



**Canadian County  
Purchasing**

**Addendum**

Date Issued: April 18, 2016  
Bid Number: **2016-#21**  
Closing Date: May 16, 2016 at 9:30am  
PO Box 458, 201 N. Choctaw Ave., El Reno, OK 73036  
Opening Date: May 16, 2016 at 9:30am  
Commissioner's Meeting Room, 201 N. Choctaw Ave., El Reno, OK 73036

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~ ADDENDUM ~  
HVAC System / County Commissioners

Please see attached addendum number (1) one to the plans and specifications for the roof replacement and HVAC System for the Canadian County Administration Building.

For more information contact:

**Tom Ratanasin, AIA**  
**Boynton Williams & Associates**


Phone: (405) 329-0423

Hours: Monday – Friday 8:00am to 4:00pm

Address: 900 36<sup>th</sup> Avenue NW, Suite 100, Norman, OK 73072

Email: tomr@bwaarchitects.com

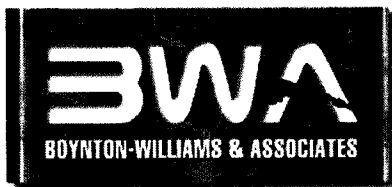
Witness my hand and seal this 5<sup>th</sup> day of May 2016.

  
\_\_\_\_\_  
Sherry Murray, Purchasing Agent

(SEAL)



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If you have any questions or need additional information, please contact:  
**Sherry Murray**, Purchasing Agent, 405.295.6125 or 405.422.2441  
smurray@okcana.cogov.net



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**ADDENDUM NUMBER ONE  
TO THE PLANS AND SPECIFICATIONS  
FOR  
CANADIAN COUNTY  
ADMINISTRATION BUILDING  
RE-ROOF AND HVAC REPLACEMENT  
200 N. CHOCTAW AVE.  
EL RENO, OKLAHOMA 73036  
ARCHITECT'S PROJECT NUMBER N16001**

May 5<sup>RD</sup>, 2016

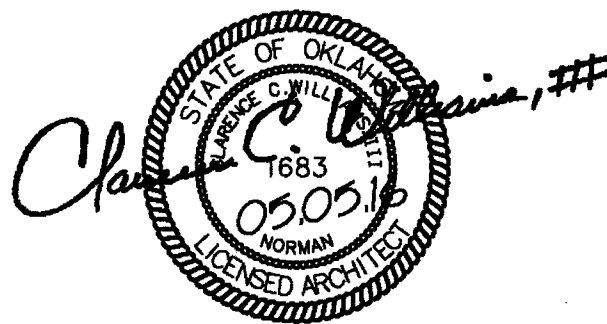
The following items, applicable to the work designated, shall be understood to be an Addendum, and as such, shall be included in the Contract Documents.

General Contractor is to inform all subcontractors and suppliers of the Addendum items as appropriate or applicable to their portion of the work.

**Clarifications:**

1. Existing roof condition: EPDM single ply roof system w/ 1/2" recover board over 3ply built-up roofing system. Field verify.
2. Existing antenna on roof shall be removed and discarded.
3. Mandatory Pre-bid Meeting attendance lists. See following pages.

**Mechanical, plumbing and electrical addendum:** - Following pages



END OF ADDENDUM

# MECHANICAL ADDENDUM NO. 1

Roof Replacement & HVAC Renovation  
CANADIAN COUNTY OFFICE BUILDING  
201 N. CHOCTAW AVE.  
EL RENO, Oklahoma 73036

PROJECT NO. N16001  
DATE: 05/05/2016

**NOTICE:** The following amendments, additions, deletions, and/or corrections are hereby made to the drawings and specifications where applicable to accomplish the following.

## **MECHANICAL ITEMS:**

### **GENERAL MECHANICAL ITEMS:**

#### Item No. 1 TEMPORARY MECHANICAL COOLING AND HEATING

- a. The contractor shall provide temporary heating and cooling in areas that the owner leaves personnel in. The spaces shall be maintained at a minimum of 68 degrees in the heating season and a maximum of 77 degrees F in the cooling season. The owner will remove personnel to the extent possible, however some space may have personnel. The use of spot cooling and heating is allowed.
- b. It is believed that the HVAC renovation work will be completed prior to the overall building needing heat. If the contractor runs into the heating season, all area's of the building will be furnished with temporary heating to maintain all areas above freezing.

### **REFERENCE THE DRAWINGS:**

#### Item No. 1 Refer to Sheet 2M2 FIRST FLOOR MECHANICAL PLAN

- a. Add FCU2-26 as indicated. The contractor shall bid this item as HVAC Alt #1.
- b. Add Keyed Note 11.

#### Item No. 2 Refer to Sheet 2M3 MECHANICAL ROOF PLAN

- a. Refer to A/2M3, Add locations of keyed notes 6 and 7 as indicated. The contractor shall replace all fan curbs as noted.
- b. Add Keyed Notes 6 and 7
- c. Add General Note 5.

#### Item No. 3 Refer to Sheet 2M4 BASEMENT HYDRONIC PIPING PLAN

- a. Add piping to FCU2-26 as indicated. The contractor shall bid this piping as HVAC Alt #1.
- b. Cap 1 ¼" CHS/CHR in southeast corner as indicated.

- Item No. 4     Refer to Sheet 2M5 FIRST FLOOR HYDRONIC PIPING PLAN
- a. Add piping to FCU2-26 as indicated. The contractor shall bid this piping as HVAC Alt #1.

- Item No. 5     Refer to Sheet 5M1 MECHANICAL SCHEDULES

1. Refer to FAN COIL UNIT SCHEDULE.
  - a. Add FCU2-26 to this schedule.
  - b. Modify note 4 as indicated.

- Item No. 6     Refer to Sheet 2MD1 BASEMENT MECHANICAL DEMOLITION FLOOR PLAN

- a. Remove and Cap 1 ¼" CHS/CHR in southeast corner as indicated.

- Item No. 7     Refer to Sheet 2MD2 FIRST FLOOR MECHANICAL DEMOLITION PLAN

- a. Remove 1 ¼" CHS/CHR in southeast corner as indicated.

END OF MECHANICAL ADDENDUM NO. ONE

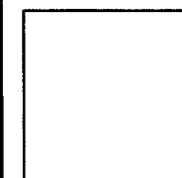
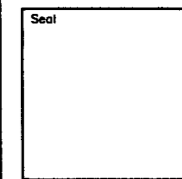


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**Roof Replacement & HVAC Renovation**  
**CANADIAN COUNTY OFFICE BUILDING**  
201 N. CHOKTAW AVE.  
EL RENO, OKLAHOMA 73036  
BASEMENT MECHANICAL  
DEMOLITION PLAN

Revisions  
5/5/16  
ADDENDUM 1

Issue Date  
03.29.16

Project No.  
N16001

Sheet No.

**2MD1**

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**DEMOLITION NOTES:**

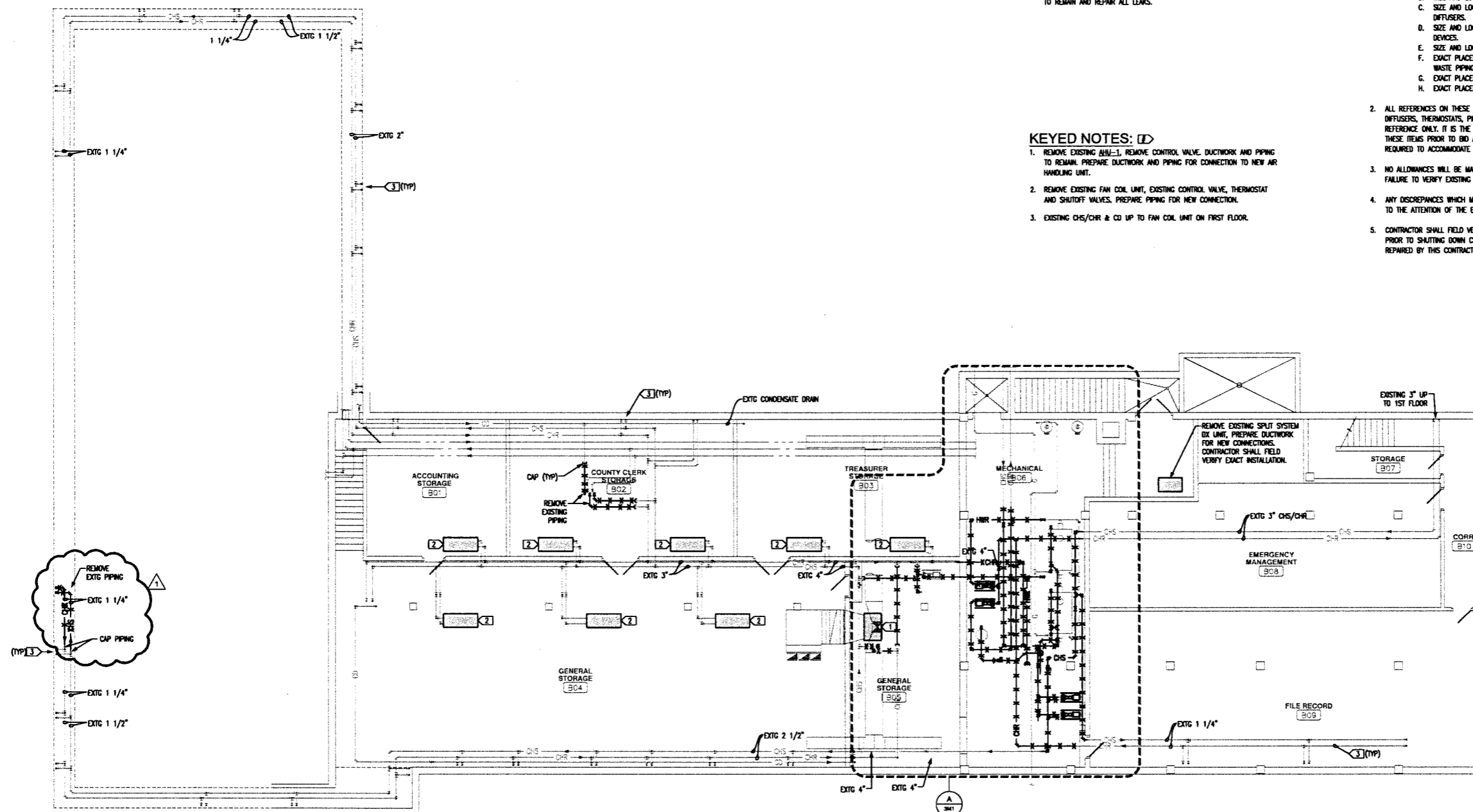
1. REMOVING ALL EXISTING MECHANICAL EQUIPMENT SHOWN SHADED.
2. REMOVE ALL EXISTING PIPING AS INDICATED BY AN "X" MARK. CAP OR PLUG AS NECESSARY.
3. CONTRACTOR SHALL PRESSURE TEST ALL EXISTING PIPING TO REMAIN AND REPAIR ALL LEAKS.

**FIELD VERIFICATION NOTES:**

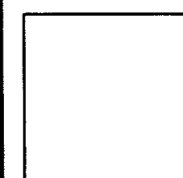
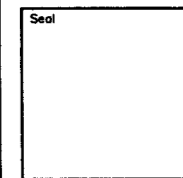
1. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID TO FIELD VERIFY ALL EXISTING CONDITIONS WHICH MAY AFFECT HIS BID. THE FOLLOWING ITEMS SHALL BE VERIFIED:
  - A. EXACT PLACEMENT, SIZE, CAPACITY, MANUFACTURER AND CONDITION OF ALL EXISTING HVAC EQUIPMENT WITHIN SCOPE OF WORK, WHETHER SPECIFICALLY SHOWN OR NOT.
  - B. SIZE AND LOCATION OF ALL EXISTING DUCTWORK.
  - C. SIZE AND LOCATION OF ALL EXISTING GRILLES, REGISTERS AND DIFFUSERS.
  - D. SIZE AND LOCATION OF ALL EXISTING THERMOSTATIC CONTROL DEVICES.
  - E. SIZE AND LOCATION OF ALL EXISTING HYDRONIC PIPING.
  - F. EXACT PLACEMENT, SIZE AND INVERT ELEVATION OF ALL EXISTING WASTE PIPING.
  - G. EXACT PLACEMENT AND SIZE OF ALL EXISTING COLD WATER PIPING.
  - H. EXACT PLACEMENT AND SIZE OF ALL EXISTING VENT PIPING.
2. ALL REFERENCES ON THESE DRAWINGS TO EXISTING EQUIPMENT, DUCTWORK, DIFFUSERS, THERMOSTATS, PIPING, EXISTING WASTE, WASTER AND VENT PIPING IS FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL THESE ITEMS PRIOR TO BID AND INCLUDE IN HIS BID ANY AND ALL AMOUNTS REQUIRED TO ACCOMMODATE EXISTING CONDITIONS.
3. NO ALLOWANCES WILL BE MADE AFTER THE PROJECT HAS BEEN AWARDED FOR FAILURE TO VERIFY EXISTING CONDITIONS.
4. ANY DISCREPANCIES WHICH MAY AFFECT THE CONTRACTORS BID SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND ARCHITECT FOR DIRECTION.
5. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING PIPING AND EXAMINE FOR LEAKS PRIOR TO SHUTTING DOWN CURRENT SYSTEM. ALL EXISTING LEAKS SHALL BE REPAIRED BY THIS CONTRACTOR.

**KEYED NOTES:**

1. REMOVE EXISTING AHU-1. REMOVE CONTROL VALVE, DUCTWORK AND PIPING TO REMAIN. PREPARE DUCTWORK AND PIPING FOR CONNECTION TO NEW AIR HANDLING UNIT.
2. REMOVE EXISTING FAN COIL UNIT, EXISTING CONTROL VALVE, THERMOSTAT AND SHUTOFF VALVES. PREPARE PIPING FOR NEW CONNECTION.
3. EXISTING CHS/CHR & CO UP TO FAN COIL UNIT ON FIRST FLOOR.



**A** BASEMENT MECHANICAL DEMOLITION FLOOR PLAN  
SCALE: 1/8"=1'-0"



**Root Replacement & HVAC Renovation**  
**CANADIAN COUNTY OFFICE BUILDING**  
201 N. CHICKTAW AVE.  
EL RENO, OKLAHOMA 73036

FIRST FLOOR MECHANICAL  
DEMOLITION PLAN

Revisions  
5/8/16  
ADDENDUM 1

Issue Date  
03.29.16

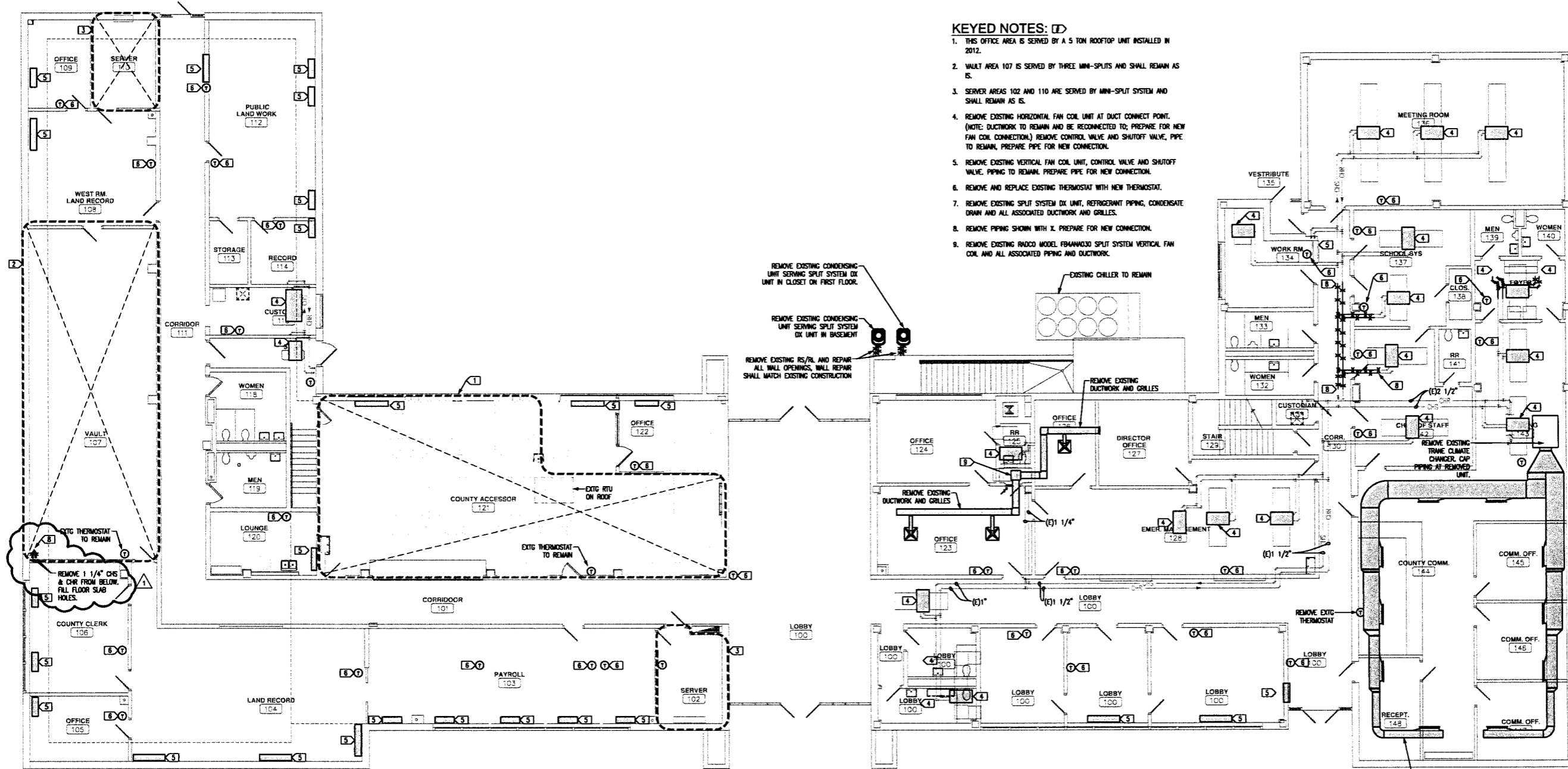
Project No.  
N16001

Sheet No.  
**2MD2**

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**GENERAL NOTES:**  
1. REFER TO FIELD VERIFICATION NOTES ON SHEET 2MD1.

- KEYED NOTES:**
1. THIS OFFICE AREA IS SERVED BY A 5 TON ROOFTOP UNIT INSTALLED IN 2012.
  2. VAULT AREA 107 IS SERVED BY THREE MINI-SPLITS AND SHALL REMAIN AS IS.
  3. SERVER AREAS 102 AND 110 ARE SERVED BY MINI-SPLIT SYSTEM AND SHALL REMAIN AS IS.
  4. REMOVE EXISTING HORIZONTAL FAN COIL UNIT AT DUCT CONNECT POINT. (NOTE: DUCTWORK TO REMAIN AND BE RECONNECTED TO, PREPARE FOR NEW FAN COIL CONNECTION.) REMOVE CONTROL VALVE AND SHUTOFF VALVE, PIPE TO REMAIN, PREPARE PIPE FOR NEW CONNECTION.
  5. REMOVE EXISTING VERTICAL FAN COIL UNIT, CONTROL VALVE AND SHUTOFF VALVE. PIPING TO REMAIN, PREPARE PIPE FOR NEW CONNECTION.
  6. REMOVE AND REPLACE EXISTING THERMOSTAT WITH NEW THERMOSTAT.
  7. REMOVE EXISTING SPLIT SYSTEM DX UNIT, REFRIGERANT PIPING, CONDENSATE DRAIN AND ALL ASSOCIATED DUCTWORK AND GRILLES.
  8. REMOVE PIPING SHOWN WITH X. PREPARE FOR NEW CONNECTION.
  9. REMOVE EXISTING RADCO MODEL FB44W4030 SPLIT SYSTEM VERTICAL FAN COIL AND ALL ASSOCIATED PIPING AND DUCTWORK.



**A FIRST FLOOR MECHANICAL DEMOLITION PLAN**  
2MD2 SCALE: 1/8"=1'-0"



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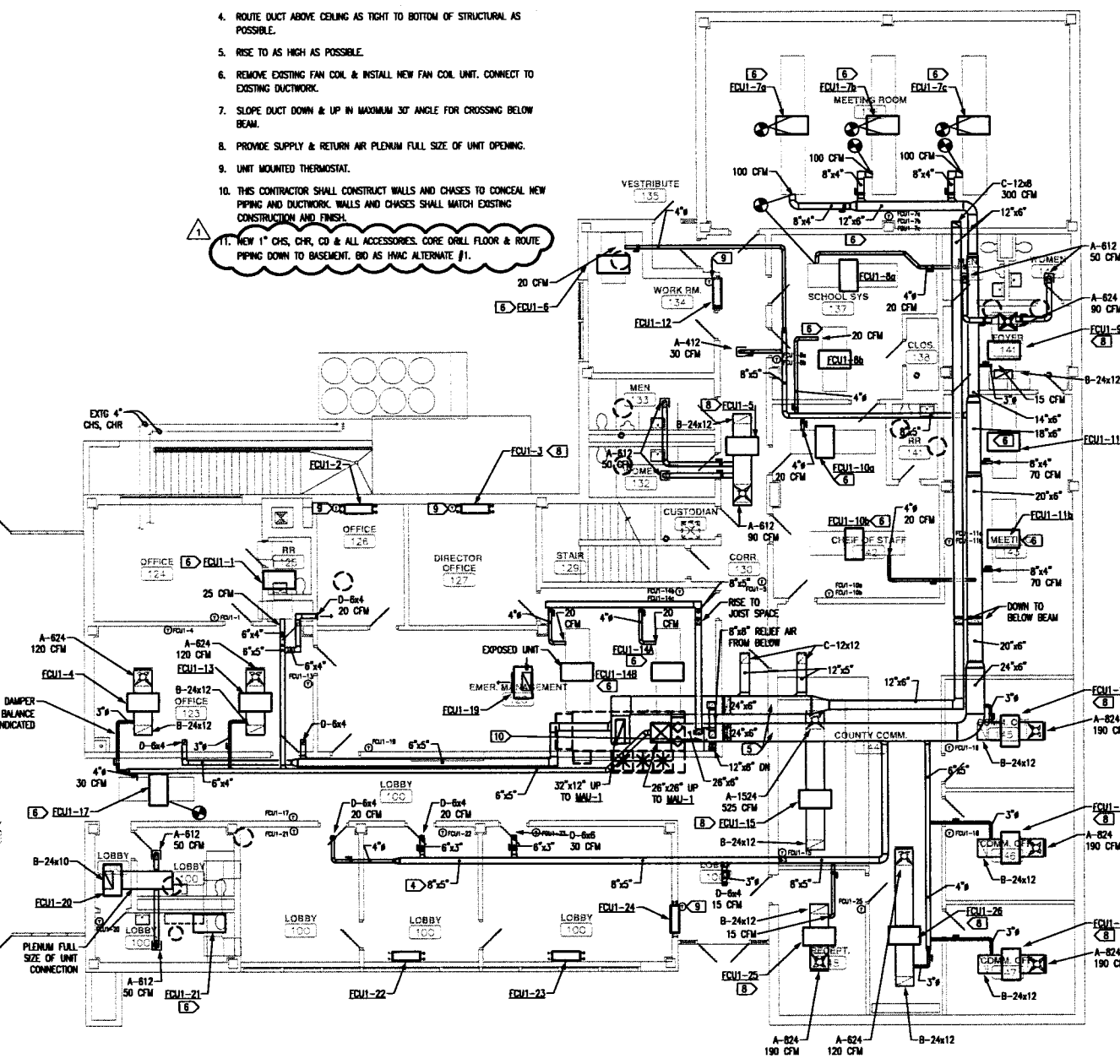
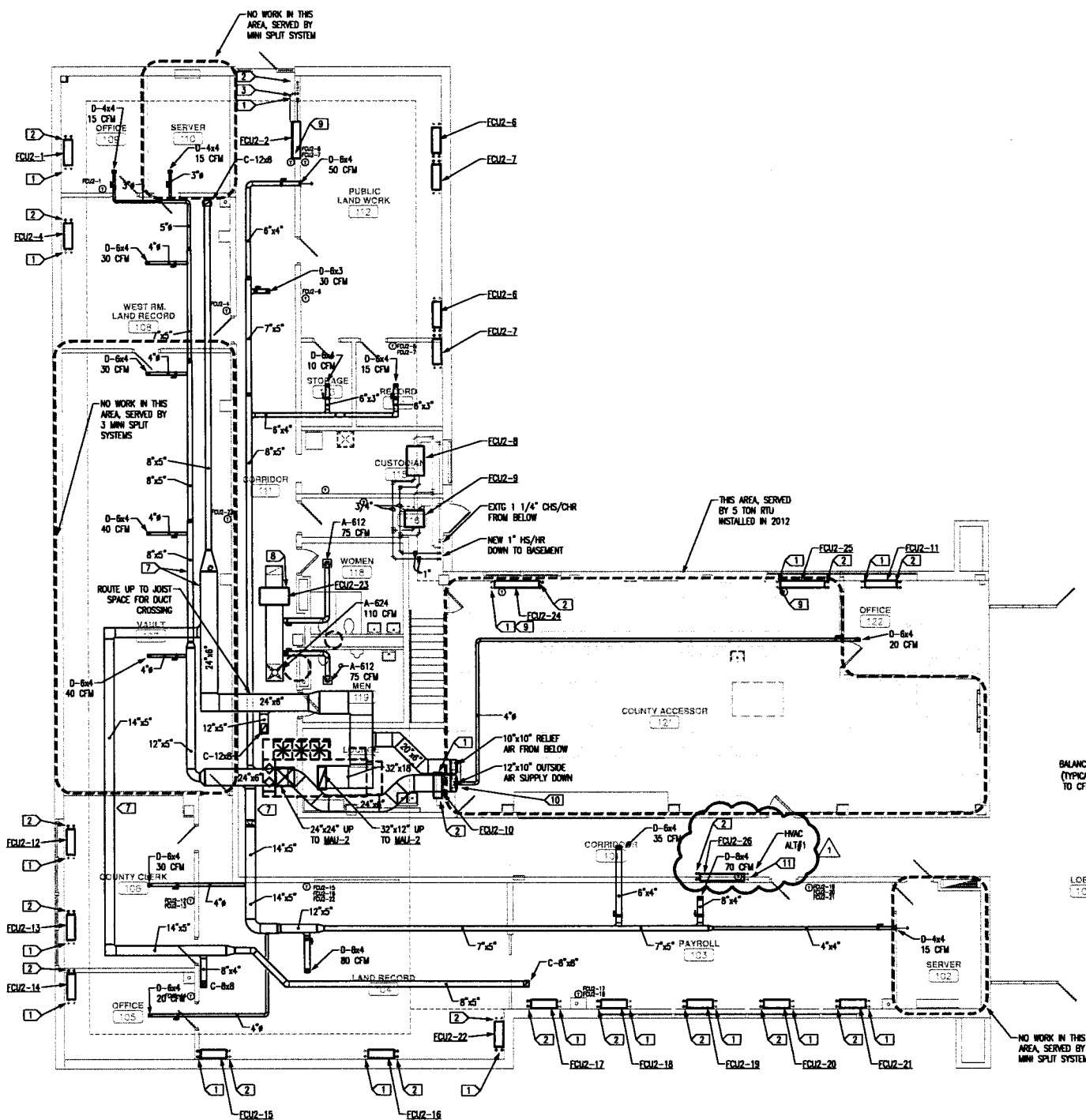
**KEYED NOTES:**

1. PROVIDE NEW SHUTOFF VALVE ALL ACCESSORIES & CONTROL VALVES. REFER TO DETAIL 1/6M1. CONNECT TO EXISTING CHS/CHR LINE.
2. PROVIDE NEW 3/4" HS/HR LINES AND ALL ACCESSORIES. REFER TO DETAIL 1/6M1. CORE DRILL FLOOR AND ROUTE PIPING FROM NEW PIPING IN BASEMENT.
3. CONTRACTOR SHALL OPEN EXISTING WALL, STACK NEW HS/HR LINES IN WALL, REVERSE EXISTING CHS/CHR & COND. DRAIN AS NECESSARY FOR NEW PIPING INSTALLATION & REPAIR WALL TO MATCH EXISTING.
4. ROUTE DUCT ABOVE CEILING AS TIGHT TO BOTTOM OF STRUCTURAL AS POSSIBLE.
5. RISE TO AS HIGH AS POSSIBLE.
6. REMOVE EXISTING FAN COIL & INSTALL NEW FAN COIL UNIT. CONNECT TO EXISTING DUCTWORK.
7. SLOPE DUCT DOWN & UP IN MAXIMUM 30° ANGLE FOR CROSSING BELOW BEAM.
8. PROVIDE SUPPLY & RETURN AIR FLENUM FULL SIZE OF UNIT OPENING.
9. UNIT MOUNTED THERMOSTAT.
10. THIS CONTRACTOR SHALL CONSTRUCT WALLS AND CHASES TO CONCEAL NEW PIPING AND DUCTWORK. WALLS AND CHASES SHALL MATCH EXISTING CONSTRUCTION AND FINISH.

11. NEW 1" CHS, CHR, CD & ALL ACCESSORIES. CORE DRILL FLOOR & ROUTE PIPING DOWN TO BASEMENT. BID AS HVAC ALTERNATE #1.

**GENERAL DUCTWORK NOTES:**

1. REFER TO SHEET 2M1 FOR GENERAL DUCTWORK NOTES.
2. THIS CONTRACTOR SHALL FURNISH AND INSTALL STRUCTURAL SUPPORT AND FRAMING AS NECESSARY FOR MAU-1 AND MAU-2.
3. THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL CHASES AND WALLS TO CONCEAL NEW DUCTWORK. CHASES AND WALLS SHALL MATCH EXISTING WALLS AND FINISH. CONTRACTOR SHALL PROVIDE ALL FRAMING AND GYPSUM BOARD FINISH.



**A**  
**2M2** FIRST FLOOR MECHANICAL PLAN  
SCALE: 1/8"=1'-0"

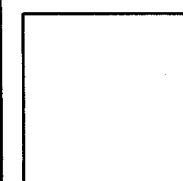
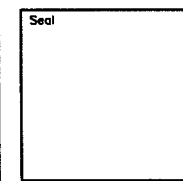


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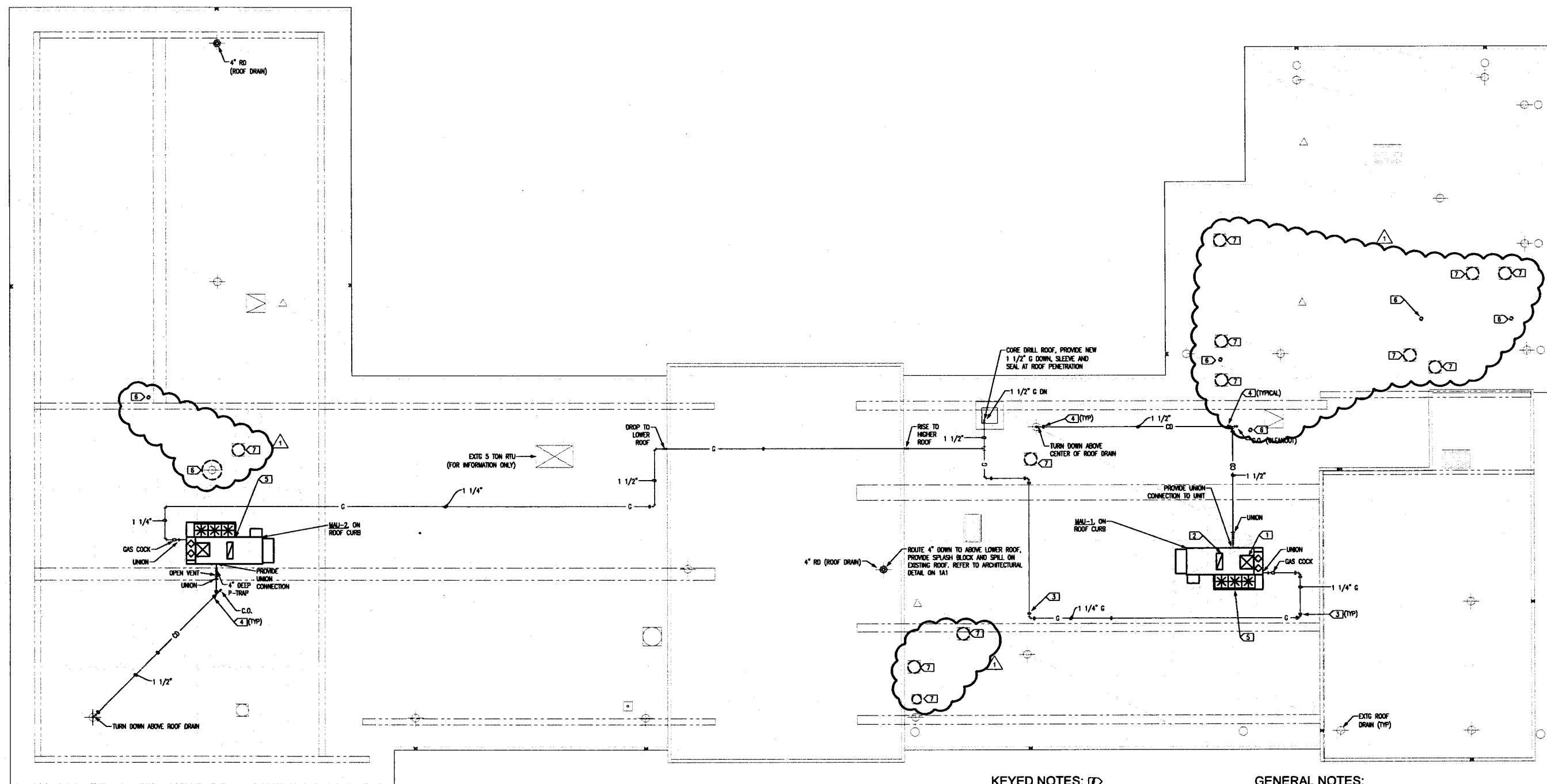
**Roof Replacement & HVAC Renovation**  
**CANADIAN COUNTY OFFICE BUILDING**  
201 N. CHOCKTAW AVE.  
EL RENO, OKLAHOMA 73036

MECHANICAL  
ROOF PLAN

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Revisions  
5/5/16  
ADDENDUM 1  
Issue Date  
03.29.16

Project No.  
N16001  
Sheet No.  
**2M3**



**KEYED NOTES:**

- 26" x 26" OUTSIDE AIR DUCT DOWN. SAW CUT THE ROOF BETWEEN EXISTING STRUCTURAL SUPPORT, DO NOT CUT INTO ANY OF THE EXISTING STRUCTURE.
- 32" x 12" RELIEF AIR DUCT FROM BELOW. SAW CUT THE ROOF BETWEEN EXISTING STRUCTURAL SUPPORT, DO NOT CUT INTO ANY OF THE EXISTING STRUCTURE.
- PROVIDE GAS PIPE SUPPORT AT MAXIMUM 10'-0" ON CENTER AND WITHIN 36" ON EACH SIDE OF ELBOW.
- PROVIDE CONDENSATE PIPE SUPPORT AT MAXIMUM 10'-0" ON CENTER AND WITHIN 36" OF EACH SIDE OF ELBOW OR CONNECTION.
- MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE EXISTING STRUCTURE AND SAW CUT THE ROOF FOR THE DUCT PENETRATIONS BETWEEN THE STRUCTURE. CONTRACTOR SHALL FURNISH AND INSTALL ANY NEEDED SUPPORT BRACING OR FRAMING OF EXISTING STRUCTURE AND OR ROOF DETS.
- FIELD VERIFY EXACT LOCATION SIZE & QUANTITY OF EXISTING VENT THRU ROOF. PROVIDE NEW FLASHING & EXTEND VENT AS NECESSARY FOR NEW ROOFING. VENT SHALL BE A MINIMUM 12" ABOVE NEW ROOFING.
- FIELD VERIFY EXACT SIZE, LOCATION & QUANTITY OF EXISTING EXHAUST FAN & CURB. PROVIDE NEW CURB AS NECESSARY TO HAVE TOP OF CURB 6" ABOVE TOP OF NEW ROOF. RELOCATE FAN TO NEW CURB & EXTEND DUCTWORK AS NECESSARY.

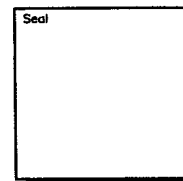
**GENERAL NOTES:**

- ALL EQUIPMENT REQUIRING SERVICE IS TO BE LOCATED AT LEAST 10 FEET FROM ROOF EDGE.
- OUTSIDE AIR INTAKES ARE TO BE LOCATED 15 FEET AWAY FROM ANY EXHAUST FAN OR VENT.
- COORDINATE ALL PENETRATIONS WITH STRUCTURAL AND ARCHITECTURAL PLANS.
- ALL ROOF PENETRATIONS ARE INTENDED TO BE WATER TIGHT. REFER TO ARCHITECTURAL ROOFING DETAILS. WHERE DETAILS ARE NOT SHOWN REFER TO MECHANICAL DETAILS AND THE NATIONAL ROOFING CONTRACTORS ASSOCIATIONS ROOFING AND WATER PROOFING MANUAL.
- CONTRACTOR SHALL VERIFY EXACT LOCATION OF EXISTING ROOF EXHAUST FANS & VENT THRU ROOF. PROVIDE NEW ROOF CURB & RAISE EXHAUST FAN TO BE 6" ABOVE NEW ROOF INSULATION.

**A** MECHANICAL ROOF PLAN  
2M3 SCALE: 1/8"=1'-0"







**Roof Replacement & HVAC Renovation**  
**CANADIAN COUNTY OFFICE BUILDING**  
201 N. CHOCKTAW AVE  
EL RENO, OKLAHOMA 73036  
BASEMENT HYDRONIC PIPING  
FLOOR PLAN

Revising  
SCHEMATIC  
ADDENDUM 1  
Issue Date  
03.29.16

Project No.  
N16001  
Sheet No.  
**2M4**

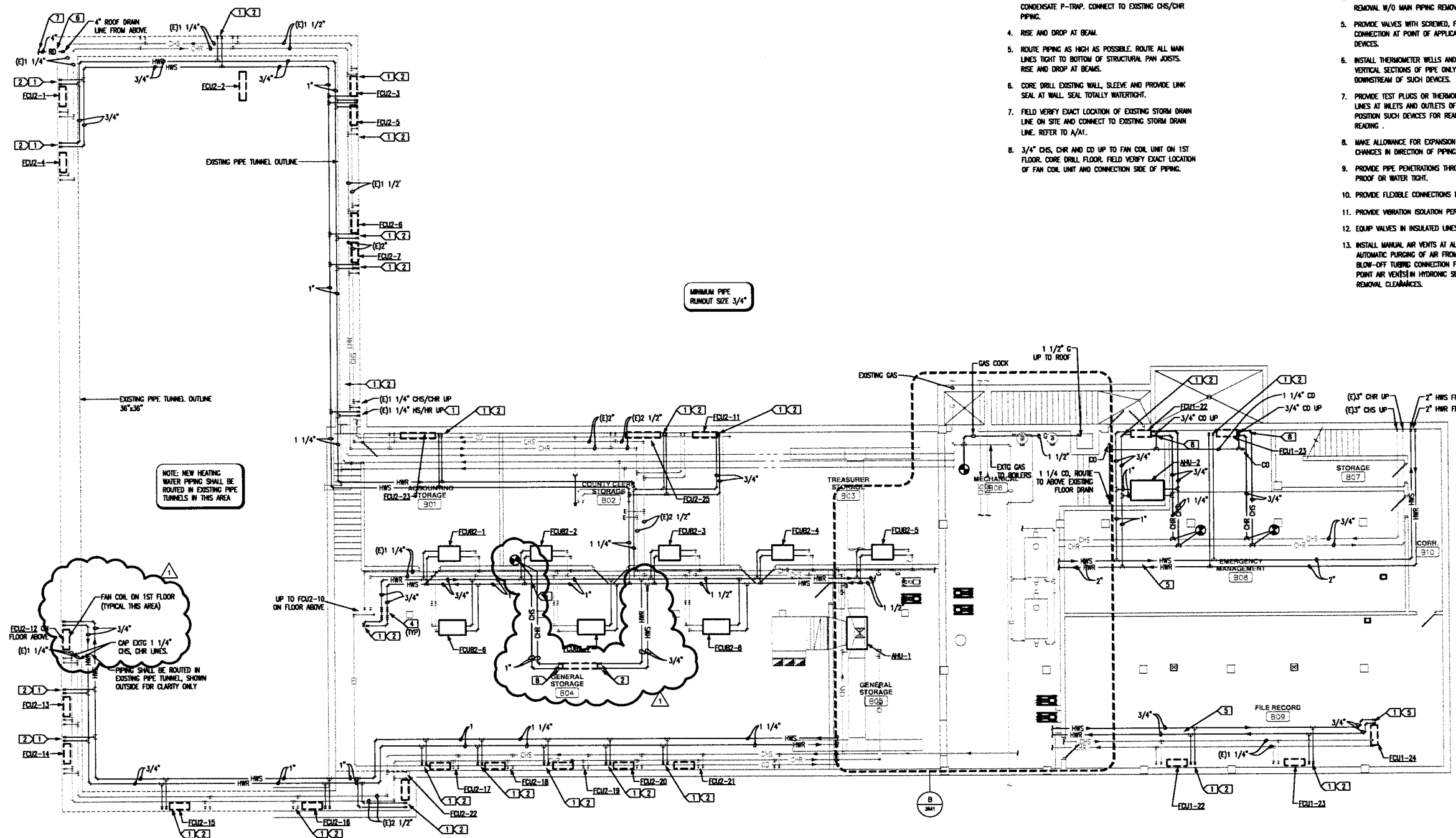
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**KEYED NOTES:**

1. SLEEVE AND FIRE SEAL HS AND HR (HEATING WATER SUPPLY AND HEATING WATER RETURN) LINES AT RATED WALL PENETRATION, AND AT ALL WALL PENETRATIONS.
2. 3/4" HS AND HR UP TO FAN COIL UNIT ON 1ST FLOOR. CORE DRILL FLOOR. FIELD VERIFY EXACT LOCATION OF FAN COIL UNIT AND CONNECTION SIDE OF PIPING.
3. PROVIDE NEW CHILLED WATER CONTROL VALVE, UNION AND CONDENSATE P-TRAP. CONNECT TO EXISTING CHS/CHR PIPING.
4. RISE AND DROP AT BEAM.
5. ROUTE PIPING AS HIGH AS POSSIBLE. ROUTE ALL MAIN LINES TIGHT TO BOTTOM OF STRUCTURAL PAN JOISTS. RISE AND DROP AT BEAMS.
6. CORE DRILL EXISTING WALL. SLEEVE AND PROVIDE LINK SEAL AT WALL. SEAL TOTALLY WATER-TIGHT.
7. FIELD VERIFY EXACT LOCATION OF EXISTING STORM DRAIN LINE ON SITE AND CONNECT TO EXISTING STORM DRAIN LINE. REFER TO A/A1.
8. 3/4" CHS, CHR AND CD UP TO FAN COIL UNIT ON 1ST FLOOR. CORE DRILL FLOOR. FIELD VERIFY EXACT LOCATION OF FAN COIL UNIT AND CONNECTION SIDE OF PIPING.

**GENERAL PIPING NOTES:**

1. FOR TYPICAL STEAM, WATER AND REFRIGERANT PIPING CONNECTIONS TO EQUIPMENT SEE STANDARD EQUIPMENT DETAILS.
2. WATER PIPE CONNECTIONS TO AIR HEATING AND COOLING COILS SHALL BE MADE TO PROVIDE COUNTER FLOW BETWEEN WATER AND AIR.
3. ACCESS PANELS IN SUSPENDED CEILING ARE REQUIRED FOR ALL VALVES, TRAPS, DAMPERS, CLEANOUTS, CONTROLS, ETC.
4. REMOVE UNIONS OR FLANGED CONNECTIONS TO ALLOW ITEMS OF EQUIPMENT REMOVAL W/O MAIN PIPING REMOVAL.
5. PROVIDE VALVES WITH SCREENED, FLANGED, OR HUB ENDS TO MATCH EXISTING CONNECTION AT POINT OF APPLICATION. ARRANGED TO ALLOW FOR REMOVAL OF DEVICES.
6. INSTALL THERMOMETER WELLS AND TEST PLUGS IN STRAIGHT HORIZONTAL OR VERTICAL SECTIONS OF PIPE ONLY, ALLOWING THREE DIAMETERS UPSTREAM AND DOWNSTREAM OF SUCH DEVICES.
7. PROVIDE TEST PLUGS OR THERMOMETER WELLS WITH THERMOMETERS ON WATER LINES AT INLETS AND OUTLETS OF HEAT EXCHANGERS OR HEAT TRANSFER DEVICES. POSITION SUCH DEVICES FOR READER CONVENIENCE, ACCESS, AND EASE OF READING.
8. MAKE ALLOWANCE FOR EXPANSION AND CONTRACTION BY USE OF SWING JOINTS OR CHANGES IN DIRECTION OF PIPING.
9. PROVIDE PIPE PENETRATIONS THROUGH ROOF, WALLS OR FLOORS TO YIELD FIRE PROOF OR WATER TIGHT.
10. PROVIDE FLEXIBLE CONNECTIONS BETWEEN PIPING AND ROTATING EQUIPMENT.
11. PROVIDE VIBRATION ISOLATION PER EQUIPMENT MANUFACTURER'S RECOMMENDATION.
12. EQUIP VALVES IN INSULATED LINES WITH 2 INCH EXTENSION NECKS.
13. INSTALL MANUAL AIR VENTS AT ALL HIGH POINTS IN PIPING SYSTEM TO ALLOW AUTOMATIC PURGING OF AIR FROM WATER PIPING. PROVIDE VALVE AND PIPE BLOW-OFF TUBING CONNECTION FOR DRAINAGE. VERIFY SERVICE CLEARANCE FOR HIGH POINT AIR VENTS IN HYDRONIC SERVICE. COORDINATE WITH OTHER TRADES TO ENSURE REMOVAL CLEARANCES.



**A BASEMENT HYDRONIC PIPING PLAN**  
SCALE: 1/8"=1'-0"



NOTE: NEW HEATING WATER PIPING SHALL BE ROUTED IN EXISTING PIPE TUNNELS IN THIS AREA

MINIMUM PIPE RUNOUT SIZE 3/4"

EXISTING PIPE TUNNEL OUTLINE 36"x36"

FAN COIL ON 1ST FLOOR (TYPICAL THIS AREA)  
CAP EXC 1 1/4" CHS, CHR LINES.

PIPING SHALL BE ROUTED IN EXISTING PIPE TUNNEL, SHOWN OUTSIDE FOR CLARITY ONLY

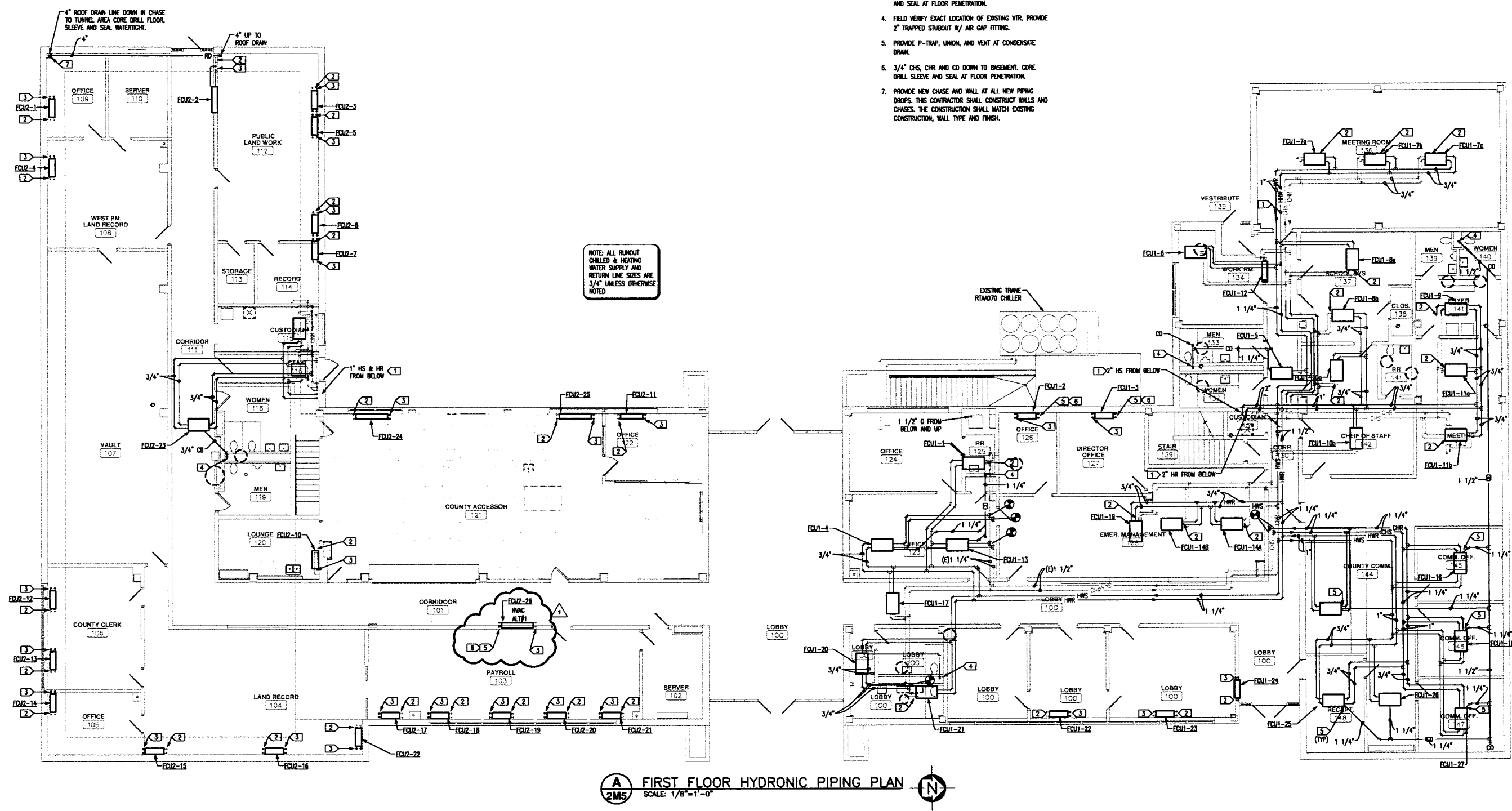
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**KEYED NOTES:**

1. SLEEVE AND FIRE SEAL HS AND HR (HEATING WATER SUPPLY AND HEATING WATER RETURN) LINES AT RATED WALL PENETRATION AND ALL FLOOR PENETRATIONS.
2. PROVIDE NEW CONTROL VALVE, STRAINER, P-TRAP AND CONNECT TO EXISTING CHS/CHR LINES. CLEAN CONDENSATE DRAIN LINE AND REPAIR ALL LEAKS. FIELD VERIFY EXACT LOCATION OF EXISTING CHS/CHR AND CD (CONDENSATE DRAIN LINE).
3. 3/4" HS AND HR LINES DOWN, CORE DRILL AND SLEEVE AND SEAL AT FLOOR PENETRATION.
4. FIELD VERIFY EXACT LOCATION OF EXISTING VTR. PROVIDE 2" TRAPPED STUBOUT W/ AIR GAP FITTING.
5. PROVIDE P-TRAP, UNION, AND VENT AT CONDENSATE DRAIN.
6. 3/4" CHS, CHR AND CD DOWN TO BASEMENT. CORE DRILL SLEEVE AND SEAL AT FLOOR PENETRATION.
7. PROVIDE NEW CHASE AND WALL AT ALL NEW PIPING DROPS. THIS CONTRACTOR SHALL CONSTRUCT WALLS AND CHASES. THE CONSTRUCTION SHALL MATCH EXISTING CONSTRUCTION, WALL TYPE AND FINISH.

**GENERAL PIPING NOTES:**

1. REFER TO SHEET 2M4 FOR GENERAL PIPING NOTES.
2. ALL FAN EXISTING COIL UNITS SHALL BE REPLACED WITH NEW FAN COIL UNITS. CONTRACTOR SHALL PRESSURE TEST ALL EXISTING PIPING, CLEAN ALL CONDENSATE DRAINS AND INSTALL NEW P-TRAPS WITH CLEANOUT, UNIONS AND VENT ON LEAVING SIDE.
3. THIS CONTRACTOR SHALL PROVIDE A FRAMING AND WALLS TO CONCEAL PIPING. ALL NEW PIPING SHALL BE CONCEALED IN WALL EITHER NEW OR EXISTING. NEW WALL AND CHASES SHALL MATCH EXISTING WALL CONSTRUCTION AND FINISH.



**A** FIRST FLOOR HYDRONIC PIPING PLAN  
2M5 SCALE: 1/8" = 1'-0"

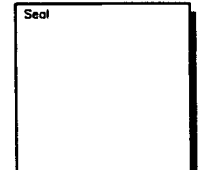


BOYNTON WILLIAMS & ASSOCIATES

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of Architects



Roof Replacement & HVAC Renovation  
CANADIAN COUNTY OFFICE BUILDING  
201 N. CHOCKTAW AVE.  
EL RENO, OKLAHOMA 73036  
MECHANICAL SCHEDULES

Revisions  
ADDENDUM 1

Issue Date  
03.29.16

Project No.  
N16001

Sheet No.  
5M1

Fan Coil Unit Schedule table with columns for UNIT CONFIGURATION, FAN DATA, CHILLED WATER COIL DATA, HEATING WATER COIL DATA, and NOTES.

NOTES: 1. CONTROLS TO BE PROVIDED BY MECHANICAL CONTRACTOR... 2. ALL COILS SHALL HAVE 1/8" TUBE WALL THICKNESS... 3. FAN COILS SHALL BE BACNET AND FURNISHED AND CONNECTED TO NEW CONTROL SYSTEM...

Air Handling Unit Schedule table with columns for MARK, COIL TYPE, COIL DATA, HEATING COIL CAPACITY DATA, and REMARKS.

Pump Schedule table with columns for MARK, TYPE, SERVICE, FLOW, HEAD, HP, RPM, VOLTAGE, PUMP EFF, PUMP WEIGHT, PUMP SIZE, MANUFACTURER, MODEL, NOTES, and REMARKS.

Energy Recovery Ventilation Unit table with columns for MARK, MANUFACTURER, MODEL, UNIT WEIGHT, SUPPLY FAN, EXHAUST FAN, and various performance metrics.

Air Separator Schedule table with columns for MARK, TYPE, SERVICE, FLOW, HEAD, HP, RPM, VOLTAGE, PUMP EFF, PUMP WEIGHT, PUMP SIZE, MANUFACTURER, MODEL, NOTES, and REMARKS.

Diffuser Schedule table with columns for MARK, DESCRIPTION, MANUFACTURER, MODEL, DAMPER, CORE, COLOR, MOUNT, and REMARKS.

Chilled Water Buffer Tank Schedule table with columns for MARK, FLUID, DISCHARGE FLOW, CHARGE FLOW, CONTN MAX P.D, UNIT WEIGHT, MANUFACTURER, MODEL, FLUID, and REMARKS.

Expansion Tank Schedule table with columns for MARK, VOLUME, ACCEPTANCE, MAX TEMP, SYSTEM MIN, MAX, PRE-CHARGE, FLUID, WEIGHT, MANUFACTURER, MODEL, and REMARKS.

Plumbing Fixture Schedule table with columns for MARK, FIXTURE, MANUFACTURER, MODEL, SIZE/MOUNT, ROUGH-IN SCHEDULE, FITTINGS & REMARKS.

Drain Schedule table with columns for MARK, TYPE, MANUFACTURER, MODEL, BODY MATERIAL, STRAINER MATERIAL, and REMARKS.

Glycol Make Up Unit Schedule table with columns for MARK, CAPACITY, TANK SIZE, DIMENSIONS, SIZE, PRESSURE, PUMP DATA, UNIT WEIGHT, MANUFACTURER, MODEL, FLUID, and REMARKS.

Drain Schedule table with columns for MARK, TYPE, MANUFACTURER, MODEL, BODY MATERIAL, STRAINER MATERIAL, and REMARKS.

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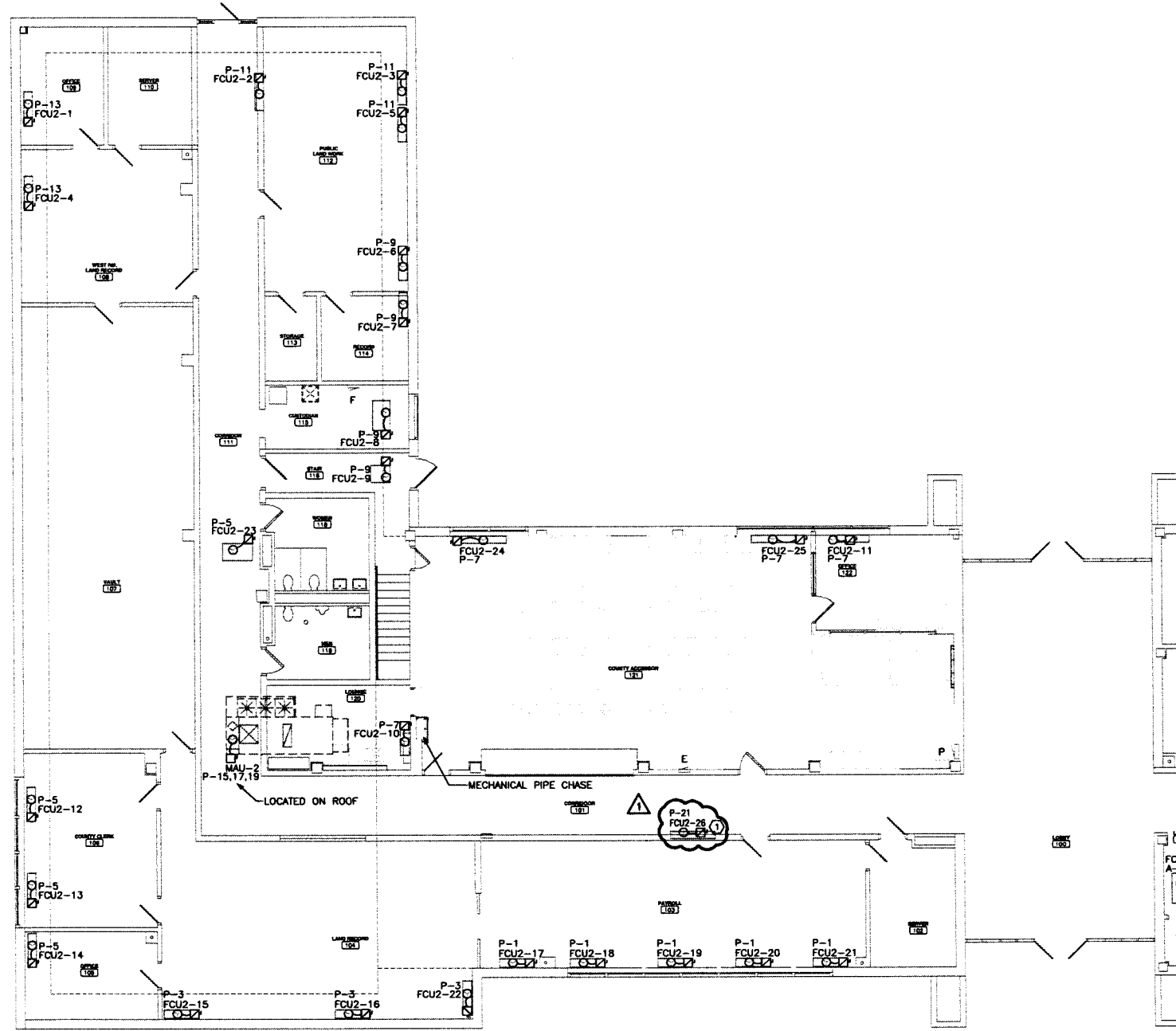
FIRST FLOOR SOUTH WING MECHANICAL EQUIPMENT SCHEDULE													
CALLOUT	DESCRIPTION	VOLTS	HP	KVA	MCA	CIRCUIT	BREAKER	WIRE CALLOUT	DISCONNECT	DISCO PROV BY	DISCO INST BY	MOOP	NOTES
FCU2-1	FAN COIL	120V 1P 2W	1/8 HP	0.47	2.8	P-13	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-2	FAN COIL	120V 1P 2W	1/4 HP	0.7	3.9	P-11	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-3	FAN COIL	120V 1P 2W	1/8 HP	0.47	2.8	P-11	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-4	FAN COIL	120V 1P 2W	1/4 HP	0.7	3.9	P-13	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-5	FAN COIL	120V 1P 2W	1/8 HP	0.47	2.8	P-11	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-6	FAN COIL	120V 1P 2W	1/8 HP	0.47	2.8	P-9	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-7	FAN COIL	120V 1P 2W	1/8 HP	0.47	2.8	P-9	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-8	FAN COIL	120V 1P 2W	1/8 HP	0.47	2.8	P-9	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-9	FAN COIL	120V 1P 2W	1/8 HP	0.47	2.8	P-9	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-10	FAN COIL	120V 1P 2W	1/4 HP	0.7	3.9	P-7	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-11	FAN COIL	120V 1P 2W	1/4 HP	0.7	3.9	P-7	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-12	FAN COIL	120V 1P 2W	1/8 HP	0.47	2.8	P-5	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-13	FAN COIL	120V 1P 2W	1/8 HP	0.47	2.8	P-5	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-14	FAN COIL	120V 1P 2W	1/8 HP	0.47	2.8	P-5	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-15	FAN COIL	120V 1P 2W	1/4 HP	0.7	3.9	P-3	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-16	FAN COIL	120V 1P 2W	1/4 HP	0.7	3.9	P-3	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-17	FAN COIL	120V 1P 2W	1/8 HP	0.47	2.8	P-1	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-18	FAN COIL	120V 1P 2W	1/8 HP	0.47	2.8	P-1	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-19	FAN COIL	120V 1P 2W	1/8 HP	0.47	2.8	P-1	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-20	FAN COIL	120V 1P 2W	1/8 HP	0.47	2.8	P-1	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-21	FAN COIL	120V 1P 2W	1/8 HP	0.47	2.8	P-1	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-22	FAN COIL	120V 1P 2W	1/4 HP	0.7	3.9	P-3	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-23	FAN COIL	120V 1P 2W	1/8 HP	0.47	2.8	P-5	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-24	FAN COIL	120V 1P 2W	1/4 HP	0.7	3.9	P-7	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-25	FAN COIL	120V 1P 2W	1/4 HP	0.7	3.9	P-7	30/1	3/4" C, 1#10, #10N, #10G	FUSED	EC	EC	15	
FCU2-26 (1)	FAN COIL	120V 1P 2W	1/4 HP	0.7	3.9	P-21	15/1	3/4" C, 1#12, #12N, #12G	FUSED	EC	EC	15	
MAU-2	MAKE UP AIR UNIT	208V 3P 3W		10.4	36.1	P-15,17,19	30/3	3/4" C, 3#8, #10G	NON-FUSED	EC	EC	50	

**GENERAL NOTES:**

- COORDINATE EXACT LOCATIONS OF DEVICES SHOWN WITH OTHER EQUIPMENT. COORDINATE EXACT LOCATIONS OF CEILING MOUNTED DEVICES WITH LIGHTS, HVAC EQUIPMENT, AND OTHER DEVICES.
- COORDINATE WITH MECHANICAL CONTRACTOR AND PROVIDE ALL RELAYS, CONNECTIONS, AND ALL DEVICES NECESSARY TO INTERLOCK EXHAUST FANS, DAMPERS, ETC WITH PROPER CONTROL DEVICES. SEE MECHANICAL PLANS FOR MORE DETAIL. PROVIDE 120V POWER FOR ALL MOTORIZED DAMPERS. INTERLOCK WITH CORRESPONDING EXHAUST FAN. ALL INDOOR TAC UNITS ARE POWERED VIA OUTDOOR UNITS. PROVIDE DISCONNECT AND WIRING BETWEEN UNITS.
- COORDINATE EXACT LOCATIONS OF MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR.
- CIRCUIT LABELS CORRESPONDING TO EXISTING PANELS ARE FOR REFERENCE ONLY; CONTRACTOR TO VERIFY EXISTING CIRCUIT NUMBERS IN THE FIELD.


**KEYED NOTES:**

- BID AS HVAC ALTERNATE #1.



**FIRST FLOOR ELECTRICAL POWER PLAN - SOUTH**  
 SCALE: 1/8"=1'-0"

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Seal

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**Roof Replacement & HVAC Renovation**  
**CANADIAN COUNTY OFFICE BUILDING**  
 201 N. CHOCTAW AVE.  
 EL RENO, OKLAHOMA 73036

FIRST FLOOR  
 ELECTRICAL POWER PLAN - SOUTH

Revisions  
 ADD-1 5/5/16

Issue Date  
 03.29.16

Project No.  
 N16001

Sheet No.  
**3E1**



**Canadian County  
Purchasing**

**Affidavit / Proof of Mailing**

Date Issued: April 18, 2016  
Bid Number: **2016-#21**  
Closing Date: May 16, 2016 at 9:30am  
PO Box 458, 201 N. Choctaw Ave., El Reno, OK 73036  
Opening Date: May 16, 2016 at 9:30am  
Commissioner's Meeting Room, 201 N. Choctaw Ave., El Reno, OK 73036

-----  
~ AFFIDAVIT ~  
HVAC System / County Commissioners

State of Oklahoma )  
County of Canadian ) §

I, Sherry Murray, Purchasing Agent, in and for said County and State, do hereby certify that the Addendum was sent to the following:

Adams Heat and Air  
1101 NW 99<sup>th</sup>  
Oklahoma City, OK 73114

Air Flow Technologies  
PO Box 851844  
Yukon, OK 73085

All Hours Plumbing Services  
PO Box 12726  
Oklahoma City, OK 73157

Bailey Brothers PMG, HTG & A/C Inc  
800 Industrial Drive  
Yukon, OK 73099-2833

Barry Sell Mechanical Tech.  
3221 SW 18<sup>th</sup> Street  
Oklahoma City, OK 73108

Bid Clerk  
[govbids@bidclerk.com](mailto:govbids@bidclerk.com)

Bid News  
[project@bidnews.com](mailto:project@bidnews.com)

Brewers Heat and Air  
5956 NW 34<sup>th</sup>  
Oklahoma City, OK 73122

Capital Service  
12900 Tracy Drive  
Oklahoma City, OK 73165

Cheka Group LLC  
1042 SE 25<sup>th</sup> Street  
Oklahoma City, OK 73129

Central Mechanical Services Inc  
1887 State Highway 92  
Chickasha, OK 73018-7001

Central Mechanical Services Inc  
2605 S Purdue  
Oklahoma City, OK 73128

Central Oklahoma Winnelson  
PO Box 2052  
Oklahoma City, OK 73101

Central State Thermo King Inc  
1401 Enterprise Avenue  
PO Box 270543  
Oklahoma City, OK 73127

Comfort Air  
4917 SW 7th  
Oklahoma City, OK 73128

Crick Air & Heat  
PO Box 107  
Hinton, OK 73047

Diversified Labor & Construction  
3523 N Star Road  
Stillwater, OK 74075

EDP Contract Services  
Attn: Mike Modarelli  
12128 Briarlake Ct  
Oklahoma City, OK 73170

ePlan  
4115 South Providence, Suite 105  
Columbia, MO 65203

Ezell's Refrigeration  
418 W Wade Street  
El Reno, OK 73036

Francis Tuttle Vo-Tech Center  
Attn: Bid Assistant – Judy Robbins  
12777 N Rockwell  
Oklahoma City, OK 73142

Gatz Mechanical Inc  
PO Box 936  
El Reno, OK 73036

Gentry Service & Repair Inc  
12004 Southfork Road  
Mustang, OK 73064

Gibbens Heating & Air  
1107 Sunset Drive  
El Reno, OK 73036

Harrison-Orr Air Conditioning Inc  
[jordand@harrisonorr.com](mailto:jordand@harrisonorr.com)

Higgins Plumbing  
404 Cherryvale Road  
Edmond, OK 73103

Innovative Mechanical LLC  
[dustin@innovativemechanicalokc.com](mailto:dustin@innovativemechanicalokc.com)  
[david@innovativemechanical.com](mailto:david@innovativemechanical.com)

Integrity Restoration Specialists LLC  
11532 NW 5<sup>th</sup> Street  
Yukon, OK 73099

Johnson Controls Inc  
4730 SW 20<sup>th</sup> Street  
Oklahoma City, OK 73128

Lieber Mechanical LLC  
[gibaker@liebermech.com](mailto:gibaker@liebermech.com)

Natkin  
4730 SW 20<sup>th</sup> Street  
Oklahoma City, OK 73128

Online Data Services  
3295 River Exchange Drive, Suite 213  
Norcross, GA 30092

Patrick's George Plumbing  
401 SE 59<sup>th</sup>  
Oklahoma City, OK 73129

Precision Plumbing Service  
PO Box 734  
Piedmont, OK 73078

Rainbow Heat & Air Inc  
501 Cedar  
Yukon, OK 73099

Reed Construction Data  
30 Technology Pkwy South, Suite 100  
Norcross, GA 30092

Ross Services LLC  
11609 Footman's Court  
Yukon, OK 73099

Smith Plumbing  
12333 SW 6<sup>th</sup> Street  
Yukon, OK 73099

Streets Inc  
100 E Commerce  
Oklahoma City, OK 73129

TA Miller Plumbing  
2111 North Linn  
Oklahoma City, OK 73107

Team Air  
4001 North Walnut  
Oklahoma City, OK 73105

Tipton's Plumbing & Sewer  
708 NW 5<sup>th</sup>  
Moore, OK 73160

Trane  
PO Box 845053  
Dallas, TX 75284-5053

Trane  
305 Hudiburg Circle  
Oklahoma City, OK 73108

Tuffcoat Inc  
2896 Broce Drive  
Norman, OK 73072

Waggoners Mechanical Services LLC  
1351 E Indian Hills  
Norman, OK 73071

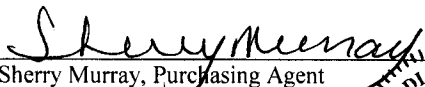
West Central Heat & Air LLC  
2616 Fields Road  
El Reno, OK 73036

Dodge Data & Analytics  
[support@construction.com](mailto:support@construction.com)

Hardesty Team  
[larr@hardestyteam.com](mailto:larr@hardestyteam.com)

Automated Integrated  
[chad@ai-sys.com](mailto:chad@ai-sys.com)

Witness my hand and seal this 5<sup>th</sup> day of May 2016.

  
Sherry Murray, Purchasing Agent  
(SEAL)

