HOOD INFORMATION – JOB#5389523

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM WIDTH	EXHAUST PLENUM LENG	RISER(S) HEIGHT	RISER(S) DIA	RISER(S) CFM	RISER(S) VEL	RISER(S) SP	TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG END TO END	HOOD CONFIG ROW
1	HD 1	7824 EX-2-PSP-F	ECON-AIR	10' 0"	600 DEG	I	HEAVY	200	2000			4"	14"	2000	1871	-0.534"	1600	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S) TYPE	FILTER(S) QTY	FILTER(S) HEIGHT	FILTER(S) LENGTH	FILTER(S) EFFICIENCY @ 7 MICRONS	LIGHT(S) QTY	LIGHT(S) TYPE	LIGHT(S) WIRE GUARD	UTILITY CABINET(S) LOCATION	UTILITY CABINET(S) SIZE	FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
1	HD 1	SS BAFFLE WITH HANDLES	7	16"	16"	30%	4	L55 SERIES E26	NO	RIGHT	12"x78"x24"			SC-311110MA	1 LIGHT 1 FAN	NO	711 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	HD 1	FIELD WRAPPER 6.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 80.00" HIGH X 132.00" LONG 430 SS VERTICAL.
		BACKSPLASH 108.00" HIGH X 18.00" LONG 430 SS VERTICAL.
		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.

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S) WIDTH	RISER(S) LENG	RISER(S) DIA	RISER(S) CFM	RISER(S) SP
1	HD 1	Front	132"	14"	6"	MUA	12"	24"		800	0.240"
						MUA	12"	24"		800	0.240"

EXHAUST FAN INFORMATION – JOB#5389523

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	KEF 1	1	EADU85H	ECON-AIR	2000	1.200	1520	TEAO-ECM	1.000	0.6160	1	230	6.5	633 FPM	92	16.3

MUA FAN INFORMATION – JOB#5389523

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
2	KMUA	1	EA2-D.250-20D	20MF-2-MOD	A2-D.250	2000	3500	0.600	1431	ODP,PREMIUM	3.000	1.6300	3	230	8.6	10.8A	15A	670	13.5

GAS FIRED MAKE-UP AIR UNIT(S)

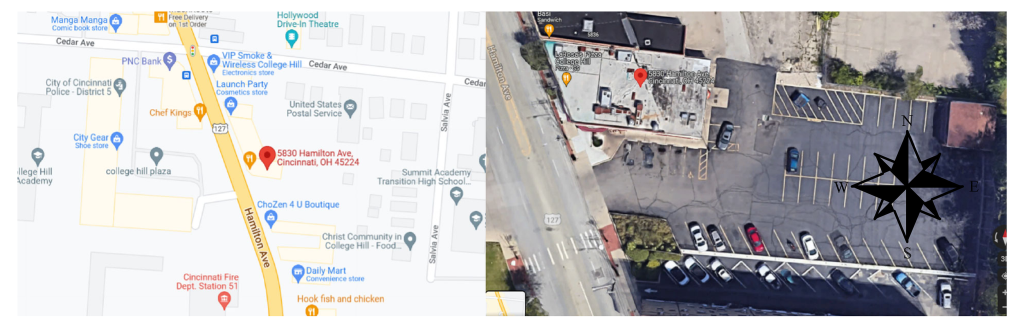
FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
2	KMUA	256159	235666	65°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92

FAN ACCESSORIES

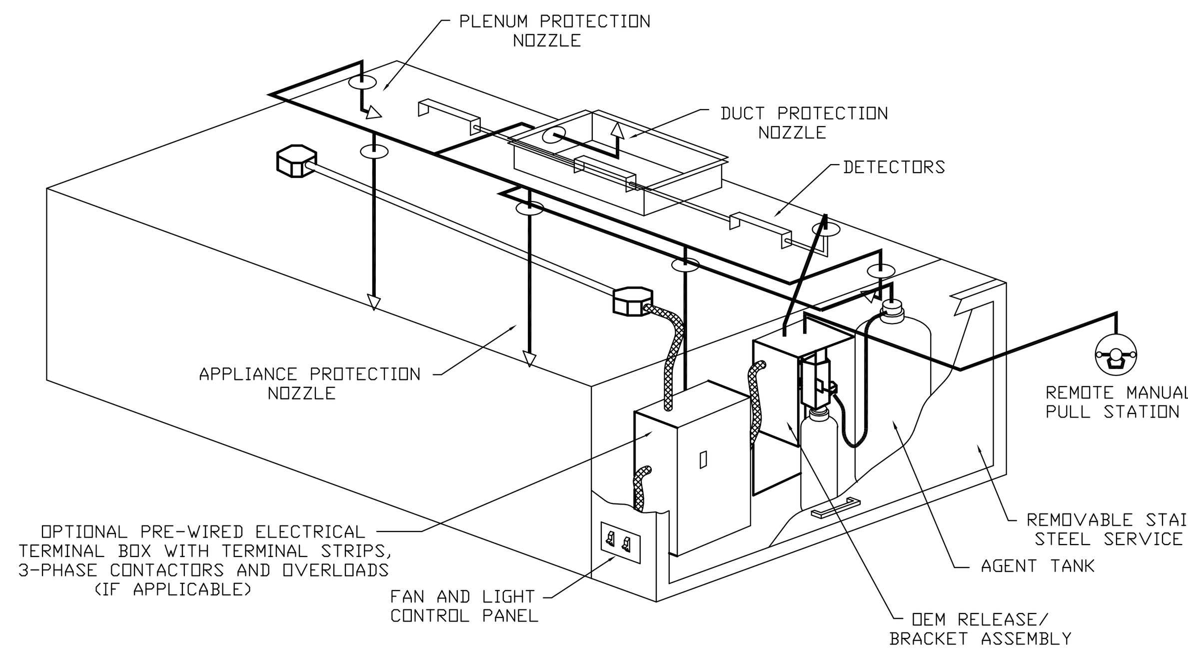
FAN UNIT NO	TAG	EXHAUST GREASE CUP	EXHAUST GRAVITY DAMPER	EXHAUST WALL MOUNT	SUPPLY SIDE DISCHARGE	SUPPLY GRAVITY DAMPER	SUPPLY MOTORIZED DAMPER	SUPPLY WALL MOUNT
1	KEF 1	YES						
2	KMUA				YES		YES	

CURB ASSEMBLIES

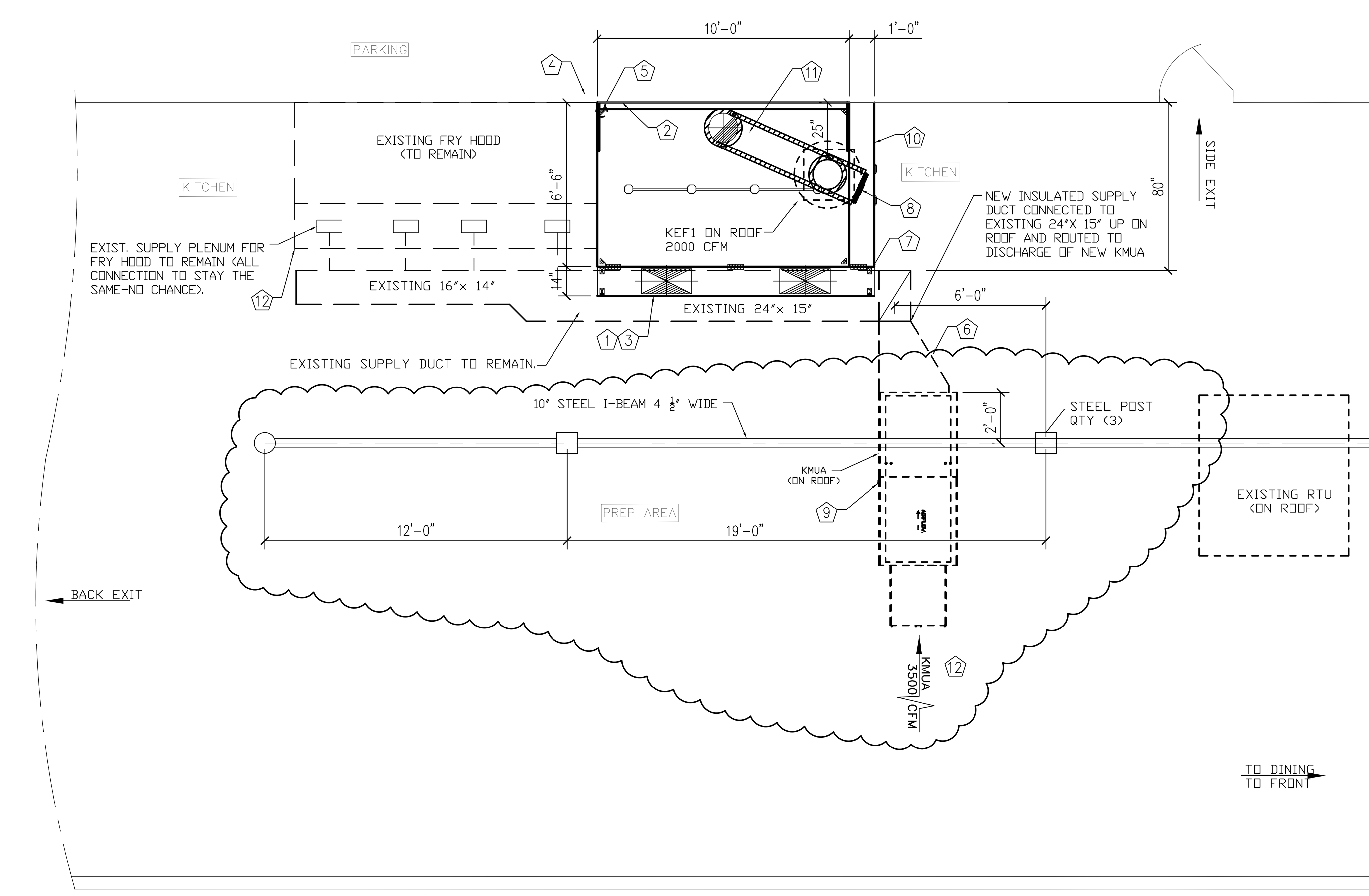
NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1		KEF1	22 LBS	EXHAUST ADAPTER	FROM 24.000"SQ TO 23.000"SQ X 9.000"H.
2	# 2	KMUA	76 LBS	CURB	31.000"W X 79.000"L X 16.000"H ALONG WIDTH, RIGHT INSULATED.



SITE / ROOF PLAN VIEW



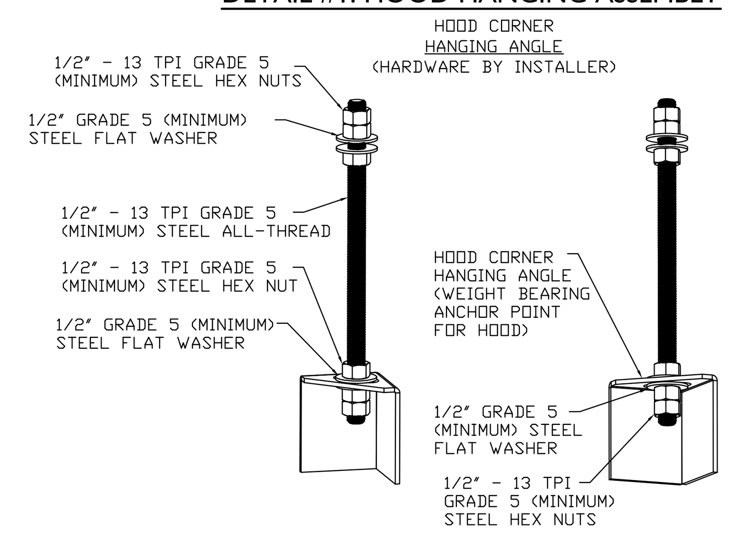
TYPICAL ANSUL R-102 SYSTEM LAYOUT



PLAN VIEW - HOOD #1

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

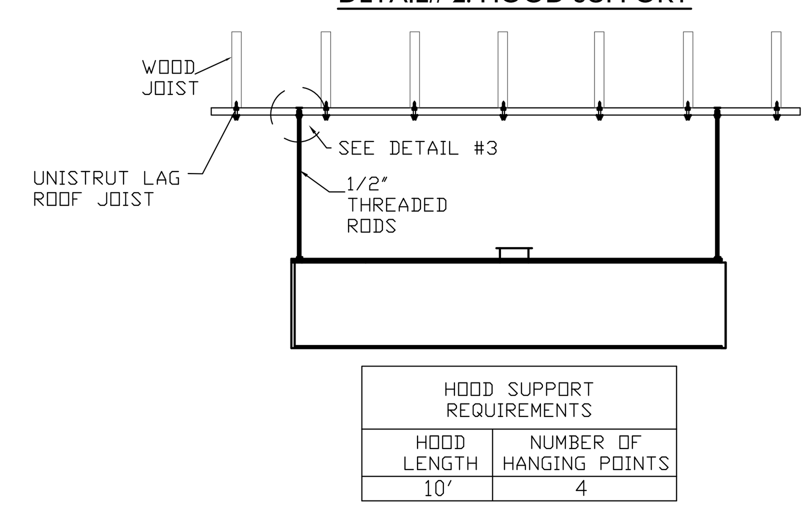
DETAIL #1: HOOD HANGING ASSEMBLY



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 BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

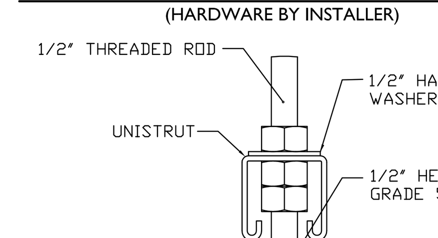
DETAIL# 2: HOOD SUPPORT

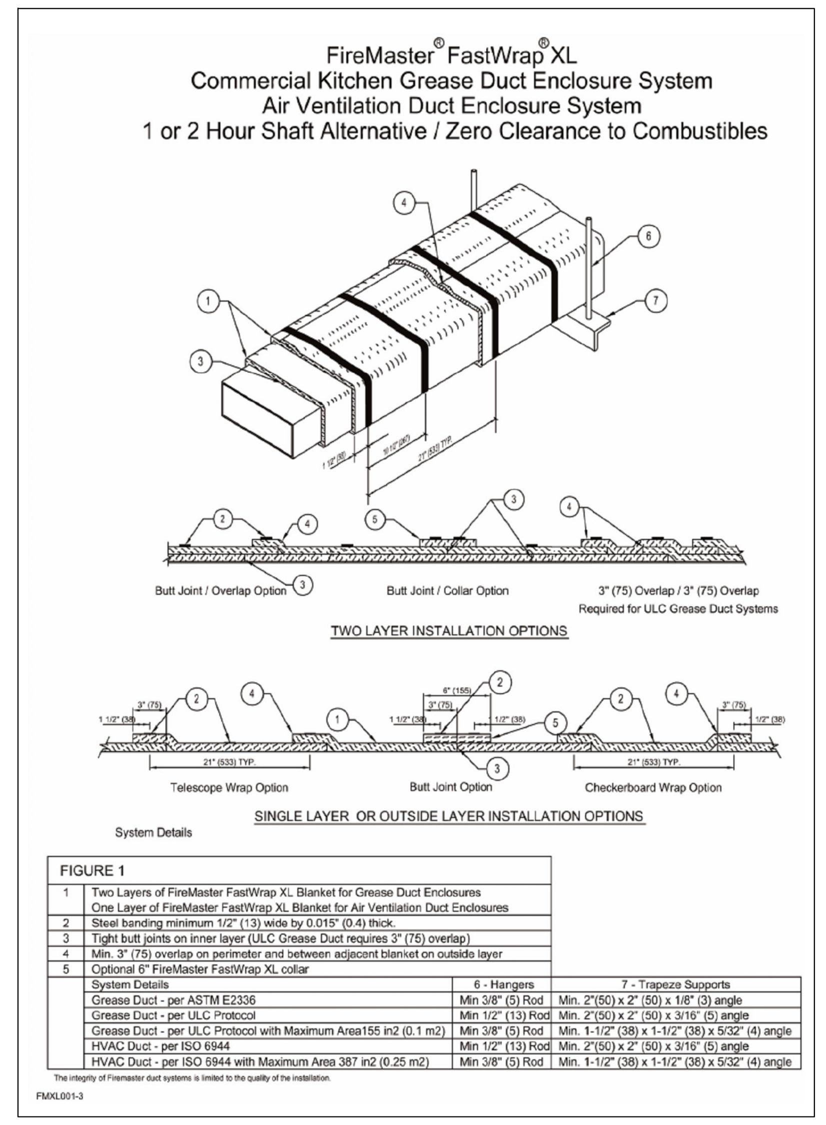


HOOD SUPPORT REQUIREMENTS	
HOOD LENGTH	NUMBER OF HANGING POINTS
10'	4

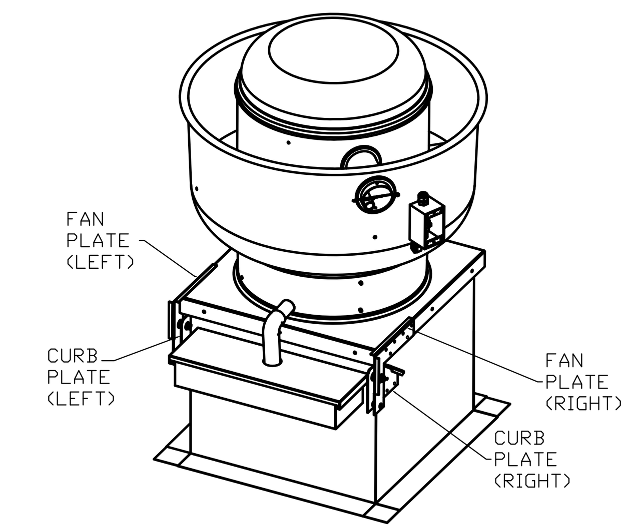
DETAIL #3: HANGING ROD TO UNISTRUT

(HARDWARE BY INSTALLER)

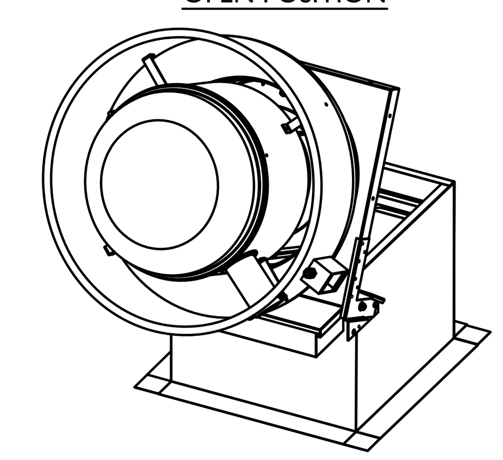




CLOSED POSITION



OPEN POSITION



GREASE FAN DETAIL

GENERAL NOTES

NOTE 1
THE HOOD INSTALLATION FOLLOWS THE OMC-2017, NFPA96, AND ETL LISTINGS WHICH COMPLIES TO UL710 FOR GREASE APPLICATIONS. THE FAN FOLLOWS UL762 FOR GREASE APPLICATION & UL705 FOR SOUND RATING. ALL DUCTWORK IS IN COMPLIANT TO SMACNA GUIDELINES.

NOTE2
A PERMANENT FALL ARREST/RESTRAINT ANCHOR CONNECTOR THAT COMPLY WITH ANSI/ASSE Z 359.1 SHALL BE MOUNTED TO A PERMANENT STRUCTURE ON ROOF THAT IS BEYOND 10 FT FROM EDGE OF ROOF TO ALLOW FOR FALL PROTECTION FOR FUTURE SERVICE WORK PER EXCEPTION OF OMC 304.11

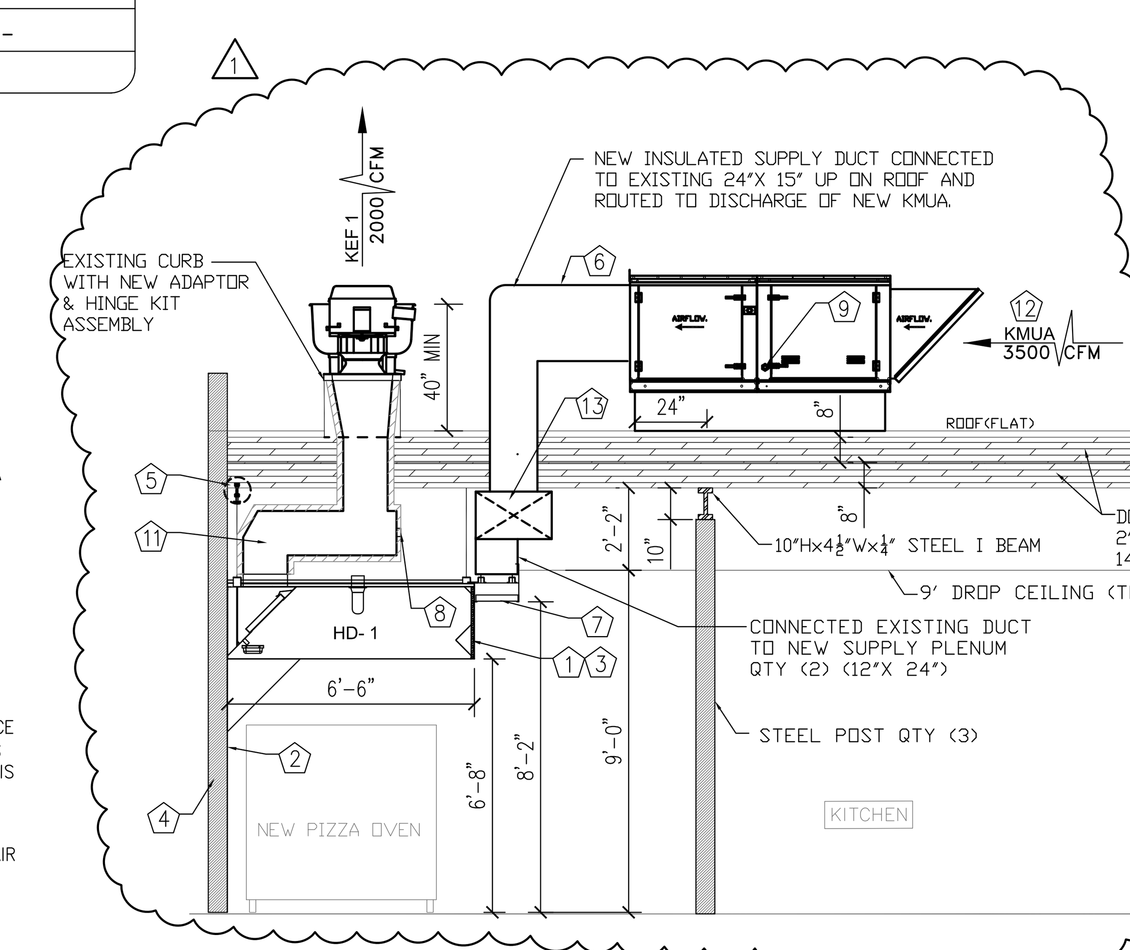
AIR BALANCE SCHEDULE

TAG	ROOMS SERVED	O.A. CFM	EXHAUST CFM
KEF-1	KITCHEN	–	- 2000
KEF-2 (FRY)	KITCHEN	EXIST. TO REMAIN (AS IS)	
KMUA	KITCHEN	+ 3500	–
HVAC	BUILDING	+ 1500 (MIN)	–

KITCHEN TO MAINTAIN A SLIGHTLY NEGATIVE PRESSURE. OVERALL BUILDING PRESSURE TO BE BETWEEN -0.02" TO +0.02" WC PER IMC COMMENTARY RECOMMENDATIONS

KEY NOTES

1. CAPTIVE-AIRE ETL LISTED HOOD IN ACCORDANCE TO UL710 SEE CAPTIVE-AIRE SHOP DWGS.
2. STAINLESS STL. WALL PANEL BELOW & RIGHT & LEFT OF HOOD FROM FLOOR TO CEILING. ALSO 18" PASS THE HOOD TO LEFT & RIGHT (MINIMUM).
3. CANOPY TYPE HOOD. TO OVERHANG ON FRONT BY 6" FROM COOKING SERVICE (SEE CAPTIVE-AIRE LISTING SHEET).
4. METAL STUD WALL & SHEET ROCK
5. HANGING ROD (SEE DETAILS #1, #2 & #3)
6. 24"X 15" (OR EQUIV) DUCT TO KMUA ON ROOF.
7. NEW CAPTIVE-AIRE SUPPLY PLENUM FOR PIZZA HOOD.
8. GREASE CLEANOUT DOOR (REMOVABLE BY HAND)
9. ALL GAS & ELECTRIC TO KMUA ON ROOF BY OWNER.
10. HOOD TO BE SUPPLIED WITH LISTED 12" CABINET TO HOUSE THE UL300 ANSUL SYSTEM & LISTED CAPTIVE-AIRE CONTROL PANEL (SEE C.A.S. DRAWINGS).
11. 14" DIA CAPTIVE-AIRE LISTED FACTORY BUILT GREASE DUCT WITH QTY (2) LAYERS OF FIREWRAP FOR ZERO CLEARANCE TO COMBUSTIBLES. (SEE SPECS ON DUCTWORK & FIREWRAP THIS SHEET).
12. MAKE-UP-AIR DESIGN TTO PROVIDE ADDITIONAL SUPPLY AIR TO EXISTING FRYER HOOD TO IMPROVE BUILDING PRESSURE (AIR BALANCE).
13. EXISTING SUPPLY DUCT TO REMAIN.



ELEVATION VIEW - HOOD #1 (HD-1)

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

RESPONSIBILTY MATRIX

A) REQUIREMENTS FOR FOOD SERVICE CONTRACTOR (F.E.C.)
1) HOOD, FANS, & ALL ASSOCIATED EXHAUST & SUPPLY DUCTWORK IS PROVIDED & INSTALLED BY FOODSERVICE CONTRACTOR
2) HOOD SYSTEM TO BE STARTED UP BY CONTRACTOR
A) SMOKE TEST ON THE HOODS IN FRONT OF THE OWNER TO ENSURE SATISFACTION WITH COOKING EQUIPMENT ON.
3) HOOD INSTALLER TO START UP KMUA HEATER OF KMUA, THEN FILL OUT FACTORY STARTUP
4) ALL WALL STAINLESS FOR UNDER & AROUND HOODS SHALL BE INSTALLED IF SUPPLIED.
5) ASSIST IN PROVIDING & SUBMITTING IN HOOD & ANSUL PERMIT DRAWINGS.
6) MOUNT FANS AS SHOWN ON DRAWINGS INCLUDING KMUA.
7) INSTALLER TO ENSURE ALL HOOD AND FAN ACCESSORIES ARE INSTALLED SUCH AS GREASE CUPS, HINGE KITS, FILTER INTAKES, AND ANY OTHER MISC. ITEMS SHIPPED WITH THE PRODUCT.
8) INSTALL ALL LISTED GREASE DUCT FROM CAPTIVE-AIRE SPECIFICATIONS WITH (2) LAYERS OF FIREWRAP..
9) INSTALL SUPPLY DUCT FROM KMUA TO EXISTING SUPPLY DUCT.

B) NOTES (REQUIREMENTS) FOR ELECTRICIAN:
1) FIELD WIRE FROM BUILDING PANEL TO CAPTIVE AIRE CONTROLS CABINET (HOOD MOUNTED PANEL) 1 PHASE (230V) POWER FOR SUPPLY FAN AND THEN FROM CAPTIVE AIRE PANEL WIRE (3-WIRE + GROUND) TO THE DISCONNECT ON THE KMUA FANS. THE POWER MUST BE IN SEPARATE CONDUITS DUE TO THE VFD'S.
2) WIRE 120V, 1 PHASE FROM SF1/N1 OF HD PANEL TO KMUA UNIT. ALSO WIRE A 18-3 GA WIRE FROM HOOD PANEL TO KMUA UNIT IN CEILING.
3) FIELD WIRE 1-PHASE, 230V FROM BUILDING PANEL DIRECTLY TO EXHAUST FAN DISCONNECT ON ROOF.
4) WIRE THE FACTORY SUPPLIED RED WIRE FROM FAN TO HOOD CONTROL PANEL ON HOOD & TIE INTO PIA & PIB.
5) FIELD WIRE FROM BUILDING PANEL TO CAPTIVE AIRE CONTROLS CABINET (HOOD MOUNTED) 1 PHASE, 120, 20 AMP CIRCUIT TO BE USED FOR LIGHTS & CONTROLS CIRCUITRY. THE LIGHTS ARE ALREADY CONNECTED TO CONTROL PANEL.
6) VERIFY THAT THE WIRE RED/BROWN WIRES ON ANSUL CABINET TO CAPTIVE-AIRES CONTROL PANEL C1 & AR1 TERMINALS.
7) FIELD WIRE THE DUCT SENSORS LOCATED IN EXHAUST COLLARS TO CAPTIVE AIRE CABINET. CAPTIVE AIRE SUPPLIES THE WHITE STAT WIRE & SHIPPED IN CABINET
8) FIELD WIRE & INSTALL ROOM SENSOR SUPPLIED BY CAPTIVE AIRE. MOUNT SENSOR 6' AWAY FROM HOOD UP HIGH. STAT WIRE PROVIDED BY CAPTIVE AIRE.
9) FIELD WIRE THE BUILDING ALARM SYSTEM (IF APPLICABLE) INTO THE ANSUL MICRO SWITCH LOCATED AT THE RIGHT END OF THE HOOD. IF NO BUILDING ALARM, INSTALL THE CAPTIVE AIRE SUPPLIED 120V HORN/LIGHT STROBE & WIRE TO ANSUL PANEL.
10) ELECTRICIAN MUST CHECK FAN ROTATION BY LOOKING AT YELLOW ARROWS MARKED ON FANS. IF ROTATION IS WRONG, REVERSE ANY 2 OF THE 3 PHASE LEADS ON THE LOAD SIDE.
11) IF ANY ELECTRIC UNDER HOOD, BREAKER MUST BE OF SHUNT TRIP TYPE & ELECTRICIAN TO WIRE FROM ST & N1 TERMINALS OF HOOD PANEL TO SHUNT TRIP DEVICE BY OTHERS.

C) FIELD NOTES (OTHER TRADES)
1) SITE PLUMBER TO INSTALL THE CAPTIVE-AIRE PROVIDED ANSUL GAS VALVE FOR EACH SYSTEM. PLUMBER TO FIELD INSTALL GAS VALVE INLINE WITH THE GAS PIPING GOING TO THE COOKING EQUIPMENT OF THE SYSTEM. PLUMBER TO COORDINATE WITH THE F.E.C. FOR ALL HOOK UP OF GAS COOKING EQUIPMENT & ENSURE ALL GAS IS VENTED ONCE HOOKED UP. USE GAS REGULATORS TO MAINTAIN 7-14" OF GAS PRESSURE.
2) PLUMBER TO SUPPLY & INSTALL GAS LINE TO KMUA ON ROOF.

D) GENERAL CONTRACTOR/OWNER RESPONSIBILITIES:
1) GC IS RESPONSIBLE TO HOLD A COORDINATION MEETING WITH ALL TRADES TO ENSURE UNDERSTANDING OF REQUIREMENTS AND MAKE SURE THERE ARE NO CONFLICTS THROUGHOUT THE PROJECT & ASSIST AS REQUIRED
2) GC IS RESPONSIBLE FOR ANY BUILDING CONSTRUCTION CHANGES OR STRUCTURAL REQUIREMENTS TO INCLUDE BUT NOT LIMITED TO: HOOD WALL READY TO ACCEPT WALL STAINLESS & HOOD, ANY REQUIREMENTS TO HEAD OFF JOIST FOR DUCT ROUTING, ANY STRUCTURAL SUPPORTS REQUIRED TO SHORE UP BUILDING OR STRUCTURE, AND ANY FINISHED CEILING WORK, CEILING WORK, DEMO, OR COSMETIC & PATCHING WORK.
3) PROVIDE A WORKING CONSTRUCTION SCHEDULE TO ALL TRADES.
4) RESPONSIBLE TO REMOVE EXISTING OVEN & SMALL WARES TO ALLOW HOOD TO BE INSTALLED.
5) GC RESPONSIBLE FOR ANY CEILING WORK.

GREASE DUCT SPECIFICATION – SINGLE WALL

FURNISH SINGLE-WALL, FACTORY BUILT, GREASE DUCT FOR USE WITH TYPE I KITCHEN HOODS, WHICH CONFORMS TO THE REQUIREMENTS OF NFPA-96.
PRODUCTS SHALL BE ETL LISTED TO UL-1978 FOR VENTING AIR AND GREASE VAPORS FROM COMMERCIAL COOKING OPERATIONS AS DESCRIBED IN NFPA-96.
THE DUCT WALL SHALL BE CONSTRUCTED OF .036 THICK TYPE 430 STAINLESS STEEL AND BE AVAILABLE IN DIAMETERS 8" THROUGH 24".
ALL SUPPORTS, FAN ADAPTERS, HOOD CONNECTIONS, FITTINGS AND EXPANSION JOINTS REQUIRED TO INSTALL GREASE DUCT SHALL BE INCLUDED.
ROOF PENETRATIONS SHALL COMPLY WITH LISTED CLEARANCE TO COMBUSTIBLES, SEE "CLEARANCE TO COMBUSTIBLES" GUIDE FOR DETAILS.
THE GREASE DUCT WILL TERMINATE AT THE FAN ADAPTER PLATE, WILL BE FULLY WELDED TO THE FAN ADAPTER PLATE AND THE FAN ADAPTER PLATE WILL BE FASTENED TO THE CURB USING A SUITABLY SIZED FASTENER PROVIDED BY OTHERS; SEE PAGE 12 OF THE "INSTALLATION, OPERATION AND MAINTENANCE MANUAL" FOR DETAILS.
GREASE DUCT JOINTS SHALL BE HELD TOGETHER BY MEANS OF FORMED VEE CLAMPS AND SEALED WITH 3M FIRE BARRIER 2000+. SCREWS USED TO SECURE THE VEE CLAMPS SHALL BE OF THE HEX-HEAD TYPE WITH FLANGED STOPS AND TAPERED "LEAD IN" THREADS FOR EASY STARTING. NUTS SHALL BE RETAINED BY MEANS OF A FREE-FLOATING CAGE TO ALLOW EASY ALIGNMENT.
SINGLE-WALL GREASE DUCT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S "INSTALLATION, OPERATION AND MAINTENANCE MANUAL", ETL LISTING AND STATE AND LOCAL CODES.
GREASE DUCT INSTALLED OUTSIDE OF THE BUILDING SHALL BE PROTECTED AGAINST ACCIDENTAL DAMAGE OR VANDALISM.
SUPPORT VERTICALLY INSTALLED GREASE DUCT FROM THE BUILDING STRUCTURE USING RIGID STRUCTURAL SUPPORTS. ANCHOR SUPPORTS TO THE STRUCTURE BY WELDING OR BOLTING STEEL EXPANSION ANCHORS OR CONCRETE INSERTS. SUPPORT HORIZONTALLY INSTALLED GREASE DUCT FROM THE BUILDING STRUCTURE USING ABOVE METHOD OR USE DUCT MATE, WIRE ROPE & CLUTCHERS, PARTNUMBERS WR20 & CL20. 1/2" THREADED ROD AND SADDLES MAY ALSO BE USED FOR THE SUPPORT OF HORIZONTAL GREASE DUCT.
FANS SHALL BE SUPPORTED INDEPENDENTLY FROM THE GREASE DUCT SECTIONS. PROTECT GREASE DUCT FROM TWISTING OR MOVEMENT CAUSED BY FAN TORQUE OR VIBRATION.

SUPPLY DUCT (SPECIFICATIONS):

1) SHEET METAL DUCTWORK SHALL BE FABRICATED OF GALVANIZED STEEL AND INSTALLED IN ACCORDANCE WITH SMACNA AND THE BUILDING AND MECHANICAL CODES
2) INSTALL DAMPERS AT ALL BRANCH DUCTS AS REQUIRED TO PROPERLY BALANCE THE SYSTEM

CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH UL 710 AND NFPA 96 AND ARE RECOGNIZED BY ONE OR MORE OF THE FOLLOWING:

ETL SANITATION LISTED

ETL LISTED FILE# 3054804-001

HOOD SYSTEM IS FABRICATED & DESIGNED PER UL-710 STANDARDS

FISCHER ENGINEERING SERVICES, LLC
MECHANICAL DESIGN & CONSULTING SERVICES
3872 Nottingham Ct.
Cleves, Ohio 45002
Ph: 513-675-1559

DATE: 04/22/22

DRAWN BY: JAH

SCALE: NONE

REVISION	DATE
1 Per City	06/01/22

LaRosa's
5830 Hamilton Ave
Cincinnati, OH 45224
NEW COMMERCIAL HOOD IN KITCHEN

MANAGED BY:
AIR SOLUTIONS, INC.
1329 E. KEMPER RD
CINCINNATI, OH 45246
PH: (513) 860-5555

SHEET NO: H-1