

Water and Wastewater Infrastructure Locating & Marking

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AW's Customer Service Overview

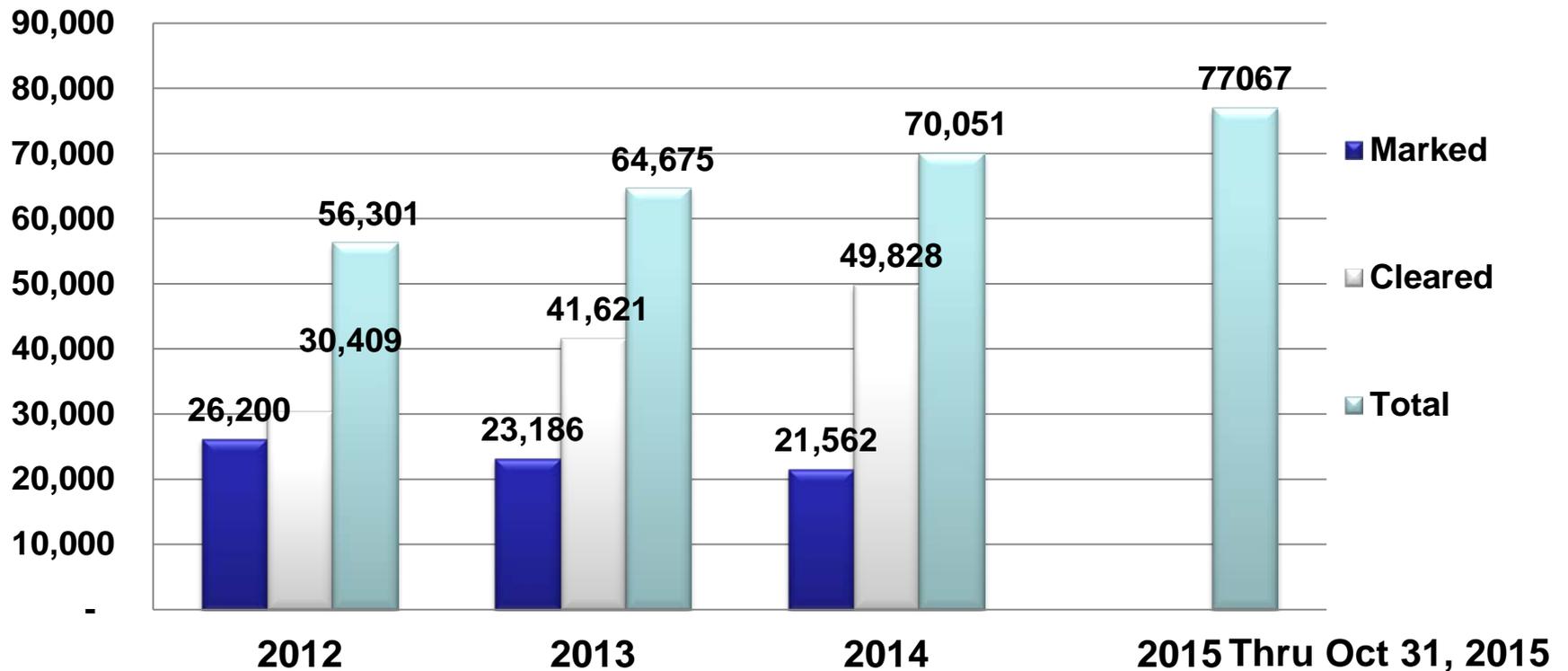
Austin Water's Meter Operations Division coordinates inspections of the distribution system in response to customer service requests. The division also provides line locations for water, wastewater and reclaimed systems.

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 .

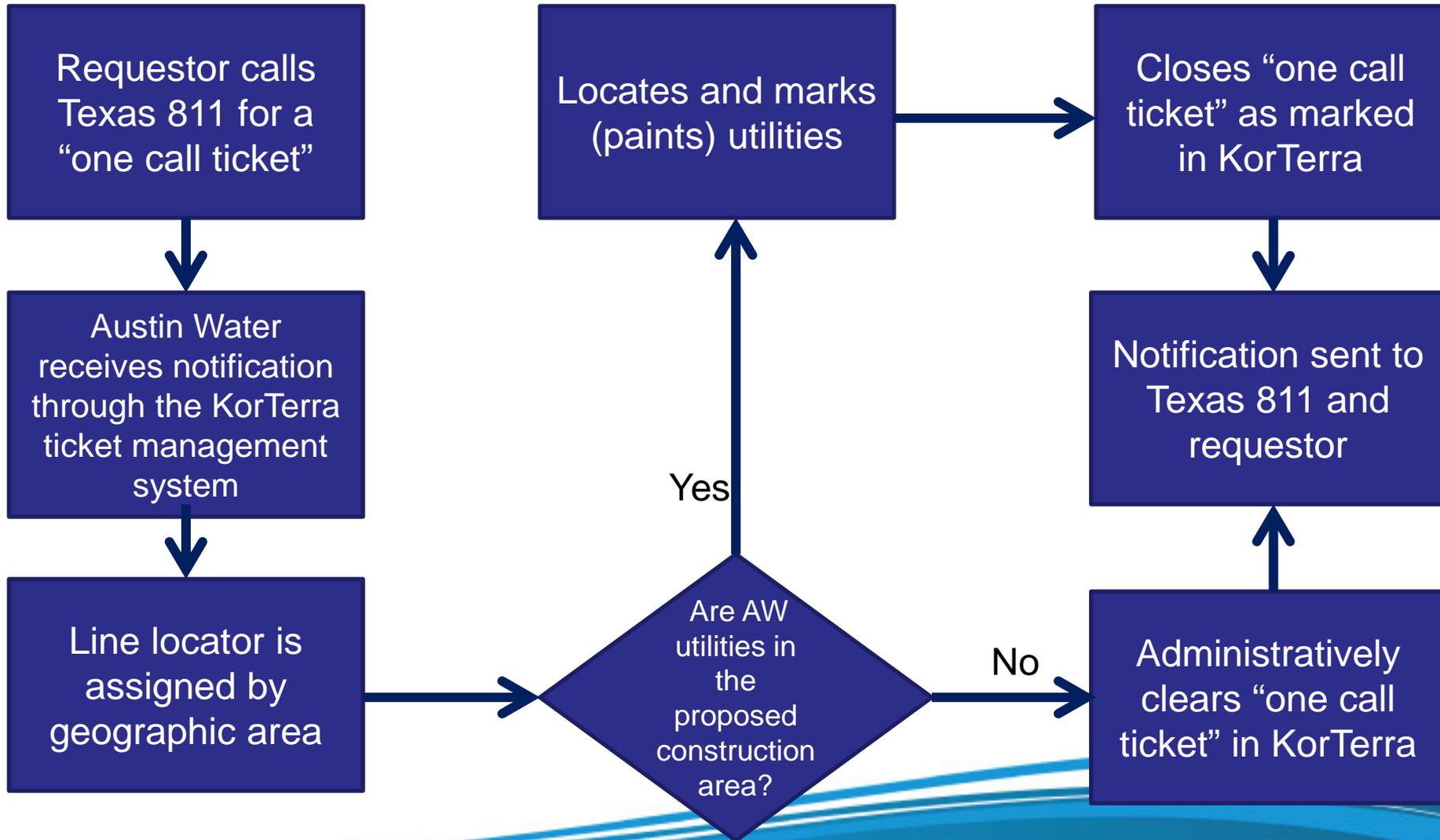
Texas 811 and the KorTerra Ticket Management System

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



Standard Operations Guide and Best Practices

Pipeline Operations
Standard Operating Procedure
Policy: VII
Subject: Line Locations
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C. COLOR CODE

A national standard is adopted defining color code for facility type and marking symbols for identification. The APWA uniform color code (ANSI Z535.1) shall be used for marking excavation sites to avoid conflict with an excavation.

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

D. LOCATOR TRAINING

Locators are properly trained. Locator training guidelines and practices are adopted. Guidelines and practices include the following:

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

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E. SAFETY

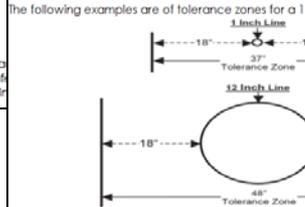
All hazards associated with performing this work. Appropriate measures conforming with applicable safety procedures must be followed.

F. VISUAL INSPECTION

A visual inspection helps determine if the location is on record. It is very important that visual inspection be performed before any excavation. The visual inspection between placing a facility in the field records varies by facility owner/operator. The visual inspection records for a facility not on record includes, but is not limited to, pedestals (including new cables found), meters, risers, and manholes.

G. FACILITY MARKING

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



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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 last.
 - 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.

Best Practices 11.0

Safety & Damage Prevention

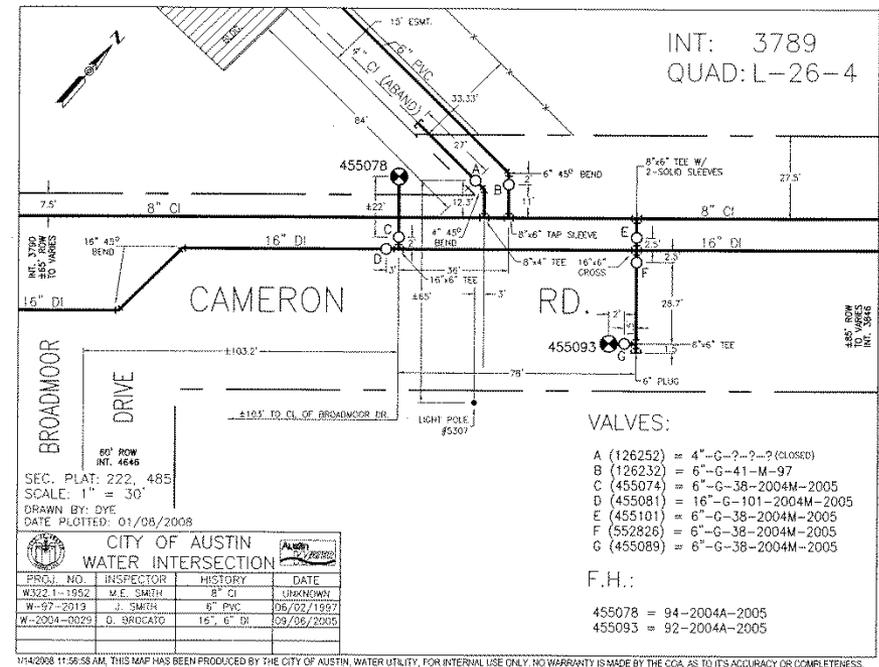
...Putting it all together

811

Published March 2014

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.**