

KITCHEN EXHAUST AIR SYSTEMS

Provide kitchen hood exhaust fan/filtered makeup air packaged unit as scheduled on the drawings, manufactured by K-Tech, complete with upblast exhaust fan designed for grease applications, downblast makeup air fan, makeup air intake weatherhood with 1 inch thick aluminum mesh washable air filters, ventilated roof curb extension for 40 inches minimum exhaust discharge height above roof surface, combination roof curb of required height so that the makeup air intake is 14 inches minimum above roof surface, heavy gauge aluminum housings, aluminum centrifugal fan wheels, heat baffle, belt drive motors with integral thermal overload protection, disconnect switch in housing, bird screens, prewired control center, and accessories required to meet or exceed NFPA-96 requirements for commercial kitchen installations.

Provide a UL listed concentric ductwork package that complies with UL 1978 standard for grease ducts may be used in lieu of the welded black iron duct for connecting hood to exhaust fan. Ductwork package shall be as manufactured by Metal-Fab, Schebler, Seikirk, or approved equal. Provide manufacturers UL listing number and verification certificate as a part of the shop drawing submittal. Install duct package in strict conformance with manufacturer's instructions and recommendations. At Contractor's option, provide ducts connecting Type 1 exhaust hoods to exhaust fans made of #16 gauge black iron with continuously welded joints and clean-out doors. Provide transition at connection to fan with opening size equal to or greater than the venturi opening of the fan inlet. Provide gasket at flanged connection to fan rated for 1500 degrees Fahrenheit and grease applications. Enclose duct in fireproof enclosure per locally adopted mechanical code or, if approved by local code official, in fire rated wrap insulation. Insulation shall be minimum two-hour rated duct wrap insulation for Type I hood grease exhaust duct applications and shall conform to ASTM E2336 where required to comply with IMC. Insulation shall be flexible wrap enclosure rated for minimum 2000 degrees Fahrenheit and for zero clearance to combustibles. Insulation shall be non-mineral wool, passive, low bio-persistent fiber totally encapsulated on all sides with aluminum foil. Insulation shall be as manufactured by Certaineed, Thermal Ceramics, Unifrax or 3M. Slope duct back towards hood at minimum of 1/4 inch per lineal foot.

All portions of grease duct systems shall be tested for leakage in accordance with the "Grease Duct Test" paragraph of the IMC. Leakage tests shall be by light or other equivalent test methods as approved by the local code official to determine that all joints are liquid tight. Tests shall be performed in the presence of the local code official. Any joints found defective shall be repaired and retested until satisfactory results are obtained. The contractor shall submit a copy of the grease duct leakage test report to the architect/engineer complete with the approval signature of the local code official.

Provide exhaust hoods by K-Tech single shell exhaust only stainless steel hood. Hoods shall be ICBO approved and UL certified for air quantities shown on drawings and in conformance with manufacturer's data. Provide manufacturer UL listing number and verification certificate as a part of the shop drawing submittal. Conform with NFPA Bulletin 96 and UL Standard 710. Construct hood of 18 gauge stainless steel with welds polished. Hood shall contain full length stainless steel filter holder welded to hood with integral drip trap and UL classified, X-Air stainless steel filters installed at 45 degrees from horizontal. Provide vapor proof incandescent lights, and control panel with pilot lights and switches for fan and lights. Hood package shall include 3 inch filler panel at wall, and stainless steel closure panels from top of hood to finished ceiling.

Provide makeup air unit, K-Tech vertical type supply unit with belt-drive centrifugal fan section, motorized inlet damper, filter section with 2 inch thick throwaway filters, factory wired control center with disconnect switches, magnetic starters, controls, etc., mounted in an enclosure, aluminized steel housing with baked enamel finish, and vibration isolators. Provide a remote control panel with pilot lights and switches for fan and lights. Coordinate controls with hood and exhaust fan supplier. Flush mount remote panel in wall below hood.

Provide Amerex, Ansul, Pyrochem, or approved equal wet chemical type fire extinguishing system for each hood as scheduled on drawings complete with hood nozzles, wet chemical cylinders, piping, etc. and accessories to provide an approved, operating system. Provide manual pull station(s) at locations shown on the drawings. System shall be in full conformance with NFPA-96.

Provide mechanical or electrical gas shutoff valve to shutoff fuel or power source to cooking equipment upon detection of fire. Valve shall have a clearly marked open/closed indicator.

Provide a wall mounted thermostat with remote sensing element at the exhaust hood duct collar wired in parallel with the normal fan on-off control to ensure that the hood's associated exhaust fan is energized when the cooking appliances served by the hood are activated. The thermostat set point shall be 95 degrees Fahrenheit (adjustable). The installation shall be in compliance with the International Mechanical Code.

OUTSIDE AIR CALCULATIONS									
AREA SERVED OR UNIT TAG	NET OCCUPIABLE AREA SQ. FT.	MAX. OCCUPANCY P/1000 SQ. FT.	TOTAL NO. OF PEOPLE	VENTILATION RATE		VENTILATION EFFECTIVENESS	TOTAL CFM O/A REQUIRED	TOTAL CFM O/A PROVIDED	NOTES
				CFM/P	SQ. FT.				
OCCUPIABLE STORAGE	1266	2	4	5	0.12	80%	190		1
SALES	4902	15	93	7.5	0.12	80%	1557		1
RTU-1								700	
RTU-2								800	
RTU-3								600	
RTU-4								700	
KSF-1								1,040	
TOTALS							1,747	3,840	
NOTES:									
1. CALCULATIONS ARE BASED ON ESTIMATED MAXIMUM OCCUPANCY RATES PER ARCHITECTURAL PLANS AND ASHRAE 62.1-2018 VENTILATION RATES.									

AIR BALANCE SCHEDULE					
AREA SERVED	EQUIPMENT TAG	SUPPLY AIR (CFM)	RETURN AIR (CFM)	OUTSIDE AIR (CFM)	EXHAUST AIR (CFM)
SALES	RTU-1	3,500	2,800	700	X
SALES	RTU-2	4,000	3,200	800	X
STORAGE	RTU-3	4,000	3,400	600	X
FOOD PREP	RTU-4	4,400	3,700	700	X
WOMEN'S RESTROOM	EF-1	X	X	X	280
MEN'S RESTROOM	EF-2	X	X	X	700
FOOD PREP	EF-3	X	X	X	600
FROZEN CARBONATED BEVERAGE	EF-4	X	X	X	600
KITCHEN EXHAUST	KEF-1	X	X	X	1,300
KITCHEN MAKEUP	KSF-1	X	X	1,040	X
TOTALS		15,900	13,100	3,840	3,480
NOTES:					
1. BUILDING IS (3,840 CFM OA - 3,480 CFM EA) 360 CFM POSITIVE WHEN ALL EXHAUST FANS ARE OPERATING.					

MECHANICAL NOTES

- THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR THE INSTALLATION OF A COMPLETE AND FUNCTIONAL HVAC SYSTEM IN ACCORDANCE WITH THESE DRAWINGS. THE INSTALLATION SHALL COMPLY WITH THE 2018 INTERNATIONAL BUILDING CODE, THE 2012 INTERNATIONAL MECHANICAL CODE AND ALL OTHER APPLICABLE STATE, COUNTY AND LOCAL ORDINANCES AND THE LATEST EDITION OF THE FOLLOWING PUBLICATIONS; SMACNA HVAC DUCT CONSTRUCTION STANDARDS; ASHRAE 15, 34, 82; NFPA 70, 72, 90A, 90B, 91, 98; 101 ANSI Z10.1, Z10.3, Z21.8, Z21.83.
- THE CONTRACTOR SHALL PAY ALL COSTS OF PERMIT, INSPECTIONS AND ALL OTHER COSTS INCIDENTAL TO THE COMPLETION AND TESTING OF THIS WORK.
- THE CONTRACTOR SHALL VISIT THE SITE AND COORDINATE WORK WITH OTHER TRADES.
- THE CONTRACTOR SHALL SUPPLY THE ARCHITECT/OWNER WITH "AS-BUILT" DRAWINGS.
- CONTRACTOR SHALL SUBMIT, FOR APPROVAL FIVE (5) COPIES OF MANUFACTURER'S SHOP DRAWINGS FOR EACH PIECE OF EQUIPMENT AND CONTROLS INCLUDED IN CONTRACT.
- ALL MATERIAL SHALL BE NEW, OF GOOD QUALITY AND APPROVED FOR INTENDED PURPOSE. ALL WORK SHALL BE PERFORMED AT INDUSTRY STANDARD QUALITY LEVEL BY CERTIFIED PROFESSIONALS. ALL EQUIPMENT SHALL BE UL OR ETL LISTED.
- ALL DUCTWORK SHALL BE GALVANIZED SHEET METAL WITH SEALED SEAMS AND JOINTS, EXTERNAL BLANKET INSULATION (R-8 MINIMUM). THE CONTRACTOR SHALL PROVIDE ALL SHEET METAL DUCTWORK, HANGERS, AUXILIARY SUPPORT STEEL, ETC. ALL FLEXIBLE DUCT SHALL BE UL-181, CLASS 1 INSULATED DUCT WITH METALIZED INNER AND OUTER FOIL LINERS. MINIMUM R-8 INSULATION MAXIMUM TOTAL LENGTH NOT TO EXCEED 5'-0". PROVIDE FLEXIBLE DUCTWORK ELBOW SUPPORTS AT EACH DIFFUSER, GRILLE, AND REGISTER EQUAL TO "FLEXFLOW ELBOW" MANUFACTURED BY "THERMAFLEX". ALL METAL DUCTS SHALL BE FABRICATED IN ACCORDANCE WITH LATEST EDITION OF SMACNA.
- CONTRACTOR SHALL COORDINATE EXACT LOCATION OF ROOFTOP UNITS AND ALL EQUIPMENT WITH ARCHITECTURAL AND STRUCTURAL PLANS. SECURE ROOF CURBS TO BUILDING STRUCTURE FOR PROPER SUPPORT OF UNITS. ROOF CURBS SHALL BE COMPATIBLE WITH ROOFING SYSTEM AND FLASHED ACCORDING TO NRCA RECOMMENDATIONS.
- OUTSIDE AIR INTAKES SHALL NOT BE TAKEN FROM A LOCATION CLOSER THAN 10 FEET FROM ANY CHIMNEY, EXHAUST VENT OUTLET OR SANITARY SEWER VENT, UNLESS SUCH VENT IS NOT LESS THAN 3 FEET ABOVE THE OUTSIDE AIR INTAKE.
- DUCT SIZES SHOWN ARE AIRWAY INSIDE DIMENSIONS. INCREASE SIZE OF DUCTWORK FOR INTERNAL LINING IF USED.
- ALL AIR DEVICES (DIFFUSERS, REGISTERS AND GRILLES) SHALL BE ALUMINUM CONSTRUCTION (UNLESS EXPLICITLY NOTED OTHERWISE ON AIR DISTRIBUTION SCHEDULE) WITH EXPOSED SURFACE OFF-WHITE BAKED ENAMEL FINISH OR AS SPECIFIED BY ARCHITECT. DEVICES SHALL BE SPECIFIED TO BE SUPPLIED BY TITUS, METALAIR OR PRICE. PROVIDE OPPOSED BLADE DAMPERS AT ALL DIFFUSERS AND REGISTERS AS INDICATED ON PLANS. PROVIDE BALANCING DAMPERS FOR ALL AIR DEVICES.
- THERMOSTAT/HUMIDISTAT TO RECEIVE REMOTE TEMPERATURE/HUMIDITY SENSOR INPUT.
- THERMOSTAT/HUMIDISTAT LOCATION SHALL BE APPROVED BY OWNER AND ENGINEER BEFORE INSTALLATION. INSTALL THERMOSTAT/HUMIDISTAT 48" A.F.F. IN ACCORDANCE WITH A.D.A. REQUIREMENTS. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR ALL REQUIREMENTS FOR JUNCTION BOXES, CONDUITS, CONTROL WIRING, POWER, ETC. AND DEFINE RESPONSIBILITIES AND SCOPE OF WORK FOR EACH TRADE PRIOR TO ANY INSTALLATION, WHEN POSSIBLE. WHENEVER THERE ARE MORE THAN ONE SENSOR OR THERMOSTAT SIDE BY SIDE THEY SHALL BE GANGED TOGETHER WITHIN THE SAME COVER PLATE.
- REFRIGERANT LINES SHALL BE COPPER, TYPE "ACR" HARD DRAWN WITH WROUGHT COPPER BRAZING-JOINT TYPE FITTINGS. USE BRAZING MATERIALS FOR HIGH PRESSURE PIPING PER AWS AS 5.8 BCU SERIES COPPER-PHOSPHORUS ALLOY OR BAg1 SILVER ALLOY. REFRIGERANT LINES SHALL BE SIZED PER EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. PROVIDE FILTER/DRYER AND SIGHT GLASS IN ALL LIQUID LINES. INSTALL REFRIGERANT PIPING PER EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
- 1/2" THICK PIPE INSULATION FOR REFRIGERANT SUCTION PIPING SMALLER THAN 1" SIZE. 1" THICK PIPE INSULATION FOR PIPING 1" AND LARGER. PIPE INSULATION SHALL BE ARMACELL "ARMAFLEX" CLOSED CELL ELECTROMETRIC INSULATION, 0.27 THERMAL CONDUCTIVITY AT 75°F. PER THE INTERNATIONAL ENERGY CODE, TABLE C403.2.3 FOR MINIMUM PIPING INSULATION THICKNESS. ALL EXPOSED INSULATION SHALL BE PROTECTED WITH UV RESISTANT PAINT OR ALUMINUM SHIELD.
- ALL BRANCH TAKE-OFFS TO BE PROVIDED WITH MANUAL VOLUME DAMPERS. PROVIDE LONG RADIUS ELBOWS (1.5X DIAMETER) WHERE FEASIBLE. SQUARE ELBOWS AND TEE'S SHALL BE FURNISHED WITH SINGLE WALL TURNING VANES. PROVIDE MANUAL VOLUME DAMPERS WITH EXTRACTOR AT ALL FLEX TAKE-OFFS. PROVIDE REMOTE, CABLE OPERATED VOLUME DAMPERS IN INACCESSIBLE AND HARD CEILING AREAS, "YOUNG REGULATOR" MODEL 270.
- PROVIDE NEW FILTERS FOR ALL AIR CONDITIONING EQUIPMENT BEFORE AIR BALANCING. REPLACE AIR FILTERS PRIOR TO FINAL ACCEPTANCE BY OWNER. ALL FILTERS SHALL BE CHANGED TO 2" PLEATED PRIOR TO START-UP.
- PROVIDE SMOKE DETECTORS FOR HVAC UNITS GREATER THAN 2000 CFM AIRFLOW. SMOKE DETECTORS SHALL BE FURNISHED WITH REMOTE ANNUNCIATION/TEST STATION AS REQUIRED BY AUTHORITY HAVING JURISDICTION, COORDINATION PRIOR TO INSTALLATION. DETECTORS SHALL BE BY ONE MANUFACTURER, COORDINATE VOLTAGE ETC. WITH ELECTRICAL CONTRACTOR AND FIRE ALARM SYSTEM IF REQUIRED BEFORE ORDERING. UPON DETECTION, SMOKE DETECTORS SHALL SHUTDOWN ASSOCIATED AIR MOVING EQUIPMENT AND SOUND ALARM.
- HVAC CONTRACTOR SHALL PROVIDE A TESTING AND AIR BALANCING REPORT PER I.M.C. 2018. FOR ALL MECHANICAL EQUIPMENT, AIR DEVICES, DAMPERS, AHU'S AND FANS. THE TESTING AND AIR BALANCING AGENT SHALL BE AABC ACCREDITED. THE TESTING AND AIR BALANCING REPORT SHALL BE IN ACCORDANCE WITH THE ASSOCIATED AIR BALANCE COUNCIL (AABC) STANDARDS AND SHALL INCLUDE AIR QUANTITIES FOR ALL SUPPLY, RETURN, AND EXHAUST GRILLES AND THE ENTERING, LEAVING AIR DB/WB TEMPERATURES (F) FROM AIR HANDLING UNITS AND EVAPORATORS.
- ALL DUCTWORK AND PIPING INSULATION SHALL HAVE A FIRE/SMOKE RATING EQUAL TO OR LESS THAN 25/50.
- MECHANICAL PLANS IN GENERAL ARE DIAGRAMMATIC IN NATURE, AND ARE TO BE READ IN CONJUNCTION WITH ARCHITECTURAL PLUMBING, ELECTRICAL, FIRE SPRINKLER, AND STRUCTURAL PLANS AND SHALL BE CONSIDERED AS ONE SET OF DOCUMENTS. DUCT AND PIPING OFFSETS, BENDS AND TRANSITIONS SHALL BE REQUIRED TO BE PROVIDED AND INSTALLED FOR A COMPLETE FUNCTIONAL SYSTEM AND SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. CHANGES IN DUCTWORK SIZE AND ROUTE WILL BE REQUIRED TO AVOID STRUCTURAL, PLUMBING, FIRE SPRINKLER AND ARCHITECTURAL BUILDING FEATURES. DUCTWORK CHANGES MAY BE MADE BY CONTRACTOR USING EQUIVALENT SIZED DUCT. CONTACT ENGINEER IF DUCT AREA WILL NOT FIT.
- CONTRACTOR'S WARRANTY: CONTRACTOR SHALL PROVIDE A WARRANTY FOR A PERIOD OF (1) ONE YEAR, AFTER BUILDING OCCUPANCY. FOR ALL MECHANICAL SYSTEMS, DUCTWORK, CONTROLS, ACCESSORIES AND ALL OTHER EQUIPMENT. PARTS AND LABOR UNDER THESE DRAWINGS AND SPECIFICATIONS. CONTRACTOR SHALL PROVIDE WARRANTY FOR COMPRESSORS FOR (5) FIVE YEARS. ANY REPAIRS REQUIRING SYSTEM SHUTDOWN SHALL BE DONE DURING NON-OPERATIONAL PERIODS OR AS AGREED WITH OWNER.

MECHANICAL LEGEND

	S/A CEILING DIFFUSER		CEILING EXHAUST FAN
	R/A CEILING GRILLE		ROOF EXHAUST FAN
	E/A CEILING GRILLE		SUPPLY/RETURN/EXHAUST AIR DIFFUSER OR GRILLE DESIGNATION
	DUCTWORK UP THRU ROOF		MECHANICAL EQUIPMENT TAG
	SLOT / LINEAR DIFFUSER		REFRIGERATION EQUIPMENT TAG
	WALL LOUVER / WALL DIFFUSER		REMOTE TEMPERATURE SENSOR
	VOLUME CONTROL DAMPER		REMOTE HUMIDITY SENSOR
	REDUCER OR INCREASER		THERMOSTAT
	FLEX DUCT		SUPPLY AIR
	DUCTWORK		RETURN AIR
	ROUND UP		DOOR UNDER CUT
	MANUAL VOLUME DAMPER WITH EXTRACTOR		PIPE UP
	DUCT SMOKE DETECTOR		PIPE DOWN
			ANSUL PULL STATION

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ISSUE/REVISION RECORD

DATE	DESCRIPTION
12/03/20	PERMIT SET
11/22/21	REV 1 CODE COMMENTS
05/16/22	REFRESH 2021-05

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RACETRAC STORE NUMBER

1478

PROTOTYPE SERIES

2021 LH MO 0507

PLAN MODIFICATION NOTICE

SPB NO. 0507 DATE 12/08/21

STANDARD PLAN BULLETINS (SPB) MODIFY THE PROTOTYPE SERIES SET NOTED ABOVE. THE LISTED SPB REPRESENTS THE LATEST MODIFICATION INCORPORATED TO THIS PROTOTYPE SERIES SET AT ORIGINAL RELEASE. THE ISSUE/REVISION RECORD COLUMN ABOVE LISTS ANY REVISIONS OR SPB INCORPORATED IN THIS SET AFTER THE ORIGINAL RELEASE. CONTACT RACETRAC ENGINEERING AND CONSTRUCTION FOR ANY SUBSEQUENT BULLETINS NOT INCORPORATED HEREIN.

PROFESSIONAL SEAL



PROJECT NUMBER

63200243

SHEET TITLE

**MECHANICAL
NOTES AND
LEGENDS**

SHEET NUMBER

M001

KITCHEN EXHAUST HOOD SCHEDULE (OWNER FURNISHED, CONTRACTOR INSTALLED)							
MARK	EQUIPMENT SERVED	MANUFACTURER	MODEL	HOOD DIMENSIONS (IN.) (L x W x H)	EXHAUST AIR CFM	MAKEUP AIR CFM	NOTES
H-1	FRYER	K-TECH	5424 PK-ND-2 Q-SB-F	72x54x24	1,300	1,040	ALL

ROOFTOP A/C EQUIPMENT SCHEDULE																			
A/C UNIT TAG	MANUFACTURER	MODEL**	CFM	E.S.P. (in. W.C.)	BHP	COOLING(MBH)*				HEATING				ELECTRICAL			OPERATING WEIGHT LBS.	NOTES	
						TOTAL	SENSIBLE	IEER	EER	TYPE	KW	MBH	STAGES	OUTSIDE AIR CFM	VOLT/PH/ HZ	MCA			MOCP
RTU-1	CARRIER	50TC-E14C1M5-6W1G0	3500	1.0	1.96	111.8	72.4	13.0	11.3	N/A	31.8	108.5	1	700	208/3/60	124	125	1561	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
RTU-2	CARRIER	50TC-E14C2M5-6W1G0	4000	1.0	2.60	130.7	84.9	12.4	11.0	N/A	31.8	108.5	1	800	208/3/60	124	125	1561	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
RTU-3	CARRIER	50TC-E14C2M5-6W1G0	4000	1.0	2.60	127.4	84.0	12.4	11.0	N/A	31.8	108.5	1	600	208/3/60	124	125	1561	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
RTU-4	CARRIER	50TC-E14C2M5-6W1G0	4400	1.0	2.96	128.2	97.4	12.4	11.0	N/A	31.8	108.5	1	700	208/3/60	124	125	1561	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14

****MODEL NUMBER PROVIDED THROUGH NATIONAL ACCOUNT AGREEMENT. IF ANY DISCREPANCIES BETWEEN MODEL NUMBER AND NOTES OCCUR, PROVIDE REQUIRED ACCESSORIES AS INDICATED IN NOTES. RACETRAC HAS AN EXCLUSIVE NATIONAL ACCOUNT WITH CARRIER. PLEASE CONTACT KEN REVILLA 954-218-0070 OR EMAIL ken.revilla@carrier.utc.com FOR PRICING QUESTIONS.**

1. PROVIDE UNITS WITH INSULATED MATCHING ROOF CURB, WITH MINIMUM HEIGHT TO MOUNT BOTTOM OF EQUIPMENT 8 INCHES ABOVE ROOF SURFACE. COORDINATE WITH ARCHITECTURE ROOF INSULATION THICKNESS.
2. PROVIDE UNITS WITH ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF AND LOW LEAKAGE OUTDOOR AIR DAMPERS.
3. PROVIDE COMPRESSORS WITH SHORT CYCLING PROTECTION.
4. NOT USED
5. FACTORY INSTALLED CONDENSATE DRAIN OVERFLOW SENSOR SWITCH. CONDENSATE OVERFLOW SENSOR SHALL BE AQUAGUARD MODEL AG1250E.
6. PROVIDE SMOKE DETECTOR ON SUPPLY DUCT, TO SHUTDOWN UNIT IF DETECTING SMOKE.
7. PROVIDE DEHUMIDIFICATION PACKAGE WITH ADDITIONAL INTEGRAL HOT GAS REHEAT COIL AND REFRIGERATION PIPING. CONTRACTOR SHALL REFER TO MANUFACTURER HUMIDISTAT WIRING REQUIREMENTS AND INSTRUCTIONS PRIOR TO ROUGH-IN.
8. UNITS ARE AHRI RATED.
9. PROVIDE WITH EPOXY COATED COILS WITHIN 5 MILES OF COAST LINE.
10. PROVIDE WITH HAIL GUARDS.
11. PROVIDE 5 YEAR COMPRESSOR AND 3 YEAR PARTS WARRANTY.
12. EXTERNALLY MOUNTED NEMA 3R, RK1, CURRENT LIMITING FUSED DISCONNECT SWITCH PROVIDED BY RACETRAC.
13. CONTRACTOR SHALL PROVIDE HONEYWELL T7351E210 THERMOSTAT AND HONEYWELL T7351F2010 T-STAT & H7635B2018 DUCT MOUNTED SENSOR. CONTRACTOR SHALL REFER TO MANUFACTURER WIRING REQUIREMENTS AND INSTRUCTIONS PRIOR TO ROUGH-IN.
14. FAN SHALL BE SET TO RUN CONTINUOUSLY TO MAINTAIN OUTDOOR AIR REQUIREMENTS.

AS THE MIXED AIR TEMPERATURE FLUCTUATES ABOVE 55°F OR BELOW 50°F DAMPERS WILL MODULATE (OPEN OR CLOSE) TO BRING IN MIXED-AIR TEMPERATURE BACK WITH CONTROL. IF MECHANICAL COOLING IS UTILIZED WITH FREE COOLING, THE OUTDOOR-AIR DAMPER WILL MAINTAIN ITS CURRENT POSITION AT THE TIME THE COMPRESSOR IS STARTED. IF THE INCREASE IN COOLING CAPACITY CAUSES THE MIXED-AIR TEMPERATURE TO DROP BELOW 45°F, THEN THE OUTDOOR-AIR DAMPER POSITION WILL BE DECREASED TO THE MINIMUM POSITION. CONTROL RETURNS TO NORMAL ONCE THE MIXED-AIR TEMPERATURE RISES ABOVE 48°F.

FAN SCHEDULE																
MARK	SERVICE AREA	MANUFACTURER	MODEL NUMBER	CONFIG	CFM	ESP (IN)	SONES	NM HP	FAN RPM	DRIVE (BELT/DIRECT)	VOLT/PH/HZ	WEIGHT (LBS)	DIMENSIONS LxW	OPENING L"xW"	CONTROL	NOTES
EF-1	RESTROOM WOMENS	GREENHECK	G-080-VG	ROOF	280	0.33	6.5	1/10	1438	DIRECT	120/1/60	38	17x17	12.5x12.5	RESTROOM LIGHTING	1,2,3,4,5
EF-2	RESTROOM MENS	GREENHECK	G-100-VG	ROOF	700	0.33	5.4	1/4	1174	DIRECT	120/1/60	54	19x19	14.5x14.5	RESTROOM LIGHTING	1,2,3,4,5
EF-3	KITCHEN PREP	GREENHECK	G-095-VG	ROOF	600	0.33	6.9	1/6	1363	DIRECT	120/1/60	42	17x17	12.5x12.5	WALL SWITCH	1,2,3,5,6
EF-4	DRY GOODS RECEIVING	GREENHECK	G-095-VG	ROOF	600	0.33	6.9	1/6	1363	DIRECT	120/1/60	42	17x17	12.5x12.5	THERMOSTAT	1,2,3,5,6
KEF-1	KITCHEN PREP	K-TECH	DU85HK	ROOF	1300	1.0	9.8	3/4	1194	DIRECT	115/1/60	93	23x23	22.5x22.5	HOOD	3,5,7,8,9
KSF-1	KITCHEN PREP	K-TECH	K-A1-E 201-15D	ROOF	1040	0.5	9.7	1	1298	DIRECT	115/1/60	442	71x27 3/5	13.25x11.5	HOOD	1,2,3,5,6

AIR DISTRIBUTION SCHEDULE												
TAG	MANUFACTURER	MODEL NUMBER	FACE SIZE	NECK SIZE	MATERIAL	FRAME	FINISH	DAMPER	THROW	NC	CFM RANGE	NOTES
A	TITUS	TMSA-AA	12x12	10x10	ALUM.	GYPSUM CEILING	OFF WHITE	-	-	MAX. 30	*	1, 2, 3, 4, 5
B	TITUS	TMSA-AA	24x24	SEE PLAN	ALUM.	LAY-IN	OFF WHITE	-	VERT/HORZ	MAX. 30	250-425	1, 2, 3, 4, 5
D	TITUS	ML.39	(4'x1"	SEE PLAN	ALUM.	LAY-IN	OFF WHITE	-	VERT/HORZ	MAX. 30	350-425	1, 2, 3, 4, 5, 7
F	TITUS	ML.39	(5'4"x1"	SEE PLAN	ALUM.	LAY-IN	OFF WHITE	-	VERT	MAX. 30	10-575	2, 3, 4, 5, 7
G	TITUS	ML.39	(5'4"x1"	SEE PLAN	ALUM.	GYPSUM CEILING	OFF WHITE	-	VERT	MAX. 30	10-250	2, 3, 4, 5, 7
R	TITUS	350RL	12x12	10x10	ALUM.	SEE PLANS	OFF WHITE	-	-	MAX. 30	*	2, 3, 5, 6
S	TITUS	350RL	24x24	22x22	ALUM.	SEE PLANS	OFF WHITE	-	-	MAX. 30	*	2, 3, 5
T	TITUS	350RL	24x48	22x46	ALUM.	SEE PLANS	OFF WHITE	-	-	MAX. 30	*	2, 3, 5

1. PROVIDE TYPICAL 4-WAY DIFFUSION, 2-WAY OR 3-WAY ONLY WHERE INDICATED ON PLANS.
2. REFER TO ARCHITECT PLANS FOR CEILING TYPE.
3. FINAL COLOR SELECTION SUBJECT TO ARCHITECT APPROVAL.
4. FLEX DUCT SIZE TO BE SAME AS DIFFUSER NECK SIZE.
5. PROVIDE INSULATION ON THE BACK OF DIFFUSER.
6. PROVIDE GRILLE MOUNTED OPPOSED BLADE VOLUME DAMPER WITH CONCEALED ACCESSIBLE OPERATOR.
7. PROVIDE MP1-39 PLENUM BOX AND BORDER TYPE 2A.

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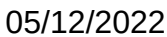
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ELLENWOOD
GA, 30294
4443 OLD DUNN COURT

1478

2021 LH MO 0507

SPB NO. 0507 DATE 12/08/21



63200243

MECHANICAL EQUIPMENT SCHEDULES

M002

DESIGN PROFESSIONALS

HENDERSON
ENGINEERS
8345 LENEXA DRIVE, SUITE 300
LENEXA, KS 66214
TEL 913.742.5000 FAX 913.742.5001
WWW.HENDERSONENGINEERS.COM
2050004273
GA. CORPORATE NO. PEFO02734
EXPIRES 6/30/2022

PROJECT MANAGER:

AH

CHECKED BY:

AI

DRAWN BY:

CB

ISSUE/REVISION RECORD

DATE	DESCRIPTION
12/03/20	PERMIT SET
11/22/21	REV 1 CODE COMMENTS
05/16/22	REFRESH 2021-05

SHEET KEYNOTES

- REMOTE TEMPERATURE/HUMIDITY SENSOR MOUNTED IN RETURN DUCT. CONNECT TO PROGRAMMABLE THERMOSTAT/HUMIDISTAT LOCATED IN BACK OF HOUSE AREA.
- THERMOSTAT/HUMIDISTAT FOR RTU-1, RTU-2 & RTU-3 TO BE SET AT 68°F FOR HEATING, 72°F FOR COOLING AND 50% FOR HUMIDITY. THERMOSTAT/HUMIDISTAT FOR RTU-4 TO BE SET AT 67°F FOR HEATING, 73°F FOR COOLING AND 50% FOR HUMIDITY. REFER TO MANUFACTURER REQUIREMENTS FOR FIELD INSTALLED WIRING PRIOR TO ROUGH-IN. THERMOSTATS/HUMIDISTATS SHALL BE INSTALLED AT 48" A.F.F. LOCATE DUCT DETECTOR SMOKE TEST SWITCHES ABOVE THERMOSTATS/HUMIDISTATS.
- SPIN-IN FITTING AND EXTRACTOR SCOOP, TYPICAL.
- ROUTE DUCTWORK BELOW JOIST.
- ROUTE DUCTWORK BETWEEN JOIST.
- ROUTE BRANCH DUCTS THROUGH ROOF JOIST.
- PACKAGED HVAC UNIT TO BE INSTALLED ON ROOF CURB POSITIONED OVER BUILDING STEEL. COORDINATE INSTALL WITH ARCHITECT DWG. SEE DETAIL 2 AND 6 ON SHEET M430, AND DETAIL 7 ON SHEET S432.
- INSTALL REFRIGERANT PIPING FROM REMOTE CONDENSER ON ROOF TO INDOOR EQUIPMENT/EVAPORATOR AND CONNECT FOR OPERATION. SEAL PIPE PENETRATIONS WITH 3M LATEX SEALANT CP 25WB+. INSULATE PER MECHANICAL NOTES ON SHEET M001. COORDINATE INSTALLATION REQUIREMENTS WITH EQUIPMENT VENDOR.
- ROUTE REFRIGERANT LINES UNDER SLAB IN 6" PVC. REFER TO PLUMBING SHEETS FOR PVC LOCATION.
- REFRIGERANT PIPING UP FROM BELOW FLOOR IN PIT AND INTO CEILING SPACE TO EQUIPMENT ON ROOF. SEE PIT DETAIL 10 ON SHEET S430.
- EXHAUST DUCT UP THROUGH ROOF TO EXHAUST FAN. SEE DETAIL 1 ON SHEET M430.
- BALANCE DAMPER SHALL BE PRICE MODEL 80 LOCKING HAND QUADRANT WITH 2" STANDOFF. HAND QUADRANT SHALL BE MOUNTED ON BOTTOM OF DUCT. PROVIDE MAGNETIC INDICATOR ON CEILING GRID FOR LOCATION OF HAND QUADRANT. TYPICAL. SEE DETAIL 5 ON SHEET M430.
- VENDOR TO PROVIDE CHILLED WATER PIPING FROM YOGURT MACHINES #4025 TO REMOTE CHILLER #4131 ON ROOF. PIPING TO GO THROUGH ATR HUB. SEE DETAIL 3 ON SHEET A201.
- REFRIGERANT PIPING UP THROUGH ROOF IN ATR HUB. SEE DETAIL 3 ON SHEET A201.
- SMOKE DETECTOR PROVIDED BY ROOFTOP UNIT MANUFACTURER TO SHUTDOWN UNIT UPON SENSING SMOKE AND SEND OUT A REMOTE ALARM SIGNAL.
- EF-4 THERMOSTAT SHALL CLOSE ON TEMPERATURE RISE. THERMOSTAT SHALL BE SET AT 75°F. THERMOSTAT SHALL BE HONEYWELL MODEL T651A3018. COORDINATE WITH ELECTRICAL.
- LISTED GREASE DUCT TO BE INSTALLED IN ACCORDANCE WITH LISTING MANUFACTURER INSTRUCTIONS. SLOPE HORIZONTAL DUCT 2% TOWARD HOOD. ACCESS OPENINGS SHALL BE PROVIDED AT ALL CHANGES OF DIRECTION, MAX. 12 FEET APART, AND SHALL COMPLY WITH REQUIREMENTS OF NFPA 96 SECTIONS 7.3 AND 7.4. MAINTAIN 18" CLEAR AROUND DUCT.
- LISTED GREASE EXHAUST DUCT TO BE INSTALLED IN ACCORDANCE WITH LISTING MANUFACTURER INSTRUCTIONS. MAINTAIN 18" CLEAR AROUND DUCT. REFERENCE DETAIL 4 ON SHEET M431.
- INSTALL DUCT THERMOSTAT.

GEORGIA
REGISTERED
No. PE045751
PROFESSIONAL
ENGINEER
JARROD M. EASTERWOOD

05/12/2022

PROJECT NUMBER
63200243

SHEET TITLE
MECHANICAL PLAN

SHEET NUMBER

M120

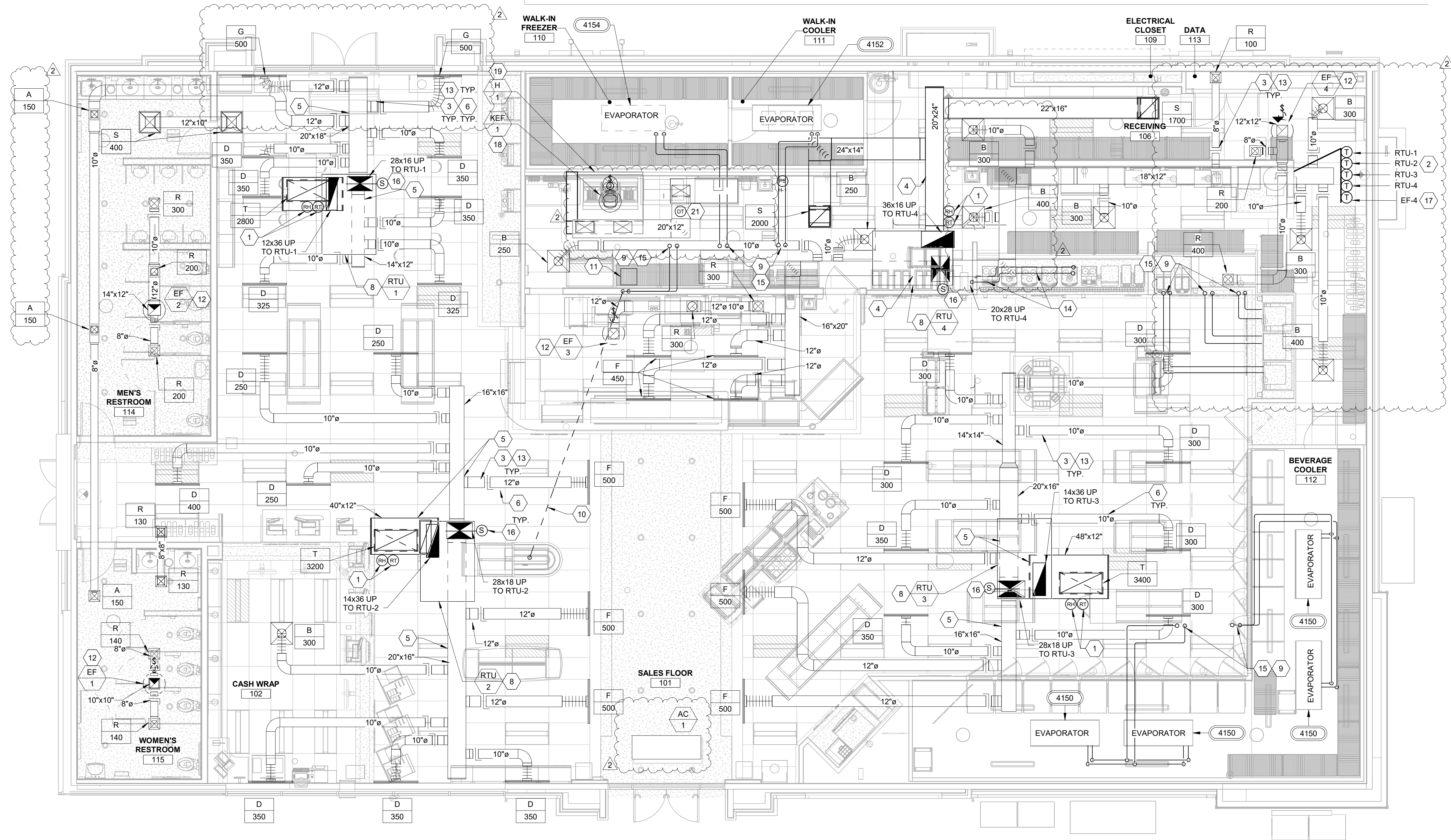
GENERAL NOTES

- FLEXIBLE DUCTWORK NOT TO EXCEED 5'-0" WHEN LONGER RUNS OCCUR, USE MINIMUM #26 GA HARD ROUND DUCTWORK TO MAINTAIN REQUIRED LENGTH.
- CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL MECHANICAL EQUIPMENT, DUCTWORK, ETC. TO FIT WITHIN THE SPACE ALLOWED BY THE ARCHITECTURAL CONDITIONS. CUTTING OR OTHERWISE ALTERING ANY STRUCTURAL MEMBERS SHALL NOT BE PERMITTED WITHOUT WRITTEN PERMISSION FROM THE OWNER AND ARCHITECT.
- GENERAL CONTRACTOR TO PROVIDE PIPE STAND TO HOLD REFRIGERANT LINES UP OFF ROOF.
- CONTRACTOR SHALL PERFORM AN AIR BALANCE OF THE HVAC SYSTEMS TO THE AIR QUANTITIES SHOWN ON THE PLAN AND EQUIPMENT SCHEDULE. SUBMIT AIR BALANCE REPORT TO ENGINEER AND OWNER FOR APPROVAL.
- CONTRACTOR SHALL INSTALL 1/2" HARDWARE CLOTH ACROSS ALL RETURN AIR AND SUPPLY AIR DUCTWORK TO PREVENT DEBRIS GETTING INTO THE AIR DISTRIBUTION SYSTEM DURING CONSTRUCTION.
- INSTALL 1" ACOUSTICAL DUCT LINER IN FIRST 15' OF SUPPLY AND RETURN AIR DUCT FROM ROOFTOP UNIT.
- PROVIDE DIFFUSERS/GRILLES WITH NECK SIZE SAME SIZE AS BRANCH DUCTWORK.
- HOOD SYSTEM COMPONENTS TO MAINTAIN MIN. 18" CLEARANCE FROM COMBUSTIBLE MATERIAL, 3" CLEAR FROM LIMITED COMBUSTIBLE MATERIAL, AND 0" CLEAR FROM NON-COMBUSTIBLE MATERIAL, AS DEFINED IN NFPA 96.
- BRANCH SUPPLY DUCT CONNECTION TO MAIN SUPPLY DUCT SHALL BE A MIN. 5'-0" FROM RTU SUPPLY DROP.

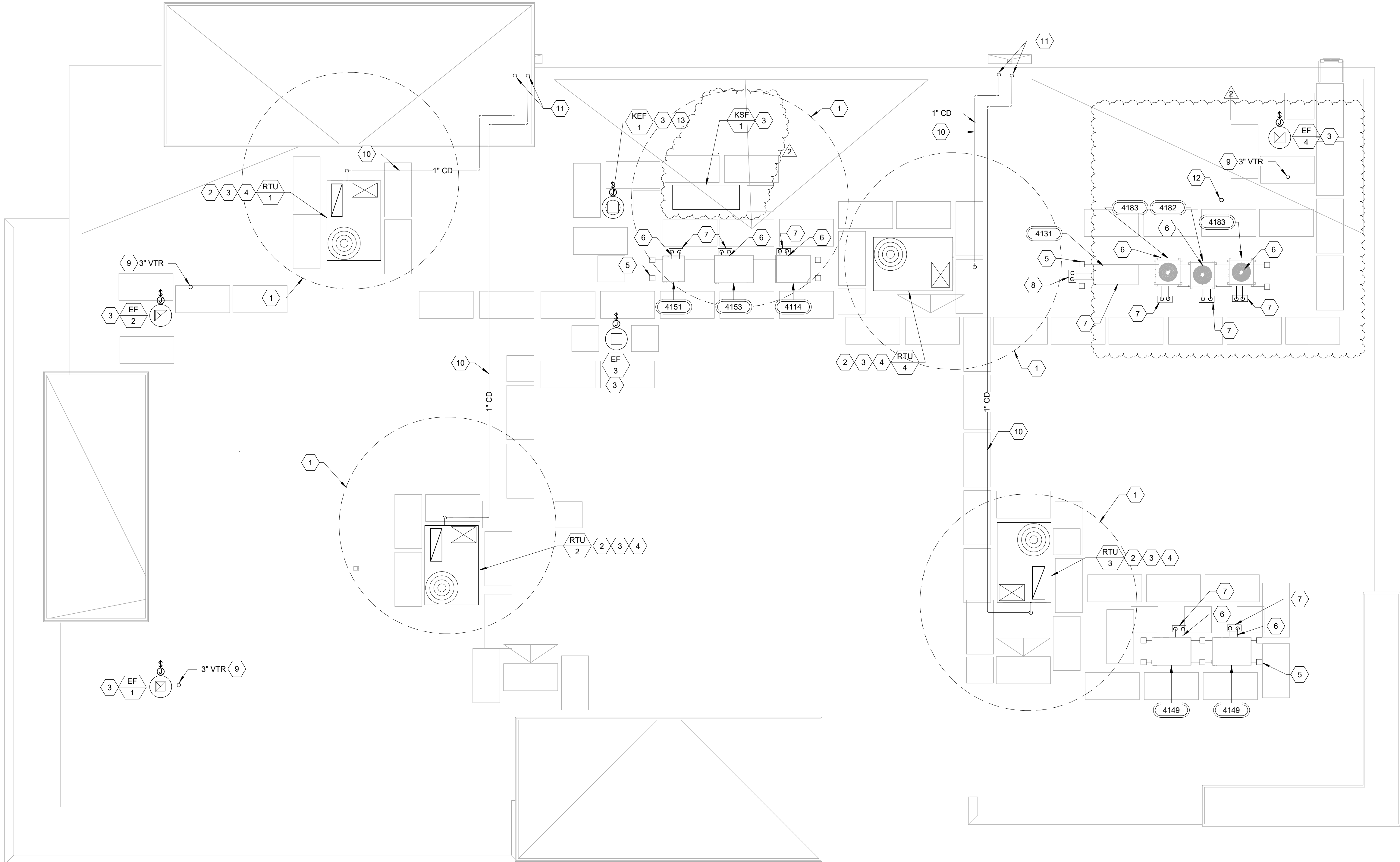
SHEET KEYNOTES

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- LISTED GREASE DUCT TO BE INSTALLED IN ACCORDANCE WITH LISTING MANUFACTURER INSTRUCTIONS. SLOPE HORIZONTAL DUCT 2% TOWARD HOOD. ACCESS OPENINGS SHALL BE PROVIDED AT ALL CHANGES OF DIRECTION, MAX. 12 FEET APART, AND SHALL COMPLY WITH REQUIREMENTS OF NFPA 96 SECTIONS 7.3 AND 7.4. MAINTAIN 18" CLEAR AROUND DUCT.
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- INSTALL DUCT THERMOSTAT.

INCORPORATED SPB - 2021_0501; 2021_0506



1 MECHANICAL PLAN
3/16" = 1'-0"



1 MECHANICAL ROOF PLAN
3/16" = 1'-0"

GENERAL NOTES

1. RUN REFRIGERANT PIPING PER MANUFACTURER'S RECOMMENDATIONS. SUCTION PIPING SHALL BE INSULATED WITH 1/2" MANVILLE AEROTUBE 11 PIPE INSULATION SLID OVER TUBING WITHOUT CUTTING. ALL JOINTS AND SEAMS SHALL BE SEALED WITH ADHESIVE. PROVIDE COATING TO PROTECT INSULATION FROM DETERIORATION FROM THE SUN AND WEATHER.
2. CONTRACTOR TO PROVIDE PROTECTIVE HOUSINGS ON ALL HVAC AND REFRIGERATION EQUIPMENT LOCATED OUTSIDE.
3. GENERAL CONTRACTOR TO PROVIDE PIPE STAND TO HOLD REFRIGERANT LINES UP OFF ROOF.
4. CONTRACTOR SHALL INSTALL 1/2" HARDWARE CLOTH ACROSS DIMENSIONS OF AIR INLET & OUTSIDE AIR INTAKE TO PREVENT BLOCKAGE FROM DEBRIS. CONTRACTOR RESPONSIBLE FOR PAINT TOUCH-UP AT ANY SCRATCHED/MARRED SURFACES. PAINT SPEC PER MANUFACTURER'S RECOMMENDATIONS.
5. EXHAUST VENTS SHALL MAINTAIN A MINIMUM OF 10'-0" CLEARANCE FROM ANY OUTSIDE AIR INTAKE.
6. COORDINATE EXACT LOCATION OF ALL ROOF PENETRATIONS WITH THE ARCHITECTURAL DRAWINGS.
7. ALL CONDUIT/PIPING ROUTED THROUGH ATR HUB SHALL HAVE LOW POINT OUTSIDE OF ATR TO ENSURE WATER TIGHT AND NO WATER OR CONDENSATE RUNS BACK INTO ATR HUB.

SHEET KEYNOTES

1. CONTRACTOR TO MAINTAIN 10'-0" CLEARANCE OF OUTSIDE AIR INTAKES ON HVAC UNITS TO ALL EXHAUST OUTLETS AND SANITARY VENTS.
2. MAINTAIN FACTORY RECOMMENDED SERVICE CLEARANCES FOR EQUIPMENT ON ROOF.
3. COORDINATE LOCATION OF UNITS AND ROOF CURBS WITH THE ARCHITECTURAL AND STRUCTURAL DWGS SHOWING BUILDING STEEL. SEE DETAIL 2 AND 6 ON SHEET M430.
4. ALL UTILITIES TO ROOFTOP HVAC UNITS TO BE ROUTED UP THROUGH ROOF CURB. COORDINATE WITH MANUFACTURERS RECOMMENDATION THROUGH THE BASE LOCATIONS FOR UTILITIES.
5. G.C. SHALL PROVIDE EQUIPMENT SUPPORT RACKS FOR REMOTE CONDENSERS M.C. SHALL INSTALL OWNER FURNISHED CONDENSERS ON RACKS. SEE DETAIL 8 ON SHEET M430.
6. CONTRACTOR SHALL FURNISH AND INSTALL REFRIGERANT PIPING FROM CONDENSERS TO EVAPORATOR/COOLERS IN THE SPACE. COORDINATE EXACT LINE SIZES WITH EQUIPMENT VENDOR.
7. G.C. SHALL PROVIDE ATR HUB FOR REFRIGERANT PIPING PENETRATION THROUGH ROOF. SEAL ALL OPENINGS AROUND PIPING WITH FOAM AIR TIGHT. SEE DETAIL 3 ON SHEET A201.
8. CONTRACTOR SHALL FURNISH AND INSTALL 1 1/4"Ø CHILLED WATER SUPPLY AND RETURN PIPING FROM CHILLER TO YOGURT MACHINES. COORDINATE EXACT REQUIREMENTS WITH VENDOR.
9. SHOWN FOR REFERENCE.
10. PROVIDE 1" CONDENSATE DRAIN PIPING FROM ROOFTOP HVAC UNIT TO CLOSEST SCUPPER. SEE DETAIL 4/P431.
11. RTU CONDENSATE SHALL TERMINATE AT SCUPPER WITH ELBOW TURNED DOWN IN SCUPPER WITH REQUIRED AIR GAP.
12. NON-FREEZE ROOF HYDRANT. SHOWN FOR REFERENCE. SEE PLUMBING PLANS FOR MORE INFORMATION.
13. FAN DISCHARGE TO BE LOCATED MIN. 40" ABOVE ROOF SURFACE AND FAN HOUSING TO BE LOCATED MIN. 5'-0" FROM ANY COMBUSTIBLE STRUCTURE. SEE DETAIL 5 ON SHEET M431.

RaceTrac

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DESIGN PROFESSIONALS



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RaceTrac

RACETRAC, INC.
200 GALLERIA PARKWAY SOUTHEAST
SUITE 300
ATLANTA, GEORGIA 30339
(770) 431-7600

PROJECT NAME

ANVIL BLOCK,
GA

ELLENWOOD
GA, 30294
4443 OLD DUNN COURT

RACETRAC STORE NUMBER

1478

PROTOTYPE SERIES

2021 LH MQ 0507

PLAN MODIFICATION NOTICE

SPB NO. 0507 DATE 12/08/21

STANDARD PLAN BULLETINS (SPB) MODIFY THE
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CONTACT RACETRAC ENGINEERING AND
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PROFESSIONAL SEAL



05/12/2022

PROJECT NUMBER

63200243

SHEET TITLE

MECHANICAL ROOF
PLAN

SHEET NUMBER

M200

INCORPORATED SPB - 2021_0501; 2021_0506

NOTE
 DETAIL SHOWN FOR REFERENCE ONLY FOR ATTACHMENT PURPOSES. CODE COMPLIANCE SHALL BE DETERMINED AND VERIFIED BY A LICENSED STRUCTURAL ENGINEER.

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3/8" (#14) METAL SCREWS AT 18" O.C. LENGTH AS REQUIRED TO ENSURE FULL DEPTH NAILER PENETRATION. PROVIDE SPACERS AS REQUIRED TO ACCOMMODATE ALTERNATE LOCATION

MAX. ALLOWABLE DIFFERENCE (in.)

A - B	B - C	A - C
0.5	1.0	1.0

ROOFTOP UNIT LEVELING TOLERANCES

ROOF STRUCTURE. SEE ARCH. DRAWINGS FOR ADDITIONAL INFORMATION.

MIN. 14"

ROOF STRUCTURE

DIVIDER PLATE BETWEEN EVAP. AND COMPRESSOR SECTIONS.

SOUND DEADENING MATERIAL (INSULATION)

ROOF MOUNTED HVAC EQUIPMENT

1/4" NEOPRENE RUBBER GASKET CONTINUOUS AROUND PERIMETER

MIN. 1-1/2", 3 LB RIGID INSULATION WITH NEOPRENE COATING ON EXPOSED SURFACE (FIELD SUPPLIED)

GALVANIZED METAL CURB (18 GA. MIN.)

1/2" Ø BOLT. SEE SHEET S432 DETAIL 7 FOR MORE INFORMATION

REFER TO STRUCTURAL DRAWINGS FOR FRAMING DETAILS.

SEE STRUCTURAL DRAWINGS. FOR BEAM TYPE AND INFORMATION

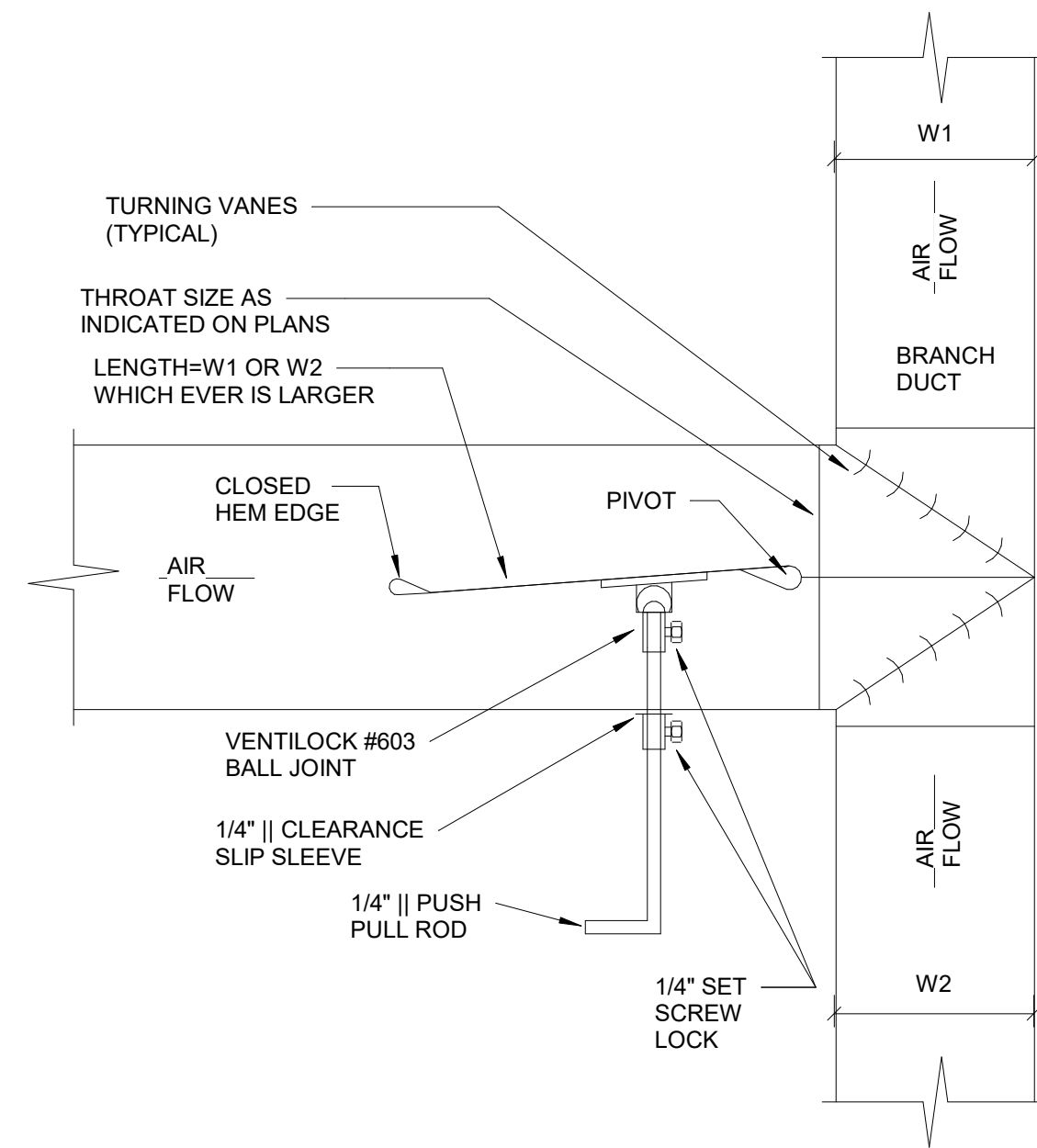
1. DUCT TRANSITION FROM RTU TO DUCT SIZE SHOWN ON MECHANICAL FLOOR PLAN SHALL BE MADE BETWEEN RTU AND TOP OF ROOF WITHIN CURB.
2. INSTALL PER MANUFACTURER'S RECOMMENDATION AND INSTALLATION MANUAL.
3. ALL WIRING BY ELECTRICAL CONTRACTOR.
4. SHIM CURB AS REQUIRED TO PROVIDE HORIZONTAL INSTALLATION OF UNIT WITHIN PRESCRIBED TOLERANCES.
5. CONTRACTOR SHALL COORDINATE LOCATION OF ROOF CURB WITH STRUCTURE PRIOR TO INSTALLATION.
6. UNIT MANUFACTURER PROVIDE ADDITIONAL BRACING AND SUPPORT AS REQUIRED FOR ROOF CURB INSTALLATION TO WITHSTAND WIND LOAD PER LOCAL CODES.
7. CURB TO BE HEAVY GAUGE GALVANIZED STEEL CONSTRUCTION AS RECOMMENDED BY MANUFACTURER. ALL FASTENERS SHALL BE PROTECTED BY GALVANIZED COATING.
8. CLEARANCE OF UNIT ABOVE FINISHED ROOF SHALL COMPLY WITH LOCAL CODE REQUIREMENTS.

GALV. STEEL ROD OR STRAP
 SUPPORTS PER SMACNA
 STANDARDS
 SIDE TAKE-OFF FITTING WITH
 DAMPER, EXTRACTOR SCOOP
 TYPE
 MAIN SUPPLY AIR DUCT, SEE
 PLANS FOR TYPE AND
 INSULATION
 FLEXIBLE DUCT WITH
 INSULATION & VAPOR
 BARRIER
 TIE TO
 STRUCTURAL
 SUPPORTS
 FLEX FLOW ELBOW
 WITH SUPPORT
 LOCKING QUADRANT TO BE EXPOSED
 ON BOTTOM OF DUCT
 1-1/2" X 1-1/2" X 1/8" GALV. ANGLE OR
 STRAP PER SMACNA
 CONNECT INNER DUCT WITH DRAWBAND AND SEAL WITH
 TAPE/MASTIC OUTERDUCT AT NECK CONNECTION
 PROVIDE THERMAL INSULATION BLANKET
 LOUVERED FACE CEILING DIFFUSER WITH 2' X 2'
 LAY-IN ALUM. PANEL
 NYLON DRAWBAND AND
 MASTIC AT
 EACH CONNECTION
 SQUARE TO
 ROUND
 ADAPTER
 GYPSUM
 BOARD
 CEILING
 LOUVERED FACE CEILING
 DIFFUSER

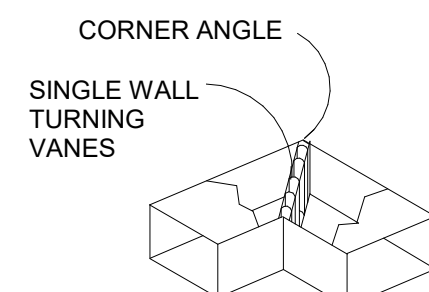
The diagram illustrates a horizontal liquid line with two valves. The line is supported by a galvanized channel with all cut edges. The components and their specifications are as follows:

- GALVANIZED FASTENERS (TYP)**: Indicated by a line pointing to the fasteners on the left valve.
- GALVANIZED ADJUSTABLE CLAMP. SIZE BASED UPON DIAMETER OF PVC.**: Indicated by a line pointing to the clamp on the left valve.
- PROVIDE SCH. 40 PVC COVER ON ALL EXPOSED INSULATION. SIZE BASED ON DIAMETER OF COVER.**: Indicated by a line pointing to the insulation on the left valve.
- PROVIDE PROTECTIVE MATERIAL BETWEEN COPPER PIPING AND GALV. STEEL CHANNEL.**: Indicated by a line pointing to the protective material between the copper piping and the galvanized channel.
- LOW-VOLTAGE WIRING**: Indicated by a line pointing to the wiring on the right valve.
- CONDUIT**: Indicated by a line pointing to the conduit on the right valve.
- LIQUID LINE**: Indicated by a line pointing to the liquid line.
- GALVANIZED CHANNEL WITH ALL CUT EDGES**: Indicated by a line pointing to the channel.
- INSULATION (SEE PLANS FOR THICKNESS)**: Indicated by a line pointing to the insulation on the liquid line.
- SUCTION LINE**: Indicated by a line pointing to the suction line.
- GALVANIZED MOUNTING CHANNEL**: Indicated by a line pointing to the mounting channel.

NTS



NTS

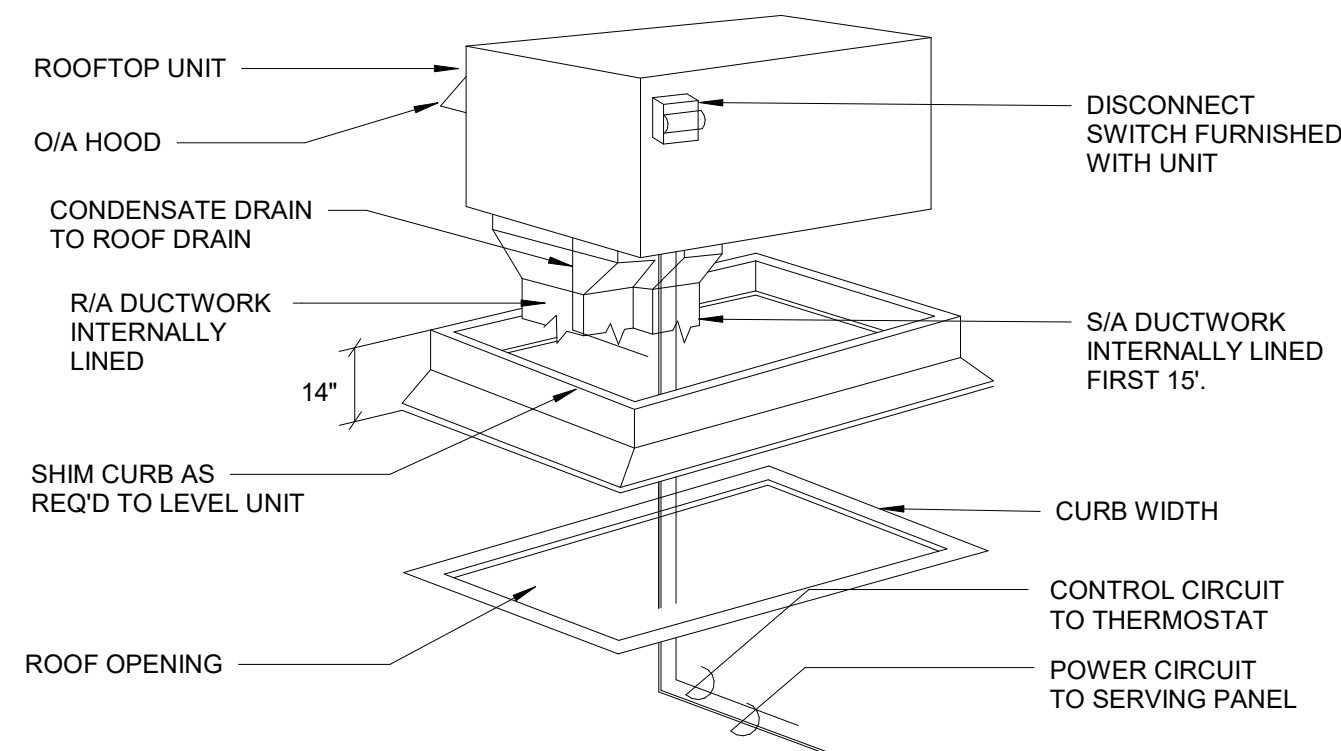


ALL DUCT PER SMACNA STANDARD

CHANNEL

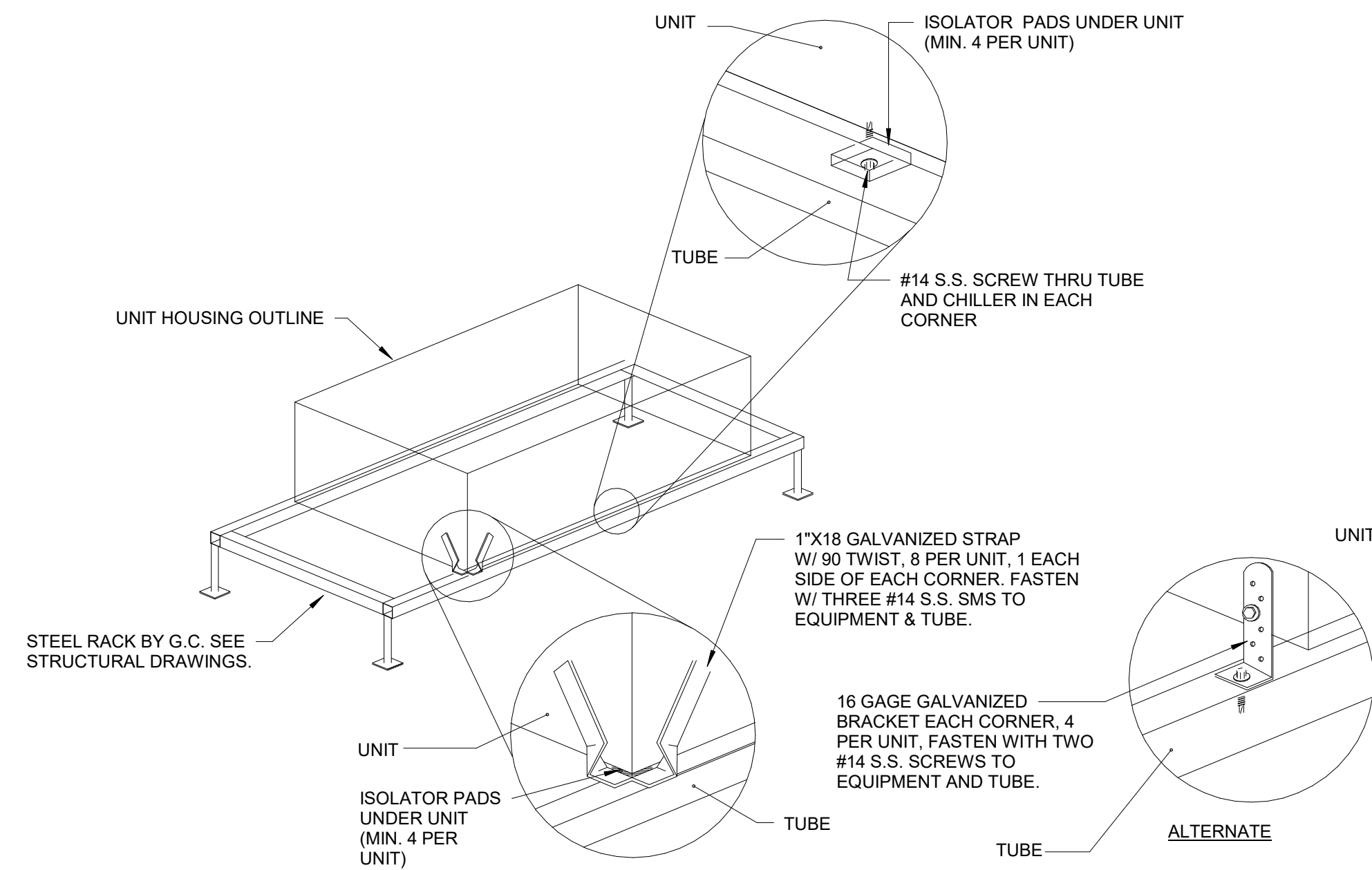
STRAP & SADDLE

NTS

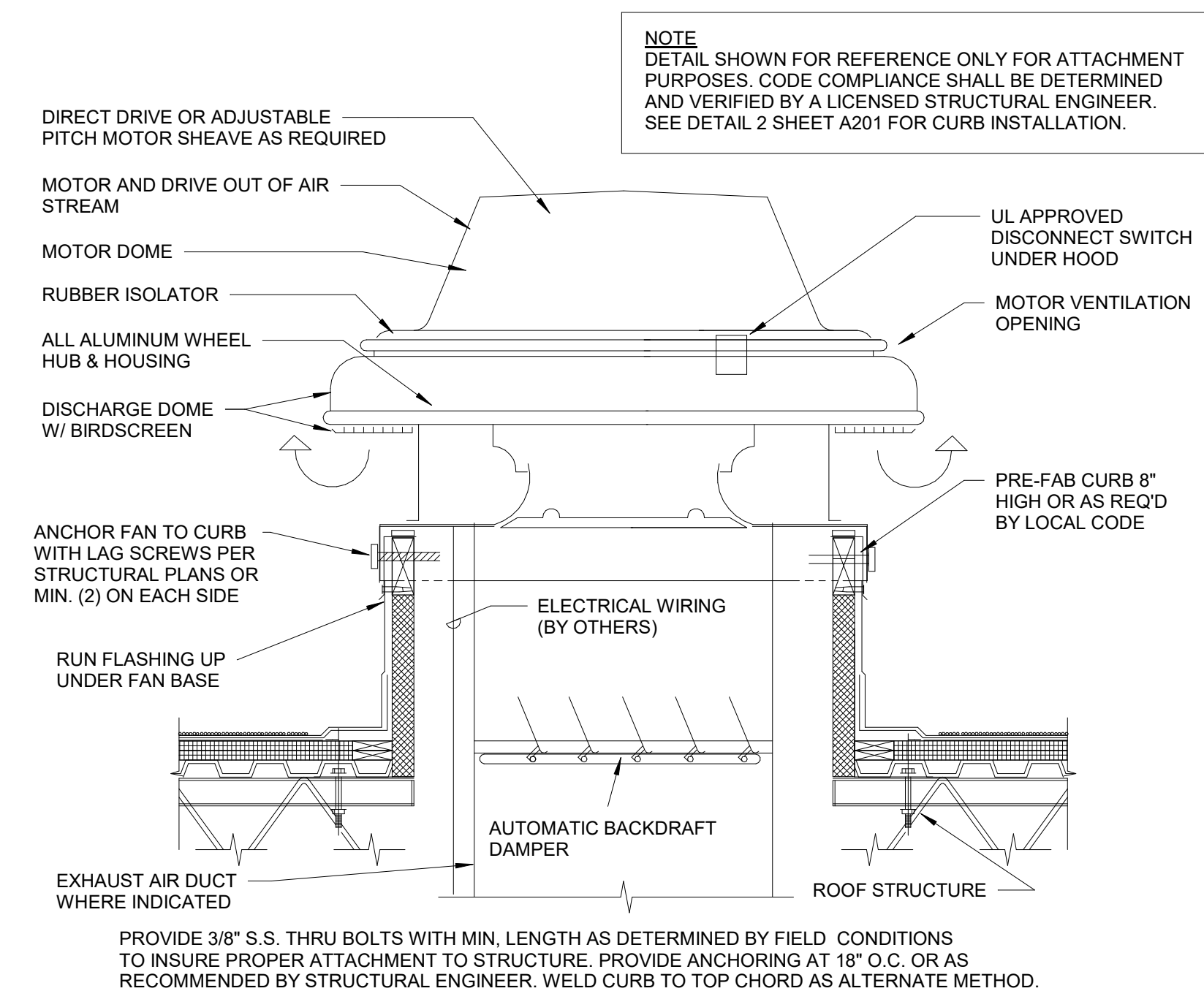


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2. INSTALL PER MANUFACTURER'S RECOMMENDATION AND INSTALLATION MANUAL.
3. ALL WIRING BY ELECTRICAL CONTRACTOR.

NTS



NTS



NTS

M430

DESIGN PROFESSIONALS

HENDERSON
ENGINEERS
8345 LENEXA DRIVE, SUITE 300
LENEXA, KS 66214
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PROFESSIONAL SEAL



PROJECT NUMBER
63200243

SHEET TITLE

**MECHANICAL
DETAILS**

SHEET NUMBER

M431

INCORPORATED SPB - 2021_0506

JARROD M. EASTERWOOD

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ISSUE/REVISION RECORD	
DATE	DESCRIPTION
12/03/20	PERMIT SET
11/22/21	REV 1 CODE
05/16/22	REFRESH 2021-05

PROJECT NAME

ELLENWOOD
GA, 30294
4443 OLD DUNN CO

RACETRAC STORE NUMBER

PROTOTYPE SERIES
2021 LH MO 0507

PLAN MODIFICATION NOTICE

SPB NO. 0507 **DATE** 12/08/21

STANDARD PLAN BULLETINS (SPB) MODIFY THE PROTOTYPE SERIES SET NOTED ABOVE. THE LISTED SPB REPRESENTS THE LATEST MODIFICATION INCORPORATED TO THIS PROTOTYPE SERIES SET AT ORIGINAL RELEASE. THE ISSUE/ REVISION RECORD COLUMN ABOVE LISTS ANY REVISIONS OR SPB INCORPORATED INTO THIS SET AFTER THE ORIGINAL RELEASE. CONTACT RACETRAC ENGINEERING AND CONSTRUCTION FOR ANY SUBSEQUENT BULLETINS NOT INCORPORATED HEREIN.

PROFESSIONAL SEAL

SHEET TITLE
K-TECH

SHEET NUMBER

M501

FOR REFERENCE ONLY

INCORPORATED SPB - 2021 0502

ISSUE/REVISION RECORD	
DATE	DESCRIPTION

RACETRAC PETROLEUM, INC.
200 GALLERIA PARKWAY SOUTHEAST
SUITE 900
ATLANTA, GEORGIA 30339
(770) 431-7600

**ANVIL BLOCK,
GA**

4443 OLD DUNN COURT

1478

2021 LH MO 0507

SPB NO. 0507 DATE 12/08/21

STANDARD PLAN BULLETINS (SPB) MODIFY THE PROTOTYPE SERIES SET NOTED ABOVE. THE LISTED SPB REPRESENTS THE LATEST MODIFICATION INCORPORATED TO THIS PROTOTYPE SERIES SET AT ORIGINAL RELEASE. THE ISSUE/ REVISION RECORD COLUMN ABOVE LISTS ANY REVISIONS OR SPB INCORPORATED IN THIS SET AFTER THE ORIGINAL RELEASE. CONTACT RACETRAC ENGINEERING AND CONSTRUCTION FOR ANY SUBSEQUENT BULLETINS NOT INCORPORATED HEREIN.

PROJECT NUMBER
63200243

K-TECH

M502

INCORPORATED SPB - 2021_0502

