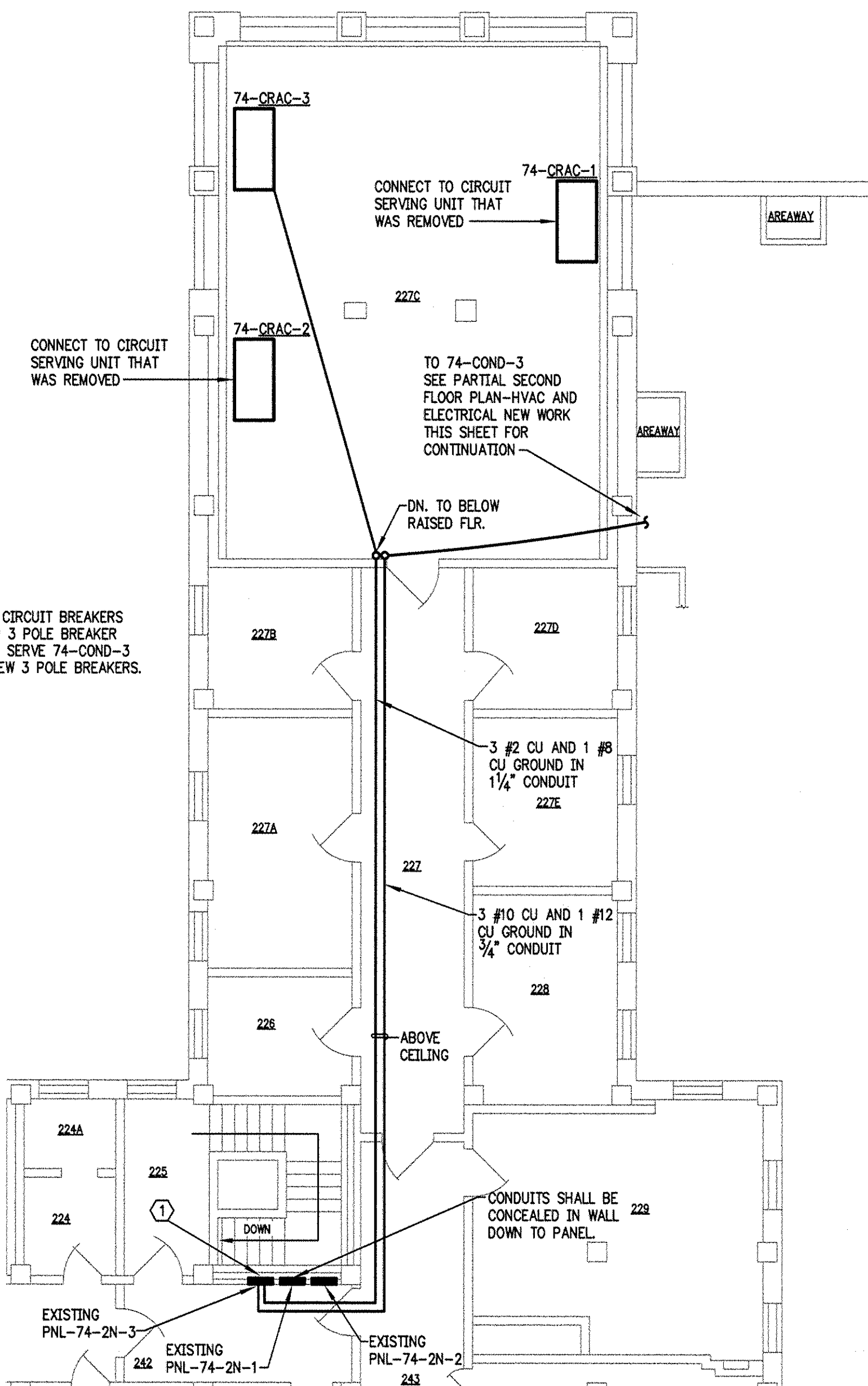

 **PARTIAL SECOND FLOOR PLAN – HVAC AND ELECTRICAL NEW WORK**  
SCALE: 1/4" = 1'-0"



 **PARTIAL SECOND FLOOR PLAN – ELECTRICAL**  
SCALE: 1/8" = 1'-0"

**PHASING NOTE:**

THE COMPUTER ROOM OPERATION SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS. ALL PHASING SHALL BE COORDINATED WITH THE OWNER. SEE HVAC GENERAL NOTE 17 FOR UNIT INSTALLATION SEQUENCE.

**DEDUCT ALTERNATE NOTES:**  
(SEE SPECIFICATIONS)

1. PROVIDE \$3,000 ALLOWANCE FOR LANDSCAPING OF AREA OF NEW OUTDOOR UNIT.
2. ADD FOR (4) 2'x2' FLOOR REGISTERS SIMILAR TO EXISTING. LOCATE AS DIRECTED BY OWNER.

EQUIPMENT NOTE

SPLIT SYSTEM COMPUTER ROOM AIR CONDITIONING UNITS: LIEBERT (208/3/60)

MARK 74-CRAC-1.2.3  
AND  
74-COND-1.2.3

SUPPLY FAN

SUPPLY AIR, CFM	5400
EXT. S.P., IN. H2O	0.2
MOTOR HP	3

COOLING

TOTAL GROSS COOLING CAP., MBH	116.1
SENSIBLE COOLING CAP., MBH	102.4
EAT. DEG. F DB/WB	72/60.1
OUTDOOR AIR TEMP., DEG. F	95

### HEATING (RESISTANCE HEATERS)

STAGES OF HEAT	3
HEATER CAP. (KW/MBH)	17.2/58.87

### HUMIDIFICATION (INFRARED)

CAPACITY, LBS/HR	11.0
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INDOOR UNIT MODEL NUMBER

OUTDOOR UNIT MODEL NUMBER TCDV205

**NOTES:**

1. PROVIDE 9" HIGH FLOOR STAND WITH TURNING VANES AND ADJUSTABLE LEGS.
2. INDOOR UNIT IS BOTTOM SUPPLY AIR/TOP RETURN AIR WITH 4" FILTERS, INFRARED HUMIDIFIER, DIGITAL SCROLL COMPRESSORS, CRANKCASE HEATERS, R-407C REFRIGERANT, NON-LOCKING DISCONNECT SWITCH, SMOKE SENSOR AND LIQUITEC SENSORS.
3. OUTDOOR (CONDENSER) UNIT IS VFD WITH FACTORY MOUNTED DISCONNECT SWITCH AND TRANSIENT VOLTAGE SURGE SUPPRESSION.







HVAC GENERAL NOTES:

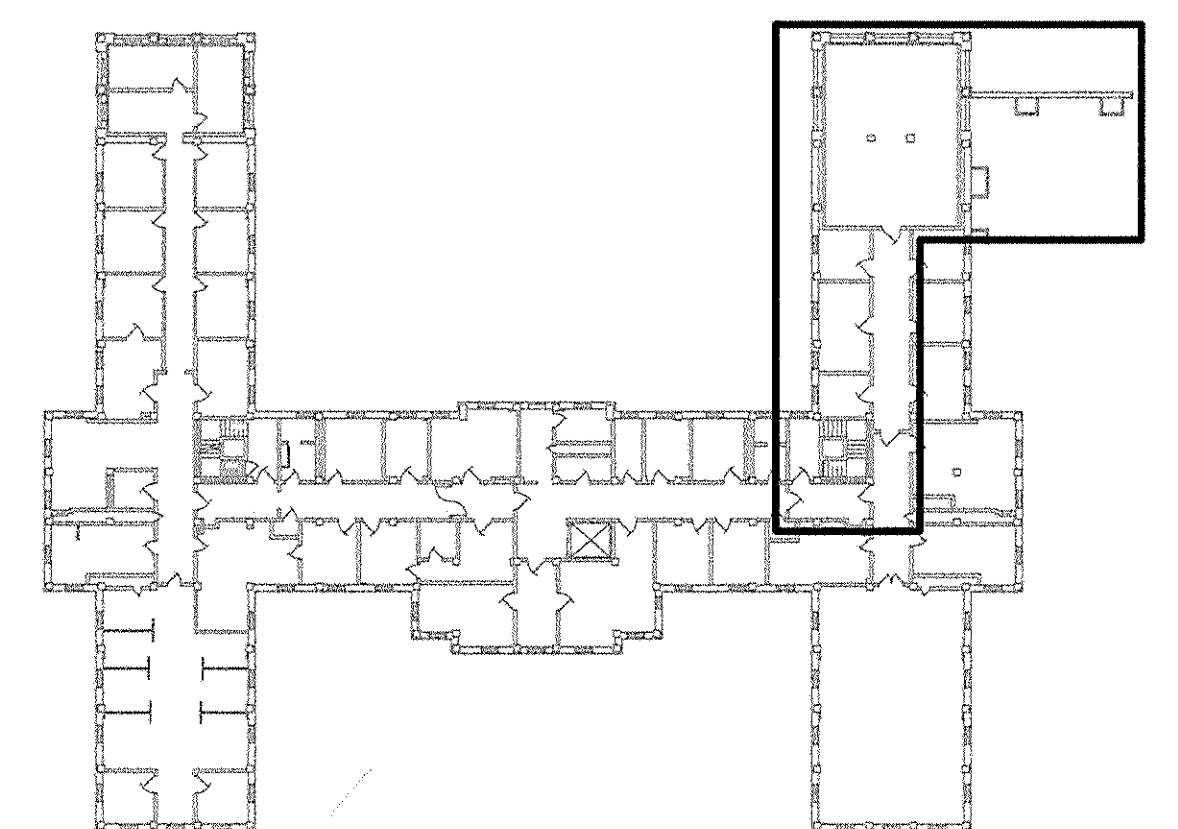
1. ALL PIPES SHALL BE COORDINATED WITH OTHER NEW AND EXISTING PIPES AND UNDER-FLOOR STRUCTURAL SYSTEM, BEFORE INSTALLATION. MINOR PIPE OFFSETS SHALL BE PROVIDED AS REQUIRED.
2. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTRUCTIONS.
3. MATERIALS AND INSTALLATION SHALL COMPLY WITH LOCAL CODES, APPLICABLE PROVISIONS OF LATEST EDITION OF NATIONAL FIRE PROTECTION ASSOCIATION, LOCAL UTILITY REGULATIONS AND GOVERNMENTAL DEPARTMENTS HAVING JURISDICTION.
4. CONTRACTOR SHALL SEAL AND FLASH ALL PENETRATIONS IN EXISTING WALLS.
5. VERIFY WALL OPENINGS WITH STRUCTURE.
6. ALL CUTTING AND PATCHING FOR THE INSTALLATION OF NEW WORK IN EXISTING BUILDING SHALL BE DONE BY THE GENERAL CONTRACTOR.
7. CONTRACTOR SHALL PROVIDE ALL SUPPORTS REQUIRED TO MOUNT MECHANICAL EQUIPMENT AND PIPING.
8. WHERE PIPE CONNECTIONS ARE SHOWN CONNECTING TO EXISTING, CONTRACTOR SHALL DETERMINE EXACT LOCATIONS AND CONNECTION SIZES PRIOR TO INSTALLATION.
9. NEW PIPING AND PIPE INSULATION SHALL MATCH EXISTING. INSULATION THAT IS DAMAGED OR REMOVED FOR NEW WORK SHALL BE REPLACED, REPAIRED AND SEALED AS REQUIRED.
10. REFRIGERANT PIPING SHALL BE TYPE "L" COPPER AND SHALL BE SIZED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. SUCTION AND LIQUID LINE SHALL BE INSULATED AS INDIVIDUAL PIPES WITH A MINIMUM OF 3/4" THICK ARMAFLEX VAPOR SEALED. VERIFY ROUTE OF PIPE WITH OWNER BEFORE INSTALLATION.
11. CONDENSATE DRAIN LINES SHALL BE TYPE 1/2" HARD DRAWN COPPER OR P.V.C. TUBING. FITTINGS SHALL MATCH THE PIPING.
12. OUTDOOR EQUIPMENT SHALL BE SECURED TO CONCRETE HOUSEKEEPING PADS WITH HOLD-DOWN BOLTS TO PREVENT MOVEMENT.
13. EXTEND CONDENSATE DRAIN PIPING FROM CRAC'S IN SIMILAR MANNER AS DONE ON EXISTING INDOOR UNITS. COVER END OF ALL CONDENSATE DRAIN PIPING WITH INSECT SCREEN.
14. DISCONNECT EXISTING COLD WATER PIPING FROM EXISTING INDOOR A.H.U.'S AND RECONNECT TO NEW CRAC'S. ADD SERVICE VALVE IN LINE TO EACH CRAC IN ACCESSIBLE LOCATION.
15. THERE IS APPROXIMATELY 7" CLEAR BELOW EXISTING RAISED FLOOR AND CONCRETE FLOOR.
16. NEW AIR CONDITIONING SYSTEM (74-CRAC-3/74-COND-3) SHALL BE INSTALLED FIRST, AFTER THE EXISTING AC SYSTEMS SHALL REMAIN IN OPERATION DURING THIS TIME. AFTER THE NEW SYSTEM IS OPERATIONAL, SYSTEM #1 SHALL BE REMOVED AND REPLACED WITH SYSTEM 74-CRAC-1/74-COND-1. WHEN NEW SYSTEM #1 IS OPERATIONAL, SYSTEM #2 SHALL BE REMOVED AND REPLACED WITH SYSTEM 74-CRAC-2/74-COND-2.
17. CONTRACTORS WORKING HOURS SHALL TYPICALLY BE MONDAY THRU FRIDAY 7:30AM TO 4:30PM AND ALL WORK SHALL BE COORDINATED WITH THE OWNER.
18. CONTRACTOR MUST USE EXTREME CARE IN INSTALLING PIPING AND CONDUITS BELOW THE RAISED FLOOR WITH RESPECT TO EXISTING WIRING IN THE SAME SPACE. NO DISRUPTION OF UTILITIES TO EXISTING EQUIPMENT IN COMPUTER ROOM IS ACCEPTABLE WITHOUT WRITTEN APPROVAL OF THE OWNER.
19. CONTRACTOR SHALL CLEAN UP DEBRIS (INCLUDING REPLACING FLOOR TILES AND FLOOR REGISTERS) ON A DAILY BASIS BEFORE LEAVING THE JOB SITE.
20. REFRIGERANT PIPING SIZES SHALL AS RECOMMENDED BY THE CRAC EQUIPMENT MANUFACTURER.

GENERAL DEMOLITION NOTES:

1. THE CONTRACTOR SHALL REMOVE ALL EXISTING PIPING, EQUIPMENT, AND APPURTENANCES THAT ARE NOT REQUIRED FOR THE EXISTING SYSTEMS TO REMAIN. CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE SCOPE OF THIS WORK AND VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING BIDS.
2. EXISTING EQUIPMENT SHALL BE TURNED OVER TO THE OWNER, UNLESS DIRECTED OTHERWISE AND LOCATED AS DIRECTED BY THE OWNER. ALL OTHER ITEMS TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE PREMISES.

### HVAC LEGEND

ABOVE	ABV
AIR HANDLING UNIT	AHU
BELOW	BEL
CAPACITY	CAP
COOLING COIL CONDENSATE DRAIN PIPE	
CUBIC FEET PER MINUTE	CFM
DEGREES FAHRENHEIT	F
DIRECTION OF FLOW	
DOMESTIC COLD WATER PIPE	CW
DRY BULB	DB
ENTERING AIR TEMPERATURE	EAT
EXISTING PIPING OR EQUIPMENT	-----
TO BE REMOVED	FR
FLOOR REGISTER	HP
HORSEPOWER	IN
INCH	KW
KILOWATT	
NEW CONNECTED TO EXISTING	
TURN DOWN OR FROM BELOW	
POUNDS	LBS
SERVICE VALVE	
STATIC PRESSURE	SP
THOUSAND BTU PER HOUR	MSH
WET BULB	WB



SECOND FLOOR  
KEYPLAN BLDG. 74  
NO SCALE

[illegible]