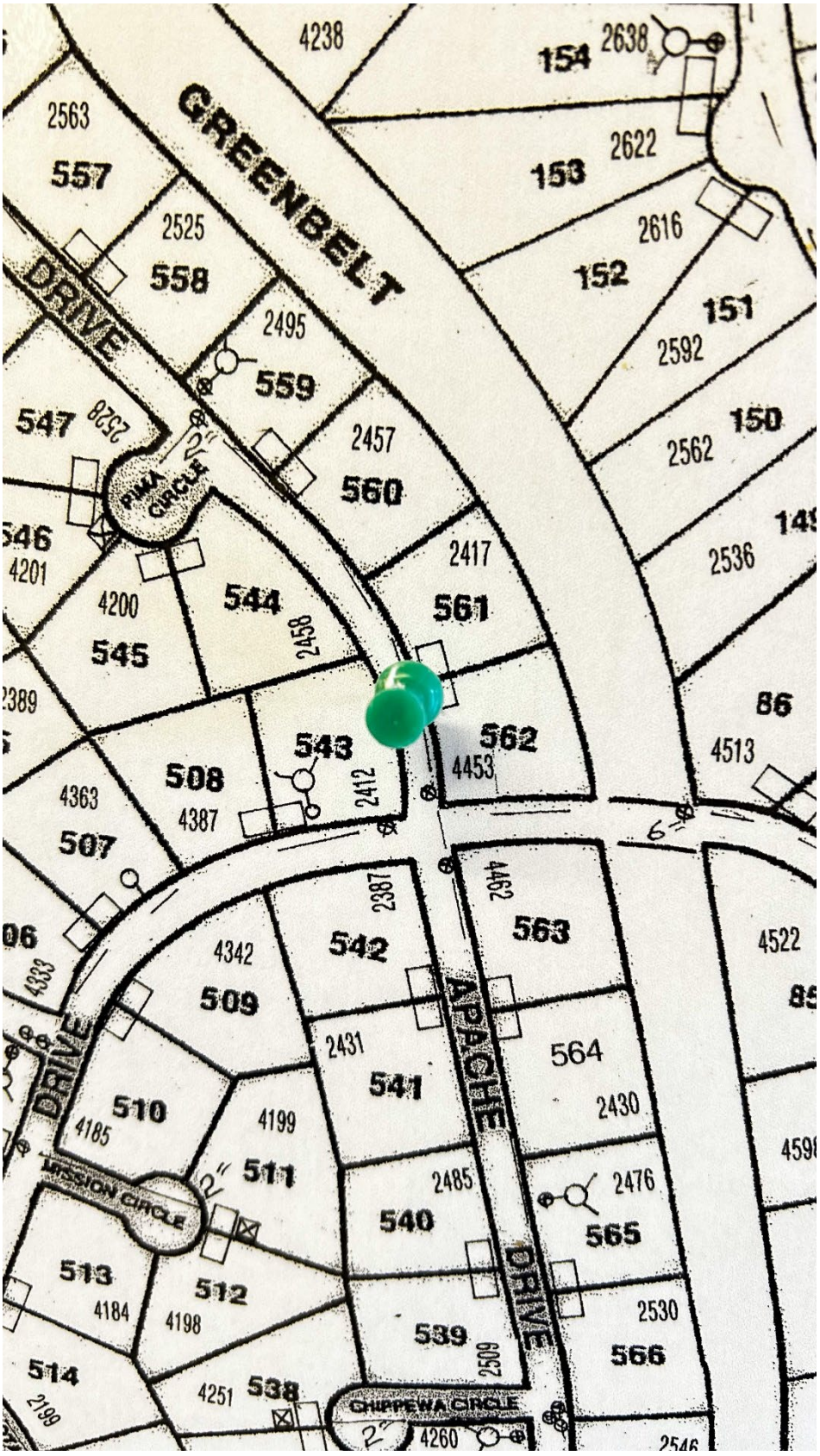
Main Water Line Break

Hopi Drive between Horseshoe and Pima

2/11-12/2024

Main Water Line Break Location



Main Line Break Summary

- Water loss called in to SUM at ~3:30pm on 2/11
- SUM dispatched Tech.
- Issue identified as Main Water Line Break on Hopi between Horseshoe and Pima.
- Field decision made to shut down the system after not being able to locate the Main Line Valves to isolate the break.
- Excavating crew arrived next morning. Called for Blue Stake to locate communications cables located in same trench as water line.
- Located and shut off valves to isolate the break area.
- System would not restart – called Fever Controls to diagnose the situation.
- Community member checked the system and got it running.
- System came up to pressure slowly, but had to be monitored continuously. 1 homeowner affected by the main line break area after the system was restarted.
- Repair completed.

Main Line Break

Pipe was resting directly on rock

Contributing Factors leading to Main Line Break

- Longitudinal crack of PVC Pipe
- PVC Pipe is more brittle that C-900 used in BRE, TP, PC, SPR.
- Pipe rested directly on rock.
- Pipe bell-end may have been cracked on original installation

Crack started on bell-end – appears to be old crack

Learning/Possible Actions

Concern	Comments	Actions
Community Notifications	Phone calls, emails, texts, and social media used to communicate water outage. Some info not accurate.	Create an email/text notification system through the BRDWID website (like APS).
As-built maps	Maps of SP area do not have dimensional details.	Make GPS coordinates of all valves/devices available to all operators and District Manager
No water to BRFD	BRFD did not know the extent of the water outage, only that the fire house was affected	Insure all notification protocols must include BRFD, the Churches, and SP HOA Community Manger (public meeting places).
SP Water system	System has abrupt ON/OFF cycles that reverberate through the system. System pressure is very high that may cause more problems.	Get the VFD (variable frequency drives) programmed for ramp up/down action by the pump motors to insure more continuous operating pressure.