

Hazard Alert

No: 1605/004
Date: May 2016
CAMs Number: 043225

Historical Information leads to Assumptions

Incident:



Whilst milling out existing pavement (295mm depth), the Fulton Hogan Wirtgen 2.2 metre wide miller hit the existing Watercare 425mm diameter steel bulk water main, damaging a section approximately 100mm in diameter.

The network was live and had a residual pressure of 16 bars, which led to an initial fountain/geyser some 10-15 metres into the air, until such time as a methodology was developed on site to reduce the visual and traffic impact until the utility owner repair team could turn up.

The service strike led to a large volume of (dirty) water discharging into the stream.

Approximately 3m of steel pipe required replacement; there was no localised loss of potable water supply; and the incident attracted some media attention.

Factors:

The team used service plans, mark outs and a digging checklist, however they did not pot hole and based their information provided by the mark out person that indicated the service was at a depth of 800mm – located 8m away from mill area.

Other Fulton Hogan teams had worked in and around the water main over the preceding months and knew that the pipe was shallower, however this information was not

shared and the as-builts that were completed during this work were not left on site for the Engineers to refer to later on in the Project.

Investigation:

The service plans obtained from the utility owner did not take into account the work that had been done on the Project to date and, without the as built plans, the Engineer and team were using assumptions.

The section of road where the service was struck was considerably lower than the sections before and after due to historical works thus making the depth marked on the road (depth was confirmed as 800mm 8m away from strike area).

Recommendations:

- Establish a system to ensure information and drawings from various work crews are collected, retained and disseminated for the duration of the project to ensure planning can consider all relevant and up to date information.
- Establish a system to ensure as built information from excavations and installations are collected, retained and made available throughout the duration of the project so it can be used in conjunction with service plans obtained from utility owners when completing the digging checklist.
- Update page 1 of the Digging Checklist to include a requirement for the Engineer to check project as-built information to complement externally sourced service plans and forward to CRG for consideration.



What am I doing?

What could go wrong?

How could I do it safer?