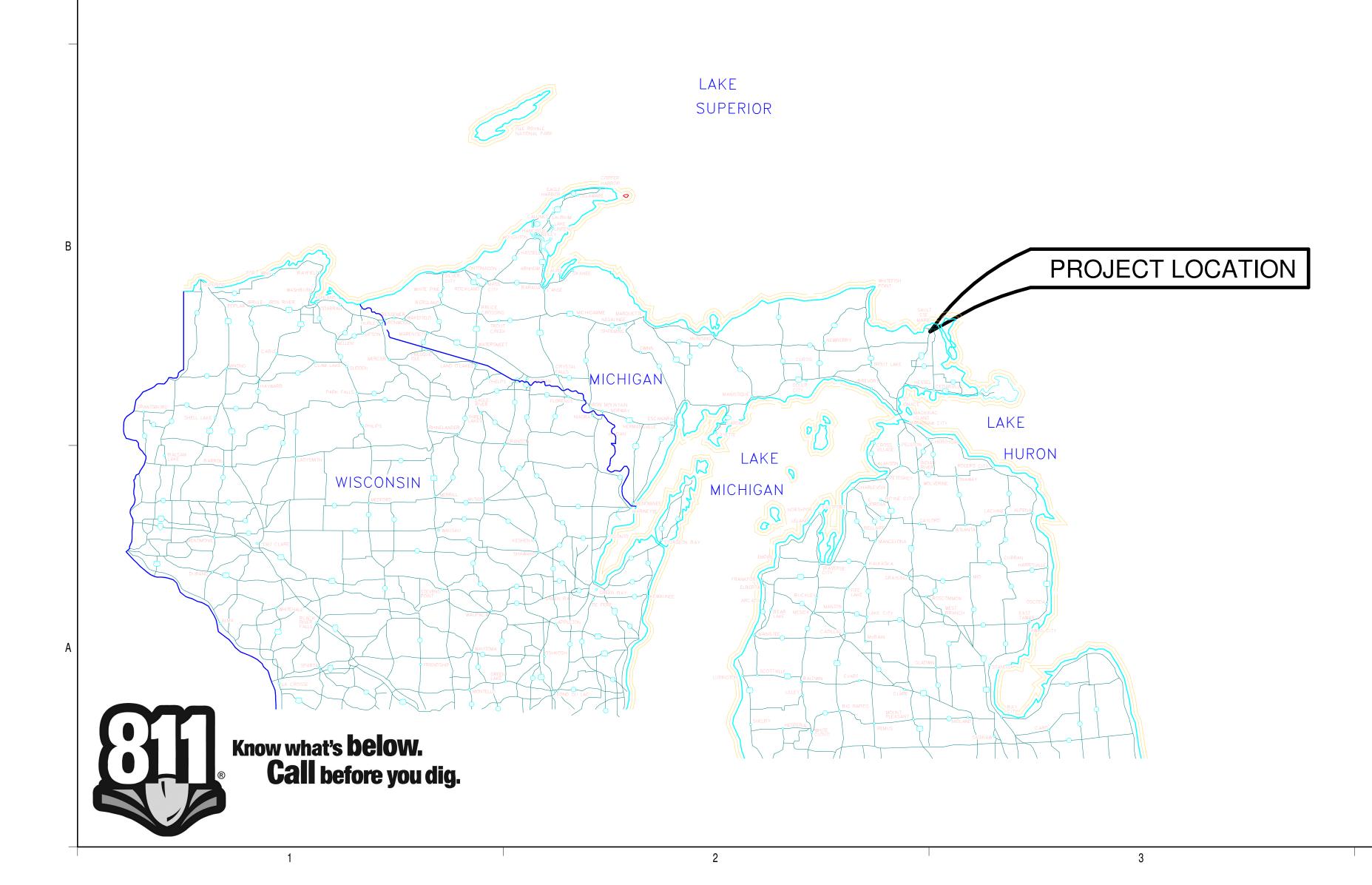
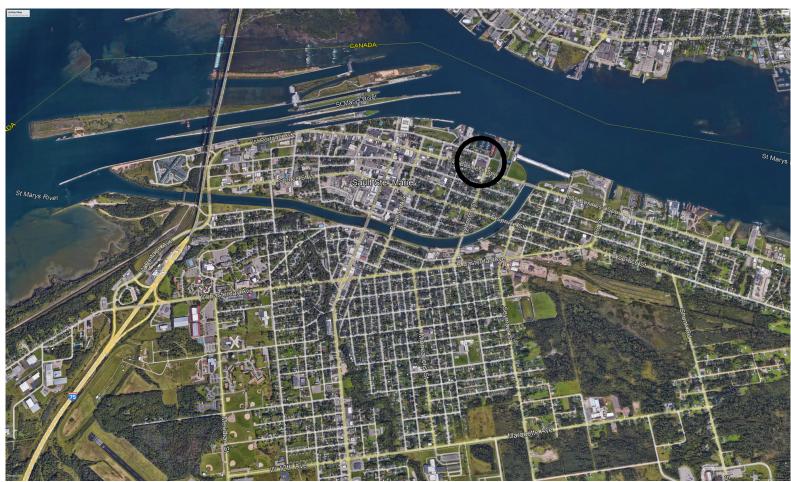
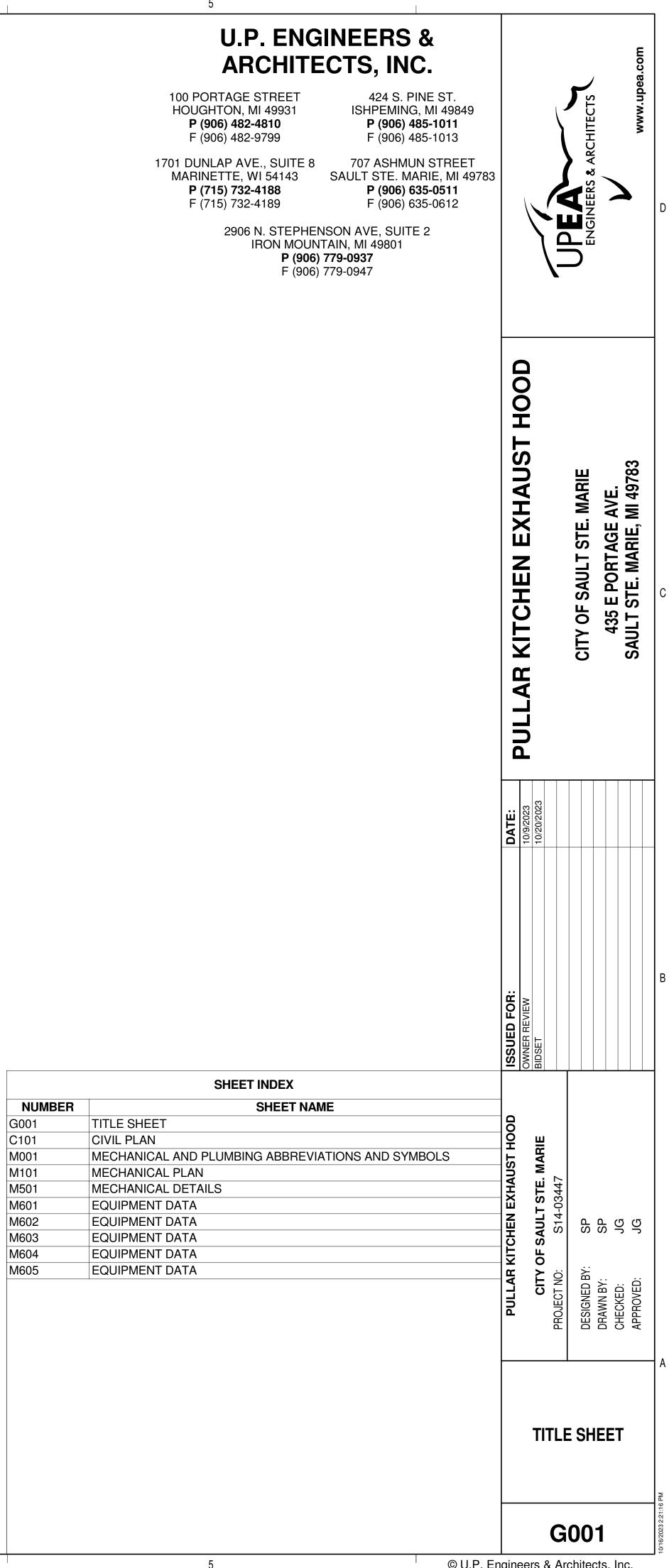
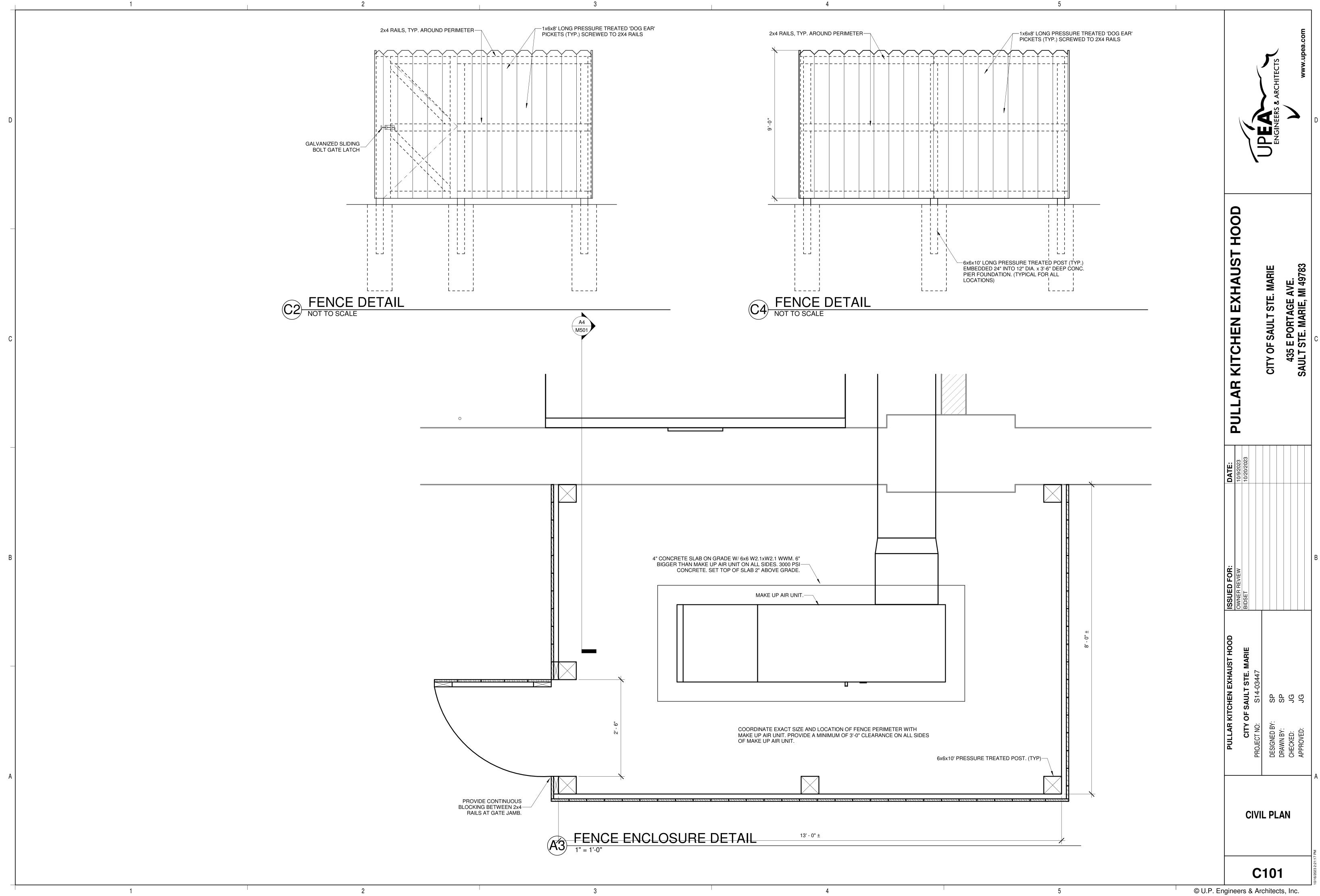
PULLAR KITCHEN EXHAUST HOOD **CITY OF SAULT STE. MARIE** 435 E PORTAGE AVE. SAULT STE. MARIE, MI 49783





PROJECT VICINITY MAP





ABBREVIATIONS

ACCU	AIR COOLED CONDENSING UNIT
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
AO	ANALOG OUTPUT
APD	AIR PRESSURE DROP
AS	AIR SEPERATOR
B	BOILER
BB	BASEBOARD
BC	BOOSTER COIL
BDD	BACKDRAFT DAMPER
BFG	BELOW FINISHED GRADE
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSE POWER
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BT	BATH TUB
BTU	BRITISH THERMAL UNITS
BTUH	BRITISH THERMAL UNITS PER HOUR
C	CONVECTOR
CA	COMPRESSED AIR
CB	CATCH BASIN
CCF	COOLING COIL
CD	100 CUBIC FEET
CF	CEILING DIFFUSER
CFH	CUBIC FEET
CFM	CUBIC FEET PER HOUR
CFP	CUBIC FEET PER MINUTE
CH	CLEAN OUT FERRULE AND PLUG
CI	CHILLER
CHWR	CAST IRON
CO	CHILLED WATER RETURN
COND	CHILLED WATER SUPPLY
CO2	CLEAN OUT
CT	CARBON MONOXIDE
CU	CONDENSATE
CU	CARBON DIOXIDE
CU	COOLING TOWER
FT	CONDENSING UNIT
CUH	CUBIC FOOT
CWR	CABINET UNIT HEATER
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
D DEG F DF DI DIA DN DO DWV	DIFFUSER DRY BULB DEGREE FAHRENHEIT DRINKING FOUNTAIN DIGITAL INPUT DIAMETER DOWN DIGITAL OUTPUT DRAIN, WASTE AND VENT
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EG	EXHAUST AIR GRILLE
ELEV	ELEVATION
ER	EXHAUST AIR REGISTER
EUH	ELECTRIC UNIT HEATER
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EWT	ENTERING WATER TEMPERATURE
EX	EXISTING
EXH	EXHAUST
F	FURNACE
FAI	FRESH AIR INTAKE
FBO	FURNISHED BY OTHERS
FC	FAN COIL
FD	FLOOR DRAIN
FD	FIRE DAMPER
FIN	FIN TUBE RADIATION
FLG	FLANGE
FP	FIRE PROTECTION
FPM	FEET PER MINUTE
FT	FOOT OR FEET
F&T	FLOAT AND THERMOSTATIC TRAP
G	GAS (NATURAL)
GAL	GALLON
GC	GENERAL CONTRACTOR
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GT	GREASE TRAP
H	HYDROGEN
HB	HOSE BIBB
HC	HEATING COIL
HCO	HORIZONTAL CLEANOUT
HP	HORSE POWER
HTR	HEATER
HVAC	HEATING, VENTILATING & AIR COND
HW	HOT WATER
HWC	HOT WATER RECIRCULATING
HWC	HOT WATER RECIRCULATING
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HX	HEAT EXCHANGER
ie	INVERT ELEVATION
If	INLINE FAN
In	INCH OR INCHES
Ip	IRON PIPE
Inv	INVERT
IWH	INSTANTANEOUS WATER HEATER

1

JAN JC JS	JANITOR JANITOR'S CLOSET JANITOR'S SINK			SUPPLY A
	KILOWATT			LINEAR D
LAT	LEAVING AIR TEMPERATURE			RETURN
LAV LBS LHWR	LAVATORY POUNDS LOW TEMPERATURE HOT WATE	R	(\mathbb{L})	EXHAUST
RETURN LHWS	LOW TEMPERATURE HOT WATE			FRESH AI
SUPPLY LIQ LV	LIQUID (REFRIGERATION) LOUVER			RELIEF A
LP LWT	PROPANE GAS (LIQUID) -LEAVING WATER TEMPERATUR	E		SUPPLY F
M MAU MAX	METER MAKE-UP AIR HANDLING UNIT MAXIMUM			RETURN
MB MBH	MOP BASIN BRITISH THERMAL UNITS (1000)			
MBTUH MC MCA	BRITISH THERMAL UNITS (1000) MECHANICAL CONTRACTOR MINIMUM CIRCUIT AMPACITY		<u>`</u> ₩	SQUARE
MD MECH MIN	MOTORIZED DAMPER MECHANICAL			VOLUME
MOCP PROTECTION	MINIMUM MAXIMUM OVER CURRENT			FIRE / SM (RATING I
N2O	NITROUS OXIDE		M	MOTORIZ
NC NIC NIT	NORMALLY CLOSED NOT INCLUDED OR NOT IN CON NITROGEN	TRACT	S	DUCT SM
NO	NORMALLY OPEN		1	THERMO
OA OAI OC	OUTDOOR AIR OUTDOOR AIR INTAKE		Θ	HUMIDIST
OD ODP	ON CENTER OVERFLOW DRAIN OPEN DRIP PROOF		/_ >	AIR FLOW
OXY	OXYGEN		\checkmark	SUPPLY A
P PC PD	PUMP PLUMBING CONTRACTOR PNEUMATIC OPERATED DAMPE	P	×	SUPPLY A
PIV PRV	POST INDICATING VALVE PRESSURE REDUCING VALVE		\angle	RETURN
PT PTAC PVAC	PRESSURE TEMPERATURE PLU PACKAGED TERMINAL AIR CONI PROCESS VACUUM			RETURN
R	REGISTER		\mathbf{X}	EXHAUST
RA RD RET	RETURN AIR ROOF DRAIN RETURN			EXHAUST
RF RG RPZ	RETURN FAN RETURN AIR GRILLE			BALL VAL
RPZ RR RTU	REDUCED PRESSURE ZONE BA RETURN REGISTER ROOF TOP UNIT	SKELOW PREVENTER		BUTTERF
S	SINK			CIRCUIT
SA SAD	SUPPLY AIR SUPPLY AIR DIFFUSER			CHECK V
SAF SAN SD	SUPPLY AIR FAN SANITARY SEWER SMOKE DETECTOR			GATE VAI
SG SH	SUPPLY AIR GRILLE SHOWER HEAD		Ц Д Д	GLOBE V
SHC SR SS	STEAM HEATING COIL SUPPLY REGISTER STAINLESS STEEL			2-WAY CO
ST STM	STORM STEAM			3-WAY CO
SUCT	SUCTION (REFRIGERATION)		ぞ ————————————————————————————————————	PRESSUE
TCC TCD	TEMPERATURE CONTROL CONT TEMPERATURE CONTROL DAME	PER	× I	BALANCE
TCP TD TG	TEMPERATURE CONTROL PANE TRANSFER DUCT TRANSFER AIR GRILLE	L		STRAINE
TT TYP	THERMOSTATIC TRAP TYPICAL		× 3	CAP
UG	UNDERGROUND		۱ ۱	PIPING 90
UH UV	UNIT HEATER UNIT VENTILATOR		└── ţ	PIPING "T
V VAC	VENT VACUUM		-M-	METER
VAV VD	VARIABLE AIR VOLUME BOX VOLUME DAMPER		\otimes	CONNEC
VFD VS VTR	VARIABLE FREQUENCY DRIVE VENT STACK (SANITARY) VENT THRU ROOF (SANITARY)			
VUV	VERTICAL UNIT VENTILATOR			
W WB	WASTE WET BULB			
WC W/O	WATER CLOSET WITHOUT WATER HEATER			
WH WSHP	WATER HEATER WATER SOURCE HEAT PUMP			
NOTE:				

NOT ALL ABBREVIATIONS AND/OR SYMBOLS ARE USED IN THIS SET OF DOCUMENTS.

2

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	SUPPLY AIR DIFFUSER	بــــــــــــــــــــــــــــــــــــ	PIPE BREAK	DUCTWORK	
	LINEAR DIFFUSER	ب ر	PIPE DOWN		
1	RETURN OR EXHAUST AIR GRILLE	۰۵ کې سونې کې	PIPE UP	24x14 SA	SUPPLY AIR DUCT - EXISTING
J		ال ر		24x14 SA	SUPPLY AIR DUCT - DEMO
)	EXHAUST FAN - ROOF	-@-	GAS METER	24x14 SA	SUPPLY AIR DUCT - NEW
]	FRESH AIR INTAKE HOOD - ROOF	-#- -5-	UNION HOSE BIBB	24x14 RA	RETURN AIR DUCT - EXISTING
	RELIEF AIR HOOD - ROOF	г А	ELECTRIC BELL	24x14 RA	RETURN AIR DUCT - DEMO
F	SUPPLY REGISTER	\downarrow	SIAMESE CONNECTION	24x14 RA	RETURN AIR DUCT - NEW
-	RETURN OR EXHAUST REGISTER	ч У 	BARE FIN TUBE ELEMENT	24x14 OA	OUTSIDE AIR DUCT - EXISTING
1	SQUARE TO ROUND TRANSITION	нининн	FIN TUBE ELEMENT WITH COVER	24x14 OA }	OUTSIDE AIR DUCT - DEMO
-	VOLUME CONTROL DAMPER		EXTERNALLY INSULATED DUCTWORK	24x14 OA	OUTSIDE AIR DUCT - NEW
-	FIRE / SMOKE DAMPER (RATING DETERMINED BY WALL TYPE)		INTERNALLY LINED DUCTWORK		
-	MOTORIZED DAMPER			24x14 EA	EXHAUST AIR DUCT - EXISTING
=	DUCT SMOKE DETECTOR			24x14 EA	EXHAUST AIR DUCT - DEMO
)	THERMOSTAT - 60" A.F.F.			24x14 EA	EXHAUST AIR DUCT - NEW
D	HUMIDISTAT - 60" A.F.F.	PLUMBING PIPING		MECHANICAL PIPING	
-	AIR FLOW				
3	SUPPLY AIR DUCT UP	CW	DOMESTIC COLD WATER - EXISTING	HWS	HYDRONIC HOT WATER SUPPLY - EXISTING
	SUPPLY AIR DUCT DOWN	CW	DOMESTIC COLD WATER - DEMO	HWS	HYDRONIC HOT WATER SUPPLY - DEMO
]	RETURN AIR DUCT UP	CW	DOMESTIC COLD WATER - NEW	HWS	HYDRONIC HOT WATER SUPPLY - NEW
]	RETURN AIR DUCT DOWN	————HW————	DOMESTIC HOT WATER - EXISTING	HWR	HYDRONIC HOT WATER RETURN - EXISTING
2	EXHAUST AIR DUCT UP	– – – – –HW– – – –	DOMESTIC HOT WATER - DEMO	HWR	HYDRONIC HOT WATER RETURN - DEMO
	EXHAUST AIR DUCT DOWN	HW	DOMESTIC HOT WATER - NEW	HWR	HYDRONIC HOT WATER RETURN - NEW
—	BALL VALVE	HWC	DOMESTIC HOT WATER RECIRC - EXIST	ING FP	FIRE PROTECTION - EXISTING
 1	BUTTERFLY VALVE	HWC	DOMESTIC HOT WATER RECIRC DEMO	– – – – –FP– – – – –	FIRE PROTECTION - DEMO
	CIRCUIT SETTER	HWC	DOMESTIC HOT WATER RECIRC - NEW	FP	FIRE PROTECTION - NEW
	CHECK VALVE			CDS	CONDENSOR WATER SUPPLY
	GATE VALVE	SAN	SANITARY - EXISTING	CDS	CONDENSOR WATER SUPPLY - DEMO
—	GLOBE VALVE 2-WAY CONTROL VALVE	SAN	SANITARY - DEMO	CDS	CONDENSOR WATER SUPPLY - EXIST
	2-WAY CONTROL VALVE 3-WAY CONTROL VALVE	SAN	SANITARY - NEW	CDR	CONDENSOR WATER RETURN
	PRESSURE RELIEF VALVE	V	VENT - EXISTING		CONDENSOR WATER RETURN - DEMO
_	BALANCE VALVE	V	VENT - DEMO	CDR	CONDENSOR WATER RETURN - EXIST
0	INLINE PUMP	V	VENT - NEW		
	STRAINER	ST	STORM - EXISTING	CHWS	CHILLED WATER SUPPLY
⊒ ++	CAP PIPING 90	ST	STORM - DEMO	— – – –CHWS– – – –	CHILLED WATER SUPPLY - DEMO
-+	PIPING "T"	ST	STORM - NEW	CHWS	CHILLED WATER SUPPLY - EXIST
_	METER	OD	OVERFLOW STORM - EXISTING	CHWR	CHILLED WATER RETURN
	CONNECTION TO EXISTING		OVERFLOW STORM - EXISTING	— – – –CHWR– – – –	CHILLED WATER RETURN - DEMO
		OD		CHWR	CHILLED WATER RETURN - EXIST
			OVERFLOW STORM - NEW	AIR	COMPRESSED AIR - EXISTING
		G	GAS - EXISTING		COMPRESSED AIR - DEMO
		G	GAS - DEMO	AIR	COMPRESSED AIR - NEW
		G	GAS - NEW	STM	STEAM - EXISTING

---- STM---- STEAM - DEMO

-----STM------STEAM - NEW

CONDENSATE - EXISTING

---- C---- CONDENSATE - DEMO

CONDENSATE - NEW

NOTES

MECHANICAL/PLUMBING AND FIRE PROTECTION GENERAL NOTES

THESE DRAWINGS ARE DIAGRAMMATIC IN CHARACTER AND DO NOT NECESSARILY INDICATE EVERY OFFSET, VALVE, FITTING, ETC. REQUIRED. CONTRACTOR IS RESPONSIBLE FOR FIELD ROUTING ALL DUCTWORK AND PIPING AT NO ADDITIONAL COST.

2. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIALS AND OPERATIONS AND PERFORM ALL LABOR REQUIRED FOR INSTALLATIONS AS INDICATED THE DRAWINGS, IN THE SPECIFICATIONS AND AS REQUIRED BY LOCAL, STATE AND FEDERAL CODES, AND AS MAY BE REASONABLY IMPLIED TO ACCOMPLISH COMPLETE MECHANICAL, PLUMBING AND FIRE PROTECTION SYSTEMS.

3. ALL ELECTRICAL DISCONNECTS REQUIRED PER NEC CODE SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE.

4. CONTRACTOR SHALL PROVIDE PRODUCTS AS SPECIFIED ON THE DRAWINGS AND SPECIFICATIONS, HOWEVER, WHERE THE WORDS "EQUAL TO" ARE USED, ADDITIONAL PRODUCTS MAY BE SUBMITTED AS PROPOSED SUBSTITUTIONS, BUT REQUIRE APPROVAL FROM ARCHITECT/ENGINEER.

5. DESIGN DRAWINGS SHOW GENERAL ARRANGEMENT AND EXTENT OF WORK. THE DRAWINGS ARE DIAGRAMMATIC AND MAY NOT NECESSARILY BE DRAWN TO SCALE FOR PURPOSE OF CLARITY AND LEGIBILITY. IT IS INTENDED THAT ALL ITEMS BE LOCATED SYMMETRICALLY WITH ARCHITECTURAL ELEMENTS WHERE FEASIBLE AND BE INSTALLED TO AVOID OBSTRUCTIONS AND PRESERVE HEADROOM. CONTRACTOR SHALL REVIEW PLANS OF OTHER TRADES WITH HIS OWN WORK TO AVOID CONFLICTS AND INTERFERENCES. CONTRACTOR MUST MAKE USE OF ALL SOURCES OF INFORMATION INCLUDING DRAWINGS OF EQUIPMENT FURNISHED BY OTHERS. FAILURE TO REVIEW WORKING SPACES OR CHECK DIMENSIONS IN QUESTION SHALL NOT WARRANT CONFLICTS.

6. DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE COMPLIMENTARY. WHERE DRAWINGS AND SPECIFICATIONS CONFLICT EACH OTHER, IT IS THE CONTRACTORS RESPONSIBILITY TO GET CLARIFICATION FROM THE ARCHITECT/ENGINEER PRIOR TO BIDDING. FAILURE TO GET CLARIFICATION SHALL NOT RESULT IN ADDITIONAL COST AND THE MORE STRINGENT SHALL BE USED AS INTENDED BASIS FOR BIDDING.

7. PLANS AND SPECIFICATIONS ARE INTENDED TO CONFORM TO GOVERNING CODES AND STANDARDS. IF NON-CONFORMITIES ARE DISCOVERED WHILE BIDDING, OR PERFORMING THE WORK IMPLIED, BRING THE SAME TO THE ATTENTION OF THE ARCHITECT/ENGINEER FOR CLARIFICATION IN WRITING PRIOR TO SUBMITTING BID OR PROCEEDING WITH WORK. NON-CONFORMITIES OF CODE COMPLIANCE WORK INSTALLED AND CORRECTIONS REQUIRED WITHOUT CONSULTION AND WRITTEN RESPONSE OF SAME BY THE ENGINEER WILL BE THE CONTRACTORS FINANCIAL RESPONSIBILITY.

MOTORS SHALL BE PROVIDED BY MECHANICAL CONTRACTOR AS REQUIRED BY THE EQUIPMENT FURNISHED BY THE MECHANICAL CONTRACTOR. MOTORS TO BE SUITABLE FOR LOAD, DUTY, VOLTAGE, FREQUENCY, HAZARD, SERVICE AND LOCATION INTENDED. SINGLE PHASE MOTORS MUST HAVE INTEGRAL THERMAL OVERLOAD PROTECTION IN ADDITION TO THAT PROVIDED IN MOTOR CONTROLLERS. MOTORS TO CONFORM IN DESIGN AND PERFORMANCE TO THE MOTOR STANDARDS OF NEMA. MOTORS RATED FOR CONTINUOUS DUTY UNDER FULL LOAD WITH A MAXIMUM TEMPERATURE RISE OF 105 DEG F FOR OPEN, 125 DEG F FOR DRIP PROOF AND 130 DEG F FOR EXPLOSION PROOF AND TOTALLY ENCLOSED TYPES. SUPPLY MOTORS WITH BELT DRIVES WITH ADJUSTABLE BASES, REMOVABLE BELT GUARDS AND VARIABLE PITCH DRIVE PULLEY SELECTED SO THAT MIDPOINT OF VARIABLE RANGE OF PULLEY WILL DRIVE EQUIPMENT AT RATED SPEED. MOTORS 1 HP AND LARGER SHALL BE THREE PHASE (UNLESS OTHERWISE LISTED).

9. MOTOR CONTROLLERS SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR FOR MOTORS FURNISHED BY THE MECHANICAL CONTRACTOR. MOTOR CONTROLLERS SHALL BE OF SIZES AND TYPES AS NEEDED TO MEET THE OPERATIONAL CONDITIONS AS REQUIRED BY THE SEQUENCE OF OPERATION. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL THE POWER CIRCUIT, LOCAL DISCONNECT AND CONNECTION TO MOTOR TERMINALS. MECHANICAL CONTRACTOR TO MOUNT MOTOR CONTROLLERS AND CONTROL COMPONENTS AND WIRE AND MAKE ALL FINAL CONTROL CONNECTIONS BETWEEN DEVICES.

10. THE DRAWINGS INDICATE KNOWN UTILITY AND DRAINAGE LINES IN ACCORDANCE WITH THE INFORMATION FURNISHED TO THE ENGINEER. RESPONSIBILITY FOR LOCATING, UNCOVERING, DISPOSING OR MAINTAINING ALL EXISTING UTILITY LINES TO REST SOLELY WITH THE CONTRACTOR VERIFY LOCATIONS AND DEPTHS OF SERVICE CONNECTION POINTS BEFORE PROCEEDING WITH CONSTRUCTION.

11. CONTRACTOR SHALL CHECK EXISTING PREMISES BEFORE SUBMISSION OF BIDS TO CHECK ALL CONDITIONS WHICH MAY EFFECT THE PERFORMANCE OF THE WORK INVOLVED. NO ALLOWANCES OR EXTRA PAYMENT WILL BE MADE DUE TO CONTRACTOR'S FAILURE TO EXAMINE SITE AND FULLY DISCERN WORKING CONDITIONS.

12. MECHANICAL CONTRACTOR SHALL RECEIVE, PROPERLY HOUSE, HANDLE, HOIST, AND DELIVER TO PROPER LOCATION EQUIPMENT AND OTHER MATERIALS REQUIRED FOR THIS CONTRACT.

13. THE CONTRACTOR SHALL OBTAIN PERMITS, ARRANGE FOR INSPECTIONS, AND PAY FEES AND EXPENSES IN CONNECTION THEREWITH, AS A PART OF THE WORK REQUIRING SUCH PERMITS. EVERY EFFORT IS MADE TO DESCRIBE THE WORK REQUIREMENTS IN CONFORMITY WITH APPLICABLE

14. THE CONTRACTOR SHALL REVIEW ANY ALTERNATES OF OTHER TRADES, AND PRICE THEIR BID TO ACCOUNT FOR ITEMS AFFECTING HIS WORK.

15. PIPING PASSING THROUGH CORRIDORS, TUNNELS, CHASES, ETC. SHALL BE CONSIDERED FOR PROPER DRAINAGE. CONSULT WITH THE OTHER CONTRACTORS AND AVOID CONFLICT WITH LOCATION OF PIPING. ORDER OF PRIORITY FOR ALL PIPING AND CONDUITS TO BE INSTALLED SHALL BE AS FOLLOWS WITH THE HIGHEST PRIORITY LISTED FIRST.

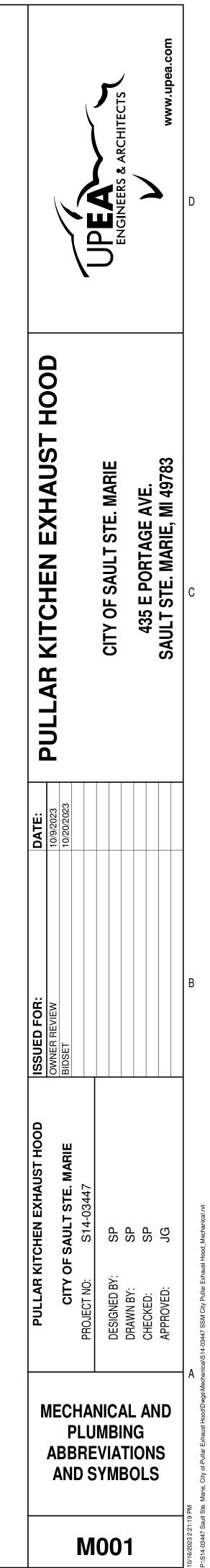
PLUMBING DRAIN LINES CONDENSATE LINES DUCTWORK FIRE PROTECTION HOT AND COLD WATER PIPING

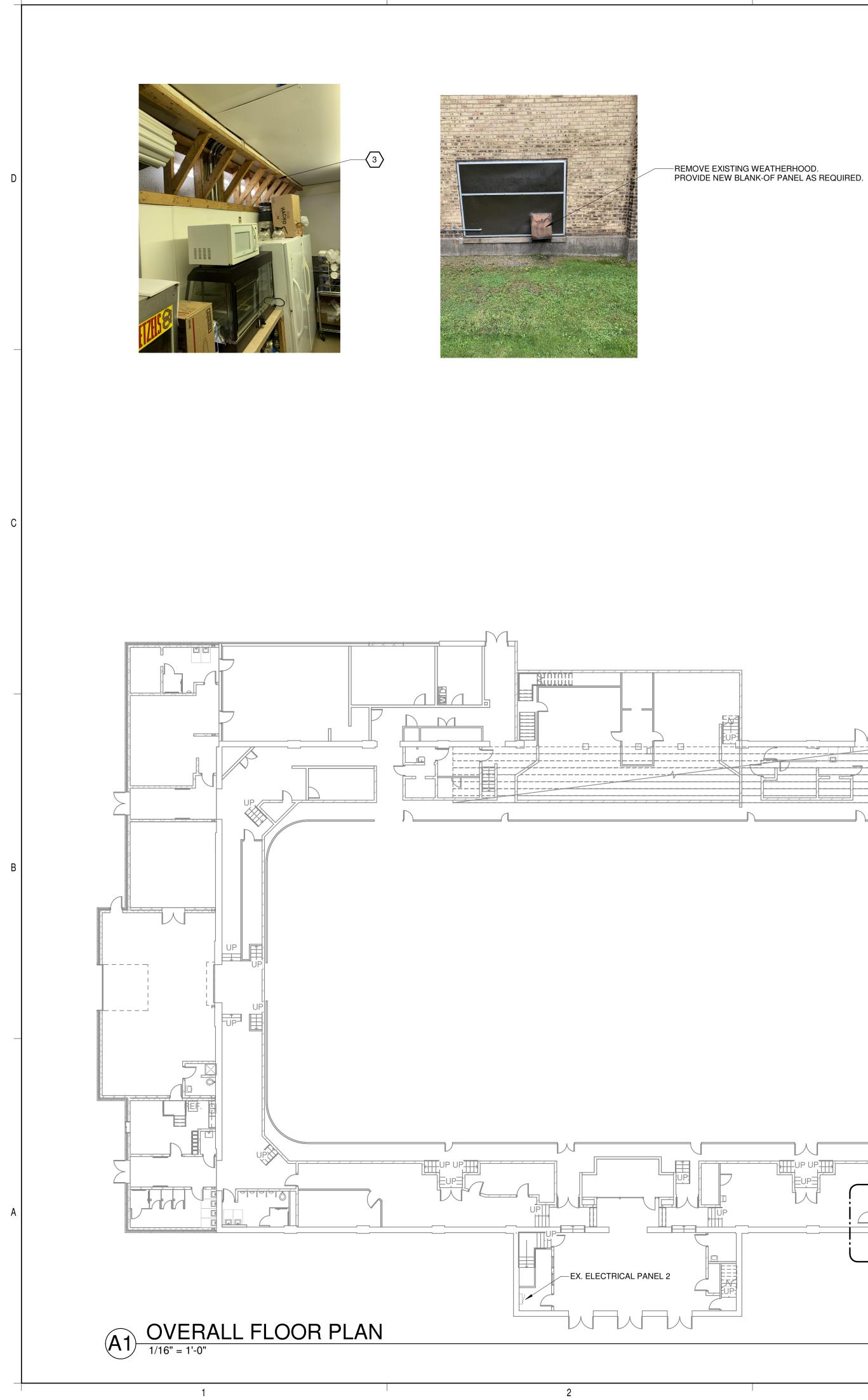
ELECTRICAL CONDUIT

16. WORK ASSIGNMENTS INFERRED BY THE DRAWINGS AND NOTES INCLUDED IN THESE PROJECT DOCUMENTS ARE INFORMATIONAL ONLY AND ARE NOT INTENDED TO RELIEVE THE BIDDING CONTRACTOR OF HIS OBLIGATION TO THE OWNER TO PROVIDE A COMPLETE AND COORDINATED PROJECT. COMPREHENSIVE SUBCONTRACTOR COORDINATION AND FINAL WORK ASSIGNMENTS TO SUBCONTRACTORS ARE THE SOLE RESPONSIBILITY OF THE BIDDING CONTRACTOR.

17. ALL DUCTS SERVING SUPPLY, RETURN AND EXHAUST TERMINALS SHALL BE PROVIDED WITH BALANCE DAMPERS. FOR CLARITY, ALL DAMPERS MAY NOT BE SHOWN ON PLANS.

18. PROVIDE DIELECTRIC UNIONS/CONNECTIONS AT ALL JUNCTIONS OF DISSIMILAR METALS.





- **GENERAL NOTES:**
- GREASE DUCT ENCLOSURES SHALL CONFORM TO ASTM E 2336.

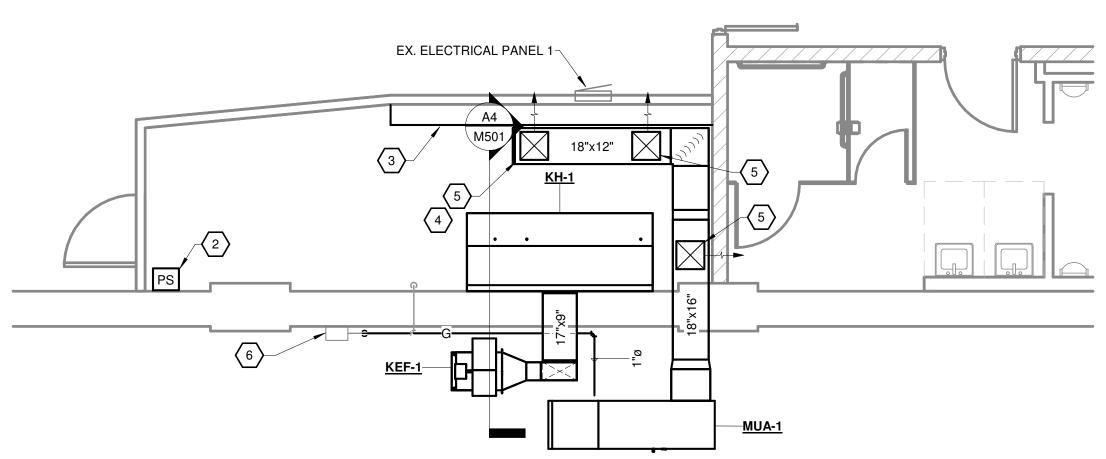
ELECTRICAL NOTES:

- EXISTING ELECTRICAL PANEL 1 IS SQUARE D. EXISTING ELECTRICAL PANEL 2 IS EATON CH.
- TANDEM 20/20 BREAKERS. ADJUST CIRCUITS AS REQUIRED FOR NEW BREAKERS/CIRCUIT.S
- RE-USE CIRCUIT FROM DEMOED EXHAUST FAN FOR NEW HOOD CONTROL.

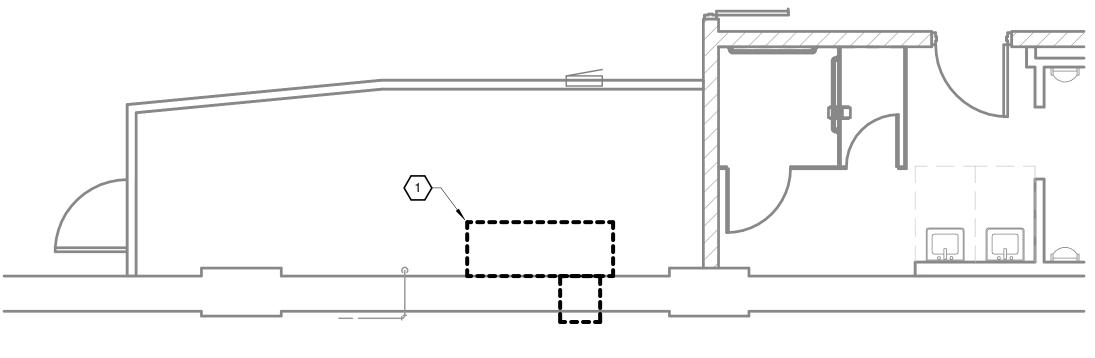
KEYNOTES

- $\langle 2 \rangle$ FOR HOOD. $\langle 3 \rangle$ PROVIDE 5/8" GYPSUM BOARD ON EXISTING SOFFIT. PAINT TO MATCH EXISTING. $\langle 4 \rangle$
- $\left< 5 \right>$
- BLADE DAMPER AND BALANCE EQUALLY BÉTWEEN ALL 3.
- 6

Ŧ B4 M101



ENLARGED PROPOSED MECHANICAL PLAN **B4**



A4 ENLARGED EXISTING MECHANICAL PLAN

4

3

ALL KITCHEN EXHAUST GREASE DUCTS SHALL BE CONSTRUCTED AND INSTALLED PER THE LATEST MICHIGAN MECHANICAL CODE AND NFPA #96. PRIOR TO THE CONCEALMENT OF ANY PORTION OF A GREASE DUCT SYSTEM, A LEAKAGE TEST SHALL BE PERFORMED IN THE PRESENCE OF THE CODE OFFICIAL.

PROVIDE NEW 20A 2 POLE CIRCUIT FOR MAKE UP AIR UNIT FROM EXISTING PANEL 2. PROVIDE NEMA 3-DISCONNECT. PROVIDE NEW 2-POLE 20A BREAKER AND (2) PROVIDE NEW 20A 2 POLE CIRCUIT FOR EXHAUST FAN FROM EXISTING ELECTRICAL PANEL 1. PROVIDE NEMA 3-DISCONNECT. PROVIDE NEW BREAKER. RELOCATE EXISTING CEILING LIGHT NEAR HOOD FOR INSTALLATION OF NEW HOOD.

1 REMOVE EXISTING HOOD, FAN, WEATHERHOOD, AND ASSOCIATED SUPPORTS AND ELECTRICAL. PROVIDE NEW BLANK OFF PANEL AS REQUIRED.

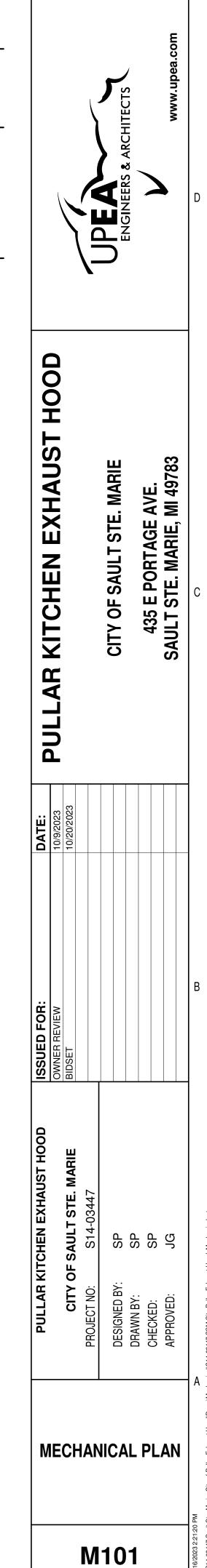
PROVIDE KITCHEN HOOD FIRE PROTECTION REMOTE MANUAL PULL STATION AND ASSOCIATED CONNECTION TO HOOD. PROVIDE FIRE SUPPRESSION SYSTEM

COORDINATE EXACT LOCATION OF HOOD WITH THE OWNER AND EQUIPMENT LAYOUT. MODIFY GAS PIPING IF REQUIRED.

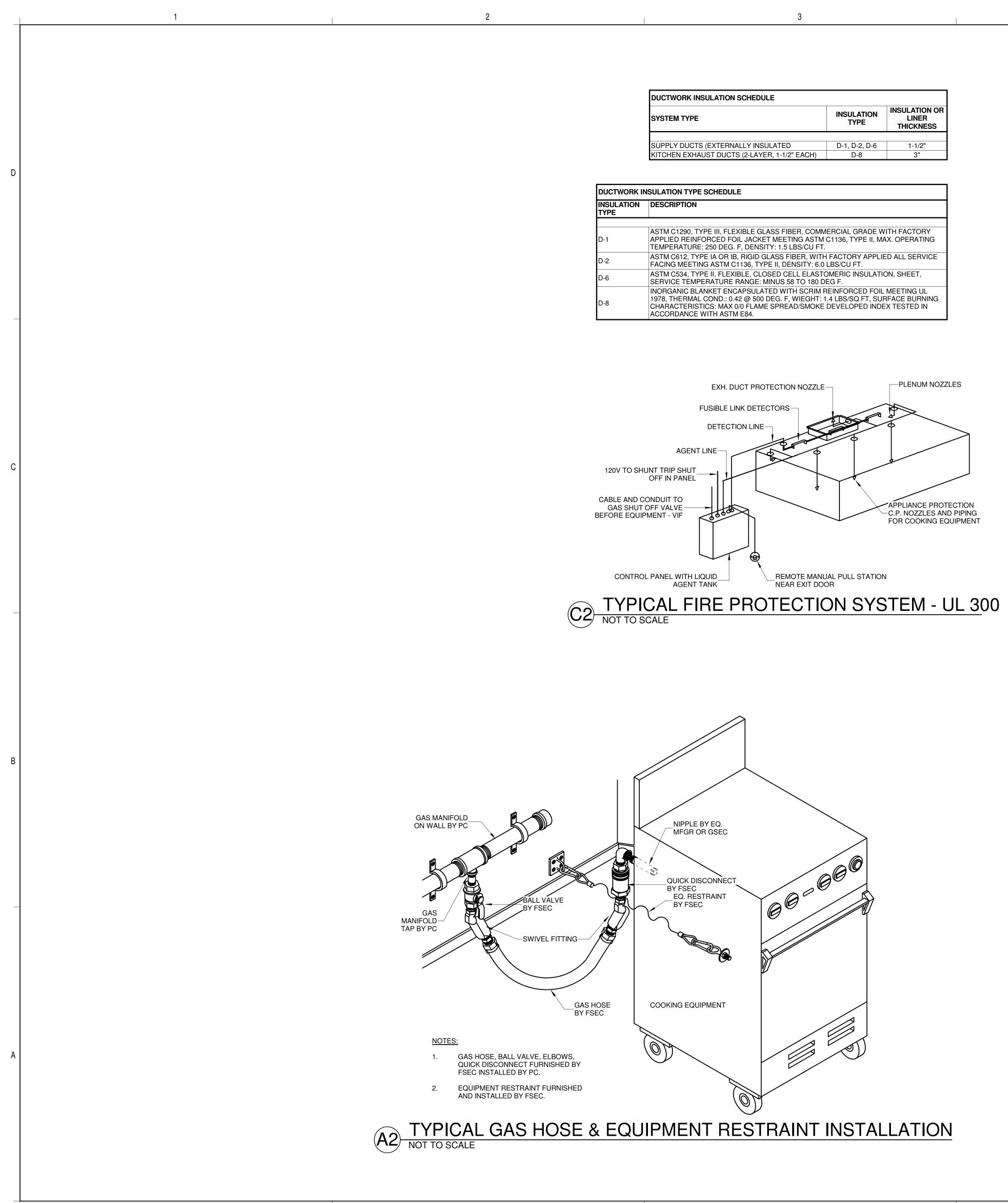
PERFORATED SUPPLY DIFFUSER (TYP OF 3). EQUAL TO NAILOR "4320". 1-WAY DISCHARGE POINTED TOWARDS EXTERIOR OF ROOM. PROVIDE WITH OPPOSED

EXISTING GAS METER. COORDINATE WITH DTE TO UPSIZE THE EXISTING METER TO ACCOMODATE THE NEW AND EXISTING LOADS. ENSURE ALL EQUIPMENT IS LOCATED WITH REQUIRED CLEARANCES TO GAS METER. REPLACE THE GAS PIPING FROM THE METER TO THE TAP FOR THE MAKE UP AIR UNIT WITH 1-1/4" PIPE.

5



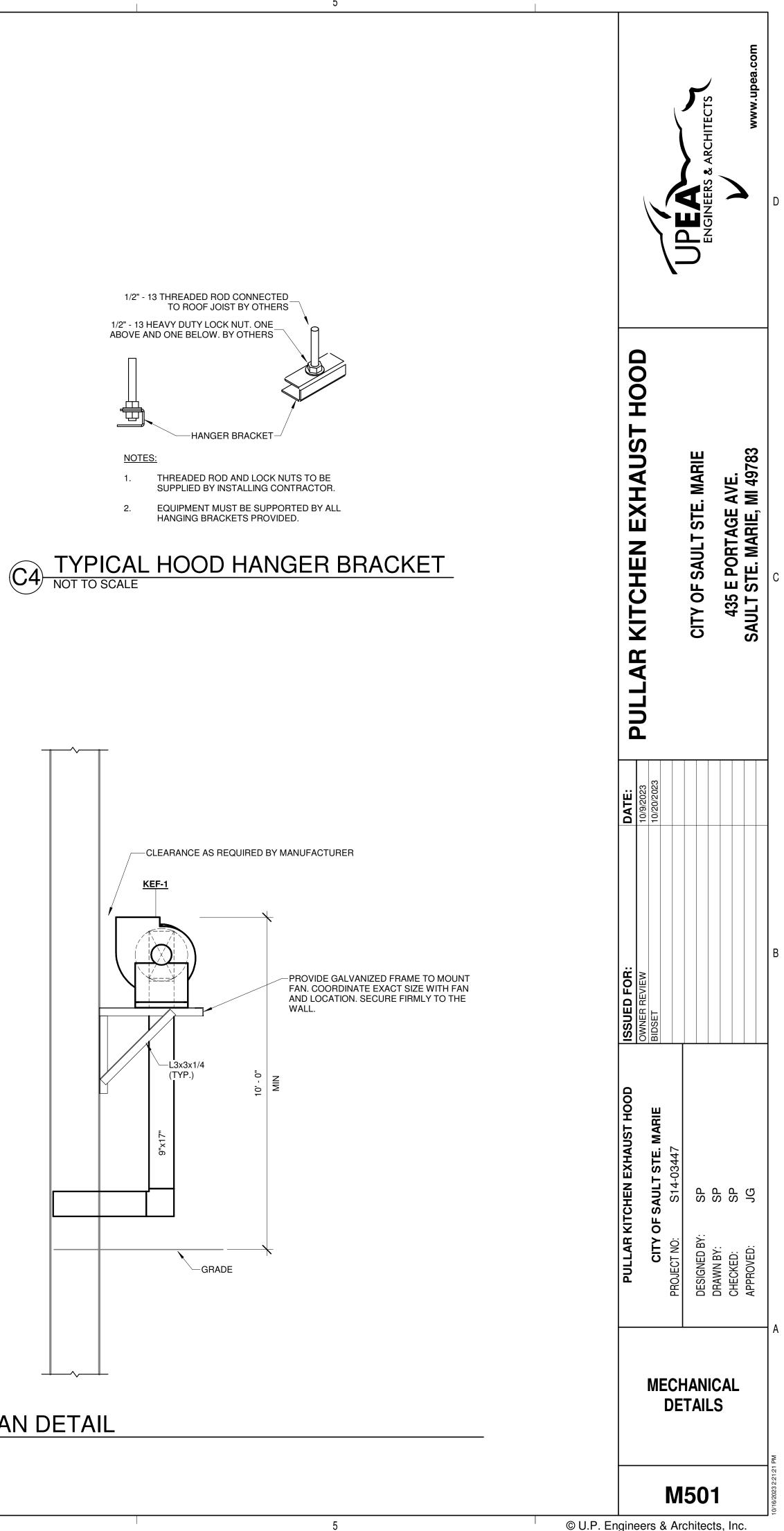
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DUCTWORK INSULATION SCHEDULE							
SYSTEM TYPE	INSULATION TYPE	INSULATION OI LINER THICKNESS					
SUPPLY DUCTS (EXTERNALLY INSULATED	D-1, D-2, D-6	1-1/2"					
KITCHEN EXHAUST DUCTS (2-LAYER, 1-1/2" EACH)	D-8	3"					

DUCTWORK I	SULATION TYPE SCHEDULE
INSULATION TYPE	DESCRIPTION
D-1	ASTM C1290, TYPE III, FLEXIBLE GLASS FIBER, COMMERCIAL GRADE WITH FACTORY APPLIED REINFORCED FOIL JACKET MEETING ASTM C1136, TYPE II, MAX. OPERATING TEMPERATURE: 250 DEG. F, DENSITY: 1.5 LBS/CU FT.
D-2	ASTM C612, TYPE IA OR IB, RIGID GLASS FIBER, WITH FACTORY APPLIED ALL SERVICE FACING MEETING ASTM C1136, TYPE II, DENSITY: 6.0 LBS/CU FT.
D-6	ASTM C534, TYPE II, FLEXIBLE, CLOSED CELL ELASTOMERIC INSULATION, SHEET, SERVICE TEMPERATURE RANGE: MINUS 58 TO 180 DEG F.
D-8	INORGANIC BLANKET ENCAPSULATED WITH SCRIM REINFORCED FOIL MEETING UL 1978, THERMAL COND.: 0.42 @ 500 DEG. F, WIEGHT: 1.4 LBS/SQ FT, SURFACE BURNING CHARACTERISTICS: MAX 0/0 FLAME SPREAD/SMOKE DEVELOPED INDEX TESTED IN ACCORDANCE WITH ASTM E84.

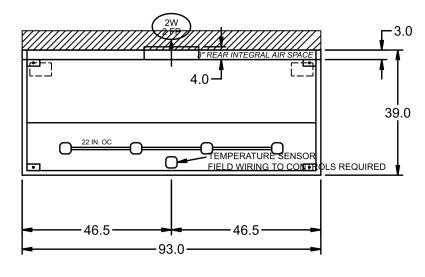




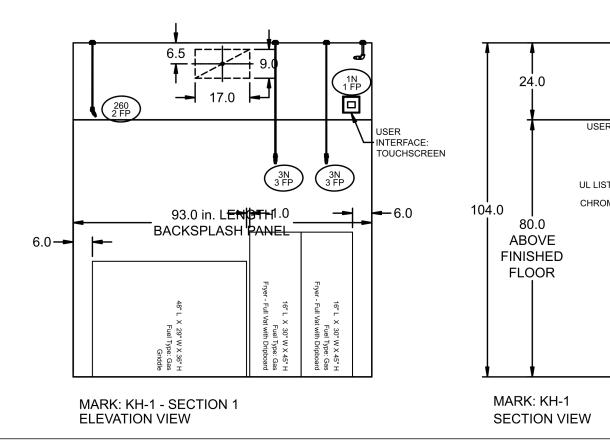
A4 EXHAUST FAN DETAIL NOT TO SCALE

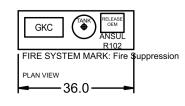
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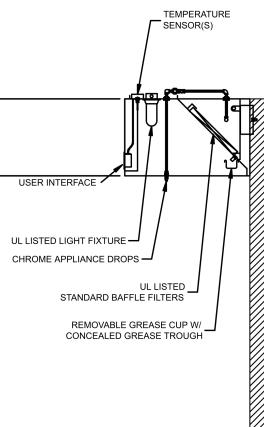
			HOOD	DIMENSI	ONS (IN.)		COOKING				EXHA	UST			SU	JPPLY	TOTAL	SECTION
HOOD NO.	MARK	MODEL		WIDTH	HEIGHT	HOOD CONST		TOTAL				OLLAR(S	S)		MUA		WEIGHT	SECTION LOCATIO
							RATING	CFM	WIE	ТН	LENGTH	DIA.	CFM	S.P.	CFM	CFM	LBS.	200, 110
1	KH-1	GHEW-93-S	93	39	24	430 SS WHERE EXPOSE	E HEAVY	1744	ę	9	17		1744	0.457			208	SINGLE
	NFORMATION																	
HOOD		LIG	BHTING D	ETAILS		GF	REASE FILTF	RATION I	DETAI	LS		_		UTILITY	CABINE	T(S)		
NO.	MARK	FIXTUR		Q	ry FOO		YPE / MODE		SIZE	(IN.)	LOCATIO	N	FIRE S	YSTEM		C	ONTROL	S
		BULB / LA			CAND	ES	MATERIAL			н	200/110		TYPE		SIZE	MODEL		RFACE
1	KH-1				45.4	9	BAFFLE	2	16	20							+	
		100W A19 (BUL	BS NOT I	NCL.)		51	AINLESS STEE	L 3	20		WALL		ANSUL R'	102	3	GKC		
	<u>DPTIONS</u> 10 LISTED W/ OUT EXHAUST FIRE D	AMPER - LIL #M	H11726															
	(INTEGRAL AIR SPACE - 3 IN WIDE																	
EXHA	AUST COLLARS MOUNTED ON HOO	D BACK																
FACT	ORY MOUNTED EXHAUST COLLAR	(S)																
WALI	UTILITY CABINET 24 IN HIGH 36 IN	LONG 12 IN WI	DE															
BAC	(SPLASH 80.00 IN HIGH 93.00 IN LOI	NG																
	ORMANCE ENHANCING LIP (PEL) T	FCHNOLOGY																
PERF		EGIMIOLOGI																

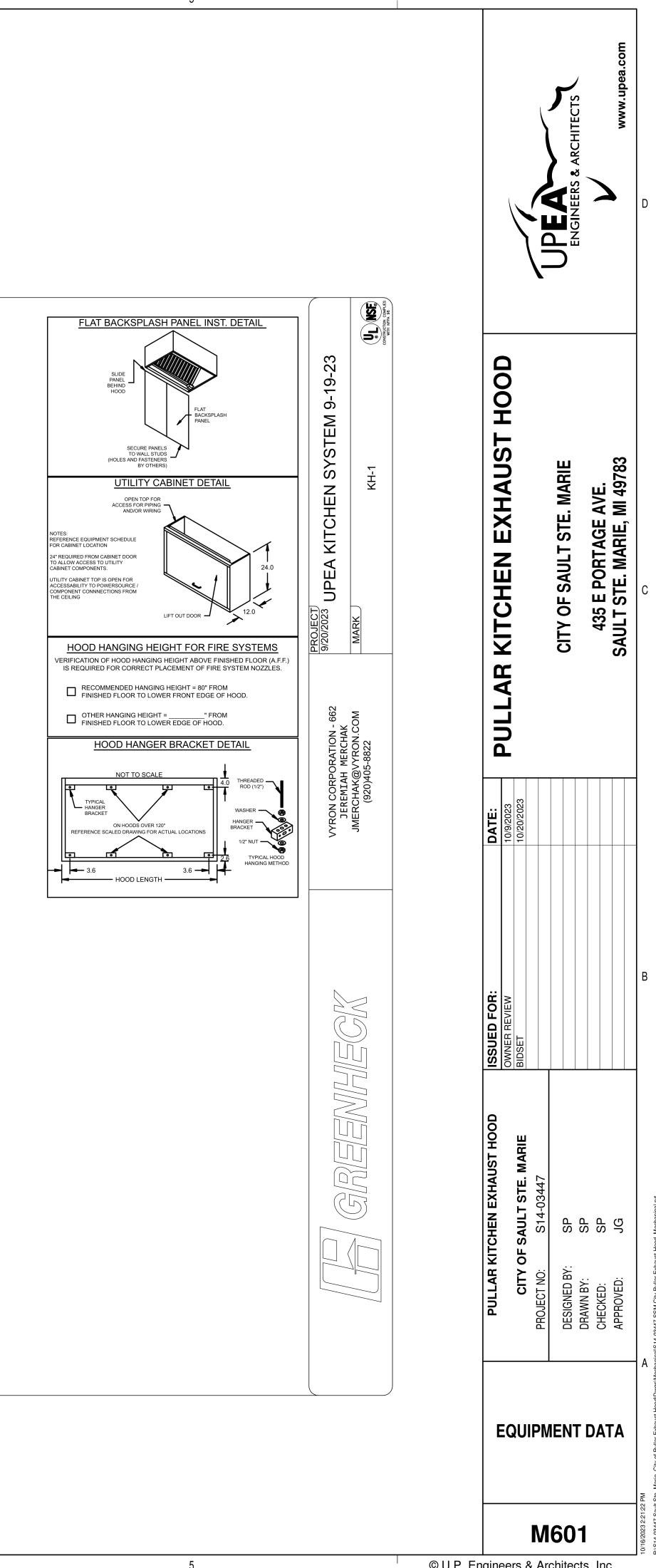


MARK: KH-1 - SECTION 1 PLAN VIEW









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Universal Single Width Fan

1

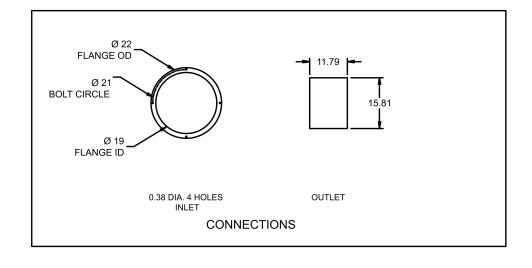
[MARK INFORMATION		FA	N INFORMATION					Ν	IOTOR INFORM	ATION	
	QTY	MARK	MODEL	VOLUME (CFM)	TOTAL EXTERNAL SP (IN WG)	FAN RPM	OPERATING POWER (HP)	WEIGHT (LB.)	SIZE (HP)	V/C/P	ENCLOSURE	MOTOR RPM	WINDINGS
[1	KEF-1	USF-15	1,744	0.707	1,159	0.32	122	0.5	208/60/1	OP	1770	1

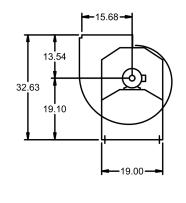
KEF-1 : SELECTED OPTIONS AND ACCESSORIES

2

Finish - Coated Coating - Permatector, Concrete Gray-RAL 7023, Mill Finish on Aluminum Components Rotation - CW

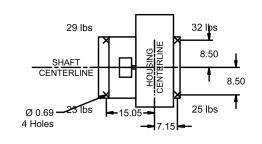
Discharge Position - UB
Arrangement - 4
UL/cUL-762 Outdoor - Power Vent. for Restaurant Exhaust Appliances
Access Door - Bolted
Drain Connection - 1 inch threaded male
Inlet Flange, Punched
Outlet Connection, Slip Fit
Shaft Seal - Standard
Grease Trap, Shipped Loose
Fasteners - Standard

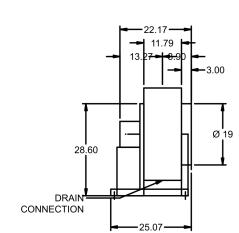




С

1

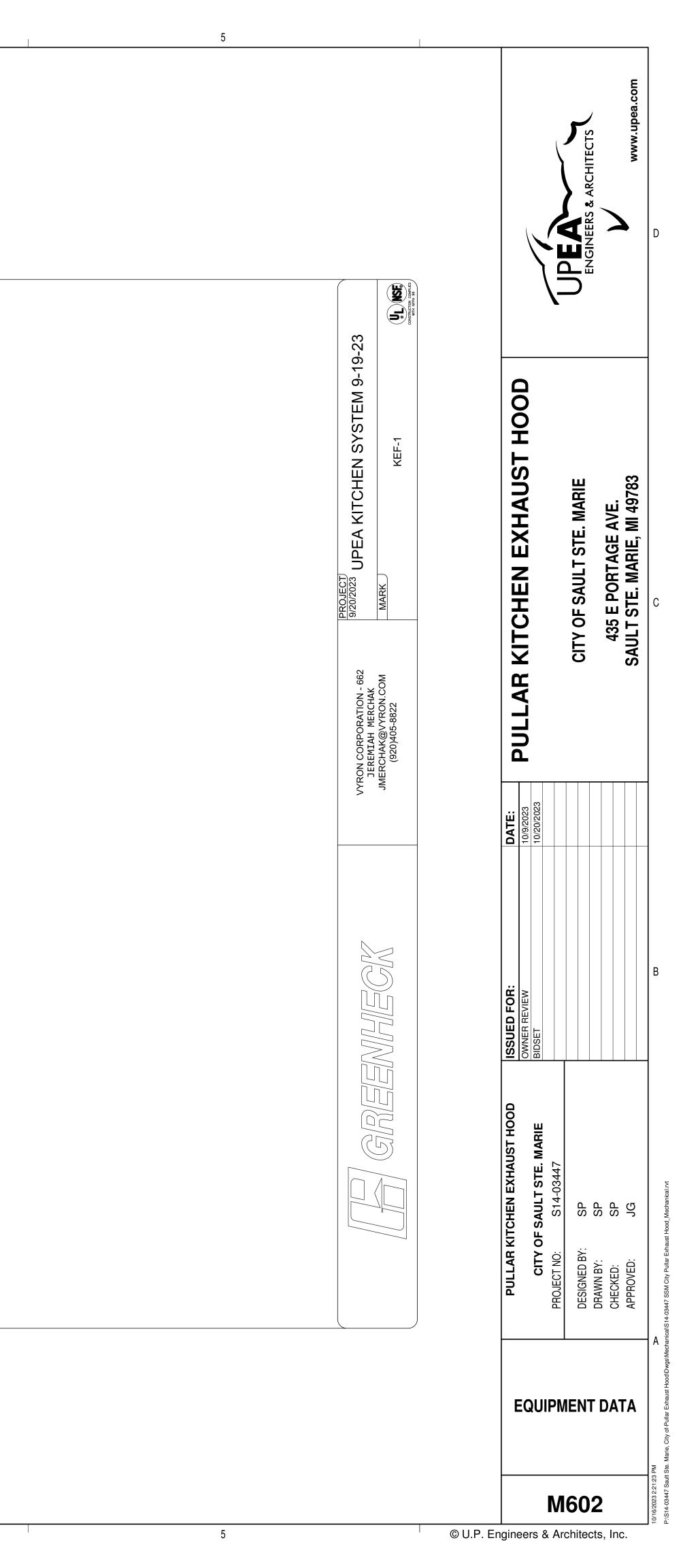


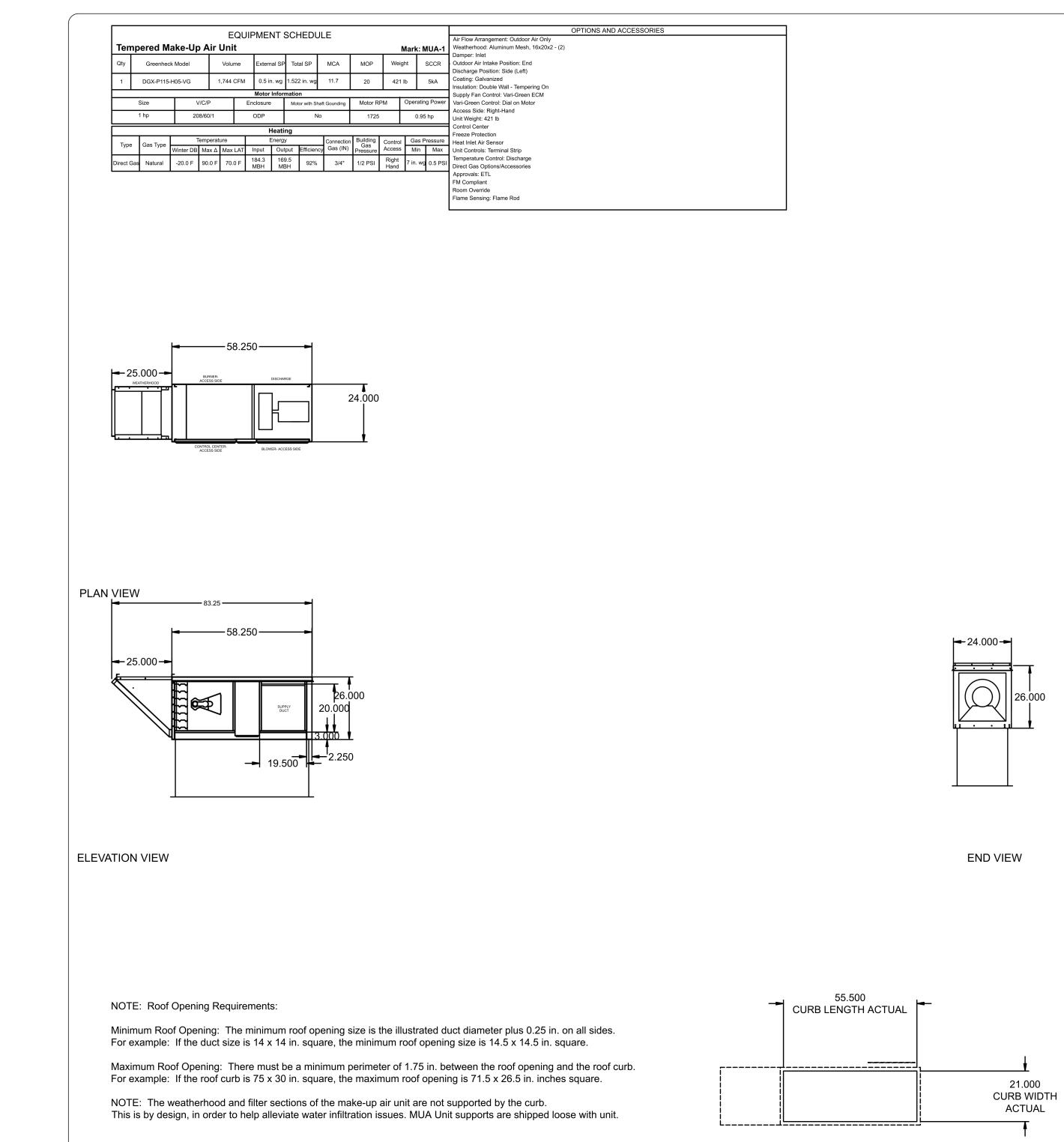


3

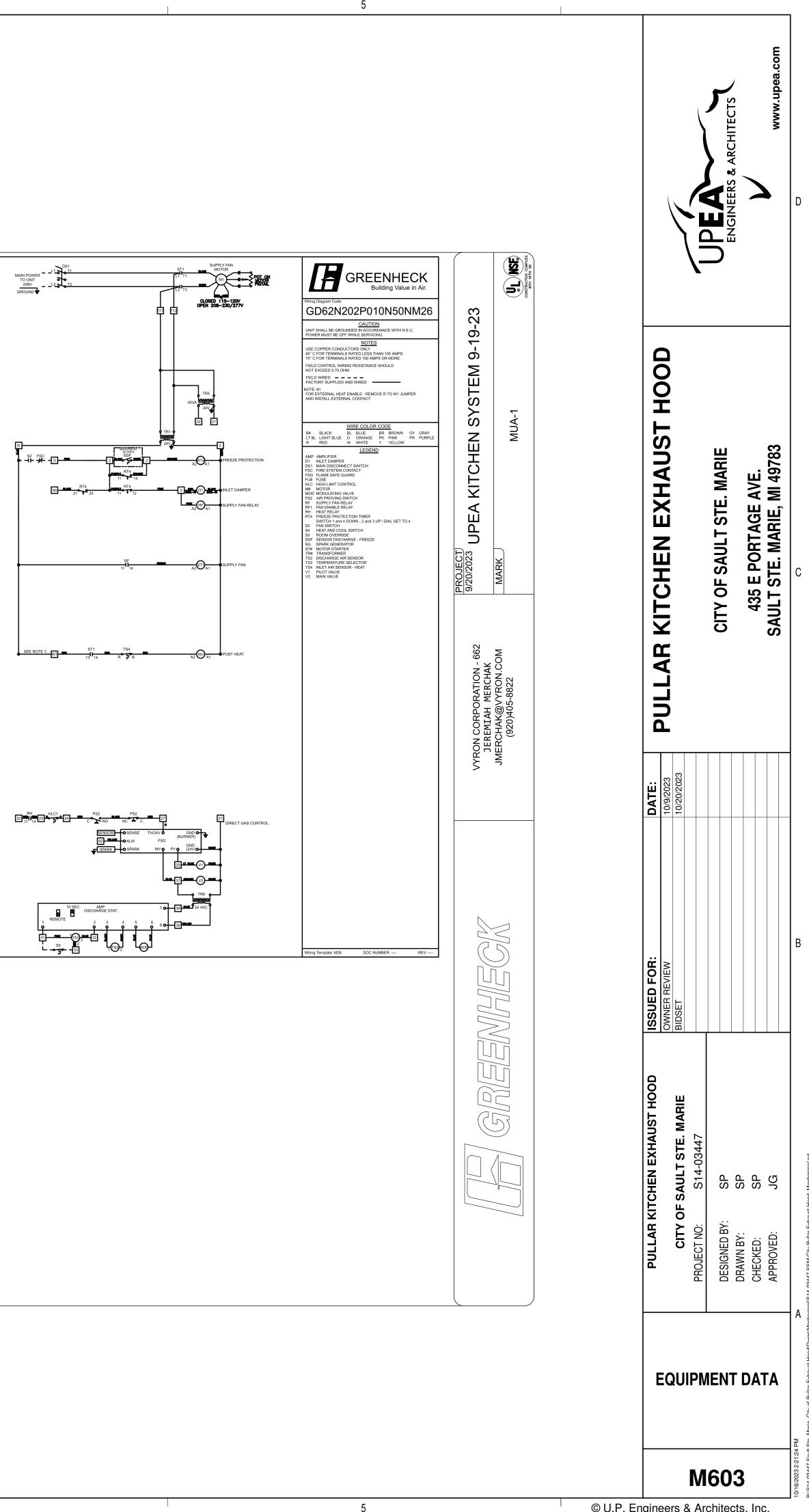
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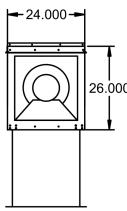
4





FOOTPRINT



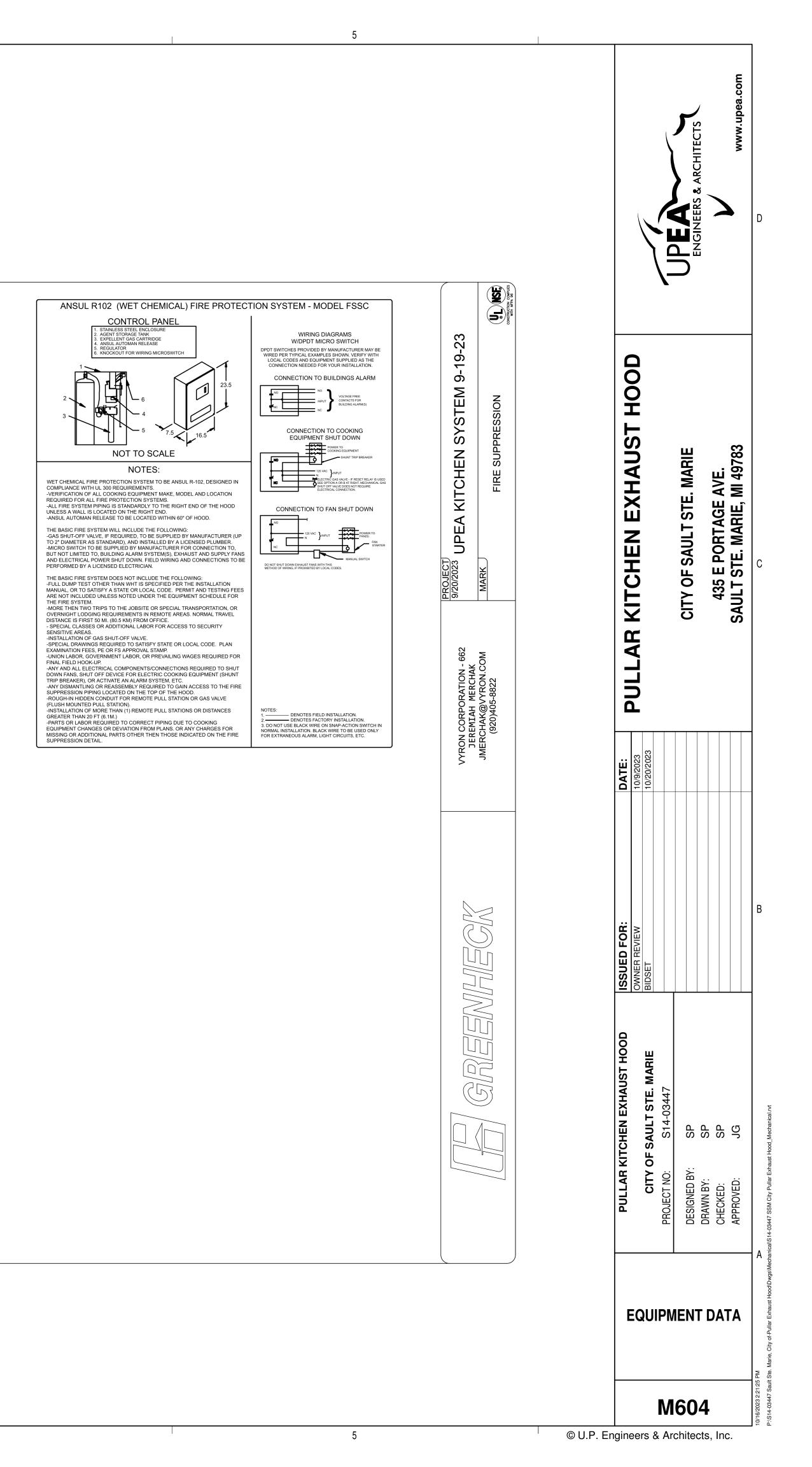


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MARK	MODEL	LOCATION	FLOW F	OW POINTS SUPPLY DETECTIO		DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
MARK	MODEL	LOCATION	HOODS	PCU	LINE	DETECTION	MARK(3) PROTECTED BT FIRE STSTEM
FIRE SUPPRESSION	ANSUL R-102 WET CHEMICAL	WALL CABINET – ON KH-1	11 UTILIZED 11 AVAILABLE		CONTINUOUS	FUSIBLE LINK	KH-1 SECTION 1
RE SYSTEM OPTIONS AND ACC FULL INSTALLATION (INCLUDES		WITH DETECTION AND FACTORY C		STALL)			
	PRE-PIPED HOOD(S)	WITH DETECTION AND FACTORY C		STALL)			
FULL INSTALLATION (INCLUDES	PRE-PIPED HOOD(S) RY PROVIDED APPLIA		OORDINATED INS	STALL)			

HOOD SUPPRESSION TANK - INCLUDED - 3 GAL. - [(1) 3.0 TANK(S)]

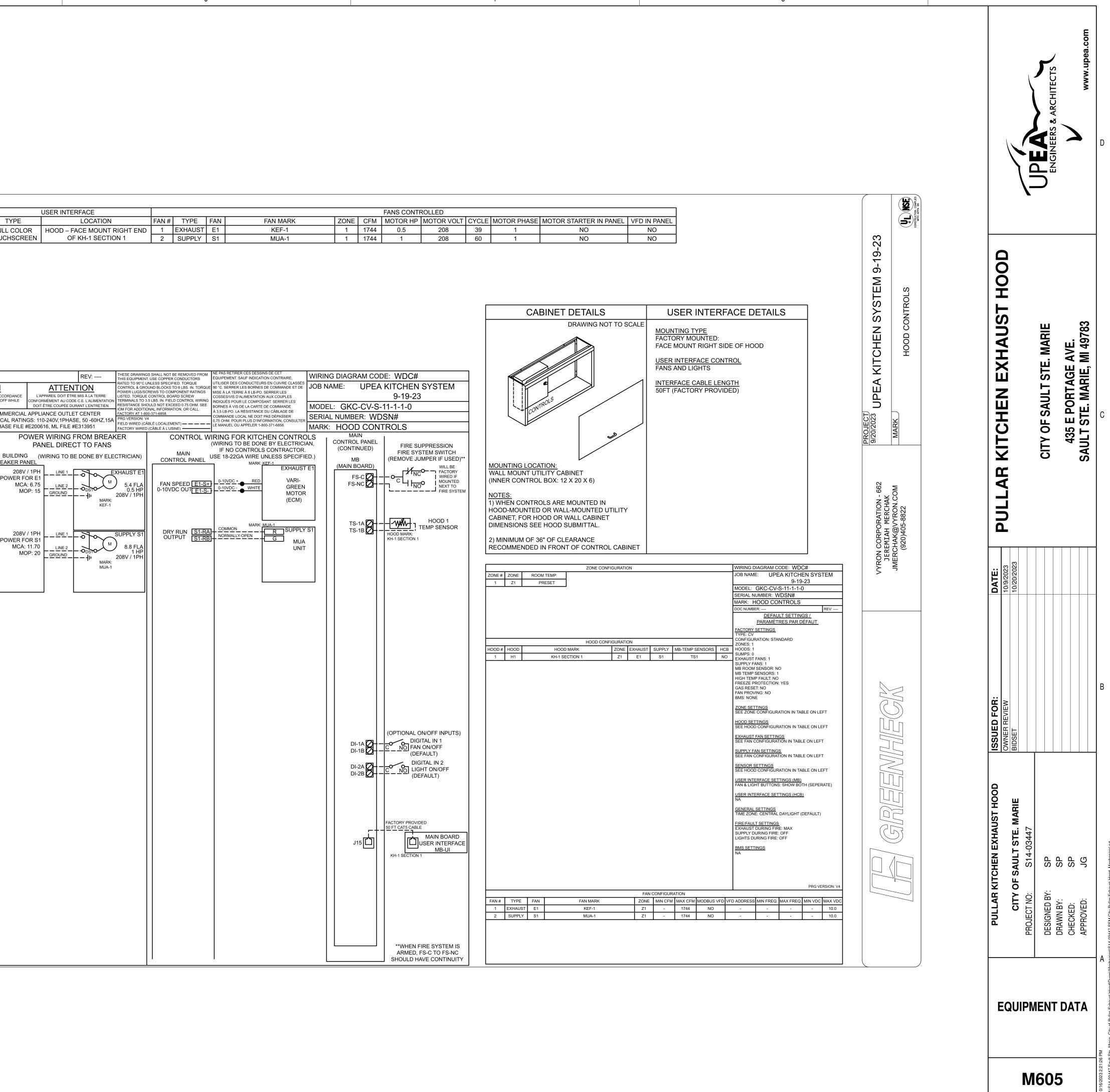
REMOTE PULL STATION - STANDARD - FIELD INSTALLATION AT SINGLE POINT OF EGRESS



MARK	ELECTRICAL CO	NTROL PACKAGE	
MARK	MODEL	LOCATION	Т
HOOD CONTROLS	GKC-CV-S-11-1-1-0	WALL CABINET ON KH-1	FULL TOUCH
CONTROL FEATURES			
TEMP SENSORS (FACTORY INSTA	ALLED) - QTY. 1		
DRY FIRE CONTACTS - QTY. 1			
LIGHTS OFF DURING FIRE			
EXHAUST MAX DURING FIRE			

			DOC N	
	GREEN			CAUTION JST BE GROUNDED IN ACCORE N.E.C. POWER MUST BE OFF W
		VALUE IN A		SERVICING. COMME ELECTRICAL
	POWER WIRING FOF	R KITCHEN CONTR		A3BM DACE
	(WIRING TO BE DO	NE BY ELECTRICIAN)		BU
BUILDING REAKER PANEL	MAIN CONTROL PANE		- С - ноор	BREAK
110V-120V / 1PH POWER FOR CONTROLS /			LIGHTS 115VAC 1200W M	
(NON SHUNTED 15A BREAKER)			- ı	
	UPON FIR OR NO POWER TO PANEL			SYSTEM POV
	C TO NO WILL CLOS C TO NC WILL OPE		CLOSED CONT	ГАСТ 1*
	FIRE SYSTEM DRY CONTAC	T WIRING EXAMPLES		
*				
SHUNT TRIP (BY OTHERS)	_	APPLIANCE CO (BY OTHI	ERS)	
SHUNT TRIP	E: 			T UTRAL

YPE	LOCATION	FAN #	TYPE	FAN	FAN MARK	ZONE	CFM	MOTOR HP	MOTOR VOLT	CYCLE	MOTOR PHASE	MOTOR STARTER IN PANE
COLOR	HOOD – FACE MOUNT RIGHT END	1	EXHAUST	E1	KEF-1	1	1744	0.5	208	39	1	NO
HSCREEN	OF KH-1 SECTION 1	2	SUPPLY	S1	MUA-1	1	1744	1	208	60	1	NO
											CA	BINET DETAILS
											0/1	
												DRAWING NOT TO



I

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