



DANE COUNTY DEPARTMENT of PUBLIC WORKS, HIGHWAY and TRANSPORTATION

County Executive
Kathleen M. Falk

1919 Alliant Energy Center Way ♦ Madison, Wisconsin 53713
Phone: (608) 266-4018 ♦ Fax: (608) 267-1533

Commissioner / Director
Gerald J. Mandli

January 4, 2010

ATTENTION ALL REQUEST FOR BID (RFB) HOLDERS

RFB NO. 309030 - ADDENDUM NO. 2

PUBLIC SAFETY COMMUNICATIONS CENTER INFRASTRUCTURE UPGRADES

BIDS DUE: THURSDAY, JANUARY 7, 2010, 2:00 PM. DUE DATE AND TIME **ARE NOT** CHANGED BY THIS ADDENDUM.

This Addendum is issued to modify, explain or clarify the original Request for Bid (RFB) and is hereby made a part of the RFB. Acknowledge receipt of this Addendum by inserting the number and issue date off this addendum in the blank space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification. Please attach this Addendum to the RFB.

CHANGES TO PROJECT MANUAL

General

- 1) Bid Form
 - a) REMOVE the bid form entirely and REPLACE with attached revised bid form.

HVAC Specifications

- 2) Section 23 09 23
 - a) ADD the following points to the point list for the Emergency Power Mode:
 - Emergency Transfer Switch Status - Digital Input
 - CH-1 Condenser Entering Water Temperature - Analog Output
 - CH-1 Condenser Leaving Water Temperature - Analog Output
 - CH-1 Evaporator Entering Water Temperature - Analog Output
 - CH-1 Evaporator Leaving Water Temperature - Analog Output
 - CH-2 Condenser Entering Water Temperature - Analog Output
 - CH-2 Condenser Leaving Water Temperature - Analog Output
 - CH-2 Evaporator Entering Water Temperature - Analog Output
 - CH-2 Evaporator Leaving Water Temperature - Analog Output
 - Minimum compressor cycle time - Analog Output

- b) ADD the following points to the point list under Alternate Bid 2
 - P-1 VFD Setpoint - Analog Output
 - P-1 VFD Status - Digital Input with alarm
 - P-2 VFD Setpoint - Analog Output
 - P-2 VFD Status - Digital Input with alarm
 - Differential Pressure Sensor - Analog Input
 - Bypass Valve - Analog Output

Information Technology Specifications

- 3) Section 27 00 00, Page 8 Line 24
 - a) REVISE from “furnish voice station patch cords... which are eighteen inches or less in length” to read “furnish voice and data station patch cords... which are thirty six inches or less in length”.

CHANGES TO DRAWINGS

Architectural Drawings

- 1) Sheet AD2.1
 - a) Drawing 1 Demolition Plan
REVISE drawing per attached drawing A/SD-7 for additional demolition.
- 2) Sheet A2.1
 - a) Drawing 1 Floor Plan
REVISE drawing per attached drawing A/SD-8 for adding new millwork in Staff Break 111.
- 3) Sheet A2.2
 - a) Drawing 1 Reflected Ceiling Plan
REVISE drawing per attached drawing A/SD-9 for soffit in Staff Break 111.
- 4) Sheet A5.1
 - a) Room Finish Schedule
REVISE room finish schedule at room 111 per attached drawing A/SD-10.
 - b) Drawing 12 New Millwork Cabinetry – Rm 111
ADD drawing 12 per attached drawing A/SD-10 for added millwork and microwave oven in Staff Break 111.

HVAC Drawings

- 5) Sheet H2.1
 - a) Drawing A; HVAC New Work Plan – Ductwork
ADD plan note 7 as shown on attached drawing H/SD-5.
- 6) Sheet H2.2
 - a) Drawing A; HVAC New Work Plan – Ductwork
REVISE drawing as shown on attached drawing H2.2
 - b) Drawing B; HVAC New Work Plan – Piping
REVISE drawing as shown on attached drawing H2.2.
 - c) ADD plan notes 38, 39, 40, and 41 as shown on attached drawing H2.2.

- 7) Sheet H5.1
a) ADD Unit Heater Schedule as shown on attached drawing H/SD-6.
- 8) Sheet H6.1
a) Drawing A: Air Handling Unit Control
REPLACE the following paragraph:
SUPPLY FAN: MODULATE SUPPLY FAN SPEED THROUGH VFD. PROVIDE STATIC PRESSURE SENSOR IN THE DISTRIBUTION DUCTWORK AT THE END OF THE SYSTEM. VFD SHALL MODULATE TO MAINTAIN STATIC PRESSURE SETPOINT. LIMIT FAN DISCHARGE STATIC PRESSURE; WHEN EXCEEDED, ALARM INDICATION SHALL BE INDICATED THROUGH THE DDC, SUPPLY AND RETURN FANS SHALL SHUT DOWN, AND ALL VALVES AND DAMPERS SHALL MOVE TO FAIL POSITIONS. DESIRED DISCHARGE STATIC PRESSURE AND DISCHARGE STATIC PRESSURE HIGH LIMIT TO BE DETERMINED DURING TESTING, ADJUSTING, AND BALANCING BY TAB CONTRACTOR.
with the following paragraph:
SUPPLY FAN: MODULATE SUPPLY FAN SPEED THROUGH VFD. PROVIDE STATIC PRESSURE SENSOR IN THE DISTRIBUTION DUCTWORK APPROXIMATELY TWO THIRDS DOWN THE SUPPLY MAIN. VFD SHALL MODULATE TO MAINTAIN STATIC PRESSURE SETPOINT. DESIRED STATIC PRESSURE SETPOINT TO BE DETERMINED DURING TESTING, ADJUSTING, AND BALANCING BY TAB CONTRACTOR IN ORDER TO MINIMIZE FAN HORSE POWER AND PROVIDE SUFFICIENT STATIC PRESSURE FOR ALL VAV BOXES TO OPERATE ACCORDING TO SPECIFIED SEQUENCE OF OPERATION. LIMIT SUPPLY FAN DISCHARGE OVER PRESSURE; WHEN EXCEEDED, ALARM INDICATION SHALL BE INDICATED THROUGH THE DDC, SUPPLY AND RETURN FANS SHALL SHUT DOWN, AND ALL VALVES AND DAMPERS SHALL MOVE TO FAIL POSITIONS.
- b) Drawing B: Alternate Bid 2
ADD drawing per attached drawing H/SD-7 to control hot water pumps under Alternate Bid 2.
- 9) Sheet H6.2
a) Drawing B:
REPLACE the Emergency Power Mode section of the control sequence with the following:
EMERGENCY POWER MODE: THE BAS SHALL RECEIVE A SIGNAL FROM THE EMERGENCY TRANSFER SWITCH PROVIDED BY THE ELECTRICAL CONTRACTOR THAT THE SYSTEM IS OPERATING ON EMERGENCY POWER. REFER TO THE ELECTRICAL DRAWINGS/SPECIFICATIONS AND ELECTRICAL CONTRACTOR FOR EMERGENCY POWER SEQUENCE. PROVIDE THE FOLLOWING SEQUENCE DURING EMERGENCY POWER:
1. RESET THE CONDENSER WATER TO LEAVING 95°F AND ENTERING 85°F (ADJ.). RESET EVAPORATOR WATER TO LEAVING 43°F AND ENTERING 57°F (ADJ.)
 2. A MAXIMUM OF ONLY ONE CHILLER CAN OPERATOR UNDER EMERGENCY POWER.
 3. AUTOMATICALLY LOCK OUT THREE COMPRESSORS ALLOWING ONLY ONE COMPRESSOR TO OPERATOR. (LOAD LIMIT TO 25%)
 4. RESET THE TIME BETWEEN CYCLING COMPRESSORS TO A MINIMUM OF 90 SECONDS (ADJ.)
 5. MONITOR THE RETURN WATER; IF THE TEMPERATURE OF THE RETURN WATER REACHES 60°F, UNLOCK A COMPRESSOR (LOAD LIMIT OF 50%) IN THE SAME MODULE AS THE COMPRESSOR OPERATING. SHUT DOWN THE SUPPLY AND RETURN FAN IN BOTH AIR HANDLER UNITS.
 6. 30 SECONDS AFTER COMPRESSOR STARTS, START AIR HANDLING UNIT.

7. IF THE COMPRESSOR DOES NOT OPERATE AFTER 100 SECONDS, SEND ALARM AND OPERATE SECOND CHILLER.
8. AFTER SECOND COMPRESSOR SATISFIES LOAD AND AUTOMATICALLY SHUTS DOWN, LOAD LIMIT COMPRESSORS TO 25% AGAIN AND START SEQUENCE OVER.

Electrical Drawings

- 10) Sheet ED1.1
 - a) Drawing A; Electrical Demolition Plan - Power
REVISE drawing per attached drawing E/SD-4 for existing devices to be demolished, and/or relocated.
- 11) Sheet E2.1
 - a) Drawing A; Electrical New Work Plan - Power
REVISE drawing per attached drawing E/SD-5 for addition of new devices to be provided, and/or relocated.
 - b) Drawing A; Electrical New Work Plan – Power
DELETE starter/disconnect associated with UH-1.
ADD 20/1P disconnect mounted on unit.
- 12) Sheet E4.1
 - a) Light Fixture Schedule
REVISE fixtures type L1, L2, L3: Provide diffuse reflector with white trim.
- 13) Sheet E 5.1
 - a) Diagram B:
REVISE Specific note #1: Delete last sentence of note 1 and add the following: Temporary generator is to function as emergency back up during relocation of existing emergency circuit.
REVISE Specific note #3: Delete last sentence of note 3 and add the following: Temporary generator is to function as emergency back to existing building generator during relocation of existing normal circuit. Building generator shall provide power to system during the normal power feeder rework. Provide normally closed relay with control coil connected to emergency power source. If and when the existing building emergency generator fails, the relay contacts shall close and start the temporary generator. The temporary generator shall serve as back up to the existing building emergency generator. The required time for the temporary generator shall be based on the time required to relocate the existing normal and emergency feeders for the HVAC duct work changes.

Information Technology Drawings

- 14) Sheet T2.2
 - a) ADD entire drawing attached.
- 15) Sheet T2.1
 - a) REVISE detail C/T2.1, detail note 6 to read as shown on attached drawing T/SD-1.
 - b) ADD plan note 13 to detail A/T2.1 as shown on attached drawing T/SD-2.
- 16) Sheet TT1.1
 - a) ADD plan note 25 to detail A/TT1.1 as shown on attached drawing T/SD-3.

Plumbing Drawings

- 17) Sheet PD2.1
 - a) Drawing B; Demolition Plan - Plumbing

REVISE drawing per attached drawing P/SD-2 for change to existing sink to be demolished.

18) Sheet P2.1

a) Drawing B; New Work Plan – Plumbing

REVISE drawing per attached drawing P/SD-3 for addition of new sink and garbage disposal to be furnished and installed.

END OF ADDENDUM

For additional information about this Addendum, please call Steve Richards at 608/219-6339, or email questions to richards.steven@co.dane.wi.us.

Sincerely,
Rob Nebel
Project Manager

Enclosures:

Revised Bid Form

Drawings:

A/SD-7 thru A/SD-10

H/SD-5 thru H/SD-7

H2.2

E/SD-4 & E/SD-5

T/SD-1 thru T/SD-3

T2.2

P/SD-2 & P/SD-3

BID FORM

BID NO. 309030

**PROJECT: DANE COUNTY PUBLIC SAFETY COMMUNICATION CENTER
INFRASTRUCTURE UPGRADES
CITY-COUNTY BUILDING**

**TO: DANE COUNTY DEPARTMENT OF PUBLIC WORKS, HIGHWAY &
TRANSPORTATION PROJECT ENGINEER
1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713**

BASE BID - LUMP SUM:

Work includes construction services for office space remodel of approximately 10,000 sq. ft. including drywall partitions, flooring, ceiling, HVAC, electrical and fire protection. The undersigned, having examined the site where the Work is to be executed and having become familiar with local conditions affecting the cost of the Work and having carefully examined the Drawings and Specifications, all other Construction Documents and Addenda thereto prepared by Dane County Department of Public Works, Highway & Transportation hereby agrees to provide all labor, materials, equipment and services necessary for the complete and satisfactory execution of the entire Work, as specified in the Construction Documents, for the Base Bid stipulated sum of:

_____ and _____ /100 Dollars
Written Price

\$ _____
Numeric Price

The undersigned further agrees to add the alternate(s) portion of the Work as described, for the following addition(s) to or subtraction(s) from the Base Bid stipulated below. They further agree to honor the alternate(s) bid for 60 days from date of Award of Contract.

ALTERNATE BID 1 - LUMP SUM:

Provide credit for deleting plate to plate heat exchanger HX-1 and all associated piping and controls to that unit. Replace heat recovery chillers CH-1 and CH-2 with normal chillers at the same conditions as scheduled for the heat recovery chillers. See Drawing H3.2

_____ and _____ /100 Dollars
Written Price

\$ _____
Numeric Price (circle: Add or Deduct)

ALTERNATE BID 2 – LUMP SUM:

Provide a price addition for providing variable frequency drives (VFD) on each existing heating pumps (P-1 and P-2) located on the second floor which serve the first floor heating water system. Provide piping and controls to operate the pumps using the VFDs. The two pumps are 7.5 horse power each, 460 volt 3 phase. Do not provide a bypass for the VFDs.

_____ and _____ /100 Dollars
Written Price

\$ _____
Numeric Price (circle: Add or Deduct)

Receipt of the following addenda and inclusion of their provisions in this Bid is hereby acknowledged:

Addendum No(s). _____ through _____

Dated _____

Dane County Department of Public Works must have this project completed by May 27, 2010. Assuming this Work can be started by January 27, 2010, what dates can you commence and complete this job?

Commencement Date: _____ Completion Date: _____
(final, not substantial)

I hereby certify that all statements herein are made on behalf of:

(Name of Corporation, Partnership or Person submitting Bid)

Select one of the following:

1. A corporation organized and existing under the laws of the State of _____, or
2. A partnership consisting of _____, or
3. A person conducting business as _____;

Of the City, Village, or Town of _____ of the State of _____.

I have examined and carefully prepared this Bid from the associated Construction Documents and have checked the same in detail before submitting this Bid; that I have full authority to make such statements and submit this Bid in (its) (their) (my) behalf; and that the said statements are true and correct. In signing this Bid, we also certify that we have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition; that no attempt has been made to induce any other person or firm to submit or not to submit a Bid; that this Bid has been independently arrived at without collusion with any other bidder, competitor, or potential competitor; that this Bid has not been knowingly disclosed prior to the opening of Bids to another bidder or competitor; that the above statement is accurate under penalty of perjury.

SIGNATURE: _____
(Bid is invalid without signature)

Print Name: _____ Date: _____

Title: _____

Address: _____

Telephone No.: _____ Fax No.: _____

Email Address: _____

Contact Person: _____

THIS PAGE IS FOR BIDDERS' REFERENCE AND NEED NOT BE SUBMITTED WITH BID FORM.

BID CHECK LIST:

These items **must** be included with Bid:

Bid Form (pg. 1-3)

Bid Bond

Fair Labor Practices Certification

BIDDERS SHOULD BE AWARE OF THE FOLLOWING:

DANE COUNTY VENDOR REGISTRATION PROGRAM

Any person bidding on any County contract must be registered with the Dane County Purchasing Division & pay an annual registration fee. A contract will not be awarded to an unregistered vendor. Obtain a *Vendor Registration Form* by calling 608/266-4131 or complete a new form or renewal one online at:

www.danepurchasing.com/registration

DANE COUNTY BEST VALUE CONTRACTING PRE-QUALIFICATION

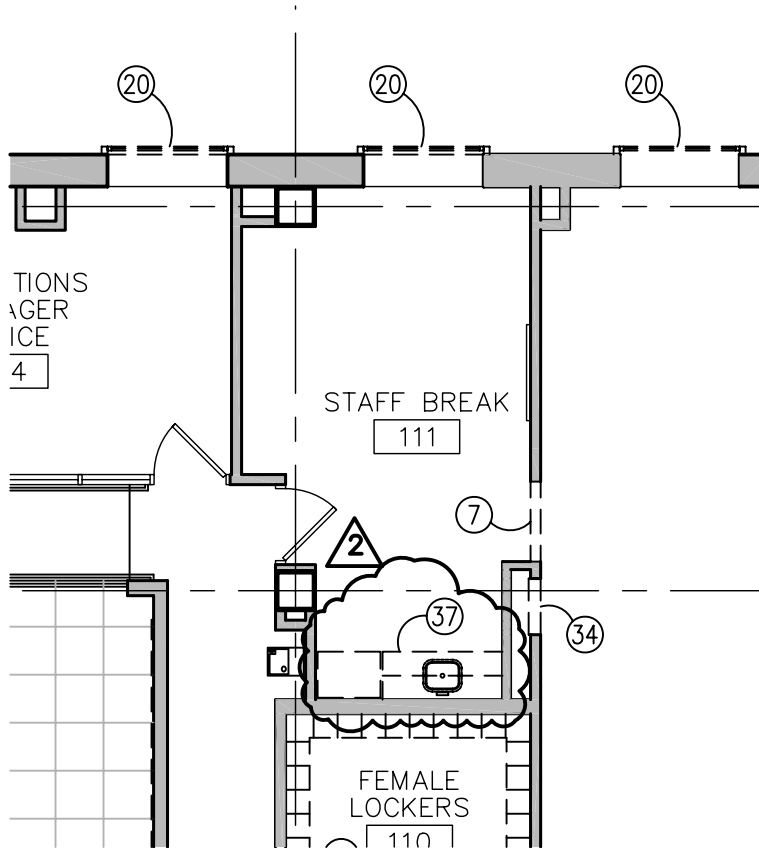
Contractors must be pre-qualified as a Best Value Contractor with the Dane County Public Works Engineering Division before the award of contract. Obtain a *Best Value Contracting Application* by calling 608/266-4018 or complete one online at:

www.co.dane.wi.us/pwht/BVC_Application.aspx

EQUAL BENEFITS REQUIREMENT

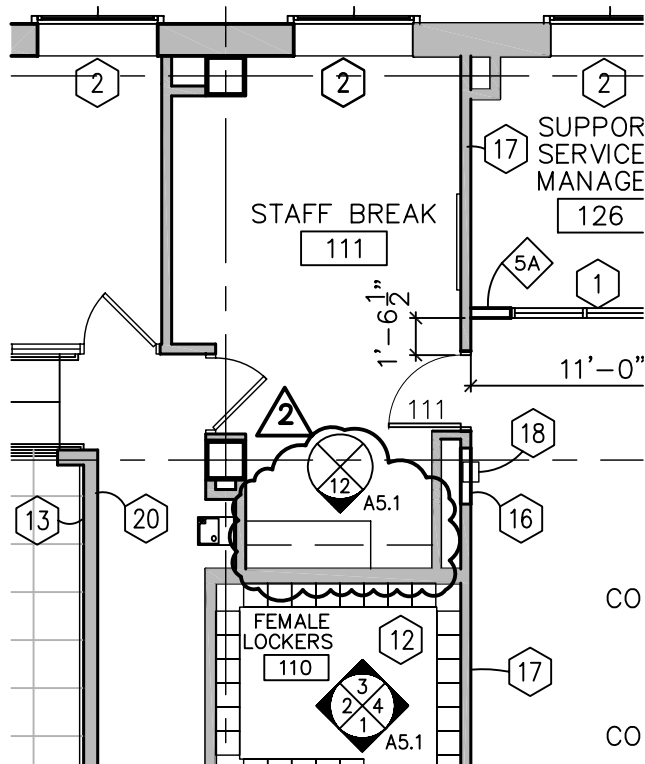
By submitting a Bid, the contractor acknowledges that a condition of this contract is to provide equal benefits as required by Dane County Code of Ordinances Chapter 25.016. Contractor shall provide equal benefits as required by that Ordinance to all required employees during the term of the contract. For more information:

www.danepurchasing.com/partner_benefit.aspx

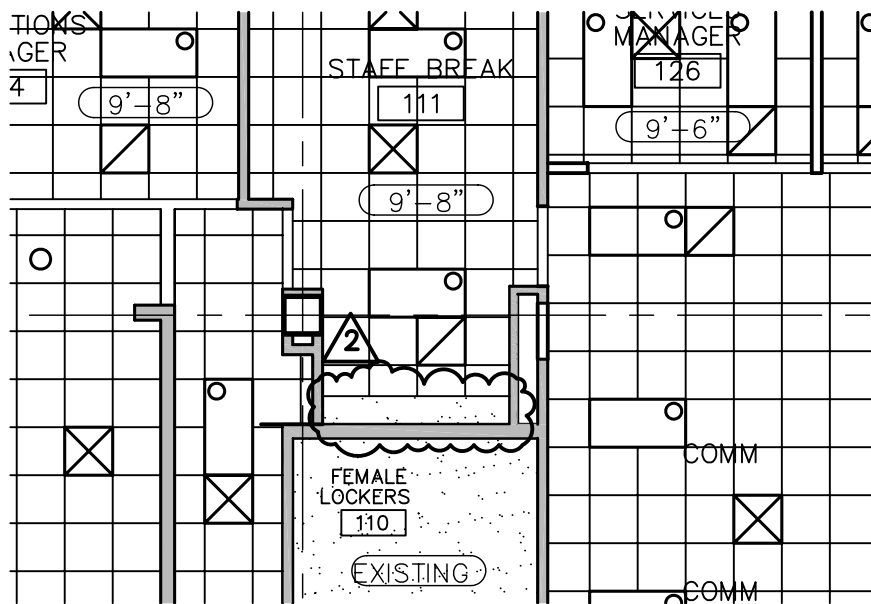


- 2
36 REMOVE PORTION OF ACCESS FLOORING FOR REPLACEMENT WITH NEW ACCESS FLOORING SUPPORTING NEW UPS UNITS. STORE PANELS FOR REUSE IN OTHER AREAS AS NEEDED.
- 37 REMOVE EXISTING BASE AND WALL CABINETS FOR NEW BASE AND WALL CABINETS

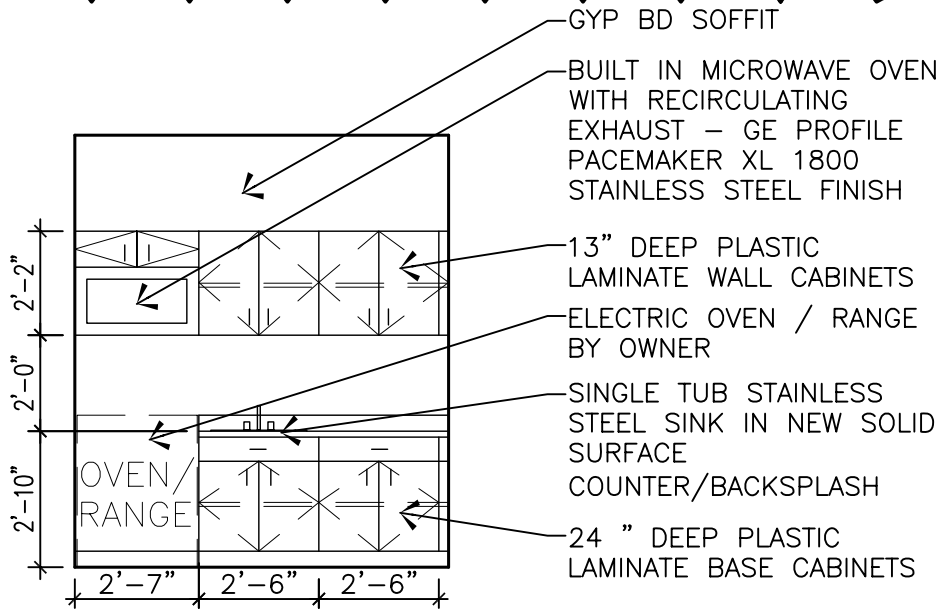
REVISION TO DRAWING 1 DEMOLITION PLAN + KEYED DEMOLITION NOTES						
Dane Co Public Safety Comm Center Infrastructure Upgrades						
Madison, Wisconsin Co Bid No. 309030		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">ADDENDUM 2</td> <td style="padding: 2px;">REF. SHEET AD21</td> </tr> <tr> <td style="padding: 2px;">12/30/09</td> <td style="padding: 2px;">A/SD-7</td> </tr> </table>	ADDENDUM 2	REF. SHEET AD21	12/30/09	A/SD-7
ADDENDUM 2	REF. SHEET AD21					
12/30/09	A/SD-7					



REVISION TO DRAWING 1 FLOOR PLAN		
Dane Co Public Safety Comm Center Infrastructure Upgrades		
Madison, Wisconsin Co Bid No. 309030		ADDENDUM 2
		12/30/09
		REF. SHEET A21 A/SD-8



REVISION TO DRAWING 1 REFLECTED CEILING PLAN		
Dane Co Public Safety Comm Center Infrastructure Upgrades		
Madison, Wisconsin Co Bid No. 309030		ADDENDUM 2
		12/30/09
		REF. SHEET A22 A/SD-9



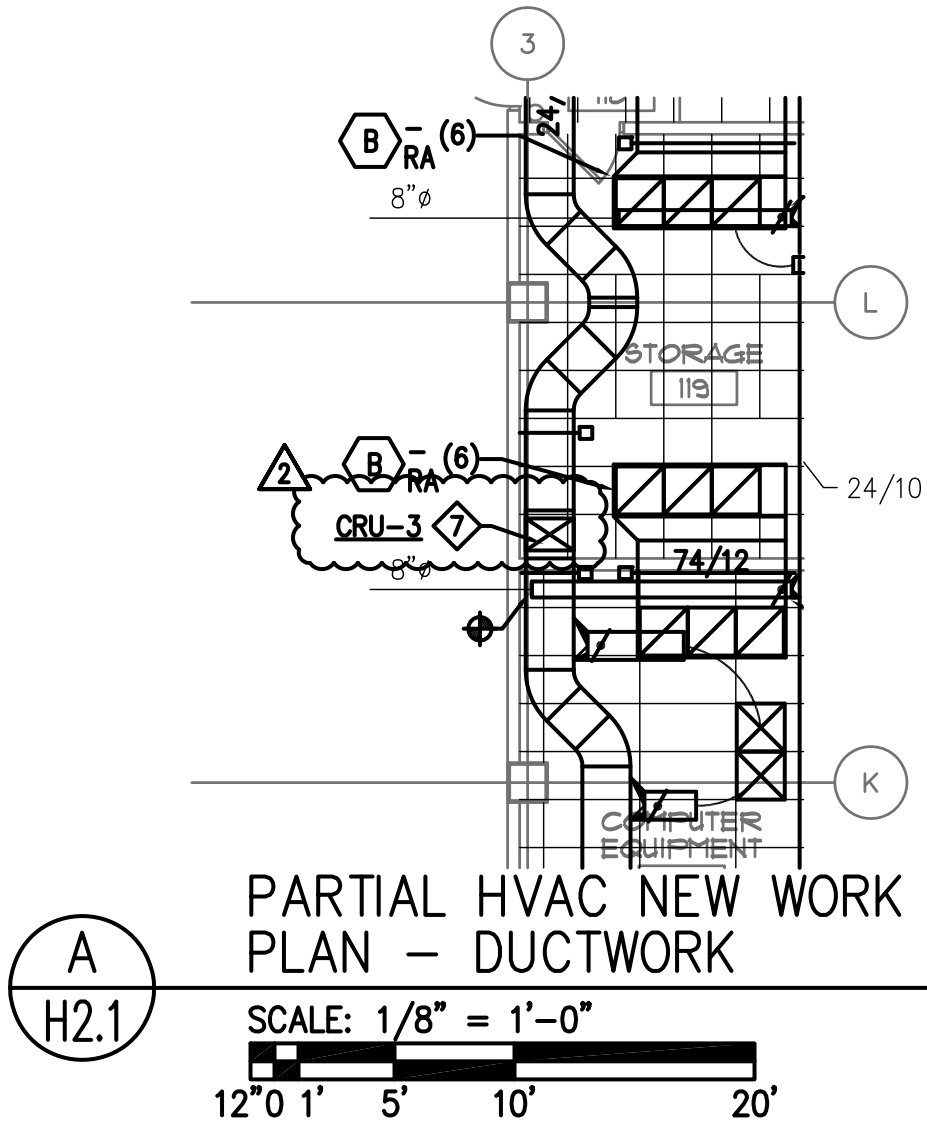
12 NEW MILLWORK CABINETRY - RM 111

1/4" = 1'-0"

EXIST	EXIST	EXIST	EXIST			
GPB	GPB	GPB	EXIST		NEW LOCKERS SEE ELEVS	NEW CERAMIC BASE AT NEW LOCKERS TO MATCH EXISTG
P-6	P-6	P-6				
GPB	GPB	GPB	ACT-1	CABINETS PL-1		PATCH TO MATCH VINYL COVE BASE, GPB SOFFIT
P-2	P-2	P-2		COUNTER SSM-1		P-2
GPB	GPB	GPB	ACT-1			
P-2	P-2	P-2				

ROOM FINISH SCHEDULE - ROOM 111 STAFF BREAK

REVISION TO RFS + ADDED DRAWING 12 FOR NEW MILLWORK		
Dane Co Public Safety Comm Center Infrastructure Upgrades		
Madison, Wisconsin Co Bid No. 309030		ADDENDUM 2 12/30/09
		REF. SHEET A5.1 A/SD-10



KEYED NOTES

- <4> REBALANCE EXISTING 8" DUCT TO 160 CFM.
- <5> REBALANCE EXISTING 10" DUCT TO 285 CFM.
- <6> REBALANCE EXISTING 12" DUCT TO 450 CFM.
- <7> 24/16 SA DUCT DOWN TO DISCHARGE OF CRU-3.

Henneman Engineering Inc.
 Madison: 1232 Fourier Drive, Suite 101 T 608.833.7000
 Madison, Wisconsin 53717-1960 F 608.833.6996
 Email: info@henneman.com Website: http://www.henneman.com
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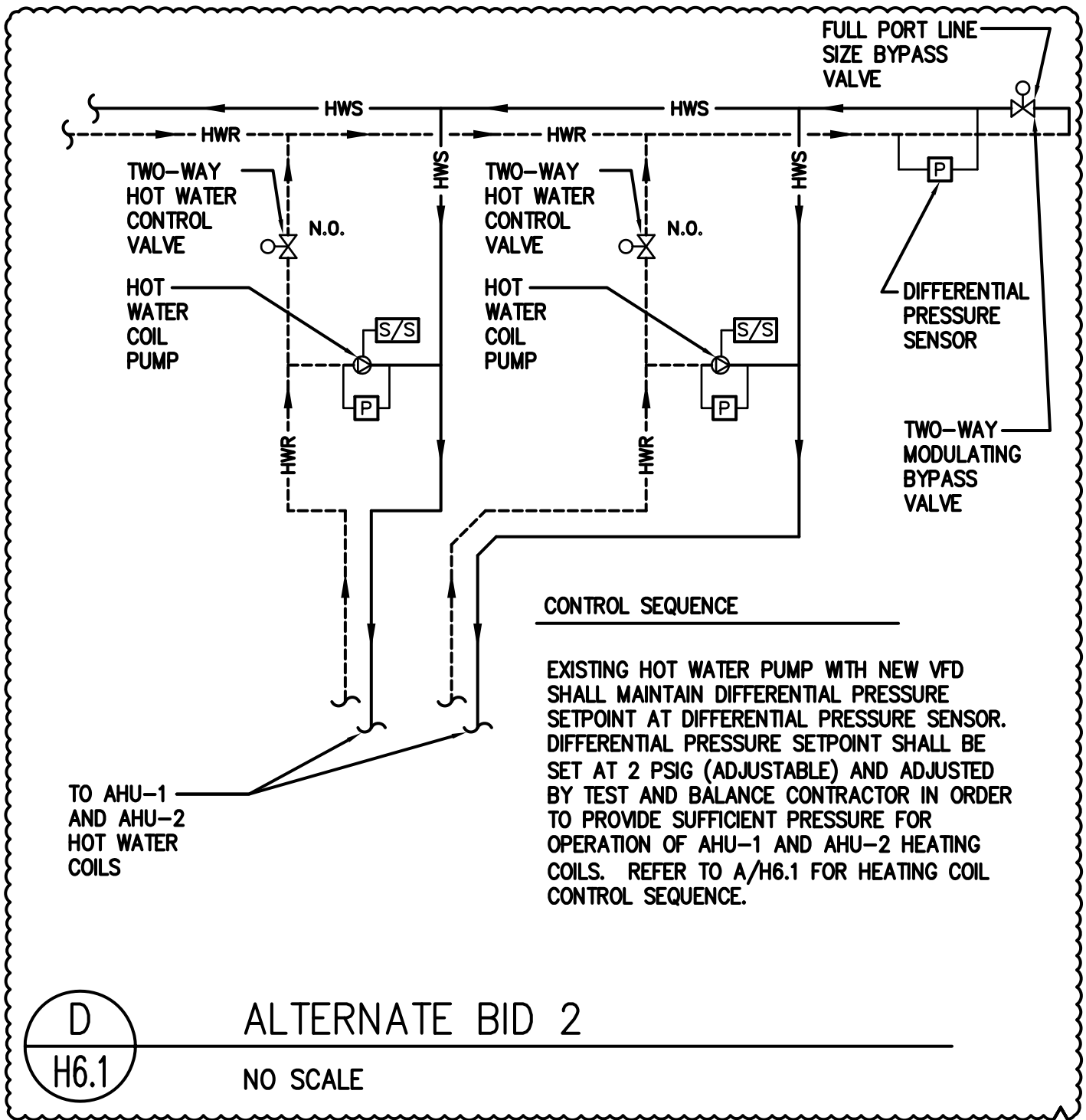
BID SET - ADDENDUM		
Dane Co Public Safety Comm Center Infrastructure Upgrades		
Madison, Wisconsin Co Bid No. 309030		ADDENDUM 2 12/30/09
		REF. SHEET H21 H/SD-5

UNIT HEATER SCHEDULE													
MARK	DESCRIPTION	SERVICE	AIR FLOW PATTERN	AIRFLOW CFM	FLOW RATE GPM	CAPACITY (MBH)	MOTOR				BASIS OF DESIGN MANUFACTURER AND MODEL	REMARKS	
							HP	RPM	VOLTS	PHASE			HETZ
UH-1	HORIZONTAL HOT WATER UNIT HEATER	MECH 116	HORIZONTAL INTAKE ANGLED RETURN	540	1.5	14.3	1/20	1,550	115	1	60	TRANE UHS-A-038-W	1

NOTES:
1. PROVIDE UNIT WITH ADJUSTABLE HORIZONTAL DISCHARGE LOUVERS.

Henneman Engineering Inc.
 Madison: 1232 Fourier Drive, Suite 101 T 608.833.7000
 Madison, Wisconsin 53717-1960 F 608.833.6996
 Email: info@henneman.com Website: http://www.henneman.com
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BID SET - ADDENDUM		
Dane Co Public Safety Comm Center Infrastructure Upgrades		
Madison, Wisconsin Co Bid No. 309030		ADDENDUM 2
		12/30/09
		REF. SHEET H5.1 H/SD-6



D
H6.1

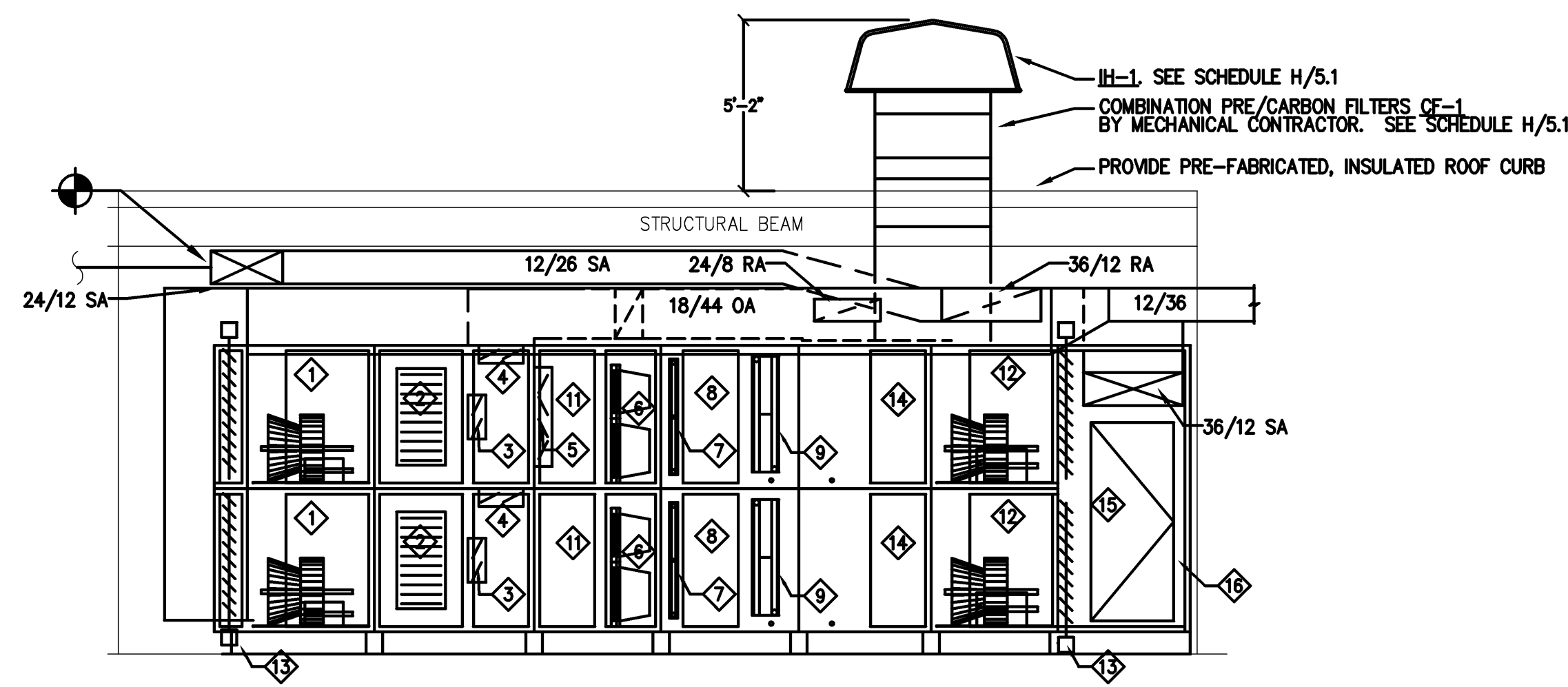
ALTERNATE BID 2

NO SCALE

2

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 Madison: 1232 Fourier Drive, Suite 101 T 608.833.7000
 Madison, Wisconsin 53717-1960 F 608.833.6996
 Email: info@henneman.com Website: http://www.henneman.com
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BID SET - ADDENDUM		
Dane Co Public Safety Comm Center Infrastructure Upgrades		
Madison, Wisconsin Co Bid No. 309030		ADDENDUM 2
		12/30/09
		REF. SHEET H6.1
		H/SD-7



C
H2.2 SECTION - MECHANICAL ROOM

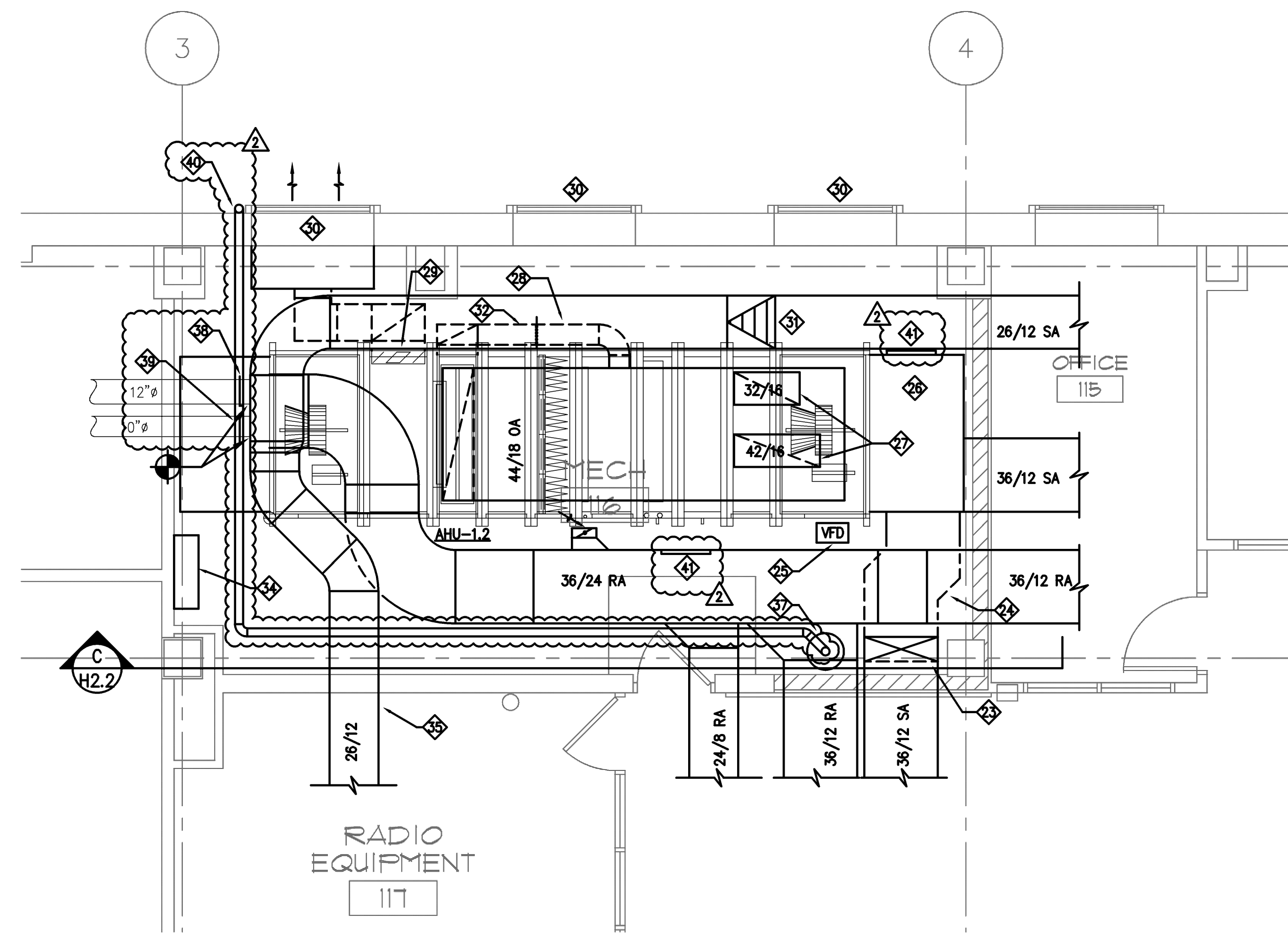
SCALE: 1/4" = 1'-0"
12' 0" 1' 5' 10'

GENERAL NOTES:

1. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS.
2. CONTRACTOR TO ENSURE AREAS REMAIN OPERATIONAL DURING CONSTRUCTION.
3. REFER TO DRAWINGS H1.1 AND H1.2 FOR OWNER FURNISHED AND CONTRACTOR INSTALLED EQUIPMENT.
4. EACH CONTRACTOR IS RESPONSIBLE FOR MAINTAINING BUILDING SECURITY. CONTRACTOR SHALL SUBMIT WORKING SCHEDULE TO FACILITY MANAGEMENT AND PUBLIC WORKS.

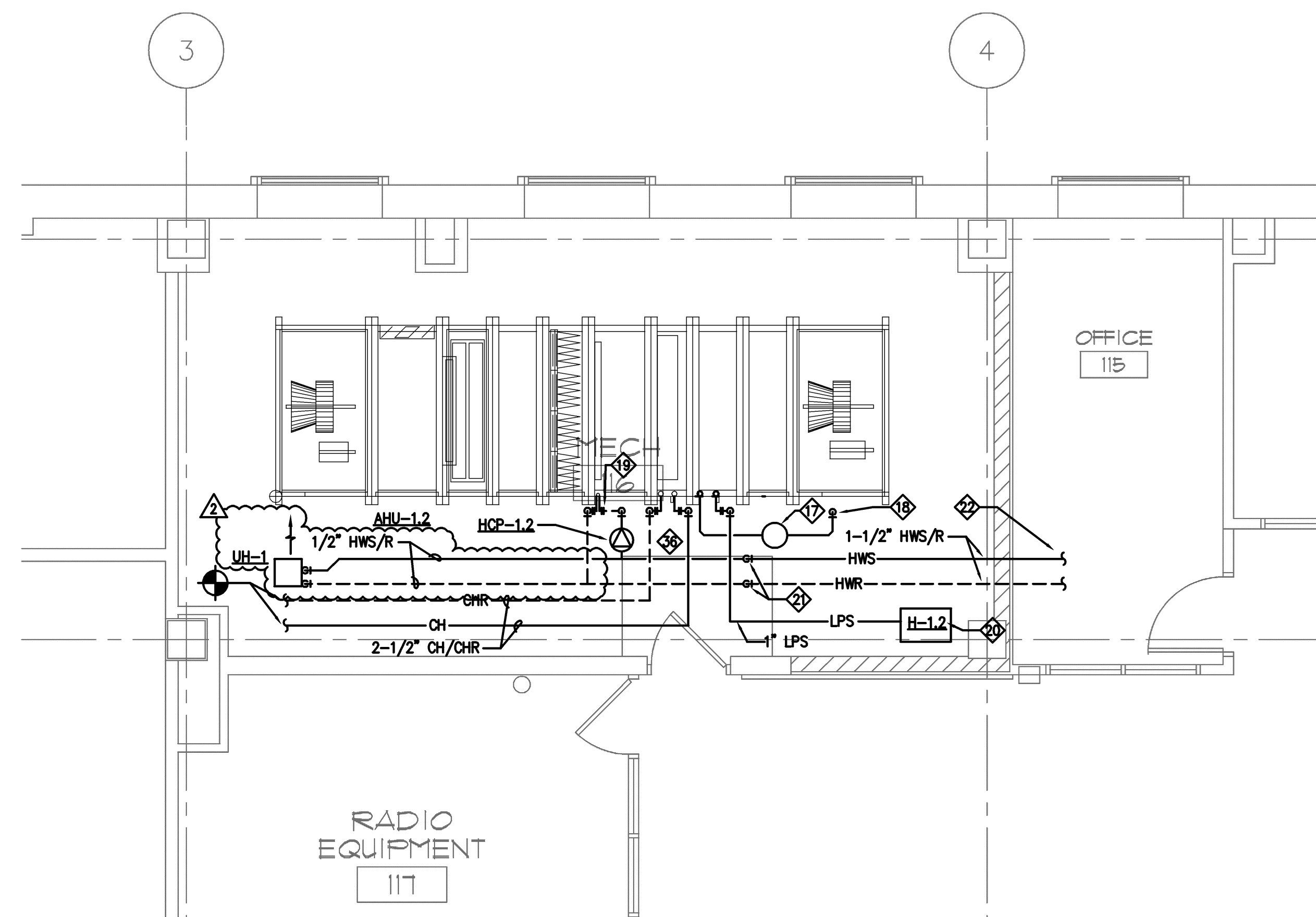
KEYED NOTES:

- ① PLENUM RETURN FAN.
- ② RELIEF AIR SECTION. PROVIDE DAMPER FULL SIZE OF OPENING.
- ③ 20X62 PARALLEL BLADE RETURN AIR DAMPER.
- ④ OA SECTION. PARALLEL BLADE DAMPERS FULL SIZE OF OPENINGS (TOP AND BACK SIDE). SECTION SHALL BE ONE SINGLE PLENUM SHARED BY AHU-1 AND AHU-2.
- ⑤ 30X72 OPPOSED BLADE ISOLATION AIR DAMPER.
- ⑥ COMBINATION FILTER SECTION (30% PREFILTER AND 65% FINAL FILTER).
- ⑦ HEATING COIL.
- ⑧ ACCESS SECTION.
- ⑨ COOLING COIL WITH DRAIN PAN.
- ⑩ HUMIDIFIER SECTION WITH DRIP PAN.
- ⑪ ACCESS SECTION.
- ⑫ PLENUM SUPPLY AIR FAN.
- ⑬ PARALLEL BLADE ISOLATION DAMPER.
- ⑭ ACCESS SECTION. PROVIDE ACCESS DOOR.
- ⑮ 24X72 DOOR. DOOR SHALL SWING INWARD.
- ⑯ SUPPLY AIR PLENUM SECTION.
- ⑰ DRAIN COOLER.
- ⑱ ROUTE STEAM CONDENSATE OPEN SITE TO FLOOR DRAIN.
- ⑲ HOT WATER PUMPS 1 AND 2 BY MECHANICAL CONTRACTOR. SEE C/H4.1.
- ⑳ HUMIDIFIER STEAM GENERATOR. CONTRACTOR TO PROVIDE LOW PRESSURE STEAM PIPING AS SHOWN. REFER TO PLUMBING DRAWINGS FOR COLD WATER PIPING CONNECTION.
- ㉑ HOT WATER SUPPLY AND RETURN PIPING DOWN TO AVOID LOW PRESSURE STEAM AND CHILLED WATER PIPING.
- ㉒ FOR CONTINUATION, SEE B/H2.1.
- ㉓ 36/12 SUPPLY AIR UP
- ㉔ OFFSET SUPPLY AIR DUCT AROUND COLUMN AS SHOWN.
- ㉕ VARIABLE FREQUENCY DRIVES MOUNTED ON UNISTRUT AND PROVIDED BY MECHANICAL CONTRACTOR.
- ㉖ SUPPLY AIR PLENUM.
- ㉗ 32/16 AND 42/16 OA DOWN FROM INTAKE ON LOW ROOF. SEE C/H2.2.
- ㉘ TAP 18/10 OA DUCT TO SIDE OF OA PLENUM AND CONNECT FULL SIZE ON AHU-1 AND AHU-2 SIDE OA INTAKE AS SHOWN.
- ㉙ ROUTE RELIEF AIR FULL SIZE OF AHU-1 AND AHU-2 OUT THROUGH NEW LOUVER AS SHOWN.
- ㉚ PROVIDE NEW LOUVER. SEE SPECIFICATIONS. BLANK OFF AND INSULATE LOUVER AS SHOWN. SEE D/H4.2.
- ㉛ SLOPE SUPPLY AIR DUCT UP APPROXIMATELY 1'-2" AS REQUIRED TO AVOID OA INTAKE DUCT. SEE C/H2.2.
- ㉜ AIRFLOW MEASURING STATION. MAINTAIN 1'-8" CLEAR FROM TAPS, BENDS, OR TRANSITIONS, BEFORE AND AFTER TO MAINTAIN ACCURACY.
- ㉝ NOT USED
- ㉞ NEW DDC CONTROL PANEL TO BE MOUNTED AFTER THE REMOVAL OF THE UPS BATTERIES.
- ㉟ MECHANICAL CONTRACTOR SHALL COORDINATE LOCATION WITH EXISTING AND NEW ELECTRICAL COMPONENTS.
- ㊱ PIPING TYPICAL OF BOTH AHU-1 AND AHU-2. REFER TO H6.1.
- ㊲ RELOCATED CENTRAL VACUUM SYSTEM. ROUTE VACUUM EXHAUST FULL SIZE OF DISCHARGE AS SHOWN. CONTRACTOR SHALL VERIFY DISCHARGE SIZE.
- ㊳ REBALANCE EXISTING DUCT TO 850 CFM.
- ㊴ REBALANCE EXISTING DUCT TO 540 CFM.
- ㊵ DISCHARGE VACUUM EXHAUST DOWN. CAP WITH BIRDSCREEN.
- ㊶ 24" X 24" PRESSURE RELIEF PANEL.



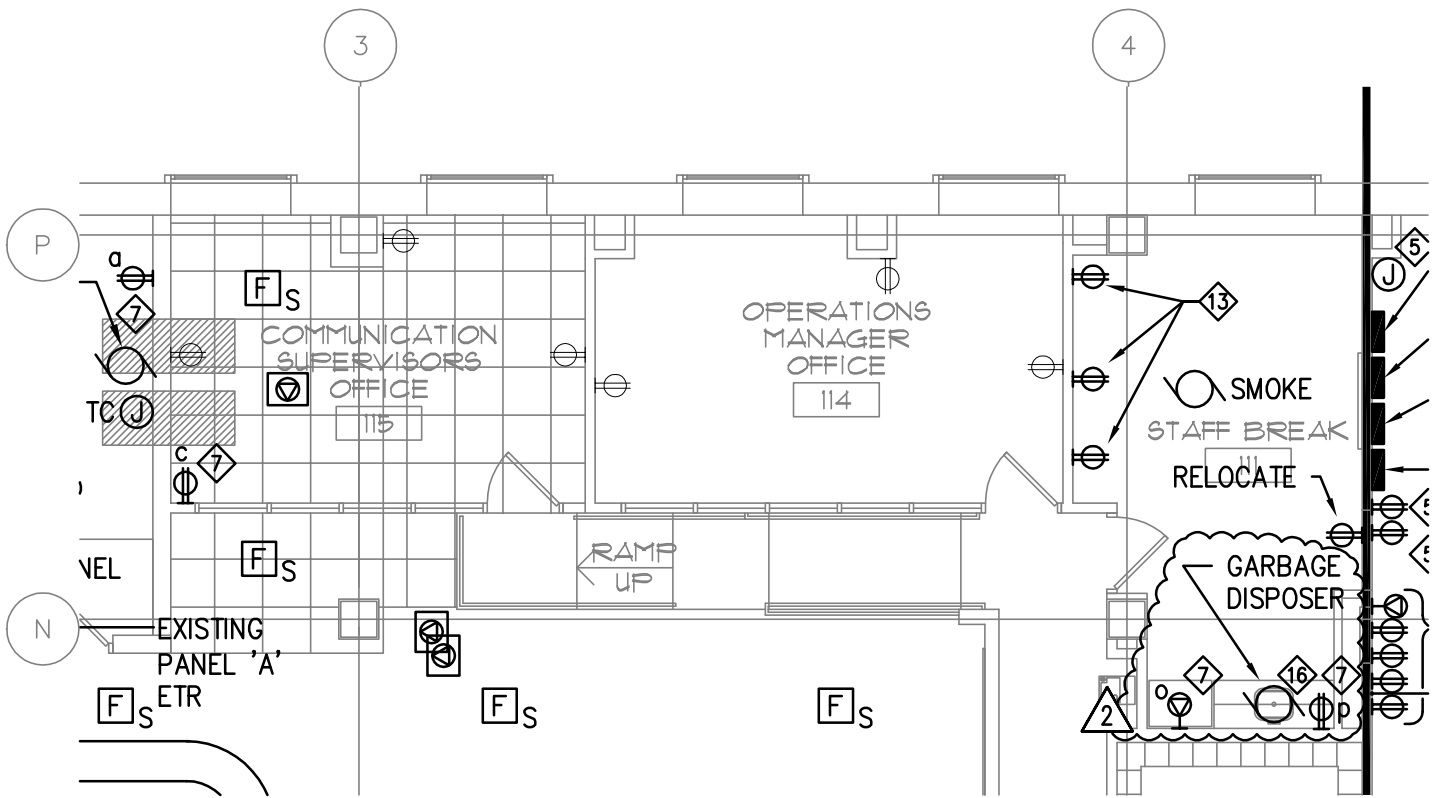
A
H2.2 HVAC NEW WORK PLAN - DUCTWORK

SCALE: 1/4" = 1'-0"
12' 0" 1' 5' 10'

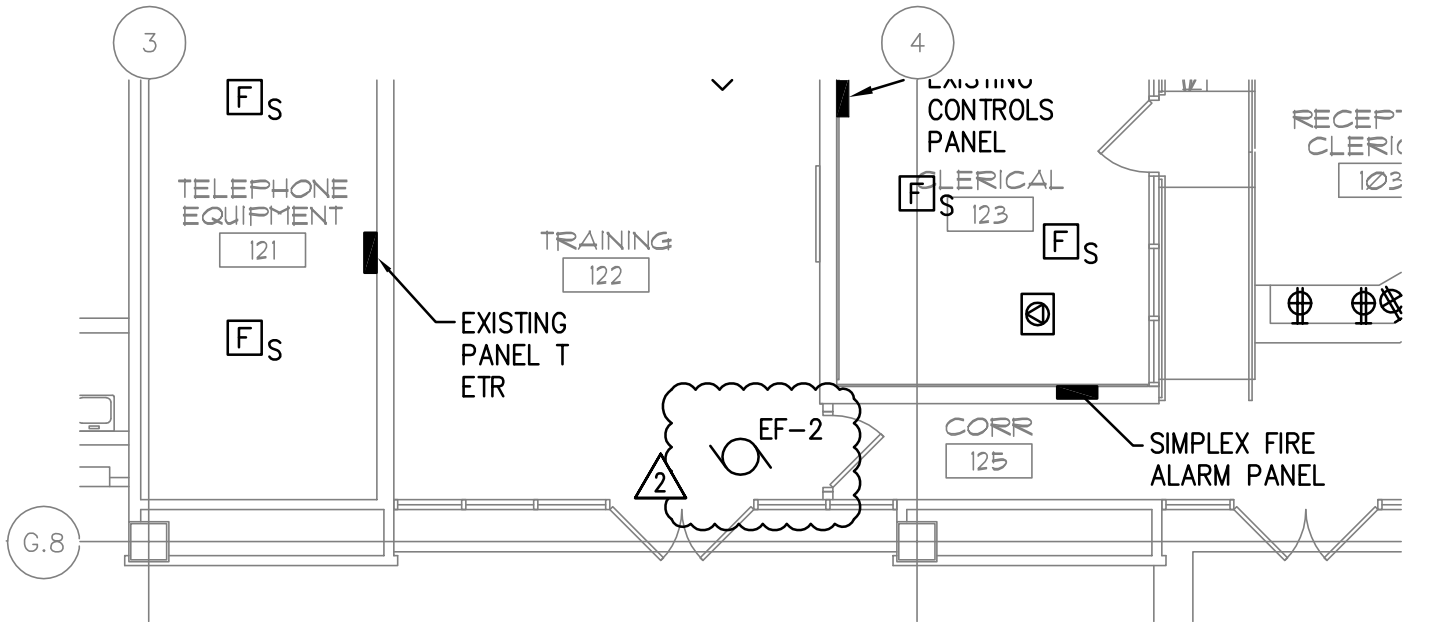


B
H2.2 HVAC NEW WORK PLAN - PIPING

SCALE: 1/4" = 1'-0"
12' 0" 1' 5' 10'

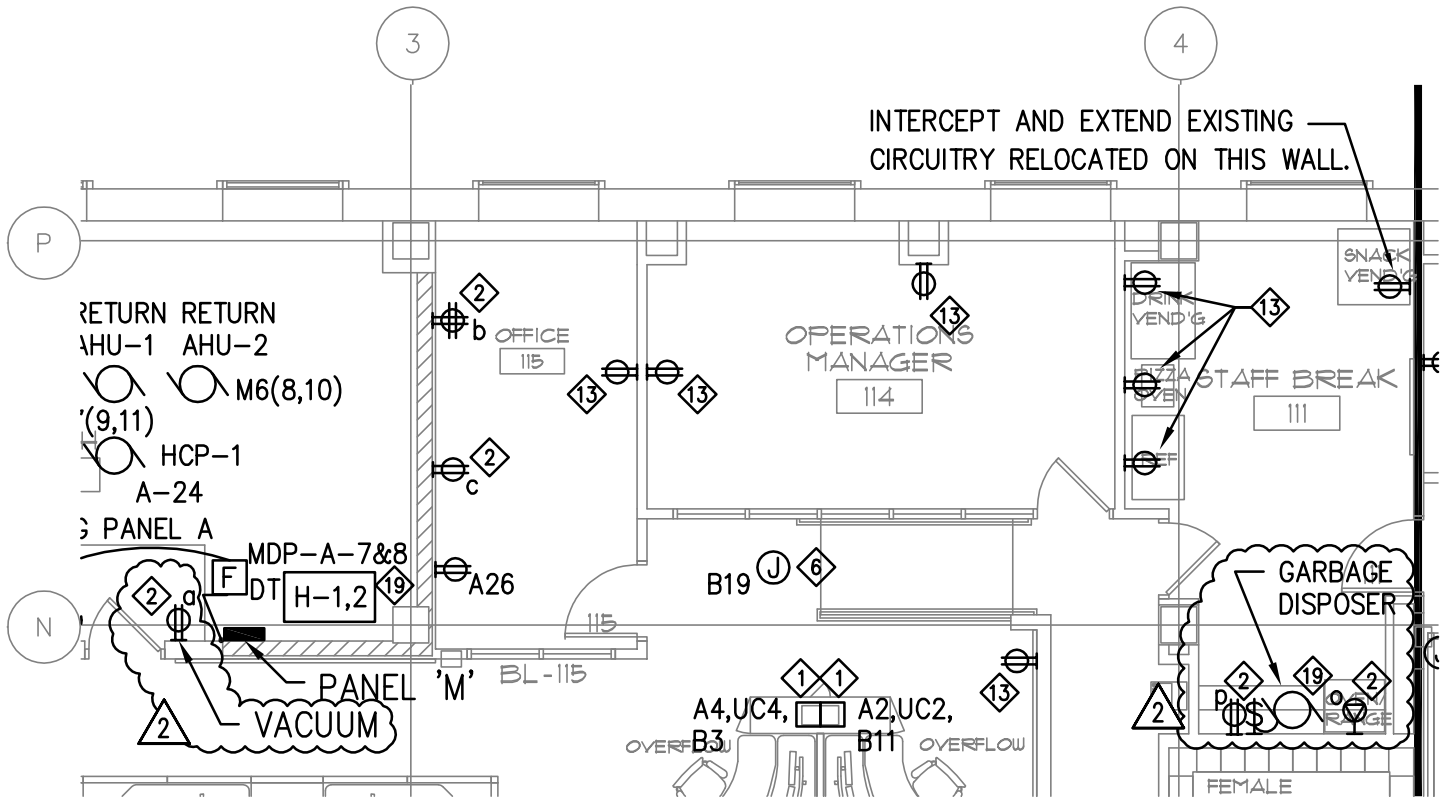


16 DISCONNECT EXISTING CIRCUITRY AND SWITCH ASSOCIATED WITH THE GARBAGE DISPOSER. REUSE EXISTING CIRCUITRY ONLY.



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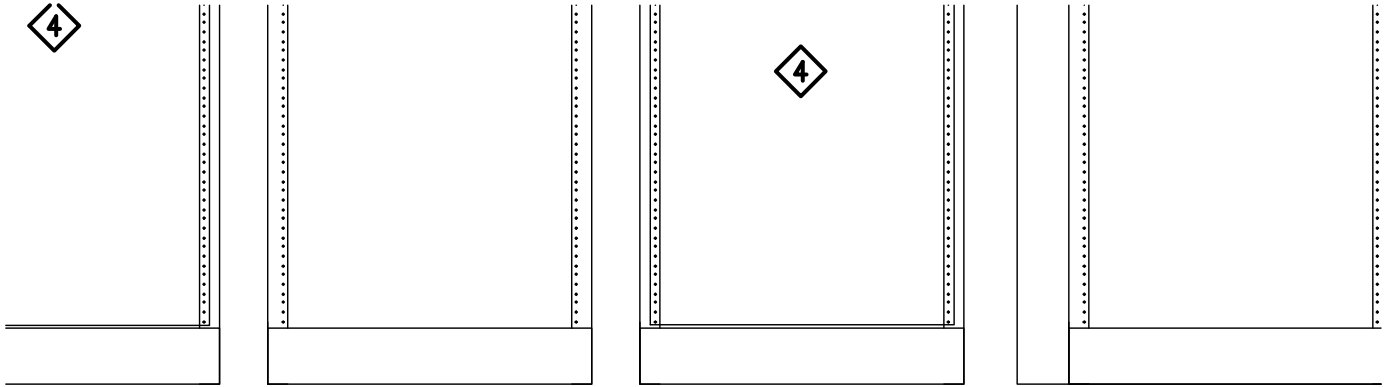
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19 REUSE EXISTING CIRCUITRY AND PROVIDE NEW SWITCH AS INDICATED, MOUNT 6" ABOVE COUNTERTOP.

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C
T2.1

EXISTING RACK ELEVATIONS

NO SCALE

GENERAL NOTES:

1. VERIFY EXACT NEW PATCH PANEL LOCATIONS IN EXISTING RACKS.

DETAIL NOTES:

- 1 (1) NEW 48 PORT ANGLED PATCH PANEL DEDICATED TO CLEAR CUBE TECHNOLOGY CABLING.
- 2 (1) NEW 48 PORT ANGLED PATCH PANEL DEDICATED TO RADIO CABLING. THE CABLES DESIGNATED "DR" TO BE TERMINATED AT THIS PATCH PANEL FOR FUTURE RADIO COMMUNICATIONS.
- 3 (3) NEW PATCH PANELS DEDICATED TO DANE COUNTY NETWORK DATA CABLING.
- 4 EXISTING OWNER EQUIPMENT. DO NOT DISTURB DURING ANY PHASE OF THIS PROJECT.
- 5 (3) PATCH PANELS INSTALLED FOR TEMPORARY ANNEX MOVE. AFTER NEW WORK STATIONS ARE FULLY FUNCTIONAL IN THIS PHASE AS DEEMED BY OWNER (CHAD FLECK) THESE PATCH PANELS AND OVER CEILING CABLING CAN BE REMOVED.

- 6 PROVIDE (1) 12 STRAND 62.5 MICRON PLENUM RATED MULTI MODE FIBER OPTIC CABLE. FIBER TO BE SUITABLE FOR INSTALLATION IN FREE AIR, IN BUILDING RISERS, IN CONDUIT, IN INNER DUCT, SUITABLE FOR USE IN VERTICAL SHAFT OR FROM FLOOR TO FLOOR AND SHALL BE UL LISTED AS HAVING FIRE-RESISTANT CHARACTERISTICS. PROVIDE LC TYPE FIBER OPTIC CONNECTORS: PANDUIT, CORNING, SIEMON OR PRE-APPROVED ALTERNATE. REFER TO SHEET T2.2 FOR ROUTING OF CABLE FROM EXISTING COMPUTER ROOM 120 TO EXISTING THIRD FLOOR TELECOMMUNICATIONS ROOM.

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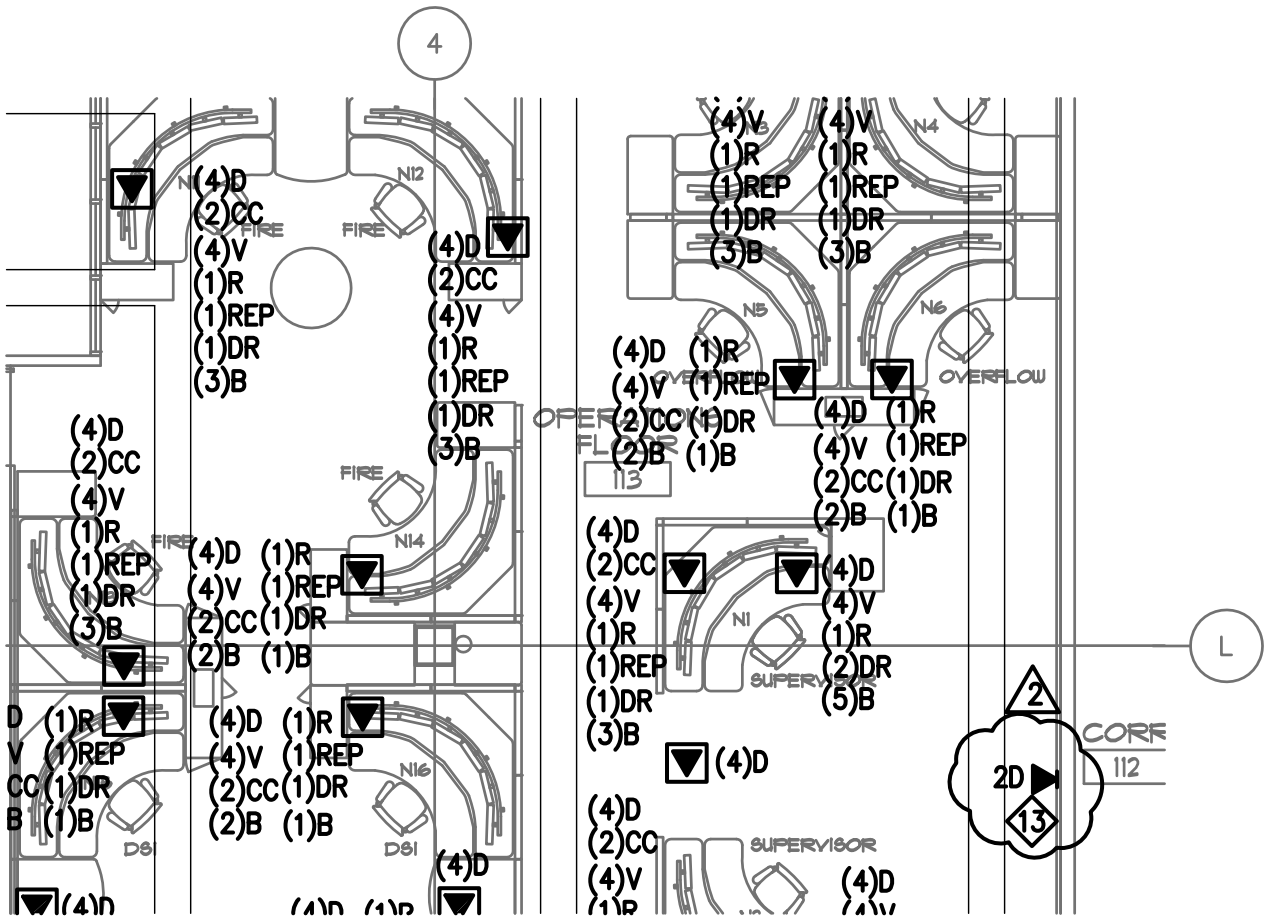
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Madison, Wisconsin
 Co Bid No. 309030

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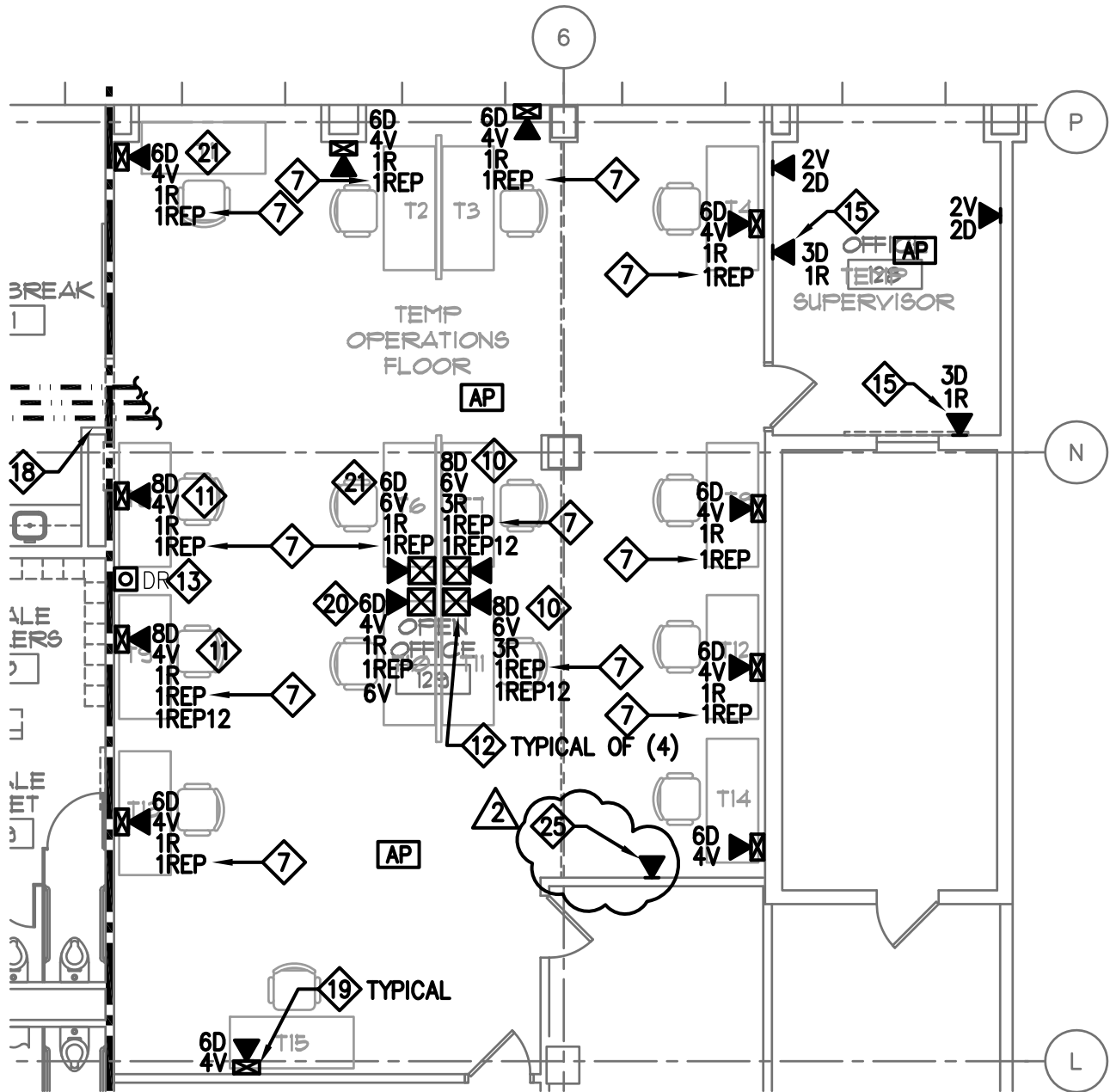
REF. SHEET T21
T/SD-1



2 13 OUTLET WITH 2 NETWORK DATA JACKS FOR 911 QUEUE BOARD. VERIFY MOUNTING HEIGHT W/OWNER BEFORE ROUGH-IN.

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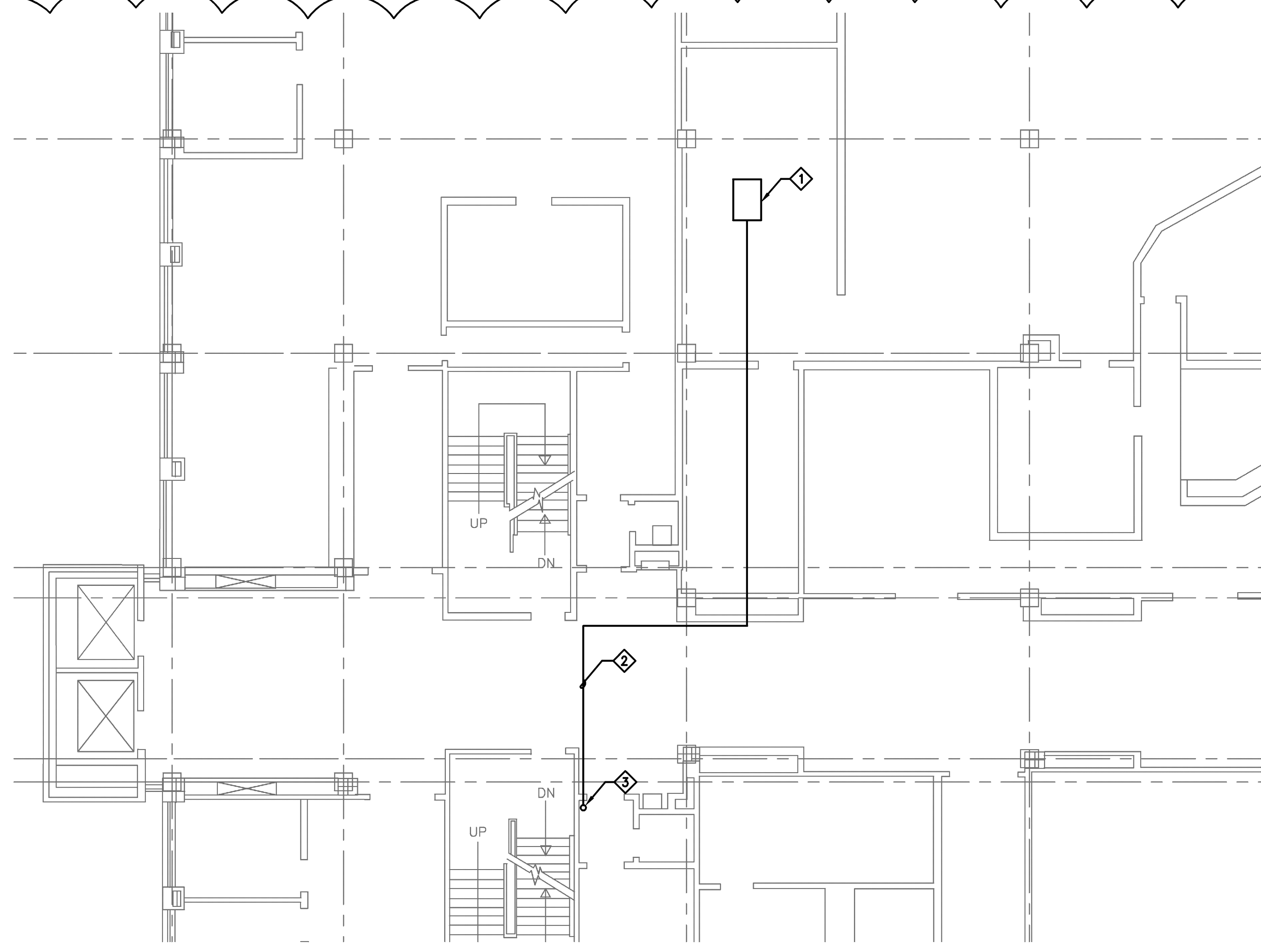
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		12/30/09
		REF. SHEET T21 T/SD-2



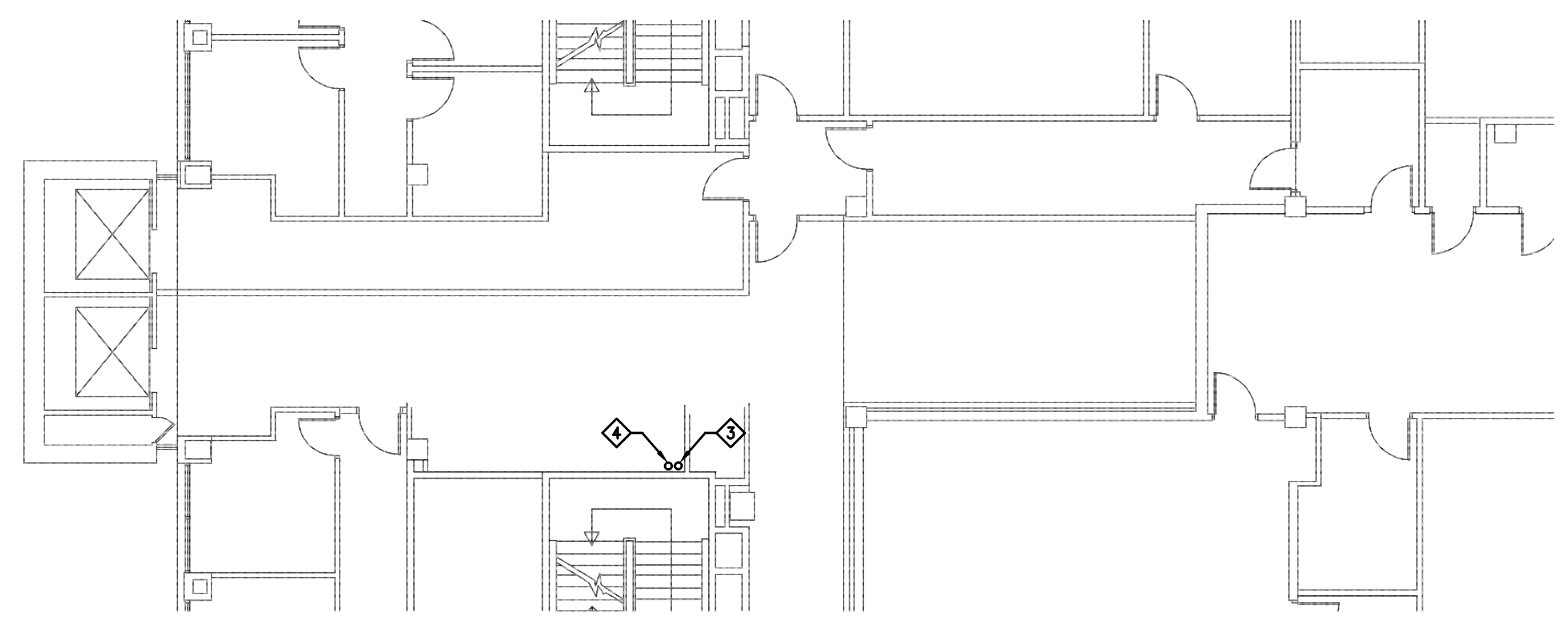
25 OUTLET WITH 2 NETWORK DATA JACKS FOR 911 QUEUE BOARD. VERIFY MOUNTING HEIGHT W/OWNER BEFORE ROUGH-IN.

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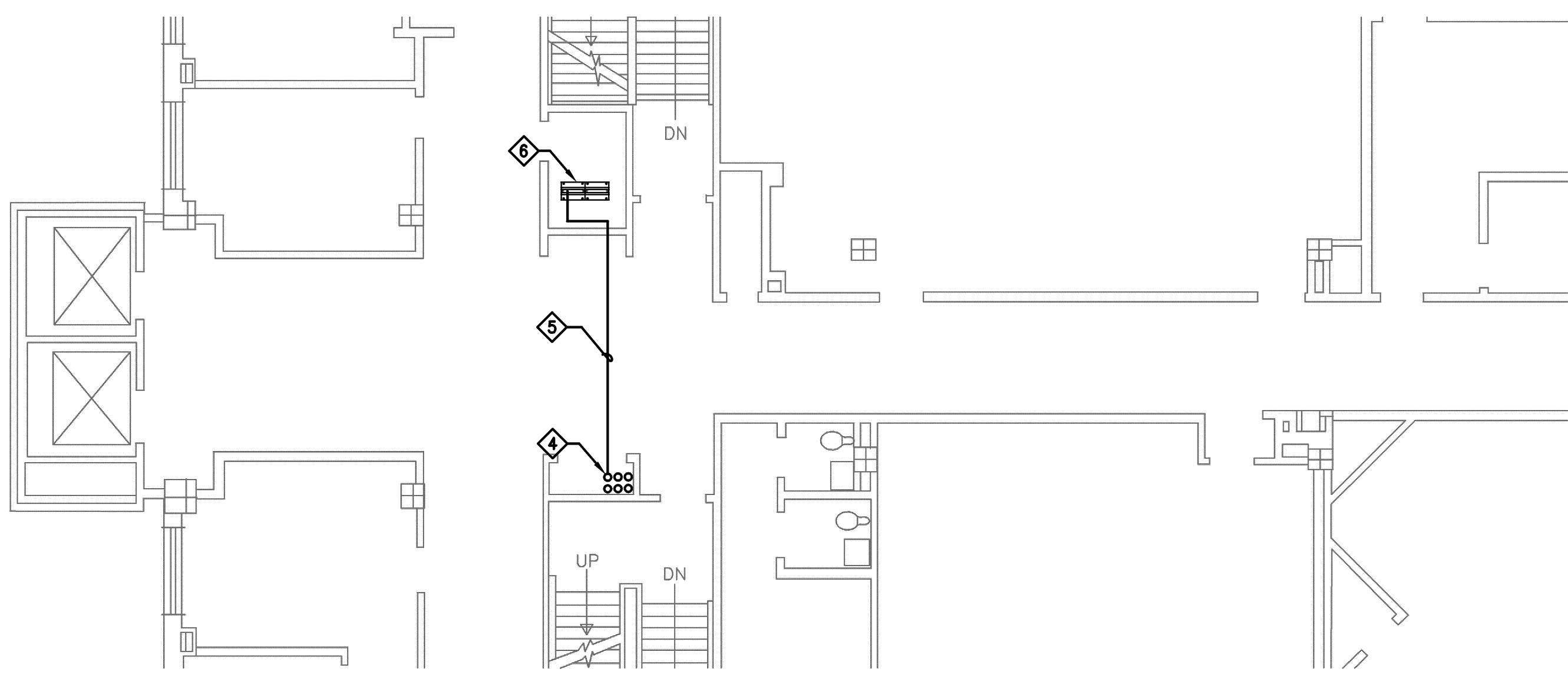
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Dane Co Public Safety Comm Center Infrastructure Upgrades		
Madison, Wisconsin Co Bid No. 309030		ADDENDUM 2
		12/30/09
		REF. SHEET TT11
		T/SD-3



A
T2.2
PARTIAL TELECOM PLAN - FIRST FLOOR
SCALE: 1/8" = 1'-0"
12' 0" 1' 5' 10' 20'



B
T2.2
PARTIAL TELECOM PLAN - SECOND FLOOR
SCALE: 1/8" = 1'-0"
12' 0" 1' 5' 10' 20'



C
T2.2
PARTIAL TELECOM PLAN - THIRD FLOOR
SCALE: 1/8" = 1'-0"
12' 0" 1' 5' 10' 20'

- SHEET NOTES:**
- ◇ EXISTING FIBER OPTIC SHELF. SEE DETAIL C/T2.1 PLAN NOTE 6 FOR ADDITIONAL INFORMATION.
 - ◇ IF POSSIBLE, ROUTE NEW FIBER WITHIN EXISTING "LIVE" INNERDUCT THAT ROUTES FROM ROOM TO EXISTING FIBER OPTIC SHELF IN COMPUTER EQUIPMENT ROOM 120. IF NOT POSSIBLE, CONTRACTOR TO PROVIDE 1 1/4" PLENUM RATED INNERDUCT ABOVE CEILINGS TO PULL BOX IN TELECOM ROOM ADJACENT TO STAIR. ROUTE SHOWN FOR INFORMATION ONLY. FIELD VERIFY AND CONFIRM EXACT ROUTE BEFORE COMMENCING INSTALLATION. ALL DISRUPTED CEILING TILE IN MAIN CORRIDOR TO BE REPLACED. ALL NEW FIRE WALL PENETRATIONS TO BE SEALED WITH APPROPRIATE UL LISTED FIRE STOP SYSTEM. PROVIDE A PULL STRING IN NEW INNERDUCT.
 - ◇ IF POSSIBLE, REUSE EXISTING SLEEVE THROUGH SECOND FLOOR TO ABOVE CEILING ON FIRST FLOOR FOR OPTICAL FIBER IN NEW INNERDUCT. IF NOT POSSIBLE, CORE NEW HOLE IN FLOOR OF SECOND FLOOR TO ROUTE NEW INNER DUCT THROUGH. PROVIDE UL LISTED FIRE STOP SYSTEM WHEN WORK IS COMPLETED.
 - ◇ ROUTE NEW INNERDUCT THROUGH EXISTING SLEEVE THROUGH THIRD FLOOR DOWN TO SECOND FLOOR TELECOM ROOM. PROVIDE INNERDUCT TO FIBER COIL BOX. COIL A MINIMUM OF 10 FEET OF FIBER IN BOX AND ROUTE FIBER OUT OF BOX IN NEW INNERDUCT UP TO CEILING SPACE, OUT OF TELECOM ROOM, OVER CORRIDOR CEILING AND INTO EXISTING TELECOM ROOM AS INDICATED.
 - ◇ ROUTE OF NEW INNER DUCT IS FIR INFORMATION ONLY. FIELD COORDINATE EXACT ROUTE BEFORE BEGINNING INSTALLATION.
 - ◇ PROVIDE NEW FIBER OPTIC PATCH PANEL: PANDUIT, BELDEN, SYSTEMAX OR PRE-APPROVED ALTERNATE. PANEL TO MOUNT AT TOP OF EXISTING 19" EQUIPMENT RACK, RIGHT MOST RACK. PROVIDE STRAIN RELIEF FOR INCOMING CABLES AND LABELING FOR INDIVIDUAL CONNECTORS. DUPLEX-LC TYPE COUPLINGS. ACCESS TO INSIDE OF PANEL ENCLOSURE DURING INSTALLATION SHALL BE FROM FRONT AND REAR.

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Date of Issue 11/30/09

No. Description Date

1 ADDENDUM #2 12/30/09

Reference Diagram

Reference Plan

Dane County Public Safety Communications Center Infrastructure Upgrades

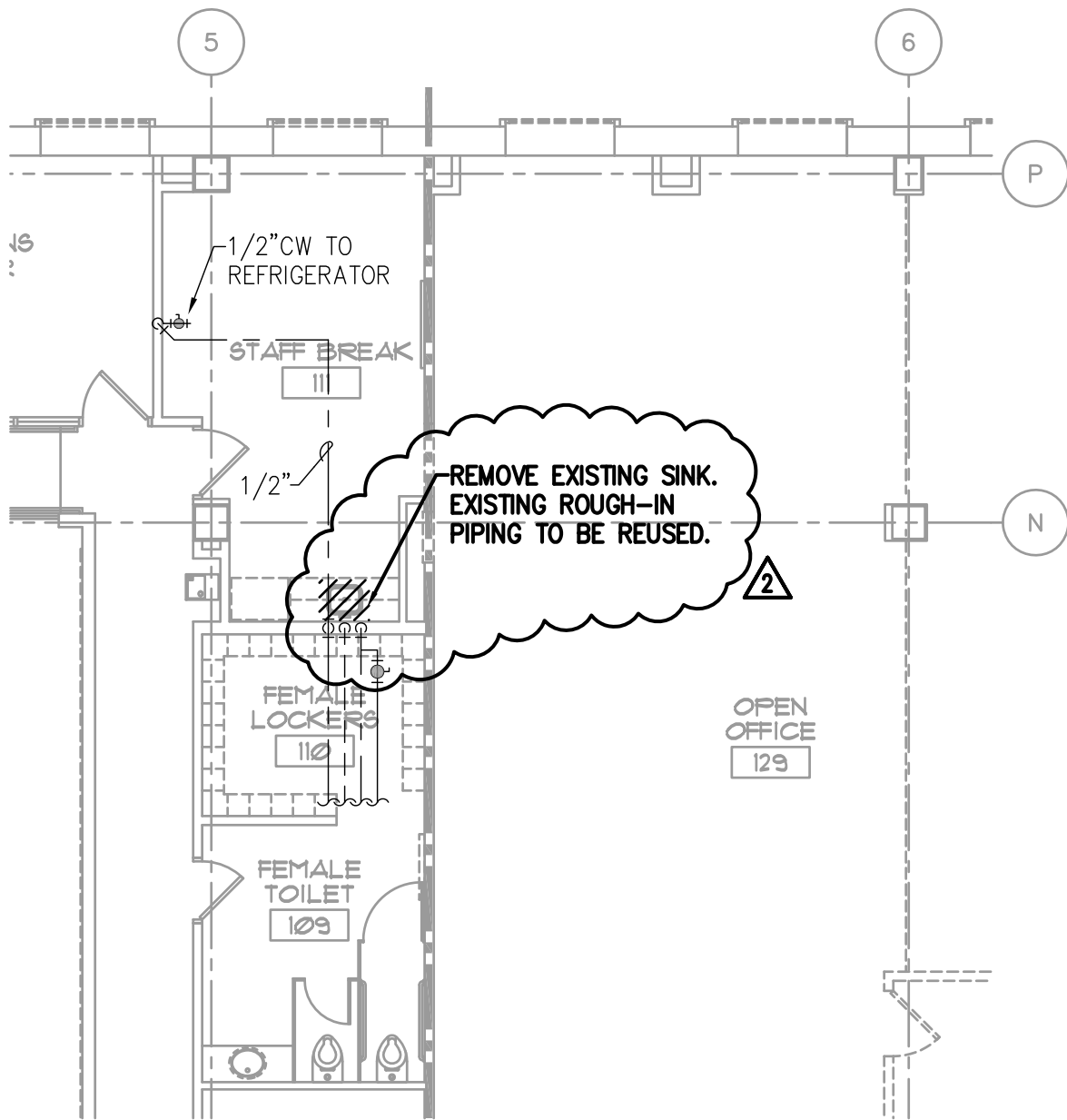
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Sheet Name
 TELECOM
 NEW WORK PLAN

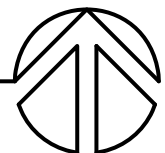
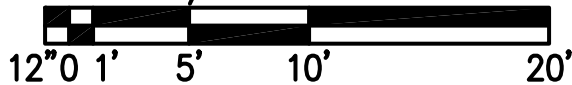
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T2.2



B
PD2.1

DEMOLITION PLAN - PLUMBING

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



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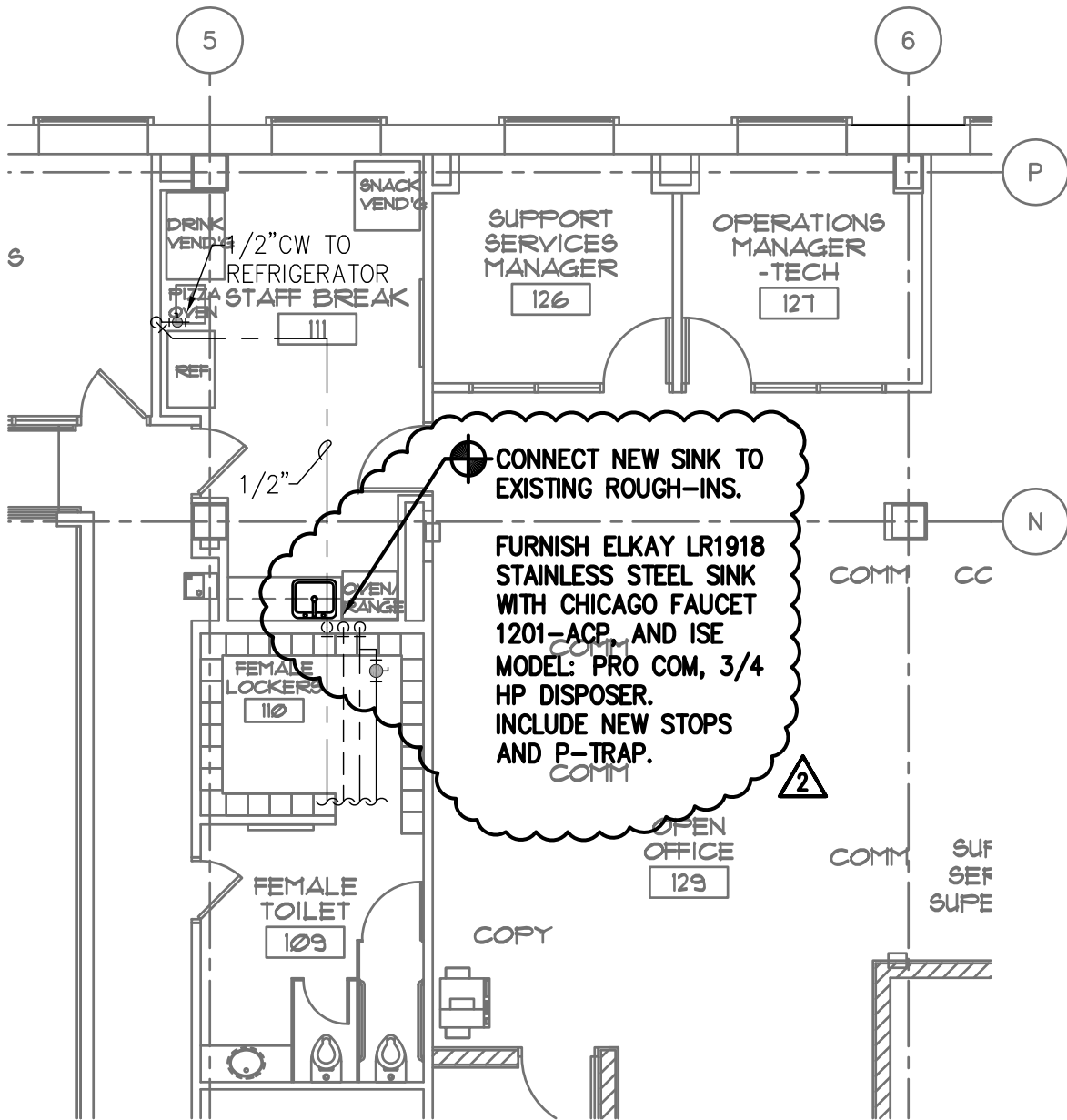
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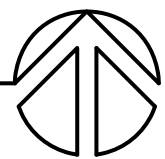
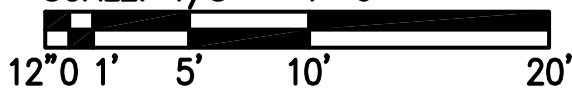
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 P/SD-2



B
P2.1

NEW WORK PLAN - PLUMBING

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



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		REF. SHEET P2.1 P/SD-3