



WASTEWATER CONSTRUCTION PLAN CHECKLIST

(Complete this checklist for all wastewater main extensions)

- A. General Requirements**
- B. Plan**
- C. Profile**

Project Name: _____

Note: Additional design requirements not included in this checklist can be found in the Wastewater Line Extension and Service Standards (“Wastewater LESS”).

Check (√) if completed; or (n/a) if not applicable

A. General Requirements	
1)	Use 24" X 36" format
2)	Show north arrow and scale. Choose scale (approximately 1" = 50') to properly show details.
3)	Include site map
4)	Include vicinity map
5)	Include title of project
6)	Provide addresses and lot numbers for all lots/buildings
7)	If multi-family, label as townhomes, apartments, duplexes or condominiums
8)	Show typical street cross section(s) showing all existing and proposed utilities with required separations. See Wastewater LESS C1 Detail Drawings.
9)	Add Owner/Developer signature block to cover sheet only. See Wastewater LESS 3.6.C.
10)	Include signature block on cover sheet for professional engineer registered in the state of Colorado
11)	For wastewater mains within public streets, include Utility Grade Review signature block, and if underdrain is proposed include Underdrain Review Statement signature block. See Wastewater LESS 3.6.B and 3.6.D.
12)	Add CSU Signature block for Wastewater Plan Approval. One block for each phase; applies to all pages of plan set. See Wastewater LESS 3.6.A.
13)	Add standard Wastewater Plan Notes, including Wastewater Project Specific Notes. See Wastewater LESS 3.6.I.
14)	Utilize Plan Information Block detailed in Wastewater LESS 3.6.F <ul style="list-style-type: none"> a. FIMs map number b. Tax Schedule no. c. Utility Design CAD file no. d. UAP file no. or plat reception no. e. Development Plan no. and date of approval f. Notice of Private Wastewater System reception no.
15)	If proposing a private system, provide a copy of the Notice of Private Wastewater System. See Wastewater LESS 3.6.G.
16)	Executive Agreement required for mains installed on city property

17) Provide an Agreement and Bill of Sale signed by the Owner/Developer prior to approval of the construction plans

B. Plan

Annotation:

- 1) Show and label all existing utilities including gas and electric. Include diameter and material for water, wastewater and storm sewer. Indicate as public or private. Also label Colorado Springs Utilities Project Number for existing water and wastewater mains to which connections are proposed. Contact Infrastructure Records at (719) 668-4405 for "as-builts" and FIMS maps, and City Engineering at (719) 385-5402 for existing storm sewer plans.
- 2) Label existing and proposed rights of way and/or easements with reception number and widths
- 3) Label street names (note if private)
- 4) Label subdivision boundaries and adjacent filings
- 5) Label all proposed wastewater lines as public or private
- 6) Label phase lines
- 7) Label match lines with stations and corresponding sheet numbers
- 8) Label all existing and proposed pavement, curb and gutter, sidewalks and medians
- 9) Label all existing or proposed surface improvements, including but not limited to signs, retaining walls, fences, water quality features, etc.
- 10) Show anode size, test station, and location. CSU provides corrosion design on all proposed DIP/steel mains.
- 11) Label curve data including PC's and PT's with stations and label radius
- 12) Show stations for all crossings
- 13) Label existing and proposed manholes with stations, diameter, rim elevations, and all inverts

General:

- 14) Provide reference stations for intersecting manholes
- 15) Label access roads to manholes outside of paved areas
- 16) Label service line locations with stations (commercial projects only)
- 17) For curvilinear pipe, check minimum radii requirements in relation to size of main being proposed. See Wastewater LESS Detail Drawing C2-2.
- 18) Ensure easements are adequate. See Wastewater LESS 2.4.D.1.
- 19) Verify that the wastewater main is located in either roadways, or drive aisles of any parking areas, and at a minimum 15' from the edge of the easement

Abandonment:

- 20) Label pipe as abandoned in-place or as removed per CSU standards. Also label length.

Stub-outs:

- 21) If stub-out proposed, see Wastewater LESS 2.5.E.8
- 22) No service connections allowed on stubs for future main extensions

Separations:

- 23) Label horizontal distance from proposed wastewater line to other utilities and verify that it meets required separation. See Wastewater LESS 2.5.D.3.

24) Label all utility vertical crossings. Indicate pipe elevations at crossings and maintain separations per Wastewater LESS 2.5.D.4.
25) If vertical or horizontal separations are not met, use secondary containment options detailed in Wastewater LESS 2.5.D.2.
26) Verify that the wastewater main is located 15' away from any tree, structure or building
Casing Pipes:
27) Design steel casing pipes per Wastewater LESS Detail Drawings C2-4 and C2-5.
28) Ensure no taps or fittings are proposed at casing pipe locations
29) Indicate casing pipe or flow fill if wastewater main is under another utility greater than 30" in diameter. See Wastewater LESS 2.5.F.3.
Manholes:
30) Verify diameters of manholes. See Wastewater LESS 2.5.E.3.
31) Manhole Assessment Form must be completed when modifications or connections to existing manholes are proposed. See Wastewater LESS 2.8.G.
32) Maintain drop through manholes per Wastewater LESS 2.5.E.5.
33) Match invert to crown if greater than one pipe size difference
34) High velocity protection required for slopes $\geq 15\%$. See Wastewater LESS Detail Drawing C3-5.
35) For internal drop manholes refer to Wastewater LESS Detail Drawings C3-7 or C3-6 and show detail on plans with elevations
36) 500' maximum spacing between manholes
37) Locking hinged covers required within cross-country or remote areas
38) Provide access to manholes. See Wastewater LESS 2.5.D.7.

C. Profile

(Note: The following items are to be used in conjunction with the above Water Plan checklist when designing Plan and Profiles.)

1) Choose scale to properly show details. Minimum 1" = 50' horizontal; 1" = 5' vertical.
2) Profiles required for all mains
3) Show profile grid stations and elevations
4) Stations on profile and plan view must match
5) Label existing and proposed grades
6) Label length, diameter, material, and slope of all pipe segments
7) Label casing pipe with begin & end stations and add note: "See Wastewater LESS Detail Drawings C2-4 and C2-5". Include size and material of casing pipe.
8) Label existing and proposed manholes with stations, diameter, rim elevations, and all inverts
9) If an underdrain is required, show all details listed in Wastewater LESS 8.3.

Add any project related comments below:

Signatures of engineering firm:

Plan drawn by (type name below):

_____ Date: _____

Plan reviewed by (print name):

_____ Date: _____

To submit plans electronically, go to [Construction Drawing Review](#)