



COMPUTER ROOM A/C SCHEDULE

NOTES

1. MODEL BASED ON DATA AIRE

COMPUTER ROOM AIR CONDITIONING UNIT	HARDWARE				SOFTWARE			
	AI	AO	DI	DO	SCHED	TREND	ALARM	GRAPH
SYSTEM STATUS								X
SUPPLY FAN STATUS								X
COOLING STATUS							X	X
AIR COOLED CONDENSING UNIT STATUS							X	X
SPACE TEMPERATURE SETPOINT		X				X		
SPACE TEMPERATURE	X						X	
SPACE HUMIDITY	X					X		X
SPACE HIGH TEMPERATURE ALARM			X				X	
SPACE LOW TEMPERATURE ALARM			X				X	
FILTER STATUS						X		X

2.201 EXISTING DRYWALL CONSTRUCTION ABOVE CEILING EXTENDING TO UNDERSIDE OF EXISTING CONCRETE DECK ABOVE TO REMAIN; COORDINATE WORK OF THIS PROJECT, INCLUDING PENETRATIONS FOR ROOFING, PIPING DUCTS AND OTHER ELEMENTS.

2.471 REMOVE EXISTING ROOF PORTAL.

2.475 REMOVE EXISTING ROOFING SYSTEM TO PERMIT INSTALLATION OF EQUIPMENT RAILS.

2.496 TEMPORARILY REPAIR, STORE AND PROTECT EXISTING ACoustICAL CEILING PANELS AND GIRD MEMBERS IN THIS AREA TO PERMIT INSTALLATION OF ABOVE-CEILING MECHANICAL DUCTWORK AND EQUIPMENT. REINSTALL SALVAGED PANELS AND GIRD MEMBERS. PROVIDE NEW PANELS AND GIRD MEMBERS MATCHING EXISTING TO REPLACE EXISTING COMPONENTS DAMAGED DURING REMOVAL OR REINSTALLATION.

7.711 ROOF SPECIALTY: ROOF PORTAL: 4-PORT; FLASH INTO EXISTING ROOFING SYSTEM IN ACCORDANCE WITH ROOFING SYSTEM MANUFACTURER'S REQUIREMENTS AND SO AS NOT TO VOID EXISTING ROOFING WARRANTY.

7.721 ROOF ACCESSORY: EQUIPMENT RAILS: 4'-0" LONG; SET DIRECTLY ON EXISTING ROOF DECK; FLASH INTO EXISTING ROOFING SYSTEM SIMILAR TO NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA) 2015 MEMBRANE ROOF SYSTEMS MANUAL CONSTRUCTION DETAIL EPDM-10 AND WITH ROOFING SYSTEM MANUFACTURER'S REQUIREMENTS, SO AS NOT TO VOID EXISTING WARRANTY; PATCH ROOFING INSULATION AROUND RAILS WITH LIKE MATERIAL OF SAME THICKNESS.

23.103 REMOVE HEAT PUMP. REMOVE ALL ASSOCIATED PIPING AND SPECIALTIES.

23.104 REMOVE EXHAUST FAN LOCATED ABOVE CEILING. REMOVE ALL DUCTWORK AS SHOWN.

23.105 REMOVE INDOOR EVAPORATOR ABOVE DOOR. REMOVE REFRIGERANT PIPING IN ITS ENTIRETY. REMOVE THERMOSTAT FOR UNIT.

23.106 REMOVE SUPPLY DIFFUSER AND ASSOCIATED DUCTWORK AS SHOWN. PROVIDE PERMANENT INSULATED CAP ON DUCT TAKEOFF.

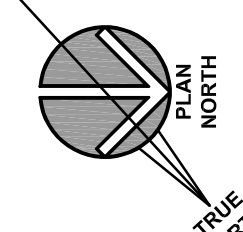
23.107 REMOVE ALL CONDENSATE LINE BACK TO BOILER ROOM IN ITS ENTIRETY.

23.206 PROVIDE REFRIGERANT PIPING, SIZED AND CONFIGURED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS, BETWEEN INDOOR EVAPORATOR AND OUTDOOR CONDENSING UNIT.

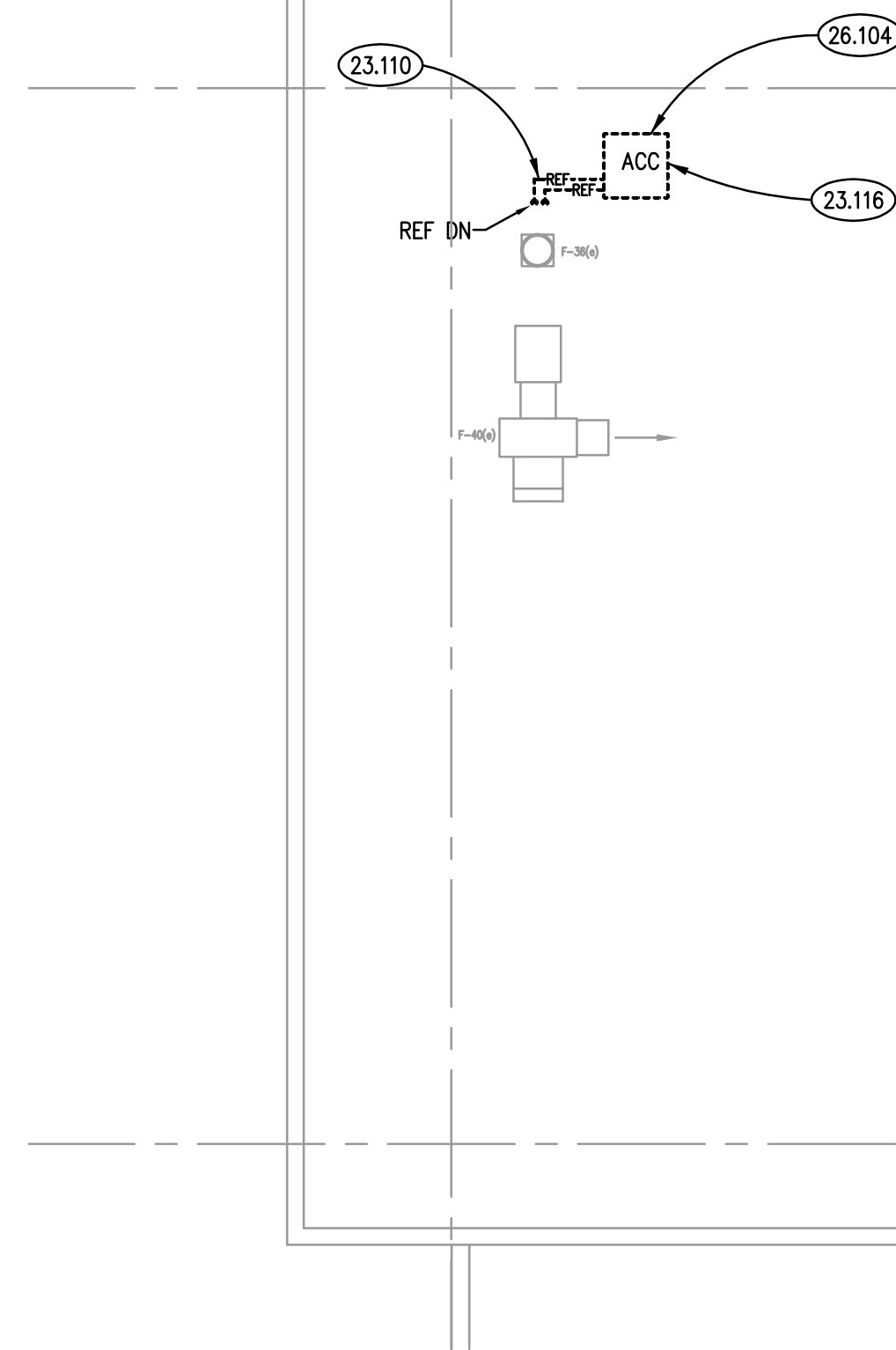
23.207 PROVIDE NEW CONDENSATE DRAIN LINE FOR NEW CRAC UNIT. DISCHARGE PIPE IN MOP BASIN LOCATED IN BOILER ROOM.

23.208 PROTECT ALL IT TECHNOLOGY EQUIPMENT IN ROOM THROUGHOUT ALL PHASES OF CONSTRUCTION.

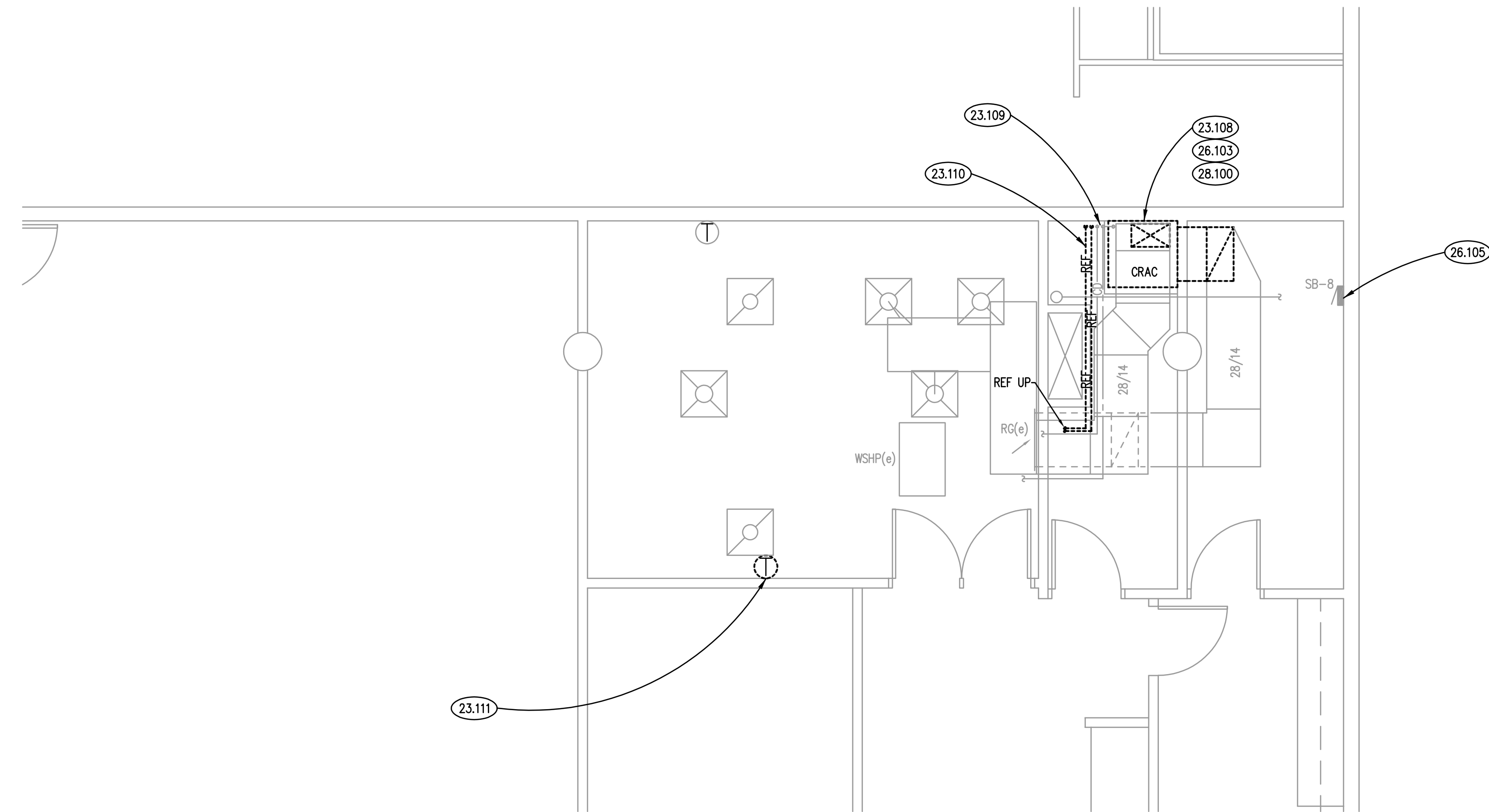
KEY PLAN



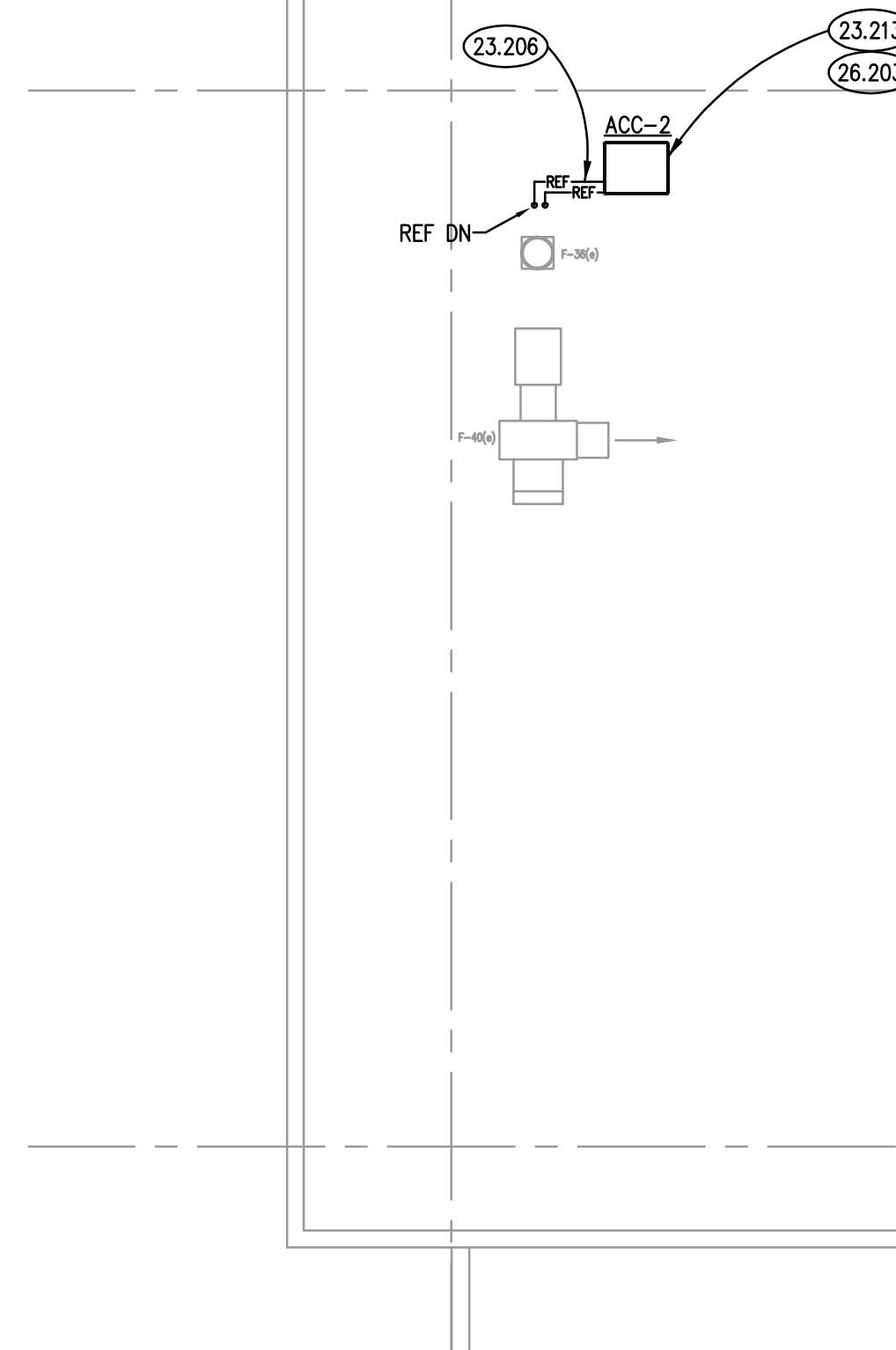
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PARTIAL ROOF MECHANICAL DEMOLITION PLAN

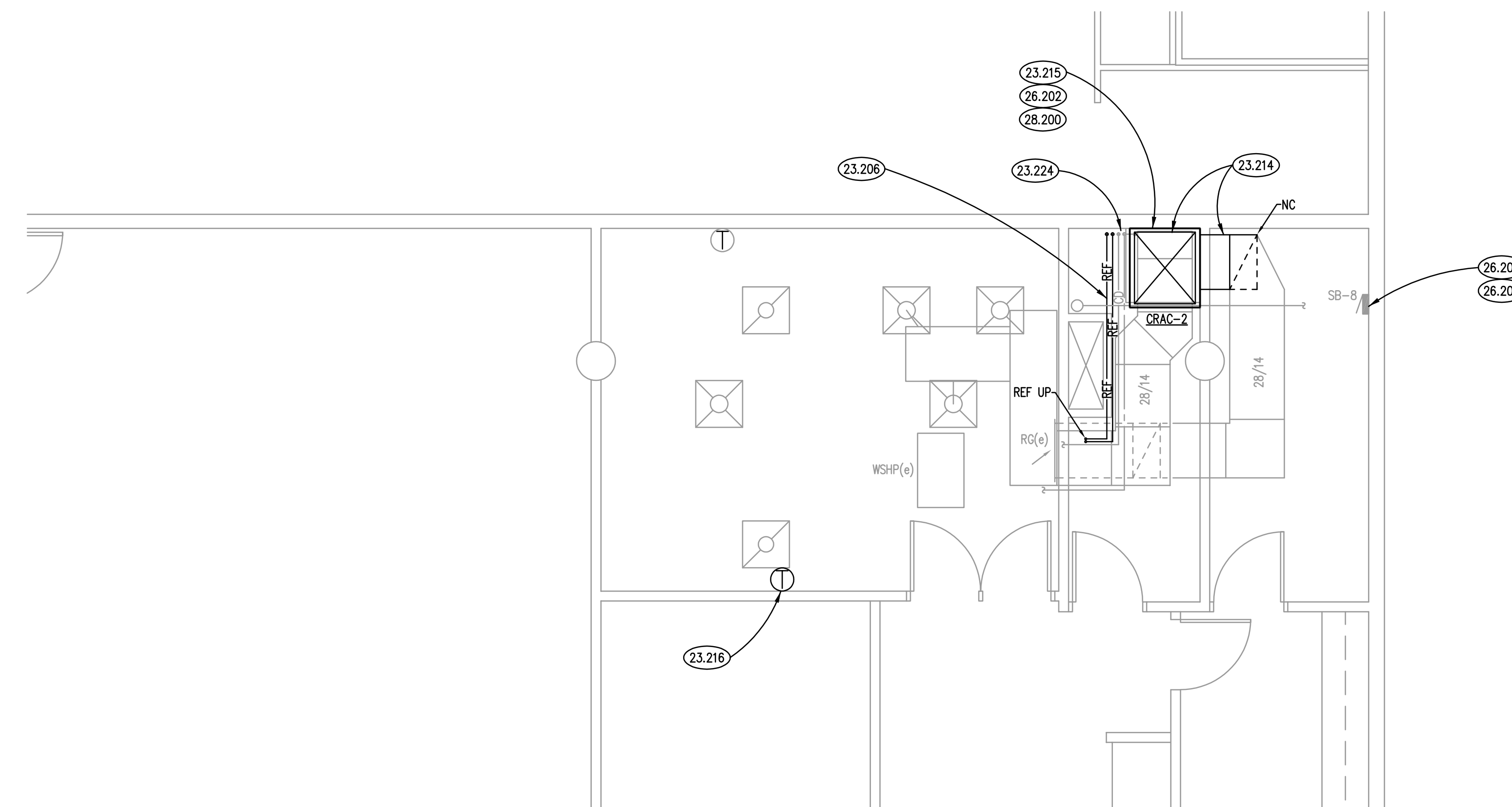
SCALE: 1/8" = 1'-0"

3

C2021 DEMOLITION PLAN

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

1

PARTIAL ROOF MECHANICAL PLAN

SCALE: 1/8" = 1'-0"

4

C2021 NEW WORK PLAN

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

2
COMPUTER ROOM A/C SCHEDULE

MARK	AIR FLOW (CFM)	ENT AIR TEMP (db / wb °F)	LVG AIR TEMP (db / wb °F)	REFRIGERANT TYPE	SENS CAP (MBH)	TOTAL CAP (MBH)	COIL ROWS/ FACE VEL (IN WG)	REHEAT CAPACITY (KW)	HUMIDIFIER TYPE/CAP (LBS/HR)	FILTER TYPE EFFICIENCY (MERV)	SUPPLY FAN (HP)	EXTERNAL STATIC PRESS (IN WG)	COMPRESSOR TYPE	COMPRESSOR (NO.)	ELECTRICAL V/PH/Hz	MCA	MODEL	AREA SERVED	NOTES
CRAC-2	1,900	75.0 / 61.0	56.9 / 53.8	R-410A	40.2	40.8	3 / 452.4	5.4	10.0	8	1.3	0.5	SCROLL	1	208/3/60	43.9	GTAU	RM C2021	1

NOTES

1. MODEL BASED ON DATA AIRE.

AIR-COOLED CONDENSER SCHEDULE

MARK	NO. OF FANS	AMBIENT OAT (°F)	REFRIGERANT TYPE	ELECTRICAL V/PH/Hz	MCA	MODEL	UNIT SERVED	NOTES
ACC-2	1	95	R-410A	208/3/60	4.0	GHRC-01	CRAC-1	1

NOTES

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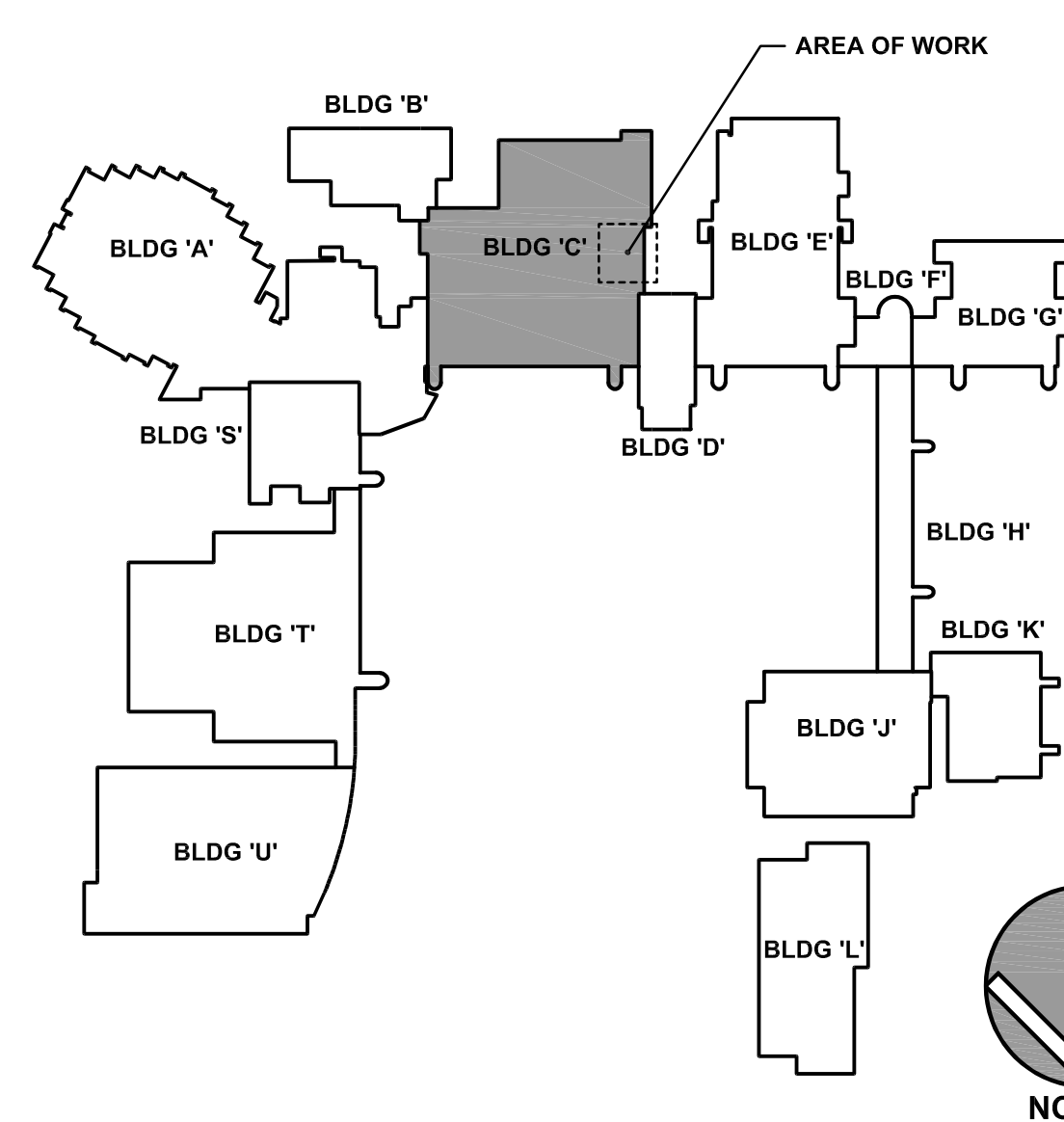
BUILDING AUTMATION SYSTEM POINTS LIST

COMPUTER ROOM AIR CONDITIONING UNIT	HARDWARE				SOFTWARE			
	AI	AO	DI	DO	SCHED	TREND	ALARM	GRAPHIC
SYSTEM STATUS		X					X	X
SUPPLY FAN STATUS		X					X	X
COOLING STATUS		X					X	X
AIR COOLED CONDENSING UNIT STATUS		X					X	X
SPACE TEMPERATURE SETPOINT		X				X		
SPACE TEMPERATURE	X					X	X	X
SPACE HUMIDITY	X					X	X	X
SPACE HIGH TEMPERATURE ALARM		X				X	X	X
SPACE LOW TEMPERATURE ALARM		X				X	X	X
FILTER STATUS		X				X	X	X

KEYNOTES

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 AN UN-KEYNOTED ITEM IN A DETAIL IS THE SAME AS A KEYNOTED
 ITEM HAVING THE SAME APPEARANCE WITHIN THE SAME DETAIL.

- 23.108 REMOVE CRAC UNIT. REMOVE SUPPLY AND RETURN DUCT BACK AS REQUIRED FOR INSTALLATION OF NEW CRAC UNIT.
- 23.109 REMOVE CONDENSATE LINE AND COLD WATER LINE BACK AS REQUIRED FOR INSTALLATION OF NEW CRAC UNIT. PROVIDE TEMPORARY CAP FOR NEW CONNECTION.
- 23.110 REMOVE REFRIGERANT PIPING AND SPECIALTIES IN ITS ENTIRETY.
- 23.111 REMOVE THERMOSTAT FOR CRAC UNIT. FIELD VERIFY THERMOSTAT SERVES CRAC UNIT PRIOR TO REMOVAL.
- 23.116 REMOVE AIR COOLED CONDENSER AND ASSOCIATED REFRIGERANT PIPING.
- 23.206 PROVIDE REFRIGERANT PIPING, SIZED AND CONFIGURED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS, BETWEEN INDOOR EVAPORATOR AND OUTDOOR CONDENSING UNIT.
- 23.213 PROVIDE NEW AIR COOLED CONDENSING UNIT. PROVIDE ALL MATERIALS AND LABOR TO MOUNT NEW UNIT ON EXISTING ROOF RAILS.
- 23.214 PROVIDE ALL MATERIALS AND LABOR TO RECONFIGURE EXISTING DUCTWORK TO CONNECT TO NEW CRAC UNIT.
- 23.215 PROVIDE INTERFACE OF NEW CRAC UNIT INTO EXISTING JOHNSON CONTROLS BUILDING AUTOMATION SYSTEM. REMOVE POINTS AND GRAPHICS FROM EQUIPMENT REMOVED AND PROVIDE NEW POINTS AND GRAPHICS.
- 23.216 PROVIDE NEW THERMOSTAT FOR CRAC UNIT.
- 23.224 PROVIDE NEW CONNECTION BETWEEN NEW CRAC UNIT AND EXISTING WATER AND CONDENSATE LINES.
- 26.103 DEMOLISH ELECTRICAL CONNECTION TO FLOOR-MOUNTED AIR CONDITIONING UNIT TO BE REMOVED. DEMOLISH BRANCH CIRCUITRY TO SOURCE.
- 26.104 DEMOLISH ELECTRICAL CONNECTION TO AIR-COOLED CONDENSER TO BE REPLACED. DEMOLISH BRANCH CIRCUITRY TO SOURCE.
- 26.105 DEMOLISH QTY. 3, 20 AMPERE, SINGLE POLE CIRCUIT BREAKERS FROM PANEL SB-B(O/KTS 19,21,23). RETURN CIRCUIT BREAKERS TO OWNER'S STOCK.
- 26.202 PROVIDE ELECTRICAL CONNECTION TO NEW COMPUTER ROOM AIR CONDITIONER (CRAC-2). HOMERUN 3#8, #10G, 3/4" TO PANEL SP-8. PROVIDE NEW 50 AMPERE, 3 POLE CIRCUIT BREAKER (SP-8-19/21/23).
- 26.203 PROVIDE ELECTRICAL CONNECTION TO NEW AIR COOLED CONDENSER (ACC-2). HOMERUN 3#12, #12G, 1/2" TO PANEL SP-8. REUSE EXISTING 20 AMPERE, 3 POLE CIRCUIT BREAKER (SP-8-13/15/17).
- 28.100 DISCONNECT AND PROTECT EXISTING SIGNALLING LINE CIRCUIT TO CRAC UNIT SMOKE DETECTOR.
- 28.200 EXTEND EXISTING SIGNALLING LINE CIRCUIT TO NEW CRAC UNIT SMOKE DETECTOR TO ENSURE A COMPLETE AND OPERATIONAL SYSTEM.

KEY PLAN


ISSUED	CONSTRUCTION DOCUMENTS
01/19/22	

JOB NO.	18-292-1391
DRAWN	BWG
CHECKED	DDW
APPROVED	DDW

SHEET TITLE

MECHANICAL PLANS -

MAIN CAMPUS

SHEET NUMBER

M311

NOTE: SCALES DEPICTED ON THIS DRAWING ARE NOT CORRECT UNLESS PLOTTED SHEET SIZE IS 30 X 42 INCHES.

KEYNOTES

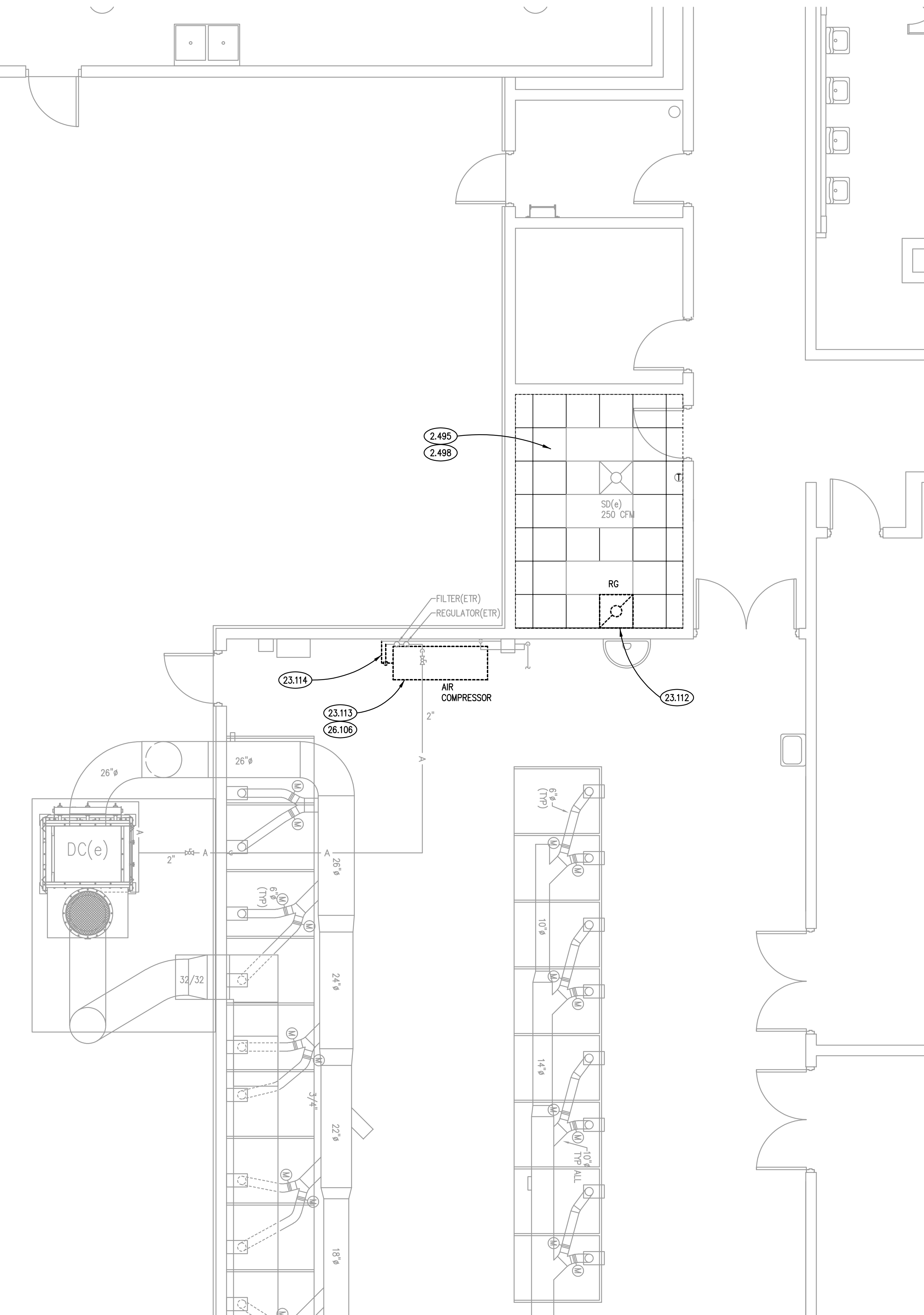
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- 2.495 REMOVE EXISTING ACOUSTICAL CEILING; TEMPORARILY SUPPORT EXISTING LIGHT FIXTURES TO REMAIN.
- 2.498 REMOVE EXISTING CARPET AND RESILIENT BASE IN THIS ROOM; GRIND FLOOR TO REMOVE CARPET ADHESIVE.
- 7.928 FOR ALL FOUR WALLS SURROUNDING THIS ROOM, SEAL GAPS AT HEAD OF WALLS AND AROUND PENETRATIONS THROUGH WALLS AGAINST PASSAGE OF AIRBORNE SOUND; SOLIDLY FILL GAPS WITH TIGHTLY-PACKED MINERAL WOOL; FILL THESE CAVITIES FOR THE FULL THICKNESS OF THE CONCRETE BLOCK; APPLY SEALANT AT BOTH THE NEAR SIDE AND FAR SIDE SURFACES OF THE WALLS, OVER THE MINERAL WOOL, TO CREATE AN AIR-TIGHT SEAL BETWEEN THE EDGES OF THE CONCRETE BLOCK AND THE UNDERSIDE OF THE CONCRETE DECK ABOVE AND THE SURFACES OF ITEMS PENETRATING THE WALLS; FILL HOLES IN WALLS BY FILLING BLOCK CELLS WITH TIGHTLY-PACKED MINERAL WOOL AND TOPPING ON BOTH SIDES WITH STIFF MASONRY MORTAR TO A DEPTH EQUAL TO THE THICKNESS OF THE BLOCK FACE SHELL; SURVEY THE EXISTING ROOM AND SURROUNDING SPACES PRIOR TO BIDDING TO FULLY UNDERSTAND THE EXTENT OF THE GAPS AND HOLES.
- 7.929 SEAL GAPS AROUND PENETRATIONS THROUGH CONCRETE FLOOR DECK ABOVE AGAINST PASSAGE OF AIRBORNE SOUND; SOLIDLY FILL GAPS WITH TIGHTLY-PACKED MINERAL WOOL; FILL THESE CAVITIES FOR THE FULL THICKNESS OF THE CONCRETE DECK; APPLY SEALANT AT UNDERSIDE AND TOPSIDE SURFACES OF THE DECK, OVER THE MINERAL WOOL, TO CREATE AN AIR-TIGHT SEAL BETWEEN THE EDGES OF THE CONCRETE DECK AND THE SURFACES OF ITEMS PENETRATING THE DECK; SURVEY THE EXISTING ROOM AND SURROUNDING SPACES PRIOR TO BIDDING TO FULLY UNDERSTAND THE EXTENT OF THE GAPS.
- 8.715 DOOR HARDWARE: PERIMETER GASKETING, FLAT PLATE THRESHOLD AND AUTO DOOR BOTTOM TO SEAL GAPS BETWEEN PERIMETER OF EXISTING HOLLOW METAL DOOR LEAF AND EXISTING HOLLOW METAL DOOR FRAME AGAINST THE PASSAGE OF AIRBORNE SOUND.
- 9.219 GYPSUM BOARD ASSEMBLY: ACOUSTICAL FUR-OUT; 1/2" RESILIENT CHANNELS @ 24" O.C. - MOUNT HORIZONTALLY TO EXISTING CONCRETE MASONRY; ACOUSTICAL SHIELDING MEMBRANE - ATTACH TO RESILIENT CHANNELS; 5/8" TYPE 'X' GYPSUM BOARD - ATTACH TO RESILIENT CHANNELS; SEAL PERIMETER OF FUR-OUT TO ADJACENT WALLS, FLOOR SLAB AND UNDERSIDE OF FLOOR DECK ABOVE; EXTEND ELECTRICAL DEVICE BACK BOXES TO SURFACE OF GYPSUM BOARD AND SEAL PERIMETER OF BOXES TO GYPSUM BOARD; SEAL GAPS AROUND EXISTING ITEMS PENETRATING FUR-OUT AGAINST PASSAGE OF AIRBORNE SOUND.
- 9.510 ACOUSTICAL CEILING: REFER TO SPECIFICATIONS.
- 9.654 PROVIDE 4" RESILIENT COVE BASE IN THIS ROOM TO MATCH EXISTING; PREP WALL TO ADEQUATELY REMOVE OLD BASE ADHESIVE BEFORE APPLYING NEW ADHESIVE AND BASE.
- 9.901 PAINT GYPSUM BOARD WALL SURFACE(S).
- 23.112 REMOVE RETURN GRILLE.
- 23.113 DISCONNECT AND PROTECT AIR COMPRESSOR FOR RELOCATION. REFER TO NEW WORK PLANS FOR NEW LOCATION. EXISTING COMPRESSOR AND PIPING SPECIALTIES TO REMAIN.
- 23.114 REMOVE COMPRESSED AIR PIPING MAIN BACK TO EXISTING FILTER TO REMAIN AS SHOWN. PROVIDE TEMPORARY CAP ON PIPING.
- 23.212 PROVIDE RETURN GRILLE R-1, R-1 SHALL BE TITUS; MODEL PAR 24X24 CEILING GRILLE WITH 22"X22" NECK.
- 23.217 PROVIDE ALL MATERIALS AND LABOR TO RELOCATE EXISTING AIR COMPRESSOR TO LOCATION AS SHOWN. PROVIDE NEW VIBRATION ISOLATION PADS UNDER COMPRESSOR. ALL EXISTING SPECIALTIES TO REMAIN AS IS. PROVIDE NEW PRESSURE GAGE, ISOLATION VALVE AND FLEXIBLE PIPE CONNECTION AT AIR COMPRESSOR.
- 23.218 PROVIDE ALL MATERIALS AND LABOR TO MODIFY EXISTING COMPRESSED AIR PIPING TO CONNECT TO NEW COMPRESSOR LOCATION.
- 23.219 PROVIDE NEW AIR TRANSFER DUCT IN EXISTING TRANSFER OPENING. COMPLETELY SEAL DUCT JOINTS AND OPENING AROUND DUCT TO PREVENT SOUND TRANSFER. PROVIDE ALL MATERIALS AND LABOR TO MODIFY EXISTING OPENING AS REQUIRED FOR INSTALLATION OF AIR TRANSFER DUCT.
- 26.106 DISCONNECT AND PROTECT EXISTING ELECTRICAL CONNECTION TO AIR COMPRESSOR TO BE RELOCATED. SALVAGE DISCONNECT SWITCH FOR REUSE.
- 26.204 PROVIDE PERMANENT SPLICE AND EXTEND FEEDER FOR AIR COMPRESSOR TO NEW LOCATION AS SHOWN. REINSTALL EXISTING DISCONNECT SWITCH. ENSURE A COMPLETE AND OPERATIONAL SYSTEM.
- 26.205 PROVIDE ALL MATERIALS AND LABOR TO RELOCATE CONDUIT AND JUNCTION BOX OVER TRANSFER DUCT AS REQUIRED FOR INSTALLATION OF NEW AIR TRANSFER DUCT.

WELDING LAB DEMOLITION PLAN

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

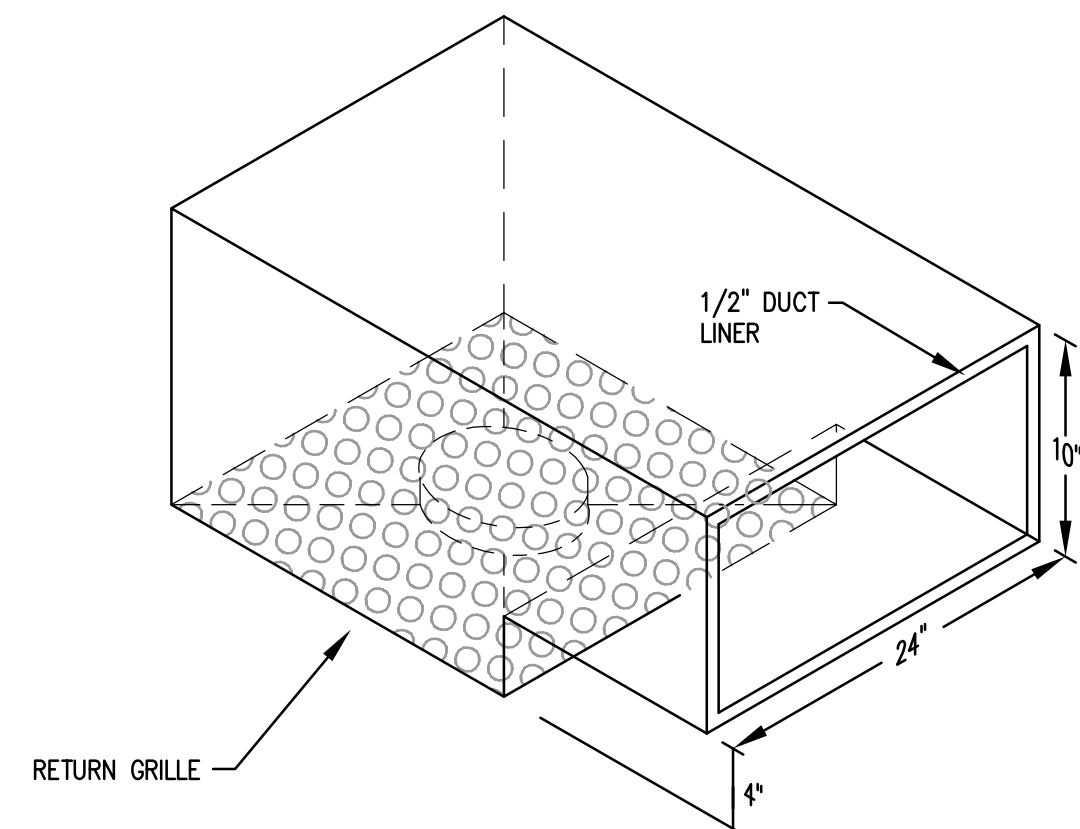
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RETURN AIR GRILLE BOOT DETAIL

SCALE: NTS

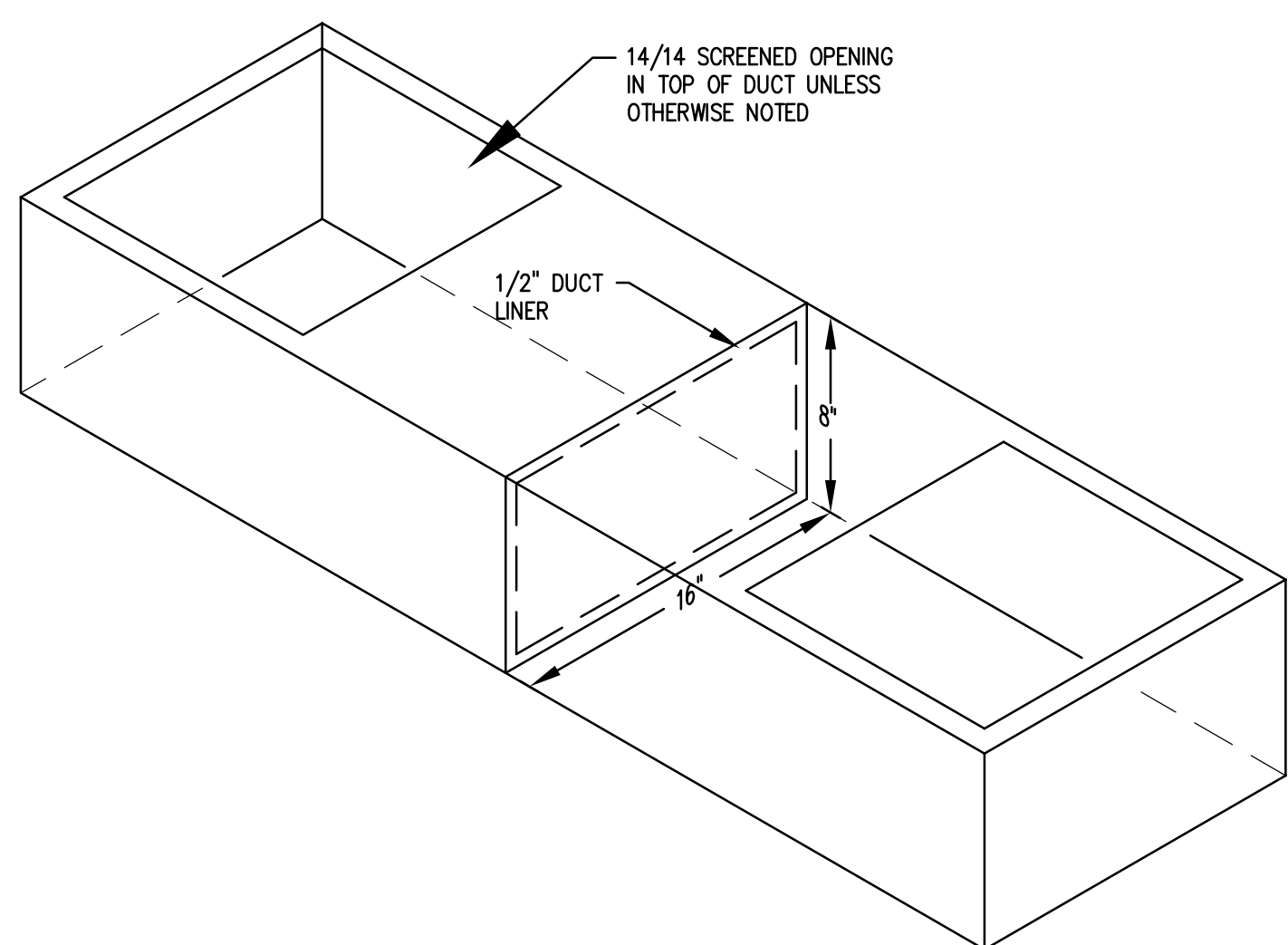
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AIR TRANSFER DUCT DETAIL

SCALE: NTS

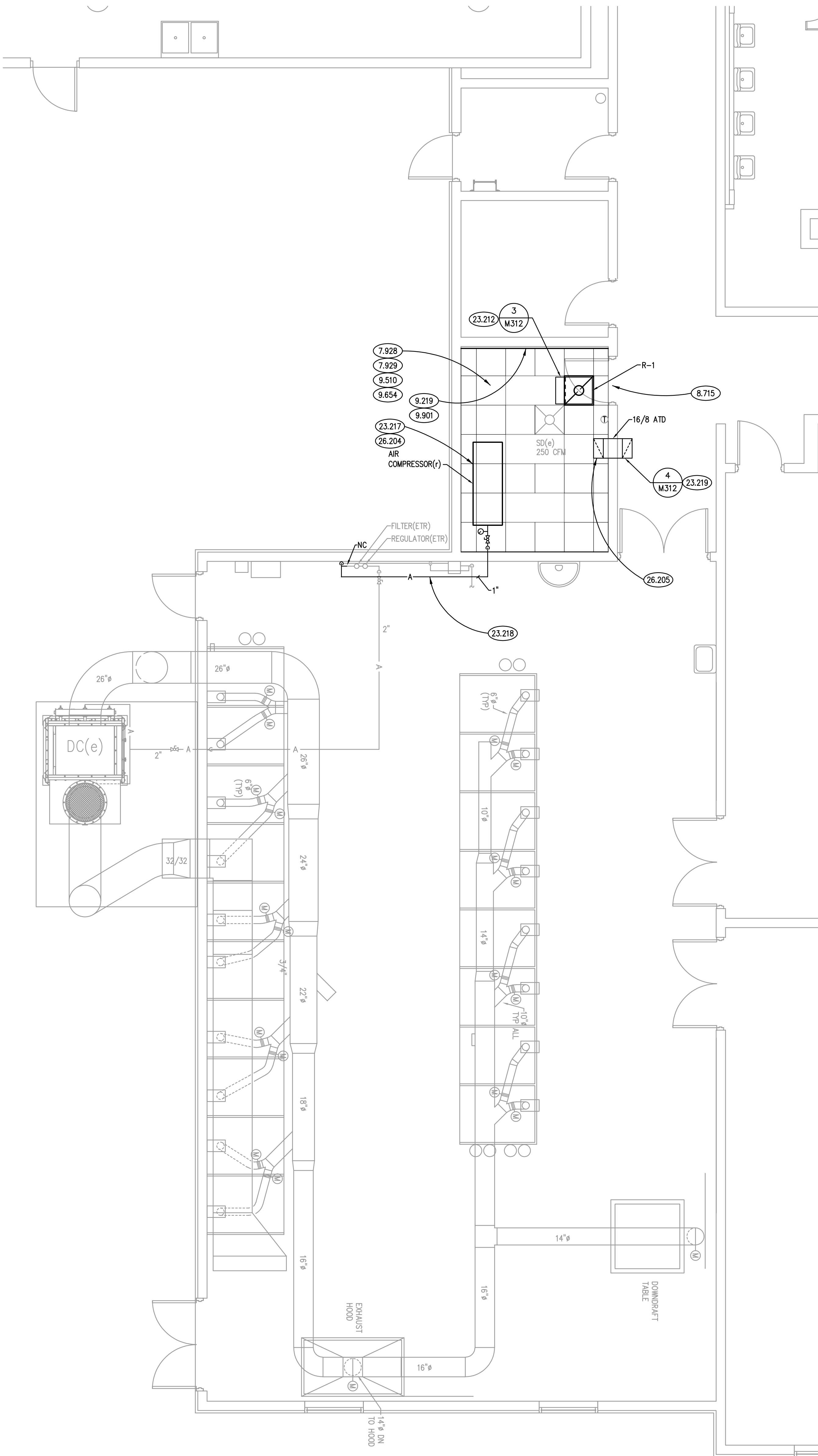
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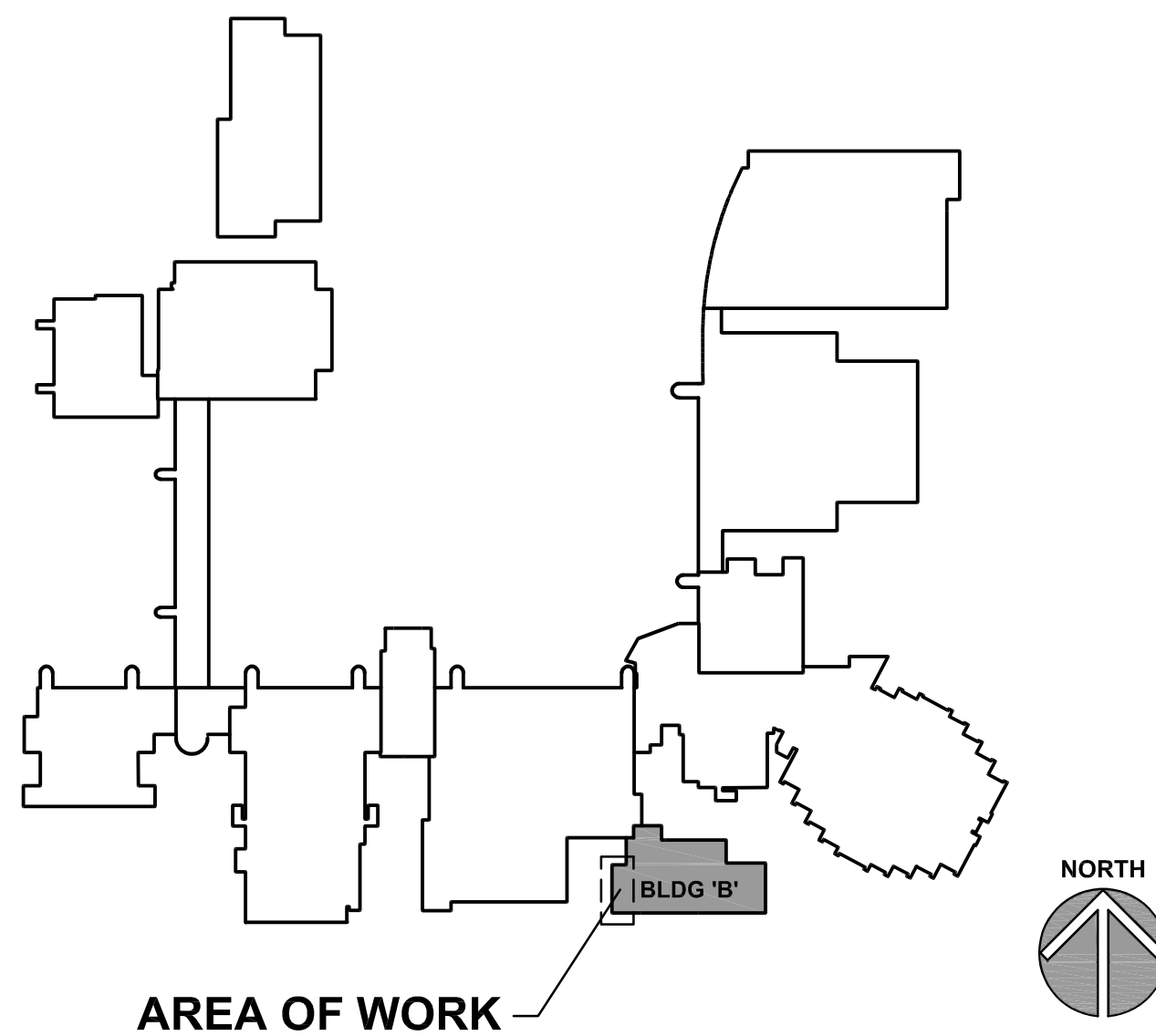
WELDING LAB NEW WORK PLAN

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

1



KEY PLAN



MISCELLANEOUS CIP & ANNUAL IMPROVEMENT PROJECTS

JOLIET JUNIOR COLLEGE
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ISSUED	CONSTRUCTION DOCUMENTS
01/18/22	26/01/22

JOB NO. 18-292-1391
DRAWN BWG
CHECKED DDW
APPROVED DDW

SHEET TITLE

MECHANICAL PLANS - MAIN CAMPUS

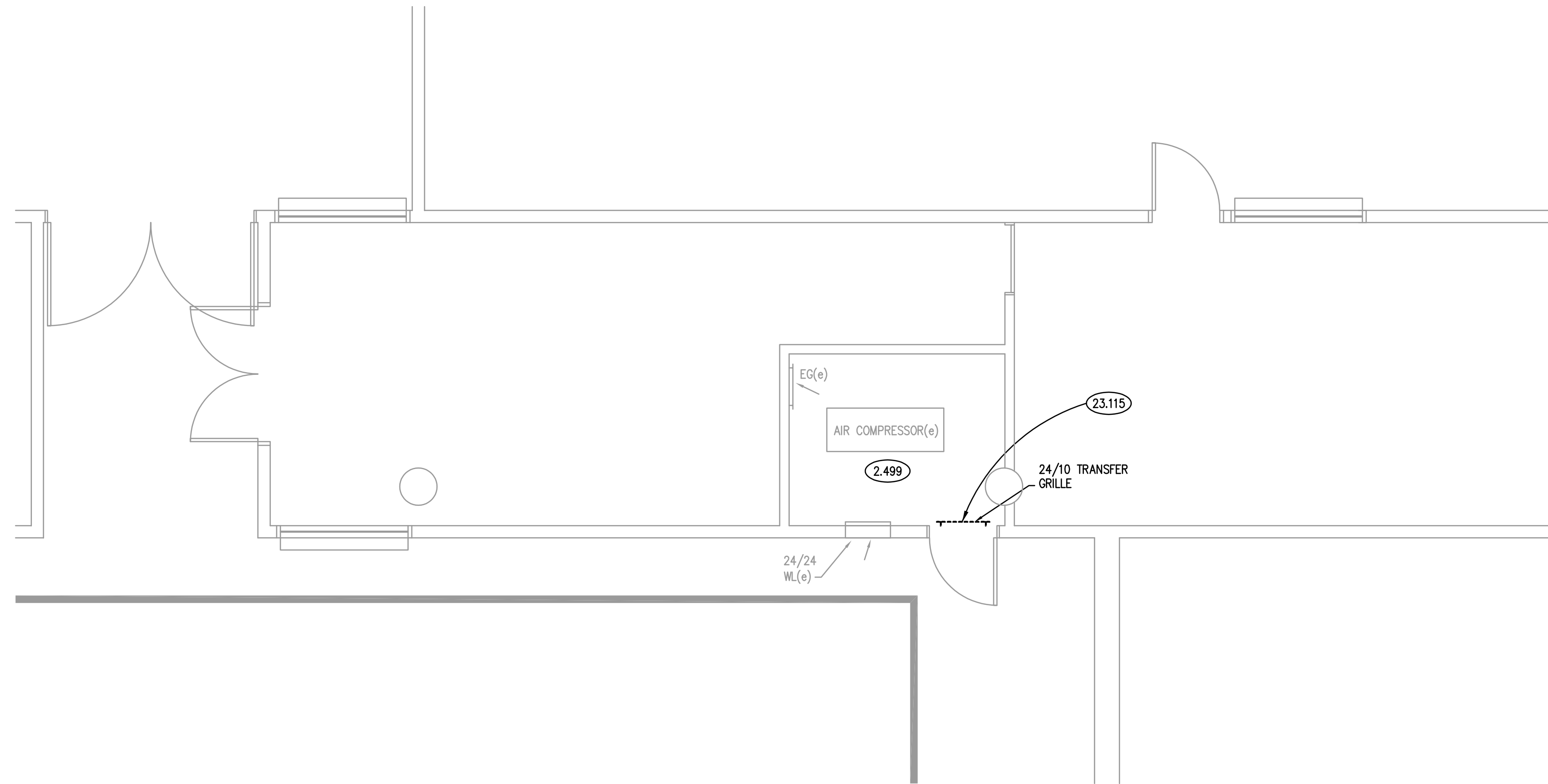
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M312

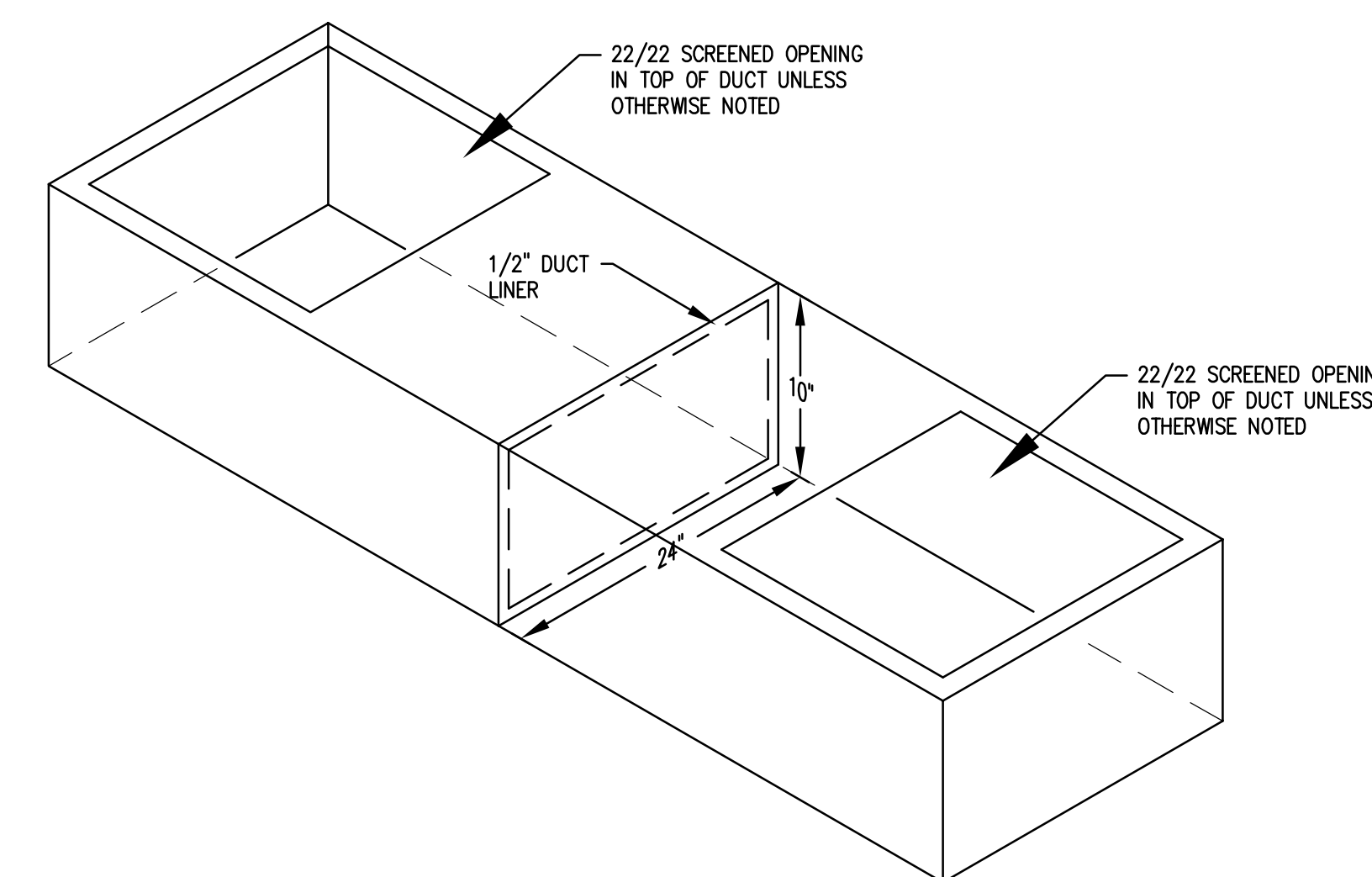
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- C1013 - DEMOLITION PLAN** 1
SCALE: 1/4" = 1'-0"



A site map showing the layout of various buildings. A central building is shaded gray and labeled "BLDG 'C'". A line points from the text "AREA OF WORK" to a small square on the right side of Bldg 'C', which is also labeled "E32". A north arrow is located in the bottom right corner, pointing upwards.



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2




①



The site plan shows the layout of the University of Maryland System. A shaded area is designated as the 'AREA OF WORK'. This area is located between BLDG 'H' and BLDG 'D'. BLDG 'E' is also shown, located south of BLDG 'D'. The plan includes various other buildings and structures, with the shaded area being the primary focus of the project.

NORTH

A circular compass rose with a vertical line pointing up labeled 'NORTH', a vertical line pointing down labeled 'SOUTH', a horizontal line pointing right labeled 'EAST', and a horizontal line pointing left labeled 'WEST'. The four quadrants are shaded in different patterns: top-left is diagonal lines, top-right is horizontal lines, bottom-left is vertical lines, and bottom-right is diagonal lines.

SHEET NUMBER

M330



ROOF PIPING PHOTO
SCALE: NTS 13



ROOF PIPING PHOTO
SCALE: NTS 9



ROOF PIPING PHOTO
SCALE: NTS 5



ROOF PIPING PHOTO
SCALE: NTS 1



ROOF PIPING PHOTO
SCALE: NTS 14



ROOF PIPING PHOTO
SCALE: NTS 10



ROOF PIPING PHOTO
SCALE: NTS 6



ROOF PIPING PHOTO
SCALE: NTS 2



ROOF PIPING PHOTO
SCALE: NTS 11



ROOF PIPING PHOTO
SCALE: NTS 7

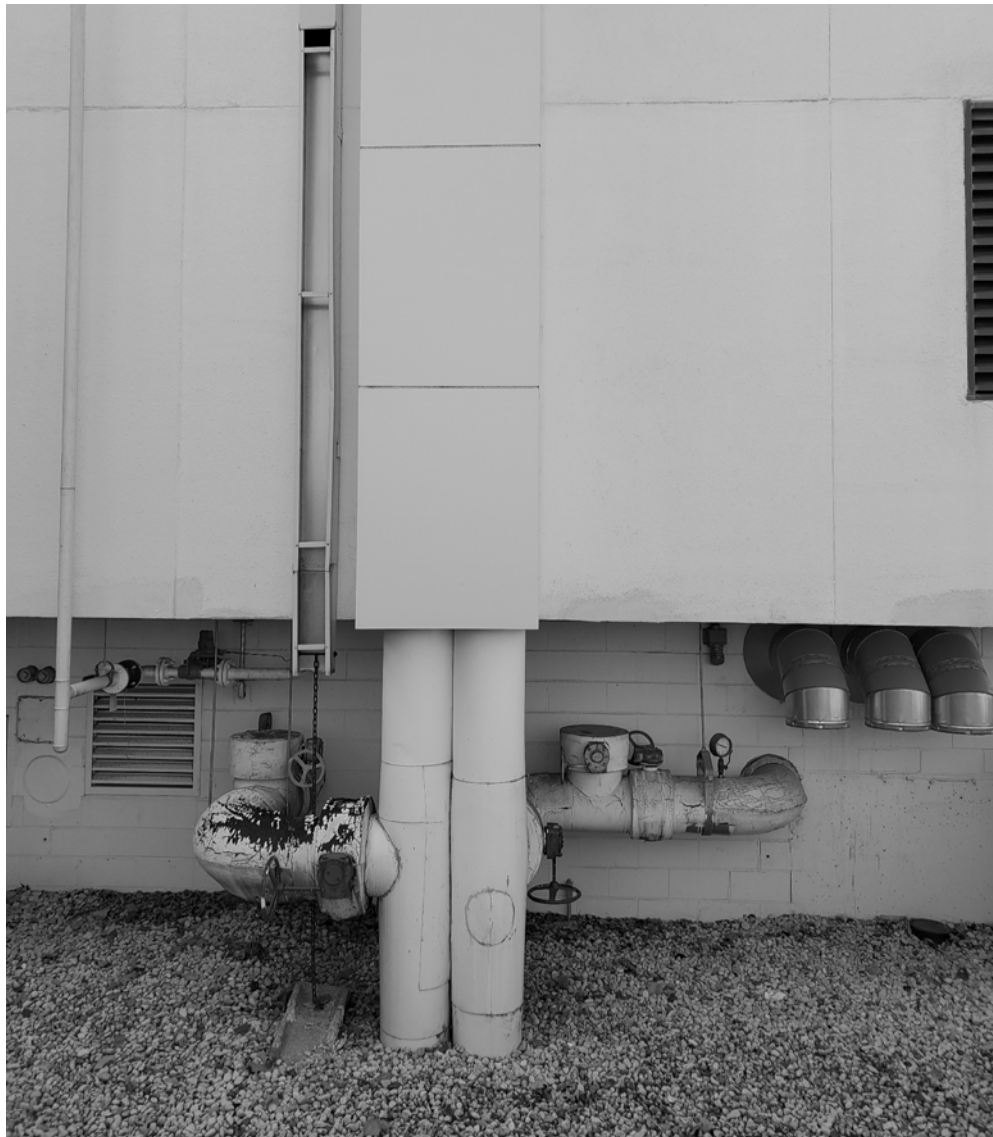


ROOF PIPING PHOTO
SCALE: NTS 3

NOT USED
SCALE: NTS



ROOF PIPING PHOTO
SCALE: NTS 12



ROOF PIPING PHOTO
SCALE: NTS 8



ROOF PIPING PHOTO
SCALE: NTS 4

NOT USED
SCALE: NTS

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SHEET TITLE

MECHANICAL
DETAILS

SHEET NUMBER

M331