

**E5 HVAC PLAN**  
SCALE: 1/4" = 1'-0"

MECHANICAL DESIGN STANDARDS:  
2018 SC MECHANICAL CODE OR 2018 INTERNATIONAL MECHANICAL CODE WITH SC AMENDMENTS

SUPPLY DUCTWORK SIZING TABLE*				
SIZE	ROUND		RECTANGULAR	
	CFM RANGE	SIZE	CFM RANGE	SIZE
8"	115 - 235	8"x8"	205 - 300	
10"	240 - 435	10"x8"	305 - 400	
12"	440 - 710	10"x10"	405 - 550	
14"	715 - 1,070	12"x10"	555 - 700	
16"	1,075 - 1,530	12"x12"	705 - 900	
18"	1,535 - 2,090	14"x12"	905 - 1,105	
20"	2,095 - 2,760	16"x12"	1,110 - 1,315	
22"	2,765 - 3,550	18"x12"	1,320 - 1,520	
24"	3,555 - 4,470	20"x12"	1,525 - 1,740	
		22"x12"	1,745 - 1,950	
		24"x12"	1,955 - 2,170	
		26"x12"	2,175 - 2,400	
		28"x12"	2,405 - 2,610	
		30"x12"	2,615 - 2,840	
		32"x12"	2,845 - 3,070	
		34"x12"	3,075 - 3,290	
		36"x12"	3,295 - 3,520	
		36"x14"	3,525 - 4,420	

\*CONTRACTOR MAY SUBSTITUTE RECTANGULAR FOR ROUND DUCTWORK ON MAIN RUNS AT THEIR DISCRETION. BRANCHES TO DIFFUSERS TO REMAIN ROUND.

DIFFUSER, REGISTER, AND GRILLE SCHEDULE									
TAG	SERVICE	TYPE	MATERIAL	THROW	FACE	NECK	MOUNTING	MANUFACTURER/MODEL	Notes
SD-1	SUPPLY	LOUVERED	STEEL	4-WAY	24X24	SEE PLAN	LAY-IN	CARNES SFP24	2, 4
SD-2 - NOT USED									
SD-3	SUPPLY	LOUVERED	STEEL	3-WAY	SEE PLAN	SEE PLAN	SURFACE	CARNES SKSA	2, 4
SD-4	SUPPLY	LOUVERED	STEEL	4-WAY	12X12	SEE PLAN	SURFACE	CARNES SKSA	1, 2, 4
SD-5	SUPPLY	PERFORATED	STEEL	PERFORATED	24X24	SEE PLAN	LAY-IN	CARNES SPRB24	2, 4
RG-1	RETURN	SQUARE EGGRATE	ALUMINUM	N/A	24X24	22x22	LAY-IN	CARNES RAPMF	2, 3, 4
EG-1	RETURN	LOUVERED GRILLE	STEEL	N/A	12X12	SEE PLAN	SURFACE	CARNES RTLAH	1, 2, 4
TG-1	TRANSFER	LOUVERED GRILLE	STEEL	N/A	SEE PLAN	SEE PLAN	SURFACE	CARNES RTLAH	2, 4

DIFFUSER NOTES:

1. PROVIDE w/ ADJUSTABLE OPPOSED BLADE DAMPER
2. VERIFY ALL DIFFUSERS AND RETURN GRILLE COLORS WITH OWNER AND ARCHITECT
3. PROVIDE w/ 22X22 PLENUM BOX.
4. ALL DIFFUSERS AND RETURNS LOCATED IN BLACK CEILING SHALL BE FLAT BLACK FINISH.

## GENERAL NOTES

- DEVIATIONS FROM THE HVAC PLANS ARE THE RESPONSIBILITY OF THE HVAC CONTRACTOR & WILL NOT RESULT IN ADDITIONAL COSTS TO THE OWNER UNLESS WRITTEN CHANGE ORDERS ARE APPROVED BY THE OWNER.
- ALL WORK TO BE PERFORMED TO STATE CODE & SMACNA GUIDELINES.
- INSTALL UNITS ACCORDING TO MANUFACTURERS GUIDELINES.
- PROVIDE OWNER W/ OPERATION & MAINTENANCE MANUALS & SYSTEM SCHEMATICS.
- CONTRACTOR TO CONFIRM VOLTAGES & PHASES OF EQUIPMENT PRIOR TO INSTALLATION.
- VERIFY ALL EXISTING CONDITIONS PRIOR TO INSTALLATION (DRAWINGS ARE DIAGRAMMATIC IN NATURE & DO NOT REFLECT EXACT LOCATIONS OF EQUIPMENT OR OTHER APPARATUS.)
- PROVIDE SHOP DRAWINGS TO THE ARCHITECT/DESIGNER FOR EQUIPMENT, FANS, REGISTERS, ETC. PRIOR TO PROCUREMENT.
- PROVIDE OWNER W/ COLOR CHOICES FOR SWITCHES & OTHER APPARATUS WHERE APPLICABLE.
- VENT OWNER WATER HEATER AS REQUIRED.
- VENT DRYER THRU SIDEWALL TO EXTERIOR AS REQUIRED. MAINTAIN CLEARANCE FROM INTAKES AS NOTED.
- HANG & SUPPORT MATERIALS SHALL BE INSTALLED THE LATEST EDITION OF THE ASHRAE HANDBOOK OF FUNDAMENTALS.
- MAINTAIN AT LEAST 10 FEET CLEARANCE FROM INTAKES OR WINDOWS ON ALL EXHAUST VENTS.
- TEST, ADJUST, & CALIBRATE CONTROL SYSTEMS AS REQUIRED. PROVIDE SCHEMATICS / DESCRIPTION TO THE OWNER PRIOR TO INSTALLATION.
- INSTALLER RESPONSIBLE FOR FINAL TEST & BALANCING DURING TRAINING WEEK. PROVIDE WRITTEN REPORT BY THIRD PARTY INDEPENDENT TAB CONTRACTOR.
- HVAC CONTRACTOR TO INSTALL #2 GAS W/ 14" WATER COLUMN MAX. PER STATE CODE & AGA GUIDELINES (LABEL AS REQUIRED).
- CONTRACTOR TO VERIFY GAS METER CAPACITY W/ LOCAL GAS SUPPLIER.
- VERIFY W/ OWNER EXACT HEATER LOCATION TO AVOID BUILDING FUNCTION INTERFERENCE.
- REPLACE ALL AIR FILTERS PRIOR TO TURNING SYSTEM OPERATIONS OVER TO OWNER.
- HVAC CONTRACTOR IS RESPONSIBLE FOR A COMPLETE & FULLY WORKING SYSTEM.
- DUCT DIMENSIONS LISTED ARE NET FREE - CLEAR INSIDE DIMENSIONS.
- VERIFY DUCT LOCATIONS PRIOR TO FABRICATION. (VERIFY LIMITED AREA FOR DUCTWORK & OTHER APPARATUS.)
- INSULATE DUCT WORK TO SMACNA GUIDELINES & STATE CODES.
- INSTALL VOLUME CONTROL DAMPERS AS INDICATED ON PLANS.
- FLEXIBLE ROUND DUCT WORK NOT TO EXCEED 8 FEET IN LENGTH. AVOID UNNECESSARY TURNS & SLACK.
- VERTICAL RETURN AIR DUCT WORK DOWN FROM RTU'S TO BE LINED FOR SOUND ATTENUATION.
- DUCT WORK TO BE STANDARD GAUGE SHEET METAL (FIBROUS DUCT NOT ALLOWED.)
- INSULATE EXHAUST DUCT FOR EXHAUST FAN TO EXTERIOR TERMINATION.
- COORDINATE WORK W/ GENERAL CONTRACTOR & OWNER TO MAXIMIZE CEILING HEIGHT & AVOID CONFLICTS.
- S/S WALL PANELS FOR THE KITCHEN AREA ARE TO BE FURNISHED AND INSTALLED BY THE HVAC CONTRACTOR. PANELS ARE TO BE 18 GA. TYPE 304 S/S. SEE DETAILS AND LOCATIONS ON THE A103 DRAWING.
- EXHAUST FANS AND FURNACE FANS TO RUN CONTINUOUSLY DURING OCCUPIED MODE.
- NIGHT SET BACK THERMOSTATS TO BE INSTALLED ON ALL HVAC EQUIPMENT.

### NATIONAL ACCOUNT PROGRAM

- LENNOX INDUSTRIES, INC. - ROOFTOP HVAC EQUIPMENT**  
National Accounts Sales: (800) 367-6280 Option #1 lennox.com  
National Account Technical Support: (800) 367-6280 Option #2 lennox.com
- ACCUREX GREENHECK FAN CORPORATION - KITCHEN HOODS, EXHAUST FANS, ROOF CURBS, ANSUL SYSTEMS, ACCESSORIES AND TEST AND BALANCE**  
CONTACT AND JAMES @ 1-773-220-6020 or james.jordan@accurex.com  
Secondary contact: Philip Kraft 1-262-327-7860 philip.kraft@accurex.com  
ACCUREX WILL PROVIDE BALANCED AIRFLOW AND FUNCTIONAL CHARACTERISTICS OF THE HVAC AS THEY RELATE TO AIRFLOW AND RESISTANCE ONLY. SERVICES TO BE PERFORMED BY A CERTIFIED NEBB FIRM AND ITS MANAGING GROUP - NATIONAL TAB
- CARNES COMPANY - DIFFUSERS AND GRILLES**  
National Accounts Sales: Chris Strawn @ (800) 840-6411 cstrawn@carne.com  
National Accounts Rep: Brian Baker @ (800) 840-6411 bbaker@carne.com

## MECHANICAL EQUIPMENT SPECIFICATIONS

- RTU-1 **LENNOX EMERGENCY SERIES LGH-240-H4B W/ PRODIGY CONTROLLER**  
COMBINATION GAS W/ HIGH TWO-STAGE HEATING & ELECTRIC COOLING ROOFTOP UNIT W/ HUMIDITROL & STAINLESS STEEL HEAT EXCHANGER. LOW HEAT 169,000 BTU/HR & HIGH HEAT 260,000 BTU/HR INPUT HEATING CAPACITY, 80.0% EFF. 240,000 NOMINAL COOLING CAPACITY, 12.0 EER, 208 / 230 VOLT, 3 PHASE, 100 MCOOP (NOTIFY ELECTRICAL CONTRACTOR IF BREAKER SIZE CHANGES), 5,850 CFM CONSTANT VOLUME SUPPLY, 1,750 CFM QA MINIMUM. IN ADDITION TO THE OPTIONS LISTED ABOVE, INCLUDE THE FOLLOWING FACTORY INSTALLED OPTIONS: WEATHERPROOF DISCONNECT SWITCH, FACTORY INSTALLED FIELD POWERED GFCI, RETURN AIR SMOKE DETECTORS, DRAIN PAN OVERFLOW SWITCH, SINGLE ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF AND HOODS. INCLUDE THE FOLLOWING FIELD INSTALLED OPTIONS: 2" MERV13 FILTERS, SPARE BELT, DOWN FLOW HYBRID CURB, PVC DRAIN TRAP KIT, REMOTE HUMIDITY SENSOR, MESH HAIL GUARD, LENNOX MODEL CS7500 PROGRAMMABLE THERMOSTAT. **NO SUBSTITUTIONS.**
- RTU-2 **LENNOX EMERGENCY SERIES LGH-240-H4B W/ PRODIGY CONTROLLER**  
COMBINATION GAS W/ HIGH TWO-STAGE HEATING & ELECTRIC COOLING ROOFTOP UNIT W/ HUMIDITROL & STAINLESS STEEL HEAT EXCHANGER. LOW HEAT 169,000 BTU/HR & HIGH HEAT 260,000 BTU/HR INPUT HEATING CAPACITY, 80.0% EFF. 240,000 NOMINAL COOLING CAPACITY, 12.0 EER, 208 / 230 VOLT, 3 PHASE, 100 MCOOP (NOTIFY ELECTRICAL CONTRACTOR IF BREAKER SIZE CHANGES), 6,150 CFM CONSTANT VOLUME SUPPLY, 1,700 CFM QA MINIMUM. IN ADDITION TO THE OPTIONS LISTED ABOVE, INCLUDE THE FOLLOWING FACTORY INSTALLED OPTIONS: WEATHERPROOF DISCONNECT SWITCH, FACTORY INSTALLED FIELD POWERED GFCI, RETURN AIR SMOKE DETECTORS, DRAIN PAN OVERFLOW SWITCH, SINGLE ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF AND HOODS. INCLUDE THE FOLLOWING FIELD INSTALLED OPTIONS: 2" MERV13 FILTERS, SPARE BELT, DOWN FLOW HYBRID CURB, PVC DRAIN TRAP KIT, REMOTE HUMIDITY SENSOR, MESH HAIL GUARD, LENNOX MODEL CS7500 PROGRAMMABLE THERMOSTAT. **NO SUBSTITUTIONS.**
- PRV-1 **RESTROOM EXHAUST FAN - REFER TO SHEET M204**
- PRV-2 **GRIDDLE EXHAUST FAN - REFER TO SHEET M202**
- PRV-3 **FRYER EXHAUST FAN - REFER TO SHEET M203**
- EF-1A **MOP ROOM EXHAUST FAN - REFER TO SHEET M204**
- ITEM #49A **GRIDDLE HOOD - REFER TO SHEET M202**
- ITEM #59A **FRYER HOOD - REFER TO SHEET M203**
- ECH-1 **ELECTRIC CEILING HEATER Q-MARK OR EQUAL CDF-548 ELECTRIC CEILING HEATER & CDF RECESSED MOUNTING FRAME, CDF-TR4 TRANSFORMER & WALL MOUNTED THERMOSTAT, 208/240 VOLT SINGLE PHASE = 19.2 AMPS (SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR.)**

**EWH-1 ELECTRIC WALL HEATER Q-MARK OR EQUAL AVH4408F-4KV ELECTRIC WALL HEATER, FULLY RECESSED, 208 VOLT SINGLE PHASE = 19.2 AMPS (SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR.)**

DELETED EWH NOTE

## CONTROL NOTES

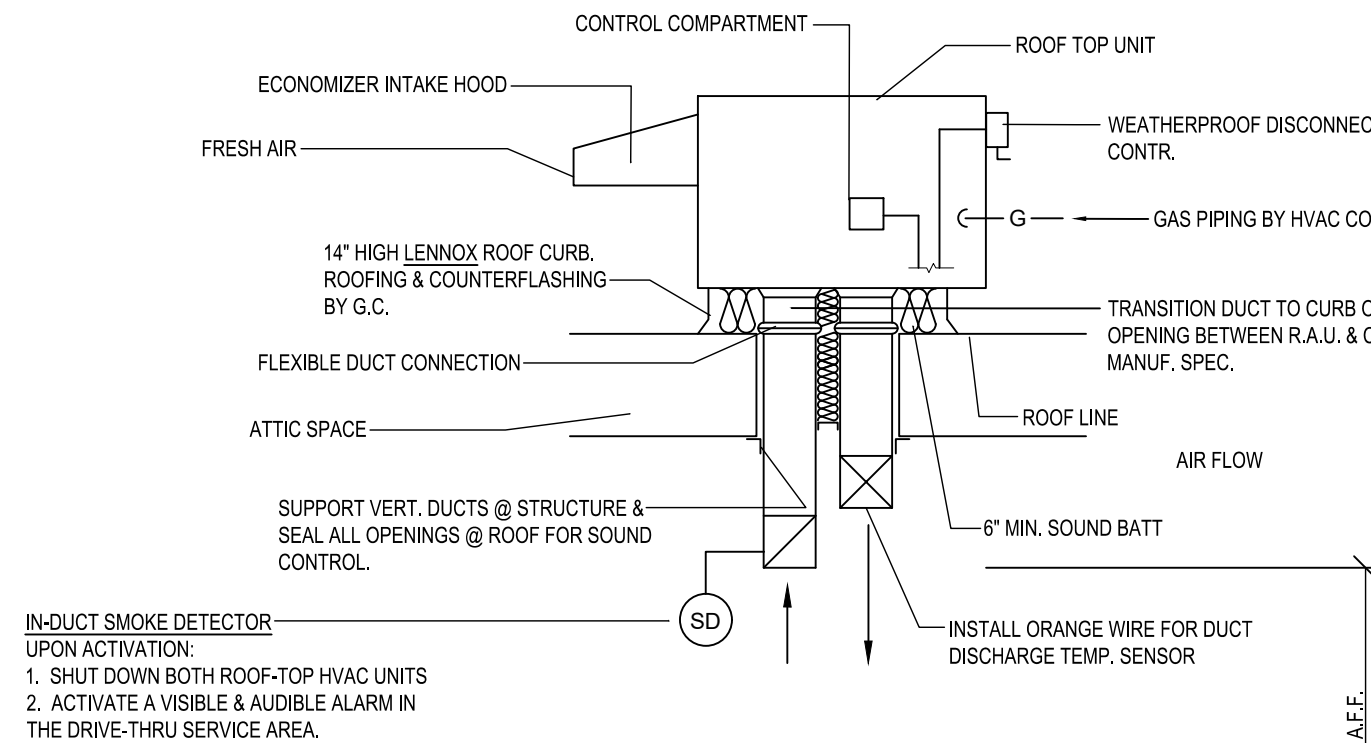
NOTE: KITCHEN HOODS SUPPLIED AND INSTALLED BY HVAC CONTRACTOR

- WIRE RTU-1, RTU-2 TO SHUT-DOWN EXHAUST HOOD FANS TO CONTINUE TO RUN UPON ACTIVATION OF THE ANSUL SYSTEM.
- WIRE RTU-1 & RTU-2 TO SHUT-DOWN UPON ACTIVATION OF ANY IN-DUCT SMOKE DETECTOR.
- OCCUPIED MODE: FANS IN RTU-1 & RTU-2, EXHAUST FANS PRV-1, PRV-2, PRV-3 AND EF-1 TO RUN CONTINUOUSLY.
- UNOCCUPIED MODE: FANS IN RTU-1 & RTU-2 TO RUN ONLY WHEN COOLING OR HEATING IS CALLED FOR.

## TEST & BALANCE NOTES

- ACCUREX WILL PROVIDE BALANCED AIRFLOW & FUNCTIONAL CHARACTERISTICS OF THE HVAC SYSTEM AS THEY RELATE TO AIRFLOW & AIR PRESSURE ONLY. SERVICES TO BE PERFORMED BY A CERTIFIED NEBB FIRM & ITS MANAGING GROUP NATIONAL TAB.
- SERVICES NOT INCLUDED, PULLEY / SHEAVE CHANGES, MOTOR CHANGE OUTS, OR RETURN TRIPS DUE TO DELAYS CAUSED BY JOB INCOMPLETENESS.

AIR BALANCE TABLE				
EXHAUST AIR FLOW				
EQUIPMENT TAG	SERVICE	CFM		
PRV-1	RESTROOMS	375		
PRV-2	ITEM #49	1,500		
PRV-3	ITEM #59	1,500		
EF-1A	MOP ROOM	75		
TOTAL =		3,450		
VENTILATION REQUIRED PER 2018 INTERNATIONAL MECHANICAL CODE				
EQUIPMENT TAG	SERVICE	CFM		
RTU-1	DINING ROOM	1,623		
RTU-2	KITCHEN	225		
TOTAL =		1,848		
3,450 > 1,848 -> USE 3,450 CFM FOR OUTSIDE AIR CFM				
OVERALL AIRFLOW SUMMARY				
EQUIPMENT TAG	SERVICE	SUPPLY CFM	RETURN CFM	OUTSIDE AIR CFM
RTU-1	DINING ROOM	5,850	4,100	1,750
RTU-2	KITCHEN	6,150	4,450	1,700
TOTAL OUTSIDE AIR CFM =				3,450



## A6 ROOFTOP HVAC UNIT

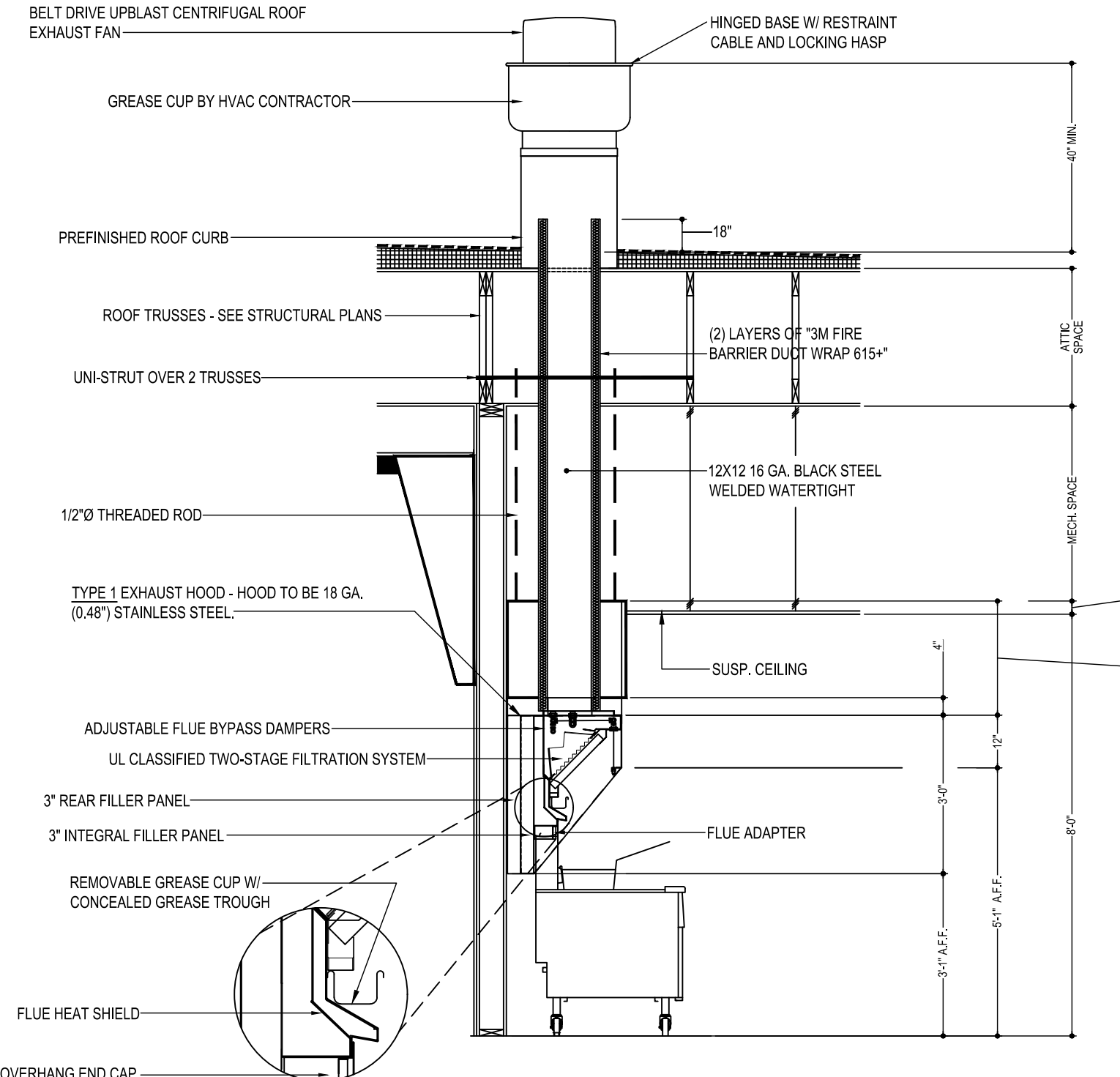
SCALE: N.T.S.

## COOKING APPLIANCE / TYPE 1 HOOD INTERLOCK

- REMOTE SWITCH ON - POWER TO KITCHEN FAN CONTROL CENTER (KFCC)
- KFCC CONTROLS:
  - EXHAUST FANS PRV-2 (GRILLE) & PRV-3 (FRYERS) ARE STARTED.
  - OPENS OUTSIDE AIR INTAKE ON RTU-1 & RTU-2 TO MINIMUM FRESH AIR OPENING.
  - POWER TO OUTLETS #51 (GRILLE) & #60 (FRYERS).
- GRILLE & FRYER CAN BE STARTED.
- IN CASE OF FIRE:
  - SHUNT TRIP BREAK FOR GRILLE & FRYERS OUTLET TRIPS.
  - ANSUL SYSTEM IS ACTIVATED.
  - THE MECHANICAL GAS VALVES CLOSES.
  - SHUT DOWN RTU-1 & RTU-2 & CLOSE OUTSIDE AIR.
  - EXHAUST FANS PRV-2 & PRV-3 CONTINUE TO RUN.

## GREASE HOOD FIRE SUPPRESSION SYSTEM

WET-CHEMICAL EXTINGUISHING SYSTEMS SHALL BE INSTALLED, MAINTAINED, PERIODICALLY INSPECTED AND TESTED IN ACCORDANCE WITH NFPA 17A AND THEIR LISTING.



## C3 KITCHEN HOOD EXHAUST DETAIL

SCALE: N.T.S.  
VERIFY MOUNTING HEIGHTS W/ OWNER AND GENERAL CONTRACTOR

## LENNOX SETTINGS FOR CULVERS

### KITCHEN UNIT

PARAMETER 3.01 HEAT DELAY NEEDS TO BE SET TO "DISABLED". CONTROL PARAMETER 3.01=0 PG. 92  
ECONOMIZER DIP SWITCHES A56 (EM1) NEED TO BE SET TO "GLOBAL" MODE. 1-ON 2-OFF (PG. 5 FIG 8)  
ECONOMIZER MIN POSITION POTENTIOMETER NEEDS TO BE DETERMINED AND SET BY AIR BALANCER. (PG. 52 FIG 33)  
BOTH THE THERMOSTAT AND THE HOOD FANS MUST BE TIED INTO TB1 TERMINAL 8&9 FOR OCCUOCC CONTROL.  
FRESH AIR TEMPERING (HEATING) CONTROL PARAMETER 6.20=160 "55F" (KITCHEN IS USUALLY IN COOLING MODE)  
(PARAMETER 6.20 PG 99; X CHARTS PG 109)

### DINING ROOM UNIT

PARAMETER 3.01 HEAT DELAY NEEDS TO BE SET TO "DISABLED". CONTROL PARAMETER 3.01=0 PG. 92  
ECONOMIZER DIP SWITCHES A56 (EM1) NEED TO BE SET TO ECONOMIZER TYPE PURCHASED/INSTALLED. 1+7 2+7  
(PG 5 FIGURE 8)

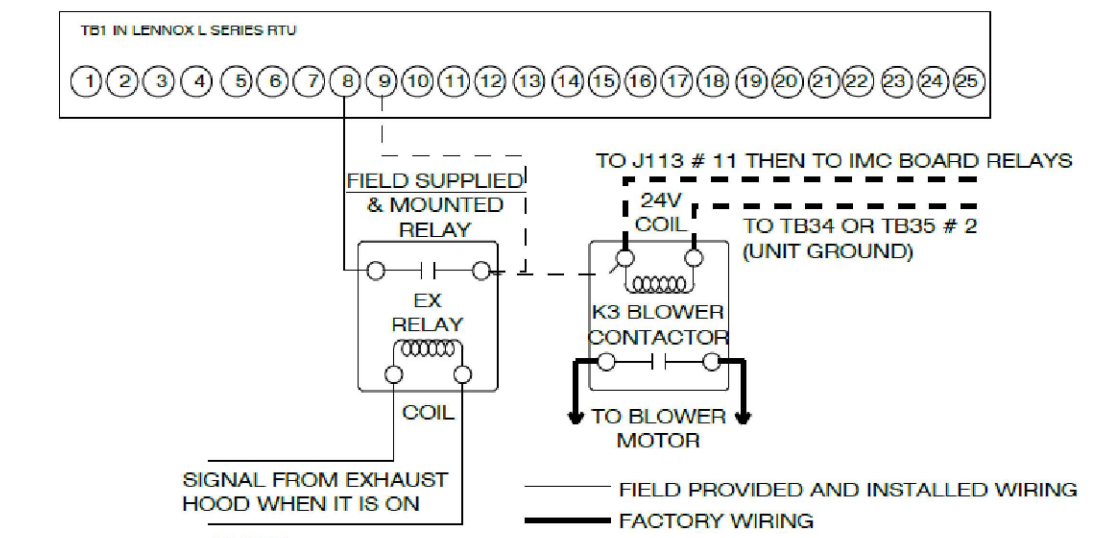
ECONOMIZER MIN POSITION POTENTIOMETER NEEDS TO BE DETERMINED AND SET BY AIR BALANCER. (PG 52 FIGURE 33)  
THE THERMOSTAT MUST BE TIED INTO TB1 TERMINAL 8&9 FOR OCCUOCC CONTROL.

FRESH AIR TEMPERING (HEATING) CONTROL PARAMETER 6.20=142 "68F" (ROOM NEUTRAL)  
(PARAMETER 6.20 PAGE 99; X CHARTS PAGE 109)

OTHER PARAMETERS THAT WE DIDNT SET, BUT ARE PART OF START-UP:

- ROOM SET POINT
- REMOTE SENSOR OPERATION
- TEMP DEADBANDS

CHECK FOR CORRECT OPERATION AND WIRING OF ALL SENSORS.

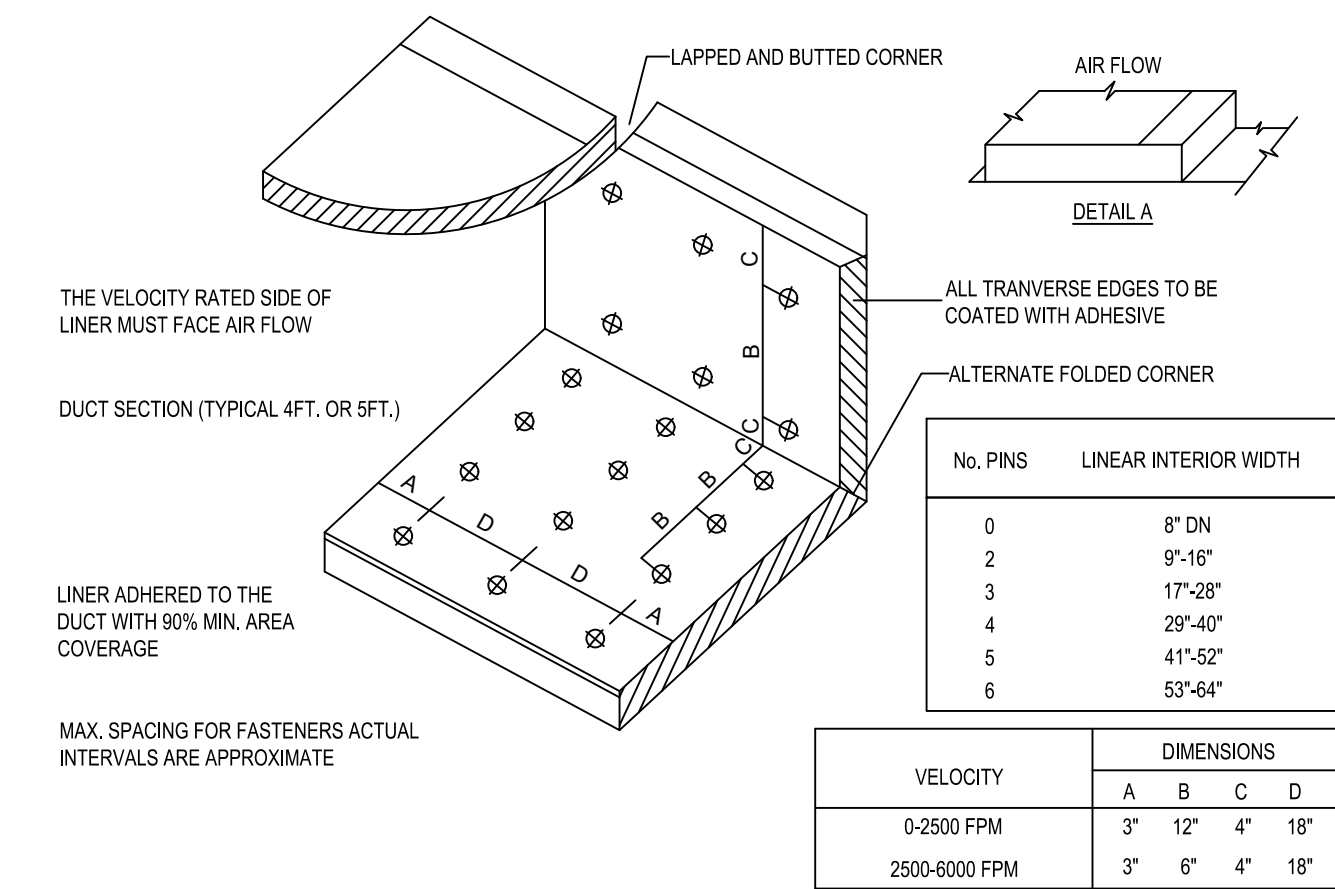


- NOTES:
- EX RELAY AND WIRING PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR.
  - WIRING FROM EX RELAY CONTACTS TO THE COIL OF THE K3 BLOWER MOTOR CONTACTOR MUST LAND ON THE SAME SIDE AS THE WIRE MARKED J113 # 11.

CONTACTS FROM KITCHEN EXHAUST FAN STARTER ENERGIZE OPERATOR COIL OF A FIELD PROVIDED AND FIELD INSTALLED RELAY. THE RELAY CONTACTS ARE USED TO MAKE AND BREAK THE OCCUPIED SIGNAL BETWEEN TERMINALS 8 AND 9. ON TB1, AND INSURE K3 BLOWER IS ENERGIZED. CREATING THE OCCUPIED CALL WILL MAKE THE ECONOMIZER MINIMUM POSITIONER ACTIVE, THEREBY MEETING FRESH AIR REQUIREMENTS. ECONOMIZER WILL MODULATE DAMPERS BEYOND MINIMUM POSITION SETTING, WHEN OUTDOOR AIR IS DEEMED SUITABLE FOR COOLING. DAMPERS WILL MODULATE TO TARGET 55 DEG F (DEFAULT) DISCHARGE AIR TEMPERATURE WHEN PROVIDING FREE COOLING.

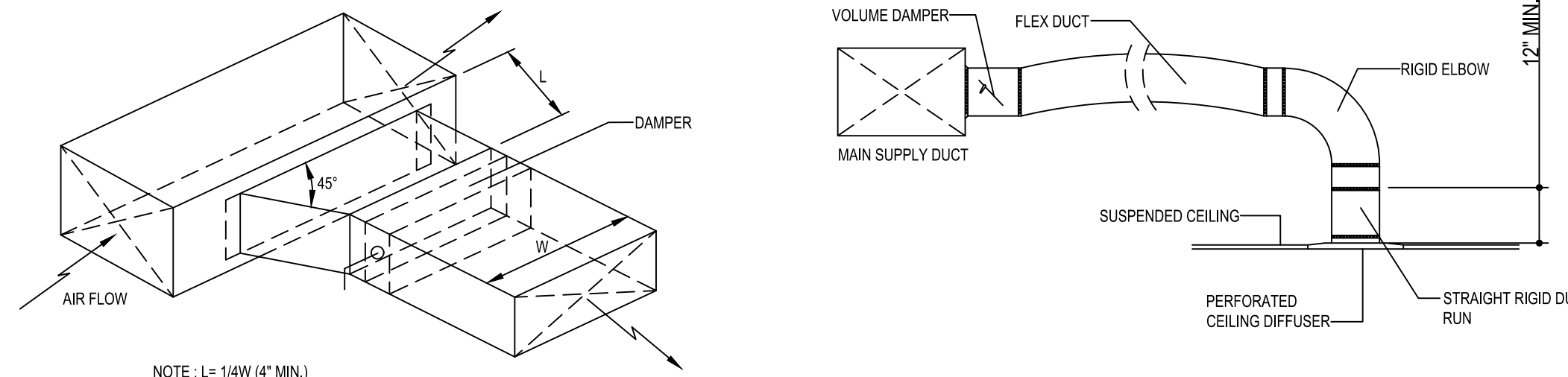


CULVERS EXHAUST FAN INTERLOCK FOR STORES WITHOUT MCP CONTROLLER



## E5 DUCT LINER INSTALLATION DETAIL

SCALE: N.T.S.  
NOTE: USE ONLY ON VERTICAL DROP FROM RTU TO WITHIN 9'-10" A.F.F., DUCT LINER WILL NOT BE PERMITTED ON ANY HORIZ. RUNS.



## C6 BRANCH DUCT TAKEOFF DETAILS

SCALE: N.T.S.

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**NEW CULVER'S RESTAURANT**  
**3848 Ladson Road**  
Ladson, SC 29456  
County of DORCHESTER

**OWNER:**  
MAH SQUARED, LLC  
172 Windridge Road  
Valparaiso, IN 46385  
Wendy Gates  
219-928-5355

**OWNER:**  
OLLMANN ASSOCIATES ARCHITECTS, P.C.  
200 South State Street  
Belvidere Illinois 61008  
815-544-7790 Phone

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**CONSTRUCTION SET 03-10-2022**

**HVAC SCHEDULE & DETAILS**

Date: 11-10-2021  
Revision: 12-28-2021

2021-054

**M201**

EQUIPMENT SCHEDULE

TYPE 1 KITCHEN HOOD		MARK: ITEM#49	
HOOD NO.	ACCUREX MODEL STYLE / CONFIGURATION	SECTION LENGTH	WIDTH
1	XGEP-66-S SINGLE WALL EXHAUST ONLY LOW PROXIMITY	64 IN.	TOP 23 IN. FRONT 12 IN. BOT 8 IN. BACK 36 IN.

ILLUMINATION DETAILS		GREASE FILTRATION DETAILS	
HOOD NO.	FIXTURE TYPE	QTY	INTENSITY FT CANDLES
1	NONE	NA	0 / 0 IN. CC

HOOD SECTION # COLLAR #		EXHAUST PLENUM COLLARS	
DISTANCE TO END (IN.)	WIDTH (IN.)	LENGTH (IN.)	DIAMETER (IN.)
1.1	32	12	12

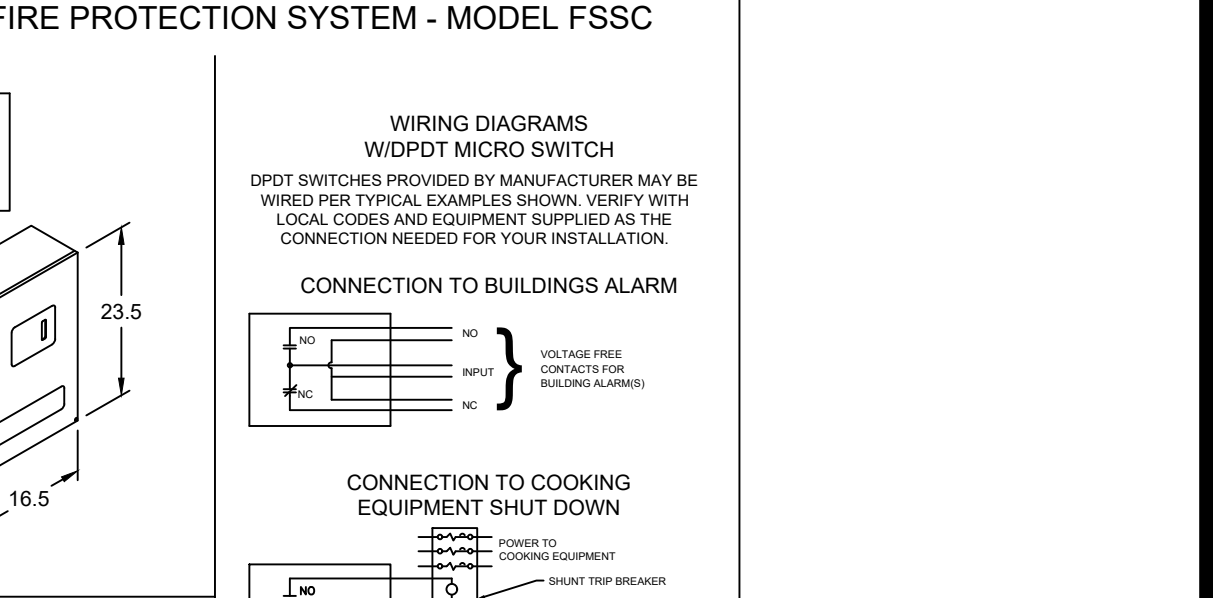
TOTAL EXHAUST CFM - SECTION 1		S.P.		VELOCITY (FT/MIN)	
1500	1500	1500	1500	1500	1500

MANUFACTURER / MODEL SUPPRESSANT TYPE		FLOW POINTS	SUPPLY LINE	DETECTION	MOUNTING
ANSUL R-102 WET CHEMICAL	6 UTILIZED 11 AVAILABLE	CONTINUOUS	FUSIBLE LINK	REMOTE MOUNTED	REMOTE MOUNTED

GRILL HOOD SECTION 1 - (LENGTH 64.0 IN.) - LOW PROXIMITY HOOD - GREASE GRABBER FILTRATION SYSTEM	
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Qty	Accurex Model	Volume (CFM)	SP (in wg)	FRPM	Operating Power (hp)	Weight (lb.)	Size (tp)	V/CP	Encrt.	Motor RPM	Windings	FLA
1	XRUB-160XP-15	1500	2.337	2,411	1.29	171	1.5	208/60/3	CP	1725	1	6.6

Belt Drive Upblast Centrifugal Roof Exhaust Fan		MARK: PRV-2	
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NOTES:  
Wet chemical fire protection system to be Ansul R-102, designed in compliance with UL 300 requirements.  
-Verification of all cooking equipment make, model and location required for all fire protection systems.  
-All fire system piping is standard to the right end of the hood unless a wall is located on the right end.  
-Anisul Automon Release to be located within 60" of hood.

The basic fire system does NOT include the following:  
-Full dump test other than what is specified per the installation manual, or to satisfy a state or local code. Permit and testing fees are not included unless noted under the equipment schedule for the fire system.  
-More than two trips to the job site or special transportation, or overnight lodging requirements in remote areas. Normal travel distance is first 50 mi. (80.5 km) from office.  
-Special classes or additional labor for access to security sensitive areas.  
-Installation of gas shut-off valve.  
-Special drawings required to satisfy state or local code. Plan examination fees, PE or FS Approval Stamp.  
-Union labor, Government labor, or Prevailing wages required for final field hook-up.  
-Any and all electrical components/connections required to shut down fans, shut off device for electric cooking equipment (shunt trip breaker), or activate an alarm system, etc.  
-Any dismantling or reassembly required to gain access to the fire suppression piping located on the top of the hood.  
-Rough-in hidden conduit for remote pull station or gas valve (flush mounted pull station) located on the top of the hood.  
-Installation of more than (1) remote pull station or distances greater than 20 ft (6.1M).  
-Parts or labor required to correct piping due to cooking equipment changes or deviation from plans. OR Any changes for missing or additional parts other than those indicated on the Fire Suppression Detail.

Thank you for your interest in Accurex

**SUBMITTAL**  
Please return one approved print to your Greenheck Representative including signature, date, and answers to all submittal "verify" notes and questions. Fabrication will not begin until after approved drawings are received.

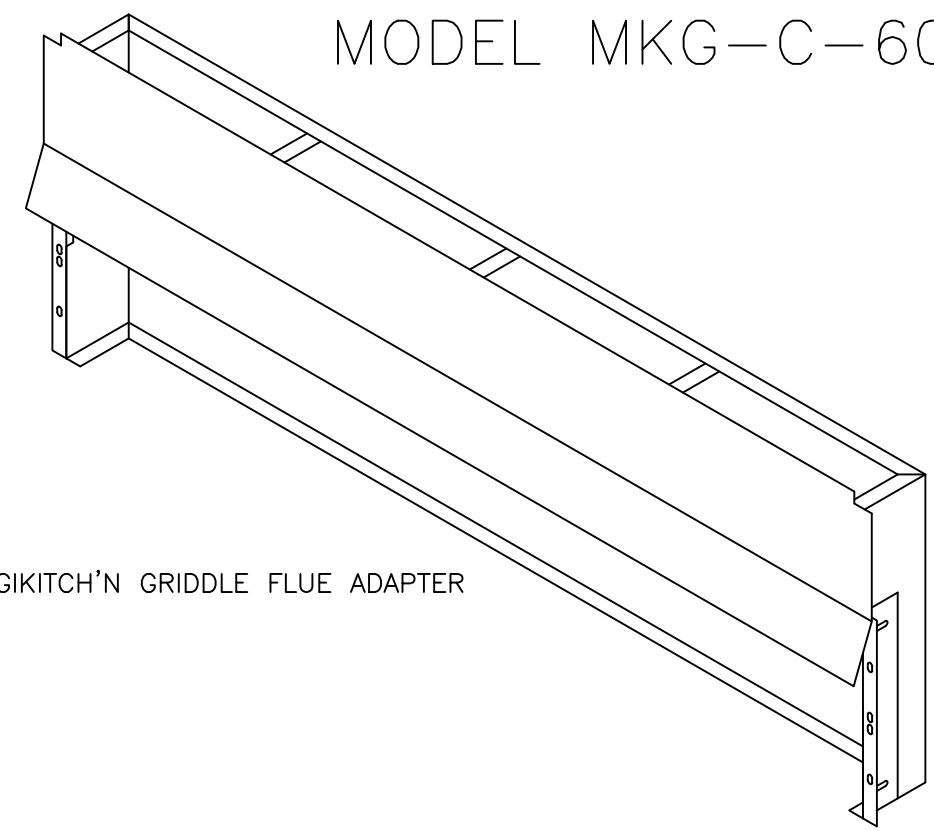
APPROVED AS SUBMITTED  
 APPROVED AS NOTED  
 REJECTED - REVISE AND RESUBMIT

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

REV	DESCRIPTION	DATE

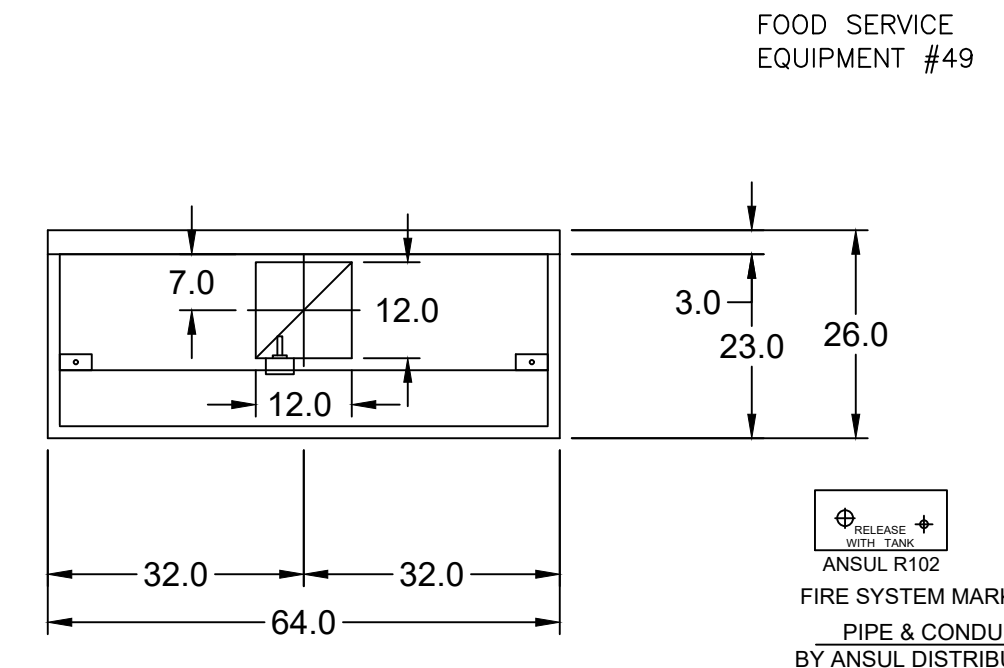
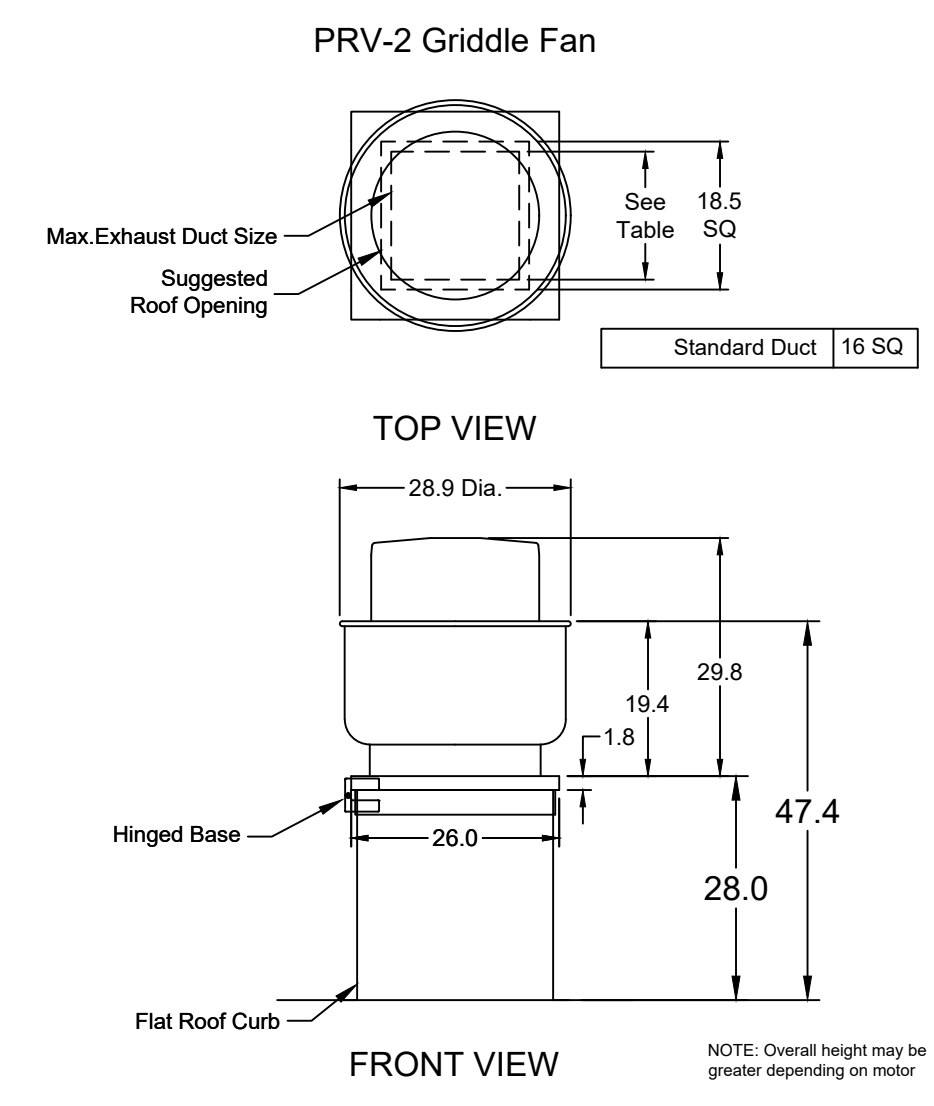
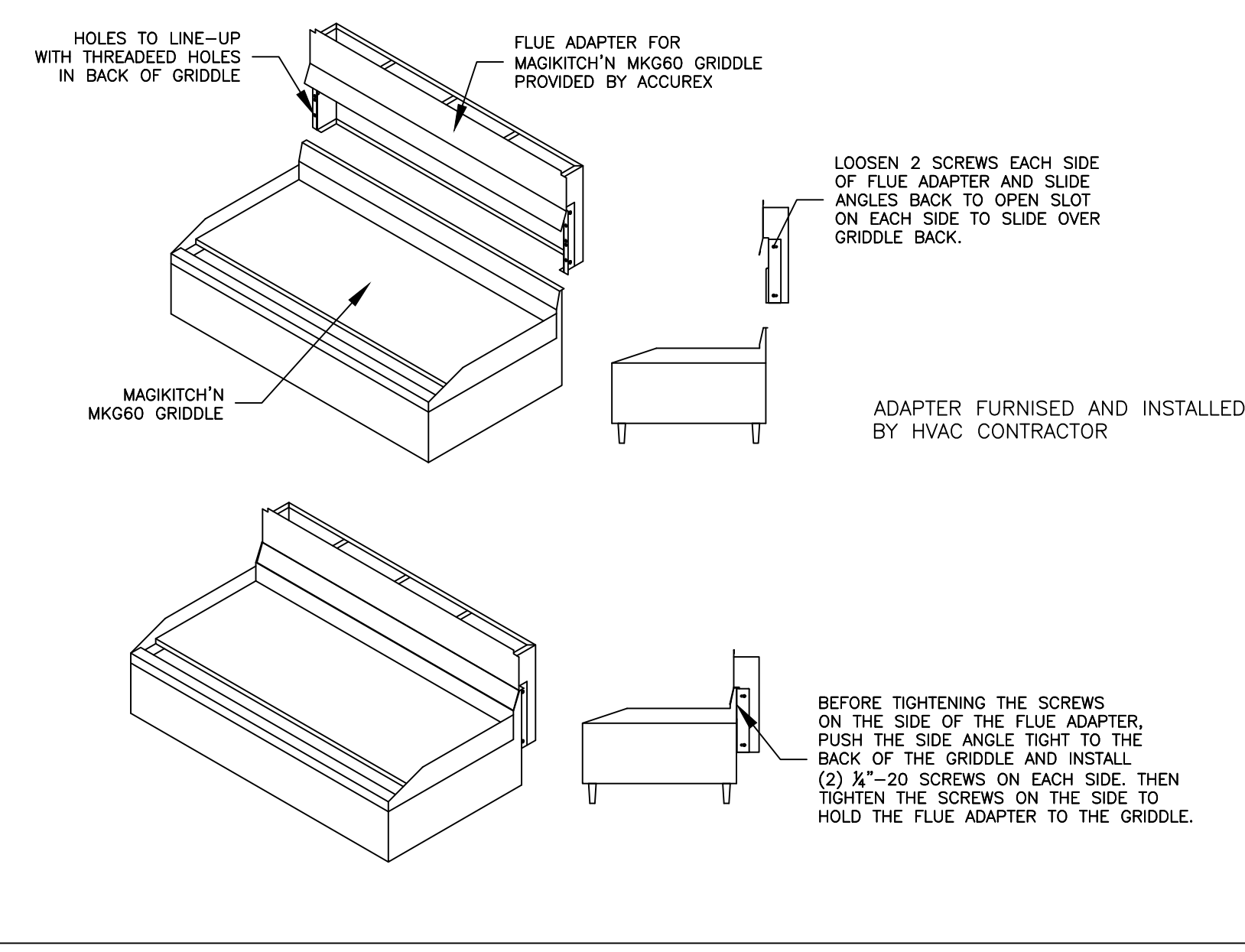
ACCUREX  
CULVER'S MASTER TEMPLATE  
SCALE: 1/24  
C28805A

MUST USE WITH MAGIKITCH'N MODEL MKG-C-60

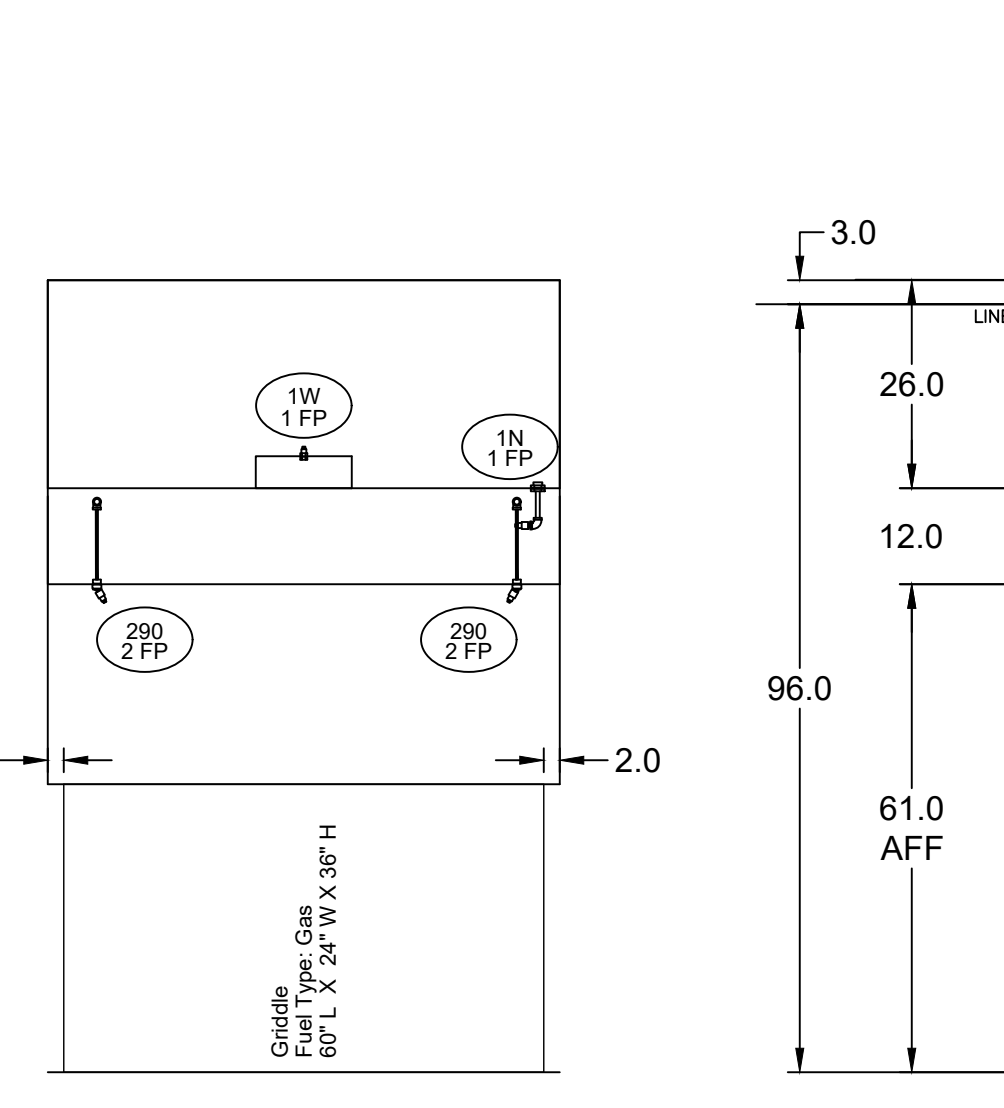


60" MAGIKITCH'N GRIDDLE FLUE ADAPTER

MAGIKITCH'N MKG-C-60 GRIDDLE FLUE ADAPTER MOUNTING INSTRUCTIONS

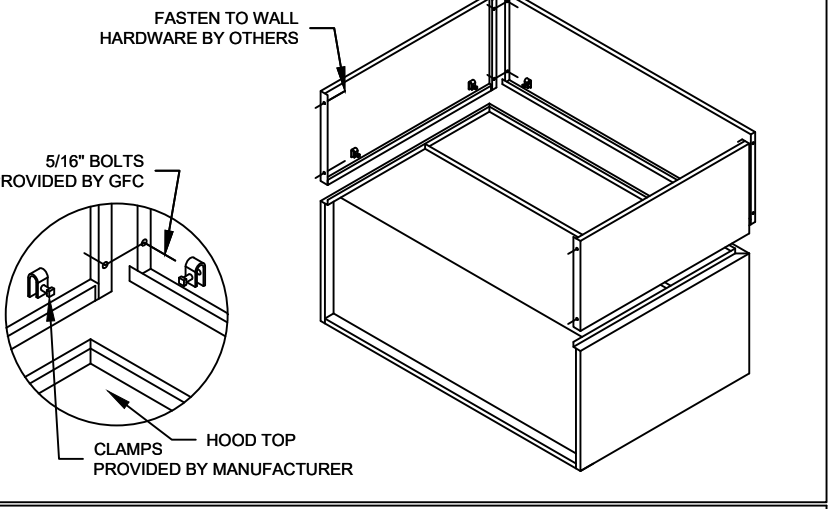


MARK: ITEM #49  
ELEVATION VIEW



MARK: ITEM #49  
ELEVATION VIEW

ENCLOSURE PANEL INSTALLATION DETAIL



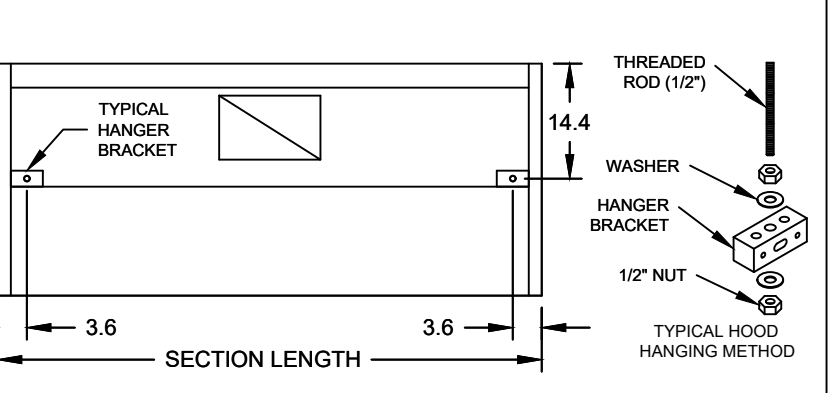
HOOD HANGING HEIGHT FOR FIRE SYSTEMS

VERIFICATION OF HOOD HANGING HEIGHT ABOVE FINISHED FLOOR (A.F.F.) IS REQUIRED FOR CORRECT PLACEMENT OF FIRE SYSTEM NOZZLES.

RECOMMENDED HANGING HEIGHT = 60" FROM FINISHED FLOOR TO LOWER FRONT EDGE OF HOOD.

OTHER HANGING HEIGHT = \_\_\_\_\_ FROM FINISHED FLOOR TO LOWER EDGE OF HOOD.

HOOD HANGER BRACKET DETAIL FOR BACKSHELF HOODS



GENERAL DRAWING NOTES

Verify building entry conditions or limitations for equipment access to space.

Verify type and height of finished ceiling and if hood(s) may extend above finished ceiling (if required).

Seismic installation and bracing of equipment is by others.

Greenheck will not accept liability for problems that result from sub-standard installation. Including field electrical wiring that deviate from supplied diagrams, globe conditions (ductwork, fuel types and structural conditions) that GFC has not been notified of at the time of ordering. Or use of this equipment other than that for which it is designed.

It is the responsibility of the purchaser to hire qualified personnel for installation and start-up of all equipment. Installation and start-up information is shipped with all equipment via the Installation, Operation and Maintenance Manual (IOM), also included is a troubleshooting guide. Have all start-up info available prior to any warranty claims and/or factory technical support.

VENTILATION SYSTEM NOTES

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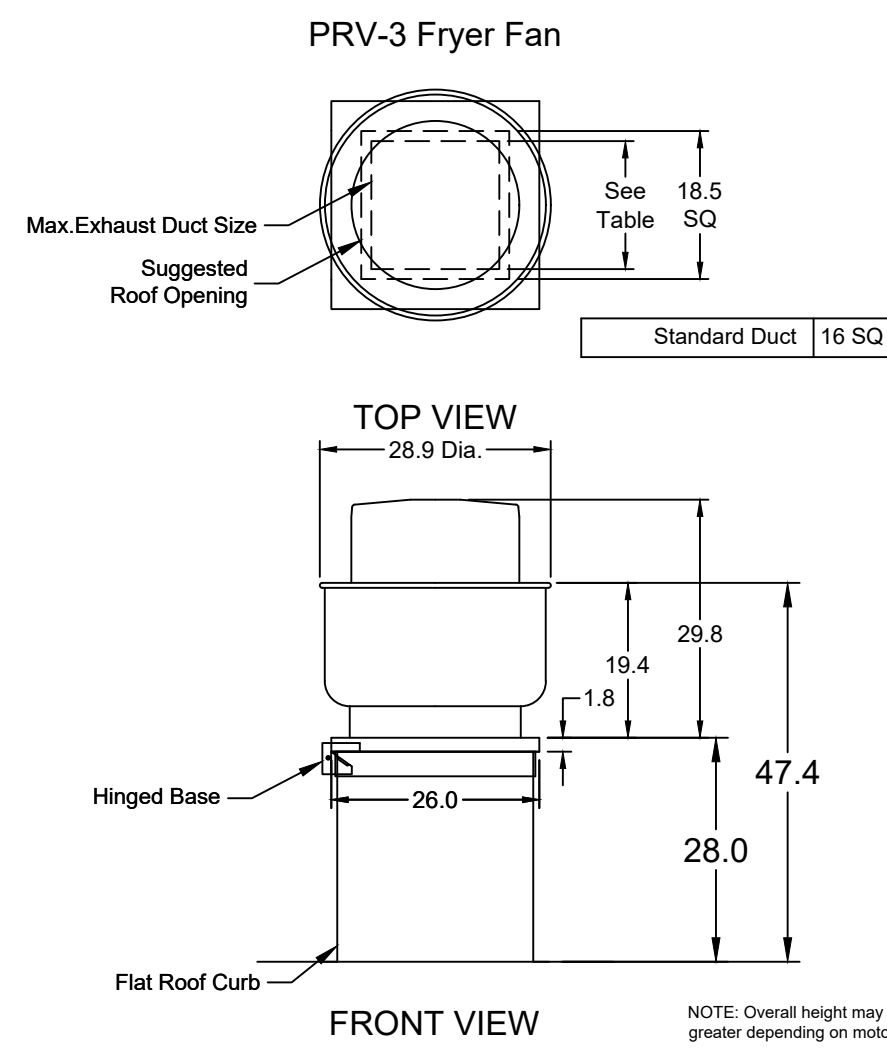
Exhaust and supply air volumes are to be maintained within -5% to +10% tolerance of values indicated. Static pressure(s) indicated are for the ventilator at the duct connection(s) only.

The grease filter face velocities are based on the filter manufacturers recommendations for maximum grease extraction. Inlet opening air velocities for waterwash, dry cartridge and high velocity cartridge filters manufactured by Greenheck are designed to deliver maximum grease extraction.

Hoods installation (by others unless otherwise noted) shall be in accordance with NFPA # 96 and applicable building codes.

PROPRIETARY INFORMATION NOTICE

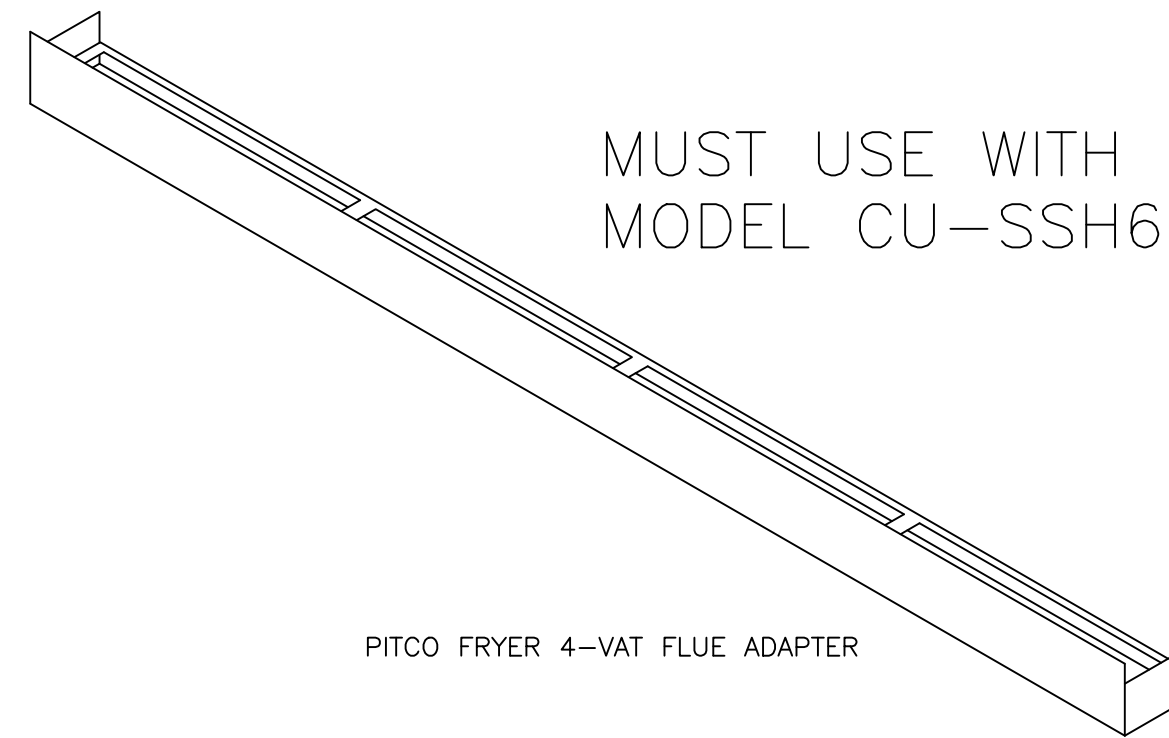
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FOOD SERVICE EQUIPMENT #59

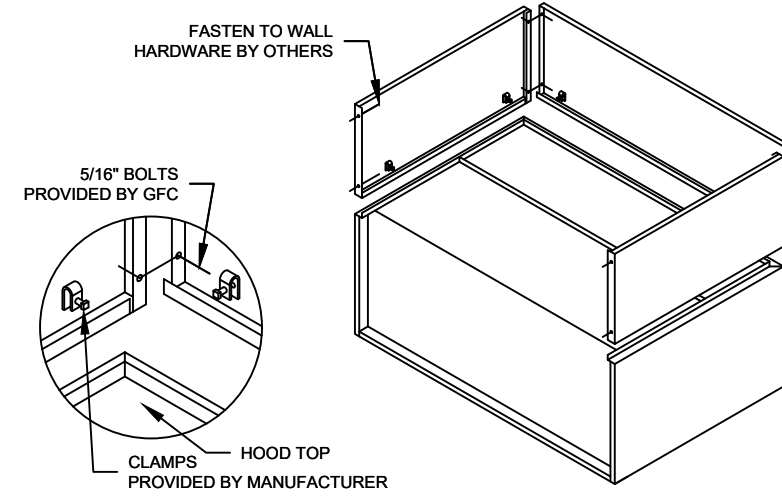
# 4-VAT FRYER BATTERY

MUST USE WITH PITCO MODEL CU-SSH60W



PITCO FRYER 4-VAT FLUE ADAPTER

### ENCLOSURE PANEL INSTALLATION DETAIL

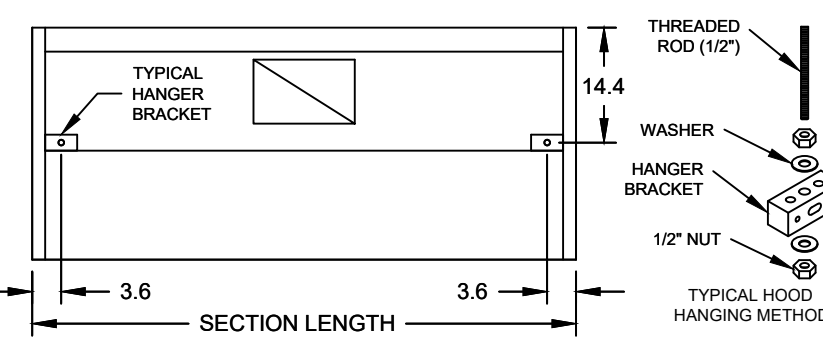


### HOOD HANGING HEIGHT FOR FIRE SYSTEMS

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### HOOD HANGER BRACKET DETAIL FOR BACKSHELF HOODS



### GENERAL DRAWING NOTES

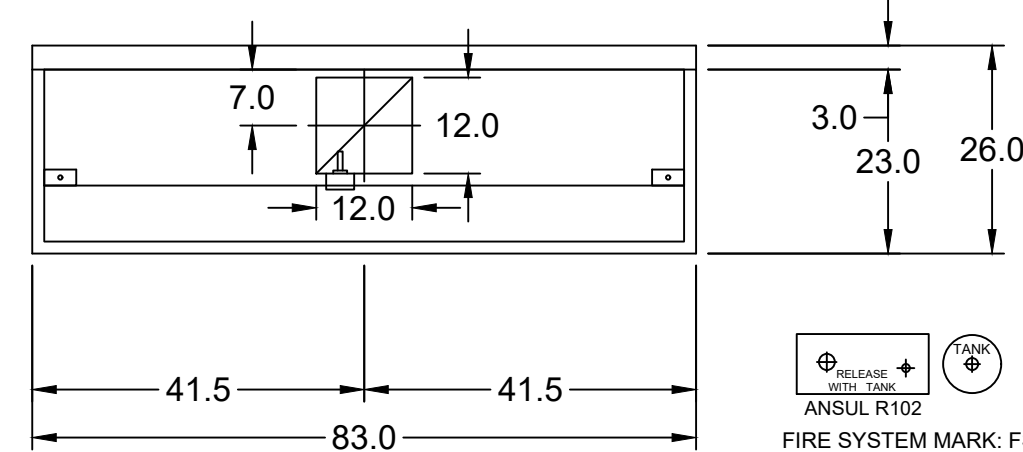
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### VENTILATION SYSTEM NOTES

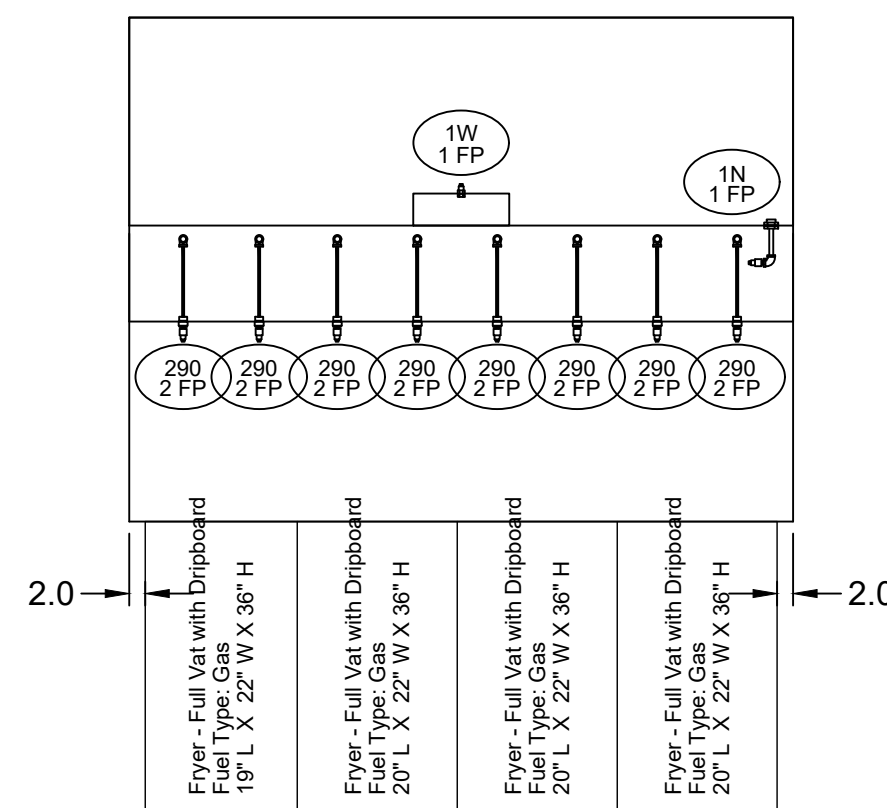
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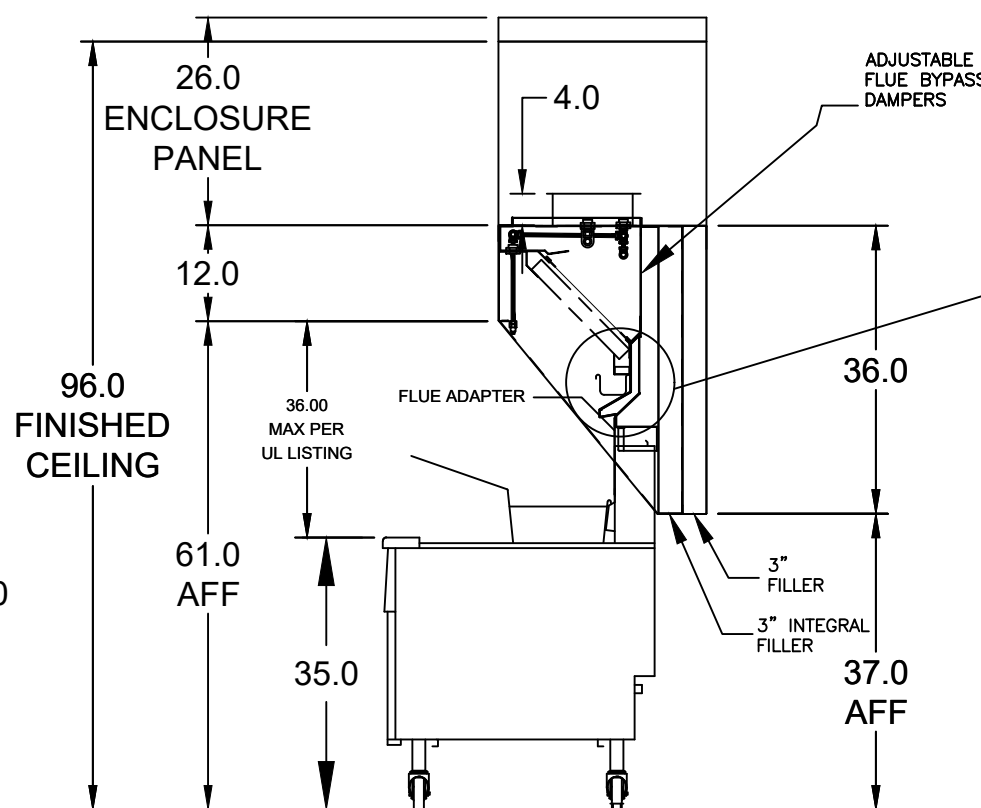
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MARK: ITEM #59 PLAN VIEW

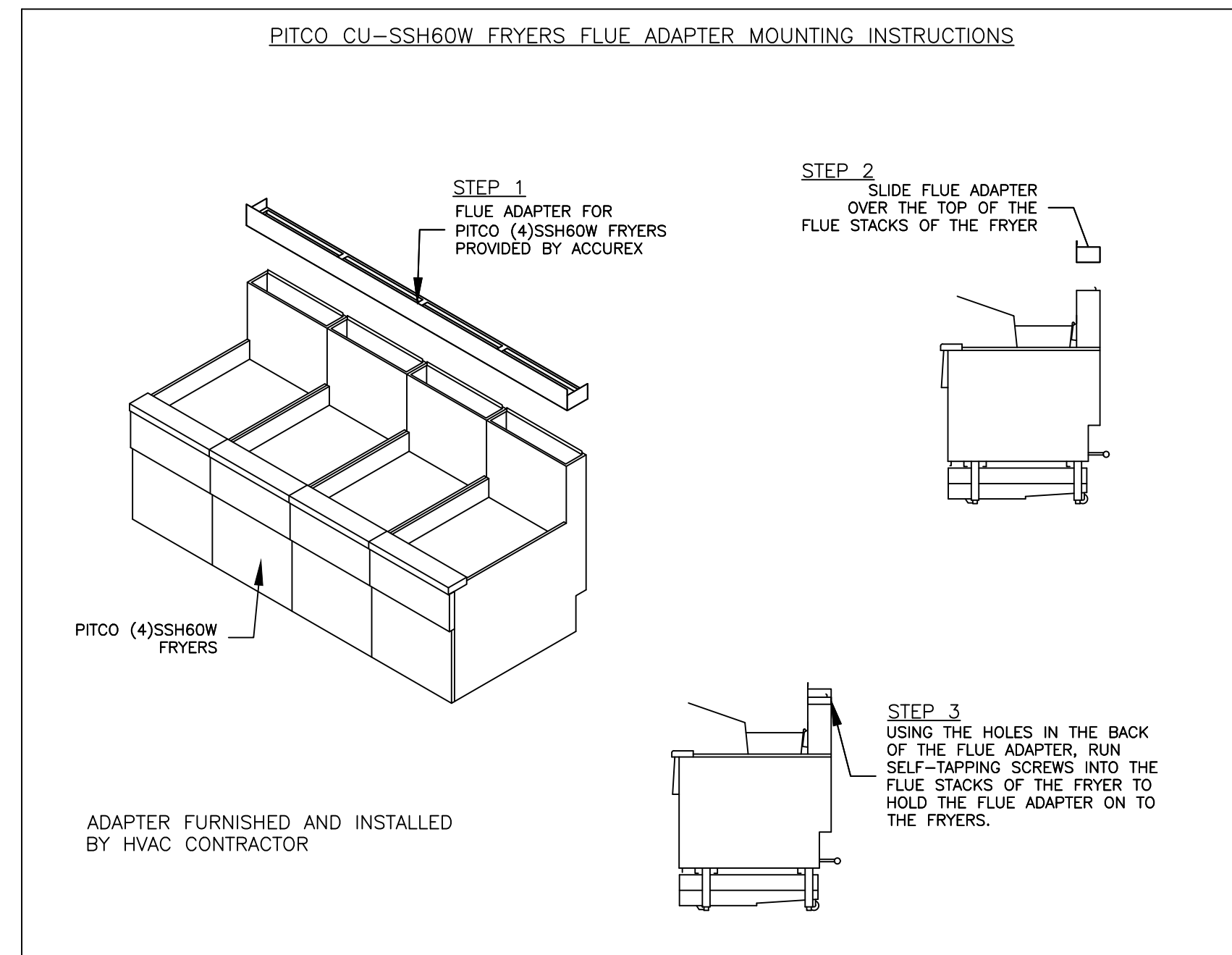


MARK: ITEM #59 ELEVATION VIEW

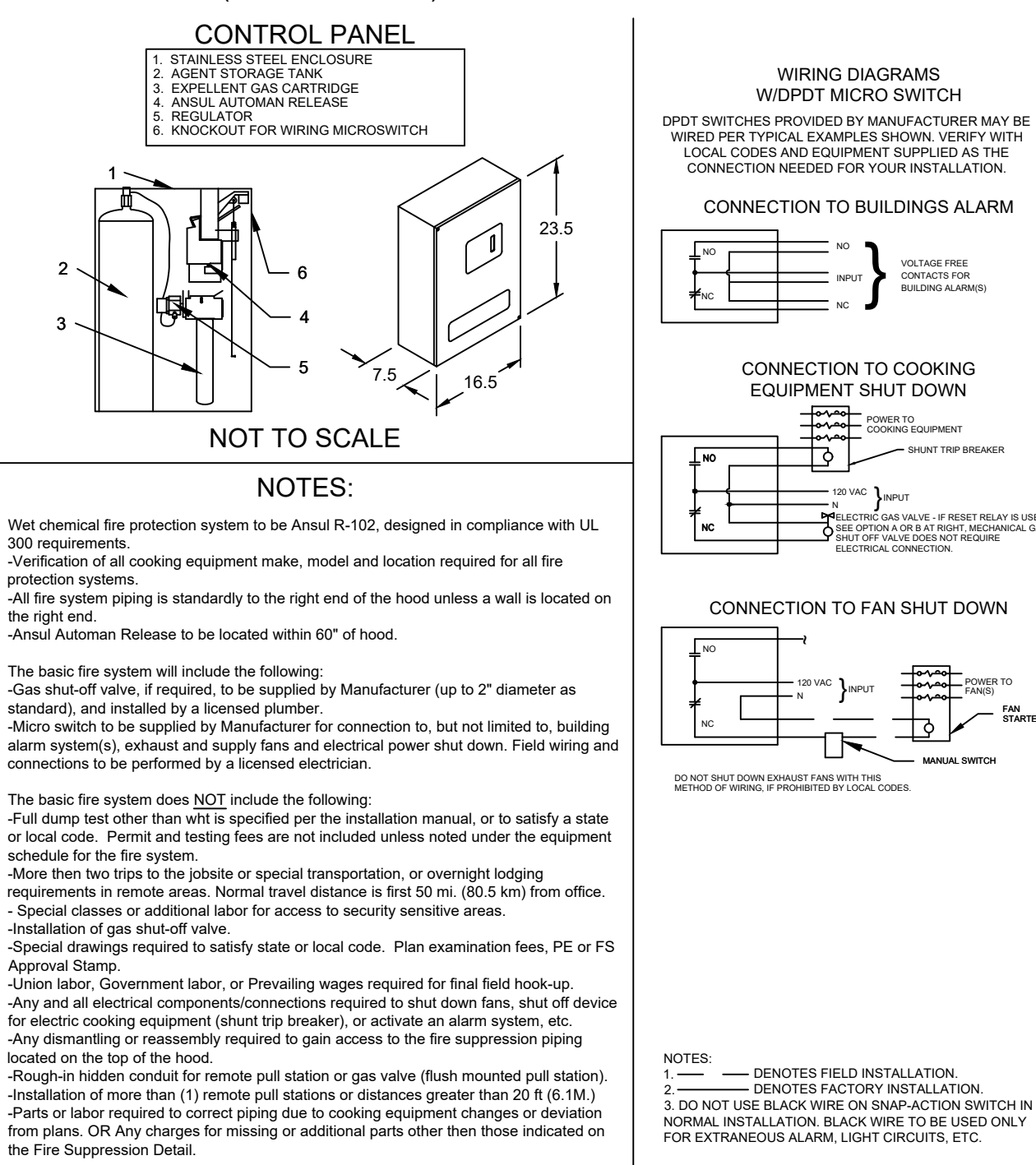


MARK: ITEM #59 SECTION VIEW

### PITCO CU-SSH60W FRYERS FLUE ADAPTER MOUNTING INSTRUCTIONS



### ANSUL R102 (WET CHEMICAL) FIRE PROTECTION SYSTEM - MODEL FSSC



Thank you for your interest in Accurex

### SUBMITTAL

Please return one approved print to your Greenheck Representative including signature, date, and answers to all submittal 'verify' notes and questions. Fabrication will not begin until after approved drawings are received.

- APPROVED AS SUBMITTED
- APPROVED AS NOTED
- REJECTED - REVISE AND RESUBMIT

SIGNATURE DATE

### EQUIPMENT SCHEDULE

TYPE 1 KITCHEN HOOD		HOOD DIMENSIONS			GREASE CUP OR DRAIN	HOOD TEMP. RATING	TOTAL WEIGHT	SECTION LOCATION
HOOD NO.	ACCUREX MODEL STYLE / CONFIGURATION	SECTION LENGTH	WIDTH	HEIGHT				
1	XXEP-83-S SINGLE WALL EXHAUST ONLY LOW PROXIMITY	83 IN.	TOP 23 IN. FRONT 12 IN. BOT 3 IN. BACK 35 IN.	RIGHT	600 DEG F	169.0 LBS.	SINGLE	

ILLUMINATION DETAILS		GREASE FILTRATION DETAILS					
HOOD NO.	FIXTURE TYPE BULB / LAMP INFO	QTY	INTENSITY FT CANDLES	TYPE / MODEL MATERIAL	QTY	LENGTH	HEIGHT
1	NONE	NA	0 / 0 IN. OC	X-TRACTOR STAINLESS STEEL	5	16 IN.	16 IN.

HOOD SECTION # COLLAR #		EXHAUST PLENUM COLLARS				
DISTANCE TO END (IN.)	WIDTH (IN.)	LENGTH (IN.)	DIAMETER (IN.)	VOLUME (CFM)	S.P. (IN. WC)	VELOCITY (FT/MIN)
11.1	12	12	NA	1500	0.518	1500
TOTAL EXHAUST CFM - SECTION 1		1500 = 217 CFM / FT				

OPTIONS AND ACCESSORIES  
 430 STAINLESS STEEL WHERE EXPOSED  
 UL 710 LISTED W/ OUT EXHAUST FIRE DAMPER - UL #R2625  
 BACK NON-INTEGRAL AIR SPACE - 3 IN WIDE  
 26 IN HIGH CEILING ENCLOSURES - FRONT LEFT RIGHT - FIELD INSTALLED  
 FACTORY MOUNTED EXHAUST COLLAR(S)  
 THIS HOOD IS PART OF A TEMPERATURE INTERLOCK CONTROL SYSTEM  
 INCLUDES PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY  
 STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH  
 EMBOSSED STAINLESS STEEL FINISH FOR HIGH CORROSION RESISTANCE  
 EQUIPMENT SPECIFIC S/S FLUE ADAPTER

### SPECIAL DESIGN REQUESTS

SDR #K1100559 - NEW 4L FRYER SYSTEM

### FIRE SUPPRESSION SYSTEM

MANUFACTURER / MODEL SUPPRESSANT TYPE	FLOW POINTS	SUPPLY LINE	DETECTION	MOUNTING
ANSUL R-102 WET CHEMICAL	18 UTILIZED 22 AVAILABLE	CONTINUOUS	FUSIBLE LINK	RIGHT END REMOTE MOUNTED

FULL INSTALLATION (INCLUDES PRE-PIPED HOOD(S) WITH DETECTION AND FACTORY COORDINATED INSTALL)  
 CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED  
 SUPPRESSION AGENT - INCLUDED @ 4 GAL - (2) 3.0 TANK(S)  
 GAS VALVE - INCLUDED - MECHANICAL SHUTOFF VALVE, SUPPLIED UP TO 2\"/>

### FIRE SYSTEM PROTECTED HOOD(S) (UL-300) (MARK NAME / SECTION#)

FRYER HOOD SECTION 1 - (LENGTH 83.0 IN.) - LOW PROXIMITY HOOD

### EQUIPMENT SCHEDULE

Belt Drive Upblast Centrifugal Roof Exhaust Fan		MARK: PRV-3										
Qty	Accurex Model	Volume (CFM)	SP (in wg)	FRPM	Operating Power (hp)	Weight (Lb.)	Size (hp)	VICIP	End.	Motor RPM	Windings	FLA
1	XRUB-140-7	1500	1	1377	0.5	160	0.75	208/60/3	OP	1725	1	3.5

### OPTIONS AND ACCESSORIES

UL/UL 782 Listed - "Power Ventilators for Rest. Exh. Appliances"  
 Switch, NEMA-1, Toggle, Shipped with unit  
 Larger curb cap size - 26" square  
 Roof curb-Galv. GPF-26-G28, Undersized 1.5" total  
 Hinged Base (Attached)  
 Curb Seal (Attached)  
 Clean-out Port  
 Grease Trap with Drain Connection (PN 475538)  
 Heat Baffle (Attached)

© 2021

**NEW CULVER'S RESTAURANT**  
**3848 Ladson Road**  
 Ladson, SC 29456  
 County of DORCHESTER

**Culver's**  
 Culver Franchising System, Inc.  
 1240 Water Street  
 Prairie du Sac, WI 53578  
 608-643-7980

OWNER:  
 MAH SQUARED, LLC  
 172 Windridge Road  
 Valparaiso, IN 46385  
 Wendy Gates  
 219-928-5355

O'LLMANN ASSOCIATES ARCHITECTS, P.C.  
 200 South State Street  
 Belvidere Illinois 61008  
 815-544-7790 Phone

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Revision: 11-10-2021

Date: 11-10-2021

CONSTRUCTION SET 03-10-2022

**FRYER HOOD/EXHAUST SCHEDULE & DETAILS**

2021-054

**M203**

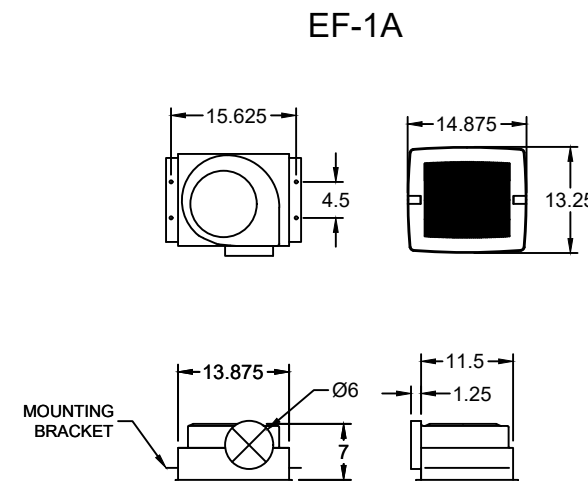
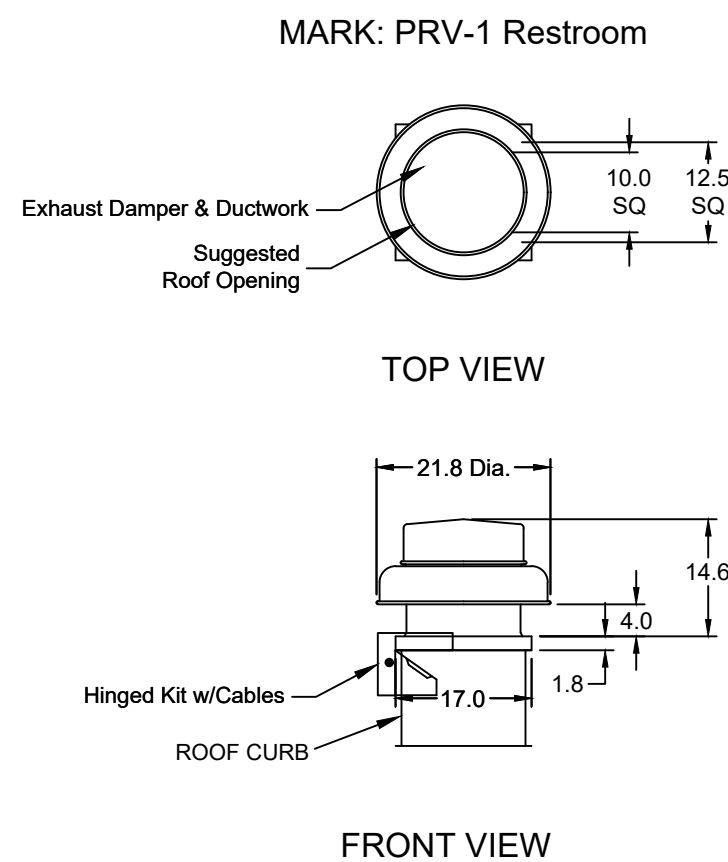
REV	DESCRIPTION	DATE

**ACCUREX**

CULVER'S MASTER TEMPLATE

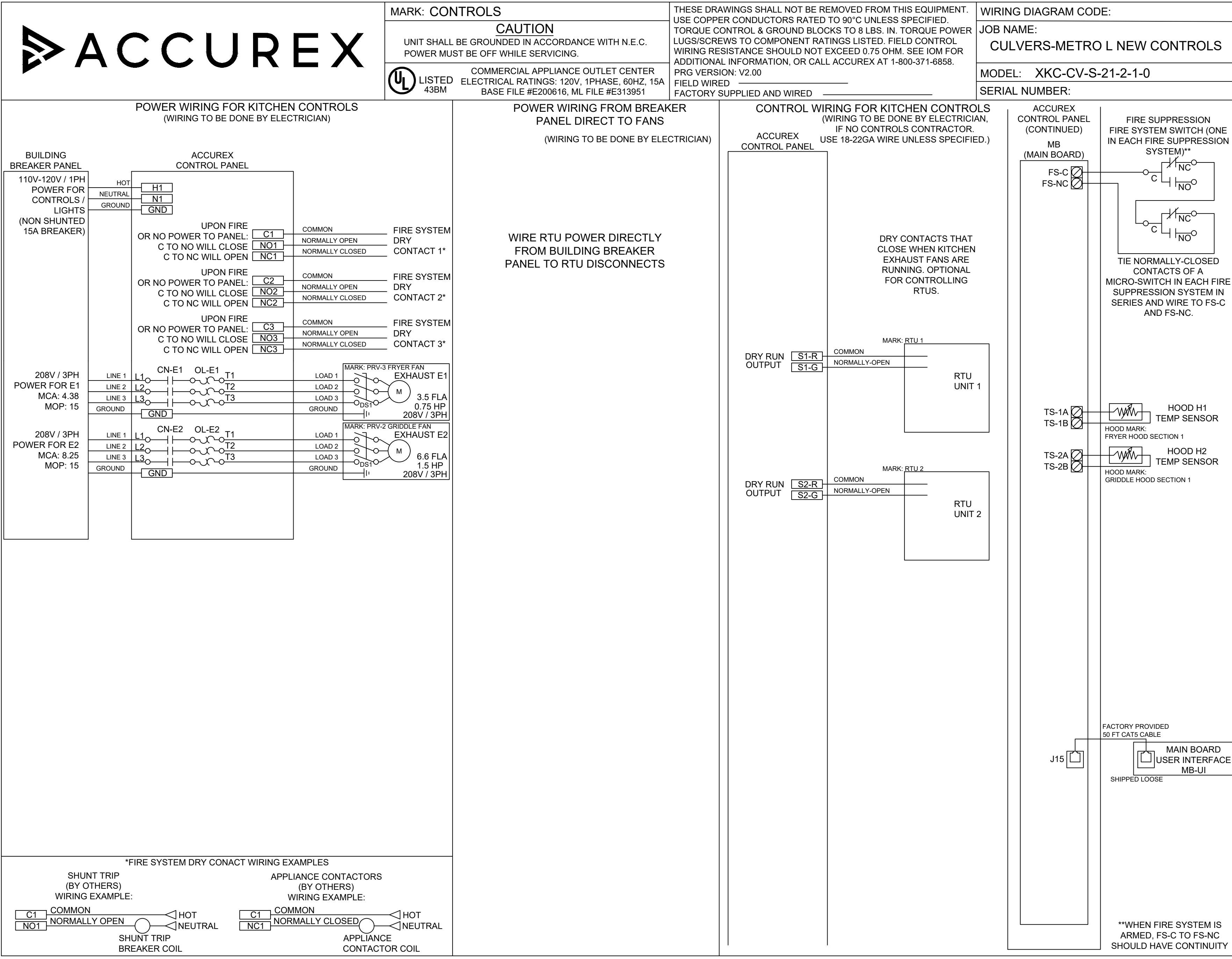
SCALE: 1/24

C28805B



EQUIPMENT SCHEDULE				
<b>ELECTRICAL CONTROL BOX</b>				
DESCRIPTION / ACCUREX MODEL	EXHAUST FAN QTY	SUPPLY FAN QTY	MARK: KFCC	POWER FREQUENCY
MOUNTING LOCATION (CONTROL PANEL / SWITCHES)				
KITCHEN FAN CONTROL CENTER / XFCC	2	0		60 CYCLE
SHIP LOOSE / SHIP LOOSE FOR REMOTE MOUNTING				
CONTROL PANEL ENCLOSURE - 16 GA 304 STAINLESS STEEL ENCLOSURE (NEMA-1) - DIMENSIONS 12 X 18 X 6				
WIRING DIAGRAM # T100-2 - 20				
STARTERS PROVIDED IN CONTROL PANEL - QTY 2				
2 POSITION FAN SWITCH - QTY 1				
INTEGRATED EXHAUST TEMPERATURE INTERLOCK SYSTEM				
-FACTORY MOUNTED EXHAUST TEMPERATURE SENSORS - QTY 2				
-COMPLIES WITH INTERNATIONAL MECHANICAL CODE 2006 SECTION 507.2.1.1				
TURN ON EXHAUST IN FIRE				
THERMAL OVERLOADS IN CABINET				
1 SPEED FAN(S)				
SPECIAL DESIGN REQUESTS				
SDR #K0800240 - USE KIT #852883. WIRING DIAG. #Z2905338				

EQUIPMENT SCHEDULE												
Direct Drive Centrifugal Roof Exhaust Fan MARK: PRV-1 Restroom												
Qty	Accurex Model	Volume (CFM)	SP (in wg)	FRPM	Operating Power (hp)	Weight (Lb.)	Size (hp)	V/CP	Encr.	Motor RPM	Windings	FLA
1	XRED-095-D	375	0.5	1479	0.060	43	0.0667	11560/1	OP	1550		NA
OPTIONS AND ACCESSORIES												
UL/ULC 705 Listed - "Power Ventilators"												
Switch, NEMA-1, Toggle, Shipped with unit												
Hinged Curb Kit w/Cables (PN 851018) (Shipped Loose)												
Curb Seal (Attached)												
Damper, WD-100-PRB-10X10, Gravity Operated (Loose)												
Solid State Speed Control, Mounted and Wired (PN 5WSSC)												
Roof Curb-Galv., GPI-17-10-G12, Undersized 1.5" total												



EQUIPMENT SCHEDULE												
Ceiling Exhaust Fan MARK: EF-1A MOP ROOM												
Qty	Accurex Model	Volume (CFM)	SP (in wg)	FRPM	Operating Power (hp)	Weight (Lb.)	Size (hp)	V/CP	Encr.	Motor RPM	Windings	FLA
	XCR-B80	75	0.125	855	0.01	10	0.0	11560/1	OP	900	1	NA
OPTIONS AND ACCESSORIES												
UL/ULC 705 Listed - Electric fan												
Solid State Speed Control, 6.0 amp, mounted and wired												
Round Hooded Wall cap, (PN WC-6) Shipped loose)												
Designer Grille												
Round duct connection												
Polypropylene Wheel Material												
Energy Star Rated												

**FOR TECHNICAL SUPPORT ON ACCUREX CONTROLS PLEASE CALL ACCUREX TECHNICAL SUPPORT: 1-800-371-6858**  
**SECONDARY CONTACTS ARE:**  
**AARON VAN KREY 715.841.8521**  
**TYLER SCHILLING 715.841.8749**

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SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

REV DESCRIPTION DATE

**ACCUREX**  
 CULVER'S MASTER TEMPLATE  
 SCALE 1/24  
 C28805C

**VENTILATION SYSTEM NOTES**

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2021

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CONSTRUCTION SET 03-10-2022

FAN SCHEDULE & DETAILS

2021-054

M204

Revision: \_\_\_\_\_  
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