

PROJECT NO.: 609-003  
 DRAWN BY: ES  
 CHECKED BY: AS  
 RSP: 33.038

**BILLINGSLEY**  
 COMPANY

**UTSW MEDICAL CENTER AT COPPELL**

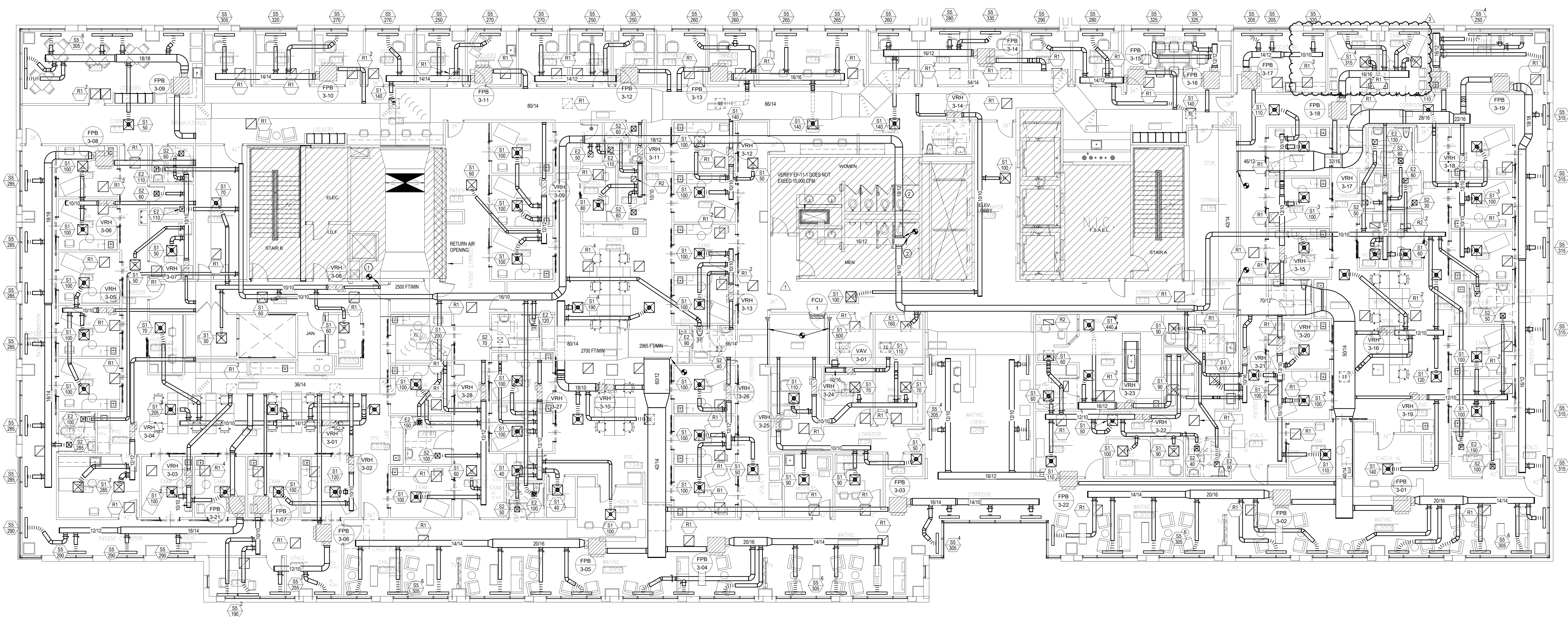
CYPRESS WATERS  
 2999 OLYMPUS BLVD.  
 SUITE #300  
 DALLAS, TX 75219

NO.	REVISIONS	DATE
1	PR 1	08.22.2022
2	PR 2	09.30.2022
3	PR 3	11.11.2022

LANDLORD REVIEW ISSUE DATE: 07/16/2022  
 TENANT REVIEW ISSUE DATE: 07/15/2022  
 BID ISSUE DATE: 07/15/2022  
 PERMIT ISSUE DATE: 07/15/2022  
 CONSTRUCTION ISSUE DATE: XXXX/2022

DRAWING TITLE:  
**FLOOR PLAN - MECHANICAL**

DRAWING NUMBER:  
**M2.01**



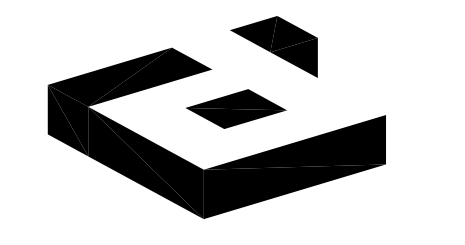
**01 FLOOR PLAN - MECHANICAL**  
 SCALE: 1/8" = 1'-0"

**GENERAL NOTES:**

- A. REFER TO M2.01 MECHANICAL LEGENDS AND NOTES FOR ADDITIONAL MECHANICAL NOTES
- B. REFER TO M-700 SHEETS FOR SCHEDULES
- C. REFER TO M-800 SHEETS FOR DETAILS

**KEYED NOTES:**

- NOTE: REFERENCE NUMBER INSIDE HEXAGON
- 1. CONNECT TO EXISTING TYPICAL FOR ALL NEW VRH & FPB AND ASSOCIATED DUCTWORK
  - 2. DEMO EXISTING 12" #6 EXHAUST DUCTS.



**UTSW MEDICAL CENTER AT COPPELL**

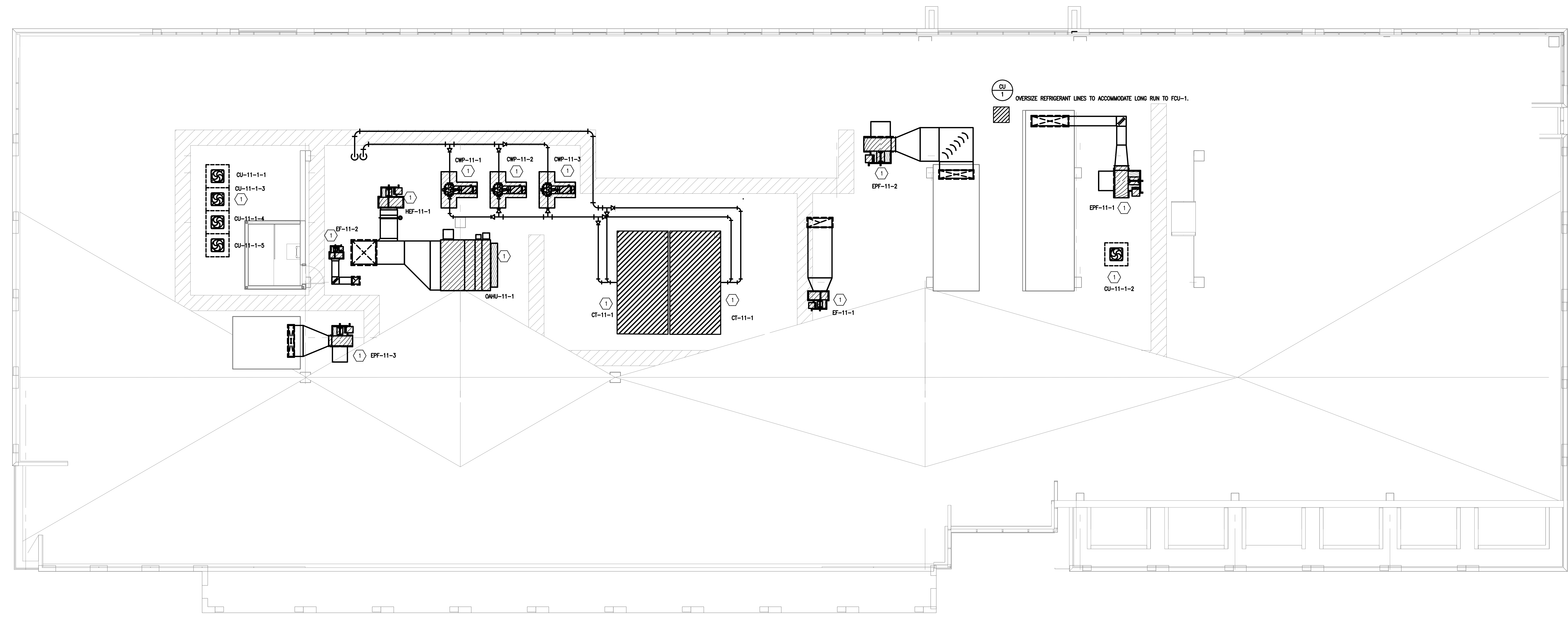
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1	PR 1	08.22.2022

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DRAWING TITLE:  
ROOF PLAN - MECHANICAL

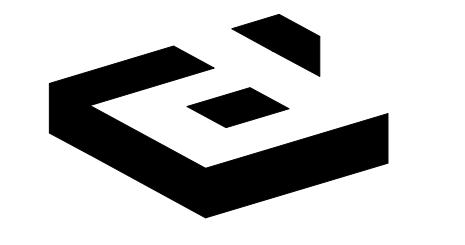
DRAWING NUMBER:  
**M2.02**



**01 FLOOR PLAN - MECHANICAL**  
SCALE: 1/8" = 1'-0"

**GENERAL NOTES**  
A. REFER TO M&E1 MECHANICAL LEGENDS AND NOTES FOR ADDITIONAL MECHANICAL NOTES  
B. REFER TO M-706 SHEETS FOR SCHEDULES  
C. REFER TO M-608 SHEETS FOR DETAILS

**KEY NOTES**  
NOTE: REFERENCE NUMBER INSIDE HEXAGON  
1. EXISTING ROOF EQUIPMENT

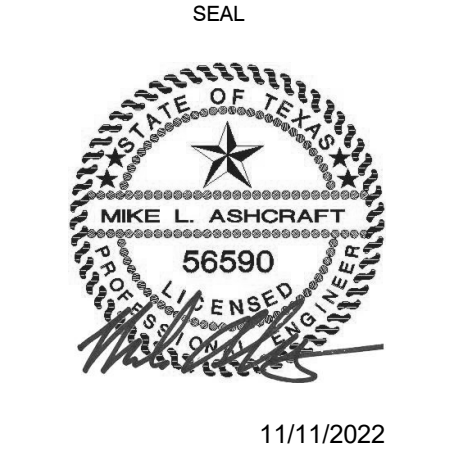


2641 IRVING BLVD.  
 DALLAS, TEXAS 75207  
 TEL: 214-638-6800

UTSW WORK ORDER #: 659002  
 PROJECT MANAGER  
 CONTACT: JOSELYN AZARIA  
 TEL: 214.645.1795  
 joselyn.azaria@utsouthwestern.edu

MEP CONSULTANT  
 SW ASSOCIATES CONSULTING  
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 1700 PACIFIC AVE.  
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 CONTACT: TONY CLUMMINGS  
 tonycummings@billingsleyco.com



PROJECT NO.: 629-003  
 DRAWN BY: ES  
 CHECKED BY: AS  
 RSP: 33.038

**BILLINGSLEY**  
 COMPANY

**UTSW MEDICAL CENTER AT COPPELL**

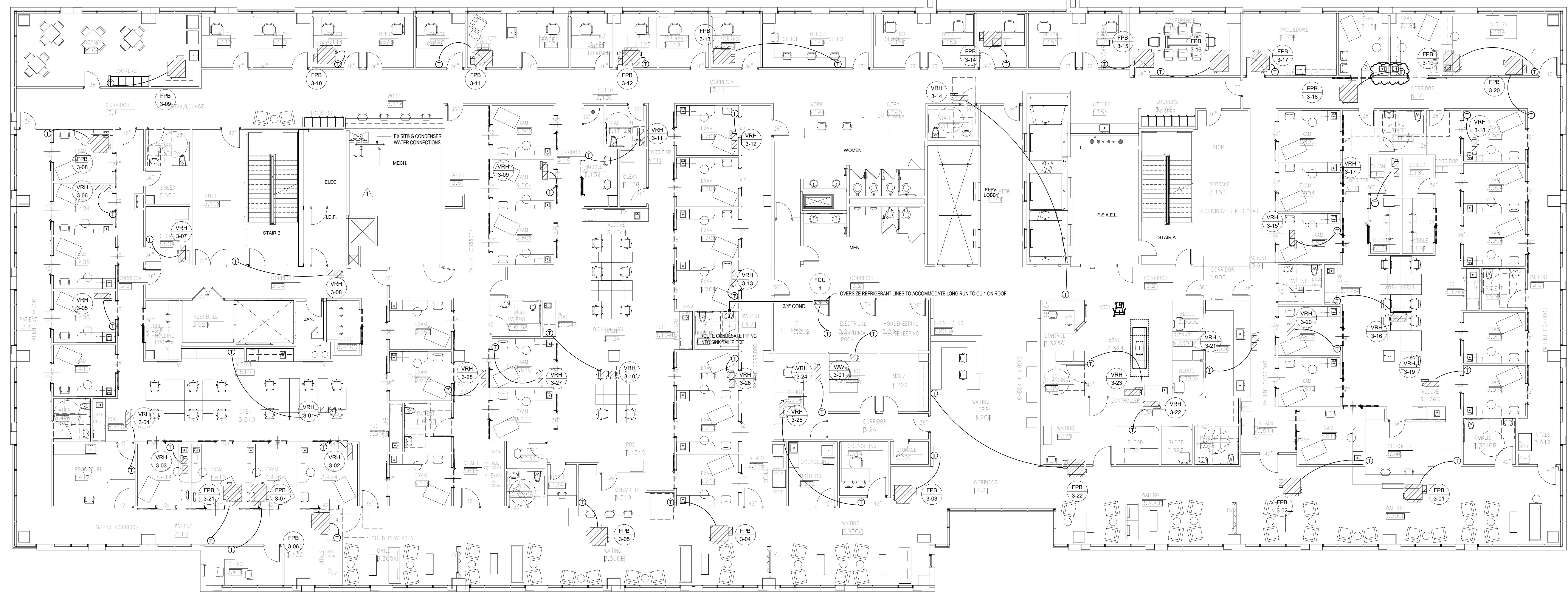
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DRAWING TITLE:  
**FLOOR PLAN - CONTROLS & PIPING**

DRAWING NUMBER:  
**M3.01**



**01 FLOOR PLAN - CONTROLS & PIPING**  
 SCALE: 1/8" = 1'-0"

**GENERAL NOTES:**

- A. REFER TO M0.01 MECHANICAL LEGENDS AND NOTES FOR ADDITIONAL MECHANICAL NOTES
- B. REFER TO M-700 SHEETS FOR SCHEDULES
- C. REFER TO M-800 SHEETS FOR DETAILS



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UTSW WORK ORDER #: 659002

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 mark.stringer@swaengineers.com

LANDLORD CONTACT  
 BILLINGSLEY COMPANY  
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 DALLAS, TX 75201  
 TEL: 214.270.0942  
 CONTACT: TONY CUMMINGS  
 tonycummings@billingsleyco.com

SEAL



09/30/22

PROJECT NO.: 609-003  
 DRAWN BY: EG  
 CHECKED BY: AS  
 REF: 33.008

**BILLINGSLEY**  
 COMPANY

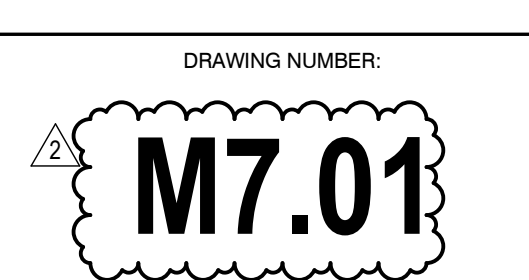
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DRAWING TITLE:  
**MECHANICAL SCHEDULES**



**SEE SUBMITTALS**

**FAN POWERED BOX SCHEDULE - ALL**

DESIGNATION	BOX NUMBER	SIZE	MAX SP DROP (IN WG)	PRIMARY AIR		HEATING COIL			KW	VOLTAGE	HEATING COIL PHASE	
				MIN CFM	MAX CFM	FAN CFM	EAT	LAT				KW
FFB	3-01	12	0.12	610	1,830	1,830	65°F	95	17.2	17.2	480 V	3
FFB	3-02	12	0.12	610	1,830	1,830	65°F	95	17.2	17.2	480 V	3
FFB	3-03	10	0.12	410	1,220	1,220	65°F	95	11.5	11.5	480 V	3
FFB	3-04	12	0.12	610	1,830	1,830	65°F	95	17.2	17.2	480 V	3
FFB	3-05	12	0.12	610	1,830	1,830	65°F	95	17.2	17.2	480 V	3
FFB	3-06	8	0.12	170	510	510	65°F	95	4.8	4.8	480 V	3
FFB	3-07	6	0.12	130	380	380	65°F	95	3.6	3.6	480 V	3
FFB	3-08	12	0.12	670	1,995	1,995	65°F	95	18.8	18.8	480 V	3
FFB	3-09	12	0.12	630	1,890	1,890	65°F	95	17.7	17.7	480 V	3
FFB	3-10	8	0.12	300	895	895	65°F	95	8.5	8.5	480 V	3
FFB	3-11	10	0.12	310	930	930	65°F	95	8.7	8.7	480 V	3
FFB	3-12	8	0.12	260	770	770	65°F	95	7.2	7.2	480 V	3
FFB	3-13	10	0.12	450	1,350	1,350	65°F	95	12.5	12.5	480 V	3
FFB	3-14	10	0.12	340	1,010	1,010	65°F	95	9.5	9.5	480 V	3
FFB	3-15	8	0.12	240	710	710	65°F	95	6.7	6.7	480 V	3
FFB	3-16	8	0.12	220	650	650	65°F	95	6.1	6.1	480 V	3
FFB	3-17	8	0.12	250	730	730	65°F	95	6.9	6.9	480 V	3
FFB	3-18	10	0.12	420	1,260	1,260	65°F	95	11.8	11.8	480 V	3
FFB	3-19	10	0.12	340	1,020	1,020	65°F	95	9.4	9.4	480 V	3
FFB	3-20	12	0.12	630	1,890	1,890	65°F	95	17.8	17.8	480 V	3
FFB	3-21	10	0.12	390	1,160	1,160	65°F	95	10.9	10.9	480 V	3
FFB	3-22	8	0.12	280	820	820	65°F	95	7.7	7.7	480 V	3
Grand Total:	22			8,880	26,460							

**SEE SUBMITTALS**

**SINGLE DUCT VRH BOX SCHEDULE**

DESIGNATION	BOX NUMBER	SIZE	MAX SP DROP (IN WG)	HEATING COIL			REHEAT CFM	EAT	LAT	KW	VOLTAGE	PHASE	MANUFACTURER
				MAX CFM	MIN CFM	REHEAT CFM							
VRH	3-01	8	0.12	685	230	450	55	95	5.6	480 V	3	SEE SPECIFICATIONS	
VRH	3-02	6	0.12	220	80	150	55	95	1.9	480 V	3	SEE SPECIFICATIONS	
VRH	3-03	6	0.12	200	70	130	55	95	1.6	480 V	3	SEE SPECIFICATIONS	
VRH	3-04	8	0.12	570	190	380	55	95	4.8	480 V	3	SEE SPECIFICATIONS	
VRH	3-05	6	0.10	360	100	200	55	95	2.5	480 V	3	SEE SPECIFICATIONS	
VRH	3-06	6	0.12	200	70	130	55	95	1.6	480 V	3	SEE SPECIFICATIONS	
VRH	3-07	6	0.10	220	80	150	55	95	1.9	480 V	3	SEE SPECIFICATIONS	
VRH	3-08	6	0.10	240	80	160	55	95	2.0	480 V	3	SEE SPECIFICATIONS	
VRH	3-09	8	0.12	360	120	240	55	95	3.0	480 V	3	SEE SPECIFICATIONS	
VRH	3-10	10	0.12	760	260	500	55	95	6.3	480 V	3	SEE SPECIFICATIONS	
VRH	3-11	6	0.10	200	70	130	55	95	1.6	480 V	3	SEE SPECIFICATIONS	
VRH	3-12	6	0.12	250	90	170	55	95	2.1	480 V	3	SEE SPECIFICATIONS	
VRH	3-13	6	0.12	240	70	130	55	95	1.6	480 V	3	SEE SPECIFICATIONS	
VRH	3-14	6	0.10	250	70	130	55	95	1.6	480 V	3	SEE SPECIFICATIONS	
VRH	3-15	8	0.12	410	140	270	55	95	3.4	480 V	3	SEE SPECIFICATIONS	
VRH	3-16	8	0.12	480	160	320	55	95	4.0	480 V	3	SEE SPECIFICATIONS	
VRH	3-17	6	0.10	280	100	190	55	95	2.4	480 V	3	SEE SPECIFICATIONS	
VRH	3-18	8	0.12	410	140	270	55	95	3.4	480 V	3	SEE SPECIFICATIONS	
VRH	3-19	8	0.10	490	170	320	55	95	4.0	480 V	3	SEE SPECIFICATIONS	
VRH	3-20	8	0.12	410	140	270	55	95	3.4	480 V	3	SEE SPECIFICATIONS	
VRH	3-21	8	0.12	550	200	360	55	95	4.9	480 V	3	SEE SPECIFICATIONS	
VRH	3-22	8	0.12	510	180	340	55	95	4.3	480 V	3	SEE SPECIFICATIONS	
VRH	3-23	10	0.12	680	300	580	55	95	7.3	480 V	3	SEE SPECIFICATIONS	
VRH	3-24	8	0.10	360	120	240	55	95	3.0	480 V	3	SEE SPECIFICATIONS	
VRH	3-25	6	0.10	230	80	150	55	95	1.4	480 V	3	SEE SPECIFICATIONS	
VRH	3-26	6	0.12	350	120	230	55	95	2.2	480 V	3	SEE SPECIFICATIONS	
VRH	3-27	8	0.12	500	170	330	55	95	3.1	480 V	3	SEE SPECIFICATIONS	
VRH	3-28	8	0.12	560	190	370	55	95	3.5	480 V	3	SEE SPECIFICATIONS	

**SEE SUBMITTALS**

**SINGLE DUCT VAV BOX SCHEDULE**

DESIGNATION	BOX NUMBER	SIZE	MAX SP DROP (IN WG)	MAX CFM	MIN CFM	MANUFACTURER
VAV	3-01	8	0.12	500	500	SEE SPECIFICATIONS

**AIR DEVICE SCHEDULE**

MARK	SERVICE	MOUNTING	FACE SIZE	NECK SIZE	DAMPER	MATERIAL	MANUFACTURER	MODEL	NOTES
S1	SUPPLY	CEILING	24"x24"	NOTE 1	NO	ALUMINUM	TITUS	OMN	1,2,3,4,5,6
S2	SUPPLY	CEILING	12"x12"	NOTE 1	NO	ALUMINUM	TITUS	OMN	1,2,3,4,5,6
S3	SUPPLY	SIDEWALL	SEE PLANS	12" x 12"	NO	ALUMINUM	TITUS	27RL	1,2,3,4,5,6
S4	SUPPLY	CEILING	24"x48"	NOTE 1	NO	STAINLESS	TITUS	TLF-SS	1,2,3,4,5,6,7
S5	SUPPLY	SLOT	SEE PLANS	NOTE 1	NO	ALUMINUM	TITUS	CT-480	1,2,3,4,5,6
R1	RETURN	CEILING	24"x24"	NOTE 1	NO	ALUMINUM	TITUS	PAR	1,2,3,4,5,6,9
R2	RETURN	CEILING	24"x12"	NOTE 1	NO	ALUMINUM	TITUS	PAR	1,2,3,4,5,6,9
R3	RETURN	SIDEWALL	SEE PLANS	12" x 12"	NO	ALUMINUM	TITUS	29RL	1,2,3,4,5,6
E1	EXHAUST	CEILING	24"x24"	NOTE 1	NO	ALUMINUM	TITUS	PAR-AA	1,2,3,4,5,6
E2	EXHAUST	CEILING	24"x24"	NOTE 1	NO	ALUMINUM	TITUS	PAR-AA	1,2,3,4,5,6
E3	EXHAUST	SIDEWALL	SEE PLANS	-	-	ALUMINUM	TITUS	355 FL	1,2,3,4,5,6

NOTES:

- SUPPLY TYPE DIFFUSERS:
 

CFM	NECK SIZE	RETURN AND EXHAUST TYPE AIR DEVICES
UP TO 100	8"	8" CFM
101 TO 200	8 1/2"	12 1/2 TO 240
201 TO 300	9"	15 TO 240
301 TO 400	9 1/2"	18 TO 240
401 TO 500	10"	21 TO 240
501 TO 600	10 1/2"	24 TO 240
601 TO 700	11"	27 TO 240
701 TO 800	11 1/2"	30 TO 240
801 TO 900	12"	33 TO 240
901 TO 1000	12 1/2"	36 TO 240
1001 TO 1100	13"	39 TO 240
1101 TO 1200	13 1/2"	42 TO 240
1201 TO 1300	14"	45 TO 240
1301 TO 1400	14 1/2"	48 TO 240
1401 TO 1500	15"	51 TO 240
1501 TO 1600	15 1/2"	54 TO 240
1601 TO 1700	16"	57 TO 240
1701 TO 1800	16 1/2"	60 TO 240
1801 TO 1900	17"	63 TO 240
1901 TO 2000	17 1/2"	66 TO 240
- PROVIDE WITH APPROPRIATE MOUNTING FOR INSTALLED CEILING.
- DO NOT SCREW THRU FACE OF DEVICE UNLESS SCREW HOLES ARE PROVIDED BY MANUFACTURER.
- RUNOUTS SHALL BE THE SAME SIZE AS THE DIFFUSER NECK UNLESS NOTED OTHERWISE.
- PROVIDE IN COLOR FINISH AS DIRECTED BY ARCHITECT.
- PROVIDE OPPOSED DAMPER ADJUSTABLE (HBU) THE FACE OF DIFFUSER OR GRIFF FOR DIFFUSER GRIFF LOCATED IN CONCEALED CEILING, CHASE, OR GYPSUM BOARD CEILING.
- WITH HEPA FILTER RACK WITH FILTER. PROVIDE OOP AND PRESSURE TEST PORT WITH REMOTE MAGNETIC GAUGE AT NURSE STATION.
- DIFFUSERS TO RECEIVE CUSTOM FACTORY PAINT FINISH, COLOR AS SELECTED BY ARCHITECT.
- PROVIDE WITH RETURN AIR BOOT. SEE DETAIL ON M8.01.

**SPLIT SYSTEM SCHEDULE**

MARK	CAPACITY (MBH)	SEER	INDOOR UNIT				OUTDOOR UNIT								
			CFM	WATTS	FLA	WEIGHT (LB)	MANUFACTURER	MODEL	MARK	VOLTAGE	MCA	MCCP	WEIGHT (LB)	MANUFACTURER	MODEL
FCU-1	36	18.8	920	56	1 A	48	MTSUBISHI	PKA-A9KA7	CU-1	208/1	25	31	211	MTSUBISHI	PUY-ARNAH7

SPLIT SYSTEM NOTES:

- SUPPORT AND INSTALLATION SHALL BE PER MANUFACTURER.
- UNIT SHALL BE INVERTER DRIVEN.
- PROVIDE FOR LOW AMBIENT OPERATION.
- PROVIDE WITH WALL MOUNTED THERMOSTAT.
- PROVIDE WITH INTEGRAL CONDENSATE PUMP TRAP, INSULATE, SLOPE AND RUN FULL SIZE CONDENSATE DRAIN LINES TO THE NEAREST FLOOR DRAIN OR MOP RUN OR DRAIN PIPING (UPSTREAM OF P-TRAP).
- PROVIDE HAL GUARD FOR CONDENSING UNIT ON ROOF.

**FAN POWERED PARALLEL CONFIGURATION TERMINAL UNIT WITH ELECTRIC REHEAT COIL SCHEDULE**

(NOT ALL AIR TERMINAL TYPES LISTED IN THIS SCHEDULE ARE USED - REFER TO HVAC FLOOR PLANS)

INLET SIZE	MIN. CFM COOLING	MAX. CFM COOLING	MAX. S.P.D. IN W.G.	FAN			HEATING COIL		STAGES	MANUFACTURER	NOTES	
				FAN CFM	E.S.P.	MAX HP	VOLTS/PH	MAX NC				VOLTS/PH
6"	NOTE 9	500	0.12	NOTE 3	0.40	18	480/3	25	480/3	SCR	TITUS	ALL
8"	NOTE 9	900	0.12	NOTE 3	0.40	18	480/3	25	480/3	SCR	TITUS	ALL
10"	NOTE 9	1400	0.12	NOTE 3	0.40	13	480/3	25	480/3	SCR	TITUS	ALL
12"	NOTE 9	2000	0.15	NOTE 3	0.40	13	480/3	25	480/3	SCR	TITUS	ALL
14"	NOTE 9	3000	0.15	NOTE 3	0.50	13	480/3	30	480/3	SCR	TITUS	ALL
16"	NOTE 9	4000	0.15	NOTE 3	0.50	12	480/3	30	480/3	SCR	TITUS	ALL

NOTES:

- 1" T.A. FILTER AT MAX FV = 400 FPM
- KW IS PER SCHEDULE
- FAN CFM = (MAXIMUM PRIMARY AIR) X .80
- INTERMITTENT FAN
- PROVIDE WITH THE FOLLOWING FEATURES:  
 3/4" THICK FIBERGLASS INSULATION WITH FOIL FACING OR 3/4" THICK CLOSED CELL FOAM INSULATION; NEMA 1 ENCLOSURE, FACTORY PROVIDED AND WIRED 277V/24V CONTROL VOLTAGE TRANSFORMER; PRIMARY AIR FLOW SENSOR; ELECTRIC DAMPER ACTUATOR; FUSED DISCONNECT SWITCH.
- PROVIDE A UNIT CONTROLLER TO EFFECT PRESSURE INDEPENDENT SPACE TEMPERATURE CONTROL. SPACE TEMPERATURE SENSOR AND CONTROLLER MANUFACTURER MODEL SHALL BE COMPATIBLE WITH BUILDING CONTROLS. TEMPERATURE SENSORS SHALL HAVE AN LCD DISPLAY INDICATING THE MEASURED VALUES.
- UNIT SHALL BE INSTALLED PER REQUIRED MANUFACTURER AND NEC CODE CLEARANCE REQUIREMENTS. TERMINAL BOXES SHALL NOT BE INSTALLED ABOVE CEILING MOUNTED DEVICES SUCH AS SPRINKLER HEAD, SMOKE DETECTOR, MOTION DETECTOR ETC. THE UNITS SHALL HAVE A READY ACCESS FOR MAINTENANCE OR ADJUSTMENT.
- PROVIDE 1/2 SPEED MOTOR AND ADJUSTABLE DISCHARGE DAMPER

KEY:

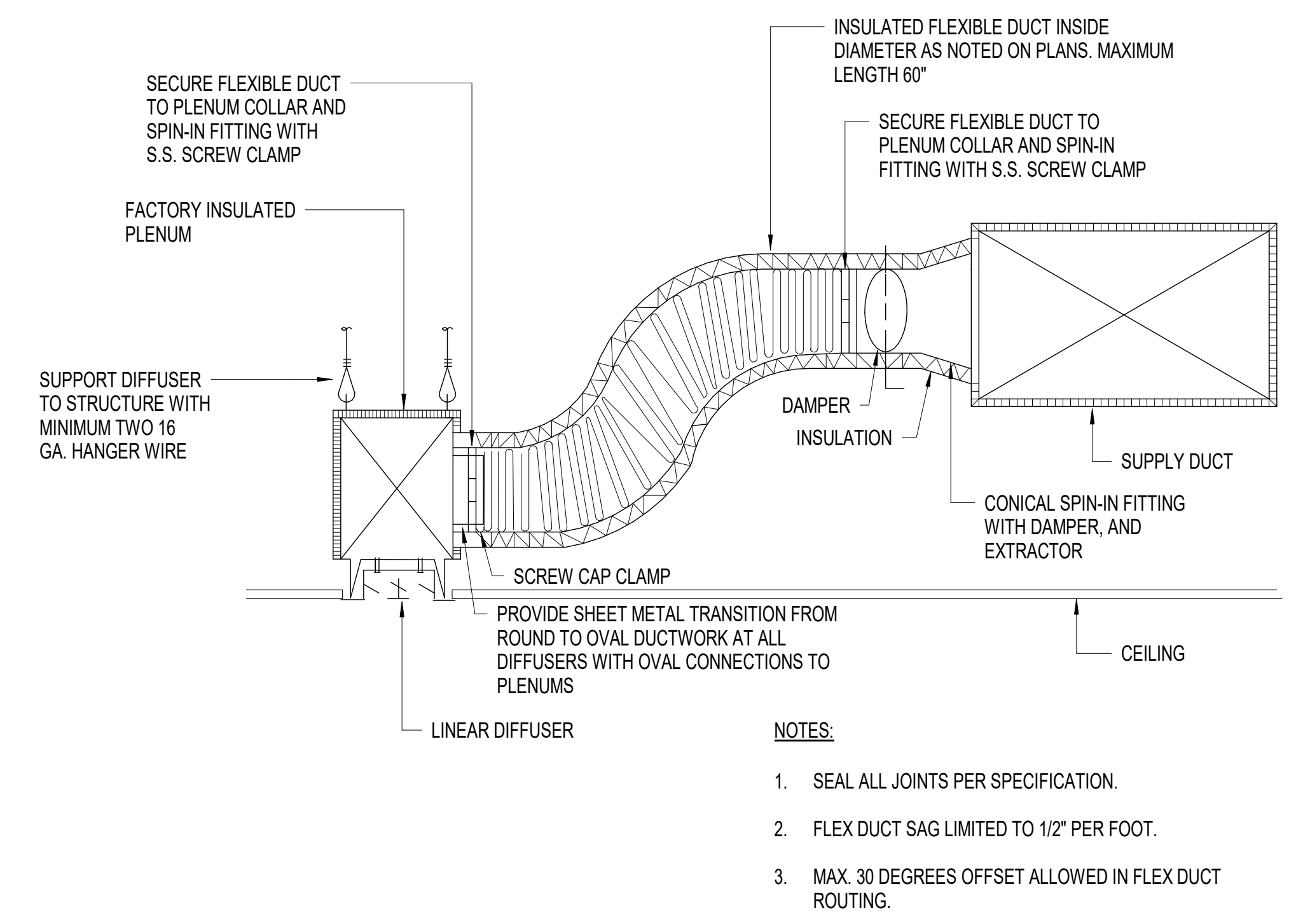
- FFB - SIZE - MAXIMUM CFM
- XX/XX - KW - HEATING COIL (MINIMUM

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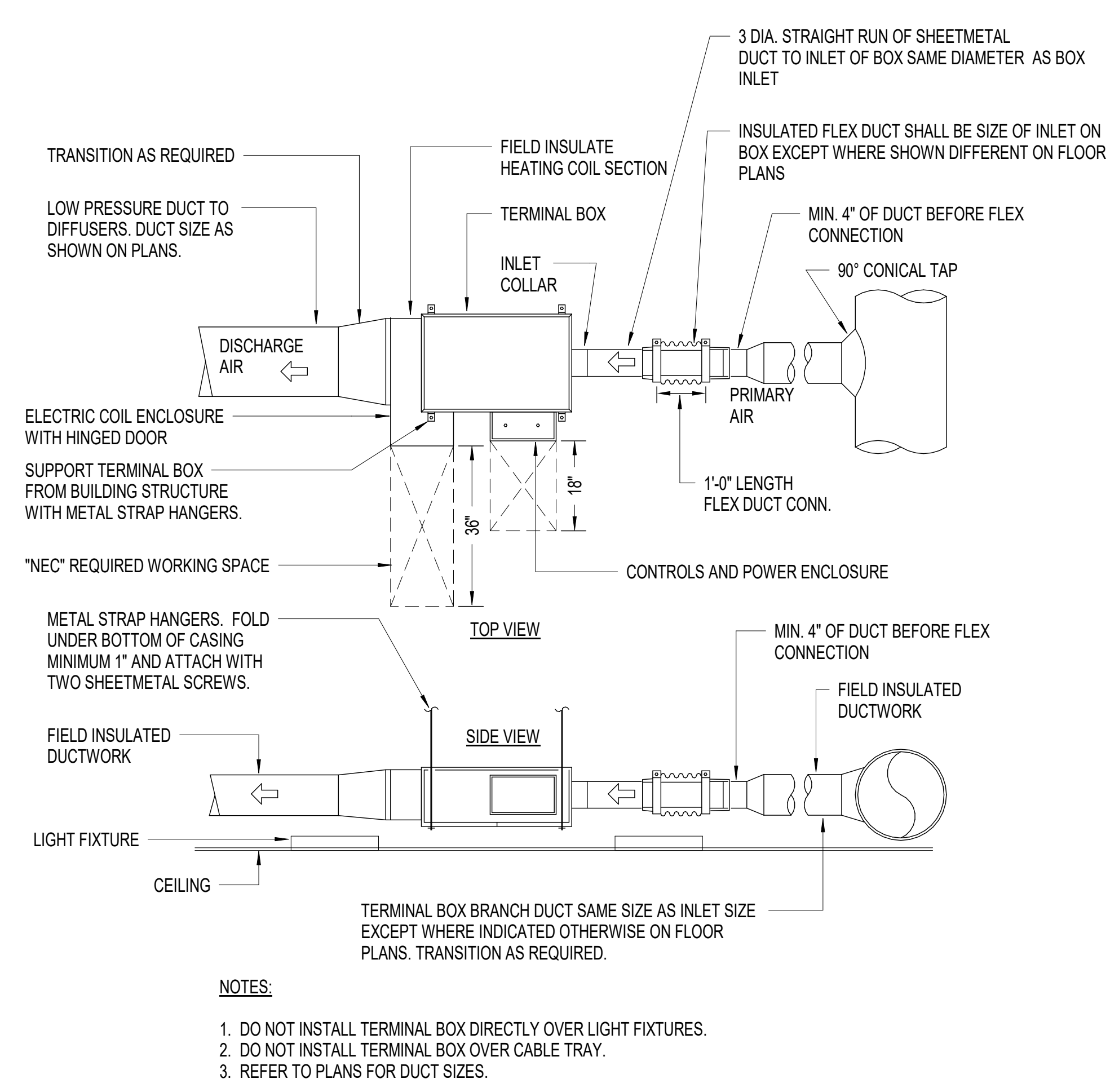
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DRAWING TITLE:  
**MECHANICAL DETAILS**

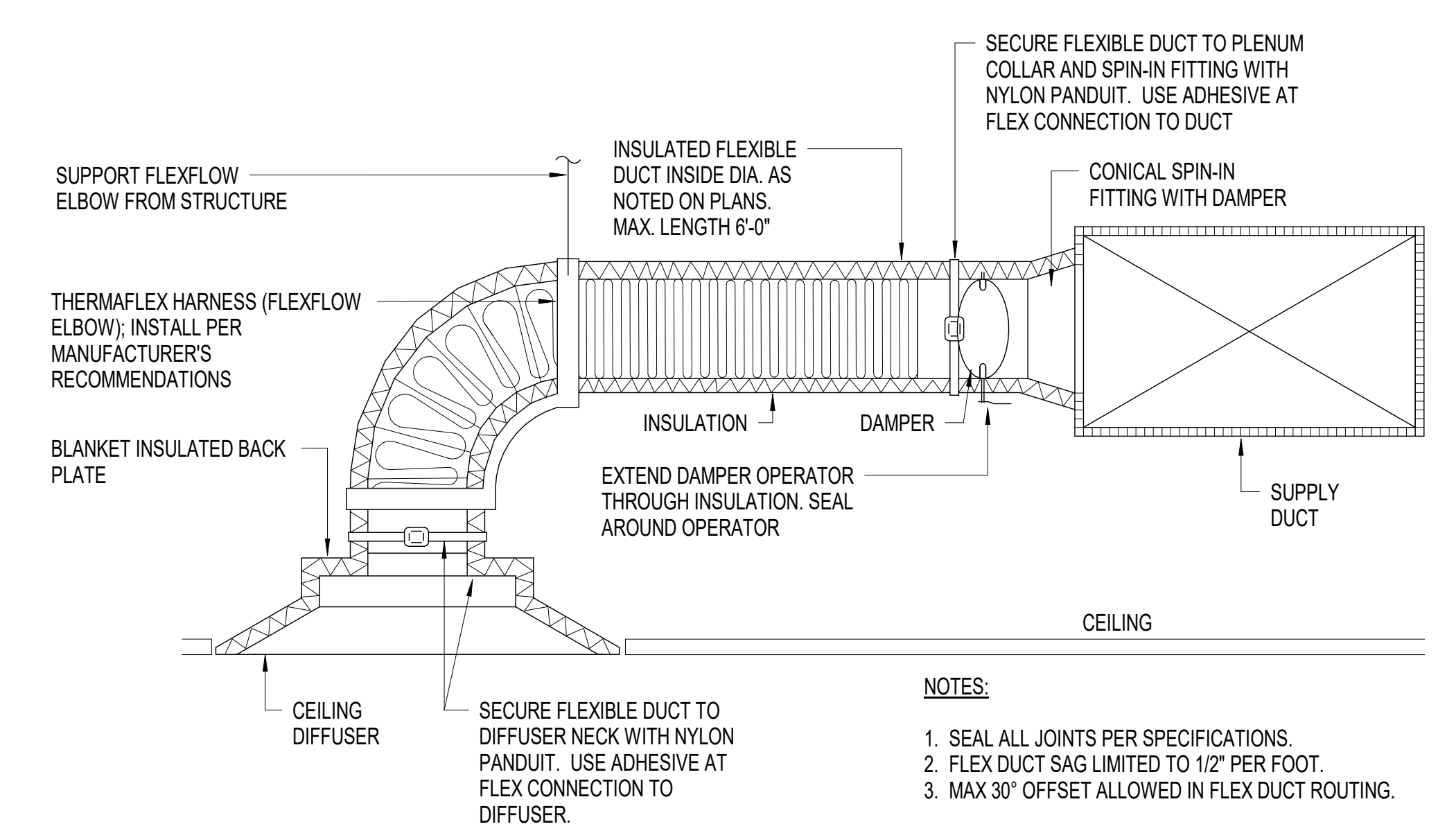
DRAWING NUMBER:  
**M8.01**



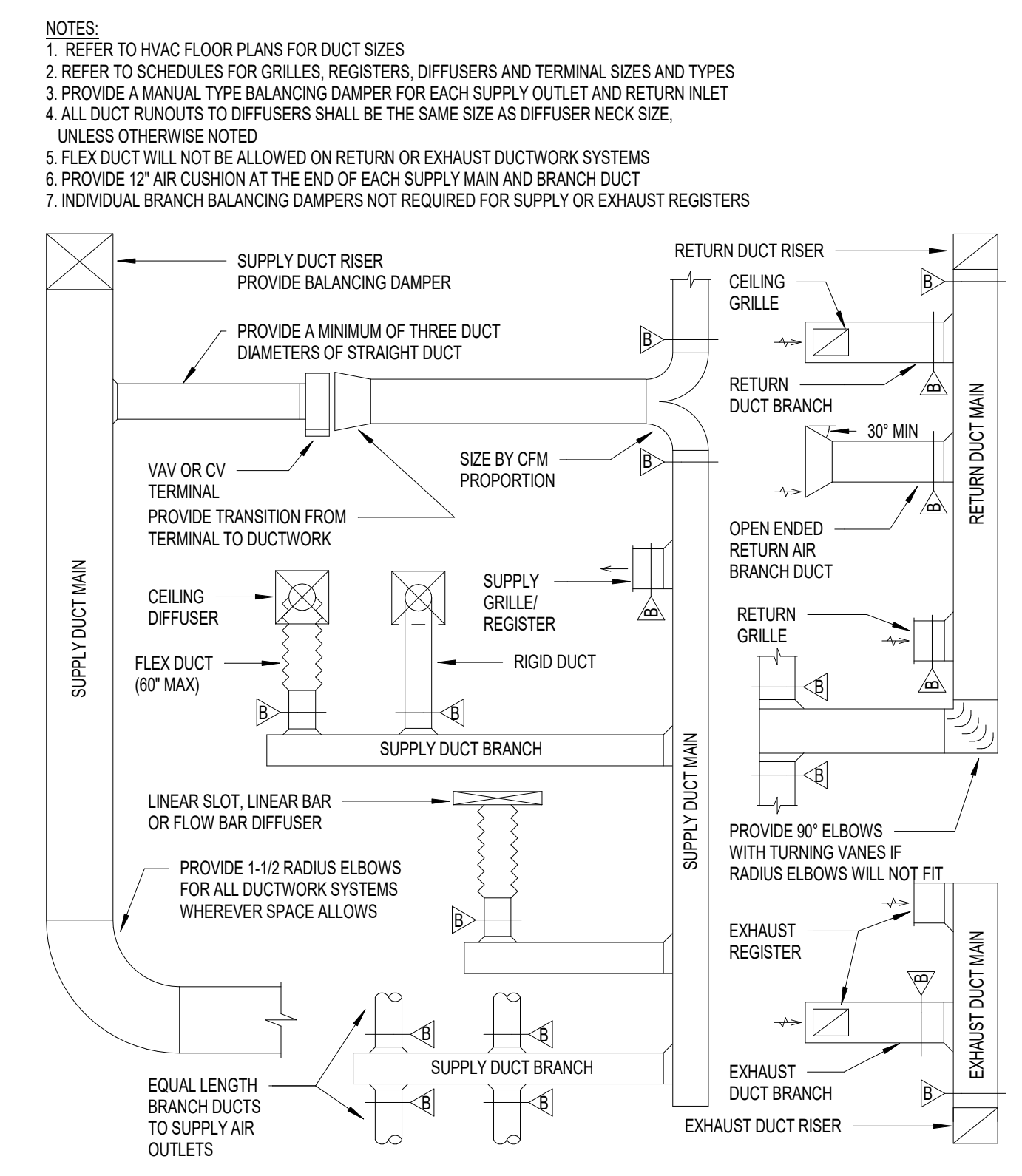
**01** CEILING MOUNTED LINEAR DIFFUSER CONNECTION DETAIL  
 SCALE: NO SCALE



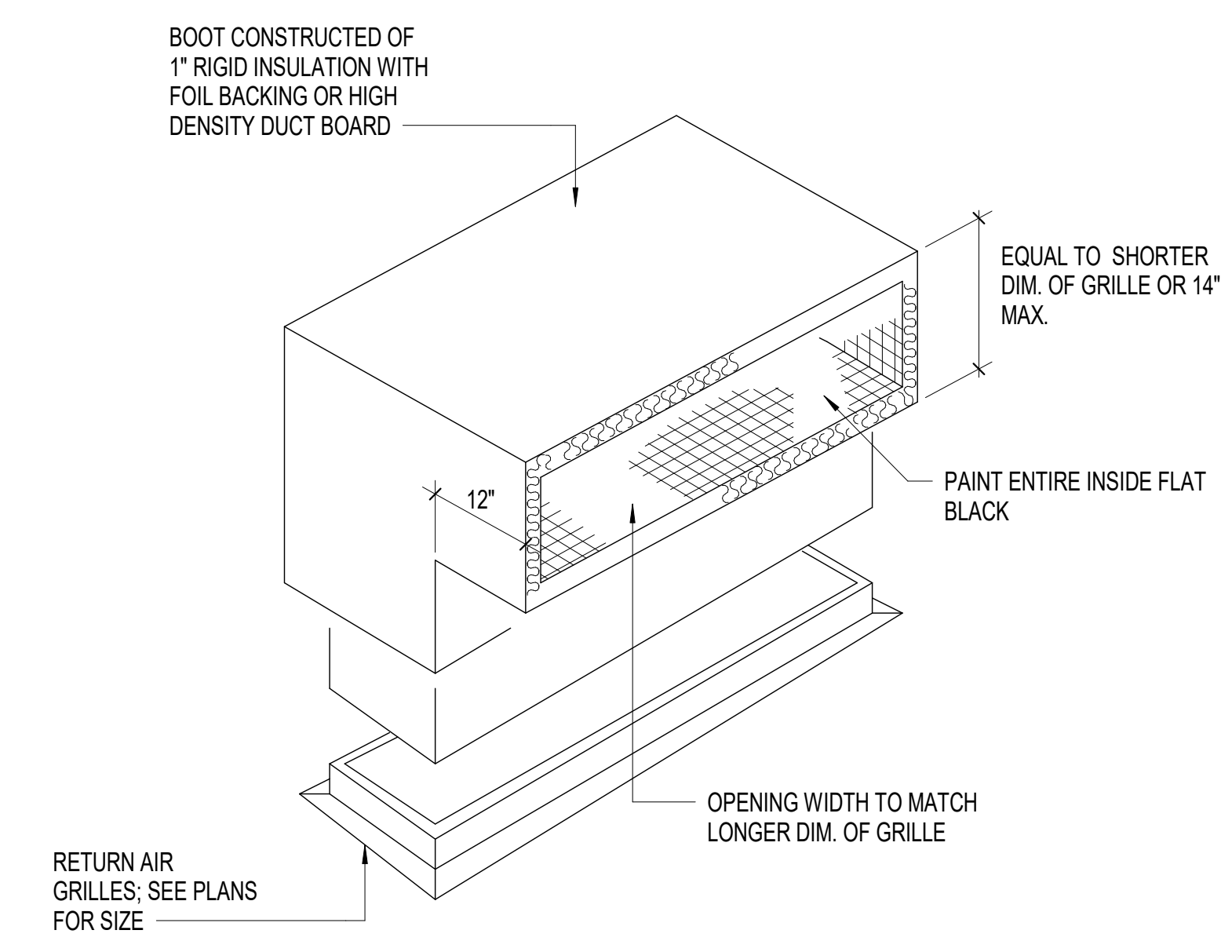
**02** CV AND VAV TERMINAL BOX W/ ELECTRIC HEAT CONNECTION DETAIL  
 SCALE: NO SCALE



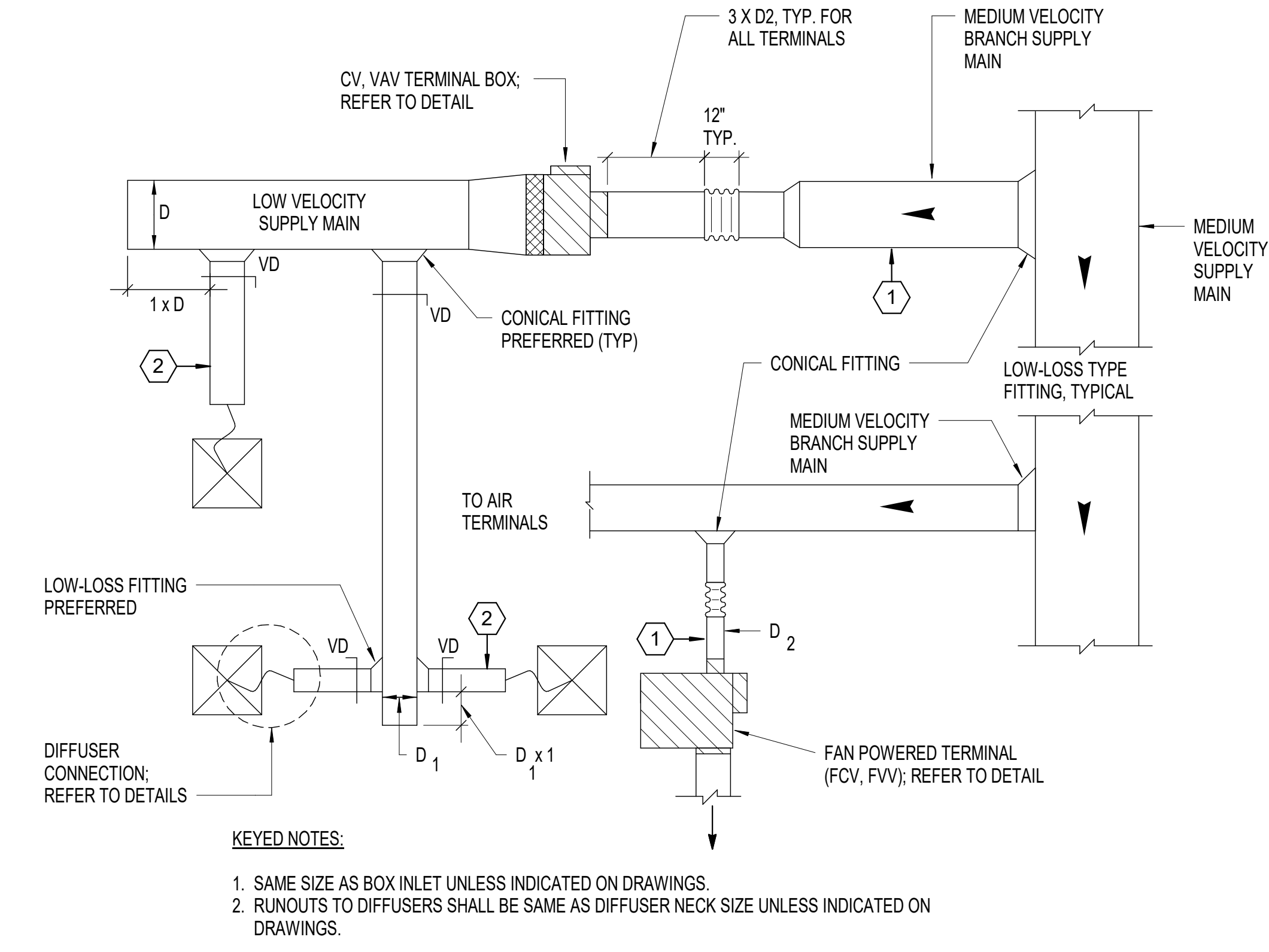
**03** CEILING DIFFUSER CONNECTION  
 SCALE: NO SCALE



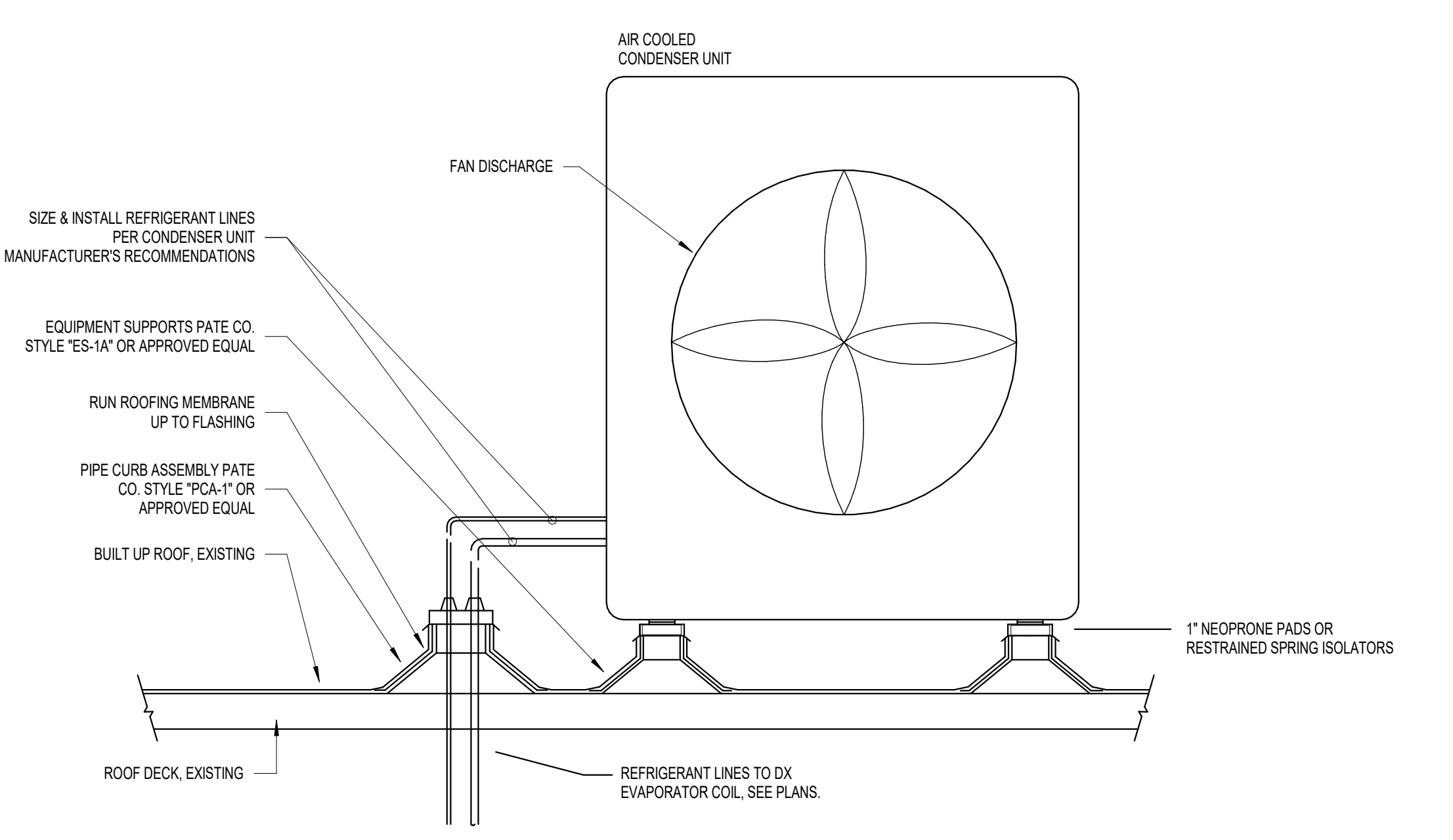
**04** DUCTWORK INSTALLATION DIAGRAM  
 SCALE: NO SCALE



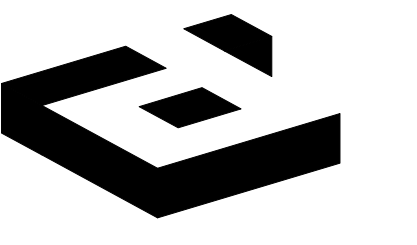
**05** RETURN AIR GRILLE BOOT  
 SCALE: NO SCALE



**06** TYPICAL DUCT DESIGN DETAIL  
 SCALE: NO SCALE



**07** ROOF MOUNTED CONDENSING UNIT  
 M8.01 SCALE: N.T.S.



2641 IRVING BLVD.  
 DALLAS, TEXAS 75207  
 TEL: 214-638-6800

UTSW WORK ORDER #: 659002

**PROJECT MANAGER**  
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**LANDLORD CONTACT**  
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09/30/22

PROJECT NO: 609-003  
 DRAWN BY: ES  
 CHECKED BY: AS  
 RSP: 33.038

**BILLINGSLEY**  
 COMPANY

UTSW MEDICAL CENTER AT COPPELL

CYPRESS WATERS  
 2999 OLYMPUS BLVD.  
 SUITE #300  
 DALLAS, TX 75219

NO.	REVISIONS	DATE
1	PR 1	08.22.2022
2	PR 2	09.30.2022

LANDLORD REVIEW ISSUE DATE: 07/16/2022  
 TENANT REVIEW ISSUE DATE: 07/15/2022  
 BID ISSUE DATE: 07/15/2022  
 PERMIT ISSUE DATE: 07/15/2022  
 CONSTRUCTION ISSUE DATE: XXXX/2022

DRAWING TITLE:  
**MECHANICAL SPECS**

DRAWING NUMBER:  
**M9-01**

## MECHANICAL SPECIFICATIONS

### I. GENERAL CONDITIONS:

- A. THE SCOPE OF THE WORK SHALL INCLUDE THE FURNISHING AND INSTALLATION OF THE NECESSARY MATERIAL AND LABOR TO ACCOMPLISH THE WORK INDICATED BY THE DRAWINGS AND HEREIN SPECIFIED. ALL WORK BY THIS CONTRACTOR SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL BUILDING CODES.
- B. CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE EXISTING CONDITIONS AT THE JOB SITE BEFORE SUBMITTING PROPOSALS. SUBMISSION OF PROPOSALS SHALL BE TAKEN AS EVIDENCE THAT SUCH INSPECTION HAS TAKEN PLACE. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE COMPLETE SET OF CONSTRUCTION DOCUMENTS AND THE LACK OF SPECIFIC INFORMATION ON THE DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY.
- C. MATERIALS AND EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL BE NEW AND SHALL BEAR THE UL LABEL WHERE APPLICABLE. UNLESS NOTED OTHERWISE, ALL WORK SHALL BE GUARANTEED AGAINST DEFECTIVE MATERIALS AND WORKMANSHIP FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR AFTER COMPLETION AND ACCEPTANCE BY THE OWNER.
- D. CONTRACTOR SHALL INSTALL MECHANICAL SYSTEMS WITHOUT INTERFERENCE AND IN STRICT COORDINATION WITH OTHER TRADES.
- E. MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE CONTRACT DOCUMENTS AND APPLICABLE CODES AND STANDARDS. IN CASE OF DIFFERENCE BETWEEN APPLICABLE CODES AND STANDARDS AND THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ARCHITECT/ENGINEER AND THE OWNER IN WRITING OF SUCH DIFFERENCE. SHOULD THE CONTRACTOR PERFORM ANY WORK THAT DOES NOT COMPLY WITH THE REQUIREMENTS OF APPLICABLE CODES AND STANDARDS, HE/SHE SHALL BEAR ALL COSTS ARISING IN CORRECTING SUCH DEFECTS. APPLICABLE CODES AND STANDARDS SHALL INCLUDE ALL ORDINANCES, UTILITY COMPANY REGULATIONS, AND APPLICABLE REQUIREMENTS OF NATIONALLY ACCEPTED CODES AND STANDARDS. SHOULD THE CONTRACTOR SUPPLY EQUIPMENT DIFFERING FROM THE SPECIFIED ITEMS IN THE CONTRACT DOCUMENTS WITHOUT NOTIFICATION TO THE ENGINEER, HE (SHE) SHALL BEAR ALL COSTS TO UPGRADE DEFICIENCIES ARISING FROM SUCH.
- F. WHERE ONLY ONE MANUFACTURER'S NAME IS LISTED IN THE EQUIPMENT SPECIFICATION, OTHER MANUFACTURERS OF SIMILAR CHARACTERISTICS AND OF EQUAL OR BETTER PERFORMANCE CAPACITIES MAY BE CONSIDERED FOR "OR EQUAL" APPROVAL BY THE ENGINEER. WHERE MORE THAN ONE MANUFACTURER IS LISTED IN THE NOTES AND EQUIPMENT SPECIFICATIONS, ONLY THOSE NAMED MANUFACTURERS WILL BE CONSIDERED FOR APPROVAL.
- G. SHOULD A SUBSTITUTION BE ACCEPTED, AND SHOULD THE SUBSTITUTE MATERIAL PROVE DEFECTIVE, OR OTHERWISE UNSATISFACTORY FOR THE SERVICE INTENDED WITHIN THE GUARANTEE PERIOD, THE MATERIAL OR EQUIPMENT SHALL BE REPLACED WITH THE MATERIAL OR EQUIPMENT SPECIFIED AT NO COST TO THE OWNER.
- H. PROVIDE ACCESS, INCLUDING NECESSARY ACCESS DOORS, FOR NEW AND EXISTING EQUIPMENT REQUIRING OPERATION AND/OR MAINTENANCE. RELOCATE EXISTING AND LOCATE ALL NEW EQUIPMENT SUCH THAT OPERATION OR MAINTENANCE IS NOT RESTRICTED.
- I. DO NOT RUN PIPING OR DUCTWORK, OR LOCATE EQUIPMENT, WITH RESPECT TO SWITCHBOARDS, PANELBOARDS, POWER PANELS, MOTOR CONTROL CENTERS OR DRY-TYPE TRANSFORMERS, WITHIN 42 INCHES IN FRONT OF EQUIPMENT, OVER EQUIPMENT, OR WITHIN 36 INCHES HORIZONTALLY OF SAME SPACE.
- J. PROVIDE SNAP-ON OR ADHESIVES LABELS INDICATING CHILLED OR HOT WATER SUPPLY AND RETURN, CONDENSATE DRAINAGE, DOMESTIC HOT AND COLD WATER, MEDICAL GASES, ETC.

### II. PRODUCTS, EQUIPMENT AND EXECUTION:

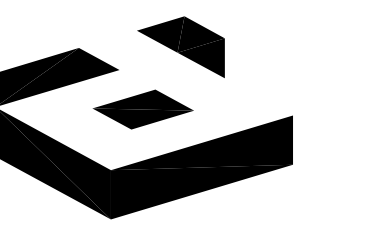
- A. RELIEF AND DRAIN PIPING SHALL BE TYPE "M" COPPER WITH 95S SOLDER JOINT FITTINGS OR SCHEDULE 40 BLACK STEEL PIPES WITH SCREWED FITTINGS.

- B. PROVIDE AND INSTALL UNIONS AT PROPER POINTS TO PERMIT REMOVAL OF A PIPE, EQUIPMENT, ETC., WITHOUT INJURY TO OTHER PARTS OF THE SYSTEM AND TO PREVENT CORROSION DUE TO ELECTROLYSIS. ALL EQUIPMENT SHALL BE INSTALLED IN A MANNER TO PERMIT ACCESS FOR SERVICE WITHOUT DISASSEMBLY. UNIONS SHALL BE DIELECTRIC WHERE DISSIMILAR MATERIALS OCCUR. PRESSURE RATINGS SAME AS FITTINGS.
- C. PROVIDE INSULATION PRODUCTS MANUFACTURED BY JOHNS-MANVILLE, OWENS-CORNING, ARMSTRONG AND CERTAINEED. FIBERGLASS PIPE INSULATION SHALL BE ASTM C247.77, CLASS 1. PROVIDE BANDS, WIRES, AND CEMENT AS RECOMMENDED BY INSULATION MANUFACTURER FOR THE APPLICATIONS INDICATED. FLEXIBLE FIBERGLASS DUCTWORK INSULATION SHALL BE ASTM C553-70, TYPE I, CLASS B3.
- PROVIDE COMPOSITE INSULATION (INSULATION JACKETS, COVERINGS, SEALERS, MASTICS AND ADHESIVE) WITH FLAME-Spread RATINGS OF 25 OR LESS AND A SMOKE-DEVELOPED RATING OF 50 OR LESS, AS TESTED BY ASTM K04 (HFFA 255) METHOD.
  - MAINTAIN INTEGRITY OF VAPOR BARRIER JACKETS ON PIPE AND DUCTWORK INSULATION, AND PROTECT TO PREVENT PUNCTURE OR OTHER DAMAGE. SEAL OPEN ENDS OF INSULATION WITH MASTIC. SECTIONALLY SEAL ALL BUTT ENDS OF CHILLED WATER INSULATION OF FITTINGS WITH WHITE VAPOR BARRIER COATING. EXTEND PIPING INSULATION WITHOUT INTERRUPTION THROUGH WALLS, FLOORS AND SIMILAR PIPING PENETRATIONS, EXCEPT WHERE OTHERWISE INDICATED. INSTALL PROTECTIVE METAL SHIELDS AND FOAM GLASS INSERTS WHERE PIPE HANGERS BEAR ON OUTSIDE OF INSULATION.
- D. RECTANGULAR "LOW PRESSURE" SHEET METAL DUCT SHALL BE FABRICATED OF CONTINUOUS HOT DIP MILL GALVANIZED MINIMUM 26 GAUGE STEEL SHEETS AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS FOR 1.0" W.C. AND FOR THE FIRST 10 TO 15 FEET DOWNSTREAM OF A TERMINAL UNIT (FPVAV OR VAV) SHALL HAVE AN INTERNAL DUCT LINING EQUAL TO JOHNS-MANVILLE PERMACOTE LINAQUOSTIC, 1" THICK, 15 LB. DENSITY DUCT LINER. (DUCTS FOR MEDICAL WORK SHALL NOT BE LINED, BUT WILL BE WRAPPED).
- E. ROUND "LOW PRESSURE" DUCT FITTINGS SHALL BE FABRICATED OF CONTINUOUS HOT DIP MILL GALVANIZED MINIMUM 26 GAUGE STEEL SHEETS AND INSTALLED IN ACCORDANCE WITH SMACNA RECOMMENDATIONS FOR 0.5" W.C.
- F. RECTANGULAR AND ROUND "PRIMARY AIR" SHEET METAL DUCT AND FITTINGS SHALL BE FABRICATED OF CONTINUOUS HOT DIP MILL GALVANIZED MINIMUM 26 GAUGE STEEL SHEETS AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS FOR 3.0" W.C., AND RECTANGULAR DUCT SHALL HAVE AN INTERNAL DUCT LINING EQUAL TO JOHNS-MANVILLE PERMACOTE LINAQUOSTIC, 1" THICK, 15 LB. DENSITY DUCT LINER. (DUCTS FOR MEDICAL WORK SHALL NOT BE LINED, BUT WILL BE WRAPPED). CONSTRUCTION METHODS:
- RECTANGULAR- DUCTMATE SYSTEM
  - ROUND- SPIRAL DUCT SYSTEM
- G. ROUND DUCTS AND UNLINED RECTANGULAR DUCTS SHALL BE INSULATED WITH 34 POUND PER CUBIC FOOT MINIMUM DENSITY, 2" THICK, COMMERCIAL GRADE, OWENS-CORNING FIBERGLASS FOIL BACKED ALL SERVICE DUCT WRAP, OR EQUAL.
- H. FLEXIBLE DUCTS SHALL BE FLEXMASTER TYPE 8M, THERMAFLEX WKE OR WIREMOLD WJK. FLEXIBLE DUCTS SHALL BE LISTED AS LUL, 181 CLASS (1) AIR DUCT AND SHALL COMPLY WITH NFPA STANDARDS 90A AND 90B.
- I. CONTRACTOR SHALL BALANCE THE HVAC SYSTEMS FOR DESIGNATED AIR AND WATER QUANTITIES AND SHALL BE N.E.B.B. OR A.A.B.C. APPROVED. SUBMIT REPORT ON NEBB, AABC, OR SMACNA FORMS FOR APPROVAL BY THE ENGINEER. EXTENT OF BALANCING WORK TO INCLUDE REBALANCING OF EXISTING SUPPLY AND EXHAUST SYSTEMS AS REQUIRED TO ACHIEVE DESIGN CFM ON SUBJECT PROJECT.
- J. DUCT ACCESS DOORS: PROVIDE RIGID AND CLOSE FITTING DOORS OF GALVANIZED STEEL WITH SEALING GASKETS AND QUICK FASTENING LOCKING DEVICES. FOR INTERNALLY LINED OR INSTALLED DUCTWORK, INSTALL MINIMUM ONE INCH THICK INSULATION WITH SHEET METAL COVER. INSTALL AT EACH FIRE DAMPER. DOORS TO BE EQUAL TO FLEXMASTER™ THE INSPECTOR SERIES™.
- K. FURNISH AND INSTALL SMOKE, FIRE AND/OR FIRE/SMOKE DAMPERS WHERE SHOWN ON THE DRAWINGS, AND REQUIRED BY THE GOVERNING AUTHORITY. DAMPERS SHALL BE INSTALLED AS RECOMMENDED BY SMACNA AND COMPLY WITH U.L. AND LOCAL ORDINANCES AS REQUIRED BY THE GOVERNING AUTHORITY.
- L. "VARIABLE-VOLUME" AND "CONSTANT-VOLUME" SINGLE DUCT TERMINAL BOX SHALL BE MEDIUM PRESSURE, VARIABLE AIR VOLUME, SINGLE DUCT, PRESSURE-INDEPENDENT TERMINAL UNIT WITH 2 P.C.F. DENSITY MINIMUM INSULATED CASING AND FLOW CONTROLLER. VARIABLE VOLUME TERMINAL BOXES SHALL BE ENVIRO-TEC SSD-11, TITUS ESV-3000, NALOR OR TEMPMASTER.
- M. TEMPERATURE CONTROLS:
- ALL TEMPERATURE CONTROLS NECESSARY FOR THE RENOVATION AND FINISH-OUT OF THE SPACE SHALL COMPLY TO THE BASE BUILDING SYSTEM AND CONTROL SPECIFICATIONS. BUILDING STANDARD CONTROL SYSTEM COMPONENTS SHALL BE UTILIZED.
  - NEW THERMOSTATS OR SENSORS SHALL BE COMPATIBLE WITH BUILDING CONTROLS AND SHALL BE AS INDICATED ON PLANS.
  - ALL CONTROL WIRING AND POWER WIRING FOR CONTROLS SHALL BE BY THE CONTROLS SUB-CONTRACTOR.
  - TERMINAL UNITS, FAN-COIL UNITS AND MOTORIZED SUPPLY AIR DAMPERS SHALL BE CONTROLLED BY ROOM THERMOSTATS/SENSORS WITH TWISTED PAIR, PLENUM RATED CABLE FROM SENSORS TO OPERATORS, CONTROL VALVES, ETC.
  - AT THE COMPLETION OF CONSTRUCTION, ALL NEW AND EXISTING THERMOSTATS AND SENSORS WITHIN THE CONTRACT AREA SHALL BE CALIBRATED.
- N. TEST AND BALANCE:
- THE GENERAL CONTRACTOR SHALL RETAIN THE SERVICES OF AN INDEPENDENT CERTIFIED AIR BALANCE FIRM TO PERFORM THE TESTING AND BALANCING AND PREPARE REPORTS TO THE GENERAL CONTRACTOR IF THE MECHANICAL CONTRACTOR IS NEBB OR AABC CERTIFIED, THEY CAN BALANCE THE SYSTEM.
  - TESTING AND BALANCING SHALL BE PERFORMED IN ACCORDANCE WITH THESE SPECIFICATIONS AND IN ACCORDANCE WITH THE ASSOCIATED AIR BALANCE COUNCIL NATIONAL STANDARDS FOR FIELD MEASUREMENT AND INSTRUMENTATION, LATEST EDITION, OR NATIONAL ENVIRONMENTAL BALANCING BUREAU STANDARDS.
  - THE CONTRACTOR SHALL CORRECT ALL DEFICIENCIES IN THE OPERATION OF FACTORY SET VAV UNITS.

4. READINGS AND TEST OF DIFFUSERS, GRILLES AND REGISTERS SHALL INCLUDE DESIGN, INITIAL TEST, AND FINAL ADJUSTED FPM VELOCITY AND CFM. ALL DIFFUSERS, GRILLES AND REGISTERS SHALL BE BALANCED BY A HOOD THAT HAS BEEN CALIBRATED, INCLUDING A MANOMETER, AND PLOT TUBE READINGS SHALL BE TAKEN TO ESTABLISH TOTAL CFM/FLOW IN ALL MAIN DUCTS. DIRECT READING INSTRUMENTS SUCH AS VELOMETERS AND ANEMOMETERS MAY BE USED AT TERMINAL UNITS.
- III. RECORDS FOR OWNER:
- A. CONTRACTOR SHALL KEEP A CLEAN SET OF DRAWINGS ON THE JOB, NOTING DAILY ALL CHANGES MADE IN THESE DRAWINGS IN CONNECTION WITH THE FINAL INSTALLATION INCLUDING EXACT DIMENSIONED LOCATIONS OF ALL NEW AND UNCOVERED EXISTING UTILITIES AND SHALL, WITH HIS REQUEST FOR FINAL PAYMENT, TURN OVER A CLEAN, NEATLY MARKED SET OF 2 MILL REPRODUCIBLE MYLARS SHOWING "AS INSTALLED" WORK TO THE ARCHITECT FOR SUBSEQUENT REVIEW AND TRANSMITTAL TO THE OWNER. CONTRACTOR SHALL NOTE ALL CONSTRUCTION CHANGES, DATE EACH SHEET AND LABEL "AS-BUILT" IN THE REVISION BLOCK ON THE DRAWINGS. CONTRACTOR SHALL ALSO FURNISH ONE (1) SET OF BLUELINE PRINTS FROM THE "AS-BUILT" MYLARS.
- B. IN ADDITION TO THE ABOVE, CONTRACTOR SHALL ACCUMULATE DURING THE JOB'S PROGRESS, THE FOLLOWING DATA, IN TRIPPLICATE, PREPARED IN A NEAT BROCHURE OR PACKET FOLDER AND TURNED OVER TO THE ARCHITECT FOR REVIEW AND SUBSEQUENT DELIVERY TO THE OWNER.
- ALL WARRANTIES AND GUARANTEES AND MANUFACTURERS DIRECTIONS ON EQUIPMENT AND MATERIAL COVERED BY THE CONTRACT INCLUDING THE NAMES, ADDRESSES AND TELEPHONE NUMBERS OF THE MANUFACTURERS REPRESENTATIVE.
  - APPROVED FIXTURE BROCHURES, WIRING DIAGRAMS AND CONTROL DIAGRAMS (ORIGINAL DATA, NO COPIES).
  - COPIES OF APPROVED SHOP DRAWINGS.
  - OPERATING INSTRUCTIONS FOR HEATING AND COOLING AND OTHER MECHANICAL SYSTEM. OPERATING INSTRUCTIONS SHALL ALSO INCLUDE RECOMMENDED MAINTENANCE AND SEASONAL CHANGE-OVER PROCEDURES.
  - TEST AND BALANCE REPORTS REQUIRED BY THESE SPECIFICATIONS.
  - ANY AND ALL OTHER DATA AND/OR DRAWINGS REQUIRED DURING CONSTRUCTION.
  - REPAIR PARTS LISTS OF ALL MAJOR ITEMS AND EQUIPMENT INCLUDING NAME, ADDRESS AND TELEPHONE NUMBERS OF LOCAL SUPPLIER OR AGENT.
  - VALVE TAG CHARTS AND DIAGRAMS.
- C. ALL OF THE ABOVE DATA SHALL BE SUBMITTED TO THE ENGINEER FOR HIS REVIEW AT SUCH TIME AS THE CONTRACTOR SUBMITS HIS LAST ESTIMATE PRIOR TO HIS FINAL PAYMENT, BUT IN NO CASE, LESS THAN TWO WEEKS BEFORE FINAL INSPECTION.

### GENERAL MECHANICAL NOTES

- RETURN AIR WILL BE TAKEN THROUGH RETURN AIR GRILLES.
- LOCATIONS AND SIZES OF EXISTING SYSTEMS ARE APPROXIMATE. EXACT SIZES AND LOCATIONS OF ALL EXISTING PIPING, DUCTS, ETC. SHALL BE VERIFIED ON THE JOB BY THE CONTRACTOR.
- CONTRACTOR SHALL INSTALL MECHANICAL SYSTEMS WITHOUT INTERFERENCE AND IN STRICT COORDINATION WITH ALL OTHER TRADES. HOLD DUCTWORK TIGHT AGAINST UNDERSIDE OF STRUCTURE ABOVE.
- ALL DUCT SIZES ARE "AIR SIZE". SHEET METAL TO BE INCREASED TO ACCOMMODATE DUCT LINER, IF APPLICABLE.
- TAPE AND SEAL ALL ROUND DUCT CONNECTIONS TO BE PERMANENTLY AIR TIGHT.
- RIGID SHEET METAL DUCT SHALL BE RUN WITHIN SIX FEET OF DIFFUSERS. FLEX DUCT SHALL BE SUPPORTED AS OFTEN AS NECESSARY TO PREVENT KINKS, TOLDS OR OTHER OBSTRUCTIONS TO AIR FLOW. CEILING GRID AND ASSOCIATED SUPPORTS MAY NOT BE USED TO SUPPORT DUCTWORK. PROVIDE RIGID 90 DEGREE ELBOWS ON DIFFUSER NECKS.
- EQUIPMENT CAPACITIES AND CHARACTERISTICS SHALL BE AS SCHEDULED ON THE DRAWINGS.
- EXISTING CEILING DIFFUSERS MAY BE REUSED AND RELOCATED AS NECESSARY UNLESS NOTED OTHERWISE OR SIZE PROHIBITS USE.
- NEW AIR DEVICES TO BE PRICE, TITUS, METALAIR OR KRUEGER AND EQUAL TO TITUS MODEL AS SCHEDULED AND SUIT THE SPECIFIED SERVICE AND CEILING TYPE UNLESS NOTED OTHERWISE ON PLANS. COORDINATE WITH ARCHITECTURAL PLANS.
- CEILING RETURN AIR GRILLES SHALL BE PRICE, TITUS, NALOR, METALAIR OR KRUEGER AND EQUAL TO TITUS MODEL AS SCHEDULED.
- EXHAUST REGISTERS SHALL BE PRICE, TITUS, NALOR, METALAIR OR KRUEGER AND EQUAL TO TITUS MODEL AS SCHEDULED.
- ALL DIFFUSERS AND SLOT SUPPLIES SHALL BE FURNISHED WITH SPIN-IN COLLAR, VOLUME DAMPER AND 6" OF FLEXIBLE DUCT.
- CONTRACTOR SHALL PREPARE AND SUBMIT FOR APPROVAL BY THE ENGINEER ALL MAJOR ITEMS OF MATERIALS AND EQUIPMENT.



2641 IRVING BLVD. DALLAS, TEXAS 75207 TEL: 214-636-6800

UTSW WORK ORDER #: 659002

PROJECT MANAGER CONTACT: JOSCELYN AZARIA TEL: 214-645-1795

MEP CONSULTANT SW ASSOCIATES CONSULTING ENGINEERS 1700 PACIFIC AVE. SUITE #2100 DALLAS, TX 75201

LANDLORD CONTACT BILLINGSLEY COMPANY 1722 ROLPH ST. SUITE #770 DALLAS, TX 75201



PROJECT NO: 659-003 DRAWN BY: EG CHECKED BY: MS RSP: 33.038

BILLINGSLEY COMPANY

UTSW MEDICAL CENTER AT COPPELL

CYPRESS WATERS 2999 OLYMPUS BLVD. SUITE #300 DALLAS, TX 75219

Table with columns: NO., REVISION, DATE. Row 1: PROPOSAL REQUEST 1, 08/25/2022. Row 2: PROPOSAL REQUEST 2, 09/07/2022.

LANDLORD REVIEW ISSUE DATE: 07/16/2022 TENANT REVIEW ISSUE DATE: 07/15/2022 BID ISSUE DATE: 07/15/2022 PERMIT ISSUE DATE: 07/15/2022 CONSTRUCTION ISSUE DATE: XXXX/2022

DRAWING TITLE: MEP SYMBOL LEGENDS & NOTES

DRAWING NUMBER: MEP1.0

GENERAL NOTES
1. ALL WORK SHALL COMPLY WITH THE CURRENT UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER CODES AND SPECIFICATIONS...

MECHANICAL GENERAL NOTES
1. ROUND DUCT ELBOWS SHALL BE SMOOTH RIGID TYPE, AND RECTANGULAR ELBOWS SHALL BE RADIUS TYPE WITH INTERNAL VANES...

CONTROLS NOTES
1. PRESSURE CONTROLLED ROOMS SHALL USE CONTROLLERS EQUIPPED WITH AUTO-ZERO MODULES. AUTO-ZERO MODULES SHALL CALIBRATE THE FLOW SENSOR EVERY 24 HOURS WITHOUT REDUCING FLOW THROUGH THE ROOMS...

ELECTRICAL GENERAL NOTES
1. ALL ELECTRICAL WORK SHALL COMPLY WITH THE CURRENT NATIONAL (NEC), STATE, AND LOCAL ELECTRICAL CODES...

PLUMBING GENERAL NOTES
1. COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS OF INSTALLATIONS...

ELECTRICAL LEGEND
Table listing symbols for electrical components: EXISTING 120V RECEPTACLE, EXISTING DATAPHONE, EXISTING 120V SIMPLEX RECEPTACLE, EXISTING FOURPLEX RECEPTACLE, FOURPLEX RECEPTACLE, SQUARE WIRE RECEPTACLE, EXISTING FOURPLEX RECEPTACLE (RED COVER), FOURPLEX RECEPTACLE (RED COVER), 208V RECEPTACLE, INDICATES 3#12 THIN IN 3/4" CONDUIT, INDICATES 3#10 THIN IN 3/4" CONDUIT, INDICATES 4#8 #10 GND THIN IN 1" CONDUIT, ELECTRICAL CONNECT TO EXISTING CIRCUIT, SPEAKER, AL3000 (ALUMINUM) RACEWAY, PEDESTAL MOUNTED RECEPTACLE, WIRELESS ACCESS POINT FOR IR.

MECHANICAL LEGEND
Table listing symbols for mechanical components: POINT OF TERMINATION, THERMOSTAT, HUMIDITY SENSOR/HUMIDISTAT, PRESSURE SENSOR, VARIABLE FREQUENCY DRIVE, 4-WAY SUPPLY DIFFUSER, RETURN GRILLE, EXHAUST GRILLE, AIR DISTRIBUTION CALLOUT, BALANCE DAMPER, CHANGE OF ELEVATION, TRANSITION.

PLUMBING LEGEND
Table listing symbols for plumbing components: LAB COLD WATER, LAB HOT WATER SUPPLY, LAB HOT WATER RETURN, ACID WASTE, ACID VENT, SANITARY DRAIN & VENT, DEIONIZED WATER SUPPLY, DEIONIZED WATER RETURN, LAB COMPRESSED AIR, LAB VACUUM, NATURAL GAS, BALL VALVE, CHILLED WATER SUPPLY, CHILLED WATER RETURN, CONDENSATE RETURN, CHECK VALVE, FLOW METER, FLOOR DRAIN, FLOOR SINK, Y-STRAINER, CUP SINK, PRESSURE RELIEVE VALVE, EMER. GAS SHUT-OFF VALVE, GAS OUTLET, FAUCET, TURNED DOWN, TURNED UP, HOT WATER SUPPLY, HOT WATER RETURN, REDUCED PRESSURE BACKFLOW, PRESSURE REDUCING VALVE, FLOOR CLEAN-OUT, WALL CLEAN-OUT.

MEDICAL GAS NOTES
1. ALL INSTALLATIONS OF THE MEDICAL GAS PIPING SYSTEMS SHALL BE DONE ONLY BY, OR UNDER THE DIRECT SUPERVISION OF A HOLDER OF A MASTER PLUMBER LICENSE OR A JOURNEYPERMAN PLUMBER LICENSE WITH A MEDICAL GAS PIPING INSTALLATION ENDORSEMENT ISSUED BY THE TEXAS STATE BOARD OF PLUMBING EXAMINERS...

CORE DRILL NOTES
1. PRIOR ANY CORE DRILLS ON CONCRETE STRUCTURES, SUCH AS FLOOR OR SLAB, CONTRACTOR SHALL LOCATE EXISTING REBARS AND TENDONS USING SONAR OR PACHOMETER.

SHUT DOWN NOTES
1. ALL UTILITY SHUT DOWNS SHALL BE COORDINATED WITH UTSWMC PROJECT MANAGER AND BUILDING MANAGER PRIOR TO ANY WORKS.



2641 IRVING BLVD. DALLAS, TEXAS 75207 TEL: 214-638-6800

ARCHITECT/ENGINEER



PROJECT NO. 2022

SEAL



07-15-2022

PROJECT NO. 629-003

DRAWN BY: 33.028

CHECKED BY:

DATE:

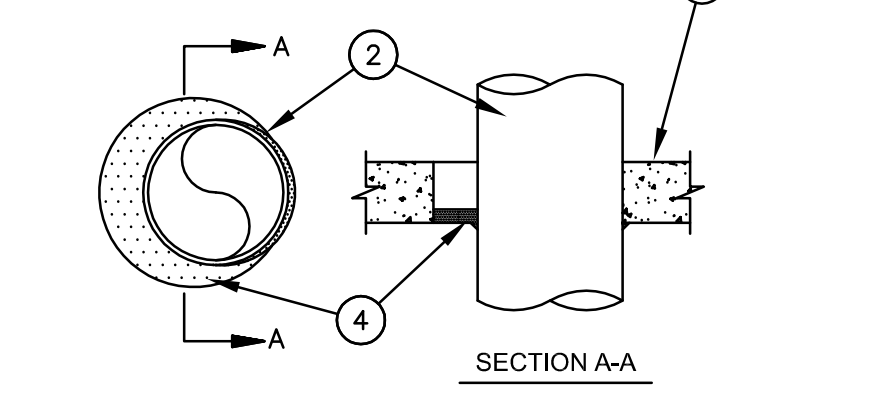
SCALE:

BILLINGSLEY COMPANY

UTSW MEDICAL CENTER AT COPPELL

System No. CA-J-1184

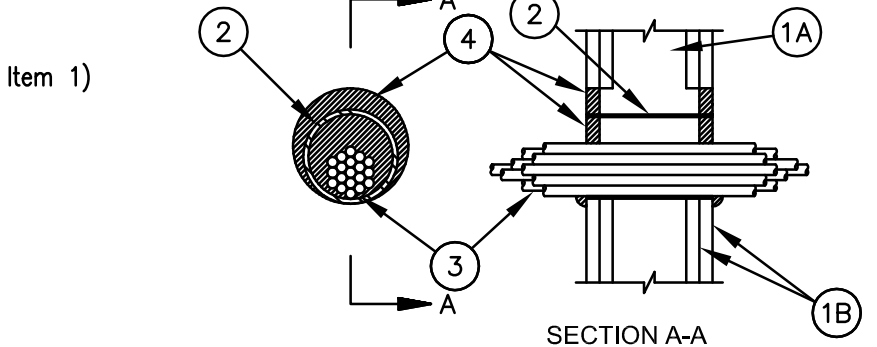
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T Rating - 0 Hr



1. Floor or Wall Assembly - Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks. Floor may also be constructed of any min 7-1/2 in. thick UL Classified hollow core Precast Concrete Unit. Max diam of opening is 14 in. when concrete floor or wall is used and max 7 in. when precast concrete units are used.

System No. WA-3065

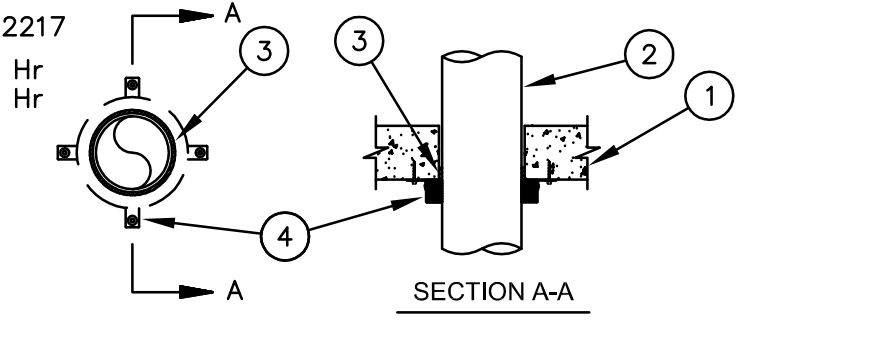
F Ratings - 1 and 2 Hr (See Item 1)  
T Rating - 0 Hr



1. Wall Assembly - The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

System No. C-AJ-2217

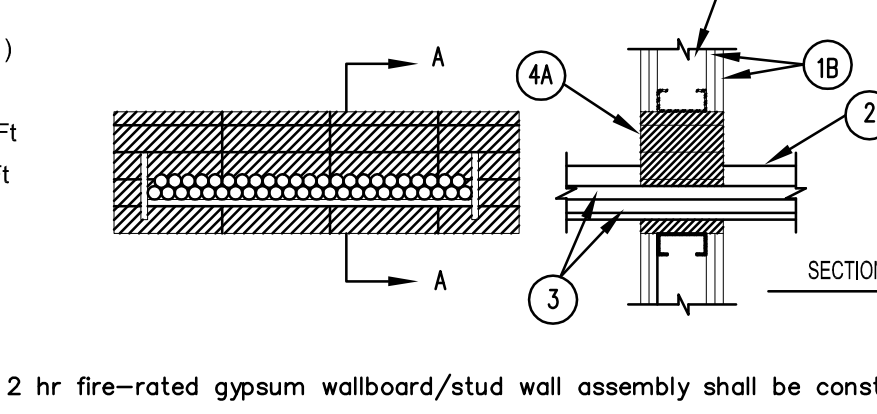
F Rating - 3 Hr  
T Rating - 0 Hr



1. Floor or Wall Assembly - Min. 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks. Max diam of opening is 7 in.

System No. WA-4011

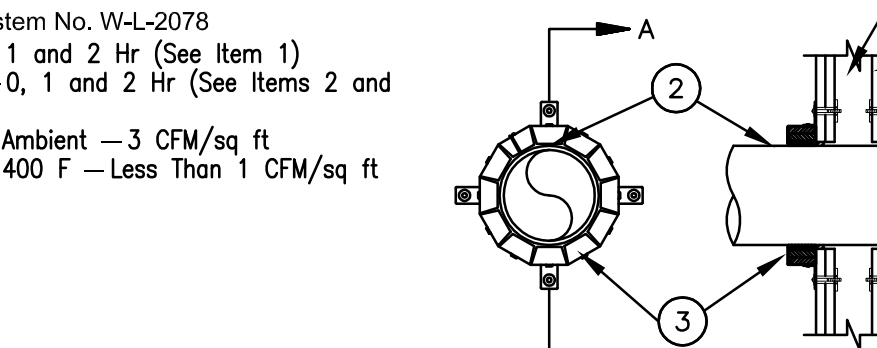
F Rating - 1 and 2 Hr (See Item 1)  
T Rating - 0 Hr  
L Rating At Ambient - 5 CFMSq Ft  
L Rating At 400 F - 2 CFMSq Ft



1. Wall Assembly - The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

System No. WA-2078

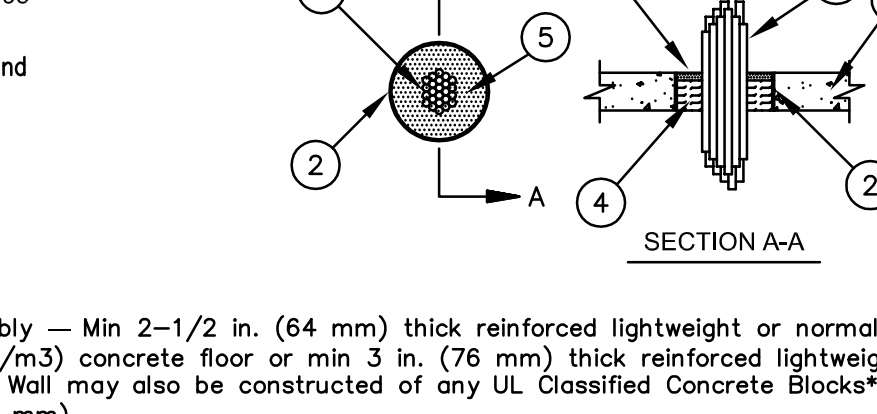
F Ratings - 1 and 2 Hr (See Item 1)  
T Rating - 0 Hr  
L Rating At Ambient - 3 CFMSq Ft  
L Rating At 400 F - Less Than 1 CFMSq Ft



1. Wall Assembly - The fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

System No. CA-J-3055

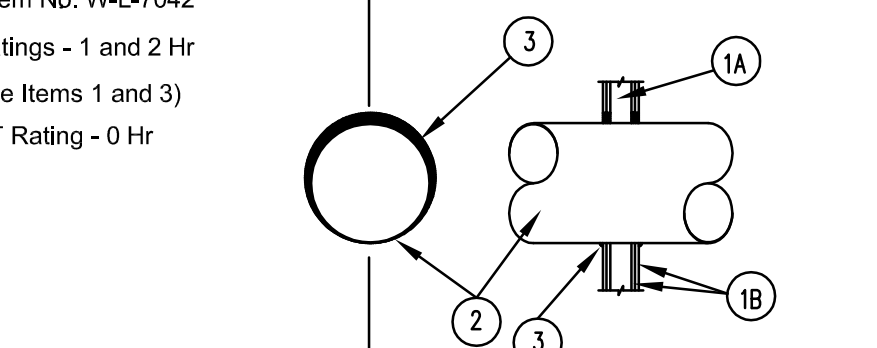
F Rating - 3 Hr  
T Rating - 0, 1/2 and 3/4 Hr (See Item 3)



1. Floor or Wall Assembly - Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600 2400 kg/m3) concrete floor or min 3 in. (76 mm) thick reinforced lightweight or normal weight concrete wall. Wall may also be constructed of any UL Classified Concrete Blocks. Max diam of opening is 6 in. (152 mm).

System No. WA-7042

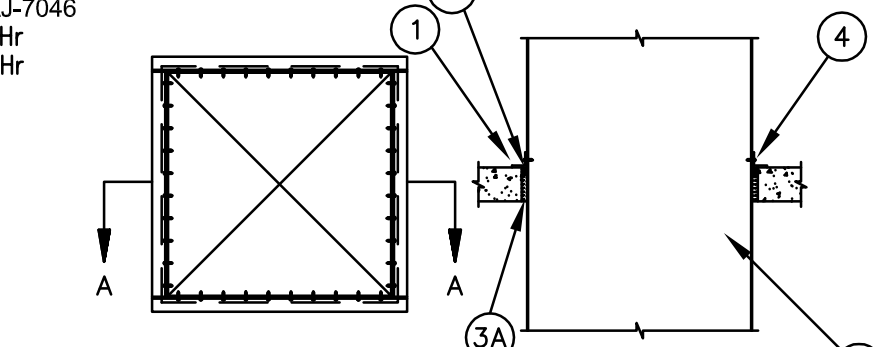
F Ratings - 1 and 2 Hr  
T Rating - 0 Hr



1. Wall Assembly The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

System No. CA-J-7046

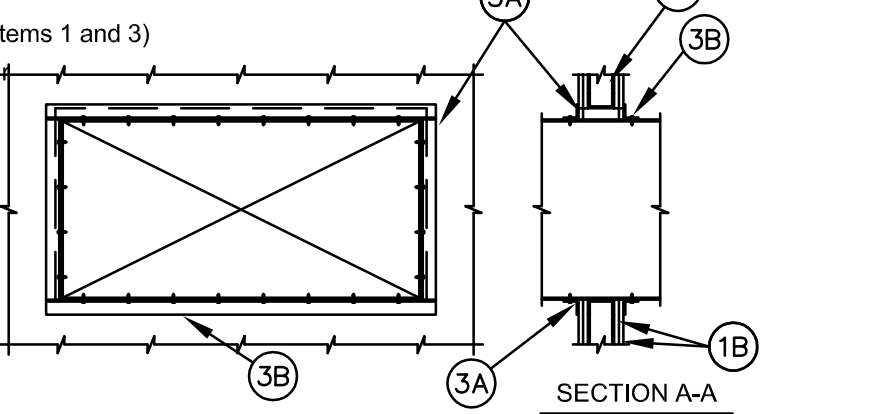
F Rating - 3 Hr  
T Rating - 0 Hr



1. Floor or Wall Assembly - Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete floor or min 5-1/2 in. thick lightweight or normal weight concrete wall. Wall may also be constructed of any UL Classified Concrete Blocks. Max diam of opening is 1139 in. sq with a max diameter Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

System No. WL-7040

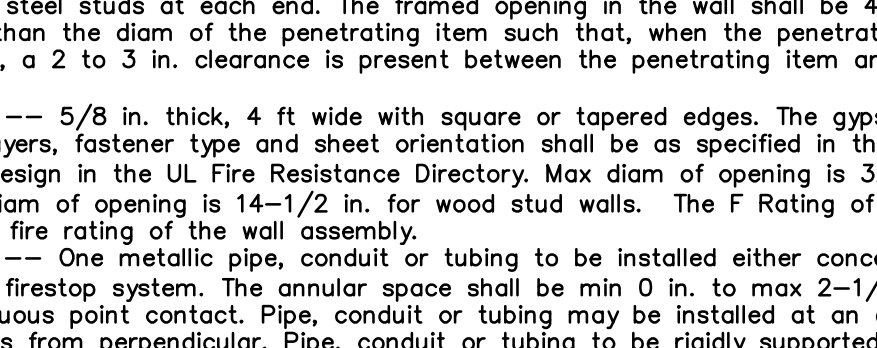
F Ratings - 1 and 2 Hrs (See Items 1 and 3)  
T Rating - 0 Hr



1. Wall Assembly - The fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

System No. WA-1054

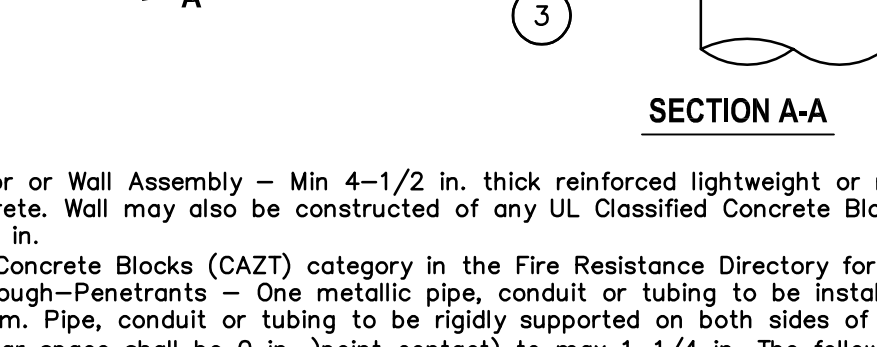
F Ratings - 1 and 2 Hr (See Items 1 and 3)  
T Rating - 0 Hr  
L Rating At Ambient - Less Than 1 CFMSq Ft  
L Rating At 400 F - 4 CFMSq Ft



1. Wall Assembly - The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

System No. CA-J-1149

F Ratings - 2 Hr  
T Rating - 0 Hr



1. Floor or Wall Assembly - Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks. Max diam of opening is 12 in.

CYPRESS WATERS 2999 OLYMPUS BLVD. SUITE #300 DALLAS, TX 75219

Table with columns: NO., REVISIONS, DATE. Contains a grid for tracking revisions.

LANDLORD REVIEW ISSUE DATE: 07/15/2022  
TENANT REVIEW ISSUE DATE: 07/15/2022  
BID REVIEW DATE: 07/15/2022  
PERMIT REVIEW DATE: 07/15/2022  
CONSTRUCTION ISSUE DATE: XXXX/2022

DRAWING TITLE: FRESTOP UL LISTING (REFERENCE ONLY)

DRAWING NUMBER:

MEP2.0