

HOOD INFORMATION - Job#2319577

HOOD NO.	TAG	MODEL	LENGTH	MAX. COOKING TEMP.	EXHAUST PLENUM RISER(S)					TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG.		
					TOTAL EXH. CFM	WIDTH	LENG.	DIA.	CFM			S.P.	END TO END	ROW
1		5424 ND-2-PSP-F	13' 6.00"	600 Deg.	3712	10"	17"		1856	-0.474'	3341	430 SS Where Exposed	ALONE	ALONE

HOOD INFORMATION

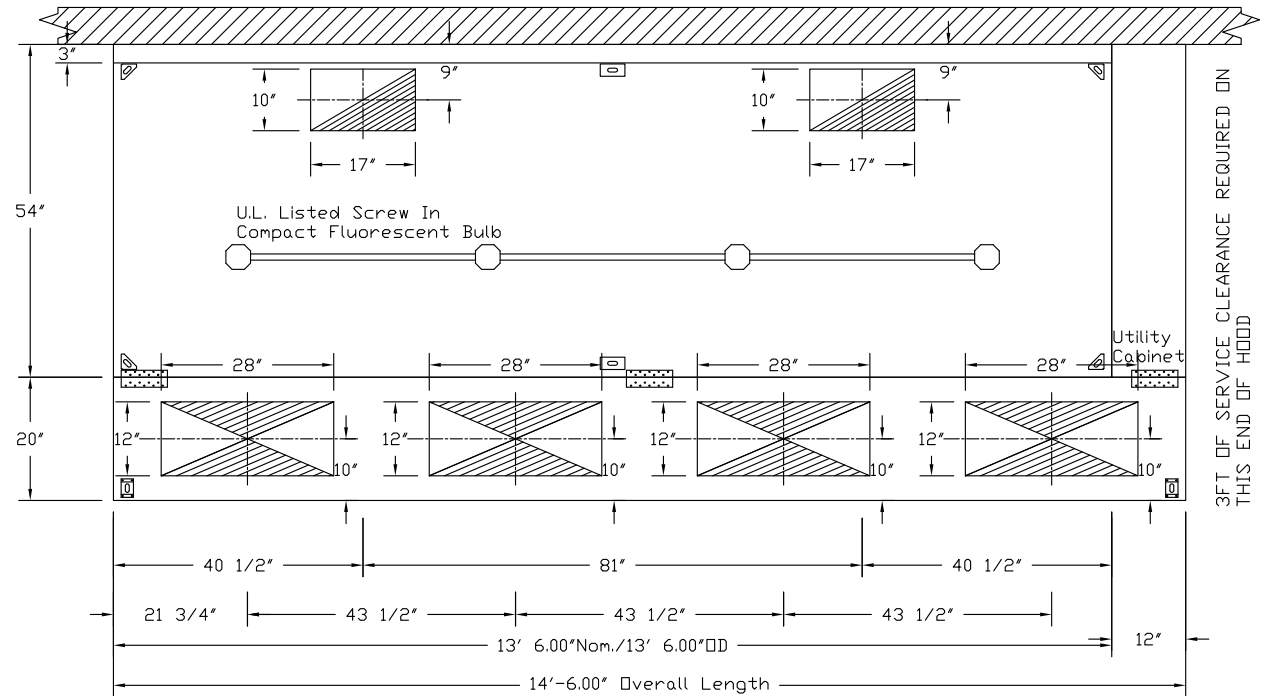
HOOD NO.	TAG	FILTER(S)				LIGHT(S)			UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD HANGING WGT		
		TYPE	QTY.	HEIGHT	LENGTH	EFFICIENCY @ 9 MICRONS	QTY.	TYPE	WIRE GUARD	LOCATION	FIRE SYSTEM TYPE	SIZE			ELECTRICAL MODEL #	SWITCHES QUANTITY
1		SS Baffle with Handles	10	16"	16"	30%	4	Screw In Compact	ND	Right			SC-211110FP	1 Light 1 Fan	ND	799 LBS

HOOD OPTIONS

HOOD NO.	TAG	OPTION
1		RIGHT QUARTER END PANEL 23" Top Width, 0" Bottom Width, 23" High 430 SS LEFT 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	LENG.	DIA.	CFM	S.P.
1		Front	174"	20"	6"	MUA	12"	28"		835	0.258'
						MUA	12"	28"		835	0.258'
						MUA	12"	28"		835	0.258'
						MUA	12"	28"		835	0.258'



PLAN VIEW - Hood #1
 13' 6.00" LONG 5424ND-2-PSP-F
 NOTE: Additional hanging angles provided for hoods 12' and longer.

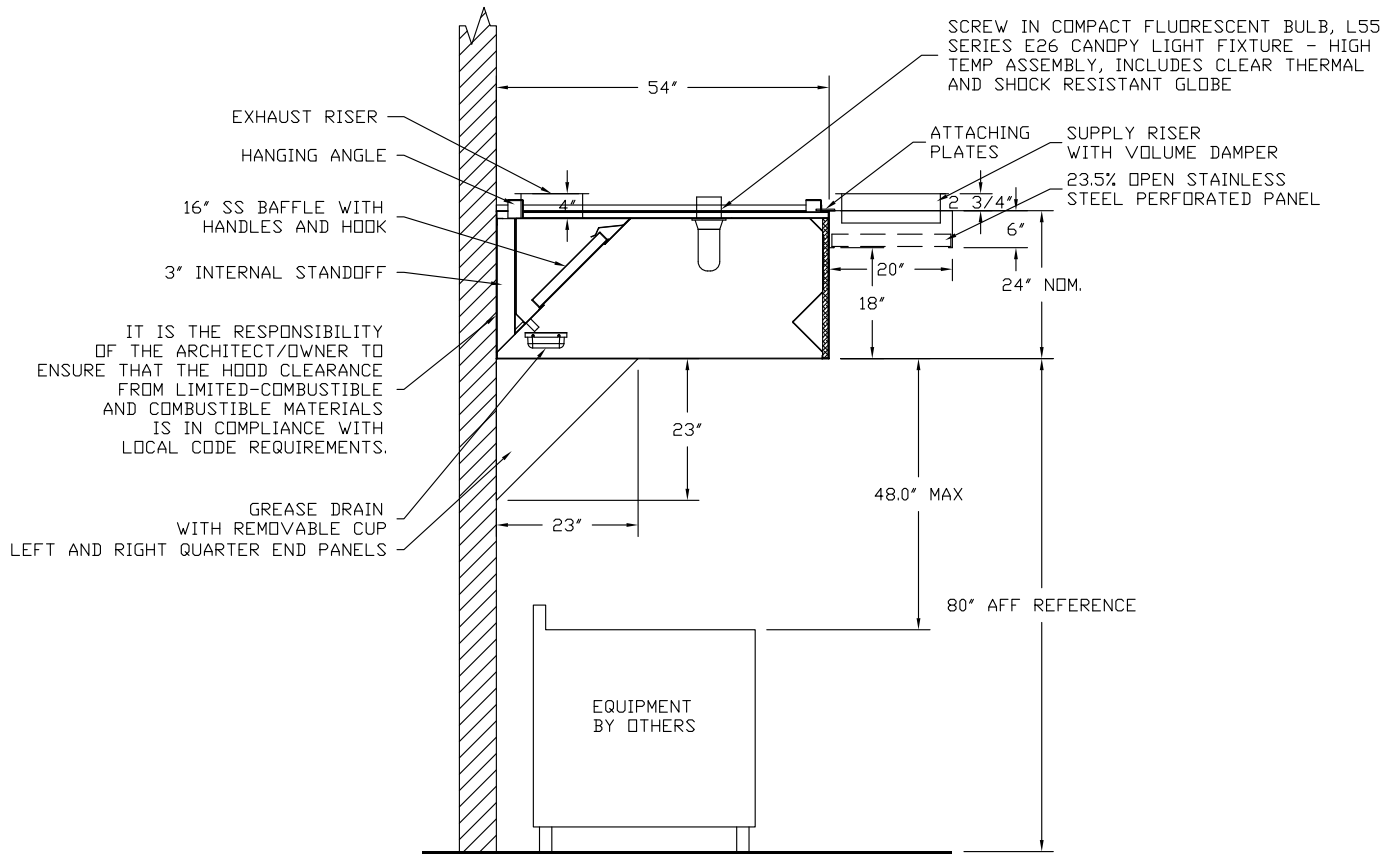
CUSTOMER APPROVAL TO MANUFACTURE:

- Approved as Noted
- Approved with NO Exception Taken
- Revise and Resubmit

SIGNATURE _____
 Your Title _____ Date _____



JOB 75 Washington Ave r1	
LOCATION BIDDEFORD, ME,	
DATE 6/24/2015	JOB # 2319577
DWG # 1	DRAWN BY BFC-21
REV.	SCALE 3/8" = 1'-0"



SECTION VIEW - MODEL 5424ND-2-PSP-F
HOOD - #1

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JOB 75 Washington Ave r1	
LOCATION BIDDEFORD, ME,	
DATE 6/24/2015	JOB # 2319577
DWG # 2	DRAWN BY BFC-21
REV.	SCALE 3/8" = 1'-0"

EXHAUST FAN INFORMATION - Job#2319577

FAN UNIT NO.	TAG	FAN UNIT MODEL #	CFM	ESP.	RPM	H.P.	B.H.P.	Ø	VOLT	FLA	WEIGHT (LBS.)	SONES
1		NCA24HPFA	3712	2.000	1067	3.000	2.0990	1	230	17.0	293	20

MUA FAN INFORMATION - Job#2319577

FAN UNIT NO.	TAG	FAN UNIT MODEL #	BLOWER	HOUSING	CFM	ESP.	RPM	H.P.	B.H.P.	Ø	VOLT	FLA	WEIGHT (LBS.)	SONES
2		A2-G12	G12	A2	3341	1.000	906	2.000	1.2870	1	230	12.5	392	27

FAN OPTIONS

FAN UNIT NO.	TAG	OPTION (Qty. - Descr.)
1		1 - Grease Box
		1 - 3 Year Extended Motor Warranty
		1 - Extra Set of Belts
		1 - Fan Base Ceramic Seal - For Grease Ducts
		1 - Hinge Kit (HD)- Ships Loose for Curb Supplied by Others
2		1 - Full Crating For Untempered Fans
		1 - 3 Year Extended Motor Warranty
		1 - Extra Set of Belts
		1 - Gravity Backdraft Damper for Size 2 Housing

FAN ACCESSORIES

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

CURB ASSEMBLIES

NO.	ON FAN	WEIGHT	ITEM	SIZE		
1	# 1	43 LBS	Curb	31.500"W x 31.500"L x 24.000"H	3.000:12.000 Pitch	Vented
2	# 2	42 LBS	Curb	31.000"W x 31.000"L x 20.000"H	3.000:12.000 Pitch	

ROOF PITCH FOR CURB(S) MUST BE SPECIFIED PRIOR TO RELEASING ORDER
 ___:12

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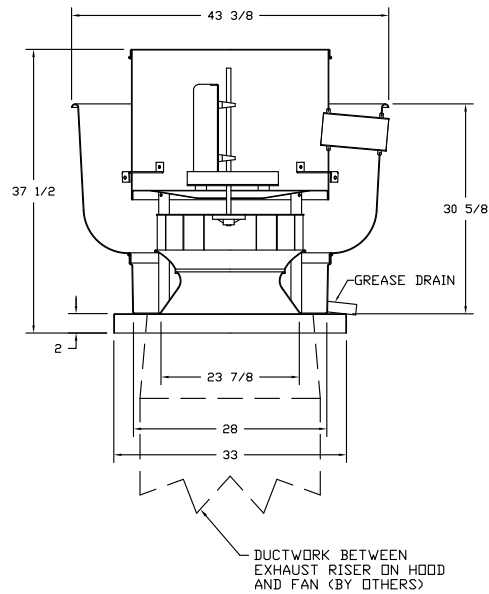
SIGNATURE _____

Your Title _____ Date _____



JOB 75 Washington Ave r1	
LOCATION BIDDEFORD, ME,	
DATE 6/24/2015	JOB # 2319577
DWG # 3	DRAWN BY BFC-21
REV.	SCALE 3/8" = 1'-0"

FAN #1 NCA24HPFA - EXHAUST FAN



FEATURES:

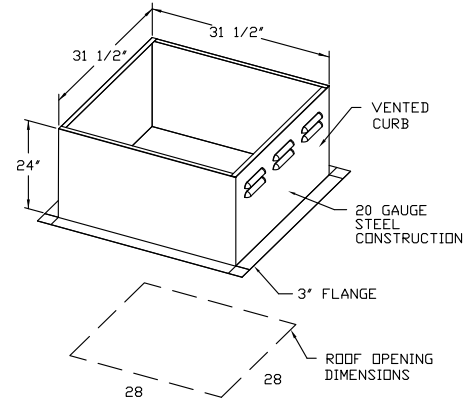
- ROOF MOUNTED FANS
- RESTAURANT MODEL
- UL705 AND UL762
- AMCA SOUND AND AIR CERTIFIED
- WIRING FROM MOTOR TO DISCONNECT SWITCH
- WEATHERPROOF DISCONNECT
- HIGH HEAT OPERATION 300°F (149°C)
- GREASE CLASSIFICATION TESTING

NORMAL TEMPERATURE TEST
 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
 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.

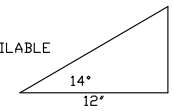
OPTIONS

- GREASE BOX
- 3 YEAR EXTENDED MOTOR WARRANTY
- EXTRA SET OF BELTS
- FAN BASE CERAMIC SEAL - FOR GREASE DUCTS
- HINGE KIT (HD)- SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS



PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

SPECIFY PITCH:
 EXAMPLE: 7/12 PITCH = 30° SLOPE



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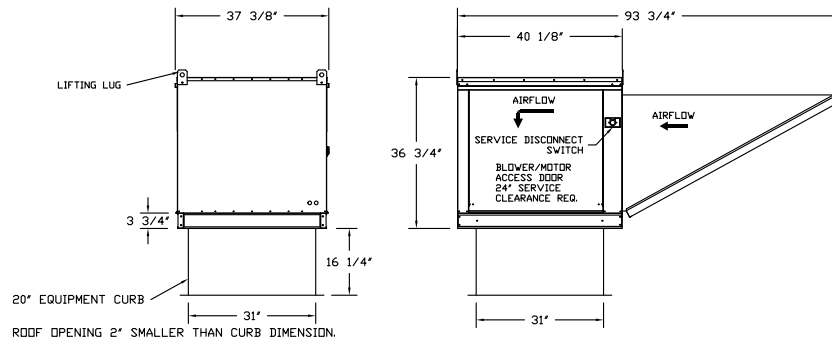
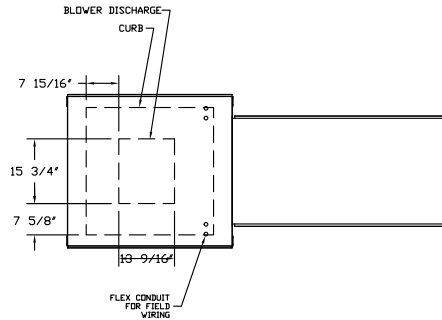
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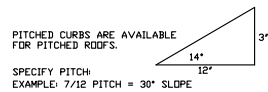


JOB 75 Washington Ave r1	
LOCATION BIDDEFORD, ME,	
DATE 6/24/2015	JOB # 2319577
DWG # 4	DRAWN BY BFC-21
REV.	SCALE 3/8" = 1'-0"

- FAN #2 A2-G12 - SUPPLY FAN
 1. UNTEMPERED SUPPLY UNIT WITH 12" BLOWER IN SIZE #2 HOUSING
 2. INTAKE HOOD WITH EZ FILTERS
 3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT
 4. FULL CRATING FOR UNTEMPERED FANS FOR SHIPPING
 5. 3 YEAR EXTENDED WARRANTY FOR FAN MOTOR. PARTS ONLY; DOES NOT INCLUDE LABOR.
 6. EXTRA SET OF V-BELTS. ONLY TO BE ORDERED AS FAN OPTION AT TIME FAN IS ORDERED.
 7. GRAVITY BACK DRAFT DAMPER 22" X 24", STANDARD GALVANIZED CONSTRUCTION, 1 1/4" REAR FLANGE, FOR SIZE 2 UNTEMPERED FAN HOUSING (5182)



ROOF OPENING 2" SMALLER THAN CURB DIMENSION.



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CAPTIVEAIRE

JOB 75 Washington Ave r1	
LOCATION BIDDEFORD, ME,	
DATE 6/24/2015	JOB # 2319577
DWG # 5	DRAWN BY BFC-21
REV.	SCALE 1/4" = 1'-0"

Exhaust Fan Wiring

JOB 2319577 - 75 Washington Ave r1

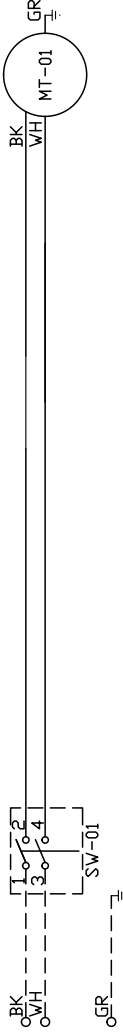
DRAWING NUMBER EXH2319577-1

SHIP DATE 6/24/2015

MODEL NCA24HPFA

Installed Options

1



Component Identification
 Label Description Location
 MT-01 Fan Motor [2]

SW-01 Main disconnect switch [2]

MOTOR_INFO
 EXHAUST 3HP-230V-1P-17.0FLA

ELECTRICAL INFORMATION
 MOTOR/CTRL MOP: 213A
 MOTOR/CTRL MOP: 55A

NOTES
 - - - - DENOTES FIELD WIRING
 _____ DENOTES INTERNAL WIRING

WIRE COLOR
 BK - BLACK YW - YELLOW
 BL - BLUE GR - GREEN
 BR - BROWN GY - GRAY
 OR - ORANGE PR - PURPLE
 RD - RED PK - PINK
 WH - WHITE

23

AirHandler Wiring

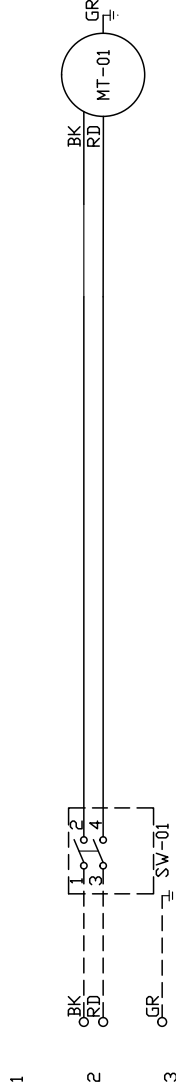
JOB 2319577 - 75 Washington Ave r1

DRAWING NUMBER A2319577-2

SHIP DATE 6/24/2015

MODEL A2-G12

ATTENTION ELECTRICIAN!
 DROP FOR DISCONNECT CONNECTION
 IS FACTORY SUPPLIED
 CONNECT POWER TO THE DROP



Installed Options

Label	Component Description	Location
MT-01	Supply motor	[20]

SW-01 Main disconnect switch [20]

SUPPLY MOTOR_INFO
 2HP-230V-1P-12.5FLA

ELECTRICAL INFORMATION
 MOTOR/CTRL CIRCUIT MOP: 15/A
 MOTOR/CTRL CIRCUIT MOP: 25/A

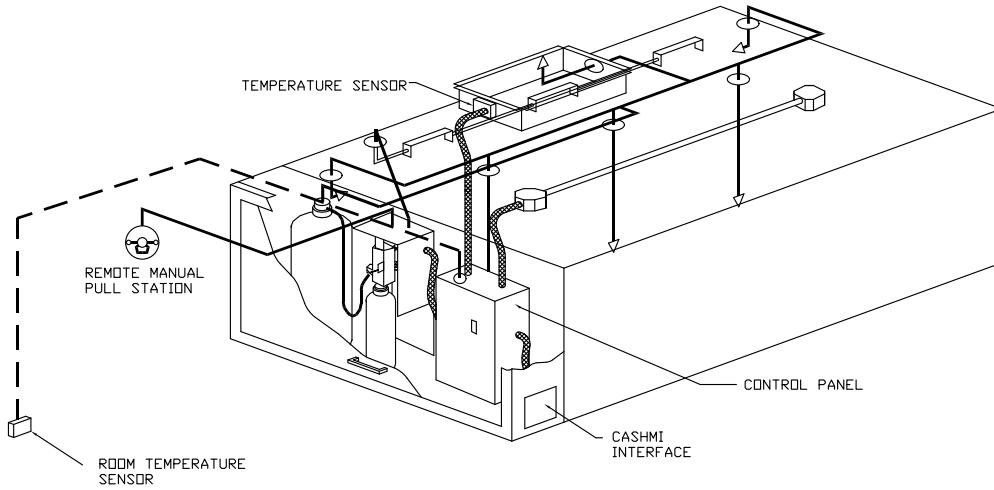
NOTES
 - - - - DENOTES FIELD WIRING
 _____ DENOTES INTERNAL WIRING

WIRE COLOR
 BK - BLACK YW - YELLOW
 BL - BLUE GR - GREEN
 BR - BROWN GY - GRAY
 OR - ORANGE PR - PURPLE
 RD - RED PK - PINK
 WH - WHITE

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ELECTRICAL PACKAGES - Job#2319577

NO.	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED				
				LOCATION	QUANTITY		TYPE	Ø	H.P.	VOLT	FLA
1		SC-211110FP	Utility Cabinet Right	Utility Cabinet Right	1 Light	Smart Controls Thermostatic Control	Exhaust	1	3,000	230	17.0
				Hood # 1	1 Fan		Supply	1	2,000	230	12.5



TYPICAL CONTROL CENTER INSTALLATION

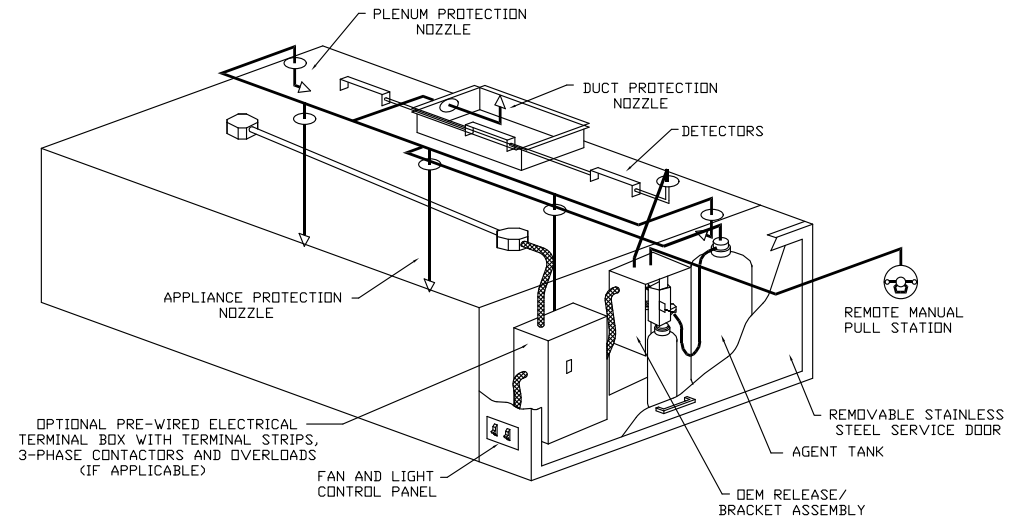
SPECIFICATIONS

THE RESTAURANT FIRE SUPPRESSION SYSTEM SHALL BE THE PRE-ENGINEERED TYPE WITH A FIXED NOZZLE AGENT DISTRIBUTION NETWORK. IT SHALL BE LISTED WITH UNDERWRITERS LABORATORIES, INC. (UL)

THE SYSTEM SHALL BE CAPABLE OF AUTOMATIC DETECTION AND ACTUATION WITH LOCAL OR REMOTE MANUAL ACTUATION. ACCESSORIES SHALL BE AVAILABLE FOR MECHANICAL OR ELECTRICAL GAS LINE SHUT-OFF APPLICATIONS.

THE EXTINGUISHING AGENT SHALL BE A POTASSIUM CARBONATE, POTASSIUM ACETATE-BASED FORMULATION DESIGNED FOR FLAME KNOCKDOWN AND SECUREMENT OF GREASE RELATED FIRES. IT SHALL BE AVAILABLE IN PLASTIC CONTAINERS WITH INSTRUCTIONS FOR LIQUID AGENT HANDLING AND USAGE.

THE REGULATED RELEASE MECHANISM SHALL BE COMPATIBLE WITH A FUSIBLE LINK DETECTION SYSTEM. THE FUSIBLE LINK SHALL BE SELECTED AND INSTALLED ACCORDING TO THE OPERATING TEMPERATURE IN THE VENTILATING SYSTEM. THE FUSIBLE LINK SHALL BE SUPPORTED BY A DETECTOR BRACKET/ LINKAGE ASSEMBLY.



TYPICAL ANSUL R-102 SYSTEM LAYOUT

CUSTOMER APPROVAL TO MANUFACTURE:

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Approved with NO Exception Taken

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JOB 75 Washington Ave r1	
LOCATION BIDDEFORD, ME,	
DATE 6/24/2015	JOB # 2319577
DWG # 8	DRAWN BY BFC-21
REV.	SCALE 3/8" = 1'-0"

JOB NO
2319577

MODEL NUMBER
SC-211110FP

DRAWN BY
INSTALL

DESCRIPTION OF OPERATION:
220V 1 Phase w/ 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fans On/Off Thermostatically Controlled. Room temperature sensor shipped loose for field installation.

JOB NAME
75 Washington Ave r1

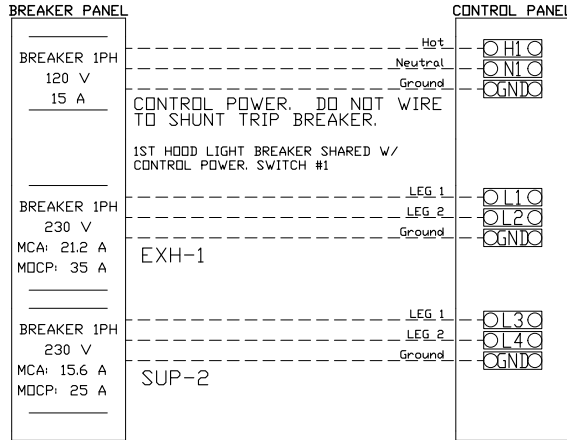
DATE
6/24/2015

DWG NO
ECP #1-1

BREAKER PANEL TO CONTROL PANEL

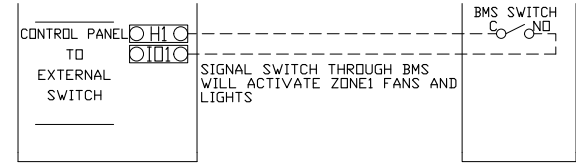
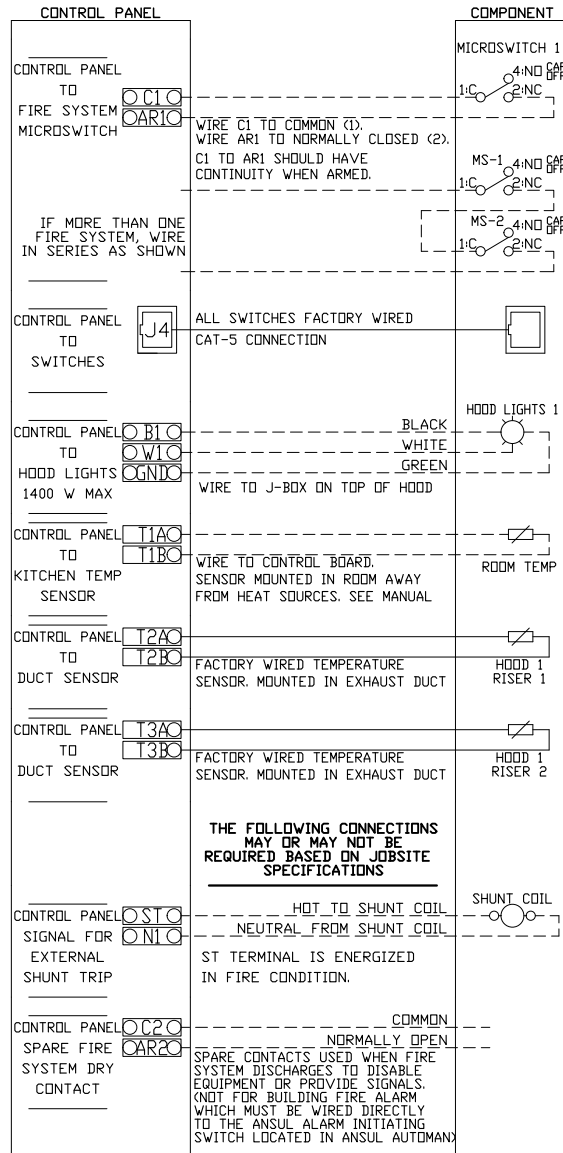
Responsibility: Electrician

BREAKER SIZE SHOWN IS THE MAXIMUM ALLOWED



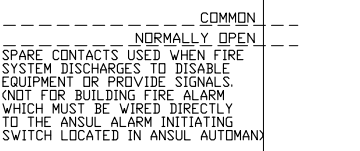
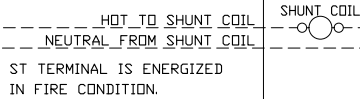
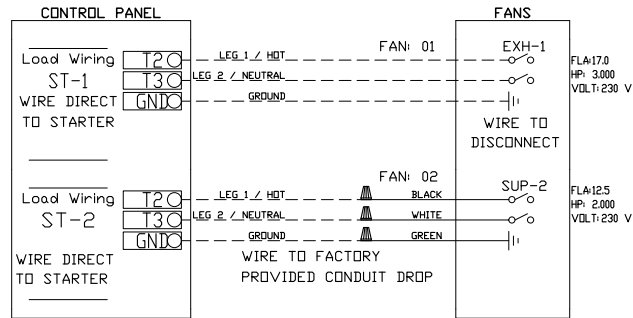
CONTROL PANEL TO ACCESSORY ITEMS

Responsibility: Electrician

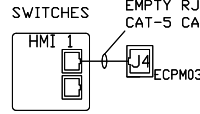
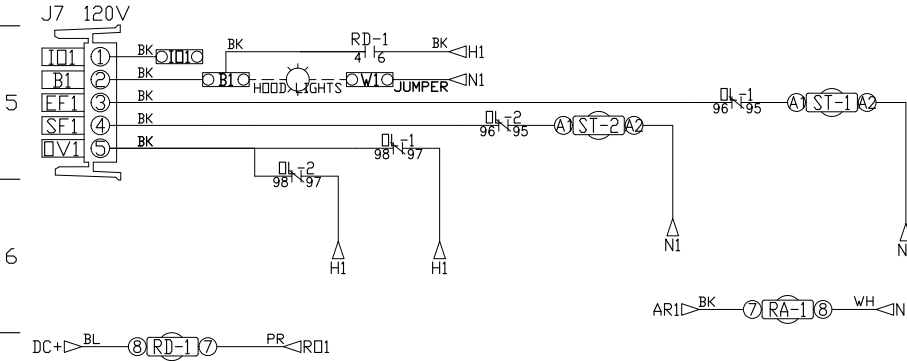
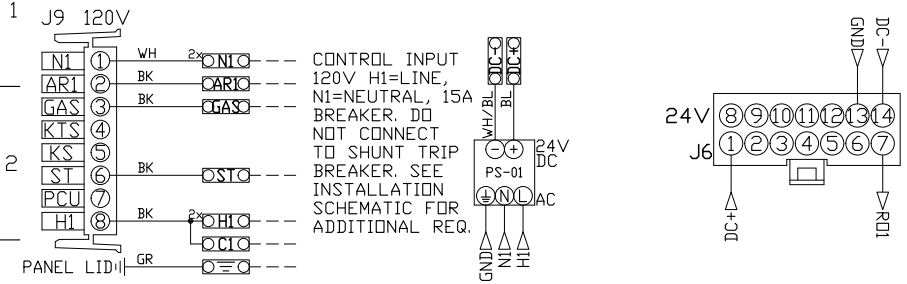


CONTROL PANEL TO FANS

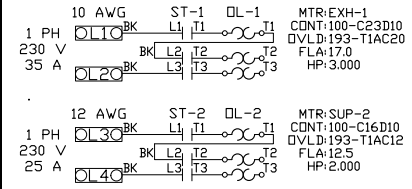
Responsibility: Electrician



UNLESS SPECIFIED OTHERWISE, ALL FACTORY AC WIRING 16 AWG. ALL FACTORY DC WIRING 18 AWG.



MOTOR POWER CIRCUIT



FACTORY WIRING SCHEMATIC CIRCUIT BOARDS
ECPM03 Rev. 1.35
HMI Rev. 1.06

RA-x 120 VAC RELAY	RD-x 24 VDC RELAY
NO 4 3	14 NO
NC 2 1	12 NC
COIL 8 7	+A1A2 COIL
COM 6 5	11 COM

COMPONENT LIST

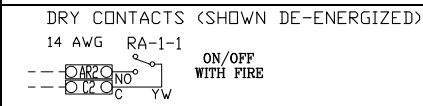
LABEL	DESCRIPTION
ST-X	Starter PN:varies
DL-X	Overload PN:varies
C-X	Contactor PN:varies
PS-1	Power Sup. 24VDC PN:MDP18-24A-1C
RA-x	120V Relay DPDT PN:34.110.0184.0
RD-x	24VDC Light Relay PN:34.110.0188.0
TS-x	Duct Thermostat PN:A/CP-PO-T4-EXPL

LEGEND

--- FIELD WIRING
— FACTORY WIRING

BK- BLACK YW- YELLOW
BL- BLUE GY- GREY
BR- BROWN PR- PURPLE
OR- ORANGE RD- RED
WH- WHITE
OR/BL- OR/BL STRIPE
BL/RD- BL/RD STRIPE
RD/GN- RD/GN STRIPE
WH/BL- WH/BL STRIPE

JOB NAME
75 Washington Av...
DRAWING TITLE
SC-211110FP
DESCRIPTION OF OPERATION
220V 1 Phase w/ 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fans On/Off Thermostatically Controlled. Room temperature sensor shipped loose for field installation.



JOB NO 2319577	DRAWN BY
TYPE FACTORY	DATE 6/24/2015
DWG NO ECP #1-2	

System Design Verification (SDV)

If ordered, CAS Service will perform a System Design Verification (SDV) once all equipment has had a complete start up per the Operation and Installation Manual. Typically, the SDV will be performed after all inspections are complete.

Any field related discrepancies that are discovered during the SDV will be brought to the attention of the general contractor and corresponding trades on site. These issues will be documented and forwarded to the appropriate sales office. If CAS Service has to resolve a discrepancy that is a field issue, the general contractor will be notified and billed for the work. Should a return trip be required due to any field related discrepancy that cannot be resolved during the SDV, there will be additional trip charges.

During the SDV, CAS Service will address any discrepancy that is the fault of the manufacturer. Should a return trip be required, the general contractor and appropriate sales office will be notified. There will be no additional charges for manufacturer discrepancies.

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JOB 75 Washington Ave r1	
LOCATION BIDDEFORD, ME,	
DATE 6/24/2015	JOB # 2319577
DWG # 11	DRAWN BY BFC-21
REV.	SCALE 3/8" = 1'-0"