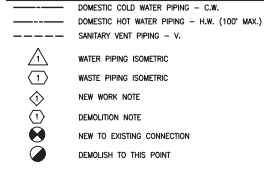


PLUMBING ABBREVIATIONS

AV	AIR ADMITTANCE VALVE	ETR	EXISTING TO REMAIN	MIN	MINIMUM
AF	ABOVE FINISHED FLOOR	FD	FLOOR DRAIN	NIC	NOT IN CONTRACT
AD	ACCESS DOOR	FLR	FLOOR	NIS	NOT TO SCALE
BFF	BELOW FINISHED FLOOR	FS	FLOOR SINK	OD	OUTSIDE DIAMETER
BF	BELOW FINISHED GROUND	FT	FEET	PSG	POUNDS PER SQUARE INCH GAGE
BFP	BACK FLOW PREVENTER	GI	GREASE INTERCEPTOR	SA	SHOCK ABSORBER
BUILDING	BUILDING	HC	HANDICAPPED	SHT	SHEET
CD	CLEAN OUT	HD	HUB DRAIN	TYP	TYPICAL
CONN	CONNECTION	HW	HOT WATER	UNON	UNLESS OTHERWISE NOTED
CONT	CONTINUATION	IC	INDIRECT CONNECTION	VTB	VENT THROUGH ROOF
DA	DIAMETER	IN	INCHES	WH	WATER HEATER
DWGS	DRAWINGS	INV	INVERT ELEVATION	W/	WITH
ELEV	ELEVATION	MAX	MAXIMUM	W/O	WITHOUT

PLUMBING LEGEND



PIPE MATERIAL LEGEND

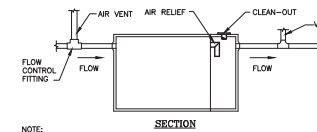
- DOMESTIC WATER PIPING:**
- ABOVE GRADE: TYPE "M" HARD COPPER TUBING
 - BELOW GRADE: TYPE "L" SOFT COPPER TUBING
 - ASSEMBLED WITH WROUGHT COPPER FITTINGS AND LEAD FREE SOLDER
 - WATER PIPING SHALL BE INSULATED WITH 3/4" FIBERGLASS OR CLOSED CELL INSULATION.
- WASTE AND VENT PIPING:**
- ABOVE GRADE: CAST IRON (RETURN AIR PLENUM)
 - BELOW GRADE: PVC DWV PIPE AND FITTINGS
 - ASSEMBLY WITH APPROVED SOLVENT
 - CAST IRON IN ANY PLENUMS OR WHERE REQUIRED BY BUILDING CONSTRUCTION.

PLUMBING GENERAL NOTES

- STRICTLY ADHERE TO THE LATEST EDITION OF ALL LOCAL, STATE, NATIONAL CODES, AND ADA CRITERIA PERMITS & PAY ALL FEES.
- PLUMBING CONTRACTOR SHALL INSTALL AN ESCUTCHEON PLATE AT EVERY LOCATION WHERE A PIPE PASSES THROUGH A WALL OR CEILING.
- KEEP ALL UNDERGROUND PIPING CLEAR OF FOOTINGS AND FOUNDATIONS. PROVIDE PIPE SLEEVES LARGE ENOUGH TO ALLOW FOR REQUIRED LATERAL MOVEMENT OF PIPES PASSING THROUGH MASONRY OR CONCRETE WALLS.
- FOR PIPE SIZES NOT ALL SHOWN ON FLOOR PLANS, SEE ISOMETRICS AND SCHEDULES.
- COORDINATE WITH ARCHITECTURAL DRAWINGS BEFORE ROUGHING IN PLUMBING FIXTURES.
- PROVIDE VACUUM BREAKERS ON ALL HOSE BIBS AND THREADED FAUCET SPOUTS.
- ALL PIPING SHALL BE NEW, CLEAN, AND FREE FROM SCALE AND DIRT AT TIME OF INSTALLATION.
- FOR CONT. OF PIPING BEYOND LIMITS OF BUILDINGS, SEE CIVIL PLAN.
- SLOPES AND INVERT ELEVATIONS SHALL BE ESTABLISHED BEFORE ANY PIPING IS INSTALLED IN ORDER THAT PROPER SLOPES WILL BE MAINTAINED. ALL PIPING SHALL BE RUN TO AVOID CONFLICTS WITH ANY OTHER TRADES.
- ALL WATER PIPING LOCATED IN EXTERIOR WALLS OR ATTIC SPACES SHALL BE RUN ON ROOM SIDE OF WALL OR CEILING INSULATION.
- PROVIDE FINAL CONNECTION TO ALL EQUIPMENT FURNISHED BY OTHERS
- INSTALL PIPING SO THAT ALL VALVES ARE ACCESSIBLE.
- ALL PIPING TO BE SUPPORTED PER CODE.
- COORDINATE THE LOCATION OF ALL PIPING WITH LIGHTING FIXTURES, DUCTS, PIPING, ETC.
- MAKE PROPER PIPING CONNECTIONS TO ALL FIXTURES AND EQUIPMENT EVEN THOUGH ALL BRANCH MAINS, ELBOWS, AND CONNECTIONS ARE NOT SHOWN.
- ALL PIPING TO BE SUPPORTED PER CODE.
- ALL D W V PIPING TO BE PVC, UNLESS INSTALLED IN A PLENUM OR AS REQUIRED BY CODE.
- NEW POTABLE WATER SYSTEMS SHALL BE PURGED OF DELETERIOUS WATER AND DISINFECTED PRIOR TO UTILIZATION. THE METHOD TO BE FOLLOWED SHALL BE THAT PRESCRIBED BY THE HEALTH AUTHORITY OR WATER PURVEYOR HAVING JURISDICTION OR, IN THE ABSENCE OF A PRESCRIBED METHOD, THE PROCEDURE DESCRIBED IN EITHER ANSI A111.1 OR ANSI A111.2 FOR AS DESCRIBED IN THIS SECTION. THIS REQUIREMENT SHALL APPLY TO "ON-SITE" OR "OFF-PLANT" FABRICATION OF A SYSTEM OR TO A MODULAR PORTION OF A SYSTEM. CERTIFICATION FROM AN APPROVED INDEPENDENT TESTING AGENCY MUST BE SUBMITTED PRIOR TO REQUESTING A PLUMBING FINAL INSPECTION. (IPC SECTION 610.1)
- COORDINATE ALL WASTE PIPING WITH COLUMN FOOTINGS AND FOUNDATIONS AS APPLICABLE.
- ALL PLUMBING WORK SHALL MEET OR EXCEED 2018 VIRGINIA PLUMBING CODE.

GREASE INTERCEPTOR SPEC:

- MAKE & MODEL: SCHER MODEL 0B-3
 MAX. FLOW: 75 GPM
 PIPE SIZE: 3"
 DIMENSIONS: 37" LONG, 24" WIDE & 21" HIGH
 APPROVAL: PLUMBING AND DRAINAGE INSTITUTE FEATURES/OPTIONS:
 - ONE PIECE COVER
 - LIFETIME WARRANTY
 - PROVIDE ADJUSTABLE RISER
 - WATER TIGHT ONE PIECE COVER
 - ASTM C890-B & ASME A112.14.3
 - BUILT IN FLOW CONTROL.



NOTE: THE GREASE TRAP SHALL BE VENTED AS REQUIRED, AND CONNECTED TO AN APPROVED TYPE FLOW RESTRICTOR IN THE TAIL PIECE OR DRAIN OUTLET. FLOW RESTRICTORS SHALL BE LOCATED SUCH THAT THEY ARE READILY ACCESSIBLE AND VISIBLE. FLOW RESTRICTORS SHALL BE DESIGNED SO THAT THE FLOW THROUGH THEM SHALL AT NO TIME BE GREATER THAN THE RATED CAPACITY OF THE GREASE TRAP. TRAP SHALL CONFORM TO UPC SECT. 7110(D)(6), TABLE 7-2

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	DESCRIPTION	MANUFACTURER	MODEL NUMBER	FAUCET	WATER FLOW	TRAP	PIPE SIZES			NOTES / ACCESSORIES	
								W.	V.	CW.		HW.
P-1	TOILET ADA	FLOOR MOUNTED TANK-TYPE LOW-FLOW	AMERICAN STANDARD	215FA104	N/A	1.28 GPF	INTERNAL	3"	1 1/2"	3"	N/A	PROVIDE BEMS 1800P SEAT, MAX RING & BRASS CRIST-SURF-XL WIRE STOP
P-2	TOILET	FLOOR MOUNTED TANK-TYPE	AMERICAN STANDARD	23151228	N/A	1.28 GPF	INTERNAL	3"	1 1/2"	3"	N/A	PROVIDE BEMS 1800P SEAT, MAX RING & BRASS CRIST-SURF-XL WIRE STOP
P-3	LAVATORY ADA	UNDERMOUNT	AMERICAN STANDARD	1049E020	A/S 7385.008	.5 GPF	17 GA METAL 1 1/2"x 1 1/4"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	PROVIDE BRASS CRIST OR 1812-AR SUPPLIES W/ STOP & TRAP-WIRE-STOP
P-4	LAVATORY ADA	WALL MOUNT	AMERICAN STANDARD	10355012	A/S 7385.008	.5 GPF	17 GA METAL 1 1/2"x 1 1/4"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	PROVIDE BRASS CRIST OR 1812-AR SUPPLIES W/ STOP & TRAP-WIRE-STOP
P-5	LAVATORY ADA	TODDLER	AMERICAN STANDARD	10355012	A/S 7385.008	.5 GPF	17 GA METAL 1 1/2"x 1 1/4"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	PROVIDE BRASS CRIST OR 1812-AR SUPPLIES W/ STOP & TRAP-WIRE-STOP
P-6	BREAK ROOM SINK	COUNTERTOP DOUBLE-BOWL STAINLESS STEEL	JUST	JC-1032-GR	A/S 7231-372H	1.5 GPM	17 GA METAL 1 1/2"x 1 1/4"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	PROVIDE BRASS CRIST OR 1812-AR SUPPLIES W/ STOP & TRAP-WIRE-STOP
P-7	WATER COOLER	REFLECTED WITH BOTTLE FILLING STATION	ELKAY	E7018RUK	N/A	N/A	17 GA METAL 1 1/2"x 1 1/4"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	N/A
P-8	MOP BASIN	FLOOR MOUNTED	PAT	MSB-2525	T&S B=0665	N/A	BELOW FLOOR	3"	1 1/2"	1 1/2"	1 1/2"	PROVIDE 1/2"X3/8" HOSE & PLUMBING 3/8" UNION, MR 873 STRAINER, MR 873 RIM & MR 873 SEAL
P-9	WALL HYDRANT	EXTERIOR PRESSURE CONTROL KEY	WOODFORD	855C	N/A	N/A	N/A	N/A	N/A	3/4"	N/A	RECESS MOUNTED IN BOX
P-10	REFRIGERATOR ICE BOX	RECESS/VALVE BOX	GUY GRAY	5M-475	N/A	N/A	N/A	N/A	N/A	1/2"	N/A	REFRIGERATOR/ICE MAKER PROVIDED BY OWNER
P-11	CLOTHES WASHING MACHINE BOX	RECESS/VALVE BOX	GUY GRAY	MB200A	N/A	N/A	N/A	3"	1 1/2"	1/2"	1/2"	HEAVY DUTY WASHING MACHINE BOX WITH WATER HAMMER ARRESTOR, CLOTHES WASHER PROVIDED BY OWNER
P-12	HAND SINK	WALL MOUNTED	EAGLE	HEA-10-FA	INCL. W/ SINK	N/A	SANITARY DASH	1-1/2"	1-1/2"	1/2"	1/2"	PROVIDE BASKET STRAINERS & SUSTAIN SUPPLIES W/ STOP AND FAUCET OPTION
P-13	3-COMPARTMENT SINK	FLOOR MOUNTED STAINLESS STEEL	EAGLE	3TC-10CS-18	N/A	N/A	INDIRECT CONNECTION TO FS	FS	IC	1/2"	1/2"	VERIFY MODEL WITH OWNER
P-14	SERVICE SINK	CAST IRON	AMERICAN STANDARD	7892208	T&S B=0665	N/A	INCLUDED	3"	1 1/2"	1 1/2"	1 1/2"	N/A

- NOTES: (1) CONTRACTOR IS RESPONSIBLE FOR ALL TRIM, SUPPLIES, VALVES, EXPOSED TRAPS SHALL BE CHROMIUM PLATED 17 GAUGE BRASS. CONCEALED TRAPS MAY BE PLASTIC, AND CONNECTIONS FOR EQUIPMENT PROVIDED BY OTHERS.
 (2) APPROVED EQUAL SUPPLIERS ARE: KOHLER, MOEN, FAIR, CHICAGO.
 (3) ALL HC FIXTURES SHALL BE INSTALLED PER ADA GUIDELINES.
 (4) CONFORM W/ LOCAL CODE OFFICIALS, ANY REQUIREMENTS FOR MAIN LINE BACK FLOW PREVENTION.
 (5) CONTRACTOR SHALL PROVIDE SHUT OFF VALVES FOR ALL FIXTURES.
 (6) ALL FIXTURES AND FITTING SHALL BE FROM SAME MANUFACTURER WHEN POSSIBLE AND HAVE THE SAME FINISH.
 (7) ALL PUBLIC HAND WASHING FACILITIES SHALL HAVE MIXING VALVE AS PER CODE THAT CONFORMS TO ASSE 1070.
 (8) ALL FAUCETS AND VALVES SHALL HAVE MATCHING REPLACEABLE CARTRIDGES.

WATER HEATER SCHEDULE

MARK	MAKE	MODEL NUMBER	STORAGE (GAL)	RECOVERY @ 100 DEG	ELEMENTS	FUEL	ELECTRICAL	NOTES
WH-1	RUID	ELD-80	80	21.6	2 @ 4.5 KW	ELECTRIC	208/1/60	(1)(2)(3)(4)(5)(6)(7)(8)

NOTES: (1) SEE WATER HEATER DETAIL FOR ADDITIONAL INFORMATION.
 (2) PROVIDE DRAIN PAN AND DRAIN TO BUILDING EXTERIOR.
 (3) FLOOR DRAIN OR MOP SINK.
 (4) A.C. SMITH/SFAIR ARE APPROVED EQUAL.
 (5) PROVIDE HEAT TRAP AND INSULATE AS PER CODE.
 (6) PROVIDE MINIMUM 5-YEAR WARRANTY.
 (7) PROVIDE TAP VALVE, VACUUM BREAKER, DRAIN VALVE AS PER CODE.
 (8) WATER HEATER EFFICIENCY SHALL MEET OR EXCEED CODE.
 (9) PROVIDE WATER HEATER STAND IF ELEVATED/INVERT IS NEEDED FOR DRAIN.
 (10) PROVIDE WATER HEATER STAND IF ELEVATED/INVERT IS NEEDED FOR DRAIN.
 (11) ALL HEATERS WITH MULTIPLE ELEMENTS ARE NON-SIMULTANEOUS.

FLOOR DRAIN & CLEAN OUT SCHEDULE

MARK	MANUFACTURER	MODEL / SERIES NUMBER	TYPE	MATERIAL	PIPE SIZE	NOTES
CO	SMITH OR ZURN	41235	ROUND	CAST IRON	VARIES	SEE PLANS FOR QUANTITIES
FD	SIOUX CHEF	832	7" SQ	PVC	VARIES	PROVIDE TRAP PRIMER OR TRAP GUARD
FS	SIOUX CHEF	861	12"x12"	PVC	3"	HEAVY-DUTY GRADE

GENERAL DEMOLITION NOTES

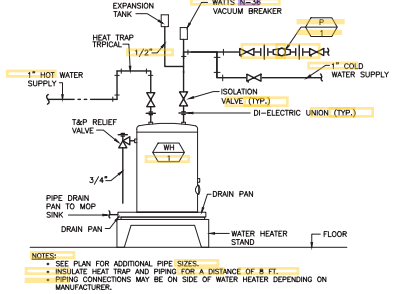
- REMOVE ALL TRASH AND DEMOLITION MATERIAL FROM SITE DAILY. ALL DEMOLITION MATERIAL SHALL BECOME THE CONTRACTOR'S RESPONSIBILITY.
- STORE ALL EQUIPMENT TO BE REUSED IN BACK OF BUILDING. CLEAN AND VERIFY PROPER OPERATION BEFORE REINSTALLING.
- COORDINATE ALL CONSTRUCTION AND DEMOLITION WITH OWNER.
- DO NOT BLOCK OR OBSTRUCT PARKING LOT, EASEMENT, ETC. FOR STORING NEW EQUIPMENT.
- ITEMS NOT SPECIFICALLY IDENTIFIED FOR REMOVAL SHALL REMAIN.

GREASE TRAP SIZING

3-COMPARTMENT SINK SIZES:

WIDTH: 18"
 LENGTH: 40"
 DEPTH: 14"
 NUMBER OF BOWLS: 3
 FORMULA: VOLUME = 3 * 7.231 * X * 75 = GPM
 GPM = 13440 CU IN / 231 * X * 75 = 44 GPM

NOTES: THE GREASE TRAP SPECIFIED EXCEEDS CALCULATED REQUIREMENT. VERIFY SIZE WITH OWNER BEFORE ORDERING.



WATER HEATER PIPING DIAGRAM

- NOT TO SCALE
- NOTES: (1) SEE PLAN FOR ADDITIONAL PIPE SIZES.
 (2) INSULATE HEAT TRAP AND PIPING FOR A DISTANCE OF 8 FT.
 (3) PIPING CONNECTIONS MAY BE ON SIDE OF WATER HEATER DEPENDING ON MANUFACTURER.

WALL CLEANOUT DETAIL



POTABLE WATER EXPANSION TANK SCHEDULE

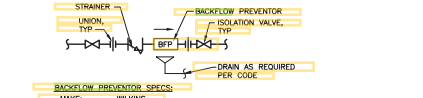
MARK	TYPE	SERVICE	OPERATING PRESSURE (PSIG)	TANK VOLUME (GALLONS)	MAX. PRESSURE (PSIG)	DIMENSIONS	MAKE	MODEL NUMBER	NOTES
ET	PRECHARGED DIAPHRAGM TYPE	DOMESTIC POTABLE WATER SYSTEM	SET/INSTALLATION	2.1	100	8 1/4" H 10" DIA	THERMA-SPAN	TS-5	(1)(2)

NOTES: (1) USE MANUFACTURERS RECOMMENDED INSTRUCTIONS FOR CHARGING AND INSTALLATION.
 (2) TACO IS APPROVED EQUAL.

HOT WATER RECIRCULATION PUMP SCHEDULE

MARK	TYPE	GPM	HEAD (FT)	ELECTRICAL (VOLTS/PHASE)	HP	MAKE	MODEL NUMBER	NOTES
HWP	INLINE 100K LEAD FREE BRONZE & STAINLESS BODY	15	23	120/1	1/6	TACO	Z400-20-3P	(1)(2)

NOTES: (1) PROVIDE CHECK VALVE, UNIONS, ISOLATION VALVES, FLEX PIPE, ETC. SEE WATER HEATER DETAIL FOR ADDITIONAL INFORMATION.
 (2) SEE MANUFACTURERS INSTALLATION GUIDE FOR ADDITIONAL REQUIREMENTS.



- BACKFLOW PREVENTER SPECS:**
- MODEL: WILKINS
 TYPE: REDUCED PRESSURE PRINCIPLE
 SIZE: SEE PLANS
 MATERIAL: CAST BRONZE
 COMPLIANCE: ASSE LISTED 1013
 NOTES: (1) WITH BFP IS APPROVED EQUAL.
 (2) ORDER WITH UNIONS, BALL VALVES AND STRAINER.
- NOTES: PROVIDE 12" CLEARANCE BEHIND ASSEMBLIES AND 24" MINIMUM CLEARANCE AT THE FRONT OF ASSEMBLIES FOR TESTING AND MAINTENANCE.
 PROVIDE 12" MINIMUM CLEARANCE FROM FLOOR TO BOTTOM OF RELIEF VALVE PORT OPENING.
 ALL VALVES WITH SUFFICIENT ROOM ABOVE THE ASSEMBLY FOR CHECK VALVE REMOVAL.
 BACKFLOW PREVENTER SHALL BE APPROVED FOR VERTICAL INSTALLATION. (WILKINS, WATTS OR EQUAL)
 CONTACT LOCAL CODE OFFICIAL FOR ADDITIONAL REQUIREMENTS.

HORIZONTAL BFP DETAIL

NOT TO SCALE

TEMPERED VALVE DETAIL



FLOOR DRAIN DETAIL



KEY PLAN



REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PLUMBING SCHEDULES AND DETAILS

FINAL COORDINATION DRAWINGS

Date: 11/23/23
 Drawn: JPM, Checked: WLS
 Project: 23001

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