

Water and Wastewater Infrastructure Locating & Marking

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Austin Water

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AW's Customer Service Overview

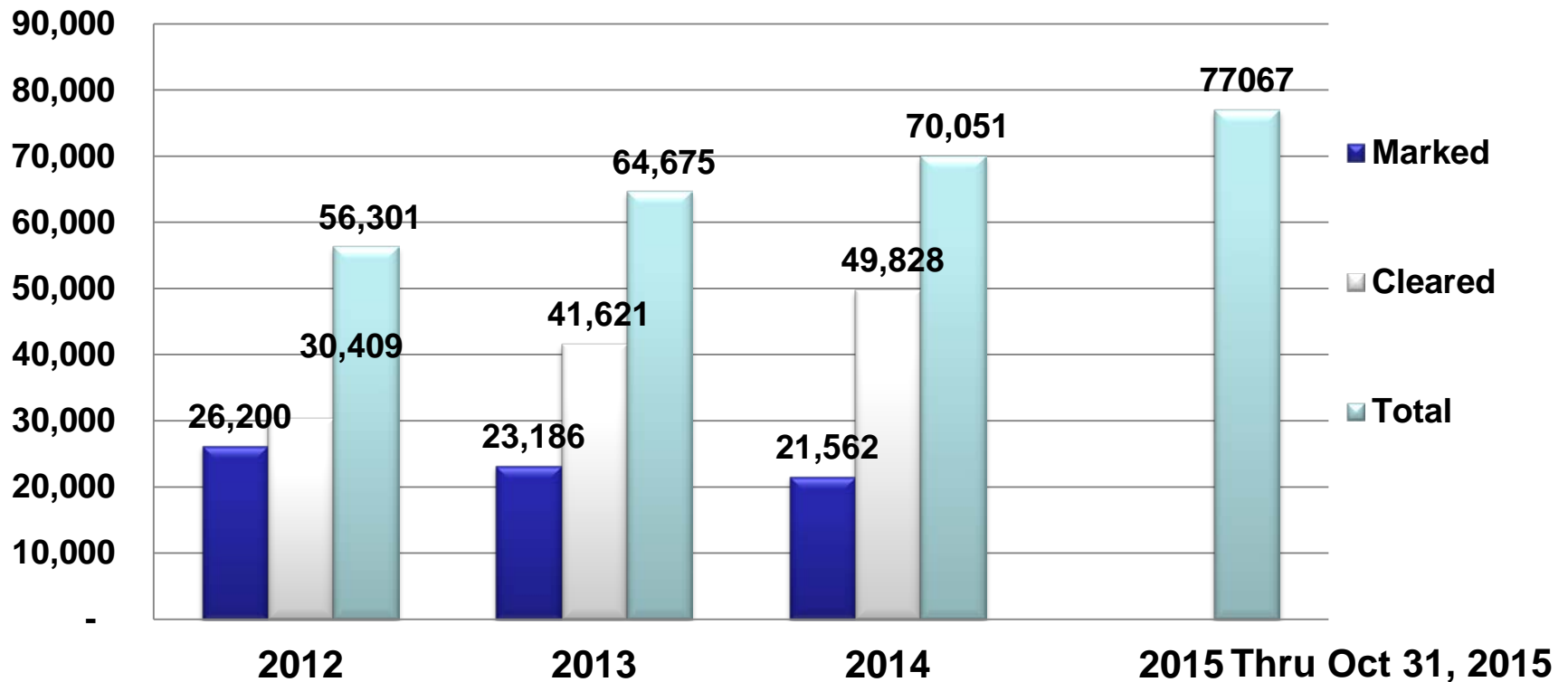
Austin Water's Meter Operations Division coordinates inspections of the distribution system in response to customer service requests. The division also provides line locations for water, wastewater and reclaimed systems.

The line locations workgroup has 6 full time employees depending on workload and business needs while 4 – 6 additional employees have been reassigned to temporarily assist in workload .

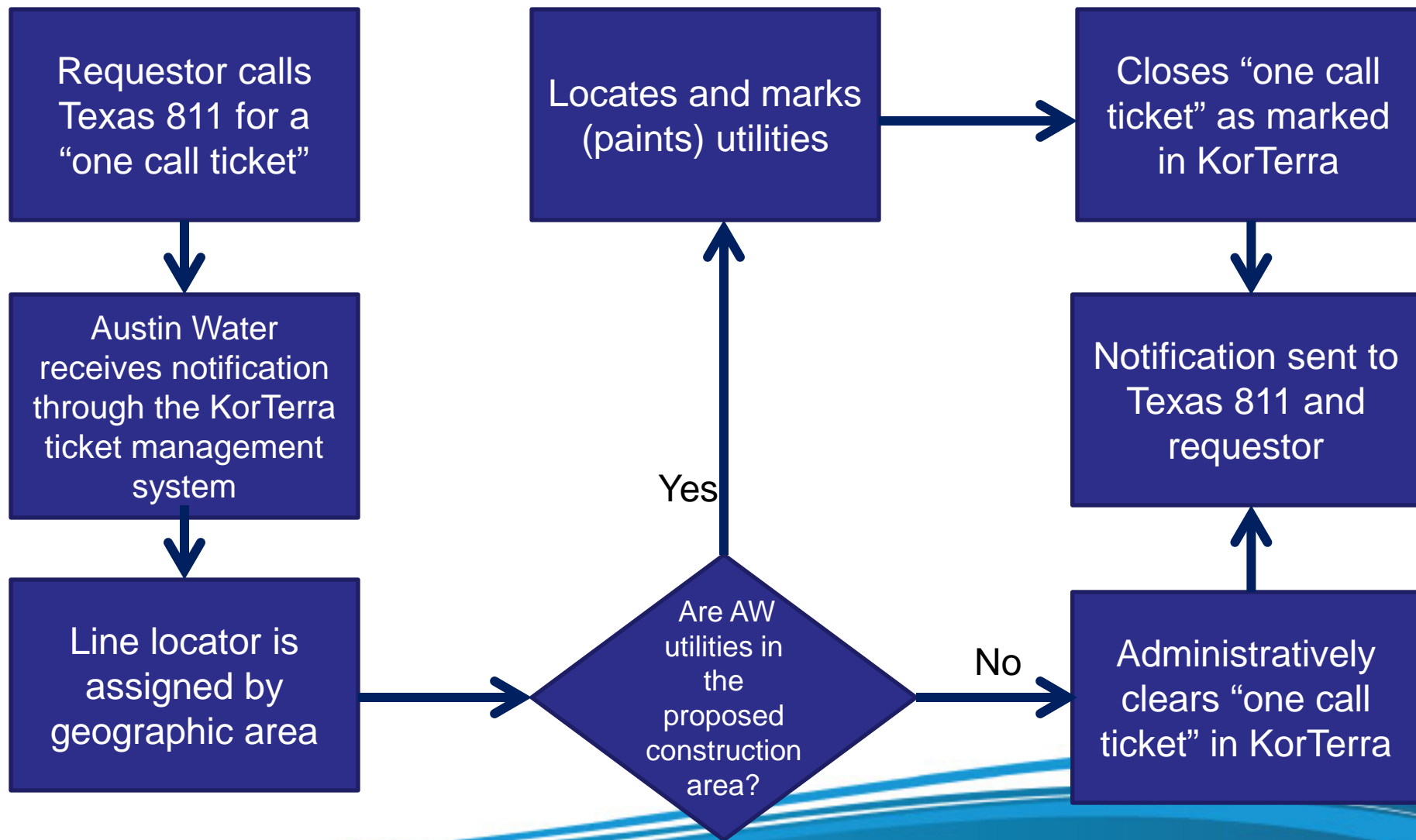
Texas 811 and the KorTerra Ticket Management System

The KorTerra ticket management system is designed for contract locators, One Call Centers, utilities, municipalities and pipeline companies to aid in the protection of underground facilities, prevent service interruptions and allow excavators and homeowners to dig safely.

Austin Water ticket requests for line locations from Texas 811



AW's Line Location Process Overview



A national standard is adopted defining color by facility type and marking symbols for identification. APWA uniform color code (ANSI Z535.1) shall be used for marking excavation sites and shall not conflict with an excavation.

White	Proposed Excavation
Pink	Temporary Survey Marking
Red	Electric Power Lines, Cable
Yellow	Gas, Oil, Steam, Petroleum
Orange	Communication, Alarm or
Blue	Potable Water
Purple	Reclaimed Water, Irrigation
Green	Sewers and Drain Lines

D. LOCATOR TRAINING

- Understanding system design/prints/tech
- Understanding construction standards & facilities
- Equipment training and techniques
- Plant recognition training
- Theory of locating
- Daily operations
- Facility owner/excavator relationships
- Safety procedures per Occupational Safety (OSHA) regulations/federal, state/provin

E. SAFETY

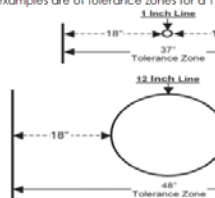
All hazards associated with performing the test must be identified and controlled. Appropriate measures conforming to the relevant standards and procedures must be followed.

F. VISUAL INSPECTION

A visual inspection helps determine if the facility is not on record. It is very important that visual inspection areas of new construction where records are not in the presence of a facility. The visual inspection is done between placing a facility in the field. The visual inspection records varies by facility owner/operator. The visual inspection facility not on record includes, but is not limited to, pedestals (including new cables found), manholes, risers, and manholes.

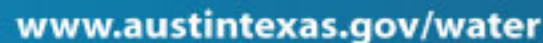
G. FACILITY MARKING

Facility locators match markings to the conditions. Markings may include one of the following: paint, chalk, flags, stakes, brush. A reasonable distance beyond the boundary for training for all facility locators includes surface and environmental conditions. Marking methods should be used. Conditions are rain, snow, vegetation, high traffic, etc.



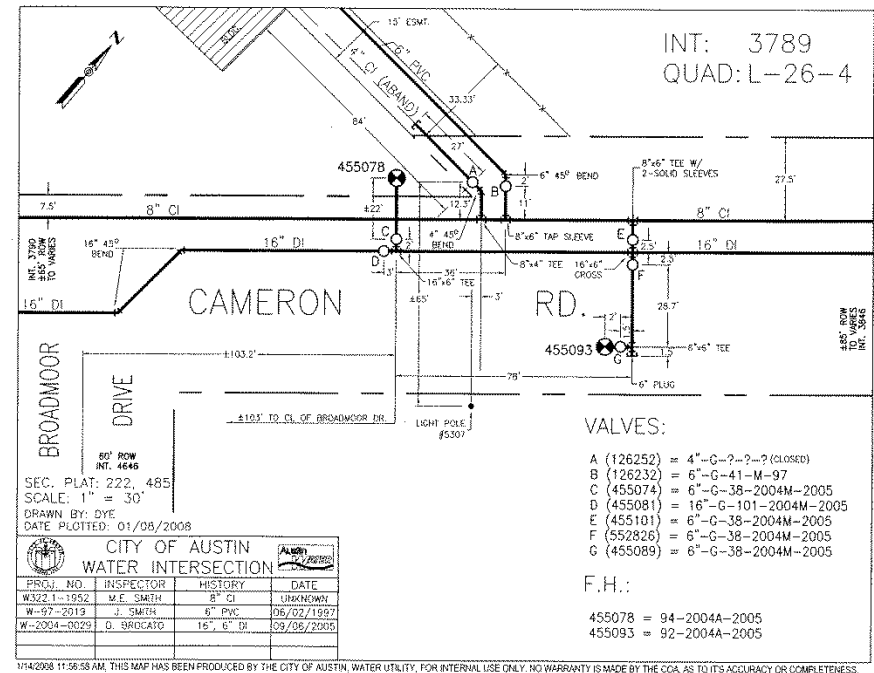
H. LOCATING WATER FACILITIES

1. Receive ticket from dispatch.
 - a. Separate tickets according to work zone.
 - b. If Special Billing go 10:23 when arriving on location.
2. Equipment check before departing.
3. Set up Safety Zone.
4. Confirm location and work request on ticket.
5. Complete a visual inspection of the area.
6. Pull paperwork, intersections and quads.
7. In older areas use plat if needed.
8. Field check and verify:
 - a. Valves
 - b. Hydrants
 - c. PRV/ARV
 - d. Manholes
 - e. Service and mains
9. Use proper equipment dependent on pipe material.
 - a. For metallic pipe use DR-8000 and set up as follows:
 - i. Battery test.
 - ii. Connect transmitter & receiver to induction rod.
 - iii. Survey area to see if other utilities are in the area (gas, elect., cable, ETC.).
10. Proceed to locate lines as requested.
11. Use BLUE when marking water facilities.
 - a. When marking water mains identify the One-Call Ticket or Section Documentation ticket number.
 - b. When marking water service identify the number of different services marked.
 - c. On projects that cover a large area give the number of feet of the project that was marked, including water and/or wastewater.
 - d. Metallic or Non-Metallic, mark every 20ft or at any bend, tee or directional change of pipe and document on ticket.
12. When large extensive requests are being located, contact contractor to keep them informed and document date and time of contact.
 - a. Line Locator will complete all work tickets with explanation. If ticket is going to expire, locator must notify the customer by phone
 - b. No work ticket can be closed without an explanation of the work completed.



Standard Operations Guide and Best Practices

- Available Records
- Corrections and Updates
- Color Code
- Locator Training
- Safety
- Visual Inspection
- Facility Marking
- Locating Electromagnetically



QUESTIONS?

For more information contact:

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UTILITIES CODE

TITLE 5. PROVISIONS AFFECTING THE OPERATION OF UTILITY FACILITIES CHAPTER 251. UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY

- **Sec. 251.002. DEFINITIONS.**
 - ***"Class B underground facility" means an underground facility that is used to produce, store, convey, transmit, or distribute:***
 - ***water; slurry or sewage.***
- **Sec. 251.151. DUTY OF AN EXCAVATOR.**
 - ***"a person who intends to excavate shall notify a notification center not earlier than the 14th day before the date the excavation is to begin or later than the 48th hour before the time the excavation is to begin..."***
- **Sec. 251.157. DUTY OF OPERATOR TO PERSON EXCAVATING.**
 - ***"Each Class A underground facility operator contacted by the notification system shall mark the approximate location of its underground facilities at or near the site of the proposed excavation if the operator believes that marking the location is necessary."***

**Texas Administrative Code
Title 16, Chapter 18 Underground Pipeline Damage Prevention**

- **Rule 18.5 Operator and Excavator Obligations**
 - (a) **Upon being contacted by the notification system, an operator shall provide a positive response within the time frames specified in Texas Utilities Code, Chapter 251, by either:**
 - (1) **marking the operator's underground pipelines in accordance with the requirements of Texas Utilities Code, Chapter 251, and this chapter; or**
 - (2) **notifying the excavator that the operator has no underground pipelines in the vicinity of the proposed excavation area.**