



## Engineering Standards Change Summary January 2025

### Design Standards Manual

<u>Document No.</u>	<u>Title</u>	<u>Revision Summary</u>
Chapter 1	Water System Design	Various revisions to clarify and enhance existing requirements including private on site hydrants, dead end public water mains, manifold multiple meters, multi-family firelines and secondary potable water meter connection for redundancy, commercial firelines, and fire pumps for industrial sites. Three new figures added, 1-A, 1-B and 1-C.
Chapter 1	Water System Design	Revision to Section 1.2.3.1, B - Design Reports, removing conflicting sentence that was carryover from past version "System pressures may range from 50 to 100 psi with velocity less than 5 feet per second for peak hour flow."
Chapter 1	Water System Design	Revision to Section 1.2.3.1, A - Minimum Pressure, removing sentence "... in lieu of fire hydrant flow test results." Fire hydrant flow tests are still required, but covered under Section B. Design Reports. This was causing some confusion.
Chapter 2	Wastewater and Reclaimed System Design	Revision to Section 2.2.9 Manholes, clarification on requirements for new MH connections and connections at existing stub-outs (first paragraph). Reordered this section and moved industrial monitoring vaults to new Section 2.2.11 Pre-Treatment Requirements.
Chapter 2	Wastewater and Reclaimed System Design	Revisions for new MAG Section 632 tracer wire requirements, various locations. Other insertions for missing MAG references for pipe installation, Section 615, etc.
Chapter 3	Storm Drainage System Design	Revisions to drywell registration per changes from ADEQ to EPA. Requiring registration numbers to be delivered at the time of project acceptance.
Chapter 4	Street Design and Access Control	Add language to 4.6 Access Management: "Any gate(s) on a residential driveway on an arterial or collector road are to be located a minimum of 23 feet from back-of-curb (25 feet from roadway asphalt). This is to provide space for a typical vehicle stopped prior to the gate to be out of the roadway." Also, revise Residential Driveway definition on pg 82, "New access from an arterial street is not allowed" and on pg 108, revise paragraph under 4.6.1 Access Control related to single family residences as follows "New single family residences are not allowed direct access to arterial streets."
Chapter 4	Street Design and Access Control	Revisions to Section 4.4.1 Signing & Striping pertaining to typical RR Crossings and Quiet Zone requirements, more guidance provided. Removing Figure 4-H in favor of new City Detail C-625, Railroad Markings for Quiet Zones.
Chapter 4	Street Design and Access Control	Revision to Section 4.6.3 Emergency Access Requirements, clarifying FD placement requirements and additional standard requirements.
Chapter 5	Traffic Signal Design	Revised Figure 5-E to clarify (2) 4"PVC Signal Conduits
Chapter 6	Streetlight Design	Revisions to Photocells for new standards related to LED Control Nodes, revised wattage for luminaires (Section 6.3.2), revised pole painting per APL and added requirement for GPS location for all new and relocated poles.
Chapter 7	Traffic Barricade Design	Revisions for off duty officers in Section 7.6.5.1 Police Officers, "To schedule extra-duty officers for traffic control during construction or maintenance operations visit <a href="https://odm.officertrak.com/Chandler-AZ-PD">https://odm.officertrak.com/Chandler-AZ-PD</a> or call 1-877-636-8300." This replaces the first sentence in the second paragraph.
Chapter 8	Landscape Design of City Owned R.O.W., Medians, and Retention Basins	Revise Section 8.2.11 Irrigation Systems to include current requirements for reclaimed or potable for medians.

### Specifications and Standard Details Manual (Supplement to MAG)

<u>Document No.</u>	<u>Title</u>	<u>Revision Summary</u>
TOC	Details C-759-1 and C-759-2	Blooper: Remove reference to these details since never created. Was decided not to add these SRP and APS trench and backfill details but instead require developer to coordinate with appropriate utility company as stated in the Eng Design Manual.
C-103-1	Pull Box No. 7 Typical Installation	Separated notes 3 & 4: Note 3 - Changed to reflect only on the vault Note 4 - Added note to specify the type of lid required Adjusted leaders to reflect new note numbers. Other minor adjustments to drawing.
C-103-2	Pull Box No. 9 Typical Installation	Added note 15. Other minor adjustments to drawing.
C-103-3	Pull Box No. 9 Split Vault Typical Installation	Added note 15. Other minor adjustments to drawing.
C-104-1	Open Trench Fiber Optic Cable Ducts	Changed drawing number. Made minor adjustments to drawing.
C-104-2	Horizontal Directional Drilling Fiber Optic Cable Ducts	New detail for horizontal directional drilling.
C-208	Industrial Collector Street Typical Cross Section	Remove this detail since no longer in use. Current standard is C-210. Removed Industrial Collector definition in Eng Design Standards Manual Ch 4.
C-214	Private Shared Driveway Typical Cross Section & Utilities	Typo in note no. 4, roll curb should be MAG Detail 220-1 (Type C), not 200-1. Revise water main location to 6' off C.L.
C-243	Curb Ramp for Rolled Curb	Blooper: This detail was removed in past update, just needs to be removed from final PDF. Was removed in favor of MAG Detail 238-4, Single Curb Ramp Mid-Block Residential Street W/ 4" Roll Curb.
C-260-2	On-Street Parking Accessible Spaces	Remove detectable warning shown on all ramp details and revise notes 8 and 9 stating "DO NOT INSTALL DETECTABLE WARNING". Final PROWAG states detectable warning is not required for ramps that serve ADA spaces exclusively.
C-260-2	On-Street Parking Accessible Spaces	Added additional ramp and access aisle based on final PROWAG where shared aisle no longer allowed for angled parking.

C-261-1	Passenger Loading Zones for Autonomous Vehicles and Ride Sharing	Revise note 5, "CURB RAMPS SERVING PASSENGER LOADING ZONES DO NOT REQUIRE DETECTABLE WARNING". Final PROWAG states detectable warning is not required for ramps that serve ADA spaces exclusively.
C-301-1	Water Service Installation	Revisions for PEXa pipe allowance and other minor revisions
C-301-2	Multi-Meter Water Service Installation	Revise/move fireline backflow and note 5 to outside of right-of-way.
C-307	Valve Box Installation (Potable Water)	Revision to note regarding 'non-pop' polymer lid requirement. Revised to "VALVE LID PER LIST OF APPROVED PRODUCTS". Non-pop polymer lids no longer acceptable due to ongoing durability issues. Also, corrected spec reference in note 2 for CLSM to MAG Section 728. Removing tracer wire per new MAG Section 632.
C-311	Reduced Pressure-Principle Backflow Prevention Assembly Installation - 3" and Under	Revisions to notes adding reference to APL, certified testing, 2' clear space and not painting brass parts or placards.
C-315	Reduced Pressure-Principle Backflow Prevention Assembly Installation - 4" and Larger	Revisions to notes adding reference to APL, certified testing, 2' clear space and not painting brass parts or placards. Also, clarification of 6" max distance.
C-319	2" Combination Air/Vacuum Valve Assembly	Revisions based on current approved product: removed mesh screen and 90 elbow on top. Revised box to polymer concrete and only 1 required.
C-400	Manhole Frame and Cover Types	Revisions to graphics and notes based on current approved MH frame and cover.
C-406-1	Valve Box Installation (Reclaimed Water)	Revision to note 2 to correct CLSM spec to MAG Section 728.
C-408	Pipe Locator Wire & I.D. Tape	Remove this in favor of new MAG Detail 399-1. Revised Design Manual for references to C-408 too.
C-506	Catch Basin Grates	Typo in title
C-602	Collector Road Pavement Markings	Renumber to detail to C-624 to keep with other details pertaining to markings.
C-625	Railroad Markings for Quiet Zones	New detail to replace Figure 4-H in Eng Design Standards Manual Ch 4.
C-718	Chandler Pole Foundation QC, RC, JC MOD, KC, & KC MOD	Adding note 6. "See ADOT Std Dwg T-SL 4.28 for additional anchor bolt dimensions.:
C-724	Traffic Signal Pull Box No. 7 Typical Installation	New detail specific to pull box requirements for traffic signals.
C-756	Angle Street Light Pole (SL-17)	Revise 2" MIN. note in plan view to remove MIN.
C-758	Street Light Connection Details	Revise title to include reference to previous SL-15 detail as with other details.
FD102	FIRE LINE INSTALLATION (ON-SITE HYDRANT REQUIRED)	Revisions to add flow detection meter notes.
FD103	FIRE LINE INSTALLATION (NO ON-SITE HYDRANTS REQUIRED)	Revisions to add flow detection meter notes.