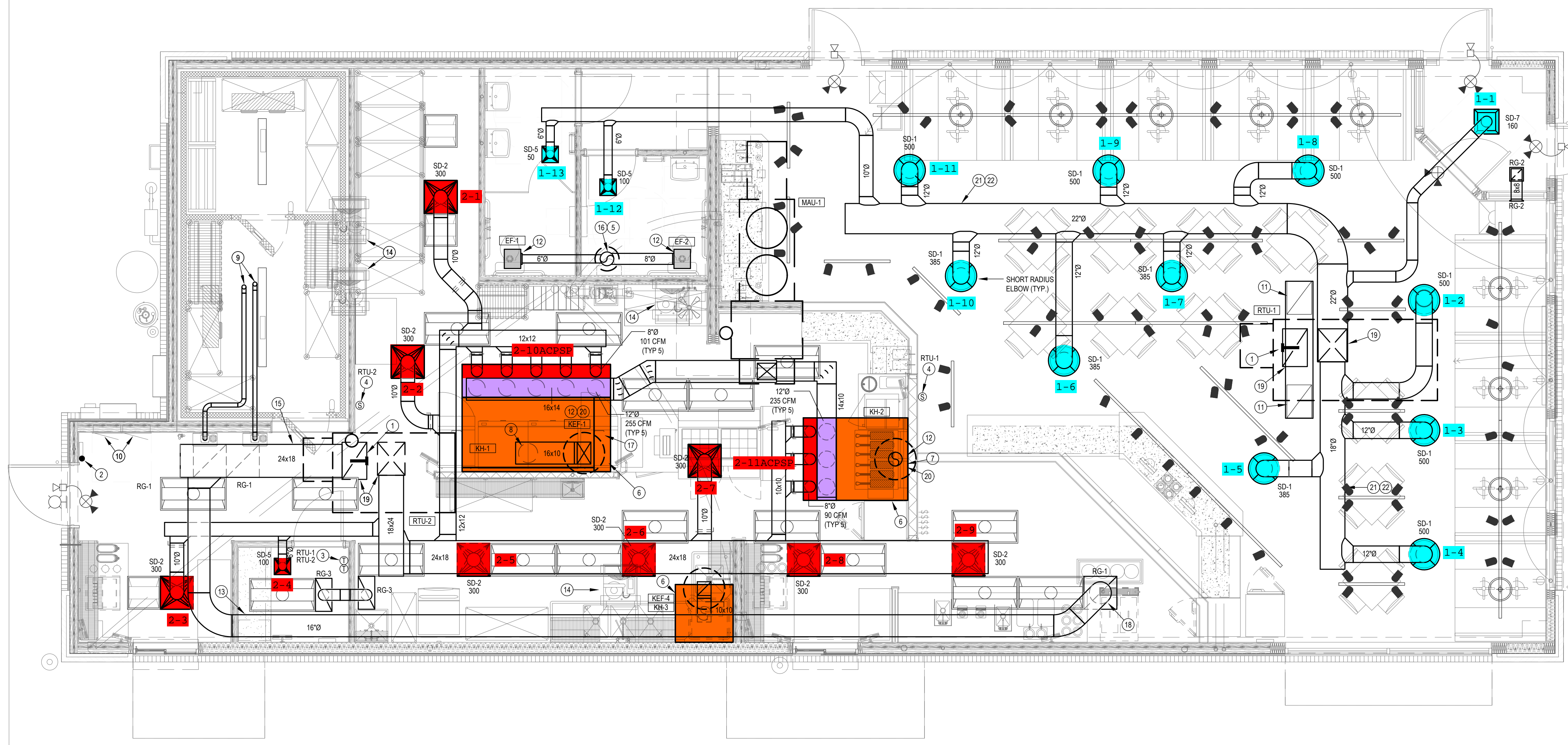


GENERAL NOTES:

- DUCT SYSTEMS SERVING REMOVAL OF GREASE LADEN AIR (TYPE 1 HOOD) SHALL BE CONSTRUCTED AND INSTALLED SO THAT GREASE WILL NOT ACCUMULATE IN DUCTWORK. DUCTWORK SHALL SLOPE AT 2% TOWARD HOOD OR GREASE RESERVOIR. PROVIDE DUCT CLEAN OUTS AT ALL CHANGES OF DIRECTION WITH GREASE TIGHT ACCESS DOORS.
- DUCTWORK SERVING KITCHEN AND WORK ROOM AREAS SHALL NOT BE LINED. DUCTWORK SERVING THESE AREAS SHALL UTILIZE EXTERNAL DUCT WRAP INSULATION.
- MAINTAIN MINIMUM 10'-0" CLEARANCE BETWEEN OUTDOOR AIR INTAKES AND EXHAUST FANVENT TERMINATIONS.
- KITCHEN HOODS ARE PROVIDED BY KITCHEN EQUIPMENT SUPPLIER AND INSTALLED BY MECHANICAL CONTRACTOR.
- REFER TO HOOD MANUFACTURER SHOP DRAWINGS FOR HOOD SUPPORT INFORMATION.
- CEILING SPACE IS LIMITED. COORDINATE WORK WITH OTHER TRADES.
- EXPOSED DUCTWORK SHALL BE CLEAN AND FREE OF DEFECTS.
- EXPOSED DUCTWORK SHALL BE CONSTRUCTED OF PAINT LOCK SHEETMETAL AND PAINTED AS DIRECTED BY ARCHITECT.

PLAN NOTES:

- MOUNTING LOCATION FOR DUCT MOUNTED SMOKE DETECTOR.
- LOCATION OF MANUAL PULL STATION. INSTALL PER MANUFACTURER INSTRUCTIONS.
- LOCATION OF RTU THERMOSTATS. LABEL THERMOSTATS WITH RTU NUMBER. LABELS BY M.C.
- LOCATION OF RTU TEMPERATURE SENSORS MOUNTED 7'-0" AFF.
- COORDINATE DUCT BETWEEN STRUCTURAL TRUSSES WITH SIZES SHOWN.
- EXHAUST HOOD PROVIDED BY OTHERS. INSTALLED BY MECHANICAL CONTRACTOR. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
- TRANSITION AND CONNECT 10" GREASE DUCT TO EXHAUST FAN AS SHOWN. ROUTE DUCT UP AND CONNECT TO EXHAUST FAN. OFFSET AS REQUIRED TO AVOID ROOF STRUCTURE AND TO MAINTAIN 10'-0" CLEARANCE FROM ALL OUTSIDE AIR INTAKES AND 5'-0" FROM PARAPET WALLS. REFER TO DETAIL ON SHEET M-2. ALL GREASE DUCT SHALL BE INSTALLED WITH DUCT WRAP AND ACCESS DOORS AS DETAILED AND PER MANUFACTURER INSTRUCTIONS. SEE CAPTIVE AIR DRAWING.
- TRANSITION AND CONNECT 14" GREASE DUCT TO EXHAUST FAN AS SHOWN. ROUTE DUCT UP AND CONNECT TO EXHAUST FAN. OFFSET AS REQUIRED TO AVOID ROOF STRUCTURE AND TO MAINTAIN 10'-0" CLEARANCE FROM ALL OUTSIDE AIR INTAKES AND 5'-0" FROM PARAPET WALLS. REFER TO DETAIL ON SHEET M-2. ALL GREASE DUCT SHALL BE INSTALLED WITH DUCT WRAP AND ACCESS DOORS AS DETAILED AND PER MANUFACTURER INSTRUCTIONS. SEE CAPTIVE AIR DRAWING.
- COMBUSTION AIR AND VENT PIPING THROUGH ROOF. HOLD AS HIGH AS POSSIBLE AND PROVIDE TERMINATION PER MANUFACTURER'S RECOMMENDATIONS. EXTEND TO WATER HEATER. COORDINATE REQUIREMENTS WITH WATER HEATER. MAINTAIN 10'-0" CLEARANCE FROM ALL OUTSIDE AIR INTAKES.
- COORDINATE DUCT ROUTING WITH ELECTRICAL GEAR. DO NOT ROUTE DUCTWORK ABOVE ELECTRICAL GEAR.
- RETURN AIR DUCT LOCATED BETWEEN ROOF TRUSSES. OPEN DUCTWORK UP TOWARD STRUCTURE. COVER OPENING WITH 3/4" EXPANDED WITH MESH.
- SUPPORT EXHAUST FAN FROM STRUCTURE AS REQUIRED BY THE MANUFACTURER.
- ROUTE DUCT AS HIGH AS POSSIBLE OVER OFFICE AREA TO ALLOW FOR ROUTING OF CABLES.
- MOUNT CONDENSING UNIT ON ROOF AS DETAILED AND AS REQUIRED BY THE MANUFACTURER. CONNECT REFRIGERANT PIPING PER MANUFACTURER RECOMMENDATIONS. SEE SHEET M2 FOR MOUNTING DETAIL.
- ROUTE RETURN AIR DUCT THROUGH OR BETWEEN ROOF TRUSSES.
- ROUTE 10" EXHAUST DUCT UP THROUGH ROOF TO ROOF CAP. VERIFY 10' CLEARANCE FROM ALL OUTSIDE AIR INTAKES.
- HOOD SHALL BE PROVIDED WITH FACTORY PRE-WIRE PACKAGE AND A PRE-ENGINEERED UL-300 FIRE SUPPRESSION SYSTEM. SYSTEM SHALL BE PROPERLY SIZED FOR THE HOOD, DUCT PLENUM AND ALL EQUIPMENT BELOW (VERIFY EXACT REQUIREMENTS WITH KITCHEN EQUIPMENT SUPPLIER). HOOD EXHAUST, MAKE-UP AND LIGHTS SHALL BE SWITCHED FROM CONTROL PANEL THAT IS INTEGRAL TO FRONT OF UTILITY CABINET. UTILITY CABINET SHALL SERVE ALL HOODS.
- PROVIDE LOCKING QUADRANT DAMPER AND SQUARE TO ROUND TRANSITION FOR DUCT CONNECTION TO RETURN GRILLE.
- COORDINATE DUCT DROP BETWEEN STRUCTURAL TRUSSES WITH SIZES SHOWN. TRANSITION RETURN AIR DUCT TO FIT BETWEEN STRUCTURE.
- PROVIDE CAPTIVE AIR VIBE WINDBAND EXTENSION FOR KEF-1 AND KEF-2.
- EXPOSED DUCTWORK SHALL BE DUAL WALL, PAINTLOCK CONSTRUCTION AND PAINTED AS PER DIRECTION OF ARCHITECT (TYP.).
- COORDINATE EXPOSED DUCTWORK WITH LIGHTS (TYP.).



SPECIFICATION SECTION 230593 TESTING, ADJUSTING, AND BALANCE REQUIRES AN INDEPENDENT TAB CONTRACTOR (NEBB OR AABC) TO TEST ALL EQUIPMENT TO ENSURE COMPLIANCE WITH DRAWINGS. OWNER'S REPRESENTATIVE SHALL RECEIVE REPORT / VERIFICATION.

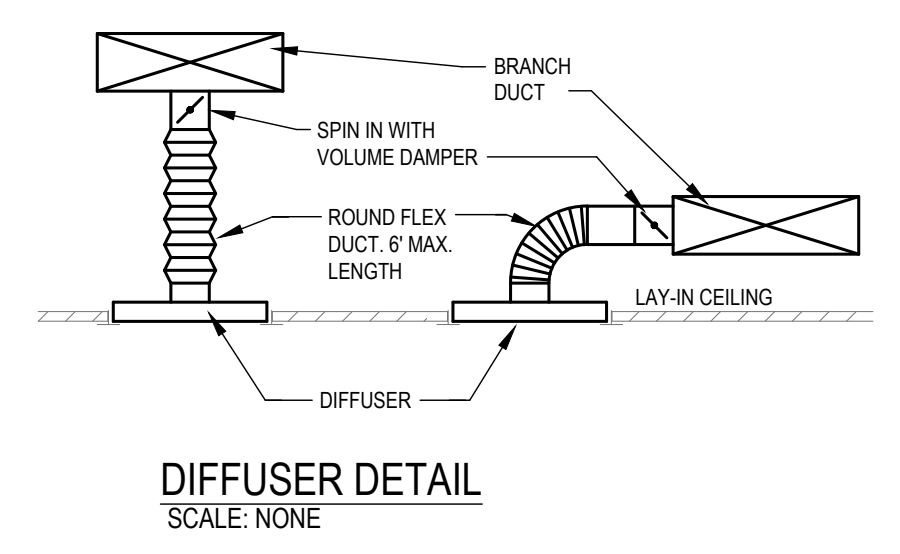
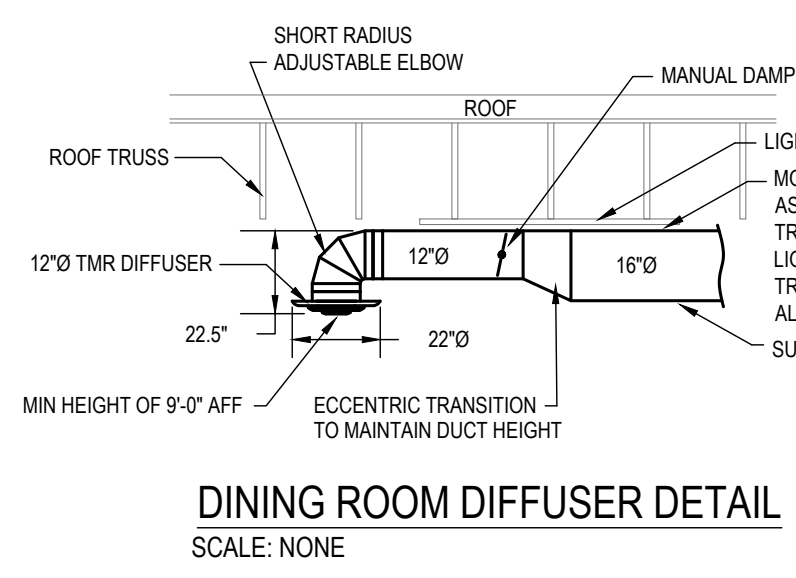
A MECHANICAL PLAN
 SCALE: 1/4" = 1'-0"
 NORTH

MECHANICAL LEGEND

HVAC:		HVAC:		HVAC:		MISC. SYMBOLS:	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	SUPPLY AIR DIFFUSER		ELBOW ROUND DUCT		ECCENTRIC TRANSITION		EQUIPMENT IDENTIFICATION
	RETURN AIR GRILLE		ROUND DUCT DROP / DOWN		DUCT OFFSET - RISE OR DROP		PLAN NOTE
	RETURN AIR GRILLE WITH SOUND BOOT		ROUND DUCT RISE / UP		FLEX DUCT (5'-0" MAX. LENGTH)		ABOVE FINISHED FLOOR
	SIDE WALL REGISTER / GRILLE		FLEXIBLE CONNECTION		OPPOSED BLADE DAMPER		SUPPLY AIR
	SUPPLY AIR DUCT RISE / UP		DUCT SIZE / DIMENSIONS FIRST SIZE TOP DIMENSION		PARALLEL BLADE DAMPER		RETURN AIR
	SUPPLY DUCT DROP / DOWN		45° HIGH EFFICIENCY TAKE-OFF		THERMOSTAT / SENSOR		EXHAUST AIR
	RETURN OR EXHAUST DUCT RISE / UP		45° HIGH EFFICIENCY TAKE-OFF WITH LOCKING QUAD. DAMPER		HUMIDISTAT / SENSOR		OUTSIDE AIR
	RETURN OR EXHAUST DUCT DROP / DOWN		CONCENTRIC TRANSITION		FIRE SMOKE DAMPER		RETURN AIR GRILLE
	ELBOW WITH TURNING VANES		RECT. TO ROUND TRANSITION		FIRE DAMPER		

OUTDOOR AIR CALCULATION

UNIT	AREA (SQFT)	OCCUPANCY CLASSIFICATION	OCCUPANT DENSITY # PEOPLE	PEOPLE OUTDOOR AIRFLOW RATE IN BREATHING ZONE, (RP) CFM/PERSON	AREA OUTDOOR AIRFLOW RATE IN BREATHING ZONE, (RA) CFM/SQFT	EXHAUST AIRFLOW RATE CFM/SQFT	BREATHING ZONE OUTDOOR AIRFLOW (VBZ)	ZONE AIR DISTRIBUTION EFFECTIVENESS (EZ)	ZONE OUTDOOR AIRFLOW (CFM)
RTU-1	1595	DINING RM	80	7.5	0.18		...	0.8	888
	120	RESTROOM	0	0	0.06		...	0.8	8
									TOTAL 896
RTU-2	975	KITCHEN	20	7.5	0.12	0.7	...	0.8	267
	45	OFFICE	1	5	0.06		...	0.8	8
									TOTAL 1171



NOTE: PROVIDE SHORT RADIUS ELBOWS (1 TIMES CENTERLINE 90° ELL) FOR ELBOW DOWN TO DIFFUSER ON EXPOSED DUAL WALL DUCTWORK IN DINING ROOM. DIFFUSER SHALL BE MINIMUM OF 9'-0" A.F.F. SEE DETAIL.

NOTE: REMOTE SENSORS WIRE TO THERMOSTAT. HUMIDITY SENSORS WIRE UP TO THE PRODIGY CONTROL PANEL. REFER TO HUMIDITY SENSOR INSTALLATION INSTRUCTIONS. HUMIDITY LEVEL IS CONTROL ON THE PRODIGY PANEL. SET HUMIDITY LEVEL AT 50-55%. CONTACT NA TECH SUPPORT GROUP AT 1-800-367-6285 FOR QUESTIONS.



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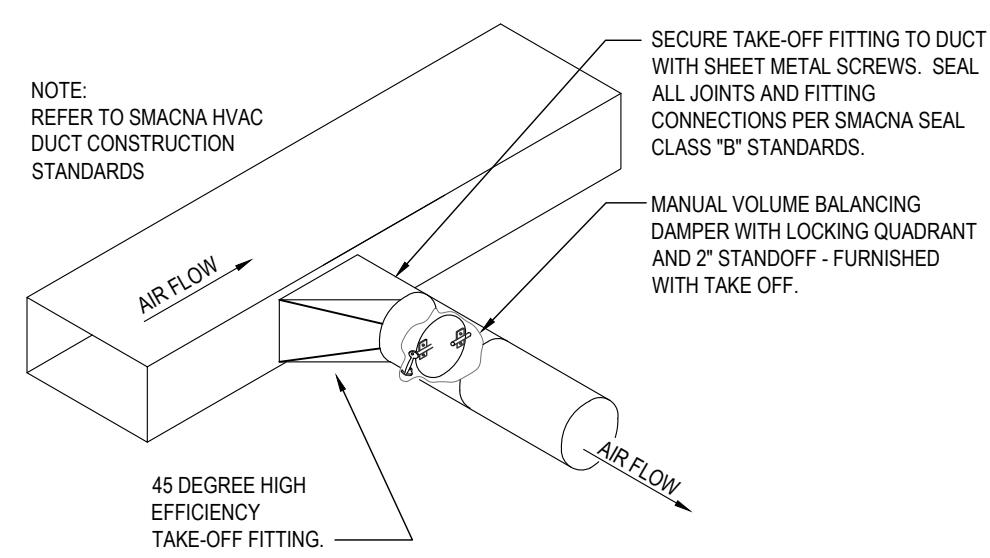
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MECHANICAL PLAN

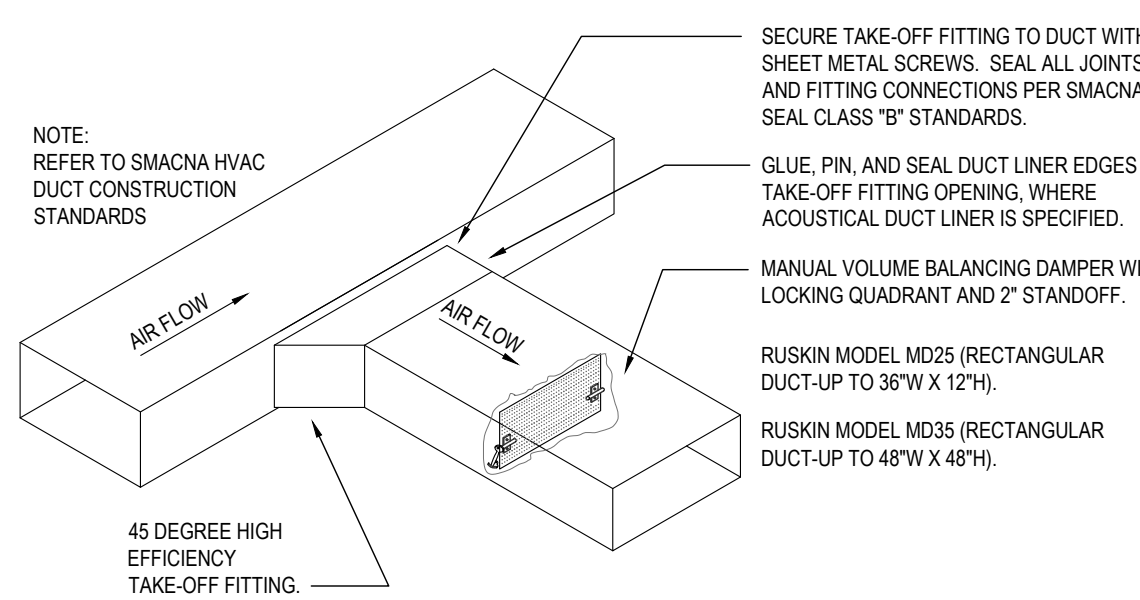
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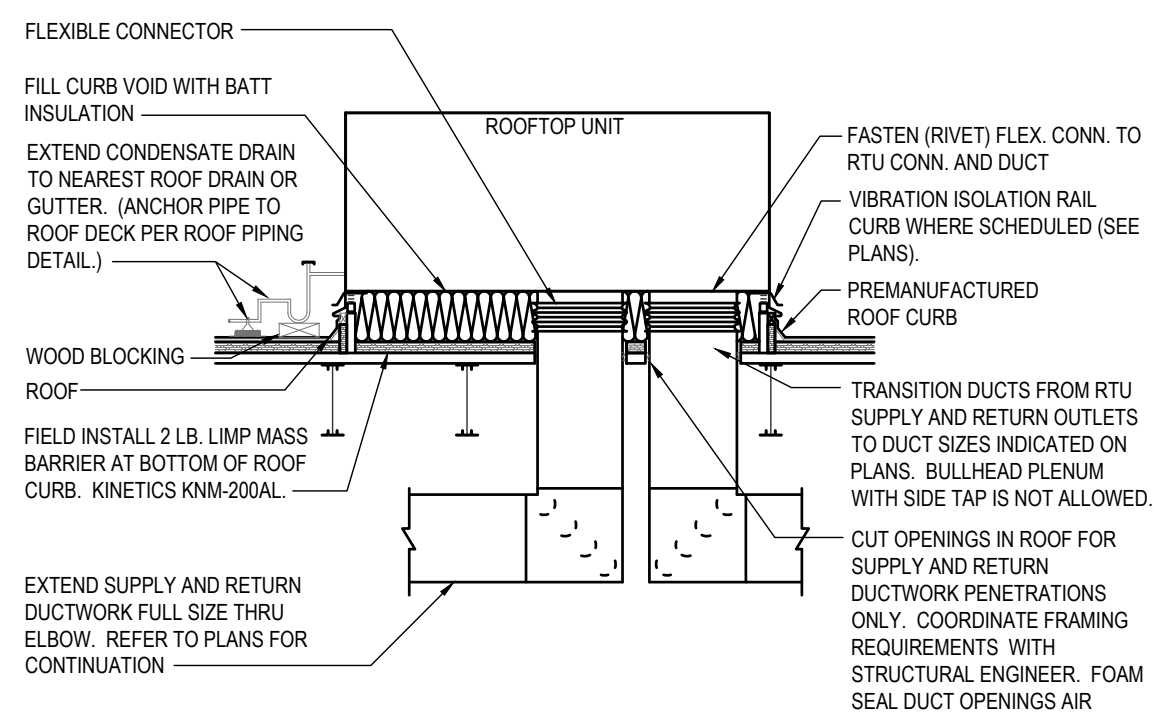
SHEET NO.
M1



1 ROUND DUCT TAKE-OFF
NO SCALE



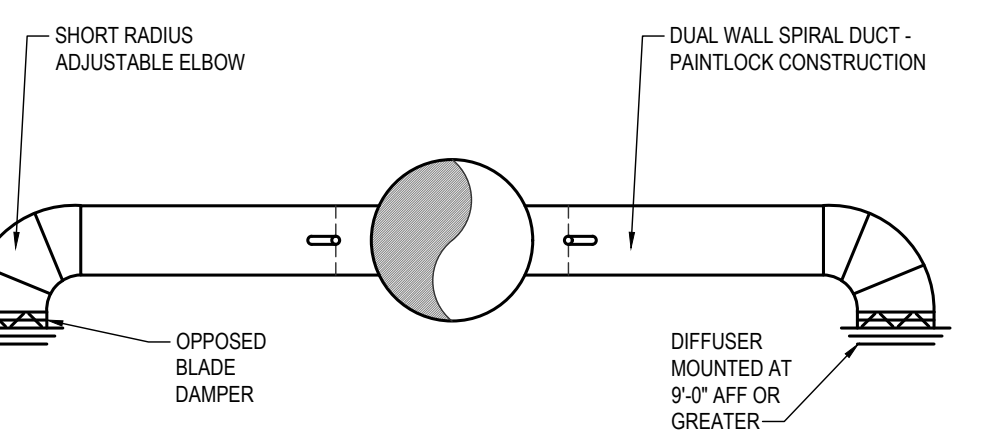
2 RECTANGULAR DUCT TAKE-OFF
NO SCALE



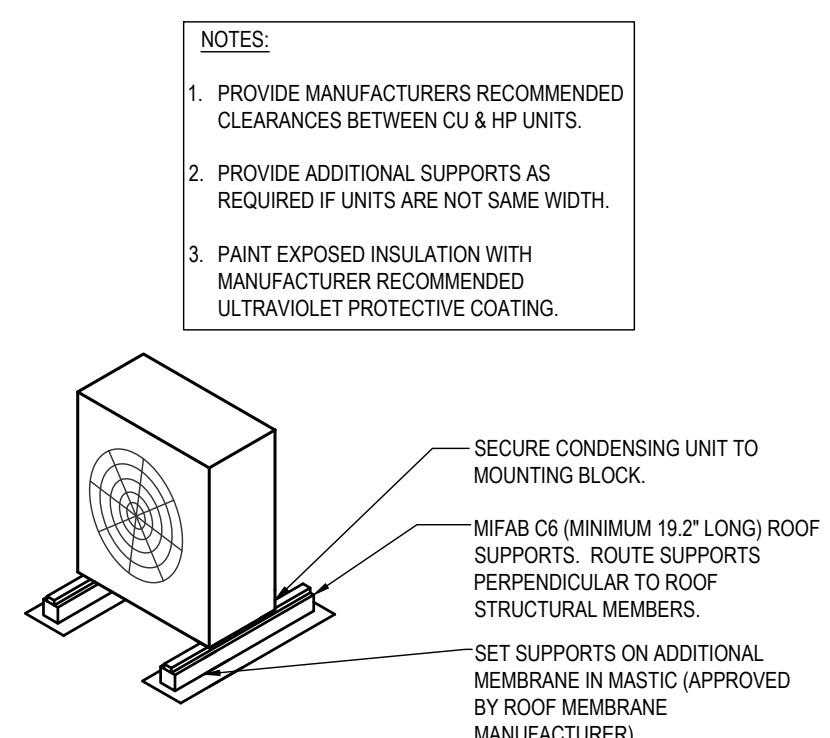
3 DOWNFLOW ROOF TOP UNIT DETAIL
NO SCALE

ROOFTOP UNIT SCHEDULE																						
MARK	MFR	MODEL NO.	NOM. TONS	EVAP. CFM	EXT. STATIC P. IN. WG (NOTE 2)	COOLING			HEATING (GAS)		ELECTRICAL			MINIMUM OUTDOOR AIR (CFM)	TOTAL WEIGHT (LBS)	EER	REFRIG.	NOTES				
						TOTAL MBH	SENS. MBH	AMB.	EVAP. EAT DB/WB	MBH INPUT	MBH OUTPUT	VOLT/PHZ	BLOWER MOTOR						MIN. MCA (AMPS)	MIN. MOCP (AMPS)		
RTU-1	YORK	ZR150	12.5	4,850	1.0	162.8	114.6	100	80/67	240	144	192	115	208/3/60	5 HP	71	90	1000	2100	11	R-410a	1,2,3,4,5,6
RTU-2	YORK	ZR090	7.5	3,000	1.0	87.8	64.7	100	80/67	180	108	144	86	208/3/60	3 HP	42.4	50	300	1600	11.2	R-410a	1,2,3,4,5,6

- NOTES:**
- PROVIDE LOW LEAK OUTDOOR AIR ECONOMIZER WITH DRY BULB CONTROL, FAULT DETECTION AND DIAGNOSTIC MODULE. PROVIDE UNIT WITH HOT GAS REHEAT WITH 75° L.A.T., TIME DELAY ON COMPRESSOR RE-START, CRANKCASE HEATER, BAROMETRIC RELIEF DAMPER, CONDENSATE DRAIN PAN-FLOAT SWITCH, AND COMPRESSOR LOCK-OUT WITH AMBIENT BELOW 55°F FOR EACH UNIT. OUTDOOR AIR DAMPER TO FULLY CLOSE W/ FAN SHUTDOWN FOR ALL UNITS. PROVIDE UNIT WITH 2-SPEED FAN CONTROL.
 - EXTERNAL STATIC PRESSURE LISTED REPRESENTS STATIC PRESSURE REQUIRED FOR DUCTWORK AND DIFFUSERS OUTSIDE THE HVAC UNIT COMPLETELY INDEPENDENT OF ANY PRESSURE DROP THROUGH THE HVAC EQUIPMENT INCLUDING BUT NOT LIMITED TO FILTERS, COILS AND ECONOMIZERS. THE FAN AND MOTOR SHALL BE SIZED APPROPRIATELY TO MEET THIS DEFINITION OF EXTERNAL STATIC PRESSURE.
 - PROVIDE COMMERCIAL 7-DAY PROGRAMMABLE HEAT/COOL/AUTO CHANGE-OVER THERMOSTAT WITH REMOTE TEMPERATURE AND HUMIDITY SENSORS AND ECONOMIZER OUTPUT FOR EACH UNIT. ECONOMIZER/OUTDOOR AIR DAMPER IS TO CLOSE DURING UNOCCUPIED HOURS. THERMOSTAT SHALL BE HONEYWELL VISIONPRO (OR EQUAL) WITH HUMIDITY CONTROL.
 - PROVIDE 18" HIGH (AT LOWEST POINT) PRE-FABRICATED INSULATED ROOF CURB WITH SLOPE TO MATCH SLOPE OF ROOF FOR EACH UNIT.
 - PROVIDE HAIL GUARDS FOR EACH UNIT.
 - DISCONNECT AND TO BE FACTORY INSTALLED. MECHANICAL CONTRACTOR TO COORDINATE UNIT MOCP WITH ELECTRICAL CONTRACTOR.



4 DINING ROOM DIFFUSER DETAIL
NO SCALE



5 ROOF CONDENSING UNIT MOUNTING
CONDENSER ON ROOF
NO SCALE

DIFFUSER SCHEDULE						
MARK	MFR	MODEL	NECK SIZE	FACE SIZE	FINISH	REMARKS
SD-1	TITUS	TMR	12"Ø	22"Ø	WHITE	WITH OPPOSED BLADE DAMPER, FIELD PREP FOR PAINTING
SD-2	TITUS	TMS/3	10"Ø	24"x24"	WHITE	
SD-3	TITUS	PAS/3	10"Ø	24"x24"	WHITE	
SD-4	TITUS	T3SQ4	8"Ø	24"x24"	WHITE	THERMAL VAV DIFFUSER
SD-5	TITUS	TMS/3	6"Ø	12"x12"	WHITE	WITH OPPOSED BLADE DAMPER AND TRM KIT
SD-6	TITUS	TMS/3	8"Ø	24"x24"	WHITE	WITH OPPOSED BLADE DAMPER AND TRM KIT
SD-7	TITUS	TMS/3	8"Ø	12"x12"	WHITE	WITH OPPOSED BLADE DAMPER AND TRM KIT
RG-1	AMER. LOUVER CO.	STRATUS	20"x20"	24"x24"	WHITE	SEE NOTE 1.
RG-2	TITUS	350RL	8"x8"	-	WHITE	
RG-3	TITUS	TITUS	10x22	24X12	WHITE	

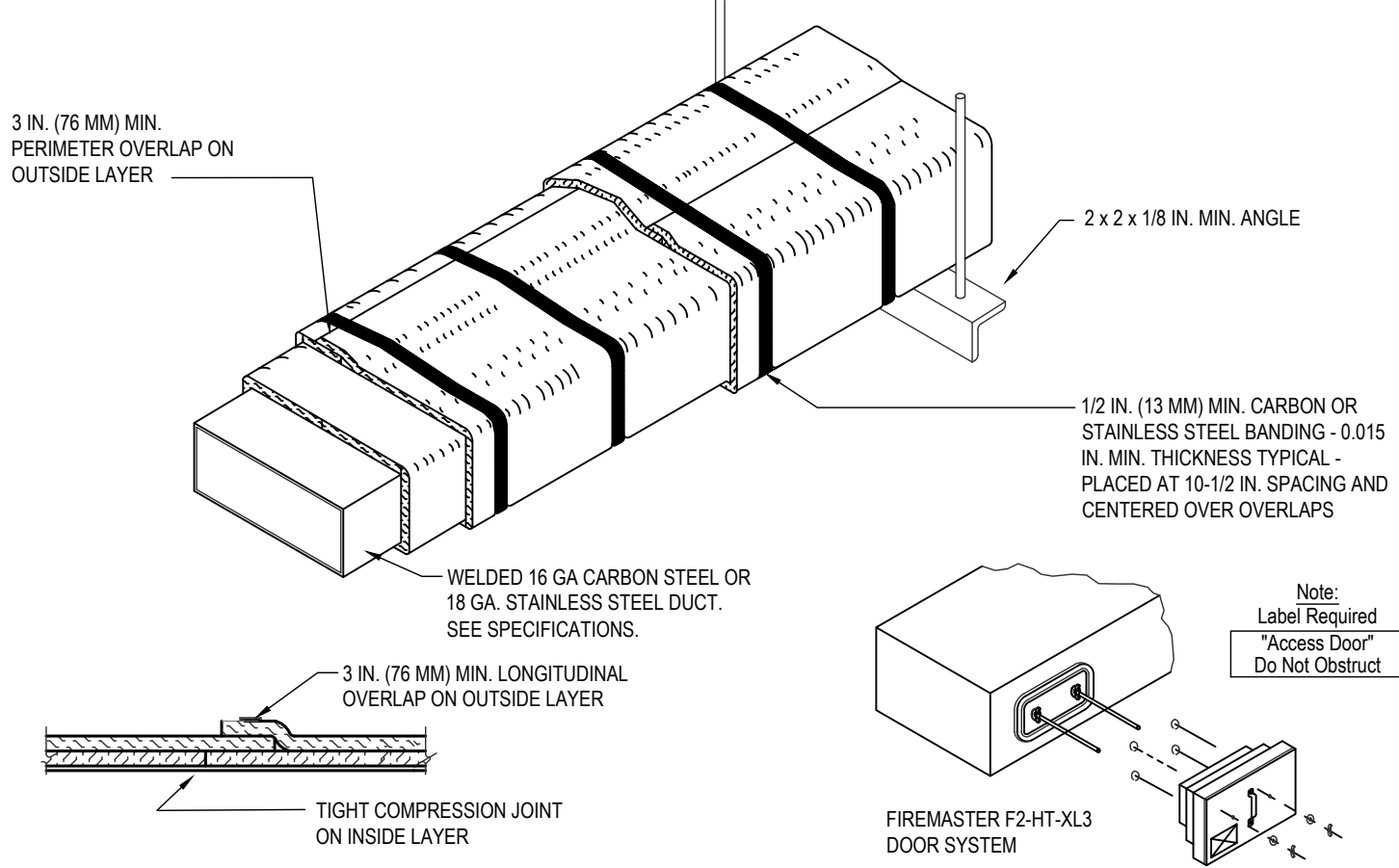
- NOTES:**
- RETURN GRILL TO BE PLASTIC FILTER RETURN, FILTER TO BE AMERICAN AIR FILTER (AAF) FRONTLINE GREEN 1", WITH AAF AMERIFRAME SIZE 20x20x1.

EXHAUST FAN SCHEDULE									
MARK	MFR	MODEL	CFM	EXTERNAL STATIC P. IN. WG.	RPM	ELECTRICAL		FAN TYPE	REMARKS
						VOLT/PHZ	PWR		
EF-1	COOK	GC-146	75	0.25	900	120/1/60	30.3W	CEILING EXH.	
EF-2	COOK	GC-168	150	0.25	1099	120/1/60	50.4W	CEILING EXH.	

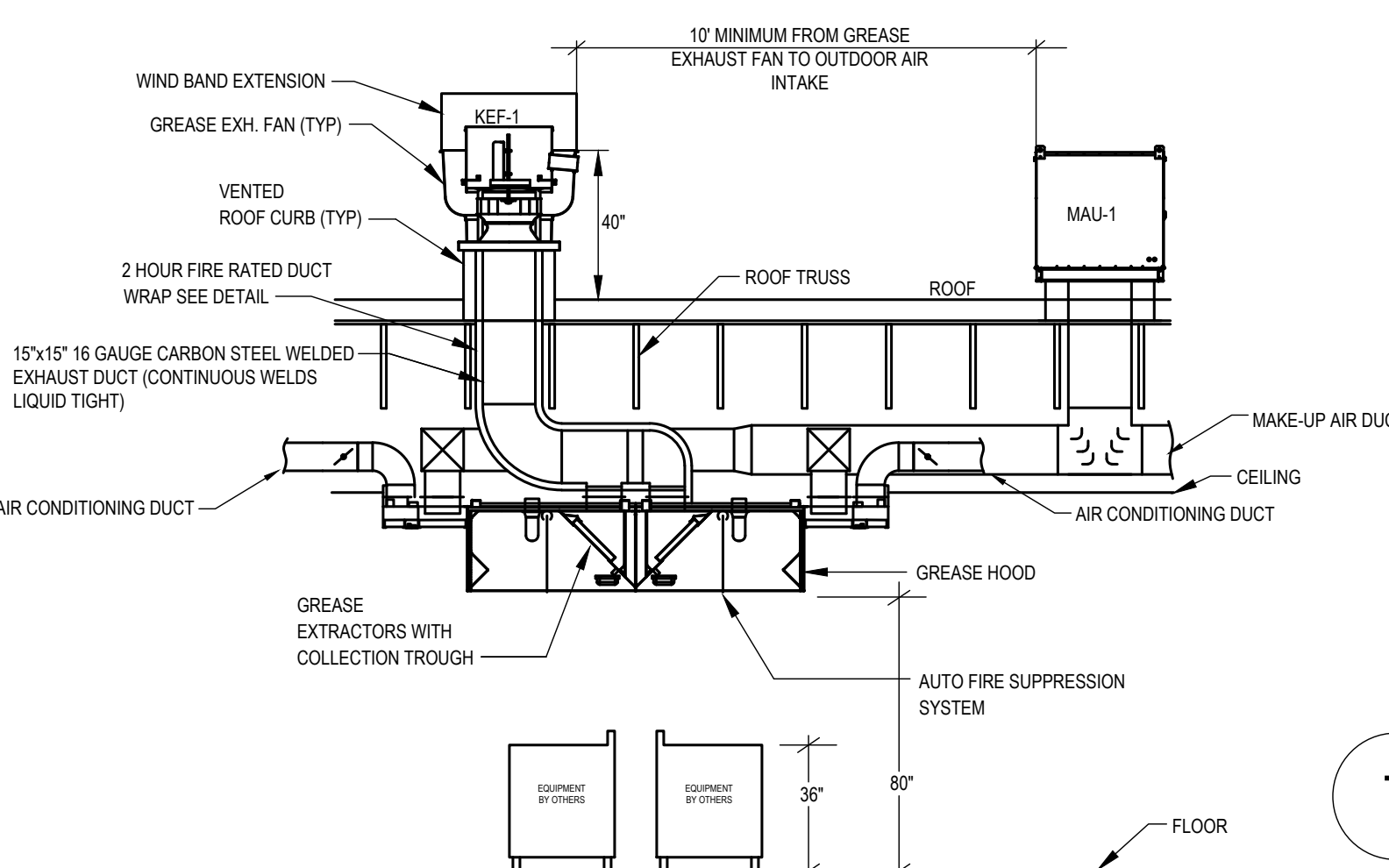
PUMP SCHEDULE												
MARK	SERVICE	GPM	HEAD	EFFICIENCY	MOTOR			PIPE INCHES		FLOW	STARTER BY	REMARKS
					HP	RPM	ELECTRICAL	SUCTION	DISCHARGE			
RCP-1	DOMESTIC HW	10	6	-	1/8	3250	115/60/1	-	-	CONST	-	①

BUILDING AIR BALANCE SCHEDULE						
MARK	SPACE OR AREA	EXHAUST AIR CFM	OUTSIDE AIR CFM	RETURN AIR CFM	SUPPLY AIR CFM	REMARKS
RTU-1	DINING	--	1000	4850	4850	--
RTU-2	DINING	--	300	3000	3000	--
MAU-1	KITCHEN	--	1980	0	1980	--
KEF-1	RANGE - KITCHEN HOOD	1600	--	--	--	--
KEF-2	FRYERS - KITCHEN HOOD	775	--	--	--	--
KEF-4	DISHWASHER - KITCHEN HOOD	525	--	--	--	--
EF-1	WOMEN'S RESTROOM	75	--	--	--	--
EF-2	MEN'S RESTROOM	150	--	--	--	--
TOTALS	BUILDING TOTALS	3,125	3,280	5,150	9,830	NOTE: AREA IS 155 CFM POSITIVE

- NOTES:**
- THERMAL CERAMICS FIREMASTER FASTWRAP XL OR PYROSCAT XL HAS BEEN TESTED IN ACCORDANCE WITH ASTM E2306 TO PROVIDE ZERO CLEARANCE TO COMBUSTIBLES AND MEETS THE REQUIREMENTS FOR ONE OR TWO HOUR ENCLOSURES. THROUGH PENETRATIONS FIRESTOP SYSTEMS ARE TESTED IN ACCORDANCE WITH EITHER ASTM E 814 OR UL 1479. ICC-ES APPROVAL PER REPORT ESR 2213 OR ESR 2832. UNDERWRITERS LABORATORIES (UL) LISTINGS SHOW COMPLIANCE TO UL 1479 FOR THROUGH PENETRATION FIRESTOP SYSTEMS.
 - COMPLIANT TO THE FOLLOWING CODES: NFPA 96 2003 AND 2006 INTERNATIONAL MECHANICAL CODES 2006 UNIFORM MECHANICAL CODE.
 - INSULATION APPLIED IN TWO LAYERS WITH TIGHT COMPRESSION JOINT ON INSIDE LAYER AND 3 INCH MINIMUM OVERLAPS ON BOTH PERIMETER AND LONGITUDINAL OVERLAPS ON OUTSIDE LAYER.
 - GREASE EXHAUST DUCT RUNS FROM THE HOOD EXHAUST CONNECTION UP TO THE EXHAUST FAN ON THE ROOF WITH MINIMAL TURNS OR BENDS AND MAINTAINING MINIMUM 1/4 UNIT VERTICAL RISE PER 12 UNITS HORIZONTAL RUN. NFPA 96 COMPLIANT ACCESS DOORS LOCATED AS REQUIRED BY CODE.
 - THERMAL CERAMICS FIREMASTER ACCESS DOORS AS SPECIFIED IN ICC-ES BUILDING CODE REPORTS ESR 2213 OR ESR 2832.
 - ROOF MOUNTED EXHAUST FAN IS MOUNTED ON A HINGED BASE WHICH ALLOWS ACCESS TO THE DUCT FROM THE ROOF.
 - SUPPORT HANGER SYSTEMS DO NOT NEED TO BE WRAPPED PROVIDED THE HANGER RODS ARE AT LEAST A MINIMUM OF 3/8 IN. DIAMETER. USE MINIMUM 2 X 2 X 1/8 IN. STEEL ANGLE OR SMACNA EQUIVALENT SUPPORT SYSTEM.
 - THERMAL CERAMICS DUCT ENCLOSURE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
 - THERMAL CERAMICS DUCT WRAP SHALL BE INSTALLED ON THE DUCT FROM THE HOOD CONNECTION TO THE CONNECTION TO THE FAN.



6 COMMERCIAL KITCHEN GREASE DUCT SYSTEM
NO SCALE



7 GREASE HOOD DETAIL
NO SCALE

LEE B. MANSKE, A.I.A., N.C.A.R.B.
2422 N. RUTGERS COURT
WICHITA, KS 67205
316-749-5873

FREDDY'S FROZEN CUSTARD
WINFIELD DUNN PARKWAY
SEVIERVILLE, TN.



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LEE MANSKE, AIA

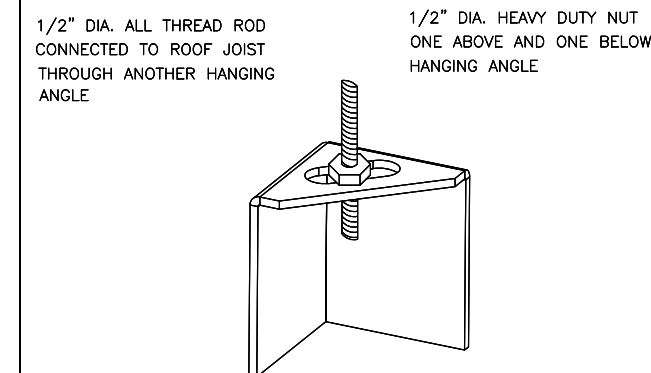
MECHANICAL DETAILS

DATE
5/2/2022

DRAWN BY:
CHECKED BY:

SHEET NO.
M2

ND-2 HANGING ANGLE DETAIL



ROD AND NUTS TO BE SUPPLIED BY INSTALLING CONTRACTOR. HANGING ANGLE IS PRE-FURNISHED AT FACTORY.

HANGING ANGLE LOCATIONS

HOOD STYLE	DIM FROM REAR	DIM FROM FRONT (24" H)	DIM FROM FRONT (30" H)
CANOPY ND2	4.166"	2.246"	2.246"
ND2-PSP-F	4.166"	2.246"	2.246"
BACKSHELF BD-2	4.166"	2.246"	-
VHB/VHB-G	36"x36"	42"x42"	48"x48"
FRONT/BACK DIMS BY SIZE	2.246"	2.246"	2.246"

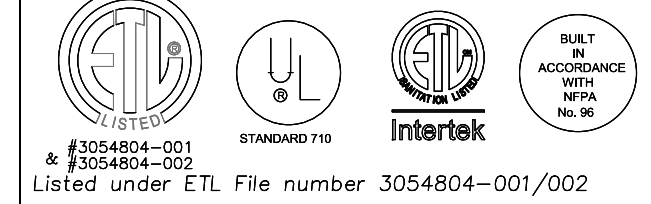
CALCULATIONS UTILIZED

EXHAUST CFM=LENGTH OF HOOD X CFM/LIN.FT. (LOAD)
 SUPPLY CFM=EXHAUST CFM X PERCENTAGE REQUIRED
 TOTAL DUCT AREA=144 X $\frac{CFM}{FMQ}$
 DUCT LENGTH= $\frac{TOTAL DUCT AREA}{DUCT DEPTH}$

*CAPTIVE-AIRE DUCT CONNECTION SIZES ARE CALCULATED USING AN EXHAUST VELOCITY OF 1500-1800 FPM AND A SUPPLY VELOCITY OF 300-400 FPM.

BUILDING CODES

CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH:



CLEARANCE TO COMBUSTIBLES

CAPTIVE-AIRE HOODS HAVE OPTIONAL CLEARANCE REDUCTION SYSTEMS AVAILABLE AS FOLLOWS:

MATERIAL	CLEARANCE REDUCTION SYSTEM
NON-COMBUSTIBLE	NONE REQUIRED
LIMITED-COMBUSTIBLE	3" UNINSULATED STANDOFF
COMBUSTIBLE	1" INSULATED STANDOFF

GENERAL NOTES

INSTALLATION

- ALL ELECTRICAL "FIELD" CONNECTIONS AND RELATED INTERCONNECTIONS BY ELECTRICAL CONTRACTORS.
- ALL PLUMBING "FIELD" CONNECTIONS AND RELATED INTERCONNECTIONS BY PLUMBING CONTRACTORS.
- HANGING BRACKETS LOCATED AND WELDED AS SHOWN ON PLANS. ALL OTHER HANGER MATERIALS PROVIDED BY INSTALLING CONTRACTORS.
- ALL CONNECTIONS FROM CAPTIVE-AIRE DUCT PER MECHANICAL CONTRACTOR'S PLANS.
- COOKING EQUIPMENT TO SHUT-OFF IN EVENT OF FIRE.
- EXHAUST FANS TO TURN ON IN EVENT OF FIRE.
- ALL LIGHTS FEATURE SHOWN INSTALLED BY CAPTIVE-AIRE ARE FACTORY PREPARED. INTERCONNECTIONS BETWEEN HOODS AND TO SWITCHES BY ELECTRICAL CONTRACTORS.
- WIRING FOR LIGHT FIXTURES BY INSTALLING CONTRACTORS.
- SEISMIC RESTRAINTS ARE RESPONSIBILITY OF INSTALLING CONTRACTOR.
- INSTALLING CONTRACTORS ASSUME ALL RELATED RESPONSIBILITY FOR VERIFICATION OF DIMENSIONAL DATA CONTAINED ON THESE DOCUMENTS FOR ACCURACY, INTEGRATION, AND ADMINISTRATION OF CODE REQUIREMENTS IN EFFECT PRIOR TO ANY RELEASE FOR PRODUCTION OF EQUIPMENT SHOWN.

BALANCE

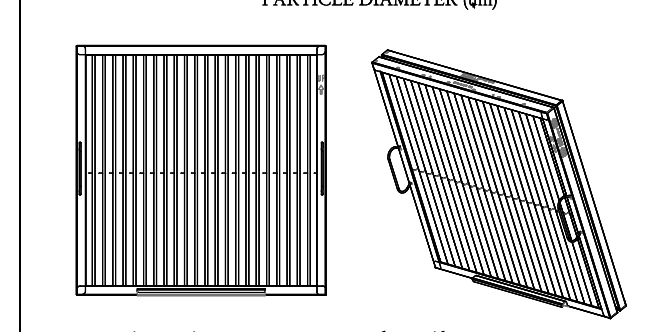
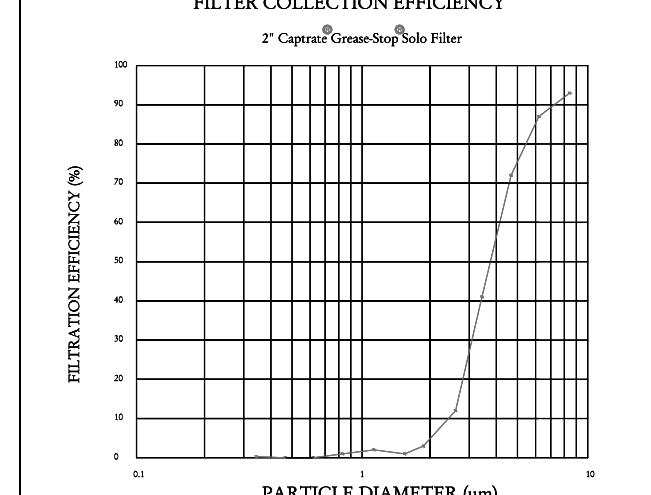
- KITCHEN HOODS MUST BE BALANCED WITH KITCHEN.
- KITCHEN SHALL BE NEGATIVE WITH RESPECT TO DINING AREA.
- RESTAURANT SHALL BE POSITIVE WITH RESPECT TO AMBIENT PRESSURE.

ADDITIONAL

- WRITTEN HOOD DIMENSIONS HAVE PRECEDENCE OVER SCALE.
- SIGNED AND "APPROVED" COPIES OF THIS DOCUMENT MUST BE RECEIVED BY FACTORY PRIOR TO COMMENCEMENT OF FABRICATION.

FILTER DETAIL

1" CAPTRATE SOLO FILTER



CaptiveAire Captrate Solo Filter
 ETL Listed Grease Extracting Filters
 Made From 430 Stainless Steel

HOOD INFORMATION - JOB#5388353

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FIT	TOTAL EXH CFM	EXHAUST PLENUM (RISERS)			MAX CFM	AC CFM	HOOD CONSTRUCTION	HOOD CONFIG			
										WIDTH	LENG	HEIGHT				END TO END	ROW		
1	GRIDDLE HD	5424	CAPTIVEAIRE	8'0"	450 DEG	I	MEDIUM	200	1600	14"	14"	1600	1407	-0.734"	1260	505	430 SS WHERE EXPOSED	ALONE	FRONT
2	FRY HD	5424	CAPTIVEAIRE	5'0"	450 DEG	I	MEDIUM	175	875	4"	10"	875	1004	-0.056"	700	275	430 SS WHERE EXPOSED	ALONE	ALONE
3	DISH HD	4224	CAPTIVEAIRE	3'6"	700 DEG	II	NA	150	525	4"	10"	525	963	-0.069"	0	0	100%	ALONE	ALONE

PATENT NUMBERS
 AC-PSP (UNITED STATES) - US PATENT #60300 B2
 AC-PSP (CANADA) - CA PATENT 2520500
 AC-PSP (ISLAND (CANADA)) - CA PATENT 2520500

HOOD INFORMATION

HOOD NO	TAG	TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	UTILITY CABINET(S)		ELECTRICAL	SWITCHES	FIRE HOOD SYSTEM	HOOD HANGING WEIGHT
												TYPE	SIZE				
1	GRIDDLE HD	CAPTRATE SOLO FILTER	5	16"	16"	85% SEE FILTER SPEC	2	RECESSED ROUND	NO	LEFT	12"x54"x24"			DCV2111	1 LIGHT 1 FAN	NO	660 LBS
2	FRY HD	CAPTRATE SOLO FILTER	3	16"	16"	85% SEE FILTER SPEC	2	RECESSED ROUND	NO							NO	421 LBS
3	DISH HD		0				0									NO	151 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	GRIDDLE HD	FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT. LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT. RIGHT END PANEL 54" TOP WIDTH, 48" BOTTOM WIDTH, 48" HIGH 430 SS. LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. RISER SENSOR INSTALL ON PLENUM
2	FRY HD	FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT. LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT. RIGHT END PANEL 54" TOP WIDTH, 48" BOTTOM WIDTH, 48" HIGH 430 SS. LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
3	DISH HD	FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.

PERFORATED SUPPLY PLENUM(S)

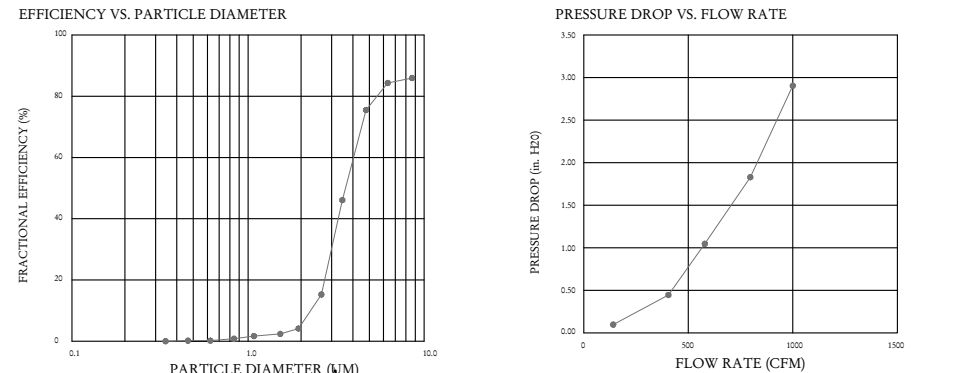
HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISERS		
							WIDTH	LENG	QTY
1	GRIDDLE HD	Front	106"	24"	6"	MJA	12"	256	0.084"
							12"	256	0.084"
							12"	256	0.084"
							12"	256	0.084"
							8"	101	0.033"
							8"	101	0.033"
							8"	101	0.033"
							8"	101	0.033"
							8"	101	0.033"
							8"	101	0.033"
							8"	101	0.033"
							8"	101	0.033"
2	FRY HD	Front	60"	24"	6"	MJA	12"	233	0.070"
							12"	233	0.070"
							12"	233	0.070"
							12"	233	0.070"
							8"	92	0.028"
							8"	92	0.028"
							8"	92	0.028"
							8"	92	0.028"
							8"	92	0.028"
							8"	92	0.028"
							8"	92	0.028"
							8"	92	0.028"

SPECIFICATION: CAPTRATE GREASE-STOP SOLO FILTER

THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.
 FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2 INCH DEEP HOOD CHANNELS.

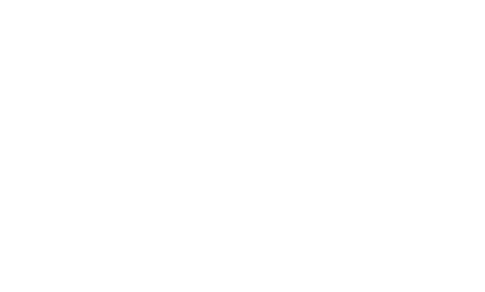
UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.
 THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2181-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER EFFICIENCY VS PARTICLE DIAMETER.



CAPTIVE FILTERS ARE BUILT IN COMPLIANCE WITH:

- NEPA #56
- ISE STANDARD #2
- UL STANDARD #166
- NET MECH CODE (IMC)
- ULC-S640



IT IS THE RESPONSIBILITY OF THE ARCHITECT/OWNER TO ENSURE THAT THE HOOD CLEARANCE FROM LIMITED-COMBUSTIBLE AND COMBUSTIBLE MATERIALS IS IN COMPLIANCE WITH LOCAL CODE REQUIREMENTS.



IT IS THE RESPONSIBILITY OF THE ARCHITECT/OWNER TO ENSURE THAT THE HOOD CLEARANCE FROM LIMITED-COMBUSTIBLE AND COMBUSTIBLE MATERIALS IS IN COMPLIANCE WITH LOCAL CODE REQUIREMENTS.



IT IS THE RESPONSIBILITY OF THE ARCHITECT/OWNER TO ENSURE THAT THE HOOD CLEARANCE FROM LIMITED-COMBUSTIBLE AND COMBUSTIBLE MATERIALS IS IN COMPLIANCE WITH LOCAL CODE REQUIREMENTS.

FOR QUESTIONS, CALL THE KANSAS CITY REGIONAL OFFICE
 1126 SWIFT STREET, KANSAS CITY, MO 64116
 PHONE: (816) 221-8575
 FAX: (816) 221-8311

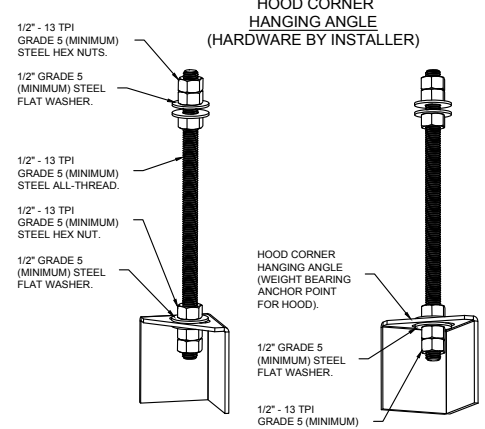
CUSTOMER APPROVAL TO MANUFACTURE:

Approved as Noted
 Approved with NO Exception Taken
 Revise and Resubmit
 SIGNATURE _____
 Your Title _____ Date _____

***** NOTE *****
 ALL WALLS AND STRUCTURES THAT COME WITHIN 18" OF HOOD MUST BE METAL STUDS AND SHEETROCK. WOOD STUDS OR ANY OTHER COMBUSTIBLE MATERIAL WITHIN 18" OF HOOD NO ALLOWED.

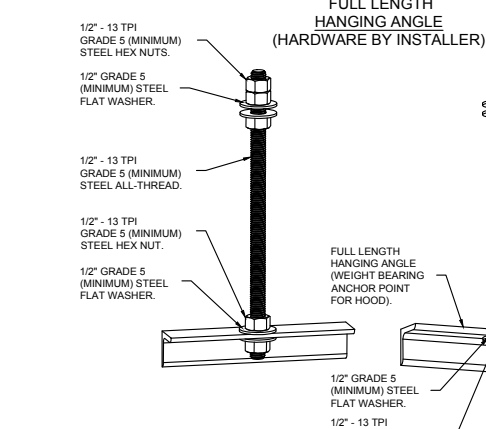
***** NOTE *****
 HOOD MANUFACTURER RECOMMENDS NO RETURNS OR 4-WAY DIFFUSERS WITHIN 10 FEET OF HOOD IN ALL DIRECTION.

***** NOTE *****
 MAKEUP AIR SHALL BE DELIVERED INTO SPACE IN MANNER THAT WILL NOT DISRUPT HOODS ABILITY TO CAPTURE AND CONTAIN.



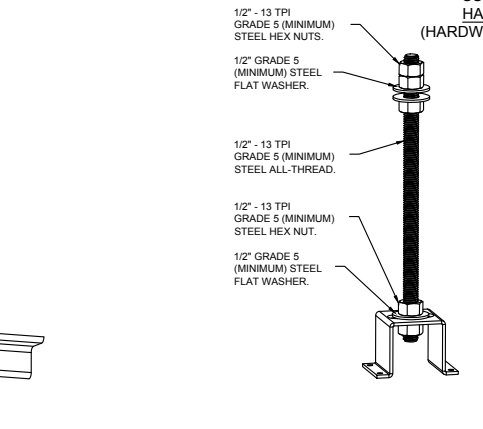
ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD, SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR PSP. FULL LENGTH HANGING ANGLES: MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



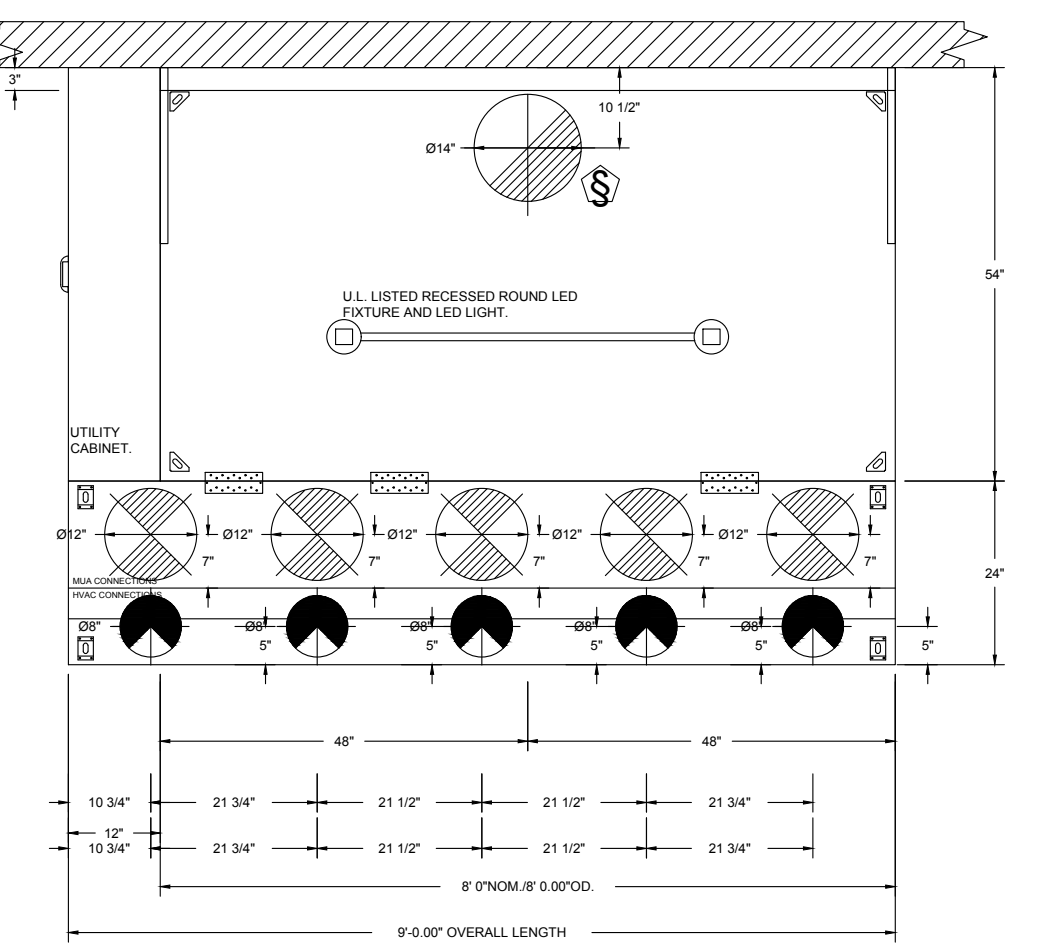
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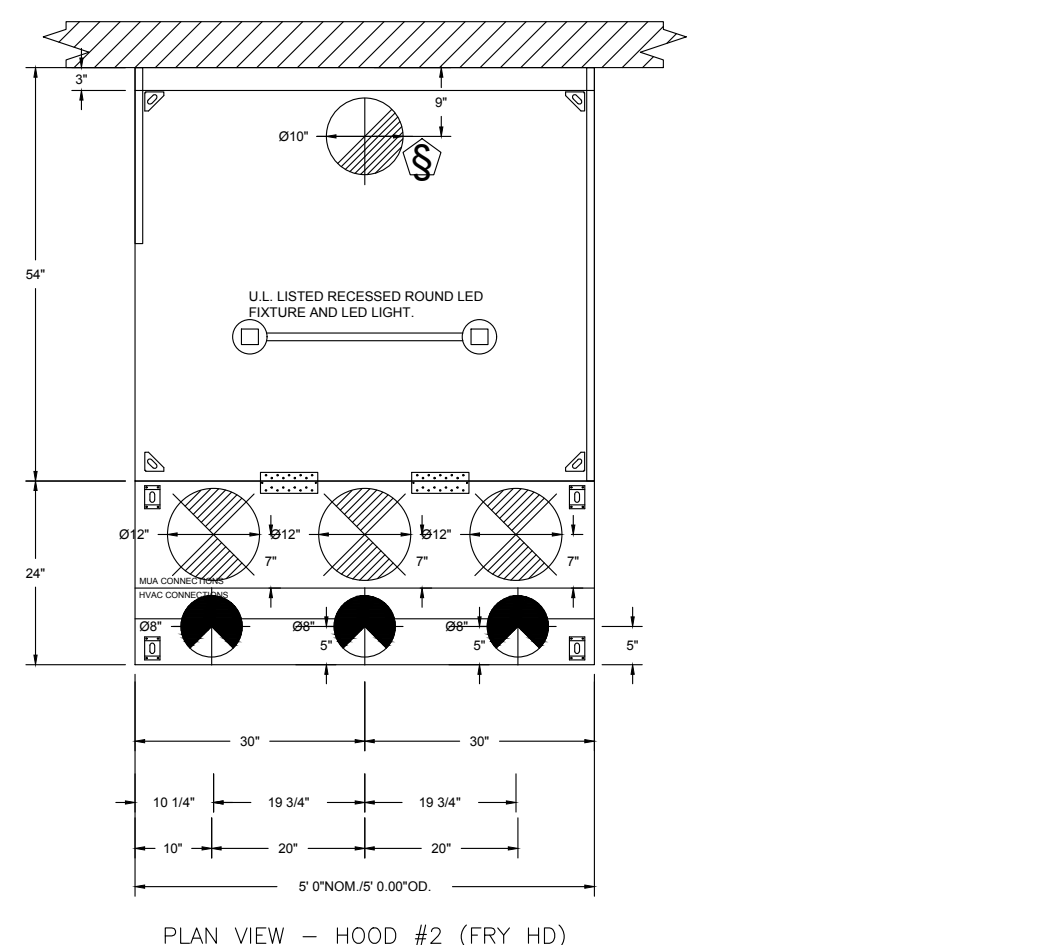
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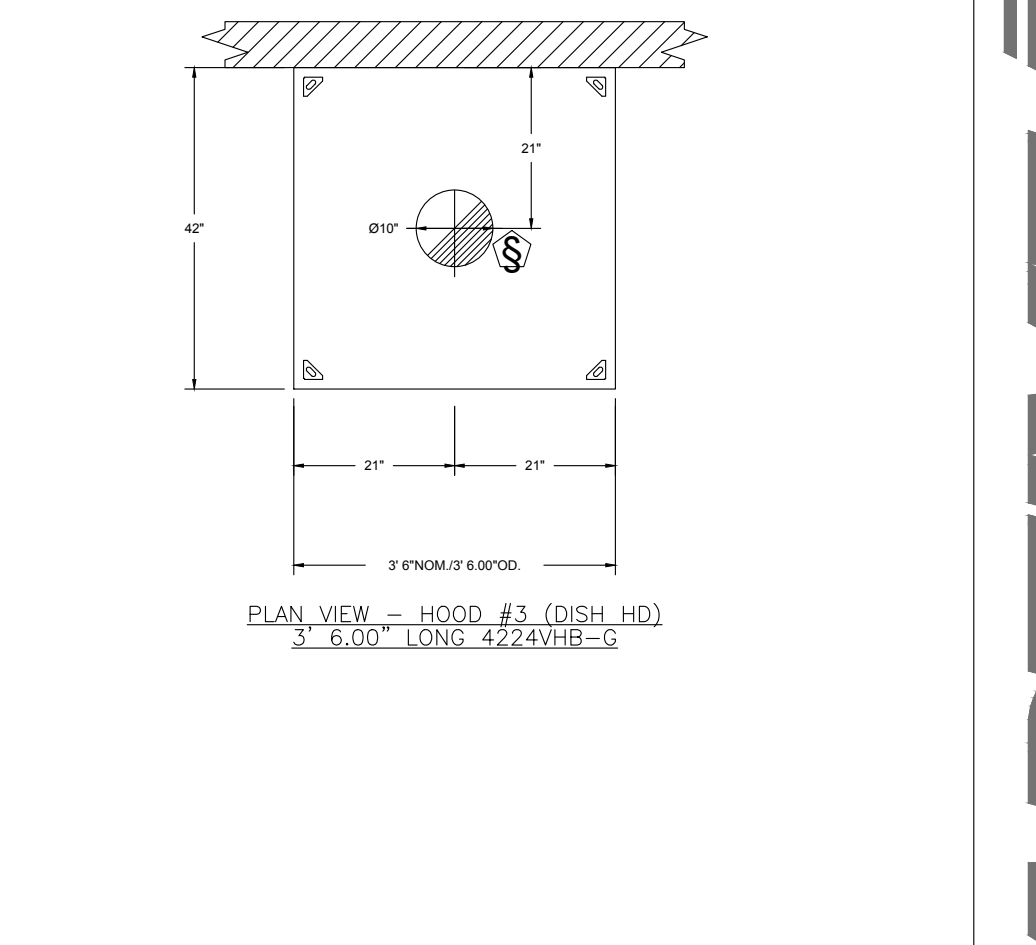
PLAN VIEW - HOOD #1 (GRIDDLE HD)
 9' 0.00" LONG 54.24ND-2-ACPS-P-F

ACPS-P SHIPS LOOSE FOR FIELD INSTALLATION

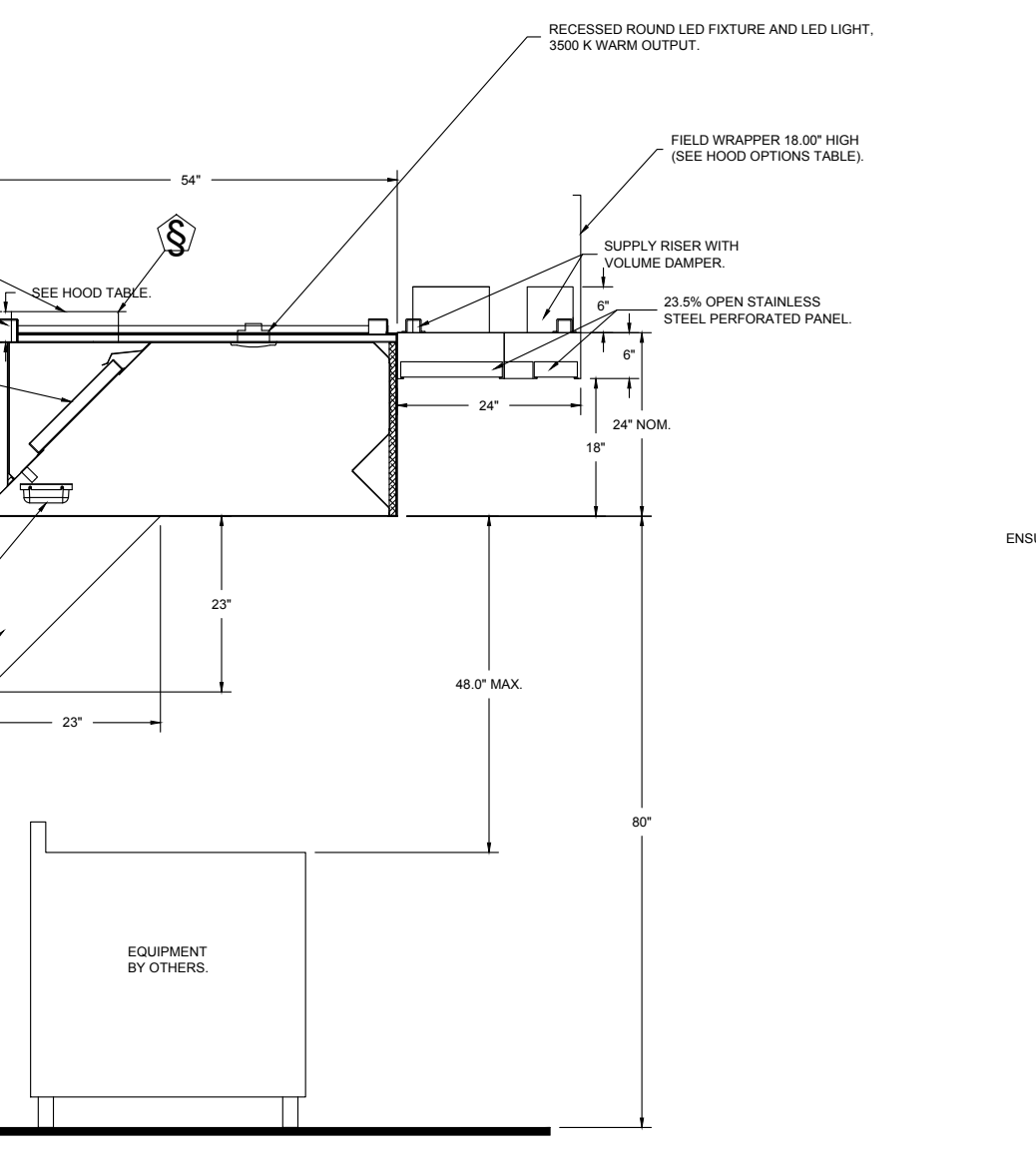


PLAN VIEW - HOOD #2 (FRY HD)
 5' 0.00" LONG 54.24ND-2-ACPS-P-F

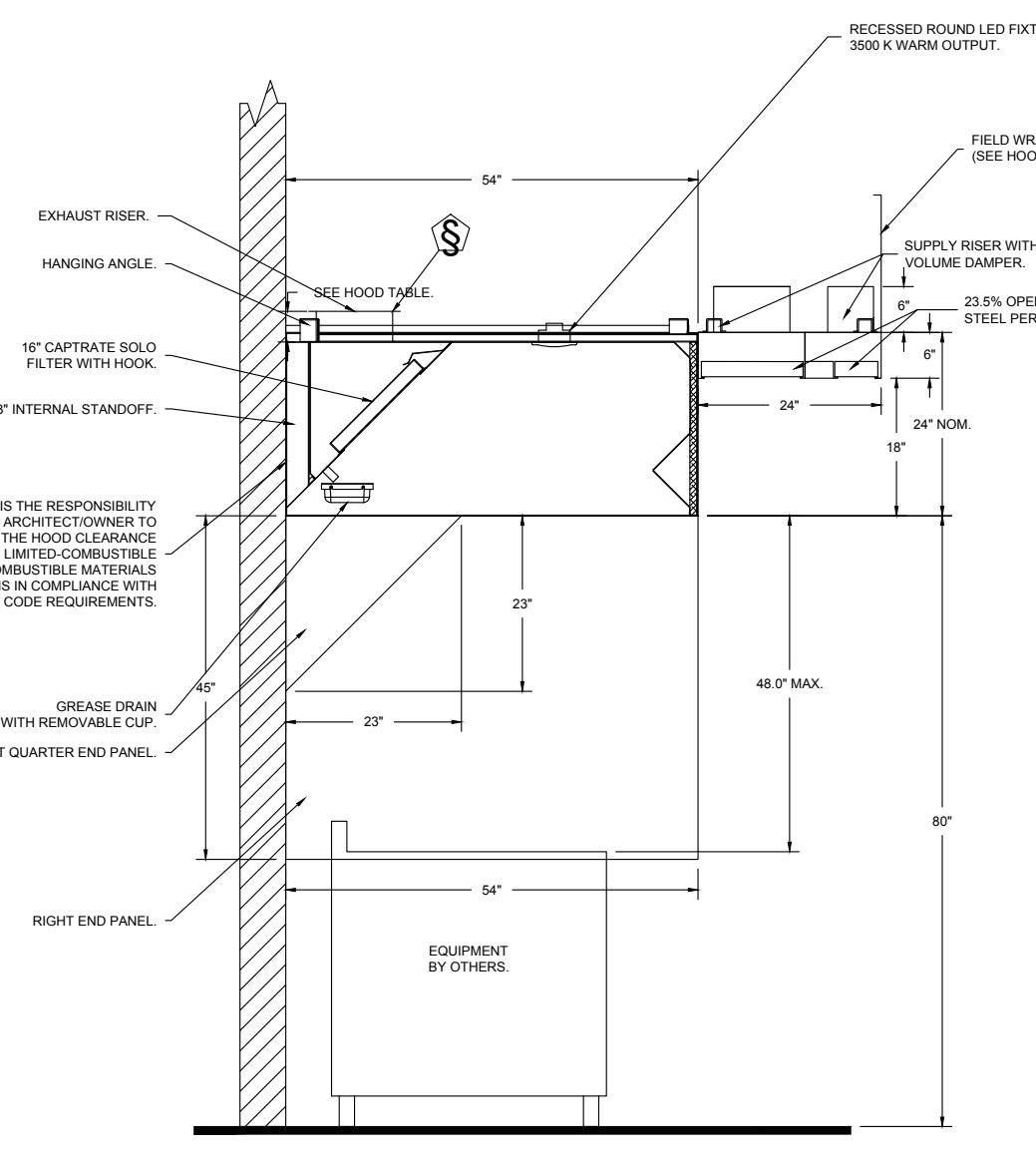
ACPS-P SHIPS LOOSE FOR FIELD INSTALLATION



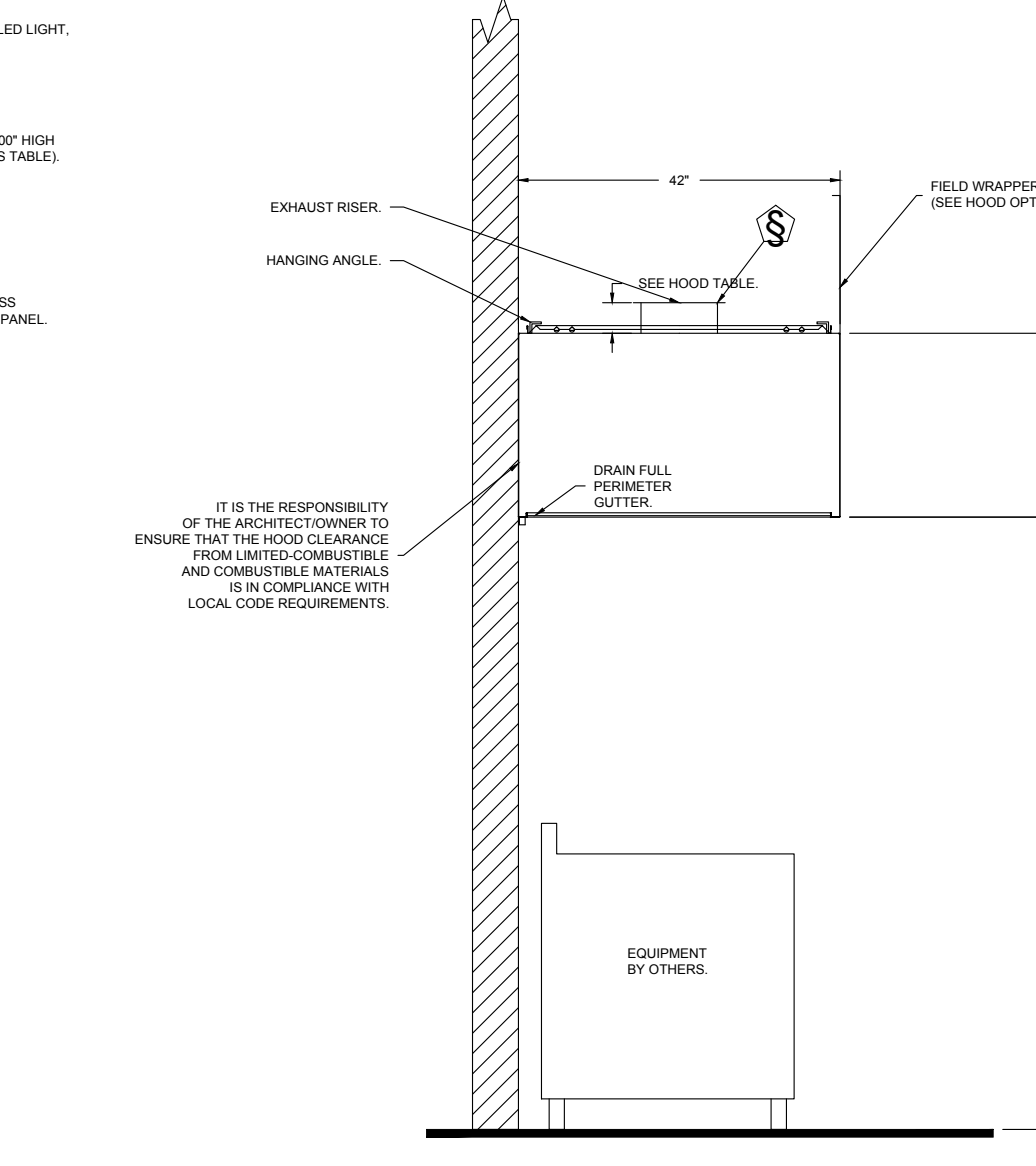
PLAN VIEW - HOOD #3 (DISH HD)
 3' 6.00" LONG 42.24VHB-G



SECTION VIEW - MODEL 5424ND-2-ACPS-P HOOD - #1 (GRIDDLE HD)



SECTION VIEW - MODEL 5424ND-2-ACPS-P HOOD - #2 (FRY HD)



SECTION VIEW - MODEL 4224VHB-G HOOD - #3 (DISH HD)

REVISIONS

DESCRIPTION	DATE



CAPTIVEAIRE
 HBT Foodservice

Freddy's - Sevierville, TN
 SEVIERVILLE, TN, 37876

DATE: 3/9/2022

DWG.#: 5368353

DRAWN BY: michael.co

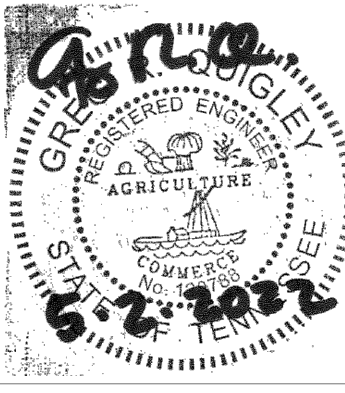
SCALE: 1/2" = 1'-0"

MASTER DRAWING

SHEET NO. 1

LEE B. MANSKE, A.I.A., N.C.A.R.B.
 2422 N. RUTGERS COURT
 WICHITA, KS 67205
 316-749-5673

FREDDY'S FROZEN CUSTARD
 WINFIELD DUNN PARKWAY
 SEVIERVILLE, TN.



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LEE MANSKE, AIA

DATE

5/2/2022

DRAWN BY:

CHECKED BY:

SHEET NO.

M3

