



**Design and Construction Standards  
apply to ALL Global Water  
Resources owned and operated  
utilities.**

**GENERAL SEWER NOTES**

- 1. CONSTRUCTION OF SEWER FACILITIES SHALL BEGIN WITHIN 1 YEAR FROM GLOBAL WATER RESOURCES ACCEPTANCE DATE ON PLANS. IF CONSTRUCTION HAS NOT STARTED WITHIN 1 YEAR, PLANS SHALL BE RESUBMITTED TO GLOBAL WATER FOR REVIEW AND RE-ACCEPTANCE, AND A NEW APPROVAL TO CONSTRUCT (ATC) ISSUED BY THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (“ADEQ”) PRIOR TO START OF CONSTRUCTION.**
- 2. ALL WORK AND MATERIALS SHALL CONFORM TO GLOBAL WATER’S STANDARDS, ADEQ REGULATIONS AND STANDARDS, CURRENT MAG SPECIFICATIONS, AND ANY REQUIREMENTS OF THE LOCAL GOVERNING AUTHORITY, AS APPLICABLE. IN THE EVENT OF A CONFLICT, THE MORE STRINGENT REQUIREMENT SHALL GOVERN. FAILURE TO MEET ANY OF THESE REQUIREMENTS SHALL BE CAUSE FOR REJECTION.**
- 3. PRIOR TO CONSTRUCTION, ALL PERMITS SHALL BE SECURED AS REQUIRED FROM THE APPROPRIATE GOVERNING AGENCIES**
- 4. SEWER LINE CONSTRUCTION SHALL BE SDR35 PVC IN ACCORDANCE WITH MAG SPECIFICATION SECTION 615, ASTM D-3034 AND ASTM F-679 OR CERAMIC EPOXY DUCTILE IRON PIPE. ALL DUCTILE IRON PIPE SHALL BE POLYETHYLENE WRAPPED FOR THE ENTIRE LENGTH IN ACCORDANCE WITH MAG SECTION 610.5 VCP. CONCRETE PIPES ARE NOT ACCEPTABLE AND CURVEALINEAR SEWER LINES ARE NOT ALLOWED.**
- 5. SEWER LINES REQUIRE A MINIMUM OF 6 FEET OF COVER FROM TOP OF PIPE TO FINISH GRADE.**

- 6. MANHOLES SHALL BE PRECAST CONCRETE IN ACCORDANCE WITH GLOBAL WATER'S DETAIL 421, ALL MANHOLES SHALL HAVE NO STEPS INSTALLED. GLOBAL WATER SHALL BE PROVIDED WITH AN H-20 LOAD CERTIFICATION FROM THE MANUFACTURER FOR ADJUSTING RINGS CONES ETC. MANHOLES SHALL BE TREATED WITH INSECTA INSECT TREATMENT AS SOON AS THE MANHOLE IS RAISED TO GRADE AND PRIOR TO FINAL ACCEPTANCE. DOCUMENTATION OF TREATMENT IS TO BE PROVIDED TO GLOBAL WATER RESOURCES.**
- 7. MANHOLE COVERS SHALL BE CAST IRON WITH GLOBAL WATER LOGO IN ACCORDANCE WITH M.A.G. SPECIFICATIONS AND GLOBAL WATER DETAIL NO. 199 AND SHALL BE 24" OR 30" RING AND COVER, NEENAH DF 1295 OR DF 1296. GLOBAL WATER SHALL BE PROVIDED WITH H-20 LOAD CERTIFICATION FROM MANUFACTURE FOR CAST IRON RING AND COVERS PER CID A-A 60005.**
- 8. ALL MANHOLES SHALL BE TREATED WITH SEWER SHIELD 100, RAVEN 405 OR APPROVED EQUAL COATING AND SHALL BE APPLIED IMMEDIATELY AFTER MANHOLE IS RAISED TO GRADE. COATING SHALL BE INSTALLED AND TESTED IN THEIR ENTIRETY IN ACCORDANCE WITH MANUFACTURES RECOMMENDATIONS.**
- 9. WATER TIGHTNESS OF SEWERS AND MANHOLES SHALL BE DETERMINED BY LOW PRESSURE AIR TESTING IN ACCORDANCE WITH ASTM C-1224.**
- 10. ALL SEWERLINES MUST BE TESTED USING LOW-PRESSURE AIR TESTING IN ACCORDANCE WITH A.A.C. R18-9-E301 (D) (2) (j) (i).**
- 11. THE TOTAL LENGTH OF SEWER LINE MUST BE TESTED FOR UNIFORM SLOPE IN ACCORDANCE WITH A.A.C. R18-9-E301 (D) (2) (k).**
- 12. DEFLECTION TESTING SHALL BE DONE ON ALL SEWER LINES TO ENSURE THE INSTALLATION MEETS OR EXCEEDS MANUFACTURER'S RECOMMENDATIONS IN ACCORDANCE WITH A.A.C. R18-9-E301 (D) (2) (i).**
- 13. ALL WORK WILL BE SUBJECTED TO A TWO (2) YEAR WARRANTY PERIOD AND DOES NOT BEGIN UNTIL THE BILL OF SALE HAS BEEN COMPLETED. SEE GLOBAL WATER DESIGN STANDARD, FINAL ACCEPTANCE / BILL OF SALE.**