

POTABLE WATER LINE NOTES

THE GENERAL CONTRACTOR SHALL GIVE THE CITY OF EVANS AT LEAST 24 HOURS ADVANCE NOTICE BEFORE BEGINNING CONSTRUCTION. A PRE-CONSTRUCTION MEETING WITH THE CITY OF EVANS IS THE PREFERRED METHOD OF NOTIFYING THE CITY OF CONSTRUCTION ACTIVITY.

ALL WATER LINE CONSTRUCTION SHALL CONFORM TO THE CITY OF EVANS STANDARDS AND SPECIFICATIONS CURRENT TO THE DATE OF CONSTRUCTION. A CURRENT COPY CAN BE DOWNLOADED FROM THE CITY OF EVANS WEBSITE AT www.evanscolorado.gov.

ALL WATER LINE PIPE SHALL BE CONSTRUCTED OF EITHER DUCTILE IRON PIPE, OR POLYVINYL CHLORIDE PIPE. TRANSMISSION LINES 16 INCHES AND LARGER SHALL BE DUCTILE IRON PIPE, STEEL, OR PRE-TENSIONED CONCRETE STEEL CYLINDER PIPE.

ALL PVC PIPE SHALL BE MANUFACTURED IN ACCORDANCE WITH AWWA C-900 AND C-905, LATEST REVISIONS, WITH THE FOLLOWING ADDITIONAL REQUIREMENTS AND / OR EXCEPTIONS. ALL AWWA CLASS 150 PIPE SHALL MEET THE REQUIREMENT OF AWWA DR-18 AND AWWA CLASS 200 SHALL MEET THE REQUIREMENT OF AWWA DR-14. SOLVENT CEMENT JOINTS ARE STRICTLY PROHIBITED. EACH LENGTH OF PIPE WILL BE A STANDARD LAYING LENGTH OF 20 FEET. RANDOM LENGTHS SHALL NOT BE ACCEPTABLE.

PIPE THAT WILL BE STORED OUTSIDE FOR MORE THAN 30 DAYS SHALL BE COVERED WITH AN OPAQUE MATERIAL, AND AIR CIRCULATION PROVIDED TO PROTECT THE PIPE FROM EXPOSURE TO WEATHERING ELEMENTS.

THE MINIMUM DIAMETER FOR WATER MAINS IN RESIDENTIAL AREAS, INCLUDING CUL-DE-SACS, SHALL BE 8 INCHES. ALL SCHOOLS, SHOPPING CENTERS, BUSINESS PARKS, INDUSTRIAL PARKS, AND HIGH-DENSITY RESIDENTIAL AREAS SHALL BE LOOPED WITH MAINS AT LEAST 8 INCHES IN DIAMETER.

ALL WATER MAINS, FIRE HYDRANTS, AND WATER SERVICES SHALL HAVE A MINIMUM COVER OF 4.5 FEET, AND A MAXIMUM COVER OF 5.5 FEET.

ALL PVC PIPE SHALL HAVE COPPER TRACER WIRE PLACED ON TOP OF THE PIPE AND DAYLIGHTED AT A LOCATOR BOX LOCATED BEHIND ALL FIRE HYDRANTS.

PIPE DEFLECTION FOR DUCTILE IRON PIPE 6 INCHES TO 12 INCHES IN DIAMETER SHALL BE 5 DEGREES AND 3 DEGREES FOR PIPE 14 INCHES TO

64 INCHES. PIPE DEFLECTION FOR PVC PIPE SHALL BE NO GREATER THAN 3 DEGREES.

ALL MAINS SHALL BE INSTALLED IN DEDICATED STREETS. POTABLE WATER LINES ARE TO MAINTAIN A 10 FEET MINIMAL HORIZONTAL SEPARATION (EDGE TO EDGE) BETWEEN SANITARY SEWER LINES, POTABLE WATER LINES, AND NON-POTABLE WATER LINES.

DURING CONSTRUCTION WHENEVER THE NEW WATER LINE PIPE IS LEFT UNATTENDED TEMPORARY PLUGS MUST BE INSTALLED AT ALL OPENINGS.

WATER LINE DISINFECTION SHALL BE ACCOMPLISHED USING TABLET-FORM HYPOCHLORITE OR BY CONTINUOUS FEED. THE HYPOCHLORITE TABLET SHALL BE AFFIXED TO THE INSIDE (TOP) OF PIPE WITH AN APPROVED ADHESIVE. DOSAGE SHALL BE CALCULATED FOR CONCENTRATION OF CHLORINE EQUAL TO 25 MG PER LITER OF WATER VOLUME OF INSTALLED PIPE. REFER TO TABLE 5.04 OF THE EVANS STANDARDS AND SPECIFICATIONS TO CALCULATE THE DOSE OF CHLORINE REQUIRED.

VALVES SHALL NOT BE LOCATED IN CONCRETE AREAS, SUCH AS SIDEWALKS, CROSSPANS, APRONS, OR CURB AND GUTTER. VALVES SHALL BE INSTALLED AT A DISTANCE OF 5 FEET FROM TEES AND CROSSES. REFER TO DETAIL WA-11.

ONCE ASPHALT PAVING IS COMPLETE ALL VALVES SHALL BE RAISED TO $\frac{1}{4}$ INCH BELOW FINAL PAVEMENT GRADE AND HAVE A 12 INCH CONCRETE COLLAR PLACED AROUND THE VALVE LID FOR REINFORCEMENT. THE CONCRETE COLLAR SHOULD BE MEASURED FROM THE OUTSIDE DIAMETER OF THE VALVE LID.

ALL WATER VALVE LIDS SHALL BE CAST DUCTILE IRON AND LABELED WITH THE WORD "WATER".

ALL BENDS, TEES, PLUGS, DEAD-ENDS, WET TAPS, FIRE HYDRANTS, AND BLOWOFF ASSEMBLIES SHALL BE DESIGNED AND CONSTRUCTED WITH CONCRETE THRUST BLOCKS.

THE STANDARD FIRE HYDRANT ASSEMBLY SHALL INCLUDE A SWIVEL TEE WITH GATE VALVE, RESTRAINED JOINTS, THRUST BLOCKS, AND USE 6 INCH DUCTILE IRON PIPE TO THE HYDRANT.

THE MAXIMUM DISTANCE BETWEEN FIRE HYDRANTS SHALL BE 500 FEET IN RESIDENTIAL AREAS, AND 300 FEET IN BUSINESS AREAS.

FIRE HYDRANT BRANCH LINES SHALL BE INSTALLED AT 90 DEGREES TO THE STREET MAINS. THE HYDRANT SHALL BE SET AT THE END OF THE BRANCH LINE AND SHALL FACE THE BRANCH LINE. FIRE HYDRANTS SHALL BE SET SO THAT THE MAIN PUMPER VALVE NUT IS BETWEEN 21 INCHES TO 25 INCHES ABOVE FINISHED GRADE.

ALL RESIDENTIAL WATER SERVICES SHALL BE $\frac{3}{4}$ INCH TYPE "K" COPPER AND USE COMPRESSION FITTINGS ONLY. UNLESS OTHERWISE NOTED, OR APPROVED.

WATER LINE TESTING DOCUMENTS ARE REQUIRED TO BE SUBMITTED TO THE CITY OF EVANS IN A TIMELY MANNER. TYPICAL TESTING DATA INCLUDES BUT ARE NOT LIMITED TO THIRD PARTY PRESSURE TESTING, BACTERIAL TESTING, HIGH AND LOW CHLORINE TESTING, AND TRENCH COMPACTION TESTING.

THE CITY OF EVANS IS RESPONSIBLE FOR COLLECTING AND SENDING THE BACTERIAL WATER SAMPLE TO THE WELD COUNTY HEALTH DEPARTMENT FOR TESTING. THE CITY OF EVANS ALSO CONDUCTS THE HIGH AND LOW CHLORINE TESTING. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO SCHEDULE ALL TESTING.

ALL NEW WATER LINES ARE TO BE ISOLATED, TESTED, AND APPROVED BY THE CITY OF EVANS PRIOR TO OPENING THE NEW LINE TO THE EXISTING WATER SYSTEM.

WATER VALVE ELEVATIONS ARE APPROXIMATE AND ARE NOT TO BE TAKEN AS FINAL ELEVATIONS.