AUG 24 2026 AM10:38

RULE NO. R161-26.23

NOTICE OF PROPOSED RULE **POSTING DATE: August 24, 2026**

The Director of Austin Water proposes to adopt the following rule on October 1, 2026.

EFFECTIVE DATE OF PROPOSED RULE

A rule proposed in this notice may not become effective before the effective date established by a separate notice of rule adoption. A notice of rule adoption may not be posted before September 25, 2026, or after November 2, 2026 (the 70th day after the date of this notice).

If a proposed rule is not adopted on or before November 2, 2026, it is automatically withdrawn and cannot be adopted without first posting a new notice of a proposed rule.

REQUEST FOR COMMENTS ON PROPOSED RULES

The City requests comments from the public with respect to the proposed rule included in this Notice. Comments must be submitted in writing to the contact person below no later than September 24, 2026. A summary of the written comments received will be included in the notice of rule adoption that must be posted for the rule to become effective.

Contact Person:

Eric Langhout
Austin Water Department
eric.langhout@austintexas.gov
512-972-0073

TEXT OF PROPOSED RULE

The text of the proposed rule indicating changes from the current text is attached to this notice.

BRIEF EXPLANATION OF PROPOSED RULE

R161-26.23: Proposed revision to UCM Sections 2.5 & 2.9.4

Rule 1 – Revisions to Utility Criteria Manual Sections 2.5 & 2.9.4

1. UCM SECTION 2.5.0 – Construction Plan Information and Submittal Requirements - **Section 2.5.3.A.15 –** Add language that requires callouts at locations of watertight manholes.

2. UCM SECTION 2.9.4 – Wastewater Systems - **Section 2.9.4.C.6** – Change "lines" to "mains".

3. UCM SECTION 2.9.4 – Wastewater Systems - **Section 2.9.4.C.7** – Change "lines" to "mains".

4. UCM SECTION 2.9.4 – Wastewater Systems - **Section 2.9.4.D.1.e** – Change of pipe material is allowed per Standard 506-AW-01, page 5 when a new Pre-cast wastewater manhole is being installed on an existing wastewater line. The new standard allows the existing pipe material, if not PVC, to be replaced with PVC by installing a coupling just outside the proposed wastewater manhole.

5. UCM SECTION 2.9.4 – Wastewater Systems - **Section 2.9.4.D.2** – Adjust length distances per main diameter range.

6. UCM SECTION 2.9.4 – Wastewater Systems - **Section 2.9.4.D.5** – Change "lines" to "mains".

7. UCM SECTION 2.9.4 – Wastewater Systems - **Section 2.9.4.D.6** – Update drop manhole requirements.

8. UCM SECTION 2.9.4 – Wastewater Systems - **Section 2.9.4.D.11.b** – Add watertight to manholes at the beginning. Add within the Edwards Aquifer Recharge Zones also needs joint wrap material.

9. UCM SECTION 2.9.4 – Wastewater Systems - **Section 2.9.4.G.8** – Add language to require an existing service to be replaced with PVC if replacing any of the existing non-PVC service line, except when installing a new PVC wastewater cleanout on an existing concrete wastewater service line that Austin Water has deemed acceptable.

An affordability impact statement regarding the proposed rule is available by contacting Eric Langhout, eric.langhout@austintexas.gov or 512-972-0073.

AUTHORITY FOR ADOPTION OF PROPOSED RULE

The authority and procedure for adoption of a rule to assist in the implementation, administration, or enforcement of a provision of the City Code is provided in City Code Chapter 1-2 (*Adoption of Rules*). The authority to adopt this rule is established in City Code Section 15-9-9 (*Criteria Manuals*).

CERTIFICATION BY CITY ATTORNEY

By signing this Notice of Proposed Rule R16l-26.23, the City Attorney certifies the City Attorney has reviewed the rule and finds that adoption of the rule is a valid exercise of the Director's administrative authority.

REVIEWED AND APPROVED:

Shay Ralls Roalson, P.E., Director
Austin Water

Date: 8/19/2026

Deborah Thomas
City Attorney

Date: 8/20/2026

2.5.0 CONSTRUCTION PLAN INFORMATION AND SUBMITTAL REQUIREMENTS

2.5.3 Wastewater System Plans

A. All plan view drawings shall include all applicable items listed in the General Requirements mentioned above plus the following items:

1. Station numbers at all proposed service connections to existing or proposed wastewater mains if the service line is not perpendicular from the main to the property line.
2. For proposed connections to wastewater mains or facilities to be constructed by others, identify the project by project name, AW project number, and service extension request number.
3. The location, alignment and structural features of the wastewater main, including manholes and concrete retards, if applicable.
4. Station numbers and GIS numbers for beginning points, ending points, manholes, clean-outs and other appurtenances.
5. Details of all required appurtenances.
6. Location of all existing and proposed wastewater services, mains and manholes.
7. One hundred year flood plain limits.
8. Retaining walls, including geogrid, straps, tiebacks and all other components.
9. Culverts, bridges and other drainage structures.
10. Locations of geotechnical borings (required for City funded projects only).
11. Locations of bolted manhole covers.
12. A plan view detail of the invert of each manhole or junction box having three or more pipes connecting to it, regardless of the pipe sizes, or when two pipes connect to a manhole at an angle other than 180 degrees from each other.
13. Station numbers shall be identified for the mains where they cross any other utility.
14. The location and dimensions of longitudinal thrust anchors that are required where a run of PE force main pipe with fused joints discontinues and connects to a manhole or a gravity wastewater pipe having gasketed joints or to any similar feature.
15. Location of watertight manholes.

2.9.4 Wastewater Systems

A. Determination of Wastewater Flow.

1. Residential single-family units shall be assumed to produce an average wastewater flow of 245 gallons/day.

2. Industrial wastewater flows will be evaluated on a case-by-case basis.

3. Inflow/Infiltration.

   In sizing sewers, external contributions are accounted for by including 750 gallons per day per acre served for inflow and infiltration. For sewers in the Edwards Aquifer Zone refer to the Texas Commission on Environmental Quality (TCEQ) requirements. Strict attention shall be given to minimizing inflow and infiltration.

4. Peak Dry Weather Flow (PDWF).

   The PDWF is derived from the formula:

   $Qpd = [(18+(0.0206 \times F)^{0.5})/(4+(0.0206 \times F)^{0.5})] \times F$

   where: F = 70 gal./person/day × population/1440
   = average dry-weather flow in gpm

5. Peak Wet Weather Flow (PWWF).

   The PWWF is obtained by adding inflow and infiltration to the peak dry weather flow. In designing for an existing facility, flow measurement shall be used when available for the preexisting developed area if the reference indicates higher peak wet weather flows than the calculated method.

B. Determination of Pipe Size.

1. Minimum Size.

   The minimum diameter of all gravity sewer mains shall be 8 inches. For service line sizes, refer to the City of Austin Standard Details.

2. Design Requirements.

   For sewer mains, 15 inches in diameter or smaller, use the larger size as determined below:

   a. The main shall be designed such that the PDWF shall not exceed 65% of the capacity of the pipe flowing full.

   b. The main shall be designed such that the PWWF shall not exceed 85% of the capacity of the pipe flowing full.

   c. For sewer mains, 18 inches in diameter or larger, the shall be designed such that the PWWF shall not exceed 80% of the capacity of the pipe flowing full.

3. Minimum Design Velocities.

   The minimum design velocity calculated using the PDWF must be at least 2 feet per second (fps). If a minimum velocity of 2 fps cannot be achieved due to the low projected wastewater flows,

velocities lower than 2 fps at PDWF may be allowed provided that all of the following requirements are met:

a. The Engineer substantiates in writing and to the satisfaction of Austin Water (AW) that is not possible to meet the 2 fps velocity at PDWF.

b. A minimum of 0.01 ft./ft. (1.0 percent grade) is provided.

4. Maximum Design Velocities.

The maximum design velocity calculated using the PWWF should not exceed 10 fps. Velocities in excess of 10 fps may be considered under special conditions where no other options are available. In such cases, proper consideration shall be given to pipe material, abrasive characteristics of the wastewater flows, turbulence and displacement by erosion or shock.

5. Minimum Slope.

The minimum allowable slope for 8-inch mains within the service area of the City of Austin shall be 0.005 ft./ft. (0.5 percent grade) unless otherwise required by 3.b of this section.

6. Allowable pipe sizes.

The following sizes will be the only sizes allowed for use in the gravity system: 6 inches (for services only), 8 inches, 12 inches, 15 inches, 18 inches, 24 inches, 30 inches, 36 inches, 42 inches. Larger sizes may be approved on a case-by-case basis. These pipe sizes do not apply to force mains.

C. Design Considerations.

1. Materials and Standards.

All materials and appurtenances shall conform to the AW Standard Products List.

2. Protecting Public Water Supply.

No physical connection shall be made between a drinking water supply and a sewer or any appurtenance thereof. An air gap of a minimum of two inlet pipe diameters between the potable water supply and the overflow level connected to the sewer shall be provided.

3. Location.

The location of the wastewater main shall be in conformance with the City of Austin (COA) Standard Details Manual. Alternative assignments must be approved by AW Utility Development Services (UDS) - Pipeline Engineering. Outside the City Limits, the design engineer shall coordinate utility assignments with both AW and the appropriate county authority.

4. Steep grades.

Where the pipe grade exceeds 12% and the construction is outside of any pavement, concrete retards conforming to the City standards will be required at intervals of no more than 25 feet (preferably at joint locations).

5. Depth of Cover.

If fill or embankment placed over existing wastewater mains exceeds 4 feet above the existing ground, AW approval is required. If cuts exceed the minimum depth of cover stated below, AW

approval is required. The minimum depth of cover over the upper-most projection of the main shall be as follows:

a. Wastewater piping installed in natural ground in easements or other undeveloped areas which are not within existing or planned streets, roads or other traffic areas, shall be laid at least 42 inches below ground elevation.

b. Wastewater piping installed in proposed streets, existing streets, roads or other traffic areas shall be laid at least 66 inches below proposed ground elevation.

6. Turbulence.

Wastewater ~~lines~~ mains shall be designed to minimize turbulence to prevent release of sulfide gases and subsequent corrosion.

7. Wastewater ~~lines~~ mains are prohibited in a critical water quality zone, except for a necessary crossing or if an acceptable assignment can be provided in accordance with the exceptions described in City Code.

8. Curved wastewater mains are prohibited.

9. Pressure Rated PVC pipe (e.g., AWWA C900, ASTM D2241) is prohibited in the wastewater gravity collection system.

D. Manholes.

1. Location.

Manholes shall be located and spaced so as to facilitate inspection and maintenance of the wastewater main. All manholes must be accessible to maintenance equipment, including 2½ ton straight trucks, dump trucks, vacuum trucks, and standard (not compact) sizes of backhoes and loaders. In isolated cases, construction of all-weather access roads may be necessary for manhole and/or wastewater ~~line~~ main access. If required, design guidance is provided in Section 2.9.4.D.12. Manholes shall be placed at the following locations:

a. Intersections of mains.

b. Horizontal alignment changes.

c. Vertical grade changes.

d. Change of pipe size.

~~e. Change of pipe material.~~

e~~f~~. The point of discharge of a force main into a gravity wastewater main.

f~~g~~. For multi-family projects exceeding 15 dwelling units and for commercial developments containing more than 4,000 square feet of air conditioned space and requiring a water meter greater than 2 inches, a manhole is required on the main at the point of connection to the wastewater service.

g~~h~~. At the upstream end of mains.

h~~i~~. At other locations as required by City Code.

2. Spacing.

Manhole spacing for ~~lines~~ mains ~~smaller than 24 inches should~~ 15 inches and smaller shall not exceed 500 ~~ft.; for larger mains, spacing may be increased, subject to approval by the Utility.~~ feet. Mains 18 inches through 30 inches shall not exceed 800 feet. Mains 36 inches through 48 inches shall not exceed 1000 feet. Manhole spacing for mains larger than 48 inches shall not exceed 1200 feet.

3. Covers.

   a. All manholes located in unpaved areas or in the TCEQ Edwards Aquifer Recharge Zone (EARZ) shall have bolted, watertight covers.

   b. When existing manholes are adjusted in height to match finished surface elevations, the most current manhole ring and cover size shall be utilized. This may require removal and replacement of the existing manhole cone section to facilitate the above work.

4. Corrosion Prevention.

   Manholes shall be constructed of or lined with a corrosion resistant material. Where new construction ties into an existing manhole, the existing manholes must be lined, coated, or replaced with a corrosion resistant material. The Design Engineer shall provide an AW Manhole Inspection report for Wastewater Manhole replacement or rehabilitation for both CIP and non-CIP projects.

5. All ~~lines~~ mains into manholes, including drop connections, shall match crown-to-crown where feasible. Any deviation must be approved in advance by AW UDS - Pipeline Engineering.

6. Drop manholes shall contain internal drops when they exceed two vertical feet from the invert and must be a minimum size of 5-foot diameter manholes. External drops are prohibited. Drop manholes are prohibited where the diameter of the incoming main is larger than 15-inches. Any drop greater than 15 feet shall have an engineered solution. ~~are not allowed where the size of the incoming main requiring the drop exceeds 15 inches diameter. External drops will be limited to a depth of 15 feet from the lid of the manhole to the base. Drop manholes in excess of 15 feet deep must be designed with an internal drop and must be a minimum size of 5-foot diameter.~~

7. Minimum inside manhole diameters shall be as indicated in the following table:

Main Size	Depth		
	Less than 20′	20′—30′	Greater than 30′
Up to 15″	48″	60″	72″
18″—24″	60″	60″	72″
30″ and 36″	72″	72″	72″

Note 1: In the event a structure is utilized inside a manhole, the clear space between the structure and the manhole wall shall be a minimum of 48 inches.

Note 2: If more than two mains connect to a manhole, or if two mains connect to a manhole at an angle other than 180 degrees from each other, a larger diameter manhole may be required in order to accommodate mandrel insertion and hydraulically efficient flow. A straight section of invert that is 4 inches to 6 inches in length is required to transition

between the curved portion of the invert channel and the connecting pipes in order to accommodate the mandrel apparatus for up to 15-inch diameter pipes.

Note 3: New pipe connections to existing manholes shall provide a minimum of 12 inches clearance between the existing pipe ID and the new core hole ID measured on the inside surface of the manhole, regardless of the orientation of the pipes with respect to one another. New precast manholes and manholes with cast-in-place bases shall have holes for pipe penetrations in the manhole wall separated by a minimum of 7 inches, designed by the manhole manufacturer and as measured from the inside diameter of the cored holes on the inside wall of the manhole to ensure the structural integrity of the manhole wall.

Note 4: The vertical distance between the highest point of the invert shelf and the bottom of any horizontal or near-horizontal surface protruding into a manhole or junction box, shall be at least 6 feet, when the depth of the main is sufficient.

8. Where a separation of 9 feet between an existing water main and a new manhole cannot be achieved during construction of a new wastewater main the joints in the wastewater manhole shall be made watertight using externally applied joint wraps. Where a separation of 9 feet between a water main and an existing manhole cannot be achieved during construction of a new water main, the manhole shall be assessed as per Section 2.9.4.D.4 to determine if the manhole is watertight and if not, the manhole shall be made watertight.

9. Manholes constructed on existing wastewater mains may have a cast-in-place base. All other manholes shall have a precast base.

10. Manhole and junction box inverts shall have a minimum slope of 2.5% between the inlet and outlet pipe inverts.

11. Watertight ~~M~~manholes and junction boxes located below ground water.

    a. When the interior surface of a concrete manhole or junction box is coated with a urethane, polyurethane, or epoxy liner, the exterior surface of that portion of a manhole or junction box located below ground water level shall be waterproofed using a flexible system applied to the exterior surface. The drawings shall indicate which structures must be waterproofed and the elevation to which waterproofing must be applied (2 feet above ground water level).

    b. Manhole joints below the ground water level and/or located in the 100-year floodplain or EARZ zones shall be sealed by installing a joint wrap material over the joint on the manhole exterior.

    c. Construction joints in cast-in-place junction boxes shall be waterproofed using water stops.

12. All-weather access roads should be at least 12 feet wide and placed within a 20-foot wide (minimum) access easement. It is intended for emergency use by maintenance equipment. If the wastewater easement is wide enough to accommodate the access road, it may be used in lieu of an access easement. This 12 foot maintenance access road should be outside the toe of any fill slope and the top of any cut slope and shall not have a post construction longitudinal slope greater than 15% nor a post construction transverse slope greater than 5%, shall not have a vertical grade break of greater than 12%, should have an inside turning radius of no less than 28.3 feet, an outside turning radius of no less than 42 feet, shall be cleared of all vegetation and graded, and should maintain a horizontal and vertical clearance from existing and proposed vegetation and all other objects of no less than 14 feet.

The access road shall include a means for equipment to turn around when located more than 200 feet from a paved public roadway. Turn around shall meet the above listed design criteria. Access roads shall be cleared, graded and stabilized with stones in accordance with Standard Detail 662S-2, Pond Maintenance Road Typical Cross Section. Other materials and geometrics may be approved on a case-by-case basis by AW.

13. If a proposed development intends to connect to an existing brick manhole, the manhole will need to be removed and replaced.

E. Ventilation.

Ventilation shall be provided as required by TCEQ Rules and Regulations.

F. Inverted Siphons.

The use of siphons is discouraged. When no other feasible option exists, the following criteria apply. Siphons shall have a minimum of two barrels. The minimum pipe size shall be 6 inches with a minimum flow velocity of 3.0 fps at peak dry weather flow. The minimum dry weather flow shall be used to size the smallest barrel. Three-barrel siphons shall be designed to carry the capacity of the incoming gravity wastewater main(s) with one barrel out of service.

An additional corrosion resistant pipe shall be designed to allow for the free flow of air between the inlet and outlet siphon boxes. The diameter of this air jumper shall not be smaller than one-half the diameter of the upstream sewer. Air jumper pipe design shall provide for removal of condensate water that will collect in the pipe.

Siphons shall be designed to allow draining, cleaning, and diversion of flow from individual barrels and inspection. Siphon inlet and outlet structures shall be manufactured with polymer concrete.

G. Service Lines.

1. Wastewater services shall be in accordance with COA Standard Details.
2. Wastewater service lines, between the main and property line, shall have an inside diameter not less than 6 inches. The minimum grade allowed for service lines is 1 percent. In all new systems, grade breaks exceeding allowable joint deflection must be made with approved fittings and the maximum bend for wastewater service lines is 45-degrees.
3. No service connections shall be made to mains larger than 15 inches in diameter.
4. Service connections to force mains that are 2 inches in diameter and smaller may be allowed on a case-by-case basis. Service connections to force mains that are larger than 2 inches in diameter shall not be allowed.
5. Potable water and wastewater service lines shall be a minimum of 9 feet apart unless the potable and wastewater service lines are located on a common lot line and constructed in accordance with COA Standard Details per TCEQ rules. Services to lots without a water/wastewater easement shall terminate at the property line with either a standard two-way cleanout or a large diameter cleanout, depending on the service line pipe diameter. Service to lots having a 5 feet by 5 feet water/wastewater easement shall terminate within the easement with either a standard two-way cleanout or large diameter cleanout, depending on the service line pipe diameter. A two-way cleanout shall be installed for service lines 4 inches to 6 inches in diameter, and a large diameter cleanout shall be installed for service lines 8 inches to 12 inches in diameter. Large diameter cleanout structures are limited to a maximum depth of 14 feet. For service lines larger than 12

inches in diameter, contact Industrial Waste for design requirements. For details, see the COA Standard Details.

6. Wastewater clean-outs are not allowed in sidewalks, paved areas, load bearing pavement, or driveways.

7. Sample and inspection ports are required for service lines when industrial waste monitoring is required. They shall be located at the property line within the public right-of-way (ROW) or utility easement line to indicate the line of responsibility of the utility. They shall not be located in traffic areas, paved parking areas or sidewalks.

8. Except when installing a new PVC wastewater cleanout on an existing concrete wastewater service line that Austin Water has deemed acceptable, any modification or replacement of a non-PVC wastewater service line requires full replacement of the service line from the main to the property line in accordance with current standards.

H. Reserved.

I. Requirements for Existing and Proposed Wastewater Infrastructure beneath Circular Intersections or Other Geometric Street Features.

1. Installation of Circular Intersections or Other Geometric Street Features over existing wastewater infrastructure.

a. Existing wastewater infrastructure may be allowed to exist beneath circular intersections or other geometric street features such as, but not limited to, modern roundabouts, medians, bulb-outs, splitter islands, channelization islands, and other types of physical roadway features. These features may contain hardscaping, landscaping, water quality features, public art, permanent structures, street furniture, or other similar amenities.

b. The planning and design of these features and their amenities shall include consideration for access, maintenance, protection, testing, cleaning, and operations of the wastewater infrastructure. Where existing wastewater facilities are to remain, trees with root zones of 18 inches in depth or greater at maturity may be considered for inclusion provided the drip lines at maturity of the proposed trees are not located within a minimum horizontal separation of 7.5 feet from any wastewater infrastructure. Public art, permanent structures, and other similar amenities may be considered for inclusion provided they are not located within a minimum horizontal separation of 7.5 feet from any wastewater infrastructure. The drip lines at maturity of ornamental trees with root zones at maturity of less than 18 inches in depth, grasses, woody or herbaceous shrubs, and street furniture may be located within a minimum horizontal separation of 7.5 feet from any wastewater infrastructure.

c. The need for relocating, replacing or protecting in place existing wastewater infrastructure beneath these features and their amenities shall be determined on a case-by-case basis by AW.

2. Installation of Circular Intersections or Other Geometric Street Features in new areas of development with no existing wastewater infrastructure.

a. Proposed wastewater infrastructure may be placed beneath proposed circular intersections or other geometric street features such as, but not limited to, modern roundabouts, medians, bulb-outs, splitter islands, channelization islands, and other types

of physical roadway features. These features may contain hardscaping, landscaping, water quality features, public art, permanent structures, street furniture, or other similar amenities.

b. The planning and design of these features and their amenities shall include consideration for access, maintenance, protection, testing, cleaning, and operations of utility infrastructures. Trees with root zones of 18 inches in depth or greater at maturity may be considered for inclusion provided the drip lines at maturity of the proposed trees are not located within a minimum horizontal separation of 7.5 feet from any wastewater infrastructure. Public art, permanent structures, and other similar amenities may be considered for inclusion provided they are not located within a minimum horizontal separation of 7.5 feet from any wastewater infrastructure. The drip lines at maturity of ornamental trees with root zones at maturity of less than 18 inches in depth, grasses, woody or herbaceous shrubs, and street furniture may be located within a minimum horizontal separation of 7.5 feet from any wastewater infrastructure.

c. The need for alternative alignments or the inclusion of protective systems for the proposed wastewater infrastructure beneath these features and their amenities shall be determined on a case-by-case basis by AW.