

Drawing Name: P:\2014\20140401\20140401-PLUMBING\20140401-PLUMBING.dwg Plot Date: 02/28/2014 10:53am Plotter: Circle K Stores, Inc. Plot Size: 11x17in

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PLUMBING PROJECT NOTES

- THESE DRAWINGS REFLECT INFORMATION ON EXISTING BUILDING SERVICES GATHERED BY SITE INSPECTIONS, DISCUSSIONS WITH MAINTENANCE PERSONNEL, PREVIOUS CONSTRUCTION DOCUMENTS, AND INFORMATION PROVIDED BY OTHERS WHO HAVE REPORTED THE AS-BUILT CONDITIONS. THE EXACT LOCATION, ARRANGEMENT, AND SIZE OF PIPELINES, DUCTWORK, AND EQUIPMENT MAY BE DIFFERENT FROM THAT SHOWN ON THESE DRAWINGS. ALL BIDDERS AND THOSE RELYING ON THESE RECORD DOCUMENTS ARE TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE APPLYING IT FOR ANY PURPOSE AND CAUTIONED TO INVESTIGATE EXISTING BUILDING CONDITIONS PRIOR TO SUBMITTING THEIR BIDS TO INSURE THAT THE WORK REPRESENTED ON THE DRAWINGS AND IN THESE SPECIFICATIONS CAN BE INSTALLED AS INDICATED. NOTIFY THE ARCHITECT/ENGINEER OF ANY MAJOR DISCREPANCIES. CONTRACTOR SHALL PERFORM ALL REQUIRED FIELD MEASUREMENTS PRIOR TO FABRICATING PIPING, COMPONENTS, AND DEVICES. FAILURE TO DO SO SHALL RELIEVE THE ARCHITECT/ENGINEER/OWNER FROM ANY ADDED COST CHANGES. NO EXTRAS WILL BE GIVEN DUE TO UNFAMILIARITY WITH ALL EXISTING CONDITIONS.
- FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, FEES, PERMITS, CERTIFICATE OF INSPECTION, ETC. NECESSARY OR REASONABLE, REQUIRED FOR THE COMPLETE INSTALLATION OF ALL PLUMBING WORK.
- WORK SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL CODES, LAWS, ACTS, ORDINANCES, REGULATIONS AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
- THE COMPLETED INSTALLATION SHALL BE IN ACCORDANCE WITH ALL THE APPLICABLE INDUSTRY STANDARDS OF GOOD PRACTICE, SAFETY, AND THE MANUFACTURERS STRICTEST RECOMMENDATIONS FOR EQUIPMENT AND PRODUCT APPLICATION AND INSTALLATION.
- THESE DRAWINGS ARE DIAGRAMMATIC ONLY. CONTRACTOR SHALL MAKE MODIFICATIONS INCLUDING OFFSETS, TURNS, AND RE-ROUTING REQUIRED TO COMPLETE THE INSTALLATION. DO NOT SCALE LOCATION OF EQUIPMENT OR PIPING.
- BEFORE COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS, ELEVATIONS AND CHARACTERISTICS OF UTILITIES AND PIPING AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT & ENGINEER OF ANY DISCREPANCIES.
- COORDINATE ALL PLUMBING WORK, INCLUDING EQUIPMENT AND PIPING, WITH OTHER TRADES PRIOR TO WORK.
- CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING EQUIPMENT SO THAT NO INTERFERENCES ARE ENCOUNTERED WITH OTHER EQUIPMENT OR WITH STRUCTURAL ELEMENTS.
- THE GENERAL CONTRACTOR SHALL MAKE ALL ARRANGEMENTS WITH UTILITY COMPANIES FOR SERVICE, CONNECTIONS AND METERS.
- ALL PLUMBING WORK IS TO RUN IN A NEAT AND PROFESSIONAL MANNER, WITH THE AESTHETICS OF THE FACILITY OF PARAMOUNT IMPORTANCE. ALL ROUGH-IN WORK TO BE HIDDEN WITHIN WALLS AND ABOVE CEILING UNLESS OTHERWISE NOTED.
- ALL WORK SHALL BE LOCATED TO AVOID CONFLICTS WITH OTHER TRADES. CLOSELY COORDINATE ALL WORK WITH ALL OTHER TRADES. FAILURE OF THE CONTRACTOR TO COORDINATE WITH ALL OTHER TRADES SHALL RELIEVE THE ARCHITECT/ENGINEER/OWNER FROM ANY ADDED COSTS.
- THE CONTRACTOR SHALL DO ALL NECESSARY CUTTING OF WALLS AND CEILING. PATCH AROUND ALL OPENINGS TO MATCH EXISTING CONSTRUCTION. NO STRUCTURAL MEMBER SHALL BE CUT WITHOUT PERMISSION FROM THE ENGINEER.
- THESE DRAWINGS ARE DIAGRAMMATIC ONLY. DO NOT SCALE LOCATIONS OF FIXTURES, EQUIPMENT, LINES, ETC. COORDINATE ALL DOCUMENTS AS TO PROPER LOCATIONS OF ALL EQUIPMENT AND MATERIALS.
- EXACT LOCATION AND MOUNTING HEIGHTS OF PLUMBING FIXTURES NOT SPECIFIED IN THESE PLANS SHALL BE VERIFIED WITH CIRCLE K REPRESENTATIVE.
- CONTRACTOR SHALL VERIFY INVERT ELEVATIONS OF SEWERS TO WHICH NEW WASTE LINES ARE TO BE CONNECTED BEFORE MAKING UP OR INSTALLATION OF NEW WASTE SYSTEM.
- NO PIPING OR EQUIPMENT SHALL BE INSTALLED ABOVE ELECTRICAL EQUIPMENT OR INSTALLED IN ELECTRICAL ROOMS.
- ALL VALVES, UNIONS, ETC. SHALL BE SAME SIZE AS LINE SIZE UNLESS OTHERWISE INDICATED ON DRAWINGS.
- SEE ARCHITECTURAL DRAWINGS FOR HANDICAP FIXTURE LOCATIONS AND MOUNTING HEIGHTS. INSTALL ALL EXPOSED HOT WATER AND DRAIN PIPING BELOW HANDICAP LAVATORIES AND SINKS WITH ARMSTRONG "ARMOFLEX" OR EQUAL.
- THE GENERAL CONTRACTOR SHALL PROVIDE ALL FAUCETS, TRAPS, STOPS, GATE VALVES, GAS COCKS, WATER HAMMER ARRESTORS, CLEANOUT COVERS AND INDIRECT WASTE UNLESS OTHERWISE NOTED ON PLANS.
- WASTE AND SOIL PIPING SHALL BE SLOPED AT 1/4" PER FOOT UNLESS OTHERWISE NOTED ON PLANS.
- DO NOT SUSPEND ANY PIPING, ACCESSORIES, OR ANY OTHER ITEMS FROM 2X JOIST IN PANELIZED ROOF SYSTEM OR THE PLYWOOD ROOF DECK ITSELF. ALL SUPPORTS SHALL CONFORM TO TRUSS MANUFACTURERS RECOMMENDATIONS.
- THE CONTRACTOR SHALL RECORD ON AS-BUILT DRAWINGS ALL SIZES, LOCATIONS, AND MATERIALS OF EXISTING PIPING ENCOUNTERED DURING EXCAVATION AND NEW PIPING INSTALLED.
- SUBMIT ACCURATE "AS-BUILT" DRAWINGS TO OWNER UPON PROJECT COMPLETION.
- PROVIDE A READY-TO-USE SYSTEM WITH ALL WORK GUARANTEED IN WRITING AGAINST DEFECTIVE WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR MINIMUM FROM OWNER OCCUPANCY UNLESS ARCHITECT SPECIFIES A LONGER WARRANTY TERM.
- FINISHED SURFACES ARE TO BE PATCHED AND FINISHED TO MATCH EXISTING SURFACES WHEN ROUGH-IN PIPING AND FIXTURES ARE REMOVED AND/OR RELOCATED.
- UPON COMPLETION OF JOB, THE CONTRACTOR SHALL INSPECT ALL EXPOSED PORTIONS OF THE PLUMBING INSTALLATION AND COMPLETELY REMOVE ALL EXPOSED LABELS, SOILS, MARKINGS, AND FOREIGN MATERIAL EXCEPT PRODUCT LABELS AND THOSE REQUIRED BY LAW.
- SUBMIT SIX COPIES OF SHOP DRAWINGS AND MATERIAL DATA SUBMITTALS TO THE CIRCLE K PROJECT ENGINEER, IF REQUESTED, FOR APPROVAL BEFORE INSTALLATION. NO SUBSTITUTIONS SHALL BE ALLOWED WITHOUT PRIOR APPROVAL BY THE ENGINEER.
- ALL LINES UNDERGROUND SHALL BE LOCATED AWAY FROM BEARING FOOTINGS OR AS INSTRUCTED UNDER STRUCTURAL ENGINEERED DRAWINGS.

PLUMBING SYMBOL LIST

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	SOIL WASTE LINE (W)		SHUT OFF VALVE (GATE)
	VENT LINE (V)		CHECK VALVE
	COLD WATER (C.W.)		UNION
	HOT WATER (H.W.)		LUBRICATED PLUG VALVE
	HOT WATER RETURN		HOSE BIBB (H.B.)
	TEMPERED WATER		BRANCH RISE OFF MAIN
	DRAIN LINE		SURFACE CLEANOUT
	BUILDING SEWER		FLOOR CLEANOUT
	FLOOR DRAIN (F.D.)		GLOBE VALVE
	FLOOR SINK (F.S.)		BALL VALVE
	ROOF DRAIN (R.D.)		ROOF DRAIN LEADER
	OVER FLOW DRAIN		OVERFLOW DRAIN LEADER
	WALL CLEANOUT		CONDENSATE DRAIN LINE
	POINT OF CONNECTION		INDUSTRIAL COLD WATER

NOTE: ONLY THOSE SYMBOLS SHOWN ON THE DRAWING APPLY

SECTION

15010 BASIC PLUMBING REQUIREMENTS

- ALL WORK TO BE DONE AND MATERIALS FURNISHED COMPLYING WITH APPLICABLE LAWS AND REGULATIONS, INCLUDING CITY OF PFLUGERVILLE. ALL MATERIALS USED SHALL BE NEW AND UNDAMAGED.
- ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH CURRENT CONSTRUCTION INDUSTRY STANDARDS AND WORKMANSHIP.
- FURNISH SHOP DRAWINGS TO ARCH/ENGINEER FOR APPROVAL PRIOR TO PLACING DELIVERY ORDERS. PROVIDE SHOP DRAWINGS OF ALL MANUFACTURED EQUIPMENT AND MATERIALS EXCEPT PIPE, PIPE FITTINGS AND GALVANIZED DUCTWORK.
- FURNISH ACCESS DOORS (RATED OR NON-RATED AS REQUIRED) WHERE VALVES OR EQUIPMENT ARE CONCEALED BEHIND A NON-ACCESSIBLE CEILING OR WALL. FURNISH ACCESS DOORS TO GENERAL CONTRACTOR FOR INSTALLATION.
- FURNISH STEEL PIPE SLEEVES WHERE PIPES PENETRATE RATED WALLS. PROVIDE FIRESTOPPING MATERIALS AND SYSTEM TO MAINTAIN THE REQUIRED RATING OF THE WALL.
- PENETRATED, PROVIDE SHOP DRAWINGS SHOWING LISTING AND RATING OF FIRESTOPPING MATERIALS.
- ALL MANUFACTURED EQUIPMENT, ACCESSORIES AND MATERIALS SHALL BE USED AS INTENDED BY THE MANUFACTURER IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS.
- CONTRACTOR SHALL PROVIDE, IN ADDITION TO ANY OTHER WARRANTIES SPECIFIED, A ONE YEAR FULL LABOR AND MATERIAL WARRANTY ON ALL WORKMANSHIP, MATERIAL AND EQUIPMENT FURNISHED FOR THIS PROJECT.
- THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL OPENINGS AND REQUIRED LINTELS NEEDED FOR THE GENERAL CONTRACTOR FOR THE INSTALLATION OF PLUMBING EQUIPMENT.
- SAWLOTS, LINTELS, HEADERS, AND STRUCTURAL MODIFICATIONS TO THE BUILDING STRUCTURE NEEDED FOR THE INSTALLATION OF MECHANICAL EQUIPMENT SHALL BE APPROVED BY THE GENERAL CONTRACTOR, BEFORE INSTALLATION.
- IN GENERAL, OPENINGS AND REQUIRED LINTELS SHALL BE PROVIDED BY THE GENERAL CONTRACTOR. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR PROVIDING DETAILS AND TEMPLATES OF ALL OPENINGS NECESSARY FOR MECHANICAL EQUIPMENT INSTALLATION INCLUDING: HOUSING, ACCESS DOORS, INSPECTION DOORS, AND PASSAGEWAYS FOR MECHANICAL EQUIPMENT. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR SEALING CRACKS AND FINISHING ROUGH EDGES LEFT FOLLOWING MECHANICAL INSTALLATION.
- APPROVAL EQUALS: PLUMBING ITEMS MANUFACTURED BY A COMPANY OTHER THAN THAT WHICH WAS SPECIFIED IN THE SCHEDULE MAY BE SUBSTITUTED BY APPROVED SHOP DRAWINGS CONTINGENT UPON MEETING THE DESIGN, APPEARANCE, AND FUNCTIONAL STANDARDS ESTABLISHED BY THE ORIGINALLY SPECIFIED ITEM(S). THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING DIMENSIONS, CLEARANCES, ASSEMBLY, FIT, ETC. OF THE APPROVED EQUALS(S). AND THEIR EFFECT ON OTHER EQUIPMENT FIT AND OPERATION. THE CONTRACTOR IS LIABLE FOR ANY ADDED COSTS TO HIMSELF OR OTHERS CAUSED BY THE APPROVED EQUALS.
- PLUMBING CONTRACTOR SHALL COORDINATE SITE UTILITIES WITH ARCHITECT AND CIVIL ENGINEER.

15100 VALVES

- BALL VALVES SHALL BE CLASS 125 FOR WATER AND 200 FOR C.A. WITH ENDS AND MATERIALS TO MATCH PIPING SYSTEMS.
- BALL VALVES 2" AND SMALLER SHALL HAVE BRONZE BODY, STAINLESS STEEL BALL, TEFLON SEATS, AND STUFFING BOX RING, LEVER HANDLE AND BALANCING STOPS, ENDS TO MATCH PIPING SYSTEM.

15140 SUPPORTS & ANCHORS

- FURNISH PIPE AND DUCT HANGERS, WHERE REQUIRED, FIRMLY SUPPORTED FORM BUILDING STEEL, CONCRETE OR MASONRY STRUCTURE. SUPPORT PIPING SYSTEMS SECURELY WHILE ALLOWING FOR PIPE AND BUILDING EXPANSION AND CONTRACTION. PROVIDE COPPER PLATED HANGERS, FOR COPPER PIPE. USE ADJUSTABLE CLEVIS HANGERS OR ADJUSTABLE STEEL BAND HANGERS. MAXIMUM SPACING SHALL BE 5' FOR 1/2" PIPING, 7' FOR 3/4" TO 1 1/4" PIPING, 9' FOR 1-1/2" TO 2" PIPING. FURNISH PLUMBING EQUIPMENT SUPPORTS AS DETAILED OR AS REQUIRED TO SAFELY AND PERMANENTLY CARRY THE WEIGHT OF THE EQUIPMENT.

15250 PLUMBING INSULATION

- INSULATE ABOVE FLOOR WATER PIPING WITH ELASTOMERIC PLASTIC PERFORMED PIPE INSULATION WITHOUT JACKETING. ALL INSULATING MATERIALS TO HAVE FLAME SPREAD RATING OF 25 OR LESS AND SMOKE DEVELOPMENT RATING OF 50 OR LESS AS TESTED BY ANSI/ASTM E 84 (NFA 253) METHOD. INSULATE ALL PIPING WITH SURFACE TEMPERATURES 75 DEGREES F AND HIGHER WITH 1" THICK INSULATION. INSTALL MINIMUM 1" INSULATION ON ALL HOT WATER PIPING AND THE FIRST 8' OF COLD WATER PIPING AT THE TANK. JOINTS IN INSULATION SHALL BE GLUED, NOT TAPED. WHERE PIPES ARE EXPOSED AND LESS THAN 8' ABOVE FLOOR, PROVIDE HEAVY DUTY METAL JACKETING OVER INSULATION. INSULATE ABOVE FLOOR HORIZONTAL STORM PIPING WITH 1" FIBERGLASS PERFORMED PIPE INSULATION WITH FACTORY APPLIED ALL PURPOSE COVER.
- PROTECT PIPING SUBJECT TO FREEZING PER SECTION 305.6 OF THE 2012 IPC.

15411 WATER DISTRIBUTION SYSTEM

- ABOVE GRADE, WATER PIPING SHALL BE TYPE L COPPER ASTM B 75, ASTM B 88, ASTM 251, ASTM B 447 WITH WROUGHT COPPER SOLDER-JOINT FITTINGS ASME B 16.
- BELOW GRADE, WATER PIPING SHALL BE TYPE K COPPER WITH WROUGHT COPPER SOLDER-JOINT FITTINGS OR SCHEDULE 40 ANSI/ASTM A333A120 OR A106 STEEL PIPE WITH CST IRON THREADED FITTINGS FOR HEATING SYSTEM PIPING. SOLDER SHALL BE 9596-396 TIN-ANTIMONY ANSI/ASTM B 32 FOR HEATING SYSTEM PIPING. PROVIDE DIELECTRIC UNIONS AT ALL PIPE MATERIAL CHANGES. THOROUGHLY FLUSH AND CLEAN ALL NEW AND EXISTING WATER PIPING SYSTEMS. TEST ALL PIPING SYSTEMS PER REGULATIONS IN ITEM NO.1 OR AT 225 PSI FOR A MINIMUM OF 2 HOURS WITH NO PRESSURE DROP INDICATED PRIOR TO INSULATING.
- ALL BURIED ENDS OF ALL (POTABLE WATER) PIPING AND TUBING SHALL BE REAMED TO THE FULL BORE OF THE PIPE OR TUBE AND ALL CHIPS SHALL BE REMOVED.
- PROVIDE WATER HAMMER ARRESTORS ON WATER LINES WITH 0.5 GPM OR WITH SELF-CLOSING FAUCETS THAT LIMIT DELIVERY TO A MAXIMUM OF 0.25 GALLONS OF HOT WATER FOR NON-RECIRCULATING SYSTEMS, AND SHALL BE EQUIPPED WITH DEVICES THAT LIMIT THE OUTLET TEMPERATURE TO A MAXIMUM OF 110° FAHRENHEIT.
- PROVIDE PRESSURE REDUCING VALVE IF WATER SERVICE PRESSURE EXCEEDS 80 PSI. PROVIDE BOOSTING SYSTEM IF PRESSURE IS BELOW 35 PSI.
- ISOLATE ALL DISSIMILAR METALS WITH "EPOXY" DIELECTRIC UNIONS, EXCEPT FOR BRASS OR BRONZE VALVES WITH STEEL PIPE.
- UNIONS SHALL BE PROVIDED AND INSTALLED AFTER EACH SCREW-TYPE VALVE AND PRIOR TO EQUIPMENT CONNECTIONS. PROVIDE AND INSTALL ISOLATION UNIONS ON ALL CONNECTIONS ISOLATION UNIONS ON ALL CONNECTIONS BETWEEN DISSIMILAR METALS.
- PROTECT THE POTABLE WATER SUPPLY AGAINST BACKFLOW AND SIPHONAGE FROM EQUIPMENT, FIXTURES, ETC., PROVIDING APPROVED BACKFLOW AND ANTI-SIPHON DEVICES AS REQUIRED BY THE HEALTH DEPARTMENT AND LOCAL CODES.
- BEFORE ANY USE OF SYSTEM IS MADE FOR DOMESTIC PURPOSES, PIPING SYSTEM SHALL BE STERILIZED BY SLOWLY FILLING WITH WATER TO WHICH A STERILIZING AGENT HAS BEEN APPLIED AT A RATE OF 50 PPM OF CHLORINE. CHLORINE 50 PPM OF CHLORINE, AS DETERMINED BY RESIDUAL CHLORINE TEST AT EXTREMITIES OF THE LINE, AFTER LINES HAVE BEEN FILLED FOR A PERIOD OF THE THREE (3) HOURS. TESTS FOR RESIDUAL CHLORINE SHALL SHOW NOT LESS THAN 50 PPM. IF LESS THAN 50 PPM IS INDICATED, DRAIN OR FLUSH OUT THE LINE AND REPEAT STERILIZATION TREATMENT UNTIL TEST INDICATE AT LEAST 50 PPM OF RESIDUAL CHLORINE AFTER THREE (3) HOURS, THE LINES SHALL BE FLUSHED OUT UNTIL ALL TRACES OF CHEMICAL HAVE BEEN REMOVED.

15420 DRAINAGE & VENT SYSTEMS

- WITHIN BUILDING, SCHEDULE 40 PVC, DWV TYPE PIPE AND SOLVENT WELDED PIPE FITTINGS, SCHEDULE 30 PVC PIPE MAY BE USED FOR VENT PIPING WHERE PERMITTED BY CODE. HORIZONTAL PIPE SHALL BE SUPPORTED BY ADJUSTABLE RING HANGERS EQUAL TO ITT-GRINNELL FIG. 97. VERTICAL PIPING SHALL BE SUPPORTED AT EACH FLOOR OR ATTIC LEVEL BY RISER.
- ALL PLUMBING FIXTURE VENTS SHALL TERMINATE NOT LESS THAN TEN FEET FROM OR AT LEAST THREE FEET ABOVE ANY WINDOW, DOOR OPENING,
- AIR INTAKE OR VENT SHAFT, NOR LESS THAN EIGHT FEET FROM ANY VERTICAL SURFACE.
- ALL PIPING DISCHARGING INTO FLOOR-SINKS SHALL HAVE A MINIMUM OF 1" AIR GAP OR AS REQUIRED BY THE 2012 INTERNATIONAL PLUMBING CODE.
- ALL CLEANOUTS SHALL BE INSTALLED WHERE READILY ACCESSIBLE. THE CONTRACTOR SHALL COORDINATE ALL CLEANOUT LOCATIONS WITH EQUIPMENT, CABINETS, ETC. AND THE ARCHITECT PRIOR TO ANY INSTALLATION. ALL REQUIRED CLEANOUTS SHALL BE INSTALLED PER SECTION 708 OF THE 2006 IPC.
- EACH VENT SHALL RISE VERTICALLY TO A POINT NOT LESS THAN (6) INCHES IN HEIGHT ABOVE THE FLOOD LEVEL RIM OF THE FIXTURE BEFORE BEING CONNECTED TO ANY OTHER VENT.
- INDIRECT AND CONDENSATE DRAIN PIPING SHALL BE COPPER, TYPE "W" WITH 95-5 TIN/ANTIMONY JOINT FITTINGS.
- INSULATE CONDENSATE DRAIN LINES BELOW ROOF FROM A/O EQUIPMENT WITH 1/2" MINIMUM UNCELLULAR FOAM TO PREVENT CONDENSATE DRIP.
- AS PER SECTION 715 OF THE 2012 IPC, PROVIDE BACKWATER VALVE ON ALL BUILDING DRAINS WHICH SERVE PLUMBING FIXTURES WITH FLOOD LEVEL RIM ELEVATIONS BELOW THE PUBLIC UPSTREAM MANHOLE RIM ELEVATIONS. CLEANOUTS FOR DRAINS THAT PASS THROUGH A BACKWATER VALVE SHALL BE CLEARLY IDENTIFIED WITH PERMANENT LABEL STATING "BACKWATER VALVE DOWNSTREAM".

15440 PLUMBING FIXTURES

- PROVIDE AIR CHAMBERS AT EACH FIXTURE CONNECTION. AIR CHAMBERS SHALL BE ONE SIZE LARGER THAN SUPPLY PIPE AND SHALL BE 12" LONG. WHERE REQUIRED BY PLUMBING CODE, FURNISH AND INSTALL MANUFACTURED WATER HAMMER ARRESTORS.
- PLUMBING FIXTURES SHALL BE INSTALLED WHERE SHOWN ON THE ARCHITECTURAL DRAWINGS. INSTALL FIXTURES LEAD AND PLUMB. FURNISH TRAPS WHERE REQUIRED. FIXTURES SHALL BE EASILY REMOVABLE FOR SERVICE AND CLEANING.
- PROVIDE CHROME PLATED RIGID OR FLEXIBLE SUPPLIES TO FIXTURES WITH STOP VALVES, CHROME PLATED 17 GAUGE BRASS TRAPS WITH CHROME PLATED ESCUTCHEONS.
- SEAL ALL FIXTURES TO WALL AND FLOOR USING SILICONE SEALANT. MATCH SEALANT COLOR TO FIXTURE COLOR.
- FIXTURES DESIGNATED BARRIER FREE SHALL BE INSTALLED IN COMPLIANCE WITH AMERICAN'S WITH DISABILITIES ACT.
- ALL CLEANOUT COVERS TO BE STAINLESS STEEL.
- CLEANOUTS SHALL BE MANUFACTURED BY J.R. SMITH, OR ZURN, AS FOLLOWS:
A. FINISHED ROOM FLOORS: J.R. SMITH 4163 W/ N.B. TOP GASKETED WATERTIGHT COVER.
B. WALLS: J.R. SMITH 4532 WITH BRONZE PLUG AND CHROME PLATED COVER.
C. YARD AND PARKING LOT: J.R. SMITH 4253 CAST IRON SURFACE LEVEL CLEANOUT.
- LAVATORY FAUCETS AND SINKS (NOT INCLUDING SERVICE SINK FAUCETS) SHALL MEET THE FLOW REQUIREMENTS OUTLINED IN THE APPLIANCE EFFICIENCY STANDARDS.
- LAVATORIES IN REST ROOMS OF PUBLIC FACILITIES SHALL BE EQUIPPED WITH OUTLET DEVICES THAT LIMIT THE FLOW OF HOT WATER TO A MAXIMUM OF CONFORMING TO PLUMBING AND DRAINAGE INSTITUTE STANDARD "PDI-WH 201" LATEST EDITION AND AS MANUFACTURED BY J.R. SMITH, ZURN, OR PPP INC.
- ALL HOSE BIBBS TO CONTAIN VACUUM BREAKERS PER SECTION 608 OF THE 2012 IPC.
- INSTALL TRAP PRIMERS TO ALL FLOOR DRAINS AND ANY OTHER LOCATION WHERE A TRAP SEAL IS SUBJECT TO LOSS BY EVAPORATION IN ACCORDANCE WITH SECTION 1002.4 OF THE 2012 IPC.
- NOTICE THE FOLLOWING TYPES OF TRAPS ARE PROHIBITED: 1) TRAPS THAT DEPEND ON MOVING PARTS TO MAINTAIN THE SEAL; 2) BELL TRAPS; 3) CROWN VENTED TRAPS; 4) TRAPS NOT INTEGRAL WITH A FIXTURE AND THAT DEPEND ON INTERIOR PARTITIONS FOR THE SEAL, EXCEPT THOSE TRAPS CONSTRUCTED OF AN APPROVED MATERIAL THAT IS RESISTANT TO CORROSION AND DEGRADATION. TRAP GUARD AS MANUFACTURED BY PRO-SET SYSTEMS OR SIMILAR PRODUCTS ARE NOT CURRENTLY APPROVED.
- INSTALL WATER HEATERS PER CH.5 OF THE 2012 IPC. A FULL-OPEN VALVE IS REQUIRED ON THE WATER SUPPLY PIPE TO EVERY WATER HEATER. AN EXPANSION TANK OR VALVE IS REQUIRED TO CONTROL INCREASED PRESSURE DUE TO THERMAL EXPANSION. A PAN BELOW THE WATER HEATER IS REQUIRED WHEN NECESSARY TO MINIMIZE DAMAGE TO STRUCTURE INTERIORS. BOTTOM FED STORAGE TANKS MUST BE EQUIPPED WITH A VACUUM RELIEF VALVE. IF THE DISCHARGE PIPING MUST BE FIRST PIPED TO AN INDIRECT WASTE RECEPTOR THROUGH AN AIR GAP LOCATED IN THE CONDITIONED AREA.
- INSTALL WATER HEATER AND CONDENSATE DRAINS INDIRECT TO WASTE PER SEC. 802.1.3 OF THE 2012 IPC AND PER SECTION 307.0 OF THE 2012 UMC.
- INSTALL CONTROL VALVES TO ALL APPLIANCES PER 2012 IPC. THIS INCLUDES HOSS BIBBS.

PLUMBING SPECIFICATIONS

PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE	MIN. PIPE SIZE					DESCRIPTION
		W	V	CW	HW	T	
	HANDICAP WATER CLOSET	4"	2"	1-1/2"	-	INT	"KOHLER" HIGHLOFT #K-4368-0 ELONGATED BOWL, "ZURN" #ZGENE200EV-W51 FLUSH VALVE, "OLSON" OPEN FRONT SEAT #9500C (1.6 GPF) ADA APPROVED
	WATER CLOSET	4"	2"	1-1/2"	-	INT	"KOHLER" WELCOMME #K-4349-0 ELONGATED BOWL, "ZURN" #ZGENE200EV-W51 FLUSH VALVE, "OLSON" OPEN FRONT SEAT #9500C (1.6 GPF) STANDARD HT.
	WALL HUNG HANDICAPPED URINAL	2"	1-1/2"	3/4"	-	-	"KOHLER" BARDON #K-4960-ET, "ZURN" #ZGENE203EV-ULF, HIGH EFFICIENCY 0.125 GPF. MOUNT PER ADA GUIDELINES
	LAVATORY	2"	1-1/2"	1/2"	1/2"	2"	"JUST" #JVOF-ADA-1521-AA-18GA, UNDERMOUNT. FAUCET "ZURN" #Z6913-GEN STOPS, SUPPLIES, & P-TRAP, 0.5 GPM, ADA APPROVED
	FLOOR SINK	3"	2"	-	-	3"	"J.R. SMITH" #3100
	FLOOR DRAIN	2"	1-1/2"	-	-	2"	"J.R. SMITH" #2005Y-(A) W/TRAP PRIMER
	TRAP PRIMER	-	-	1/2"	-	-	PRECISION PLUMBING PRODUCTS P-2 (PRESSURE ACTUATED) - LOCATE IN WALL MOUNTED ACCESSIBLE BOX W/ COVER @ 24" A.F.F.
	HOSE BIBB	-	-	3/4"	-	-	MIFAB #MHY-206-K (INTEGRAL WITH VACUUM BREAKER) ENCASED TYPE NON-FREEZE
	RECIRC. PUMP	-	-	-	-	-	TACO DDT BRONZE CONST.; 1" CONNECTION; NON METALLIC IMPELLER 1151/6171 1/25 HP @ 3250 RPM
	BACKFLOW PREVENTER	-	-	2"	-	-	"WATTS" #909M1-OT OR EQUAL. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER WITH AIR GAP FITTING AND DRAIN LINE QUATER TURN BALL VALVES AND STRAINER
	BACKFLOW PREVENTER	-	-	1/2"	-	-	DOUBLE CHECK BACKFLOW PREVENTION DEVICE, "WATTS" #070T.
	BACKFLOW PREVENTER	-	-	1/2"	-	-	REDUCED PRESSURE BACKFLOW PREVENTION DEVICE, "WATTS" #SS090T. PROVIDE WITH AIR GAP FITTING AND DRAIN LINE TO NEAREST FLOOR SINK. (TYPICAL)
	GREASE TRAP	2"	-	-	-	-	1000 GALLON TRAFFIC RATED GRAVITY GREASE INTERCEPTOR. REFER TO P8/P1.1.
	HAND SINK	2"	1-1/2"	1/2"	1/2"	2"	CABINET MANUFACTURER PROVIDED SINK AMERICAN STANDARD FAUCET MODEL #J205.280, LOOP HANDLE, HI-FLOW SPOUT AND METAL LOOP HANDLE, 0.5 GPM
	HAND SINK	2"	1-1/2"	-	-	2"	CABINET MANUFACTURER PROVIDED SINK
	HAND SINK FAUCET (MOTION SENSOR)	-	-	1/2"	1/2"	-	CABINET MANUFACTURER PROVIDED FAUCET ZURN FAUCET MODEL #Z6913-3 GEN, HYDRO-GENERATED POWER.
	DRINK DISPENSER	-	-	1/2"	-	-	SEE SHEET A7 FOR ADDITIONAL INFORMATION.
	ICE MAKER	-	-	1/2"	-	-	SEE SHEET A7 FOR ADDITIONAL INFORMATION.
	NOT USED	-	-	-	-	-	
	FROZEN BEVERAGE DISPENSER	-	-	1/2"	-	-	SEE SHEET A7 FOR ADDITIONAL INFORMATION.
	COFFEE BREWER	-	-	1/2"	-	-	SEE SHEET A7 FOR ADDITIONAL INFORMATION.
	CAPPUCCINO MAKER	-	-	1/2"	-	-	SEE SHEET A7 FOR ADDITIONAL INFORMATION.
	3-COMP SINK	2"	1-1/2"	-	-	IND.	"SUPERIOR PRODUCTS", 14 IN. DEEP SCULLERY SINK 90 IN. L, 2-18 IN. DRAINBOARDS, 3 TUBS (18 IN. X 18 IN.), ITEM #81253.
	WALL-MOUNTED 3-COMP SINK FAUCET	-	-	3/4"	3/4"	-	FAUCET WALL MOUNTED FAUCET BASED ONLY W/ 8 IN. CENTERS, SUPERIOR PRODUCTS ITEM #804093; FAUCET SWING NOZZLE ONLY 1/8 IN. ITEM #809552.
	WATER FILTER	-	-	3/4"	-	-	ARS 9437-10
	HAND SINK	IND.	2"	1/2"	1/2"	IND.	LAMBERTSON LBS-1908-LT-1 11 1/2" W X 16 1/2" L X 7" DEEP HAND SINK JS-47-TGSA, FAUCET, J-35 ADA DRAIN SYSTEM AND VACUUM BREAKER, 0.5 GPM
	MOP SINK	3"	2"	3/4"	3/4"	2"	"FIAT" #MSB 2424 W/ #830-AA, #832-AA AND #1453-BB. PROVIDE FAUCET WITH VACUUM BREAKER
	WATER HEATER	-	-	1-1/4"	1-1/4"	-	AO SMITH DEN-52, 50 GAL STORAGE ELEC. 4.5 KW, 208V, 1PH OPER. WGT. 131 LBS. DIM. 55"x21"x6
	GROUND HYDRANT	-	-	3/4"	-	-	MIFAB #MHY-601 (INTEGRAL WITH VACUUM BREAKER) SELF-DRAINING GROUND HYDRANT 1" BURY DEPTH WITH BRONZE LOCK COVER

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ISSUE/REVISION RECORD

DATE	DESCRIPTION
02/28/2014	BID/PERMIT SET



COA# - F-4380

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PROJECT NAME
CIRCLE K STORES, INC.

PFLUGERVILLE TEXAS

SEC WEST PECAN ST. & SARAH'S CREEK DR. PFLUGERVILLE, TX



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