

		<h1>Engineering Standards Change Summary 2022</h1>
<h2>Technical Design Manuals</h2>		
<u>Document No.</u>	<u>Title</u>	<u>Revision Summary</u>
ALL	NEW Engineering & Design Standards Manual	This new manual combines all 8 existing Technical Design Manuals (TDMs) into one manual as "Chapters" retaining the TDM number for the chapter i.e. TDM 1 & 2 becomes Chapter 1 - Water System Design and Chapter 2 - Wastewater and Reclaimed System Design, etc. For the most part the content and text from the existing manuals has been retained. An Introduction chapter has been added for intent and overarching requirements. Also, a new Chapter 9 for Benchmarks and Vertical Control was added that incorporates a separate UDM document and similarly, the Sediment and Erosion Control Manual has been incorporated into Chapter 3, Drainage Design Requirements.
TDM #1&2	Water and Wastewater System Design	Added a second bullet under Section V. Valve Requirements on pg. 16: Valves must be flanged to tee/cross except as noted below.
TDM #3	Drainage Policies and Standards	Revised Drywell section on pg. 25, restating that registration materials are required prior to approval of "as-built" grading plans (consistent with Grading Plan Notes, number 9).
TDM #3	Drainage Policies and Standards	Revision to Section 6.11.3 Underground Storage Tank allowances for corrugated metal pipe (CMP) tanks. Residential use properties storage tank material options now limited to concrete and polypropylene. Set minimum pipe gage for CMP to 12 gage.
TDM #4	Drainage Policies and Standards	Revision to Section 6.5.2 Streets paragraph 2 adding "All catch basin access cover must be round type per MAG 536-2."
TDM #4	Street Design and Access Control	Revision to solid waste pickup allowances for cluster developments with shared driveways (pg. 14) to reflect 2020 Code update. New cluster developments that can not meet requirements for solid waste pickup in front of residence must use a private hauler. Existing cluster developments are grandfathered in for City service as designed.

TDM #5	Traffic Signal Design	Existing TS details migrated to new 700 Series standard details or incorporated into manual where appropriate. Pole, Mast Arm, and foundation details also updated to meet 2013 AASHTO wind loading requirements. Vibration mitigation device now required on mast arms.
TDM #5	Traffic Signal Design	General updates to manual including removal of specified products in favor of using List of Approved Products and references to new 700 Series details.
TDM #5	Traffic Signal Design	General updates to fiber optic cable requirements including referencing updated Detail C-104 (5.7.1), and City Outside Plant Fiber Specialist coordination requirements (5.7.3).
TDM #6	Streetlight Design	Existing SL details migrated to new 700 Series standard details or incorporated into manual where appropriate. Pole and foundation details also updated to meet 2013 AASHTO wind loading requirements.
TDM #6	Streetlight Design	General updates to manual including removal of specified products in favor of using List of Approved Products and references to new 700 Series details.
TDM #8	Landscape Design of ROW, Medians and Retention Basins	Revised Section 2.2B references for pavers to List of Approved Products.
Specifications and Standard Details Manual (Supplement to MAG)		
<u>Document No.</u>	<u>Title</u>	<u>Revision Summary</u>
Complete Manual	Standard Details and Specifications	New cover sheet, new overall table of contents, enhanced specifications and standard details table of contents and updates for standard font and City logo. Revised title for manual to "Specifications and Standard Details (Supplement to MAG)".
SECTION 360	TELECOMMUNICATIONS INSTALLATION	Revision pertaining to 2020 MAG update, adding 360.1 supplement to description and adding an item 3) to 360.3 for conduits on private property to be min. 24" below finished grade.
SECTION 601	TRENCH EXCAVATION, BACKFILLING, AND COMPACTION	Revision to Section 601.4.5 pertaining to situations where City Engineer may waive slurry backfill requirement in certain cases under medians where placement of CLSM conflicts with tree planting, for example.
ALL details	All details	Revised all details for standard OpenSans font, City logo, new title block and date approved - no signature.
C-103	FIBER OPTIC CABLE SPLICING VAULT	Remove this detail since no longer in use as shown.
C-104	FIBER OPTIC CABLE DUCTS	Revision to detail for current installation requirements for open trenching and duct bank schedule.
C-206, C-208, C-209, C-210, C-211, C-212, C-213, C-215, C-221, C-222	(VARIOUS) TYPICAL CROSS SECTION	Revise cross slope to show full range "2% to 3%" match table in design manual (TDM#4) for collector and local roadway cross sections.

C-243	CURB RAMP FOR ROLL CURB	Remove this detail in favor of MAG 238-4 Single Curb Ramp Mid-Block Residential Street w/ 4" Roll Curb.
C-259	MODIFIED ENTRANCE	Remove this detail in favor of MAG 260 Retrofit Driveway or Alley Entrance (with 2" Roll Curb and Gutter). This detail no longer in use.
C-262	MANHOLE / VALVE BOX CURB REALIGNMENT	Remove this detail in favor of new MAG 272 Retrofit Manhole/Valve Box Curb Realignment detail.
C-500	Scupper	Revision to clarify the wing wall extents under the slab, both in the plan view and Section B-B.
C-606	INTERNALLY ILLUMINATED STREET NAME SIGN	Update pertaining to referencing approved products list for light materials instead of specifying product on detail.
C-608	INTERNALLY ILLUMINATED STREET NAME SIGN - JC/RC MOD POLE MOUNTING	Updates pertaining to pole types (JC & RC Modified) and new City Detail references instead of ADOT Standard Drawings.
C-609	INTERNALLY ILLUMINATED STREET NAME SIGN - F POLE MOUNTING	Remove this detail, no longer in use.
C-610	INTERNALLY ILLUMINATED STREET NAME SIGN - F POLE MOUNTING DETAIL	Remove this detail, no longer in use.
C-617	MEDIAN NOSE PAINTING	Added "with reflective glass beads" to the note for painting the median. This has been the practice, but was not noted on the detail.
C-618	TYPICAL SIGNS AND MARKINGS ARTERIAL ROADS	Update to Bus Stop sign that is more consistent with current practice.
C-710	TRAFFIC SIGNAL POLE TYPE QC	NEW detail for Chandler standard pole requirements and meeting 2013 AASHTO wind loading requirements.
C-711	TRAFFIC SIGNAL POLE TYPE JC	NEW detail for Chandler standard pole requirements and meeting 2013 AASHTO wind loading requirements.
C-712	TRAFFIC SIGNAL POLE JC MODIFIED	NEW detail for Chandler standard pole requirements and meeting 2013 AASHTO wind loading requirements.
C-713	TRAFFIC SIGNAL POLES QC, JC, & JC MODIFIED	NEW detail for Chandler standard pole requirements and meeting 2013 AASHTO wind loading requirements.
C-714	TRAFFIC SIGNAL POLE TYPE RC	NEW detail for Chandler standard pole requirements and meeting 2013 AASHTO wind loading requirements.
C-715	TRAFFIC SIGNAL POLE TYPE KC	NEW detail for Chandler standard pole requirements and meeting 2013 AASHTO wind loading requirements.
C-716	TRAFFIC SIGNAL POLE TYPE KC MODIFIED	NEW detail for Chandler standard pole requirements and meeting 2013 AASHTO wind loading requirements.
C-717	TRAFFIC SIGNAL POLES RC, KC, & KC MODIFIED	NEW detail for Chandler standard pole requirements and meeting 2013 AASHTO wind loading requirements.
C-718	TRAFFIC SIGNAL POLE FOUNDATION QC, JC, JC MODIFIED, RC, KC & KC MODIFIED	NEW detail for Chandler standard pole requirements and meeting 2013 AASHTO wind loading requirements.
C-720	TRAFFIC SIGNAL POLE PLACEMENT FOR PUSH BUTTON ACCESSIBILITY	NEW detail based on TS-13 with various incidental updates.
C-721	TRAFFIC SIGNAL METER PEDESTAL	NEW detail based on TS-8 with various incidental updates.
C-722-1	TRAFFIC SIGNAL I.M.S.A. SIGNAL CABLE INSTALLATION	NEW detail based on TS-11 with various incidental updates.
C-722-2	TRAFFIC SIGNAL TERMINAL BLOCK WIRING DETAILS	NEW detail based on TS-12 with various incidental updates.

C-723	TRAFFIC SIGNAL CABINET FOUNDATION CONDUIT LAYOUT	NEW detail based on TS-19 with various incidental updates.
C-751-1	STREET LIGHTPOLE ASSEMBLY (SL-1)	NEW detail based on SL detail with various incidental updates.
C-751-2	STREET LIGHT DAVIT ARMS (SL-1)	NEW detail based on SL detail with various incidental updates.
C-751-3	STREET LIGHT DETAILS (SL-1)	NEW detail based on SL detail with various incidental updates.
C-752-1	STREET LIGHT POLE ASSEMBLY (SL-6 AND SL-8)	NEW detail based on SL detail with various incidental updates.
C-752-2	STREET LIGHT DAVIT ARMS (SL-6 AND SL- 8)	NEW detail based on SL detail with various incidental updates.
C-753-1	STREET LIGHT POLE DETAILS (SL-6)	NEW detail based on SL detail with various incidental updates.
C-753-2	STREET LIGHT POLE DETAILS (SL-6)	NEW detail based on SL detail with various incidental updates.
C-754-1	STREET LIGHT POLE DETAILS (SL-8)	NEW detail based on SL detail with various incidental updates.
C-754-2	STREET LIGHT POLE DETAILS (SL-8)	NEW detail based on SL detail with various incidental updates.
C-755	DECORATIVE STREET LIGHT POLE (SL-16)	NEW detail based on SL detail with various incidental updates.
C-756	ANGLE STREET LIGHT POLE (SL-17)	NEW detail based on SL detail with various incidental updates.
C-757-1	STREET LIGHT JUNCTION BOXES	NEW detail based on SL-14A with various incidental updates.
C-757-2	STREET LIGHT 14" X 24" JUNCTION BOX (APS SERVICE AREA)	NEW detail based on SL-14B with various incidental updates.
C-757-3	STREET LIGHT 10" X 15" JUNCTION BOX (SRP SERVICE AREA)	NEW detail based on SL-14C with various incidental updates.
C-758	STREET LIGHT CONNECTION DETAILS	NEW detail based on SL-15 with various incidental updates.
C-759-1	STREET LIGHT CONDUIT EXCAVATION CRITERIA (SRP SERVICE AREA)	NEW detail based on SL-18 with various incidental updates.
C-759-2	STREET LIGHT CONDUIT EXCAVATION CRITERIA (APS SERVICE AREA)	NEW detail based on SL-19 with various incidental updates.
C-760	STREET LIGHT SPREAD FOUNDATION (SL- 1, SL-6, SL-8 AND SL-16)	NEW detail based on SL-20 with various incidental updates.