

HVAC MATERIALS SCHEDULE		
SYSTEM	MATERIAL	INSULATION VALUE
SUPPLY/RETURN (INDOORS)	G-90 OR BETTER GALVANIZED SHEET METAL. SEE NOTE 1	R-6
SUPPLY/RETURN (OUTDOORS)		R-8 (CLIMATE ZONE 0-4)
GENERAL EXHAUST		R-12 (CLIMATE ZONE 5-8)
SUPPLY/RETURN FLEX DUCT	UL 181 HELICAL SPRING STEEL W/ VINYL FILM	N/A
CONDENSATE DRAIN (INDOORS)	TYPE L COPPER (PLENUM)	R-3
CONDENSATE DRAIN (OUTDOORS)	PVC	N/A
REFRIGERANT PIPING (SUCTION)	TYPE K COPPER	R-3
REFRIGERANT PIPING (LIQUID)	TYPE K COPPER	N/A

NOTES:

- LOW PRESSURE DUCT THICKNESS WHEN LARGE DIMENSION IS:
 - UP TO 12" - 26 GAUGE
 - 13" TO 30" - 24 GAUGE
 - 21" TO 54" - 22 GAUGE
- REFER TO EQUIPMENT MANUFACTURER'S INSTALLATION MANUAL FOR REFRIGERANT PIPING SIZING AND LINE LENGTH LIMITATIONS.
- NOT ALL SYSTEMS MAY APPEAR IN PROJECT

BALANCE SCHEDULE						
PROJECT SHELL SHACK						PROJECT NO. 25031
PROJECT LOCATION ARLINGTON, TEXAS						7/8/2025
UNIT	SUPPLY AIR	BYPASS AIR	RETURN AIR	OUTSIDE AIR	EXHAUST AIR	PRESSURE
AIR HANDLING UNITS						
RTU-1 (DIN#1)	3500	0	2625	875		875
RTU-2 (DIN#2)	3500	0	2625	875		875
OUTDOOR AIR UNITS						
DOAS (KITCHEN)	3250	0	0	3250		3250
EXHAUST FANS						
EF-1 (HOOD #1)	0		0	0	-1800	-1800
EF-2 (HOOD #2)	0		0	0	-2025	-2025
EF-3 (DISH MACHINE)	0		0	0	-525	-525
EF-4 (RESTROOMS)	0		0	0	-300	-300
TOTAL	10250	0	5250	1750	-4650	350

OUTSIDE AIR CALCULATION						
PROJECT SHELL SHACK						PROJECT NO. 25031
PROJECT LOCATION ARLINGTON, TEXAS						7/8/2025
BAR	305	DIVIDE	1000	X	100	EQUALS 31 PEOPLE
	31	X	7.5	DIVIDE	0.8	291
	305	X	0.18	DIVIDE	0.8	69
DINING	1540	DIVIDE	1000	X	70	EQUALS 108 PEOPLE
	108	X	7.5	DIVIDE	0.8	1013
	1540	X	0.18	DIVIDE	0.8	347
CORRIDOR	177	X	0.06	DIVIDE	0.8	14
VESTIBULE	129	X	0.06	DIVIDE	0.8	10
STORAGE	39	X	0.06	DIVIDE	0.8	3
OFFICE	43	DIVIDE	1000	X	5	EQUALS 1 PEOPLE
	1	X	5	DIVIDE	0.8	6
	43	X	0.06	DIVIDE	0.8	3
KITCHEN	618	DIVIDE	1000	X	20	EQUALS 13 PEOPLE
	13	X	7.5	DIVIDE	0.8	122
	618	X	0.12	DIVIDE	0.8	93
TOTAL OA REQUIRED						1971
TOTAL OA PROVIDED						6000

OUTDOOR AIR VENTILATION FORMULA:

BREATHING ZONE AREA (Az) X OCCUPANT DENSITY 1000 ÷ SF = OCCUPANTS
 OCCUPANTS X PEOPLE OUTDOOR AIR RATE CFM/PERSON(Rp) = CFM
 CFM ÷ ZONE AIR DISTRIBUTION EFFECTIVENESS(Ez) = CFM (1)
 + BREATHING ZONE AREA(Az) X AREA OUTDOOR AIR RATE (Ra) = CFM
 CFM ÷ ZONE AIR DISTRIBUTION EFFECTIVENESS(Ez) = CFM (2)
 (1) + (2) = TOTAL CFM REQUIRED FOR THAT ZONE

KITCHEN OUTDOOR AIR: BREATHING ZONE AREA (Az) X 0.7 CFM PER SQ. FT = CFM
 CFM ÷ ZONE AIR DISTRIBUTION EFFECTIVENESS(Ez) = TOTAL CFM REQUIRED

PACKAGED ROOF-TOP UNIT																					
MARK	BASIS OF DESIGN		SUPPLY FAN				COOLING @ 100° F. AMBIENT				GAS HEAT			EFFICIENCY			ELECTRICAL			WEIGHT (LBS)	REMARKS
	MANUFACTURER	MODEL	CFM	O.A. CFM	ESP IN. W.G.	HP	TOTAL MBH	SENSIBLE MBH	EAT DB/WB	LAT DB/WB	INPUT MBH	OUTPUT MBH	EFF %	EAT DB	LAT DB	EER/SEER	VOLT/Ø	MCA	MOCP		
RTU-1	TRANE	YSK120A4S	3500	875	1.0	3.0	122.07	98.26	81.5/66.6	55.6/54.9	240	194	81	57.5	108.2	11/15.0	460/3	30	40	1,324	1-12
RTU-2	TRANE	YSK120A4S	3500	875	1.0	3.0	122.07	98.26	81.5/66.6	55.6/54.9	240	194	81	57.5	108.2	11/15.0	460/3	30	40	1,324	1-12

REMARKS (PROVIDE AS NOTED):

- PROVIDE WITH UNPOWERED, FIELD WIRED, GFCI CONVENIENCE OUTLET.
- 14" HIGH ROOF CURB.
- 7 DAY PROGRAMMABLE THERMOSTAT.
- FACTORY MOUNTED SUPPLY AIR SMOKE DETECTOR.
- PROVIDE REMOTE SMOKE DETECTOR TEST STATION FOR FIELD MOUNTING IN CEILING BELOW UNIT.
- TITLE 24 COMPLIANT 0-100% DRY BULB ECONOMIZER WITH FAULT DETECTION DEVICE.
- BAROMETRIC RELIEF.
- CLOGGED FILTER & CONDENSATE OVERFLOW SWITCH.
- THROUGH BASE CONDENSATE.
- PROVIDE MERV 8 FILTERS BEFORE TEST AND BALANCE.
- UNIT SUPPLY FAN SHALL BE INTERLOCKED WITH KITCHEN EXHAUST FAN OPERATION TO MAINTAIN BUILDING PRESSURE.
- PROVIDE WITH MODULATING HOT GAS REHEAT W/CONTROLS (LIMITED TO 50%).

NOTES:

- PROVIDE ALL ROOFTOP UNITS WITH FACTORY MOUNTED DISCONNECT AND SINGLE POINT POWER CONNECTION.
- APPROVED MANUFACTURERS ARE: AAO, CARRIER, LENNOX, TRANE, & YORK.
- COORDINATE EXACT LOCATION OF UNIT WITH STRUCTURAL.
- INSTALL ALL UNITS LEVEL FOR PROPER CONDENSATE DRAINAGE, SHIM CURBS AS REQUIRED.
- PROVIDE ALL UNITS WITH HINGED ACCESS PANELS.

FAN SCHEDULE										
MARK	SERVES	SYSTEM	CFM	ESP. (IN. W.G.)	MOTOR		ELECTRICAL VOLT / Ø	BASIS OF DESIGN		REMARKS
					HP	RPM		MANUFACTURER	MODEL	
DAOS	KITCHEN	SUPPLY	3250	SEE HOOD DWGS						1
EF-1	HOOD #1	EXHUAUST	1800	SEE HOOD DWGS						1
EF-2	HOOD #2	EXHUAUST	2025	SEE HOOD DWGS						1
EF-3	HOOD #3	EXHUAUST	525	SEE HOOD DWGS						1
EF-4	RESTROOMS	EXHUAUST	300	0.375	1/3	1550	115/1	GREENHECK	G-070-DGE	2,3

NOTES:

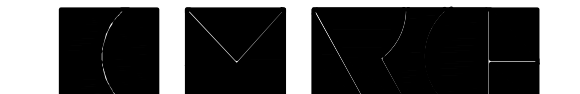
- REFER TO KITCHEN HOOD AND FAN DRAWINGS FOR MORE INFORMATION. ACCESSORIES INCLUDE: GREASE BOX, HINGED CURB, AND FAN BASE CERAMIC SEAL.
- PROVIDE WITH MANUFACTURER'S 14" HIGH ROOF CURB, BACKDRAFT DAMPER, BIRDSCREEN, AND DISCONNECT SWITCH.
- INTERLOCK FAN WITH TIME CLOCK PROVIDED BY THIS CONTRACTOR. FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED HOURS.
- INTERLOCK FAN WITH THERMOSTAT, SETPOINT 85°F. FAN SHALL NOT RUN WHEN ELECTRIC UNIT HEATER IS ON.

AIR DEVICE SCHEDULE							
MARK	MANUFACTURER	MODEL	FACE SIZE	NECK SIZE	MAX FLOW	MAX NC	DESCRIPTION
S1	PRICE	SCD	24X24	10Ø	315	25	SQUARE CONE CEILING DIFFUSER
S2	PRICE	PDS	24X24	10Ø	215	25	PERFORATED CEILING DIFFUSER, NO DIRECTIONAL VANES
S3	PRICE	SCD	12X12	6Ø	150	25	SQUARE CONE CEILING DIFFUSER
S4	PRICE	RCDE	16" ROUND	10Ø	450	25	ROUND CONE DIFFUSER
S5	PRICE	TBD7	48X7	10Ø	200	25	FOUR SLOT - TWO WAY SLOT DIFFUSER WITH PLENUM BOX
R1	PRICE	80SR	24X24	16Ø	1300	25	EGG CRATE GRILLE, INTEGRATED PLENUM, SQUARE TO ROUND ADAPTER
R2	PRICE	PDDR	24X24	18X18	1315	25	PERFORATED CEILING DIFFUSER
R3	PRICE	80SR	12X12	8Ø	150	25	EGG CRATE GRILLE, INTEGRATED PLENUM, SQUARE TO ROUND ADAPTER
X1	PRICE	PDDR	12X12	6Ø	150	25	PERFORATED CEILING DIFFUSER
X2	PRICE	530	10X10	8X8	225	25	SIWALL GRILLE, 45° DEFLECTION, 3/4" SPACING, STEEL

NOTES:

- COORDINATE BORDER AND FINISH WITH ARCHITECTURAL DOCUMENTS.
- PROVIDE CEILING RADIATION DAMPER AT RATED ASSEMBLIES.
- PROVIDE MANUAL BALANCER DAMPER FOR EACH SUPPLY AIR DEVICE.
- BRANCH DUCT SIZE SHALL BE SAME AS NECK SIZE UNLESS OTHERWISE SHOWN ON DRAWINGS.

ARCHITECT



CIVITARESE | MORGAN ARCHITECTURE

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IRVING, TEXAS 75063

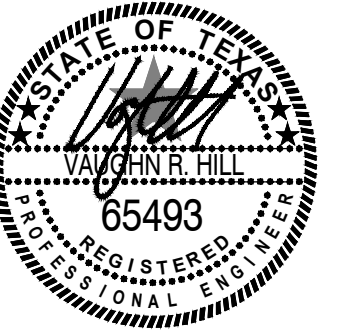
TEL: 214-613-0680 FAX: 469.730.3341

ENGINEER:



239-C Southland Drive - Lexington, KY 40503
859-276-2006 / 859-276-2901 Facsimile
ENGINEER BUSINESS REGISTRATION #F-3328

SEAL



07-08-2025

ARCHITECTURAL PROJECT NO.: 115-01



4000 FIVE POINTS BLVD.
SUITE 101
ARLINGTON, TX 76018

NO.	REVISIONS:	DATE:

TENANT REVIEW ISSUE DATE: 07.08.25
 LANDLORD REVIEW ISSUE DATE: 07.08.25
 PERMIT ISSUE DATE: 07.08.25
 BID ISSUE DATE: 07.08.25
 CONSTRUCTION ISSUE DATE: XX.XX.25

DRAWING TITLE:

MECHANICAL SCHEDULES

DRAWING NUMBER:

M4.0

ISSUED FOR PERMIT 07/08/2025

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FOR QUESTIONS, CALL THE
Dallas Office
REGION 45
PHONE: (214) 220 - 3999
EMAIL: reg45@captiveaire.com

PATENT NUMBERS
EXHAUST HOODS ND-2/BD-2/SND-2 (CANADA) - CA PATENT 2520435 C.

HOOD INFORMATION - JOB#7569549

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)				HOOD CONSTRUCTION	HOOD CONFIG				
										WIDTH	LENG	HEIGHT	DIA		CFM	VEL	SP	END TO END	ROW
1		6630 ND-2	CAPTIVEAIRE	9' 0"	600 DEG	I	HEAVY	200	1800			4'	14'	1800	1684	-0.666'	430 SS WHERE EXPOSED	ALONE	FRONT
2		6030 ND-2	CAPTIVEAIRE	9' 0"	600 DEG	I	HEAVY	225	2025			4'	14'	2025	1894	-0.843'	430 SS WHERE EXPOSED	ALONE	BACK
3		4230 VHB-G	CAPTIVEAIRE	3' 6"	700 DEG	II	N/A	150	525			4'	10'	525	963	-0.069'	430 SS 100%	ALONE	ALONE

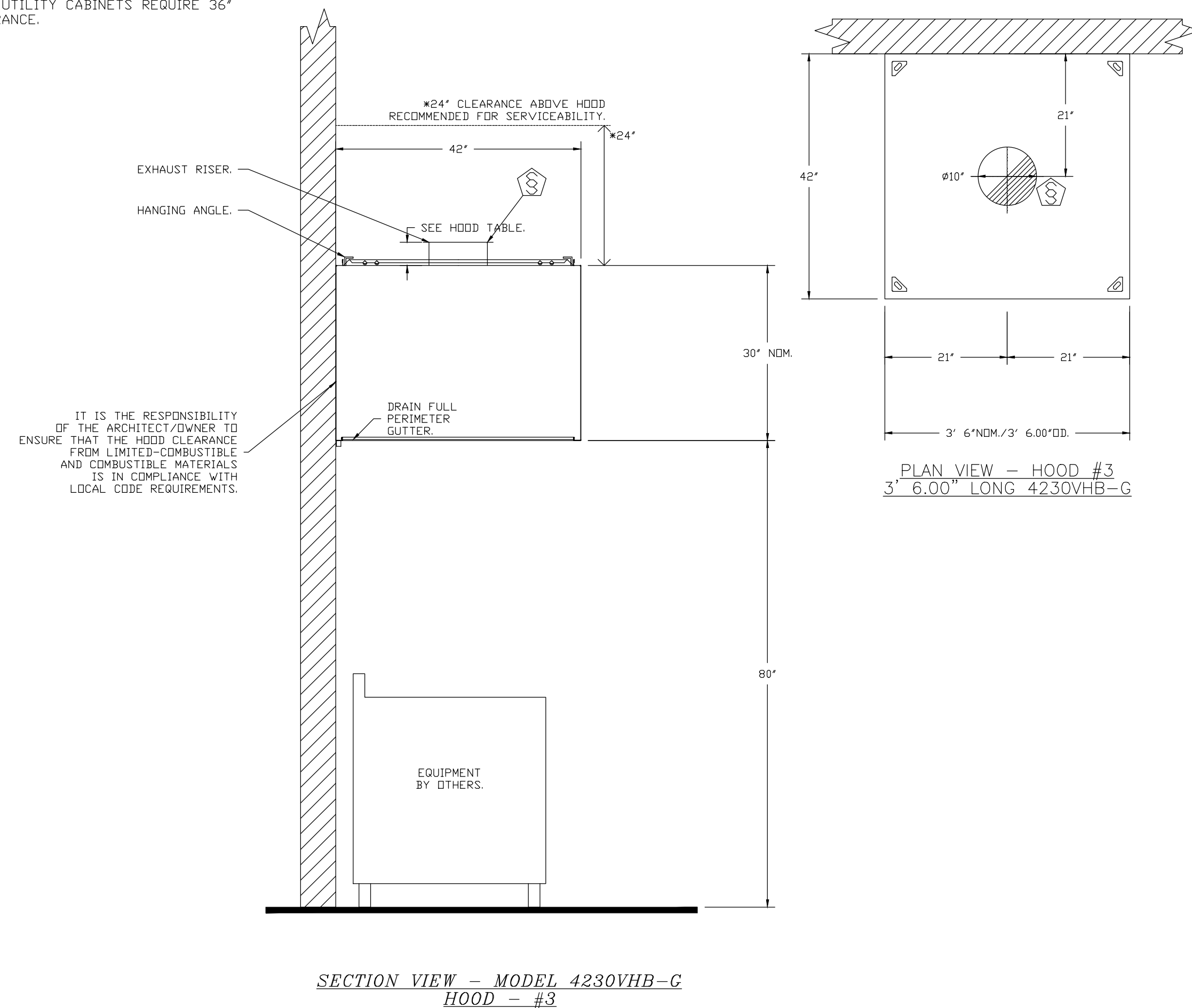
HOOD INFORMATION

HOOD NO	TAG	FILTER(S)				LIGHT(S)				UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD HANGING WEIGHT			
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	TYPE	SIZE			MODEL #	SWITCHES QUANTITY	
1		CAPRATE SOLID FILTER	6	20"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	NO	LEFT	12"x66"x30"	TANK FS	4.0/4.0/4.0/4.0	DCV-2111	1 LIGHT	1 FAN	YES	1017 LBS
2		CAPRATE SOLID FILTER	6	20"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	NO	RIGHT	12"x60"x30"						YES	550 LBS
3							0										NO	145 LBS

CLEARANCE TO COMBUSTIBLES

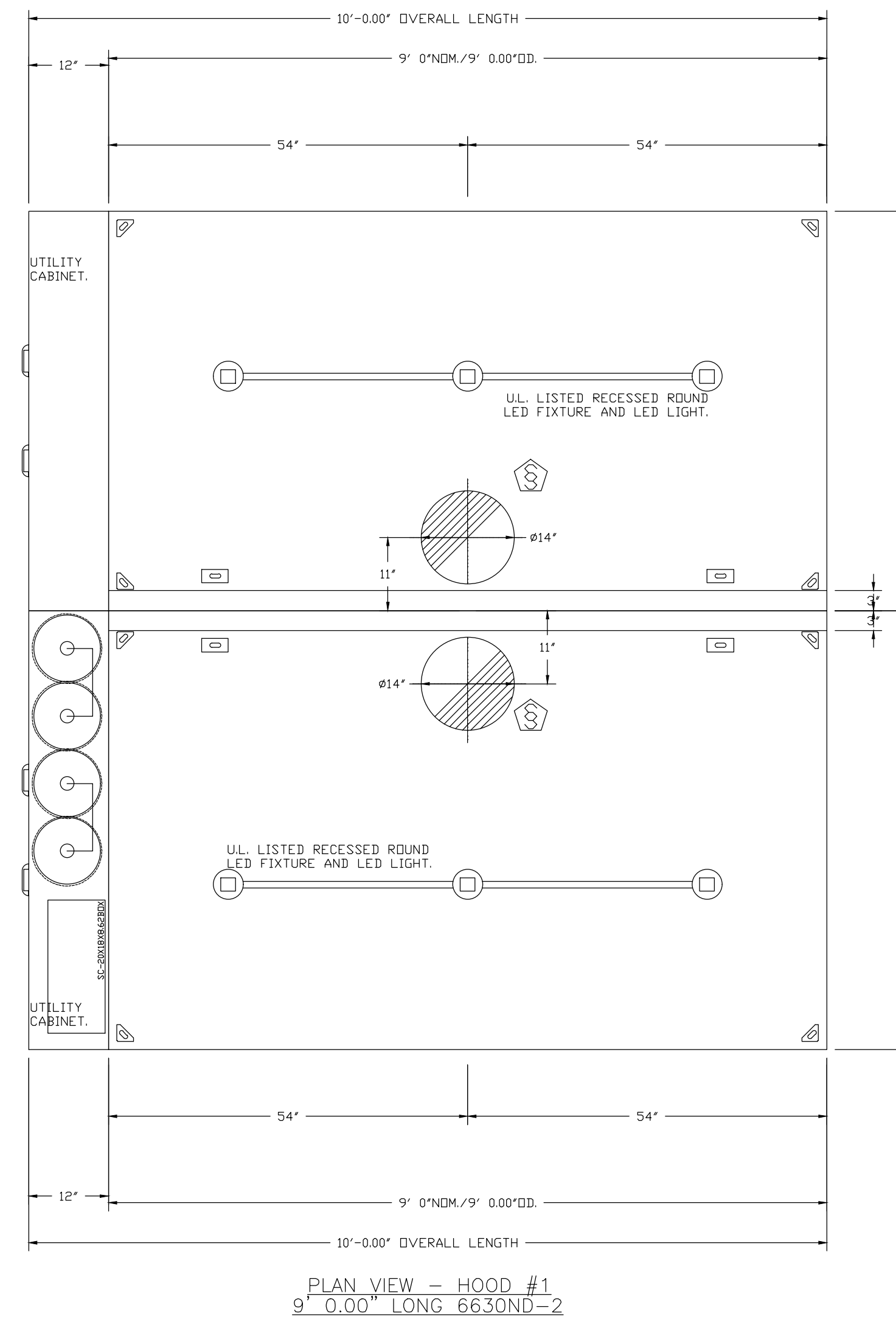
HOODS #	SURFACE	*CLEARANCE
1	TOP	18"
	FRONT	0"
	BACK	18"
	LEFT	0"
2	RIGHT	18"
	TOP	18"
	FRONT	0"
	BACK	18"
3	LEFT	18"
	RIGHT	0"

- *0" CLEARANCE TO COMBUSTIBLES CONFORMS TO UL710 STANDARD.
- HOOD MOUNTED UTILITY CABINETS REQUIRE 36" SERVICE CLEARANCE.

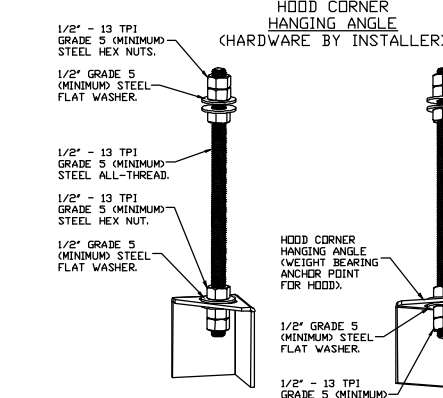


PLAN VIEW - HOOD #3
3' 6.00" LONG 4230VHB-G

PLAN VIEW - HOOD #2
9' 0.00" LONG 6030ND-2



PLAN VIEW - HOOD #1
9' 0.00" LONG 6630ND-2



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.

REVISIONS	
DESCRIPTION	DATE

CAPTIVEAIRE
Dallas Office
1901 Royal Lane Suite 101, DALLAS, TX, 75229 PHONE: (214) 220 - 3999 FAX: 2142000099 EMAIL: reg45@captiveaire.com

Shell Shack Arlington D0AS
Arlington, TX, 76001

DATE: 6/9/2025
DWG.#: 7569549
DRAWN BY: DJL-45

MASTER DRAWING
SHEET NO. 1

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DRAWING TITLE:
MECHANICAL KITCHEN HOODS AND FANS
DRAWING NUMBER:
M5.0

ISSUED FOR PERMIT 07/08/2025

