

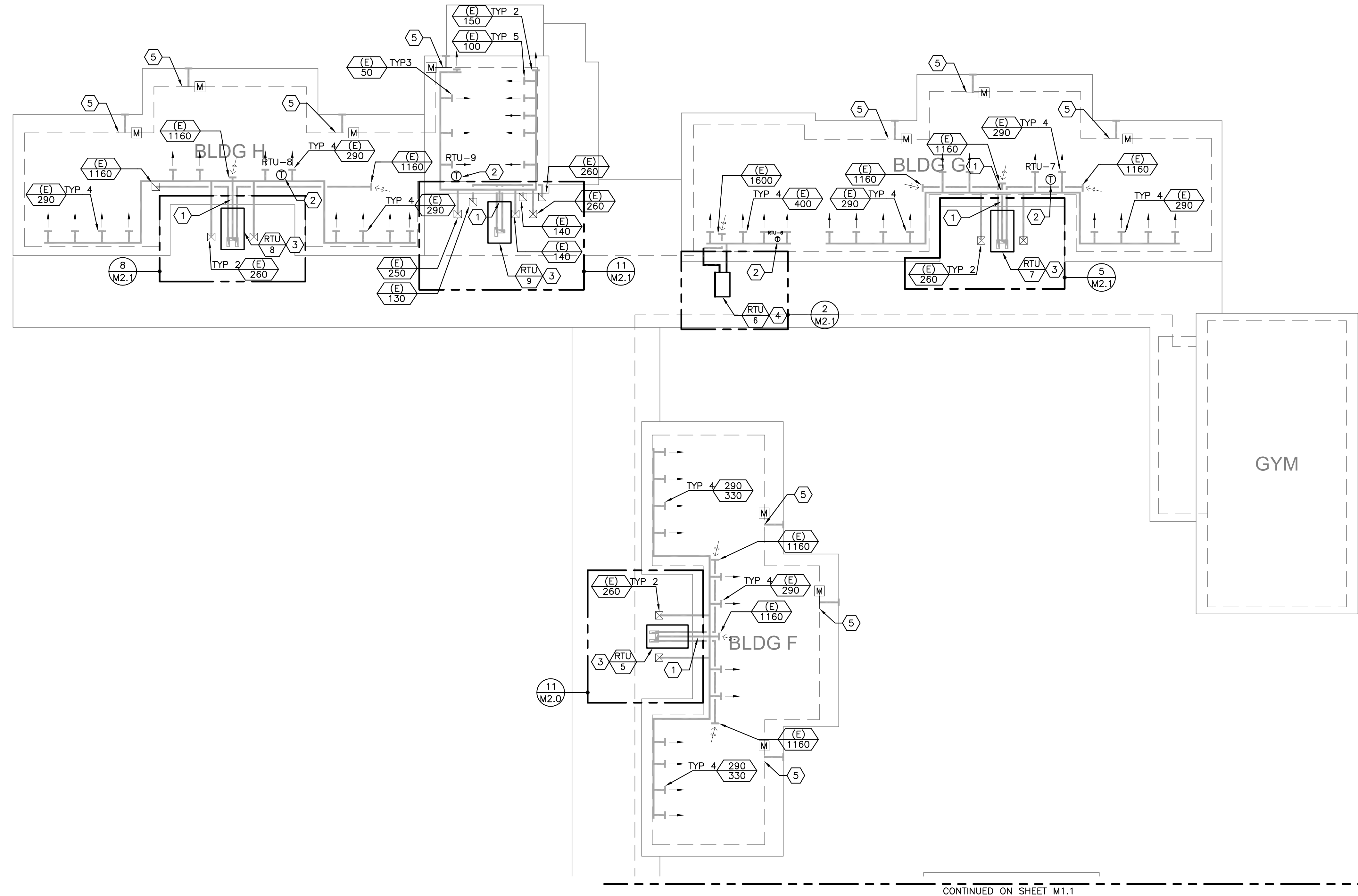
OUTSIDE AIR VENTILATION SCHEDULE

2019 OSMC Table 403.3.3.1.1

System	Application	Cond. Area (SF)	Default Occ. Density # per 1000 SF	Occ. Load	Actual No. of Occ. or No. of Fixtures	CFM per Occ. or Fixture	People or Fixture Outdoor Airflow (CFM)	Area Outdoor Airflow (CFM/SF)	Area Outdoor Airflow (CFM)	Exhaust Airflow Rate (CFM/SF)	Exhaust Airflow Rate (CFM/FX)	Req'd Exhaust (CFM)	Req'd OSA (CFM)
RTU-2	Auditorium/Gym Mechanical/Storage	2200	100	220	220	10	2200	0.12	264	-	-	-	2464
		1242	0	0	0	0	0	0.06	75	-	-	-	75
		TOTAL REQ'D OSA CFM											2539
		TOTAL REQ'D OSA CFM IN BREATHING ZONE											3173
		TOTAL REQ'D EXHAUST CFM											-
		TOTAL PROVIDED OSA CFM											3175
		DCV MINIMUM OSA CFM											423
		TOTAL PROVIDED EXHAUST CFM											-
		TOTAL REQ'D OSA CFM											738
		TOTAL REQ'D OSA CFM IN BREATHING ZONE											922
RTU-3	Classroom (K-8)	2500	35	88	44	10	437.5	0.12	300	-	-	-	738
		TOTAL REQ'D OSA CFM											738
		TOTAL REQ'D OSA CFM IN BREATHING ZONE											922
		TOTAL REQ'D EXHAUST CFM											-
		TOTAL PROVIDED OSA CFM											925
		DCV MINIMUM OSA CFM											375
		TOTAL PROVIDED EXHAUST CFM											-
		TOTAL REQ'D OSA CFM											674
		TOTAL REQ'D OSA CFM IN BREATHING ZONE											843
		TOTAL REQ'D EXHAUST CFM											-
RTU-4	Classroom (K-8)	3250	35	114	57	5	284	0.12	390	-	-	-	674
		TOTAL REQ'D OSA CFM											674
		TOTAL REQ'D OSA CFM IN BREATHING ZONE											843
		TOTAL REQ'D EXHAUST CFM											-
		TOTAL PROVIDED OSA CFM											845
		DCV MINIMUM OSA CFM											488
		TOTAL PROVIDED EXHAUST CFM											-
		TOTAL REQ'D OSA CFM											648
		TOTAL REQ'D OSA CFM IN BREATHING ZONE											810
		TOTAL REQ'D EXHAUST CFM											-
RTU-5	Classroom (K-8)	3124	35	109	55	5	273	0.12	375	-	-	-	810
		TOTAL REQ'D OSA CFM											810
		TOTAL REQ'D OSA CFM IN BREATHING ZONE											-
		TOTAL REQ'D EXHAUST CFM											-
		TOTAL PROVIDED OSA CFM											810
		DCV MINIMUM OSA CFM											469
		TOTAL PROVIDED EXHAUST CFM											-
		TOTAL REQ'D OSA CFM											191
		TOTAL REQ'D OSA CFM IN BREATHING ZONE											191
		TOTAL REQ'D EXHAUST CFM											-
RTU-6	Classroom (K-8)	920	35	32	16	5	81	0.12	110	-	-	-	240
		TOTAL REQ'D OSA CFM											138
		TOTAL REQ'D OSA CFM IN BREATHING ZONE											-
		TOTAL REQ'D EXHAUST CFM											-
		TOTAL PROVIDED OSA CFM											240
		DCV MINIMUM OSA CFM											138
		TOTAL PROVIDED EXHAUST CFM											-
		TOTAL REQ'D OSA CFM											637
		TOTAL REQ'D OSA CFM IN BREATHING ZONE											637
		TOTAL REQ'D EXHAUST CFM											-
RTU-7	Classroom (K-8)	3070	35	107	54	5	268.625	0.12	368	-	-	-	800
		TOTAL REQ'D OSA CFM											800
		TOTAL REQ'D OSA CFM IN BREATHING ZONE											-
		TOTAL REQ'D EXHAUST CFM											-
		TOTAL PROVIDED OSA CFM											800
		DCV MINIMUM OSA CFM											461
		TOTAL PROVIDED EXHAUST CFM											-
		TOTAL REQ'D OSA CFM											623
		TOTAL REQ'D OSA CFM IN BREATHING ZONE											623
		TOTAL REQ'D EXHAUST CFM											-
RTU-8	Classroom (K-8)	3000	35	105	53	5	262.5	0.12	360	-	-	-	780
		TOTAL REQ'D OSA CFM											780
		TOTAL REQ'D OSA CFM IN BREATHING ZONE											-
		TOTAL REQ'D EXHAUST CFM											-
		TOTAL PROVIDED OSA CFM											450
		DCV MINIMUM OSA CFM											137
		TOTAL PROVIDED EXHAUST CFM											-
		TOTAL REQ'D OSA CFM											190
		TOTAL REQ'D OSA CFM IN BREATHING ZONE											190
		TOTAL REQ'D EXHAUST CFM											-
RTU-9	Classroom (K-8)	915	35	32	16	5	80	0.12	110	-	-	-	237
		TOTAL REQ'D OSA CFM											237
		TOTAL REQ'D OSA CFM IN BREATHING ZONE											-
		TOTAL REQ'D EXHAUST CFM											-
		TOTAL PROVIDED OSA CFM											240
		DCV MINIMUM OSA CFM											137
		TOTAL PROVIDED EXHAUST CFM											-
		TOTAL REQ'D OSA CFM											654
		TOTAL REQ'D OSA CFM IN BREATHING ZONE											654
		TOTAL REQ'D EXHAUST CFM											-
RTU-10	Classroom (K-8)	3150	35	110	55	5	276	0.12	378	-	-	-	820
		TOTAL REQ'D OSA CFM											820
		TOTAL REQ'D OSA CFM IN BREATHING ZONE											-
		TOTAL REQ'D EXHAUST CFM											-
		TOTAL PROVIDED OSA CFM											473
		DCV MINIMUM OSA CFM											-
		TOTAL PROVIDED EXHAUST CFM											-
		TOTAL REQ'D OSA CFM											654
		TOTAL REQ'D OSA CFM IN BREATHING ZONE											817
		TOTAL REQ'D EXHAUST CFM											-

GAS CONNECTION SCHEDULE

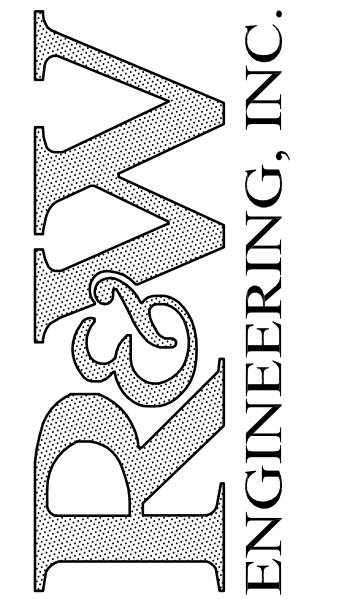
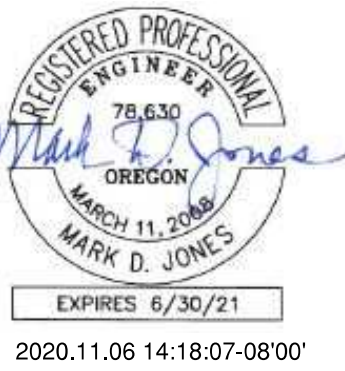
TAG	EQUIPMENT	LOCATION	MBH	PIPE
RTU-2	ROOFTOP AIR HANDLER	BUILDING C ROOF	350	3/4"
RTU-3	ROOFTOP AIR HANDLER	BUILDING D ROOF	110	3/4"
RTU-4	ROOFTOP AIR HANDLER	BUILDING E ROOF	180	3/4"
RTU-5	ROOFTOP AIR HANDLER	BUILDING F ROOF	180	3/4"
RTU-6	ROOFTOP AIR HANDLER	BUILDING G ROOF - NORTH	67	3/4"
RTU-7	ROOFTOP AIR HANDLER	BUILDING G ROOF - SOUTH	180	3/4"
RTU-8	ROOFTOP AIR HANDLER	BUILDING H ROOF - NORTH	180	3/4"
RTU-9	ROOFTOP AIR HANDLER	BUILDING H ROOF - SOUTH	67	3/4"
RTU-10	ROOFTOP AIR HANDLER	BUILDING B ROOF	240	3/4"
		TOTAL	1,554	1-1/2"
<u>PIPE SIZE</u>		<u>MBH</u>		
1/2"		192		
3/4"		381		
1"		681		
1-1/4"		1,400		
1-1/2"		2,090		
2"		4,030		
PIPE SIZING BASED ON 2 PSIG DELIVERY, 2019 OMSC TABLE C402.4(5) 550' TOTAL DEVELOPED LENGTH.				



1
M1.0 MECHANICAL PARTIAL SITE PLAN - EAST
SCALE: 1/16" = 1'-0"

- NOTES THIS SHEET**
- EXISTING SUPPLY AIR DUCT (ABOVE), EXISTING RETURN AIR DUCT (BELOW).
 - PROVIDE T-STAT AND CO2 SENSOR IN SPACE SERVED BY RTU.
 - PROVIDE ADAPTOR CURB FOR RTU. CONNECT UNIT TO EXISTING RETURN AIR PLENUM CURB.
 - PROVIDE ADAPTOR CURB FOR RTU. CONNECT UNIT TO EXISTING HORIZONTAL RETURN AIR AND SUPPLY AIR DUCTWORK.
 - EXISTING CLASSROOM RELIEF DAMPER.

THIS LINE IS 2 INCHES
AT FULL SCALE
IF IT DOES NOT MEASURE 2
INCHES, SCALE ACCORDINGLY



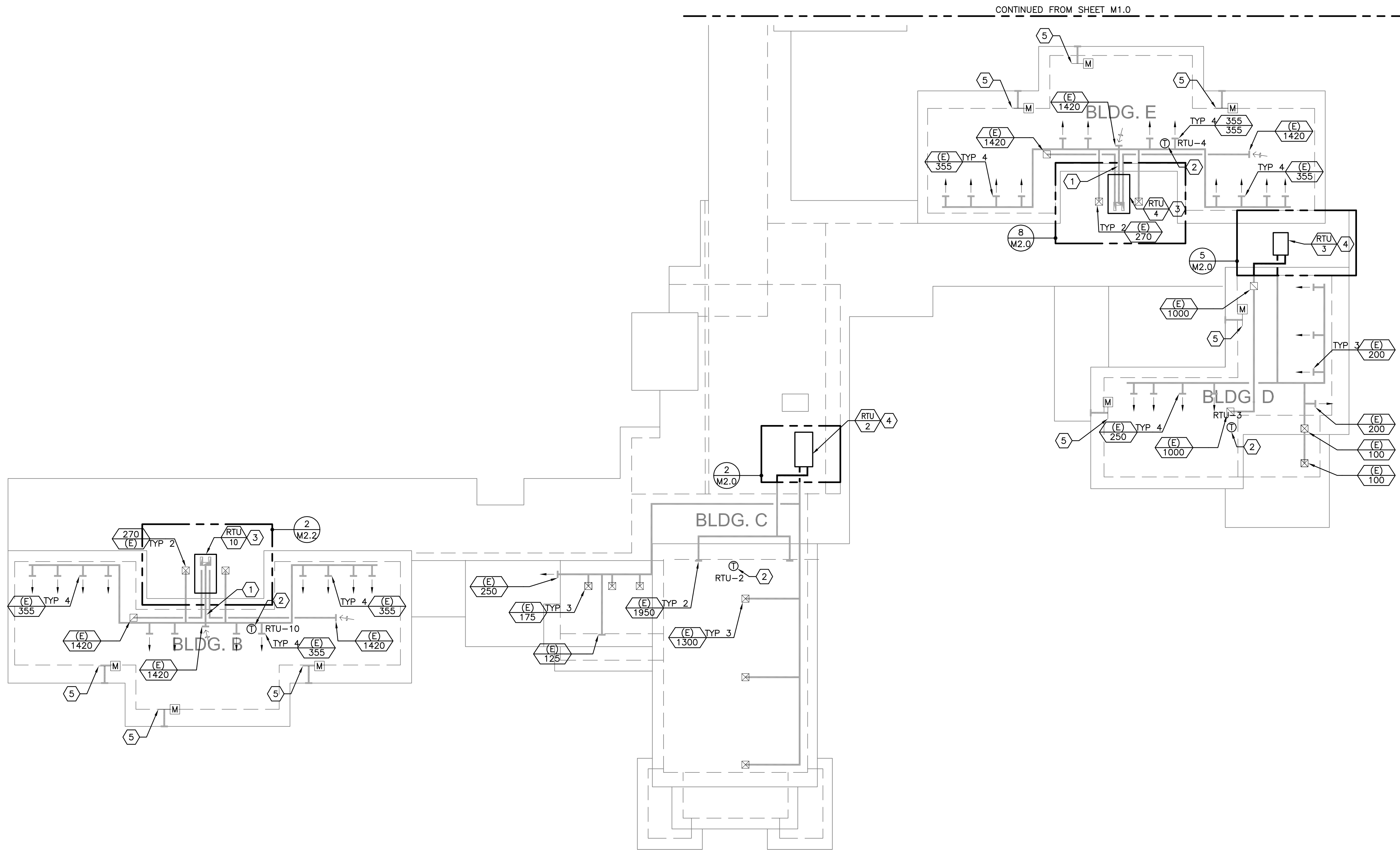
R&W ENGINEERING, INC.
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E-mail: rwen@rwen.com

REV	DATE	DESCRIPTION	BY	MD
0	11/6/2020	ISSUED FOR PERMIT		

WESTMORELAND SCHOOL
HVAC UPGRADE
1717 CITY VIEW - EUGENE, OR 97402
MECHANICAL PARTIAL SITE PLAN - EAST

DESIGNED:	WAS
DRAWN:	R&W
CONTACT:	WAS
PROJECT #:	1474.003.001
DATE:	10/23/20

DRAWING NO.
M1.0
SHEET 2 OF 6



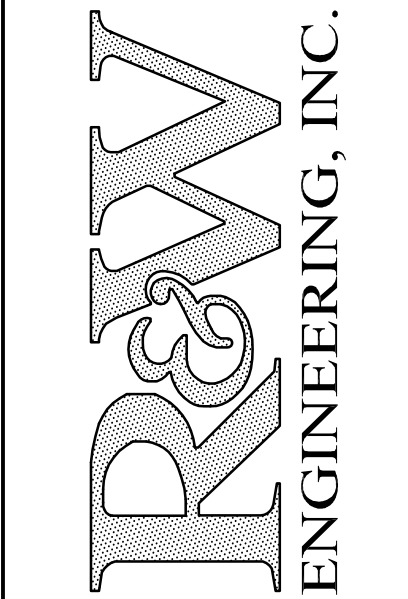
1 MECHANICAL PARTIAL SITE PLAN - WEST
M1.1 SCALE: 1/16" = 1'-0"



NOTES THIS SHEET

- EXISTING SUPPLY AIR DUCT (ABOVE), EXISTING RETURN AIR DUCT (BELOW).
- PROVIDE T-STAT AND CO2 SENSOR IN SPACE SERVED BY RTU. SEE SPECIFICATIONS.
- PROVIDE ADAPTOR CURB FOR RTU. CONNECT UNIT TO EXISTING RETURN AIR PLENUM CURB.
- PROVIDE ADAPTOR CURB FOR RTU. CONNECT UNIT TO EXISTING HORIZONTAL RETURN AIR AND SUPPLY AIR DUCTWORK
- EXISTING CLASSROOM RELIEF DAMPER.

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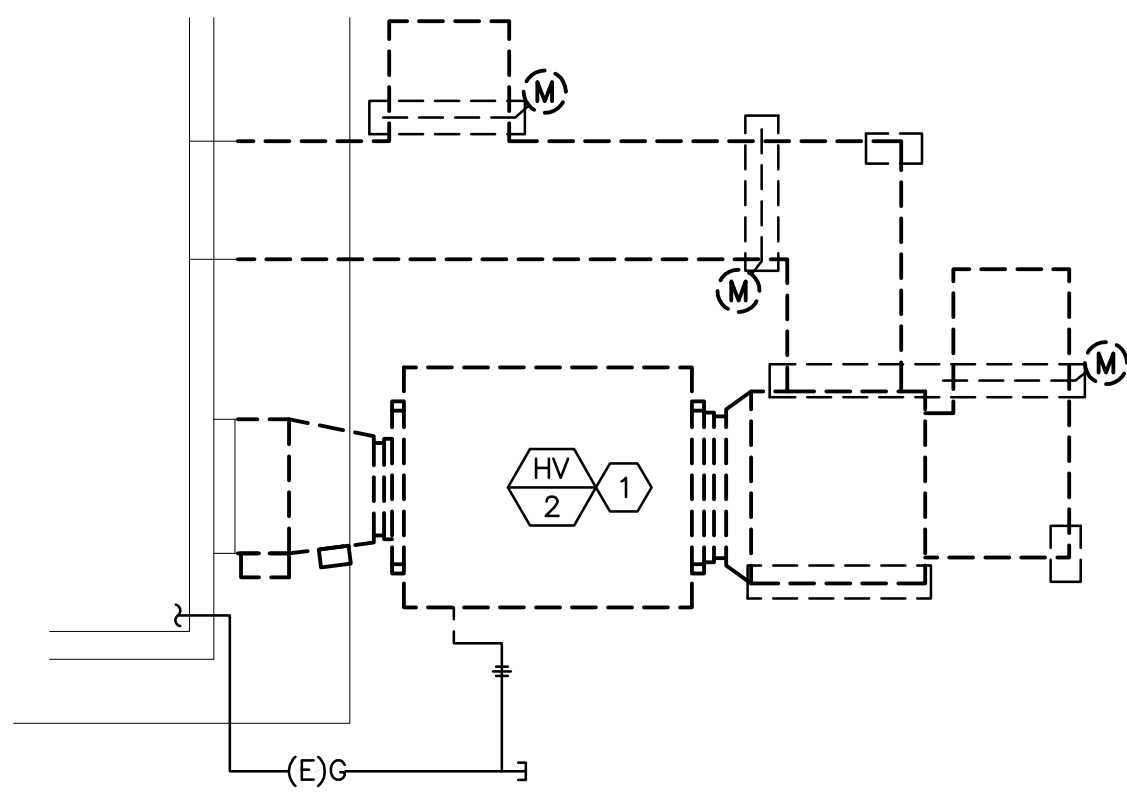
WESTMORELAND SCHOOL
HVAC UPGRADE
1717 CITY VIEW - EUGENE, OR 97402
MECHANICAL PARTIAL SITE PLAN - WEST

DESIGNED:	WAS
DRAWN:	R&W
CONTACT:	WAS
PROJECT #:	1474.003.001
DATE:	10/23/20

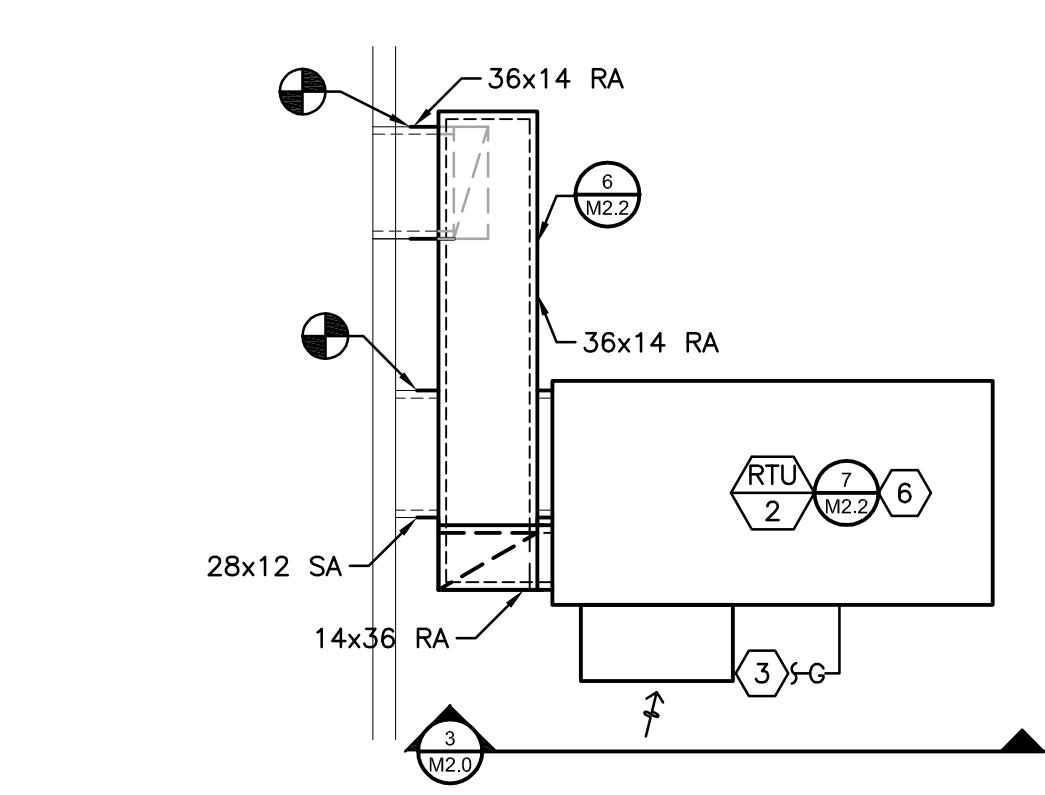
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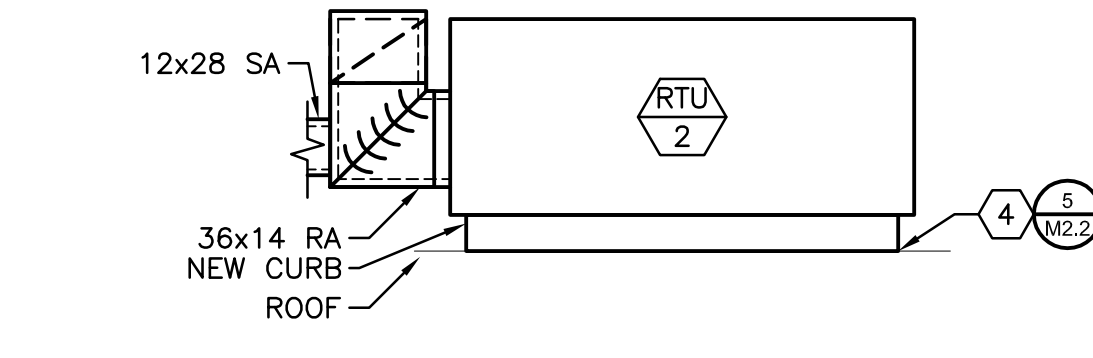
SHEET 3 OF 6



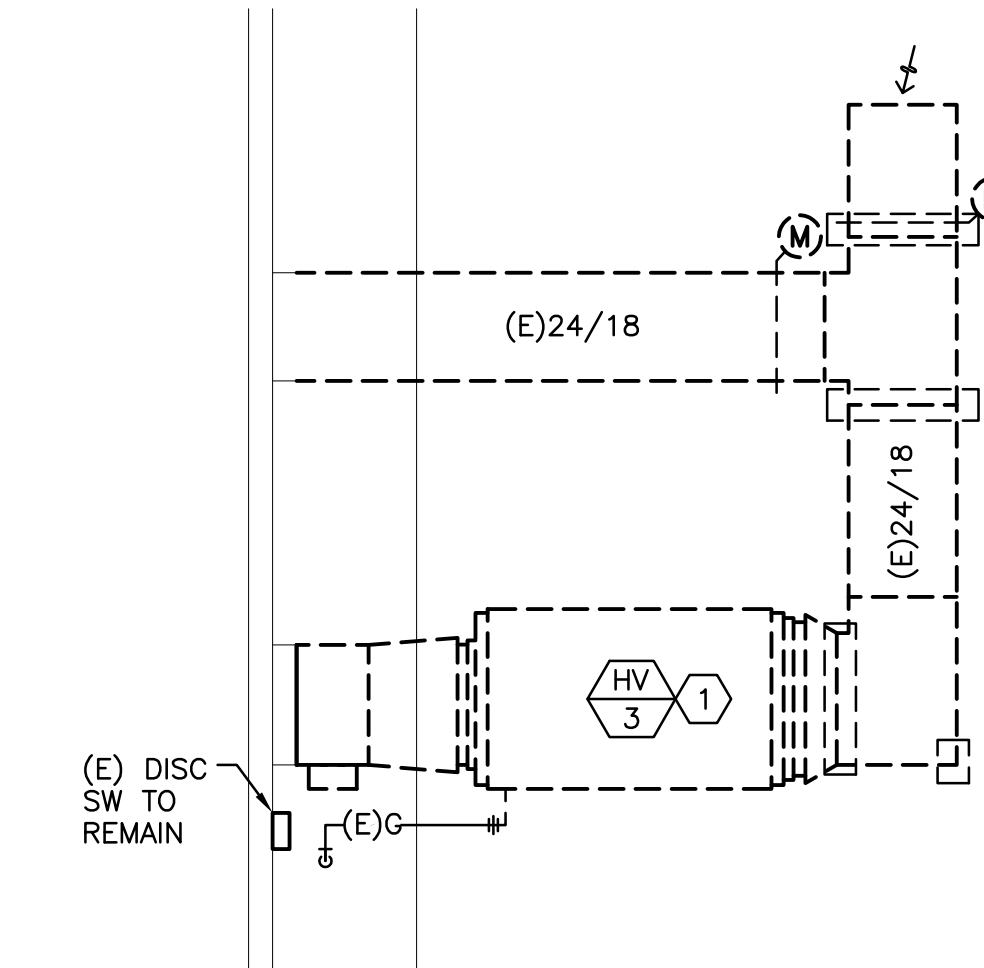
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M2.0 SCALE: 1/4" = 1'-0"



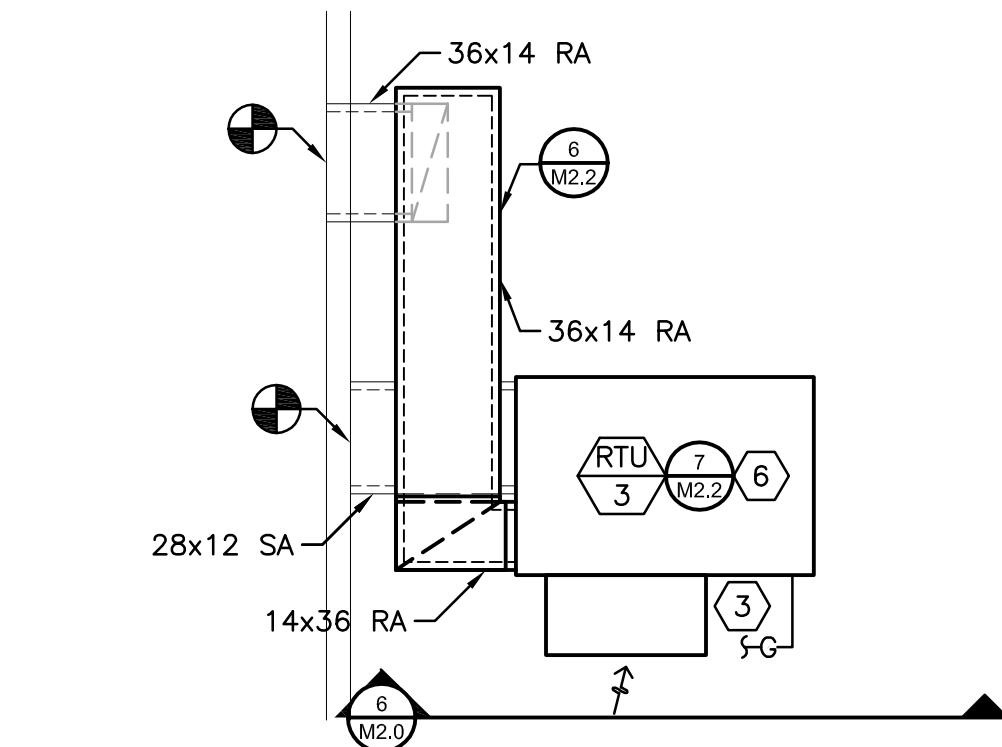
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M2.0 SCALE: 1/4" = 1'-0"



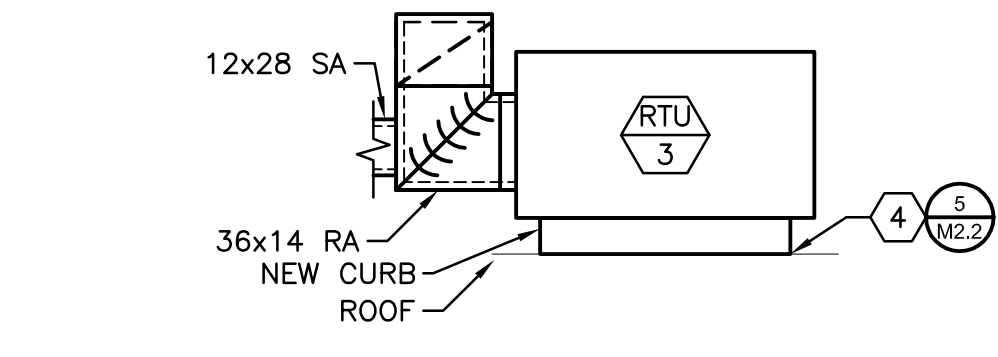
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M2.0 SCALE: 1/4" = 1'-0"



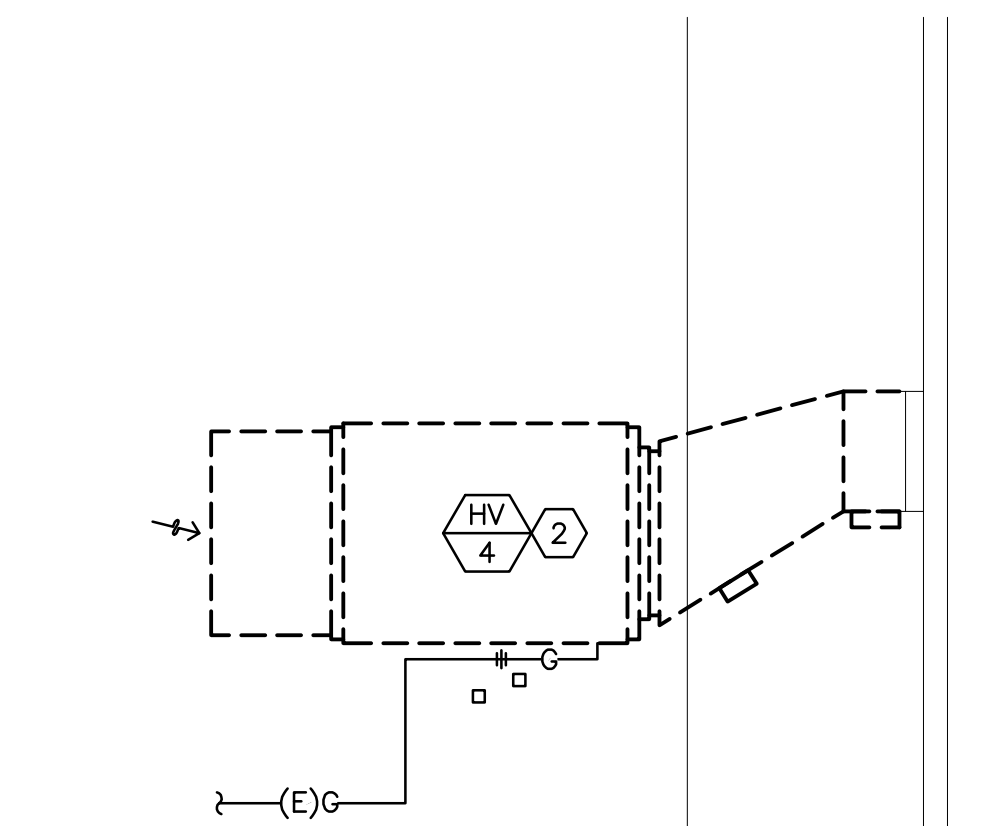
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M2.0 SCALE: 1/4" = 1'-0"



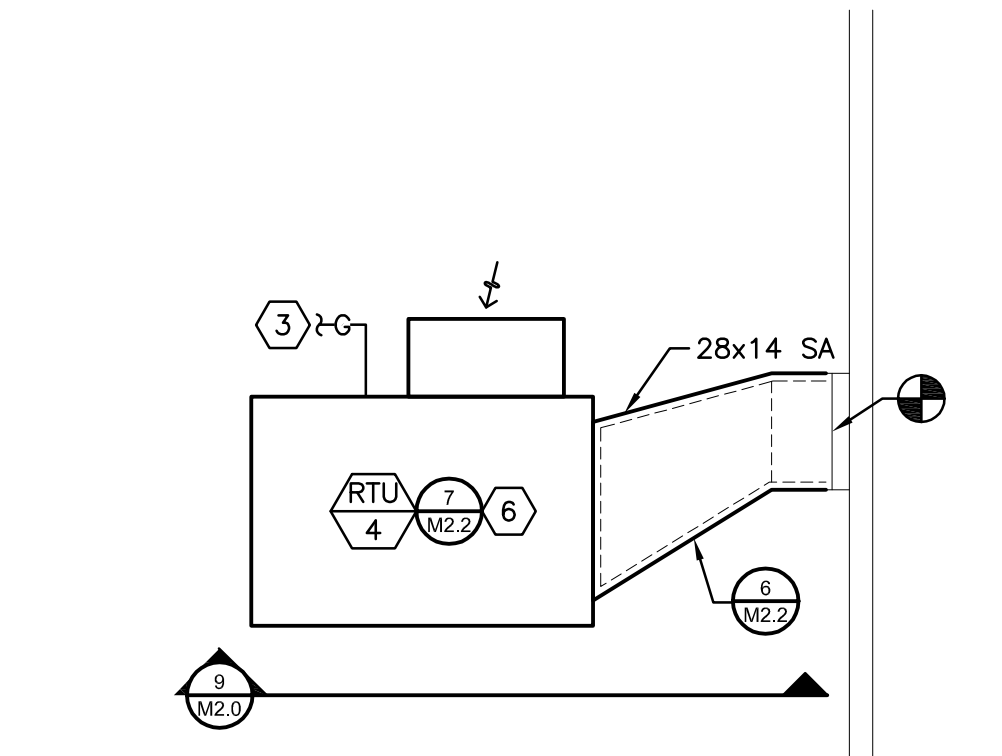
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M2.0 SCALE: 1/4" = 1'-0"



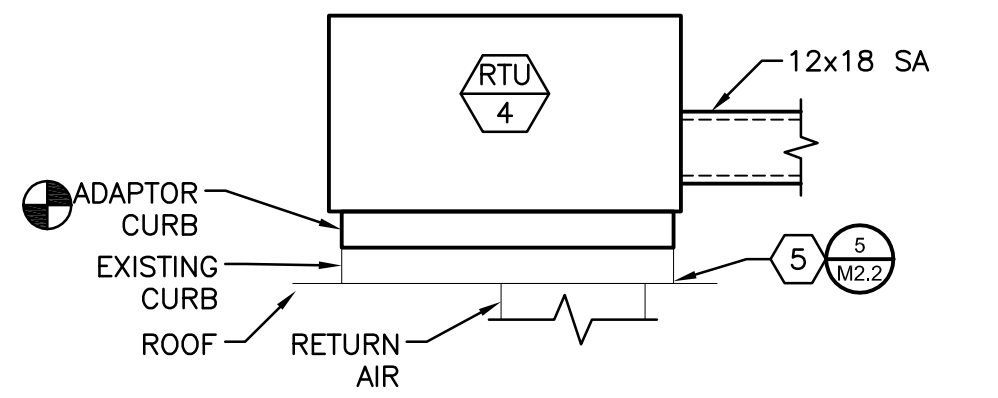
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M2.0 SCALE: 1/4" = 1'-0"



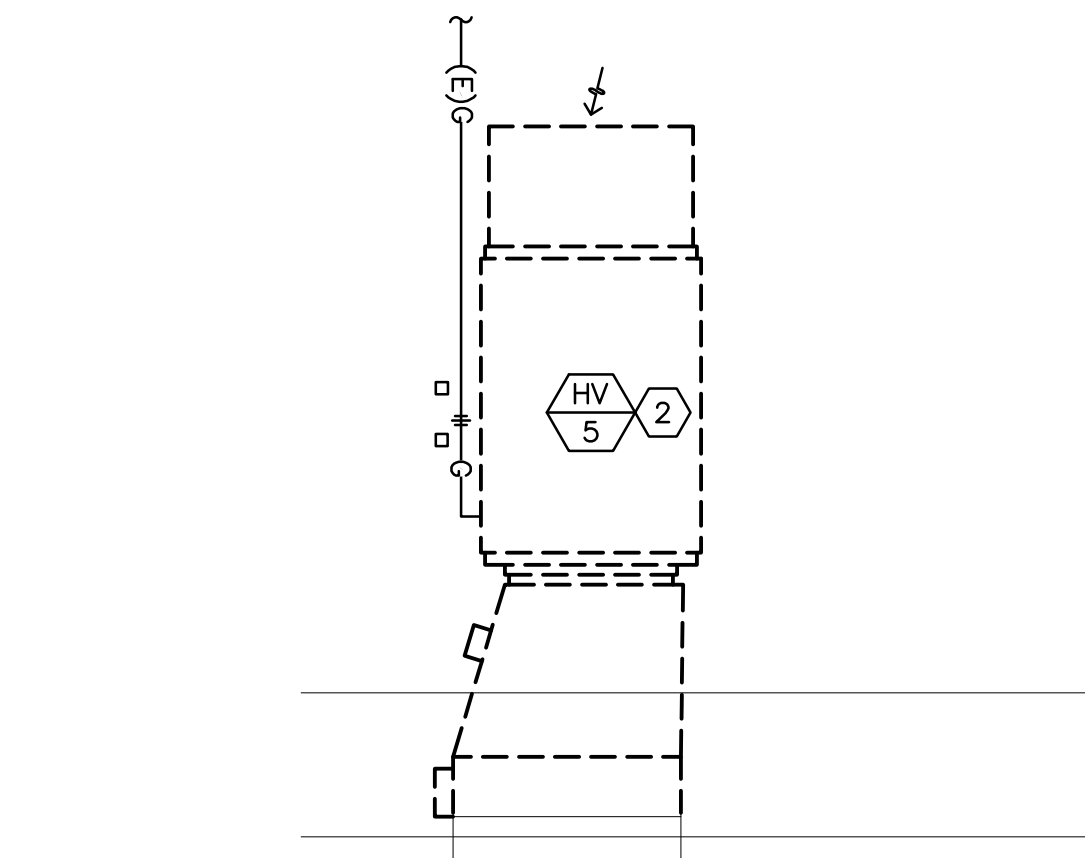
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M2.0 SCALE: 1/4" = 1'-0"



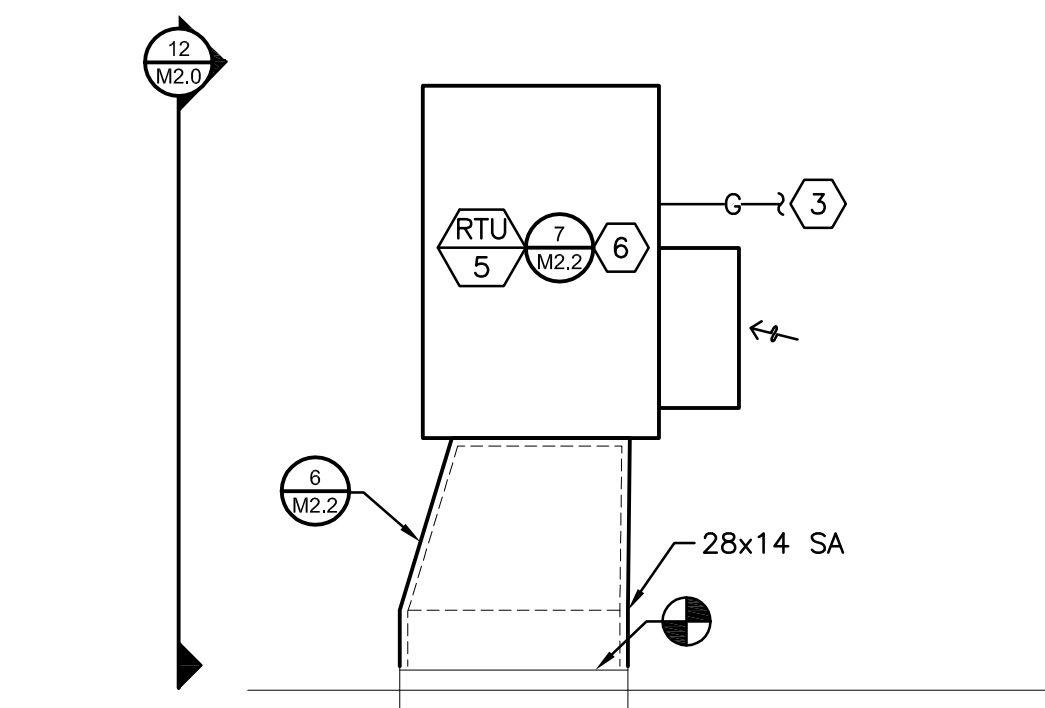
8 PLAN AT RTU-4
M2.0 SCALE: 1/4" = 1'-0"



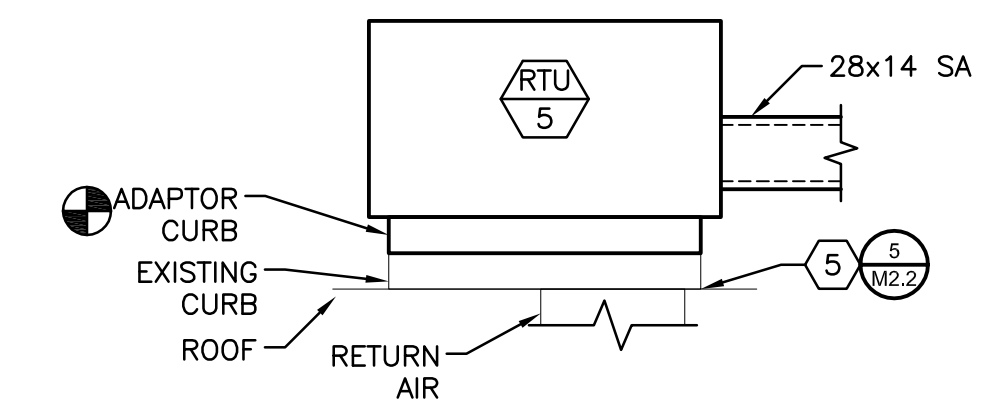
9 SECTION AT RTU-4
M2.0 SCALE: 1/4" = 1'-0"



10 DEMO PLAN AT HV-5
M2.0 SCALE: 1/4" = 1'-0"



11 PLAN AT RTU-5
M2.0 SCALE: 1/4" = 1'-0"



12 SECTION AT RTU-5
M2.0 SCALE: 1/4" = 1'-0"

NOTES THIS SHEET

- REMOVE EXISTING HV, DUCTWORK, DUCT SUPPORTS, CONTROLS, AND CURB. CAP EXISTING GAS PIPING AND DUCTWORK FOR RECONNECTION TO NEW. PATCH AND MATCH ROOF TO MATCH EXISTING. WORK WITH ESD TO VERIFY ANY WORK ON ROOFING DOES NOT VOID A WARRANTY.
- REMOVE EXISTING HV, DUCTWORK, AND CONTROLS. CAP EXISTING GAS PIPING AND DUCTWORK FOR RECONNECTION TO NEW. EXISTING CURB TO REMAIN IN PLACE.
- RECONNECT GAS PIPING TO EXISTING.
- PROVIDE NEW ROOF CURB.
- PROVIDE ROOF ADAPTOR CURB FOR RTU. CONNECT TO EXISTING RA PLENUM CURB.
- NEW ROOFTOP UNIT. RECONNECT TO EXISTING DUCTWORK. TRANSITION DUCT TO EXISTING CONNECTIONS AS REQUIRED.



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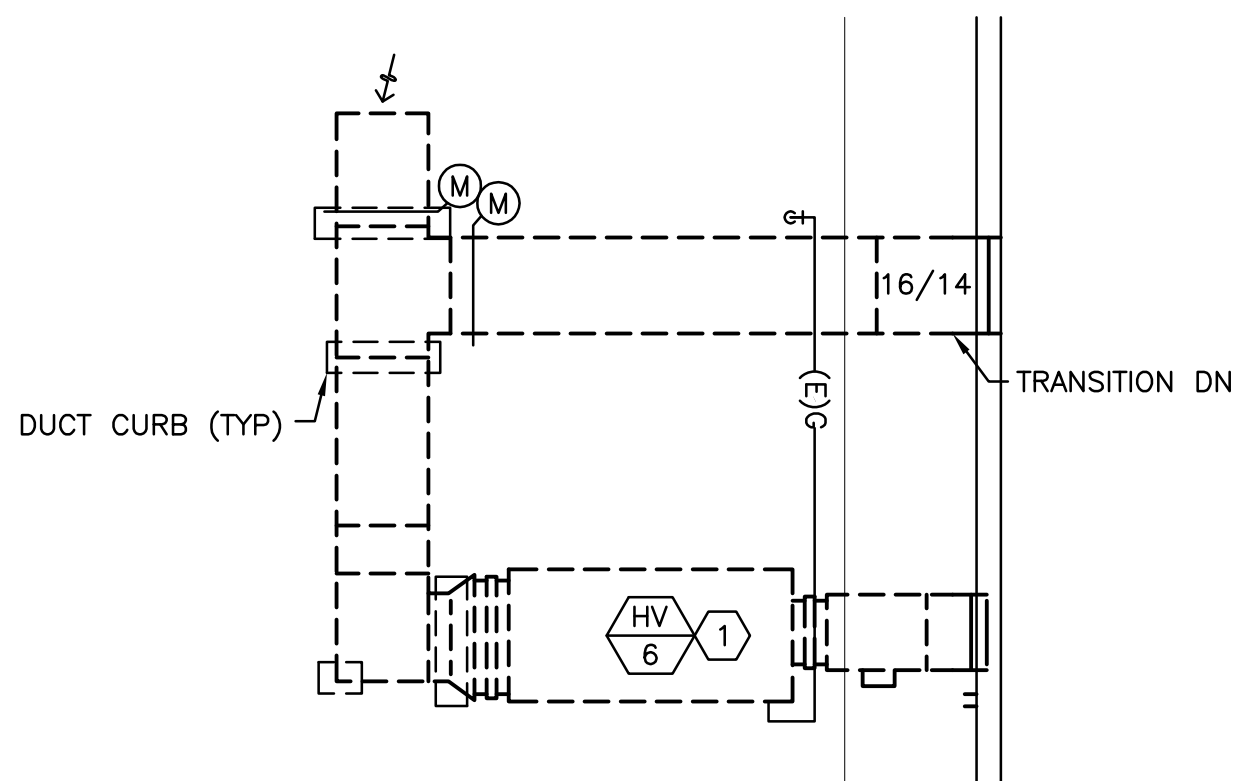
WESTMORELAND SCHOOL
HVAC UPGRADE
1717 CITY VIEW - EUGENE, OR 97402
ENLARGED PLAN / SECTIONS

DESIGNED: WAS
DRAWN: R&W
CONTACT: WAS
PROJECT #: 1474.003.001
DATE: 10/23/20

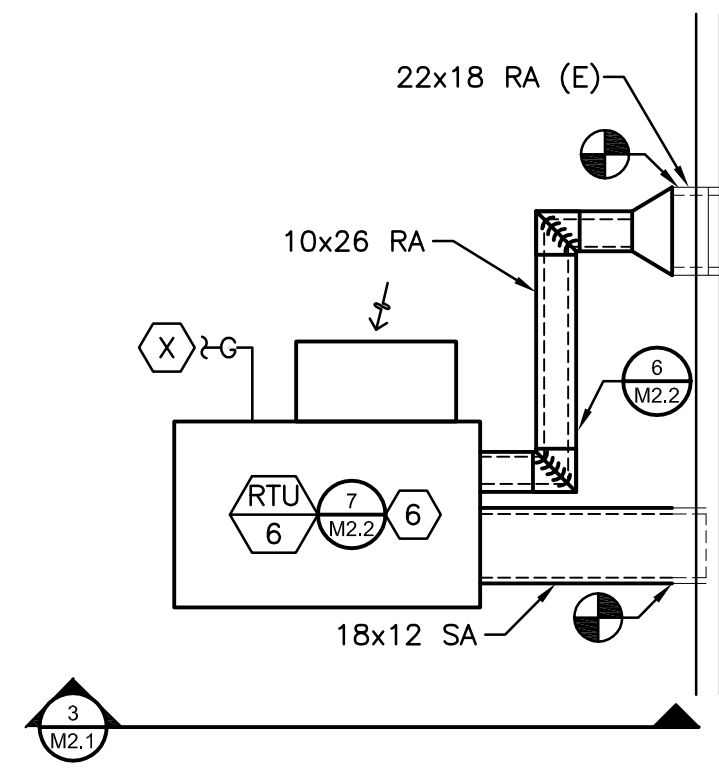
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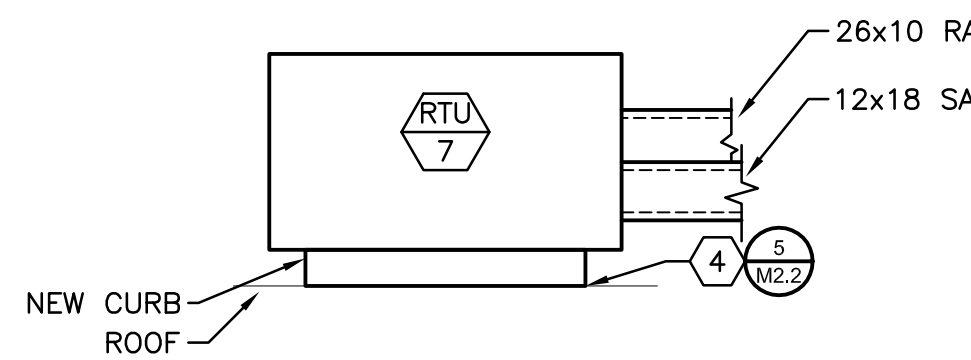
SHEET 5 OF 6



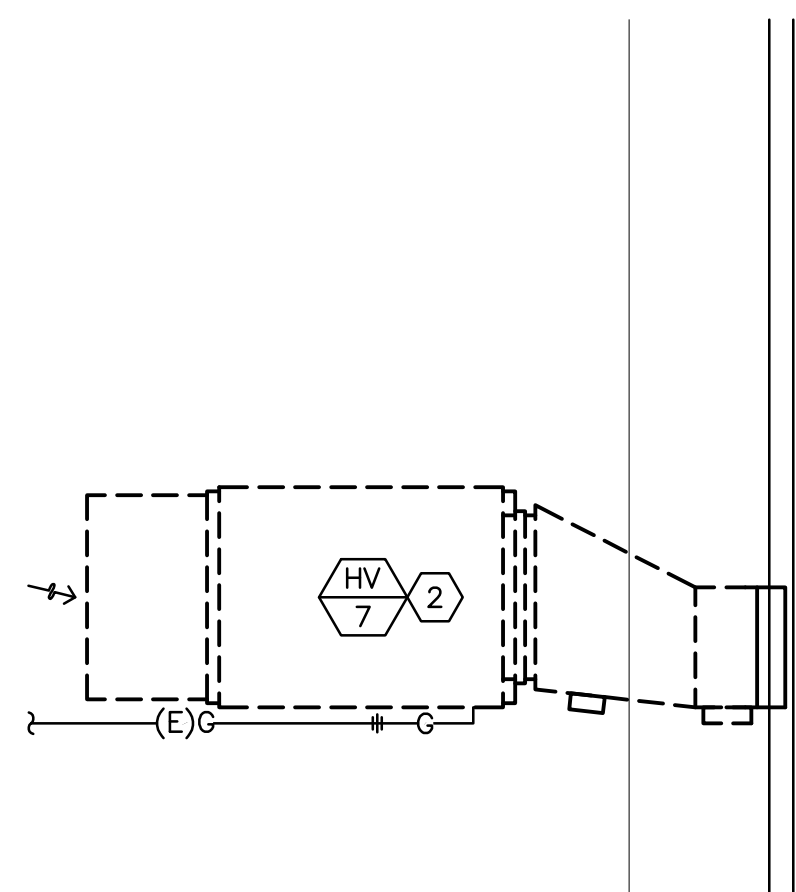
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SCALE: 1/4" = 1'-0"



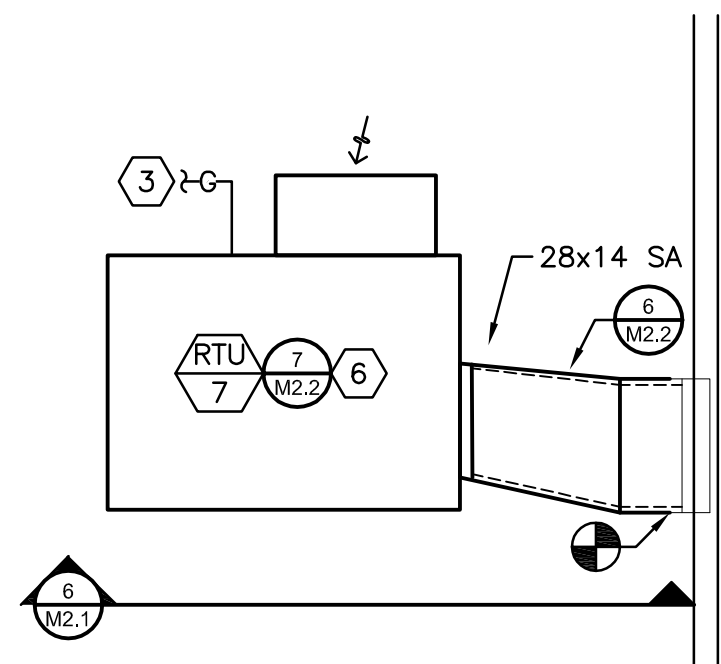
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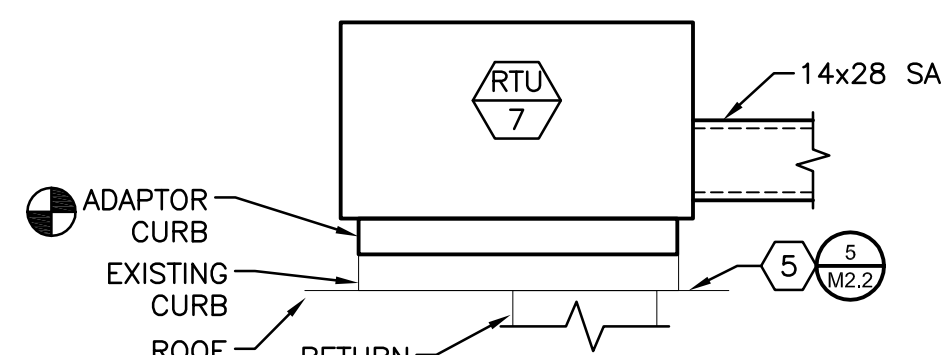
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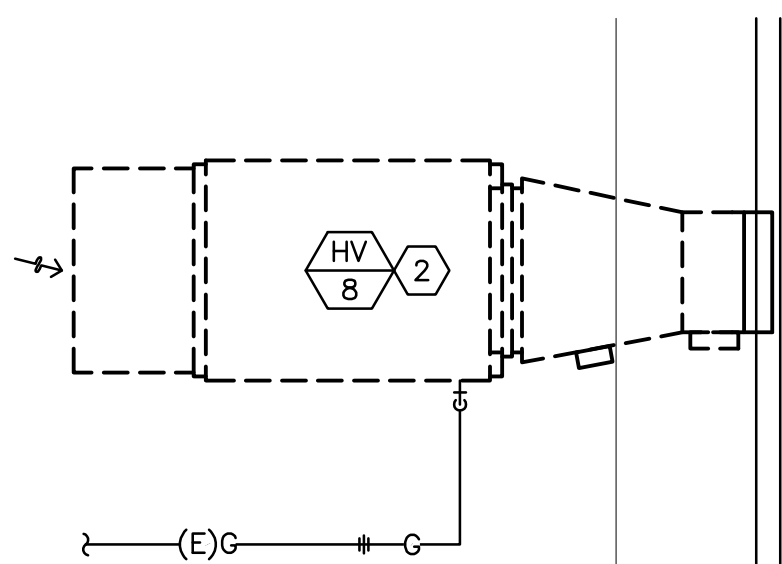
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SCALE: 1/4" = 1'-0"



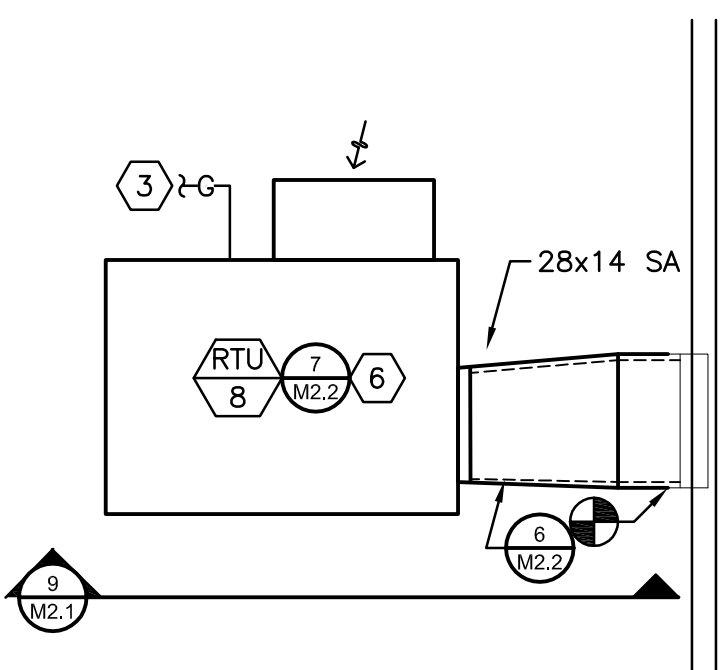
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SCALE: 1/4" = 1'-0"



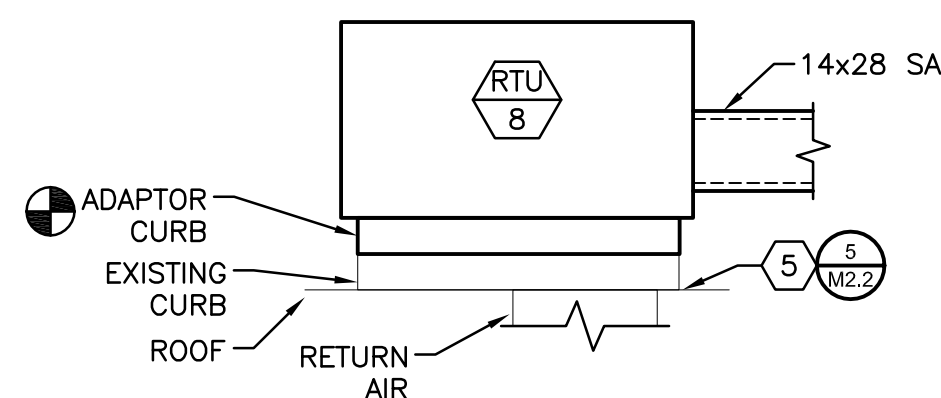
6 SECTION AT RTU-7
SCALE: 1/4" = 1'-0"



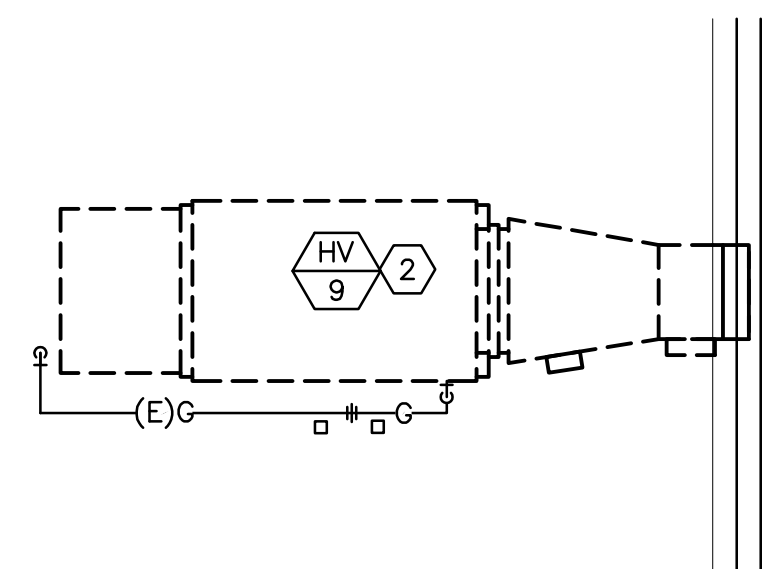
7 DEMO PLAN AT HV-8
SCALE: 1/4" = 1'-0"



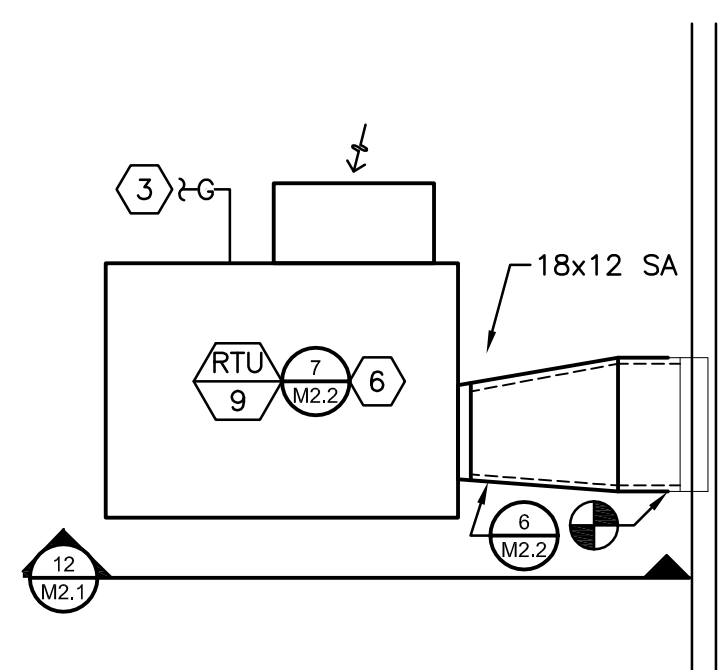
8 PLAN AT RTU-8
SCALE: 1/4" = 1'-0"



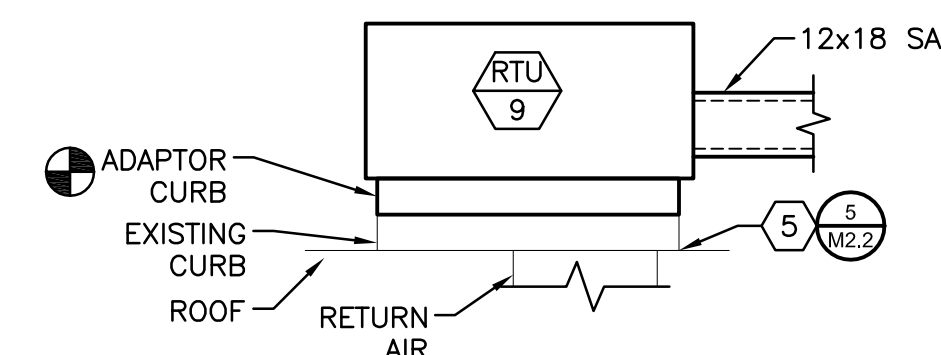
9 SECTION AT RTU-8
SCALE: 1/4" = 1'-0"



10 DEMO PLAN AT HV-9
SCALE: 1/4" = 1'-0"



11 PLAN AT RTU-9
SCALE: 1/4" = 1'-0"



12 SECTION AT RTU-9
SCALE: 1/4" = 1'-0"

NOTES THIS SHEET

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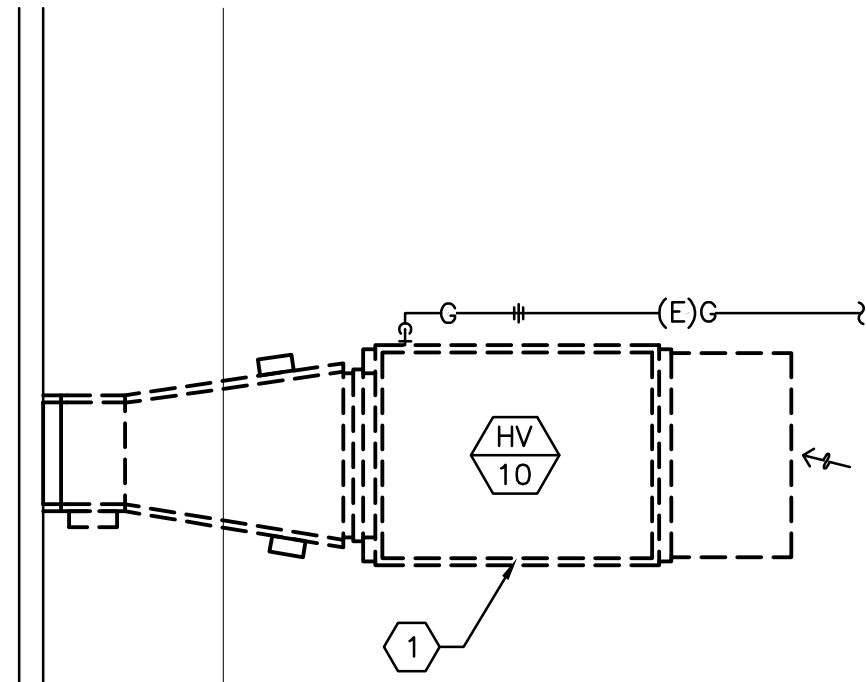
WESTMORELAND SCHOOL
HVAC UPGRADE
1717 CITY VIEW - EUGENE, OR 97402
ENLARGED PLAN / SECTIONS

DESIGNED:	WAS
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CONTACT:	WAS
PROJECT #:	1474.003.001
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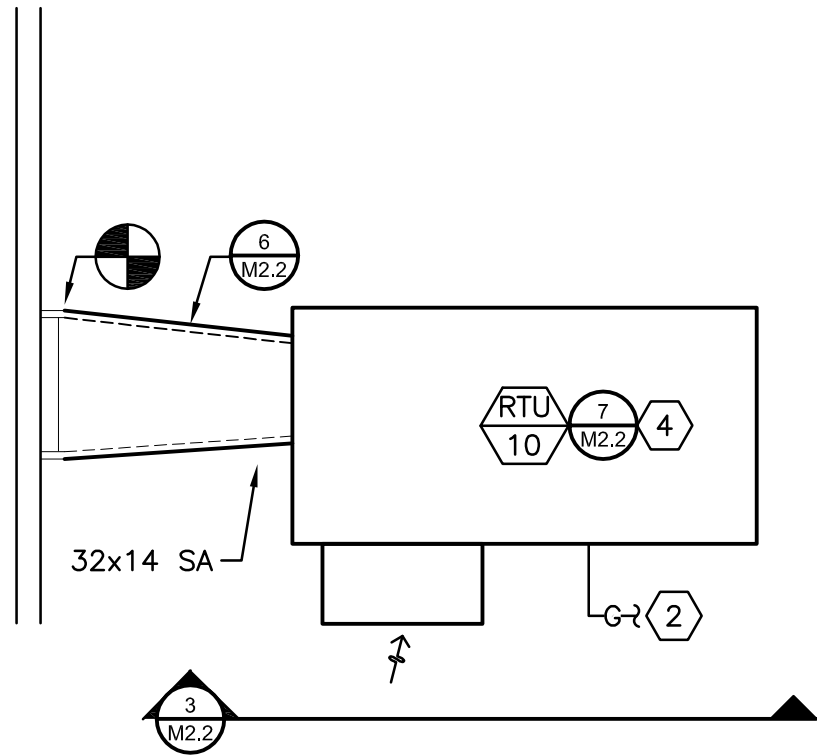
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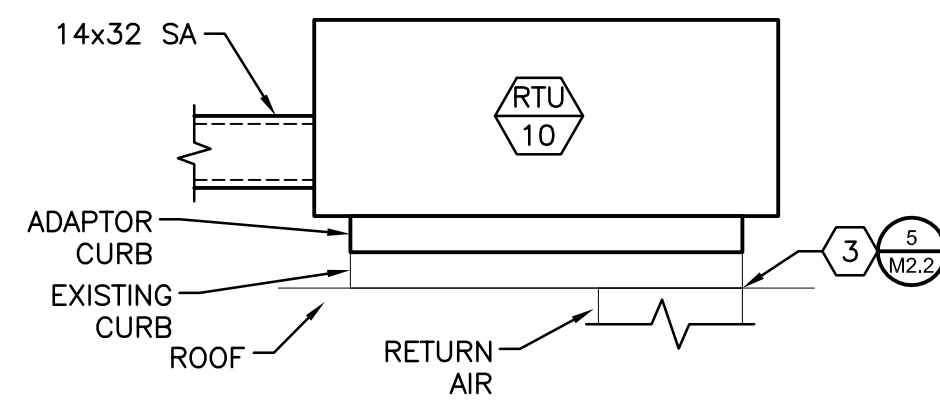
SHEET 5 OF 6



1
M2.2 DEMO PLAN AT HV-10
SCALE: 1/4" = 1'-0"



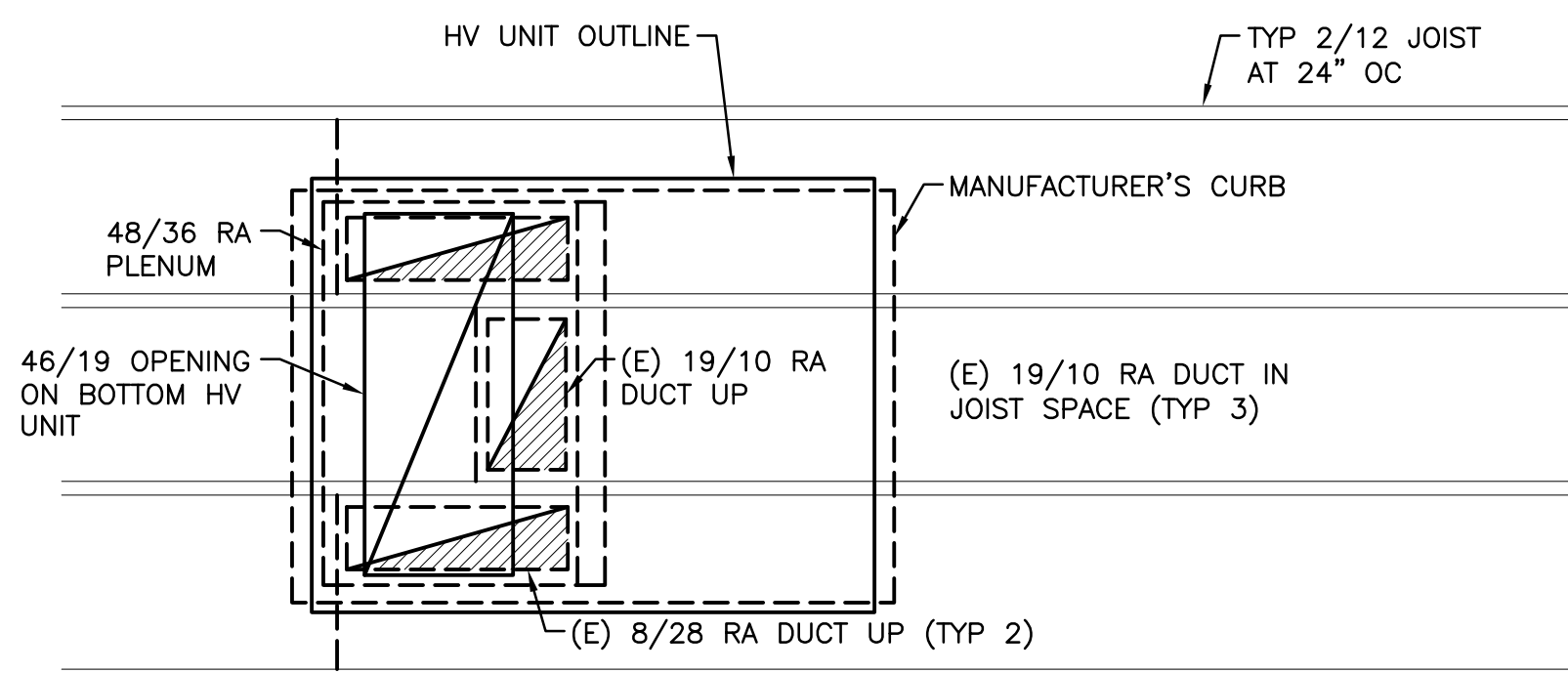
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M2.2 PLAN AT RTU-10
SCALE: 1/4" = 1'-0"



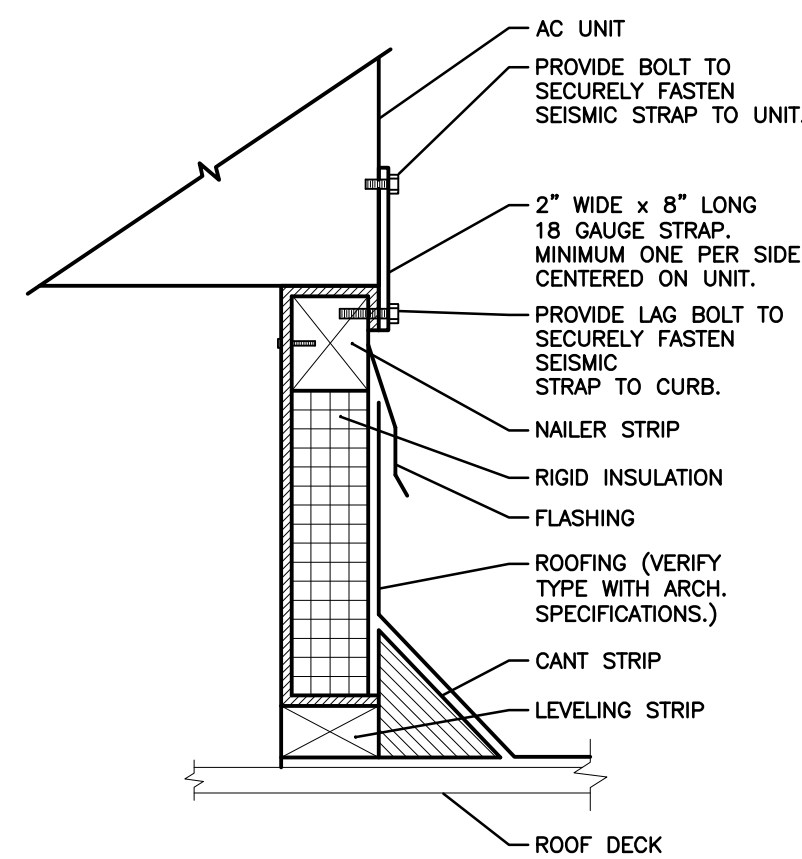
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M2.2 SECTION AT RTU-10
SCALE: 1/4" = 1'-0"

NOTES THIS SHEET

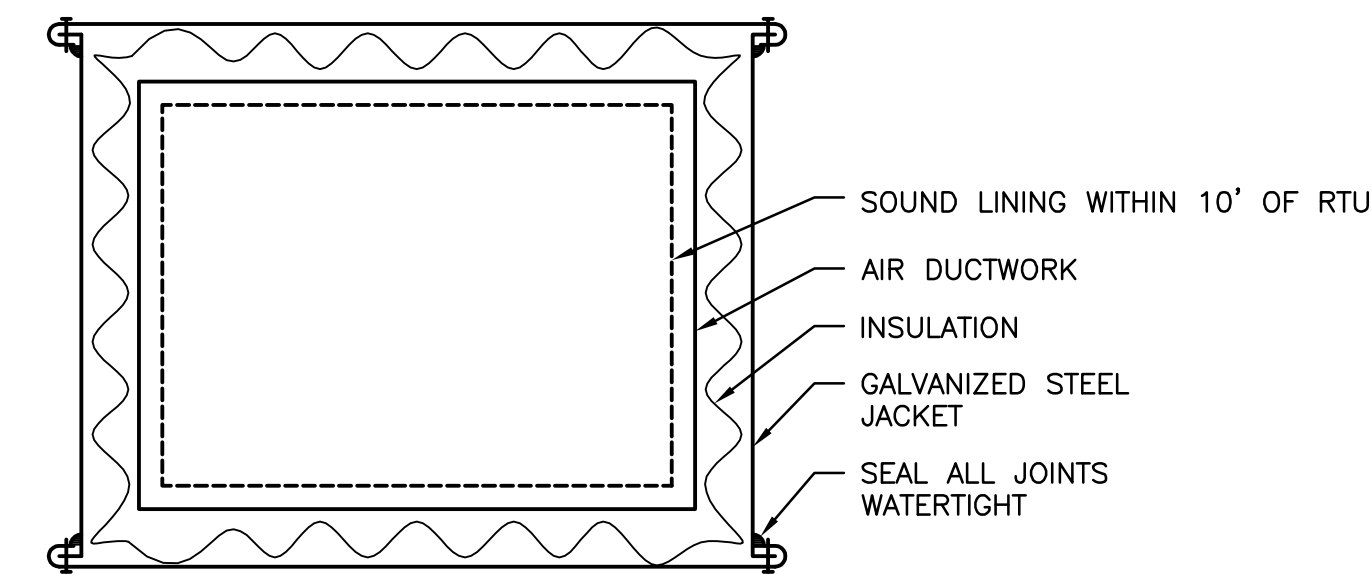
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- 3 PROVIDE ROOF ADAPTOR CURB FOR RTU. CONNECT TO EXISTING RA PLENUM CURB.
- 4 NEW ROOFTOP UNIT. RECONNECT TO EXISTING DUCTWORK. TRANSITION DUCT TO EXISTING CONNECTIONS AS REQUIRED.



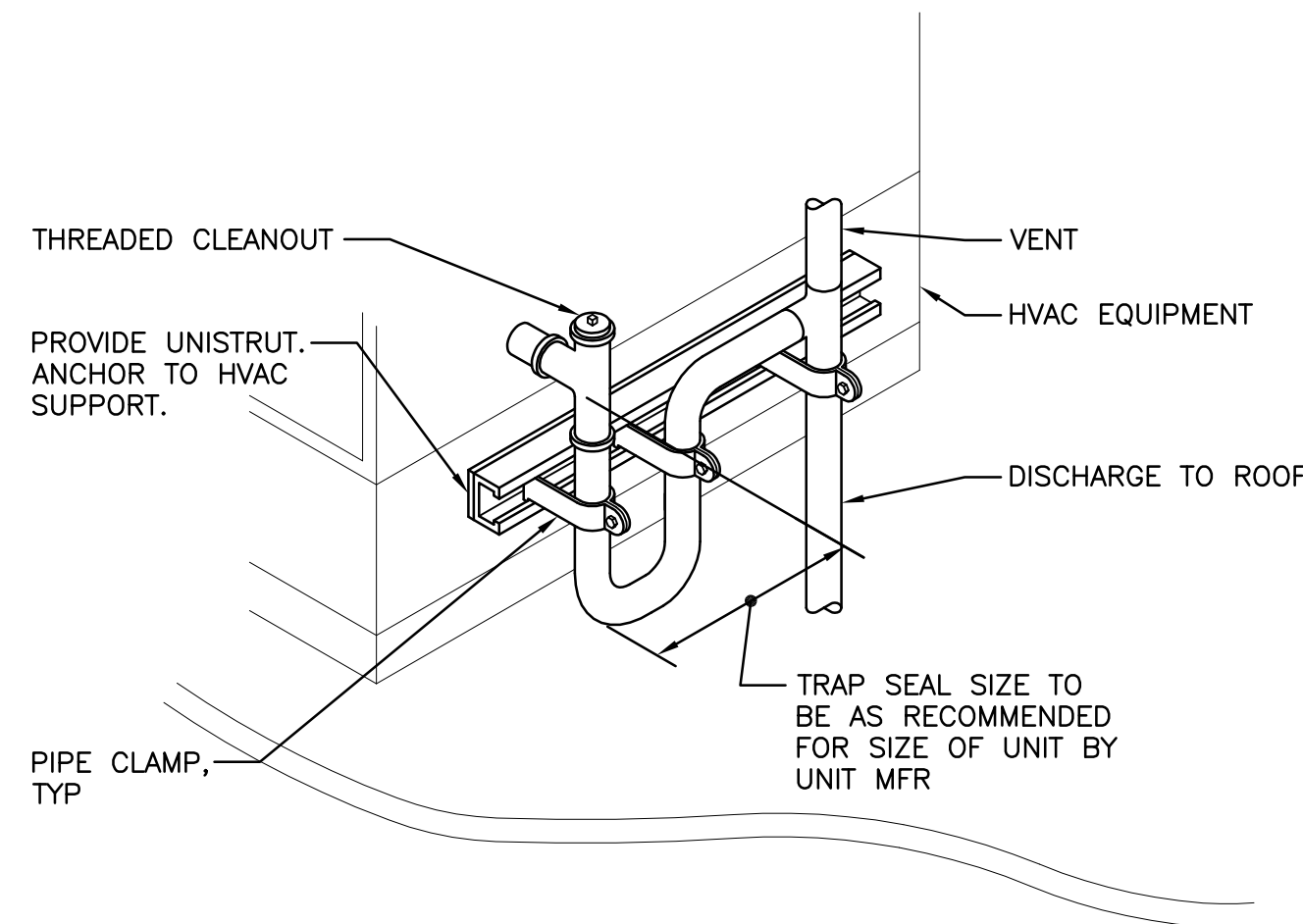
4
M2.2 TYPICAL RTU UNIT AT ROOF PENETRATIONS
SCALE: 1/2" = 1'-0"



5
M2.2 ROOF CURB DETAIL
SCALE: NTS

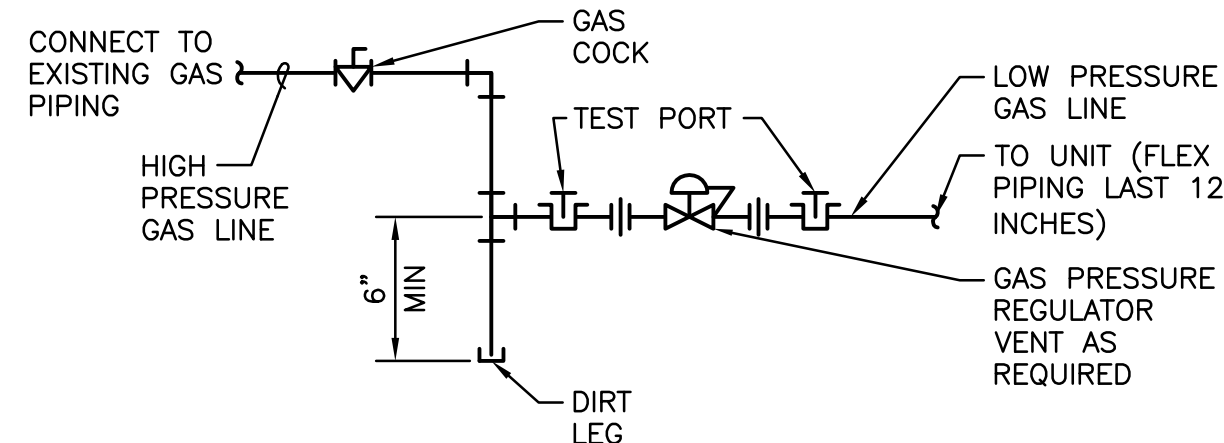


6
M2.2 EXTERIOR DUCT DETAIL
SCALE: NTS



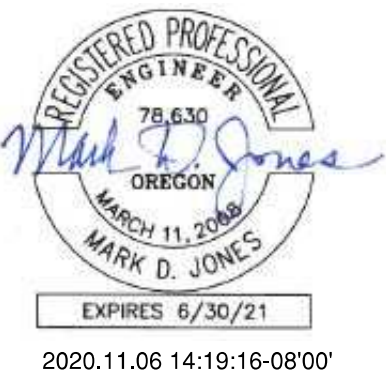
- NOTES:
1. TRAP PIPING TO BE SAME SIZE AS AC UNIT DRAIN. PROVIDE TWO TRAPS (ONE EACH SIDE) ON UNITS. 20 TONS AND LARGER.

7
M2.2 CONDENSATE TRAP DETAIL
SCALE: NTS



- NOTE:
- PRESSURE REGULATOR AND TEST PORTS NOT REQUIRED ON ALL SYSTEMS; CONTRACTOR TO VERIFY DELIVERY AND APPLIANCE PRESSURES

8
M2.2 GAS CONNECTION DETAIL
SCALE: NTS



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REV	DATE	DESCRIPTION	BY
0	11/6/2020	ISSUED FOR PERMIT	MDJ

WESTMORELAND SCHOOL
HVAC UPGRADE
1717 CITY VIEW - EUGENE, OR 97402
ENLARGED PLAN / SECTIONS AND DETAILS

DESIGNED:	WAS
DRAWN:	R&W
CONTACT:	WAS
PROJECT #:	1474.003.001
DATE:	10/23/20

DRAWING NO.

M2.2

SHEET 6 OF 6