

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"

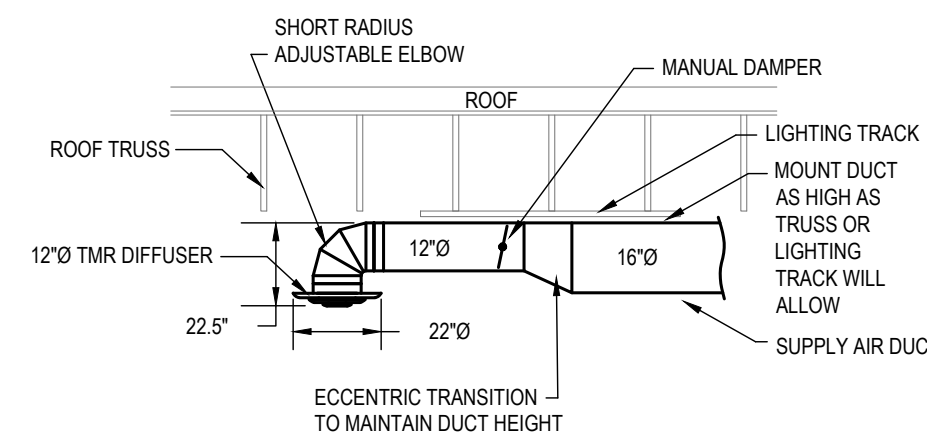


MECHANICAL LEGEND

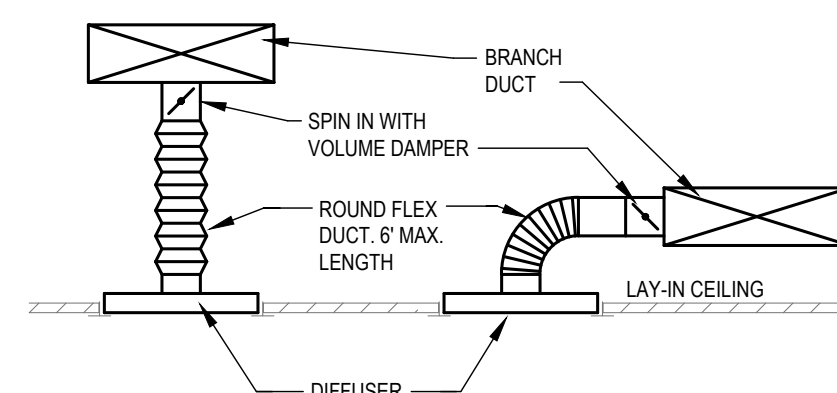
HVAC		HVAC		HVAC		MISC. SYMBOLS:	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	A-5x9 200 SUPPLY AIR DIFFUSER		ELBOW ROUND DUCT		ECCENTRIC TRANSITION		EQUIPMENT IDENTIFICATION
	C-22x10 RETURN AIR GRILLE		ROUND DUCT DROP / DOWN		DUCT OFFSET - RISE OR DROP		PLAN NOTE
	C-22x10 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		OBD OPPOSED BLADE DAMPER		SUPPLY AIR
	SUPPLY AIR DUCT RISE / UP		DUCT SIZE / DIMENSIONS FIRST SIZE TOP DIMENSION		PBD PARALLEL BLADE DAMPER		RETURN AIR
	SUPPLY DUCT DROP / DOWN		45° HIGH EFFICIENCY TAKE-OFF		T THERMOSTAT / SENSOR		EA EXHAUST AIR
	RETURN OR EXHAUST DUCT RISE / UP		45° HIGH EFFICIENCY TAKE-OFF WITH LOCKING QUAD. DAMPER		H HUMIDISTAT / SENSOR		OSA OUTSIDE AIR
	RETURN OR EXHAUST DUCT DROP / DOWN		CONCENTRIC TRANSITION		FS FIRE SMOKE DAMPER		RAG RETURN AIR GRILLE
	ELBOW WITH TURNING VANES		RECT. TO ROUND TRANSITION		FD FIRE DAMPER		

OUTDOOR AIR CALCULATION

UNIT	AREA (SQFT)	OCCUPANCY CLASSIFICATION	OCCUPANT DENSITY #/1000 SQFT	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	1130	DINING RM	70	7.5	0.18		...	0.8	802
	226	CORRIDORS	0	0	0.06		...	0.8	14
								TOTAL	816



DINING ROOM DIFFUSER DETAIL
SCALE: NONE



DIFFUSER DETAIL
SCALE: NONE

GENERAL NOTES:

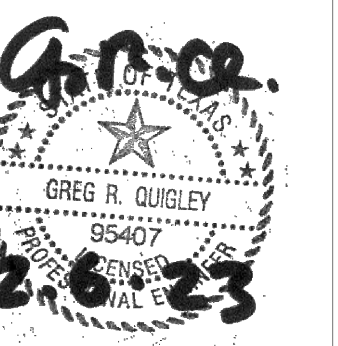
- DUCT SYSTEMS SERVING REMOVAL OF GREASE LADEN AIR (TYPE 1 HOOD) SHALL BE CONSTRUCTED AND INSTALLED SO THAT GREASE WILL NOT ACCUMULATE IN DUCTWORK. DUCTWORK SHALL SLOPE AT 2% TOWARD HOOD OR GREASE RESERVOIR. PROVIDE DUCT CLEAN OUTS AT ALL CHANGES OF DIRECTION WITH GREASE TIGHT ACCESS DOORS.
- DUCTWORK 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 FAN VENT 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 DEBRIS.
- EXPOSED DUCTWORK SHALL BE CONSTRUCTED OF PAINT LOCK SHEETMETAL AND PAINTED AS DIRECTED BY ARCHITECT.

PLAN NOTES:

- COORDINATE DUCT ROUTING BELOW CEILING WITH LIGHTING.
- 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 HOOD 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 AIRE DRAWING.
- TRANSITION AND CONNECT 14" GREASE DUCT TO EXHAUST HOOD 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 AIRE DRAWING.
- COORDINATE DUCT ROUTING WITH ELECTRICAL GEAR. DO NOT ROUTE DUCTWORK ABOVE ELECTRICAL GEAR.
- COMBUSTION AIR AND VENT PIPING THROUGH ROOF. PROVIDE TERMINATION PER MANUFACTURER'S RECOMMENDATIONS. EXTEND TO WATER HEATER. COORDINATE REQUIREMENTS WITH HEATER PROVIDED BY KITCHEN EQUIPMENT SUPPLIER.
- RETURN AIR DUCT LOCATED BETWEEN ROOF TRUSSES. OPEN DUCTWORK UP TOWARD STRUCTURE. COVER OPENING WITH 1/2" 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 ARCHITECTURAL PLANS 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 AIRE WIRE WINDBAND EXTENSION FOR KEF-1 AND KEF-2.
- EXPOSED DUCTWORK SHALL BE OF DUAL WALL SPIRAL DUCT WITH PAINTLOCK CONSTRUCTION AND PAINTED AS PER DIRECTION OF ARCHITECT (TYP.).

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.

NOTE: RESTAURANT TECHNOLOGIES INC. TO PROVIDE AND INSTALL AUTOMIST GREASE DUCT / HOOD CLEANING SYSTEM.



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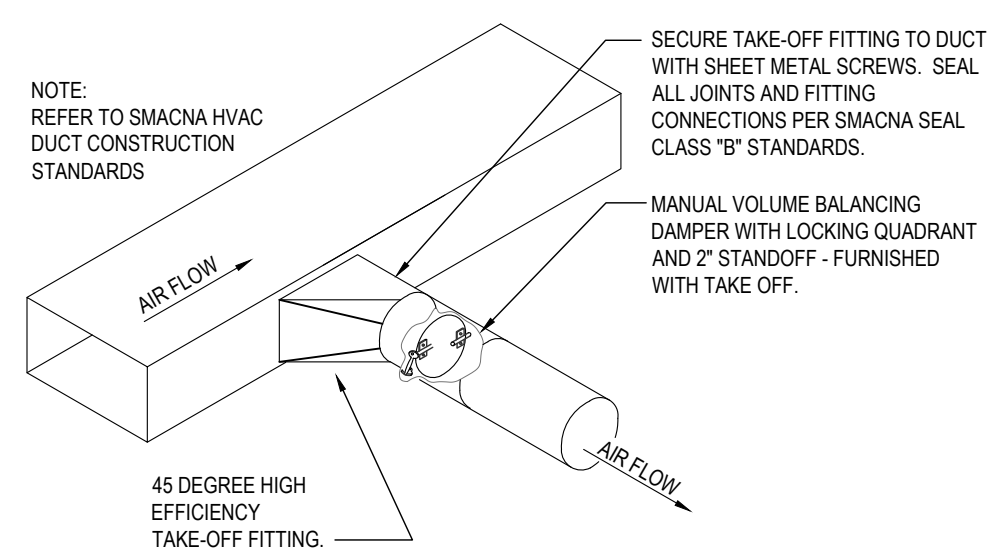
RODGER W. BAKER, AIA

MECHANICAL PLAN

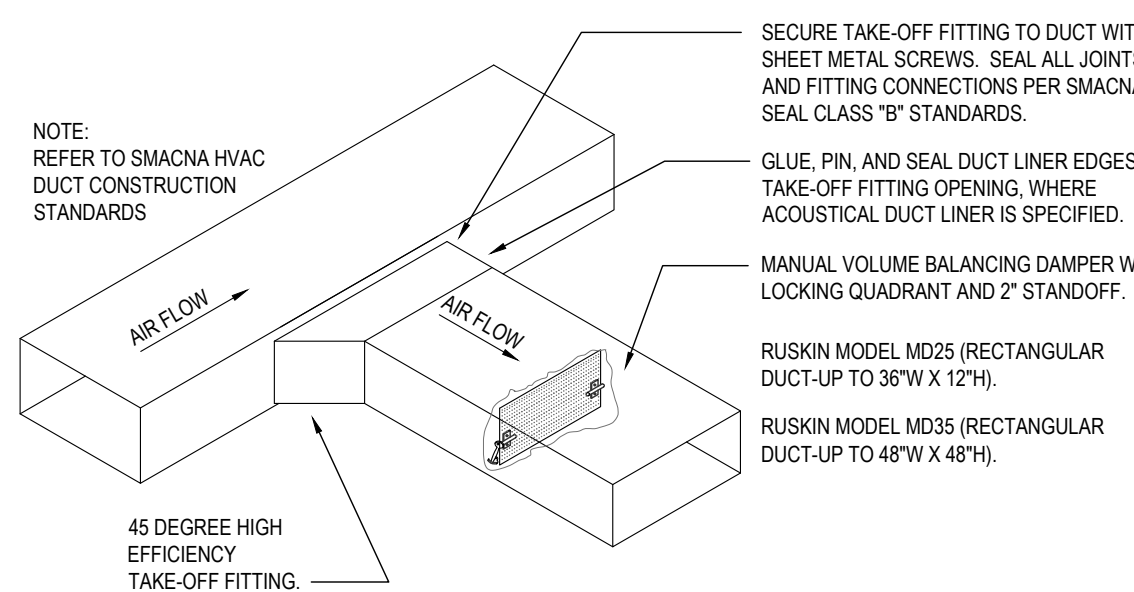
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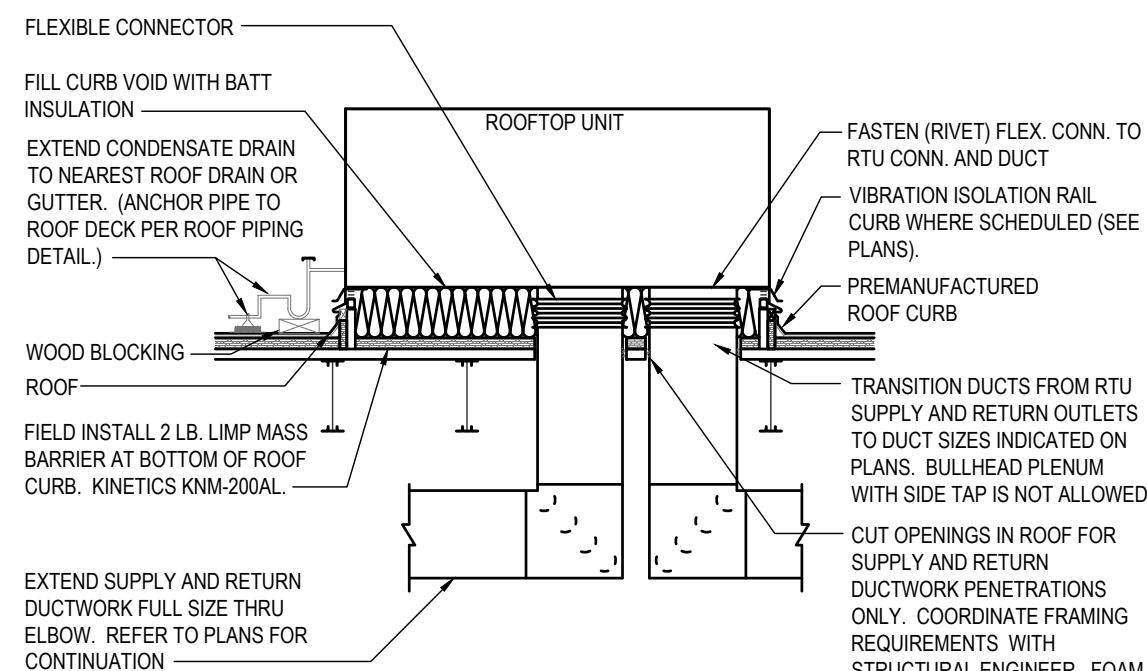
SHEET NO.
M1



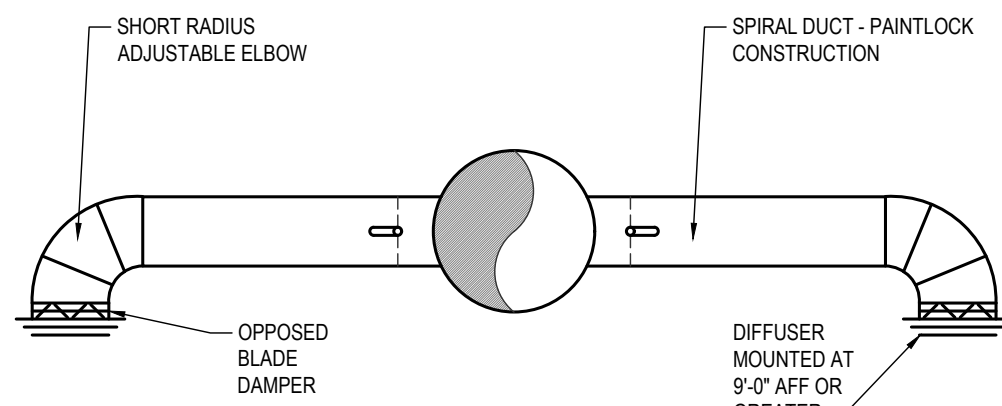
1 ROUND DUCT TAKE-OFF
NO SCALE



2 RECTANGULAR DUCT TAKE-OFF
NO SCALE

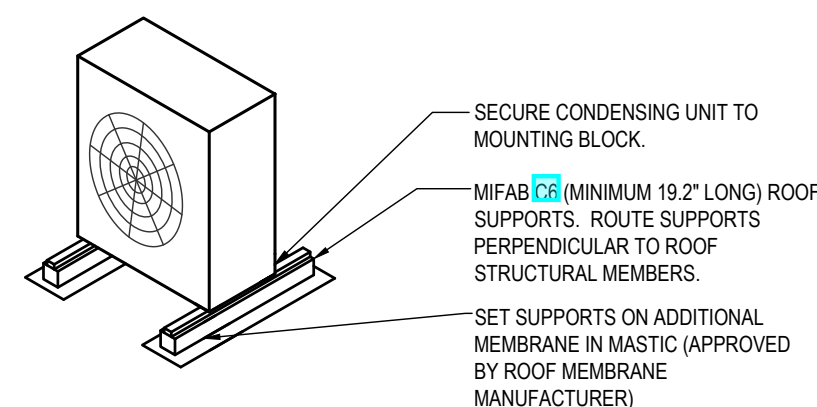


3 DOWNFLOW ROOF TOP UNIT DETAIL
NO SCALE



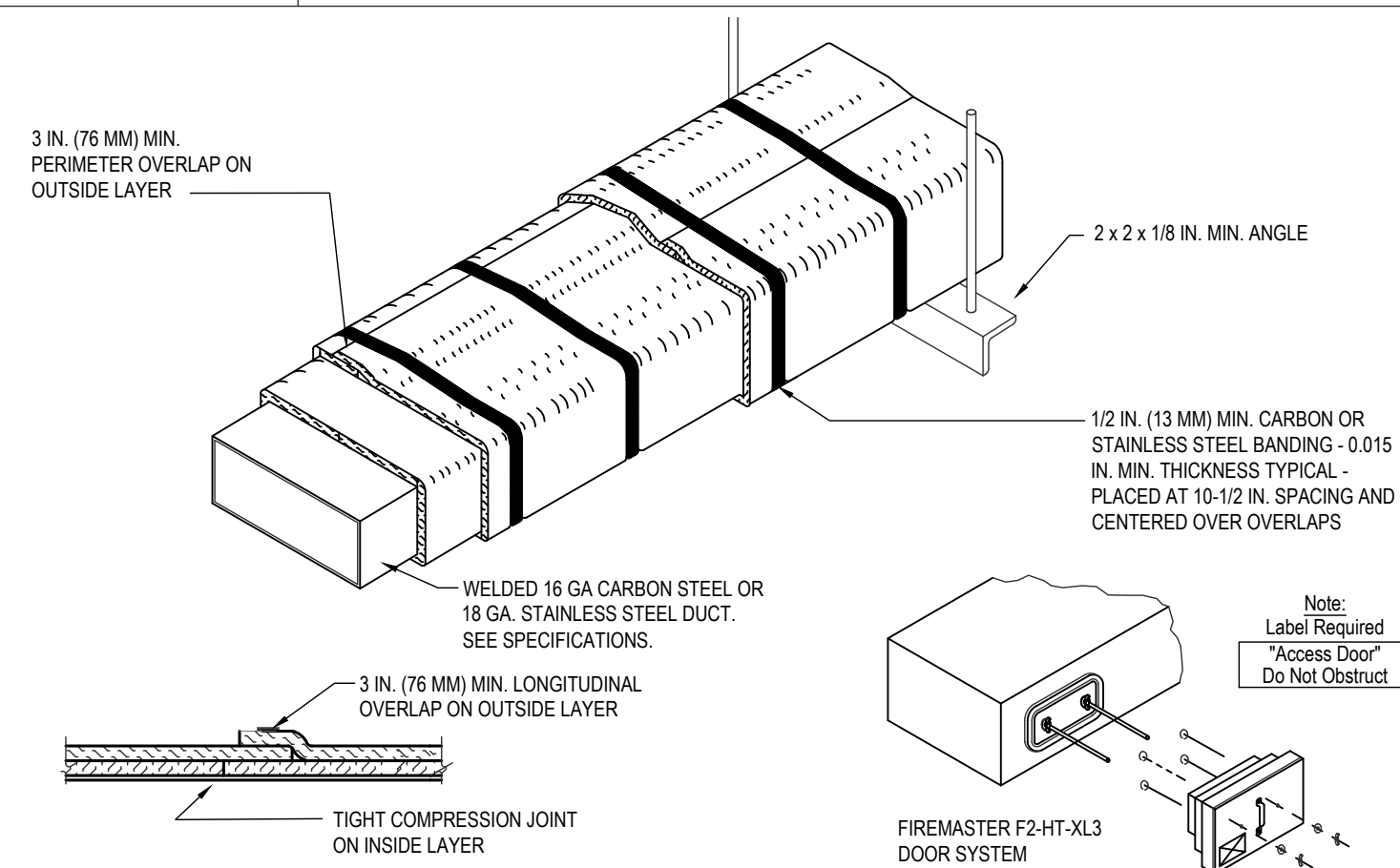
4 DINING ROOM DIFFUSER DETAIL
NO SCALE

- NOTES:
1. PROVIDE MANUFACTURERS RECOMMENDED CLEARANCES BETWEEN CU & HP UNITS.
 2. PROVIDE ADDITIONAL SUPPORTS AS REQUIRED IF UNITS ARE NOT SAME WIDTH.
 3. PAINT EXPOSED INSULATION WITH MANUFACTURER RECOMMENDED ULTRAVIOLET PROTECTIVE COATING.

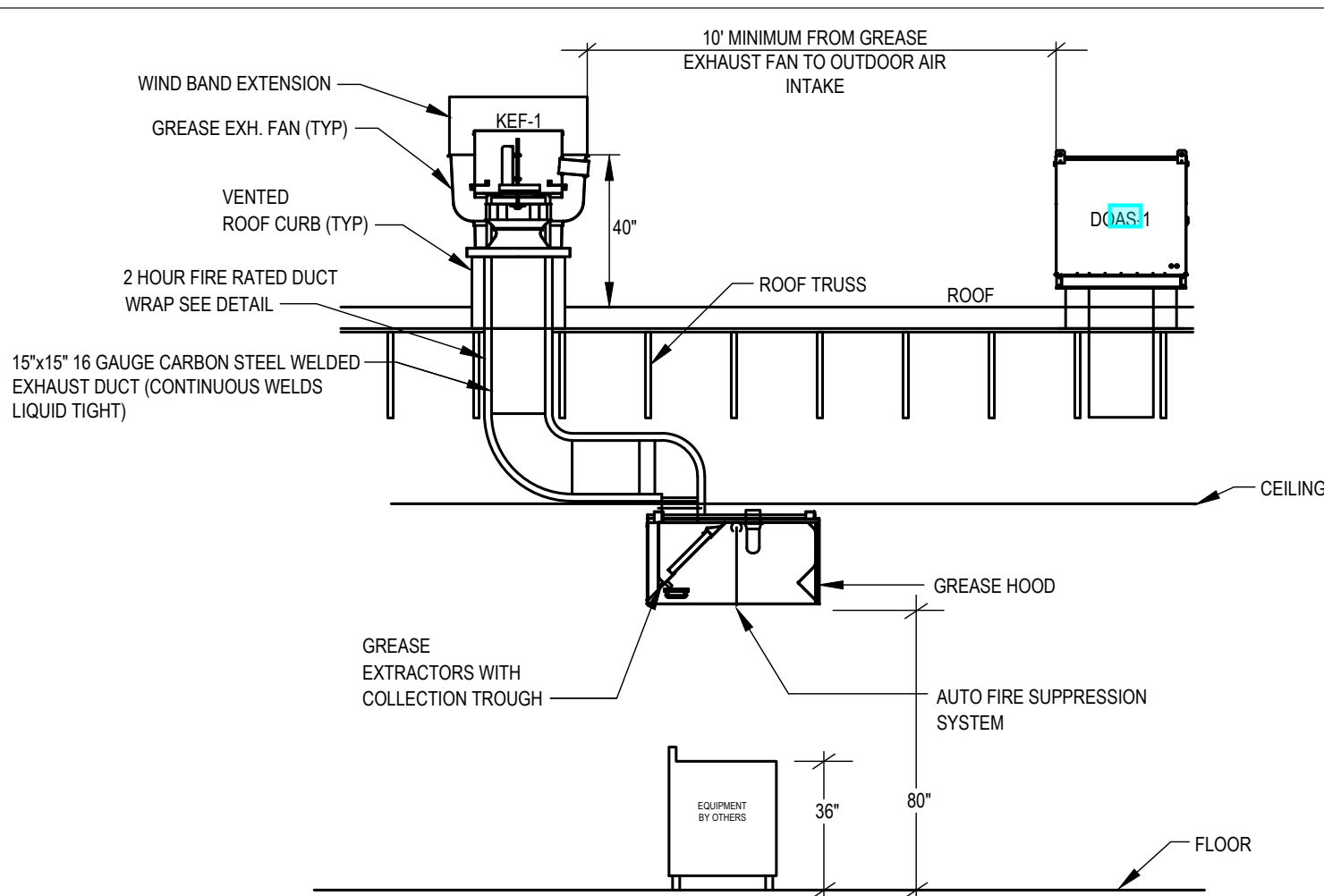


5 ROOF CONDENSING UNIT MOUNTING
NO SCALE CONDENSER ON ROOF

- NOTES:
1. THERMAL CERAMICS FIREMASTER FASTWRAP XL OR PYROSCAT XL HAS BEEN TESTED IN ACCORDANCE WITH ASTM E2336 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.
 2. COMPLIANT TO THE FOLLOWING CODES: NFPA 96 2003 AND 2006 INTERNATIONAL MECHANICAL CODES 2006 UNIFORM MECHANICAL CODE.
 3. 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.
 4. 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.
 5. THERMAL CERAMICS FIREMASTER ACCESS DOORS AS SPECIFIED IN ICC-ES BUILDING CODE REPORTS ESR 2213 OR ESR 2832.
 6. ROOF MOUNTED EXHAUST FAN IS MOUNTED ON A HINGED BASE WHICH ALLOWS ACCESS TO THE DUCT FROM THE ROOF.
 7. 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.
 8. THERMAL CERAMICS DUCT ENCLOSURE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
 9. 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

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 DBWB	MBH INPUT	MBH OUTPUT	VOLT/PHZ	BLOWER MOTOR						MIN. MCA (AMPS)	MIN. MOCPP (AMPS)	
RTU-1	LENNOX	LGH150	12.5	4,850	1.0	134.2	113.5	100	80/67	265	205	135.2	208/3/60	5 HP	71	90	1000	1,650	12.8	R-410a	1,2,3,4,5,6

ALTERNATE RTU MANUFACTURER

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 BTUH	SENS. BTUH	AMB.	EVAP. EAT DBWB	BTUH INPUT	BTUH OUTPUT	VOLT/PHZ	BLOWER MOTOR						MIN. MCA (AMPS)	MIN. MOCPP (AMPS)
RTU-1	TRANE	YHD150G3R	12.5	4,850	1.0	146.74	98.91	95	80/67	250,000	200,000	208/3/60	3 HP	67	80	1000	2,500	12.1	R-410a	1,2,3,4,5,6

- NOTES:
1. 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.
 2. 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, COOLS AND ECONOMIZERS. THE FAN AND MOTOR SHALL BE SIZED APPROPRIATELY TO MEET THIS DEFINITION OF EXTERNAL STATIC PRESSURE.
 3. 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.
 4. PROVIDE 18" HIGH (AT LOWEST POINT) PRE-FABRICATED INSULATED ROOF CURB WITH SLOPE TO MATCH SLOPE OF ROOF FOR EACH UNIT.
 5. PROVIDE HAIL GUARDS FOR EACH UNIT.
 6. DISCONNECT AND RETURN AIR SMOKE DETECTOR TO BE FACTORY INSTALLED. MECHANICAL CONTRACTOR TO COORDINATE UNIT MOCPP WITH ELECTRICAL CONTRACTOR.

SEE SHEET M4 & M5 FOR OWNER PROVIDED MECHANICAL CONTRACTOR INSTALLED DOAS UNIT INFORMATION.

NATIONAL ACCOUNT INFORMATION

FREDDY'S FROZEN CUSTARD HAS NATIONAL ACCOUNT AGREEMENTS FOR ROOF TOP UNITS WITH LENNOX AND TRANE. NO ALTERNATE MANUFACTURERS ARE ALLOWED.

FOR LENNOX EQUIPMENT CONTACT: DAVE EBNER, LENNOX INDUSTRIES NATIONAL ACCOUNT MANAGER, (612) 860-5933, Dave.Ebner@lennoxind.com

FOR TRANE EQUIPMENT EQUAL TO THE UNITS SPECIFIED CONTACT: TOM ROOD OR PAUL MINOCK, TRANE ACCOUNT MANAGER - NATIONAL ACCOUNTS, (800) 729-9115, TOM.ROOD@TRANE.COM, P.MINOCK@TRANE.COM

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	PAS3	8"Ø	24x24	WHITE	
SD-3	TITUS	PAS3	10"Ø	24"x24"	WHITE	
SD-4	TITUS	T3SQ4	8"Ø	24"x24"	WHITE	THERMAL VAV DIFFUSER
SD-5	TITUS	TMS3	6"Ø	12"x12"	WHITE	WITH OPPOSED BLADE DAMPER AND TRM KIT
SD-6	TITUS	TMS3	8"Ø	24"x24"	WHITE	WITH OPPOSED BLADE DAMPER AND TRM KIT
SD-7	TITUS	TMS3	8"Ø	12"x12"	WHITE	WITH OPPOSED BLADE DAMPER AND TRM KIT
RG-1	AMER. LOUVER CO.	STRATL	20"x20"	24"x24"	WHITE	SEE NOTE 1.
RG-2	TITUS	330RL	8"x8"	-	WHITE	
RG-3	TITUS	50F	10x22	24X12	WHITE	

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

BUILDING AIR BALANCE SCHEDULE

MARK	SPACE OR AREA	EXHAUST AIR CFM	OUTSIDE AIR CFM	RETURN AIR CFM	SUPPLY AIR CFM	REMARKS
RTU-1	DINING	--	1,000	4,850	4,850	--
DGAS1	COOKLINE / OFFICE / COUNTER	--	2,650	0	2,650	--
KEF-1	RANGE - KITCHEN HOOD	1,700	--	--	--	--
KEF-2	FRYERS - KITCHEN HOOD	775	--	--	--	--
KEF-3	DISHWASHER - KITCHEN HOOD	525	--	--	--	--
EF-1	WOMEN'S RESTROOM	75	--	--	--	--
EF-2	MEN'S RESTROOM	150	--	--	--	--
TOTALS	BUILDING TOTALS	3,225	3,650	4,850	7,500	NOTE: AREA IS 425 CFM POSITIVE

EXHAUST FAN SCHEDULE

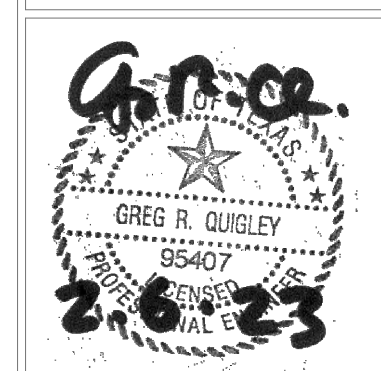
MARK	MFR	MODEL	CFM	EXTERNAL STATIC P. IN. WG.	RPM	ELECTRICAL		FAN TYPE	REMARKS
						VOLT/PHZ	PWR		
EF-1	COOK	GC-146	75	0.25	900	120/1/60	30.3W	CEILING EXH.	-
EF-2	COOK	GC-186	150	0.25	820	120/1/60	63.3W	CEILING EXH.	-

- NOTES:
1. PROVIDE CEILING GRILLE, INTEGRAL BACK DRAFT DAMPER, DISCONNECT SWITCH, AND VARIABLE SPEED CONTROLLER.
 2. FANS SHALL NOT EXCEED SCHEDULED RPM.

PUMP SCHEDULE

MARK	SERVICE	GPM	HEAD	EFFICIENCY	MOTOR		PIPE INCHES		FLOW	STARTER BY	REMARKS
					HP	RPM	ELECTRICAL	SUCTION			
RP-1	DOMESTIC HW	10	6	-	3/4	3250	115/60/1	-	-	CONST	①

- REMARKS:
- ① SELECTION BASED ON BELL & GOSSETT INLINE PUMP MODEL PL-30. ALL BRONZE CONSTRUCTION.



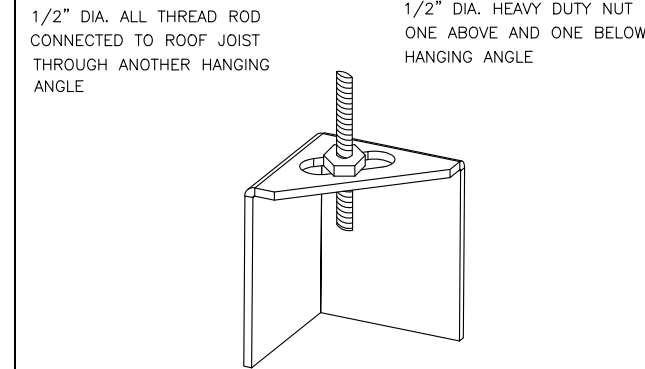
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RODGER W. BAKER, AIA

MECHANICAL DETAILS

DATE
11/17/2022
02/06/2023

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-FINISHED AT FACTORY

HANGING ANGLE LOCATIONS

HOOD STYLE	DIM FROM REAR	DIM FROM FRONT (24")	DIM FROM FRONT (30")
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"

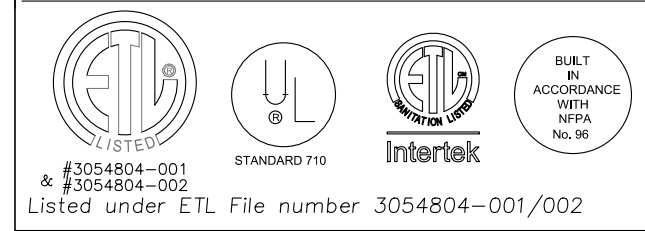
CALCULATIONS UTILIZED

EXHAUST CFM=LENGTH OF HOOD X CFM/IN.FT. (LOAD)
SUPPLY CFM=EXHAUST CFM X PERCENTAGE REQUIRED
TOTAL DUCT AREA=14 X CFM (FRM)
DUCT LENGTH= TOTAL DUCT AREA
DUCT DEPTH

* CAPTIVE-ARE 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:



Listed under ETL File number 3054804-001/002

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 SHUTOFF IN EVENT OF FIRE.
- EXHAUST FANS TO TURN ON IN EVENT OF FIRE.
- ALL LIGHTS FIXTURE SHOWN INSTALLED BY CAPTIVE-AIRE ARE FACTORY PREWIRED. INTERCONNECTIONS BETWEEN HOODS AND TO SWITCHES BY ELECTRICAL CONTRACTORS.
- LAMPS FOR LIGHT FIXTURES BY INSTALLING CONTRACTORS.
- SEISMIC RESTRAINTS ARE RESPONSIBILITY OF INSTALLING CONTRACTOR.
- INSTALLING CONTRACTORS ASSUME ALL RELATED RESPONSIBILITY FOR VERIFICATION 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

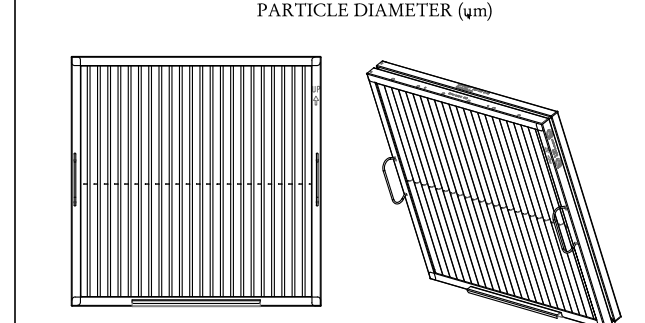
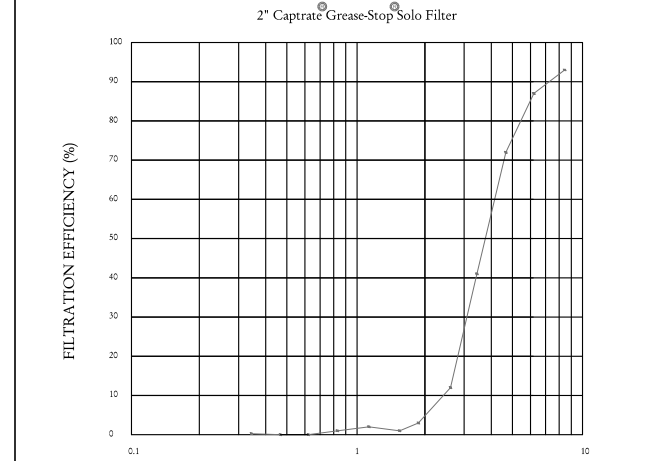
- KITCHEN HOODS MUST BE BALANCED WITH KITCHEN.
- KITCHEN SHALL BE NEGATIVE WITH RESPECT TO DINING AREA.
- RESTAURANT SHALL BE POSITIVE WITH RESPECT TO AMBIENT PRESSURE.

ADDITIONAL

- WRITTEN HOOD DIMENSIONS HAVE PRECEDENCE OVER SCALE.
- SIGNED AND "APPROVED" COPIES OF THIS DOCUMENT MUST BE RECEIVED BY THE 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#5457831

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFMFT	TOTAL EXH CFM	EXHAUST PLENUM (FEET)				HOOD CONSTRUCTION	HOOD CONFIG	PATENT NUMBERS	
										WIDTH	LENG	HEIGHT	DIAM				CFM
1	ITEM 33A	5424 ND-2	CAPTIVEAIRE	8'0"	450 DEG	I	MEDIUM	200	1600	4'	14'	1600	1497	-0.734"	430 SS WHERE EXPOSED	ALONE FRONT	EXHAUST HOODS NO-280-25ND-2 (CANADA) - CA PATENT 2520455
2	ITEM 33B	5424 ND-2	CAPTIVEAIRE	5'0"	450 DEG	I	MEDIUM	155	775	4'	10'	775	1421	-0.430"	430 SS WHERE EXPOSED	ALONE ALONE	
3	ITEM 10.1	4224 VHB-G	CAPTIVEAIRE	3'6"	700 DEG	II	N/A	150	525	4'	10'	525	963	-0.069"	304 SS 100%	ALONE ALONE	

HOOD INFORMATION

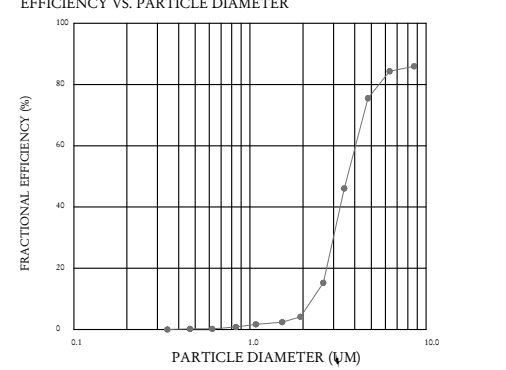
HOOD NO	TAG	TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	UTILITY CABINET(S)		ELECTRICAL	SWITCHES	FIRE HOOD SYSTEM	HOOD HANGING POINT	WEIGHT
												TYPE	SIZE					
1	ITEM 33A	CAPTIRATE SOLO FILTER	5	18"	16"	85% SEE FILTER SPEC	2	RECESSED ROUND	NO	LEFT	12"X4"X24"			DCV-2011	1 LIGHT 1 FAN	NO	513 LBS	
2	ITEM 33B	CAPTIRATE SOLO FILTER	3	18"	16"	85% SEE FILTER SPEC	2	RECESSED ROUND	NO							NO	310 LBS	
3	ITEM 10.1						0									NO	161 LBS	

HOOD OPTIONS

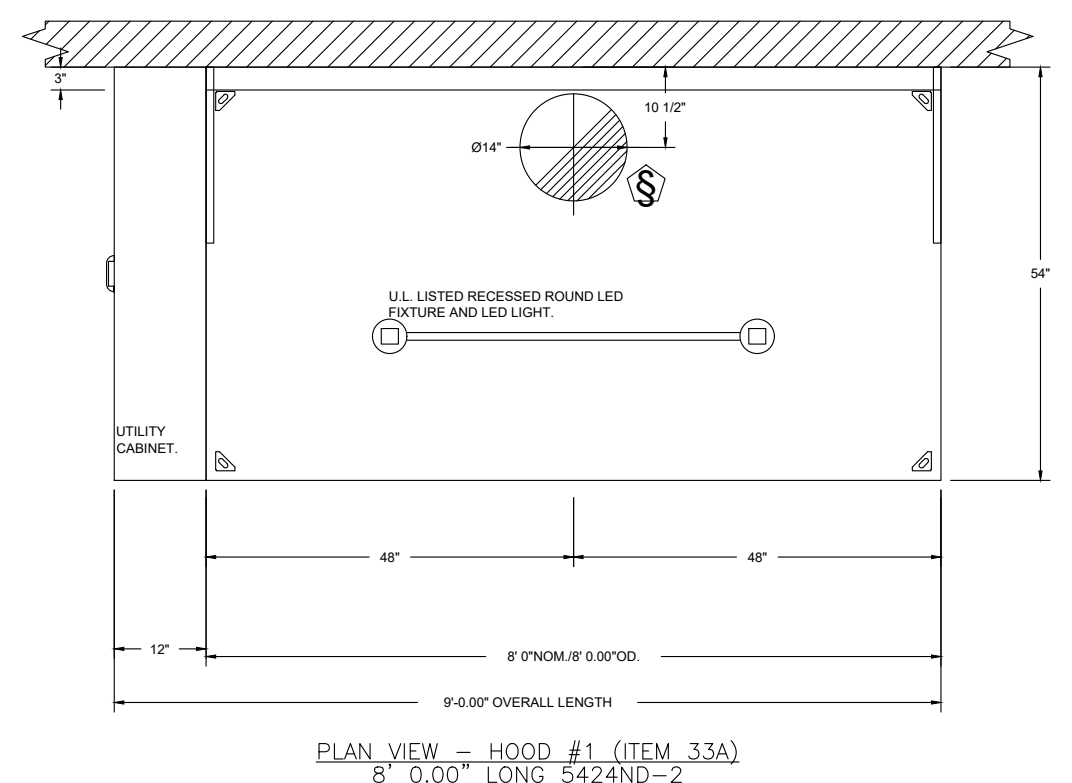
HOOD NO	TAG	OPTION
1	ITEM 33A	FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT. LEFT QUARTER END PANEL, 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. RIGHT QUARTER END PANEL, 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. RISER SENSOR INSTALL 3IN DBL.
2	ITEM 33B	FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT. RIGHT END PANEL, 23" TOP WIDTH, 24" BOTTOM WIDTH, 36.0" HIGH 430 SS. LEFT QUARTER END PANEL, 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. RISER SENSOR INSTALL 3IN DBL.
3	ITEM 10.1	FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.

SPECIFICATION: CAPTRATE GREASE-STOP SOLO FILTER

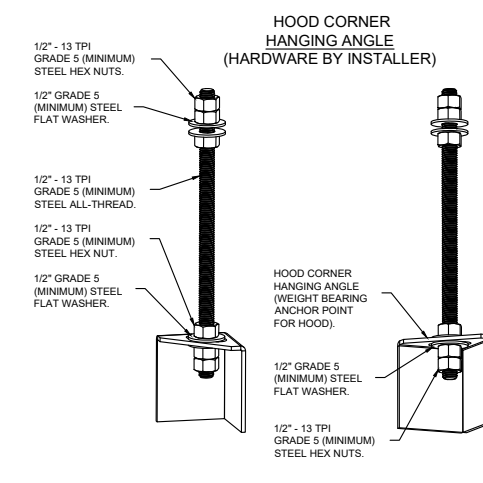
THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE SAMPLER DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNELS.
UNITS SHALL 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 F2519-05.
MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.
EFFICIENCY % PARTICLE DIAMETER



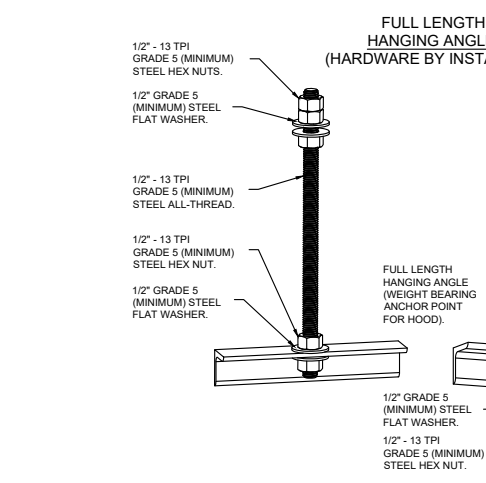
CAPTIRATE FILTERS ARE BUILT IN COMPLIANCE WITH:



PLAN VIEW - HOOD #1 (ITEM 33A)
8' 0.00" LONG 5424ND-2



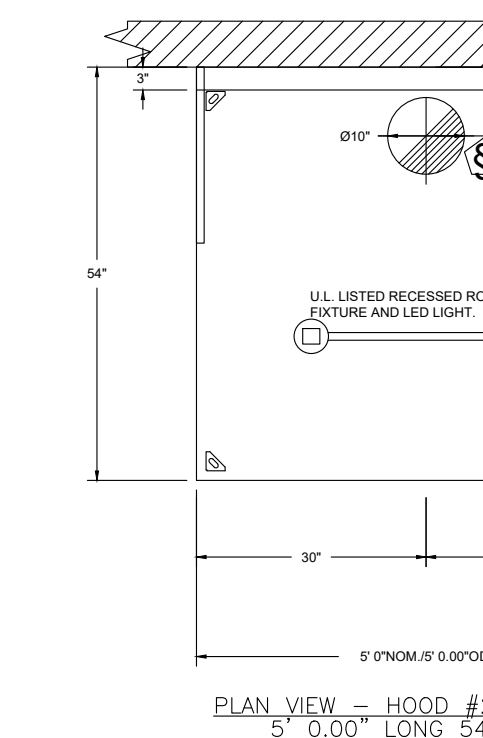
ASSEMBLY INSTRUCTIONS



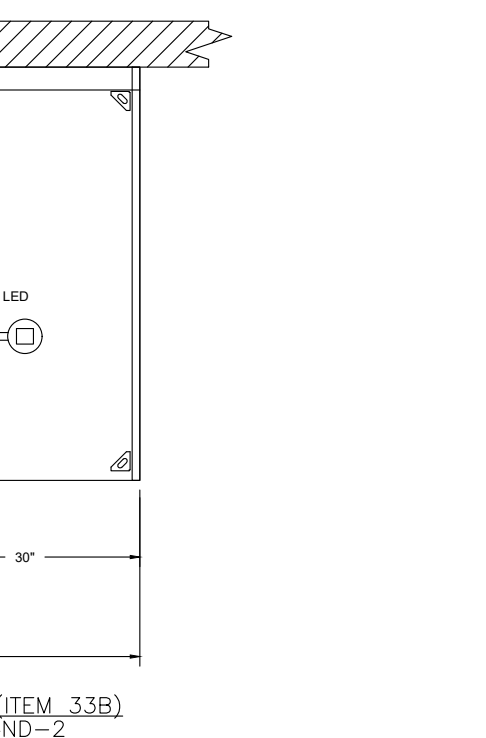
ASSEMBLY INSTRUCTIONS

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.

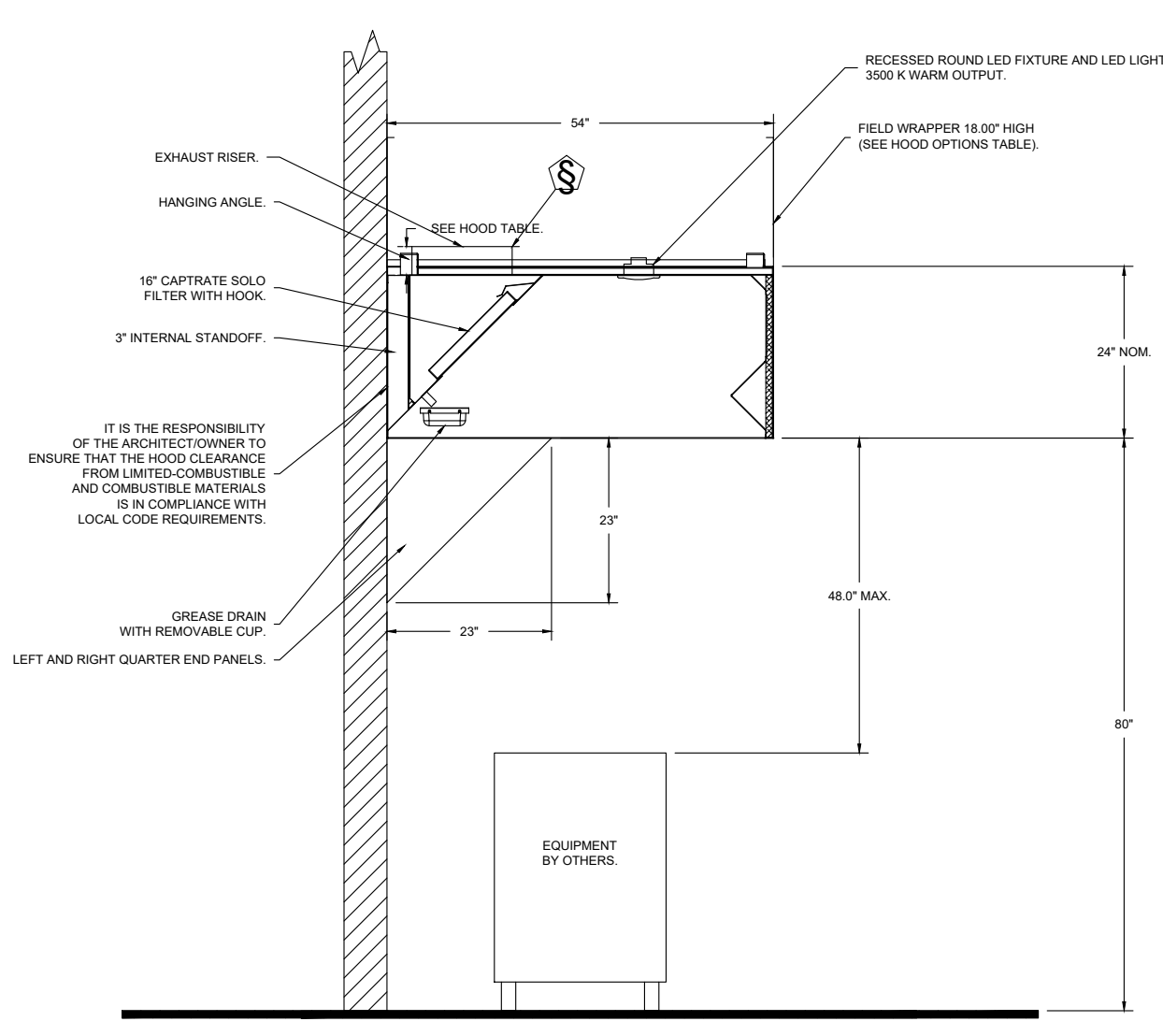
HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD, SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE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



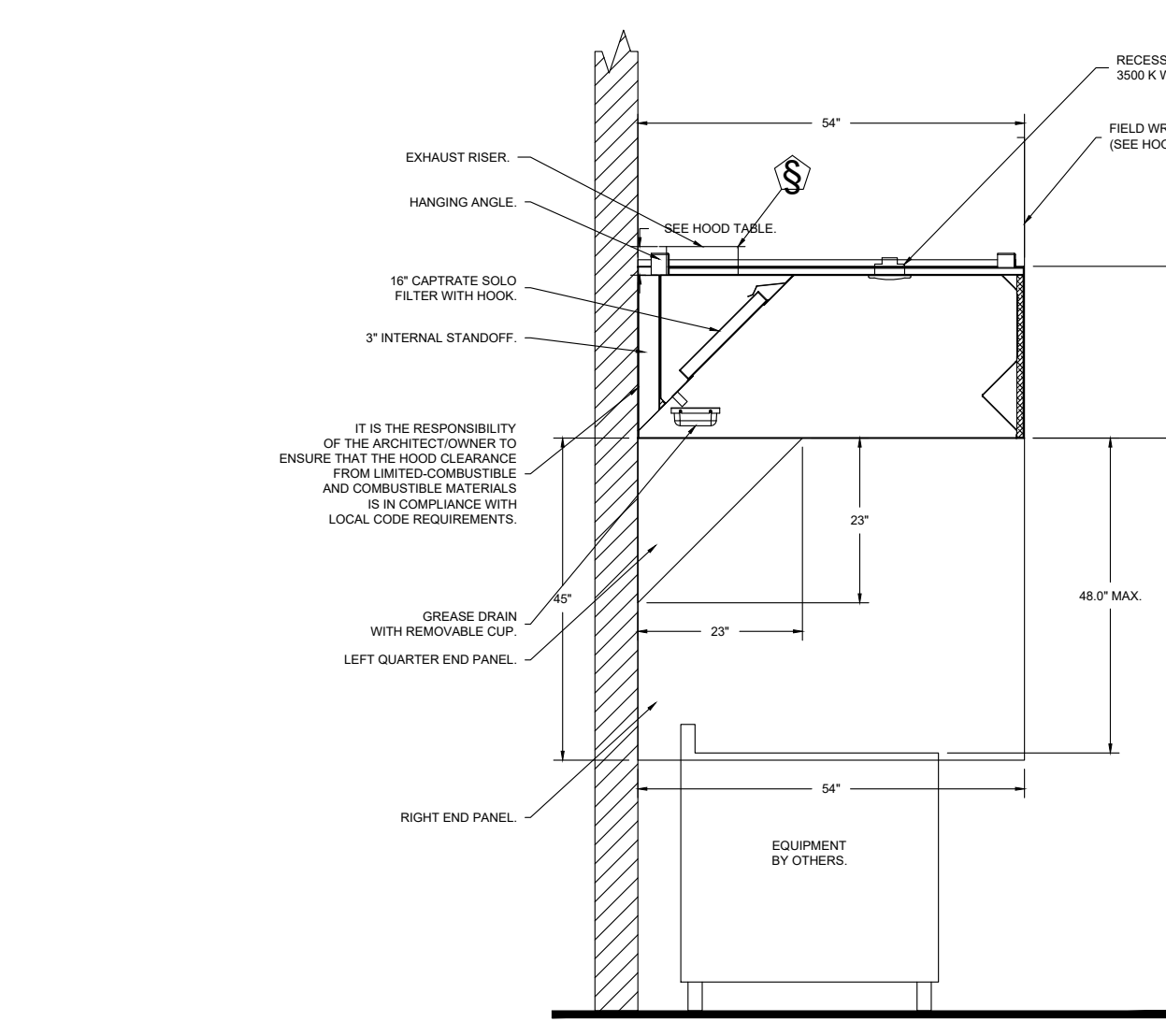
PLAN VIEW - HOOD #2 (ITEM 33B)
3' 0.00" LONG 5424ND-2



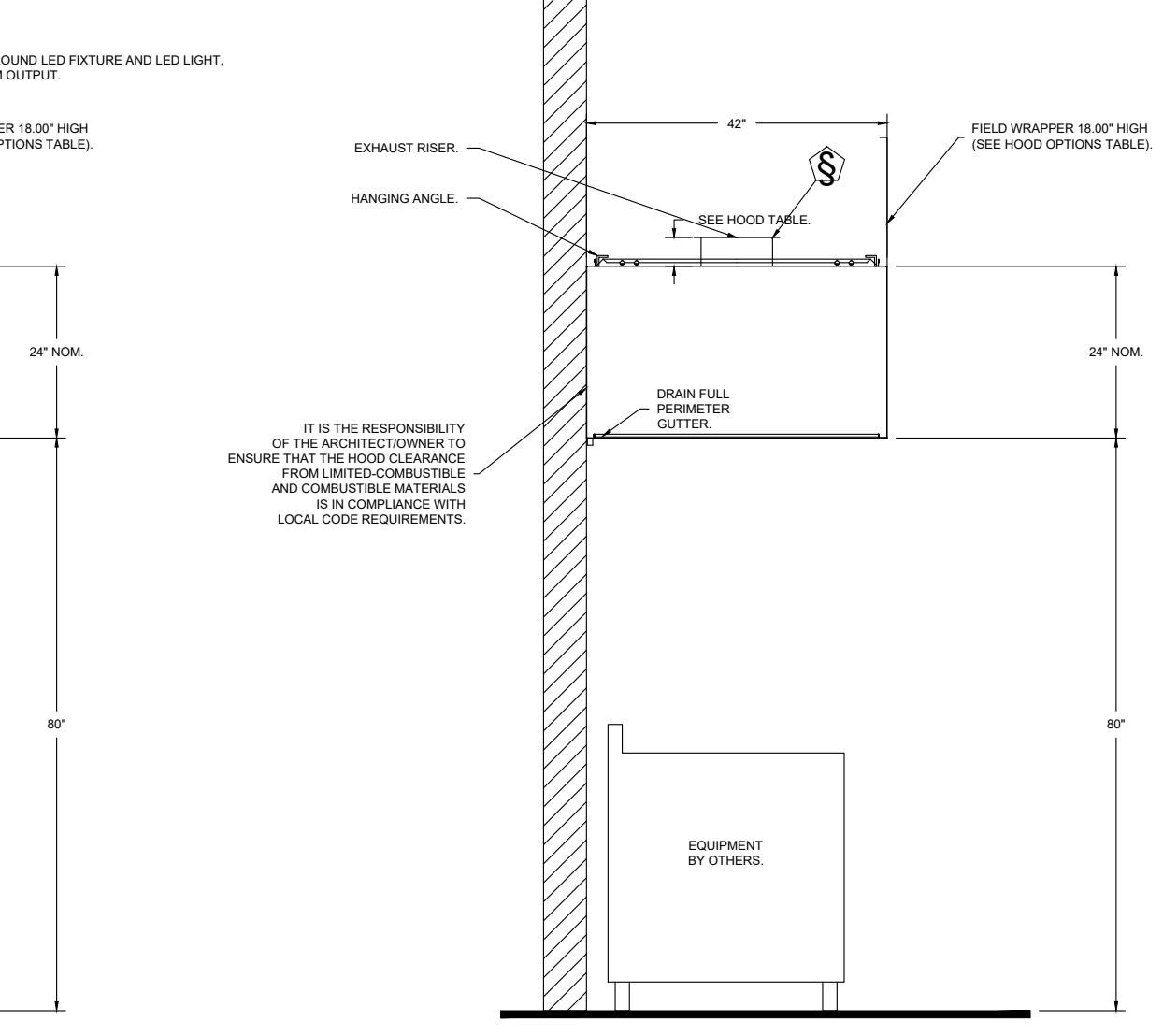
PLAN VIEW - HOOD #3 (ITEM 75)
3' 6.00" LONG 4224VHB-G



SECTION VIEW - MODEL 5424ND-2
HOOD - #1 (ITEM 33A)



SECTION VIEW - MODEL 5424ND-2
HOOD - #2 (ITEM 33B)



SECTION VIEW - MODEL 4224VHB-G
HOOD - #3 (ITEM 75)

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.

REVISIONS

DESCRIPTION	DATE

CAPTIVEAIRE

HBT Foodservice

104 W 9th St Suite 204, Kansas City, MO, 64105 PHONE: (816) 221-8575 FAX: (816) 221-8311 EMAIL: reg95@captiveaire.com

DATE: 5/4/2022

DWG.#: 5457831

DRAWN BY: michael.co

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

MASTER DRAWING

SHEET NO. 1

BDS

BAKER DESIGN GROUP PA
1024 E. 1st Street N. Wichita, KS 67214 316.267.7142
rodger@bakerdesigngroup.com

FREDDY'S FROZEN CUSTARD

608 SW WILSHIRE BLVD.
BURLESON, TEXAS

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RODGER W. BAKER, AIA

DRAWN BY: _____

CHECKED BY: _____

SHEET NO. **M3**

EXHAUST FAN INFORMATION - JOB#5457831

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	ITEM 74.1	1	CASREHED	CAPTIVEAIR	1600	1.400	1105	ODP PREMIUM	1.000	0.6270	3	308	3.8	928 FPM	282	13.6
2	ITEM 74.2	1	DJ03HFA	CAPTIVEAIR	775	1.250	1532	TEAO-ECM	0.500	0.3950	1	115	6.3	295 FPM	101	16.6
4	ITEM 74.4	1	DJ03HFA	CAPTIVEAIR	525	0.800	1487	TEAO-ECM	0.333	0.2000	1	115	4.3	260 FPM	67	14.5

DOAS/RTU FAN SCHEDULE - JOB#5457831

FAN UNIT NO.	TAG	QTY	DOAS/RTU MODEL #	MANUFACTURER	BLOWER	RETURN AIR CFM	MAX OUTSIDE AIR CFM	TOTAL CFM	WEIGHT (LBS)	ELECTRICAL INFORMATION		COOLING INFORMATION		REHEAT INFORMATION		GAS HEAT INFORMATION		NOTES																		
										HP	Ø	VOLT	MCA	MCCP	DISCHARGE DB	MIXED AIR WB	LEAVING AIR DB		DP	CAPACITY DESIRED	MAX	MOISTURE REMOVAL RATE	GAS TYPE	INPUT BTU/h	OUTPUT BTU/h	TEMP RISE										
3	ITEM 74.3	1	CASRTU3-250-15-15T-DOAS	CAPTIVEAIR	15P-3	0	2650	2650	2508	0.500	2.00	3	208	59.2A	60A	84.0°F	77.4°F	84.0°F	77.4°F	58.5°F	57.2°F	56.5°F	186.0 MBH	70.7 MBH	18.8	5.7	70.0°F	70.0°F	33.1 MBH	129.6 MBH	103.9 LBS/HR	NATURAL	200909	187279	50°F	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15

- NOTES:**
- INVERTER SCROLL COMPRESSOR WITH INTEGRATED OIL SENSOR. DIGITAL OR STAGED SCROLL NOT AN APPROVED EQUAL.
 - DIRECT DRIVE FLENUM BLOWER. BELT DRIVEN BLOWERS ARE NOT ACCEPTABLE.
 - INTEGRATED MONITORING VIA CELLULAR CONNECTION BY MANUFACTURER.
 - REFRIGERATION PRESSURE MONITORING ON HIGH AND LOW PRESSURE SIDE OF SYSTEM INCLUDED THROUGH DIGITAL INTERFACE.
 - ECM MOTOR CONDENSING FANS.
 - ELECTRONIC EXPANSION VALVE. TDV NOT ACCEPTABLE.
 - SUCTION LINE ACCUMULATOR.
 - FACTORY COMMISSIONING WITH 5 YEAR PARTS WARRANTY. 25 YEAR WARRANTY ON STAINLESS STEEL HEAT EXCHANGER.
 - AIR BEARING INTAKE, EVAP AND DISCHARGE TEMPERATURE SENSORS (DISCHARGE SENSOR TO BE FACTORY MOUNTED WITHIN UNIT).
 - 2" EXTERIOR DUAL-WALL CONSTRUCTION WITH R-13 INSULATION MINIMUM 20GA EXTERIOR W/ 14GA BASE.
 - 80% EFFICIENT FURNACE, WITH MODULATING INDUCER TO MAINTAIN CONSTANT COMBUSTION EFFICIENCY ACROSS FIRING RANGE. 6:1 TURNDOWN WITH NG AND 5:1 TURNDOWN WITH LP.
 - SUPPLY CFM MONITORING INTEGRAL TO UNIT WITH CFM MEASUREMENT INCLUDED THROUGH DIGITAL INTERFACE.
 - FULLY MODULATING HOT GAS REHEAT.
 - HAL GUARD FOR CONDENSING COIL.
 - DOWN DISCHARGE DOWN RETURN.

FAN OPTIONS

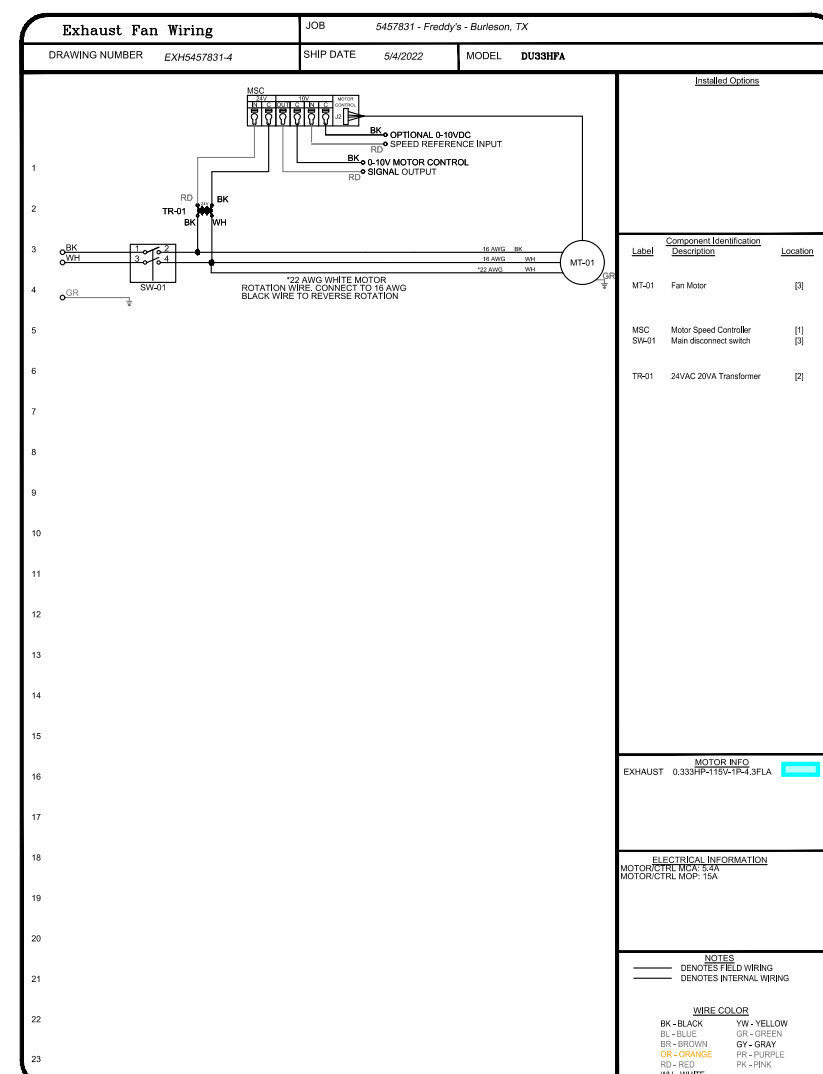
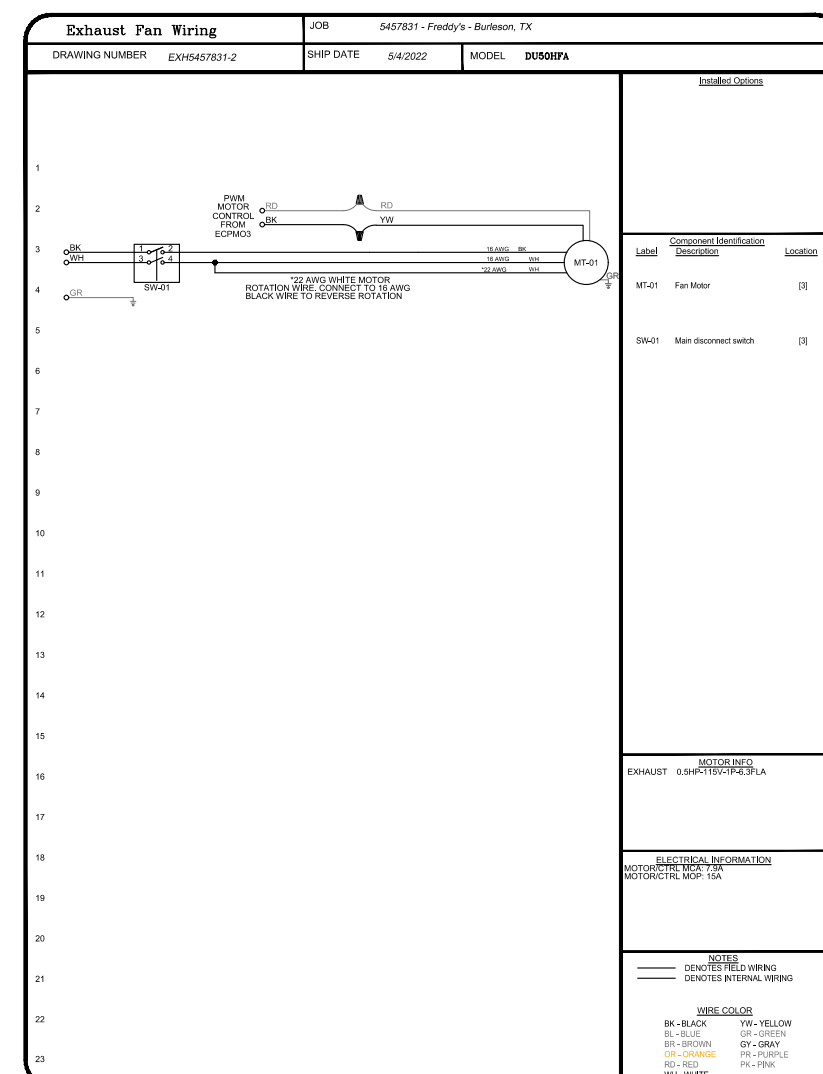
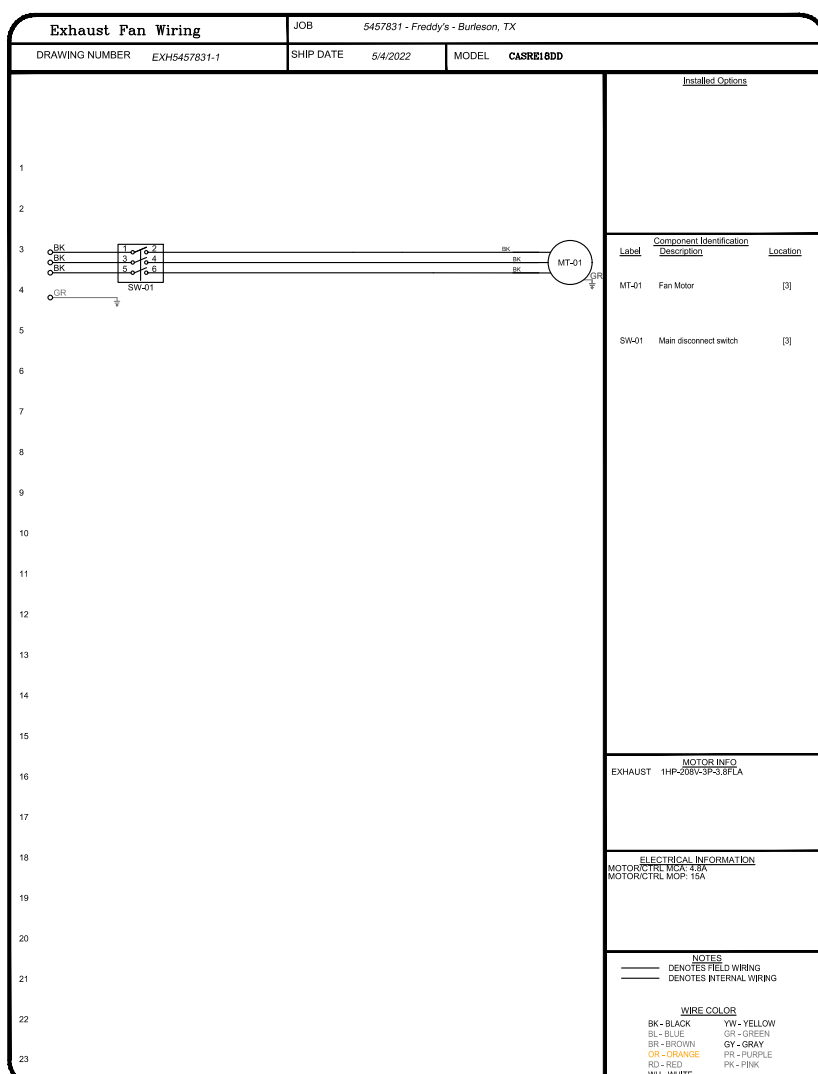
FAN UNIT NO.	TAG	QTY	DESCRIPTION
1	ITEM 74.1	1	UTILITY SET GREASE CUP
		1	RE-1 DISCHARGE EXTENSION ASSEMBLY WITH HARDWARE
2	ITEM 74.2	1	2 YEAR PARTS WARRANTY
		1	GREASE BOX
3	ITEM 74.3	1	UPR LAST FAN WHEEL ACCESS PORT
		1	30" TALL STRAIGHT WIND BAND EXTENSION 13 (SHIPS LOOSE)
4	ITEM 74.4	1	GLY LINE EYE BOLTS - USED FOR 3 GLY LINE TIE OFF POINTS
		1	ECM WIRING PACKAGE - PWM SIGNAL FROM ECM/MS PREWIRE (TELCO MOTOR), CCW ROTATION
1	ITEM 74.3	1	2 YEAR PARTS WARRANTY
		1	INLET PRESSURE GAUGE, 0-30"
1	ITEM 74.3	1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE
		1	RTU TOTAL CFM MONITORING
1	ITEM 74.3	1	SHF LOOSE GAS STRAINER 3/4"
		1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU. 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #28, #47, #MAX, OR #2 PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE.
1	ITEM 74.3	1	CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED
		1	RTU3 DOWN DISCHARGE
1	ITEM 74.3	1	2" MERV 13 FILTERS FOR RTU3 (QTY: 4)
		1	2" MERV 8 FILTERS FOR RTU3 (QTY: 4)
1	ITEM 74.3	1	OVERHEAT STAT
		1	VFD FACTORY MOUNTED AND WIRED IN RTU COMMERCIAL CONTROL VESTIBULE
1	ITEM 74.3	1	REMOTE TEMPERATURE AND HUMIDITY SPACE SENSOR
		1	RTU3 CURB DUCT HANGER
1	ITEM 74.3	1	RTU3 DOWN RETURN
		1	RTU RETURN MOUNTED SMOKE DETECTOR AND SAMPLING TUBE - FACTORY INSTALLED
1	ITEM 74.3	1	OCCUPIED SCHEDULING
		1	CLOGGED FILTER SWITCH - NOTIFICATION ON HIM
1	ITEM 74.3	1	15 TON MODULATING COOLING OPTION, 209/230V, R410A REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS
		1	15 TON MODULATING REHEAT OPTION - SPACE DOWNPOINT CONTROL
1	ITEM 74.3	1	RTU RETURN REVERSE TURB DAMPER - MANUAL CONTROL VVA HIM
		1	RTU3 HAL GUARD
1	ITEM 74.3	1	VAV PACKAGE W/ 0-10VDC INPUT CONTROL (571 VFD INCLUDED)
		1	5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIR SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS)
1	ITEM 74.4	1	ECM WIRING PACKAGE - EXHAUST - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL -MISC (TELCO), CCW ROTATION
		1	15-BDD DAMPER
1	ITEM 74.4	1	SCR-11 BIRD SCREEN
		1	2 YEAR PARTS WARRANTY

FAN ACCESSORIES

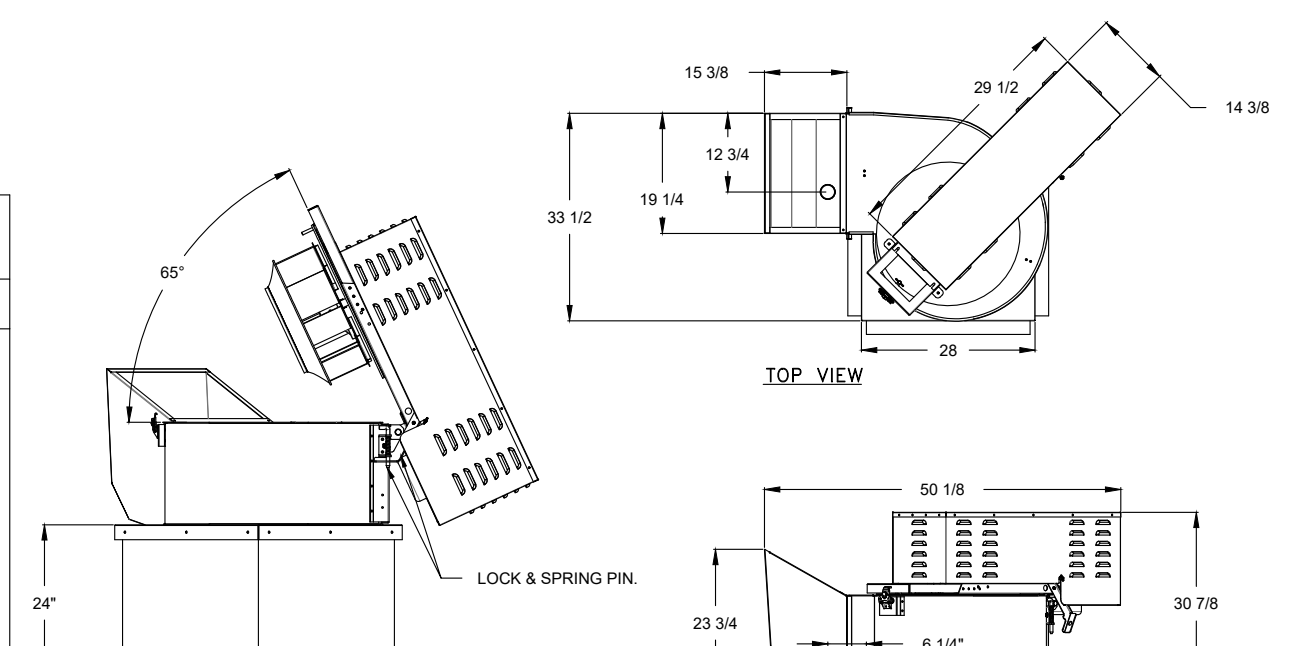
FAN UNIT NO.	TAG	EXHAUST			SUPPLY		
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	ITEM 74.1	YES					
2	ITEM 74.2	YES					
4	ITEM 74.4		YES				

CURB ASSEMBLIES

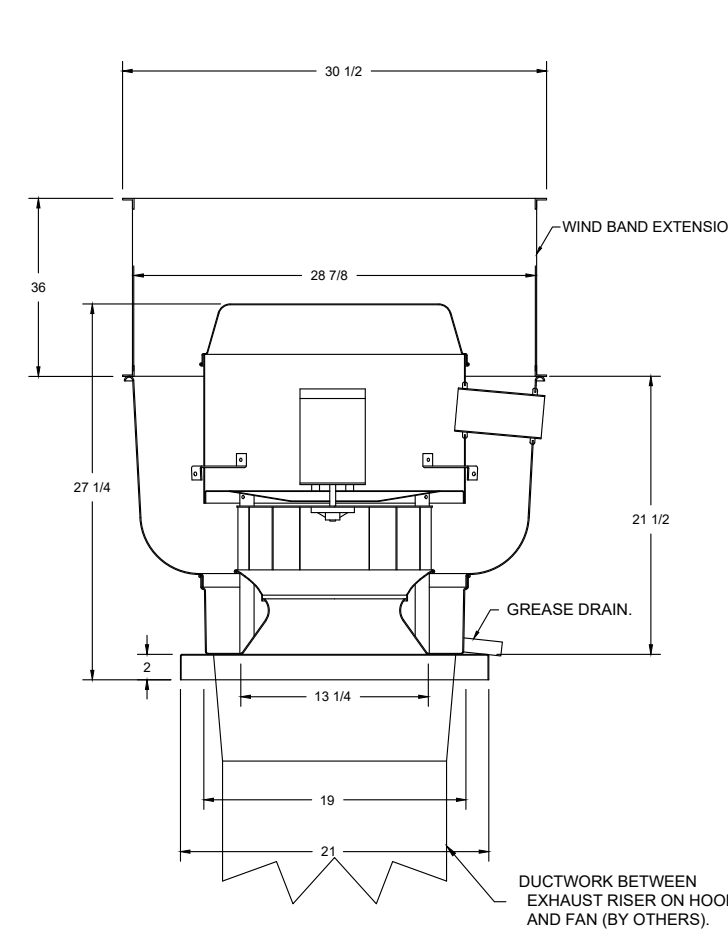
NO.	FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	ITEM 74.1	30 LBS	CURB	26.500"V X 28.500" L X 24.000" H ALONG LENGTH, RIGHT VENTED.
2	# 2	ITEM 74.2	31 LBS	CURB	19.500"V X 19.500" L X 20.000" H ALONG LENGTH, RIGHT VENTED HINGED.
3	# 3	ITEM 74.3	78 LBS	CURB	59.500"V X 91.000" L X 14.000" H ALONG WIDTH, RIGHT INSULATED.
4	# 4	ITEM 74.4	27 LBS	CURB	19.500"V X 19.500" L X 20.000" H ALONG LENGTH, RIGHT VENTED.



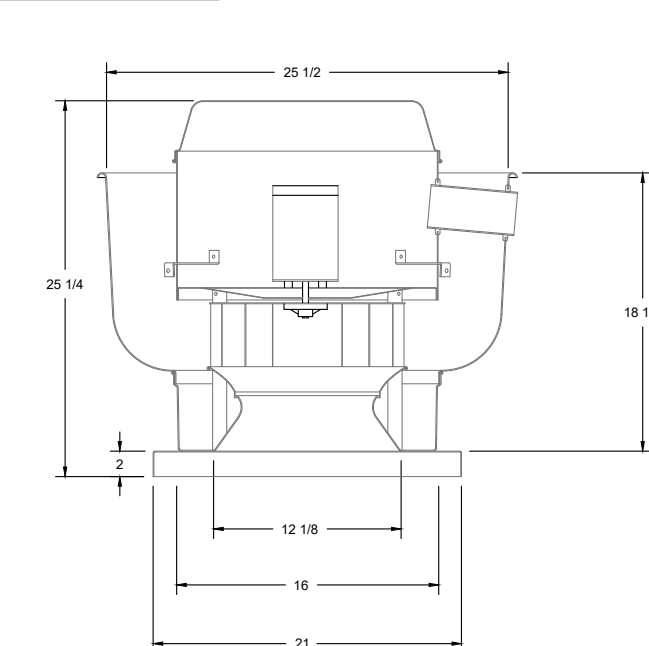
FAN #1 CASREHED - EXHAUST FAN (ITEM 74.1)



FAN #2 DJ03HFA - EXHAUST FAN (ITEM 74.2)



FAN #3 DJ03HFA - EXHAUST FAN (ITEM 74.4)



FEATURES:

- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL705-SC645.
- HIGH HEAT OPERATION DIRECT DRIVE 300°F (149°C).
- HEAT SLINGER.
- GREASE CLASSIFICATION TESTING.
- TILT OUT WHEEL.
- LOCKING PIN FOR POWER PACK.
- MOTOR WEATHER COVER.
- INTERLOCKED DISCONNECT SWITCH.
- NEMA 4X SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST DIRECT DRIVE EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST BELT & DIRECT DRIVE EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS:

- UTILITY SET GREASE CUP.
- RE-1 DISCHARGE EXTENSION ASSEMBLY WITH HARDWARE.
- 2 YEAR PARTS WARRANTY.

FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELT/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL705-SC645.
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 200°F (93°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS:

- GREASE BOX.
- UPR LAST FAN WHEEL ACCESS PORT.
- 30" TALL STRAIGHT WIND BAND EXTENSION.
- 15 SHIP LOOSE, TIE USED FOR 3 GLY LINE TIE OFF POINTS.
- ECM WIRING PACKAGE - PWM SIGNAL FROM ECM/MS PREWIRE (TELCO MOTOR), CCW ROTATION.
- 2 YEAR PARTS WARRANTY.

FEATURES:

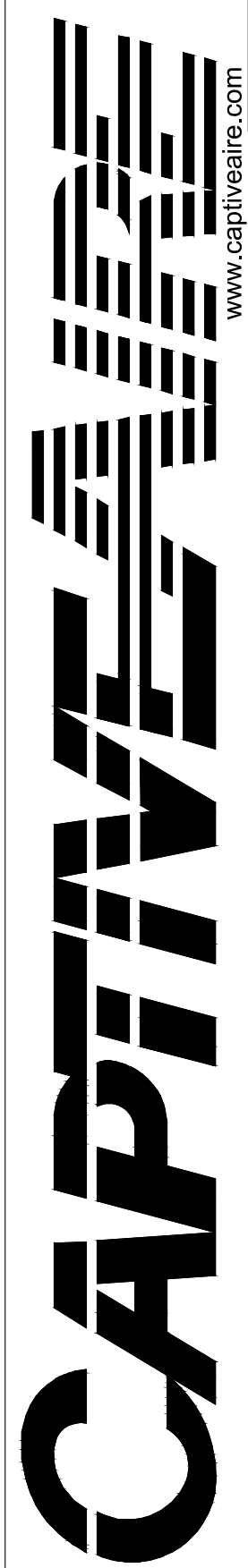
- DIRECT DRIVE CONSTRUCTION (NO BELT/PULLEYS).
- ROOF MOUNTED FANS.
- UL705.
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- NEMA 3R SAFETY DISCONNECT SWITCH.

OPTIONS:

- ECM WIRING PACKAGE - EXHAUST - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL, MISC (TELCO), CCW ROTATION.
- SCR-11 BIRD SCREEN.
- 15-BDD DAMPER.
- 2 YEAR PARTS WARRANTY.

REVISIONS

DESCRIPTION	DATE



Freddy's - Burleson, TX
BURLESON, TX, 76028

DATE: 5/4/2022

DWG.#: 5457831

DRAWN BY: michael.co

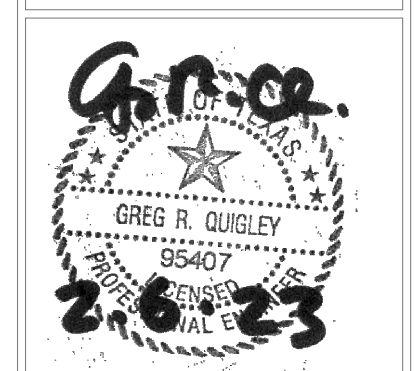
SCALE: 1/2" = 1'-0"

MASTER DRAWING

SHEET NO. 2



FREDDY'S FROZEN CUSTARD
608 SW WILSHIRE BLVD.
BURLESON, TEXAS



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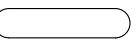
RODGER W. BAKER, AIA

DATE
11/17/2022
02/06/2023

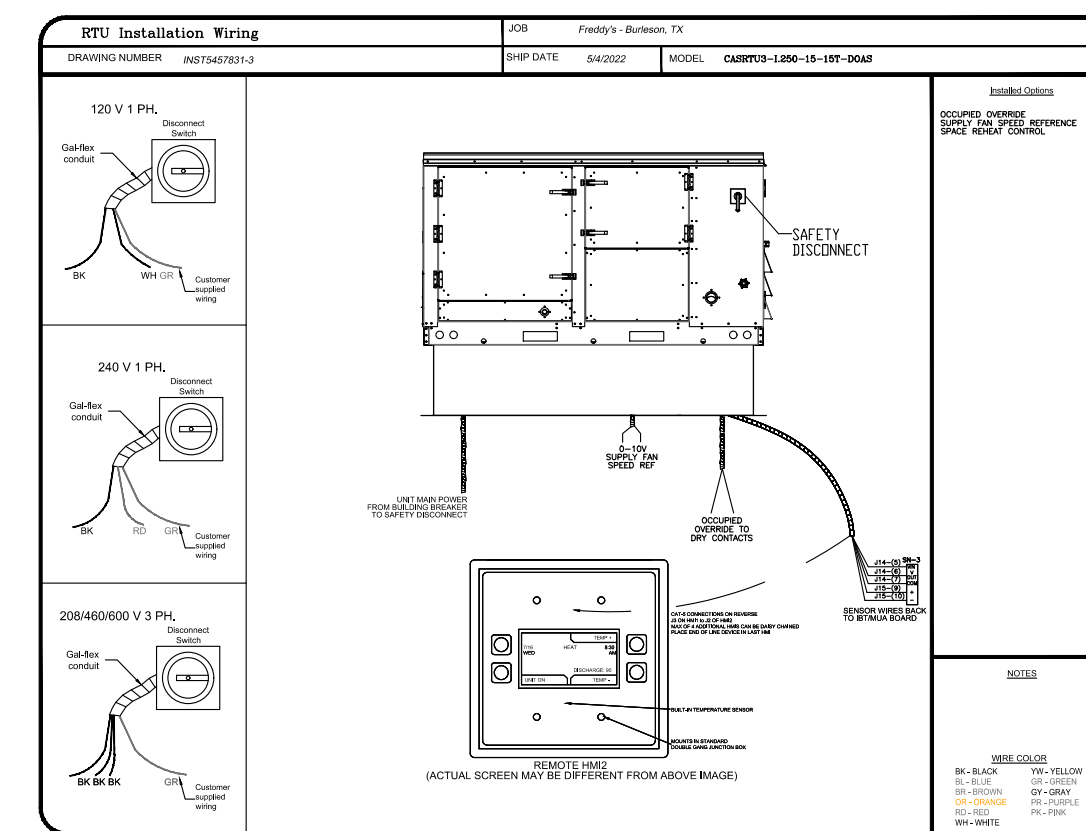
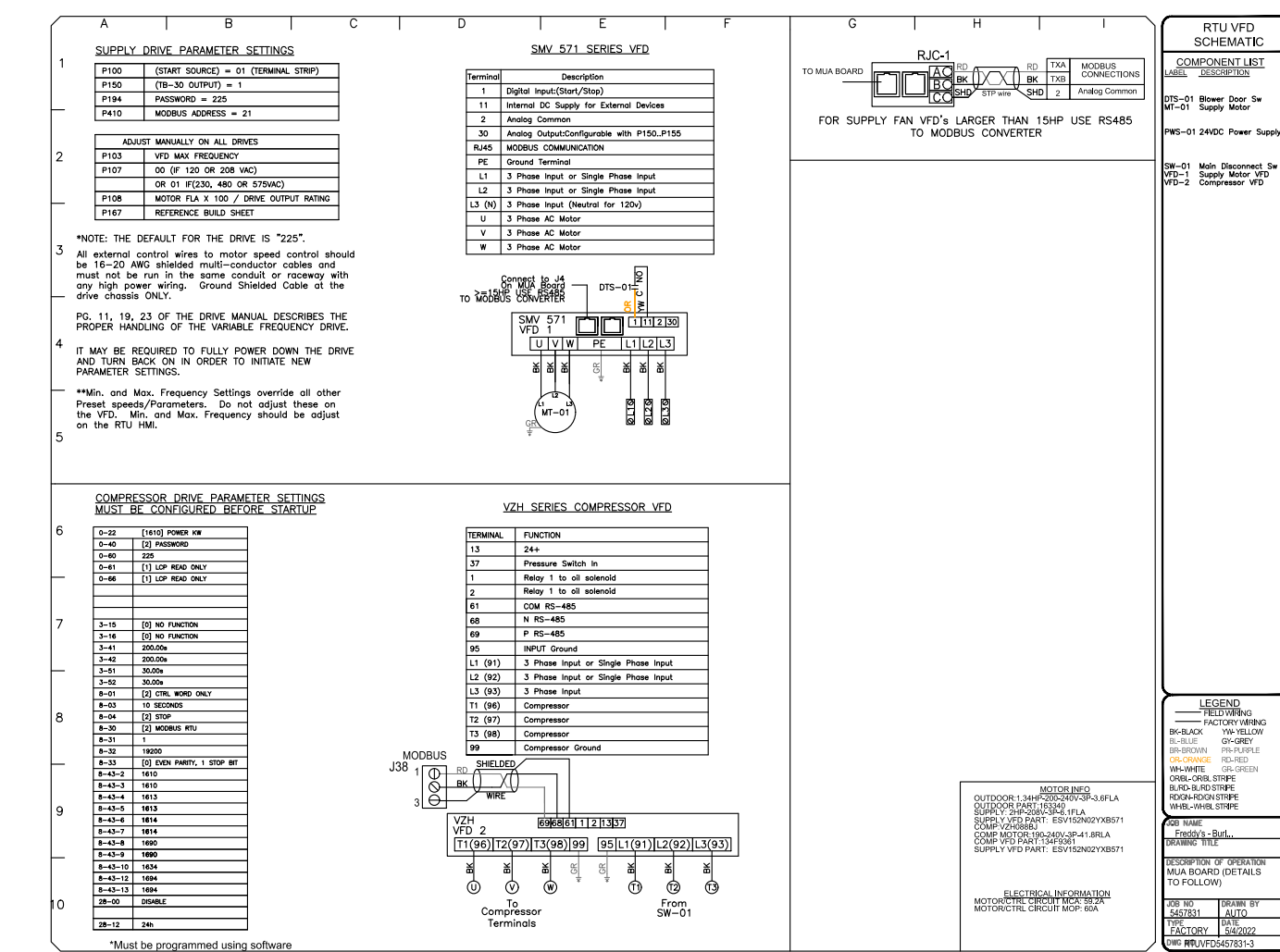
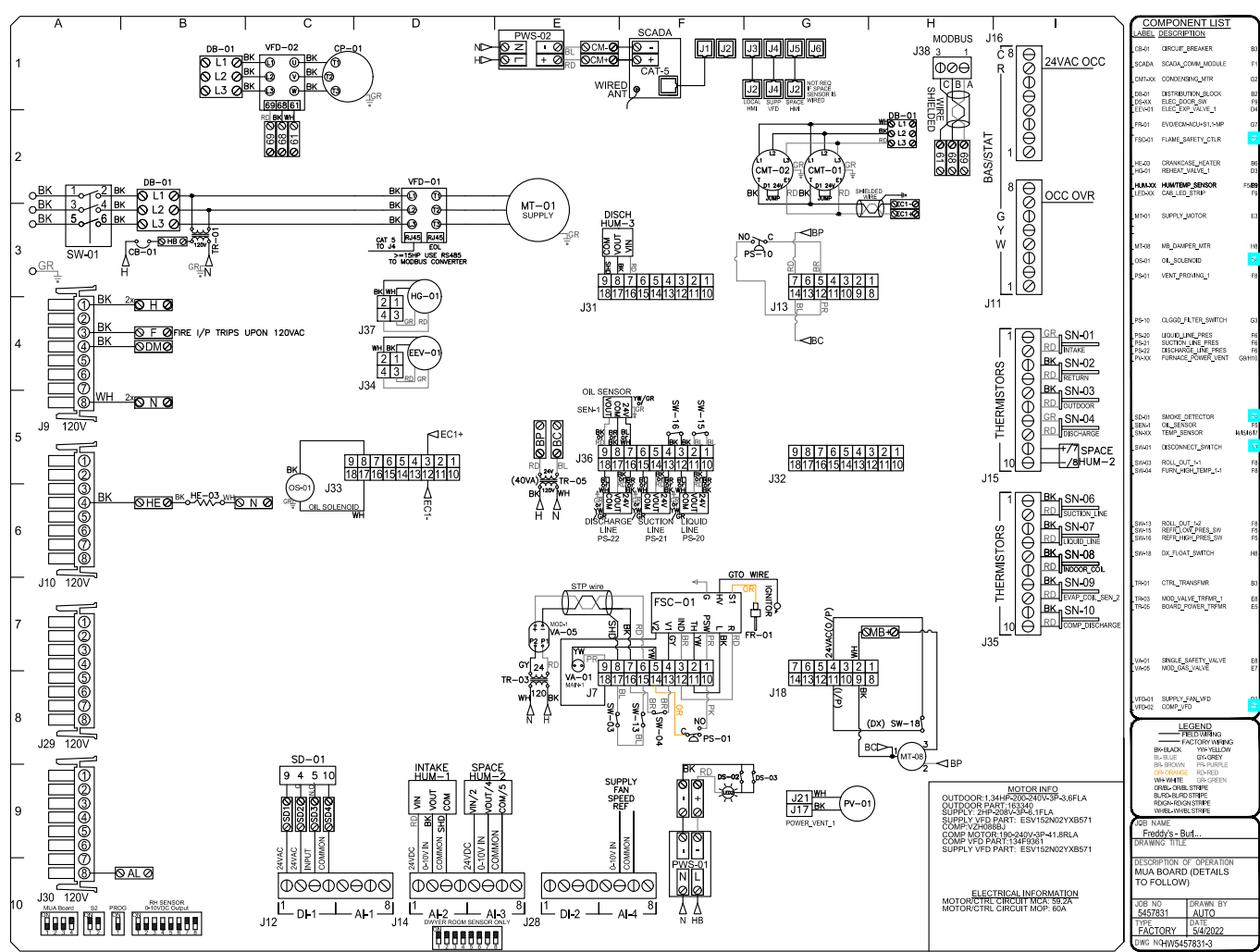
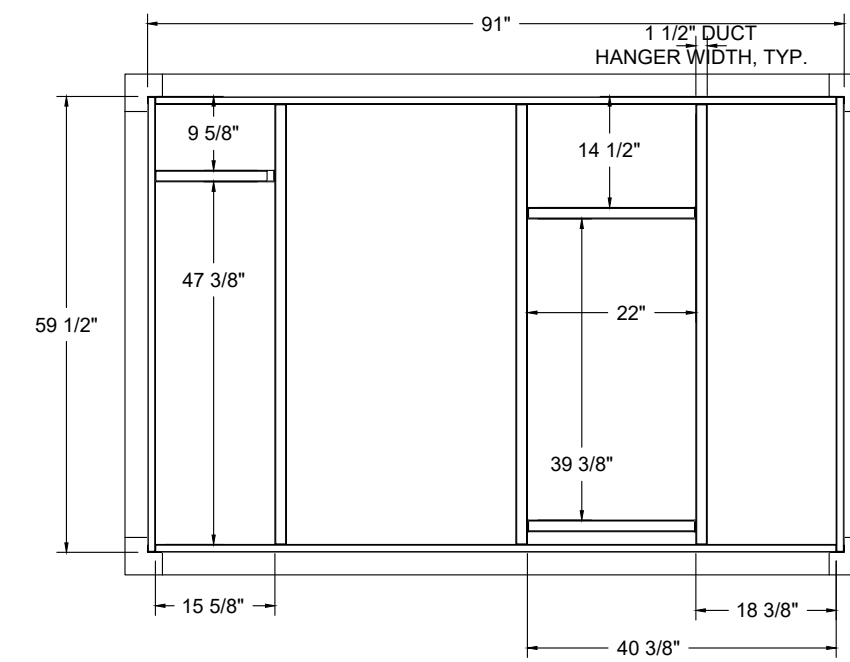
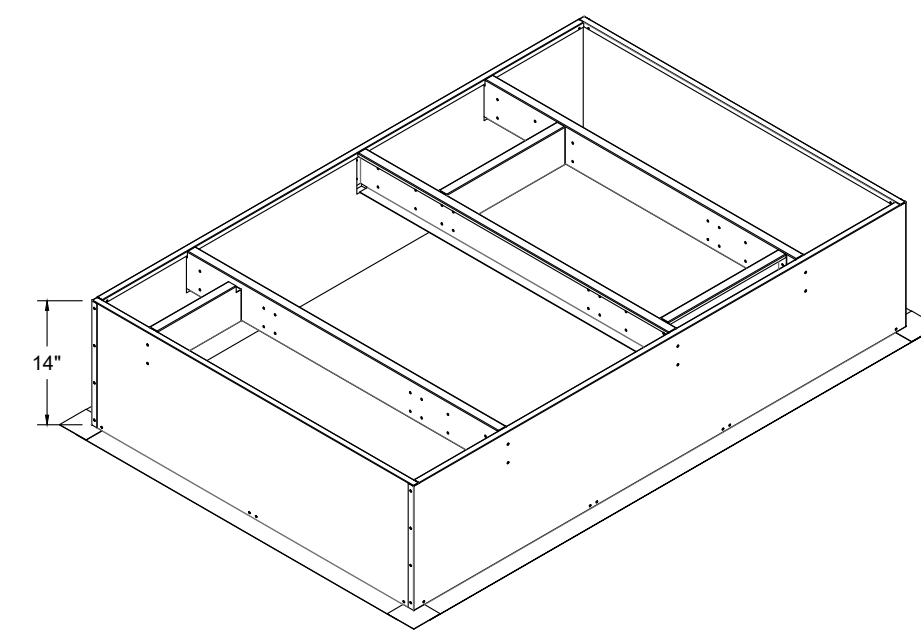
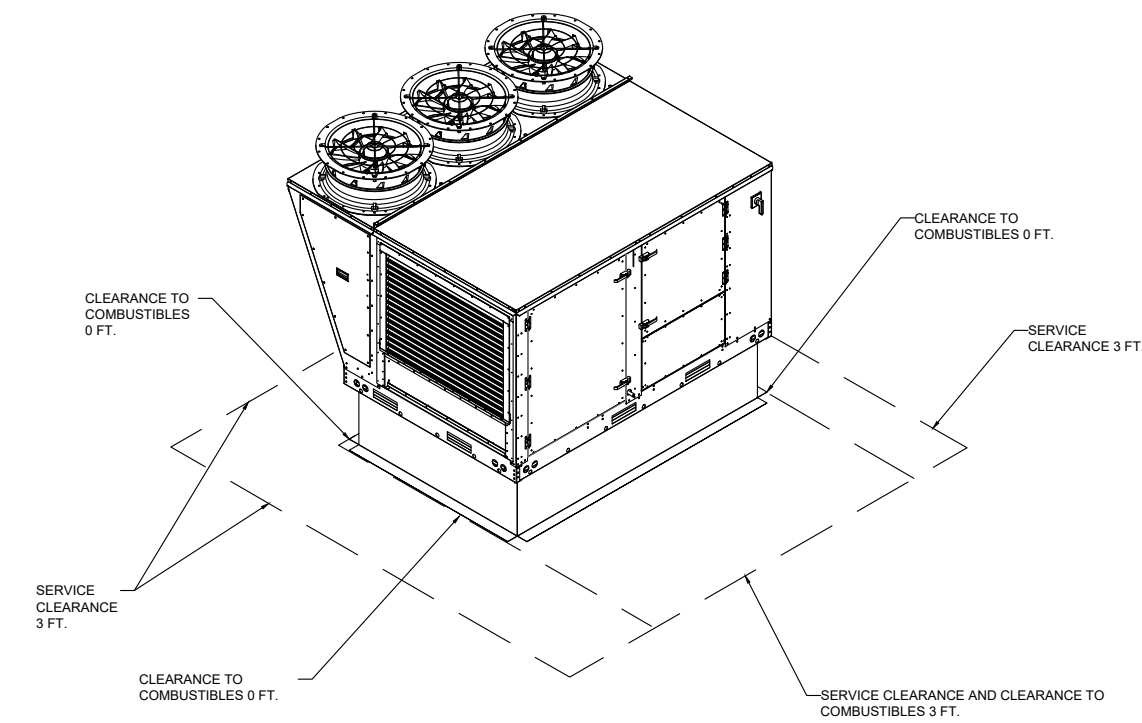
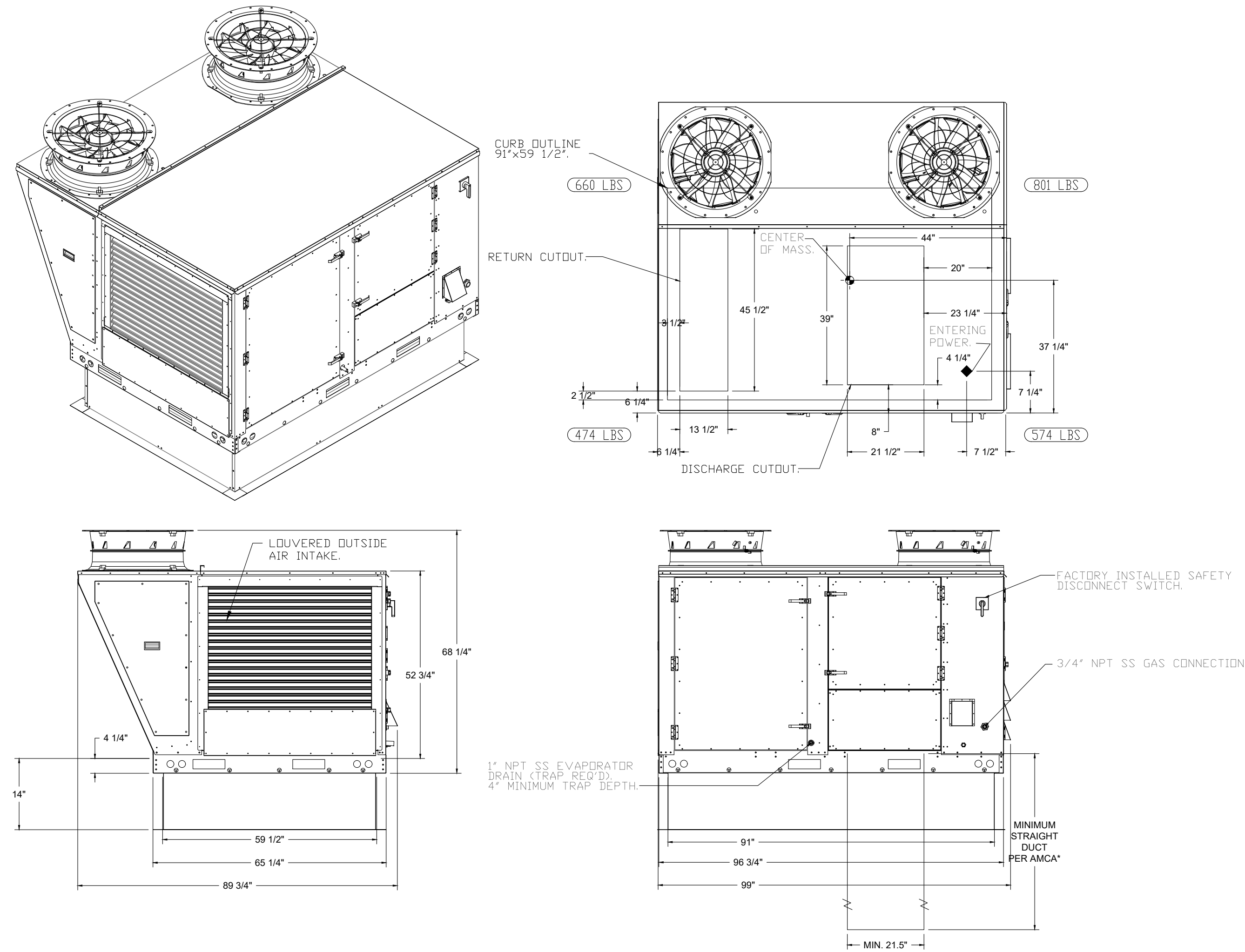
DRAWN BY:
CHECKED BY:
SHEET NO.
M4

FAN #3 CASRTU3-1.250-15-15T-DOAS - HEATER (ITEM 74.3)

NOTES:

- DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
-  DENOTES CORNER WEIGHT.
- ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.

*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 21.5" X 39".



REVISIONS

DESCRIPTION	DATE

CAPTIVE
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Freddy's - Burleson, TX
BURLESON, TX, 76028

DATE: 5/4/2022
DWG.#: 5457831
DRAWN BY: michael.co
SCALE: 1/2" = 1'-0"
MASTER DRAWING

SHEET NO. 3

BDS
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FREDDY'S FROZEN CUSTARD
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BURLESON, TEXAS



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RODGER W. BAKER, AIA

DATE
11/17/2022
02/06/2023

DRAWN BY:
CHECKED BY:

SHEET NO.
M5

