

New in the Engineering Design Standards 2012

The Pima County Regional Wastewater Reclamation Department's *Engineering Design Standards 2012 (Design Standards)* is a major revision of the *Design Standards for Public Sewerage Facilities, June 1983*, and all subsequent updates (Engineering Directives) issued prior to December 2012. Although notable changes are mentioned below, users of this document are strongly encouraged to read through its entirety and get familiar with its reorganization and format. Please note that the *Design Standards* do not provide the requirements for how new public sanitary sewer facilities are to be shown on tentative plans and development plans, nor does it supersede the *Preliminary Sewer Layout Requirements, March 1984* that was adopted by resolution (1984-44) of the Pima County Board of Supervisors.

New Design Standards/Processes:

- Subsection 2.4: Standards committee re-established for appeals process (denied variances)
- ~~Subsection 3: General guidelines for sewer design reports~~
- Subsection ~~3-2-42.10~~: General provisions for gray water plumbing systems
- Subsection ~~4-73.6~~: BMP's for private wastewater pumping systems and method of connection to public sewer
- Subsection ~~54~~: Guidance for utility coordination project submittals
- Subsection ~~6-1-145.1.11(A)~~: Reference to Special Standard Detail (S.S.D.) RWRD-113 for sewer scour protection
- Subsection ~~6-2-35.2.3(B)~~: Minimum separation between ~~section corner (a survey monument)~~ and new manhole is 5'
- Subsection ~~6-2-125.2.12~~ & ~~6-2-135.2.13~~: Criteria for use of bolted and watertight manhole covers
- Subsection ~~8-77.7~~: Reference to Special Standard Detail (S.S.D.) RWRD-112 for sewers in environmentally sensitive areas
- Appendix B: Design guidance for siphons

Design Standards with major updates:

- Subsection ~~6-1-3(B)~~~~5.1.3(C)~~: Minimum diameter for sewer line terminal reaches decreased from 8" to 6"
- Subsection ~~6-1-145.1.11~~: Washes and stormwater detention/retention basins; sewer lines should not be located beneath stormwater basins and all reasonable design options must be exercised to avoid such locations
- Subsection ~~6-2-75.2.7~~: Maximum pipe diameter for 60" manholes reduced from 36" to 18" (i.e. pipes with diameters greater than 18" will require manhole with diameters greater than 60")
- Subsection ~~6-2-155.2.15~~ and ~~6-3-35.3.3~~: Special Approval required for drop manholes (previously not allowed)
- Subsection ~~6-3-45.3.4~~: Direct connections of 4" HCS into existing 12" diameter sewer lines allowed without special assessment
- Subsection ~~6-45.4~~: Graphical requirements for sewer improvement plans removed from this document and referenced to a sewer improvement plan checklist available through the RWRD website
- Subsection ~~76~~: Design standards and guidance for public wastewater pumping systems
- Subsection ~~8-27.2~~: Guidance for the conveyance of public sewer easements
- Appendix A: 1984 Scour Procedures by Simons Li & Associates updated by Tetra Tech

Design Standards with minor updates:

- Subsection ~~6-1-8(A)~~~~5.1.8(A)~~: Where possible, 6' separation between new water mains and new sewer manholes shall be measured from outside surface of the manhole riser (Standard Detail RWRD-108 retained)
- Subsection ~~6-1-15.1.1~~: Curvilinear sewers may be permitted with special approval from the Director (no design standards or guidance provided)
- Subsection ~~6-1-65.1.6~~: General provisions for cathodic protection
- Subsection ~~8-1-17.1.1~~: Referenced standard details RWRD-109 through -111 (design guidance for public sewer easements) have been updated to provide more detail