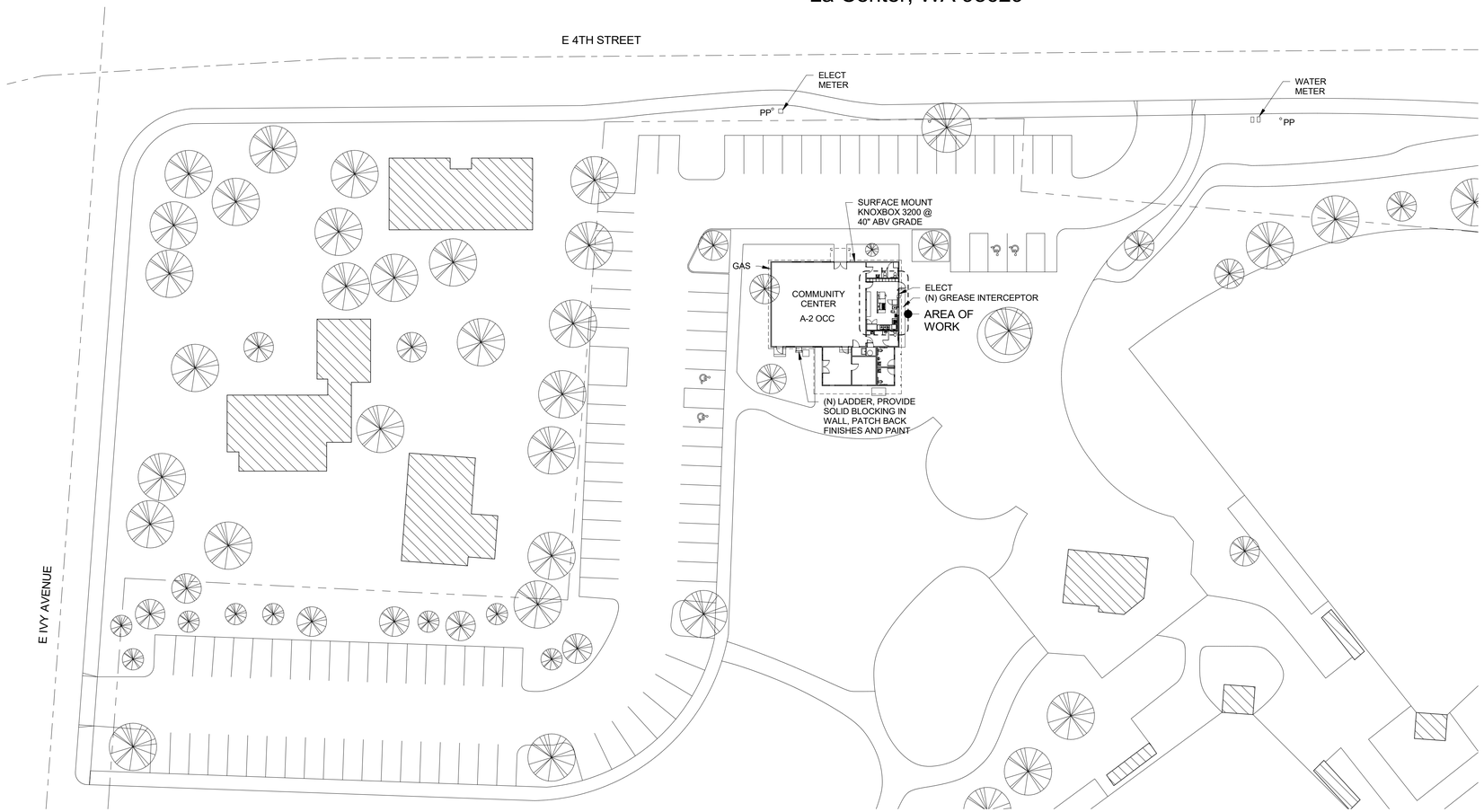
CITY OF LA CENTER
COMMUNITY CENTER KITCHEN REMODEL

1000 E 4th Street
La Center, WA 98629



A1 SITE PLAN
A0.0 1" = 30'-0"

PROJECT TEAM

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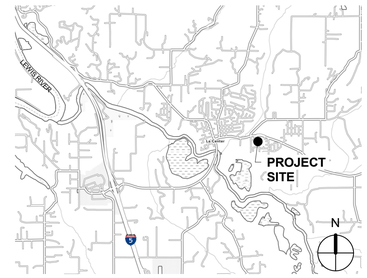
10/31/2022 9:14:55 AM

Revision Schedule		
#	Date	Description

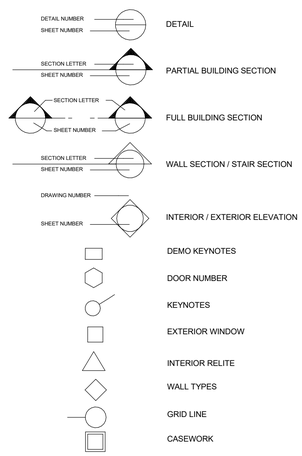
PROJECT SUMMARY

KITCHEN RENOVATION, FINISHES, LIGHTING AND EQUIPMENT.

VICINITY MAP



LEGEND



INDEX OF DRAWINGS

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STATE OF WASHINGTON

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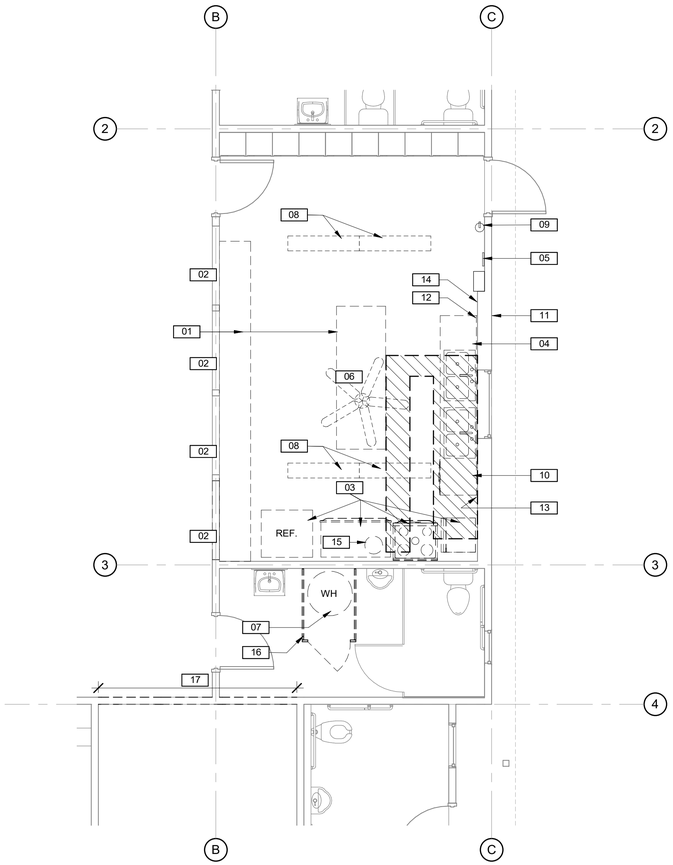
1000 E 4th St.
La Center, WA 98629

BID SET
7/20/2022

COVER SHEET

2022-09

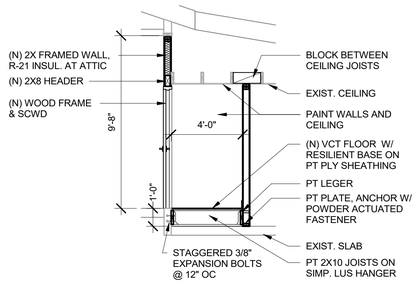
SHEET NO.
A0.0



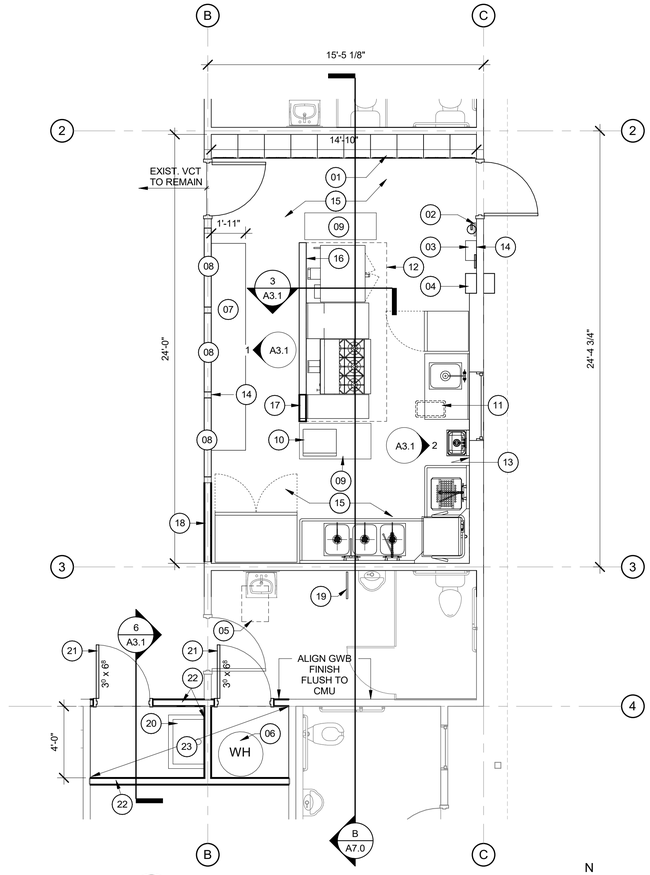
A DEMOLITION PLAN
A3.1 — 1/4" = 1'-0"

DEMOLITION KEYNOTES

01 REMOVE EXISTING COUNTERS AND UNDERSHELVING
02 REMOVE EXISTING COUNTER DOOR, JAMB, AND TRIM
03 REMOVE EXISTING APPLIANCES
04 REMOVE EXIST. CASEWORK/COUNTER, PLUMBING FIXTURES, AND UNDERCOUNTER DISHWASHER
05 RELOCATE EXISTING WI-FI ROUTER, SEE FLOOR PLAN FOR NEW LOCATION
06 REMOVE EXIST. CEILING FAN
07 REMOVE EXIST. WATER HEATER
08 REMOVE EXIST. LIGHT FIXTURES, SEE ELECTRICAL DRAWINGS
09 EXIST. FIRE EXTINGUISHER CABINET TO REMAIN
10 SAWCUT AND REMOVE SECTION OF CONC. FLOOR SLAB FOR NEW SANITARY CONNECTIONS. POUR BACK CONCRETE AND PREP FLOOR FOR NEW FLOORING
11 REROUTE PVC EXHAUST FLUE IN WALL AT GABLE PEAK, PER MECHANICAL, SEE M2.0 PLANS. REPLACE BOARD AND BATTEN SIDING
12 SALVAGE EXISTING SOAP, AND TOWEL DISP. FOR REINSTALLATION
13 REMOVE SHELVING BRACKET, SALVAGE MICROWAVE TO OWNER
14 EXISTING FIRST AID CABINET TO REMAIN
15 REMOVE EXIST. EXHAUST GRILL, SEAL DUCT, REMOVE ELECTRICAL CABLING TO PANEL OR JUNCTION BOX, PATCH AND PAINT CEILING. REFER TO MECH AND ELECT DRAWINGS
16 REMOVE TOILET PARTITION, PATCH BACK WALLS AND FLOOR.
17 SHORE CEILING AND ROOF FRAMING BOTH SIDES OF WALL. SAW CUT AND REMOVE CMU WALL TO WOOD FRAMING ABOVE.



6 CUST. CLOSET
A3.1 — 1/4" = 1'-0"

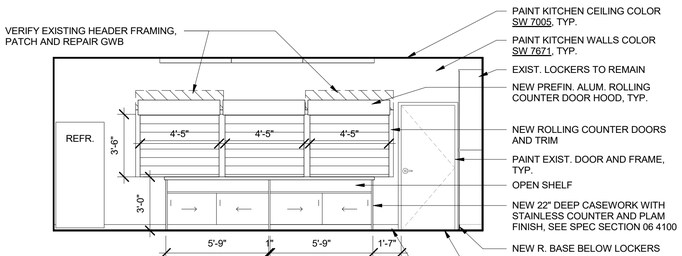


B KITCHEN PLAN
A3.1 — 1/4" = 1'-0"

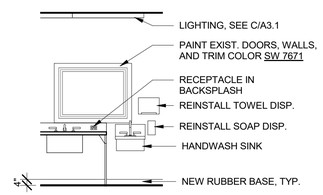
PLAN KEYNOTES

01 EXISTING LOCKERS TO REMAIN
02 RELOCATE WI-FI ROUTER ABOVE FEC
03 NEW ELECT. SUB PANEL SEE ELEC. DRAWINGS
04 EXISTING ELECTRIC PANEL
05 EXISTING ATTIC ACCESS PANEL IN CEILING
06 NEW WATER HEATER, SEE MECH DRAWINGS
07 NEW STAINLESS STEEL COUNTERTOP OVER NEW CASEWORK, SEE ELEVATION ON C/A7.0
08 NEW PUSH-UP ROLLING COUNTER DOOR, STAINLESS STEEL HOOD, CURTAIN, & FRAME.
09 SHELVING
10 OWNER FURNISHED MICROWAVE
11 NEW TRASH CAN
12 NEW HOOD ABOVE, SEE MECH DRAWINGS
13 REINSTALL SOAP AND TOWEL DISP.
14 PAINT NEW AND EXISTING CONDUIT TO MATCH WALL
15 NEW VCT FLOORING WITH RESILIENT BASE, SEE SPEC SECTION 09 6500
16 48" HGT 20 GA STAINLESS PANEL FINISH AND TRIM THIS SIDE OF WALL
17 FULL HEIGHT WALL
18 INFILL OPENING, FINISHES TO FLUSH WITH AND MATCH EXISTING ON EACH SIDE OF WALL
19 NEW URINAL PARTIITON
20 NEW MOP SINK
21 NEW HOLLOW METAL DOOR WITH PRIVACY LOCK
22 NEW INFILL WALL PARTIITON, 5/8" GWB ON 2X6 STUD, USE PT PLATE
23 NEW FLOOR TO FLUSH WITH MULTI-PURPOSE ROOM LEVEL

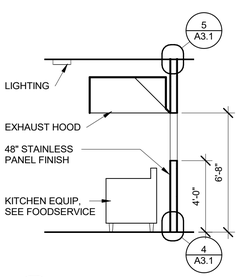
NOTE: SEE FOOD SERVICE PLANS FOR KITCHEN EQUIPMENT DETAIL



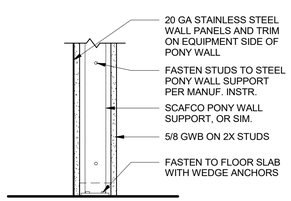
1 SERVICE COUNTER
A3.1 — 1/4" = 1'-0"



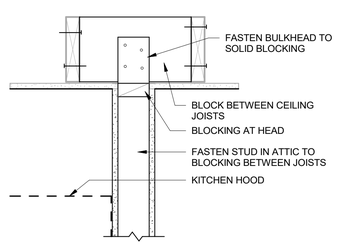
2 HANDWASH SINK
A3.1 — 1/4" = 1'-0"



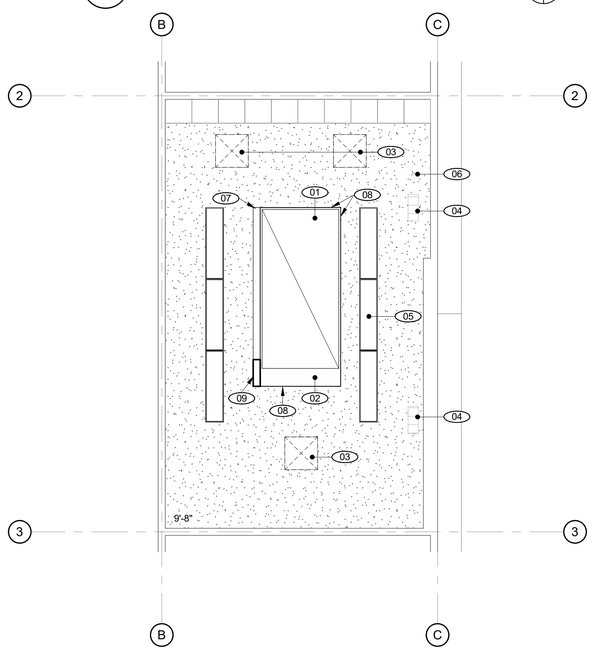
3 ISLAND SECTION
A3.1 — 1/4" = 1'-0"



4 PONY WALL SUPPORT
A3.1 — 1 1/2" = 1'-0"



5 BULKHEAD ATTACHMENT
A3.1 — 1 1/2" = 1'-0"



C REFLECTED CEILING PLAN
A3.1 — 1/4" = 1'-0"

RCP KEYNOTES

01 NEW KITCHEN HOOD, SEE MECHANICAL DRAWINGS
02 FIRE SUPPRESSION CABINET SEE MECHANICAL DRAWINGS
03 NEW SUPPLY AIR DIFFUSER
04 REPLACE EXIST. WARM AIR SUPPLY VENT COVER W/ NEW PREFIN. GRILLE
05 NEW LIGHT FIXTURES, SEE ELECTRICAL DRAWINGS
06 PAINT EXISTING CEILING COLOR SW 7005
07 BULKHEAD WALL BEHIND HOOD. BOTTOM OF WALL 80" AFF
08 OPEN ABOVE EXHAUST HOOD
09 WALL PARTITION CONTINUOUS FROM FLOOR TO ATTIC WITH RACEWAYS AND PIPING IN THE CAVITY

RCP MATERIAL LEGEND

EXIST. 5/8" GWB (PAINT)

FIXTURES LEGEND

LINEAR LIGHT FIXTURE REFER TO ELECTRICAL DRAWINGS

Revision Schedule		
#	Date	Description
1	9/28/22	REV01

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CRAIG M. COLLINS
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CITY OF LA CENTER
COMMUNITY CENTER KITCHEN REMODEL

1000 E 4th St.
La Center, WA 98629

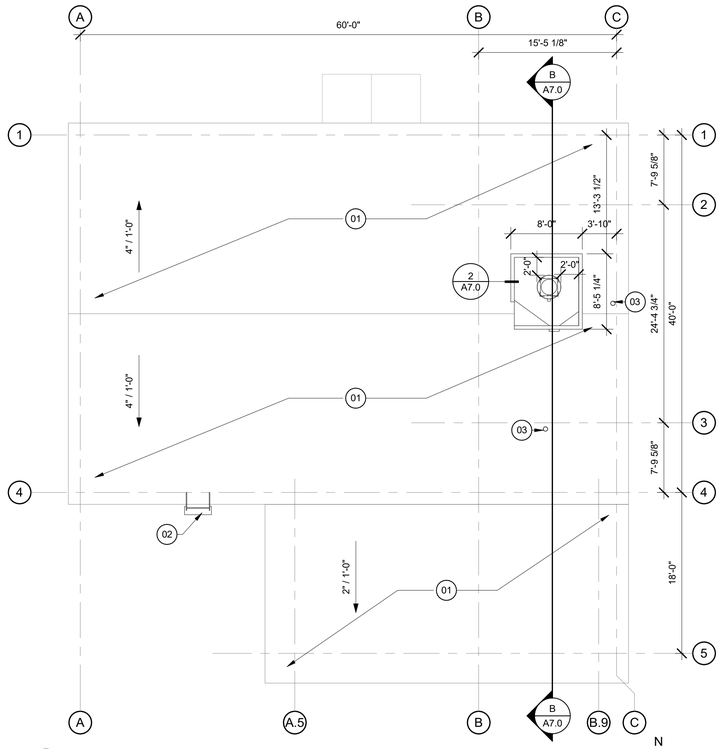
BID SET
7/20/2022

FLOOR PLANS

2022-09

SHEET NO.
A3.1

10/31/2022 9:14:56 AM



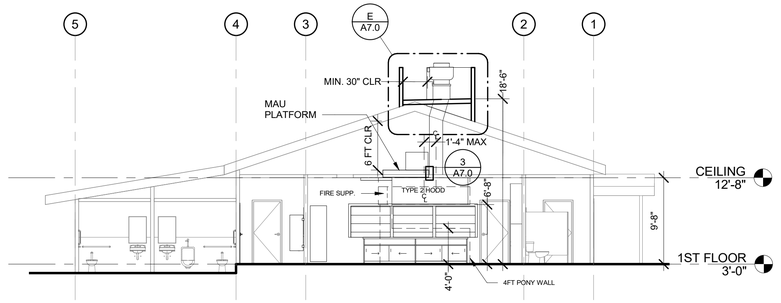
A A7.0 ROOF PLAN
1/8" = 1'-0"

ROOF PLAN KEYNOTES

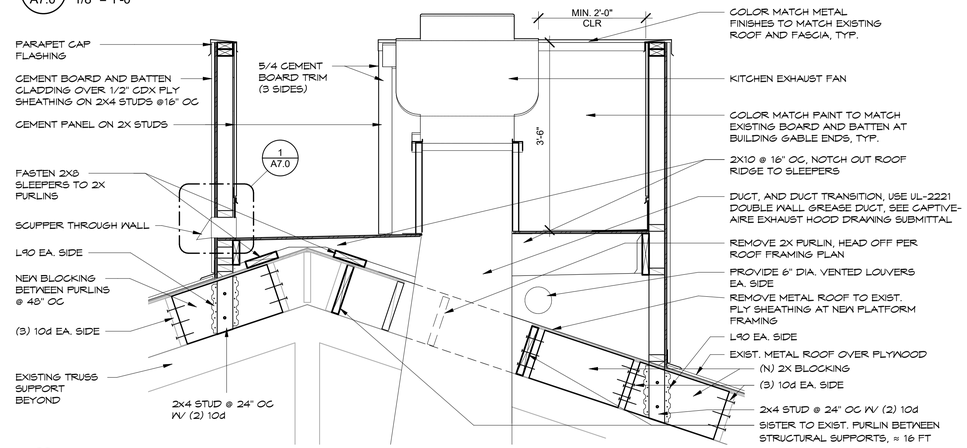
01 EXISTING STANDING SEAM METAL ROOFING

02 20" WIDE EXTERIOR STEEL LADDER W/ GALVANIZED FINISH. LOCKABLE 6FT STEEL LADDER GUARD. 30"X30" CLEAR LANDING. 3/4" RUNGS, MAX SPACING 12", TOP RUNG LESS THAN 24" FROM TOP OF EAVE AT EDGE OF ROOF, MIN. 7" CLEAR TOW SPACING TO WALL. MIN 18" BETWEEN RAILS, RAILS TO EXTEND 42" ABOVE EAVE. FASTENED TO SOLID BLOCKING IN WALL FOR 300LB LOAD. REMOVE FINISHES AS REQUIRED TO INSTALL BLOCKING, PATCH BACK TO MATCH EXISTING (PAINT FINISHES).

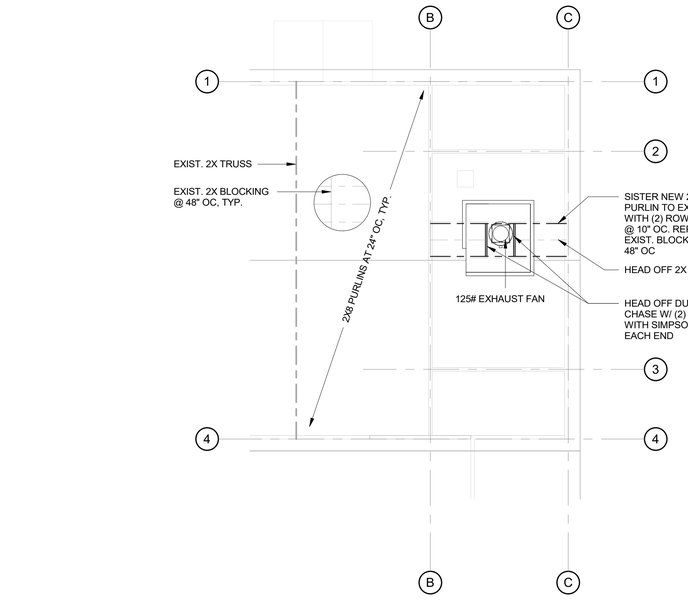
03 NEW EXHAUST ROOF FLUE PENETRATION: BOOT AND FLASH. SEE 1/P1.0



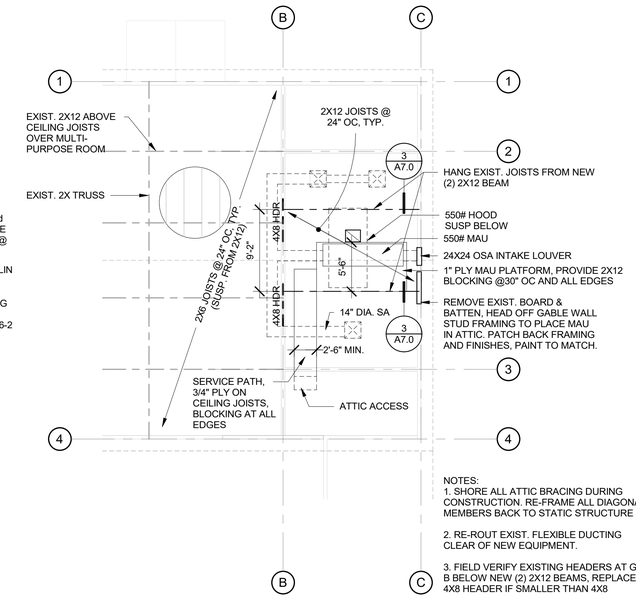
B A7.0 CROSS SECTION
1/8" = 1'-0"



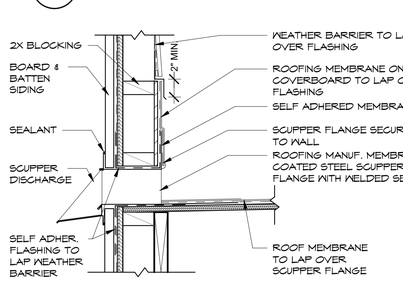
E A7.0 EQUIPMENT SECTION
3/4" = 1'-0"



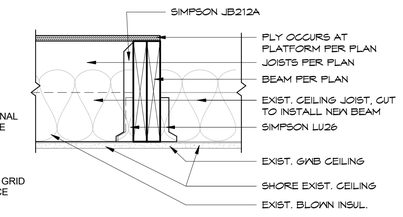
C A7.0 ROOF FRAMING PLAN
1/8" = 1'-0"



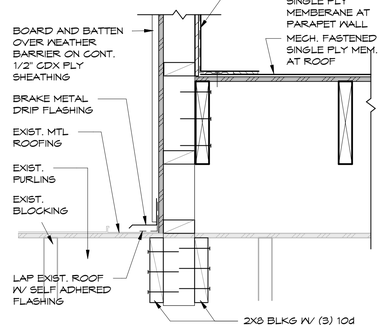
D A7.0 CEILING FRAMING PLAN
1/8" = 1'-0"



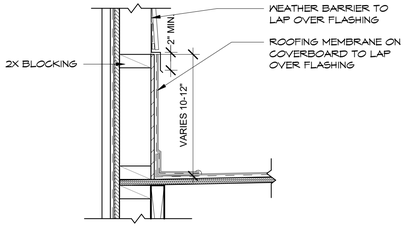
1 A7.0 ROOF SCUPPER
1 1/2" = 1'-0"



3 A7.0 CEILING BEAM
1 1/2" = 1'-0"



2 A7.0 PARAPET RAKE
1 1/2" = 1'-0"



4 A7.0 CLADDING TO ROOFING TRANSITION
1 1/2" = 1'-0"

Revision Schedule		
#	Date	Description
1	9/28/22	REV01

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REMODEL

CITY OF LA CENTER
COMMUNITY CENTER KITCHEN

1000 E 4th St.
La Center, WA 98629

BID SET
7/20/2022

ROOF PLAN

2022-09

SHEET NO.
A7.0

10/31/2022 9:14:57 AM

MECHANICAL SYMBOLS AND ABBREVIATIONS

SYMBOL	ABBREV.	DESCRIPTION
	(D)	PIPING / EQUIPMENT TO BE REMOVED
	(N)	PIPING / EQUIPMENT TO BE PROVIDED
	(E)	PIPING / EQUIPMENT TO REMAIN
	(F)	FUTURE PIPING / EQUIPMENT
	W	SANITARY DRAIN (ABOVE GRADE DRAIN)
	W	SANITARY DRAIN (BELOW GRADE DRAIN)
	W	SANITARY DRAIN (PUMPED)
SD	SD	STORM DRAIN (ABOVE GRADE DRAIN)
SD	SD	STORM DRAIN (BELOW GRADE DRAIN)
V V	V	VENT
ACID	ACID	ACID DRAIN
AV	AV	ACID VENT
	CW	COLD WATER
	HW	HOT WATER
	HWR	HOT WATER RETURN
G	G	NATURAL GAS
AIR	A	COMPRESSED AIR
P	P	PROPANE
O_2	O_2	OXYGEN
F	F	FIRE PROTECTION
S	S	STEAM (15 PSIG)
C	C	CONDENSATE RETURN
PC	PC	CONDENSATE RETURN (PUMPED)
HWS	HWS	HEATING WATER SUPPLY (LOW TEMP)
HWR	HWR	HEATING WATER RETURN
RL	RL	REFRIGERANT LIQUID LINE
RS	RS	REFRIGERANT SUCTION LINE
CHS	CHS	CHILLED WATER SUPPLY
CHR	CHR	CHILLED WATER RETURN
CWS	CWS	CONDENSING WATER SUPPLY
CWR	CWR	CONDENSING WATER RETURN
D	D	DRAIN (INDIRECT)
		TRIPLE DUTY VALVE
		BALL VALVE
		BUTTERFLY VALVE
		CHECK, SWING VALVE
		CHECK, SPRING VALVE
		BALANCING VALVE
		FLOW CONTROL VALVE
		FLOAT VALVE
		GATE VALVE
		GATE ANGLE VALVE
		GLOBE ANGLE VALVE
		PLUG VALVE
		SAFETY RELIEF VALVE
		GLOBE VALVE
		PRESSURE REDUCING VALVE
		SOLENOID VALVE
		2-WAY CONTROL VALVE
		3-WAY CONTROL VALVE
		HOSE BIB
FD	FD	FLOOR DRAIN
FS	FS	FLOOR SINK
WCO	WCO	WALL CLEAN OUT
CB	CB	CATCH BASIN
		WALL HYDRANT / HOSE BIB
FDC		FIRE DEPARTMENT CONNECTION
WHA		FIRE HYDRANT
		WATER HAMMER ARRESTOR
BFP	BFP	BACKLFLOW PREVENTER, DOUBLE CHECK
RPBP	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
XX		CAP
		UNION
		EXPANSION JOINT
		FLEXIBLE JOINT
		CONCENTRIC REDUCER
		ECCENTRIC REDUCER STRAIGHT INVERT
		ECCENTRIC REDUCER STRAIGHT CROWN
		STRAINERS/FILTERS Y-PATTERN W/ PLUG
		STRAINERS/FILTERS Y-PATTERN W/ BLOWOFF
		ANCHOR
		GUIDE
AV	AAV	AUTOMATIC AIR VENT
		PETE'S PLUG
	MAV	MANUAL AIR VENT
R		RISE
		TEE
		TEE, OUTLET UP
		TEE, OUTLET DOWN
		ELBOW
		ELBOW, OUTLET UP
		ELBOW, OUTLET DOWN
	/	AND/OR
	℄	CENTER LINE
	Ø	DIAMETER/PHASE
	#	NUMBER/POUNDS

MECHANICAL SYMBOLS AND ABBREVIATIONS

SYMBOL	ABBREV.	DESCRIPTION
	SA	SUPPLY DUCT TURN UP
	SA	SUPPLY DUCT TURN DOWN
	RA	RETURN AIR
	EXH	EXHAUST
	OSA	OUTSIDE AIR
	FSD	FIRE SMOKE DAMPER
	FD	FIRE DAMPER
	MVD	MANUAL VOLUME DAMPER
		MOTORIZED DAMPER
		BACKDRAFT DAMPER
		TEMPERATURE SENSOR
		WALL MOUNTED THERMOSTAT
		CEILING MOUNTED THERMOSTAT
		ACOUSTICAL LINER
		FLEXIBLE DUCT
		EQUIPMENT CONNECTION
		DUCT PRESSURE CLASS SYMBOL
		SUPPLY DIFFUSER/GRILLE
		RETURN DIFFUSER/GRILLE
		EXHAUST DIFFUSER/GRILLE
		LINEAR SLOT DIFFUSER
		SIDEWALL DIFFUSER/GRILLE
		DETAIL/SECTION NUMBER
		DETAIL/SECTION SYMBOL
		DRAWING WHERE DETAIL/SECTION APPEARS
		POINT OF CONNECTION TO (E)
		NEW EQUIPMENT IDENTIFICATION
		NEW EQUIPMENT MARK
		NEW EQUIPMENT NUMBER
		EXISTING EQUIPMENT IDENTIFICATION
X-1		EXISTING EQUIPMENT MARK
		EXISTING EQUIPMENT NUMBER
		NECK SIZE (IN)
		DIFFUSER/GRILLE MARK
		CFM
	AD	ACCESS DOOR
	AF	AIR FOIL (FAN)
	AFF	ABOVE FINISHED FLOOR
	APD	AIR PRESSURE DROP
	AVG	AVERAGE
	BHP	BRAKE HORSEPOWER
	BI	BACKWARD INCLINED (FAN)
	BLDG	BUILDING
	BOD	BOTTOM OF DUCT
	BOP	BOTTOM OF PIPE
	BTU	BRITISH THERMAL UNIT
	BTUH	BTU PER HOUR
	CFM	CUBIC FEET PER MINUTE
	CI	CAST IRON
	CO	CLEAN OUT
	COTG	CLEAN OUT TO GRADE
	CONC	CONCRETE
	COND	CONDENS - (ER, ING, ATE)
	CONT	CONTINU - (E, ED, OUS, ATION)
	CU FT	CUBIC FEET
	dB	DECIBEL
	DB	DRY BULB
	DDC	DIRECT DIGITAL CONTROL(S)
	DEG	DEGREE
	DEMO	DEMOLISH(ED)
	DIA	DIAMETER
	DN	DOWN
	DS	DOWNSPOUT
	EA	EACH
	EAT	ENTERING AIR TEMPERATURE
	EFF	EFFICIENCY
	ELEV	ELEVATION
	ELEC	ELECTRIC(AL)
	ENT	ENTERING
	EQUIP	EQUIPMENT
	ESP	EXTERNAL STATIC PRESSURE
	EWT	ENTERING WATER TEMPERATURE
	EXH	EXHAUST (AIR)
	EXIST	EXISTING
	F	FAHRENHEIT

MECHANICAL ABBREVIATIONS

ABBREV.	DESCRIPTION
FC	FORWARD CURVED (FAN)
FCO	FLOOR CLEAN OUT
FF	FINISHED FLOOR
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FA	FREE AREA
FT	FOOT OR FEET
GA	GAUGE
GAL	GALLON(S)
GALV	GALVANIZED
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HD	HEAD / HUB DRAIN
HG	MERCURY
HOA	HAND OFF AUTO
HP	HEAT PUMP / HORSEPOWER
HR	HOUR
HTG	HEATING
HZ	HERTZ (FREQUENCY)
IE	INVERT ELEVATION
IN	INCH(ES)
KW	KILOWATT
HWH	KILOWATT-HOUR
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LVG	LEAVING
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	BTU PER HOUR (THOUSANDS)
MECH	MECHANICAL
MIN	MINIMUM
N/A	NOT APPLICABLE
NC	NOISE CRITERIA / NORMALLY CLOSED
NIC	NOT IN CONTRACT
NIM	NOT IN MECHANICAL
NO	NORMALLY OPEN / NUMBER
NTS	NOT TO SCALE
OBD	OPPOSED BLADE DAMPER
OD	OUTSIDE DIAMETER / OVERFLOW DRAIN
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OSA	OUTSIDE AIR
PD	PRESSURE DROP/ DIFFERENCE
PH	PHASE
PPM	PARTS PER MILLION
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIA	PSI, ABSOLUTE
PSIG	PSI, GAUGE
P&T	PRESSURE & TEMPERATURE RELIEF VALVE
(R)	RELOCATE(D)
R	RADIUS
RA	RETURN (AIR)
RD	ROOF DRAIN
RECIRC	RECIRCULAT - (E, ING, OR)
REQ	REQUIRED
RH	RELATIVE HUMIDITY
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY (AIR)
SAT	SATURATION
SCFM	CFM, STANDARD CONDITIONS
SD	SMOKE DAMPER / STORM DRAIN
SEC	SECOND
SF	SQUARE FEET
SM	SHEET METAL
SP	STATIC PRESSURE
SPEC	SPECIFICATION(S)
SQ FT	SQUARE FEET
SS	STAINLESS STEEL
STD	STANDARD
STRUCT	STRUCTURAL
SYS	SYSTEM
TEMP	TEMPERATURE
TONS	TONS OF REFRIGERATION
TSP	TOTAL STATIC PRESSURE
TSTAT	THERMOSTAT
TYP	TYPICAL
VAC	VACUUM
VAV	VARIABLE AIR VOLUME (BOX/UNIT/SYSTEM)
VD	VOLUME DAMPER
VEL	VELOCITY
VENT	VENTILATION
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
VTR	VENT THROUGH ROOF
VVT	VARIABLE VOLUME AND TEMPERATURE
W/	WITH
W	WASTE/WATT
WB	WET BULB
WPD	WATER PRESSURE DROP
WT	WEIGHT
ZD	ZONE DAMPER

DRAWING INDEX

DWG.	DESCRIPTION
MT1.0	MECHANICAL TITLE SHEET
P1.0	PLUMBING SCHEDULES
P2.0	DEMO/BELOW GRADE PLAN - PLUMBING
P2.1	OVERALL FLOOR PLAN - PLUMBING
M1.0	HVAC SCHEDULES
M2.0	DEMO/OVERALL FLOOR PLAN - HVAC

NOTE:

NOT ALL SYMBOLS AND ABBREVIATIONS MAY BE USED.

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PROFESSIONAL ENGINEER

7/21/2022

Revision Schedule		
#	Date	Description

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1000 E 4th St.
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BID SET
7/20/2022

MECHANICAL TITLE SHEET

2022-09

SHEET NO.

MT1.0

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WATER SERVICE CALCULATION - APPENDIX A

FIXTURE	PUBLIC USE - EXISTING		PUBLIC USE - NEW		TOTAL WSFU (EXIST.)	HOT WATER (EXIST.)	TOTAL WSFU (NEW)	HOT WATER (NEW)	COMMENTS
	QUANTITY	FIXTURE UNITS (WSFU)	QUANTITY	FIXTURE UNITS (WSFU)					
WATER CLOSET (FLUSH VALVE)	2	5	2	5	10	0	10	0	
WATER CLOSET (FLUSH TANK)	3	2.5	3	2.5	7.5	0	7.5	0	
DISHWASHER (DOMESTIC)	1	1.5	0	1.5	1.5	0	0	0	
DISHWASHER	0	3	1	3	0	0	3	3	ITEM 13
HOSE BIBB	1	1	1	1	1	0	1	0	
LAVATORY	4	1	4	1	4	3	4	3	
SINK	2	1.5	0	1.5	3	2.25	0	0	
SINK HS	0	1	1	1	0	0	1	0.75	ITEM 6
SINK 3-COMP	0	4	1	4	0	0	4	3	ITEM 14
URINAL (FLUSH VALVE)	1	4	1	4	4	0	4	0	
SINK DISH TABLE	0	2	1	2	0	0	2	1.5	ITEM 8
SINK PREP	0	2	1	2	0	0	2	1.5	ITEM 2
TOTAL WSFU					31	5.25	38.5	12.75	
TOTAL GPM					42	22	46	30	

	DISTANCE (FT)	PRESSURE (PSIG)	COMMENTS
G. PRESSURE AT RISER (A. - B. - C. - E. - F.)	-	60	1
H. PIPE LENGTH FROM RISER TO REMOTE FIXTURE	50	-	3
I. FRICTION LOSS IN PIPING (50'/100' X .434 X H = PSIG)	-	4	3
J. ELEVATION PRESSURE LOSS FROM RISER TO REMOTE FIXTURE	0	0	4
K. PRESSURE AVAILABLE AT REMOTE FIXTURE (G. - I. - J.)	-	56	
L. MINIMUM PRESSURE AT REMOTE FIXTURE	-	45	PRESSURE REQUIRED AT DISHWASHER (ITEM 13)
SERVICE SIZE (INCHES) = EXISITNG - 1 1/2"			

NOTES:

1 ASSUMED SITE WATER PRESSURE AT BUILDINGLEVEL. PLUMBING CONTRACTOR TO VERIFY AND NOTIFY ENGINEER OF DISCREPANCIES PRIOR TO START OF WORK.

2 NOT USED.

3 TOTAL EQUIVALENT PIPE LENGTH = PIPE LENGTH X 1.5. ASSUME LOSS IN PIPE TO BE 5PSI OF HEAD PER 100' OF PIPE.

4 FT X .434 = PSIG

GREASE WASTE SERVICE CALCULATION

FIXTURE	PUBLIC USE		ASSEMBLY		TOTAL DFU	COMMENTS
	QUANTITY	FIXTURE UNITS (DFU)	QUANTITY	FIXTURE UNITS (DFU)		
3-COMP SINK	1	6		6	6	NOTE 1
DISH WASHER	1	2		2	2	NOTE 1
SCRAP SINK	1	4		4	4	NOTE 1
HAND SINK	1	1		1	1	NOTE 1
PREP SINK	1	4		4	4	NOTE 1
TOTAL DRAINAGE FIXTURE UNITS					17	
PIPE SLOPE (%)	2%					
MAIN SIZE (IN)	3"					

NOTES:

1. FIXTURES WILL BE PIPED WITH NEW 4" GW TO GREASE INTERCEPTOR.

WASTE SERVICE CALCULATION

FIXTURE	PUBLIC USE - EXISTING		PUBLIC USE - NEW		TOTAL DFU (EXIST.)	TOTAL DFU (NEW)	COMMENTS
	QUANTITY	FIXTURE UNITS (DFU)	QUANTITY	FIXTURE UNITS (DFU)			
WATER CLOSET (FLUSH VALVE)	2	4		4	8	0	
WATER CLOSET (FLUSH TANK)	3	4		4	12	0	
DISHWASHER (DOMESTIC)	1	2	1	2	2	2	
DRINKING FOUNTAIN		0.5		0.5	0	0	
FLOOR DRAIN	4	2		2	8	0	
LAVATORY	4	1		1	4	0	
SINK	2	2	4	2	4	8	
FLOOR SINK			2		0	0	3" WASTE
URINAL (FLUSH VALVE)	1	2		2	2	0	
TOTAL DRAINAGE FIXTURE UNITS					40	10	
PIPE SLOPE (%)	2% ASSUMED		2%				
MAIN SIZE (IN)	4" EXISTING ASSUMED		3" NEW				

NOTES:

1 SIZING PER UPC 2018 TABLE 7-3 AND TABLE 7-5.

2 PER TABLE 7-5 ALLOWABLE DRAINAGE FIXTURE UNIT ON HORIZONTAL SEWER LINE WITH 4"W IS 216F.U.

GAS LOAD SUMMARY

SYMBOL MARK	DESCRIPTION	SERVICE	MBH	COMMENTS
WH-1	GAS WATER HEATER	RR'S, KITCHEN	200	
MAU-1	MAKEUP AIR UNIT	KITCHEN EXHUAST HOOD	100	
RANGE	GAS RANGE	KITCHEN GAS RANGE	203	ITEM 37
OVEN	CONVECTION OVEN	BUILDING	72	ITEM 40
(E) F-1	FURNACE	BUILDING	80	
TOTAL MBH	655			
DEVELOPED LENGTH (FT)	120			
PRESSURE (PSIG)	2			

NOTES:

1 SIZING PER 2018 IFGC - TABLE 402.4(5) 2 PSI WITH 1.0 PSI PRESSURE DROP

2 3/4" PIPE ALLOWS A MAXIMUM OF 583MBH FOR A DEVELOPED LENGTH OF 250 FT. PER TABLE 402.4(5)

GREASE INTERCEPTOR

SYMBOL MARK	DESCRIPTION	SERVICE	FLOW RATE (GPM)	INLET SIZE (IN)	OUTLET SIZE (IN)	EXTENSION	CAPACITY GREASE (LBS)	COMMENTS
GI-1	GREASE INTERCEPTOR	KITCHEN	25	3	3	N/A	50	NOTE: 1

NOTES:

1 DESIGN BASIS: ZURN GT2700-25

GAS WATER HEATER

SYMBOL MARK	DESCRIPTION	SERVICE	INPUT (MBH)	GAS INLET SIZE (IN)	STORAGE CAPACITY (GAL)	RECOVERY RATE AT 100° R I S E (GPH)	FIRST HOUR RECOVERY RATE (GPH)	CW SUPPLY TEMP (°F)	FLUE DIAMETER (IN)	COMBUSTION AIR DIAMETER (IN)	THERMAL EFFICIENCY (%)	OPERATING WEIGHT (LBS)	COMMENTS
WH-1	GAS WATER HEATER	KITCHEN, RR'S	200	3/4"	100	168	-	40	3	3	97	550	NOTE: 1

NOTES:

1 DESIGN BASIS: A.O SMITH BTH-199 MXI

GENERAL NOTES:

A. CONTRACTOR SHALL PROVIDE FULL SIZE CW AND HW PIPING TO EACH PLUMBING FIXTURE, SEE SCHEDULE.

B. PROVIDE SEISMIC RESTRAINT BRACING OF ALL PIPING SYSTEMS AND PLUMBING EQUIPMENT PER SPECIFICATION.

C. THE ROUTING OF ALL PIPING IS DIAGRAMMATIC AND DOES NOT SHOW EVERY OFFSET. CONTRACTOR SHALL COORDINATE WITH HVAC AND ALL OTHER TRADES.

D. PROVIDE ISOLATION VALVES ON ALL BRANCH PIPING, TYPICAL. PROVIDE VALVES IN ACCESSIBLE LOCATIONS, AND ACCESS PANELS REQUIRED FOR HARD CEILINGS, COORDINATE EXACT LOCATION AND TYPE WITH OTHER TRADES.

E. COORDINATE LOCATION OF ALL BELOW-GRADE PIPING PENETRATIONS THRU FOUNDATION AND FLOOR.

F. SEAL ALL PIPING PENETRATIONS THROUGH FLOOR AND WALLS WATER TIGHT, COORDINATE LOCATIONS WITH GENERAL CONTRACTOR AND OTHER TRADES.

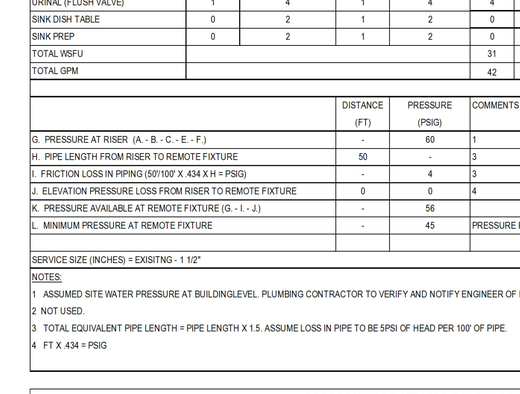
G. PROVIDE DIELECTRIC COUPLINGS FOR ALL DISSIMILAR METAL PIPING CONNECTIONS, TYPICAL.

H. PLUMBING CONTRACTOR SHALL PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS AND FLOOR SINKS.

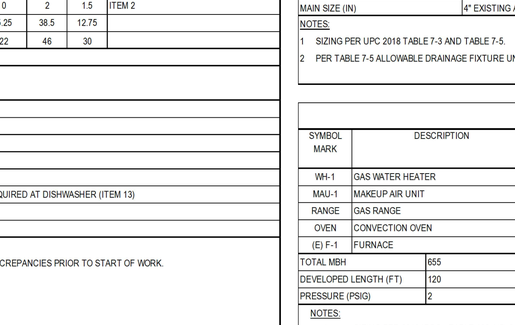
I. PLUMBING CONTRACTOR SHALL PROVIDE CLEANOUTS ON ALL WASTE PIPING ON BENDS OR CHANGES OF DIRECTION OF 135 DEGREES OR GREATER, MORE THAN 5 FEET FROM MAIN AND WHERE REQUIRED BY LOCAL CODES. WHETHER OR NOT SHOWN. COORDINATE WITH FINISHED FLOOR AND WALL LOCATIONS AND TYPES.

J. REFER TO SPECIFICATION SECTION 22 07 19 FOR PLUMBING PIPING INSULATION.

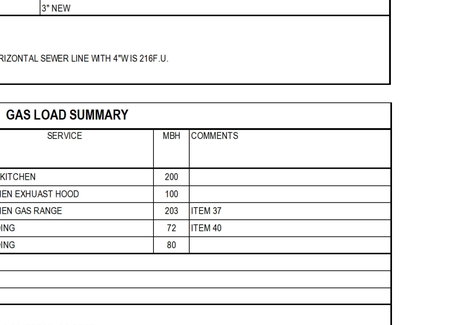
K. PROVIDE OWNER WITH O&M MANUALS FOR ALL SERVICEABLE EQUIPMENT.



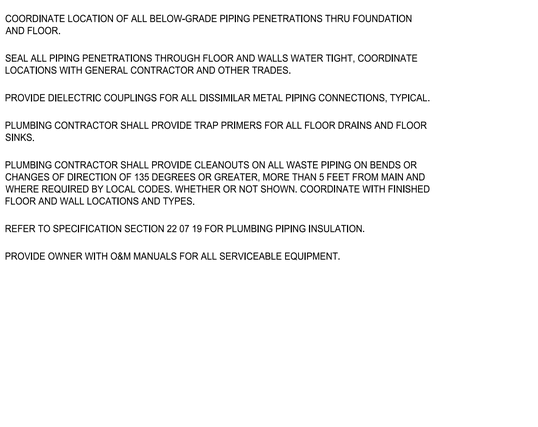
1 P1.0 DETAIL - VENT THROUGH ROOF (VTR)
SCALE: N.T.S. PDC01



2 P1.0 DETAIL - EXTERIOR CLEANOUT TO GRADE (CO-1)
SCALE: N.T.S. PDA01



3 P1.0 DETAIL - INTERIOR EQUIPMENT GAS PIPING
SCALE: N.T.S. PDL02



4 P1.0 DETAIL – CONDENSING GAS WATER HEATER – 140° SYSTEM
SCALE: N.T.S. PDD03

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7/21/2022

Revision Schedule		
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1000 E 4th St.
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BID SET
7/20/2022

SCHEDULES - PLUMBING

2022-09

SHEET NO.
P1.0

PLOTTED: ZACH SICHLEY 8/24/2022 9:40 AM
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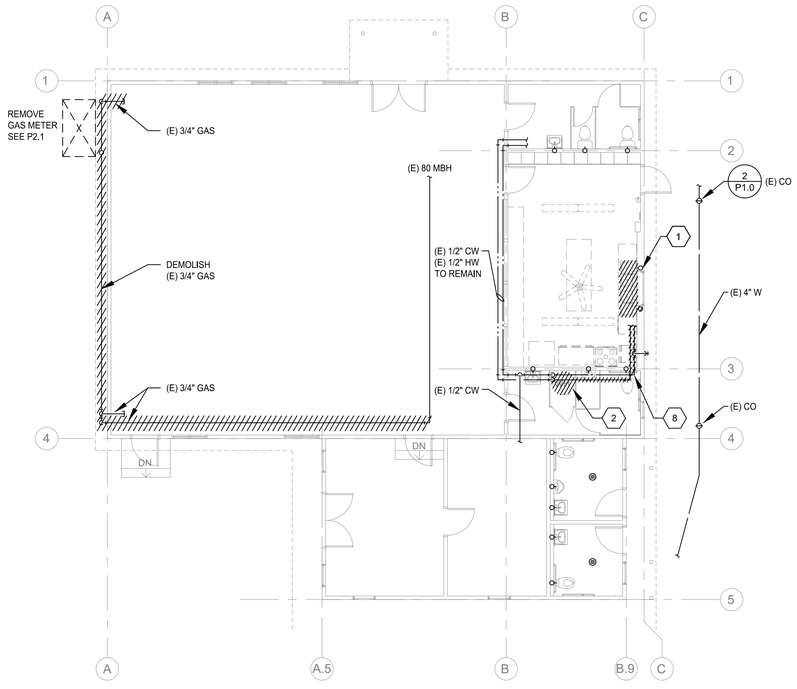
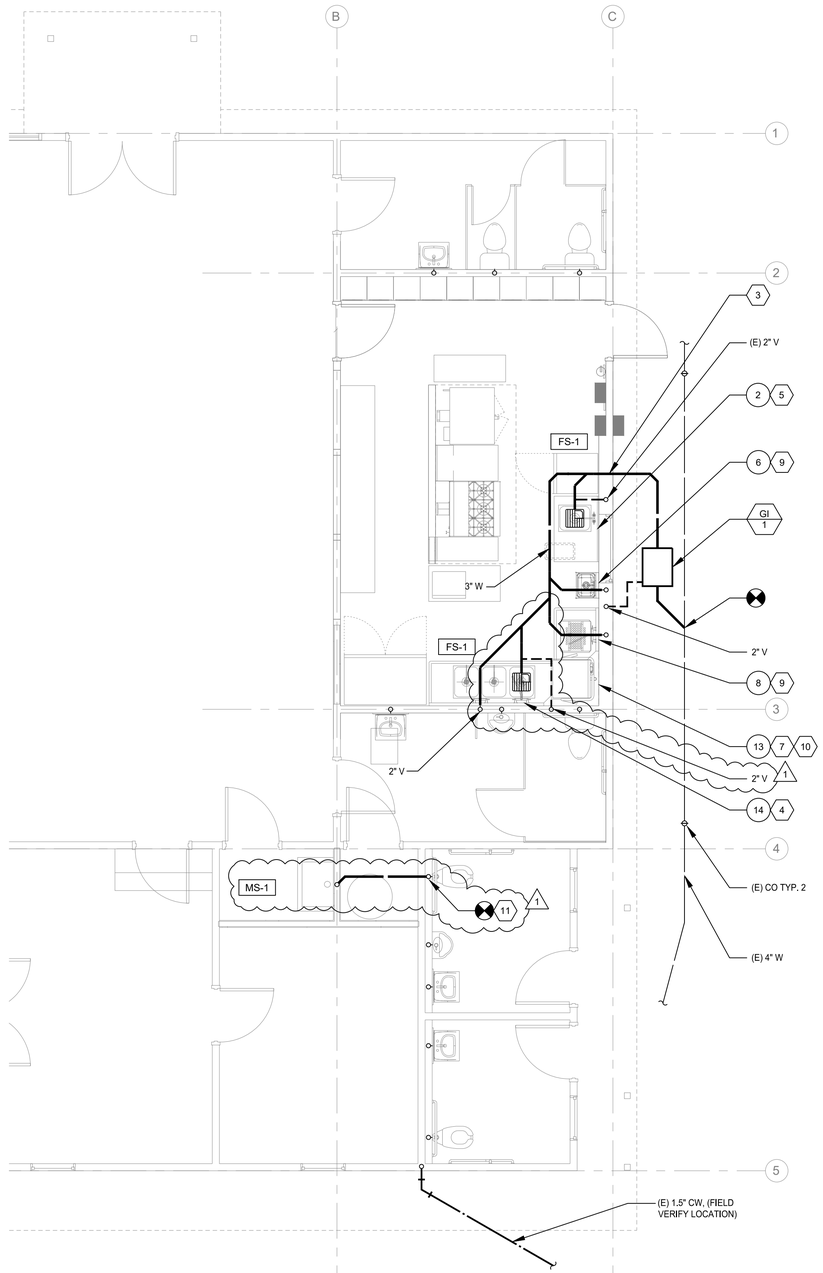


1 DEMO FLOOR PLAN - PLUMBING

SCALE: 1/8" = 1'-0"

N

0' 4' 8' 16'



2 BELOW GRADE PLAN - PLUMBING

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

N

0' 2' 4' 8'

KITCHEN FIXTURE ITEM CALLOUT

KITCHEN EQUIPMENT PLUMBING SCHEDULE

ItemNo	Quantity	Category	Cold Water (in)	Hot Water (in)	Indirect Waste Size	Direct Waste Size	Direct Waste Conn. Height(in)	Gas Size(in)	GasConn.Height(in)	Gas MBTU	Plumbing Remarks	Unit
2	1	WORK TABLE W/ PREP SINK	1/2"	1/2"	3"						FS BY PLUMBER	ea
6	1	HAND SINK, WALL MOUNT	1/2"	1/2"		1-1/2"	30" AFF					ea
8	1	SOILED DISH TABLE W/ SCRAP SINK	1/2"	1/2"		1-1/2"						ea
13	1	DISH MACHINE, DOOR, LOW TEMP		3/4"	3"							ea
14	1	CLEAN DISH TABLE W/ 3 COMP SINK	1/2"	1/2"	3"	2" (1)					WASH & RINSE DIRECT, SANITIZE TO INDIRECT (1)	ea

GENERAL NOTES:

A. INFORMATION PERTAINING TO EXISTING PLUMBING PIPING, FIXTURES, ITEMS, ETC., SHOWN ON THIS DRAWINGS HAS BEEN TAKEN FROM VARIOUS RECORD DRAWINGS WITH LIMITED INVESTIGATION. SOME, BUT NOT ALL INFORMATION HAS BEEN VERIFIED AT THE SITE. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS RELATIVE TO SCOPE OF WORK. SOME PIPING AND OTHER ITEMS HAVE BEEN SHOWN IN AN ASSUMED LOCATION , BUT NOT VERIFIED. CONTRACTOR SHALL VERIFY.

B. REMOVE EXISTING EQUIPMENT, PIPING, FITTINGS, AND APPURTENANCES WHERE INDICATED AND AS REQUIRED. CAP SERVICE PIPING IN A CONCEALED LOCATION. EXISTING MECHANICAL EQUIPMENT, AND APPURTENANCES WHICH ARE REMOVED AND NOT RELATED OR REINSTALLED SHALL BE DISPOSED OF AS SPECIFIED.

C. EXISTING PIPING ENCOUNTERED DURING CONSTRUCTION WHICH ARE NO LONGER REQUIRED SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED. CAP PIPING IN A CONCEALED LOCATION AND AS CLOSE TO SERVING MAIN AS POSSIBLE TO LIMIT CAPPED DEAD END RUNS TO 2'-0" MAXIMUM FOR ALL SERVICES.

D. CUT AND PATCH (E) WALL, ROOD, FLOOR, ETC. SURFACES TO MATCH (E) OR N) ARCHITECTURAL FINISHES FOR ALL ITEMS REMOVED INCLUDING BUT NOT LIMITED TO: EQUIPMENT, PIPING, FIXTURES.

E. MOST WASTE, VENT AND STORM DRAIN PIPING IS NOT SHOWN FOR CLARITY.

F. PROVIDE RUN-OUTS TO EACH FIXTURE PER PLUMBING CONNECTION SCHEDULE.

G. FLOOR SINK: JAY R SMITH. 300 SERIES. 12-INCH BASIN WITH ACID RESISTANT ENAMEL METAL DOME STRAINER, TRAP PRIMER CONNECTION AND TRAP PRIMER.

KEYED NOTES:

1. DEMOLISH EXISTING SINK. CAP PLUMBING AT WALL AND PREPARE FOR NEW WORK.

2.DEMOLISH EXISTING WATER HEATER. PREPARE EXISTING CW AND HW LINES FOR NEW WATER HEATER CONNECTION.

3. GREASE INTERCEPT LINE OUT OF BUILDING.

4. PROVIDE INDIRECT WASTE FROM 3-COMPARTMENT SINK AND ROUTE TO OVER FLOOR SINK.

5. PROVIDE INDIRECT WASTE FROM PREP SINK AND ROUTE TO OVER FLOOR SINK.

6. KITCHEN EQUIPMENT PLUMBING SCHEDULE REFERENCES KITCHEN PLANS.

7. DISHWASHER WASTE PIPE TO GW TO BE NO HUB CAST IRON.

8. DEMOLISH CW AND HOT WATER PIPING TO KITCHEN. (E) HB TO REMAIN FOR RECONNECTION.

9. DIRECT DRAIN FOR FIXTURE. 2" W AND 1 1/2" V.

10. PROVIDE INDIRECT WASTE TO FS.

11. CONNECT MOP SINK WASTE LINE TO EXISTING WATER CLOSET WASTE LINE. (1)

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7/21/2022

Revision Schedule		
#	Date	Description
1	9/28/22	REV01

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BID SET
7/20/2022

FLOOR PLAN - PLUMBING

2022-09

SHEET NO.

P2.0

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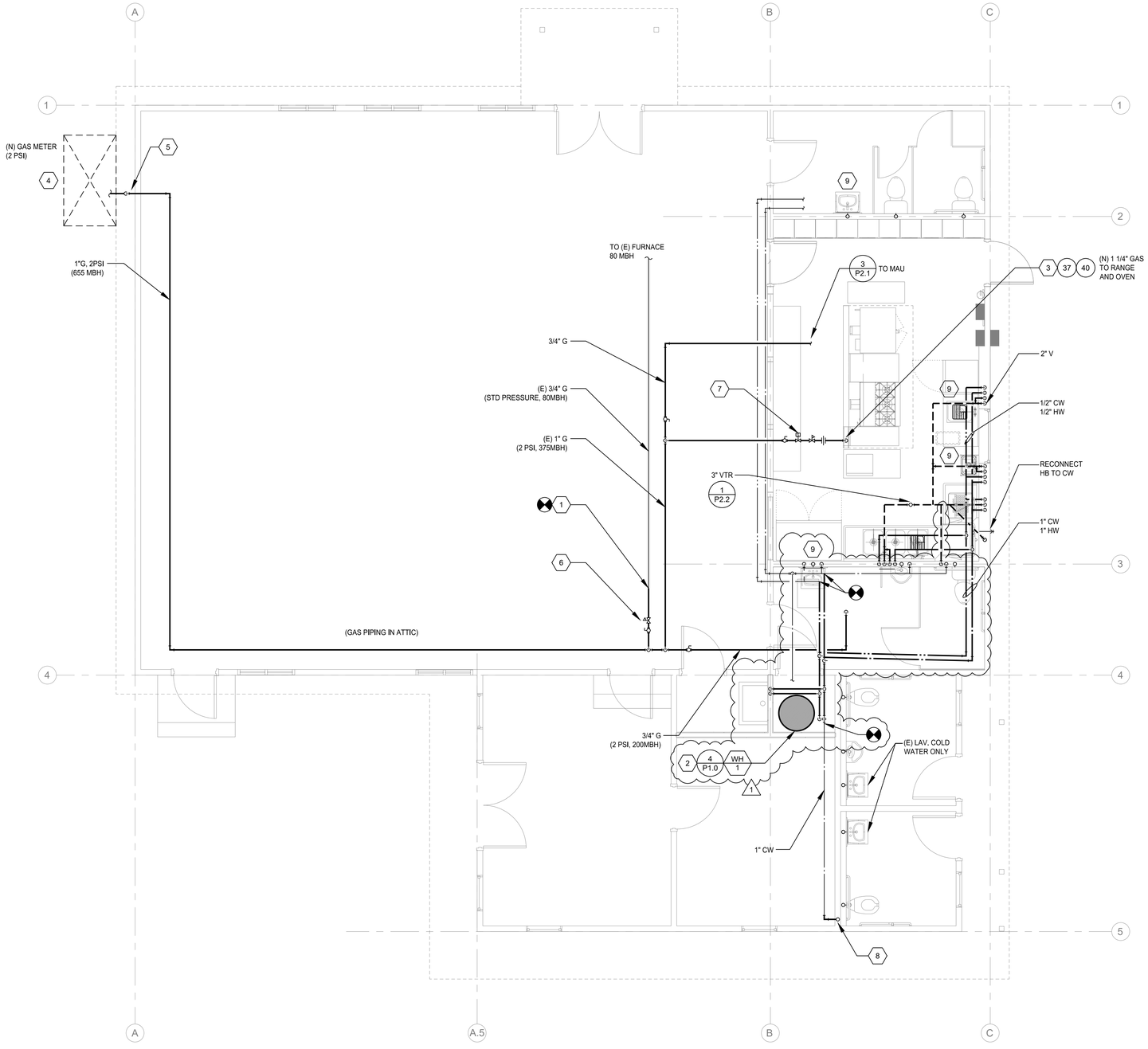

1 OVERALL FLOOR PLAN - PLUMBING
SCALE: 1/4" = 1'-0"

0' 2' 4' 8'

N

GENERAL NOTES:

A. REFER TO SHEET P1.0 FOR GENERAL NOTES.

KEYED NOTES:

1. CONTRACTOR TO VERIFY EXACT CONNECTION POINT.

2. RECONNECT EXISTING CW AND HW LINES. PROVIDE ISOLATION VALVE.

3. NEW GAS LINE TO RUN DOWN IN PROVIDED CHASE TO RANGE AND OVEN. PROVIDE OFFSETS AND TRANSITIONS . SHUT OFF AND QUICK DISCONNECT FOR CONNECTION TO EQUIPMENT.

4. COORDINATE NEW 2 PSI GAS METER AND REMOVAL OF EXISTING METER WITH NW NATURAL.

5. ROUTE GAS PIPE VERTICAL AND PENETRATE THROUGH THE GABLE WALL AND INTO THE ATTIC.

6. PROVIDE SHUTOFF VALVE AND PRESSURE REGULATOR FROM 2 PSI TO 14" W.C FOR (E) FURNACE CONNECTION.

7. FIELD INSTALL ELECTRONIC SOLENOID VALVE FROM FOOD SERVICE/ HOOD VENDOR. PROVIDE PRESSURE REGULATOR FROM 2 PSI TO 14" W.C.

8. PROVIDE NEW 1 1/2" CW TO WH AND NEW KITCHEN.

9. PROVIDE ASSE 1070 MIXING VALVE, SYMMONS 7-210-CK OR EQUIVALENT AT HAND SINK AND LAVATORY, TYPICAL.

BRENDAN C. ARNOLD
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REGISTERED
PROFESSIONAL ENGINEER

7/21/2022

Revision Schedule		
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1	9/28/22	REV01

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BID SET
7/20/2022

FLOOR PLAN - PLUMBING

2022-09

SHEET NO.

P2.1

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LOUVER

SYMBOL MARK	DESCRIPTION	SERVICE	CFM	WDTH (IN)	HEIGHT (IN)	FREE AREA (SQ FT)	VELOCITY (FPM)	WEIGHT (LBS)	COMMENTS
L-1	INTAKE LOUVER	MAU-1	1,500	26	24	2	750	18	NOTE 1

NOTES:
1. DESIGN BASIS: GREENHECK EAD-635
2. PROVIDE TYPE 1 MOTORIZED DAMPER. INTERLOCK WITH MAU-1.

EXHAUST FAN

SYMBOL MARK	DESCRIPTION	SERVICE	CFM	ESP (IN WC)	VOLTAGE	PH.	HP	MCA	FLA	DRIVE	RPM	INTERLOCK	WHEEL TYPE	DISCHARGE	SONES	WEIGHT (LBS)	COMMENTS
EF-1																	
EF-2	DIRECT DRIVE EXHUAST FAN	CUSTODIAL CLOSET	100	0.500	208	1	-	-	0.9	DIRECT	1,204	-	-	SIDE	3.5	24	NOTE 1

NOTES:
1. DESIGN BASIS: GREENHECK SP-A390-VG

MAKE-UP AIR UNIT (FOR REFERENCE ONLY)

SYMBOL MARK	DESCRIPTION	SERVICE	CFM	VOLTAGE	PH.	HP	MCA	FLA	ESP (IN WC)	RPM	INPUT (MBH)	OUTPUT (MBH)	AFUE (%)	WEIGHT (LBS)	SONES	COMMENTS
MAU-1	DIRECT GAS FIRED HEATER MAKEUP AIR UNIT	KITCHEN EXHUAST HOOD	1,520	115	1	1.0	14.5	11.6	0.50	1,723	80.75	74.3	-	561	15.9	

NOTES:
1. DESIGN BASIS: FLOAIRE F1-D 250-15D
2. FURNISHED BY FOOD SERVICE. INSTALLED BY MECHANICAL.
3. PROVIDE SIESMIC RESTRAINT AND VIBRATION ISOLATION PADS. SEISMIC CALCULATIONS BY DEFERRED SUBMITTAL FROM CONTRACTOR.

ROOF HOOD

SYMBOL MARK	DESCRIPTION	SERVICE	CFM	THROAT SIZE WDTH (IN)	THROAT SIZE LENGTH (IN)	THROAT VELOCITY (FPM)	WEIGHT (LBS)	COMMENTS
RH-1	GRAVITY RELIEF VENTILATOR	EXHAUST FAN	100	8	8	225	37	NOTE 1

NOTES:
1. DESIGN BASIS: GREENHECK FGR-8X8

DIFFUSER, REGISTER, AND GRILLE SCHEDULE

SYMBOL	TYPE	FACE	FRAME	DAMPER	FINISH	MODEL #	COMMENTS
SD-1	SUPPLY	45° DEFLECTION	SURFACE	N/A	WHITE	PRICE 520	18"X16", NOTE 1

NOTES:
1. PROVIDE DAMPER IN DUCT BRANCH TO DIFFUSER

OUTSIDE AIR VENTILATION SINGLE ZONE SYSTEMS

ROOM DESCRIPTION	A_Z ROOM AREA (SF)	OCCUPANCY CLASSIFICATION	OCCUPANT DENSITY (PEOPLE/1000 SF)	CODE MAX. OCCUPANCY (PEOPLE)	P_Z ACTUAL OCCUPANCY (PEOPLE)	R_P VENTILATION FACTOR (CFM/PERSON)	R_A AREA OUTDOOR AIR RATE (CFM/SF)	V_{BZ} BREATHING ZONE VENTILATION (CFM)	E_Z AIR DISTRIBUTION EFFECTIVENESS	V_{OZ} ZONE OUTDOOR AIRFLOW (CFM)	EXHAUST AIRFLOW RATE (CFM/SF)	EXHAUST AIRFLOW RATE (CFM/UNIT)	EXHAUST AIRFLOW (CFM)	NATURAL VENTILATION YES OR NO	NATURAL VENTILATION AREA REQUIRED (SF)	NATURAL VENTILATION AREA AVAILABLE (SF)	COMMENTS
KITCHEN	350	FOOD - KITCHEN	20	7	7	8	0.12	95	0.8	119	0.70	0	245	NO	N/A	0	
SYSTEMS SERVING ROOMS:																	
OSA FLOW RATE (CFM) V_{OT}:	**119**																
EXH FLOW RATE (CFM):	**245**																

GENERAL NOTES:

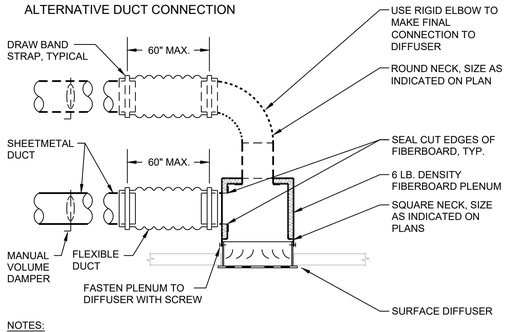
A. INFORMATION PERTAINING TO EXISTING HVAC EQUIPMENT, DUCTWORK, GRILLES, DIFFUSERS, ETC., SHOWN ON THIS DRAWING HAS BEEN TAKEN FROM VARIOUS RECORD DRAWINGS WITH LIMITED INVESTIGATION. SOME, BUT NO ALL INFORMATION HAS BEEN VERIFIED AT THE SIRE. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS RELATIVE TO SCOPE OF WORK. ALL EXISTING SA, RA, AND EXH DUCTWORK AND BEEN SHOWN IN AN ASSUMED LOCATION, BUT NOT VERIFIED., CONTRACTOR SHALL VERIFY.

B. DUCT RUN OUT SIZES SHALL BE THE SAME AS DIFFUSER OR GRILLE NECK SIZES, UNLESS OTHERWISE NOTED.

C. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, INTERIOR, AND EXTERIOR ELEVATIONS FOR EXACT LOCATION OF GRILLES REGISTERS, DIFFUSERS AND LOUVERS.

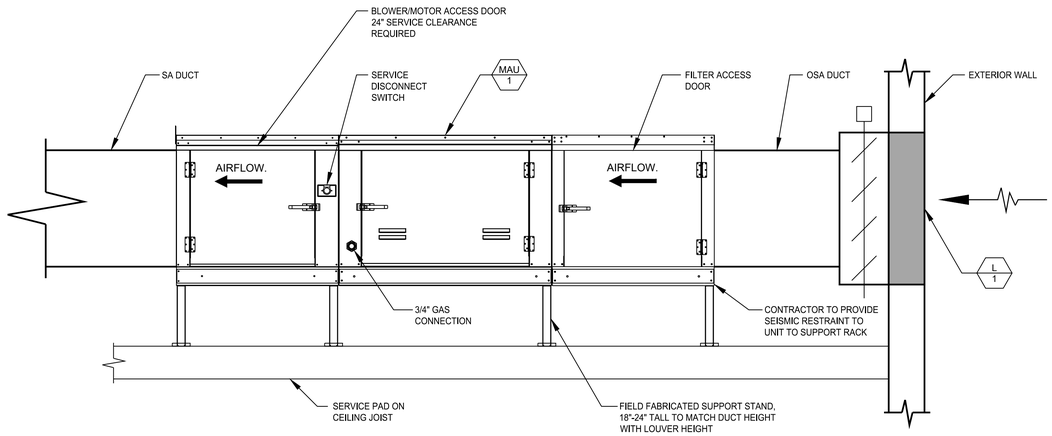
D. ALL CEILING DIFFUSERS ARE FOUR-WAY UNLESS OTHERWISE NOTED.

E. COORDINATE LOCATION OF GRILLES AND DIFFUSERS WITH ARCHITECTURAL CEILING PLAN AND LIGHTING LAYOUT.

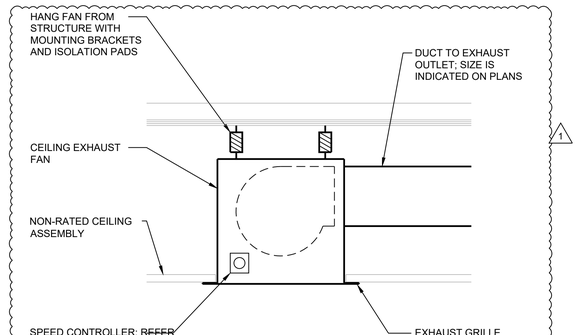


NOTES:
1. DIFFUSER FRAME SHALL MATCH ARCHITECTURAL CEILING TYPE.
2. IN NON-LAY-IN CEILINGS, PROVIDE 18" X 18" MINIMUM ACCESS PANEL OR REMOTE OPERATOR FOR BALANCING DAMPER. COORDINATE LOCATION WITH ARCHITECT.
3. IF DUCT SIZE IS DIFFERENT FROM DIFFUSER NECK SIZE, PROVIDE TRANSITION FITTING AT DIFFUSER NECK.

1 M1.0 DETAIL - CEILING SUPPLY DIFFUSER
SCALE: N.T.S.



2 M1.0 DETAIL - MAKEUP AIR UNIT
SCALE: N.T.S.



3 M1.0 DETAIL - CEILING EXHAUST FAN
SCALE: N.T.S.

MDE09

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MKE & ASSOCIATES, INC.
CONSULTING ENGINEERS
MECHANICAL AND ELECTRICAL SYSTEMS

BRENDAN C. ARNOLD
STATE OF WASHINGTON
20115340
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PROFESSIONAL ENGINEER

7/21/2022

Revision Schedule		
#	Date	Description
1	9/28/22	REV01

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CITY OF LA CENTER
COMMUNITY CENTER KITCHEN REMODEL
1000 E 4th St.
La Center, WA 98629

BID SET
7/20/2022

SCHEDULES - HVAC

2022-09

SHEET NO.
M1.0

PLOTTED: ZACH SICHLEY 9/27/2022 4:15 PM
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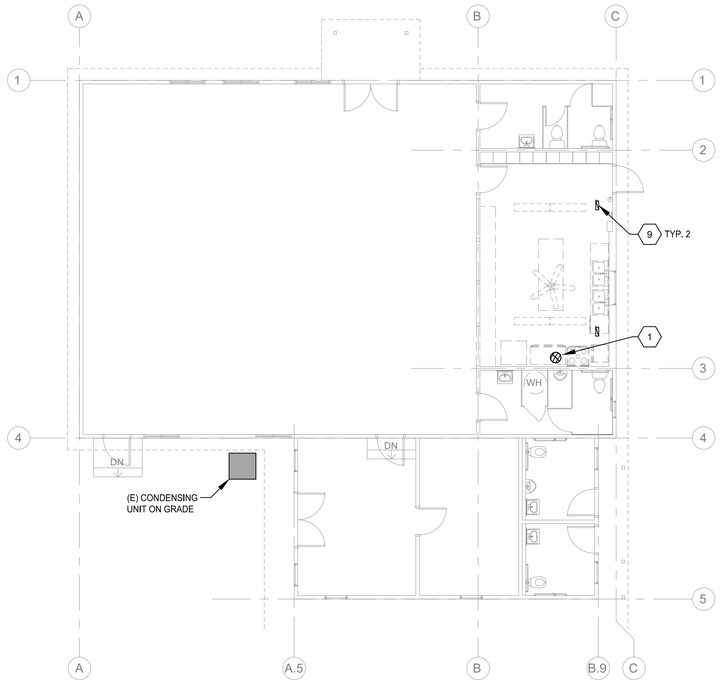
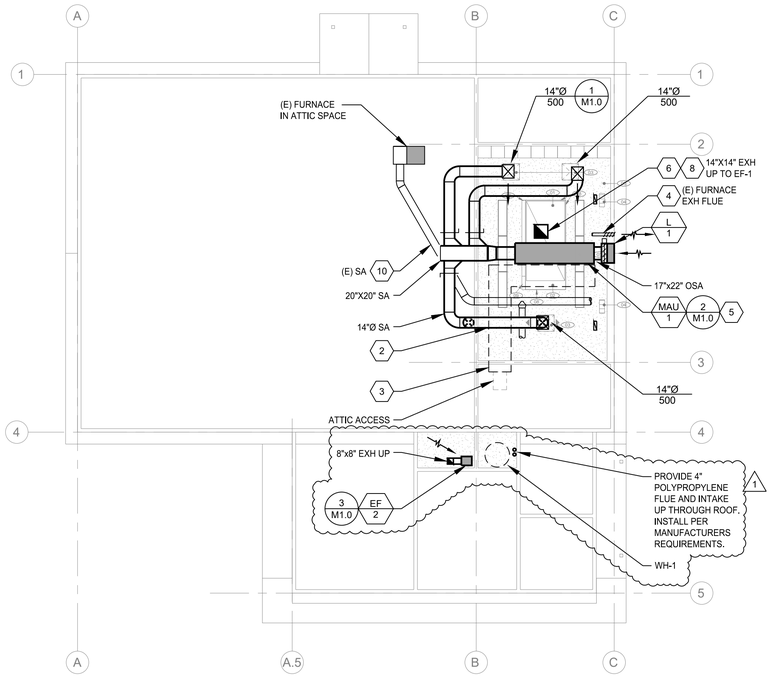
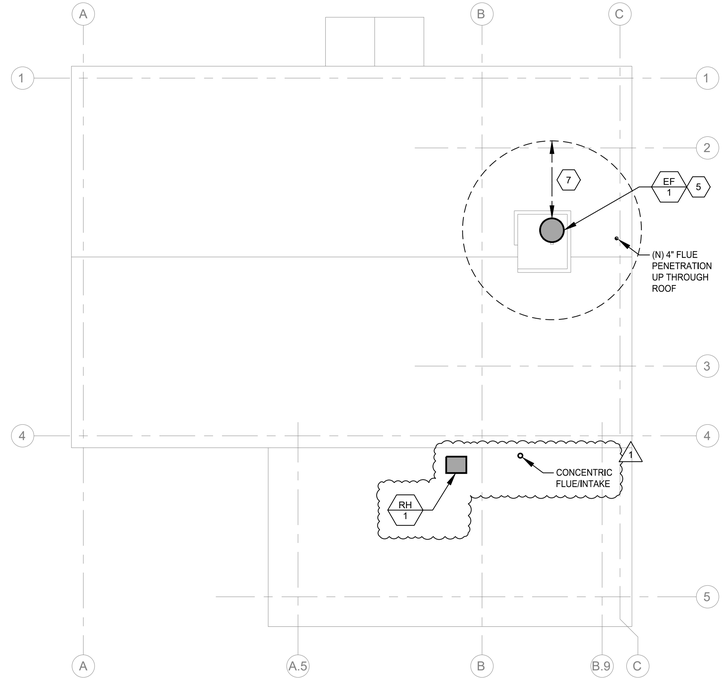


1 DEMO FLOOR PLAN - HVAC
SCALE: 1/8" = 1'-0"



2 REFLECTED CEILING PLAN - HVAC
SCALE: 1/8" = 1'-0"



3 ROOF PLAN - HVAC
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. REFER TO SHEET M0.01 FOR GENERAL NOTES.

KEYED NOTES:

1. DEMO EXISTING EXHAUST FAN AND ALL ASSOCIATED DUCTWORK. PATCH CEILING AS NECESSARY.

2. DUCT TO RUN UP AS HIGH AS POSSIBLE TO ALLOW SPACE FOR SERVICE PATHWAY.

3. SEE ARCHITECTURAL PLAN FOR SERVICE WALKWAY AND PLATFORM.

4. DEMO EXISTING FURNACE EXHAUST BACK. RE-ROUTE EXISTING FURNACE EXHAUST FLUE UP THROUGH ROOF. MAINTAIN 10' CLEARANCE TO NEW OSA INTAKE.

5. KITCHEN CONSULTANT TO FURNISH EQUIPMENT. MECHANICAL CONTRACTOR TO INSTALL EQUIPMENT. INCLUDING ALL NECESSARY CURBS, DUCTS, AND ACCESSORIES FOR A COMPLETE SYSTEM.

6. FIELD INSTALL HOOD EXHAUST DUCT COLLIER OFFSET 16" OFF CENTER. SEE ARCHITECTURAL ELEVATIONS.

7. MAINTAIN 10' CLEARANCE OF ALL OSA INTAKES.

8. PROVIDE LISTED AND LABELED FIELD APPLIED GREASE DUCT ENCLOSURE, ASTM E2336. CONTRACTORS OPTION TO PROVIDE FACTORY-BUILT GREASE DUCT ENCLOSURE IN LUE OF.

9. DEMO EXISTING GRILLE AND REPLACE WITH NEW GRILLE.

10. EXISTING DUCT TO REMAIN. RELOCATE AND EXTEND AS NECESSARY TO MAINTAIN MAKE UP AIR UNIT AND SERVICE CLEARANCES. DO NOT COMPROMISE PERFORMANCE OF EXISTING AIR HANDLER WITH EXCESSIVE OR ABRUPT TRANSITIONS AND ELBOWS.

BRENDAN C. ARNOLD
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7/21/2022

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1	9/28/22	REV01

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CITY OF LA CENTER
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1000 E 4th St.
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BID SET
7/20/2022

FLOOR PLAN - HVAC

2022-09

SHEET NO.

M2.0

6915 S MACADAM AVE
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MECHANICAL AND ELECTRICAL SYSTEMS

PLOTTED: ZACH SICHLEY 9/27/2022 4:16 PM
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ELECTRICAL SYMBOLS

SOME SYMBOLS MAY NOT APPEAR ON DRAWINGS

- BRANCH CIRCUIT IN WALL OR CEILING
- BRANCH CIRCUIT EXPOSED
- BRANCH CIRCUIT IN FLOOR OR EARTH
- BRANCH CIRCUIT EXISTING
- UNDERGROUND PRIMARY
- POWER LINE
- EMERGENCY CIRCUIT
- TELEPHONE LINE
- WIREMOLD
- DATA LINE
- DARKER LINES INDICATE NEW
- LIGHTER LINES W/ (E) INDICATE EXISTING
- HASH MARK = HARD WIRED GROUND
- HASH MARKS = # OF WIRES (NO HASH MARKS = 2 WIRES + 1 GRND)
- HASH MARKS = # OF WIRES W/ HARD WIRED GROUND
- LIGHTING FIXTURE-2'X2' OR 2'X4' RECESSED MOUNT
- LIGHTING FIXTURE-2'X2' OR 2'X4'-SURFACE MOUNT
- LIGHTING FIXTURE-2'X2' OR 2'X4'-W/ EMERGENCY BATTERY INVERTER
- LIGHTING FIXTURE-2'X2' OR 2'X4'-ON EMERGENCY CIRCUIT
- LIGHTING FIXTURE-2'X2' OR 2'X4' EXISTING SHOWN DOTTED (TYPICAL TO REMOVE)
- (E) LIGHTING FIXTURE-2'X2' OR 2'X4' EXISTING SHOWN LIGHT LINED (E) (TYPICAL TO REMAIN)
- LIGHTING FIXTURE - STRIP / SURFACE MOUNT 2'3'4'
- LIGHTING FIXTURE - STRIP / SURFACE MOUNT 2'3'4' SHOWN DOTTED (TYPICAL TO REMOVE)
- LIGHTING FIXTURE-WALL MOUNT
- LIGHTING FIXTURE-RECESSED
- LIGHT/FAN FIXTURE-RECESSED
- LIGHTING FIXTURE-CEILING MOUNT
- LIGHTING FIXTURE-CEILING MOUNT
- LIGHTING FIXTURE-WALL SCONCE
- LIGHTING FIXTURE-BRACKET MOUNT
- LIGHTING FIXTURE-EMERGENCY BATTERY PACK
- LIGHTING FIXTURE-EMERGENCY BATTERY PACK
- POLE MOUNTED LIGHTING FIXTURE AS TYPED REFER TO POLE BASE DETAIL 'PB'
- LIGHTING FIXTURE- SPECIAL REFER TO SPEC'S
- LIGHTING FIXTURE-EXIT LIGHT
- LV TO RELAY — OCCUPANCY SENSOR
- LV TO RELAY — OCCUPANCY SENSOR - 360°
- DUPLEX CONVENIENCE OUTLET (DCO)
- S,T 120V DCO W/ SAFETY or TAMPER PROOF TYPE OUTLET
- 120V DCO OUTLET w/ GFCI PROTECTION
- 120V DCO OUTLET w/ AFCI PROTECTION
- 120V DCO OUTLET w/ AFCI & GROUND FAULT PROTECTION
- USB DCO 120V W/ USB CHARGER
- DCO 120V W/ HALF SWITCHED BY DCC SENSOR
- QUADPLEX CONVENIENCE OUTLET
- QUADPLEX CONVENIENCE OUTLET W/ GFCI PROTECTION
- DEDICATED DCO (HARD WIRE GROUND)
- DEDICATED DCO (SPECIFIC EQUIPMENT)
- OUTLET 208V - AS NOTED
- (AC) AUTO-CHARGING STATION 208V REFER TO SPEC.
- NTD TWO SECTION ALUMINUM POWER/COMM POLE W/ QUAD OUTLET. 'N' TELE/DATA OUTLETS WHERE 'N' = THE NUMBER OF OUTLETS/CABLES.
- OCCUPANCY SENSOR RELAY
- JUNTION BOX
- FLOOR MOUNTED OUTLET - AS NOTED
- CONNECTION TO EQUIPMENT
- MOTOR DRIVEN DEVICE
- • = DEVICE OVER COUNTER
- LIGHTING SWITCH - SECTION AS NOTED
- $3 LIGHTING SWITCH - THREE WAY
- $ LIGHTING SWITCH - SINGLE POLE
- $4 LIGHTING SWITCH - FOUR WAY
- $D LIGHTING SWITCH - DIMMER
- $K LIGHTING SWITCH - KEYED
- $P LIGHTING SWITCH - PILOT LIGHTED
- $M LIGHTING SWITCH - MOMENTARY CONTACT
- $MR SWITCH - MOTOR RATED
- $OS OR $OC SWITCH - WITH OCCUPANCY SENSOR
- $TM SWITCH - WITH TIMER
- MD SECURITY MOTION DETECTOR
- C SECURITY CAMERA

- '?' ELECTRICAL PANEL W/NAME (TYPICAL TO NEW)
- '?' ELECTRICAL PANEL EXISTING W/NAME (TYPICAL TO REMOVE)
- ELECTRICAL PANEL EXISTING W/NAME (E) (TYPICAL TO REMAIN)
- M FIRE ALARM SIGNAL LIGHT AND HORN (MINI HORN STROBE LOWER obj)
- P FIRE ALARM SIGNAL LIGHT AND HORN ('pezzio' sound)
- F FIRE ALARM PULL STATION
- FH FIRE ALARM HORN
- FS FIRE ALARM SIGNAL LIGHT
- FH FIRE ALARM SIGNAL LIGHT AND HORN
- FS FIRE ALARM SMOKE DETECTOR
- FD FIRE ALARM DUCT DETECTOR
- FH FIRE ALARM HEAT DETECTOR
- FSA FIRE ALARM DETECTOR W/ A = AUX. CONTACTS
- FHSB FIRE ALARM DETECTOR W/ HORN STROBE BASE
- FM FIRE ALARM MAGNETIC DOOR HOLDER
- FE FIRE ALARM EQUIPMENT CONNECTION
- FSD FIRE SMOKE DAMPER
- FCO FIRE ALARM DETECTOR CARBON MONOXIDE
- FAB FIRE ALARM DETECTOR W/ AB = ALARM BASE
- CM CARBON MONOXIDE OUTLET
- KEY PAD OUTLET
- CARD READER LOCATION / VERIFY PRIOR
- COMMUNICATIONS OUTLET
- VOLUME CONTROL OUTLET
- CLOCK
- CLOCK-SPEAKER COMBINATION
- CLASS BELL
- CLASSROOM SOUND REINFORCEMENT SPEAKER
- I/C SPEAKER
- PUSH BUTTON / CALL BACK SWITCH/WITH SPEAKER
- PUSH BUTTON / CALL BACK SWITCH
- PUSH BUTTON / START-STOP
- DOOR BELL w/ STROBE per ADA
- D DATA OUTLET
- 'N'D # of cables DATA OUTLET
- P PRINTER OUTLET
- TV TELEVISION OUTLET
- M AUDIO JACK OUTLET

  PROVIDE EACH OUTLET WITH 1" C. TO ACCESSIBLE CEILING OR ATTIC. "N" = # OF DATA CABLES.
- AV VIDEO OUTLET — PROVIDE EACH OUTLET WITH 1 1/2" C TO ACCESSIBLE CEILING OR ATTIC.
- TELEPHONE OUTLET
- INTERCOM OUTLET

  PROVIDE EACH OUTLET WITH 1" C. TO ACCESSIBLE CEILING OR ATTIC.
- DISCONNECT W/FUSES
- DISCONNECT
- PHOTO ELECTRIC CELL
- TC TIME CLOCK
- NL NIGHT LIGHT
- WP WEATHER PROOF
- WG WIRE GUARD
- E. C. ELECTRICAL CONTRACTOR
- BKR CIRCUIT BREAKER
- PEC PHOTO ELECTRIC CELL
- NEC NATIONAL ELECTRICAL CODE
- W/ WITH
- DCO DUPLEX CONVENIENCE OUTLET
- CKT CIRCUIT
- AFF ABOVE FINISH FLOOR
- BFG BELOW FINISHED GRADE
- st CIRCUIT BREAKER ENCLOSURE st = SHUNT TRIP
- K INSTALLED IN TOE KICK AREA
- EXISTING ELECTRICAL DEVICE (TYPICAL TO REMAIN)
- A FIXTURE TYPE - LETTER UNDERLINED
- 8 NUMBERED HEX SYMBOLS: REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE
- A LETTERED HEX SYMBOLS: REFER TO SHEET NOTES
- OTHER SYMBOL SHAPES: REFER TO OTHER EQUIPMENT CONNECTION SCHEDULES AS NEEDED.

NOTE:
DOTTED SYMBOLS REFER TO DEVICES TO BE REMOVED. DASHED OR DOTTED CONDUIT LINES ON DEMO SHEETS ARE TO BE VERIFIED BEFORE REMOVAL. THESE ARE USUALLY INDICATIONS OF SURFACE OR UNDERGROUND RAN CONDUIT.

- 1" CONDUIT FROM DEVICE BOX TO ACCESSIBLE CEILING SPACE OR AS NOTED.
- CONDUIT HOME RUN FROM DEVICE BOX TO PANEL AS CIRCUITED.
- EMERGENCY CALL STATION
- DS DOOR POSITION SENSOR
- ELECTRIC WALL HEATER w/ stat (CADET #67506T)

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RONALD D. ATHAY STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER

EXPIRES APRIL 5, 2024

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COMMUNITY CENTER KITCHEN REMODEL
1000 E 4th St.
La Center, WA 98629

BID SET
07-20-2022

ELECTRICAL SYMBOLS PLAN

2022-09

SHEET NO.
E0.1

07-19-22

A&A
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Revision Schedule

1	9/28/22	REV01

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CITY OF LA CENTER
COMMUNITY CENTER KITCHEN REMODEL
1000 E 4th St.
La Center, WA 98629

PANEL SCHEDULE	A	LOCATION:	EXISTING PANEL SCHEDULE
200A. BUSS 120/240v 1ph 3w		MAIN 200 AMP BREAKER	

NO	T	DESCRIPTION	KVA	BKR		BKR	KVA	DESCRIPTION	T	NO
1	K	RANGE (E)	8.00	50A	A	20A*	0.18	DCO–KITCHEN (E)	K	2
3				2P*	B	20A*	0.18	DCO–KITCHEN (E)	K	4
5	K	OVEN (E)	8.00	60A	A	20A*	0.10	EXIT LTG	L	6
7				2P*	B	20A*	1.50	KITCHEN – FAN– MICROWAVE– REFER (E)	K	8
9	H	WATER HEATER (E)	4.50	30A	A	20A*	0.18	GFCI BY A/C FURN IG.	X	10
11				2P*	B	20A*	1.50	MENS RR HEATER (E)	H	12
13	H	STORE RM HEATER (E)	2.50	20A	A	20A*	0.36	DCO– (E)	D	14
15				2P*	B	20A*	1.50	LTG– UNIT HEATER (E)	X	16
17	L	FLOODLT (E)	0.25	15A*	A	20A*	0.36	DCO)E)	D	18
19	X	EXTERIOR GIRLS RR LTG–HEATER (E)	1.50	15A*	B	20A*	0.36	DCO– (E)	D	20
21	X	EXTERIOR BOYS RR LTG–HEATER (E)	1.50	15A*	A	30A	2.40	HEATER FAN (E)	H	22
23	L	LTG (E)	1.00	20A*	B	2P*				24
25	X	PLUGS – FRONT FLOOD LT (E)	0.27	20A*	A	20A*	0.18	RECEPT AT PANELS (E)	K	26
27	L	LTG – (E)	1.00	20A*	B	20A*	0.18	RECEPT AT PANELS (E)	K	28
29	D	DCO– (E)	0.36	20A*	A	20A*	0.18	RECEPT AT PANELS (E)	K	30
31	L	LTG– (E)	1.00	20A*	B	20A*	0.18	RECEPT AT PANELS (E)	K	32
33	X	LTG– DCO– STORE RM	0.46	15A*	A	20A*	1.00	DISH WASHER (E)	K	34
35	D	DCO– (E)	0.36	20A*	B	20A*	0.18	GFCI COUNTER (E)	K	36
37	X	GIRLS RR– HEATER DCO– (E)	1.68	20A*	A	50A	6.36	A/C UNIT (E)	X	38
39	X	SPLASH FOUNTAIN	0.50	20A*	B	2P*				40

LOAD CALCULATION			CIRCUIT BREAKER CODES				
LIGHTING	3.35		S = SHUNT TRIP BREAKERS				
LTG @ 125%		4.19	* = EXISTING C.B. – ALL OTHERS NEW – (N) NEW LOAD				
MOTORS	0.00	0.00	SPARE= CIRCUIT BREAKER				
LRGST @ 25%		0.00	BLANK= C.B. POSITION				
OUTLETS	1.80	1.80	K = KITCHEN				
DEDICATED OUTLETS		0.00	L = LIGHTING				
DEMAND OUTLETS@50%			M = MOTORS				
KITCHEN	19.76		D = OUTLETS				
DEMAND KITCHEN		12.84	H = HEAT				
HEAT	10.90	10.90	X = MISCELLANEOUS				
MISCELLANEOUS	13.95	13.95	W = WELDERS				
WELDERS			TC = 0 DEDICATED OUTLETS				
			K = 11 DEMAND KITCHEN				
					CONNECTED LOAD PHASE 'A'		38.82
CONNECTED KVA	49.76		= 207.33 AMP		CONNECTED LOAD PHASE 'B'		10.94
DEMAND KVA		43.68	= 182.00 AMP				

PANEL SCHEDULE	A	LOCATION:	REVISED PANEL SCHEDULE
200A. BUSS 120/240v 1ph 3w		MAIN 200 AMP BREAKER	

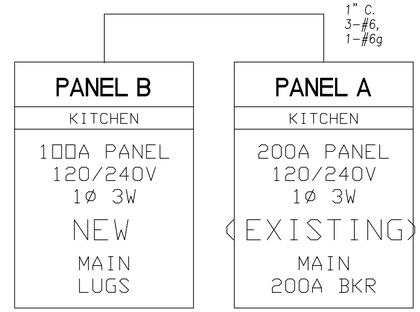
NO	T	DESCRIPTION	KVA	BKR		BKR	KVA	DESCRIPTION	T	NO
1		SPARE CB		50A	A	20A*	0.18	DCO–KITCHEN (E)	K	2
3				2P*	B	20A*	0.18	DCO–KITCHEN (E)	K	4
5		PANEL B (NEW)	5.97	60A	A	20A*	0.10	EXIT LTG	L	6
7				2P*	B	20A*	0.96	REACH IN REFRIGERATOR (NEW)	K	8
9		SPARE CB		30A	A	20A*	0.18	GFCI BY A/C FURN IG. (E)	X	10
11				2P*	B	20A*	1.50	MENS RR HEATER (E)	H	12
13	H	STORE RM HEATER (E)	2.50	20A	A	20A*	0.36	DCO– (E)	D	14
15				2P*	B	20A*	1.50	LTG– UNIT HEATER (E)	X	16
17	L	FLOODLT (E)	0.25	15A*	A	20A*	0.36	DCO (E)	D	18
19	X	EXTERIOR GIRLS RR LTG–HEATER (E)	1.50	15A*	B	20A*	0.36	DCO– (E)	D	20
21	X	EXTERIOR BOYS RR LTG–HEATER (E)	1.50	15A*	A	30A	2.40	HEATER FAN (E)	H	22
23	L	LTG (E)	1.00	20A*	B	2P*				24
25	X	PLUGS – FRONT FLOOD LT (E)	0.27	20A*	A	20A*	0.18	RECEPT AT PANELS (E)	K	26
27	L	LTG – (E)	1.00	20A*	B	20A*	0.18	RECEPT AT PANELS (E)	K	28
29	D	DCO– (E)	0.36	20A*	A	20A*	0.18	RECEPT AT PANELS (E)	K	30
31	L	LTG– (E)	1.00	20A*	B	20A*	0.18	RECEPT AT PANELS (E)	K	32
33	X	LTG– DCO– STORE RM (E)	0.46	15A*	A	20A*	1.20	DISH WASHER (NEW)	K	34
35	D	DCO– (E)	0.36	20A*	B	20A*	0.18	GFCI COUNTER (E)	K	36
37	X	GIRLS RR– HEATER DCO– (E)	1.68	20A*	A	50A	6.36	A/C UNIT (E)	X	38
39	X	SPLASH FOUNTAIN (E)	0.50	20A*	B	2P*				40

LOAD CALCULATION			CIRCUIT BREAKER CODES				
LIGHTING	3.35		S = SHUNT TRIP BREAKERS				
LTG @ 125%		4.19	* = EXISTING C.B. – ALL OTHERS NEW – (N) NEW LOAD				
MOTORS	0.00	0.00	SPARE= CIRCUIT BREAKER				
LRGST @ 25%		0.00	BLANK= C.B. POSITION				
OUTLETS	1.80	1.80	K = KITCHEN				
DEDICATED OUTLETS		0.00	L = LIGHTING				
DEMAND OUTLETS@50%			M = MOTORS				
KITCHEN	2.46		D = OUTLETS				
DEMAND KITCHEN		1.60	H = HEAT				
HEAT	6.40	6.40	X = MISCELLANEOUS				
MISCELLANEOUS	13.95	13.95	W = WELDERS				
WELDERS			TC = 0 DEDICATED OUTLETS				
			K = 9 DEMAND KITCHEN				
PANEL B	5.97	5.67					
					CONNECTED LOAD PHASE 'A'		24.49
CONNECTED KVA	33.93		= 141.37 AMP		CONNECTED LOAD PHASE 'B'		9.44
DEMAND KVA		33.60	= 140.01 AMP				

PANEL SCHEDULE	B	LOCATION:	NEW PANEL & SCHEDULE
100A. BUSS 120/240v 1ph 3w		MAIN (LUGS)	

NO	T	DESCRIPTION	KVA	BKR		BKR	KVA	DESCRIPTION	T	NO
1	K	GAS RANGE	0.70	20A	A	25A	1.40	GAS MAU	X	2
3				ST	B	20A	0.41	GAS WTR HTR, JAN DCO	X	4
5	K	GAS OVEN	0.95	20A	A	20A	0.05	HOOD CONTROLS	X	6
7				ST	B	20A	1.00	MICROWAVE	K	8
9	L	HOOD LIGHTING	0.15	20A	A	S.T.				10
11				ST	B	20A	0.38	NEW REACHIN FREEZER	K	12
13	M	HOOD EXH FAN	1.07	20A	A	20A	0.01	SHUNT TRIP POWER CIRCUIT	X	14
15	X	ATTIC LIGHT/GFCI OUTLET	0.20	20A	B	20A	0.01	GAS SOLINOID UNDER HOOD POWER	X	16
17				20A	A	20A				18
19				20A	B	20A				20
21				20A	A	20A				22
23				20A	B	20A				24

LOAD CALCULATION			CIRCUIT BREAKER CODES				
LIGHTING	0.15		St = SHUNT TRIP CB				
LTG @ 125%		0.19	* = EXISTING C.B. – ALL OTHERS NEW – (N) NEW LOAD				
MOTORS	1.07	1.07	SPARE= CIRCUIT BREAKER				
LRGST @ 25%		0.27	BLANK= C.B. POSITION				
OUTLETS	0.00	0.00	K = KITCHEN				
DEDICATED OUTLETS		0.00	L = LIGHTING				
DEMAND OUTLETS@50%			M = MOTORS				
KITCHEN	3.03		D = OUTLETS				
DEMAND KITCHEN		2.42	H = HEAT				
HEAT	0.00	0.00	X = MISCELLANEOUS				
MISCELLANEOUS	1.72	1.72	W = WELDERS				
WELDERS			TC = 0 DEDICATED OUTLETS				
			K = 4 DEMAND KITCHEN				
					CONNECTED LOAD PHASE 'A'		4.33
CONNECTED KVA	5.97		= 24.88 AMP		CONNECTED LOAD PHASE 'B'		1.64
DEMAND KVA		5.67	= 23.62 AMP				



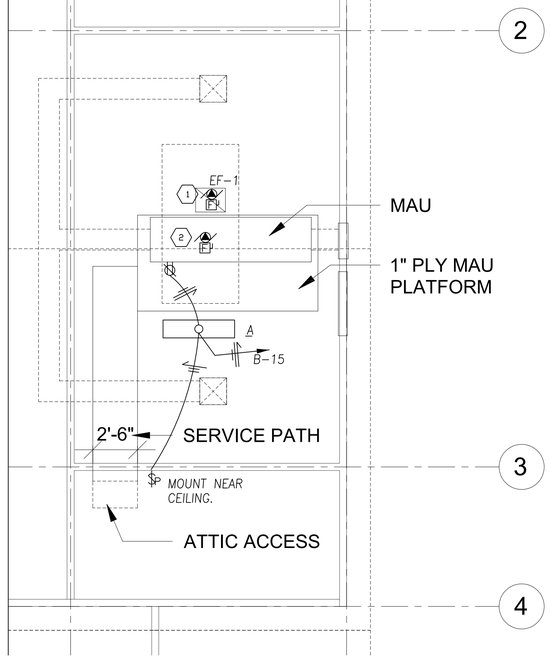
3 / E2.0 PARTIAL ONE LINE DIAGRAM
SCALE: N.T.S.

MECHANICAL EQUIPMENT CONNECTION SCHEDULE								
HEX	DESCRIPTION	HP	KVA	PH.	VOLTS	C.	WIRE	CIRCUIT	REMARKS
1	EF–1 (HOOD EXHAUST)	3/4	1.07	1	120	1/2"	2–#12	B–13	20A MOCP ON ROOF
2	MAU–1	1	1.4	1	120	1/2"	2–#10	B–2	25A CB IN ATTIC
3	GAS WATER HEATER								NO ELEC
4	GAS SOLINOID			1	120	1/2"	2–#12	B–16	SEE NOTE 2
5									

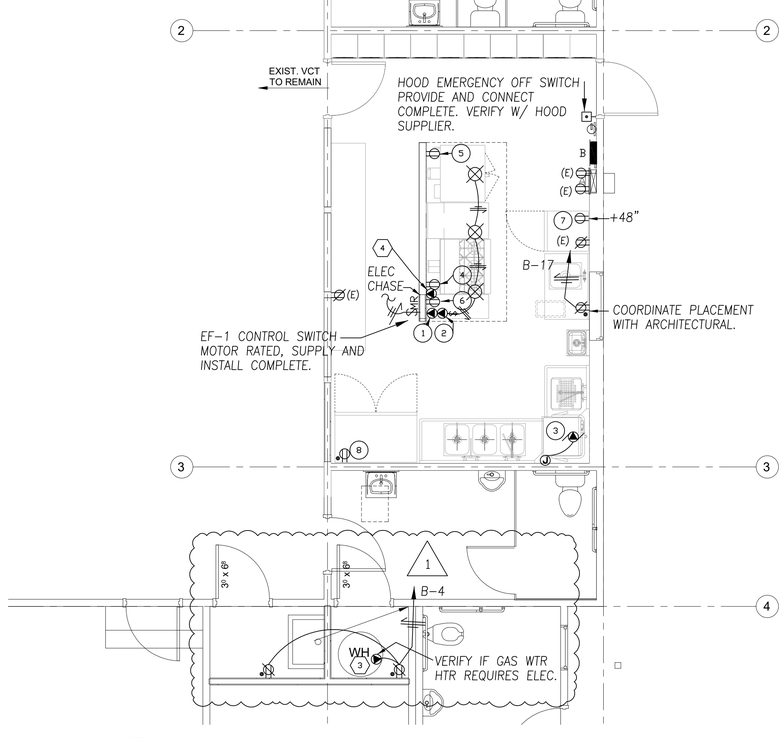
NOTE 2. PROVIDE POWER TO GAS SOLINOID AND CONNECT SHUTOFF CONTROLS COMPLETE. VERIFY DETAILS WITH MECHANICAL CONTRACTOR AND HOOD MANUFACTURER.

KITCHEN EQUIPMENT CONNECTION SCHEDULE								
CIR	DESCRIPTION	HP	KVA	PH.	VOLTS	C.	WIRE+GND	CIRCUIT	REMARKS
1	HOOD–CONTROLS			1	120	2–1/2"	#12	B–6	SEE NOTE 1
2	HOOD–LIGHTING		0.15	1	120	1/2"	#12	B–9,11	SHUNT TRIP CB
3	DISHWASHER–LOW TEMP	1/2	1.2	1	120	1/2"	#12	A–34	
4	GAS RANGE		0.7	1	120	1/2"	#12	B–1,3	SHUNT TRIP CB
5	GASE OVEN		0.95	1	120	1/2"	#12	B–5,7	SHUNT TRIP CB
6	MICROWAVE		1	1	120	1/2"	#12	B–8,10	SHUNT TRIP CB
7	REACH IN FREEZER		0.38	1	120	1/2"	#12	B–12	
8	REACH IN REFRIGERATOR		0.96	1	120	1/2"	#12	A–8	
9	HOOD EXH FAN –SEE MECHANICAL SCHED								
10									
11									
12									

NOTE 1. PROVIDE POWER TO HOOD CONTROLS AND LIGHTING COMPLETE. PROVIDE NECESSARY CIRCUITRY FOR LIGHTING, LIGHT SWITCHES, HOOD CONTROLS, AND SHUT–OFF SYSTEMS. VERIFY REQUIREMENTS WITH HOOD SUPPLIER. LIGHT FIXTURES SUPPLIED WITH HOOD. INSTALL COMPLETE.



N / 1 / E2.0 ELECTRICAL POWER SIGNAL ATTIC PLAN
SCALE: 1/4" = 1'–0"



N / 2 / E2.0 ELECTRICAL POWER SIGNAL KITCHEN PLAN
SCALE: 1/4" = 1'–0"

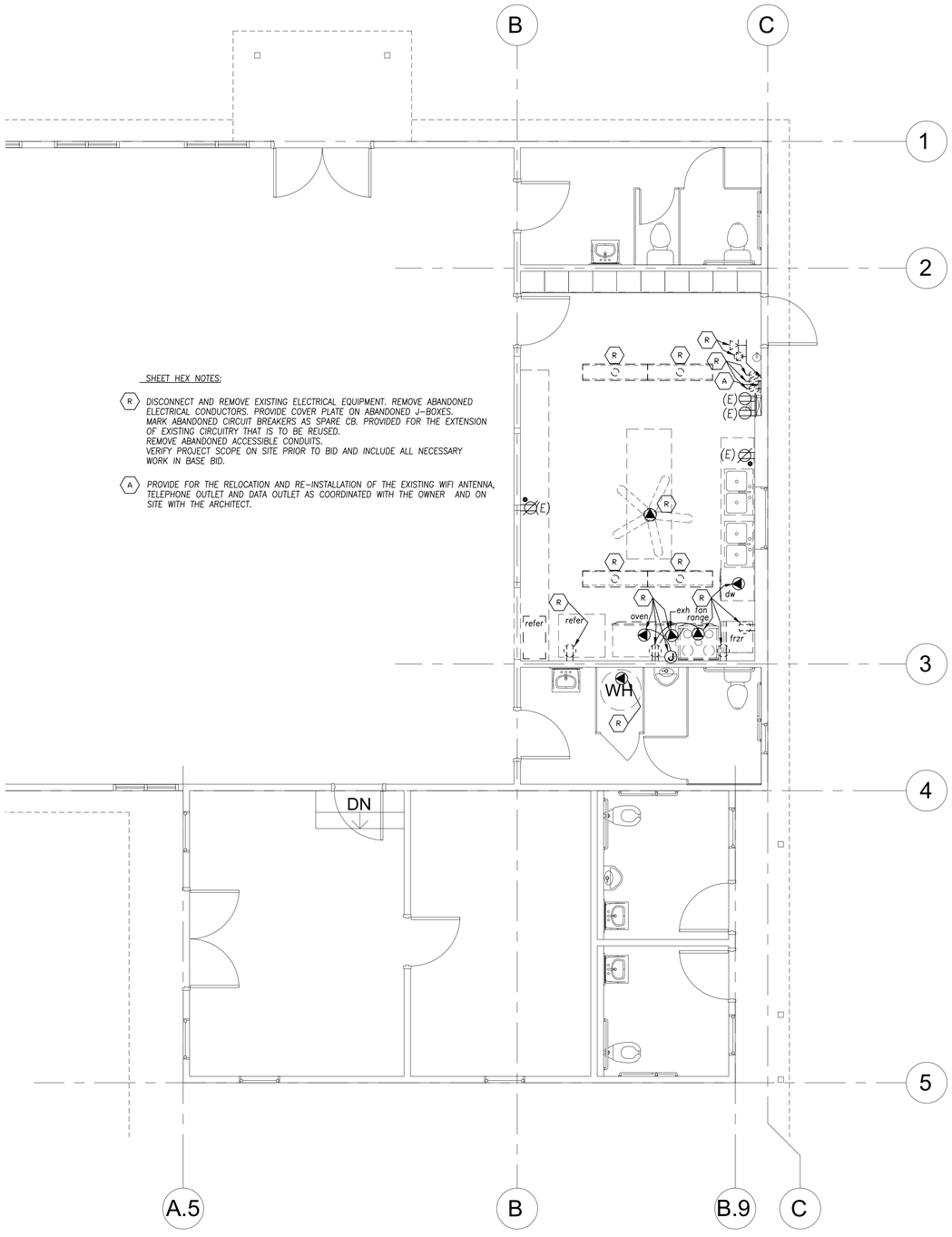
BID SET
07-20-2022

ELECTRICAL
PWR-SIG
PLAN

2022-09

SHEET NO.
E2.0

09-28-22

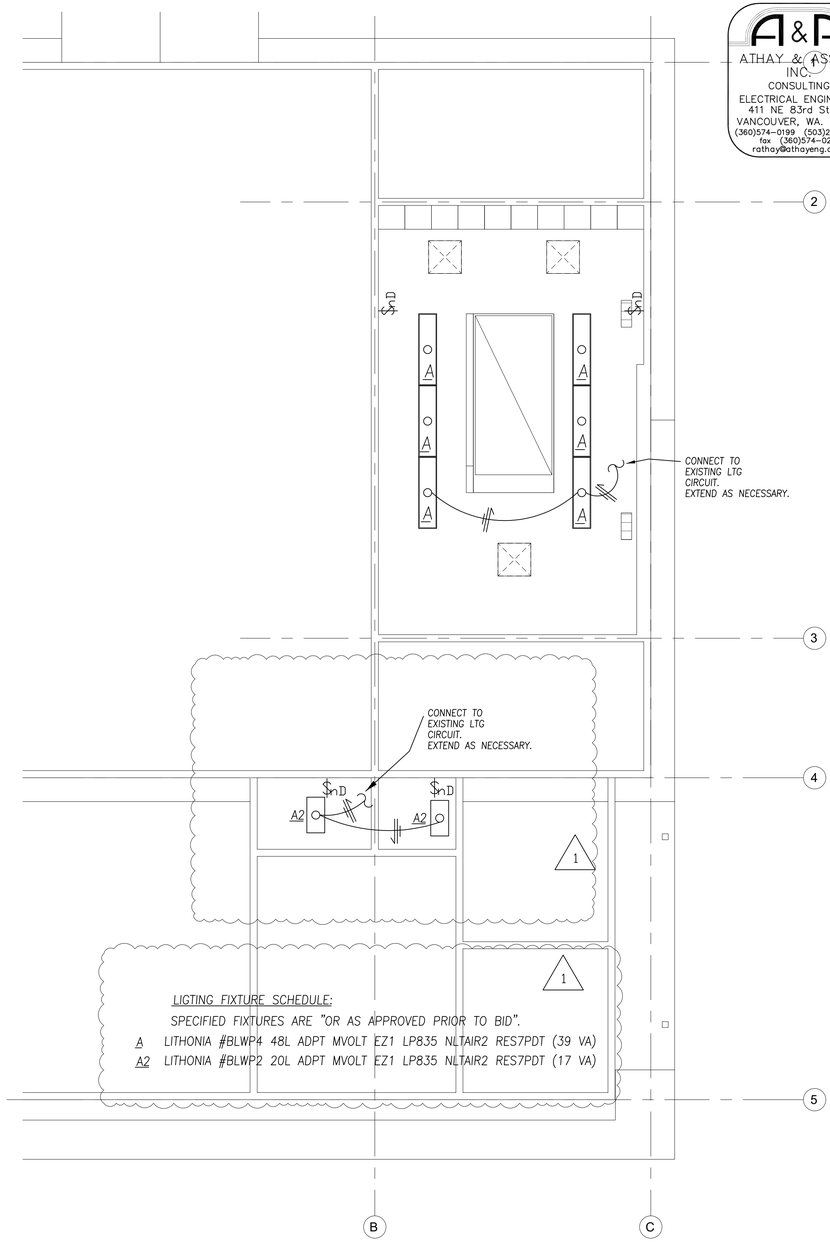


SHEET HEX NOTES:

R DISCONNECT AND REMOVE EXISTING ELECTRICAL EQUIPMENT. REMOVE ABANDONED ELECTRICAL CONDUCTORS. PROVIDE COVER PLATE ON ABANDONED J-BOXES. MARK ABANDONED CIRCUIT BREAKERS AS SPARE CB. PROVIDED FOR THE EXTENSION OF EXISTING CIRCUITRY THAT IS TO BE REUSED. REMOVE ABANDONED ACCESSIBLE CONDUITS. VERIFY PROJECT SCOPE ON SITE PRIOR TO BID AND INCLUDE ALL NECESSARY WORK IN BASE BID.

A PROVIDE FOR THE RELOCATION AND RE-INSTALLATION OF THE EXISTING WIFI ANTENNA, TELEPHONE OUTLET AND DATA OUTLET AS COORDINATED WITH THE OWNER AND ON SITE WITH THE ARCHITECT.

1 / E1.0 ELECTRICAL DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



LIGTING FIXTURE SCHEDULE:

SPECIFIED FIXTURES ARE "OR AS APPROVED PRIOR TO BID".

A LITHONIA #BLWP4 48L ADPT MVOLT EZ1 LP835 NLTAIR2 RES7PDT (39 VA)

A2 LITHONIA #BLWP2 20L ADPT MVOLT EZ1 LP835 NLTAIR2 RES7PDT (17 VA)

nLIGHT WIRELESS SYSTEM COMPONENTS

$nD nLIGHT #RPODBA DX XX (DIMMING)

$nL nLIGHT #RPODBA XX (NON-DIMMING)

RP nLIGHT #RPP20D (dimming relay)

R nLIGHT #RPP20 (non-dimming relay)

(day) nLIGHT #RCMS PS 150 PDT 10 AR G2

(OC) nLIGHT #RCMS PS 150 PDT 10 AR G2 OCCUPANCY SENSOR ONLY.

NOTE:
STARTUP AND ADJUSTMENTS SHALL BE BY FACTORY AUTHORIZED PERSONNEL ONLY AND SHALL BE INCLUDED IN BASE BID.

2 / E2.0 nLIGHT LIGHTING CONTROL SYSTEM LEGEND
nLIGHT COMPONENTS. VERIFY SPECIFICS, REQUIREMENTS AND DETAILS WITH MANUFACTURER'S REPRESENTATIVE.

2 / E1.0 ELECTRICAL LIGHTING PLAN
SCALE: 1/4" = 1'-0"

09-28-22

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Revision Schedule

1	9/28/22	REV01

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RONALD D. ATHAY STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER

EXPIRES APRIL 5, 2024

CITY OF LA CENTER
COMMUNITY CENTER KITCHEN REMODEL
1000 E 4th St.
La Center, WA 98629

BID SET
07-20-2022

ELECTRICAL DEMO & LTG PLAN

2022-09

SHEET NO.
E1.0

BARGREEN ELLINGSON
FOODSERVICE SUPPLY & DESIGN

ABBREVIATIONS

ACT	ACOUSTICAL CEILING TILE
AFF	ABOVE FINISHED FLOOR
APPROX	APPROXIMATELY
ARCH	ARCHITECT, ARCHITECTURAL
CG	CORNER GUARD
CLG	CEILING
CW	COLD WATER
DCO	DUPLEX OUTLET
DI	DEDICATED / ISOLATED
DIA	DIAMETER
DIM	DIMENSION
DW	DISH WASHER
DWG	DRAWING
EA	EACH
E.C.	ELECTRICAL CONTRACTOR
ELEC	ELECTRICAL
EXIST	EXISTING
FLR	FLOOR
FS	FLOOR SINK
GC	GENERAL CONTRACTOR
GYP	GYPSUM
HT	HEIGHT
HVAC	HEATING, VENTING, AND AIR CONDITIONING
HW	HOT WATER
JBOX	JUNCTION BOX
MAX	MAXIMUM
MECH	MECHANICAL
MIN	MINIMUM
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
SCO	SINGLE CONNECTION OUTLET
S/S	STAINLESS STEEL
TYP	TYPICAL
UC	UNDER COUNTER
VFY	VERIFY
W/	WITH
W/O	WITHOUT

PROJECT INFO.

FOOD SERVICE DRAWINGS:

PROJECT INFO.

ADDRESS:
NE HIGHLAND AVE
LA CENTER, WA 98629

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LONGVIEW, WA 98632
PH: (360) 425-0000
CONTACT: JOSEPH BEER

GENERAL CONTRACTOR:

FOOD SERVICE DESIGNER:
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CONTACT: GEOFF GROTHE

07/20/2022 - BID SET

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SENIOR KTICHEN REMODEL
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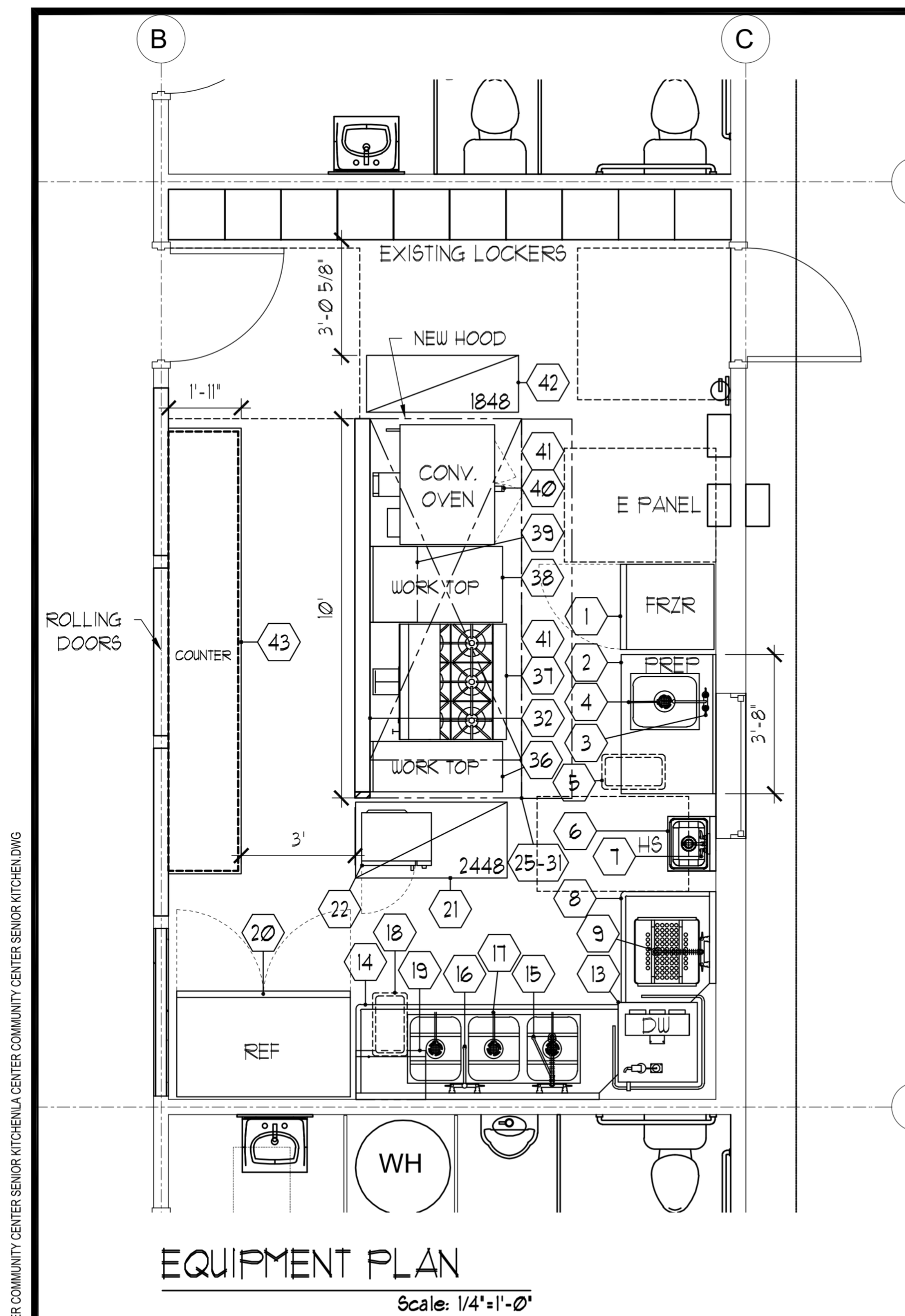
LA CENTER, WA 98629

V. AYALA
G. GROTHE
DATE: 05/26/2022
COVER SHEET
K-0
80106460



EQUIPMENT PLAN
Scale: 1/4"=1'-0"

GENERAL NOTES

1. IT SHALL BE NOTED BY THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS THAT THIS SET OF PLANS AND THE INFORMATION CONTAINED WITHIN IN NO WAY RELIEVES SAID PARTIES OF THEIR RESPONSIBILITY TO INVESTIGATE AND COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES AND TO PERFORM ALL WORK TO THE HIGHEST STANDARDS.

2. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS TO VERIFY THE ACTUAL SPACE AND MECHANICAL REQUIREMENTS OF ALL ITEMS SHOWN AS FUTURE, NIC, SUPPLIED BY "OTHERS", ETC., WITH THE OWNER PRIOR TO ROUGH-IN AND CONNECTION.

3. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO IMMEDIATELY NOTIFY THE KITCHEN EQUIPMENT CONTRACTOR IN WRITING OF ANY CHANGES TO THE BUILDING THAT AFFECT EQUIPMENT PLACEMENT AND SIZES (I.E., WALL CHANGES, WATER HEATER LOCATIONS, ELECTRICAL PANELS, ETC.).

4. SUITABLE WALL BACKING AS SHOWN ON THESE PLANS AND AS REQUIRED BY THE OWNER SHALL BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR.

5. THE GENERAL CONTRACTOR SHALL PROVIDE FLOOR, WALL, CEILING AND ROOF PENETRATIONS, INCLUDING, BUT NOT LIMITED TO THOSE REQUIRED FOR: MAKE-UP AIR, CLASS II EXHAUST DUCTS, FIRE-RATED SHAFTS FOR CLASS I EXHAUST DUCTS.

6. THE GENERAL CONTRACTOR SHALL PROVIDE CONDUIT AND SLEEVES FOR REFRIGERATION LINES, SYRUP, CARBON DIOXIDE GAS, BEER LINES, LIQUOR LINES, AND DATA LINES. CONDUIT SHALL BE CIRCULAR PVC EQUAL TO THE DIAMETER INDICATED ON PLANS. ALL BENDS SHALL HAVE A MINIMUM RADIUS OF TWENTY-FOUR INCHES.

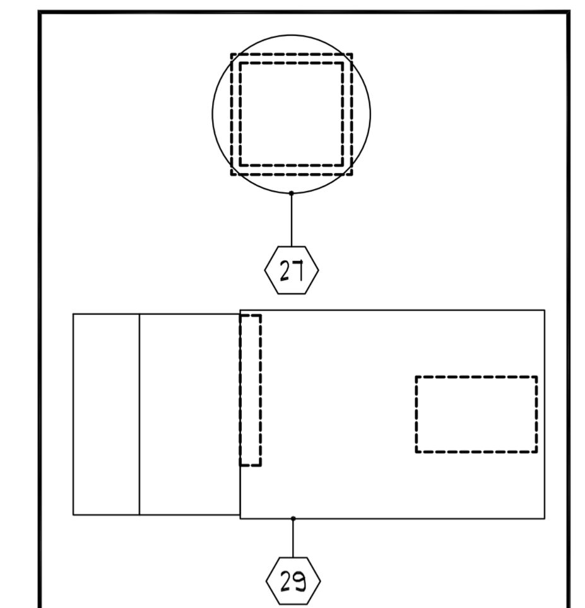
7. THE GENERAL CONTRACTOR SHALL PROPERLY SEAL ALL WALL AND FLOOR PENETRATIONS AFTER THE INSTALLATION OF RELATED EQUIPMENT AND FURNISHING ITEMS.
8. ALL DIMENSIONS SHOWN ARE FROM FACE OF FINISHED WALL OR FLOOR.

9. ALL UTILITY ROUGH-INS SHOWN ON THESE PLANS ARE SUBJECT TO CHANGE PENDING FINAL EQUIPMENT SELECTION AND LOCATION.

10. ALL UTILITY ROUGH-INS, FINAL CONNECTIONS, AND HOOK-UPS SHALL BE PROVIDED AND PERFORMED BY THE RESPECTIVE LICENSED SUB-CONTRACTORS IN COMPLIANCE WITH APPLICABLE NATIONAL AND LOCAL CODES.

11. SEISMIC BRACING INFORMATION, IF REQUIRED, IS NOT INDICATED ON THESE PLANS NOR IS IT PROVIDED BY THE KITCHEN EQUIPMENT CONTRACTOR UNLESS OTHERWISE SPECIFIED HEREIN.

12. WHERE EQUIPMENT PRODUCES NOISE THAT MAY VIBRATE THROUGH WALLS TO ANY PUBLIC AND/OR DINING AREAS, THE GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL ADEQUATE SOUND PROOFING IN WALLS.



EXHAUST FANS & MAKE UP AIR UNIT VERIFY LOCATION

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07/20/2022 - BID SET

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V. AYALA
G. GROTHE
DATE: 05/26/2022
FLOOR PLAN
K-1
80106460

ITEM NO.	SUPPLIER K.E.C.	SUPPLIER OWNER	SUPPLIER OTHERS	QUANTITY	DESCRIPTION	MANUFACTURER MODEL NUMBER	ELECTRICAL KW	ELECTRICAL AMPS	ELECTRICAL HP	ELECTRICAL VOLTS	ELECTRICAL PHASE	ELECTRICAL CONN.	PLUMBING HOT	PLUMBING COLD	PLUMBING WASTE	GAS CONN.	GAS BTU	NOTES
1	X			1	REACH-IN FREEZER	HOSHIZAKI EF1A-FS		3.2		115	1	5-15P						WITH CASTERS.
2	X			1	WORK TABLE W/ PREP SINK	ADVANCE KMS-11B-305L- MODIFY									FS			MODIFY TO 30"x44". WITH 20"X16" PREP SINK.
3	X			1	FAUCET, DECK MOUNT	T&S B-0226							1/2"	1/2"				
4	X			1	LEVER WASTE	FISHER 22209												
5	X			1	WASTE RECEPTACLE, 16 GAL.	RUBBERMAID SLIM JIM 3541												
6	X			1	HAND SINK, WALL MOUNT	ADVANCE 7-PS-66-NF									1-1/2"			WITH LEFT & RIGHT END SPLASHES. SOAP & TOWELS BY OWNER.
7	X			1	FAUCET, GOOSENECK, SPLASH MOUNT	T&S B-1146-02A-CR							1/2"	1/2"				WITH B-1100-K KIT.
8	X			1	SOILED DISH TABLE W/ SCRAP SINK	ADVANCE DTC-S30-36L									FS			WITH RACK SLIDES AND SCRAP BASKET.
9	X			1	PRE-RINSE FAUCET	T&S B-0133-CR-B							1/2"	1/2"				WITH B-0230-K KIT.
10				-	SPARE NUMBER													
11				-	SPARE NUMBER													
12				-	SPARE NUMBER													
13	X			1	DISH MACHINE, DOOR, LOW TEMP	AMERICAN DISH L-3DWC-S	1.1	20.0	1 1/2	115	1	JBOX	1/2"		FS			20A CIRCUIT REQUIRED.
14	X			1	CLEAN DISH TABLE W/ 3 COMP SINK	ADVANCE DTC-3-1620-84R									FS			
15	X			1	PRE-RINSE FAUCET W/ SWING SPOUT	T&S B-0133-CR-B/ B-0156 OPTION							1/2"	1/2"				WITH B-0230-K KIT.
16	X			1	FAUCET, SPLASH MOUNT	T&S B-0231							1/2"	1/2"				WITH B-0230-K KIT.
17	X			3	LEVER WASTE	FISHER 22209												
18	X			1	WASTE RECEPTACLE, 16 GAL.	RUBBERMAID SLIM JIM 3541												
19	X			1	SLANT RACK, WALL MOUNTED	ADVANCE DT-6R-11												
20	X			1	REACH-IN REFRIGERATOR	HOSHIZAKI R2A-FS		8.0	1/2	115	1	5-15P						WITH CASTERS.
21	X			1	STORAGE SHELVING	METRO METROSEAL 3												4 TIERS HIGH WITH 74" POSTS.
22		X		1	MICROWAVE	BY OWNER	*	*		*	*	PLUG						VERIFY REQUIREMENTS W/ OWNER.
23				-	SPARE NUMBER													
24				-	SPARE NUMBER													
25	X			1	TYPE I EXHAUST HOOD W/ UTILITY CABINET	CAPTIVEAIRE 5424-ND-2-PSP-F												HEAT SENSING DEVICE REQ'D PER IMC 507.2.1.1 - VERIFY WITH MFG. SPECS.
				-	---LIGHT CONNECTION		*			120	1	JBOX						ELECTRICAL FOR LIGHTS. WIRE TO WALL SWITCH, BY ELECTRICIAN.
				-	---DEMAND CONTROL VENTILATION	CAPTIVEAIRE DCV-1111				115	1	JBOX						VERIFY W/ MFG SPECS.
26	X			LOT	HOOD ENCLOSURE PANELS	CUSTOM STAINLESS												
27	X			1	EXHAUST FAN	CAPTIVEAIRE DU85HFA		8.9	3/4	115	1	JBOX						
28	X			LOT	EXHAUST DUCTWORK	CAPTIVEAIRE												
29	X			1	MAKE-UP AIR UNIT	CAPTIVEAIRE F1-D.250-15D		11.6	1	115	1	JBOX		*		3/4"	74,286	VERIFY LOCATION. VERIFY WITH MFG SPECS.
30			X	LOT	MAKE-UP AIR DUCTWORK	BY HVAC CONTRACTOR												
31	X			1	FIRE SUPPRESSION SYSTEM	ANSUL R-102		20.0		120	1	JBOX						VERIFY WITH MFG SPECS.
32	X			LOT	WALL FLASHING	CUSTOM STAINLESS												FLAT.
33				-	SPARE NUMBER													
34				-	SPARE NUMBER													
35				-	SPARE NUMBER													
36	X			1	SPREADER TABLE	CUSTOM STAINLESS												30X16.
37	X			1	6 BURNER RANGE W/ CONV. OVEN BASE	SOUTHBEND S36A		5.9		115	1	C&P				3/4"	203,000	WITH CASTERS.
38	X			1	SPREADER TABLE	ADVANCE KMS-302												
39	X			1	WALL SHELF	ADVANCE WS-15-24												
40	X			1	OVEN, CONVECTION	SOUTHBEND SLGS/12SC		7.9		120	1	5-15P				3/4"	72,000	
41	X			2	FLEX DISCONNECT	DORMONT 1675KIT48												WITH RESTRAINING DEVICE.
42	X			1	DRY STORAGE SHELVING	METRO BR SERIES												5 TIERS HIGH WITH 86" POSTS.
43	X			1	SERVING COUNTER	CUSTOM MILLWORK/ STAINLESS												22"X141", VERIFY. MILLWORK BASE WITH STAINLESS COUNTER.
44				-	SPARE NUMBER													
45				-	SPARE NUMBER													

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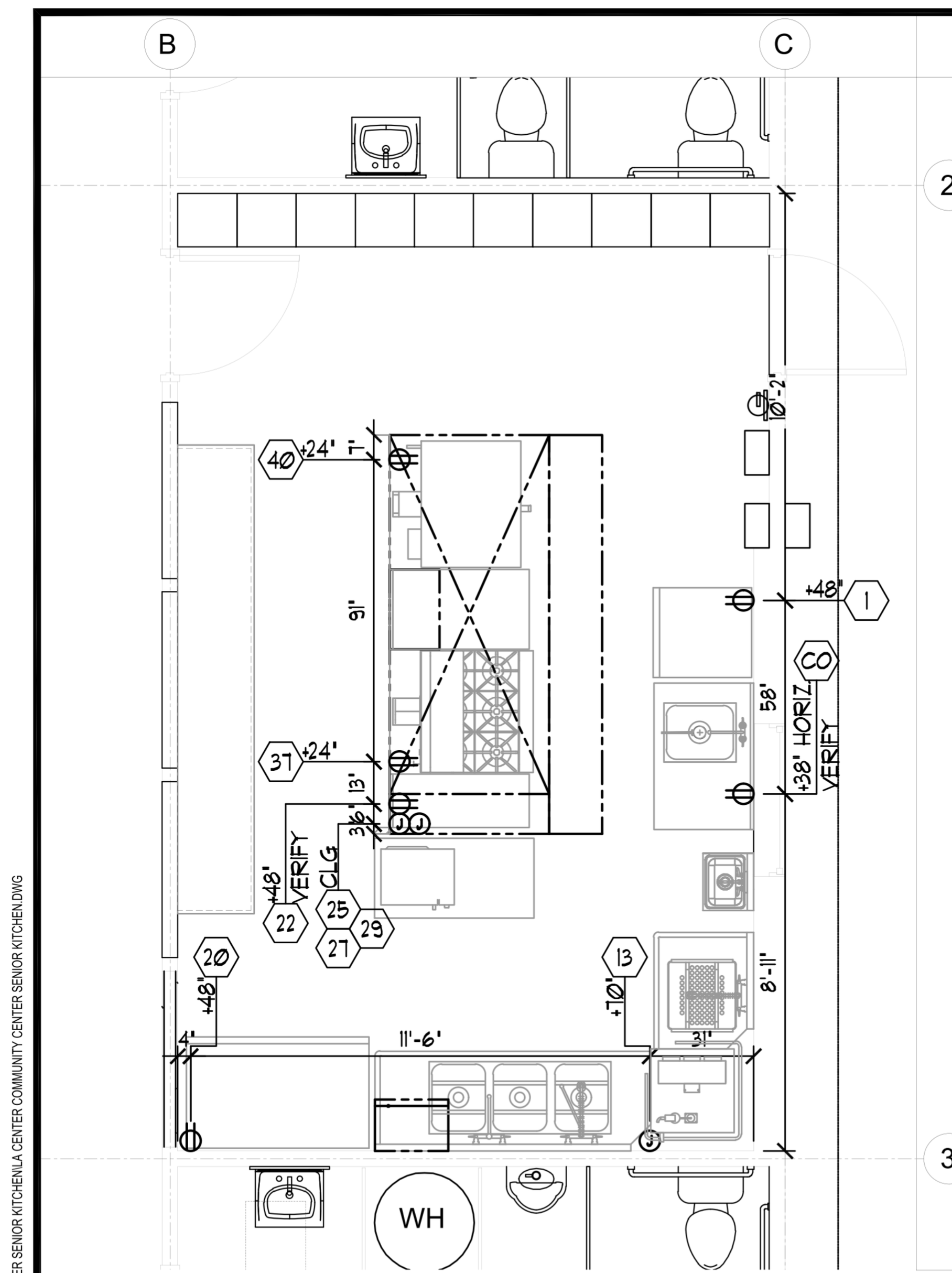
V. AYALA
G. GROTHE
DATE: 05/26/2022
EQUIPMENT SCHEDULE
K-2
80106460



ELECTRICAL ROUGH-IN PLAN
Scale: 1/4"=1'-0"

ELECTRICAL NOTES

1. ALL ELECTRICAL ROUGH-IN WORK AND FINAL CONNECTIONS TO ALL FOOD SERVICE AND RELATED EQUIPMENT AS SHOWN ON THE KITCHEN EQUIPMENT CONTRACTOR'S PLANS TO BE PERFORMED BY THE ELECTRICAL CONTRACTOR PER NATIONAL AND LOCAL CODES.

2. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL STAINLESS STEEL OUTLET AND RECEPTACLE COVERS IN SERVICE AREAS.

3. THE ELECTRICAL CONNECTIONS, SPECIFICATIONS AND DIMENSIONS SHOWN ON THESE PLANS ARE FOR FOOD SERVICE EQUIPMENT ONLY. SEE THE ARCHITECT'S PLAN SET FOR ADDITIONAL ELECTRICAL REQUIREMENTS INCLUDING OFFICE, MENU BOARDS, TELEPHONE AND DATA LINES, ETC.

4. THE ELECTRICAL CONTRACTOR SHALL PROVIDE FUSED DISCONNECTS FOR EQUIPMENT HOOK-UPS AS REQUIRED BY CODE AND LABELING.

5. ALL ELECTRICAL ROUGH-IN WORK AND ALL FINAL CONNECTIONS FOR ALL ITEMS SHOWN AND SPECIFIED ON THESE PLANS BY BARGREEN ELLINGSON SHALL BE PERFORMED BY THE ELECTRICAL CONTRACTOR.

6. UNLESS OTHERWISE SPECIFIED IN THESE PLANS OR OTHER WRITTEN CONTRACTS, IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO PROVIDE ALL ELECTRICAL-TYPE MATERIALS INCLUDING, BUT NOT LIMITED TO: WIRING, SWITCHES, DISCONNECTS, FLEX, CONDUIT, CONTACTORS, TRANSFORMERS, THERMAL OVERLOAD PROTECTORS, MAGNETIC STARTERS, SHUNT TRIP BREAKERS, ELECTRICAL PANELS, CORDS, PLUGS, COVERS, ETC.

7. ELECTRICAL CONTRACTOR SHALL PROVIDE THE KITCHEN EQUIPMENT CONTRACTOR WITH ELECTRICAL PANEL(S) SIZE AND LOCATION ALONG WITH AVAILABLE VOLTAGE AND PHASE.

8. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ELECTRICAL COMPONENTS FOR WALK-IN REFRIGERATORS AND FREEZERS INCLUDING, BUT NOT LIMITED TO: LIGHTS, DOOR VENTS, SOLENOIDS, TIME CLOCKS, DEFROST CIRCUITS AND INTERCONNECTIONS BETWEEN REMOTE COMPRESSORS AND INTERIOR MOUNTED EVAPORATOR COILS. ELECTRICAL SHALL ALSO PROVIDE DISCONNECTS AND THERMO-OVERLOAD PROTECTION FOR COMPRESSORS.

9. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL HEAT TAPE ON DRAIN LINES IN DANGER OF FREEZING. VERIFY LENGTH WITH REFRIGERATION CONTRACTOR.

10. THE ELECTRICAL CONTRACTOR SHALL PROVIDE DISCONNECTS AT THE POWER BOX FOR EACH ICE MACHINE HEAD.

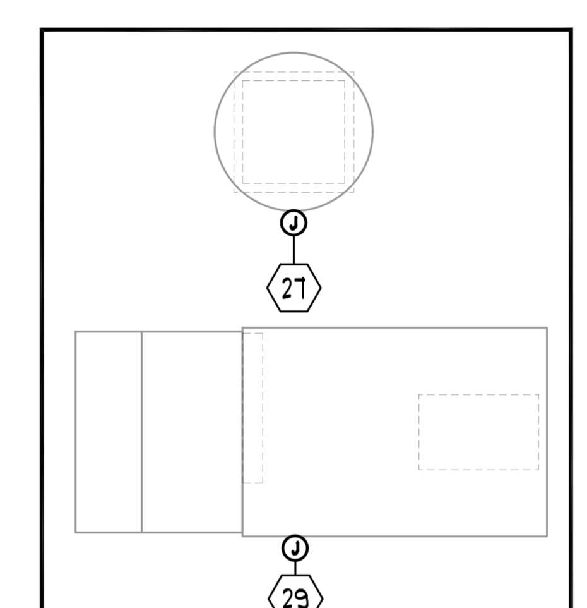
11. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO PROVIDE INTERCONNECT SWITCHING BETWEEN THE KITCHEN HOOD EXHAUST FANS AND THE KITCHEN MAKE-UP AIR SYSTEMS AS REQUIRED PER LOCAL CODE AND AUTHORITIES.

12. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO PROVIDE ELECTRICAL CONTACTORS ON ALL ELECTRICAL OUTLETS, JUNCTION BOXES, ETC. LOCATED UNDER ANY CLASS I EXHAUST HOOD SO AS TO DISCONNECT UPON ACTIVATION OF THE FIRE SUPPRESSION SYSTEM.

13. ELECTRICAL CONTRACTOR SHALL VERIFY REQUIREMENTS OF CASH REGISTERS, PRINTERS, COMPUTERS, SOUND SYSTEM, ETC. INCLUDING CONDUIT RUNS AND DEDICATED / ISOLATED OUTLET REQUIREMENTS.

14. ALL DIMENSIONS SHOWN ARE FROM GRID LINES, FINISHED WALLS OR FINISHED FLOORS TO CENTER LINE OF ELECTRICAL OUTLET BOXES. HEIGHTS ARE NOT TO BE TAKEN FROM CURBS OR PLATFORMS.

15. TEMPERATURE SENSORS RELATED TO THE HOOD SYSTEM, AND INTENDED TO BE INSTALLED IN THE KITCHEN SPACE, SHALL BE INSTALLED BY THE ELECTRICAL CONTRACTOR ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.



EXHAUST FANS & MAKE UP AIR UNIT VERIFY LOCATION

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
J	JUNCTION BOX
	DUPLEX OUTLET (DCO)
	208 VOLT OUTLET (SCO)
	ELECTRICAL STUB
	FLOOR OUTLET
	DEDICATED / ISOLATED
	SWITCH
	LIGHT FIXTURE
	FIELD CONNECTION
	HEAT TAPE
	MOTOR
	THERMOSTAT
	SOLENOID
	P.O.S. NETWORK CONNECTION
CO	20A/115 AMP CONVENIENCE OUTLET
	PHONE

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LA CENTER, WA 98629

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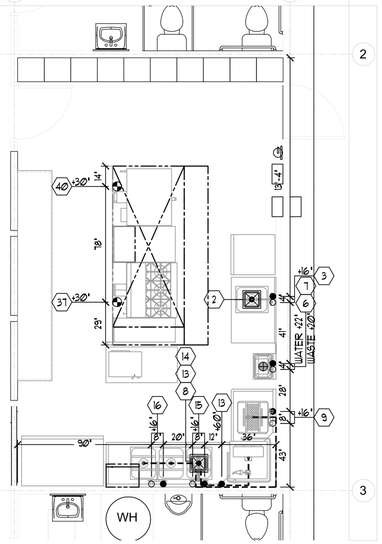
V. AYALA
G. GROTHE
DATE: 05/26/2022
ELECTRICAL ROUGH-IN PLAN
K-3
80106460

8/4/2022 11:30:23 AM



PLUMBING ROUGH-IN PLAN

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

PLUMBING NOTES

1. ALL PLUMBING ROUGH-IN WORK AND FINAL CONNECTIONS TO ALL FOOD SERVICE AND RELATED EQUIPMENT AS SHOWN ON THE KITCHEN EQUIPMENT CONTRACTOR'S PLANS TO BE PERFORMED BY THE PLUMBING CONTRACTOR PER NATIONAL AND LOCAL CODES.

2. UNLESS OTHERWISE SPECIFIED IN THESE PLANS OR OTHER WRITTEN CONTRACTS, IT SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO PROVIDE ALL PLUMBING-TYPE MATERIALS INCLUDING VALVES, TRAPS, LINE STRAINERS, FLOOR SINK COVERS, PRESSURE REGULATORS, SYPHON BREAKERS, ETC.

3. PLUMBING CONTRACTOR SHALL SIZE, FURNISH AND INSTALL ALL GREASE TRAPS OR INTERCEPTORS AS REQUIRED AND COORDINATE SIZES AND LOCATIONS WITH KITCHEN EQUIPMENT CONTRACTOR.

4. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL ALL GAS SHUT-OFF VALVES FOR EACH PIECE OF EQUIPMENT WITH PERMANENT I.D. TAGS AS WELL AS THE MAIN GAS VALVE(S).

5. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL ALL DIRECT SINK WASTE LINES AND ALL INDIRECT EQUIPMENT WASTE LINES AS SHOWN ON PLANS PER LOCAL CODES, INCLUDING TRAPS, TAIL PIECES, LINE STRAINERS, AND WALK-IN CONDENSATE WASTE LINES, AS REQUIRED. INDIRECT WASTE LINE ROUTING THROUGH CABINETS SHALL BE IN A MANNER SO AS TO MAXIMIZE USABLE STORAGE SPACE.

6. ALL DRAIN LINES FROM EQUIPMENT REQUIRING CONDENSATION REMOVAL SHALL BE RUN IN COPPER.

7. THE PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL INSULATION MATERIAL ON ALL DRAIN LINES FROM ICE BINS, ICE PANS, ETC., SO AS TO ELIMINATE CONDENSATION FORMATION.

8. ALL INDIRECT WASTE LINES TO HAVE A 2" MINIMUM AIR GAP.

9. FLOOR SINKS SHALL BE FURNISHED AND INSTALLED BY THE PLUMBING CONTRACTOR IN LOCATIONS SHOWN, AND SUPPLIED WITH 3/4 GRATE OR AS SPECIFIED. AREA DRAINS, IF REQUIRED, SHALL BE VERIFIED WITH THE ARCHITECT.

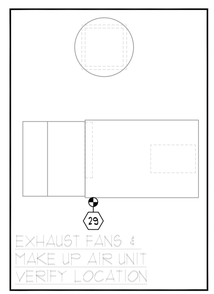
10. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO VERIFY THAT THE LOCATIONS FOR ALL MECHANICAL REQUIREMENTS WHICH REQUIRE FLOOR PENETRATIONS DO NOT CONFLICT WITH STRUCTURAL MEMBERS IN THE FLOOR.

11. THE GENERAL CONTRACTOR SHALL SUPERVISE THE LOCATION OF ALL FLOOR DRAINS ON THE JOB SITE SO AS TO ENSURE THE BEST SLOPE POSSIBLE OF THE SURROUNDING FLOOR TO THESE DRAINS.

12. PLUMBER SHALL FURNISH AND INSTALL PRESSURE REDUCING VALVE(S) AT DISHWASHER(S), GLASS WASHER(S), STEAMER(S) AND OTHER EQUIPMENT, AS REQUIRED.

13. IT SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO FURNISH AND INSTALL ALL WATER HEATERS FOR THIS PROJECT AND TO ENSURE ADEQUATE WATER SUPPLY FOR THE FOOD SERVICE EQUIPMENT. WATER TEMPERATURE TO THE DISHWASHER SHALL BE 140°. COORDINATE LOCATION OF WATER HEATER WITH KITCHEN EQUIPMENT CONTRACTOR.

14. THE PLUMBING CONNECTIONS, SPECIFICATIONS AND DIMENSIONS SHOWN ON THESE PLANS ARE FOR FOOD SERVICE EQUIPMENT ONLY. SEE ARCHITECT'S PLAN SET FOR ALL OTHER PLUMBING REQUIREMENTS FOR THIS PROJECT.



PLUMBING LEGEND

SYMBOL	DESCRIPTION
●	HOT WATER SUPPLY
○	COLD WATER SUPPLY
⊕	DIRECT WASTE
	FLOOR SINK, NO GRATE
	FLOOR SINK, 3/4 GRATE
	FLOOR SINK, 1/2 GRATE
⊗	FUNNEL DRAIN
	AREA DRAIN
	GAS CONNECTION
	BEVERAGE LINE PVC STUB-UP
⊙	REFRIGERATION CONNECTION
-------	FIELD CONNECTION

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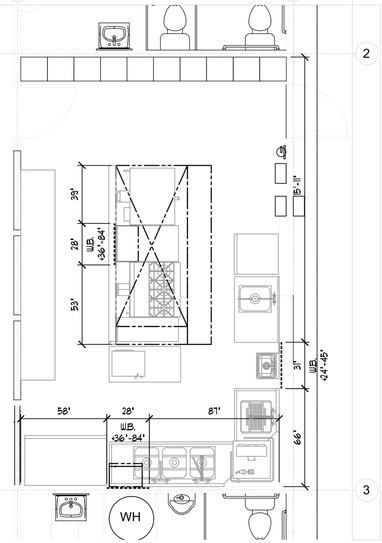
V. AYALA
G. GROTHE
DATE: 05/26/2022
PLUMBING ROUGH-IN PLAN

K-4

80106460



MECHANICAL/ BACKING PLAN

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

MECHANICAL NOTES

1. THE MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL EXHAUST AND SUPPLY DUCTS FOR KITCHEN HOODS IN ACCORDANCE WITH APPLICABLE NATIONAL AND LOCAL CODES AND SHALL COORDINATE AIR VOLUME REQUIREMENTS, DUCT SIZES, AND LOCATIONS WITH KITCHEN EQUIPMENT CONTRACTOR.

2. THE MECHANICAL CONTRACTOR SHALL ENSURE THAT 100% OF THE AIR PULLED FROM THE KITCHEN IS REPLACED. WHERE A PORTION OF SUPPLY AIR IS PROVIDED THROUGH THE HOODS, THE MECHANICAL CONTRACTOR SHALL PROVIDE THE REMAINDER AS REQUIRED AND BALANCE THE COMPLETE SYSTEM.

3. WHERE DUCTWORK IS SUPPLIED BY THE MECHANICAL CONTRACTOR, THE MECHANICAL CONTRACTOR SHALL MAKE FINAL CONNECTIONS BETWEEN DUCTWORK AND HOOD DUCT COLLARS.

4. THE MECHANICAL CONTRACTOR SHALL PERFORM FINAL AIR BALANCING TO THE BUILDING.

5. THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL HOOD HANGING PERMITS AS PART OF THE MECHANICAL PERMIT. THESE DOCUMENTS ARE TO INCLUDE ALL SEISMIC AND ENGINEERING CALCULATIONS APPLICABLE TO NATIONAL AND LOCAL CODES.

6. ALL DUCT SENSORS, WHEN SHIPPED LOOSE WITH THE HOODS, SHALL BE INSTALLED BY THE MECHANICAL CONTRACTOR ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.

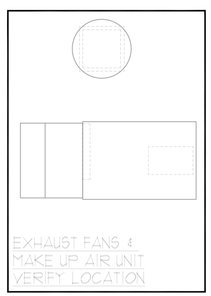
WALL BACKING NOTES

1. GENERAL CONTRACTOR SHALL CONSULT WITH OWNER AND BARGREEN ELLINGSON AT THE TIME OF LAYOUT FOR WALL BACKING FOR CONFIRMATION OF ALL DIMENSIONS AND UP-DATE REQUIREMENTS.

2. WALL BACKING TO BE USED FOR WALL MOUNTED EQUIPMENT AND SHELVES.

3. WALL BACKING TO BE 5/8" PLYWOOD. WALL BACKING NOTED AS 5/8, TO BE 16 - GAUGE SHEET METAL.

4. WALL BACKING TO BE BUILT INTO WALL SO THAT FINISHED WALL IS A FLUSH SURFACE.



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V. AYALA
G. GROTHE
DATE: 05/26/2022
MECHANICAL/ BACKING PLAN

K-5

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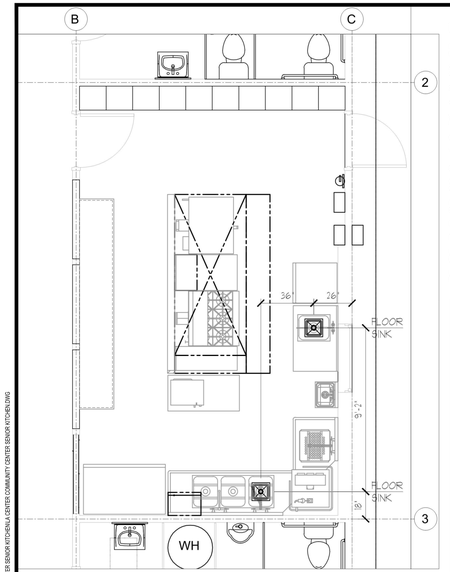

UNDERSLAB ROUGH-IN PLAN

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

PLUMBING NOTES

1. ALL PLUMBING ROUGH-IN WORK AND FINAL CONNECTIONS TO ALL FOOD SERVICE AND RELATED EQUIPMENT AS SHOWN ON THE KITCHEN EQUIPMENT CONTRACTOR'S PLANS TO BE PERFORMED BY THE PLUMBING CONTRACTOR PER NATIONAL AND LOCAL CODES.

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6. ALL DRAIN LINES FROM EQUIPMENT REQUIRING CONDENSATION REMOVAL SHALL BE RUN IN COPPER.

7. THE PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL INSULATION MATERIAL ON ALL DRAIN LINES FROM ICE BINS, ICE PANS, ETC., SO AS TO ELIMINATE CONDENSATION FORMATION.

8. ALL INDIRECT WASTE LINES TO HAVE A 2" MINIMUM AIR GAP.

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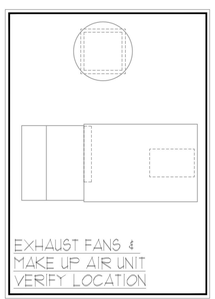

GROUNDWORKS LEGEND

SYMBOL	DESCRIPTION
	FLOOR SINK, NO GRATE
	FLOOR SINK, 3/4 GRATE
	FLOOR SINK, 1/2 GRATE
	AREA DRAIN
○	BEVERAGE LINE PVC STUB-UP
⊙	ELECTRICAL STUB-UP
◉	REFRIGERATION CONNECTION
-------	FIELD CONNECTION

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V. AYALA
G. GROTHE
DATE: 05/26/2022
UNDERSLAB ROUGH-IN PLAN

K-6

80106460

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FOR QUESTIONS, CALL THE
Oregon Office
REGION 90
PHONE: (360) 828-5418
EMAIL: reg90@captiveaire.com

PATENT NUMBERS

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

HOOD INFORMATION – JOB#5495123

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		5424 ND-2	CAPTIVEAIRE	9' 0"	600 DEG	I	HEAVY	214	1925			4"	14"	1925	1801	-0.762"	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S)					LIGHT(S)			UTILITY CABINET(S)					FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
												FIRE SYSTEM		ELECTRICAL	SWITCHES	
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	TYPE	SIZE	MODEL #	QUANTITY	
1		CAPTRATE SOLO FILTER	6	20"	16"	85% SEE FILTER SPEC	3	L55 SERIES E26	NO	LEFT	12"x54"x24"	TANK FS	4.0	DCV-1111	1 LIGHT 1 FAN	YES	755 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1		BACKSPLASH 80.00" HIGH X 120.00" LONG 430 SS VERTICAL.
		RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		INSULATION FOR TOP OF HOOD.
		INSULATION FOR BACK OF HOOD.
		RISER SENSOR INSTALL 6IN PLEN.
		LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.

GREASE DUCT & CHIMNEY SPECIFICATIONS:
PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE.
PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

CAPTIVEAIRE SYSTEMS RECOMMENDS THE USE OF LISTED, PRE-FABRICATED ROUND GREASE EXHAUST DUCT TO REDUCE STATIC PRESSURE IN THE SYSTEM, MINIMIZE INSTALLATION AND INSPECTION TIMES, AND ENSURE DUCT IS LIQUID TIGHT

HVAC DISTRIBUTION NOTE

HIGH VELOCITY DIFFUSERS OR HVAC RETURNS SHOULD NOT BE PLACED WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.

VERIFY CEILING HEIGHT

___' - ___"

HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

CUSTOMER APPROVAL TO MANUFACTURE:

APPROVED AS NOTED ☐
APPROVED WITH NO EXCEPTION TAKEN ☐
REVISE AND RESUBMIT ☐
SIGNATURE _____
YOUR TITLE _____ DATE _____

SPECIFICATION: CAPTRATE® GREASE-STOP® SOLO FILTER

THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

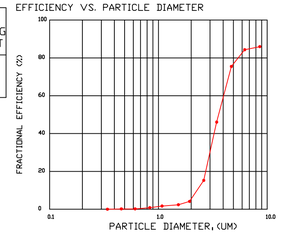
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

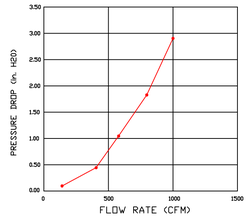
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

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.

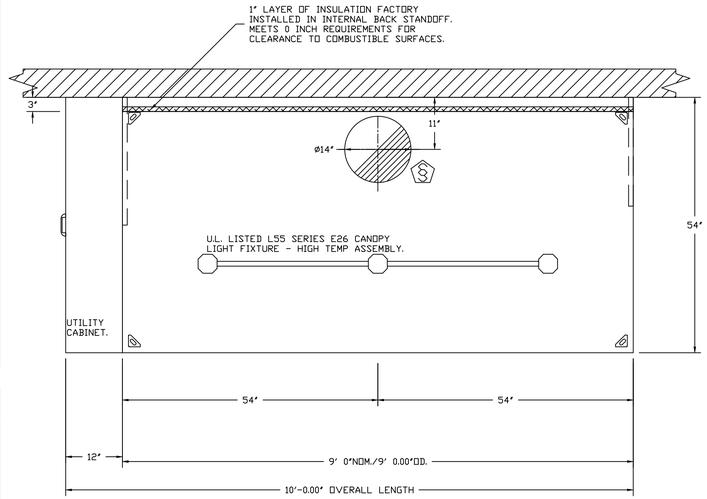
EFFICIENCY VS. PARTICLE DIAMETER



PRESSURE DROP VS. FLOW RATE

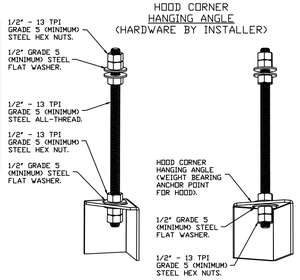


CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96.
NSF STANDARD #2.
UL STANDARD #1046.
INT. MECH. CODE (IMC).
ULC-S649.



PLAN VIEW – HOOD #1
9' 0.00" LONG 5424ND-2

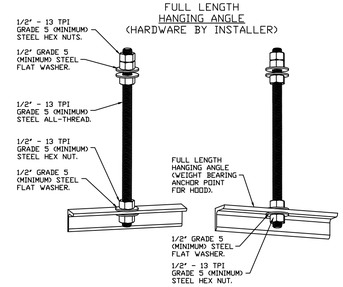
HOOD CORNER HANGING ANGLE (HARDWARE BY INSTALLER)



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.

FULL LENGTH HANGING ANGLE (HARDWARE BY INSTALLER)



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REVISIONS

	DESCRIPTION	DATE:
△		
△		
△		
△		

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www.captiveaire.com
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LA CENTER KITCHEN
1000 NE Highland Ave,
La Center, WA, 98629

DATE: 7/12/2022

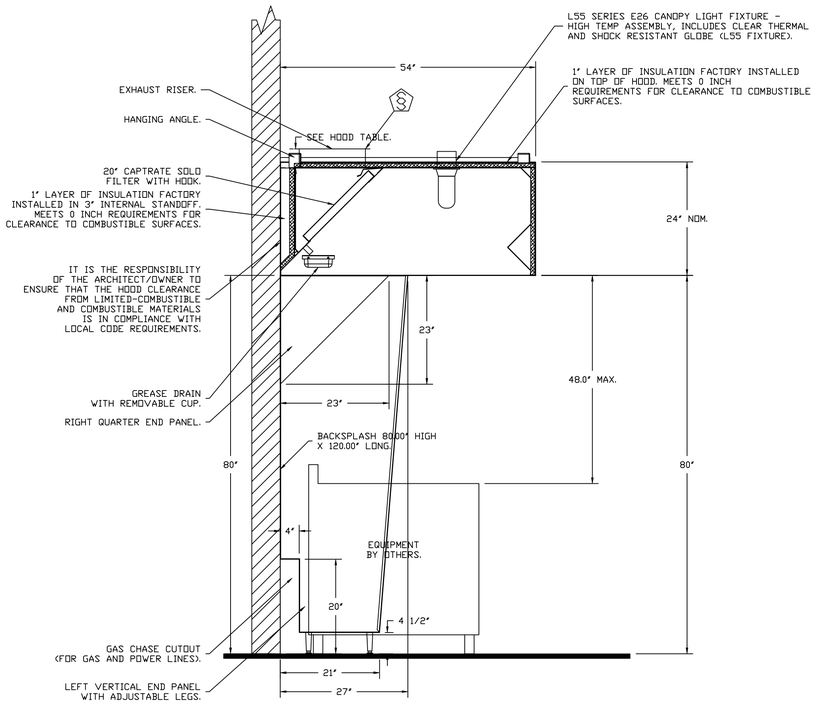
DWG.#: 5495123

DRAWN BY: kcurtis

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 1



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

SECTION 23 38 13 13

SPECIFICATIONS

TAG: Commercial Kitchen Ventilation Hoods, Listed Commercial Kitchen Hoods

PART 1 - GENERAL

1.1 SUMMARY

A. The ND2 series is a Type I, wall canopy hood for use over 600°F cooking surface temperatures. The aerodynamic design includes a mechanical baffle and performance enhancing lip for exceptional capture and containment.

B. The hood shall have the size, shape, and performance specified on drawings.

1.2 SUBMITTALS

A. The manufacturer assumes no liability for the use or results of use from this document. Specifications are to be reviewed by the engineer to confirm the project's requirements and meet Federal, State, and Local codes and regulations.

B. As the manufacturer continues product development, it reserves the right to change design and specifications without notice.

C. The manufacturer shall supply complete computer generated submittal drawings, including hood section view(s) and hood plan view(s). These drawings must be available to the engineer, architect, and owner for their use in construction, operation, and maintenance.

1.3 QUALITY ASSURANCE

A. This hood is ETL-listed to standard UL710, ULC710, and ULC-S646 when installed in accordance with these installation instructions and National Fire Protection Association Standard "NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations."

B. Built-in compliance with NSF/ANSI Standard 2.

C. The hood shall be ETL Listed as:

1. "Exhaust Hood Without Exhaust Damper."
2. ETL Sanitation Listed and built in accordance with NFPA 96.
3. The ETL label shall list temperature rating(s) and minimum CFM/ft rating(s).

1.4 WARRANTY

A. All units shall be provided with the following standard warranty:

1. This equipment is warranted to be free from defects in materials and workmanship, under normal use and service, for a period of 2-years from date of shipment.

B. The manufacturer shall not be liable for incidental and consequential losses and damages potentially attributable to malfunctioning equipment. Should any part of the equipment prove to be defective in material or workmanship within the 2-year warranty period, upon examination by the manufacturer, such part will be repaired or replaced by manufacturer at no charge. The buyer shall pay all labor costs incurred in connection with such repair or replacement. Equipment shall not be returned without manufacturer's prior authorization, and all returned equipment shall be shipped by the buyer, freight prepaid to a destination determined by the manufacturer.

C. Refer to Manufacturer's Operation, Installation, and Maintenance (OIM) Manual for detailed descriptions of what is/is not covered and contact information for warranty claims.

PART 2 - PRODUCTS

2.1 GENERAL

A. Construction shall be dependent on the structural application to minimize distortion and other defects. All seams, joints, and penetrations of the hood enclosure to the lower outermost perimeter, which directs and captures grease-laden vapor and exhaust gases, shall have a liquid-tight continuous external weld in accordance with NFPA 96.

B. Duct sizes, CFM, and static pressure requirements shall be as shown on drawings. Static pressure requirements shall be precise and accurate; air velocity and volume information shall be accurate within 1-ft increments along the length of the ventilator.

2.2 CONSTRUCTION

A. Construction shall be type 430 stainless steel.

B. Double wall insulated front to eliminate condensation and increase rigidity on wide sizes. The insulation shall have a flexural modulus of 475 EI, meet UL 181 requirements and be in accordance with NFPA 90A and 90B.

C. Hood shall be equipped with a minimum of four connections for hanger rods. Hood lengths greater than 12'will have added hangers.

D. Exhaust duct collar to be 4"high with flange.

E. The grease drain system shall be an enclosed integral part of the hood back and have slopes with an exposed, removable 1/2 grease cup to facilitate cleaning.

F. An integral baffle to direct grease laden vapors toward the exhaust filter bank.

G. Hood shall be furnished with UL classified filters, supplied in size and quantity as required by ventilator.

H. All seams shall be welded and have stainless steel on exposed surfaces.

2.3 LIGHTING

A. L55 Series canopy light fixture, includes clear thermal and shock resistant globe.

2.4 FILTERS

A. Stainless Steel Captrate Solo filter with hook, ETL Listed. Particulate capture efficiency: 85% efficient at 9 microns, 76% efficient at 5 microns.

2.5 OPTIONS

A. Fire Suppression System: UL 300 fire suppression system.

B. Hood Mounted Utility Cabinet - Cabinet can store listed fire suppression system, listed components, pre-wired electrical controls.

2.6 ACCESSORIES

A. End Panel(s) maximize hood performance and eliminate the effects of cross drafts in the kitchen. Units constructed of stainless steel and sized according to hood width and cooking equipment. Exposed edges hemmed for safety and rigidity. Selected panels:

1. Quarter End Panel
2. Vertical End Panel

B. Splash panel(s) selected:

1. Backsplash

C. Miscellaneous option(s) selected:

1. Insulation for Top of Hood -Fully insulated top of hood.
2. Insulation for Back of Hood -Backside of hood is fully insulated.
3. Riser Sensor Install -Sensor set-up for 6"plenum.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions under which the system is installed. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to Installer.

3.2 INSTALLATION

A. Install in accordance with manufacturer's instructions, drawings, written specifications, manufacturer's installation manual, and all applicable building codes.

REVISIONS

	DESCRIPTION	DATE:
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www.captiveaire.com

LA CENTER KITCHEN
1000 NE Highland Ave,
La Center, WA, 98629

DATE: 7/12/2022

DWG.#: 5495123

DRAWN BY: kcurtis

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 2

SECTION 904.12

COMMERCIAL COOKING SYSTEMS
TAG: CORE Fire Protection

PART 1 - GENERAL

1.1 SUMMARY

A. The CORE Fire Protection system is a pre-engineered wet chemical water based (surfactant) fire suppression system for use in commercial kitchens.

1.2 SUBMITTALS

A. The manufacturer assumes no liability for the use or results of use of this document. This specification is to be reviewed by the engineer to confirm requirements of the project and building codes are met.

B. As the manufacturer continues product development, it reserves the right to change design and specifications without notice.

1.3 QUALITY ASSURANCE

A. CORE Fire Protection System shall be UL & ULC listed in accordance with UL300, and ULC/ORD-C1254.6.

B. Microprocessor-based control board shall be ETL Listed to UL Standard 864 and CAN/ ULC-S527-11.

C. CORE Fire Protection System is intended for installation and for use in accordance with the National Fire Protection Association Standards:

1. Wet Chemical Extinguishing Systems, NFPA 17A
2. National Electrical Code, NFPA 70
3. National Fire Alarm & Signaling Code, NFPA 72
4. Installation of Equipment for the Removal of Smoke and Grease-Laden Vapors from Commercial Cooking Equipment, NFPA 96

D. The CORE Fire Protection System is approved for use in New York City per FDNY COA #5877.

1.4 WARRANTY

A. All units are provided with the following 5-year standard warranty from date of shipment. Warranty does not cover consumable products such as batteries, surfactant, and nozzle caps.

B. This warranty shall not apply if:

1. The equipment is not installed by a qualified installer per the manufacturer's installation instructions shipped with the product.
2. The equipment is not installed in accordance with Federal, State, and Local codes and regulations.
3. The equipment is misused, neglected, or not maintained per the manufacturer's maintenance instructions.
4. The equipment is not operated within its published capacity.
5. The invoice is not paid within the terms of the sales agreement.

C. The manufacturer shall not be liable for incidental and consequential losses and damages potentially attributable to malfunctioning equipment. Should any part of the equipment prove to be defective in material or workmanship within the 5-year warranty period, upon examination by the manufacturer, such part will be repaired or replaced by the manufacturer at no charge. The buyer shall pay all labor costs incurred in connection with such repair or replacement. Equipment shall not be returned without manufacturer's prior authorization. All returned equipment shall be shipped by the buyer, freight prepaid to a destination determined by the manufacturer.

PART 2 - PRODUCTS

2.1 GENERAL ASSEMBLY

A. A pre-engineered, fixed pipe, automatic wet chemical (surfactant) fire suppression system for protection of all hazard areas associated with cooking operations, including exhaust hoods, plenums, ductwork, and cooking appliances.

B. The fire system shall be factory assembled, tested, and shipped as a complete unit.

C. The following specifications, delivering all capacities scheduled and conforming to the design indicated herein. Alternate layouts or dimensional changes will not be accepted.

2.2 COMPONENTS

A. Exhaust hood fire system components to be factory installed.

B. Distribution Nozzles

1. Nozzles shall be located to protect the exhaust ducts, plenums, and all cooking appliances requiring protection.
2. All nozzles shall be equipped with a metal blow off cap. The cap prevents contamination from entering the pipe network and is designed to pop-off upon system discharge, allowing agent to flow to the protected hazard area.
3. All nozzles shall incorporate a stamped part number to quickly identify nozzle type.

C. Distribution System

1. The distribution system shall consist of Copper, Schedule 40 black iron, chrome-plated or stainless-steel pipe and fittings. All exposed piping and fittings must be chrome-plated or stainless-steel.
2. Fittings shall be minimum class 150. Galvanized fittings shall not be used.
3. Flow rate for the hood, when in a fire condition, would be 1.5 gallons per minute per foot of hood.
4. Operating pressure for water lines, both hot water and dedicated line, is 30 to 70 psi, depending on the system configuration.
5. The maximum static pressure cannot exceed 125 psi; pressure reducing valves can be utilized to meet the correct operating water pressure

D. Suppression System

1. The system control equipment shall be capable of all functions associated with automatically and manually discharging surfactant from surfactant tank, including automatic shutdown of the heat source or fuel and electrical power to all protected areas upon system discharge.
2. For automatic activation, the system will be activated by a Firestat (heat) detector.
3. For manual activation, an electrically operated manual release shall be used to actuate the system manually.

E. Firestat

1. Hood #1: Normally Open, Close on Rise 360°F.
2. Additional firestats may be required based on hood temperature rating and length of ductwork. Refer to Installation, Operation, and Maintenance Manual for information.

F. Electrical

1. Electrical Division to provide shunt trip breakers at main power panel, or disconnects, as designated by the Electrical Engineer; interconnection provided at hood control panel for the signal to shut down all electricity in and under the exhaust hood. Shunt trips/disconnects to accomplish shut off of electricity in the event of fire system activation by others.
2. Printed circuit board with microprocessor-based controller that provides all the necessary monitoring, timing, and supervision functions required for the reliable operation of the fire system.
3. Independent supervised loops incorporate redundancy and fault detection.
4. Real-time cloud-based monitoring connection provided with system by ownership.
5. All wiring must be in accordance to NFPA 70 and the Authority Having Jurisdiction (AHJ).
6. Electric gas valve provided for equipment below exhaust hood. Coordinate size and installation with Plumbing Division.
7. All wiring is to be in accordance with the applicable manufacturer's instructions for the fire alarm control panel, gas shut-off valve, manual reset relay, and contractor supplied shut-off devices.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine all areas and conditions under which package(s) are to be installed. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to Installer.

3.2 INSTALLATION

A. Install the package in accordance with manufacturer's instructions, drawings, written specifications, manufacturer's installation manual, and all applicable building codes.

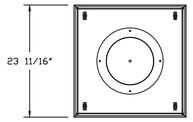
3.3 CONNECTIONS

A. Electrical connections conform to applicable requirements in Division 26 Sections.

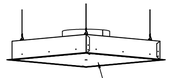
3.4 SYSTEM START-UP

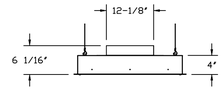
A. System start-up is performed by a factory-trained Service Technician.

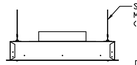
QTY 3-DROP-IN PERFORATED SUPPLY PLENUM DIFFUSER (DI-PSP)



FEATURES:
STAINLESS STEEL PERFORATION AND TRIM
REMOVABLE PERFORATION FOR PLENUM CLEANING
DOUBLE PERFORATION FOR EVEN AIR DISTRIBUTION
1/2" THICK INSULATION ON EXTERIOR TOP AND SIDES
APPROX. WEIGHT = 20 lbs







VERTICAL THROW DATA (Ft)			
CFM	T150	T100	T50
600	1.25'	3.00'	7.75'
500	0.50'	2.50'	6.25'
400	---	1.25'	4.50'
300	---	---	3.75'
200	---	---	0.50'

INSTALLATION NOTES:
INTENDED FOR INSTALLATION IN LAY IN (DROP) CEILINGS
INSTALL SLIDING RADIAL DAMPER ON TOP SIDE OF COLLAR

REVISIONS

	DESCRIPTION	DATE:
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LA CENTER KITCHEN
1000 NE Highland Ave,
La Center, WA, 98629

DATE: 7/12/2022

DWG.#: 5495123

DRAWN BY: kcurtis

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 3

FIRE SYSTEM INFORMATION – JOB#5495123

FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		TANK FS	4.0	18	FIRE CABINET LEFT	LEFT, HOOD 1

GAS VALVE(S)

FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1		SC ELECTRICAL	1.250	CAPTIVEAIRE SYSTEMS

FIRE SYSTEM PARTS LIST KEY

FIRE SYSTEM NO	TAG	KEY NUMBER - PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
1		0 - 0 - 12-F28021-32144-DT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F.	1	0
		0 - 0 - 87-300001-001 TANK - PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-300030-001 PRIMARY ACTUATOR KIT (PAK) - ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	4	0
		0 - 0 - 9055455PC PRD PRESS 1/2 PRESS X PRESS 90 ELBOW LD.	4	0
		0 - 0 - 9097200PC PRD PRESS PC611 1/2 PRESS TEE LD.	3	0
		0 - 0 - 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	1	0
		0 - 0 - B1145 3/8" BLACK IRON 90 ELL.	2	0
		0 - 0 - DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - TANK STRAP TANK STRAP - USED FOR TANK FIRE SUPPRESSION.	3	0
		0 - 0 - TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	1	0
		16 - 16 - 79210 1/2" X 3/8" NPT MALE ADAPTER, VIEGA.	4	0
		16 - 16 - DL-F NOZZLE - TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, USED WITH CHROME-PLATED PIPE)- 4 FLOW POINTS.	4	0
		26 - 26 - QSA-3/8 QUIK SEAL - 3/8" (UL).	4	0
		34 - 34 - A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT. RED COLOR.	1	0

REVISIONS

	DESCRIPTION	DATE:
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LA CENTER KITCHEN
1000 NE Highland Ave,
La Center, WA, 98629

DATE: 7/12/2022

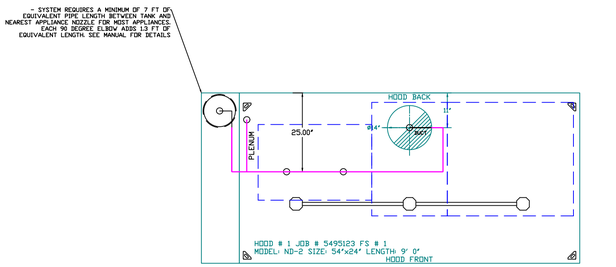
DWG.#: 5495123

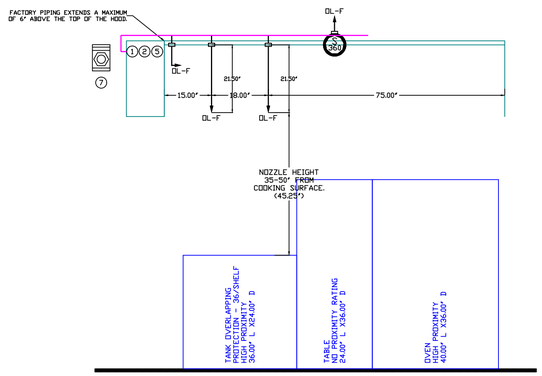
DRAWN BY: kcurtis

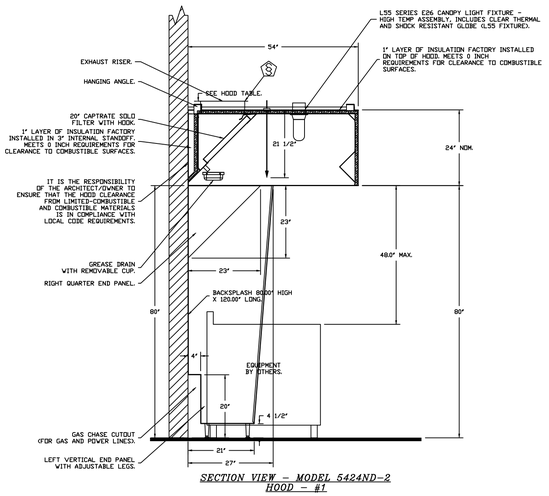
SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 4







SECTION VIEW – MODEL 5424ND-2 HOOD – #1

NOTES
- FIELD PIPE DROPS AS SHOWN
  PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- FIELD INSTALLED DROP: FACTORY WILL PROVIDE QTY 2 60IN LONG PIECES OF CHROME PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED.
- SHIP LOOSE DROP: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE TO BE FIELD-INSTALLED.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
- IF APPLICABLE, EXTENDED PRE-PIPED DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.

- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.

- THIS FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS.

- DL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

JOB #: 5495123.
JOB NAME: LA CENTER KITCHEN.

SYSTEM SIZE: TANK-SP-1 TOTAL FP REQUIRED: 18.
HOOD # 1 9' 0.00" LONG x 54" WIDE x 24" HIGH.
RISER # 1 SIZE: 14" DIA.
HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

LEGEND – FIRE CABINET TANK SYSTEM

1 4 GALLON TANK.
2 PRIMARY ACTUATOR RELEASE.
3 SECONDARY ACTUATOR RELEASE.
4 PRESSURE SUPERVISION SWITCH.
5 PRIMARY HOSE ASSEMBLY.
6 SECONDARY HOSE ASSEMBLY.
7 REMOTE MANUAL ACTUATION DEVICE.

INCLUDES: FIELD INSTALLATION AND HOOKUP DURING NORMAL BUSINESS HOURS BY CERTIFIED INSTALLERS ONLY IN THE LOCATION NOTED ABOVE. TWO SITE VISITS ONLY (ONE VISIT TO SET PULL STATION & SYSTEM HOOKUP AND ONE VISIT FOR ONE TEST; ADDITIONAL VISITS WILL RESULT IN ADDITIONAL CHARGES), ONE MECHANICAL GAS VALVE PER SYSTEM AT A MAXIMUM SIZE OF 2", PERMIT, AND SYSTEM TEST.
EXCLUDES: UNION LABOR & PREVAILING WAGE (LABOR & WAGES WILL BE ADDED IF APPLICABLE), GAS VALVE INSTALLATION, ELECTRICAL HOOKUP AND CONNECTIONS, HANGING OF FIRE CABINET, SHUNT TRIP, HANDHELD EXTINGUISHER(S), ON-SITE RE-PIPING DUE TO EQUIPMENT LAYOUT CHANGES.

NOTES
- FIELD PIPE DROPS AS SHOWN
  SLEEVING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- FIELD INSTALLED DROP: FACTORY WILL PROVIDE QTY 1 60IN LONG PIECE OF CHROME PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED.
- SHIP LOOSE DROP: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE TO BE FIELD-INSTALLED.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- MAXIMUM 9 ELBOWS IN SUPPLY LINE.
- MINIMUM 72 INCHES OF AGENT LINE FROM TANK TO FIRST NOZZLE COVERING A RANGE, FRYER, OR WOK TO REFLECT GENERAL PIPING REQUIREMENTS.
- IF APPLICABLE, PRE-PIPED CHARBROILER DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.

JOB #: 5495123.
JOB NAME: LA CENTER KITCHEN.

SYSTEM SIZE: TANK-SP-1 TOTAL FP REQUIRED: 18.
HOOD # 1 9' 0.00" LONG x 54" WIDE x 24" HIGH.
RISER # 1 SIZE: 0" x 0".

REVISIONS

	DESCRIPTION	DATE:
△		
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DATE: 7/12/2022

DWG.#: 5495123

DRAWN BY: kcurtis

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

MASTER DRAWING

SHEET NO. 5

SECTION 21 23 00
WET- CHEMICAL FIRE-EXTINGUISHING SYSTEMS
TAG: TANK Fire Suppression

PART 1 - GENERAL

1.1 SUMMARY

A. TANK Fire Suppression is a pre-engineered, stored-pressure wet chemical solution extinguishing system.

1.2 SUBMITTALS

A. The manufacturer assumes no liability for the use or results of use from this document. Specifications are to be reviewed by the engineer to confirm the requirements of the project and meet Federal, State, and Local codes.

B. As the manufacturer continues product development, it reserves the right to change design and specifications without notice.

1.3 QUALITY ASSURANCE

A. TANK Fire Suppression System shall be UL & ULC listed in accordance with UL300, UL1254, ULCORD-C1254.6.

B. Microprocessor-based control board shall be ETL Listed to UL Standard 864 and CAN/ ULC-S527-11.

C. TANK Fire Suppression System intended for installation and for use in accordance with the National Fire Protection Association Standards:

1. Wet Chemical Extinguishing Systems, NFPA 17A
2. National Electrical Code, NFPA 70
3. National Fire Alarm & Signaling Code, NFPA 72

D. New York City and FDNY approved under COA# 5870.

E. California State Fire Marshal (CFSM), Listing No. 7085-2199:0502.

1.4 WARRANTY

A. All units shall be provided with the following standard warranties:

1. TANK Fire Suppression System is warranted to be free from defects in materials and workmanship, under normal use and service, for a period of 60-months from date of shipment.

B. Warranty does not cover consumable products such as batteries and nitrogen.

C. The manufacturer shall not be liable for incidental and consequential losses and damages potentially attributable to malfunctioning equipment. Should any part of the equipment prove to be defective in material or workmanship within the 60-month warranty period, upon examination by the manufacturer, such part will be repaired or replaced by manufacturer at no charge. The buyer shall pay all labor costs incurred in connection with such repair or replacement. Equipment shall not be returned without manufacturer's prior authorization, and all returned equipment shall be shipped by the buyer, freight prepaid to a destination determined by the manufacturer.

D. Refer to Manufacturer's Operation, Installation, and Maintenance (OIM) Manual for detailed descriptions of what is/is not covered and contact information for warranty claims.

PART 2 - PRODUCTS

2.1 GENERAL

A. A pre-engineered, fixed pipe, automatic wet chemical agent fire suppression system for protection of all hazard areas associated with cooking operations, including exhaust hoods, plenums, ductwork, and cooking appliances.

2.2 COMPONENTS

A. Exhaust hood fire system components to be factory installed.

B. Cylinder and Valve Assembly

1. The cylinders shall have a tin-nickel alloy plated brass valve with pressure gauge.
2. Wet chemical agent shall be contained in one or more stored pressure DOT/TC rated steel cylinder and valve assemblies.
3. Each cylinder is factory-filled with liquid fire suppressant and pressurized to 200 PSIG at 70°F.

C. Distribution Nozzles

1. Nozzles shall be located to protect the exhaust ducts, plenums, and all cooking appliances requiring protection.
2. All nozzles shall be equipped with a metal blow off cap. The cap prevents contamination from entering the pipe network and is designed to pop-off upon system discharge, allowing agent to flow to the protected hazard area.
3. All nozzles shall incorporate a stamped part number to easily identify nozzle type.

D. Distribution System

1. The distribution system shall consist of Copper, Schedule 40 black iron, chrome-plated or stainless-steel pipe and fittings. All exposed piping and fittings must be chrome-plated or stainless steel.
2. Fittings shall be minimum class 150. Galvanized fittings shall not be used.

E. Suppression System

1. The system control equipment shall be capable of all functions associated with automatically and manually discharging the wet chemical agent from all cylinder and valve assemblies, including automatic shutdown of the heat source or fuel and electrical power to all protected areas upon system discharge.
2. Liquid Fire Suppressant shall be Aqueous Potassium Carbonate (APC).
3. All mechanical components of the actuator kit shall be enclosed.
4. The actuator kit shall be capable of automatic or manual activation means.
5. Supervisory Pressure Switch added to monitor operating system pressure.
6. For manual activation, an electrically operated manual release shall be used to actuate the system manually.
7. For automatic activation, the system will be activated by a Firestat (heat) detector.

F. Electrical

1. Electrical Division to provide shunt trip breakers at main power panel, or disconnects, as designated by the Electrical Engineer; interconnection provided at hood control panel for the signal to shut down all electricity in and under the exhaust hood. Shunt trips/disconnects to accomplish shut off of electricity in the event of fire system activation by others.
2. Printed circuit board with microprocessor-based controller that provides all the necessary monitoring, timing, and supervision functions required for the reliable operation of the fire system.
3. Independent supervised loops incorporate redundancy and fault detection.
4. Real-time cloud-based monitoring connection provided with system by ownership.
5. Primary power supply, with battery backup for power loss.
6. All wiring must be in accordance to NFPA 70 and the Authority Having Jurisdiction (AHJ).
7. Electric gas valve provided for equipment below exhaust hood. Coordinate size and installation with Plumbing Division.
8. All wiring is to be in accordance with the applicable manufacturer's instructions for the fire alarm control panel, gas shut-off valve, manual reset relay, and contractor supplied shut-off devices.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions under which the system is installed. Do not proceed with work until unsatisfactory conditions have been corrected in manner acceptable to Installer.

3.2 APPLICATION

A. Wet chemical-based fire suppression system for use in commercial kitchens. It can be mounted in the integral cabinet located at the end of the hood or offered as a wall mount package.

3.3 INSTALLATION

A. As part of this item, provide wall mounted type K handheld portable fire extinguisher, placard, and mounting bracket as required in the immediate vicinity of each cooking area, per NFPA-96 and NFPA-10. Additional fire extinguishers as required in the kitchen area are to be specified by the Architect and provided by the General Contractor.

B. Install in accordance with manufacturer's instructions, drawings, written specifications, manufacturer's installation manual, and all applicable building codes.

C. Six-month and twelve-month inspections, servicing, and replacement of components as per NFPA 96 to be provided by the General Contractor or Owner.

REVISIONS

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LA CENTER KITCHEN
1000 NE Highland Ave,
La Center, WA, 98629

DATE: 7/12/2022

DWG.#: 5495123

DRAWN BY: kcurtis

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 6

GAS VALVES AND STRAINERS

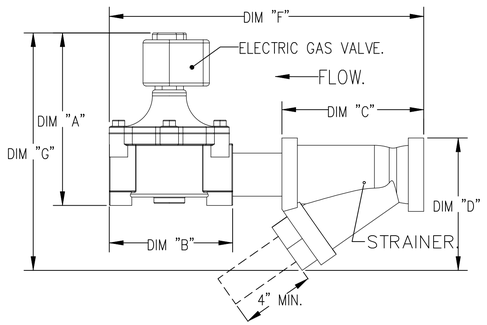
	GAS VALVE SIZING							GAS VALVE DIMENSIONS						INSTALLATION	PART NUMBERS		
	TYPE	SIZE	VOLTAGE	MIN. INLET PRESSURE	MAX. INLET PRESSURE	FLOW AT 1 IN.W.C. DROP NATURAL GAS	FLOW AT 1 IN.W.C. DROP PROPANE	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "F"	DIM "G"	MOUNTING ORIENTATION	GAS VALVE PART NUMBER	STRAINER PART NUMBER	GAS VALVE/STRAINER KIT
GAS VALVE FOR FS#1 →	ELECTRICAL	1-1/4"	120 VAC	0 PSI (0 IN.W.C.)	5 PSI (138 IN.W.C.)	1,925,000 BTU/HR	1,249,105 BTU/HR	7-5/8"	6-3/8"	5-1/8"	5-15/16"	13-1/2"	12-1/16"	HORIZONTAL/ VERTICAL	8214265	4417K66	(SC)EGVA1-1/4

ALL GAS VALVES/STRAINERS

PROPER CLEARANCE MUST BE PROVIDED IN ORDER TO SERVICE THE STRAINERS A MINIMUM OF 4" CLEARANCE DISTANCE MUST BE PROVIDED AT THE BASE OF THE STRAINER CUSTOMER MUST VERIFY BTU CONSUMPTION AS WELL AS PRESSURE RATING SPECIFIC GRAVITY OF NATURAL GAS = 0.64, SPECIFIC GRAVITY OF LP = 1.52.

CALCULATIONS

TO CALCULATE GAS FLOW FOR OTHER THAN 1 IN.W.C. PRESSURE DROP
NEW BTU/HR = (BTU/HR AT 1 IN.W.C. PRESSURE DROP) X NEW PRESSURE DROP$^{0.5}$
TO CALCULATE GAS FLOW FOR OTHER THAN 0.64 SPECIFIC GRAVITY
NEW BTU/HR = (BTU/HR AT 0.64) X (0.64 / NEW SPECIFIC GRAVITY)$^{0.5}$.



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MASTER DRAWING

SHEET NO. 7

EXHAUST FAN INFORMATION – JOB#5495123

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		1	DU85HFA	CAPTIVEAIRE	1925	1.100	1447	TEAO-ECM	1.000	0.5470	1	115	11.6	609 FPM	92	14.8

MUA FAN INFORMATION – JOB#5495123

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
2		1	F1-D.250-15D	15MF-1-M0D	A1-D.250	1000	1825	0.500	1962	ODP,PREMIUM	1.500	1.1950	3	208	4.4	5.5A	15A	587	19.6

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
2		96948	89192	46°F	7 IN. W.C. – 14 IN. W.C.	NATURAL	92

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1		1	GREASE BOX
		1	ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
2		1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC
		1	LOW FIRE START
		1	MOTORIZED BACKDRAFT DAMPER FOR A1-D HOUSING - MEETS AMCA CLASS 1A RATING
		1	INSULATION OPTION FOR VBANK FILTER SECTION
		1	DF1 INDOOR HANGING OPTION - INCLUDES 2 HSA125 HANGING SPRING ISOLATORS PER UNI-STRUT
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY
		1	2 YEAR PARTS WARRANTY

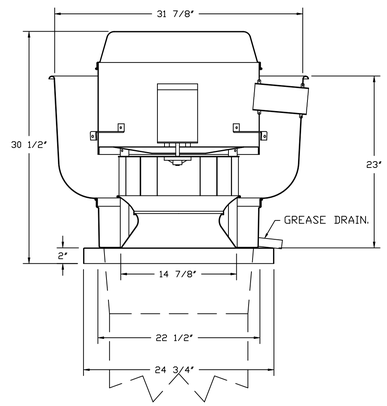
FAN ACCESSORIES

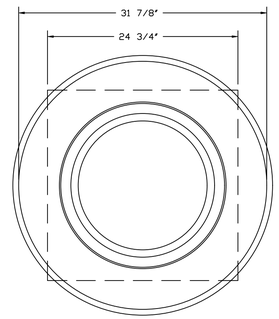
FAN UNIT NO	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1		YES						
2					YES		YES	

CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	VFY	36 LBS	CURB	23.000"W X 23.000"L X 20.000"H 4.000:12.000 PITCH ALONG LENGTH, RIGHT VENTED HINGED.

FAN #1 DU85HFA - EXHAUST FAN





TOP VIEW

FEATURES:

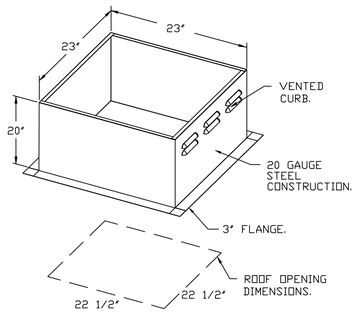
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

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.

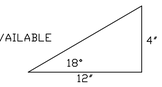
ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

GREASE BOX.
ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION.
2 YEAR PARTS WARRANTY.



PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.



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

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DWG.#: 5495123

DRAWN BY: kcurtis

SCALE: 3/4" = 1'-0"

MASTER DRAWING

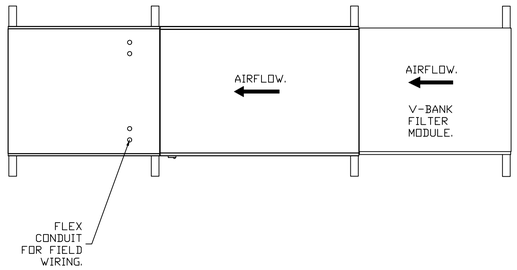
SHEET NO. 8

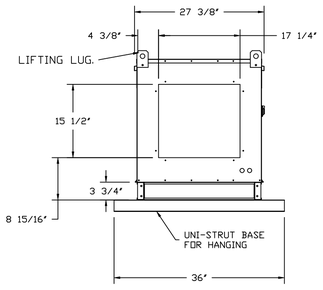
FAN #2 F1-D250-15D - HEATER
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 15" MIXED FLOW DIRECT DRIVE FAN.
2. V-BANK EZ FILTERS - INDOOR.
3. SIDE DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
5. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC., 2.5" DIAMETER, 1/4" THREAD SIZE.
6. LOW FIRE START. ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.
7. MOTORIZED BACK DRAFT DAMPER 16" X 18" FOR SIZE 1 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, TFB120S ACTUATOR INCLUDED.
8. "INSULATION" FOR V-BANK INTAKE OPTION.
9. INDOOR HANGING CRADLE FOR THE SIZE 1 DIRECT FIRED UNIT. 2 HSA125 HANGING ISOLATORS PER UNI-STRUT INCLUDED.
10. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREWIRE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MUA SWITCH.
11. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER SECTION).
12. 2 YEAR PARTS WARRANTY

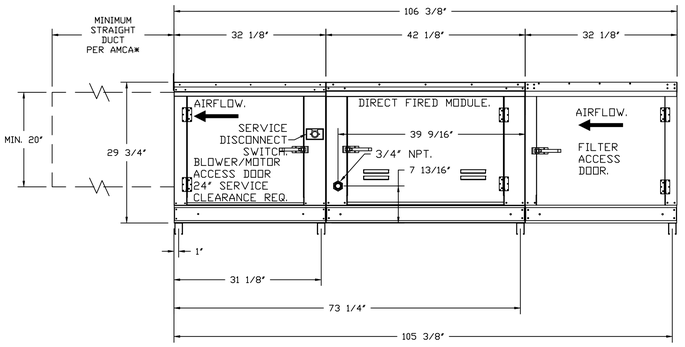
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE 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 20" x 20".

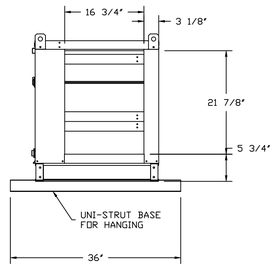
SUPPLY SIDE HEATER INFORMATION:

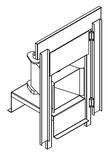
WINTER TEMPERATURE = 29°F. TEMP. RISE = 46°F.
BTUs CALCULATED OFF ACTUAL AIR DENSITY.
OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 89687.
INPUT BTUs AT ALTITUDE OF 0.0 FT. = 97486.
OUTPUT BTUs AT ALTITUDE OF 153 FT. = 89192.
INPUT BTUs AT ALTITUDE OF 153 FT. = 96948.











DIRECT FIRED (DF) PROFILE PLATE ASSEMBLY

DIRECT FIRED PROFILE PLATE SPECIFICATIONS:
DESCRIPTION:
DIRECT FIRED BURNERS SHALL HAVE PATENTED (US PATENT NO: US6629523B2), SELF-ADJUSTING PROFILE PLATES DESIGNED TO ENSURE PROPER AIR VELOCITY AND PRESSURE DROP ACROSS THE BURNER. PROFILE PLATES SHALL ALLOW BURNERS TO ACHIEVE CLEAN COMBUSTION BY LIMITING BY-PRODUCT LEVELS TO A MAXIMUM OF 50PPM OF CARBON MONOXIDE (CO), AND 0.5PPM OF NITROGEN DIOXIDE (NO2)DIRECT FIRED UNITS SHALL BE CONFIGURED WITH THE BLOWER MOUNTED DOWNSTREAM OF THE BURNER. THIS ARRANGEMENT WILL ENSURE A CONSISTENT AIRFLOW, REGARDLESS OF INLET AIR TEMPERATURE.

APPLICATION:
SPRING-LOADED BURNER PROFILE PLATES ARE ENGINEERED TO AUTOMATICALLY REACT TO THE MOMENTUM OF A FRESH AIR STREAM, WITHOUT THE NEED FOR ANY MOTORS OR ACTUATORS TO MECHANICALLY ADJUST THEM. WITH THIS FEATURE, ALL DF UNITS ARE DESIGNED FOR DEMAND CONTROL VENTILATION (DCV) REQUIREMENTS.

CERTIFICATIONS:
ALL PROFILE PLATE ASSEMBLIES SHALL BE INCLUDED IN THE DF UNIT'S ETL LISTING AND COMPLY WITH COMBINED SAFETY STANDARDS ANSI Z83.4 AND CSA 3.7 (NON-RECIRCULATING DF HEATERS) AND ANSI Z83.18 (RECIRCULATING DF HEATERS).

GENERAL CONSTRUCTION:
-PROFILE PLATES SHALL BE FORMED FROM G90 GALVANIZED STEEL.
-PROFILE PLATES SHALL VARY IN SIZE PER UNIT.
-PROFILE PLATES SHALL BE MOUNTED ALONG THE SAME PLANE AS THE DISCHARGE OF THE BURNER.
-DESIGN SHALL INCORPORATE PROPERLY TORQUED, PERMANENTLY MOUNTED SPRING HINGES.
-SPRING HINGES SHALL BE MADE FROM PLATED STEEL.

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	DESCRIPTION	DATE:
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DWG.#: 5495123

DRAWN BY: kcurtis

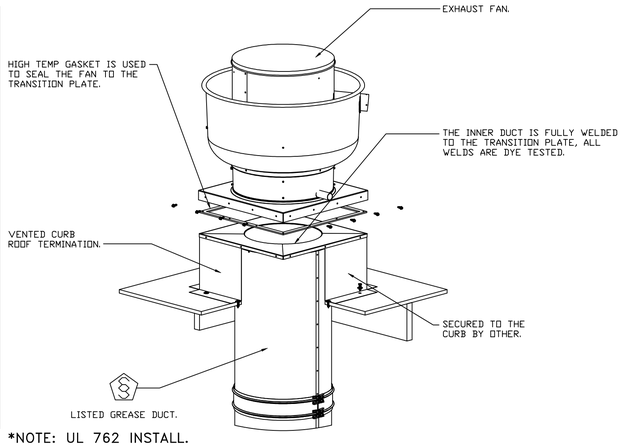
SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 9

GREASE DUCT & CHIMNEY SPECIFICATIONS:
PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE.
PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.



*NOTE: UL 762 INSTALL.

CUSTOMER APPROVAL TO MANUFACTURE:

APPROVED AS NOTED ☐
APPROVED WITH NO EXCEPTION TAKEN ☐
REVISE AND RESUBMIT ☐
SIGNATURE _____
YOUR TITLE _____ DATE _____ _____

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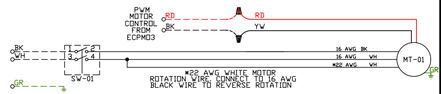
MASTER DRAWING

SHEET NO.
10

Exhaust Fan Wiring

DRAWING NUMBER EXH5495123-1	SHIP DATE 7/12/2022	MODEL **DUB5HPA**

JOB 5495123 - LA CENTER KITCHEN



Installed Options

Component Identification

Label	Description	Location
MT-01	Fan Motor	[3]
SW-01	Main disconnect switch	[3]

MOTOR INFO

EXHAUST 1HP-115V-1P-11.6FLA

ELECTRICAL INFORMATION

MOTOR/CTRL BKR 15A
MOTOR/CTRL MDP 25A

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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DRAWN BY: kcurtis

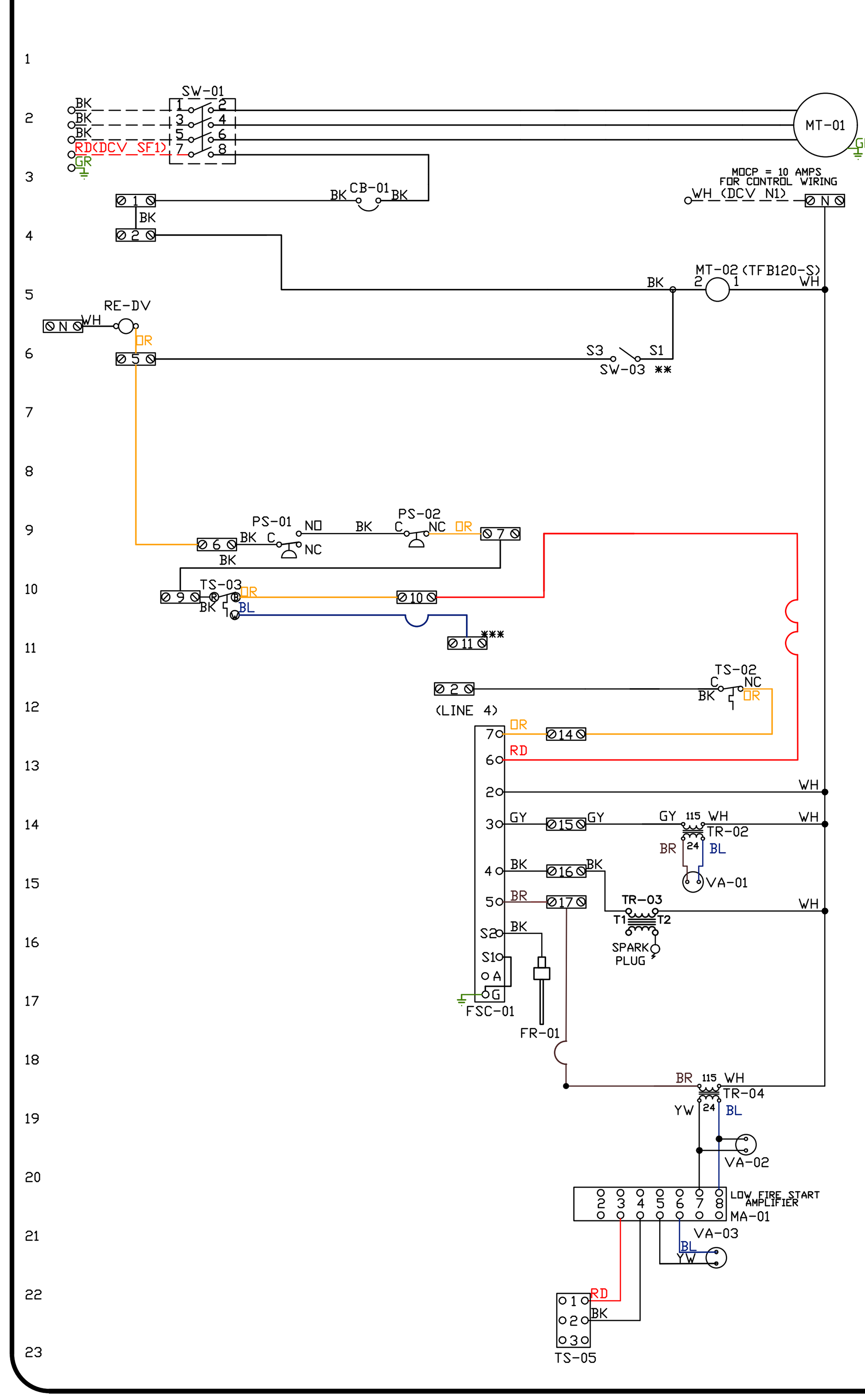
SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 11

Direct Fired Heater Wiring	JOB 5495123 - LA CENTER KITCHEN	
DRAWING NUMBER DF5495123-2	SHIP DATE 7/12/2022	MODEL F1-D.250-15D

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



Installed Options

Motorized Back Draft Damper

Discharge Temp. Control

DCV Wiring

Component Identification

Label	Description	Location
CB-01	Circuit breaker (2amp)	[3]
FR-01	Flame rod	[16]
FSC-01	Fireye FSC	[11-14]
MA-01	Modulating amplifier	[19]
MT-01	Supply motor	[2]
MT-02	Damper motor	[5]
PS-01	Low Airflow Switch	[9]
PS-02	High Airflow Switch	[9]
RE-DV	DCV Relay	[1][5]
ST-01	Supply motor contactor	[2][7][9]
SW-01	Main disconnect switch	[2]
SW-03	Damper end limit switch	[4]
TR-02	Power transformer(40va)	[12]
TR-03	Ignition transformer	[14]
TS-02	High temp limit switch	[10]
TS-03	Intake Air Sensor	[10]
TS-05	Discharge Air Sensor	[21]
VA-01	Pilot gas valve	[13]
VA-02	Main gas valve	[18]
VA-03	Modulating gas valve	[20]

MOTOR INFO

SUPPLY 1.5HP-208V-3P-4.4FLA

ELECTRICAL INFORMATION

MOTOR CIRCUIT MCA: 5.5A
CONTROL CIRCUIT MCA: 2.0A
MOTOR CIRCUIT MOP: 15A
CONTROL CIRCUIT MOP: 15A

NOTES

- - - - DENOTES FIELD WIRING
——— DENOTES INTERNAL WIRING

** TERMINALS S4 AND S6 USED ON NF & AF SERIES ACTUATORS
*** TERMINAL 11 PROVIDES COOLING CONNECTION

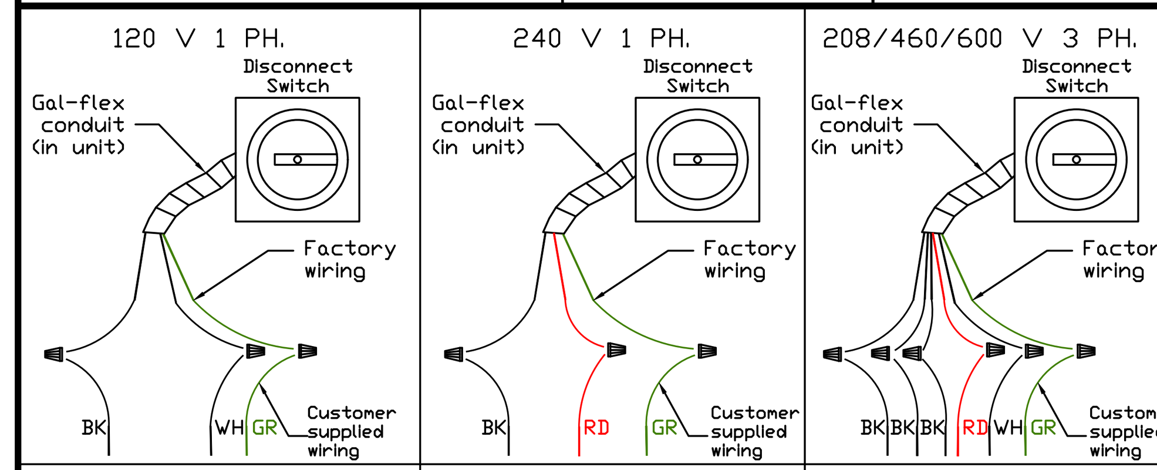
WIRE COLOR

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

SOCKET STYLE "CLION" RELAY

NO	4	3
NC	2	1
COIL	8	7
COM	6	5

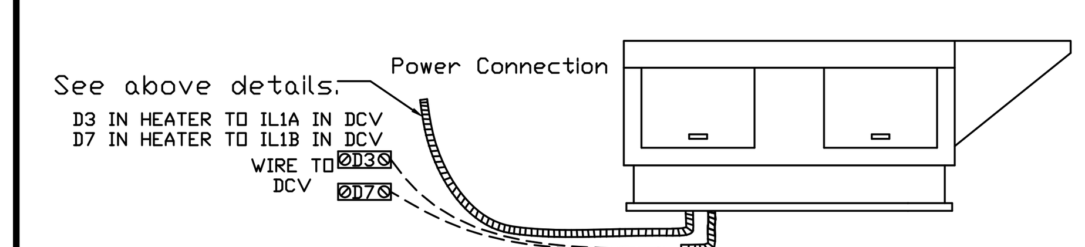
Installation Wiring	JOB 5495123 - LA CENTER KITCHEN	
DRAWING NUMBER RP5495123-2	SHIP DATE 7/12/2022	MODEL F1-D.250-15D



POWER FROM DEDICATED BREAKER

Installed Options

DCV Connections



NOTES

WIRE COLOR

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

REVISIONS

	DESCRIPTION	DATE:
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LA CENTER KITCHEN
1000 NE Highland Ave,
La Center, WA, 98629

DATE: 7/12/2022

DWG.#: 5495123

DRAWN BY: kcurtis

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 12

ELECTRICAL PACKAGE – JOB#5495123

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED				
				LOCATION	QUANTITY		TYPE	ϕ	HP	VOLT	FLA
1		DCV-1111	UTILITY CABINET LEFT	03 – UTILITY CABINET LEFT	1 LIGHT	SMART CONTROLS DCV	EXHAUST	1	1.000	115	11.6
				HOOD # 1	1 FAN		SUPPLY	3	1.500	208	4.4

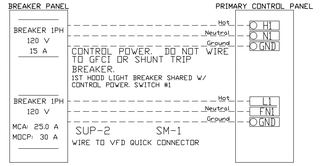
JOB NO 5495123 | MODEL NUMBER DCV-1111 | JOB NAME LA CENTER KITCHEN | DRAWN BY | DATE 7/12/2022 | SCHEMATIC TYPE INSTALL | DWG NO ECP #1-1

DESCRIPTION OF OPERATION:
Demand Control Ventilation, w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fans modulate based on duct temperature. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD. Room temperature sensor shipped loose for field installation.Verify distance between VFD and Motor; additional cost could apply if distance exceeds 50 feet.

BREAKER PANEL TO PRIMARY CONTROL PANEL

Responsibility: Electrician

BREAKER SIZE SHOWN IS THE MAXIMUM ALLOWED

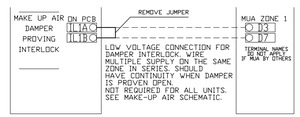


BREAKER PANEL TO FANS

Responsibility: Electrician

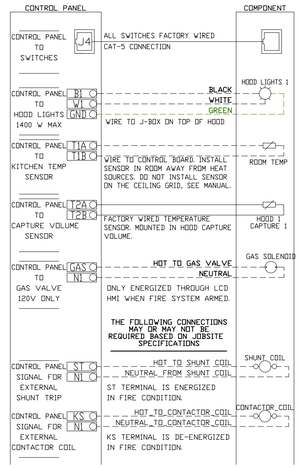
CONTROL PANEL TO FANS

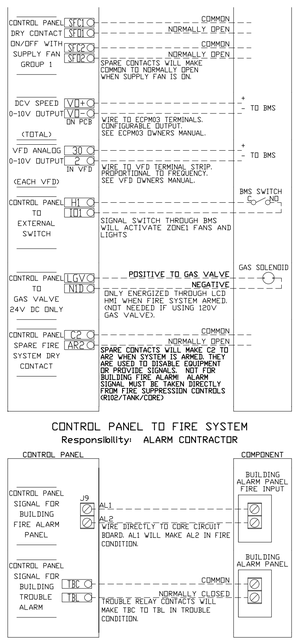
Responsibility: Electrician



CONTROL PANEL TO ACCESSORY ITEMS

Responsibility: Electrician





CONTROL PANEL TO FIRE SYSTEM

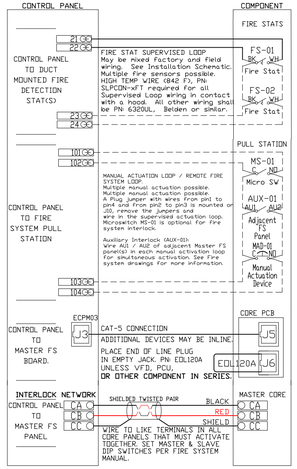
Responsibility: ALARM CONTRACTOR

JOB NO 5495123 | MODEL NUMBER DCV-1111 | JOB NAME LA CENTER KITCHEN | DRAWN BY | DATE 7/12/2022 | SCHEMATIC TYPE INSTALL | DWG NO ECP #1-2

DESCRIPTION OF OPERATION:
Demand Control Ventilation, w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fans modulate based on duct temperature. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD. Room temperature sensor shipped loose for field installation.Verify distance between VFD and Motor; additional cost could apply if distance exceeds 50 feet.

CONTROL PANEL TO FIRE SYSTEM

Responsibility: CERTIFIED INSTALLER



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LA CENTER KITCHEN
1000 NE Highland Ave,
La Center, WA, 98629

DATE: 7/12/2022

DWG.#: 5495123

DRAWN BY: kcurtis

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 13

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
5495123	DCV-1111		INSTALL	Fire System #1 TANK FS - 4.0. Tank-based Fire Protection System equipped with Electronic Detection utilizing CORE board as a Listed Release Mechanism. Installed in Hood Utility Cabinet with integral hood prewire panel.
	JOB NAME: LA CENTER KITCHEN	DATE: 7/12/2022	DWG NO: ECP #1-3	

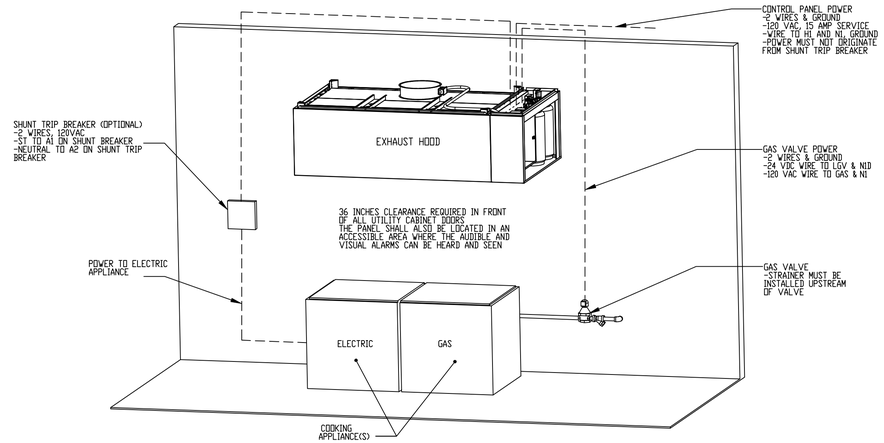
TANK PROTECTION ELECTRICAL DETAIL

02/10/2021 Rev. 2

FS-1: MASTER

ELECTRICIAN:
1. WIRE MAIN CONTROL PANEL PER INCLUDED SCHEMATIC
2. WIRE ALL FANS PER INCLUDED SCHEMATIC
3. WIRE SHUNT TRIP BREAKER (OPTIONAL)
4. WIRE UDS APPLIANCE KILL SWITCH, IF EQUIPPED (OPTIONAL)
5. WIRE GAS VALVE

ELECTRICAL CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION IN DEVICE	VOLTAGE	AMPERAGE	COMMENTS
SHUNT TRIP BREAKER (OPTIONAL)	ST & N1	BREAKER COIL (A1 & A2)	120 VAC	< 4 AMPS	ST TO A1 ON SHUNT BREAKER COIL, AND NEUTRAL TO A2 ON SHUNT TRIP BREAKER COIL
CONTROL PANEL POWER	H1 & N1 + GROUND	CIRCUIT BREAKER	120 VAC	15 AMPS	CONTROL PANEL POWER MUST NOT BE RUN THROUGH SHUNT TRIP BREAKER
UDS APPLIANCE KILL SWITCH (OPTIONAL)	KTS & N1	KTS & N1	120 VAC	< 4 AMPS	KILL SWITCH TERMINALS MUST BE IN SERIES WITH OTHER KILL SWITCHES
REMOTE 120VAC ANSUL AUTOMAN (OPTIONAL)	AU1, AU2	SOLENOID	120 VAC	< 6 AMPS	120V TO AU1, AU2 TO ANSUL ELECTRIC AUTOMAN, ANSUL SOLENOID TO NEUTRAL
GAS VALVE	LGV & N1D (IF 24 VDC) GAS & N1 (IF 120 VAC)	RED/RED/GREEN	24 VDC OR 120 VAC	< 1.0 AMPS	IF 24 VDC - 2 WIRES & GROUND, N1D TO RED, LGV TO RED, AND GREEN TO GROUND IF 120 VAC - 2 WIRES & GROUND GAS TO RED, N1 TO RED, AND GREEN TO GROUND



NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
5495123	DCV-1111		INSTALL	Fire System #1 TANK FS - 4.0. Tank-based Fire Protection System equipped with Electronic Detection utilizing CORE board as a Listed Release Mechanism. Installed in Hood Utility Cabinet with integral hood prewire panel.
	JOB NAME: LA CENTER KITCHEN	DATE: 7/12/2022	DWG NO: ECP #1-4	

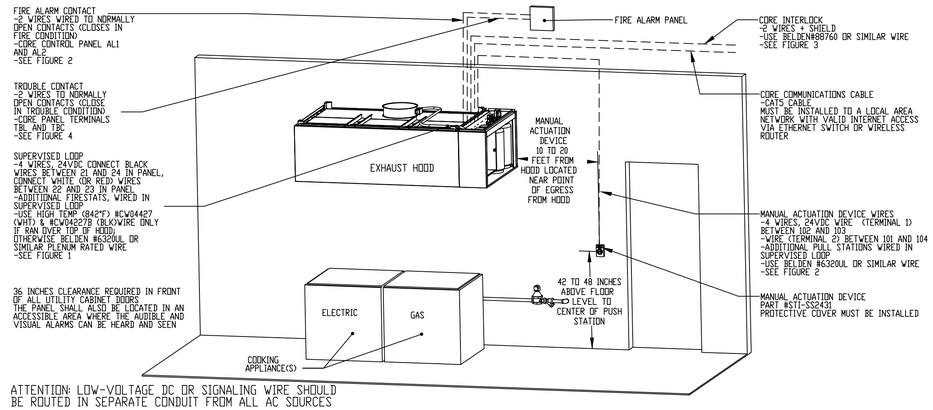
TANK PROTECTION LOW-VOLTAGE DETAIL

02/10/2021 Rev. 2

FS-1: MASTER

ALARM CONTRACTOR:
1. WIRE MANUAL ACTUATION DEVICE(S), REMOTE FIRESTAT(S), CORE INTERLOCK(S), FIRE SENSOR(S) AND FIRE ALARM CONTACTS
2. COMPLETE FINAL HOOKUP OF SYSTEM
3. VERIFY FINAL FIRE SYSTEM TEST

ALARM CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION ON DEVICE	VOLTAGE	AMPERAGE	COMMENTS
MANUAL ACTUATION DEVICE(S)	101 AND 104 102 AND 103	1 & 2	24 VDC	< 1.0 AMPS	WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 102 AND 103 WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104 JUMPER 101 TO 104 AND 102 TO 103 IF NO MANUAL ACTUATION DEVICE IS INSTALLED
MANUAL ACTUATION DEVICE COVER	N/A	N/A	N/A	N/A	MANUAL ACTUATION DEVICE COVER MUST BE INSTALLED IF SURFACE MOUNTED, USE COVER EXTENSION STI-55318
REMOTE FIRESTAT SENSOR(S)	21 AND 24 22 AND 23	BLACK AND WHITE	24 VDC	< 1.0 AMPS	WIRE FIRE SENSOR WHITE WIRES BETWEEN HOOD CORE PANEL TERMINALS 22 AND 23 WIRE FIRE SENSOR BLACK WIRE BETWEEN HOOD CORE PANEL TERMINALS 21 AND 24 H(GH TEMP (842°F) #CW04427 (WHT) & #CW04427B (BLK)WIRE OR SIMILAR ONLY IF RAN OVER TOP OF HOOD; OTHERWISE BELDEN #6320UL OR SIMILAR PLENUM RATED WIRE; SEE FIGURE 1
FIRE ALARM CONTACT	AL1, AL2	VARIES	50V MAX (AC/DC)	UP TO 1 AMP	FIRE ALARM RELAY CONTACTS FOR BUILDING FIRE ALARM LOCATED IN THE CORE ELECTRICAL CONTROL PANEL
CORE INTERLOCK(S)	ILA, ILB, ILC	ILA, ILB, ILC	RS-485 COMMUNICATIONS SIGNAL		CORE SYSTEM (1) ILA, TO CORE SYSTEM (2) ILA CORE SYSTEM (1) ILB, TO CORE SYSTEM (2) ILB. CORE SYSTEM (1) ILC, TO CORE SYSTEM (2) ILC. USE BELDEN# 88760 OR SIMILAR WIRE
TROUBLE CONTACT	TBC, TBL, TOK	VARIES	MAX 120 VAC	UP TO 6 AMPS	WIRE TO TBL & TBC NORMALLY OPEN CONTACT, CLOSES IN TROUBLE CONDITION
CORE COMMUNICATIONS CABLE	RJ-45 Jack	INTERNET CONNECTION	SIGNAL	<1.0 AMPS	TYPICAL CONNECTION CAT5 CABLE TO LOCAL AREA NETWORK VIA ETHERNET SWITCH OR WIRELESS ROUTER WITH VALID INTERNET CONNECTION



ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES

NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

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LA CENTER KITCHEN
1000 NE Highland Ave,
La Center, WA, 98629

DATE: 7/12/2022

DWG.#: 5495123

DRAWN BY: kcurtis

SCALE: 3/4" = 1'-0"

MASTER DRAWING

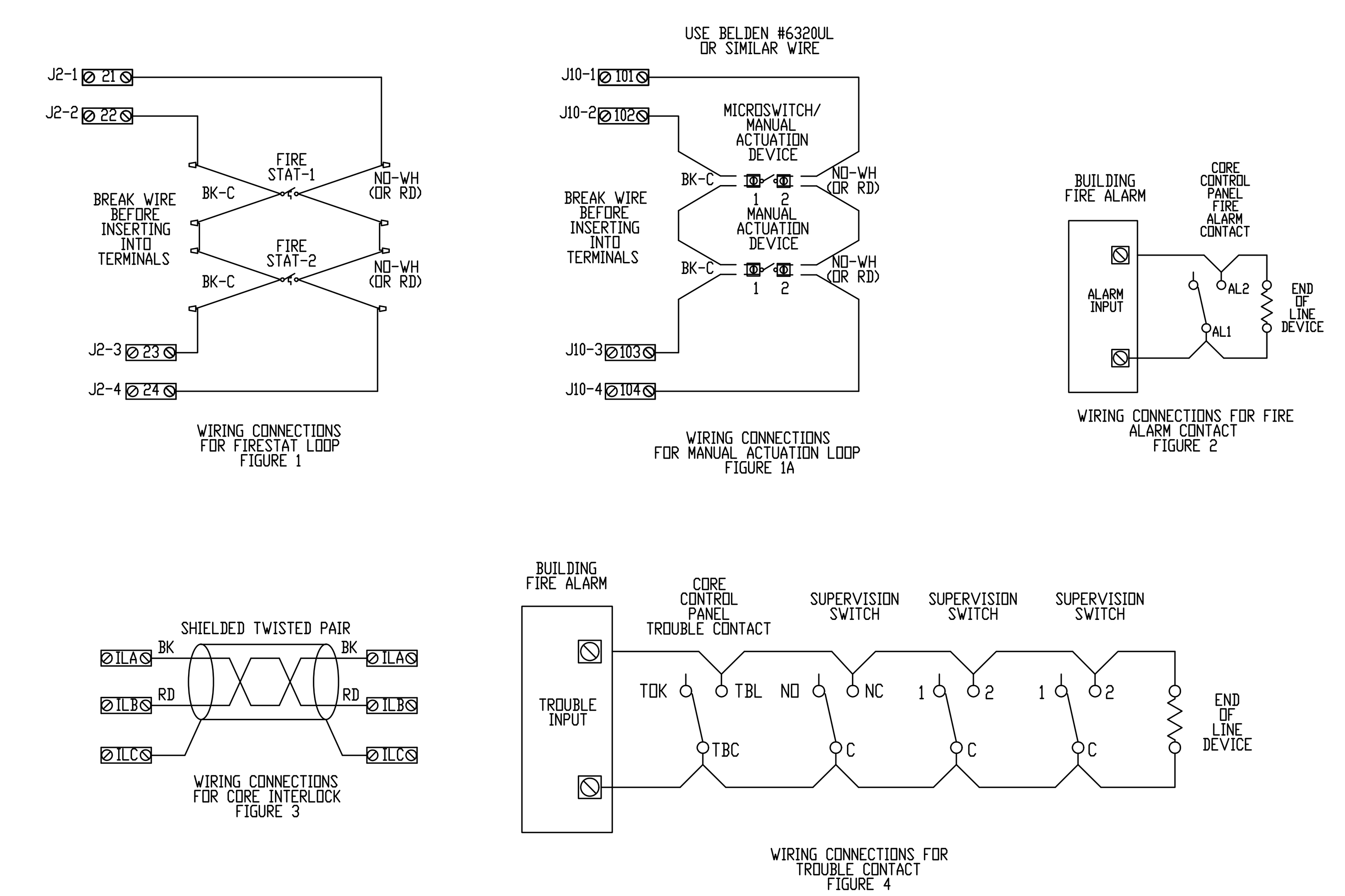
SHEET NO. 14

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
5495123	DCV-1111		INSTALL	Fire System #1 TANK FS - 4.0. Tank-based Fire Protection System equipped with Electronic Detection utilizing CORE board as a Listed Release Mechanism. Installed in Hood Utility Cabinet with integral hood prewire panel.
	JOB NAME: LA CENTER KITCHEN	DATE: 7/12/2022	DWG NO: ECP #1-5	

TANK PROTECTION LOW-VOLTAGE FIGURES

02/10/2021 Rev. 17

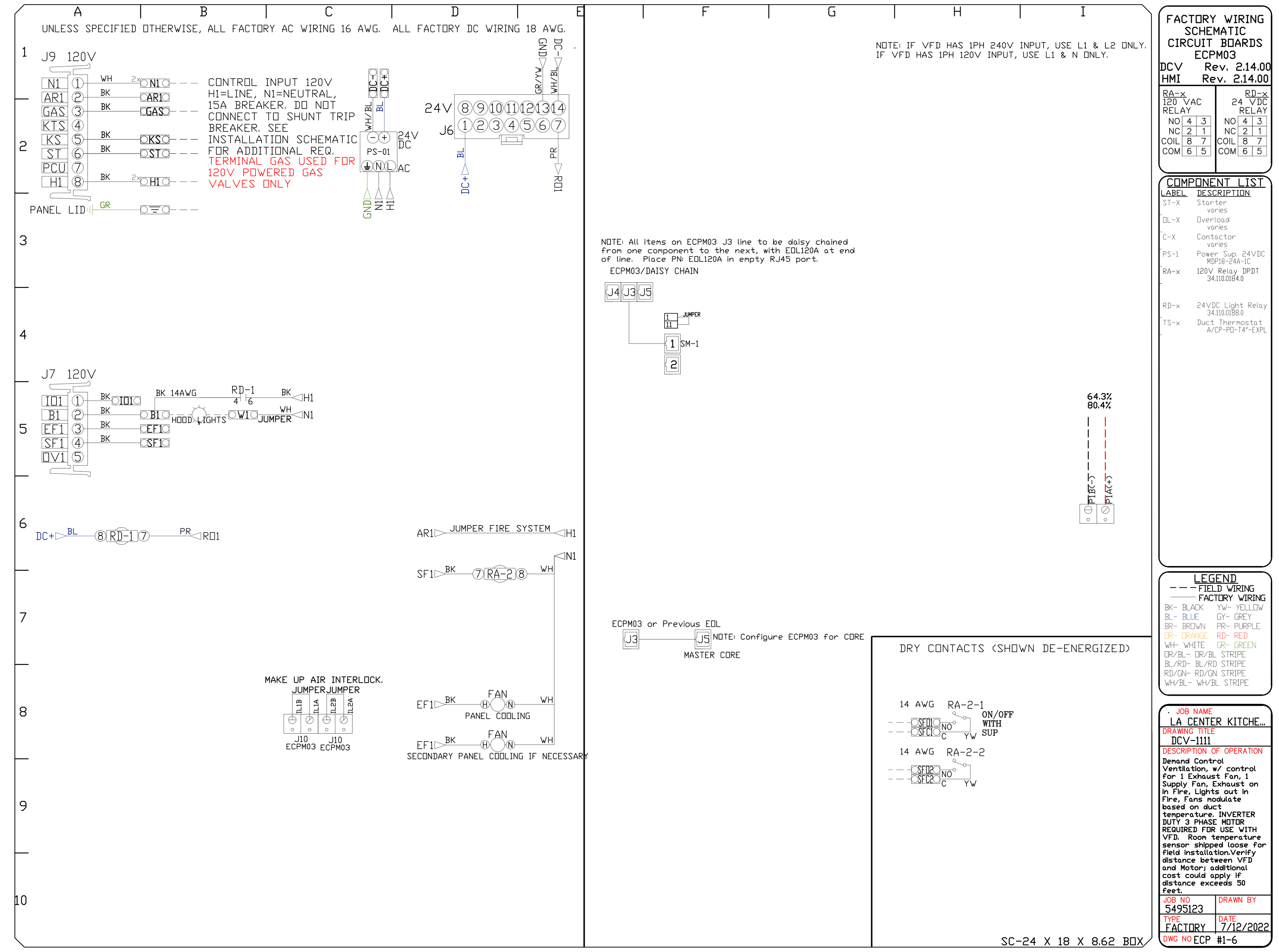
FS-1: MASTER



USE BELDEN #6320UL OR SIMILAR WIRE
FIRE STAT-1
FIRE STAT-2
BREAK WIRE BEFORE INSERTING INTO TERMINALS
MICROSWITCH/ MANUAL ACTUATION DEVICE
MANUAL ACTUATION DEVICE
BUILDING FIRE ALARM
CORE CONTROL PANEL FIRE ALARM CONTACT
ALARM INPUT
END OF LINE DEVICE
WIRING CONNECTIONS FOR FIRESTAT LOOP FIGURE 1
WIRING CONNECTIONS FOR MANUAL ACTUATION LOOP FIGURE 1A
WIRING CONNECTIONS FOR FIRE ALARM CONTACT FIGURE 2
SHIELDED TWISTED PAIR
WIRING CONNECTIONS FOR CORE INTERLOCK FIGURE 3
CORE CONTROL PANEL TROUBLE CONTACT
SUPERVISION SWITCH
TROUBLE INPUT
WIRING CONNECTIONS FOR TROUBLE CONTACT FIGURE 4

NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES



UNLESS SPECIFIED OTHERWISE, ALL FACTORY AC WIRING 16 AWG. ALL FACTORY DC WIRING 18 AWG.
NOTE: IF VFD HAS 1PH 240V INPUT, USE L1 & L2 ONLY. IF VFD HAS 1PH 120V INPUT, USE L1 & N ONLY.
J9 120V
CONTROL INPUT 120V H1=LINE, N1=NEUTRAL, 15A BREAKER. DO NOT CONNECT TO SHUNT TRIP BREAKER. SEE INSTALLATION SCHEMATIC FOR ADDITIONAL REQ.
TERMINAL GAS USED FOR 120V POWERED GAS VALVES ONLY
PANEL LID
J7 120V
HOOD LIGHTS
JUMPER
NOTE: All items on ECPM03 J3 line to be daisy chained from one component to the next, with EOL120A at end of line. Place PN EOL120A in empty RJ45 port.
ECPM03/DAISY CHAIN
JUMPER FIRE SYSTEM
MAKE UP AIR INTERLOCK
FAN
PANEL COOLING
SECONDARY PANEL COOLING IF NECESSARY
ECPM03 or Previous EOL
NOTE: Configure ECPM03 for CORE
MASTER CORE
DRY CONTACTS (SHOWN DE-ENERGIZED)
ON/OFF WITH SUP
SC-24 X 18 X 8.62 BOX
FACTORY WIRING SCHEMATIC CIRCUIT BOARDS ECPM03
DCV Rev. 2.14.00
HMI Rev. 2.14.00
COMPONENT LIST
LEGEND
FIELD WIRING
FACTORY WIRING
JOB NAME LA CENTER KITCHE...
DRAWING TITLE DCV-1111
JOB NO 5495123
TYPE FACTORY
DATE 7/12/2022
DWG NO ECP #1-6

REVISIONS	
DESCRIPTION	DATE:
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LA CENTER KITCHEN
1000 NE Highland Ave,
La Center, WA, 98629

DATE: 7/12/2022

DWG.#: 5495123

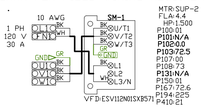
DRAWN BY: kcurtis

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 15

MOTOR POWER CIRCUITS. SEE INSTALLATION DIAGRAM FOR FIELD WIRING REQUIREMENTS.



SC-24 X 18 X 8.62 BOX

FACTORY WIRING SCHEMATIC CIRCUIT BOARDS
ECPM03
DCV Rev. 2.10.00
HMI Rev. 2.10.00

RA-x 120 VAC RELAY			RD-xx 24 VDC RELAY		
NO	4	3	NO	4	3
NC	2	1	NC	2	1
COIL	8	7	COIL	8	7
COM	6	5	COM	6	5

COMPONENT LIST

LABEL	DESCRIPTION
ST-x	Starter varies
C-x	Contactor varies
SM-x	VFD varies
LR-X	Line/Load Reactor varies

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

JOB NAME
LA CENTER KITCHE...
DRAWING NO.
DCV-1111
DESCRIPTION OF OPERATION
Demand Control Ventilation, w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Fans modulate based on duct temperature. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD. Room temperature sensor not included. For field installation,Verify distance between VFD and Motor; additional cost could apply if distance exceeds 50 feet.
JOB NO 5495123
DRAWN BY
TYPE FACTORY
DATE 7/12/2022
DWG NO ECP #1-7

ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES.

FS-1: MASTER

PSM-2 60W
PN: 1606-XLP-60EQ
Adjust power supply to 27.5 Volts with an accurate Digital Volt Meter or with an HMI plugged into the CORE board.

PCB-2
ALL 18AWG

Jumper if water valve supervision switch is used

GV-1
24V DC Gas Valve

TERMINAL LGV USED FOR 24VDC POWERED GAS VALVES ONLY. GAS VALVES SHOULD BE WIRED TO MASTER CORE BOARD ONLY.

SW-05-1 Test Armed
SW-05-2 Test Armed
RS-1 RELEASE SOLENOID

SW-04 Door Tamper Switch
RD-19 Equipment Relay
RD-20 Trouble Relay
RD-18 Auxiliary Interlock Relay

LT-6 FIRE INDICATOR
AA-01 Audible Alarm
PB-01 Prime / Reset
PS-1 Pressure Switch
SW-01 Test Armed

FIRE STAT SUPERVISED LOOP
May be mixed Factory and field wiring. See Installation Schematic. Multiple fire sensors possible.
FS-01 Fire Stat
FS-02 Fire Stat

HIGH TEMP WIRE (842 F), PN: SLPCON-xFT required for all Supervised Loop wiring in contact with a hood. All other wiring shall be PN 6320UL, Belden or similar. Factory mounted hood sensors will be terminated at junction box on top of hood.

MANUAL ACTUATION LOOP / REMOTE FIRE SYSTEM LOOP.
Multiple manual actuation possible. A Plug jumper with wires from pin1 to pin4 and from pin2 to pin3 should be mounted on J10 if there is no manual actuation device and no microswitch.
MS-01 Micro SW
AUX-01 Adjacent CORE Panel
MAD-01 Manual Actuation Device

Auxiliary Interlock (AUX-01) Wire AU1 / AU2 of adjacent Master CORE panel(s) in each manual activation loop for simultaneous activation.

AU1/AU2 will have continuity for 10 seconds if adjacent panel goes into fire condition, activating this CORE Panel but allowing for a reset after 10 seconds.

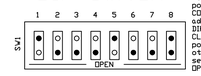
NOTE: AU1/AU2 terminals of CORE Panel should not be wired into its own manual activation loop.

CAT-5 WIRING (MASTER ONLY)
FIELD WIRED IF REMOTE PREVIRE
ECPM03
PUT END OF LINE PLUG IN EMPTY RJ45 UNLESS PCU AFM OR OTHER COMPONENT IN SERIES.

SHIELDED TWISTED PAIR
RS-485 CORE INTERLOCK NETWORK. Connection to other CORE Panels or Communication Module. See Installation Schematic for Connection.

To Building Fire Alarm Panel
FIRE ALARM SYSTEM DRY CONTACTS. Ternials AL1 & AL2 make in FIRE.
5 AMP FUSE DISCONNECT IF FOR SHIPMENT
24 VOLT BATTERY PACK

DIP Switch



Master CORE set DIP SW 8 to CLOSED position. Slave CORE with address 1 set DIP SW 8 to CLOSED position. All other CORES set DIP SW 8 OPEN.

FIRE INDICATOR FAULT CONDITION FLASH CODES

2	Release Solenoid
3	Pressure Switch
4	Auxiliary Fault
5	Microcontroller Fault
6	N/A
7	Supervised Loop
8	Ground Fault
9	Surfactant Low
10	Battery Voltage Low
11	AC Power Failure
12	Door Tamper Switch
13	Test Mode
14	CORE Interlock Network
15	Fault on Hood in Interlock Network
16	Fault on PCU in Interlock Network

DRY CONTACTS (SHOWN DE-ENERGIZED)

RD-20-1 TROUBLE RELAY. Contact terminals TBC & TBL, make if there is trouble. Contact terminals TBC & TBK make if the system is ok.

RD-19-1 COOKING EQUIPMENT DISABLE RELAY. For UDS K81 Switch, wire EKC and EKS terminals to like terminals in UDS panel.

RD-17-1 FIRE SYSTEM DRY CONTACTS. Dry contacts will make CE to AR2 when system is armed.

RD-18-1 INTERLOCK FOR AUTOMAN ACTIVATION. Used for activating 120V automan or adjacent Master CORE panels during active Fire Condition.

FACTORY WIRING SCHEMATIC CORE FIRE PROTECTION

RA-x 120 VAC RELAY			RD-xx 24 VDC RELAY		
NO	4	3	NO	4	3
NC	2	1	NC	2	1
COIL	8	7	COIL	8	7
COM	6	5	COM	6	5

COMPONENT LIST

LABEL	DESCRIPTION
MAD-01	MANUAL ACTIVATION DEVICE
PCB-2	CORE PCB PCBCRE-APP
PSM-2	CORE POWER SUPPLY 1606-XLP-50E
WS-x	Water Solenoid varies
LT-06	24V Red Ind. Light PAL-063-SJR
LL-01	Surf. Level Sensor A0050
AA-01	Audible Alarm SCE30LABPB
PB-01	Prime/Reset Switch ST-EXI
SW-05	TEST/ARM Switch 2BA60
SW-04	Tamper Switch EC-0900-AC
SP-1	Surfactant Pump 5000-885
GV-1	24v DC Gas Valve varies
FS-XX	Duct Fire Sensor SF-FB05-00048
LT-05	24V YLW Ind. Light PAL-063-SJY
PS-01	Remote Push/Push Station STI-51243
PWS-01	24VDC Power Supply 24VDC 8W POWER
RD-XX	24VDC Phoenix Relay PLC-RPT-24DC/21
PS	Pressure Switch EKC-PRESSURE

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

JOB NAME
LA CENTER KITCHE...
DRAWING NO.
DCV-1111
DESCRIPTION OF OPERATION
Fire System #1 TANK FS - 43. Tank-based Fire Protection System equipped with Electronic Detection utilizing CORE board as a Listed Release Mechanism. Installed in Hood Utility Cabinet with integral hood prevere panel.
JOB NO 5495123
DRAWN BY
TYPE FACTORY
DATE 7/12/2022
DWG NO ECP #1-8

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REVISIONS

	DESCRIPTION	DATE:
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3		
4		
5		

LA CENTER KITCHEN
1000 NE Highland Ave,
La Center, WA, 98629

DATE: 7/12/2022

DWG.#: 5495123

DRAWN BY: kcurtis

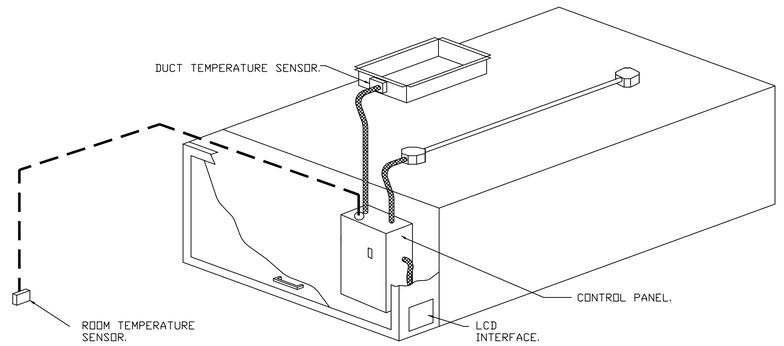
SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 16

DEMAND CONTROL VENTILATION HOOD CONTROL PANEL SPECIFICATIONS:

- CONTROLS SHALL BE LISTED BY ETL (UL 508A) AND SHALL COMPLY WITH DEMAND VENTILATION SYSTEM TURNDOWN REQUIREMENTS OUTLINED IN IECC 403.2.8 (2015).
- THE CONTROL ENCLOSURE SHALL BE NEMA 1 RATED AND LISTED FOR INSTALLATION INSIDE OF THE EXHAUST HOOD UTILITY CABINET. THE CONTROL ENCLOSURE MAY BE CONSTRUCTED OF STAINLESS STEEL OR PAINTED STEEL.
- TEMPERATURE PROBE(S) LOCATED IN THE EXHAUST DUCT RISER(S) SHALL BE CONSTRUCTED OF STAINLESS STEEL.
- A DIGITAL CONTROLLER SHALL BE PROVIDED TO ACTIVATE THE HOOD EXHAUST FANS DYNAMICALLY BASED ON A FIXED DIFFERENTIAL BETWEEN THE AMBIENT AND DUCT TEMPERATURES SENSORS. THIS FUNCTION SHALL MEET THE REQUIREMENTS OF IMC 507.1.1.
- A DIGITAL CONTROLLER SHALL PROVIDE ADJUSTABLE HYSTERESIS SETTINGS TO PREVENT CYCLING OF THE FANS AFTER THE COOKING APPLIANCES HAVE BEEN TURNED OFF AND/OR THE HEAT IN THE EXHAUST SYSTEM IS REDUCED.
- A DIGITAL CONTROLLER SHALL PROVIDE AN ADJUSTABLE MINIMUM FAN RUN-TIME SETTING TO PREVENT FAN CYCLING.
- VARIABLE FREQUENCY DRIVES (VFDS) SHALL BE PROVIDED FOR FANS AS REQUIRED. THE DIGITAL CONTROLLER SHALL MODULATE THE VFDS BETWEEN A MINIMUM SETPOINT AND A MAXIMUM SETPOINT ON DEMAND. THE DUCT TEMPERATURE SENSOR INPUT(S) TO THE DIGITAL CONTROLLER SHALL BE USED TO CALCULATE THE SPEED REFERENCE SIGNAL.
- THE VFD SPEED RANGE OF OPERATION SHALL BE FROM 0% TO 100% FOR THE SYSTEM, WITH THE ACTUAL MINIMUM SPEED SET AS REQUIRED TO MEET MINIMUM VENTILATION REQUIREMENTS.
- AN INTERNAL ALGORITHM TO THE DIGITAL CONTROLLER SHALL MODULATE SUPPLY FAN VFD SPEED PROPORTIONAL TO ALL EXHAUST FANS THAT ARE LOCATED IN THE SAME FAN GROUP AS THE SUPPLY FAN.
- THE SYSTEM SHALL OPERATE IN PREP MODE DURING LIGHT COOKING LOAD OR COOL DOWN MODE WHEN SUFFICIENT HEAT REMAINS UNDERNEATH THE HOOD SYSTEM AFTER COOKING OPERATIONS HAVE COMPLETED. OPERATION DURING EITHER OF THESE PERIODS WILL DISABLE THE SUPPLY FANS AND PROVIDE AN EXHAUST FAN SPEED THAT IS EQUAL TO THE MINIMUM VENTILATION REQUIREMENT.
- A DIGITAL CONTROLLER SHALL DISABLE THE SUPPLY FAN(S), ACTIVATE THE EXHAUST FAN(S), ACTIVATE THE APPLIANCE SHUNT TRIP, AND DISABLE AN ELECTRIC GAS VALVE AUTOMATICALLY WHEN FIRE CONDITION IS DETECTED ON A COVERED HOOD.
- A DIGITAL CONTROLLER SHALL ALLOW FOR EXTERNAL BMS FAN CONTROL VIA DRY CONTACT (EXTERNAL CONTROL SHALL NOT OVERRIDE FAN OPERATION LOGIC AS REQUIRED BY CODE).
- AN LCD INTERFACE SHALL BE PROVIDED WITH THE FOLLOWING FEATURES:
  - A. ON/OFF PUSH BUTTON FAN & LIGHT SWITCH ACTIVATION.
  - B. INTEGRATED GAS VALVE RESET FOR ELECTRONIC GAS VALVES (NO RESET RELAY REQUIRED).
  - C. VFD FAULT DISPLAY WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  - D. DUCT TEMPERATURE SENSOR FAILURE DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  - E. MIS-WIRED DUCT TEMPERATURE SENSOR DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  - F. A SINGLE LOW VOLTAGE CAT-5 RJ45 WIRING CONNECTION.
  - G. AN ENERGY SAVINGS INDICATOR THAT UTILIZES MEASURED KWH FROM THE VFDS.



TYPICAL HOOD CONTROL PANEL INSTALLATION

SEQUENCE OF OPERATIONS:

THE HOOD CONTROL PANEL IS CAPABLE OF OPERATING IN ONE OR MORE OF THE FOLLOWING STATES AT ANY GIVEN TIME:

- AUTOMATIC: THE SYSTEM OPERATES BASED ON THE DIFFERENTIAL BETWEEN ROOM TEMPERATURE AND THE TEMPERATURE AT THE HOOD CAVITY OR EXHAUST DUCT COLLAR. FANS ACTIVATE AT A CONFIGURABLE TEMPERATURE DIFFERENTIAL THRESHOLD. DEPENDING ON THE JOB CONFIGURATION EACH FAN ZONE CAN BE CONFIGURED AS STATIC OR DYNAMIC. THESE TERMS REFER TO WHETHER A VARIABLE MOTOR (SUCH AS EC MOTORS OR VFD DRIVEN MOTORS) MODULATE WITH TEMPERATURE. IF THE PANEL IS EQUIPPED WITH VARIABLE SPEED FANS AND THE ZONE IS DEFINED AS "DYNAMIC", THESE WILL MODULATE WITHIN A USER-DEFINED RANGE BASED ON THE TEMPERATURE DIFFERENTIAL. PANELS EQUIPPED WITH VARIABLE SPEED FANS AND A FAN ZONE DEFINED AS "STATIC", FANS WILL RUN AT A SET SPEED CALCULATED FOR THE DRIVE. DEMAND CONTROL VENTILATION SYSTEMS ARE CAPABLE OF MODULATING EXHAUST AND MAKE UP AIR FAN SPEEDS PER THE REQUIREMENTS OUTLINED IN IECC 403.2.8.
- MANUAL: THE SYSTEM OPERATES BASED ON HUMAN INPUT FROM AN HMI.
- SCHEDULE: A WEEKLY SCHEDULE CAN BE SET TO RUN FANS FOR A SPECIFIED PERIOD THROUGHOUT THE DAY. THERE ARE THREE OCCUPIED TIMES PER DAY TO ALLOW FOR THE USER TO SET UP A TIME THAT IS SUITABLE TO THEIR NEEDS. ANY TIME THAT IS WITHIN THE DEFINED OCCUPIED TIME, THE SYSTEM WILL RUN AT MODULATION MODE AND FOLLOW THE FAN PROCEDURE ALGORITHM BASED ON TEMPERATURE DURING THIS TIME. DURING UNOCCUPIED TIME, THE SYSTEM WILL HAVE AN EXTRA OFFSET TO PREVENT UNINTENDED ACTIVATION OF THE SYSTEM DURING A TIME WHERE THE SYSTEM IS NOT BEING OCCUPIED.
- OTHER: THE SYSTEM OPERATES BASED ON THE INPUT FROM AN EXTERNAL SOURCE (DDC, BMS OR HARD-WIRED INTERLOCK).
- FIRE: UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM, THE EXHAUST FAN WILL COME ON OR CONTINUE TO TO RUN, THE HOOD MAKEUP AIR WILL SHUTDOWN, AND A SIGNAL WILL BE SENT FOR ACTIVATING THE SHUNT TRIP BREAKER PROVIDED BY THE ELECTRICIAN. FUEL GAS WILL SHUT OFF VIA A MECHANICAL/ELECTRICAL GAS VALVE ACTUATED BY THE HOOD FIRE SUPPRESSION SYSTEM.

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LA CENTER KITCHEN
1000 NE Highland Ave,
La Center, WA, 98629

DATE: 7/12/2022

DWG.#: 5495123

DRAWN BY: kcurtis

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 17

DUCTWORK #1 PARTS – JOB#5495123 DOUBLE WALL

TAG	PART #	CFM	GPM	ZONE	COVEREDBY	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
P1	DW1445DWASY-2R-S	1925				-0.0525	19.87	1800.72	1	DOUBLE WALL DUCT - 14" INNER 45 DUCT - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P2	DW1445DWASY-2R-S	1925				-0.075	19.87	1800.72	1	DOUBLE WALL DUCT - 14" INNER 45 DUCT - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P3	DW1427DWAJD-2R-S	1925				-0.01	52.12	1800.72	1	DOUBLE WALL ADJUSTABLE DUCT - 14" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11" / MAX LENGTH = 24.5" / ADJUSTMENT = 13.5" / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL "V" CLAMPS.
P4 ASSEMBLED W/P5	DW144550DWLTTP-2R-S	1925				-0.022	61.01	1800.72	1	DOUBLE WALL DUCT - 14" INNER DUCT, 45.5" LONG - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL - USED WITH TRANSITION PLATE.
P5 ASSEMBLED W/P4	DW2314TPDBEX	1925					8.00	1800.72	1	DUCT TO CURB TRANSITION 3/4" DOWN TURN, 23" CURB TO 14" DUCT, 16 GA ALUMINIZED. USED ON NCA14FA & NCA14HPFA. TRANSITION PLATE OD IS 23.5" DESIGNED FOR USE WITH EXHAUST FAN. NON-STANDARD PART.
SYSTEM AT P5						-0.9215	0.00			
	3M-2000PLUS						0.80		2	DUCT - 3M FIRE BARRIER 2000 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS.
	DW14DWCLASY-2R-S						7.21		1	DUCT - 14" DUCT - 18" DOUBLE "V" CLAMP - 2R INSULATION & SINGLE "V" CLAMP INCLUDED - REDUCED CLEARANCE.
TOTAL WEIGHT							169.68			

DOUBLE WALL FACTORY BUILT DUCTWORK

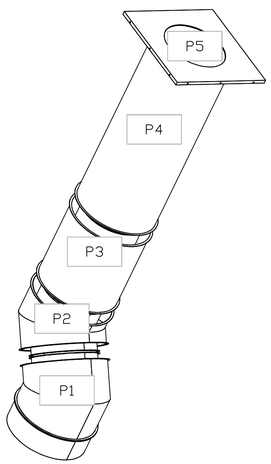
- ALL DUCTWORK IS REQUIRED TO BE INSTALLED WITH THE MAXIMUM SUPPORT SPACING LISTED BELOW.
- FOR A COMPLETE LIST OF APPROVED SUPPORT METHODS, SEE THE ENTIRE INSTALLATION AND OPERATION MANUAL
- DUCTWORK SHALL SLOPE NOT LESS THAN 1/16" PER LINEAR FOOT TOWARDS THE HOOD OR AN APPROVED GREASE COLLECTION RESERVOIR.
- WHERE HORIZONTAL DUCTS EXCEED 75 FEET IN LENGTH, THE SLOPE SHALL NOT BE LESS THAN 3/16" PER LINEAR FOOT.

HORIZONTAL	
DUCT DIAMETER	SUPPORT SPACING (FT)
5"	7'
6"	7'
7"	7'
8"	7'
10"	7'
12"	7'
14"	7'
16"	7'
18"	5'
20"	5'
22"	5'
24"	5'
26"	5'
28"	5'
30"	5'
32"	5'
34"	5'
36"	5'

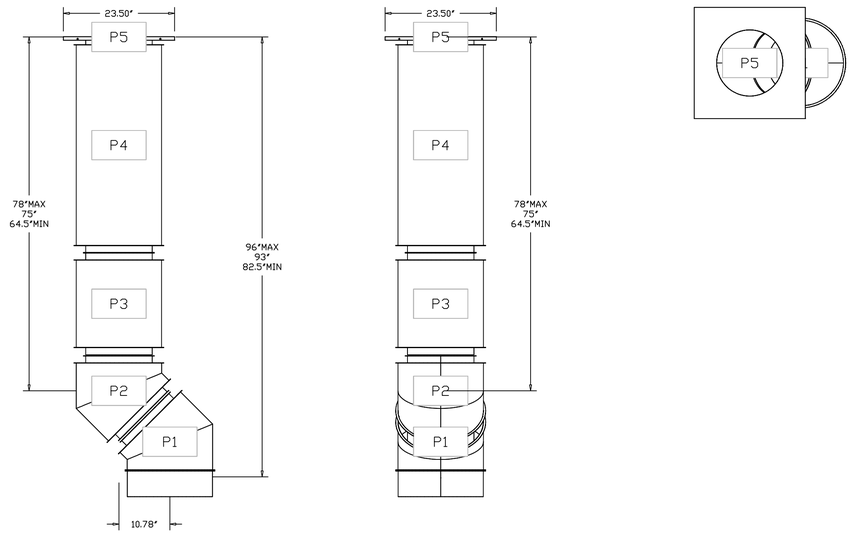
VERTICAL			
TYPE	WALL SUPPORT (FT)	CURB SUPPORT (FT)	FLOOR SUPPORT (FT)
2R & 2R HT (5"-16")	20'	24'	24'
2R (18")	18'	24'	24'
3R & 3Z (5"-24")	10'	24'	24'
3Z (26" -36")	10'	20'	20'

DO NOT LEAK TEST USING SMOKE BOMBS CONTAINING CHLORINES/CHLORIDES. CONSULT WITH CAPTIVEAIRE FOR PROPER LEAK TESTING METHODS.

DUCTWORK #1 SE VIEW



DUCTWORK #1 FRONT VIEW DUCTWORK #1 SIDE VIEW DUCTWORK #1 TOP VIEW



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SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 18

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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SHEET NO. 19