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CHAPTER 1

GENERAL INFORMATION

- 1.01 Authority.** These standards are promulgated by the Chief Executive Officer and approved by the Chief Water Services Officer of Springs Utilities. The interpretation, enforcement, and revision of these Standards are hereby delegated to Planning and Engineering Department, General Manager or his designated agent.
- 1.02 Effective Date of Standards.** These Standards shall be in effect fifteen (15) Calendar days after approval by the Chief Water Services Officer and shall supercede all Wastewater Line Extension and Service Standards policies and standards within the Colorado Springs Utilities Wastewater system.
- 1.03 Revisions, Amendments or Additions.** These Standards may be revised, amended or added to. Such revisions, amendments and additions shall be binding and in full force and effect when published in the manner set forth in Section 1.02 (above).
- 1.04 Department Control.** These Standards will apply to the installation, operation and maintenance of all Wastewater Collection facilities under the control of the Colorado Springs Utilities.
- 1.05 Organization and Interpretation of Standards.** These Standards are composed of written standards of engineering practice, materials specifications, operational requirements and standard drawings. The interpretation between sections, or a difference (where appropriate), shall be made at the discretion of the Planning and Engineering Department, General Manager and his interpretation shall be binding and controlling in its application.
- 1.06 Definitions.** As used in these Wastewater Line Extension and Service Standards or in any of the drawings where these standards govern, unless the context shall otherwise require, the following shall have the meanings herein ascribed:
1. **“Access”** means 24 hour unrestricted access to every manhole, pipeline, or facility and that the access allows a vehicle with an “HS-20” loading to reach all of the wastewater facilities under all weather conditions.
 2. **Applicant for System Extension.** Any person, association, corporation, entity or government agency desiring wastewater service for premises under their control, often a sub-divider, a developer or an owner.
 3. **“Approval”** means the final action of Colorado Springs Utilities.
 4. **Approved Manufacturer/Material.** Materials that are approved for installation within the Colorado Springs Utilities Wastewater system: (All “or equal” materials shall be approved by Colorado Springs Utilities in advance of construction). “Equal” means, of the same quality, material or product that meets or exceeds the approved material/product in the standards and specifications, and shall be approved by Colorado Springs Utilities prior to construction or installation.

5. **“As Constructed”**. Means “as built” or “as constructed” in/on the ground, an accurate record of pipe and fitting, etc placed in/on the ground.
6. **Chief Executive Officer**. The Executive Director of Utilities or the Executive Director’s designees, if any. The Chief Executive Officer is the Utilities Director appointed by City Council pursuant to City Charter 6-10.
7. **City**. The word "City" is used herein and means the City of Colorado Springs, Colorado.
8. **Collection System**. Mains, together with all appurtenant and necessary manholes, services, taps, pump stations, and associated materials, property and equipment collecting wastewater from individual customers, **all the way to the domestic wastewater treatment plant.**
9. **“Collector”** means a 10-inch to 15-inch diameter sanitary sewer where one or more sanitary sewer mains are tributary.
10. **Colorado Springs Utilities**. A municipal utility that provides water, wastewater, natural gas and electric services. Colorado Springs Utilities is an enterprise of the City of Colorado Springs, a home rule municipality.
11. **“Construction”** means entering into a contract for the erection or physical placement of materials, equipment, piping, earthwork, or buildings which are to be part of a domestic wastewater treatment works.
12. **Contractor**. In the context of these Standards and Specifications, a person or persons, co-partnership or corporation employed by an applicant for the purpose of installing wastewater system extensions or replacements.
13. **“Design Capacity”** means the rated capacity. This rated capacity shall be given in million gallons per day (MGD).
14. **“Domestic Wastewater”** means a combination of liquid wastes, which may include chemicals, household wastes, human excreta, animal or vegetable matter in suspension or solution.
15. **“Domestic Wastewater Treatment Plant” (Treatment Plant)** means an arrangement of devices and structures for treating, neutralizing, stabilizing, or disposing of domestic wastewater, industrial wastes, and biosolids. The term “domestic wastewater treatment plant” does not include industrial wastewater treatment plants or complexes whose primary function is the treatment of industrial wastes, notwithstanding the fact that human wastes generated incidentally to the industrial process are treated therein.
16. **“Domestic Wastewater Treatment Works” (Treatment Works)** means a treatment plant or facility for treating, neutralizing, stabilizing, or disposing of domestic wastewater, and the system or facility has a designed capacity to receive more than two thousand gallons of domestic wastewater per day. The term “Domestic wastewater treatment works” also includes appurtenances to such system or facility such as vaults, outfall sewers, interceptor sewers and pumping stations and to equipment related to such appurtenances. The term “domestic wastewater treatment works” does not include industrial wastewater treatment plants or complexes whose primary function is the treatment of industrial wastes, notwithstanding the fact that human wastes generated incidentally to the industrial process are treated therein.

17. **Easement.** A right, privilege or liberty which one has in land owned by another; a right to limited use of another's land for some special and definite purpose within a specified boundary. It is not ownership of the land, but it includes the right to enter upon the land for the purpose(s) for which it was granted.
18. **“Expansion”** means any “construction” which increases the design capacity of any facility meeting the definition of “domestic wastewater treatment works” which would involve increased organic or hydraulic loading to the sewage treatment plant. It does not mean the replacement in kind of facilities or equipment, which would be, considered ordinary maintenance. If a modification or replacement does not increase design capacity of the domestic wastewater treatment works, it is not an expansion.

Wastewater Collection system extensions within the City of Colorado Springs and County of El Paso or total service area are referred to as "Main Extensions." "Main Extensions" shall further be defined as "Utilities Mains" and "Private Mains."

- (a) **Utilities Mains.** Main extensions as designated by the Colorado Springs Utilities, to be located within public rights-of-way and or easements as determined by the Colorado Springs Utilities. These mains and appurtenances shall be owned and maintained by Colorado Springs Utilities.
- (a) **Private Mains.** Main extensions as designated by Colorado Springs Utilities to be located outside of public rights-of-way and/or easements. These mains shall be owned and maintained by an individual, property owner(s), corporation, homeowners association or partnership. (To be inspected same as public mains, per Section 1.08)
19. **“GPD”** (gallons per day) or **“MGD”** (million gallons per day) means the total estimated or measured liquid waste flow during any twenty-four hour period to a domestic wastewater treatment works.
20. **Inspector.** The authorized representative of Colorado Springs Utilities assigned to the project or development and designated agent of the CEO. The Inspector shall maintain overall authority over the project. The Inspector may require on-site changes and corrections to be made during any phase of development/construction to the approved plans and profiles, to ensure standards, specifications and City codes are followed.
21. **“Interceptor Sewer”**- a sewer line will be considered as an interceptor sewer if it has an internal pipe diameter equal to or greater than **36-inches** and it meets one or more of the following criteria:
- (a) It intercepts domestic wastewater from a final point in a collection system and conveys such waste directly to a treatment plant, the interceptor sewer may also collect wastes from limited numbers (fewer than 5 connections per mile of sewer) of building services and sewer laterals along its route to the wastewater treatment plant;
- (b) It serves in place of a treatment plant and transports the collected domestic wastes to an adjoining collection system or interceptor sewer for treatment;
- (c) It transports the domestic wastes from one or more municipal collection systems to another municipality or to a treatment plant;

(d) It intercepts an existing major discharge of raw or inadequately treated wastewater for transport directly to another interceptor or to a treatment plant.

22. **“Lift Station” (Pumping Station)** means a wastewater pumping station that pumps the wastewater to a different point when the continuance of the sewer at reasonable slopes would involve excessive depths of bury or that pumps wastewater from areas too low to drain into available sewers. This definition of lift station does not include wastewater pumping stations for single family residences or clusters of five or fewer single-family residences. **Lift stations with a capacity of greater than 2000 gpd will need a site application and must go through the local and state processes for site and design approval.**
23. **“Local Collector”** means Public Sanitary Sewers that are less than 10-inch diameter.
24. **Main Extension.** Extensions to the existing Colorado Springs Wastewater network.
25. **“Management Agency”** means a municipality, appropriately designated by the governor, in accordance with Section 208 of the Federal Clean Water Act and State Law, with responsibilities to implement all or part of an approved water quality management plan.
26. **“Outfall Sewer”** means a sewer that received treated wastewater from a treatment plant and carries it to a point of final discharge.
27. **“Person”** means an individual, corporation, partnership, association, state, or political subdivision thereof, federal agency, state agency, municipality, commission or interstate body.
28. **“State Waters”** means any and all surface and subsurface waters which are contained in or flow in or through this state, but does not include waters in sewage systems, waters in treatment works or disposal systems, waters in potable water distribution systems, and all water withdrawn for use until use and treatment have been completed.
29. **Service Line.** The wastewater line extending from the premises up to and including the connection to the public wastewater main.
30. **Standard Drawings.** Colorado Springs Utilities; Wastewater Construction Drawings are a part of these standards. (Wastewater drawings start with the prefix **C [Main Line]** or **D [Service Line]**)
32. **“Trunk Line”** means a 16–inch to 36-inch diameter sanitary sewer that receives many tributary sewers and server a large territory.
33. **“Utilities”** means Colorado Springs Utilities a wholly owned enterprise of the City of Colorado Springs.
34. **Wastewater Main or Collection Main.** That portion of the wastewater collection system, which collects wastewater from users to the Colorado Springs Utilities treatment facilities, excluding service lines.
35. **Wastewater Specifications.** The words “Wastewater Specification, Wastewater Standards, Standards” are used to describe these Wastewater Line Extension and Service Standards.

36. **“Watercourse”** means the natural or human made channels or ditch or conveyance or standing body of water into which the effluent from a domestic wastewater treatment works is discharged and does not necessarily contain water at all times.

1.07 Abbreviations. All references to documents or standards shall be the latest edition or revision thereof:

Associations

- (a) **AASHTO** – American Association of State Highway and Transportation Officials
- (b) **ACI** – American Concrete Institute
- (c) **AISC** – American Institute of Steel Construction Inc.
- (d) **ANSI** – American National Standard Institute
- (e) **ASTM** – American Society for Testing and Materials
- (f) **AWWA** – American Water Works Association
- (g) **CDPHE** – Colorado Department of Public Health and Environment
- (h) **EPA** – Environmental Protection Agency
- (i) **NSF** – National Sanitation Foundation

Colorado Springs Abbreviations

- (a) **CSFD** – Colorado Springs Fire Department
- (b) **LESS** – Line Extension and Service Standards
- (c) **LYSC** – Leon Young Service Center – 1521 Hancock Expressway.
- (d) **SU** – Colorado Springs Utilities

Wastewater Standard Abbreviations

- (a) **ACPL** – Asbestos Cement Pipe (Transite)
- (b) **CIP** – Cast Iron Pipe
- (c) **CMPS** – Corrugated Metal Pipe Smooth Flow
- (d) **DIP** – Ductile Iron Pipe
- (e) **FRP** – Fiberglass Reinforced Pipe – Flextran
- (f) **GPM** – Gallons Per Minute
- (g) **HDPE** – High Density Polyethylene
- (h) **LCON** - Non-Reinforced Concrete Pipe – lined

- (i) **NGVD '29** – National Geodetic Vertical Datum
- (j) **SLIP** – Sliplined Insituform
- (k) **SPI** – Spirolite
- (l) **STP** – Steel Pipe
- (m) **PPM**– Parts Per Million
- (n) **PPVC** – Pressure PVC (Polyvinyl Chloride) Pipe
- (o) **PRLC** – Permaloc
- (p) **PRV** – Pressure Reducing Valve
- (q) **PSI** – Pounds Per Square Inch
- (r) **PVC** – Polyvinyl Chloride – Plastic Pipe
- (s) **RCPL** - Reinforced Concrete Pipe – lined
- (t) **RCPU** – Reinforced Concrete Pipe – unlined
- (u) **ROW** – Right of way
- (v) **TRU** – Armco Truss Pipe
- (w) **UCON** – Non-Reinforced Concrete Pipe –unlined
- (x) **VCP** – Vitrified Clay Pipe

1.08 Standards to Apply. These Wastewater Line Extension and Service Standards shall apply uniformly to both "Colorado Springs Utilities Main" and "Private Main" extensions subject only to some appurtenance and procedural variations, authorized by the Colorado Springs Utilities.

1.09 Conflicts between Plans and Standards and Specifications. When a conflict occurs between or within standards, standards and drawings, the Colorado Springs Utilities pursuant to these standards shall make an interpretation.

1. Addenda and modifications to the drawings and standards take precedence over the original documents.
2. Should there be a conflict within the Standards or on the drawings, Colorado Springs Utilities shall decide which stipulation will provide the best installation and its decision shall be final.
3. In the drawings, calculated dimensions shall take precedence over scaled dimensions and noted material over graphic indication.

1.10 Special Conditions. When applying for a main extension, special conditions that involve another agency, such as crossing a railroad or highway, may exist. All conditions of the other agency must be satisfied. All designs, drawings and calculations submitted to another agency shall also be submitted to Colorado Springs Utilities for approval. Should a conflict in the plans and standards occur between Colorado Springs Utilities and the other agency, the more stringent plans and standards and specifications yielding a higher quality product shall prevail.