

## **GENERAL NOTES**

- 1. REFER TO MAG SPEC SECTION 101 FOR ABBREVIATIONS AND DEFINITIONS.
- 2. WATER/GRAVITY SEWER LINES SEPARATION AND WATER/PRESSURE SEWER LINES SEPARATION SHALL COMPLY WITH A.A.C. R-18-5-502.C
- 3. ALL MATERIALS AND PRODUCTS USED IN THE DRINKING WATER SYSTEM SHALL CONFORM TO NSF STANDARD 61. CONSTRUCTION MATERIALS USED IN THE WATER SYSTEM SHALL BE LEAD FREE AS DEFINED IN A.A.C. R18-4-504 AND R18-4-101. BACKFLOW PREVENTION ASSEMBLY SHALL MEET A.C.C. R18-4-115.
- ALL PIPE FITTINGS, VALVES, FIRE HYDRANTS, AND OTHER APPURTENANCES SHALL CONFORM TO THE CURRENT STANDARDS OF THE AMERICAN WATER WORKS ASSOCIATION OR THE FEDERAL GOVERNMENT.
- 5. ALL MATERIALS OR PRODUCTS USED WITHIN THIS PROJECT MUST SHOW EVIDENCE ON THE PRODUCT OR PRODUCT PACKAGING THROUGH THE APPEARANCE OF A SEAL THAT THE PRODUCT MEETS THE CERTIFICATION REQUIREMENTS OF THE APPLICABLE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) AND THE NATIONAL SANITATION FOUNDATION (NSF).

## WATERLINE CONSTRUCTION SPECIFICATIONS

WATER LINE INSTALLATION SHALL BE IN ACCORDANCE WITH THE ARIZONA DEPARTMENT OF HEALTH SERVICES ENGINEERING BULLETIN 10, CHAPTER 7 "DISTRIBUTION SYSTEMS".

UNLESS OTHERWISE SPECIFIED, MARICOPA ASSOCIATION OF GOVERNMENT UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, INCLUDING LATEST REVISIONS, SHALL APPLY FOR THE CONSTRUCTION OF ALL WATER SYSTEM FACILITIES.

1. ALL PIPE USED FOR WATER MAINS SHALL BE PVC POTABLE WATER PIPE EXCEPT WHERE DUCTILE IRON PIPE OR POLYETHYLENE (PE) PIPE IS SPECIFIED ON THE PLANS. PVC PIPE SHALL BE AWWA C900, SINGLE GASKET, INTEGRAL BELL, 200 PSI WORKING PRESSURE, DR 14. ALL PVC PLASTIC PIPE SHALL BE APPROVED BY THE NATIONAL SANITATION FOUNDATION AND INSTALLED PER AWWA C605-05.

ALL DUCTILE IRON PIPE SHALL BE PRESSURE CLASS 250 AND MANUFACTURED IN ACCORDANCE WITH ANSI/AWWA C151/A21.51. DUCTILE IRON PIPE SHALL HAVE STANDARD ASPHALTIC COATING ON THE EXTERIOR. DUCTILE IRON PIPE SHALL ALSO HAVE A CEMENT-MORTAR LINING ON THE INTERIOR IN ACCORDANCE WITH

THE CLASS OR NOMINAL THICKNESS, NET WEIGHT WITHOUT LINING, AND CASTING PERIOD SHALL BE CLEARLY MARKED ON EACH LENGTH OF PIPE.

ADDITIONALLY, THE MANUFACTURER'S MARK, COUNTRY WHERE CAST, YEAR IN WHICH THE PIPE WAS PRODUCED, AND THE LETTERS "DI" OR "DUCTILE" SHALL
BE CAST OR STAMPED ON THE PIPE.

ALL POLYETHYLENE PIPE SHALL BE PE3408, DIOD DR-11, 160 PSI WORKING PRESSURE, PER AWWA C-906.

FITTINGS SHALL BE DUCTILE IRON. FITTINGS SHALL CONFORM TO THE LATEST REVISION OF EITHER ANSI/AWWA C110/A21.10 OR ANSI/AWWA C153/A21.53.
 UNLESS SPECIFIED ON THE PLANS ALL FITTINGS AND ACCESSORIES SHALL BE FURNISHED WITH MECHANICAL TYPE JOINTS IN ACCORDANCE WITH ANSI/AWWA C111/A21.10, OF LATEST REVISION.

3. RESILIENT SEATED GATE VALVES COMPLYING WITH THE LATEST REVISION OF AWWA C509 SHALL BE USED ON ALL PIPES BETWEEN 4" AND 12" DIAMETER.

- RESILIENT SEATED GATE VALVES SHALL BE MUELLER A-2361 SERIES WITH JOINT RESTRAINT SYSTEM OR APPROVED EQUAL. UNLESS SPECIFIED ON THE PLANS, ALL VALVES SHALL BE NON-RISING STEM (NRS) WITH A 2" OPERATING NUT.

  RUBBER SEATED BUTTERFLY VALVES COMPLYING WITH AWWA C504 SHALL BE USED ON ALL PIPES LARGER THAN 12-INCH DIAMETER. RUBBER SEATED BUTTERFLY VALVES SHALL BE MUELLER LINESEAL XPII BUTTERFLY VALVES CLASS 250B OR APPROVED EQUAL. UNLESS SPECIFIED ON THE PLANS, ALL VALVES SHALL HAVE MECHANICAL JOINT END CONNECTIONS AND 2" OPERATING NUT.
- 4. VALVE BOXES SHALL BE OF STANDARD, ADJUSTABLE, HEAVY PATTERN, CAST IRON EXTENSION TYPE TYPE ROADWAY BOXES WHEN NOT LOCATED IN PAVEMENT. VALVE BOXES LOCATED OUT OF PAVEMENT SHALL PROTRUDE 2" ABOVE FINISHED GRADE, PER DETAIL THIS SHEET, TYPE "A". ALL VALVE BOXES TO BE LOCATED IN PAVEMENT SHALL BE TYPE "B", PER DETAIL THIS SHEET.
- 5. DISINFECTION AND BACTERIOLOGICAL SAMPLING AND TESTING OF THE WATER LINES SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATIONS, SECTION C651-92 AND THE TOWN OF PAYSON "PRESSURE TESTING AND BACTERIOLOGICAL SAMPLING PROCEDURES" FOR NEW CONSTRUCTION OF WATER MAINS. FOR MORE INFORMATION, CONTACT THE TOWN OF PAYSON WATER DEPARTMENT (928) 474-5242, EXT. 235.
- 6. TRACING WIRE, 16 GAUGE MINIMUM, SHALL BE BURIED WITH ALL MAINS AND SERVICES, UNLESS DESIGNATED OTHERWISE BY THE WATER DIVISION DIRECTOR OR THEIR DESIGNEE OF THE WATER DEPARTMENT.
- 7. ANY WATERLINE SAGGED TO CLEAR AN OBSTRUCTION SHALL HAVE A MINIMUM OF 12" CLEARANCE FROM THAT OBSTRUCTION.
- 8. WATER LINE INSTALLATION SHALL BE ACCOMPLISHED UNDER THE DIRECT SUPERVISION OF THE TOWN OF PAYSON WATER DIVISION DIRECTOR OR THEIR DESIGNEE. IF PLANS CONFLICT WITH SPECIFICATIONS, PLANS SHALL GOVERN.
- 9. ALL WATER LINES SHALL BE TESTED IN ACCORDANCE WITH AWWA STANDARD C605-05. A 4' MINIMUM COVER SHALL BE PROVIDED FROM FINISHED GRADE TO TOP OF WATER LINES FOR LINES LARGER THAN 8" AND 3' MINIMUM COVER FOR LINES 8" OR SMALLER.
- 10. ALL SPECIFICATIONS SHALL BE SUBJECT TO THE INTERPRETATION OF THE WATER DIVISION DIRECTOR OR THEIR DESIGNEE. ALL MATERIALS SHALL BE INSPECTED BY THE WATER DIVISION DIRECTOR OR THEIR DESIGNEE AND THE CONTRACTOR MUST OBTAIN WRITTEN APPROVAL OF THEIR ACCEPTANCE BEFORE INSTALLING SAID MATERIALS.
- 11. ALL FACILITIES AND WORKMANSHIP ARE SUBJECT TO THE APPROVAL AND ACCEPTANCE OF THE WATER DIVISION DIRECTOR OR THEIR DESIGNEE TO INSURE THE PROPER AND ORDERLY DEVELOPMENT OF THE PUBLIC WATER SYSTEM.
- 12. TWO SETS OF RECORD DRAWINGS (ONE REPRODUCIBLE AND ONE BLACK LINE COPY) FOR THE WATER SYSTEM IMPROVEMENTS SHALL BE SUBMITTED TO THE WATER DEPARTMENT PRIOR TO FINAL ACCEPTANCE OF THE WATER IMPROVEMENTS.
- 13. NO CHANGES TO THE SET OF PLANS APPROVED FOR CONSTRUCTION OF WATER FACILITIES WILL BE ALLOWED UNLESS WRITTEN PERMISSION IS OBTAINED FROM THE PROJECT ENGINEER AND WATER DIVISION DIRECTOR OR THEIR DESIGNEE.
- 14. ALL DEAD ENDS SHALL BE PLUGGED OR CAPPED AND FITTED WITH BLOWOFFS IN ACCORDANCE WITH DETAIL, THIS SHEET.
- 15. THRUST BLOCKS SHALL BE INSTALLED ON ALL WATERLINES IN ACCORDANCE WITH MAG STD. DET. 380 (MOD.), THIS SHEET.
- 16. ALL WATER METER SERVICE LINES WHETHER FOR SINGLE OR DOUBLE RESIDENTIAL METER INSTALLATION SHALL BE SDR 7, 1" IRON PIPE SIZE, HIGH DENSITY POLYETHYLENE (HDPE) PIPE UNLESS OTHERWISE NOTED ON THE PLANS. ALL 2" WATER METER SERVICE LINES SHALL BE SDR 9, COPPER TUBE SIZE HIGH DENSITY POLYETHYLENE (HDPE) PIPE. ALL SERVICE LINES TO BE 200 PSI AND MEET AWWA C-901.
- 17. WHENEVER IT IS NECESSARY TO TEMPORARILY INTERRUPT WATER SERVICE TO EXISTING METERS, THE CONTRACTOR SHALL NOTIFY THE TOWN OF PAYSON AND ALL AFFECTED WATER USERS A MINIMUM OF 24 HOURS PRIOR TO THE SCHEDULED INTERRUPTION. THE CONTRACTOR SHALL HAVE ALL NECESSARY MATERIALS AND SUFFICIENT MANPOWER TO COMPLETE THE TIE-IN EXPEDITIOUSLY.
- 18. ALL CONSTRUCTION STAKING SHALL BE PROVIDED BY THE CONTRACTOR AND INCLUDED IN THE PRICE BID FOR ALL TOWN OF PAYSON PROJECTS.
- 19. ALL SERVICE FITTINGS FOR WATER METER SERVICE LINES SHALL BE MUELLER INSTATITE OR FORD ULTRATITE UNLESS OTHER WISE APPROVED BY THE TOWN OF PAYSON WATER DEPARTMENT.
- 20. ONLY WATER DEPARTMENT PERSONNEL ARE ALLOWED TO OPERATE LIVE WATER VALVES ON THE EXISTING SYSTEM. THIS INCLUDES OPERATION FOR FILLING AND FLUSHING NEW LINES.
- 21. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ANY ADDITIONAL TAPS REQUIRED FOR CHLORINATION AND BACTERIA TESTING. MAXIMUM SPACING BETWEEN BACTERIA SAMPLING POINTS IS 1000 FEET. SEE TOWN OF PAYSON PRESSURE TESTING AND BACTERIOLOGICAL SAMPLING PROCEDURES FOR
- LENGTHS SHORTER THAN 1000 FEET.

  22. PRESSURE TESTING ON THE WATER LINE SHALL NOT BE DONE ON ANY SECTION OF PIPE UNTIL ALL DRY UTILITY CONDUITS ARE INSTALLED ALONG THAT
- SECTION AND ALL SAMPLING TAPS HAVE BEEN INSTALLED FOR THAT SECTION.

  23. GLUE JOINT PVC PIPE IS NOT ALLOWED UNDER ANY CIRCUMSTANCES.
- 24. THE WATER DEPARTMENT SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF THE METHODS TO BE USED FOR CLEANING, FLUSHING AND CHLORINATING NEW WATER MAINS ON EACH PROJECT. IN THE EVENT OF LOW WATER RESERVOIRS, FLUSHING OR FILLING OF MAINS MAY BE DELAYED UNTIL SUCH TIME AS THERE IS ADEQUATE WATER IN THE STORAGE TANKS.
- 25. THE TOWN OF PAYSON WATER DEPARTMENT IS NOT OBLIGATED TO SUPPLY ADDITIONAL WATER FOR FLUSHING MAIN LINES WHICH HAVE BECOME FILLED WITH MUD OR SILT DUE TO IMPROPER SEALING OF THE PIPE ENDS DURING CONSTRUCTION. THESE MAINS MUST BE REMOVED AND REPLACED.





Rev. Dimension on Blow-off Detail

Rev. Dimension on Blow-off Detail

Rev. Service Line Pipe Type (HDPE)

Rev. Air Release and Trench Details

Rev. Air Release and Trench Details

General update of sheet.

O2-14 TDH TDH

General update of sheet.

PAYSON, ARIZONA

175 230

280

330

14 General update of sheet.

WATERDET.DWG

For smaller radii, bends must be used.

12-16 JAB TDH

	JOB NO.	XXX-XXXXX.>	XXXX	
	DESIGNED BY:		XXX	
	DRAWN BY	:	XXX	
	CHECKED BY:		XXX	]
	APPROVED	BY:	XXX	
1				

XX-XX-2014

DATE:

STANDARD WATER DETAILS

