CLOSELY AS POSSIBLE.

DATE	NO.	DESCRIPTION
DEC. 20, 2019		ADDENDUM #1



LOWER LEVEL FLOOR PLAN - ARCHITECTURAL

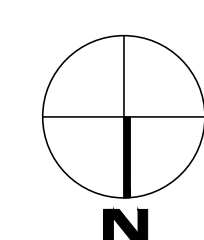
911 METCAD EMERGENCY COMMUNICATIONS CENTER

CHAMPAIGN COUNTY OFFICE BUILDING
1905 E. MAIN ST. URBANA, ILLINOIS

SEAL:	DRAWN:	APPROVED:	SHEET:
	MSH	JNG	
	DATE: DEC 4, 2019		
	BID DOCUMENTS		
	PROJECT:	7205	

A-1





SCALE: 1/4" = 1'-0"

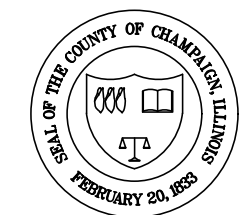


- 1 TC TO INSTALL NEW DDC THERMOSTAT. INTEGRATE WITH BAS.
- 2 NEW 3/4" HWS PIPING TO VAV BOXES. SEE DETAIL
- 3 NEW 3/4" HWR PIPING FROM VAV BOXES. SEE DETAIL
- 4 PROVIDE AND INSTALL NEW VAV BOXES. SEE AHJ-03 VARIABLE AIR VOLUME BOX SCHEDULE SHEET V-3.
- 5 CONNECT NEW HWS/R PIPING TO EXISTING RISERS. INSTALL NEW BALANCING VALVE AT RISERS. CUT, PATCH AND SLEEVES THROUGH WALLS AS SHOWN AND THROUGH FLOOR SLAB TO MECH 125. PATCH CEILING AND WALLS AS REQUIRED.
- 6 PROVIDE AND INSTALL NEW VRF CASSETTE. SEE VRF CASSETTE SCHEDULE, SHEET H-4.
- 7 NEW RHWL FROM VRF CASSETTES TO NEW ACQ-L04 ON ROOF ABOVE. SIZE PER MANUFACTURER WRITTEN INSTRUCTIONS. SLEWVE AND CROE THROUGH WALLS AS SHOWN AND THROUGH FLOOR SLAB TO MECH 125. PATCH CEILING AND WALLS AS REQUIRED.
- 8 PROVIDE AND INSTALL NEW CRO-L03 COMPUTER ROOM COOLING EQUIPMENT OVER EXISTING SUPPLEMENT. SEE SCHEDULE OF COMPUTER ROOM COOLING EQUIPMENT, SHEET H-4. (FIELD VERIFY AVAILABLE SPACE)
- 9 NEW RHWL FROM CRO-L03 TO NEW ACQ-L04 ON ROOF ABOVE. SIZE PER MANUFACTURER WRITTEN INSTRUCTIONS. SLEWVE AND CROE THROUGH WALLS AS SHOWN AND THROUGH FLOOR SLAB TO MECH 125. PATCH CEILING AND WALLS AS REQUIRED.
- 10 PROVIDE AND INSTALL NEW AHJ-3. SEE AHJ SCHEDULE V-3.
- 11 ROUTE NEW RHW-L BETWEEN AHJ-3 AND NEW ACQ-L03 ON GRADE ABOVE THROUGH AREA HALL. RE-USE WALL PENETRATIONS. PATCH AND SEAL AS REQUIRED. SIZE PER MANUFACTURER WRITTEN INSTRUCTION AND SEAL EXTERIOR WALL AS REQUIRED.
- 12 ALTERNATE 12) PROVIDE AND INSTALL NEW CRO-L04 AND ASSOCIATED RHW-L TO NEW ACQ-L04 ON ROOF PROVIDE NEW PIPING TO EXISTING CONDENSATE PUMP. SEE SCHEDULE OF COMPUTER ROOM COOLING EQUIPMENT ON H-4. MOUNT CRO-L04 OVER EXISTING SUPPLEMENTAL DRAIN PAN (FIELD VERIFY AVAILABLE SPACE AND CLEARANCES)
- 13 CONNECT VAV03-06 TO HOT WATER SYSTEM WITH 3-WAY VALVE. SEE DETAIL
- 14 TC TO ADD NEW HIGH WATER ALARM TO EXISTING CONDENSATE PUMP. INTEGRATE WITH BAS.
- 15 TC TO ADD NEW HIGH WATER ALARM TO EXISTING SLUMP PUMP. INTEGRATE WITH BAS.

- 16 PROVIDE FLOOR LEVEL MOISTURE SENSOR. TIE INTO BAS, PROVIDE ALARM IF MOISTURE IS DETECTED. CONFIRM FINAL LOCATION WITH OWNER.
- 17 NEW TEMPERATURE CONTROL PANEL.
- 18 INSTALL NEW DIFFERENTIAL PRESSURE SENSOR.

1. COORDINATE ALL WORK WITH OWNER AND OTHER TRADES.
2. INSTALL ALL EQUIPMENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
3. FIELD VERIFY EXISTING CONDITIONS TO COORDINATE FOR INSTALLATION OF NEW WORK AND EQUIPMENT.
4. VERIFY PROPER OPERATION OF EXISTING HOT WATER SYSTEM.
5. FIELD VERIFY ALL EXISTING PIPE SIZES FOR NEW CONNECTIONS.

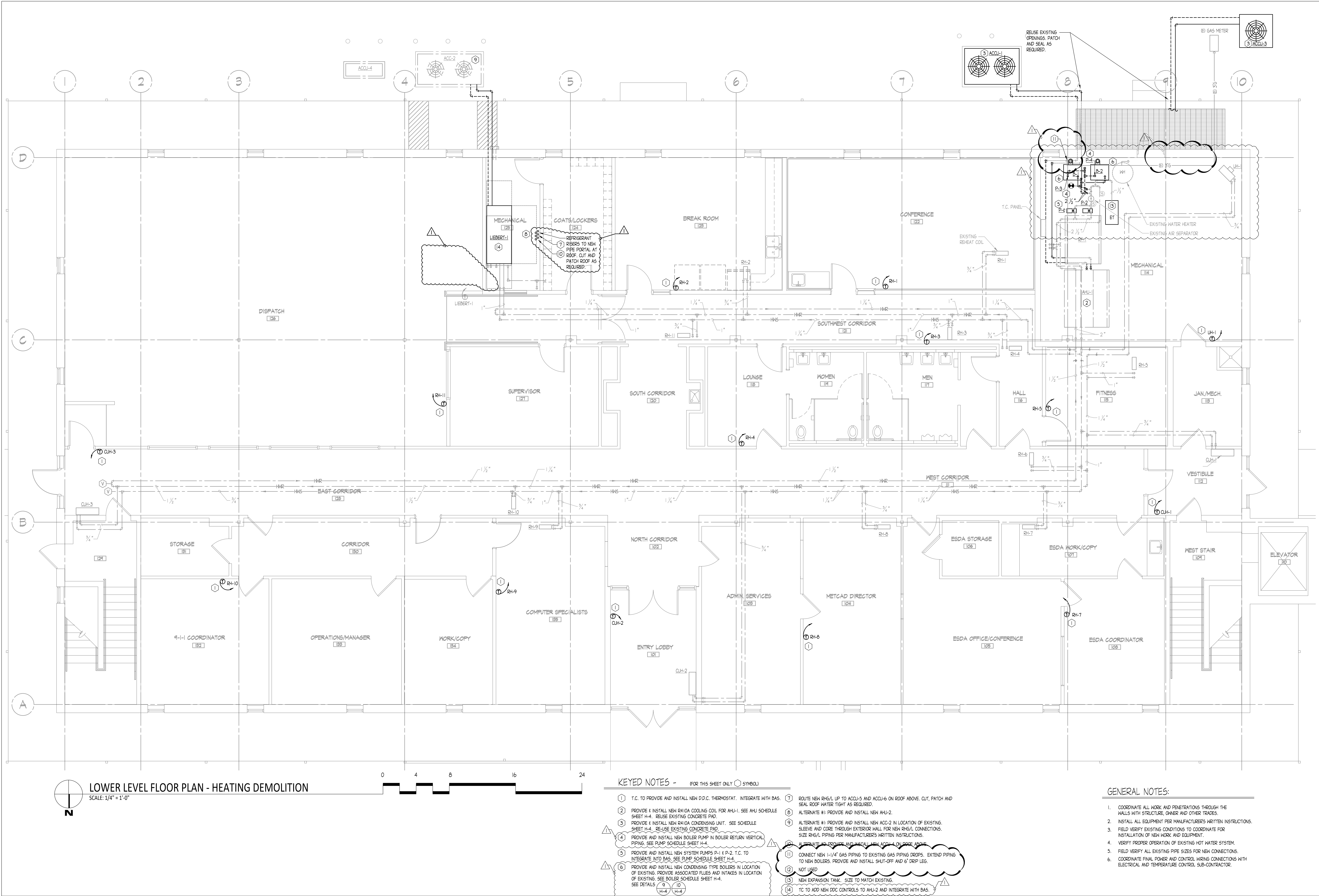
DATE	NO.	DESCRIPTION
DEC. 20, 2019		APPENDUM III



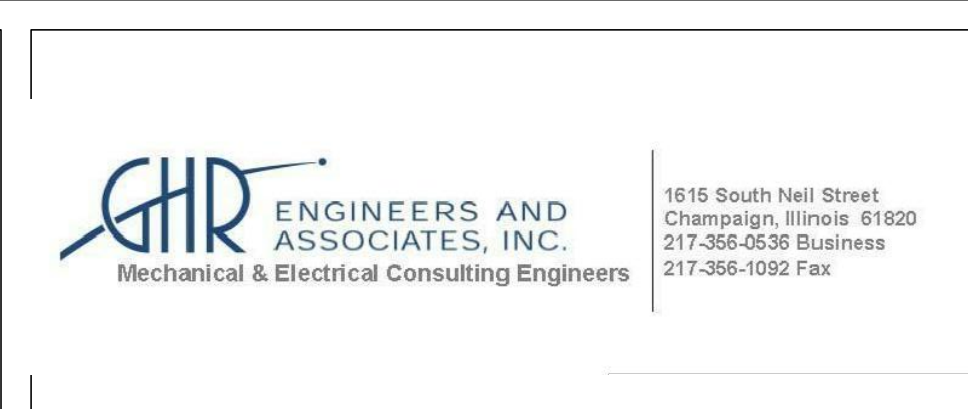
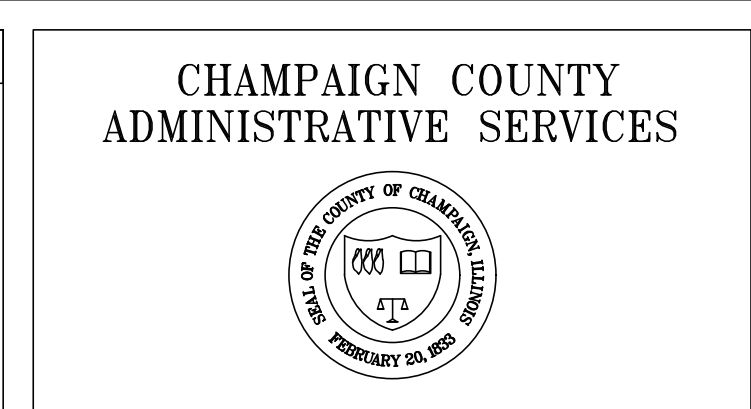
1615 South Neil Street
Champaign, Illinois 61820
217-356-0536 Business
217-356-1092 Fax

SEAL	DESIGN:	MSH	APPROVED:	JNG	SHEET: H-1
	DATE:	DEC 4, 2019			
	BID DOCUMENTS				
	PROJECT:	7205			

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PRINTED: 12/20/2019



DATE	NO.	DESCRIPTION
DEC. 20, 2019	1	ADDENDUM #1



FIRST FLOOR PLAN - HEATING

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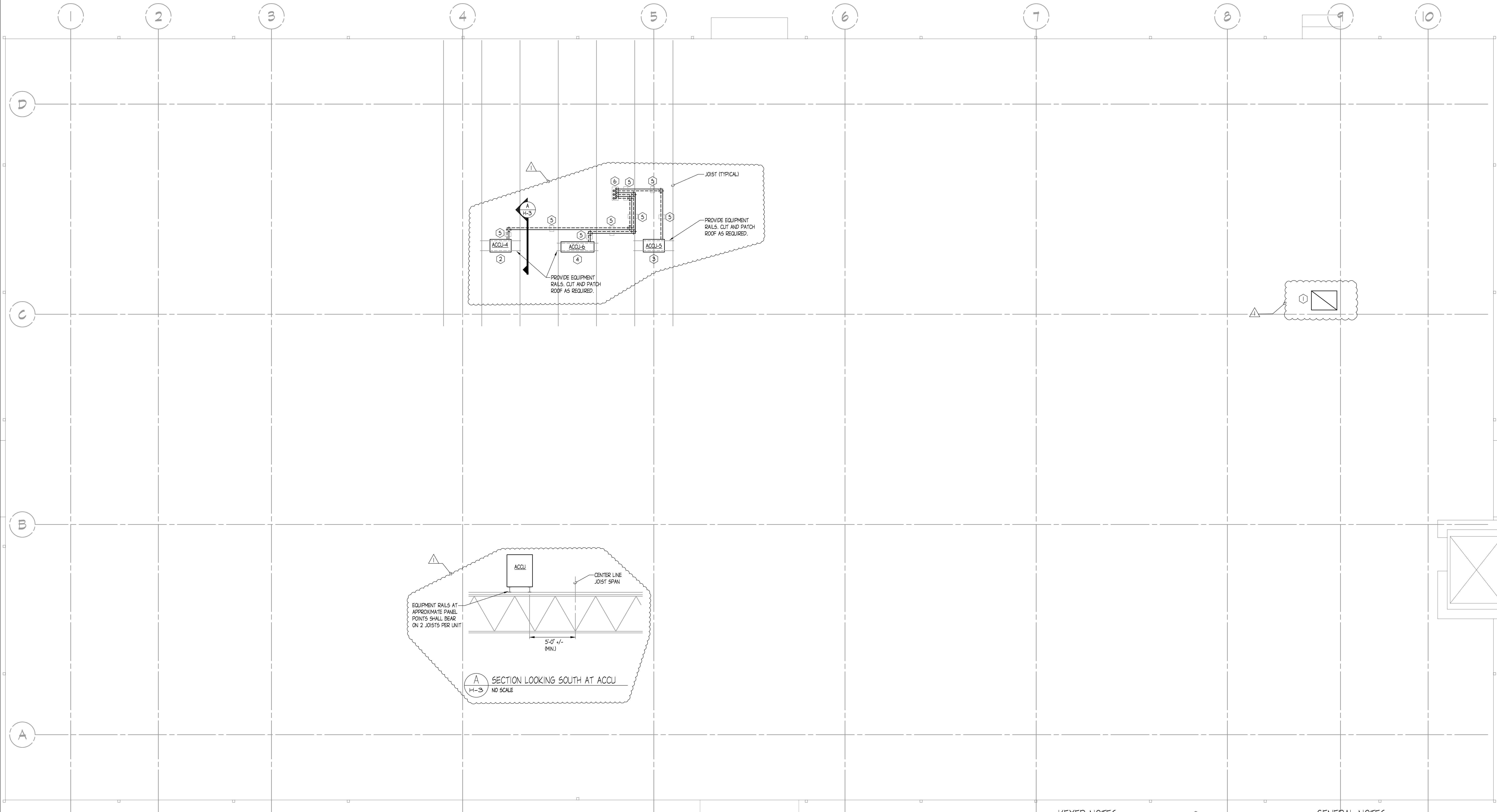
DATE	NO.	DESCRIPTION
DEC 4, 2019	1	BID DOCUMENTS
PROJECT	7205	

SEAL

DRAWN: MSH APPROVED: JNG

SHEET: H-2

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PRINTED: 12/20/2019

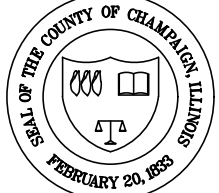


- KEYED NOTES - (FOR THIS SHEET ONLY) (SYMBOL)
- 1. INSTALL NEW AHU-3 GOOSENECK THROUGH ROOF. SEE DETAIL. (7) (V-3)
 - 2. ALTERNATE #2: INSTALL NEW ACQU-4 PER MANUFACTURER WRITTEN INSTRUCTIONS. SEE DETAIL. (8) (H-4)
 - 3. INSTALL NEW ACQU-5 PER MANUFACTURER WRITTEN INSTRUCTIONS. SEE DETAIL. (8) (H-4)
 - 4. INSTALL NEW ACQU-6 PER MANUFACTURER WRITTEN INSTRUCTIONS. SEE DETAIL. (8) (H-4)
 - 5. PROVIDE PIPE SUPPORTS. SEE DETAIL. (7) (H-4)
 - 6. PROVIDE PIPE PORTAL. SEE DETAIL. (8) (H-4)

- GENERAL NOTES:
- 1. COORDINATE ALL WORK WITH OWNER AND OTHER TRADES.
 - 2. INSTALL ALL EQUIPMENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
 - 3. FIELD VERIFY EXISTING CONDITIONS TO COORDINATE FOR INSTALLATION OF NEW WORK AND EQUIPMENT.
 - 4. COORDINATE ALL ROOF WORK WITH HOLDER OF WARRANTY.

DATE	NO.	DESCRIPTION
DEC. 20, 2019	1	APPENDUM #1

CHAMPAIGN COUNTY
ADMINISTRATIVE SERVICES



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

1815 South Neil Street
Champaign, Illinois 61820
217-366-0530 Business
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ROOF PLAN - HEATING

911 METCAD EMERGENCY COMMUNICATIONS CENTER

CHAMPAIGN COUNTY OFFICE BUILDING

1905 E. MAIN ST. URBANA, ILLINOIS

SEAL

DRAWN: MSH APPROVED: JNG

DATE: DEC 4, 2019

BID DOCUMENTS

PROJECT: 7205

SHEET: H-3



PIPING SYMBOLS

	90° ELL
	BALANCING VALVE
	BALL VALVE
	BREAK
	CHECK VALVE
	CONCENTRIC REDUCER
	END CAP
	GATE VALVE
	PIPE DROP
	PIPE DROP WITH 90° ELL
	PIPE RISER
	PIPE SLEEVE
	PIPE TAKEOFF (FROM BOTTOM OF MAIN)
	PIPE TAKEOFF (FROM TOP OF MAIN)
	PIPE TEE
	EMPTY WELL
	FLUID PRESSURE GAUGE
	MANUAL AIR VENT
	NEW CONNECTION TO EXISTING
	THERMOMETER AND WELL
	ROOM SENSOR
	THERMOSTAT

DUCT SYMBOLS

	1 HR FIRE RATED WALL (VERIFY WITH ARCH LIFE SAFETY PLANS)
	1 HR SMOKE AND FIRE RATED WALL (VERIFY WITH ARCH LIFE SAFETY PLANS)
	2 HR FIRE RATED WALL (VERIFY WITH ARCH LIFE SAFETY PLANS)
	2 HR SMOKE AND FIRE RATED WALL (VERIFY WITH ARCH LIFE SAFETY PLANS)
	SUPPLY DUCT / AIR TERMINAL
	RETURN DUCT / AIR TERMINAL
	EXHAUST DUCT / AIR TERMINAL
	RECTANGULAR - RISE
	RECTANGULAR - DROP
	ROUND DUCT - RISE
	ROUND DUCT - DROP
	SUPPLY DIFFUSER (WITH HARD DUCT)
	SUPPLY DIFFUSER (WITH FLEXDUCT)
	RETURN GRILLE
	EXHAUST GRILLE
	SIDEWALL SUPPLY DIFFUSER
	SIDEWALL RETURN/EXHAUST GRILLE
	FIRE DAMPER
	VOLUME DAMPER
	SQUARE ELL WITH TURNING VANES
	200% CONNECTION WITH VOLUME DAMPER AND FLEX DUCT
	TAKE OFF
	ACCESS DOOR

PIPING SYSTEMS

HOT WATER SYSTEMS:		
----- HWR -----		HOT WATER RETURN
----- HWS -----		HOT WATER SUPPLY
REFRIGERANT SYSTEMS:		
----- RHG -----		REFRIGERANT HOT GAS
----- RL -----		REFRIGERANT LIQUID

DUCT SYSTEMS

EA	EXHAUST AIR
HPSA	HPSA AIR
LPSA	LPSA AIR
OA	OUTSIDE AIR
RLA	RELIEF AIR
RA	RETURN AIR

SCHEDULE OF AIR COOLED CONDENSING UNITS													
MARK	MANUFACTURER	MODEL	LOCATION	CAPACITY (BTU)	VOLTS / PHASE	COMPRESSOR(S)			CONDENSER FAN(S)			SEER (EER)	REMARKS
						Number	FLA/MOP	K.W.	Number	H.P.	Phase		
ACCU-1	TRANE	TA130A3C	GRADE	318,000	208-230 / 3	2	102/125	11.7	2	1	1	12.0	SEE NOTE 2
ACC-2	LIEBERT	MCN080E	GRADE	-	208 / 3	-	4.6/15	-	-	-	-	-	ALTERNATE #1, PROVIDE LEE TEMP RECEIVER (208/ 230V, 1 PH), 105 DEG F
ACCU-3	TRANE	TA130A3C	-	-	208-230 / 3	2	67/ 110	15.6	2	1	1	12.6	SEE NOTES 2 & 3 
ACCU-4	LIEBERT	PPD-067A	ROOF	75,000	208 / 3	1	26.2/50	-	1	-	-	-	ALTERNATE #2, 105 DEG F AMBIENT, SEE NOTE 1
ACCU-5	LIEBERT	PPD-067A	ROOF	75,000	208 / 3	-	26.2/50	-	-	-	-	-	SEE NOTE 1
ACCU-6	MITSUBISHI	TUMYH04B1AK40NA	GRADE	48,000	208-230 / 1	1	30/44	-	2	-	-	20 / 13.3	SEE NOTE 1

NOTES

1. PROVIDE EQUIPMENT RAILS
2. REUSE EXISTING PAD
3. THIS UNIT DOES NOT REQUIRE VARIABLE SPEED FAN

PROVIDE HAIL GUARDS FOR ALL CONDENSING UNITS.

SCHEDULE OF COMPUTER ROOM COOLING UNITS											75°F DB/61°F WB, 45% RH
MARK	MANUFACTURER	MODEL	LOCATION	STYLE	COOLING CAPACITY TOTAL/SENSIBLE (BTU/H)	TOTAL CFM	OUTSIDE AIR (CFM)	ELECTRICAL DATA			REMARKS
								Volts / Phase/ Cycle	F.L.A.	NOCP	
AHU-2	LIEBERT	V5035A	12S MECHANICAL	FLOOR MTD	115,000 / 102,000	5200	N/A	208 / 3	70.7	90	ALT #1. SEE NOTE 1.
CRU-4	LIEBERT	MT060	115A COMMUNICATIONS/EQUIP	HANGING	59,7000 / 55,300	-	N/A	208 / 3 / 60	44.8	60	ALT #2. SEE NOTE 2 AND 3.
CRU-5	LIEBERT	115B COMMUNICATIONS/EQUIP	HANGING	HANGING	59,7000 / 55,300	-	N/A	208 / 3 / 60	44.8	60	SEE NOTE 2.

NOTES

1. INFRARED HUMIDIFIER (11 LB/HR), ELECTRIC RE-HEAT (15 KW)
2. STEAM HUMIDIFIER (8LB/HR), ELECTRIC RE-HEAT (11.2 KW). MOUNT WITH SEISMIC BRACING. SEE DETAIL
3. PROVIDE GRILLE ON RETURN OPENING.

MARK	MANUFACTURER	MODEL	LOCATION	STYLE	COOLING CAPACITY (BTU/H)	TOTAL CFM (LOW-MID-H)	OUTSIDE AIR (CFM)	SEER	ELECTRICAL DATA		REMARKS
									Volts / Phase	MCA/MPS	
VR6-1	MITSUBISHI ELECTRIC	TRPFP024BH1A0A	STORAGE ROOM 115	DUCTLESS	24,000	636-671-742-B/2	N/A	X	208/230V / 1-PHASE	0.54/0.54/15	PROVIDE WITH HYPER HEAT OPTION
VR6-2	MITSUBISHI ELECTRIC	TRPFP024BH1A0A	STORAGE ROOM 115	DUCTLESS	24,000	636-671-742-B/2	N/A	X	208/230V / 1-PHASE	0.54/0.54/15	PROVIDE WITH HYPER HEAT OPTION

NOTES:

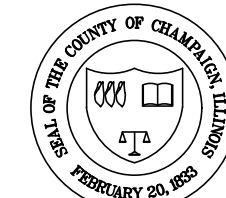
SCHEDULE OF PACKAGED MODULAR BOILERS								ACCEPTABLE MANUFACTURERS SUBJECT TO DELIVERY RESTRICTIONS: THERMAL SOLUTIONS ARC 2300, PATTERSON - KELLY P-K MACH 62500
MARK	LOCATION	MANUFACTURER	MODEL NUMBER	CSA INPUT MBH	CSA OUTPUT MBH	FUEL	ELECTRICAL W/OUT PUMP	REMARKS
B-1	BOILER ROOM	LOCHINVAR	FTX500N	500	499	NAT. GAS	120 V, 1ø	PROVIDE CONTROLS, BOILER CIRCULATION KIT, EMERGENCY GAS SHUT DOWN CONTROL, CONDENSATE NEUTRALIZATION KITS.
B-2	BOILER ROOM	LOCHINVAR	FTX500N	500	499	NAT. GAS	120 V, 1ø	PROVIDE CONTROLS, BOILER CIRCULATION KIT, EMERGENCY GAS SHUT DOWN CONTROL, CONDENSATE NEUTRALIZATION KITS.

PUMP SCHEDULE																			
MARK	MANUFACTURER	MODEL	LOCATION	STST	FLUID	Fluid Temp	FLOW GPM			SIZE, in.		HEAD, ft WG		Disch PSIG	MOTOR			REMARKS	
							Design	Future	Total	Disch	Suct	Oper	Cutoff		HP	RPM	Volts / Phase		
P-1	BELL I 6056ETT	B5-EBO-3A3N7C-S6I82,M-I-N	MECHANICAL 114	HW	WATER	180 F	147.9	N/A	147.9	3	3	43.1	47.1	-	3	1800	208/3	TC TO PROVIDE VFD	
P-2	BELL I 6056ETT	B5-EBO-3A3N7C-S6I82,M-I-N	MECHANICAL 114	HW	WATER	180 F	147.9	N/A	147.9	3	3	43.1	47.1	-	3	1800	208/3		
BP-1	TACO	[911]	MECHANICAL 114	HW	WATER	180 F	49	N/A	49	2	2	14	-	-	1/3	1750	208/3	TC TO PROVIDE VFD	
BP-2	TACO	[911]	MECHANICAL 114	HW	WATER	180 F	49	N/A	49	2	2	14	-	-	1/3	1750	208/3		

NOTE

DATE	NO.	DESCRIPTION
DEC. 20, 2019		APPENDUM III

CHAMPAIGN COUNTY
ADMINISTRATIVE SERVICES



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

1615 South Neil Street
Champaign, Illinois 61820
217-356-0536 Business
217-356-1092 Fax

HEATING ABBREVIATIONS + SYMBOLS, DETAILS + SCHEDULES

911 METCAD EMERGENCY COMMUNICATIONS CENTER

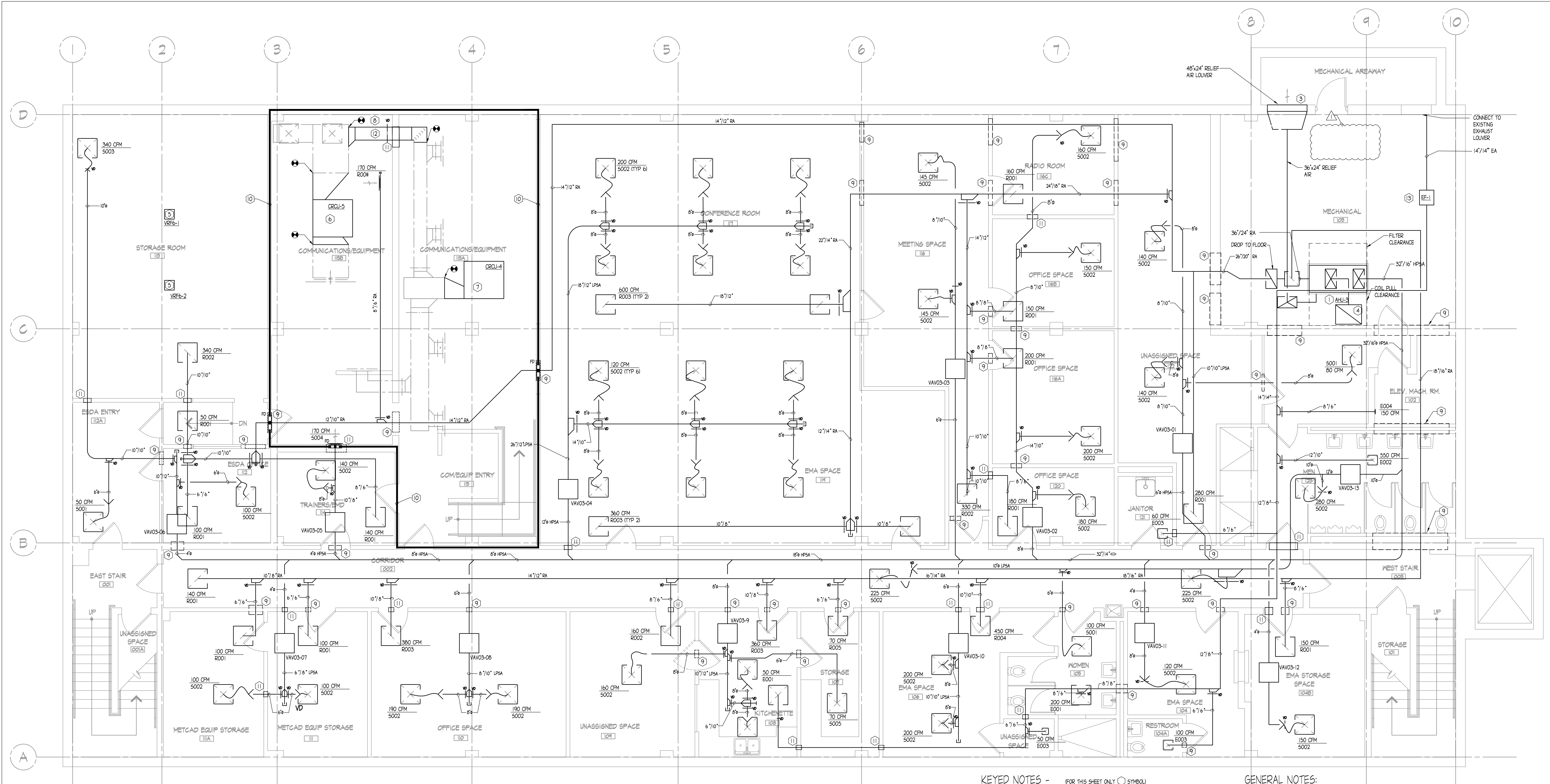
CHAMPAIGN COUNTY OFFICE BUILDING
1905 E. MAIN ST. URBANA, ILLINOIS

DRAWN: MSH	APPROVED: JNG
DATE: DEC 4, 2019	
BID DOCUMENTS	
PROJECT: 7205	

SHEET

H-4

FILE: H:\GHR Projects\7205 - Metcad Building - 1905 East Main - Mechanical Electrical Study\HVAC\01 - Worksheets\7205 - V-1.dwg
PRINTED: 12/20/2019



LOWER LEVEL FLOOR PLAN - VENTILATION
SCALE: 1/4" = 1'-0"

NOTES: 1. ALL -1/2" DUCT TAGS REPRESENT RECTANGULAR DUCT
2. ALL 1'-0" DUCT TAGS REPRESENT OVAL DUCT
3. ALL HPSA MAINS TO BE DOUBLE WALL. HPSA TAKEOFFS ARE SINGLE WALL WRAPPED.
4. 4' AVAILABLE HEIGHT ABOVE CORRIDOR CEILING AND BELOW STRUCTURE.

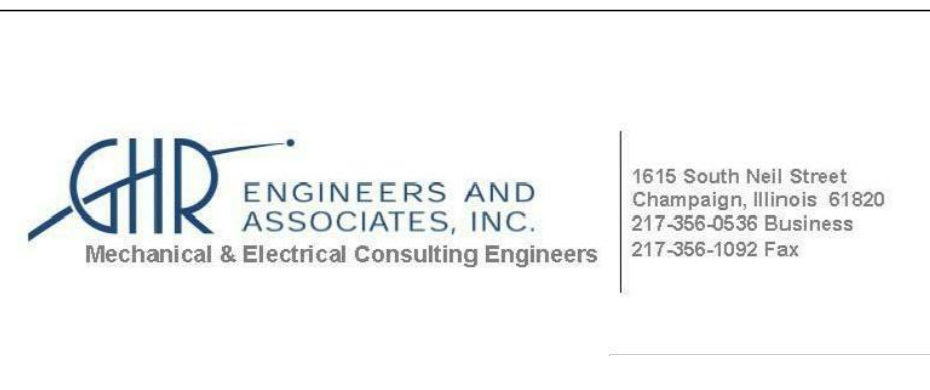
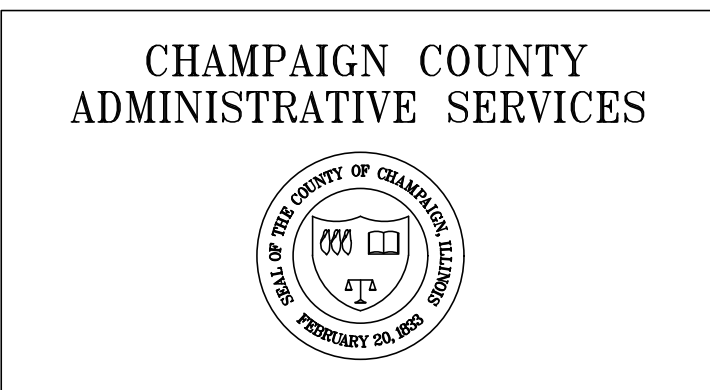
KEYED NOTES - (FOR THIS SHEET ONLY) SYMBOL

1. PROVIDE & INSTALL NEW AHU-3 ON NEW 4" TALL DOWEL RODDED HOUSEKEEPING PAD, 6" LARGER THAN UNIT ON ALL SIDES. SEE AHU SCHEDULE SHEET V-3.
2. CONNECT NEW AHU-3 36"x24" RELIEF AIR DUCT TO EXISTING LOUVER. BLANK OFF UNUSED PORTION OF LOUVER.
3. CUT AND PATCH FLOOR SLAB OF MECHANICAL ROOM ABOVE AS REQUIRED TO INSTALL NEW 32"x24" OUTDOOR AIR RISER.
4. PROVIDE AND INSTALL NEW DUCTLESS VRF CEILING CASSETTE. SEE SCHEDULE, SHEET V-3.
5. PROVIDE AND INSTALL NEW CRUJ-5. INSTALL DUCTWORK AS SHOWN, CONNECTING TO DUCTWORK FROM AHU-4. SEE SCHEDULE OF COMPUTER ROOM COOLING UNITS H-4.
6. ALTERNATE #2 PROVIDE AND INSTALL NEW CRUJ-4. SEE SCHEDULE OF COMPUTER ROOM COOLING UNITS H-4.
7. INSTALL VOLUME DAMPER IN DUCTWORK AS SHOWN.
8. RE-USE EXISTING WALL OPENING FOR NEW DUCTWORK. MODIFY AS REQUIRED. PATCH AND SEAL UNUSED PORTIONS OF WALL OPENING AS REQUIRED.
9. PATCH AND SEAL EXISTING UNUSED OPENINGS AS REQUIRED TO SEAL 115A AND 115B OFF FROM THE REST OF LEVEL 0 FOR EXISTING INERT GAS FIRE SUPPRESSION SYSTEM.
10. CUT AND PATCH NEW OPENING ABOVE CEILING FOR DUCTWORK.
11. CONNECT CRUJ-5 SUPPLY DUCT TO CRUJ-4 EXISTING SUPPLY DUCT. SIZE NEW CONNECTION TO MATCH EXISTING CRUJ-4 DUCT.
12. NEW EXHAUST FAN. SEE EXHAUST FAN SCHEDULE SHEET V-3.

GENERAL NOTES:

1. COORDINATE ALL WORK AND PENETRATIONS THROUGH THE WALLS WITH STRUCTURE, OWNER AND OTHER TRADES.
2. INSTALL ALL EQUIPMENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
3. FIELD VERIFY EXISTING CONDITIONS TO COORDINATE FOR INSTALLATION OF NEW WORK AND EQUIPMENT.
4. VERIFY PROPER OPERATION OF EXISTING HOT WATER SYSTEM.
5. FIELD VERIFY ALL EXISTING PIPE SIZES FOR NEW CONNECTIONS.
6. COORDINATE FINAL POWER AND CONTROL WIRING CONNECTIONS WITH ELECTRICAL AND TEMPERATURE CONTROL SUB-CONTRACTOR.
7. SEE GRILLES, REGISTERS & DIFFUSERS SCHEDULE SHEET V-3 FOR NECK SIZES.
8. G.C. TO INSTALL NEW CEILING GRID AND LAY-IN CEILING FOR ALL ROOMS IN LEVEL 0 EXCEPT FOR 115A AND 115B.
9. PROTECT SPRINKLER HEADS DURING CEILING REMOVAL AND CEILING REINSTALLATION. PROVIDE NEW ESCUTCHEON PLATE AS REQUIRED FOR SPRINKLER HEAD FOR CEILING RE-INSTALLATION. APPROX. 150 SPRINKLERS. FIELD VERIFY EXACT AMOUNT OF SPRINKLER HEADS.

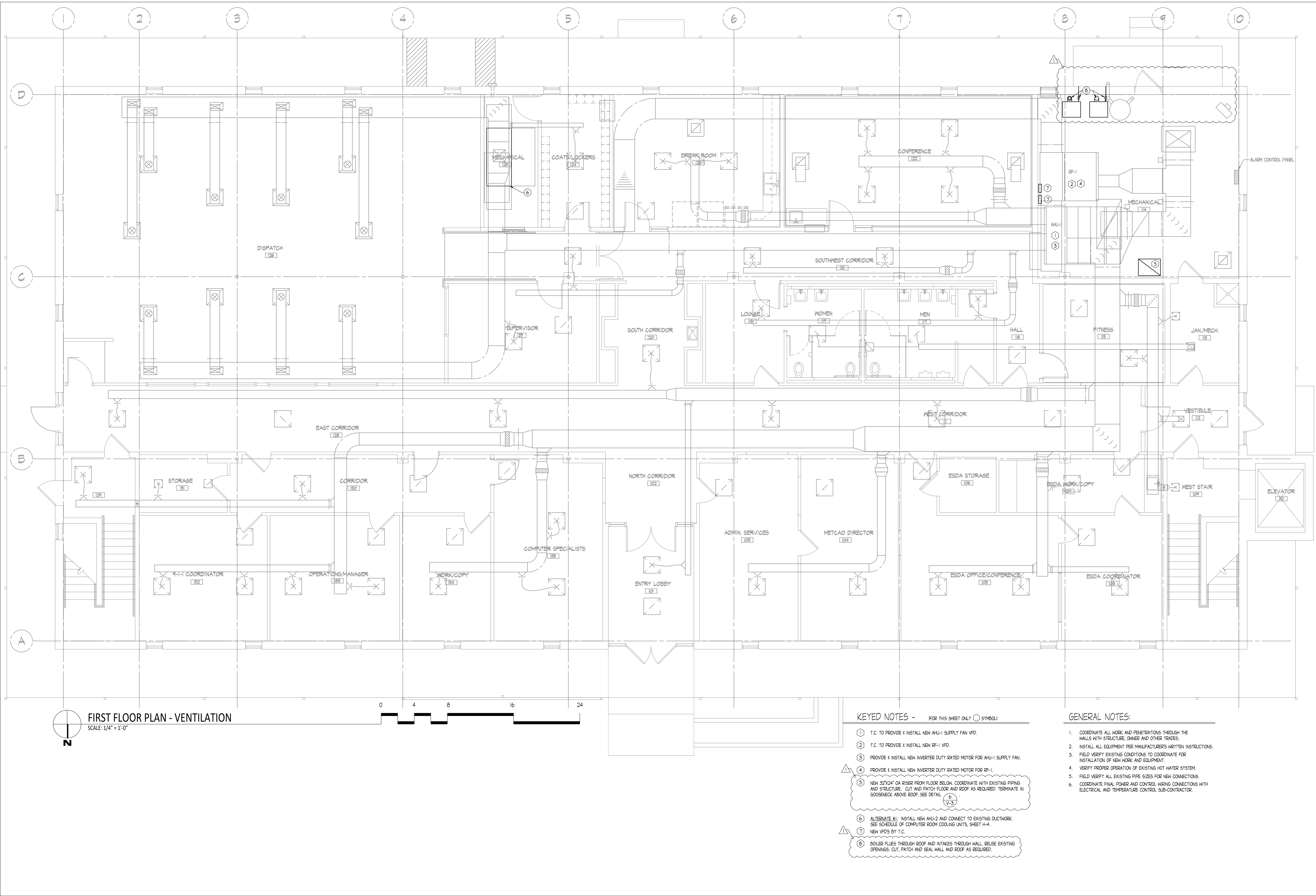
DATE	NO.	DESCRIPTION
DEC. 20, 2019	1	ADDENDUM #1



LOWER LEVEL FLOOR PLAN - VENTILATION
911 METCAD EMERGENCY COMMUNICATIONS CENTER
CHAMPAIGN COUNTY OFFICE BUILDING
1905 E. MAIN ST. URBANA, ILLINOIS

DATE: DEC 4, 2019	PROJECT: 7205
DRAWN: MSH	APPROVED: JNG
BID DOCUMENTS	

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PRINTED: 12/20/2019



DATE	NO.	DESCRIPTION
DEC. 20, 2019	1	ADDENDUM #1

CHAMPAIGN COUNTY
ADMINISTRATIVE SERVICES

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

1915 South Neil Street
Champaign, Illinois 61820
217-366-0530 Business
217-366-1092 Fax

FIRST FLOOR PLAN - VENTILATION
911 METCAD EMERGENCY COMMUNICATIONS CENTER
CHAMPAIGN COUNTY OFFICE BUILDING
1905 E. MAIN ST. URBANA, ILLINOIS

SEAL	DRAWN: MSH DATE: DEC 4, 2019 PROJECT: 7205	APPROVED: JNG BID DOCUMENTS	SHEET: V-2
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