

Finding new solutions to old problems

The wastewater pipes in parts of Ardrossan Street and Avonside Drive (Avondale) have been damaged significantly in the recent earthquakes. Although this part of the city is in the Residential Red Zone it is important that a temporary wastewater service is in place for residents. MacDow Fletcher, as part of the Stronger Christchurch Infrastructure Rebuild Team, is working to provide this interim solution.

The first option considered was a construction method called pipe bursting. This works by pulling a rod through the existing damaged pipeline which splits it open and then creates sufficient space for a new pipeline to be inserted. Unfortunately this method was unsuccessful because many of the wastewater pipes on private property were also encased in a concrete base and the pipes were full of silt and surrounded by silt. Both these scenarios were unusual and made the pipe bursting technique unsuitable.

The next option was to install temporary pressure sewer systems at these properties. These systems consist of a buried holding tank and a pumping unit which is connected to a power supply. This system works by bypassing any broken pipes and allowing the household to be connected to the working part of the wastewater system.

This pressure sewer systems has proved very successful in Avonside Drive and Ardrossan Street. They were very quick to install and residents were extremely happy to be able to flush their toilet again. Belinda Marson, a resident of Ardrossan Street commented to the team:

"Having the sewerage pump installed on our property has made a massive difference to our lives. It has been about five months this time round without the use of our home toilets, though the chemical toilets made it possible to stay, having to empty this every second day, was both extremely unpleasant and time consuming".

For the MacDow Fletcher team it has been a rewarding project knowing the difference these systems make to residents' lives.



The installation of the pressure sewer systems in Avonside Drive and Ardrossan Street



Belinda Marson receiving her instruction booklet for the pressure sewer system