

Project

AEROJET BUILDING 66B
CURE OVEN BUILDING
EAST CAMDEN,
ARKANSAS

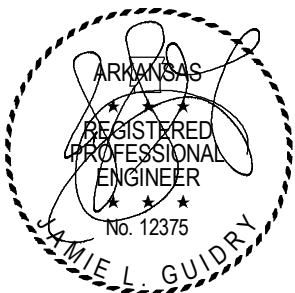
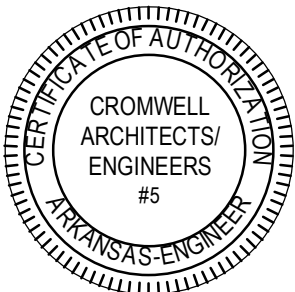
Design Phase

CONSTRUCTION
DOCUMENTS

Revisions

No.	Date	Description

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07-31-2024

Notes

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Sheet Title

PLUMBING LEGEND
AND NOTES

Sheet Number

P-001

PLUMBING GENERAL NOTES

- ALL PLUMBING SYSTEMS SHALL BE INSTALLED AS PER SPECIFICATIONS AND GOVERNING CODES.
- ALL DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENTS OR GEOMETRIC RELATIONSHIPS OF EQUIPMENT AND SERVICES. THEY ARE NOT INTENDED TO SPECIFY OR SHOW EVERY OFFSET, FITTING OR COMPONENT. CONTRACTOR SHALL NOT SCALE DRAWINGS. INFORMATION AND COMPONENTS SHOWN ON RISER DIAGRAMS OR DETAILS, BUT NOT SHOWN ON PLANS, AND VICE-VERSA, SHALL BE PROVIDED AS IF EXPRESSLY REQUIRED BY BOTH. THE CONTRACTOR SHALL SUBMIT A REQUEST FOR INFORMATION (RFI) IF INFORMATION CONFLICTS. DRAWINGS SPECIFIC TO THIS DISCIPLINE DO NOT LIMIT THE RESPONSIBILITY OF WORK REQUIRED BY CONTRACT DOCUMENTS. REFER TO ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND OTHER DRAWINGS FOR COMPLETE INFORMATION.
- BY NECESSITY, THESE DRAWINGS REFLECT A SYSTEM DESIGNED AROUND SPECIFIC REFERENCE PRODUCTS, THE SELECTION OF WHICH HAS IMPACTED THE DESIGNS OF OTHER TRADES (HVAC, ELECTRICAL, STRUCTURAL, ETC.). IF ALTERNATE MANUFACTURERS, FUEL SOURCES, SIZES, OR MODEL NUMBERS ARE SUBMITTED OR BID, IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO COORDINATE ALL DIFFERENCES PRIOR TO BID. NO EXTRAS WILL BE ALLOWED FOR CHANGES REQUIRED TO OTHER TRADES IF ALTERNATE EQUIPMENT IS BID OR INSTALLED AT THE CONTRACTORS OPTION.
- EXCEPT WHERE MODIFIED BY SPECIFIC NOTATION TO THE CONTRARY, IT SHALL BE UNDERSTOOD THAT THE INDICATION AND/OR DESCRIPTION OF ANY ITEM, IN THE DRAWINGS OR SPECIFICATIONS OR BOTH, CARRIES WITH IT THE INSTRUCTION TO FURNISH AND INSTALL THE ITEM, REGARDLESS OF WHETHER OR NOT THIS INSTRUCTION IS EXPLICITLY STATED AS PART OF THE INDICATION OR DESCRIPTION.
- CONTRACTOR SHALL PAY ALL UTILITY FEES & CHARGES AS PART OF BASE BID IN THE CONTRACT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK WITH THAT OF OTHER TRADES; i.e., ARCHITECTURAL, HVAC, ELECTRICAL, STRUCTURAL, FIRE PROTECTION AND CIVIL PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL COORDINATE UTILITY LOCATIONS, SIZES AND INVERT ELEVATIONS PRIOR TO CONSTRUCTION; i.e., SANITARY SEWER, FIRE PROTECTION, DOMESTIC WATER AND NATURAL GAS. ALL SERVICES SHALL TERMINATE 5 FEET OUTSIDE THE BUILDING, EXCEPT WHERE SHOWN OTHERWISE. SEE SITE UTILITY DRAWINGS FOR CONTINUATION OF ALL SERVICE LINES.
- PROVIDE ISOLATION VALVES AT EACH FIXTURE GROUP OR BATTERY OF FIXTURES IN THE DOMESTIC CW, HW, HWR AND GAS PIPING. VALVES SHALL BE EASILY ACCESSIBLE. WHERE HARD CEILINGS ARE LOCATED, VALVES SHALL BE ACCESSED THROUGH ACCESS PANELS. ACCESS PANELS SHALL BE COORDINATED WITH ARCHITECT PRIOR TO CONSTRUCTION.
- PROVIDE STOP VALVES AT ALL PLUMBING FIXTURES ON BOTH HOT AND COLD WATER SUPPLY LINES. VALVES, ESCUTCHEONS, FITTINGS, ETC., SHALL BE CHROME PLATED AND INSTALLED TIGHT TO WALL. WHERE PIPING IS EXPOSED, CHROME PLATED PIPE SHALL BE USED.
- ALL EXPOSED OR ACCESSIBLE P-TRAPS SHALL BE CHROME PLATED AND PROVIDED WITH BOTTOM CLEANOUT PLUGS.
- SLOPE 2-1/2" AND SMALLER DRAIN WASTE AND VENT (DWV) LINES AT MIN. (2%) 1/4" FALL PER FT., 3" TO 6" DWV LINES AT MIN. (1%) 1/8" FALL PER FT. SANITARY SEWER AND WATER SHALL BE A MINIMUM OF 10' APART OR THE DOMESTIC WATER SERVICE SHALL BE 12" ABOVE THE TOP OF THE SEWER LINE, AT ITS HIGHEST POINT, IF PLACED IN SAME TRENCH.
- PROVIDE ALL FITTINGS, TRANSITIONS, COUPLINGS, ADAPTERS, UNIONS, AND OTHER ACCESSORIES NEEDED TO COMPLETE CONNECTIONS AND PROPER OPERATIONS OF PLUMBING FIXTURES AND PLUMBING EQUIPMENT.
- REFER TO SPECIFICATIONS FOR ACCEPTABLE MANUFACTURERS OF PLUMBING FIXTURES AND EQUIPMENT, AND PROPER APPLICATIONS OF SAME.
- PROVIDE CLEANOUTS IN ALL SEWERS, WHETHER SHOWN OR NOT, AT INTERVALS NOT TO EXCEED 100 FEET, AT EACH CHANGE OF DIRECTION GREATER THAN 45°, AND ALL VERTICAL STACKS AT A HEIGHT OF 30" ABOVE FINISH FLOOR AT THE BASE OF EACH STACK.
- WHERE WATER PRESSURES EXCEED 80 PSI, PROVIDE WATER PRESSURE REDUCING VALVES (PRV) CONFORMING TO ASSE 1003 WITH STRAINER IN WATER SUPPLY LINES, SETTING AT 80 PSI. SEE CODE AND MANUFACTURER INFORMATION FOR ACCEPTABLE PRESSURE REQUIREMENTS.
- ALL PIPING PENETRATIONS OF THE RATED CEILING AND WALL MUST BE MADE WITH METAL PIPE OR UL LISTED APPROVED DEVICES. FIRE STOP ALL PIPE PENETRATIONS THRU RATED WALLS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS, RATINGS AND FIRE STOPPING DETAILS.
- DO NOT ROUTE ANY PIPING OVER ELEC. ROOMS, COMPUTER ROOMS, OR ELEC. PANELS.
- INSTALL AN AGA LISTED NATURAL GAS COCK, DIRT LEG AND UNION IMMEDIATELY UPSTREAM OF EQUIPMENT CONNECTIONS. AS NOTED ON DRAWINGS PROVIDE AN AGA LISTED VENT LIMITING GAS REGULATOR. GAS REGULATORS SHALL NOT BE INSTALLED IN AIR PLENUMS (SEE HVAC PLANS FOR AIR PLENUM LOCATIONS). PAINT ALL NATURAL GAS PIPING WITH TWO COATS OF OIL BASED YELLOW PAINT IN ALL LOCATIONS NOT SPECIFIED BY ARCHITECT.
- ALL DOMESTIC WATER PIPING ROUTED IN AREAS SUBJECT TO FREEZING TEMPERATURES SHALL BE ROUTED BELOW INSULATION AND WITHIN THE HEATED ENVELOPE OF THE BUILDING. WHERE PIPING CAN NOT BE ROUTED BELOW INSULATION, PIPING SHALL HAVE 5 WATT/FT HEAT TRACING ATTACHED. SEE ARCHITECTURAL DRAWINGS FOR INSULATION PLACEMENT AND DETAILS. COORDINATE ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR AND ENGINEER.
- UNLESS OTHERWISE INDICATED, DO NOT ROUTE WATER PIPING IN EXTERIOR WALLS. WHEN ROUTED IN EXTERIOR WALLS, CAREFULLY POSITION WATER PIPING ON THE HEATED SIDE (INTERIOR SIDE) OF THE WALL INSULATION.
- MAINTAIN 10'-0" MINIMUM CLEARANCE BETWEEN FRESH AIR INTAKES, OPERABLE WINDOWS AND FLUES, PLUMBING VENTS AND GAS REGULATORS.
- ALL CONDENSATE DRAIN, SEWER & VENT PIPING SHALL BE RODDED AND CLEANED AT END OF CONSTRUCTION. ALL TRAPS SHALL BE CLEANED AND PRIMED AT END OF CONSTRUCTION.
- ALL PIPE DROPS FROM CEILING PLENUM TO FLOOR SHALL BE MADE IN FURROUTS AT COLUMNS, IN WEB OF BEAMS AT COLUMNS OR IN WALLS. PIPING SHALL BE CONCEALED UNLESS APPROVED BY ARCHITECT.
- PROVIDE WATER HAMMER ARRESTORS IN FIXTURE BRANCHES WHERE QUICK CLOSING VALVES ARE INSTALLED; i.e., FLUSH VALVES, ICE MAKERS, DISHWASHERS, ETC.
- BELOW SLAB WATER PIPE TO BE TYPE K SOFT DRAWN COPPER WITHOUT FITTINGS OR JOINTS. SLEEVE IN ENTIRETY WITH ARMAFLEX OR APPROPRIATE POLYETHYLENE SLEEVE MATERIAL.
- PROVIDE APPROVED BACKFLOW PREVENTION OR ANTI-SIPHON DEVICES AT ALL FIXTURES THAT COULD CONTAMINATE THE POTABLE WATER SYSTEM.
- INSULATE ALL WATER AND CONDENSATE, ABOVE FINISH FLOOR. SEE SPECIFICATIONS FOR THICKNESS SCHEDULE.
- FLOOR DRAINS IN MECHANICAL ROOMS ARE SHOWN FOR GENERAL LOCATION ONLY. FLOOR DRAINS SHALL BE ACCESSIBLE AND SHALL BE VERIFIED WITH EQUIPMENT LAYOUT FOR INTERFERENCES.
- AN APPROVED TRAP SEAL DEVICE CONFORMING TO ASSE 1072 SHALL BE INSTALLED AT ALL FLOOR AND HUB DRAINS. ALL DRAINS SHALL HAVE DEEP SEAL TRAPS, 4" DEEP SEAL MINIMUM. INSTALL TRAP GUARD DEVICES PER MANUFACTURER'S INSTRUCTIONS.
- DOMESTIC WATER SERVICE PIPING AND FITTINGS; E.G., CHECK VALVES, RP2A, SHUT-OFF VALVES, STRAINERS, PRESSURE REGULATORS, ETC. SHALL COMPLY WITH NSF 61 CRITERIA. ALL CAST IRON EQUIPMENT IS TO BE INTERNALLY EPOXY COATED.

ABBREVIATIONS				PIPING LEGEND		SEISMIC DESIGN CRITERIA	
AC	AIR COMPRESSOR	HS	HOSE STATION		(E) EXISTING PIPE TAG	1. SEISMIC DESIGN DATA: A. SEISMIC DESIGN CATEGORY: C a. SEE SHEET S-001 FOR MORE INFO.	
ACU	AIR CONDITIONING UNIT	HT	HEIGHT		(D) DEMOLISHED PIPE TAG		
AD	AREA DRAIN	HTG	HEATING		CW DOMESTIC COLD WATER		
AFC	ABOVE FINISH CEILING	HVAC	HEATING, VENTILATION, AIR COND.		HW HOT WATER 120°F		
AFF	ABOVE FINISH FLOOR	HW	HOT WATER		HWR HOT WATER 120°F RECIRC.		
AFG	ABOVE FINISHED GRADE	HWG	HOT WATER GENERATOR		G NATURAL GAS		
AHJ	AUTHORITY HAVING JURISDICTION	HWR	HOT WATER RETURN		CD CONDENSATE DRAIN		
APPROX	APPROXIMATE	HWST	HOT WATER STORAGE TANK		SPD PUMP DISCHARGE		
ARCH	ARCHITECT/ARCHITECTURAL	ID	INSIDE DIAMETER/DIMENSION		SS SANITARY SEWER		
ARD	AUXILIARY ROOF DRAIN	KW	KILOWATTS		V SANITARY VENT		
BFF	BELOW FINISH FLOOR	LAV	LAVATORY		SD STORM DRAIN		
BLDG	BUILDING	LF	LINEAR FEET		ASD STORM DRAIN OVERFLOW / AUX		
BTU	BRITISH THERMAL UNITS	LPG	LIQUID PETROLEUM GAS	PRESSURE PIPE SYMBOLS		2. THE FOLLOWING COMPONENT IMPORTANCE FACTORS ARE USED: A. SEWER & VENT PIPING: 1.0 B. NATURAL GAS PIPING: 1.5	
BTUH	BRITISH THERMAL UNITS/HOUR	LWT	LEAVING WATER TEMPERATURE		PIPE TEE		
CAP	CAPACITY	MAX	MAXIMUM		PIPE DROP		
CB	CATCH BASIN	MBH	THOUSAND BTU/PER HOUR		PIPE ELBOW		
CD	CONDENSATE DRAIN	MDL	MODEL		PIPE CAP		
CFH	CUBIC FEET/HOUR	MECH	MECHANICAL		PIPE RISE		
CFM	CUBIC FEET/MINUTE	MFR	MANUFACTURER	GRAVITY PIPE SYMBOLS			
CI	CAST IRON	MH	MANHOLE		PIPE RISE		
CLG	CEILING	MIN	MINIMUM		PIPE CAP		
CO	CLEAN OUT	MISC	MISCELLANEOUS		PIPE WYE 8TH TEE		
COL	COLUMN	MTD	MOUNTED		PIPE TEE		
CONC	CONCRETE	NA	NOT APPLICABLE		PIPE DROP		
CONN	CONNECT	NFPA	NATIONAL FIRE PROTECTION ASSO.		PIPE CROSS		
CONST	CONSTRUCTION	NTS	NOT TO SCALE		PIPE PLUG	3. SEISMIC BRACING IS NOT REQUIRED FOR PIPING WITH AN IP=1.5 PROVIDED THAT: A. PIPING IS LESS THAN OR EQUAL TO 2" DIAMETER B. PIPING IS SUPPORTED 12" OR LESS FROM THE STRUCTURE C. HANGER RODS ARE 3/8" OR GREATER D. EACH HANGER SUPPORTS 50 LB OR LESS	
CONT	CONTINUE	OA	OUTSIDE AIR	PLUMBING TAGS			
COTG	CLEAN OUT TO GRADE	OD	OUTSIDE DIAMETER/DIMENSION		PIPE TAG		
CP	CIRCULATING PUMP	PD	PRESSURE DROP		INVERT: -3' - 5"		
CR	CONDENSATE RETURN	PLBG	PLUMBING		APPROX. INVERT ELEVATION		
CW	COLD WATER	PRESS	PRESSURE		SIZE, SYSTEM, FU FLOW		
DCOTG	DOUBLE CLEANOUT TO GRADE	PRV	PRESSURE REDUCING VALVE		SYSTEM ABBREVIATION		
DD	DESICCANT DEHUMIDIFIER	PSI	POUNDS PER SQUARE INCH	FIXTURE TAG			
DEG(*)	DEGREE	RA	RETURN AIR		4" FS-9		
DEMO	DEMOLITION	RD	ROOF DRAIN		FS-9		
DF	DRINKING FOUNTAIN	REF	REFERENCE		HYD-2 3 CWFU		
DIA	DIAMETER	REQD	REQUIRED		WSB-1 3 WFU		
DSL	DOWN SPOUT	REV	REVISION, REVISED	PIPE ACCESSORIES			
DTL	DETAIL	RM	ROOM		3-WAY MOTORIZED CONTROL VALVE		
EFF	EFFICIENT	RPM	REVOLUTIONS PER MINUTE		3-WAY MIXING VALVE		
ELEC	ELECTRICAL	SC	STEAM CONDENSATE		BALANCING VALVE		
ELEV	ELEVATION	SCH	SCHEDULE		BALL VALVE		
EQ	EQUAL	SECT	SECTION		BUTTERFLY VALVE		
EQUIP	EQUIPMENT	SK	SINK		CHECK VALVE		
EW	ELECTRIC WATER HEATER	SP	STATIC PRESSURE		ELBOW VALVE		
EWT	ENTERING WATER TEMPERATURE	SPEC	SPECIFICATION(S)		GATE VALVE		
EX, EXT	EXISTING	SS	SANITARY SEWER		GLOBE VALVE		
EXP	EXPANSION	ST	STEAM		MOTOR CONTROL VALVE		
FCO	FLOOR CLEANOUT	STL	STEEL		PRESSURE REDUCING VALVE		
FD	FLOOR DRAIN	SUCT	SUCTION		PLUG VALVE		
FL	FLOW LINE	TDH	TOTAL DYNAMIC HEAD		SOLENOID VALVE		
FLEX	FLEXIBLE CONNECTION	TEMP	TEMPERATURE		THREE-WAY VALVE		
FLR	FLOOR	TH	TOTAL HEAD		STRAINER-WYE		
FPM	FEET PER MINUTE	TMV	THERMOSTATIC MIXING VALVE		STRAINER-WYE WITH BLOWOFF VALVE		
FPRH	FREEZE PROOF ROOF HYDRANT	TWMV	THREE WAY MODULATING VALVE	PLUMBING PHASING			
FPWH	FREEZE PROOF WALL HYDRANT	TYP	TYPICAL		NEW CONSTRUCTION PLUMBING EQUIPMENT/ FIXTURES (TYPICAL TAG FOR ALL NEW CONSTRUCTION)		
FS	FLOOR SINK	UL	UNDERWRITERS LABORATORY		EXISTING PLUMBING EQUIPMENT/ FIXTURES (TYPICAL TAG FOR ALL EXISTING)		
G	GAS	UR	URINAL		PLUMBING EQUIPMENT/FIXTURES FOR DEMOLITION (TYPICAL TAG FOR ALL DEMOLITION)		
GA	GAUGE	V	VENT	PLUMBING SHEET SET NOTE			
GAL	GALLON	VEL	VELOCITY	* NOTE *			
GALV	GALVANIZED	VERT	VERTICAL	ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THE CONTAINED REFERENCE DRAWINGS.			
GI	GREASE INTERCEPTOR	VLV	VALVE				
GPH	GALLONS PER HOUR	VOL	VOLUME				
GPM	GALLONS PER MINUTE	VTR	VENT THROUGH ROOF				
GT	GREASE TRAP	WC	WATER CLOSET				
GWH	GAS WATER HEATER	WCO	WALL CLEANOUT				
HB	HOSE BIBB	WP	WORKING PRESSURE				
HP	HORSE POWER	WT	WEIGHT				
HRWH	HEAT RECLAIM WATER HEATER	WTR	WATER				
GENERAL PLUMBING SYMBOLS							
	REVISION NUMBER SHOWN ON PLANS						
	POINT WHERE NEW CONNECTS TO EXISTING						
	DEMOLISH TO POINT INDICATED						
	NUMBER OF DETAIL ON SHEET						
	NUMBER OF SHEET WHERE DETAIL APPEARS						
	KEYNOTE						
	PIPE CONTINUATION						
SPACE TAG:							
	OFFICE		SPACE NAME				
	101		SPACE NUMBER				
	100 SF		SPACE AREA				
	ITEM TO BE DEMOLISHED						
	AREA NOT IN CONTRACT						